



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**ASIA AND PACIFIC OFFICE**

**FREQUENCY LIST NO. 2**

**List of facilities in the band**

**108 - 117.975 MHz**

**and**

**960 - 1215 MHz**

**THIRTY SEVENTH EDITION**

**May 2024**

**Prepared and published by the ICAO Asia and Pacific Office**

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## 1. General

1.1 The Third Asia/Pacific Regional Air Navigation (ASIA/PAC/3 RAN) Meeting, held in Bangkok in 1993, agreed that the frequency lists prepared by the Asia and Pacific Regional Office will be the frequency planning documents for the Region. The relevant conclusion which outlines the procedure is included below.

### **Conclusion 12/9 - Procedure for Radio Navigation Aids Frequency Assignment**

That:

- a) the development of the radio navigation aids plan, and its subsequent documentation in relevant air navigation plan (ANP) publications, will define the respective radio navigation aid requirements at each location without reference to discrete frequency assignment;
- b) the ICAO Regional Office will continue to maintain its frequency selection and coordination role, including the maintenance and promulgation of Frequency List Nos. 1 and 2 in a timely and periodic manner; and
- c) additions, deletions and changes to discrete frequency assignments to radio navigation aids will not require amendment to the ANP.

## 2. Planning principles for frequency assignment - Radio Navigation Aids

2.1 With regard to the frequency management of radionavigation aids the Air Navigation Plan for the APAC Region (Volume II) contains the following provisions:

### *Radio navigation aids for Aeronautical Radio Navigation Services (ARNS)*

2.46 Frequencies should be assigned to all radio navigation facilities taking into account agreed geographical separation criteria to ILS localizer, VOR and GBAS, X and Y channels to DME, in accordance with the principles laid out in Annex 10, Volume V and *ICAO Handbook on Radio Frequency Spectrum Requirements for Civil Aviation* (Doc 9718) Volumes I and II. Also, the need for maximum economy in frequency demands and in radio spectrum utilization and a deployment of frequencies which ensures that international services are planned to be free of interference from other services using the same band, need to be considered.

2.47 The principles used for frequency assignment planning for radio navigation aids serving international requirements should, to the extent possible, also be used to satisfy the needs for national radio aids to navigation.

2.2 The Thirty-Third Meeting of APANPIRG adopted the **Conclusion APANPIRG/33/10** as follows:

### **Conclusion APANPIRG/33/10 - Planning Principle for Aeronautical Frequency Bands of 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz**

*That, Doc 9718, Handbook on Radio Frequency Spectrum Requirements for Civil Aviation, Volume II, Second Edition – 2022, is adopted as the planning principle for aeronautical facilities and services operating in the aeronautical frequency bands of 108-117.975 MHz, 960- 1215 MHz and 117.975- 137 MHz in APAC.*

### 3. Updating of the list

3.1 New Editions of this list will be issued on a regular basis. Any errors or discrepancies should be communicated to the ICAO Asia and Pacific Office.

3.2 The revised planning criteria contained in the revision for compatibility assessment of frequency assignments to VHF COM systems and NAV systems (ILS, VOR, DME and GBAS/VDB) have been incorporated in the new release of the Frequency Finder tool. Recognizing the need to migrate Frequency List 2 database from Frequency Manager to Frequency Finder, ICAO APAC Office synchronized all registered assignments on Frequency List 2 in the Frequency Manager into Frequency Finder in 2022 and has been using Frequency Finder on frequency assignments for NAV systems. Frequency Manager is now used only for NDB assignments to maintain Frequency List 1.

3.3 As an agreed interim solution by the Seventh Meeting of Spectrum Review Working Group (SRWG/7), the publication of Frequency List 2 (37th edition) was prepared by Frequency Finder. The list has incorporated all comments from States after the publication of the 36<sup>th</sup> Edition of Frequency List 2 in 2023, as well as the day to day coordinated assignments with States/Administrations.

### 4. Explanation of the appendices

4.1 There are two appendices contained in this publication:

**APPENDIX A:** International and National Assignments in Country Order.

**APPENDIX B:** International and National Assignments in Frequency Order.

4.2 Explanation of the items

| Column     | Explanation                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Country:   | The name of the country as per the ICAO directory.                                                                                                                                                                                                                                     |
| Ctry:      | The Country/Territory abbreviation code as per the ICAO directory.                                                                                                                                                                                                                     |
| Location:  | The location name.                                                                                                                                                                                                                                                                     |
| Service:   | The type of service provided by the facility; the following abbreviations being used:<br>VOR - VHF omni-directional radio range<br>ILS - Instrument Landing System<br>DME - Distance Measuring Equipment<br>TAC - TACAN<br>GBAS - Ground Based Augmentation System; VHF Data Broadcast |
| Frequency: | The assigned frequency to the facility.                                                                                                                                                                                                                                                |
| VHFDOC:    | VHF Designated Operational Coverage. The distance and altitude to which the signal protection of the of the VHF facility is required. The format is range/height where the range is indicated in NM and the height                                                                     |

in thousands of feet.

|                     |                                                                                                                                                                                                                                                                             |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VHFpwr:             | Transmitting Power of the VHF facility (e.i.r.p) in dBW.                                                                                                                                                                                                                    |
| TRD:                | True Radiation Direction of the Localizer. E.g., for runway 28, where the aircraft are landing in the direction of 280 degrees relative to North, the TRD is $280 - 180 = 100$ degrees. This enables frequency coordination within the actual Localizer coverage (keyhole). |
| DME ch:             | The assigned channel to the facility.                                                                                                                                                                                                                                       |
| DMEDOC:             | The distance and altitude to which the signal protection of the DME or TACAN is required and is indicated in NM and in thousands of feet.                                                                                                                                   |
| DMEpwr:             | DME (or TACAN) Power (e.i.r.p) in dBW.                                                                                                                                                                                                                                      |
| Latitude/Longitude: | The geographical coordinates of the location of the facility.                                                                                                                                                                                                               |
| Cat:                | Category (CAT). Origin of the requirement:<br>"ICAO" or "I" for an Air Navigation Plan requirement<br>"NAT" or "N" for a national requirement                                                                                                                               |
| Remarks:            | Supplementary information including planned date of implementation.                                                                                                                                                                                                         |

## 5. Country/Territory abbreviation codes

|     |                                       |
|-----|---------------------------------------|
| AFG | AFGHANISTAN                           |
| ATA | ANTARTICA                             |
| ARS | SAUDI ARABIA                          |
| AUS | AUSTRALIA                             |
| BGD | BANGLADESH                            |
| BHR | BAHRAIN                               |
| BRM | MYANMAR                               |
| BRU | BRUNEI                                |
| BTN | BHUTAN                                |
| CAI | CAROLINE ISLAND                       |
| CHN | CHINA                                 |
| CKH | COOK ISLANDS                          |
| FJI | FIJI                                  |
| FSM | FEDERATED STATES OF MICRONESIA        |
| HKG | HONG KONG, CHINA                      |
| IND | INDIA                                 |
| INS | INDONESIA REPUBLIC OF                 |
| IRN | IRAN                                  |
| IRQ | IRAQ                                  |
| J   | JAPAN                                 |
| KIR | KIRIBATI                              |
| KMR | CAMBODIA                              |
| KOR | REPUBLIC OF KOREA                     |
| KRE | DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA |
| LAO | LAO PEOPLE'S DEMOCRATIC REPUBLIC      |
| MAC | MACAU, CHINA                          |
| MAI | MARIANA ISLAND                        |
| MLA | MALAYSIA                              |
| MLD | MALDIVES                              |
| MON | MONGOLIA                              |
| MRO | MICRONESIA                            |

|     |                  |
|-----|------------------|
| MSI | MARSHAL ISLAND   |
| NCL | NEW CALEDONIA    |
| NHB | VANUATU          |
| NII | NIUE ISLAND      |
| NPL | NEPAL            |
| NRU | NAURU            |
| NZL | NEW ZEALAND      |
| OCE | FRENCH POLYNESIA |
| OMN | OMAN             |
| PAK | PAKISTAN         |
| PHL | PHILIPPINES      |
| PNG | PAPUA NEW GUINEA |
| SLK | SRI LANKA        |
| SLM | SOLOMON ISLAND   |
| SMA | AMERICAN SAMOA   |
| SMO | SAMOA            |
| SNG | SINGAPORE        |
| THA | THAILAND         |
| TME | TIMOR-LESTE      |
| TON | TONGA            |
| TUV | TUVALU           |
| VTN | VIETNAM          |
| WAL | WALLIS ISLAND    |

FREQUENCY LIST NO. 2

APPENDIX A

International and National Assignments in

COUNTRY ORDER



Order: Country\_Location\_Frequency

37th edition

| Country        | Ctry | Location         | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks              |
|----------------|------|------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|----------------------|
| Afghanistan    | AFG  | BAGRAM           | VOR     | 112.400   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 34D56'45" N | 069D15'53 E | N    | 23Aug2011            |
| Afghanistan    | AFG  | DILARAM          | VOR     | 116.200   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 32D10'00" N | 063D25'00 E | N    |                      |
| Afghanistan    | AFG  | GHAZNI           | VOR     | 110.000   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 33D30'00" N | 068D24'00 E | I    |                      |
| Afghanistan    | AFG  | KABUL            | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/100  | 27     | 34D35'00" N | 069D10'00 E | I    |                      |
| Afghanistan    | AFG  | KABUL            | VOR/DME | 112.000   | 300/450 | 29     |     | 057X   | 300/450 | 40     | 34D31'00" N | 069D09'00 E | I    |                      |
| Afghanistan    | AFG  | KANDAHAR         | VOR     | 115.100   | 300/450 | 29     |     | n/a    | n/a     | n/a    | 32D18'00" N | 065D47'00 E | I    |                      |
| American Samoa | SMA  | PAGO PAGO        | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 14D19'00" S | 170D42'00 W | I    |                      |
| American Samoa | SMA  | PAGO PAGO        | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 14D20'00" S | 170D42'00 W | I    |                      |
| Antarctica     | ATA  | TERRE ADELIE     | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 66D40'00" S | 140D00'00 E | N    | FRANCE               |
| Australia      | AUS  | ADELAIDE         | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/100  | 27     | 34D57'35" S | 138D30'55 E | I    | Runway 23 TRD-50D    |
| Australia      | AUS  | ADELAIDE         | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 34D56'49" S | 138D31'28 E | I    | Coordinates Updated  |
| Australia      | AUS  | ALBANY           | DME     | n/a       | n/a     | n/a    |     | 034X   | 200/450 | 40     | 34D57'00" S | 117D48'35 E | N    | Coordinates Updated  |
| Australia      | AUS  | ALBURY           | VOR/DME | 115.600   | 200/450 | 27     |     | 103X   | 200/450 | 37     | 36D04'05" S | 146D57'58 E | N    | Details Updated.     |
| Australia      | AUS  | ALICE SPRINGS    | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 23D48'56" S | 133D55'13 E | I    | Runway 12 TRD-300D   |
| Australia      | AUS  | ALICE SPRINGS    | VOR/DME | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 23D47'34" S | 133D52'41 E | I    | Coordinates Updated  |
| Australia      | AUS  | AMBERLEY         | ILS     | 110.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 27D39'00" S | 152D43'00 E | N    |                      |
| Australia      | AUS  | AMBERLEY         | TACAN   | n/a       | n/a     | n/a    |     | 094X   | 200/450 | 40     | 27D38'00" S | 152D42'00 E | N    |                      |
| Australia      | AUS  | ARGYLE           | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 16D38'04" S | 128D26'51 E | N    | Coordinates Updated  |
| Australia      | AUS  | ARMIDALE         | DME     | n/a       | n/a     | n/a    |     | 073X   | 200/450 | 40     | 30D31'40" S | 151D36'55 E | N    |                      |
| Australia      | AUS  | AVALON           | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 38D03'34" S | 144D27'50 E | I    | Runway 18 TRD-7.50D  |
| Australia      | AUS  | AVALON           | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 38D02'57" S | 144D27'33 E | N    | Coordinates Updated  |
| Australia      | AUS  | AYERS ROCK       | DME     | n/a       | n/a     | n/a    |     | 118X   | 200/450 | 40     | 25D10'17" S | 130D58'29 E | N    | 11OCT00              |
| Australia      | AUS  | BRISBANE         | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 27D23'08" S | 153D06'19 E | I    | Runway 19R TRD-27D   |
| Australia      | AUS  | BRISBANE         | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 27D22'13" S | 153D08'13 E | I    | Runway 01R TRD-207D  |
| Australia      | AUS  | BRISBANE         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 27D24'27" S | 153D06'56 E | I    | Runway 19L TRD-27D   |
| Australia      | AUS  | BRISBANE         | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/100  | 27     | 27D21'15" S | 153D07'24 E | I    | Runway 01L TRD-207D  |
| Australia      | AUS  | BRISBANE         | VOR/DME | 113.200   | 200/450 | 29     |     | 079X   | 200/450 | 40     | 27D21'58" S | 153D08'21 E | I    | Coordinates Updated  |
| Australia      | AUS  | BROKEN HILL      | VOR/DME | 114.200   | 200/450 | 27     |     | 089X   | 200/450 | 37     | 32D00'02" S | 141D28'48 E | N    | Coordinates Updated  |
| Australia      | AUS  | BROOME           | DME     | n/a       | n/a     | n/a    |     | 100X   | 80/100  | 27     | 17D56'48" S | 122D14'05 E | N    |                      |
| Australia      | AUS  | CAIRNS           | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 16D51'53" S | 145D44'35 E | I    | Runway 33            |
| Australia      | AUS  | CAIRNS           | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 16D53'36" S | 145D45'21 E | I    | Runway 15 TRD-335D   |
| Australia      | AUS  | CAIRNS           | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 16D51'00" S | 145D44'38 E | I    | Coordinates Updated  |
| Australia      | AUS  | CANBERRA         | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 35D17'14" S | 149D11'40 E | ICAO | Runway 35 TRD 180D   |
| Australia      | AUS  | CANBERRA         | VOR/DME | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 35D16'53" S | 149D11'44 E | N    | Coordinates Updated  |
| Australia      | AUS  | CARNARVON        | VOR/DME | 113.000   | 200/450 | 27     |     | 077X   | 200/450 | 37     | 24D52'55" S | 113D40'23 E | N    | Details Updated.     |
| Australia      | AUS  | CHRISTMAS ISLAND | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 10D25'49" S | 105D41'21 E | N    | Coordinates Updated  |
| Australia      | AUS  | COCOS ISLAND     | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 12D12'02" S | 096D50'27 E | N    | Coordinates Updated  |
| Australia      | AUS  | COFFS HARBOUR    | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 30D19'10" S | 153D07'15 E | N    | Coordinates Updated  |
| Australia      | AUS  | COOMA            | DME     | n/a       | n/a     | n/a    |     | 087X   | 80/100  | 27     | 36D21'16" S | 148D57'28 E | N    | Coordinates Updated  |
| Australia      | AUS  | CURTIN           | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 17D35'20" S | 123D51'07 E | N    | Coordinates Updated  |
| Australia      | AUS  | DARWIN           | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/100  | 27     | 12D24'31" S | 130D51'46 E | I    | Runway 29 TRD-109D   |
| Australia      | AUS  | DARWIN           | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 12D25'24" S | 130D54'23 E | I    | Coordinates Updated  |
| Australia      | AUS  | DARWIN           | TACAN   | n/a       | n/a     | n/a    |     | 084X   | 200/450 | 40     | 12D24'49" S | 130D52'53 E | N    | Coordinates Updated  |
| Australia      | AUS  | EAST SALE        | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 38D06'29" S | 147D08'06 E | N    | Runway 22 TRD-54D    |
| Australia      | AUS  | EDINBURGH        | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/100  | 27     | 34D43'12" S | 138D36'47 E | I    | Runway 18 TRD-08D    |
| Australia      | AUS  | EDINBURGH        | TACAN   | n/a       | n/a     | n/a    |     | 094X   | 200/450 | 40     | 34D42'17" S | 138D36'45 E | N    | Coordinates Updated  |
| Australia      | AUS  | ESPERANCE        | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 33D40'43" S | 121D49'18 E | I    | Coordinates Updated. |
| Australia      | AUS  | ESSENDON         | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 37D43'53" S | 144D53'29 E | I    | Runway 26 TRD - 88D. |
| Australia      | AUS  | GERALDTON        | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 28D47'25" S | 114D42'22 E | N    | Coordinates Updated. |
| Australia      | AUS  | GLADSTONE        | VOR     | 116.300   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 23D51'55" S | 151D12'16 E | N    | Coordinates Updated. |
| Australia      | AUS  | GOLD COAST       | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/100  | 27     | 28D10'42" S | 153D30'52 E | ICAO | Runway 14 TRD-331D   |



# Order: Country\_Location\_Frequency

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| Country   | Ctry | Location       | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                            |
|-----------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|------------------------------------|
| Australia | AUS  | GOLD COAST     | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 28D10'08" S | 153D30'15 E | N    | Name Change - Coordinates Updated  |
| Australia | AUS  | GOVE           | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 12D15'54" S | 136D48'59 E | I    |                                    |
| Australia | AUS  | GROOTE EYLANDT | DME     | n/a       | n/a     | n/a    |     | 095X   | 80/100  | 27     | 13D58'31" S | 136D27'18 E | N    | Name Updated.                      |
| Australia | AUS  | HOBART         | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 42D40'48" S | 147D31'34 E | I    | Runway 12 TRD - 315D.              |
| Australia | AUS  | HOBART         | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 42D49'58" S | 147D30'38 E | I    | Coordinates Updated.               |
| Australia | AUS  | KALGOORLIE     | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 30D47'23" S | 121D27'11 E | N    | Coordinates Updated.               |
| Australia | AUS  | KARRATHA       | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 20D42'54" S | 116D46'26 E | N    | Coordinates Updated.               |
| Australia | AUS  | KUNUNURRA      | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 15D46'32" S | 128D42'31 E | I    | Coordinates Updated.               |
| Australia | AUS  | LAUNCESTON     | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 41D32'03" S | 147D12'06 E | I    | Runway 32 TRD - 147D.              |
| Australia | AUS  | LAUNCESTON     | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 41D32'38" S | 147D12'48 E | N    | Coordinates Updated.               |
| Australia | AUS  | LEARMONTH      | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 22D14'05" S | 114D05'39 E | I    | Coordinates Updated.               |
| Australia | AUS  | LORD HOWE IS.  | DME     | n/a       | n/a     | n/a    |     | 090X   | 200/450 | 40     | 31D31'44" S | 159D04'21 E | N    | Coordinates Updated.               |
| Australia | AUS  | MACKAY         | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 21D10'23" S | 149D11'14 E | N    | Coordinates Updated.               |
| Australia | AUS  | MANGALORE      | VOR     | 113.200   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 36D53'09" S | 145D11'39 E | N    |                                    |
| Australia | AUS  | MEEKATHARRA    | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 26D36'25" S | 118D31'57 E | I    | Coordinates Updated.               |
| Australia | AUS  | MELBOURNE      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 37D39'36" S | 144D48'36 E | I    | Runway 27 TRD - 94D                |
| Australia | AUS  | MELBOURNE      | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 37D39'37" S | 144D50'31 E | I    | Coordinates Updated.               |
| Australia | AUS  | MELBOURNE      | GBAS    | 115.400   | 25/62.5 | 100    |     | n/a    | 25/100  | n/a    | 37D40'06" S | 144D49'59 E | N    | G09A, G16A, G27A, G34A             |
| Australia | AUS  | MERIMBULA      | DME     | n/a       | n/a     | n/a    |     | 124X   | 200/450 | 40     | 36D54'52" S | 149D53'58 E | N    |                                    |
| Australia | AUS  | MILDURA        | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 34D13'31" S | 142D04'38 E | I    | Coordinates Updated.               |
| Australia | AUS  | MOOMBA         | DME     | n/a       | n/a     | n/a    |     | 057X   | 200/450 | 40     | 28D06'15" S | 140D11'59 E | N    | Coordinates Updated.               |
| Australia | AUS  | MOUNT GAMBIER  | VOR     | 117.000   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 37D45'05" S | 140D47'07 E | I    | Coordinates Updated.               |
| Australia | AUS  | MOUNT ISA      | VOR/DME | 117.500   | 200/450 | 29     |     | 122X   | 200/450 | 40     | 20D39'53" S | 139D29'08 E | I    | Coordinates Updated.               |
| Australia | AUS  | NEWMAN         | VOR/DME | 117.200   | 200/450 | 29     |     | 119X   | 200/450 | 40     | 23D25'16" S | 119D48'11 E | N    | Coordinates Updated.               |
| Australia | AUS  | NORFOLK ISLAND | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 29D02'50" S | 167D55'56 E | I    | Coordinates Updated.               |
| Australia | AUS  | NOWRA          | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 34D57'06" S | 150D31'59 E | N    | Runway 21 TRD - 44D                |
| Australia | AUS  | NOWRA          | TACAN   | n/a       | n/a     | n/a    |     | 111X   | 200/450 | 40     | 34D57'00" S | 150D32'00 E | N    | Coordinates Updated.               |
| Australia | AUS  | OAKEY          | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/100  | 27     | 27D24'59" S | 151D44'53 E | N    | Details Updated.                   |
| Australia | AUS  | OAKEY          | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 27D23'59" S | 151D44'16 E | N    | Coordinates Updated.               |
| Australia | AUS  | PARABURDOO     | VOR/DME | 116.900   | 200/450 | 29     |     | 116X   | 200/450 | 40     | 23D10'21" S | 117D44'13 E | N    | Coordinates Updated.               |
| Australia | AUS  | PARKES         | VOR/DME | 112.000   | 200/450 | 29     |     | 057X   | 200/450 | 40     | 33D07'53" S | 148D14'14 E | N    | Coordinates Updated.               |
| Australia | AUS  | PEARCE         | ILS     | 110.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 31D41'12" S | 116D01'01 E | N    | Coordinates Updated.               |
| Australia | AUS  | PEARCE         | ILS     | 111.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 31D39'37" S | 116D00'48 E | N    | Coordinates Updated.               |
| Australia | AUS  | PEARCE         | TACAN   | n/a       | n/a     | n/a    |     | 075X   | 200/450 | 40     | 31D40'26" S | 116D01'03 E | N    | Coordinates Updated.               |
| Australia | AUS  | PERTH          | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 31D57'43" S | 115D57'32 E | I    | Runway 21 TRD - 13.5D              |
| Australia | AUS  | PERTH          | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 31D56'32" S | 115D57'25 E | I    | Runway 24 TRD - 58D                |
| Australia | AUS  | PERTH          | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 31D55'34" S | 115D58'09 E | I    | Runway 03 TRD - 194D               |
| Australia | AUS  | PERTH          | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 31D56'42" S | 115D57'33 E | N    | Coordinates Updated.               |
| Australia | AUS  | PORT HEDLAND   | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 20D22'43" S | 118D37'22 E | I    | Coordinates Updated.               |
| Australia | AUS  | PROSERPINE     | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 20D29'49" S | 148D33'11 E | N    | Coordinates Updated.               |
| Australia | AUS  | RICHMOND       | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 25/100  | 27     | 33D36'02" S | 150D46'01 E | N    | Runway 28 TRD - 107D               |
| Australia | AUS  | RICHMOND       | TACAN   | n/a       | n/a     | n/a    |     | 044X   | 200/450 | 40     | 33D36'27" S | 150D47'56 E | N    | Coordinates Updated.               |
| Australia | AUS  | ROCKHAMPTON    | VOR/DME | 116.900   | 200/450 | 29     |     | 116X   | 200/450 | 40     | 23D22'58" S | 150D28'18 E | I    | Coordinates Updated.               |
| Australia | AUS  | SUNSHINE COAST | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 26D35'52" S | 153D05'25 E | N    | Name Change. Coordinates Updated.  |
| Australia | AUS  | SYDNEY         | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 33D56'51" S | 151D11'11 E | I    | Runway 34R TRD - 168D              |
| Australia | AUS  | SYDNEY         | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 33D56'39" S | 151D09'43 E | I    | Runway 25 TRD - 74D                |
| Australia | AUS  | SYDNEY         | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 33D56'13" S | 151D11'31 E | I    | Runway 07 TRD - 254D               |
| Australia | AUS  | SYDNEY         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/100  | 27     | 33D55'39" S | 151D10'16 E | I    | Runway 34L TRD - 168D              |
| Australia | AUS  | SYDNEY         | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 33D58'24" S | 151D11'40 E | I    | Runway 16L TRD - 348D              |
| Australia | AUS  | SYDNEY         | GBAS    | 116.100   | 25/62.5 | 20     |     | n/a    | 25/100  | n/a    | 33D57'48" S | 151D11'05 E | N    | G07A, G16A, G16B, G25A, G34A, G34B |



Order: Country\_Location\_Frequency

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| Country           | Ctry | Location                | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks               |
|-------------------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|-----------------------|
| Australia         | AUS  | SYDNEY                  | DME     | n/a       | n/a     | n/a    |     | 058X   | 200/450 | 37     | 33D56'38" S | 151D10'57 E | I    | Details Updated.      |
| Australia         | AUS  | TAMWORTH                | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 31D04'12" S | 150D50'09 E | I    | Runway 30R TRD - 133D |
| Australia         | AUS  | TAMWORTH                | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 31D03'58" S | 150D49'49 E | N    | Coordinates Updated.  |
| Australia         | AUS  | TENNANT CREEK           | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 19D38'05" S | 134D10'55 E | N    | Coordinates Updated.  |
| Australia         | AUS  | TINDAL                  | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/100  | 27     | 14D31'59" S | 132D23'15 E | N    | Runway 14 TRD - 319D  |
| Australia         | AUS  | TINDAL                  | VOR     | 112.300   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 14D31'09" S | 132D22'16 E | I    | Coordinates Updated.  |
| Australia         | AUS  | TINDAL                  | TACAN   | n/a       | n/a     | n/a    |     | 070X   | 200/450 | 40     | 14D31'24" S | 132D22'23 E | N    | Coordinates Updated.  |
| Australia         | AUS  | TOWNSVILLE              | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 19D14'07" S | 146D46'32 E | I    | Runway 01 TRD - 204D  |
| Australia         | AUS  | TOWNSVILLE              | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 19D14'39" S | 146D45'29 E | I    | Coordinates Updated.  |
| Australia         | AUS  | TOWNSVILLE              | TACAN   | n/a       | n/a     | n/a    |     | 082X   | 200/450 | 40     | 19D16'44" S | 146D44'33 E | N    | Coordinates Updated.  |
| Australia         | AUS  | WAGGA WAGGA             | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/100  | 27     | 35D10'04" S | 147D27'30 E | N    | Runway 23 TRD - 62D   |
| Australia         | AUS  | WAGGA WAGGA             | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 35D09'57" S | 147D28'09 E | N    | Coordinates Updated.  |
| Australia         | AUS  | WEIPA                   | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 12D40'25" S | 141D55'21 E | I    | Coordinates Updated.  |
| Australia         | AUS  | WILLIAMTOWN             | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/100  | 27     | 32D48'23" S | 151D50'58 E | N    | Runway 12 TRD - 310D  |
| Australia         | AUS  | WILLIAMTOWN             | TACAN   | n/a       | n/a     | n/a    |     | 080X   | 200/450 | 40     | 32D47'49" S | 151D50'00 E | N    | Coordinates Updated.  |
| Bangladesh        | BGD  | CHITTAGONG              | VOR/DME | 113.400   | 300/450 | 29     |     | 081X   | 300/450 | 40     | 22D15'00" N | 091D50'00 E | I    |                       |
| Bangladesh        | BGD  | COMILLA                 | VOR     | 115.500   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 23D26'00" N | 091D11'00 E | I    |                       |
| Bangladesh        | BGD  | DHAKA ZIA INTL          | ILS     | 109.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 23D49'00" N | 090D24'00 E | I    |                       |
| Bangladesh        | BGD  | DHAKA ZIA INTL          | VOR/DME | 112.700   | 300/450 | 29     |     | 074X   | 300/450 | 40     | 23D49'00" N | 090D25'00 E | I    | DVOR                  |
| Bangladesh        | BGD  | JESSORE                 | VOR     | 113.000   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 23D11'00" N | 089D09'00 E | N    |                       |
| Bangladesh        | BGD  | RAJSHAI                 | VOR     | 114.600   | 300/450 | 29     |     | n/a    | n/a     | n/a    | 24D26'00" N | 088D37'00 E | I    |                       |
| Bangladesh        | BGD  | SAIDPUR                 | VOR     | 115.800   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 25D45'00" N | 088D54'00 E | I    |                       |
| Bangladesh        | BGD  | SYLHET                  | VOR     | 116.400   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 24D57'00" N | 091D52'00 E | N    |                       |
| Bhutan            | BTN  | BUMTHANG                | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 27D33'59" N | 090D44'36 E | N    | FI 6July17; DVOR      |
| Bhutan            | BTN  | GELEPHU                 | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 26D53'04" N | 090D27'50 E | N    | FI 6July17; DVOR      |
| Bhutan            | BTN  | PARO                    | VOR/DME | 108.400   | 200/450 | 29     |     | 021X   | 200/450 | 40     | 27D18'03" N | 089D30'19 E | I    | Updated 8Mar02        |
| Brunei Darussalam | BRU  | BRUNEI                  | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 04D55'00" N | 011D45'00 W | N    | 28Sep09               |
| Brunei Darussalam | BRU  | BRUNEI                  | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 04D57'00" N | 114D56'00 E | I    | RWY03                 |
| Brunei Darussalam | BRU  | BRUNEI                  | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 04D55'00" N | 011D45'00 E | I    | RWY 21                |
| Brunei Darussalam | BRU  | BRUNEI                  | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 04D55'00" N | 011D45'00 W | N    | 28Sep09               |
| Brunei Darussalam | BRU  | BRUNEI                  | VOR/DME | 112.000   | 300/450 | 29     |     | 057X   | 300/450 | 40     | 04D55'00" N | 114D54'00 E | I    | DVOR                  |
| Cambodia          | KMR  | PHNOM PENH AIRPORT      | ILS     | 109.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 11D33'11" N | 104D50'75 E | N    |                       |
| Cambodia          | KMR  | PHNOM PENH AIRPORT      | VOR/DME | 114.300   | 25/100  | 17     |     | 090X   | 25/100  | 27     | 11D33'11" N | 104D50'75 E | N    | DVOR                  |
| Cambodia          | KMR  | SIEM REAP               | ILS     | 108.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 13D25'00" N | 103D50'00 E | N    | 9May08                |
| Cambodia          | KMR  | SIEM REAP AIRPORT       | VOR/DME | 113.800   | 25/100  | 17     |     | 085X   | 25/100  | 27     | 14D30'28" N | 121D01'18 E | N    | 100/1000 W; CVOR      |
| Cambodia          | KMR  | SIHANOUK VILLE          | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 13D23'50" N | 103D48'12 E | N    | 9May08                |
| Cambodia          | KMR  | SIHANOUK VILLE          | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 13D23'50" N | 103D48'12 E | N    | 9May08; DVOR          |
| China             | CHN  | ABA HONGYUAN            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 32D30'00" N | 102D21' E   | ICAO |                       |
| China             | CHN  | AERSHAN                 | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 47D21'00" N | 120D07' E   | ICAO |                       |
| China             | CHN  | AERSHAN YIERSHI         | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 47D18'00" N | 119D53' E   | ICAO |                       |
| China             | CHN  | AKESU                   | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 41D15'00" N | 080D19' E   | ICAO |                       |
| China             | CHN  | AKESU                   | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 41D15'00" N | 080D17' E   | ICAO | DVOR                  |
| China             | CHN  | AKESU HONGQIPO          | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 41D15'00" N | 080D16' E   | ICAO |                       |
| China             | CHN  | AKESUHONGQIPO           | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 41D15'00" N | 080D18' E   | ICAO |                       |
| China             | CHN  | ALAER                   | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 40D25'00" N | 081D14' E   | ICAO |                       |
| China             | CHN  | ALAER TALIMU            | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 40D26'00" N | 081D16' E   | ICAO |                       |
| China             | CHN  | ALASHANZUOQI BAYANHAOTE | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 38D44'00" N | 105D35' E   | ICAO |                       |
| China             | CHN  | ALETAI                  | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 47D45'00" N | 088D04' E   | ICAO |                       |
| China             | CHN  | ALETAI                  | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 47D44'00" N | 088D05' E   | ICAO | DVOR                  |
| China             | CHN  | ALI                     | VOR/DME | 113.700   | 100/250 | 30     |     | 084X   | 100/250 | 30     | 31D58'00" N | 080D07' E   | ICAO | DVOR                  |
| China             | CHN  | ALI KUNSHA              | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 32D04'00" N | 080D03' E   | ICAO |                       |



# Order: Country\_Location\_Frequency

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| Country | Ctry | Location             | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude     | Longitude    | Cat.           | Remarks |
|---------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|--------------|--------------|----------------|---------|
| China   | CHN  | ANKANG FUQIANG       | ILS/DME | 109.950   | 25/62.5 | 20     |     | 036Y   | 25/62.5 | 20     | 32D45'00" N  | 108D53' E    | ICAO           |         |
| China   | CHN  | ANKANGFUQIANGDONG    | VOR/DME | 113.800   | 200/400 | 30     |     | 085X   | 200/400 | 30     | 32D45'00" N  | 108D55' E    | ICAO DVOR      |         |
| China   | CHN  | ANQING TIANZHUSHAN   | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 30D35'00" N  | 117D03' E    | ICAO           |         |
| China   | CHN  | ANSHUN               | VOR/DME | 117.000   | 200/400 | 30     |     | 117X   | 200/400 | 30     | 26D15'00" N  | 105D52' E    | ICAO DVOR      |         |
| China   | CHN  | ANSHUN HUANGGUOSHU   | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D15'00" N  | 105D53' E    | ICAO           |         |
| China   | CHN  | ANYANG HONGQIQU      | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 35D52'00" N  | 114D27' E    | ICAO           |         |
| China   | CHN  | ANYANG HONGQIQU      | VOR/DME | 113.850   | 100/250 | 30     |     | 085Y   | 100/250 | 30     | 35D52'00" N  | 114D27' E    | ICAO           |         |
| China   | CHN  | ASHILI               | VOR/DME | 112.500   | 100/250 | 30     |     | 072X   | 100/250 | 30     | 43D31'00" N  | 087D00' E    | ICAO           |         |
| China   | CHN  | BADANJILIN           | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 39D12'00" N  | 101D34' E    | ICAO           |         |
| China   | CHN  | BAICHENG             | VOR/DME | 114.400   | 200/400 | 30     |     | 091X   | 200/400 | 30     | 45D29'00" N  | 122D59' E    | ICAO           |         |
| China   | CHN  | BAICHENG CHANGAN     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 45D29'00" N  | 123D00' E    | ICAO           |         |
| China   | CHN  | BAIHESI              | VOR/DME | 117.900   | 200/400 | 30     |     | 126X   | 200/400 | 30     | 30D30'00" N  | 104D12' E    | ICAO DVOR      |         |
| China   | CHN  | BAISE                | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 23D55'00" N  | 106D38' E    | NAT BAISE      |         |
| China   | CHN  | BAISHAN CHANGBAISHAN | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 42D03'00" N  | 127D36' E    | ICAO           |         |
| China   | CHN  | BAMIANSHAN           | VOR/DME | 113.600   | 200/400 | 30     |     | 083X   | 200/400 | 30     | 29D35'00" N  | 108D43' E    | ICAO DVOR      |         |
| China   | CHN  | BANGDA               | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 30D31'00" N  | 097D08' E    | ICAO DVOR      |         |
| China   | CHN  | BAOSHAN              | VOR     | 113.700   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 22D55' 00" N | 099D50' 00 E | I FI           |         |
| China   | CHN  | BAOSHAN              | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 25D03'00" N  | 099D10' E    | ICAO DVOR      |         |
| China   | CHN  | BAOSHAN YUNRUI       | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 25D02'00" N  | 099D09' E    | ICAO           |         |
| China   | CHN  | BAOTOU               | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 40D33'00" N  | 109D59' E    | ICAO DVOR      |         |
| China   | CHN  | BAOTOU DONGHE        | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 40D34'00" N  | 109D59' E    | NAT            |         |
| China   | CHN  | BAOTOU DONGHE        | ILS     | 110.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 40D33'00" N  | 110D00' E    | NAT            |         |
| China   | CHN  | BAYANHAOTE           | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 38D45'00" N  | 105D33' E    | ICAO           |         |
| China   | CHN  | BAYANNAOER           | VOR/DME | 109.400   | 200/400 | 30     |     | 031X   | 200/400 | 30     | 40D55'00" N  | 107D46' E    | ICAO DVOR      |         |
| China   | CHN  | BAYANNAOER TIANJITAI | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 40D55'00" N  | 107D43' E    | ICAO           |         |
| China   | CHN  | BAZHONG              | VOR/DME | 116.750   | 200/400 | 30     |     | 114Y   | 200/400 | 30     | 31D44'00" N  | 106D40' E    | ICAO           |         |
| China   | CHN  | BAZHONG ENYANG       | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 31D44'00" N  | 106D39' E    | ICAO           |         |
| China   | CHN  | BEIHAI FUCHENG       | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 21D33'00" N  | 109D17' E    | NAT 18Apr11    |         |
| China   | CHN  | BEIJIAZAO            | VOR/DME | 108.200   | 200/400 | 30     |     | 019X   | 200/400 | 30     | 40D03'00" N  | 113D29' E    | ICAO DVOR      |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 39D31'00" N  | 116D25' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 110.550   | 25/62.5 | 20     |     | 042Y   | 25/62.5 | 20     | 39D30'00" N  | 116D25' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 110.550   | 25/62.5 | 20     |     | 042Y   | 25/62.5 | 20     | 39D28'00" N  | 116D25' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 110.750   | 25/62.5 | 20     |     | 044Y   | 25/62.5 | 20     | 39D28'00" N  | 116D24' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 110.750   | 25/62.5 | 20     |     | 044Y   | 25/62.5 | 20     | 39D31'00" N  | 116D23' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 39D28'00" N  | 116D23' E    | ICAO           |         |
| China   | CHN  | BEIJING DAXING       | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 39D31'00" N  | 116D23' E    | ICAO           |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 40D05'00" N  | 116D36' E    | ICAO           |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 40D03'00" N  | 116D37' E    | ICAO           |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 40D03'00" N  | 116D36' E    | ICAO           |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 40D05'00" N  | 116D35' E    | ICAO           |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 40D04'00" N  | 116D34' E    | ICAO DME AT GP |         |
| China   | CHN  | BEIJING SHOUDU       | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 40D06'00" N  | 116D34' E    | NAT            |         |
| China   | CHN  | BIJIE                | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 27D15'00" N  | 105D27' E    | ICAO           |         |
| China   | CHN  | BIJIE FEIXIONG       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 27D15'00" N  | 105D27' E    | ICAO           |         |
| China   | CHN  | BOLE                 | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 44D53'00" N  | 082D19' E    | ICAO DVOR      |         |
| China   | CHN  | BOLE ALASHANKOU      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 44D53'00" N  | 082D16' E    | ICAO           |         |
| China   | CHN  | BOTOU                | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 38D06'00" N  | 116D34' E    | ICAO DVOR      |         |
| China   | CHN  | BOZUO                | VOR/DME | 115.400   | 200/400 | 30     |     | 101X   | 200/400 | 30     | 19D09'00" N  | 110D26' E    | ICAO           |         |
| China   | CHN  | BUERJIN KANASI       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 48D13'00" N  | 086D58' E    | ICAO           |         |
| China   | CHN  | CAIDIAN              | VOR/DME | 114.250   | 100/250 | 30     |     | 089Y   | 100/250 | 30     | 30D26'00" N  | 114D09' E    | ICAO           |         |



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| Country | Ctry | Location           | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.            | Remarks |
|---------|------|--------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|-----------------|---------|
| China   | CHN  | CANGYUAN           | VOR/DME | 117.700   | 200/400 | 30     |     | 124X   | 200/400 | 30     | 23D14'00" N | 099D18'   | E ICAO          |         |
| China   | CHN  | CANGYUAN ZUOSHAN   | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 23D16'00" N | 099D21'   | E ICAO          |         |
| China   | CHN  | CHAAAN             | VOR/DME | 111.800   | 200/400 | 30     |     | 055X   | 200/400 | 30     | 32D04'00" N | 116D46'   | E ICAO          |         |
| China   | CHN  | CHAIWOBAO          | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 43D32'00" N | 087D56'   | E ICAO          |         |
| China   | CHN  | CHAKA              | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 36D46'00" N | 099D06'   | E ICAO          |         |
| China   | CHN  | CHANGBAISHAN       | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 42D05'00" N | 127D36'   | E ICAO          |         |
| China   | CHN  | CHANGBEI           | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 28D53'00" N | 115D54'   | E ICAO          | DVOR    |
| China   | CHN  | CHANGCHUN LONGJIA  | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 44D00'00" N | 125D42'   | E ICAO          |         |
| China   | CHN  | CHANGCHUN LONGJIA  | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 43D59'00" N | 125D40'   | E ICAO          |         |
| China   | CHN  | CHANGDE TAOHUAYUAN | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 28D55'00" N | 111D38'   | E ICAO          |         |
| China   | CHN  | CHANGDU BANGDA     | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 30D32'00" N | 097D07'   | E ICAO          |         |
| China   | CHN  | CHANGHAI           | VOR/DME | 116.800   | 200/400 | 30     |     | 115X   | 200/400 | 30     | 39D16'00" N | 122D37'   | E ICAO          | DVOR    |
| China   | CHN  | CHANGSHA HUANGHUA  | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 28D10'00" N | 113D13'   | E ICAO          |         |
| China   | CHN  | CHANGSHA HUANGHUA  | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 28D12'00" N | 113D13'   | E ICAO          |         |
| China   | CHN  | CHANGSHA HUANGHUA  | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 28D10'00" N | 113D13'   | E ICAO          |         |
| China   | CHN  | CHANGSHA HUANGHUA  | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 28D12'00" N | 113D13'   | E ICAO          |         |
| China   | CHN  | CHANGSHA HUANGHUA  | VOR/DME | 113.300   | 100/250 | 30     |     | 080X   | 100/250 | 30     | 28D12'00" N | 113D12'   | E ICAO          | DVOR    |
| China   | CHN  | CHANGSHENGQIAO     | VOR/DME | 111.000   | 200/400 | 30     |     | 047X   | 200/400 | 30     | 29D25'00" N | 106D43'   | E ICAO          | DVOR    |
| China   | CHN  | CHANGZHI WANGCUN   | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 36D15'00" N | 113D07'   | E ICAO          |         |
| China   | CHN  | CHANGZHOU          | VOR/DME | 113.800   | 100/250 | 30     |     | 085X   | 100/250 | 30     | 31D55'00" N | 119D46'   | E ICAO          | DVOR    |
| China   | CHN  | CHANGZHOU BENNIU   | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 31D55'00" N | 119D45'   | E ICAO          |         |
| China   | CHN  | CHANGZHOU BENNIU   | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 31D54'00" N | 119D47'   | E ICAO          |         |
| China   | CHN  | CHAOSHAN           | VOR/DME | 110.600   | 100/250 | 30     |     | 043X   | 100/250 | 30     | 23D31'00" N | 116D28'   | E ICAO          |         |
| China   | CHN  | CHAOYANG           | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 41D32'00" N | 120D25'   | E NAT FI ; DVOR |         |
| China   | CHN  | CHASHAN            | VOR/DME | 116.450   | 100/250 | 30     |     | 111Y   | 100/250 | 30     | 30D09'00" N | 114D45'   | E ICAO          |         |
| China   | CHN  | CHENGDE            | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 41D07'00" N | 118D02'   | E ICAO          |         |
| China   | CHN  | CHENGDE PUNING     | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 41D07'00" N | 118D03'   | E ICAO          |         |
| China   | CHN  | CHENGDU SHUANGLIU  | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 30D33'00" N | 103D57'   | E ICAO          |         |
| China   | CHN  | CHENGDU SHUANGLIU  | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 30D33'00" N | 103D56'   | E ICAO          |         |
| China   | CHN  | CHENGDU SHUANGLIU  | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 30D31'00" N | 103D56'   | E ICAO          |         |
| China   | CHN  | CHENGDU SHUANGLIU  | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 30D35'00" N | 103D57'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 30D17'00" N | 104D24'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 30D19'00" N | 104D26'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 30D17'00" N | 104D25'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 30D16'00" N | 104D26'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 30D18'00" N | 104D27'   | E ICAO          |         |
| China   | CHN  | CHENGDU TIANFU     | VOR/DME | 111.450   | 100/250 | 30     |     | 051Y   | 100/250 | 30     | 30D17'00" N | 104D23'   | E ICAO          |         |
| China   | CHN  | CHENGDU            | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 33D08'00" N | 107D13'   | E ICAO          |         |
| China   | CHN  | CHENGHAI           | VOR/DME | 113.400   | 200/400 | 30     |     | 081X   | 200/400 | 30     | 26D39'00" N | 100D43'   | E ICAO          |         |
| China   | CHN  | CHENZHOU BEIHU     | VOR/DME | 117.000   | 100/250 | 30     |     | 117X   | 100/250 | 30     | 25D44'00" N | 112D48'   | E ICAO          |         |
| China   | CHN  | CHIFENG            | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 42D11'00" N | 118D48'   | E ICAO          | DVOR    |
| China   | CHN  | CHIFENG YULONG     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 42D08'00" N | 118D50'   | E ICAO          |         |
| China   | CHN  | CHIZHOU            | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 30D43'00" N | 117D42'   | E ICAO          |         |
| China   | CHN  | CHIZHOU JIUHUASHAN | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 30D43'00" N | 117D42'   | E ICAO          |         |
| China   | CHN  | CHIZHOU JIUHUASHAN | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 30D44'00" N | 117D40'   | E ICAO          |         |
| China   | CHN  | CHONGZHOU          | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 30D38'00" N | 103D41'   | E NAT FI ; DVOR |         |
| China   | CHN  | CONGHUA            | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 23D10'00" N | 113D15'00 | E N DVOR        |         |
| China   | CHN  | CONGHUA            | VOR/DME | 113.000   | 200/400 | 30     |     | 077X   | 200/400 | 30     | 23D35'00" N | 113D35'   | E ICAO          | DVOR    |
| China   | CHN  | DAFANGSHEN         | VOR/DME | 115.300   | 100/250 | 30     |     | 100X   | 100/250 | 30     | 43D53'00" N | 125D11'   | E ICAO          | DVOR    |
| China   | CHN  | DAHUSHAN           | VOR/DME | 116.500   | 200/400 | 30     |     | 112X   | 200/400 | 30     | 41D38'00" N | 122D06'   | E NAT FI ; DVOR |         |
| China   | CHN  | DALI               | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 25D38'00" N | 100D19'   | E ICAO          |         |



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| Country | Ctry | Location              | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat. | Remarks     |
|---------|------|-----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|------|-------------|
| China   | CHN  | DALI                  | VOR/DME | 112.600   | 200/400 | 30     |     | 073X   | 200/400 | 30     | 25D38°00" N | 100D19'   | E    | ICAO DVOR   |
| China   | CHN  | DALI HUANGCAOBA       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 25D38°00" N | 100D19'   | E    | ICAO        |
| China   | CHN  | DALIAN ZHOUSHUIZI     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 46D45°00" N | 125D07'   | E    | ICAO        |
| China   | CHN  | DALIAN ZHOUSHUIZI     | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 38D58°00" N | 121D32'   | E    | ICAO        |
| China   | CHN  | DALIAN ZHOUSHUIZI     | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 38D58°00" N | 121D30'   | E    | ICAO        |
| China   | CHN  | DALIAN ZHOUSHUIZI     | VOR/DME | 112.300   | 100/250 | 30     |     | 070X   | 100/250 | 30     | 38D57°00" N | 121D31'   | E    | ICAO DVOR   |
| China   | CHN  | DALIANCEJUYI          | VOR/DME | 115.400   | 200/400 | 30     |     | 101X   | 200/400 | 30     | 38D57°00" N | 121D34'   | E    | ICAO DVOR   |
| China   | CHN  | DANDONG               | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 40D15°00" N | 124D17'   | E    | ICAO DVOR   |
| China   | CHN  | DANDONG LANGTOU       | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 40D00°00" N | 124D17'   | E    | ICAO        |
| China   | CHN  | DANGSHAN              | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 30D08°00" N | 120D30'   | E    | ICAO DVOR   |
| China   | CHN  | DAOCHENG              | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 29D21°00" N | 100D02'   | E    | ICAO        |
| China   | CHN  | DAOCHENG YADING       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 29D20°00" N | 100D03'   | E    | ICAO        |
| China   | CHN  | DAQING                | VOR/DME | 108.200   | 200/400 | 30     |     | 019X   | 200/400 | 30     | 46D46°00" N | 125D07'   | E    | ICAO DVOR   |
| China   | CHN  | DATONG YUNGANG        | ILS     | 108.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 40D04°00" N | 113D27'   | E    | ICAO        |
| China   | CHN  | DAWANGZHUANG          | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 39D11°00" N | 116D34'   | E    | ICAO DVOR   |
| China   | CHN  | DAWU                  | VOR/DME | 114.600   | 100/250 | 30     |     | 093X   | 100/250 | 30     | 34D27°00" N | 100D12'   | E    | ICAO        |
| China   | CHN  | DAXING                | VOR/DME | 115.350   | 100/250 | 30     |     | 100Y   | 100/250 | 30     | 39D28°00" N | 116D23'   | E    | ICAO        |
| China   | CHN  | DAXINGANLING ELUNCHUN | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 50D23°00" N | 124D06'   | E    | ICAO        |
| China   | CHN  | DAZHOU                | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 31D09°00" N | 107D26°00 | E    | I DVOR      |
| China   | CHN  | DAZHOU HESHI          | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 31D08°00" N | 107D26'   | E    | ICAO        |
| China   | CHN  | DAZUOKOU              | VOR/DME | 111.200   | 100/250 | 30     |     | 049X   | 100/250 | 30     | 30D20°00" N | 109D28'   | E    | ICAO DVOR   |
| China   | CHN  | DEHONG MANGSHI        | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 24D23°00" N | 098D31'   | E    | ICAO        |
| China   | CHN  | DELINGHA              | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 37D07°00" N | 097D17'   | E    | ICAO        |
| China   | CHN  | DEQING                | VOR/DME | 116.900   | 200/400 | 30     |     | 116X   | 200/400 | 30     | 23D12°00" N | 111D46'   | E    | ICAO DVOR   |
| China   | CHN  | DEXIN                 | VOR/DME | 116.350   | 200/400 | 30     |     | 110Y   | 200/400 | 30     | 31D14°00" N | 104D22'   | E    | ICAO        |
| China   | CHN  | DIANBA                | VOR/DME | 114.400   | 200/400 | 30     |     | 091X   | 200/400 | 30     | 44D07°00" N | 087D18'   | E    | ICAO        |
| China   | CHN  | DIQING                | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 27D47°00" N | 099D40'   | E    | ICAO DVOR   |
| China   | CHN  | DIQING XIANGGELILA    | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 27D46°00" N | 099D41'   | E    | ICAO        |
| China   | CHN  | DONGDINGRI            | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 28D35°00" N | 086D54'   | E    | ICAO        |
| China   | CHN  | DONGJIN               | VOR/DME | 114.700   | 100/250 | 30     |     | 094X   | 100/250 | 30     | 18D18°00" N | 109D26'   | E    | ICAO        |
| China   | CHN  | DONGLIHU              | VOR/DME | 113.400   | 100/250 | 30     |     | 081X   | 100/250 | 30     | 39D09°00" N | 117D31'   | E    | ICAO        |
| China   | CHN  | DONGMULANTOU          | ILS/DME | 108.150   | 25/62.5 | 17     |     | 018Y   | 25/100  | 27     | 20D09°00" N | 110D40°00 | E    | N FI ; DVOR |
| China   | CHN  | DONGMULANTOU          | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 20D09°00" N | 110D40'   | E    | ICAO        |
| China   | CHN  | DONGSHAN              | VOR/DME | 109.200   | 200/400 | 30     |     | 029X   | 200/400 | 30     | 27D44°00" N | 120D37'   | E    | ICAO DVOR   |
| China   | CHN  | DONGYING              | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 37D29°00" N | 118D47'   | E    | ICAO        |
| China   | CHN  | DONGYING              | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 37D31°00" N | 118D47'   | E    | ICAO        |
| China   | CHN  | DONGYING              | ILS     | 110.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 37D29°00" N | 118D47'   | E    | ICAO        |
| China   | CHN  | DONGYING              | VOR/DME | 114.000   | 200/400 | 30     |     | 087X   | 200/400 | 30     | 37D31°00" N | 118D47'   | E    | ICAO        |
| China   | CHN  | DUNHUANG              | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 40D09°00" N | 094D50'   | E    | ICAO DVOR   |
| China   | CHN  | DUNHUANG MOGAO        | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 40D09°00" N | 094D47'   | E    | ICAO        |
| China   | CHN  | DUNHUANG MOGAO        | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 40D09°00" N | 094D50'   | E    | ICAO        |
| China   | CHN  | EERDUOSI              | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 39D29°00" N | 109D51'   | E    | ICAO DVOR   |
| China   | CHN  | EERDUOSI YIJINHUOLUO  | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 39D30°00" N | 109D50'   | E    | ICAO        |
| China   | CHN  | EERDUOSI YIJINHUOLUO  | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 39D29°00" N | 109D52'   | E    | ICAO        |
| China   | CHN  | EJINAQI               | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 41D59°00" N | 101D02'   | E    | ICAO        |
| China   | CHN  | ENSHI                 | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 30D17°00" N | 109D36'   | E    | ICAO DVOR   |
| China   | CHN  | ENSHI XUJIAPING       | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 30D20°00" N | 109D29'   | E    | ICAO        |
| China   | CHN  | ERLIAN                | VOR/DME | 114.900   | 200/400 | 30     |     | 096X   | 200/400 | 30     | 43D38°00" N | 111D57'   | E    | ICAO DVOR   |
| China   | CHN  | ERLIANHAOTE           | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 43D24°00" N | 112D07'   | E    | ICAO DVOR   |
| China   | CHN  | ERLIANHAOTE SAIWUSU   | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 43D25°00" N | 112D04'   | E    | ICAO        |



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| Country | Ctry | Location          | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat.        | Remarks |
|---------|------|-------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|-------------|---------|
| China   | CHN  | ERTANG            | VOR/DME | 115.950   | 200/400 | 30     |     | 106Y   | 200/400 | 30     | 24D40'00" N | 110D46'     | E ICAO      |         |
| China   | CHN  | EZHOU HUAHU       | ILS/DME | 108.950   | 25/62.5 | 20     |     | 026Y   | 25/62.5 | 20     | 30D21'00" N | 115D03'     | E ICAO      |         |
| China   | CHN  | EZHOU HUAHU       | ILS/DME | 108.950   | 25/62.5 | 20     |     | 026Y   | 25/62.5 | 20     | 30D19'00" N | 115D02'     | E ICAO      |         |
| China   | CHN  | EZHOU HUAHU       | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 30D21'00" N | 115D02'     | E ICAO      |         |
| China   | CHN  | EZHOU HUAHU       | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 30D19'00" N | 115D01'     | E ICAO      |         |
| China   | CHN  | FENGHUO           | VOR/DME | 113.200   | 100/250 | 30     |     | 079X   | 100/250 | 30     | 34D33'00" N | 108D37'     | E ICAO DVOR |         |
| China   | CHN  | FUJIACHANG        | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 29D55'00" N | 104D18'     | E ICAO DVOR |         |
| China   | CHN  | FUKANG            | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 44D10'00" N | 087D58'     | E ICAO      |         |
| China   | CHN  | FULING            | VOR/DME | 114.000   | 200/400 | 30     |     | 087X   | 200/400 | 30     | 29D41'00" N | 107D22'     | E ICAO DVOR |         |
| China   | CHN  | FUQING            | VOR/DME | 117.400   | 200/400 | 30     |     | 121X   | 200/400 | 30     | 25D44'00" N | 119D23'     | E ICAO DVOR |         |
| China   | CHN  | FUSUI             | VOR/DME | 112.050   | 100/250 | 30     |     | 057Y   | 100/250 | 30     | 22D26'00" N | 107D49'     | E ICAO      |         |
| China   | CHN  | FUYANG            | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 32D53'00" N | 115D44'     | E ICAO      |         |
| China   | CHN  | FUYANG            | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 32D52'00" N | 115D43'     | E ICAO DVOR |         |
| China   | CHN  | FUYU              | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 44D54'00" N | 124D48'     | E ICAO DVOR |         |
| China   | CHN  | FUYUAN            | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 48D10'00" N | 134D20'     | E ICAO      |         |
| China   | CHN  | FUYUAN DONGJI     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 48D11'00" N | 134D20'     | E ICAO      |         |
| China   | CHN  | FUYUN             | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 46D47'00" N | 089D32'     | E ICAO      |         |
| China   | CHN  | FUYUN KEKETUOHAI  | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 46D48'00" N | 089D29'     | E ICAO      |         |
| China   | CHN  | FUZHOU            | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 25D59'00" N | 119D15'00 E | I DVOR      |         |
| China   | CHN  | FUZHOU            | VOR/DME | 116.800   | 200/400 | 30     |     | 115X   | 200/400 | 30     | 25D56'00" N | 119D39'     | E ICAO DVOR |         |
| China   | CHN  | FUZHOU            | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 25D44'00" N | 119D23'00 E | I DVOR      |         |
| China   | CHN  | FUZHOU CHANGLE    | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 25D56'00" N | 119D41'     | E ICAO      |         |
| China   | CHN  | FUZHOU CHANGLE    | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 25D55'00" N | 119D39'     | E ICAO      |         |
| China   | CHN  | FUZHOU CHANGLE    | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 25D57'00" N | 119D40'     | E ICAO      |         |
| China   | CHN  | FUZHOU CHANGLE    | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 25D54'00" N | 119D40'     | E ICAO      |         |
| China   | CHN  | GAMA              | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 29D25'00" N | 094D27'     | E ICAO DVOR |         |
| China   | CHN  | GANNAN XIAHE      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 34D49'00" N | 102D36'     | E ICAO      |         |
| China   | CHN  | GANZHOU           | VOR/DME | 112.100   | 100/250 | 30     |     | 058X   | 100/250 | 30     | 25D51'00" N | 114D48'     | E ICAO      |         |
| China   | CHN  | GANZHOU HUANGJIN  | ILS     | 109.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 25D50'00" N | 114D55'     | E ICAO      |         |
| China   | CHN  | GANZHOU HUANGJIN  | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 25D51'00" N | 114D47'     | E ICAO      |         |
| China   | CHN  | GANZI             | VOR/DME | 108.200   | 200/400 | 30     |     | 019X   | 200/400 | 30     | 31D47'00" N | 099D29'     | E ICAO      |         |
| China   | CHN  | GANZI GESAER      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 31D45'00" N | 099D32'     | E ICAO      |         |
| China   | CHN  | GAOYAO            | VOR/DME | 116.500   | 200/400 | 30     |     | 112X   | 200/400 | 30     | 23D04'00" N | 112D29'     | E NAT DVOR  |         |
| China   | CHN  | GEERMU            | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 36D23'00" N | 094D44'     | E ICAO DVOR |         |
| China   | CHN  | GENGMA            | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 23D31'00" N | 099D24'     | E ICAO DVOR |         |
| China   | CHN  | GUANGHAN          | ILS     | 109.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 30D57'00" N | 104D19'     | E NAT       |         |
| China   | CHN  | GUANGHAN          | VOR/DME | 113.500   | 100/250 | 30     |     | 082X   | 100/250 | 30     | 30D57'00" N | 104D19'     | E ICAO DVOR |         |
| China   | CHN  | GUANGYUAN         | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 32D23'00" N | 105D41'     | E ICAO DVOR |         |
| China   | CHN  | GUANGYUAN PANLONG | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 32D23'00" N | 105D40'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 23D24'00" N | 113D19'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 23D24'00" N | 113D17'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 110.350   | 25/62.5 | 20     |     | 040Y   | 25/62.5 | 20     | 23D24'00" N | 113D18'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 110.750   | 25/62.5 | 20     |     | 044Y   | 25/62.5 | 20     | 23D22'00" N | 113D18'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 23D22'00" N | 113D16'     | E ICAO      |         |
| China   | CHN  | GUANGZHOU BAIYUN  | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 23D22'00" N | 113D18'     | E ICAO      |         |
| China   | CHN  | GUANLAN           | VOR/DME | 112.000   | 200/400 | 30     |     | 057X   | 200/400 | 30     | 22D42'00" N | 114D02'     | E ICAO DVOR |         |
| China   | CHN  | GUANZHUANG        | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 40D02'00" N | 116D44'     | E ICAO DVOR |         |
| China   | CHN  | GUILIN            | VOR/DME | 114.900   | 100/250 | 30     |     | 096X   | 100/250 | 30     | 25D12'00" N | 110D02'     | E NAT       |         |
| China   | CHN  | GUILIN LIANGJIANG | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 25D12'00" N | 110D02'     | E ICAO      |         |
| China   | CHN  | GUILIN LIANGJIANG | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 25D14'00" N | 110D02'     | E NAT       |         |
| China   | CHN  | GUIYANG           | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 26D31'00" N | 106D47'     | E ICAO DVOR |         |



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| Country | Ctry | Location                  | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat.        | Remarks |
|---------|------|---------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|-------------|---------|
| China   | CHN  | GUIYANG LONGDONGBAO       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 26D31'00" N | 106D47' E   | ICAO        |         |
| China   | CHN  | GUIYANG LONGDONGBAO       | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 26D33'00" N | 106D48' E   | NAT         |         |
| China   | CHN  | GUIYANG LONGDONGBAO       | ILS/DME | 111.350   | 25/62.5 | 20     |     | 050Y   | 25/62.5 | 20     | 26D33'00" N | 106D48' E   | ICAO        |         |
| China   | CHN  | GUIYANG LONGDONGBAO       | ILS/DME | 111.550   | 25/62.5 | 20     |     | 052Y   | 25/62.5 | 20     | 26D33'00" N | 106D48' E   | ICAO        |         |
| China   | CHN  | GUIYANGLONGDONGBAOJICHANG | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 26D33'00" N | 106D48' E   | ICAO        |         |
| China   | CHN  | GUOLUO                    | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 34D20'00" N | 100D28' E   | ICAO        |         |
| China   | CHN  | GUOLUO MAQIN              | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 34D25'00" N | 100D16' E   | ICAO        |         |
| China   | CHN  | GUOLUO MAQIN              | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 34D24'00" N | 100D19' E   | ICAO        |         |
| China   | CHN  | GUYUAN                    | VOR/DME | 112.600   | 200/400 | 30     |     | 073X   | 200/400 | 30     | 36D04'00" N | 106D12' E   | ICAO DVOR   |         |
| China   | CHN  | GUYUAN LIUPANSHAN         | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 36D03'00" N | 106D13' E   | ICAO        |         |
| China   | CHN  | HAERBIN                   | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 45D37'00" N | 126D15' E   | ICAO DVOR   |         |
| China   | CHN  | HAERBIN TAIPING           | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 45D36'00" N | 126D13' E   | ICAO        |         |
| China   | CHN  | HAERBIN TAIPING           | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 45D38'00" N | 126D15' E   | ICAO        |         |
| China   | CHN  | HAIBEI QILIAN             | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 38D00'00" N | 100D40' E   | ICAO        |         |
| China   | CHN  | HAIKOU MEILAN             | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 19D56'00" N | 110D26' E   | NAT         |         |
| China   | CHN  | HAIKOU MEILAN             | ILS/DME | 108.950   | 25/62.5 | 20     |     | 026Y   | 25/62.5 | 20     | 19D57'00" N | 110D29' E   | ICAO        |         |
| China   | CHN  | HAIKOU MEILAN             | ILS/DME | 109.350   | 25/62.5 | 20     |     | 030Y   | 25/62.5 | 20     | 19D57'00" N | 110D26' E   | ICAO        |         |
| China   | CHN  | HAIKOU MEILAN             | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 19D56'00" N | 110D28' E   | NAT         |         |
| China   | CHN  | HAILAER                   | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 49D12'00" N | 119D49' E   | ICAO DVOR   |         |
| China   | CHN  | HAIXI DELINGHA            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 37D07'00" N | 097D14' E   | ICAO        |         |
| China   | CHN  | HAIXI HUATUGOU            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D11'00" N | 090D51' E   | ICAO        |         |
| China   | CHN  | HAMI YINZHOU              | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 42D50'00" N | 093D41' E   | ICAO        |         |
| China   | CHN  | HAMI YINZHOU              | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 42D50'00" N | 093D38' E   | ICAO DVOR   |         |
| China   | CHN  | HANDAN                    | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 36D30'00" N | 114D24' E   | ICAO        |         |
| China   | CHN  | HANDAN                    | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 36D32'00" N | 114D26' E   | ICAO        |         |
| China   | CHN  | HANDAN                    | VOR/DME | 115.200   | 200/400 | 30     |     | 099X   | 200/400 | 30     | 36D31'00" N | 114D25' E   | ICAO DVOR   |         |
| China   | CHN  | HANGLU                    | VOR/DME | 114.500   | 100/250 | 30     |     | 092X   | 100/250 | 30     | 41D42'00" N | 082D59' E   | ICAO KUCHE  |         |
| China   | CHN  | HANGZHOU                  | VOR/DME | 113.000   | 200/400 | 30     |     | 077X   | 200/400 | 30     | 30D14'00" N | 120D27' E   | ICAO DVOR   |         |
| China   | CHN  | HANGZHOU XIAOSHAN         | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 30D13'00" N | 120D24' E   | ICAO        |         |
| China   | CHN  | HANGZHOU XIAOSHAN         | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 30D14'00" N | 120D27' E   | ICAO        |         |
| China   | CHN  | HANGZHOU XIAOSHAN         | ILS/DME | 110.350   | 25/62.5 | 20     |     | 040Y   | 25/62.5 | 20     | 30D14'00" N | 120D27' E   | ICAO        |         |
| China   | CHN  | HANGZHOU XIAOSHAN         | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 30D15'00" N | 120D26' E   | ICAO        |         |
| China   | CHN  | HANGZHOU XIAOSHAN         | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 30D14'00" N | 120D24' E   | ICAO        |         |
| China   | CHN  | HANZHONG                  | VOR/DME | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 33D04'00" N | 107D01'00 E | I DVOR      |         |
| China   | CHN  | HANZHONG CHENGGU          | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 33D08'00" N | 107D13' E   | ICAO        |         |
| China   | CHN  | HARBIN                    | ILS     | 109.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 45D37'00" N | 126D14'00 E | I           |         |
| China   | CHN  | HEBAOHU                   | VOR/DME | 114.450   | 200/400 | 30     |     | 091Y   | 200/400 | 30     | 30D41'00" N | 113D58' E   | ICAO        |         |
| China   | CHN  | HECHI                     | VOR/DME | 109.600   | 200/400 | 30     |     | 033X   | 200/400 | 30     | 24D48'00" N | 107D42' E   | ICAO        |         |
| China   | CHN  | HECHI JINCHENGJIANG       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 24D47'00" N | 107D43' E   | ICAO        |         |
| China   | CHN  | HEFEI LUOGANG             | ILS     | 108.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 31D47'00" N | 117D17' E   | ICAO        |         |
| China   | CHN  | HEFEI LUOGANG             | ILS     | 109.100   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 31D46'00" N | 117D18' E   | ICAO RWY 14 |         |
| China   | CHN  | HEFEI XINQIAO             | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 32D00'00" N | 116D57' E   | ICAO        |         |
| China   | CHN  | HEFEI XINQIAO             | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 31D58'00" N | 116D59' E   | ICAO        |         |
| China   | CHN  | HEIHE                     | VOR/DME | 114.000   | 200/400 | 30     |     | 087X   | 200/400 | 30     | 50D10'00" N | 127D18' E   | ICAO DVOR   |         |
| China   | CHN  | HEIHE ZUOZUO              | ILS     | 108.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 50D11'00" N | 127D18' E   | ICAO        |         |
| China   | CHN  | HEKOU                     | VOR/DME | 116.000   | 200/400 | 30     |     | 107X   | 200/400 | 30     | 31D19'00" N | 114D25' E   | ICAO DVOR   |         |
| China   | CHN  | HENGCHUN                  | VOR/TAC | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 21D56'00" N | 120D51'00 E | I TACAN-84  |         |
| China   | CHN  | HENGSHA                   | VOR/DME | 114.400   | 200/400 | 30     |     | 091X   | 200/400 | 30     | 31D22'00" N | 121D50' E   | NAT DVOR    |         |
| China   | CHN  | HENGYANG                  | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 26D42'00" N | 112D35' E   | ICAO        |         |
| China   | CHN  | HENGYANG NANYUE           | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D43'00" N | 112D37' E   | ICAO        |         |



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| Country | Ctry | Location             | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks   |
|---------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|-----------|
| China   | CHN  | HETIAN               | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 37D02'00" N | 079D50' E   | ICAO |           |
| China   | CHN  | HETIAN               | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 37D02'00" N | 079D52' E   | ICAO | DVOR      |
| China   | CHN  | HEZE                 | VOR/DME | 112.050   | 200/400 | 30     |     | 057Y   | 200/400 | 30     | 35D11'00" N | 115D44' E   | ICAO |           |
| China   | CHN  | HEZE                 | VOR/DME | 114.650   | 100/250 | 30     |     | 093Y   | 100/250 | 30     | 35D11'00" N | 115D44' E   | ICAO |           |
| China   | CHN  | HEZE MUDAN           | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 35D13'00" N | 115D44' E   | ICAO |           |
| China   | CHN  | HONGQIAO             | VOR/DME | 117.200   | 200/400 | 30     |     | 119X   | 200/400 | 30     | 31D12'00" N | 121D20' E   | ICAO | DVOR      |
| China   | CHN  | HONGYUAN             | VOR/DME | 116.200   | 200/400 | 30     |     | 109X   | 200/400 | 30     | 32D35'00" N | 102D20' E   | ICAO |           |
| China   | CHN  | HOTAN                | VOR     | 113.100   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 37D02'00" N | 079D52'00 E | I    | HETIAN    |
| China   | CHN  | HUAIAN               | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 33D46'00" N | 119D06' E   | ICAO | DVOR      |
| China   | CHN  | HUAIAN LIANSHUI      | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 33D48'00" N | 119D08' E   | ICAO |           |
| China   | CHN  | HUAIAN LIANSHUI      | ILS/DME | 109.150   | 25/62.5 | 20     |     | 028Y   | 25/62.5 | 20     | 33D46'00" N | 119D06' E   | ICAO |           |
| China   | CHN  | HUAIHUA ZUOJIANG     | ILS     | 108.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 27D27'00" N | 109D42' E   | ICAO |           |
| China   | CHN  | HUAIROU              | VOR/DME | 113.600   | 200/400 | 30     |     | 083X   | 200/400 | 30     | 40D19'00" N | 116D44' E   | ICAO | DVOR      |
| China   | CHN  | HUANGCHENG           | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 37D39'00" N | 120D32' E   | ICAO | DVOR      |
| China   | CHN  | HUANGPI              | VOR/DME | 113.750   | 100/250 | 30     |     | 084Y   | 100/250 | 30     | 30D52'00" N | 114D28' E   | ICAO |           |
| China   | CHN  | HUANGPING            | VOR/DME | 113.400   | 200/400 | 30     |     | 081X   | 200/400 | 30     | 26D58'00" N | 107D59' E   | ICAO |           |
| China   | CHN  | HUANGSHAN            | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 29D44'00" N | 118D15' E   | ICAO | DVOR      |
| China   | CHN  | HUANGSHAN TUNXI      | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 29D43'00" N | 118D16' E   | ICAO |           |
| China   | CHN  | HUATUGOU             | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 38D10'00" N | 090D51' E   | ICAO |           |
| China   | CHN  | HUAYUAN              | VOR/DME | 112.000   | 200/400 | 30     |     | 057X   | 200/400 | 30     | 28D34'00" N | 109D27' E   | NAT  | DVOR      |
| China   | CHN  | HUHEHAOTE            | VOR/DME | 116.900   | 200/400 | 30     |     | 116X   | 200/400 | 30     | 40D43'00" N | 111D53' E   | ICAO | DVOR      |
| China   | CHN  | HUHEHAOTE BAITA      | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 40D51'00" N | 111D50' E   | NAT  |           |
| China   | CHN  | HUHEHAOTE BAITA      | ILS/DME | 109.500   | 25/62.5 | 20     |     | 032X   | 25/62.5 | 20     | 40D50'00" N | 111D48' E   | ICAO |           |
| China   | CHN  | HUILONG              | VOR/DME | 115.950   | 200/400 | 30     |     | 106Y   | 200/400 | 30     | 30D18'00" N | 103D41' E   | ICAO |           |
| China   | CHN  | HUILONGSHAN          | VOR/DME | 114.950   | 100/250 | 30     |     | 096Y   | 100/250 | 30     | 30D36'00" N | 114D59' E   | ICAO |           |
| China   | CHN  | HUIZHOU              | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 23D02'00" N | 114D33' E   | ICAO |           |
| China   | CHN  | HUIZHOU PINGTAN      | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 23D02'00" N | 114D36' E   | ICAO |           |
| China   | CHN  | HULUNBEIER HAILAER   | ILS     | 110.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 49D12'00" N | 119D48' E   | ICAO |           |
| China   | CHN  | HUOLINGUOLE          | VOR/DME | 112.400   | 200/400 | 30     |     | 071X   | 200/400 | 30     | 45D28'00" N | 119D30' E   | ICAO |           |
| China   | CHN  | HUOLINGUOLE HUOLINHE | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 45D29'00" N | 119D23' E   | ICAO |           |
| China   | CHN  | HUTUBI               | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 44D15'00" N | 086D54' E   | ICAO |           |
| China   | CHN  | JIAGEDAQI            | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 50D22'00" N | 124D07' E   | ICAO |           |
| China   | CHN  | JIAMUSI              | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 46D51'00" N | 130D28' E   | ICAO |           |
| China   | CHN  | JIAMUSI              | VOR/DME | 113.500   | 200/400 | 30     |     | 082X   | 200/400 | 30     | 46D50'00" N | 130D27' E   | ICAO | DVOR      |
| China   | CHN  | JIANGBEI             | VOR/DME | 116.100   | 200/400 | 30     |     | 108X   | 200/400 | 30     | 29D44'00" N | 106D39' E   | ICAO | DVOR      |
| China   | CHN  | JIANGJINBAISHA       | VOR/DME | 112.250   | 100/250 | 30     |     | 059Y   | 100/250 | 30     | 29D03'00" N | 106D04' E   | ICAO |           |
| China   | CHN  | JIAN SANJIANG        | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 47D07'00" N | 132D38' E   | ICAO |           |
| China   | CHN  | JIAOBEI              | VOR/DME | 116.850   | 100/250 | 30     |     | 115Y   | 100/250 | 30     | 36D19'00" N | 119D58' E   | ICAO |           |
| China   | CHN  | JIAODONG             | VOR/DME | 114.450   | 100/250 | 30     |     | 091Y   | 100/250 | 30     | 36D22'00" N | 120D04' E   | ICAO |           |
| China   | CHN  | JIAYUGUAN            | ILS     | 109.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 39D51'00" N | 098D19' E   | ICAO |           |
| China   | CHN  | JIAYUGUAN            | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 39D51'00" N | 098D20' E   | ICAO | DVOR      |
| China   | CHN  | JIEYANG CHAOSHAN     | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 23D32'00" N | 116D29' E   | ICAO |           |
| China   | CHN  | JIEYANG CHAOSHAN     | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 23D34'00" N | 116D31' E   | ICAO |           |
| China   | CHN  | JINAN                | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 36D49'00" N | 117D12' E   | NAT  | FI ; DVOR |
| China   | CHN  | JINAN YAOQIANG       | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 36D52'00" N | 117D12' E   | ICAO |           |
| China   | CHN  | JINAN YAOQIANG       | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 36D52'00" N | 117D12' E   | ICAO |           |
| China   | CHN  | JINCHANG             | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 38D33'00" N | 102D19' E   | ICAO | DVOR      |
| China   | CHN  | JINCHANG JINCHUAN    | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D33'00" N | 102D19' E   | ICAO |           |
| China   | CHN  | JINGDEZHEN           | VOR/DME | 117.700   | 200/400 | 30     |     | 124X   | 200/400 | 30     | 29D20'00" N | 117D10' E   | NAT  | FI ; DVOR |
| China   | CHN  | JINGDEZHEN LUOJIA    | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 29D20'00" N | 117D11' E   | ICAO |           |
| China   | CHN  | JINGGANGSHAN         | VOR/DME | 108.200   | 200/400 | 30     |     | 019X   | 200/400 | 30     | 26D51'00" N | 114D42' E   | ICAO | DVOR      |



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| Country | Ctry | Location              | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.      | Remarks |
|---------|------|-----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|-----------|---------|
| China   | CHN  | JINGGANGSHAN          | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 26D51'00" N | 114D45' E | ICAO      |         |
| China   | CHN  | JINGGUAN              | VOR/DME | 110.850   | 100/250 | 30     |     | 045Y   | 100/250 | 30     | 29D55'00" N | 106D32' E | ICAO      |         |
| China   | CHN  | JINGNING              | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 35D31'00" N | 105D43' E | ICAO DVOR |         |
| China   | CHN  | JINGTAI               | VOR/DME | 114.900   | 200/400 | 30     |     | 096X   | 200/400 | 30     | 37D11'00" N | 104D04' E | ICAO DVOR |         |
| China   | CHN  | JINGYAN               | VOR/DME | 114.650   | 100/250 | 30     |     | 093Y   | 100/250 | 30     | 29D46'00" N | 104D02' E | ICAO      |         |
| China   | CHN  | JINGZHOU              | VOR/DME | 115.550   | 200/400 | 30     |     | 102Y   | 200/400 | 30     | 30D15'00" N | 112D26' E | ICAO      |         |
| China   | CHN  | JINGZHOU SHASHI       | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 30D18'00" N | 112D26' E | ICAO      |         |
| China   | CHN  | JINING                | VOR/DME | 111.600   | 200/400 | 30     |     | 053X   | 200/400 | 30     | 35D17'00" N | 116D21' E | ICAO DVOR |         |
| China   | CHN  | JINING DAAN           | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 35D38'00" N | 116D43' E | ICAO      |         |
| China   | CHN  | JINING DAAN           | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 35D39'00" N | 116D45' E | ICAO      |         |
| China   | CHN  | JINING DAAN           | VOR/DME | 117.150   | 100/250 | 30     |     | 118Y   | 100/250 | 30     | 35D38'00" N | 116D43' E | ICAO      |         |
| China   | CHN  | JINING QUFU           | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 35D17'00" N | 116D21' E | ICAO      |         |
| China   | CHN  | JINJIANG              | VOR/DME | 117.000   | 200/400 | 30     |     | 117X   | 200/400 | 30     | 24D48'00" N | 118D35' E | ICAO DVOR |         |
| China   | CHN  | JINNING               | VOR/DME | 108.200   | 200/400 | 30     |     | 019X   | 200/400 | 30     | 24D40'00" N | 102D48' E | ICAO      |         |
| China   | CHN  | JINTANG               | VOR/DME | 115.400   | 200/400 | 30     |     | 101X   | 200/400 | 30     | 30D52'00" N | 104D23' E | ICAO DVOR |         |
| China   | CHN  | JINYA                 | VOR/DME | 115.000   | 100/250 | 30     |     | 097X   | 100/250 | 30     | 31D02'00" N | 107D25' E | ICAO      |         |
| China   | CHN  | JINZHOU               | VOR/DME | 114.600   | 100/250 | 30     |     | 093X   | 100/250 | 30     | 41D06'00" N | 121D03' E | NAT DVOR  |         |
| China   | CHN  | JINZHOU JINZHOUWAN    | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 40D55'00" N | 121D16' E | ICAO      |         |
| China   | CHN  | JINZHOUJICHANG        | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 41D06'00" N | 121D03' E | ICAO      |         |
| China   | CHN  | JINZHOUWAN            | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 40D54'00" N | 121D15' E | ICAO      |         |
| China   | CHN  | JIUJIANG              | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 29D27'00" N | 115D47' E | NAT DVOR  |         |
| China   | CHN  | JIUJIANG LUSHAN       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 29D29'00" N | 115D48' E | ICAO      |         |
| China   | CHN  | JIUTING               | VOR/DME | 109.600   | 200/400 | 30     |     | 033X   | 200/400 | 30     | 31D07'00" N | 121D20' E | ICAO DVOR |         |
| China   | CHN  | JIUZHAI               | VOR/DME | 117.600   | 200/400 | 30     |     | 123X   | 200/400 | 30     | 32D51'00" N | 103D40' E | ICAO DVOR |         |
| China   | CHN  | JIUZHAI HUANGLONG     | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 32D50'00" N | 103D40' E | ICAO      |         |
| China   | CHN  | JIUZHAI HUANGLONG     | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 32D52'00" N | 103D41' E | ICAO      |         |
| China   | CHN  | JIUZHOU               | VOR/DME | 117.200   | 200/400 | 30     |     | 119X   | 200/400 | 30     | 22D14'00" N | 113D36' E | ICAO DVOR |         |
| China   | CHN  | JIXI                  | VOR/DME | 108.600   | 200/400 | 30     |     | 023X   | 200/400 | 30     | 45D17'00" N | 131D11' E | ICAO DVOR |         |
| China   | CHN  | JIXI XINGKAIHU        | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 45D17'00" N | 131D10' E | ICAO      |         |
| China   | CHN  | KAILI HUANGPING       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 26D59'00" N | 107D59' E | ICAO      |         |
| China   | CHN  | KAIYUAN               | VOR/DME | 114.900   | 200/400 | 30     |     | 096X   | 200/400 | 30     | 42D37'00" N | 124D00' E | ICAO DVOR |         |
| China   | CHN  | KANASI                | VOR/DME | 111.200   | 200/400 | 30     |     | 049X   | 200/400 | 30     | 48D13'00" N | 087D00' E | ICAO DVOR |         |
| China   | CHN  | KANGDING              | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 30D07'00" N | 101D45' E | ICAO      |         |
| China   | CHN  | KANGDING              | VOR/DME | 112.400   | 200/400 | 30     |     | 071X   | 200/400 | 30     | 30D08'00" N | 101D44' E | ICAO DVOR |         |
| China   | CHN  | KASHI                 | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 39D32'00" N | 076D02' E | NAT       |         |
| China   | CHN  | KASHI                 | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 39D32'00" N | 075D59' E | ICAO      |         |
| China   | CHN  | KASHI                 | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 39D32'00" N | 076D01' E | ICAO DVOR |         |
| China   | CHN  | KELAMAYI              | ILS     | 108.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 45D28'00" N | 084D56' E | ICAO      |         |
| China   | CHN  | KELAMAYI              | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 45D28'00" N | 084D55' E | ICAO DVOR |         |
| China   | CHN  | KOULING               | VOR/DME | 110.600   | 200/400 | 30     |     | 043X   | 200/400 | 30     | 34D15'00" N | 109D14' E | ICAO      |         |
| China   | CHN  | KUCHE GUIZI           | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 41D40'00" N | 082D51' E | ICAO      |         |
| China   | CHN  | KUERLE                | ILS     | 110.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 41D37'00" N | 086D09' E | ICAO      |         |
| China   | CHN  | KUERLE                | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 41D36'00" N | 086D08' E | ICAO DVOR |         |
| China   | CHN  | KUNMING CHANGSHUI     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 25D05'00" N | 102D55' E | ICAO      |         |
| China   | CHN  | KUNMING CHANGSHUI     | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 25D07'00" N | 102D57' E | ICAO      |         |
| China   | CHN  | KUNMING CHANGSHUI     | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 25D06'00" N | 102D54' E | ICAO      |         |
| China   | CHN  | KUNMING CHANGSHUI     | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 25D07'00" N | 102D56' E | ICAO      |         |
| China   | CHN  | KUNMINGWUJIABAJICHANG | ILS     | 109.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 24D59'00" N | 102D44' E | ICAO      |         |
| China   | CHN  | KUNMINGWUJIABAJICHANG | ILS     | 110.300   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 24D59'00" N | 102D44' E | ICAO      |         |
| China   | CHN  | KUNMINGWUJIABAJICHANG | VOR/DME | 112.900   | 100/250 | 30     |     | 076X   | 100/250 | 30     | 25D00'00" N | 102D44' E | ICAO DVOR |         |



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| Country | Ctry | Location               | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.   | Remarks       |
|---------|------|------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|--------|---------------|
| China   | CHN  | LAIBIN                 | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 23D45'00" N | 109D08'   | E ICAO | DVOR          |
| China   | CHN  | LANCANG                | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 22D23'00" N | 099D50'   | E ICAO |               |
| China   | CHN  | LANCANG JINGMAI        | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 22D25'00" N | 099D46'   | E ICAO |               |
| China   | CHN  | LANZHOU                | VOR/DME | 114.000   | 200/400 | 30     |     | 087X   | 200/400 | 30     | 36D32'00" N | 103D37'   | E ICAO |               |
| China   | CHN  | LANZHOU ZHONGCHUAN     | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 36D29'00" N | 103D37'   | E ICAO |               |
| China   | CHN  | LANZHOU ZHONGCHUAN     | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 36D32'00" N | 103D37'   | E ICAO |               |
| China   | CHN  | LANZHOU ZHONGCHUAN     | VOR/DME | 114.300   | 100/250 | 30     |     | 090X   | 100/250 | 30     | 36D30'00" N | 103D37'   | E ICAO | DVOR          |
| China   | CHN  | LAOLIANGCANG           | VOR/DME | 116.200   | 200/400 | 30     |     | 109X   | 200/400 | 30     | 28D04'00" N | 112D12'   | E ICAO | DVOR          |
| China   | CHN  | LASA                   | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 29D17'00" N | 090D59'   | E ICAO | DVOR          |
| China   | CHN  | LASA GONGGA            | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 29D18'00" N | 090D53'   | E ICAO |               |
| China   | CHN  | LASA GONGGA            | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 29D17'00" N | 090D53'   | E ICAO |               |
| China   | CHN  | LEDU                   | VOR/DME | 112.200   | 100/250 | 30     |     | 059X   | 100/250 | 30     | 36D36'00" N | 102D29'   | E ICAO |               |
| China   | CHN  | LIANCHENG              | VOR/DME | 111.000   | 100/250 | 30     |     | 047X   | 100/250 | 30     | 25D39'00" N | 116D44'   | E ICAO | DVOR          |
| China   | CHN  | LIANCHENG GUANZUOSHAN  | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 25D39'00" N | 116D44'   | E ICAO |               |
| China   | CHN  | LIANJIANG              | VOR/DME | 117.600   | 200/400 | 30     |     | 123X   | 200/400 | 30     | 26D13'00" N | 119D32'   | E ICAO | DVOR          |
| China   | CHN  | LIANJIANG              | VOR/DME | 117.600   | 200/450 | 29     |     | 123X   | 200/450 | 40     | 26D13'00" N | 119D32'00 | E I    | DVOR          |
| China   | CHN  | LIANSHENGWEI           | VOR/DME | 116.700   | 200/400 | 30     |     | 114X   | 200/400 | 30     | 22D13'00" N | 113D27'   | E ICAO | DVOR          |
| China   | CHN  | LIANYUNGANG            | VOR/DME | 115.000   | 200/400 | 30     |     | 097X   | 200/400 | 30     | 34D35'00" N | 118D53'   | E NAT  | DVOR          |
| China   | CHN  | LIANYUNGANG            | VOR/DME | 117.650   | 100/250 | 30     |     | 123Y   | 100/250 | 30     | 34D23'00" N | 119D09'   | E ICAO |               |
| China   | CHN  | LIANYUNGANG BAITABU    | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 34D35'00" N | 118D52'   | E ICAO |               |
| China   | CHN  | LIANYUNGANG HUAGUOSHAN | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 34D25'00" N | 119D10'   | E ICAO |               |
| China   | CHN  | LIBO                   | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 25D27'00" N | 107D58'   | E ICAO |               |
| China   | CHN  | LIBO                   | VOR/DME | 112.800   | 200/400 | 30     |     | 075X   | 200/400 | 30     | 25D27'00" N | 107D57'   | E ICAO | DVOR          |
| China   | CHN  | LIJIANG                | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 26D46'00" N | 100D16'   | E ICAO | DVOR          |
| China   | CHN  | LIJIANG SANYI          | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D41'00" N | 100D15'   | E ICAO |               |
| China   | CHN  | LIJIANG SANYI          | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 26D39'00" N | 100D14'   | E ICAO |               |
| China   | CHN  | LINCANG                | VOR/DME | 114.900   | 100/250 | 30     |     | 096X   | 100/250 | 30     | 23D43'00" N | 100D01'   | E ICAO | DVOR          |
| China   | CHN  | LINCANG BOSHANG        | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 23D43'00" N | 100D01'   | E ICAO |               |
| China   | CHN  | LINFEN                 | VOR/DME | 110.000   | 200/400 | 30     |     | 037X   | 200/400 | 30     | 36D09'00" N | 111D38'   | E ICAO |               |
| China   | CHN  | LINFEN YAODU           | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 36D07'00" N | 111D38'   | E ICAO |               |
| China   | CHN  | LINRU                  | VOR/DME | 116.400   | 200/400 | 30     |     | 111X   | 200/400 | 30     | 34D08'00" N | 112D50'   | E ICAO | DVOR          |
| China   | CHN  | LINYI                  | VOR/DME | 112.800   | 200/400 | 30     |     | 075X   | 200/400 | 30     | 35D03'00" N | 118D24'   | E ICAO | DVOR          |
| China   | CHN  | LINYI QIYANG           | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 35D02'00" N | 118D24'   | E ICAO |               |
| China   | CHN  | LINYI QIYANG           | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 35D04'00" N | 118D24'   | E ICAO |               |
| China   | CHN  | LINZUO                 | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 29D21'00" N | 111D38'   | E ICAO | DVOR          |
| China   | CHN  | LIPING                 | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D18'00" N | 109D08'   | E ICAO |               |
| China   | CHN  | LIPING                 | VOR/DME | 116.600   | 200/400 | 30     |     | 113X   | 200/400 | 30     | 26D19'00" N | 109D09'   | E ICAO | DVOR          |
| China   | CHN  | LIUJI                  | VOR/DME | 113.950   | 100/250 | 30     |     | 086Y   | 100/250 | 30     | 32D10'00" N | 112D17'   | E ICAO |               |
| China   | CHN  | LIUPANSHUI             | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 26D38'00" N | 105D01'   | E ICAO |               |
| China   | CHN  | LIUPANSHUI YUEZHAO     | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 26D35'00" N | 104D57'   | E ICAO |               |
| China   | CHN  | LIUZAO                 | VOR/DME | 109.400   | 100/250 | 30     |     | 031X   | 100/250 | 30     | 31D07'00" N | 121D40'   | E ICAO | DVOR          |
| China   | CHN  | LIUZHOU                | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 24D12'00" N | 109D23'   | E ICAO | DVOR          |
| China   | CHN  | LIUZHOU BAILIAN        | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 24D13'00" N | 109D23'   | E ICAO |               |
| China   | CHN  | LONGCHANG              | VOR/DME | 117.600   | 200/400 | 30     |     | 123X   | 200/400 | 30     | 40D51'00" N | 123D07'   | E ICAO |               |
| China   | CHN  | LONGKOU                | VOR/DME | 115.800   | 200/400 | 30     |     | 105X   | 200/400 | 30     | 29D54'00" N | 113D41'   | E ICAO | DVOR          |
| China   | CHN  | LONGMEN                | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 23D38'00" N | 114D19'   | E NAT  | FI ; DVOR     |
| China   | CHN  | LONGNAN                | VOR/DME | 116.600   | 200/400 | 30     |     | 113X   | 200/400 | 30     | 33D47'00" N | 105D50'   | E ICAO |               |
| China   | CHN  | LONGNAN CHENGXIAN      | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 33D47'00" N | 105D46'   | E ICAO |               |
| China   | CHN  | LONGNAN CHENGXIAN      | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 33D47'00" N | 105D48'   | E ICAO |               |
| China   | CHN  | LONGZAOCUN             | VOR/DME | 109.000   | 200/400 | 30     |     | 027X   | 200/400 | 30     | 34D27'00" N | 108D47'   | E ICAO | DME NAT; DVOR |
| China   | CHN  | LONGZHOU               | VOR/DME | 112.200   | 200/400 | 30     |     | 059X   | 200/400 | 30     | 22D21'00" N | 106D52'   | E ICAO |               |



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| Country | Ctry | Location           | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat. | Remarks      |
|---------|------|--------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|------|--------------|
| China   | CHN  | LONGZI             | VOR/DME | 112.300   | 100/250 | 30     |     | 070X   | 100/250 | 30     | 28D25'00" N | 092D13'   | E    | ICAO         |
| China   | CHN  | LUANXIAN           | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 39D44'00" N | 118D43'   | E    | NAT DVOR     |
| China   | CHN  | LUGUHU             | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 27D32'00" N | 100D45'   | E    | ICAO         |
| China   | CHN  | LUKOU              | VOR/DME | 113.600   | 200/400 | 30     |     | 083X   | 200/400 | 30     | 31D45'00" N | 118D53'   | E    | ICAO         |
| China   | CHN  | LUOCHUAN           | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 35D46'00" N | 109D22'   | E    | ICAO         |
| China   | CHN  | LUOGANG            | VOR/DME | 116.700   | 200/400 | 30     |     | 114X   | 200/400 | 30     | 31D46'00" N | 117D18'   | E    | ICAO DVOR    |
| China   | CHN  | LUOYANG            | ILS     | 108.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 34D44'00" N | 112D24'   | E    | ICAO LUOYANG |
| China   | CHN  | LUOYANG            | ILS     | 109.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 34D44'00" N | 112D22'   | E    | ICAO LUOYANG |
| China   | CHN  | LUOYANG            | VOR/DME | 114.100   | 200/400 | 30     |     | 088X   | 200/400 | 30     | 34D44'00" N | 112D23'   | E    | ICAO DVOR    |
| China   | CHN  | LVLIANG            | VOR/DME | 114.400   | 200/400 | 30     |     | 091X   | 200/400 | 30     | 37D41'00" N | 111D08'   | E    | ICAO         |
| China   | CHN  | LVLIANG DAWU       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 37D41'00" N | 111D08'   | E    | ICAO         |
| China   | CHN  | MALONG             | VOR/DME | 114.600   | 200/400 | 30     |     | 093X   | 200/400 | 30     | 25D31'00" N | 103D36'   | E    | ICAO         |
| China   | CHN  | MANGSHI            | VOR/DME | 114.100   | 200/400 | 30     |     | 088X   | 200/400 | 30     | 24D24'00" N | 098D32'   | E    | ICAO DVOR    |
| China   | CHN  | MANZHOULI          | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 49D33'00" N | 117D21'   | E    | ICAO         |
| China   | CHN  | MANZHOULI          | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 49D34'00" N | 117D18'   | E    | ICAO         |
| China   | CHN  | MANZHOULI          | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 49D19'00" N | 117D38'   | E    | ICAO DVOR    |
| China   | CHN  | MAOTAI             | VOR/DME | 116.000   | 200/400 | 30     |     | 107X   | 200/400 | 30     | 27D56'00" N | 106D26'   | E    | ICAO         |
| China   | CHN  | MEIXIAN            | VOR/DME | 115.000   | 200/400 | 30     |     | 097X   | 200/400 | 30     | 24D13'00" N | 116D04'   | E    | ICAO DVOR    |
| China   | CHN  | MEIZHOU MEIXIAN    | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 24D16'00" N | 116D06'   | E    | NAT          |
| China   | CHN  | MIANYANG           | VOR/DME | 114.800   | 200/400 | 30     |     | 095X   | 200/400 | 30     | 31D26'00" N | 104D43'   | E    | ICAO         |
| China   | CHN  | MIANYANG NANJIAO   | ILS     | 110.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 31D26'00" N | 104D43'   | E    | ICAO         |
| China   | CHN  | MILIN              | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 29D11'00" N | 094D09'   | E    | ICAO DVOR    |
| China   | CHN  | MIZI               | VOR/DME | 109.600   | 200/400 | 30     |     | 033X   | 200/400 | 30     | 34D49'00" N | 108D59'   | E    | ICAO         |
| China   | CHN  | MOHE               | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 52D54'00" N | 122D25'   | E    | ICAO DVOR    |
| China   | CHN  | MOHE GULIAN        | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 52D55'00" N | 122D24'   | E    | ICAO         |
| China   | CHN  | MUDANJIANG         | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 44D30'00" N | 129D33'   | E    | ICAO DVOR    |
| China   | CHN  | MUDANJIANG HAILANG | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 44D30'00" N | 129D33'   | E    | ICAO         |
| China   | CHN  | NALATI             | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 43D26'00" N | 083D22'   | E    | ICAO DVOR    |
| China   | CHN  | NANCHANG CHANGBEI  | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 28D50'00" N | 115D53'   | E    | ICAO         |
| China   | CHN  | NANCHANG CHANGBEI  | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 28D52'00" N | 115D54'   | E    | ICAO         |
| China   | CHN  | NANCHONG           | VOR/DME | 117.400   | 200/400 | 30     |     | 121X   | 200/400 | 30     | 30D48'00" N | 106D11'   | E    | ICAO DVOR    |
| China   | CHN  | NANCHONG GAOPING   | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 30D48'00" N | 106D10'   | E    | ICAO         |
| China   | CHN  | NANFENG            | VOR/DME | 116.650   | 200/400 | 30     |     | 113Y   | 200/400 | 30     | 27D12'00" N | 116D33'   | E    | ICAO         |
| China   | CHN  | NANHUI             | VOR/DME | 114.600   | 200/400 | 30     |     | 093X   | 200/400 | 30     | 31D04'00" N | 121D34'   | E    | NAT DVOR     |
| China   | CHN  | NANJING LUKOU      | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 31D43'00" N | 118D52'   | E    | ICAO         |
| China   | CHN  | NANJING LUKOU      | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 31D45'00" N | 118D52'   | E    | ICAO         |
| China   | CHN  | NANJING LUKOU      | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 31D43'00" N | 118D50'   | E    | ICAO         |
| China   | CHN  | NANJING LUKOU      | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 31D42'00" N | 118D50'   | E    | ICAO         |
| China   | CHN  | NANJING LUKOU      | VOR/DME | 112.000   | 100/250 | 30     |     | 057X   | 100/250 | 30     | 31D44'00" N | 118D51'   | E    | NAT DVOR     |
| China   | CHN  | NANKANG            | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 21D35'00" N | 109D25'   | E    | ICAO DVOR    |
| China   | CHN  | NANLANG            | VOR/DME | 117.700   | 200/400 | 30     |     | 124X   | 200/400 | 30     | 22D31'00" N | 113D33'   | E    | ICAO DVOR    |
| China   | CHN  | NANNING            | VOR/DME | 112.400   | 200/400 | 30     |     | 071X   | 200/400 | 30     | 22D35'00" N | 108D08'   | E    | ICAO         |
| China   | CHN  | NANNING WUXU       | VOR/DME | 114.500   | 100/250 | 30     |     | 092X   | 100/250 | 30     | 22D35'00" N | 108D08'   | E    | ICAO DVOR    |
| China   | CHN  | NANNING WUZUO      | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 22D36'00" N | 108D12'   | E    | ICAO         |
| China   | CHN  | NANNING WUZUO      | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 22D37'00" N | 108D11'   | E    | ICAO         |
| China   | CHN  | NANNING WUZUO      | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 22D35'00" N | 108D09'   | E    | ICAO         |
| China   | CHN  | NANNING WUZUO      | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 22D34'00" N | 108D10'   | E    | ICAO         |
| China   | CHN  | NANNIWAN           | VOR/DME | 114.750   | 200/400 | 30     |     | 094Y   | 200/400 | 30     | 36D25'00" N | 109D29'   | E    | ICAO         |
| China   | CHN  | NANTONG            | VOR/DME | 115.600   | 200/400 | 30     |     | 103X   | 200/400 | 30     | 32D05'00" N | 120D58'   | E    | NAT DVOR     |
| China   | CHN  | NANTONG XINGDONG   | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 32D05'00" N | 120D58'   | E    | ICAO         |



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| Country | Ctry | Location             | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.            | Remarks |
|---------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|-----------------|---------|
| China   | CHN  | NANTONG XINGDONG     | ILS     | 110.100   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 32D04'00" N | 120D58'   | E ICAO          |         |
| China   | CHN  | NANTONG XINGDONG     | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 32D03'00" N | 120D58'   | E ICAO          |         |
| China   | CHN  | NANXIONG             | VOR/DME | 115.600   | 200/400 | 30     |     | 103X   | 200/400 | 30     | 25D05'00" N | 114D16'   | E NAT FI ; DVOR |         |
| China   | CHN  | NANYANG              | VOR/DME | 114.900   | 100/250 | 30     |     | 096X   | 100/250 | 30     | 32D59'00" N | 112D38'   | E ICAO          |         |
| China   | CHN  | NANYANG JIANGYING    | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 32D58'00" N | 112D36'   | E ICAO          |         |
| China   | CHN  | NANYANG JIANGYING    | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 32D59'00" N | 112D37'   | E ICAO          |         |
| China   | CHN  | NANYANGJICHANGCLOSED | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 32D58'00" N | 112D36'   | E ICAO          |         |
| China   | CHN  | NANYINGBINDAO        | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 20D00'00" N | 110D08'   | E NAT DVOR      |         |
| China   | CHN  | NANZUO               | VOR/DME | 116.500   | 200/400 | 30     |     | 112X   | 200/400 | 30     | 30D53'00" N | 120D25'   | E ICAO DVOR     |         |
| China   | CHN  | NINGBO               | VOR/DME | 116.300   | 100/250 | 30     |     | 110X   | 100/250 | 30     | 29D49'00" N | 121D27'   | E ICAO DVOR     |         |
| China   | CHN  | NINGBO ZUOSHE        | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 29D49'00" N | 121D28'   | E ICAO          |         |
| China   | CHN  | NINGBO ZUOSHE        | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 29D50'00" N | 121D26'   | E ICAO          |         |
| China   | CHN  | NINGSHAN             | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 33D19'00" N | 108D18'   | E ICAO DVOR     |         |
| China   | CHN  | NINGZUO ZUOGUHU      | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 27D31'00" N | 100D44'   | E ICAO          |         |
| China   | CHN  | NIUGUNTANG           | VOR/DME | 111.400   | 100/250 | 30     |     | 051X   | 100/250 | 30     | 29D33'00" N | 108D52'   | E ICAO DVOR     |         |
| China   | CHN  | NIULING              | VOR/DME | 116.600   | 200/400 | 30     |     | 113X   | 200/400 | 30     | 23D35'00" N | 116D24'   | E ICAO          |         |
| China   | CHN  | PANLONG              | VOR/DME | 110.800   | 200/400 | 30     |     | 045X   | 200/400 | 30     | 25D24'00" N | 102D56'   | E ICAO          |         |
| China   | CHN  | PANLONG              | VOR/DME | 111.600   | 200/450 | 29     |     | 053X   | 200/450 | 40     | 25D48'00" N | 114D53'00 | E I DVOR        |         |
| China   | CHN  | PANZHIHUA            | VOR/DME | 113.200   | 200/400 | 30     |     | 079X   | 200/400 | 30     | 26D31'00" N | 101D47'   | E ICAO DVOR     |         |
| China   | CHN  | PANZHIHUA BAOANYING  | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D31'00" N | 101D47'   | E ICAO          |         |
| China   | CHN  | PENGLAI              | VOR/DME | 116.400   | 200/400 | 30     |     | 111X   | 200/400 | 30     | 37D40'00" N | 121D00'   | E ICAO          |         |
| China   | CHN  | PINGZHOU             | VOR/DME | 114.100   | 200/400 | 30     |     | 088X   | 200/400 | 30     | 23D01'00" N | 113D11'   | E ICAO DVOR     |         |
| China   | CHN  | PUDONG               | VOR/DME | 116.900   | 200/400 | 30     |     | 116X   | 200/400 | 30     | 31D10'00" N | 121D46'   | E ICAO DVOR     |         |
| China   | CHN  | PUER                 | VOR/DME | 112.100   | 100/250 | 30     |     | 058X   | 100/250 | 30     | 22D45'00" N | 100D57'   | E ICAO          |         |
| China   | CHN  | PUER SIMAO           | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 22D48'00" N | 100D57'   | E ICAO          |         |
| China   | CHN  | PUZEHEI              | VOR/DME | 115.600   | 200/400 | 30     |     | 103X   | 200/400 | 30     | 23D33'00" N | 104D19'   | E ICAO DVOR     |         |
| China   | CHN  | QIANJIANG WULINGSHAN | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 29D31'00" N | 108D50'   | E ICAO          |         |
| China   | CHN  | QIANXI               | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 27D02'00" N | 106D01'   | E NAT DVOR      |         |
| China   | CHN  | QIEMO                | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 38D09'00" N | 085D32'00 | E I DVOR        |         |
| China   | CHN  | QIEMO YUDU           | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D14'00" N | 085D28'   | E ICAO          |         |
| China   | CHN  | QILIAN               | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 38D00'00" N | 100D35'   | E ICAO          |         |
| China   | CHN  | QINGDAO              | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 36D17'00" N | 120D22'   | E ICAO DVOR     |         |
| China   | CHN  | QINGDAO LIUTING      | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 36D14'00" N | 120D22'   | E NAT           |         |
| China   | CHN  | QINGDAO LIUTING      | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 36D17'00" N | 120D22'   | E NAT           |         |
| China   | CHN  | QINGDAOJIAODONG      | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 36D23'00" N | 120D05'   | E ICAO          |         |
| China   | CHN  | QINGDAOJIAODONG      | ILS/DME | 110.150   | 25/62.5 | 20     |     | 038Y   | 25/62.5 | 20     | 36D20'00" N | 120D05'   | E ICAO          |         |
| China   | CHN  | QINGDAOXINJICHANG    | ILS/DME | 109.750   | 25/62.5 | 20     |     | 034Y   | 25/62.5 | 20     | 36D22'00" N | 120D04'   | E ICAO          |         |
| China   | CHN  | QINGDAOXINJICHANG    | ILS/DME | 111.900   | 25/62.5 | 20     |     | 056X   | 25/62.5 | 20     | 36D20'00" N | 120D06'   | E ICAO          |         |
| China   | CHN  | QINGYANG             | VOR/DME | 113.400   | 200/400 | 30     |     | 081X   | 200/400 | 30     | 35D47'00" N | 107D36'   | E ICAO DVOR     |         |
| China   | CHN  | QINGYANG XIFENG      | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 35D48'00" N | 107D35'   | E ICAO          |         |
| China   | CHN  | QINHUANGDAO          | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 39D40'00" N | 119D05'   | E ICAO          |         |
| China   | CHN  | QINHUANGDAO BEIDAIHE | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 39D39'00" N | 119D02'   | E ICAO          |         |
| China   | CHN  | QIONGHAI BOAO        | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 19D07'00" N | 110D27'   | E ICAO          |         |
| China   | CHN  | QIONGHAI BOZUO       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 19D09'00" N | 110D26'   | E ICAO          |         |
| China   | CHN  | QIQIHAER             | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 47D14'00" N | 123D55'   | E ICAO DVOR     |         |
| China   | CHN  | QIQIHAER SANJIAZI    | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 47D13'00" N | 123D55'   | E ICAO          |         |
| China   | CHN  | QIQIHAER SANJIAZI    | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 47D13'00" N | 123D55'   | E ICAO          |         |
| China   | CHN  | QITAI                | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 43D59'00" N | 089D36'   | E ICAO          |         |
| China   | CHN  | QUANZHOU             | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 24D48'00" N | 118D36'00 | E I DVOR        |         |
| China   | CHN  | QUANZHOU JINJIANG    | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 24D47'00" N | 118D34'   | E ICAO          |         |
| China   | CHN  | QUANZHOU JINJIANG    | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 24D48'00" N | 118D35'   | E ICAO          |         |



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| Country | Ctry | Location                   | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat. | Remarks   |
|---------|------|----------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|------|-----------|
| China   | CHN  | RIKAZE                     | VOR/DME | 113.500   | 200/400 | 30     |     | 082X   | 200/400 | 30     | 29D21'00" N | 089D16'   | E    | ICAO DVOR |
| China   | CHN  | RIKAZE DINGRI              | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 28D36'00" N | 086D46'   | E    | ICAO      |
| China   | CHN  | RIZHAO                     | VOR/DME | 113.500   | 200/400 | 30     |     | 082X   | 200/400 | 30     | 35D25'00" N | 119D17'   | E    | ICAO      |
| China   | CHN  | RIZHAO SHANZIHE            | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 35D24'00" N | 119D18'   | E    | ICAO      |
| China   | CHN  | RIZHAO SHANZIHE            | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 35D23'00" N | 119D20'   | E    | ICAO      |
| China   | CHN  | RUOQIANG                   | VOR/DME | 113.700   | 200/400 | 30     |     | 084X   | 200/400 | 30     | 38D57'00" N | 087D59'   | E    | ICAO      |
| China   | CHN  | RUOQIANG LOULAN            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D59'00" N | 088D01'   | E    | ICAO      |
| China   | CHN  | SANJIANG                   | VOR/DME | 116.800   | 200/400 | 30     |     | 115X   | 200/400 | 30     | 25D46'00" N | 109D36'   | E    | ICAO      |
| China   | CHN  | SANMING                    | VOR/DME | 113.700   | 100/250 | 30     |     | 084X   | 100/250 | 30     | 26D24'00" N | 117D48'   | E    | ICAO      |
| China   | CHN  | SANMING SHAXIAN            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 26D26'00" N | 117D50'   | E    | ICAO      |
| China   | CHN  | SANMING SHAXIAN            | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 26D25'00" N | 117D49'   | E    | ICAO      |
| China   | CHN  | SANQINGSHAN                | VOR/DME | 113.850   | 100/250 | 30     |     | 085Y   | 100/250 | 30     | 28D22'00" N | 117D56'   | E    | ICAO      |
| China   | CHN  | SANXIA                     | VOR/DME | 116.900   | 200/400 | 30     |     | 116X   | 200/400 | 30     | 30D33'00" N | 111D28'   | E    | ICAO DVOR |
| China   | CHN  | SANYA                      | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 18D18'00" N | 109D10'   | E    | ICAO DVOR |
| China   | CHN  | SANYA FENGHUANG            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 18D18'00" N | 109D23'   | E    | ICAO      |
| China   | CHN  | SANYA FENGHUANG            | ILS/DME | 109.500   | 25/62.5 | 20     |     | 032X   | 25/62.5 | 20     | 18D18'00" N | 109D25'   | E    | NAT FI    |
| China   | CHN  | SHACHE                     | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 38D25'00" N | 077D14'   | E    | ICAO DVOR |
| China   | CHN  | SHACHE YEERQIANG           | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D15'00" N | 077D02'   | E    | ICAO      |
| China   | CHN  | SHANAN LONGZI              | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 28D25'00" N | 092D19'   | E    | ICAO      |
| China   | CHN  | SHANGHAI HONGQIAO          | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 31D12'00" N | 121D20'   | E    | ICAO      |
| China   | CHN  | SHANGHAI HONGQIAO          | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 31D11'00" N | 121D20'   | E    | ICAO      |
| China   | CHN  | SHANGHAI HONGQIAO          | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 31D10'00" N | 121D20'   | E    | ICAO      |
| China   | CHN  | SHANGHAI HONGQIAO          | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 31D12'00" N | 121D19'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 108.100   | 25/62.5 | 20     |     | 018X   | 25/62.5 | 20     | 31D09'00" N | 121D46'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 31D09'00" N | 121D48'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 31D09'00" N | 121D50'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 31D07'00" N | 121D49'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 31D09'00" N | 121D48'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 31D07'00" N | 121D48'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 31D07'00" N | 121D47'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 31D07'00" N | 121D49'   | E    | ICAO      |
| China   | CHN  | SHANGHAI PUDONG            | ILS     | 111.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 31D09'00" N | 121D47'   | E    | ICAO      |
| China   | CHN  | SHANGHAIPUDONG             | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 30D57'00" N | 121D52'00 | E    | I DVOR    |
| China   | CHN  | SHANGHAIPUDONG             | VOR/DME | 114.400   | 200/450 | 29     |     | 091X   | 200/450 | 40     | 31D22'00" N | 121D51'00 | E    | I DVOR    |
| China   | CHN  | SHANGHAIPUDONG             | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 30D15'00" N | 121D13'00 | E    | I DVOR    |
| China   | CHN  | SHANGMA                    | VOR/DME | 116.250   | 100/250 | 30     |     | 109Y   | 100/250 | 30     | 36D17'00" N | 120D15'   | E    | ICAO      |
| China   | CHN  | SHANGRAO                   | VOR/DME | 114.000   | 200/400 | 30     |     | 087X   | 200/400 | 30     | 28D25'00" N | 117D58'   | E    | ICAO DVOR |
| China   | CHN  | SHANGRAO SANQINGSHAN       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 28D23'00" N | 117D58'   | E    | ICAO      |
| China   | CHN  | SHANGXIAN                  | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 33D52'00" N | 109D56'   | E    | ICAO DVOR |
| China   | CHN  | SHANHAIGUAN                | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 39D58'00" N | 119D44'   | E    | ICAO      |
| China   | CHN  | SHANTOU                    | VOR/DME | 112.600   | 200/400 | 30     |     | 073X   | 200/400 | 30     | 23D26'00" N | 116D46'   | E    | NAT DVOR  |
| China   | CHN  | SHANTOUJICHANG             | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 23D26'00" N | 116D46'   | E    | NAT       |
| China   | CHN  | SHAOYANG WUGANG            | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 26D49'00" N | 110D38'   | E    | ICAO      |
| China   | CHN  | SHAZIYING                  | VOR/DME | 117.200   | 100/250 | 30     |     | 119X   | 100/250 | 30     | 40D06'00" N | 116D25'   | E    | ICAO DVOR |
| China   | CHN  | SHEKOU                     | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 22D29'00" N | 113D54'   | E    | NAT DVOR  |
| China   | CHN  | SHENNONGJIA                | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 31D37'00" N | 110D20'   | E    | ICAO      |
| China   | CHN  | SHENNONGJIAHONGPINGJICHANG | ILS/DME | 109.750   | 25/62.5 | 20     |     | 034Y   | 25/62.5 | 20     | 31D38'00" N | 110D20'   | E    | ICAO      |
| China   | CHN  | SHENYANG                   | VOR/DME | 114.100   | 200/400 | 30     |     | 088X   | 200/400 | 30     | 41D38'00" N | 123D28'   | E    | ICAO DVOR |
| China   | CHN  | SHENYANG TAOXIAN           | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 41D37'00" N | 123D28'   | E    | ICAO      |
| China   | CHN  | SHENYANG TAOXIAN           | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 41D39'00" N | 123D30'   | E    | ICAO      |



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| Country | Ctry | Location                | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.                 | Remarks |
|---------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|----------------------|---------|
| China   | CHN  | SHENZUO BAOAN           | ILS/DME | 108.100   | 25/62.5 | 20     |     | 018X   | 25/62.5 | 20     | 22D37°00" N | 113D48'   | E ICAO               |         |
| China   | CHN  | SHENZUO BAOAN           | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 22D39°00" N | 113D47'   | E ICAO               |         |
| China   | CHN  | SHENZUO BAOAN           | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 22D39°00" N | 113D48'   | E ICAO               |         |
| China   | CHN  | SHENZUO BAOAN           | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 22D37°00" N | 113D49'   | E ICAO               |         |
| China   | CHN  | SHENZUO BAOAN           | VOR/DME | 115.300   | 100/250 | 30     |     | 100X   | 100/250 | 30     | 22D38°00" N | 113D48'   | E ICAO               |         |
| China   | CHN  | SHIHEZI                 | VOR/DME | 114.800   | 200/400 | 30     |     | 095X   | 200/400 | 30     | 44D14°00" N | 085D55'   | E ICAO               |         |
| China   | CHN  | SHIHEZI HUAYUAN         | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 44D14°00" N | 085D52'   | E ICAO               |         |
| China   | CHN  | SHUIJIAHUANG ZHENG DING | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 38D15°00" N | 114D42'   | E ICAO               |         |
| China   | CHN  | SHUIJIAHUANG ZHENG DING | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 38D17°00" N | 114D41'   | E ICAO               |         |
| China   | CHN  | SHILONG                 | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 23D05°00" N | 113D51'   | E ICAO DVOR          |         |
| China   | CHN  | SHIQUANHE               | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 32D27°00" N | 080D03'   | E ICAO DVOR          |         |
| China   | CHN  | SHIYAN WUDANGSHAN       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 32D36°00" N | 110D53'   | E ICAO               |         |
| China   | CHN  | SHIZUO                  | VOR/DME | 115.750   | 200/400 | 30     |     | 104Y   | 200/400 | 30     | 31D40°00" N | 118D58'   | E ICAO               |         |
| China   | CHN  | SHIZUO                  | VOR/DME | 117.550   | 100/250 | 30     |     | 122Y   | 100/250 | 30     | 29D42°00" N | 107D00'   | E ICAO               |         |
| China   | CHN  | SHUANG LIU              | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 30D34°00" N | 103D56'   | E ICAO               |         |
| China   | CHN  | SHUOFANG                | VOR/DME | 114.100   | 200/400 | 30     |     | 088X   | 200/400 | 30     | 31D29°00" N | 120D26'   | E ICAO DVOR          |         |
| China   | CHN  | SHUYUAN                 | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 30D55°00" N | 121D52'   | E ICAO               |         |
| China   | CHN  | SHUYUAN                 | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 30D57°00" N | 121D52'00 | E I DVOR             |         |
| China   | CHN  | SONGYUAN                | VOR/DME | 113.400   | 200/400 | 30     |     | 081X   | 200/400 | 30     | 44D54°00" N | 124D31'   | E ICAO               |         |
| China   | CHN  | SONGYUAN CHAGANHU       | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 44D55°00" N | 124D32'   | E ICAO               |         |
| China   | CHN  | SUINING                 | VOR/DME | 111.600   | 100/250 | 30     |     | 053X   | 100/250 | 30     | 30D28°00" N | 105D36'   | E ICAO               |         |
| China   | CHN  | TACHENG                 | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 46D39°00" N | 083D22'   | E ICAO DVOR          |         |
| China   | CHN  | TACHENG QIANQUAN        | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 46D40°00" N | 083D19'   | E ICAO               |         |
| China   | CHN  | TACHENG QIANQUAN        | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 46D39°00" N | 083D21'   | E ICAO               |         |
| China   | CHN  | TAIYUAN                 | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 37D44°00" N | 112D37'   | E ICAO DME NAT; DVOR |         |
| China   | CHN  | TAIYUAN WUSU            | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 37D45°00" N | 112D36'   | E ICAO               |         |
| China   | CHN  | TAIYUAN WUSU            | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 37D44°00" N | 112D38'   | E ICAO               |         |
| China   | CHN  | TAIZHOU                 | VOR/DME | 115.200   | 100/250 | 30     |     | 099X   | 100/250 | 30     | 28D34°00" N | 121D26'   | E ICAO DVOR          |         |
| China   | CHN  | TAIZHOU LUQIAO          | ILS/DME | 110.550   | 25/62.5 | 20     |     | 042Y   | 25/62.5 | 20     | 28D32°00" N | 121D25'   | E ICAO               |         |
| China   | CHN  | TAIZHOU LUQIAO          | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 28D34°00" N | 121D26'   | E ICAO               |         |
| China   | CHN  | TANGSHAN                | VOR/DME | 113.200   | 200/400 | 30     |     | 079X   | 200/400 | 30     | 39D42°00" N | 118D00'   | E ICAO DVOR          |         |
| China   | CHN  | TANGSHAN SANNVHE        | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 39D43°00" N | 117D58'   | E ICAO               |         |
| China   | CHN  | TAOHUA                  | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 31D46°00" N | 117D07'   | E ICAO               |         |
| China   | CHN  | TAOJIAGONG              | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 42D50°00" N | 093D40'   | E ICAO DVOR          |         |
| China   | CHN  | TAOLAI                  | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 42D01°00" N | 100D58'   | E ICAO               |         |
| China   | CHN  | TASHIKUERGANJI CHANG    | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 37D40°00" N | 075D16'   | E ICAO               |         |
| China   | CHN  | TAXIANBEI               | VOR/DME | 114.700   | 100/250 | 30     |     | 094X   | 100/250 | 30     | 37D48°00" N | 075D12'   | E ICAO               |         |
| China   | CHN  | TAXIANNAN               | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 37D32°00" N | 075D21'   | E ICAO               |         |
| China   | CHN  | TENGCHONG               | VOR/DME | 111.200   | 200/400 | 30     |     | 049X   | 200/400 | 30     | 24D56°00" N | 098D28'   | E ICAO DVOR          |         |
| China   | CHN  | TENGCHONG TUOFENG       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 24D55°00" N | 098D29'   | E ICAO               |         |
| China   | CHN  | TIANHE                  | VOR/DME | 112.200   | 200/400 | 30     |     | 059X   | 200/400 | 30     | 30D46°00" N | 114D12'   | E ICAO DVOR          |         |
| China   | CHN  | TIANJIN                 | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 39D06°00" N | 117D21'   | E ICAO DVOR          |         |
| China   | CHN  | TIANJIN BINHAI          | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 39D06°00" N | 117D22'   | E ICAO               |         |
| China   | CHN  | TIANJIN BINHAI          | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 39D08°00" N | 117D20'   | E ICAO               |         |
| China   | CHN  | TIANJIN BINHAI          | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 39D06°00" N | 117D21'   | E ICAO               |         |
| China   | CHN  | TIANJIN BINHAI          | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 39D08°00" N | 117D21'   | E ICAO               |         |
| China   | CHN  | TIANMEN                 | VOR/DME | 108.800   | 200/400 | 30     |     | 025X   | 200/400 | 30     | 30D38°00" N | 113D08'   | E ICAO               |         |
| China   | CHN  | TIANSHAN                | VOR/DME | 112.050   | 100/250 | 30     |     | 057Y   | 100/250 | 30     | 30D41°00" N | 115D07'   | E ICAO               |         |
| China   | CHN  | TIANSHUI                | VOR/DME | 112.800   | 200/400 | 30     |     | 075X   | 200/400 | 30     | 34D33°00" N | 105D49'   | E ICAO DVOR          |         |
| China   | CHN  | TIANSHUI MAIJISHAN      | ILS     | 108.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 34D33°00" N | 105D52'   | E ICAO               |         |
| China   | CHN  | TIANYANG                | VOR/DME | 117.600   | 100/250 | 30     |     | 123X   | 100/250 | 30     | 23D42°00" N | 106D57'   | E ICAO DVOR          |         |



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| Country | Ctry | Location                | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat. | Remarks   |
|---------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|------|-----------|
| China   | CHN  | TIANZHEN                | VOR/DME | 115.600   | 200/400 | 30     |     | 103X   | 200/400 | 30     | 40D24'00" N | 114D03'   | E    | ICAO DVOR |
| China   | CHN  | TIAOMA                  | VOR/DME | 114.050   | 200/400 | 30     |     | 087Y   | 200/400 | 30     | 27D59'00" N | 113D07'   | E    | ICAO      |
| China   | CHN  | TONGHUA                 | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 42D04'00" N | 125D45'   | E    | ICAO      |
| China   | CHN  | TONGHUA SANYUANPU       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 42D02'00" N | 125D43'   | E    | ICAO      |
| China   | CHN  | TONGLIAO                | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 43D34'00" N | 122D12'   | E    | ICAO      |
| China   | CHN  | TONGLIAO                | VOR/DME | 116.300   | 200/400 | 30     |     | 110X   | 200/400 | 30     | 43D33'00" N | 122D11'   | E    | ICAO DVOR |
| China   | CHN  | TONGLU                  | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 29D45'00" N | 119D39'   | E    | ICAO DVOR |
| China   | CHN  | TONGREN                 | VOR/DME | 115.200   | 200/400 | 30     |     | 099X   | 200/400 | 30     | 27D52'00" N | 109D17'   | E    | NAT DVOR  |
| China   | CHN  | TONGREN FENGHUANG       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 27D53'00" N | 109D19'   | E    | ICAO      |
| China   | CHN  | TONGSHAN                | VOR/DME | 112.600   | 200/400 | 30     |     | 073X   | 200/400 | 30     | 34D05'00" N | 117D11'   | E    | ICAO DVOR |
| China   | CHN  | TULUFAN                 | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 43D01'00" N | 089D07'   | E    | ICAO      |
| China   | CHN  | TULUFAN JIAOHE          | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 43D01'00" N | 089D07'   | E    | ICAO      |
| China   | CHN  | TUMUERTAI               | VOR/DME | 113.300   | 200/400 | 30     |     | 080X   | 200/400 | 30     | 41D50'00" N | 113D09'   | E    | ICAO DVOR |
| China   | CHN  | TUMUSHUKE               | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 39D52'00" N | 079D13'   | E    | ICAO      |
| China   | CHN  | TUMUSHUKE TANGWANGCHENG | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 39D54'00" N | 079D14'   | E    | ICAO      |
| China   | CHN  | WANCHANG                | VOR/DME | 115.900   | 200/400 | 30     |     | 106X   | 200/400 | 30     | 43D46'00" N | 125D51'   | E    | ICAO DVOR |
| China   | CHN  | WANGJIACHUAN            | VOR/DME | 115.200   | 100/250 | 30     |     | 099X   | 100/250 | 30     | 36D46'00" N | 103D26'   | E    | ICAO      |
| China   | CHN  | WANGQING                | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 43D17'00" N | 129D47'   | E    | ICAO DVOR |
| China   | CHN  | WANZHOU                 | VOR/DME | 109.200   | 200/400 | 30     |     | 029X   | 200/400 | 30     | 30D48'00" N | 108D25'   | E    | ICAO DVOR |
| China   | CHN  | WANZHOU WUQIAO          | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 30D48'00" N | 108D25'   | E    | ICAO      |
| China   | CHN  | WANZHOU WUQIAO          | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 30D47'00" N | 108D26'   | E    | ICAO      |
| China   | CHN  | WEIFANG                 | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 36D39'00" N | 119D06'   | E    | ICAO      |
| China   | CHN  | WEIFANG                 | VOR/DME | 116.600   | 200/400 | 30     |     | 113X   | 200/400 | 30     | 36D38'00" N | 119D07'   | E    | NAT DVOR  |
| China   | CHN  | WEIHAI                  | VOR/DME | 115.800   | 200/400 | 30     |     | 105X   | 200/400 | 30     | 37D11'00" N | 122D13'   | E    | NAT DVOR  |
| China   | CHN  | WEIHAI DASHUIBO         | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 37D12'00" N | 122D14'   | E    | ICAO      |
| China   | CHN  | WEIHAI WENDENG          | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 37D10'00" N | 122D13'   | E    | ICAO      |
| China   | CHN  | WEINING CAOHA           | ILS/DME | 111.350   | 25/62.5 | 20     |     | 050Y   | 25/62.5 | 20     | 26D50'00" N | 104D20'   | E    | ICAO      |
| China   | CHN  | WEINING CAOHA           | VOR/DME | 113.550   | 100/250 | 30     |     | 082Y   | 100/250 | 30     | 26D51'00" N | 104D20'   | E    | ICAO      |
| China   | CHN  | WEISHI                  | VOR/DME | 117.400   | 200/400 | 30     |     | 121X   | 200/400 | 30     | 34D19'00" N | 114D04'   | E    | ICAO      |
| China   | CHN  | WEIXIAN                 | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 36D21'00" N | 114D55'   | E    | ICAO DVOR |
| China   | CHN  | WENCHANG                | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 19D51'00" N | 110D47'   | E    | ICAO      |
| China   | CHN  | WENGYUAN                | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 24D20'00" N | 114D06'   | E    | ICAO DVOR |
| China   | CHN  | WENSHAN YANSHAN         | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 23D32'00" N | 104D19'   | E    | ICAO      |
| China   | CHN  | WENZHO                  | VOR/DME | 109.200   | 200/450 | 29     |     | 029X   | 200/450 | 40     | 27D45'00" N | 120D38'00 | E    | I DVOR    |
| China   | CHN  | WENZHO                  | VOR/DME | 116.400   | 100/250 | 30     |     | 111X   | 100/250 | 30     | 27D55'00" N | 120D51'   | E    | NAT DVOR  |
| China   | CHN  | WENZHO LONGWAN          | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 27D53'00" N | 120D50'   | E    | ICAO      |
| China   | CHN  | WENZHO LONGWAN          | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 27D55'00" N | 120D51'   | E    | ICAO      |
| China   | CHN  | WUCHUAN                 | VOR/DME | 116.250   | 100/250 | 30     |     | 109Y   | 100/250 | 30     | 21D29'00" N | 110D41'   | E    | ICAO      |
| China   | CHN  | WUDALIANCHI             | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 48D26'00" N | 126D05'   | E    | ICAO      |
| China   | CHN  | WUDALIANCHI DEDU        | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 48D26'00" N | 126D06'   | E    | ICAO      |
| China   | CHN  | WUDANGSHAN              | VOR/DME | 115.150   | 200/400 | 30     |     | 098Y   | 200/400 | 30     | 32D34'00" N | 110D56'   | E    | ICAO      |
| China   | CHN  | WUFENGXI                | VOR/DME | 117.100   | 200/400 | 30     |     | 118X   | 200/400 | 30     | 30D36'00" N | 104D29'   | E    | NAT DVOR  |
| China   | CHN  | WUGANG                  | VOR/DME | 114.550   | 200/400 | 30     |     | 092Y   | 200/400 | 30     | 26D47'00" N | 110D37'   | E    | ICAO      |
| China   | CHN  | WUHAI                   | ILS     | 108.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 39D46'00" N | 106D47'   | E    | ICAO      |
| China   | CHN  | WUHAI                   | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 39D47'00" N | 106D47'   | E    | ICAO DVOR |
| China   | CHN  | WUHAN                   | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 30D46'00" N | 114D12'00 | E    | I         |
| China   | CHN  | WUHAN                   | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 30D48'00" N | 114D13'00 | E    | I FI      |
| China   | CHN  | WUHAN TIANHE            | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 30D46'00" N | 114D11'   | E    | ICAO      |
| China   | CHN  | WUHAN TIANHE            | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 30D47'00" N | 114D13'   | E    | ICAO      |
| China   | CHN  | WUHAN TIANHE            | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 30D45'00" N | 114D12'   | E    | ICAO      |



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| Country | Ctry | Location                                | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude | Cat.        | Remarks |
|---------|------|-----------------------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-----------|-------------|---------|
| China   | CHN  | WUHAN TIANHE                            | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 30D47°00" N | 114D14'   | E ICAO      |         |
| China   | CHN  | WUHU                                    | VOR/DME | 115.450   | 200/400 | 30     |     | 101Y   | 200/400 | 30     | 31D05°00" N | 118D38'   | E ICAO      |         |
| China   | CHN  | WUHU XUANZHOU                           | ILS/DME | 109.950   | 25/62.5 | 20     |     | 036Y   | 25/62.5 | 20     | 31D06°00" N | 118D40'   | E ICAO      |         |
| China   | CHN  | WUHU XUANZHOU                           | ILS/DME | 111.550   | 25/62.5 | 20     |     | 052Y   | 25/62.5 | 20     | 31D05°00" N | 118D39'   | E ICAO      |         |
| China   | CHN  | WUJIASHAN                               | VOR/DME | 109.400   | 100/250 | 30     |     | 031X   | 100/250 | 30     | 31D03°00" N | 104D25'   | E ICAO      |         |
| China   | CHN  | WULANCHABU                              | VOR/DME | 115.100   | 200/400 | 30     |     | 098X   | 200/400 | 30     | 41D07°00" N | 113D04'   | E ICAO      |         |
| China   | CHN  | WULANCHABU JINING                       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 41D07°00" N | 113D05'   | E ICAO      |         |
| China   | CHN  | WULANHAOTE                              | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 46D11°00" N | 122D01'   | E ICAO DVOR |         |
| China   | CHN  | WULANHAOTE YILELITE                     | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 46D12°00" N | 121D58'   | E ICAO      |         |
| China   | CHN  | WULIANGYE                               | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 28D50°00" N | 104D33'   | E ICAO      |         |
| China   | CHN  | WULONG                                  | VOR/DME | 115.650   | 200/400 | 30     |     | 103Y   | 200/400 | 30     | 29D28°00" N | 107D41'   | E ICAO      |         |
| China   | CHN  | WULUMUQI                                | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 43D54°00" N | 087D30'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 43D55°00" N | 087D26'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 43D55°00" N | 087D29'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 43D54°00" N | 087D29'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 43D54°00" N | 087D26'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 43D55°00" N | 087D29'   | E ICAO      |         |
| China   | CHN  | WULUMUQI DIWOBAO                        | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 43D55°00" N | 087D27'   | E ICAO      |         |
| China   | CHN  | WULUMUQIDIWOPUJICHANG                   | VOR/DME | 115.700   | 100/250 | 30     |     | 104X   | 100/250 | 30     | 43D54°00" N | 087D28'   | E ICAO DVOR |         |
| China   | CHN  | WUSHAN                                  | VOR/DME | 112.150   | 200/400 | 30     |     | 058Y   | 200/400 | 30     | 31D04°00" N | 109D42'   | E ICAO      |         |
| China   | CHN  | WUTAISHAN                               | VOR/DME | 116.500   | 200/400 | 30     |     | 112X   | 200/400 | 30     | 38D35°00" N | 112D55'   | E ICAO      |         |
| China   | CHN  | WUXI                                    | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 31D44°00" N | 120D11'   | E ICAO DVOR |         |
| China   | CHN  | WUXI                                    | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 31D35°00" N | 120D21°00 | E I DVOR    |         |
| China   | CHN  | WUXI SHUOFANG                           | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 31D28°00" N | 120D25'   | E ICAO      |         |
| China   | CHN  | WUXI SHUOFANG                           | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 31D30°00" N | 120D26'   | E ICAO      |         |
| China   | CHN  | WUYISHAN                                | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 27D42°00" N | 118D00'   | E ICAO      |         |
| China   | CHN  | WUYISHAN                                | VOR/DME | 117.900   | 200/400 | 30     |     | 126X   | 200/400 | 30     | 27D40°00" N | 117D59'   | E ICAO DVOR |         |
| China   | CHN  | WUZHONG                                 | VOR/DME | 112.400   | 200/400 | 30     |     | 071X   | 200/400 | 30     | 37D55°00" N | 106D20'   | E ICAO      |         |
| China   | CHN  | WUZHOU                                  | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 23D22°00" N | 111D04'   | E ICAO      |         |
| China   | CHN  | WUZHOU XIJIANG                          | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 23D23°00" N | 111D05'   | E ICAO      |         |
| China   | CHN  | WUZHOU XIJIANG                          | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 23D24°00" N | 111D06'   | E ICAO      |         |
| China   | CHN  | WUZHOUJICHANG_CLOSED                    | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 23D27°00" N | 111D14'   | E ICAO      |         |
| China   | CHN  | XIABATANG                               | VOR/DME | 114.100   | 100/250 | 30     |     | 088X   | 100/250 | 30     | 32D47°00" N | 097D16'   | E ICAO DVOR |         |
| China   | CHN  | XIAHE                                   | VOR/DME | 116.900   | 200/400 | 30     |     | 116X   | 200/400 | 30     | 34D48°00" N | 102D39'   | E ICAO      |         |
| China   | CHN  | XIAMEN                                  | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 24D32°00" N | 118D07'   | E ICAO DVOR |         |
| China   | CHN  | XIAMEN GAOQI                            | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 24D32°00" N | 118D06'   | E ICAO      |         |
| China   | CHN  | XIAMEN GAOQI                            | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 24D33°00" N | 118D08'   | E ICAO      |         |
| China   | CHN  | XIAN XIANYANG                           | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 34D26°00" N | 108D47'   | E ICAO      |         |
| China   | CHN  | XIAN XIANYANG                           | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 34D27°00" N | 108D46'   | E NAT       |         |
| China   | CHN  | XIAN XIANYANG                           | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 34D26°00" N | 108D44'   | E NAT       |         |
| China   | CHN  | XIAN XIANYANG                           | ILS/DME | 111.100   | 25/62.5 | 20     |     | 048X   | 25/62.5 | 20     | 34D25°00" N | 108D44'   | E ICAO      |         |
| China   | CHN  | XIANGTANG                               | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 28D25°00" N | 115D55'   | E ICAO DVOR |         |
| China   | CHN  | XIANGYANG LIUJI                         | ILS/DME | 109.350   | 25/62.5 | 20     |     | 030Y   | 25/62.5 | 20     | 32D09°00" N | 112D17'   | E ICAO      |         |
| China   | CHN  | XIANGYANG LIUJI                         | ILS/DME | 110.550   | 25/62.5 | 20     |     | 042Y   | 25/62.5 | 20     | 32D08°00" N | 112D17'   | E ICAO      |         |
| China   | CHN  | XIANKANG                                | VOR/DME | 115.600   | 100/250 | 30     |     | 103X   | 100/250 | 30     | 32D46°00" N | 108D39'   | E ICAO      |         |
| China   | CHN  | XIAODANYANG                             | VOR/DME | 115.150   | 200/400 | 30     |     | 098Y   | 200/400 | 30     | 31D40°00" N | 118D43'   | E ICAO      |         |
| China   | CHN  | XICANGLINZHUIJICHANGHANGXIANGTAI        | ILS     | 109.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 29D18°00" N | 094D20'   | E ICAO      |         |
| China   | CHN  | XICANGLINZHUIJICHANGMILINHANGXIANGTAI   | ILS     | 110.100   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 29D11°00" N | 094D11'   | E ICAO      |         |
| China   | CHN  | XICANGLINZHUIJICHANGXIALONGHANGXIANGTAI | ILS     | 108.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 29D18°00" N | 094D21'   | E ICAO      |         |
| China   | CHN  | XICHANG                                 | VOR/DME | 114.200   | 200/400 | 30     |     | 089X   | 200/400 | 30     | 28D00°00" N | 102D10'   | E ICAO DVOR |         |
| China   | CHN  | XICHANG QINGSHAN                        | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 28D00°00" N | 102D11'   | E ICAO      |         |



## Order: Country\_Location\_Frequency

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| Country | Ctry | Location             | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks   |
|---------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|-----------|
| China   | CHN  | XIDINGRI             | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 28D36'00" N | 086D38' E   | ICAO |           |
| China   | CHN  | XILINHAOTE           | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 43D53'00" N | 115D57' E   | ICAO |           |
| China   | CHN  | XILINHAOTE           | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 43D54'00" N | 115D57' E   | ICAO | DVOR      |
| China   | CHN  | XINGLIN              | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 24D34'00" N | 118D00' E   | ICAO |           |
| China   | CHN  | XINGYI               | VOR/DME | 113.800   | 200/400 | 30     |     | 085X   | 200/400 | 30     | 25D03'00" N | 104D58' E   | ICAO | DVOR      |
| China   | CHN  | XINGYI WANFENGLIN    | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 25D04'00" N | 104D58' E   | ICAO |           |
| China   | CHN  | XINING               | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 36D32'00" N | 102D02'00 E | I    |           |
| China   | CHN  | XINING               | VOR/DME | 116.500   | 200/400 | 30     |     | 112X   | 200/400 | 30     | 36D31'00" N | 102D01' E   | ICAO | DVOR      |
| China   | CHN  | XINING CAOJIABAO     | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 36D32'00" N | 102D00' E   | ICAO |           |
| China   | CHN  | XINING CAOJIABAO     | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 36D31'00" N | 102D03' E   | ICAO |           |
| China   | CHN  | XINQIAO              | VOR/DME | 109.800   | 100/250 | 30     |     | 035X   | 100/250 | 30     | 32D00'00" N | 116D57' E   | ICAO |           |
| China   | CHN  | XINYANG              | VOR/DME | 117.600   | 200/400 | 30     |     | 123X   | 200/400 | 30     | 32D31'00" N | 114D03' E   | ICAO |           |
| China   | CHN  | XINYANG MINGGANG     | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 32D32'00" N | 114D05' E   | ICAO |           |
| China   | CHN  | XINYUAN NALATI       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 43D25'00" N | 083D21' E   | ICAO |           |
| China   | CHN  | XINZHENG             | VOR/DME | 114.500   | 200/400 | 30     |     | 092X   | 200/400 | 30     | 34D31'00" N | 113D50' E   | NAT  | DVOR      |
| China   | CHN  | XINZHOU WUTAISHAN    | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 38D35'00" N | 112D56' E   | ICAO |           |
| China   | CHN  | XISHAN               | VOR/DME | 110.600   | 200/400 | 30     |     | 043X   | 200/400 | 30     | 25D04'00" N | 102D31' E   | ICAO |           |
| China   | CHN  | XISHUANGBANNA        | VOR/DME | 116.300   | 100/250 | 30     |     | 110X   | 100/250 | 30     | 21D58'00" N | 100D45' E   | ICAO | DVOR      |
| China   | CHN  | XISHUANGBANNA GASA   | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 21D57'00" N | 100D46' E   | ICAO |           |
| China   | CHN  | XISHUANGBANNA GASA   | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 21D59'00" N | 100D45' E   | ICAO |           |
| China   | CHN  | XUEJIADAO            | VOR/DME | 117.000   | 200/400 | 30     |     | 117X   | 200/400 | 30     | 35D57'00" N | 120D14' E   | ICAO | DVOR      |
| China   | CHN  | XUYONG               | VOR/DME | 116.700   | 200/400 | 30     |     | 114X   | 200/400 | 30     | 28D10'00" N | 105D25' E   | NAT  | FI ; DVOR |
| China   | CHN  | XUZHOU               | VOR/DME | 114.300   | 200/400 | 30     |     | 090X   | 200/400 | 30     | 34D03'00" N | 117D32' E   | ICAO | DVOR      |
| China   | CHN  | XUZHOU GUANYIN       | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 34D03'00" N | 117D32' E   | ICAO |           |
| China   | CHN  | XUZHOU GUANYIN       | ILS/DME | 111.350   | 25/62.5 | 20     |     | 050Y   | 25/62.5 | 20     | 34D03'00" N | 117D34' E   | ICAO |           |
| China   | CHN  | YABULAI              | VOR/DME | 115.700   | 200/400 | 30     |     | 104X   | 200/400 | 30     | 39D25'00" N | 102D46' E   | ICAO | DVOR      |
| China   | CHN  | YANAN NANNIWAN       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 36D29'00" N | 109D27' E   | ICAO |           |
| China   | CHN  | YANANJICHANG         | VOR/DME | 114.600   | 100/250 | 30     |     | 093X   | 100/250 | 30     | 36D41'00" N | 109D38' E   | ICAO | DVOR      |
| China   | CHN  | YANCHENG             | VOR/DME | 115.300   | 200/400 | 30     |     | 100X   | 200/400 | 30     | 33D25'00" N | 120D12' E   | ICAO | DVOR      |
| China   | CHN  | YANCHENG NANYANG     | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 33D26'00" N | 120D13' E   | ICAO |           |
| China   | CHN  | YANCHENG NANYANG     | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 33D24'00" N | 120D11' E   | ICAO |           |
| China   | CHN  | YANGZHOU             | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 32D32'00" N | 119D43' E   | ICAO |           |
| China   | CHN  | YANGZHOU TAIZHOU     | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 32D35'00" N | 119D42' E   | ICAO |           |
| China   | CHN  | YANGZHOU TAIZHOU     | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 32D33'00" N | 119D43' E   | ICAO |           |
| China   | CHN  | YANJI                | VOR/DME | 113.100   | 200/400 | 30     |     | 078X   | 200/400 | 30     | 42D53'00" N | 129D27' E   | ICAO | DVOR      |
| China   | CHN  | YANJI CHAOYANGCHUAN  | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 42D53'00" N | 129D28' E   | ICAO |           |
| China   | CHN  | YANJI CHAOYANGCHUAN  | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 42D52'00" N | 129D25' E   | ICAO |           |
| China   | CHN  | YANTAI PENGLAI       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 37D38'00" N | 120D57' E   | ICAO |           |
| China   | CHN  | YANTAI PENGLAI       | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 37D40'00" N | 120D59' E   | ICAO |           |
| China   | CHN  | YANTAILAISHANJICHANG | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 37D24'00" N | 121D22' E   | ICAO |           |
| China   | CHN  | YANTAILAISHANJICHANG | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 37D23'00" N | 121D21' E   | ICAO |           |
| China   | CHN  | YANTAILAISHANJICHANG | VOR/DME | 112.500   | 100/250 | 30     |     | 072X   | 100/250 | 30     | 37D22'00" N | 121D21' E   | ICAO | DVOR      |
| China   | CHN  | YEERQIANG            | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 38D13'00" N | 077D04' E   | ICAO |           |
| China   | CHN  | YIBIN WULIANGYE      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 28D51'00" N | 104D30' E   | ICAO |           |
| China   | CHN  | YIBINJICHANG         | ILS     | 109.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 28D48'00" N | 104D32' E   | ICAO |           |
| China   | CHN  | YIBINJICHANG         | VOR/DME | 116.500   | 100/250 | 30     |     | 112X   | 100/250 | 30     | 28D47'00" N | 104D33' E   | ICAO | DVOR      |
| China   | CHN  | YICHANG              | ILS     | 109.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 30D33'00" N | 111D30'00 E | I    |           |
| China   | CHN  | YICHANG SANXIA       | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 30D32'00" N | 111D29' E   | ICAO |           |
| China   | CHN  | YICHUN               | VOR/DME | 110.800   | 200/400 | 30     |     | 045X   | 200/400 | 30     | 27D49'00" N | 114D19' E   | ICAO |           |
| China   | CHN  | YICHUN               | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 47D45'00" N | 129D01' E   | ICAO | DVOR      |



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| Country | Ctry | Location              | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat.            | Remarks |
|---------|------|-----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|-----------------|---------|
| China   | CHN  | YICHUN LINDU          | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 47D45'00" N | 128D59'     | E ICAO          |         |
| China   | CHN  | YICHUN LINDU          | ILS/DME | 110.900   | 25/62.5 | 20     |     | 046X   | 25/62.5 | 20     | 47D44'00" N | 129D02'     | E ICAO          |         |
| China   | CHN  | YICHUN MINGYUESHAN    | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 27D48'00" N | 114D19'     | E ICAO          |         |
| China   | CHN  | YIJUN                 | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 35D23'00" N | 109D06'00 E | I DVOR          |         |
| China   | CHN  | YINCHUAN              | VOR/DME | 112.000   | 200/400 | 30     |     | 057X   | 200/400 | 30     | 38D20'00" N | 106D24'     | E ICAO          |         |
| China   | CHN  | YINCHUAN HEDONG       | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D19'00" N | 106D24'     | E ICAO          |         |
| China   | CHN  | YINCHUAN HEDONG       | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 38D20'00" N | 106D24'     | E ICAO          |         |
| China   | CHN  | YINCHUAN HEDONG       | VOR/DME | 112.900   | 100/250 | 30     |     | 076X   | 100/250 | 30     | 38D19'00" N | 106D23'     | E ICAO DVOR     |         |
| China   | CHN  | YINCHUANHEDONGJICHANG | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 38D18'00" N | 106D22'     | E ICAO          |         |
| China   | CHN  | YINCHUANHEDONGJICHANG | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 38D20'00" N | 106D24'     | E ICAO          |         |
| China   | CHN  | YINCHUANHEDONGJICHANG | ILS     | 109.900   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 38D20'00" N | 106D24'     | E ICAO          |         |
| China   | CHN  | YINGDE                | VOR/DME | 113.500   | 200/400 | 30     |     | 082X   | 200/400 | 30     | 24D11'00" N | 113D24'     | E ICAO DVOR     |         |
| China   | CHN  | YINGKOU               | VOR/DME | 117.300   | 200/400 | 30     |     | 120X   | 200/400 | 30     | 40D31'00" N | 122D20'     | E ICAO          |         |
| China   | CHN  | YINGKOU LANQI         | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 40D31'00" N | 122D20'     | E ICAO          |         |
| China   | CHN  | YINING                | ILS/DME | 109.900   | 25/62.5 | 20     |     | 036X   | 25/62.5 | 20     | 43D57'00" N | 081D20'     | E ICAO          |         |
| China   | CHN  | YINING                | VOR/DME | 112.900   | 200/400 | 30     |     | 076X   | 200/400 | 30     | 43D57'00" N | 081D19'     | E ICAO          |         |
| China   | CHN  | YIWU                  | ILS     | 108.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 29D21'00" N | 120D02'00 E | I               |         |
| China   | CHN  | YIWU                  | ILS/DME | 111.700   | 25/62.5 | 20     |     | 054X   | 25/62.5 | 20     | 29D21'00" N | 120D02'     | E ICAO          |         |
| China   | CHN  | YIWU                  | VOR/DME | 113.200   | 200/400 | 30     |     | 079X   | 200/400 | 30     | 29D19'00" N | 120D01'     | E NAT FI ; DVOR |         |
| China   | CHN  | YONGZHOU LINGLING     | ILS/DME | 111.500   | 25/62.5 | 20     |     | 052X   | 25/62.5 | 20     | 26D21'00" N | 111D36'     | E ICAO          |         |
| China   | CHN  | YUANTAN               | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 23D40'00" N | 113D14'     | E ICAO          |         |
| China   | CHN  | YUDU                  | VOR/DME | 114.700   | 200/400 | 30     |     | 094X   | 200/400 | 30     | 38D13'00" N | 085D26'     | E ICAO          |         |
| China   | CHN  | YUEYANG SANHE         | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 29D19'00" N | 113D16'     | E ICAO          |         |
| China   | CHN  | YUEYANG SHANHE        | VOR/DME | 114.750   | 200/400 | 30     |     | 094Y   | 200/400 | 30     | 29D20'00" N | 113D16'     | E ICAO          |         |
| China   | CHN  | YULIN                 | ILS     | 108.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 38D22'00" N | 109D35'00 E | I               |         |
| China   | CHN  | YULIN                 | VOR/DME | 114.750   | 200/400 | 30     |     | 094Y   | 200/400 | 30     | 22D24'00" N | 110D06'     | E ICAO          |         |
| China   | CHN  | YULIN                 | VOR/DME | 116.700   | 200/400 | 30     |     | 114X   | 200/400 | 30     | 38D22'00" N | 109D34'     | E ICAO DVOR     |         |
| China   | CHN  | YULIN                 | VOR/DME | 117.900   | 100/250 | 30     |     | 126X   | 100/250 | 30     | 38D16'00" N | 109D43'     | E ICAO          |         |
| China   | CHN  | YULIN FUMIAN          | ILS/DME | 108.750   | 25/62.5 | 20     |     | 024Y   | 25/62.5 | 20     | 22D26'00" N | 110D07'     | E ICAO          |         |
| China   | CHN  | YULIN FUMIAN          | ILS/DME | 109.150   | 25/62.5 | 20     |     | 028Y   | 25/62.5 | 20     | 22D25'00" N | 110D06'     | E ICAO          |         |
| China   | CHN  | YULIN YUYANG          | ILS/DME | 108.750   | 25/62.5 | 20     |     | 024Y   | 25/62.5 | 20     | 38D22'00" N | 109D34'     | E ICAO          |         |
| China   | CHN  | YULIN YUYANG          | ILS/DME | 111.300   | 25/62.5 | 20     |     | 050X   | 25/62.5 | 20     | 38D20'00" N | 109D36'     | E ICAO          |         |
| China   | CHN  | YUNCHENG              | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 35D07'00" N | 111D02'     | E ICAO DVOR     |         |
| China   | CHN  | YUNCHENG ZHANGXIAO    | ILS     | 108.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 35D06'00" N | 111D00'     | E ICAO          |         |
| China   | CHN  | YUNHE                 | VOR/DME | 111.200   | 200/400 | 30     |     | 049X   | 200/400 | 30     | 28D07'00" N | 119D33'     | E ICAO DVOR     |         |
| China   | CHN  | YUNLONG               | VOR/DME | 117.700   | 200/400 | 30     |     | 124X   | 200/400 | 30     | 29D02'00" N | 105D30'     | E ICAO          |         |
| China   | CHN  | YUSHU                 | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 32D50'00" N | 097D00'     | E ICAO DVOR     |         |
| China   | CHN  | YUSHU BATANG          | ILS     | 108.500   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 32D50'00" N | 097D00'     | E ICAO          |         |
| China   | CHN  | YUTIAN                | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 36D48'00" N | 081D45'     | E ICAO          |         |
| China   | CHN  | YUTIAN WANFANG        | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 36D48'00" N | 081D48'     | E ICAO          |         |
| China   | CHN  | ZHALANTUN             | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 47D53'00" N | 122D46'     | E ICAO          |         |
| China   | CHN  | ZHALANTUN CHENGJISHAN | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 47D52'00" N | 122D46'     | E ICAO          |         |
| China   | CHN  | ZHANGJIAJIE           | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 29D06'00" N | 110D27'00 E | I               |         |
| China   | CHN  | ZHANGJIAJIE           | VOR/DME | 114.400   | 200/400 | 30     |     | 091X   | 200/400 | 30     | 29D05'00" N | 110D24'     | E ICAO DVOR     |         |
| China   | CHN  | ZHANGJIAJIE HEHUA     | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 29D05'00" N | 110D25'     | E ICAO          |         |
| China   | CHN  | ZHANGJIAJIE HEHUA     | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 29D06'00" N | 110D27'     | E ICAO          |         |
| China   | CHN  | ZHANGJIAKOU           | VOR/DME | 113.900   | 200/400 | 30     |     | 086X   | 200/400 | 30     | 40D43'00" N | 114D57'     | E ICAO          |         |
| China   | CHN  | ZHANGJIAKOU NINGYUAN  | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 40D44'00" N | 114D54'     | E ICAO          |         |
| China   | CHN  | ZHANGYE               | VOR/DME | 113.600   | 200/400 | 30     |     | 083X   | 200/400 | 30     | 38D49'00" N | 100D37'     | E ICAO          |         |
| China   | CHN  | ZHANGYE GANZHOU       | ILS/DME | 108.700   | 25/62.5 | 20     |     | 024X   | 25/62.5 | 20     | 38D48'00" N | 100D40'     | E ICAO          |         |
| China   | CHN  | ZHANJIANG             | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 21D13'00" N | 110D21'     | E ICAO          |         |



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| Country | Ctry | Location                | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude     | Cat.            | Remarks |
|---------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|---------------|-----------------|---------|
| China   | CHN  | ZHANJIANG               | ILS/DME | 109.100   | 25/62.5 | 20     |     | 028X   | 25/62.5 | 20     | 21D12'00" N | 110D21'       | E ICAO          |         |
| China   | CHN  | ZHANJIANGWUCHUANJICHANG | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 21D28'00" N | 110D36'       | E ICAO          |         |
| China   | CHN  | ZHANJIANGWUCHUANJICHANG | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 21D29'00" N | 110D35'       | E ICAO          |         |
| China   | CHN  | ZHAOTONG                | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 27D20'00" N | 103D46'       | E ICAO          |         |
| China   | CHN  | ZHAOTONG                | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 27D19'00" N | 103D45'       | E NAT FI ; DVOR |         |
| China   | CHN  | ZHENGDIING              | VOR/DME | 117.700   | 200/400 | 30     |     | 124X   | 200/400 | 30     | 38D16'00" N | 114D42'       | E ICAO DVOR     |         |
| China   | CHN  | ZHENGZHOU XINZHENG      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 34D31'00" N | 113D52'       | E ICAO          |         |
| China   | CHN  | ZHENGZHOU XINZHENG      | ILS/DME | 109.300   | 25/62.5 | 20     |     | 030X   | 25/62.5 | 20     | 34D31'00" N | 113D49'       | E ICAO          |         |
| China   | CHN  | ZHENGZHOU XINZHENG      | ILS/DME | 110.300   | 25/62.5 | 20     |     | 040X   | 25/62.5 | 20     | 34D30'00" N | 113D51'       | E ICAO          |         |
| China   | CHN  | ZHENGZHOU XINZHENG      | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 34D32'00" N | 113D50'       | E ICAO          |         |
| China   | CHN  | ZHONGGU                 | VOR/DME | 112.500   | 100/250 | 30     |     | 072X   | 100/250 | 30     | 31D12'00" N | 121D11'       | E ICAO DVOR     |         |
| China   | CHN  | ZHONGHE                 | VOR/DME | 116.000   | 100/250 | 30     |     | 107X   | 100/250 | 30     | 36D14'00" N | 103D47'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 108.100   | 25/62.5 | 20     |     | 018X   | 25/62.5 | 20     | 29D42'00" N | 106D38'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 29D44'00" N | 106D40'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 108.750   | 25/62.5 | 20     |     | 024Y   | 25/62.5 | 20     | 29D45'00" N | 106D40'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 108.900   | 25/62.5 | 20     |     | 026X   | 25/62.5 | 20     | 29D44'00" N | 106D39'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 109.700   | 25/62.5 | 20     |     | 034X   | 25/62.5 | 20     | 29D44'00" N | 106D38'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 110.100   | 25/62.5 | 20     |     | 038X   | 25/62.5 | 20     | 29D42'00" N | 106D38'       | E ICAO          |         |
| China   | CHN  | ZHONGQING JIANGBEI      | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 29D42'00" N | 106D39'       | E ICAO          |         |
| China   | CHN  | ZHONGQING WUSHAN        | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 31D04'00" N | 109D43'       | E ICAO          |         |
| China   | CHN  | ZHONGQING XIANNVSHAN    | ILS/DME | 109.550   | 25/62.5 | 20     |     | 032Y   | 25/62.5 | 20     | 29D26'00" N | 107D41'       | E ICAO          |         |
| China   | CHN  | ZHONGWEI                | VOR/DME | 117.500   | 200/400 | 30     |     | 122X   | 200/400 | 30     | 37D34'00" N | 105D07'       | E ICAO DVOR     |         |
| China   | CHN  | ZHONGWEI SHAPOTOU       | ILS     | 110.700   | 25/62.5 | 20     |     | n/a    | n/a     | n/a    | 37D34'00" N | 105D08'       | E ICAO          |         |
| China   | CHN  | ZHONGYUAN               | VOR/DME | 116.800   | 200/400 | 30     |     | 115X   | 200/400 | 30     | 34D43'00" N | 113D33'       | E ICAO          |         |
| China   | CHN  | ZHOUKOU                 | VOR/DME | 115.500   | 200/400 | 30     |     | 102X   | 200/400 | 30     | 33D39'00" N | 114D39'       | E ICAO DVOR     |         |
| China   | CHN  | ZHOUSHAN                | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 29D55'00" N | 122D21'       | E NAT FI ; DVOR |         |
| China   | CHN  | ZHOUSHAN PUTUOSHAN      | ILS/DME | 108.750   | 25/62.5 | 20     |     | 024Y   | 25/62.5 | 20     | 29D55'00" N | 122D21'       | E ICAO          |         |
| China   | CHN  | ZHOUSHAN PUTUOSHAN      | ILS/DME | 110.500   | 25/62.5 | 20     |     | 042X   | 25/62.5 | 20     | 29D56'00" N | 122D21'       | E ICAO          |         |
| China   | CHN  | ZHUGAO                  | VOR/DME | 115.250   | 100/250 | 30     |     | 099Y   | 100/250 | 30     | 30D35'00" N | 104D43'       | E ICAO          |         |
| China   | CHN  | ZHUHAI JINWAN           | ILS/DME | 108.300   | 25/62.5 | 20     |     | 020X   | 25/62.5 | 20     | 21D59'00" N | 113D21'       | E ICAO          |         |
| China   | CHN  | ZHUHAI JINWAN           | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 22D01'00" N | 113D23'       | E ICAO          |         |
| China   | CHN  | ZHUHAISANZAO            | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 22D00'00" N | 113D23'00 E I |                 |         |
| China   | CHN  | ZIYANG                  | VOR/DME | 112.100   | 200/400 | 30     |     | 058X   | 200/400 | 30     | 29D56'00" N | 104D44'       | E ICAO DVOR     |         |
| China   | CHN  | ZUAN                    | VOR/DME | 110.800   | 200/400 | 30     |     | 045X   | 200/400 | 30     | 34D06'00" N | 108D30'       | E ICAO          |         |
| China   | CHN  | ZUNYI                   | VOR/DME | 111.800   | 200/400 | 30     |     | 055X   | 200/400 | 30     | 27D46'00" N | 107D14'       | E ICAO          |         |
| China   | CHN  | ZUNYI MAOTAI            | ILS/DME | 110.700   | 25/62.5 | 20     |     | 044X   | 25/62.5 | 20     | 27D58'00" N | 106D26'       | E ICAO          |         |
| China   | CHN  | ZUNYI XINZHOU           | ILS/DME | 108.500   | 25/62.5 | 20     |     | 022X   | 25/62.5 | 20     | 27D47'00" N | 107D14'       | E ICAO          |         |
| China   | CHN  | ZUOCUN                  | VOR/DME | 114.600   | 200/400 | 30     |     | 093X   | 200/400 | 30     | 23D09'00" N | 113D25'       | E ICAO DVOR     |         |
| China   | CHN  | ZUODONG                 | VOR/DME | 114.800   | 200/400 | 30     |     | 095X   | 200/400 | 30     | 30D15'00" N | 121D13'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOJIANG                | VOR/DME | 112.700   | 200/400 | 30     |     | 074X   | 200/400 | 30     | 29D03'00" N | 106D39'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOJIANG                | VOR/DME | 117.800   | 200/400 | 30     |     | 125X   | 200/400 | 30     | 27D27'00" N | 109D42'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOKOU                  | VOR/DME | 113.500   | 200/400 | 30     |     | 082X   | 200/400 | 30     | 40D18'00" N | 106D59'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOLING                 | VOR/DME | 112.400   | 200/400 | 30     |     | 071X   | 200/400 | 30     | 27D38'00" N | 113D30'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOLING                 | VOR/DME | 117.050   | 200/400 | 30     |     | 117Y   | 200/400 | 30     | 31D50'00" N | 118D51'       | E ICAO          |         |
| China   | CHN  | ZUOLONG                 | VOR/DME | 111.600   | 200/400 | 30     |     | 053X   | 200/400 | 30     | 25D48'00" N | 114D52'       | E ICAO DVOR     |         |
| China   | CHN  | ZUONING                 | VOR/DME | 114.350   | 100/250 | 30     |     | 090Y   | 100/250 | 30     | 22D45'00" N | 108D30'       | E ICAO          |         |
| China   | CHN  | ZUOSHUI                 | VOR/DME | 115.400   | 200/400 | 30     |     | 101X   | 200/400 | 30     | 30D26'00" N | 115D16'       | E NAT FI ; DVOR |         |
| China   | CHN  | ZUOXI                   | VOR/DME | 112.300   | 200/400 | 30     |     | 070X   | 200/400 | 30     | 24D32'00" N | 103D44'       | E ICAO DVOR     |         |
| China   | CHN  | ZUOYANG                 | VOR/DME | 113.550   | 200/400 | 30     |     | 082Y   | 200/400 | 30     | 28D23'00" N | 113D20'       | E ICAO          |         |
| China   | CHN  | ZUOZHOU                 | VOR/DME | 113.400   | 200/400 | 30     |     | 081X   | 200/400 | 30     | 29D35'00" N | 120D48'       | E ICAO DVOR     |         |



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| Country                               | Ctry | Location                | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                |
|---------------------------------------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|------------------------|
| China                                 | CHN  | ZUOZHOU YUNLONG         | ILS/DME | 108.550   | 25/62.5 | 20     |     | 022Y   | 25/62.5 | 20     | 29D02'00" N | 105D29' E   | ICAO |                        |
| China                                 | CHN  | ZUOZHOUJICHANG          | VOR/DME | 117.200   | 100/250 | 30     |     | 119X   | 100/250 | 30     | 28D51'00" N | 105D23' E   | ICAO | DVOR                   |
| China                                 | CHN  | ZUOZUOBA                | VOR/DME | 112.500   | 200/400 | 30     |     | 072X   | 200/400 | 30     | 21D51'00" N | 100D56' E   | ICAO | DVOR                   |
| China - Hong Kong                     | HKG  | Chek Lap Kok            | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 22D17'43" N | 113D53'43 E | NAT  | 30May19 rwy25L         |
| China - Hong Kong                     | HKG  | Chek Lap Kok            | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 22D19'13" N | 113D52'41 E | NAT  | FI 09Sep19; NC         |
| China - Hong Kong                     | HKG  | Chek Lap Kok            | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 22D19'13" N | 113D52'41 E | NAT  | 31May19                |
| China - Hong Kong                     | HKG  | Chek Lap Kok            | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 22D19'59" N | 113D55'06 E | NAT  | FI 31May19 rwy07N; NC  |
| China - Hong Kong                     | HKG  | Chek Lap Kok            | GBAS    | 113.350   | 30/450  | 17     |     | n/a    | n/a     | n/a    | 22D19'11" N | 113D52'39 E | NAT  |                        |
| China - Hong Kong                     | HKG  | HONGKONG CHEUNG CHAU    | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 22D13'10" N | 114D01'48 E | I    | DVOR                   |
| China - Hong Kong                     | HKG  | HONGKONG TUNG LUNG      | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 22D14'52" N | 114D17'35 E | I    | DVOR                   |
| China - Hong Kong                     | HKG  | INTERNATIONAL AIRPORT   | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 22D17'43" N | 113D53'42 E | I    | DME-26 AT GP 25L       |
| China - Hong Kong                     | HKG  | INTERNATIONAL AIRPORT   | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 22D18'29" N | 113D56'07 E | I    | DME-30 AT GP 07R       |
| China - Hong Kong                     | HKG  | INTERNATIONAL AIRPORT   | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 22D18'34" N | 113D53'37 E | I    | DME-46 AT GP 25C       |
| China - Hong Kong                     | HKG  | INTERNATIONAL AIRPORT   | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 22D19'21" N | 113D56'02 E | I    | DME-48 AT GP 07C       |
| China - Hong Kong                     | HKG  | LUNG KWU CHAU           | VOR/DME | 113.200   | 70/450  | 20     |     | 079X   | 70/450  | 27     | 22D22'44" N | 113D53'01 E | I    | DVOR                   |
| China - Hong Kong                     | HKG  | SIU MO TO               | VOR/DME | 114.800   | 70/450  | 20     |     | 095X   | 70/450  | 27     | 22D20'15" N | 113D58'55 E | I    | DVOR                   |
| China - Hong Kong                     | HKG  | SIU MO TO               | VOR/DME | 115.500   | 70/450  | 17     |     | 102X   | 70/450  | 27     | 22D20'15" N | 113D58'55 E | N    | FI FOR 2022; DVOR      |
| China - Macao                         | MAC  | MACAU                   | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 22D09'00" N | 113D34'00 E | I    |                        |
| China - Macao                         | MAC  | MACAU                   | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 22D09'00" N | 113D32'00 E | N    |                        |
| China - Macao                         | MAC  | MACAU                   | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 22D08'00" N | 113D35'00 E | I    | DVOR                   |
| Cook Islands                          | CKH  | RAROTONGA               | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 21D12'21" S | 159D48'46 W | N    |                        |
| Cook Islands                          | CKH  | RAROTONGA               | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 21D12'21" S | 159D47'54 W | I    |                        |
| Cook Islands                          | CKH  | RAROTONGA               | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 21D12'10" S | 159D48'46 W | I    |                        |
| Democratic People's Republic of Korea | KRE  | PYONGYANG SUNAN         | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 39D11'16" N | 125D40'38 E | I    |                        |
| Democratic People's Republic of Korea | KRE  | PYONGYANG SUNAN         | VOR/DME | 111.400   | 150/450 | 27     |     | 051X   | 150/450 | 37     | 39D13'07" N | 125D40'32 E | NAT  | 27Jun08                |
| Democratic People's Republic of Korea | KRE  | WONSAN KALMA            | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 39D08'58" N | 127D30'05 E | NAT  |                        |
| Fiji                                  | FJI  | LABASA                  | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 16D28'00" S | 179D21'00 E | N    | Modified 27Dec09       |
| Fiji                                  | FJI  | NADI                    | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 17D46'12" S | 177D25'47 E | I    | FI 26Jan18             |
| Fiji                                  | FJI  | NADI                    | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 17D39'00" S | 177D23'00 E | I    |                        |
| Fiji                                  | FJI  | NAUSORI                 | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 18D02'00" S | 178D33'00 E | I    | FI 26Jan18             |
| Fiji                                  | FJI  | SUVA NAUSOR1            | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 18D02'00" S | 178D33'00 E | I    |                        |
| French Polynesia                      | OCA  | HAO                     | DME     | n/a       | n/a     | n/a    |     | 085X   | 200/450 | 40     | 18D04'55" S | 140D56'27 W | N    |                        |
| French Polynesia                      | OCA  | HUAHINE                 | VOR/DME | 109.650   | 200/450 | 29     |     | 033Y   | 200/450 | 40     | 16D41'07" S | 151D02'37 W | N    | 9Feb11                 |
| French Polynesia                      | OCA  | RANGIROA                | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 14D57'04" S | 147D40'24 W | I    | next DME Ch. 70X       |
| French Polynesia                      | OCA  | RANGIROA                | VOR/DME | 115.050   | 200/450 | 29     |     | 097Y   | 200/450 | 40     | 14D57'02" S | 147D40'25 W | I    | OPS Oct14              |
| French Polynesia                      | OCA  | TAHITI FAAA             | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 17D33'37" S | 149D36'54 W | I    |                        |
| French Polynesia                      | OCA  | TAHITI FAAA             | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 17D32'54" S | 149D36'04 W | I    |                        |
| Guam (United States)                  | GUM  | GUAM AGANA              | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 13D29'00" N | 144D48'00 E | I    |                        |
| Guam (United States)                  | GUM  | GUAM AGANA              | VOR/DME | 115.300   | 200/450 | 29     |     | 100X   | 200/450 | 40     | 13D27'00" N | 144D57'00 E | I    |                        |
| Guam (United States)                  | GUM  | GUAM ANDERSON           | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 13D35'00" N | 144D57'00 E | I    |                        |
| Guam (United States)                  | GUM  | SAIPAN                  | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 15D07'00" N | 145D44'00 E | I    |                        |
| Hawaii (United States)                | HWA  | No frequency registered | VDL 4   | 112.000   | 200/450 | 17     |     | n/a    | n/a     | n/a    | 18D55'00" N | 154D48'00 W | ICAO | o registered frequency |
| ICAOTEST APAC                         | ZZZ  | Assen                   | TACAN   | n/a       | n/a     | n/a    | 45  | 019Y   | 200/450 | 37     | 52D44'55" N | 005D22'43 E | ICAO |                        |
| ICAOTEST APAC                         | ZZZ  | Groningen               | GBAS    | 110.350   | 23/100  | 17     | 45  | n/a    | n/a     | n/a    | 52D52'52" N | 004D04'04 E | ICAO |                        |
| ICAOTEST APAC                         | ZZZ  | Leeuwarden              | ILS/DME | 111.150   | 25/62.5 | 17     | 45  | 048Y   | 25/100  | 27     | 52D43'21" N | 003D03'03 E | ICAO |                        |
| India                                 | IND  | Adampur                 | VOR/DME | 116.300   | 200/450 | 27     |     | 110X   | 200/450 | 37     | 31D26'15" N | 075D45'27 E | NAT  |                        |
| India                                 | IND  | AGARTALA                | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 23D52'48" N | 091D14'25 E | N    |                        |
| India                                 | IND  | AGARTALA                | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 23D53'22" N | 091D14'23 E | N    | DVOR                   |
| India                                 | IND  | AGATTI                  | DME     | n/a       | n/a     | n/a    |     | 106X   | 200/450 | 40     | 10D49'54" N | 072D10'48 E | N    | Colocated with NDB     |
| India                                 | IND  | AGRA                    | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 27D09'02" N | 077D56'56 E | N    | IAF                    |
| India                                 | IND  | AGRA                    | VOR/DME | 112.000   | 150/450 | 27     |     | 057X   | 150/450 | 37     | 27D09'03" N | 077D56'51 E | N    | DVOR                   |



## Order: Country\_Location\_Frequency

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| Country | Ctry | Location         | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks       |
|---------|------|------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|---------------|
| India   | IND  | AHMADABAD        | VOR/DME | 113.100   | 300/450 | 29     |     | 078X   | 300/450 | 40     | 23D04'20" N | 072D37'30 E | I    | DVOR          |
| India   | IND  | AHMEDABAD        | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 23D03'50" N | 072D37'13 E | I    |               |
| India   | IND  | ALIGARH          | VOR/DME | 117.900   | 200/450 | 29     |     | 126X   | 200/450 | 40     | 27D49'46" N | 078D10'42 E | N    |               |
| India   | IND  | ALLAHABAD        | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 25D26'58" N | 081D43'46 E | N    | 21Mar08; DVOR |
| India   | IND  | ALLAHABAD        | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 25D26'00" N | 081D44'00 E | N    | TRAINING      |
| India   | IND  | ALLAHABAD        | VOR     | 117.700   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 25D26'00" N | 081D44'00 E | N    | TRAINING      |
| India   | IND  | Ambala           | VOR/DME | 114.400   | 200/450 | 27     |     | 091X   | 200/450 | 37     | 30D22'19" N | 076D48'50 E | NAT  |               |
| India   | IND  | AMRITSAR         | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 31D43'16" N | 074D47'30 E | I    |               |
| India   | IND  | AMRITSAR         | VOR/DME | 115.500   | 300/450 | 29     |     | 102X   | 300/450 | 40     | 31D42'25" N | 074D48'03 E | I    | DVOR          |
| India   | IND  | AURANGABAD       | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 19D51'47" N | 075D23'10 E | N    |               |
| India   | IND  | AURANGABAD       | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 19D51'53" N | 075D23'39 E | N    | DVOR          |
| India   | IND  | Awantipur        | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 33D53'12" N | 074D57'28 E | NAT  |               |
| India   | IND  | Awantipur        | VOR/DME | 114.900   | 40/250  | 27     |     | 096X   | 40/250  | 37     | 33D52'48" N | 074D57'59 E | NAT  |               |
| India   | IND  | AYODHYA          | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 26D45'12" N | 082D08'58 E | NAT  |               |
| India   | IND  | Ayodhya Airport  | VOR/DME | 116.000   | 40/250  | 27     |     | 107X   | 40/250  | 37     | 26D44'48" N | 082D10'21 E | NAT  |               |
| India   | IND  | Baghdogra        | VOR/DME | 115.200   | 200/450 | 27     |     | 099X   | 200/450 | 37     | 26D41'08" N | 088D19'48 E | NAT  |               |
| India   | IND  | BAGHDOGRA        | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 26D41'14" N | 088D19'44 E | N    |               |
| India   | IND  | Bakhshi Ka Talab | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 26D59'21" N | 080D52'34 E | NAT  |               |
| India   | IND  | Bakhshi Ka Talab | VOR/DME | 116.600   | 200/450 | 27     |     | 113X   | 200/450 | 37     | 26D59'28" N | 080D52'40 E | NAT  | Forced Input  |
| India   | IND  | BANGALORE        | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 13D12'24" N | 077D43'33 E | I    | 2May07        |
| India   | IND  | BANGALORE        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 13D12'27" N | 077D40'55 E | I    | 2May07        |
| India   | IND  | BANGALORE        | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 13D11'22" N | 077D43'51 E | N    | FI 9Oct18; NC |
| India   | IND  | BANGALORE        | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 12D57'02" N | 077D40'56 E | N    |               |
| India   | IND  | BANGALORE        | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 13D11'23" N | 077D41'12 E | N    | 9Oct18        |
| India   | IND  | BANGALORE        | VOR/DME | 115.500   | 200/450 | 29     |     | 102X   | 200/450 | 40     | 12D56'59" N | 077D40'52 E | N    |               |
| India   | IND  | BANGALORE        | VOR     | 116.800   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 13D24'05" N | 077D54'30 E | N    | 3Jun08; DVOR  |
| India   | IND  | BARAPANI         | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 25D42'35" N | 091D58'13 W | N    | 11OCT13       |
| India   | IND  | BARAPANI         | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 25D42'22" N | 091D58'33 E | N    | Proposed      |
| India   | IND  | Bareilly         | VOR/DME | 115.600   | 200/450 | 27     |     | 103X   | 200/450 | 37     | 28D25'20" N | 079D27'05 E | NAT  |               |
| India   | IND  | Barrackpore      | VOR/DME | 111.600   | 200/450 | 27     |     | 053X   | 200/450 | 37     | 24D46'26" N | 088D21'28 E | NAT  |               |
| India   | IND  | BELGAUM          | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 15D51'23" N | 074D36'11 E | N    | 21Mar08       |
| India   | IND  | BELGAUM          | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 15D51'22" N | 074D37'01 E | I    | DVOR          |
| India   | IND  | BELLARY          | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 15D09'55" N | 076D52'50 E | N    |               |
| India   | IND  | Bhatinda         | VOR/DME | 114.800   | 200/450 | 27     |     | 095X   | 200/450 | 37     | 30D16'11" N | 074D45'24 E | NAT  |               |
| India   | IND  | BHAVNAGAR        | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 21D44'52" N | 072D10'36 E | N    | 7/02 DME/GP   |
| India   | IND  | BHAVNAGAR        | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 21D45'00" N | 072D11'00 E | N    | PROPOSED      |
| India   | IND  | BHAVNAGAR        | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 21D45'00" N | 072D11'21 E | N    | DVOR          |
| India   | IND  | BHOPAL           | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 37     | 23D17'34" N | 077D19'20 E | N    |               |
| India   | IND  | BHOPAL           | VOR/DME | 117.100   | 200/450 | 29     |     | 118X   | 200/450 | 40     | 23D16'58" N | 077D20'09 E | N    | DVOR          |
| India   | IND  | BHUBANESHWAR     | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 25/62.5 | 27     | 20D14'22" N | 085D49'18 E | N    |               |
| India   | IND  | BHUBANESHWAR     | VOR/DME | 113.500   | 300/450 | 29     |     | 082X   | 300/450 | 40     | 20D14'37" N | 085D48'48 E | I    | DVOR          |
| India   | IND  | BHUJ             | VOR/DME | 112.600   | 150/450 | 27     |     | 073X   | 150/450 | 37     | 23D16'15" N | 069D40'13 E | N    | DVOR          |
| India   | IND  | BHUNTAR          | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 31D41'04" N | 077D12'49 E | N    | 14Sep18; DVOR |
| India   | IND  | Bidar            | VOR/DME | 113.200   | 200/450 | 27     |     | 079X   | 200/450 | 37     | 17D54'29" N | 077D29'00 E | NAT  |               |
| India   | IND  | Bihta            | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 25D35'22" N | 084D53'46 E | NAT  |               |
| India   | IND  | Bihta            | VOR/DME | 116.750   | 200/450 | 27     |     | 114Y   | 200/450 | 37     | 25D35'21" N | 084D52'48 E | NAT  |               |
| India   | IND  | CALICUT          | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 11D08'39" N | 075D55'57 E | N    |               |
| India   | IND  | CALICUT          | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 80/100  | 27     | 11D07'55" N | 075D58'14 E | N    | 21Mar08       |
| India   | IND  | CALICUT          | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 11D08'07" N | 075D57'18 E | N    | DVOR          |
| India   | IND  | Carnicobar       | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/100  | 27     | 09D08'22" N | 092D48'51 E | NAT  |               |



Order: Country\_Location\_Frequency

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| Country | Ctry | Location       | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                    |
|---------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|----------------------------|
| India   | IND  | Carnicobar     | VOR/DME | 112.100   | 200/450 | 27     |     | 058X   | 200/450 | 37     | 09D08'49" N | 092D49'09 E | NAT  |                            |
| India   | IND  | CHABUA         | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 27D27'42" N | 095D07'15 E | N    | 7Feb18; DVOR               |
| India   | IND  | CHANDIGARH     | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 30D40'04" N | 076D48'25 E | N    | DVOR                       |
| India   | IND  | Charbatia      | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 20D33'38" N | 085D53'50 E | NAT  |                            |
| India   | IND  | Charbatia      | VOR/DME | 116.300   | 200/450 | 27     |     | 110X   | 200/450 | 37     | 20D32'32" N | 085D52'56 E | NAT  | DVOR                       |
| India   | IND  | CHENNAI        | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 12D58'56" N | 080D09'08 E | N    | 1Oct04                     |
| India   | IND  | CHENNAI        | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 12D59'11" N | 080D09'18 E | I    |                            |
| India   | IND  | CHENNAI        | VOR/DME | 112.500   | 300/450 | 29     |     | 072X   | 300/450 | 40     | 12D59'36" N | 080D10'15 E | I    | DVOR                       |
| India   | IND  | CHENNAI        | VOR/DME | 114.900   | 200/450 | 29     |     | 096X   | 200/450 | 40     | 13D00'13" N | 080D09'57 E | N    | 25Mar11; DVOR              |
| India   | IND  | CHENNAI        | GBAS    | 117.600   | 23/100  | 17     |     | n/a    | n/a     | n/a    | 12D59'34" N | 080D09'42 E | N    | FI GBAS 22Aug13            |
| India   | IND  | Chennai RWY 25 | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/100  | 27     | 12D58'59" N | 080D09'01 E | NAT  |                            |
| India   | IND  | CHILLARKI      | VOR/DME | 116.800   | 200/450 | 29     |     | 115X   | 200/450 | 40     | 28D20'51" N | 076D39'58 E | N    |                            |
| India   | IND  | COCHIN (INTL)  | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 10D08'58" N | 076D22'56 E | N    |                            |
| India   | IND  | COCHIN (INTL)  | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 10D09'06" N | 076D24'58 E | N    | 11OCT13                    |
| India   | IND  | COCHIN (NAVY)  | VOR/DME | 114.600   | 150/450 | 27     |     | 093X   | 150/450 | 37     | 09D56'41" N | 076D16'22 E | N    | Operated by Navy; DVOR     |
| India   | IND  | COCHIN INTL    | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 10D08'58" N | 076D22'23 E | N    | DVOR                       |
| India   | IND  | COCHIN INTL    | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 10D06'55" N | 076D40'54 E | N    | Not Yet Commissioned; DVOR |
| India   | IND  | COIMBATORE     | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 25/62.5 | 27     | 11D02'11" N | 077D03'02 E | N    |                            |
| India   | IND  | COIMBATORE     | VOR/DME | 112.900   | 150/450 | 27     |     | 076X   | 150/450 | 37     | 11D01'55" N | 077D02'56 E | N    | DVOR                       |
| India   | IND  | DAMAN          | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 20D26'19" N | 072D51'17 E | N    | Operated by Coast G        |
| India   | IND  | Darbhanga      | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 25/100  | 27     | 26D11'28" N | 085D56'00 E | NAT  |                            |
| India   | IND  | Darbhanga      | VOR/DME | 115.250   | 200/450 | 27     |     | 099Y   | 200/450 | 37     | 26D11'48" N | 085D54'25 E | NAT  |                            |
| India   | IND  | DEHRADUM       | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 30D11'32" N | 078D10'31 E | N    | 21Mar08                    |
| India   | IND  | DEHRADUN       | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 30D11'24" N | 078D10'54 E | N    | FI 10Apr03; DVOR           |
| India   | IND  | DELHI          | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 28D32'24" N | 077D06'54 E | NAT  |                            |
| India   | IND  | DELHI          | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 28D34'02" N | 077D05'17 E | I    | RWY10                      |
| India   | IND  | DELHI          | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/100  | 27     | 28D33'37" N | 077D07'10 E | I    | RWY28                      |
| India   | IND  | DELHI          | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 28D34'09" N | 077D06'44 E | I    | RWY27                      |
| India   | IND  | Delhi          | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/100  | 27     | 28D32'50" N | 077D03'42 E | NAT  | 29L                        |
| India   | IND  | Delhi          | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/100  | 27     | 28D33'01" N | 077D03'53 E | NAT  | Delhi RWY 29R              |
| India   | IND  | Delhi          | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 25/100  | 27     | 28D32'13" N | 077D06'46 E | NAT  | 11R                        |
| India   | IND  | DELHI          | VOR/DME | 116.100   | 300/450 | 29     |     | 108X   | 300/450 | 40     | 28D34'00" N | 077D05'42 E | I    | DVOR                       |
| India   | IND  | Deoghar        | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 24D26'49" N | 086D43'14 E | NAT  |                            |
| India   | IND  | DEOGHAR        | VOR/DME | 117.200   | 200/450 | 27     |     | 119X   | 200/450 | 37     | 24D26'46" N | 086D43'20 E | N    | 05Mar20; DVOR              |
| India   | IND  | DIBRUGARH      | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 28D27'38" N | 095D00'52 E | N    |                            |
| India   | IND  | DIBRUGARH      | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 27D29'14" N | 095D01'16 E | N    |                            |
| India   | IND  | DIMAPUR        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 25D52'38" N | 093D47'15 E | N    | PLANNED                    |
| India   | IND  | DIMAPUR        | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 25D52'39" N | 093D47'11 E | N    | 23/7/02                    |
| India   | IND  | DIMAPUR        | VOR/DME | 114.500   | 200/450 | 29     |     | 092X   | 200/450 | 40     | 25D52'51" N | 093D46'54 E | N    | DVOR                       |
| India   | IND  | Doom Dooma     | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 27D33'45" N | 095D34'43 E | NAT  |                            |
| India   | IND  | Doom Dooma     | VOR/DME | 115.100   | 200/450 | 27     |     | 098X   | 200/450 | 37     | 27D33'30" N | 095D34'40 E | NAT  |                            |
| India   | IND  | DUNDIGUL       | VOR/DME | 117.900   | 200/450 | 29     |     | 126X   | 200/450 | 40     | 17D37'41" N | 078D24'12 E | N    | FI 7Feb18; DVOR            |
| India   | IND  | DURGAPUR       | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 23D37'28" N | 087D14'33 E | N    | 22Nov11                    |
| India   | IND  | DURGAPUR       | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 23D37'28" N | 087D14'33 E | N    | 22Nov11; DVOR              |
| India   | IND  | FURSATGANJ AP  | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 26D14'98" N | 081D23'15 E | N    | 3Apr02                     |
| India   | IND  | FURSATGANJ AP  | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 26D15'04" N | 081D23'08 E | N    | 3Apr02; DVOR               |
| India   | IND  | Gaya           | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 24D44'50" N | 084D56'12 E | NAT  |                            |
| India   | IND  | GAYA           | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 24D44'31" N | 084D56'38 E | N    | DVOR                       |
| India   | IND  | GOA            | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 15D23'02" N | 073D50'54 E | NAT  |                            |
| India   | IND  | GOA            | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 15D22'39" N | 073D48'54 E | N    |                            |
| India   | IND  | GOA            | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 15D22'47" N | 073D48'45 E | N    | DVOR                       |



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| Country | Ctry | Location                                            | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks       |
|---------|------|-----------------------------------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------|
| India   | IND  | GONDIA                                              | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 21D32°05" N | 080D17°59' E | N    | 21Mar08       |
| India   | IND  | GONDIA                                              | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 21D31°25" S | 080D17°20' E | N    | 4Jan08; DVOR  |
| India   | IND  | Gorakhpur                                           | VOR/DME | 115.900   | 40/250  | 27     |     | 106X   | 40/250  | 37     | 26D43°55" N | 083D28°19' E | NAT  |               |
| India   | IND  | Gorakhpur                                           | VOR/DME | 116.200   | 200/450 | 27     |     | 109X   | 200/450 | 37     | 26D44°29" N | 083D27°08' E | NAT  |               |
| India   | IND  | GUWAHATI                                            | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 26D05°48" N | 091D34°55' E | N    |               |
| India   | IND  | GUWAHATI                                            | VOR/DME | 117.600   | 200/450 | 29     |     | 123X   | 200/450 | 40     | 26D06°07" N | 091D35°09' E | N    | DVOR          |
| India   | IND  | GWALIOR                                             | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 26D17°00" N | 078D14°00' E | N    |               |
| India   | IND  | Gwalior                                             | VOR/DME | 112.800   | 200/450 | 27     |     | 075X   | 200/450 | 37     | 26D17°07" N | 078D13°06' E | NAT  |               |
| India   | IND  | Hakimpet                                            | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/100  | 27     | 17D33°08" N | 078D30°34' E | NAT  |               |
| India   | IND  | Hakimpet                                            | VOR/DME | 114.500   | 200/450 | 27     |     | 092X   | 200/450 | 37     | 17D33°07" N | 078D31°52' E | NAT  |               |
| India   | IND  | Halwara                                             | VOR/DME | 115.200   | 200/450 | 27     |     | 099X   | 200/450 | 37     | 30D44°58" N | 075D37°51' E | NAT  |               |
| India   | IND  | Hashimara                                           | VOR/DME | 112.200   | 200/450 | 27     |     | 059X   | 200/450 | 37     | 26D42°00" N | 089D22°18' E | NAT  |               |
| India   | IND  | Hindon                                              | VOR/DME | 113.400   | 200/450 | 27     |     | 081X   | 200/450 | 37     | 28D42°24" N | 077D21°38' E | NAT  |               |
| India   | IND  | HIRASAR AIRPORT                                     | VOR/DME | 116.500   | 200/450 | 27     |     | 112X   | 200/450 | 37     | 22D22°08" N | 071D01°52' E | NAT  |               |
| India   | IND  | Hirasar-Rajkot                                      | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/100  | 27     | 22D22°05" N | 071D01°35' E | NAT  |               |
| India   | IND  | HISSAR                                              | VOR/DME | 115.400   | 40/250  | 27     |     | 101X   | 40/250  | 37     | 29D11°53" N | 075D43°26' E | NAT  |               |
| India   | IND  | HOLLONGI                                            | VOR/DME | 114.900   | 200/450 | 27     |     | 096X   | 200/450 | 37     | 26D57°56" N | 093D37°21' E | N    | DVOR          |
| India   | IND  | HOLONGI                                             | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 26D57°51" N | 093D37°31' E | I    |               |
| India   | IND  | HUBLI                                               | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 15D21°31" N | 075D04°18' E | N    | 21Mar08       |
| India   | IND  | HUBLI                                               | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 15D21°34" N | 075D04°03' E | N    | FI 29Apr17    |
| India   | IND  | HUBLI                                               | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 15D21°39" N | 075D04°37' E | N    | 23Jun08       |
| India   | IND  | HYDERABAD                                           | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 17D13°40" N | 078D24°21' E | I    | 2May07        |
| India   | IND  | HYDERABAD                                           | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 17D13°51" N | 078D27°00' E | NAT  | 21JAN19       |
| India   | IND  | HYDERABAD                                           | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 17D27°15" N | 078D28°27' E | N    |               |
| India   | IND  | HYDERABAD                                           | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 17D15°45" N | 078D27°25' E | I    | 2May07        |
| India   | IND  | HYDERABAD                                           | VOR     | 113.800   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 17D13°40" N | 078D24°21' E | N    | 2May07; DVOR  |
| India   | IND  | HYDERABAD                                           | VOR/DME | 114.700   | 200/450 | 29     |     | 094X   | 200/450 | 40     | 17D27°04" N | 078D27°42' E | N    | DVOR          |
| India   | IND  | IMPHAL                                              | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 24D45°04" N | 093D53°32' E | N    |               |
| India   | IND  | IMPHAL                                              | VOR/DME | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 24D45°27" N | 093D54°61' E | N    | DVOR          |
| India   | IND  | INDORE                                              | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 22D43°29" N | 075D48°35' E | N    |               |
| India   | IND  | INDORE                                              | VOR/DME | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 22D43°22" N | 075D48°24' E | N    |               |
| India   | IND  | INS Baaz-Campell bay (Great Nicobar)                | VOR/DME | 112.600   | 200/450 | 27     |     | 073X   | 200/450 | 37     | 07D00°50" N | 093D55°33' E | NAT  |               |
| India   | IND  | INS Garud, Cochin                                   | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/100  | 27     | 09D57°16" N | 076D16°12' E | NAT  |               |
| India   | IND  | INS Kohassa-Shibpur (Andaman)                       | VOR/DME | 112.200   | 200/450 | 27     |     | 059X   | 200/450 | 37     | 13D14°06" N | 093D02°56' E | NAT  |               |
| India   | IND  | INS Parundu, Ramnad                                 | VOR/DME | 112.200   | 200/450 | 27     |     | 059X   | 200/450 | 37     | 09D19°36" N | 078D58°13' E | NAT  |               |
| India   | IND  | INS Rajali                                          | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 13D04°57" N | 079D42°37' E | NAT  | Arrakonam     |
| India   | IND  | INS Rajali                                          | VOR/DME | 112.300   | 200/450 | 27     |     | 070X   | 200/450 | 37     | 13D04°23" N | 079D41°24' E | NAT  |               |
| India   | IND  | INS Utkrosh-Port Blair RWY 22 (Andaman and Nicobar) | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/100  | 27     | 11D37°37" N | 092D43°08' E | NAT  |               |
| India   | IND  | INS Utkrosh, Port Blair                             | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/100  | 27     | 11D39°17" N | 092D44°23' E | NAT  |               |
| India   | IND  | JABALPUR                                            | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 23D10°23" N | 080D02°38' E | N    | 11OCT13       |
| India   | IND  | JABALPUR                                            | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 23D10°49" N | 080D03°34' E | N    | DVOR          |
| India   | IND  | JAIPUR                                              | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 26D49°33" N | 075D49°09' E | N    |               |
| India   | IND  | JAIPUR                                              | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 26D49°31" N | 075D48°01' E | N    | DVOR          |
| India   | IND  | JAISALMER                                           | VOR/DME | 117.800   | 200/450 | 29     |     | 125X   | 200/450 | 40     | 26D53°23" N | 070D52°00' E | N    | 10Apr03; DVOR |
| India   | IND  | JALALABAD                                           | VOR/DME | 115.800   | 200/450 | 29     |     | 105X   | 200/450 | 40     | 27D41°40" N | 079D39°20' E | N    |               |
| India   | IND  | JALGAON                                             | VOR/DME | 117.500   | 200/450 | 29     |     | 122X   | 200/450 | 40     | 20D57°50" N | 075D38°09' E | N    | 24May11; DVOR |
| India   | IND  | JAMMU                                               | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 32D41°06" N | 074D50°13' E | N    |               |
| India   | IND  | JAMMU                                               | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 32D40°35" N | 074D50°11' E | N    | DVOR          |
| India   | IND  | JAMNAGAR                                            | VOR/DME | 115.000   | 150/450 | 27     |     | 097X   | 150/450 | 37     | 22D29°00" N | 070D03°00' E | N    |               |
| India   | IND  | Jamnagar                                            | VOR/DME | 117.900   | 200/450 | 27     |     | 126X   | 200/450 | 37     | 22D27°56" N | 070D00°38' E | NAT  |               |



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| Country | Ctry | Location           | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks                    |
|---------|------|--------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|----------------------------|
| India   | IND  | JAMSHEDPUR         | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 22D48°45" N | 086D10°03' E | N    |                            |
| India   | IND  | Jewar              | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/100  | 27     | 28D10°31" N | 077D38°08' E | NAT  | 10L                        |
| India   | IND  | Jewar              | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 28D11°03" N | 077D35°13' E | NAT  | 28R                        |
| India   | IND  | JHARSUGUDA         | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 21D54°27" N | 084D02°19' E | N    |                            |
| India   | IND  | JHARSUGUDA         | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 21D54°53" N | 084D03°35' E | N    | FI 21Jun17; DVOR           |
| India   | IND  | Jodhpur            | VOR/DME | 116.200   | 200/450 | 27     |     | 109X   | 200/450 | 37     | 26D15°26" N | 073D03°09' E | NAT  |                            |
| India   | IND  | JORHAT             | VOR/DME | 112.100   | 150/450 | 27     |     | 058X   | 150/450 | 37     | 26D42°07" N | 094D08°55' E | N    | DVOR                       |
| India   | IND  | Jorhat             | VOR/DME | 116.700   | 200/450 | 27     |     | 114X   | 200/450 | 37     | 26D43°47" N | 094D10°46' E | NAT  |                            |
| India   | IND  | KADAPA-HYDERABAD   | VOR/DME | 115.200   | 200/450 | 27     |     | 099X   | 200/450 | 37     | 14D30°35" N | 078D46°20' E | N    | 9Sep19; NC                 |
| India   | IND  | Kalaburagi airport | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/100  | 27     | 17D18°26" N | 076D56°51' E | NAT  |                            |
| India   | IND  | Kalaburgi          | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 17D18°23" N | 076D58°07' E | N    | Replace previous Gulbarga  |
| India   | IND  | Kalaikunda         | VOR/DME | 117.700   | 200/450 | 27     |     | 124X   | 200/450 | 37     | 22D20°13" N | 087D13°07' E | NAT  |                            |
| India   | IND  | KALAMB             | VOR/DME | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 19D06°18" N | 073D23°53' E | N    | Not yet commissioned       |
| India   | IND  | KANCHEEPURAM       | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 12D47°15" N | 079D42°45' E | N    |                            |
| India   | IND  | KANDLA             | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 23D06°42" N | 070D06°27' E | N    | FI 25May15; DVOR           |
| India   | IND  | KANGRA GAGGAI      | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 32D10°09" N | 076D15°47' E | N    | 22Apr15; DVOR              |
| India   | IND  | KANNUR             | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 11D55°12" N | 075D32°53' E | N    | FI 25May15                 |
| India   | IND  | KANNUR             | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 11D55°12" N | 075D32°53' E | N    | 25May15; DVOR              |
| India   | IND  | KANPUR             | VOR/DME | 115.300   | 200/450 | 29     |     | 100X   | 200/450 | 40     | 26D24°21" N | 080D25°39' E | N    | 21Mar08; DVOR              |
| India   | IND  | KANPUR CHAKERI     | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 26D24°15" N | 080D23°56' E | N    | 18Sep09                    |
| India   | IND  | KATHIAR            | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 25D34°35" N | 087D33°36' E | N    | 23/7/02; DVOR              |
| India   | IND  | KHAJURAHO          | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 24D49°30" N | 079D55°18' E | N    |                            |
| India   | IND  | KHAJURAHO          | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 24D48°54" N | 079D55°07' E | N    | DVOR                       |
| India   | IND  | KISHANGANJ         | VOR/DME | 114.400   | 150/450 | 27     |     | 091X   | 150/450 | 37     | 26D06°00" N | 087D56°00' E | N    | Planned                    |
| India   | IND  | KISHANGARH         | VOR/DME | 113.200   | 200/450 | 29     |     | 079X   | 200/450 | 40     | 26D35°07" N | 074D48°32' E | N    | FI 22Mar17; DVOR           |
| India   | IND  | KOCHI              | VOR/DME | 117.800   | 200/450 | 29     |     | 125X   | 200/450 | 40     | 09D56°34" N | 076D16°28' E | N    | 4MAR13; DVOR               |
| India   | IND  | KOLHAPUR           | VOR/DME | 115.300   | 40/250  | 27     |     | 100X   | 40/250  | 37     | 16D39°50" N | 074D17°34' E | NAT  |                            |
| India   | IND  | KOLKATA            | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 22D38°41" N | 088D26°52' E | I    | RWY01                      |
| India   | IND  | KOLKATA            | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 22D40°06" N | 088D26°59' E | I    | RWY19                      |
| India   | IND  | KOLKATA            | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 22D38°10" N | 088D26°50' E | N    | 19Jun07                    |
| India   | IND  | KOLKATA            | VOR/DME | 112.500   | 300/450 | 29     |     | 072X   | 300/450 | 40     | 22D38°43" N | 088D27°10' E | I    | DVOR                       |
| India   | IND  | Kumbhigram         | VOR/DME | 117.000   | 200/450 | 27     |     | 117X   | 200/450 | 37     | 24D54°55" N | 092D59°08' E | NAT  |                            |
| India   | IND  | Kushinagar         | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/100  | 27     | 26D46°57" N | 083D52°17' E | NAT  |                            |
| India   | IND  | Kushinagar         | VOR/DME | 115.700   | 200/450 | 27     |     | 104X   | 200/450 | 37     | 26D57°56" N | 083D53°16' E | NAT  |                            |
| India   | IND  | LEH                | VOR/DME | 115.700   | 150/450 | 27     |     | 104X   | 150/450 | 37     | 34D08°00" N | 077D33°00' E | N    | Not yet commissioned; DVOR |
| India   | IND  | LEH                | VOR/DME | 116.900   | 200/450 | 27     |     | 116X   | 200/450 | 37     | 34D07°57" N | 077D32°30' E | N    | DVOR                       |
| India   | IND  | LENGPUI            | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 23D52°43" N | 092D35°05' E | N    | FI 2Jun15; DVOR            |
| India   | IND  | LENGPUI            | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 23D49°51" N | 092D37°24' E | N    | DVOR                       |
| India   | IND  | LENGPUI            | VOR/DME | 115.200   | 200/450 | 29     |     | 099X   | 200/450 | 40     | 23D51°57" N | 092D44°33' E | N    | 8Sep08; DVOR               |
| India   | IND  | LILABARI           | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 27D18°00" N | 094D06°20' E | N    | 7/02 DME/GP                |
| India   | IND  | LILABARI           | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 27D18°00" N | 094D06°20' E | N    | Planned                    |
| India   | IND  | LILABARI           | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 27D17°26" N | 094D05°49' E | N    | Planned; DVOR              |
| India   | IND  | LUCKNOW            | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 26D45°43" N | 080D53°39' E | N    |                            |
| India   | IND  | LUCKNOW            | VOR/DME | 113.100   | 200/450 | 29     |     | 078X   | 200/450 | 40     | 26D45°44" N | 080D52°50' E | N    | DVOR                       |
| India   | IND  | LUCKNOW            | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 26D45°44" N | 080D52°50' E | N    | 28Oct.2011; DVOR           |
| India   | IND  | LUDHIANA           | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 30D51°21" N | 075D57°06' E | I    | 21Aug08; DVOR              |
| India   | IND  | LUNKA-1            | VOR/DME | 117.600   | 200/450 | 29     |     | 123X   | 200/450 | 40     | 28D34°13" N | 073D47°06' E | N    | DVOR                       |
| India   | IND  | LUNKA-2            | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 28D10°46" N | 074D06°36' E | N    | DVOR                       |
| India   | IND  | MADURAI            | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 09D50°07" N | 078D05°18' E | I    | 5Nov99                     |
| India   | IND  | MADURAI            | VOR/DME | 116.100   | 300/450 | 29     |     | 108X   | 300/450 | 40     | 09D49°52" N | 078D05°21' E | I    |                            |
| India   | IND  | MANDVI             | VOR     | 114.800   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 19D29°34" N | 072D53°24' E | N    | Planned; DVOR              |



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| Country | Ctry | Location                   | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks       |
|---------|------|----------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------|
| India   | IND  | MANGALORE                  | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 12D57°38" N | 074D53°46' E | N    |               |
| India   | IND  | MANGALORE                  | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 12D57°43" N | 074D55°18' E | N    |               |
| India   | IND  | MOGA                       | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 30D47°47" N | 075D07°51' E | N    | 23/7/02; DVOR |
| India   | IND  | MOPA AIRPORT               | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 15D44°45" N | 073D50°29' E | NAT  |               |
| India   | IND  | MOPA AIRPORT               | VOR/DME | 117.400   | 200/450 | 27     |     | 121X   | 200/450 | 37     | 15D44°49" N | 073D51°24' E | NAT  | Goa; DVOR     |
| India   | IND  | MUMBAI                     | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 19D05°12" N | 072D51°09' E | I    | FI RWY09      |
| India   | IND  | MUMBAI                     | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 19D05°42" N | 072D51°47' E | I    | RWY14         |
| India   | IND  | MUMBAI                     | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 19D05°16" N | 072D52°25' E | I    | RWY27         |
| India   | IND  | MUMBAI                     | VOR/DME | 116.600   | 300/450 | 29     |     | 113X   | 300/450 | 40     | 19D05°11" N | 075D52°27' E | I    | DVOR          |
| India   | IND  | MUNDRA                     | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 22D50°30" N | 069D46°29' E | N    | 22Dec14; DVOR |
| India   | IND  | MYSORE                     | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 12D13°34" N | 076D39°13' E | N    | 21Mar08; DVOR |
| India   | IND  | NAGPUR                     | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 21D05°12" N | 079D03°04' E | N    |               |
| India   | IND  | NAGPUR                     | VOR/DME | 112.700   | 300/450 | 29     |     | 074X   | 300/450 | 40     | 21D04°53" N | 079D03°22' E | I    | DVOR          |
| India   | IND  | NAL(BIKANER)               | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 28D03°34" N | 073D11°36' E | NAT  |               |
| India   | IND  | NAL(BIKANER)               | VOR/DME | 116.000   | 200/450 | 27     |     | 107X   | 200/450 | 37     | 28D04°01" N | 073D11°54' E | NAT  |               |
| India   | IND  | Naliya                     | VOR/DME | 113.200   | 200/450 | 27     |     | 079X   | 200/450 | 37     | 23D13°21" N | 068D53°29' E | NAT  |               |
| India   | IND  | NANDED                     | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 19D10°55" N | 077D19°08' E | N    | 20Jun08; DVOR |
| India   | IND  | Navi Mubai                 | VOR/DME | 117.800   | 200/450 | 27     |     | 125X   | 200/450 | 37     | 18D58°56" N | 073D03°59' E | NAT  |               |
| India   | IND  | NAVI-MUMBAI RWY-08R        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 18D59°15" N | 073D05°15' E | NAT  |               |
| India   | IND  | NAVI-MUMBAI RWY-26L        | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/100  | 27     | 18D58°55" N | 073D02°42' E | NAT  |               |
| India   | IND  | NEW DELHI IGI              | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 28D34°19" N | 077D07°10' E | I    | 18Sep09       |
| India   | IND  | Noida Intl. Airport, Jewar | VOR/DME | 117.500   | 40/250  | 27     |     | 122X   | 40/250  | 37     | 28D10°33" N | 077D38°17' E | NAT  |               |
| India   | IND  | OZAR                       | VOR/DME | 114.450   | 200/450 | 27     |     | 091Y   | 200/450 | 37     | 20D07°12" N | 073D53°43' E | NAT  |               |
| India   | IND  | PAKYONG                    | VOR/DME | 117.800   | 200/450 | 29     |     | 125X   | 200/450 | 40     | 27D13°39" N | 088D35°10' E | N    | 25May15; DVOR |
| India   | IND  | Panagarh                   | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 23D28°42" N | 087D26°09' E | NAT  |               |
| India   | IND  | PANAGARH                   | VOR/DME | 117.500   | 200/450 | 27     |     | 122X   | 200/450 | 37     | 23D28°41" N | 087D25°22' E | N    | DVOR          |
| India   | IND  | Pantnagar, Uttarakhand-    | DME     | n/a       | n/a     | n/a    |     | 059X   | 200/450 | 37     | 29D02°11" N | 079D27°43' E | NAT  |               |
| India   | IND  | PATHANKOT                  | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 32D14°46" N | 075D38°20' E | N    | 21Mar08; DVOR |
| India   | IND  | PATNA                      | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 25D35°38" N | 085D05°34' E | I    |               |
| India   | IND  | PATNA                      | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 25D35°26" N | 085D05°24' E | I    | DVOR          |
| India   | IND  | PENGPUI                    | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 23D50°57" N | 092D37°20' E | N    | 8Sep08        |
| India   | IND  | Phalodi                    | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 27D05°41" N | 072D11°40' E | NAT  |               |
| India   | IND  | Phalodi                    | VOR/DME | 115.600   | 200/450 | 27     |     | 103X   | 200/450 | 37     | 27D05°54" N | 072D11°47' E | NAT  | DVOR          |
| India   | IND  | PORBANDAR                  | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 21D39°05" N | 069D39°39' E | N    | 21Mar08; DVOR |
| India   | IND  | PORBANDER                  | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 21D39°55" N | 069D38°51' E | N    | 21Mar08       |
| India   | IND  | PORT BLAIR                 | VOR/DME | 115.700   | 300/450 | 29     |     | 104X   | 300/450 | 40     | 11D38°59" N | 092D44°45' E | I    |               |
| India   | IND  | PRATAPGARH                 | VOR/DME | 114.900   | 150/450 | 27     |     | 096X   | 150/450 | 37     | 24D01°48" N | 074D45°03' E | I    | DVOR          |
| India   | IND  | PUNE                       | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 18D34°56" N | 073D55°52' E | N    | 26Jun08       |
| India   | IND  | PUNE                       | VOR/DME | 113.900   | 150/450 | 27     |     | 086X   | 150/450 | 37     | 18D35°00" N | 073D54°00' E | N    | DVOR          |
| India   | IND  | Pune                       | VOR/DME | 114.600   | 200/450 | 27     |     | 093X   | 200/450 | 37     | 18D34°48" N | 073D54°51' E | NAT  |               |
| India   | IND  | Purnea, Bihar-             | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/100  | 27     | 25D45°37" N | 087D25°34' E | NAT  |               |
| India   | IND  | Purnea, Bihar-             | VOR/DME | 111.800   | 200/450 | 27     |     | 055X   | 200/450 | 37     | 25D45°45" N | 087D23°45' E | NAT  |               |
| India   | IND  | RAIPUR                     | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 21D10°32" N | 081D44°40' E | N    | 16Feb07       |
| India   | IND  | RAIPUR                     | VOR/DME | 116.100   | 150/450 | 27     |     | 108X   | 150/450 | 37     | 21D10°48" N | 081D44°34' E | N    |               |
| India   | IND  | Rajahmundry                | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 17D05°43" N | 081D47°53' E | NAT  |               |
| India   | IND  | RAJAMUNDHRY                | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 17D06°31" N | 081D48°59' E | N    | 21Mar08; DVOR |
| India   | IND  | RAJKOT                     | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 22D18°48" N | 070D46°60' E | N    |               |
| India   | IND  | RAJKOT                     | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 22D18°47" N | 070D46°42' E | N    | DVOR          |
| India   | IND  | RANCHI                     | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 23D18°34" N | 085D19°50' E | I    |               |
| India   | IND  | RANCHI                     | VOR/DME | 116.900   | 200/450 | 29     |     | 116X   | 200/450 | 40     | 23D18°31" N | 085D19°36' E | N    |               |



# Order: Country\_Location\_Frequency

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| Country   | Ctry | Location        | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks                    |
|-----------|------|-----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|----------------------------|
| India     | IND  | Ratnagiri       | VOR/DME | 114.300   | 200/450 | 27     |     | 090X   | 200/450 | 37     | 17D00'47" N | 073D19'45" E | NAT  | DVOR                       |
| India     | IND  | REWA            | VOR/DME | 112.250   | 200/450 | 27     |     | 059Y   | 200/450 | 37     | 24D30'14" N | 081D13'43" E | NAT  |                            |
| India     | IND  | SAKRAS          | VOR/DME | 117.200   | 200/450 | 29     |     | 119X   | 200/450 | 40     | 27D50'54" N | 077D00'30" E | N    |                            |
| India     | IND  | SALEM           | VOR     | 115.000   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 11D46'57" N | 078D03'39" E | N    | Planned                    |
| India     | IND  | SAMPLA          | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 28D49'11" N | 076D49'10" E | N    |                            |
| India     | IND  | Sarsawa         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/100  | 27     | 29D59'39" N | 077D24'27" E | NAT  |                            |
| India     | IND  | Sarsawa         | VOR/DME | 111.600   | 200/450 | 27     |     | 053X   | 200/450 | 37     | 29D59'31" N | 077D25'48" E | NAT  |                            |
| India     | IND  | SHAHBAJ         | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 18D41'30" N | 073D00'13" E | N    | Not yet commissioned; DVOR |
| India     | IND  | SHIMLA          | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 31D05'13" N | 077D03'53" E | N    | 24May11; DVOR              |
| India     | IND  | SHIRDI          | VOR/DME | 112.000   | 200/450 | 29     |     | 057X   | 200/450 | 40     | 19D41'17" N | 074D23'47" E | N    | FI 21Jun17; DVOR           |
| India     | IND  | SIKANDRABAD     | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 28D23'36" N | 077D42'29" E | N    |                            |
| India     | IND  | SILCHAR         | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 24D55'06" N | 092D59'29" E | N    | 7/02 DME/GP                |
| India     | IND  | SILCHAR         | VOR/DME | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 24D54'57" N | 092D58'51" E | N    |                            |
| India     | IND  | SINDHUDURG      | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 16D00'12" N | 073D32'28" E | NAT  | FI 21JAN19                 |
| India     | IND  | SINDHUDURG      | VOR/DME | 117.200   | 200/450 | 27     |     | 119X   | 200/450 | 37     | 16D00'10" N | 073D33'16" E | NAT  | FI 11June19; DVOR          |
| India     | IND  | SINNAR          | VOR/DME | 116.900   | 200/450 | 29     |     | 116X   | 200/450 | 40     | 19D48'00" N | 073D58'00" E | N    | Planned                    |
| India     | IND  | SIRSA           | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 29D33'36" N | 075D00'28" E | N    | FI ; DVOR                  |
| India     | IND  | SRINAGAR        | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 34D00'07" N | 074D45'23" E | NAT  |                            |
| India     | IND  | SRINAGAR        | VOR/DME | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 33D59'00" N | 074D47'00" E | N    | DVOR                       |
| India     | IND  | SRINAGAR        | VOR/DME | 116.400   | 200/450 | 27     |     | 111X   | 200/450 | 37     | 34D00'09" N | 074D45'15" E | N    | DVOR                       |
| India     | IND  | SULUR           | VOR/DME | 112.000   | 200/450 | 29     |     | 057X   | 200/450 | 40     | 11D00'47" N | 077D09'45" E | N    | FI 7Feb18; DVOR            |
| India     | IND  | SURAT           | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 21D06'13" N | 072D43'58" E | N    |                            |
| India     | IND  | SURAT           | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 21D06'35" N | 072D44'28" E | N    | 29Aug06                    |
| India     | IND  | Suratgarh       | VOR/DME | 114.200   | 200/450 | 27     |     | 089X   | 200/450 | 37     | 29D23'18" N | 073D54'16" E | NAT  |                            |
| India     | IND  | Tambaram        | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 12D54'39" N | 080D06'50" E | NAT  |                            |
| India     | IND  | Tambaram        | VOR/DME | 113.300   | 200/450 | 27     |     | 080X   | 200/450 | 37     | 12D54'16" N | 080D07'18" E | NAT  | DVOR                       |
| India     | IND  | TEZPUR          | VOR/DME | 117.900   | 150/450 | 27     |     | 126X   | 150/450 | 37     | 26D42'37" N | 092D46'48" E | N    | DVOR                       |
| India     | IND  | Thanjavur       | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 10D43'04" N | 079D05'43" E | NAT  |                            |
| India     | IND  | Thanjavur       | VOR/DME | 113.900   | 200/450 | 27     |     | 086X   | 200/450 | 37     | 10D43'03" N | 079D06'14" E | NAT  | DVOR                       |
| India     | IND  | THOISE          | VOR/DME | 117.500   | 200/450 | 27     |     | 122X   | 200/450 | 37     | 34D39'03" N | 077D23'28" E | N    | FI ; DVOR                  |
| India     | IND  | TIRUCHIRAPALLI  | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 10D45'56" N | 078D43'14" E | I    |                            |
| India     | IND  | TIRUCHIRAPALLI  | VOR/DME | 113.100   | 300/450 | 29     |     | 078X   | 300/450 | 40     | 10D45'45" N | 078D42'48" E | I    |                            |
| India     | IND  | TIRUPATHI       | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 13D37'46" N | 079D31'54" E | N    | 19Jun07                    |
| India     | IND  | TIRUPATHI       | VOR/DME | 115.700   | 150/450 | 27     |     | 104X   | 150/450 | 37     | 13D38'04" N | 079D32'21" E | N    | DVOR                       |
| India     | IND  | TRIVANDRUM      | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 08D28'38" N | 076D55'34" E | I    |                            |
| India     | IND  | TRIVANDRUM      | VOR/DME | 115.100   | 300/450 | 29     |     | 098X   | 300/450 | 40     | 08D28'31" N | 076D55'31" E | I    | DVOR                       |
| India     | IND  | TUITICORN       | VOR/DME | 114.300   | 200/450 | 27     |     | 090X   | 200/450 | 37     | 08D43'13" N | 078D02'47" E | NAT  | 11June2019; DVOR           |
| India     | IND  | UDAIPUR         | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 24D37'11" N | 073D54'19" E | N    |                            |
| India     | IND  | UDAIPUR         | VOR/DME | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 24D36'46" N | 073D53'39" E | N    |                            |
| India     | IND  | UTTARLAI        | VOR/DME | 114.500   | 200/450 | 29     |     | 092X   | 200/450 | 40     | 25D48'42" N | 071D29'00" E | N    | FI 7Feb18; DVOR            |
| India     | IND  | VADODARA        | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 22D20'35" N | 073D13'54" E | N    |                            |
| India     | IND  | VADODARA        | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 22D19'51" N | 073D13'29" E | N    |                            |
| India     | IND  | VARANASI        | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 25D27'09" N | 082D50'45" E | N    |                            |
| India     | IND  | VARANASI        | VOR/DME | 113.900   | 300/450 | 29     |     | 086X   | 300/450 | 40     | 25D27'15" N | 082D51'33" E | I    | DVOR                       |
| India     | IND  | VIJAWADA        | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 16D31'39" N | 080D47'21" E | N    | 21Mar08                    |
| India     | IND  | VIJAYAWADA      | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 16D31'14" N | 080D47'39" E | N    | Planned                    |
| India     | IND  | VISAKHAPATANAM  | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 17D43'16" N | 083D13'28" E | N    | 10Apr03; DVOR              |
| India     | IND  | VISAKHAPATNAM   | VOR/DME | 114.000   | 300/450 | 29     |     | 087X   | 300/450 | 40     | 17D40'04" N | 083D15'10" E | I    |                            |
| India     | IND  | VISHAKHAPATNAM  | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 17D43'24" N | 083D14'52" E | N    | 6Oct06                     |
| Indonesia | INS  | AMBON PATTIMURA | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 03D42'25" S | 128D05'23" E | N    | RWY-04                     |
| Indonesia | INS  | AMBON PATTIMURA | VOR/DME | 115.500   | 300/450 | 29     |     | 102X   | 300/450 | 40     | 03D36'53" S | 128D11'09" E | I    | DME NAT; DVOR              |



## Order: Country\_Location\_Frequency

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| Country   | Ctry | Location                 | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks       |
|-----------|------|--------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|---------------|
| Indonesia | INS  | AMBON PATTIMURA          | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 39     | 03D42'53" S | 128D05'13 E | N    | DVOR          |
| Indonesia | INS  | BAJAWA TURELELO SOA      | VOR/DME | 113.500   | 200/450 | 27     |     | 082X   | 200/450 | 37     | 08D42'16" S | 121D02'49 E | N    | DVOR          |
| Indonesia | INS  | BALI NGURAH RAI          | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 08D44'59" S | 115D10'18 E | N    | RWY-27        |
| Indonesia | INS  | BALI NGURAH RAI          | VOR/DME | 116.200   | 200/450 | 27     |     | 109X   | 200/450 | 37     | 08D45'02" S | 115D09'48 E | N    | DVOR          |
| Indonesia | INS  | BALIKPAPAN SULTAN        | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 01D16'25" S | 116D52'53 E | I    | RWY-25        |
| Indonesia | INS  | BALIKPAPAN SULTAN        | VOR/DME | 117.200   | 200/450 | 27     |     | 119X   | 200/450 | 37     | 01D14'44" S | 116D56'25 E | N    | DVOR          |
| Indonesia | INS  | BANDA ACEH               | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 05D31'21" N | 095D25'22 E | N    | DVOR          |
| Indonesia | INS  | BANDA ACEH SULT ISKANDAR | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 05D31'04" N | 095D25'27 E | N    | RWY-17        |
| Indonesia | INS  | BANDAR LAMPUNG RADEN     | VOR/DME | 115.000   | 200/450 | 27     |     | 097X   | 200/450 | 37     | 05D14'31" N | 105D10'32 E | N    | DVOR          |
| Indonesia | INS  | BANDUNG HUSEIN           | VOR/DME | 117.000   | 200/450 | 27     |     | 117X   | 200/450 | 37     | 06D52'55" S | 107D30'44 E | N    | DVOR          |
| Indonesia | INS  | BANJARMASIN              | ILS     | 110.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 03D26'19" S | 114D45'12 E | I    | RWY-10        |
| Indonesia | INS  | BANJARMASIN              | VOR/DME | 112.100   | 200/450 | 29     |     | 058X   | 200/450 | 40     | 03D26'39" S | 114D42'36 E | I    |               |
| Indonesia | INS  | BATAM HANG NADIM         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 01D08'12" S | 104D07'59 E | I    | RWY-04        |
| Indonesia | INS  | BATAM HANG NADIM         | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 01D08'13" S | 104D07'57 E | I    | DVOR          |
| Indonesia | INS  | BAU BAU BETOAMBARI       | VOR/DME | 115.400   | 200/450 | 27     |     | 101X   | 200/450 | 37     | 05D29'09" S | 122D34'06 E | N    | DVOR          |
| Indonesia | INS  | BENGKULU FATMAWATI       | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 03D51'34" S | 102D19'59 E | N    | RWY-13        |
| Indonesia | INS  | BENGKULU FATMAWATI       | VOR/DME | 114.300   | 200/450 | 27     |     | 090X   | 200/450 | 37     | 03D51'41" S | 102D20'21 E | N    | DVOR          |
| Indonesia | INS  | BIAK FRANSKAISEPO        | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 01D11'45" S | 136D07'30 E | I    | RWY-11        |
| Indonesia | INS  | BIAK FRANSKAISEPO        | VOR/DME | 112.500   | 200/450 | 27     |     | 072X   | 200/450 | 37     | 01D10'57" S | 136D05'08 E | N    | DVOR          |
| Indonesia | INS  | BIMA S.M. SALAHUDIN      | VOR/DME | 115.100   | 200/450 | 27     |     | 098X   | 200/450 | 37     | 08D32'23" S | 118D41'26 E | N    | DVOR          |
| Indonesia | INS  | CILACAP TUNGGUL          | VOR/DME | 114.900   | 200/450 | 29     |     | 096X   | 200/450 | 40     | 07D38'41" S | 109D02'08 E | N    | DVOR          |
| Indonesia | INS  | CIREBON CAKRABHUWANA     | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 06D45'22" S | 108D32'18 E | N    | DME NAT; DVOR |
| Indonesia | INS  | CURUG BUDIARTO           | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 06D17'12" S | 106D33'30 E | N    | OFF,RWY-30    |
| Indonesia | INS  | CURUG BUDIARTO           | VOR/DME | 115.800   | 200/450 | 29     |     | 105X   | 200/450 | 40     | 06D17'33" S | 106D34'57 E | N    | DVOR          |
| Indonesia | INS  | GORONTALO DJALALUDDIN    | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 00D38'22" N | 122D51'46 E | N    | WY-09         |
| Indonesia | INS  | GORONTALO DJALALUDDIN    | VOR/DME | 113.500   | 200/450 | 27     |     | 082X   | 200/450 | 37     | 00D38'22" N | 122D51'00 E | N    | DVOR          |
| Indonesia | INS  | INDRAMAYU                | VOR/DME | 116.400   | 200/450 | 27     |     | 111X   | 200/450 | 37     | 01D05'00" N | 117D28'00 E | N    | DVOR          |
| Indonesia | INS  | JAKARTA HALIM            | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 06D16'22" S | 106D52'39 E | N    | RWY-24        |
| Indonesia | INS  | JAKARTA HALIM            | VOR/DME | 113.300   | 300/450 | 29     |     | 080X   | 300/450 | 40     | 06D16'19" S | 106D53'13 E | N    | DVOR          |
| Indonesia | INS  | JAKARTA SOEKARNO HAT     | ILS     | 110.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 06D07'11" S | 106D40'29 E | N    | RWY-25R       |
| Indonesia | INS  | JAKARTA SOEKARNO HAT     | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 06D07'46" S | 106D40'32 E | N    | RWY-07L       |
| Indonesia | INS  | JAKARTA SOEKARNO HAT     | VOR/DME | 114.600   | 200/450 | 27     |     | 093X   | 200/450 | 37     | 05D57'40" S | 107D02'07 E | N    | DVOR          |
| Indonesia | INS  | JAKARTA SOEKARNO HTA     | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 06D07'13" S | 106D38'23 E | N    | RWY-07R       |
| Indonesia | INS  | JAKARTA SOEKARNO HTA     | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 06D07'38" S | 106D39'39 E | I    | RWY-25L       |
| Indonesia | INS  | JAKARTA SOEKARNO HTA     | VOR/DME | 113.600   | 200/450 | 27     |     | 083X   | 200/450 | 37     | 06D10'25" S | 106D33'53 E | I    | DVOR          |
| Indonesia | INS  | JAMBI SULT. THAHA        | VOR/DME | 117.500   | 200/450 | 27     |     | 122X   | 200/450 | 37     | 01D38'02" S | 103D38'33 E | N    | DVOR          |
| Indonesia | INS  | JAYAPURA                 | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 02D34'00" S | 140D31'00 E | I    | RWY-30        |
| Indonesia | INS  | JAYAPURA                 | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 02D34'42" S | 140D30'60 E | I    | DME NAT; DVOR |
| Indonesia | INS  | KAIMANA UTAROM           | VOR/DME | 116.300   | 200/450 | 27     |     | 110X   | 200/450 | 37     | 03D38'41" S | 133D41'38 E | N    | DVOR          |
| Indonesia | INS  | KAO KUABANG              | VOR/DME | 113.700   | 200/450 | 27     |     | 084X   | 200/450 | 37     | 01D11'06" N | 127D53'39 E | N    | DVOR          |
| Indonesia | INS  | KAREL SADSUITUBUN IBRA   | DME     | n/a       | n/a     | n/a    |     | 105X   | 200/450 | 37     | 05D45'22" S | 132D45'43 E | N    |               |
| Indonesia | INS  | KARIMUN JAWA DEWADARU    | VOR/DME | 117.300   | 200/450 | 27     |     | 120X   | 200/450 | 37     | 05D48'01" S | 110D28'48 E | N    | DVOR          |
| Indonesia | INS  | KEDIRI                   | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/100  | 27     | 07D44'26" S | 111D56'20 E | NAT  | Dhoho Airport |
| Indonesia | INS  | KENDARI HALUOLEO         | VOR/DME | 115.000   | 200/450 | 27     |     | 097X   | 200/450 | 37     | 04D05'06" S | 122D24'47 E | N    | DVOR          |
| Indonesia | INS  | KENDARI HALUOLEO         | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 04D05'00" S | 122D25'00 E | N    | RWY-08        |
| Indonesia | INS  | KERINCI DEPATI PARBO     | VOR/DME | 112.200   | 200/450 | 27     |     | 059X   | 200/450 | 37     | 02D06'57" S | 101D23'29 E | N    | OFF;; DVOR    |
| Indonesia | INS  | KETAPANG RAHADI OSMAN    | VOR/DME | 116.800   | 200/450 | 27     |     | 115X   | 200/450 | 37     | 01D48'59" S | 109D57'56 E | N    | DVOR          |
| Indonesia | INS  | KOTA BARU GUSTI          | VOR/DME | 112.900   | 200/450 | 27     |     | 076X   | 200/450 | 37     | 03D17'47" S | 116D09'47 E | N    | DVOR          |
| Indonesia | INS  | KUPANG ELTARI            | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 10D09'59" S | 123D41'30 E | I    | DVOR          |
| Indonesia | INS  | LABUAN BAJO KOMODO       | VOR/DME | 112.600   | 200/450 | 27     |     | 073X   | 200/450 | 37     | 08D28'54" S | 119D53'05 E | N    | DVOR          |



Order: Country\_Location\_Frequency

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| Country   | Ctry | Location                  | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude   | Longitude   | Cat. | Remarks        |
|-----------|------|---------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|------------|-------------|------|----------------|
| Indonesia | INS  | LARANTUKA GEWAYANTANA     | DME     | n/a       | n/a     | n/a    |     | 111X   | 200/450 | 37     | 08D16'29"S | 122D59'57 E | N    |                |
| Indonesia | INS  | LONG BAWAN YUVAI          | DME     | n/a       | n/a     | n/a    |     | 085X   | 200/450 | 37     | 03D53'00"N | 115D42'00 E | N    | OFF            |
| Indonesia | INS  | Luwuk Syukuran Aminuddin  | VOR/DME | 116.100   | 200/450 | 27     |     | 108X   | 200/450 | 37     | 01D01'11"S | 122D47'06 E | N    | DVOR           |
| Indonesia | INS  | MADIUN ISWAHYUDI          | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 07D37'56"S | 111D26'04 E | N    | RWY-17         |
| Indonesia | INS  | MADIUN ISWAHYUDI          | VOR/DME | 116.500   | 200/450 | 27     |     | 112X   | 200/450 | 37     | 07D38'00"S | 111D26'00 E | N    | DVOR           |
| Indonesia | INS  | MAKASAR SULTAN HASANUDDIN | VOR/DME | 110.000   | 200/450 | 27     |     | 037X   | 200/450 | 37     | 05D03'09"S | 119D34'01 E | N    | FI ; DVOR      |
| Indonesia | INS  | MAKASAR SULTAN HASANUDDIN | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 05D04'13"S | 119D33'50 E | N    | RWY-21         |
| Indonesia | INS  | MAKASAR SULTAN HASANUDDIN | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 05D04'13"S | 119D33'50 E | N    | RWY-03         |
| Indonesia | INS  | MAKASAR SULTAN HASANUDDIN | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 05D03'35"S | 119D32'53 E | N    | RWY-31, OFF    |
| Indonesia | INS  | MAKASAR SULTAN HASANUDDIN | VOR/DME | 114.700   | 200/450 | 27     |     | 094X   | 200/450 | 37     | 05D02'16"S | 119D31'08 E | N    | DVOR           |
| Indonesia | INS  | MALANG ABDUL RACHMAN      | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 07D55'01"S | 112D42'38 E | N    | RWY-35         |
| Indonesia | INS  | MALANG ABDUL RACHMAN      | VOR/DME | 116.100   | 200/450 | 27     |     | 108X   | 200/450 | 37     | 07D55'49"S | 112D42'42 E | N    | DVOR           |
| Indonesia | INS  | MALI ALOR                 | VOR/DME | 114.900   | 200/450 | 27     |     | 096X   | 200/450 | 37     | 08D07'56"S | 124D35'49 E | N    | DVOR           |
| Indonesia | INS  | MAMUJU Tampa Padang       | VOR/DME | 115.200   | 200/450 | 27     |     | 099X   | 200/450 | 37     | 02D35'36"S | 119D01'57 E | N    | DVOR           |
| Indonesia | INS  | MANADO SAMRATULANGI       | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 01D33'45"N | 124D55'36 E | N    | RWY-36         |
| Indonesia | INS  | MANADO SAMRATULANGI       | ILS/DME | 111.100   | 25/20   | 17     |     | 048X   | 25/100  | 27     | 01D32'11"N | 124D55'33 E | NAT  |                |
| Indonesia | INS  | MANADO SAMRATULANGI       | VOR/DME | 114.200   | 200/450 | 27     |     | 089X   | 200/450 | 37     | 01D33'19"N | 124D55'40 E | N    | DVOR           |
| Indonesia | INS  | MANADO SAMRATULANGI       | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 01D19'33"N | 124D54'51 E | N    |                |
| Indonesia | INS  | MANADO SAMRATULANGI       | VOR/DME | 114.800   | 200/450 | 27     |     | 095X   | 200/450 | 37     | 01D19'23"N | 124D57'18 E | N    | DVOR           |
| Indonesia | INS  | MANOKWARI RENDANI         | VOR/DME | 115.700   | 200/450 | 27     |     | 104X   | 200/450 | 37     | 00D53'34"S | 134D03'00 E | N    | DVOR           |
| Indonesia | INS  | MATARAM Selaparang        | VOR/DME | 114.500   | 200/450 | 27     |     | 092X   | 200/450 | 37     | 08D33'45"S | 116D06'05 E | N    | OFF; DVOR      |
| Indonesia | INS  | MAUMERE Wai OTI           | VOR     | 114.900   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 08D35'00"S | 122D21'00 E | N    | DVOR           |
| Indonesia | INS  | MAUMERE FRANS SEDA        | VOR/DME | 114.500   | 200/450 | 27     |     | 092X   | 200/450 | 37     | 08D38'16"S | 122D14'15 E | N    | DVOR           |
| Indonesia | INS  | MEDAN BARU KUALANAMU      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 03D39'06"N | 098D53'04 E | N    | RWY-05         |
| Indonesia | INS  | MEDAN BARU KUALANAMU      | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 03D37'26"N | 098D51'24 E | N    | RWY-23         |
| Indonesia | INS  | MEDAN BARU KUALANAMU      | VOR/DME | 112.200   | 200/450 | 27     |     | 059X   | 200/450 | 37     | 03D37'02"N | 098D51'00 E | N    | DVOR           |
| Indonesia | INS  | MEDAN POLONIA             | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 03D34'07"N | 098D40'59 E | I    | RWY-05         |
| Indonesia | INS  | MEDAN POLONIA             | VOR/DME | 113.900   | 300/450 | 29     |     | 086X   | 300/450 | 40     | 03D30'16"N | 098D36'27 E | I    |                |
| Indonesia | INS  | MERAUKE MOPAH             | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 80/100  | 27     | 08D32'11"S | 140D24'52 E | N    | RWY-16         |
| Indonesia | INS  | MERAUKE MOPAH             | VOR/DME | 115.800   | 200/450 | 29     |     | 105X   | 200/450 | 40     | 08D30'58"S | 140D24'49 E | N    | DVOR           |
| Indonesia | INS  | MUKO MUKO MUKO MUKO       | DME     | n/a       | n/a     | n/a    |     | 078X   | 200/450 | 37     | 02D32'32"S | 101D05'19 E | N    | OFF            |
| Indonesia | INS  | NABIRE Douw Aturure       | VOR/DME | 117.300   | 200/450 | 27     |     | 120X   | 200/450 | 37     | 03D22'00"S | 135D30'00 E | N    | DVOR           |
| Indonesia | INS  | NATUNA RANAI              | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 03D53'41"N | 108D23'15 E | N    |                |
| Indonesia | INS  | NATUNA RANAI              | VOR/DME | 112.500   | 200/450 | 27     |     | 072X   | 200/450 | 37     | 03D54'39"N | 108D23'04 E | N    | DVOR           |
| Indonesia | INS  | NUNUKAN NUNUKAN           | VOR/DME | 115.000   | 200/450 | 27     |     | 097X   | 200/450 | 37     | 04D08'16"N | 117D39'51 E | N    | DVOR           |
| Indonesia | INS  | P BINTANG OKSIBIL         | VOR/DME | 113.300   | 200/450 | 27     |     | 080X   | 200/450 | 37     | 04D54'26"S | 140D37'48 E | N    | OFF OFF; DVOR  |
| Indonesia | INS  | PADANG TABING             | VOR/DME | 116.400   | 200/450 | 27     |     | 111X   | 200/450 | 37     | 00D52'47"S | 100D21'04 E | N    | OFF; DVOR      |
| Indonesia | INS  | PADANG MINANGKABAU        | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 00D47'03"S | 100D16'57 E | N    | RWY-33         |
| Indonesia | INS  | PADANG MINANGKABAU        | VOR/DME | 114.700   | 200/450 | 27     |     | 094X   | 200/450 | 37     | 00D47'13"S | 100D16'41 E | N    | DVOR           |
| Indonesia | INS  | PALANGKA RAYA             | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 02D14'37"S | 113D56'57 E | N    | DVOR           |
| Indonesia | INS  | PALANGKA RAYA TJILIK      | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 02D12'57"S | 113D56'20 E | N    | RWY-34         |
| Indonesia | INS  | PALEMBANG                 | VOR/DME | 115.500   | 300/450 | 29     |     | 102X   | 300/450 | 40     | 02D52'43"S | 104D39'11 E | I    | DME NAT; DVOR  |
| Indonesia | INS  | PALEMBANG SULT. MAHMUD    | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 02D53'39"S | 104D41'24 E | I    | RWY-29         |
| Indonesia | INS  | PALEMBANG SULT. MAHMUD    | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 02D53'59"S | 104D41'36 E | N    | RWY-11         |
| Indonesia | INS  | PALU MUTIARA              | VOR/DME | 115.700   | 200/450 | 27     |     | 104X   | 200/450 | 37     | 00D55'00"S | 119D54'24 E | N    | DVOR           |
| Indonesia | INS  | PALU MUTIARA              | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 00D53'06"S | 119D53'41 E | N    |                |
| Indonesia | INS  | PANGKAL PINANG            | VOR/DME | 114.200   | 300/450 | 29     |     | 089X   | 300/450 | 40     | 02D09'40"S | 106D08'25 E | I    | DME NAT; DVOR  |
| Indonesia | INS  | PANGKAL PINANG DEPATI     | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 02D10'25"S | 106D08'31 E | N    | OFF OFF RWY-34 |
| Indonesia | INS  | PANGKAL PINANG DEPATI     | VOR/DME | 114.200   | 200/450 | 27     |     | 089X   | 200/450 | 37     | 02D09'41"S | 106D08'29 E | I    | DVOR           |
| Indonesia | INS  | PANGKALAN BUN             | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 02D43'03"S | 111D41'12 E | N    | DVOR           |
| Indonesia | INS  | PANGKALAN BUN ISKANDAR    | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 02D42'17"S | 111D40'08 E | N    | RWY-13         |



# Order: Country\_Location\_Frequency

37th edition

| Country   | Ctry | Location                 | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks          |
|-----------|------|--------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|------------------|
| Indonesia | INS  | PEKANBARU SULT. SYARIF   | VOR/DME | 112.100   | 300/450 | 27     |     | 058X   | 300/450 | 37     | 02D25°32' N | 101D26°29' E | I    | DVOR             |
| Indonesia | INS  | PEKANBARU SULT. SYARIF   | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 00D28°20' N | 101D26°41' E | N    | RWY-36           |
| Indonesia | INS  | Penajam Paser            | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/100  | 27     | 01D10°01' S | 116D41°58' E | NAT  |                  |
| Indonesia | INS  | PONTIANAK SUPADIO        | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 00D08°33' S | 109D23°52' E | N    |                  |
| Indonesia | INS  | PONTIANAK SUPADIO        | VOR/DME | 113.200   | 200/450 | 29     |     | 079X   | 200/450 | 40     | 00D04°44' S | 109D22°29' E | I    | DVOR             |
| Indonesia | INS  | POSO KASIGUNCU           | VOR/DME | 112.800   | 200/450 | 27     |     | 075X   | 200/450 | 37     | 01D24°29' S | 120D39°38' E | N    | DVOR             |
| Indonesia | INS  | PULAU BANDA BANDANEIRA   | DME     | n/a       | n/a     | n/a    |     | 055X   | 200/450 | 37     | 04D31°19' S | 129D54°15' E | N    | OFF              |
| Indonesia | INS  | PUTUSSIBAU PANGSUMA      | VOR/DME | 114.000   | 200/450 | 27     |     | 087X   | 200/450 | 37     | 00D50°21' N | 112D56°03' E | N    | DVOR             |
| Indonesia | INS  | ROTE D.C.                | VOR/DME | 115.300   | 200/450 | 27     |     | 100X   | 200/450 | 37     | 10D45°52' S | 123D04°22' E | N    | OFF OFF; DVOR    |
| Indonesia | INS  | SAMARINDA TEMINDUNG      | DME     | n/a       | n/a     | n/a    |     | 055X   | 200/450 | 37     | 00D28°55' N | 117D09°25' E | N    | OFF              |
| Indonesia | INS  | SAMPIT H. ASAN           | VOR/DME | 114.500   | 200/450 | 27     |     | 092X   | 200/450 | 37     | 02D30°15' S | 122D58°42' E | N    | DVOR             |
| Indonesia | INS  | SEMARANG AHMAD YANI      | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 06D58°28' S | 110D22°47' E | N    | RWY-13           |
| Indonesia | INS  | SEMARANG AHMAD YANI      | VOR/DME | 115.200   | 200/450 | 17     |     | 099X   | 200/450 | 27     | 06D59°00' S | 110D23°00' E | N    | DVOR             |
| Indonesia | INS  | SILAMPARI LUBUKLINGGAU   | VOR/DME | 114.900   | 200/450 | 27     |     | 096X   | 200/450 | 37     | 03D17°09' S | 102D55°01' E | N    | DVOR             |
| Indonesia | INS  | SILANGIT SIBORONG BORONG | VOR/DME | 115.100   | 200/450 | 27     |     | 098X   | 200/450 | 37     | 02D15°41' N | 098D59°08' E | N    | DVOR/DME         |
| Indonesia | INS  | SOLO ADI SUMARMO         | ILS     | 111.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 07D31°08' S | 110D44°48' W | N    | RWY-26           |
| Indonesia | INS  | SOLO ADI SUMARMO         | VOR/DME | 116.300   | 150/450 | 29     |     | 110X   | 150/450 | 40     | 07D30°28' S | 110D47°40' E | N    | DVOR             |
| Indonesia | INS  | SORONG DOMINE            | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 00D53°41' S | 131D17°51' E | N    | OFF OFF RWY-09   |
| Indonesia | INS  | SORONG DOMINE            | VOR/DME | 117.100   | 200/450 | 29     |     | 118X   | 200/450 | 40     | 00D53°46' S | 131D17°23' E | N    | DVOR             |
| Indonesia | INS  | SUMENEP TRUNOJOYO        | VOR/DME | 114.100   | 200/450 | 27     |     | 088X   | 200/450 | 37     | 07D01°24' S | 113D53°26' E | N    | DVOR             |
| Indonesia | INS  | SURABAYA JUANDA          | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 07D22°57' S | 112D48°10' E | N    | RWY-10           |
| Indonesia | INS  | SURABAYA JUANDA          | VOR/DME | 113.400   | 300/450 | 29     |     | 081X   | 300/450 | 40     | 02D43°38' S | 107D45°11' E | I    | DVOR             |
| Indonesia | INS  | TALAUD MELONGUANE        | VOR/DME | 113.900   | 200/450 | 27     |     | 086X   | 200/450 | 37     | 04D01°05' N | 126D40°33' E | N    | DVOR             |
| Indonesia | INS  | TANJUNG PANDAN           | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 02D43°48' S | 107D45°12' E | N    | RWY-18           |
| Indonesia | INS  | TANJUNG PANDAN           | VOR/DME | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 02D43°28' S | 107D45°11' E | N    | DVOR             |
| Indonesia | INS  | TANJUNG PINANG           | VOR/DME | 114.800   | 200/450 | 27     |     | 095X   | 200/450 | 37     | 00D56°11' S | 104D31°40' E | N    | DVOR             |
| Indonesia | INS  | TANJUNG REDEB KALIMARAU  | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 02D09°37' N | 117D26°02' E | N    | RWY-19           |
| Indonesia | INS  | TANJUNG REDEB KALIMARAU  | VOR/DME | 116.800   | 200/450 | 27     |     | 115X   | 200/450 | 37     | 02D09°13' N | 117D25°50' E | N    | DVOR             |
| Indonesia | INS  | TARAKAN JUWATA           | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 03D19°00' N | 117D33°00' E | N    | RWY-24           |
| Indonesia | INS  | TARAKAN JUWATA           | VOR/DME | 116.600   | 200/450 | 27     |     | 113X   | 200/450 | 37     | 03D02°00' N | 117D34°00' E | N    | DVOR             |
| Indonesia | INS  | TERNATE SULTAN NABULLAH  | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 02D32°29' S | 101D05°26' E | N    | RWY-14           |
| Indonesia | INS  | TERNATE SULTAN NABULLAH  | VOR/DME | 112.600   | 200/450 | 27     |     | 073X   | 200/450 | 37     | 00D50°27' N | 127D22°29' E | N    | DVOR             |
| Indonesia | INS  | TIMIKA MOZES KILANGIN    | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 80/100  | 27     | 04D32°11' S | 136D53°53' E | N    | RWY-12           |
| Indonesia | INS  | TIMIKA MOZES KILANGIN    | VOR/DME | 112.700   | 200/450 | 27     |     | 074X   | 200/450 | 37     | 04D31°55' S | 136D53°12' E | N    | DVOR             |
| Indonesia | INS  | WAIKABUBAK TAMBOLAKA     | VOR/DME | 113.100   | 200/450 | 27     |     | 078X   | 200/450 | 37     | 09D24°31' S | 120D14°53' E | N    | DVOR             |
| Indonesia | INS  | WAINGAPU UMBU            | VOR/DME | 117.300   | 200/450 | 27     |     | 120X   | 200/450 | 37     | 09D40°11' S | 120D18°14' E | N    | DVOR             |
| Indonesia | INS  | YOGYAKARTA ADI SUCIPTO   | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 07D47°16' S | 110D25°41' E | N    | RWY-09           |
| Indonesia | INS  | YOGYAKARTA ADI SUCIPTO   | VOR/DME | 112.800   | 200/450 | 27     |     | 075X   | 200/450 | 37     | 07D48°01' S | 110D18°34' E | N    | DVOR             |
| Japan     | J    | AGUNI                    | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 34D26°00' N | 135D12°00' E | I    | FI 20Dec13       |
| Japan     | J    | AGUNI                    | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 80/100  | 27     | 35D47°00' N | 140D24°00' E | N    | 24Dec13          |
| Japan     | J    | AGUNI                    | VOR/DME | 113.450   | 200/450 | 29     |     | 081Y   | 200/450 | 40     | 32D29°00' N | 130D10°00' E | N    | FI 20Dec13; DVOR |
| Japan     | J    | AKENO                    | TACAN   | n/a       | n/a     | n/a    |     | 057Y   | 200/450 | 40     | 34D32°00' N | 136D41°00' E | N    | FI 20Dec13       |
| Japan     | J    | AKITA                    | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 39D37°00' N | 140D12°00' E | N    | DME 26 AT GP     |
| Japan     | J    | AKITA                    | DME     | n/a       | n/a     | n/a    |     | 108X   | 200/450 | 40     | 39D43°00' N | 140D04°00' E | I    | 20Dec13          |
| Japan     | J    | AMAKUSA                  | VOR/DME | 113.450   | 200/450 | 29     |     | 081Y   | 200/450 | 40     | 32D29°00' N | 130D10°00' E | N    | FI 20Dec13; DVOR |
| Japan     | J    | AMAMI                    | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 28D26°00' N | 129D43°00' E | N    | DME 30 AT GP     |
| Japan     | J    | AMAMI                    | VOR/DME | 113.950   | 200/450 | 29     |     | 086Y   | 200/450 | 40     | 28D26°00' N | 129D43°00' E | N    | 20Dec13; DVOR    |
| Japan     | J    | AMAMI                    | VOR/TAC | 115.500   | 200/450 | 29     |     | 102X   | 200/450 | 40     | 28D27°00' N | 129D35°00' E | N    | 20Dec13; DVOR    |
| Japan     | J    | AMI                      | VOR/DME | 116.000   | 200/450 | 29     |     | 107X   | 200/450 | 40     | 36D01°00' N | 140D12°00' E | N    | DVOR             |
| Japan     | J    | AOMORI                   | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 25/62.5 | 27     | 40D43°00' N | 140D40°00' E | N    | DME56 AT GP      |



# Order: Country\_Location\_Frequency

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| Country | Ctry | Location       | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                            |
|---------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|------------------------------------|
| Japan   | J    | AOMORI         | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 40D44'00" N | 140D42'00 E | N    | DVOR                               |
| Japan   | J    | ASAHIKAWA      | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 43D42'00" N | 142D26'00 E | N    | 20Dec13                            |
| Japan   | J    | ASAHIKAWA      | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 43D40'00" N | 142D27'00 E | I    | 20Dec13; DVOR                      |
| Japan   | J    | ASHIYA         | TACAN   | n/a       | n/a     | n/a    |     | 023X   | 200/450 | 40     | 33D53'00" N | 130D39'00 E | N    |                                    |
| Japan   | J    | ATSUGI         | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 35D28'00" N | 139D27'00 E | N    |                                    |
| Japan   | J    | ATSUGI         | TACAN   | n/a       | n/a     | n/a    |     | 098X   | 200/450 | 40     | 35D27'00" N | 139D27'00 E | N    |                                    |
| Japan   | J    | AWAJI          | VOR/DME | 115.600   | 200/450 | 29     |     | 103X   | 200/450 | 40     | 34D16'00" N | 134D43'00 E | N    | 20Dec13; DVOR                      |
| Japan   | J    | CHINEN         | TACAN   | n/a       | n/a     | n/a    |     | 089X   | 200/450 | 40     | 26D10'00" N | 127D48'00 E | N    |                                    |
| Japan   | J    | CHITOSE        | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 42D49'00" N | 141D40'00 E | N    |                                    |
| Japan   | J    | CHITOSE        | TACAN   | n/a       | n/a     | n/a    |     | 029X   | 200/450 | 40     | 42D46'00" N | 141D40'00 E | N    | NOT CO LOC VOR 116.9               |
| Japan   | J    | CHOSHI         | VOR/TAC | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 35D44'00" N | 140D48'00 E | N    | DVOR                               |
| Japan   | J    | CHUBU CENTRAIR | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 34D50'00" N | 136D49'00 E | N    | FI 20Dec13                         |
| Japan   | J    | CHUBU CENTRAIR | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 34D53'00" N | 136D48'00 E | N    | FI 20Dec13                         |
| Japan   | J    | CHUBU CENTRAIR | VOR/DME | 117.800   | 200/450 | 29     |     | 125X   | 200/450 | 40     | 34D51'00" N | 136D48'00 E | N    | FI 20Dec13; DVOR                   |
| Japan   | J    | DAIGO          | VOR/TAC | 115.300   | 100/450 | 23     |     | 100X   | 100/450 | 27     | 36D45'00" N | 140D21'00 E | I    | 20Dec13; DVOR                      |
| Japan   | J    | ERABU          | VOR/TAC | 113.100   | 100/450 | 23     |     | 078X   | 100/450 | 27     | 27D26'00" N | 128D42'00 E | I    | Frequency/ChannelOK? 20Dec13; DVOR |
| Japan   | J    | FUKUE          | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 32D41'00" N | 128D50'00 E | N    |                                    |
| Japan   | J    | FUKUE          | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 32D40'00" S | 128D50'00 E | N    | DME Loc 3820Dec13                  |
| Japan   | J    | FUKUE          | VOR/DME | 115.800   | 200/450 | 29     |     | 105X   | 200/450 | 40     | 32D40'00" N | 128D50'00 E | I    | DVOR                               |
| Japan   | J    | FUKUOKA        | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 33D36'00" N | 130D27'00 E | N    | FI 20Dec13                         |
| Japan   | J    | FUKUOKA        | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 33D34'00" N | 130D28'00 E | I    | 20Dec13                            |
| Japan   | J    | FUKUOKA        | VOR/TAC | 114.500   | 200/450 | 29     |     | 092X   | 200/450 | 40     | 33D41'00" N | 130D23'00 E | I    | 20Dec13; DVOR                      |
| Japan   | J    | FUKUSHIMA      | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 37D14'00" N | 140D26'00 E | N    | DME 42 AT GP                       |
| Japan   | J    | FUKUSHIMA      | VOR/DME | 113.450   | 200/450 | 29     |     | 081Y   | 200/450 | 40     | 37D13'00" N | 140D26'00 E | N    | DVOR                               |
| Japan   | J    | FUTENMA        | TACAN   | n/a       | n/a     | n/a    |     | 042X   | 200/450 | 40     | 26D16'00" N | 127D45'00 E | N    |                                    |
| Japan   | J    | GIFU           | TACAN   | n/a       | n/a     | n/a    |     | 059Y   | 200/450 | 40     | 35D23'00" N | 136D52'00 E | N    | FI 20Dec13                         |
| Japan   | J    | GOBOH          | DME     | n/a       | n/a     | n/a    |     | 116X   | 200/450 | 40     | 33D55'00" N | 135D06'00 E | N    |                                    |
| Japan   | J    | HACHIJO JIMA   | VOR/DME | 116.650   | 200/450 | 29     |     | 113Y   | 200/450 | 40     | 33D07'00" N | 139D47'00 E | N    | 20Dec13; DVOR                      |
| Japan   | J    | HACHIJOJIMA    | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 33D07'00" N | 139D47'00 E | N    | DME38 AT LOC                       |
| Japan   | J    | HACHINOHE      | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 40D33'00" N | 141D27'00 E | N    |                                    |
| Japan   | J    | HACHINOHE      | TACAN   | n/a       | n/a     | n/a    |     | 023X   | 200/450 | 40     | 40D33'00" N | 141D28'00 E | N    |                                    |
| Japan   | J    | HAKODATE       | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 41D46'00" N | 140D51'00 E | I    | 20Dec13                            |
| Japan   | J    | HAKODATE       | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 41D46'00" N | 140D50'00 E | I    | DVOR                               |
| Japan   | J    | HAMAMATSU      | DME     | n/a       | n/a     | n/a    |     | 037X   | 200/450 | 40     | 34D45'00" N | 137D41'00 E | N    | 20Dec13                            |
| Japan   | J    | HAMAMATSU      | TACAN   | n/a       | n/a     | n/a    |     | 094X   | 200/450 | 40     | 34D45'00" N | 137D43'00 E | N    |                                    |
| Japan   | J    | HANAMAKI       | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 39D25'00" N | 141D08'00 E | N    | 20Dec13                            |
| Japan   | J    | HANAMAKI       | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 39D26'00" N | 141D09'00 E | N    | DVOR                               |
| Japan   | J    | HIROSHIMA      | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 34D26'00" N | 132D56'00 E | I    | DME 24 AT GP                       |
| Japan   | J    | HIROSHIMA      | VOR/DME | 117.900   | 200/450 | 29     |     | 126X   | 200/450 | 40     | 34D26'00" N | 132D55'00 E | I    | FI 20Dec13; DVOR                   |
| Japan   | J    | HOFU           | TACAN   | n/a       | n/a     | n/a    |     | 077X   | 200/450 | 40     | 34D02'00" N | 131D33'00 E | N    |                                    |
| Japan   | J    | HYAKURI        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 36D12'00" N | 140D25'00 E | N    | FI 20Dec13                         |
| Japan   | J    | HYAKURI        | VOR/TAC | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 36D11'00" N | 140D25'00 E | N    | 20Dec13; DVOR                      |
| Japan   | J    | IKI            | VOR/DME | 113.200   | 200/450 | 29     |     | 079X   | 200/450 | 40     | 33D45'00" N | 129D47'00 E | I    | DVOR                               |
| Japan   | J    | IRUMA          | TACAN   | n/a       | n/a     | n/a    |     | 043X   | 200/450 | 40     | 35D50'00" N | 139D25'00 E | N    |                                    |
| Japan   | J    | ISHIGAKI       | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 24D20'00" N | 124D11'00 E | N    | DVOR                               |
| Japan   | J    | IWAKI          | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 37D09'00" N | 140D59'00 E | I    |                                    |
| Japan   | J    | IWAKUNI        | TACAN   | n/a       | n/a     | n/a    |     | 035X   | 200/450 | 40     | 34D10'00" N | 132D15'00 E | N    |                                    |
| Japan   | J    | IWAMI          | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 25/62.5 | 27     | 34D40'00" N | 131D48'00 E | N    | DME 18 AT GP                       |
| Japan   | J    | IWAMI          | VOR/DME | 115.050   | 200/450 | 29     |     | 097Y   | 200/450 | 40     | 34D41'00" N | 131D47'00 E | N    | DVOR                               |
| Japan   | J    | IWOTO          | TACAN   | n/a       | n/a     | n/a    |     | 035X   | 200/450 | 40     | 24D47'00" N | 141D19'00 E | N    |                                    |
| Japan   | J    | IZUMO          | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 35D24'00" N | 132D53'00 E | N    |                                    |



## Order: Country\_Location\_Frequency

37th edition

| Country | Ctry | Location       | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks             |
|---------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------------|
| Japan   | J    | IZUMO          | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 35D25'00" N | 132D54'00" E | N    | DVOR                |
| Japan   | J    | KADENA         | ILS     | 108.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 26D21'00" N | 127D45'00" E | N    |                     |
| Japan   | J    | KADENA         | ILS     | 109.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 26D22'00" N | 127D47'00" E | N    |                     |
| Japan   | J    | KADENA         | VOR     | 112.000   | 300/450 | 29     |     | n/a    | n/a     | n/a    | 26D21'00" N | 127D46'00" E | N    |                     |
| Japan   | J    | KADENA         | TACAN   | n/a       | n/a     | n/a    |     | 057X   | 200/450 | 40     | 26D21'00" N | 127D46'00" E | N    | CO LOCATED WITH VOR |
| Japan   | J    | KAGAWA         | VOR/DME | 108.400   | 200/450 | 29     |     | 021X   | 200/450 | 40     | 34D13'00" N | 134D01'00" E | N    | DVOR                |
| Japan   | J    | KAGOSHIMA      | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 31D49'00" N | 130D43'00" E | I    | 20Dec13             |
| Japan   | J    | KAGOSHIMA      | VOR/TAC | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 31D42'00" N | 130D35'00" E | I    | 20Dec13; DVOR       |
| Japan   | J    | KAGOSHIMA      | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 31D39'00" N | 130D51'00" E | N    | 20Dec13; DVOR       |
| Japan   | J    | KAJIKI         | VOR/DME | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 31D48'00" N | 130D44'00" E | N    | DVOR                |
| Japan   | J    | KANOYA         | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 31D22'00" N | 130D50'00" E | N    | 20Dec13             |
| Japan   | J    | KANOYA         | TACAN   | n/a       | n/a     | n/a    |     | 085X   | 200/450 | 40     | 31D22'00" N | 130D50'00" E | N    |                     |
| Japan   | J    | KANSAI         | VOR/DME | 111.800   | 200/450 | 29     |     | 055X   | 200/450 | 40     | 34D26'00" N | 135D15'00" E | I    | DVOR                |
| Japan   | J    | KANSAI INTL    | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 25/62.5 | 27     | 34D26'00" N | 135D16'00" E | I    | DME 18 AT GP        |
| Japan   | J    | KANSAI INTL    | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 34D27'00" N | 135D15'00" E | I    | FI 20Dec13          |
| Japan   | J    | KANSAI INTL    | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 34D25'00" N | 135D14'00" E | I    | DME 44 AT GP        |
| Japan   | J    | KISARAZU       | VOR/DME | 114.500   | 200/450 | 29     |     | 092X   | 200/450 | 40     | 35D24'00" N | 139D54'00" E | N    | DVOR                |
| Japan   | J    | KITAKYUSHU     | ILS/DME | 109.150   | 25/62.5 | 17     |     | 028Y   | 80/100  | 27     | 33D50'00" N | 131D02'00" E | N    | FI 20Dec13          |
| Japan   | J    | KITAKYUSHU     | VOR/DME | 113.850   | 200/450 | 29     |     | 085Y   | 200/450 | 40     | 33D51'00" N | 131D02'00" E | N    | FI 20Dec13; DVOR    |
| Japan   | J    | KOBE           | ILS/DME | 109.150   | 25/62.5 | 17     |     | 028Y   | 80/100  | 27     | 34D38'00" N | 135D14'00" E | N    | FI DME 28 GP        |
| Japan   | J    | KOBE           | VOR/DME | 111.250   | 200/450 | 29     |     | 049Y   | 200/450 | 40     | 34D38'00" N | 135D14'00" E | N    | FI 20Dec13; DVOR    |
| Japan   | J    | KOCHI          | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 33D33'00" N | 133D39'00" E | N    | DME46 AT GP         |
| Japan   | J    | KOCHI          | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 33D33'00" N | 133D41'00" E | N    | DVOR                |
| Japan   | J    | KOMATSU        | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 36D24'00" N | 136D25'00" E | N    | DME 38 AT GP        |
| Japan   | J    | KOMATSU        | VOR/TAC | 112.000   | 200/450 | 29     |     | 057X   | 200/450 | 40     | 36D24'00" N | 136D24'00" E | I    | DVOR                |
| Japan   | J    | KOMATSUSHIMA   | TACAN   | n/a       | n/a     | n/a    |     | 082Y   | 200/450 | 40     | 34D00'00" N | 134D38'00" E | N    | FI 20Dec13          |
| Japan   | J    | KOWA           | VOR/TAC | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 34D42'00" N | 136D57'00" E | I    | DVOR                |
| Japan   | J    | KUGA           | VOR/TAC | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 34D05'00" N | 132D09'00" E | I    | DVOR                |
| Japan   | J    | KUMAMOTO       | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 32D50'00" N | 130D51'00" E | I    |                     |
| Japan   | J    | KUMAMOTO       | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 32D50'00" N | 130D50'00" E | I    | FI 20Dec13; DVOR    |
| Japan   | J    | KUMEJIMA       | ILS/DME | 110.950   | 25/62.5 | 17     |     | 046Y   | 80/100  | 27     | 26D22'00" N | 126D43'00" E | I    | FI DME 46 LOC       |
| Japan   | J    | KUMEJIMA       | VOR/TAC | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 26D22'00" N | 126D43'00" E | N    | DVOR                |
| Japan   | J    | KUSHIMOTO      | VOR/TAC | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 33D27'00" N | 135D48'00" E | I    | DVOR                |
| Japan   | J    | KUSHIRO        | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 43D02'00" N | 144D12'00" E | N    | DME26 GP            |
| Japan   | J    | KUSHIRO        | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 43D02'00" N | 144D12'00" E | N    | DVOR                |
| Japan   | J    | MAIZURU        | TACAN   | n/a       | n/a     | n/a    |     | 033Y   | 200/450 | 40     | 35D33'00" N | 135D26'00" E | N    | FI 20Dec13          |
| Japan   | J    | MATSUMAE       | TACAN   | n/a       | n/a     | n/a    |     | 058X   | 200/450 | 40     | 41D26'00" N | 140D05'00" E | N    |                     |
| Japan   | J    | MATSUMOTO      | VOR/DME | 117.600   | 200/450 | 29     |     | 123X   | 200/450 | 40     | 36D09'00" N | 137D55'00" E | N    | DVOR                |
| Japan   | J    | MATSUSHIMA     | TACAN   | n/a       | n/a     | n/a    |     | 090X   | 200/450 | 40     | 38D24'00" N | 141D14'00" E | N    |                     |
| Japan   | J    | MATSUYAMA      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 33D49'00" N | 132D43'00" E | N    | DME-30 AT GP        |
| Japan   | J    | MATSUYAMA      | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 33D49'00" N | 132D43'00" E | N    | DVOR                |
| Japan   | J    | MEMANBETSU     | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 43D52'00" N | 114D10'00" E | N    |                     |
| Japan   | J    | MEMANBETSU     | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 43D53'00" N | 144D10'00" E | N    | FI 24Dec13 R40 GP   |
| Japan   | J    | MEMANBETSU     | VOR/DME | 110.850   | 200/450 | 29     |     | 045Y   | 200/450 | 40     | 43D53'00" N | 144D10'00" E | N    | DVOR                |
| Japan   | J    | MIHO           | ILS/DME | 108.950   | 25/62.5 | 17     |     | 026Y   | 80/100  | 27     | 35D29'00" N | 133D13'00" E | N    | FI 24Dec13 RWY26 GP |
| Japan   | J    | MIHO           | VOR/TAC | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 35D32'00" N | 133D06'00" E | I    | DVOR                |
| Japan   | J    | MINAMIDAITO    | VOR/DME | 117.800   | 200/450 | 29     |     | 125X   | 200/450 | 40     | 25D51'00" N | 131D16'00" E | N    | 24Dec13 ; DVOR      |
| Japan   | J    | MINAMITOISHIMA | TACAN   | n/a       | n/a     | n/a    |     | 023X   | 200/450 | 40     | 24D18'00" N | 153D95'00" E | N    | FI 24Dec13          |
| Japan   | J    | MISAWA         | ILS     | 109.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 40D42'00" N | 141D23'00" E | N    | FI 24Dec13          |
| Japan   | J    | MISAWA         | VOR/TAC | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 40D42'00" N | 141D23'00" E | N    |                     |



# Order: Country\_Location\_Frequency

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| Country | Ctry | Location       | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks           |
|---------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|-------------------|
| Japan   | J    | MISHIMA        | TACAN   | n/a       | n/a     | n/a    |     | 043X   | 200/450 | 40     | 34D46'00" N | 131D08'00 E | N    | FI 24Dec13        |
| Japan   | J    | MIYAKE JIMA    | VOR/DME | 109.000   | 200/450 | 29     |     | 027X   | 200/450 | 40     | 34D07'00" N | 139D30'00 E | I    | 24Dec13; DVOR     |
| Japan   | J    | MIYAKO         | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 39D52'00" N | 141D57'00 E | N    | DVOR              |
| Japan   | J    | MIYAKOJIMA     | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 24D46'00" N | 125D17'00 E | N    | FI 24Dec13        |
| Japan   | J    | MIYAKOJIMA     | VOR/TAC | 117.500   | 200/450 | 29     |     | 122X   | 200/450 | 40     | 24D47'00" N | 125D18'00 E | N    | DVOR              |
| Japan   | J    | MIYAZAKI       | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 31D53'00" N | 131D26'00 E | N    | DME 26 AT GP      |
| Japan   | J    | MIYAZAKI       | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 31D53'00" N | 131D26'00 E | N    | DVOR              |
| Japan   | J    | MIYAZU         | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 35D29'00" N | 135D08'00 E | I    | DVOR              |
| Japan   | J    | MONBETSU       | ILS/DME | 111.550   | 25/62.5 | 17     |     | 052Y   | 80/100  | 27     | 44D19'00" N | 143D24'00 E | N    | FI 24Dec13 at GP  |
| Japan   | J    | MONBETSU       | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 44D18'00" N | 143D24'00 E | N    | DVOR              |
| Japan   | J    | MORIYA         | DME     | n/a       | n/a     | n/a    |     | 087X   | 200/450 | 40     | 35D56'00" N | 139D59'00 E | N    |                   |
| Japan   | J    | MUKAWA         | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 42D33'00" N | 141D57'00 E | N    | DVOR              |
| Japan   | J    | NAGASAKI       | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 32D56'00" N | 129D54'00 E | I    |                   |
| Japan   | J    | NAGOYA         | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 35D16'00" N | 136D55'00 E | N    |                   |
| Japan   | J    | NAGOYA         | VOR/TAC | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 35D16'00" N | 136D55'00 E | I    | DVOR              |
| Japan   | J    | NAHA           | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 26D13'00" N | 127D39'00 E | I    | DME-40 AT GP      |
| Japan   | J    | NAHA           | VOR/TAC | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 26D12'00" N | 127D39'00 E | I    | DVOR              |
| Japan   | J    | NAKASHIBETSU   | ILS/DME | 109.350   | 25/62.5 | 17     |     | 030Y   | 25/62.5 | 27     | 43D35'00" N | 144D58'00 E | N    |                   |
| Japan   | J    | NAKASHIBETSU   | VOR/DME | 111.450   | 200/450 | 29     |     | 051Y   | 200/450 | 40     | 43D35'00" N | 144D57'00 E | N    | DVOR              |
| Japan   | J    | NAKATANE       | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 30D36'00" N | 130D59'00 E | N    | 24Dec13 ; DVOR    |
| Japan   | J    | NANKISHIRAHAMA | ILS/DME | 108.550   | 25/62.5 | 17     |     | 022Y   | 80/100  | 27     | 33D39'00" N | 135D22'00 E | N    | FI 24Dec13        |
| Japan   | J    | NANKISHIRAHAMA | VOR/DME | 109.050   | 200/450 | 29     |     | 027Y   | 200/450 | 40     | 33D40'00" N | 135D22'00 E | N    | FI 24Dec13 ; DVOR |
| Japan   | J    | NARITA         | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 35D47'00" N | 140D16'00 E | I    | FI 24Dec13 ; DVOR |
| Japan   | J    | NARITA         | VOR/DME | 117.900   | 200/450 | 29     |     | 126X   | 200/450 | 40     | 35D47'00" N | 140D22'00 E | I    | DVOR              |
| Japan   | J    | NARITA INTL AP | ILS/DME | 108.550   | 25/62.5 | 17     |     | 022Y   | 80/100  | 27     | 35D44'00" N | 140D24'00 E | N    | FI 24Dec13        |
| Japan   | J    | NARITA INTL AP | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 35D48'00" N | 140D23'00 E | I    | FI 24Dec13        |
| Japan   | J    | NARITA INTL AP | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 35D47'00" N | 140D22'00 E | N    | 24Dec13           |
| Japan   | J    | NARITA INTL AP | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 35D56'00" N | 139D59'00 E | I    | 24Dec13 ; DVOR    |
| Japan   | J    | NARITA INTL AP | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 35D49'00" N | 140D22'00 E | I    | 24Dec13 ; DVOR    |
| Japan   | J    | NASU           | DME     | n/a       | n/a     | n/a    |     | 095X   | 200/450 | 40     | 36D47'00" N | 140D02'00 E | N    |                   |
| Japan   | J    | NEW CHITOSE    | ILS/DME | 110.750   | 25/62.5 | 17     |     | 044Y   | 80/100  | 27     | 35D47'00" N | 141D41'00 E | I    | FI 24Dec13        |
| Japan   | J    | NEW CHITOSE    | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 42D47'00" N | 141D41'00 E | N    | DME 46 AT GP      |
| Japan   | J    | NEW CHITOSE    | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 42D46'00" N | 141D42'00 E | N    |                   |
| Japan   | J    | NEW CHITOSE    | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 42D33'00" N | 141D57'00 E | I    | FI 24Dec13 ; DVOR |
| Japan   | J    | NIIGATA        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 37D57'00" N | 139D06'00 E | I    |                   |
| Japan   | J    | NIIGATA        | VOR/TAC | 115.500   | 200/450 | 29     |     | 102X   | 200/450 | 40     | 37D57'00" N | 139D07'00 E | I    | DVOR              |
| Japan   | J    | NIJIMA         | VOR/TAC | 116.500   | 100/450 | 23     |     | 112X   | 100/450 | 27     | 34D21'00" N | 139D16'00 E | N    | 26Dec13; DVOR     |
| Japan   | J    | NOTO           | ILS/DME | 108.950   | 25/62.5 | 17     |     | 026Y   | 80/100  | 27     | 37D17'00" N | 136D57'00 E | N    | FI 26Dec13        |
| Japan   | J    | NOTO           | VOR/DME | 111.450   | 200/450 | 29     |     | 051Y   | 200/450 | 40     | 37D17'00" N | 136D58'00 E | N    | FI 26Dec13; DVOR  |
| Japan   | J    | NYUTABARU      | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 32D05'00" N | 131D26'00 E | N    |                   |
| Japan   | J    | NYUTABARU      | TACAN   | n/a       | n/a     | n/a    |     | 097X   | 200/450 | 40     | 32D05'00" N | 131D27'00 E | N    |                   |
| Japan   | J    | OBIHIRO        | VOR/DME | 109.650   | 200/450 | 29     |     | 033Y   | 200/450 | 40     | 42D44'00" N | 143D13'00 E | N    | DVOR              |
| Japan   | J    | OBIHIRO        | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 42D45'00" N | 143D13'00 E | N    | 54 at GP          |
| Japan   | J    | ODATE-NOSHIRO  | ILS/DME | 110.150   | 25/62.5 | 17     |     | 038Y   | 80/100  | 27     | 40D11'00" N | 140D23'00 E | N    | FI 38 at GP       |
| Japan   | J    | ODATE-NOSHIRO  | VOR/DME | 114.750   | 200/450 | 29     |     | 094Y   | 200/450 | 40     | 40D12'00" N | 140D22'00 E | N    | FI ; DVOR         |
| Japan   | J    | OITA           | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 33D30'00" N | 131D44'00 E | I    | DME-52 AT GP      |
| Japan   | J    | OITA           | VOR/DME | 112.100   | 200/450 | 29     |     | 058X   | 200/450 | 40     | 33D13'00" N | 131D42'00 E | I    | DVOR              |
| Japan   | J    | OITA           | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 33D29'00" N | 131D44'00 E | I    | FI ; DVOR         |
| Japan   | J    | OKAYAMA        | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 34D46'00" N | 135D52'00 E | I    |                   |
| Japan   | J    | OKAYAMA        | VOR/DME | 111.000   | 200/450 | 29     |     | 047X   | 200/450 | 40     | 34D45'00" N | 133D50'00 E | I    | 26Dec13; DVOR     |
| Japan   | J    | OKAYAMA        | VOR/TAC | 115.900   | 200/450 | 29     |     | 106X   | 200/450 | 40     | 34D40'00" N | 134D01'00 E | N    | 26Dec13; DVOR     |



## Order: Country\_Location\_Frequency

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| Country | Ctry | Location      | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks          |
|---------|------|---------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|------------------|
| Japan   | J    | OKI           | VOR/DME | 109.250   | 200/450 | 29     |     | 029Y   | 200/450 | 40     | 36D11'00" N | 133D19'00" E | N    | 26Dec13; DVOR    |
| Japan   | J    | OKI           | ILS/DME | 111.550   | 25/62.5 | 17     |     | 052Y   | 200/450 | 37     | 36D11'00" N | 133D20'00" E | N    | FI 52 at LOC     |
| Japan   | J    | OKUSHIRI      | VOR/DME | 109.850   | 200/450 | 29     |     | 035Y   | 200/450 | 40     | 42D04'00" N | 139D27'00" E | N    | 26Dec13; DVOR    |
| Japan   | J    | OMINATO       | TACAN   | n/a       | n/a     | n/a    |     | 095Y   | 200/450 | 40     | 41D14'00" N | 141D08'00" E | N    | FI 52 at LOC     |
| Japan   | J    | OMURA         | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 32D54'00" N | 129D55'00" E | N    | FI ; DVOR        |
| Japan   | J    | OMURA         | TACAN   | n/a       | n/a     | n/a    |     | 087Y   | 200/450 | 40     | 32D56'00" N | 129D56'00" E | N    | FI 26Dec13       |
| Japan   | J    | ONJUKU        | VOR/TAC | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 35D11'00" N | 140D22'00" E | N    | DVOR             |
| Japan   | J    | OSAKA INTL.   | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 34D48'00" N | 135D26'00" E | I    | 38 at GP         |
| Japan   | J    | OSAKA INTL.   | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 34D47'00" N | 135D27'00" E | I    | DVOR             |
| Japan   | J    | OSHIMA        | ILS/DME | 109.350   | 25/62.5 | 17     |     | 030Y   | 80/100  | 27     | 34D48'00" N | 139D22'00" E | N    | FI 26Dec13       |
| Japan   | J    | OSHIMA        | VOR/DME | 109.850   | 200/450 | 29     |     | 035Y   | 200/450 | 40     | 34D47'00" N | 139D22'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | OSHIMA        | VOR/TAC | 113.100   | 100/450 | 23     |     | 078X   | 100/450 | 27     | 34D43'00" N | 139D25'00" E | N    | 26Dec13; DVOR    |
| Japan   | J    | OTSU          | VOR/DME | 117.100   | 200/450 | 29     |     | 118X   | 200/450 | 40     | 35D01'00" N | 135D50'00" E | I    | DVOR             |
| Japan   | J    | OYAMA         | VOR/DME | 108.650   | 200/450 | 29     |     | 023Y   | 200/450 | 40     | 34D04'00" N | 139D34'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | OZUKI         | TACAN   | n/a       | n/a     | n/a    |     | 058Y   | 200/450 | 40     | 34D03'00" N | 131D03'00" E | N    | FI 26Dec13       |
| Japan   | J    | RISHIRI       | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 45D14'00" N | 141D11'00" E | N    | 26Dec13          |
| Japan   | J    | RISHIRI       | VOR/DME | 114.600   | 200/450 | 29     |     | 093X   | 200/450 | 40     | 45D15'00" N | 141D11'00" E | N    | DVOR             |
| Japan   | J    | SAGA          | ILS/DME | 110.150   | 25/62.5 | 17     |     | 038Y   | 80/100  | 27     | 33D09'00" N | 130D17'00" E | N    | FI 26Dec13       |
| Japan   | J    | SAGA          | VOR/DME | 114.750   | 200/450 | 29     |     | 094Y   | 200/450 | 40     | 33D09'00" N | 130D18'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | SAKURA        | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 35D47'00" N | 140D16'00" E | N    | DVOR             |
| Japan   | J    | SAPPORO       | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 43D10'00" N | 141D18'00" E | N    | DVOR             |
| Japan   | J    | SEKIYADO      | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 36D01'00" N | 139D50'00" E | N    | DVOR             |
| Japan   | J    | SENDAI        | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/62.5 | 27     | 38D08'00" N | 140D54'00" E | I    | DME-54 AT GP     |
| Japan   | J    | SENDAI        | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 38D08'00" N | 140D55'00" E | I    | DVOR             |
| Japan   | J    | SHIGI         | DME     | n/a       | n/a     | n/a    |     | 053X   | 200/450 | 40     | 34D38'00" N | 135D40'00" E | N    | 26Dec            |
| Japan   | J    | SHIMIZU       | VOR/TAC | 115.200   | 200/450 | 29     |     | 099X   | 200/450 | 40     | 32D45'00" N | 133D00'00" E | I    | DVOR             |
| Japan   | J    | SHIMOFUSA     | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 35D47'00" N | 140D01'00" E | N    |                  |
| Japan   | J    | SHIMOFUSA     | TACAN   | n/a       | n/a     | n/a    |     | 019X   | 200/450 | 40     | 35D48'00" N | 140D01'00" E | N    |                  |
| Japan   | J    | SHIMOJISHIMA  | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 24D51'00" N | 125D08'00" E | N    | DME 46 AT GP     |
| Japan   | J    | SHIMOJISHIMA  | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 24D49'00" N | 125D09'00" E | N    | DME 52 AT GP     |
| Japan   | J    | SHIMOJISHIMA  | VOR/DME | 117.100   | 200/450 | 29     |     | 118X   | 200/450 | 40     | 24D49'00" N | 125D09'00" E | N    | DVOR             |
| Japan   | J    | SHIMOTSUSHIMA | TACAN   | n/a       | n/a     | n/a    |     | 115Y   | 200/450 | 40     | 34D08'00" N | 129D17'00" E | N    |                  |
| Japan   | J    | SHINODA       | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 34D30'00" N | 135D27'00" E | I    | DVOR             |
| Japan   | J    | SHIZUHAMA     | TACAN   | n/a       | n/a     | n/a    |     | 029X   | 200/450 | 40     | 34D49'00" N | 138D18'00" E | N    |                  |
| Japan   | J    | SHIZUOKA      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 34D48'00" N | 138D10'00" E | N    | FI 26Dec13       |
| Japan   | J    | SHIZUOKA      | VOR/DME | 110.650   | 200/450 | 29     |     | 043Y   | 200/450 | 40     | 34D48'00" N | 138D12'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | SHODO         | VOR/DME | 114.400   | 200/450 | 29     |     | 091X   | 200/450 | 40     | 34D31'00" N | 134D16'00" E | N    | DVOR             |
| Japan   | J    | SHONAI        | VOR/DME | 109.600   | 200/450 | 29     |     | 033X   | 200/450 | 40     | 38D49'00" N | 139D48'00" E | N    | DVOR             |
| Japan   | J    | SHONAI        | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 38D49'00" N | 139D48'00" E | N    | DME 46 AT GP     |
| Japan   | J    | SHONAI        | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 38D49'00" N | 139D47'00" E | N    | 26Dec13          |
| Japan   | J    | SUOH          | VOR/DME | 113.850   | 200/450 | 29     |     | 085Y   | 200/450 | 40     | 33D51'00" N | 131D02'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | TACHIKAWA     | TACAN   | n/a       | n/a     | n/a    |     | 105X   | 200/450 | 40     | 35D43'00" N | 139D24'00" E | N    | FI 26Dec13       |
| Japan   | J    | TAJIMA        | ILS/DME | 108.550   | 25/62.5 | 17     |     | 022Y   | 80/100  | 27     | 35D31'00" N | 134D47'00" E | N    | FI 26Dec13       |
| Japan   | J    | TAJIMA        | VOR/DME | 110.450   | 200/450 | 29     |     | 041Y   | 200/450 | 40     | 35D31'00" N | 134D47'00" E | N    | DVOR             |
| Japan   | J    | TAKAMATSU     | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 34D13'00" N | 134D00'00" E | N    | DME 34 AT GP     |
| Japan   | J    | TAKAMATSU     | TACAN   | n/a       | n/a     | n/a    |     | 122X   | 200/450 | 40     | 34D20'00" N | 133D57'00" E | N    |                  |
| Japan   | J    | TANEGASHIMA   | ILS/DME | 108.950   | 25/62.5 | 17     |     | 026Y   | 80/100  | 27     | 30D37'00" N | 130D59'00" E | N    | FI 26Dec13       |
| Japan   | J    | TARAMA        | VOR/DME | 110.650   | 200/450 | 29     |     | 043Y   | 200/450 | 40     | 24D39'00" N | 124D40'00" E | N    | FI 26Dec13; DVOR |
| Japan   | J    | TATEYAMA      | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 34D57'00" N | 139D54'00" E | I    | DVOR             |
| Japan   | J    | TATEYAMA      | TACAN   | n/a       | n/a     | n/a    |     | 025X   | 200/450 | 40     | 34D58'00" N | 139D50'00" E | N    |                  |



Order: Country\_Location\_Frequency

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| Country                          | Ctry | Location                    | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks          |
|----------------------------------|------|-----------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|------------------|
| Japan                            | J    | TOHOKU                      | VOR/DME | 114.900   | 200/450 | 29     |     | 096X   | 200/450 | 40     | 40D49°00" N | 141D09°00' E | N    | DVOR             |
| Japan                            | J    | TOKUNOSHIMA                 | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 27D50°00" N | 128D53°00' E | N    | AT LOC           |
| Japan                            | J    | TOKUNOSHIMA                 | VOR/DME | 110.450   | 200/450 | 29     |     | 041Y   | 200/450 | 40     | 27D49°00" N | 128D53°00' E | N    | DVOR             |
| Japan                            | J    | TOKUSHIMA                   | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 34D08°00" N | 134D35°00' E | N    | FI 26Dec13       |
| Japan                            | J    | TOKUSHIMA                   | VOR     | 114.900   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 34D08°00" N | 134D37°00' E | N    |                  |
| Japan                            | J    | TOKUSHIMA                   | TACAN   | n/a       | n/a     | n/a    |     | 096X   | 200/450 | 40     | 34D08°00" N | 134D37°00' E | N    |                  |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 25/62.5 | 27     | 35D33°00" N | 139D46°00' E | I    |                  |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 35D34°00" N | 139D47°00' E | N    | FI 26Dec13       |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 35D34°00" N | 139D47°00' E | I    | FI 26Dec13       |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 35D36°00" N | 139D49°00' E | I    | FI 26Dec13       |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 35D32°00" N | 139D49°00' E | N    | FI 26Dec13       |
| Japan                            | J    | TOKYO INTL.                 | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 35D34°00" N | 139D46°00' E | I    | FI 26Dec13       |
| Japan                            | J    | TOKYO INTL.                 | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 35D34°00" N | 139D46°00' E | I    | FI 26Dec13; DVOR |
| Japan                            | J    | TOMO                        | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 34D17°00" N | 135D00°00' E | N    | DVOR             |
| Japan                            | J    | TOTTORI                     | VOR/DME | 110.200   | 200/450 | 29     |     | 039X   | 200/450 | 40     | 35D32°00" N | 134D10°00' E | N    | DVOR             |
| Japan                            | J    | TOTTORI                     | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 35D32°00" N | 134D11°00' E | N    | DME 52 AT GP     |
| Japan                            | J    | TOYAMA                      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 36D39°00" N | 137D11°00' E | N    | AT LOC           |
| Japan                            | J    | TOYAMA                      | VOR/DME | 110.850   | 200/450 | 29     |     | 045Y   | 200/450 | 40     | 36D39°00" N | 137D11°00' E | N    | DVOR             |
| Japan                            | J    | TOYOTA                      | DME     | n/a       | n/a     | n/a    |     | 119X   | 200/450 | 40     | 34D11°00" N | 131D01°00' E | N    | 26Dec13          |
| Japan                            | J    | TSUIKI                      | TACAN   | n/a       | n/a     | n/a    |     | 041X   | 200/450 | 40     | 33D41°00" N | 131D02°00' E | N    |                  |
| Japan                            | J    | TSUSHIMA                    | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 34D18°00" N | 129D19°00' E | N    | at LOC           |
| Japan                            | J    | TSUSHIMA                    | VOR/DME | 111.450   | 200/450 | 29     |     | 051Y   | 200/450 | 40     | 34D17°00" N | 129D20°00' E | N    | DVOR             |
| Japan                            | J    | UBE                         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 33D56°00" N | 131D18°00' E | N    | DME 38 AT GP     |
| Japan                            | J    | UBE                         | VOR/DME | 110.800   | 200/450 | 29     |     | 045X   | 200/450 | 40     | 33D56°00" N | 131D17°00' E | N    | DVOR             |
| Japan                            | J    | UTSUNOMIYA                  | TACAN   | n/a       | n/a     | n/a    |     | 058Y   | 200/450 | 40     | 36D31°00" N | 139D53°00' E | N    | FI 26Dec13       |
| Japan                            | J    | WAKKANAI                    | ILS     | 111.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 45D25°00" N | 141D49°00' E | N    |                  |
| Japan                            | J    | WAKKANAI                    | VOR/DME | 115.300   | 200/450 | 29     |     | 100X   | 200/450 | 40     | 45D24°00" N | 141D48°00' E | N    | DVOR             |
| Japan                            | J    | YAKUSHIMA                   | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 30D23°00" N | 130D40°00' E | N    | DVOR             |
| Japan                            | J    | YAMAGATA                    | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 38D25°00" N | 140D22°00' E | N    | DME 38 AT GP     |
| Japan                            | J    | YAMAGATA                    | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 38D23°00" N | 140D21°00' E | N    | DVOR             |
| Japan                            | J    | YAO                         | VOR/DME | 114.600   | 200/450 | 29     |     | 093X   | 200/450 | 40     | 34D36°00" N | 135D36°00' E | N    | 26Dec13; DVOR    |
| Japan                            | J    | YOKOSUKA                    | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 35D15°00" N | 139D35°00' E | N    | DVOR             |
| Japan                            | J    | YOKOTA                      | ILS     | 108.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 35D46°00" N | 139D21°00' E | N    | FI 26Dec13       |
| Japan                            | J    | YOKOTA                      | ILS     | 109.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 35D44°00" N | 139D21°00' E | N    |                  |
| Japan                            | J    | YOKOTA                      | TACAN   | n/a       | n/a     | n/a    |     | 085X   | 200/450 | 40     | 35D45°00" N | 139D21°00' E | N    |                  |
| Japan                            | J    | YONAGO                      | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 35D30°00" N | 133D14°00' E | N    | DVOR             |
| Japan                            | J    | YONAGUNI                    | ILS/DME | 108.550   | 25/62.5 | 17     |     | 022Y   | 80/100  | 27     | 24D28°00" N | 122D58°00' E | N    | FI 26Dec13       |
| Japan                            | J    | YONAGUNI                    | VOR/DME | 115.050   | 200/450 | 29     |     | 097Y   | 200/450 | 40     | 24D28°00" N | 123D00°00' E | N    | DVOR             |
| Japan                            | J    | YORON                       | VOR/DME | 112.250   | 200/450 | 29     |     | 059Y   | 200/450 | 40     | 27D03°00" N | 128D24°00' E | N    | DVOR             |
| Japan                            | J    | YUWA                        | VOR/DME | 110.650   | 200/450 | 29     |     | 043Y   | 200/450 | 40     | 39D37°00" N | 140D11°00' E | N    | DVOR             |
| Japan                            | J    | ZAO-YAMADA                  | VOR/DME | 113.750   | 200/450 | 29     |     | 084Y   | 200/450 | 40     | 38D11°00" N | 140D20°00' E | N    | DVOR             |
| Kiribati                         | KIR  | TARAWA                      | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 01D22°59" S | 173D08°46' E | I    | DVOR             |
| Kiribati                         | KIR  | TARAWA                      | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 01D22°59" S | 173D08°46' E | I    |                  |
| Lao People's Democratic Republic | LAO  | ATTAPUE                     | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 14D48°01" N | 107D01°12' E | N    | 16Jun14; DVOR    |
| Lao People's Democratic Republic | LAO  | Bokeo International Airport | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/100  | 27     | 20D18°43" N | 100D09°29' E | NAT  | RWY 21           |
| Lao People's Democratic Republic | LAO  | Bokeo International Airport | VOR/DME | 117.100   | 200/450 | 27     |     | 118X   | 200/450 | 37     | 20D18°22" N | 100D09°16' E | NAT  |                  |
| Lao People's Democratic Republic | LAO  | LUANG NAMTHA                | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 20D58°29" N | 101D24°10' E | N    | 17May2016; DVOR  |
| Lao People's Democratic Republic | LAO  | LUANG PRABANG               | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 21D03°00" N | 101D28°00' E | N    |                  |
| Lao People's Democratic Republic | LAO  | LUANG PRABANG               | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 19D54°29" N | 102D10°18' E | N    | DVOR             |
| Lao People's Democratic Republic | LAO  | Nongkhang                   | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 34D00°07" N | 074D45°23' E | N    |                  |
| Lao People's Democratic Republic | LAO  | Nongkhang                   | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 20D36°48" N | 104D03°58' E | ICAO | 09Sep19; PLI;    |



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| Country                          | Ctry | Location                 | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat.                           | Remarks |
|----------------------------------|------|--------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|--------------------------------|---------|
| Lao People's Democratic Republic | LAO  | Nongkhang                | VOR/DME | 114.400   | 200/450 | 27     |     | 091X   | 200/450 | 37     | 20D37°51" N | 104D04°39' E | ICAO FI 09Sep19; PLI; DVOR; NC |         |
| Lao People's Democratic Republic | LAO  | Nongkhang                | VOR/DME | 117.800   | 200/450 | 27     |     | 125X   | 200/450 | 37     | 20D36°48" N | 104D03°58' E | ICAO NC                        |         |
| Lao People's Democratic Republic | LAO  | PAKSE                    | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 15D07°27" N | 105D47°12' E | NAT installed in 2014          |         |
| Lao People's Democratic Republic | LAO  | PAKSE                    | VOR/DME | 115.000   | 200/450 | 29     |     | 097X   | 200/450 | 40     | 15D11°48" N | 105D44°16' E | I DVOR                         |         |
| Lao People's Democratic Republic | LAO  | SAVANNAKHET              | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 16D33°43" N | 104D46°00' E | N DVOR                         |         |
| Lao People's Democratic Republic | LAO  | VIENTIANE                | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 17D58°36" N | 102D34°30' E | I                              |         |
| Lao People's Democratic Republic | LAO  | VIENTIANE                | VOR/DME | 117.500   | 200/450 | 29     |     | 122X   | 200/450 | 40     | 18D00°37" N | 102D32°25' E | I DVOR                         |         |
| Lao People's Democratic Republic | LAO  | XIENGKHOUANG             | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 19D20°56" N | 103D09°33' E | N FI 6Feb18                    |         |
| Lao People's Democratic Republic | LAO  | XIENGKHOUANG             | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 19D27°00" N | 103D08°00' E | N DVOR                         |         |
| Malaysia                         | MLA  | ALOR SETAR               | ILS     | 108.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 07D47°82" N | 126D12°01' E | N                              |         |
| Malaysia                         | MLA  | ALOR SETAR               | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 06D12°56" N | 100D24°37' E | I                              |         |
| Malaysia                         | MLA  | ALOR SETAR               | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 06D11°09" N | 100D23°49' E | N DVOR                         |         |
| Malaysia                         | MLA  | BATU BERENDAM            | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 02D15°36" N | 102D15°31' E | N FI Rwy03GP                   |         |
| Malaysia                         | MLA  | BINTULU (NEW)            | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 03D07°00" N | 113D01°00' E | N                              |         |
| Malaysia                         | MLA  | BINTULU (NEW)            | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 03D09°00" N | 113D01°00' E | N DVOR                         |         |
| Malaysia                         | MLA  | BUTTERWORTH              | ILS     | 108.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 05D27°59" N | 100D23°33' E | I NOT COMMISSION               |         |
| Malaysia                         | MLA  | BUTTERWORTH              | ILS     | 108.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 05D28°36" N | 100D23°42' E | N NOT COMMISSION               |         |
| Malaysia                         | MLA  | BUTTERWORTH              | TACAN   | n/a       | n/a     | n/a    |     | 080X   | 300/350 | 27     | 05D28°00" N | 100D24°00' E | N Range modified from 30/8     |         |
| Malaysia                         | MLA  | GONG KEDAK               | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 04D51°16" N | 103D13°13' E | N 16Dec05                      |         |
| Malaysia                         | MLA  | GONG KEDAK               | VOR/TAC | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 05D47°50" N | 102D28°43' E | N                              |         |
| Malaysia                         | MLA  | IPOH                     | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 04D33°24" N | 101D05°36' E | N                              |         |
| Malaysia                         | MLA  | IPOH                     | VOR     | 112.800   | 150/450 | 27     |     | n/a    | n/a     | n/a    | 04D28°54" N | 101D01°00' E | N DVOR                         |         |
| Malaysia                         | MLA  | IPOH                     | VOR/DME | 117.300   | 200/450 | 29     |     | 120X   | 200/450 | 40     | 04D34°24" N | 101D05°42' E | N DVOR                         |         |
| Malaysia                         | MLA  | JOHOR BAHRU              | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 01D39°18" N | 103D40°06' E | I DME-36 AT GP                 |         |
| Malaysia                         | MLA  | JOHOR BAHRU              | VOR/DME | 112.700   | 300/450 | 29     |     | 074X   | 300/450 | 40     | 01D43°48" N | 103D37°18' E | I DVOR                         |         |
| Malaysia                         | MLA  | KERTEH                   | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 04D32°04" N | 103D25°44' E | N 20Apr01                      |         |
| Malaysia                         | MLA  | KERTEH                   | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 04D31°54" N | 103D25°48' E | I 8Feb13; DVOR                 |         |
| Malaysia                         | MLA  | KERTEH                   | VOR/DME | 117.100   | 200/450 | 29     |     | 118X   | 200/450 | 40     | 04D32°54" N | 103D25°30' E | N DVOR                         |         |
| Malaysia                         | MLA  | KOTA BAHRU               | VOR/DME | 112.300   | 300/450 | 29     |     | 070X   | 300/450 | 40     | 06D09°49" N | 102D18°51' E | I                              |         |
| Malaysia                         | MLA  | KOTA BHARU               | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 06D09°53" N | 102D18°18' E | N 04Mar05                      |         |
| Malaysia                         | MLA  | KOTA KINABALU            | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 05D55°16" N | 116D02°35' E | N 7Aug07 GP02                  |         |
| Malaysia                         | MLA  | KOTA KINABALU            | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 05D56°00" N | 116D03°00' E | I DME-40 AT GP                 |         |
| Malaysia                         | MLA  | KOTA KINABALU            | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 05D56°24" N | 116D03°12' E | N 07Aug07 20GP                 |         |
| Malaysia                         | MLA  | KOTA KINABALU            | VOR/DME | 113.100   | 300/450 | 29     |     | 078X   | 300/450 | 40     | 05D54°00" N | 116D02°00' E | I DVOR                         |         |
| Malaysia                         | MLA  | KOTA KINABALU            | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 05D53°58" N | 116D02°02' E | N 07Aug07; DVOR                |         |
| Malaysia                         | MLA  | KUALA LUMPUR             | GBAS    | 117.800   | 23/100  | 17     |     | n/a    | n/a     | n/a    | 02D44°53" N | 101D41°49' E | N FI 14KOG7DET                 |         |
| Malaysia                         | MLA  | KUALA LUMPUR INTL SEPANG | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 02D42°23" N | 101D41°56' E | N FI R/W 14R LLZ               |         |
| Malaysia                         | MLA  | KUALA LUMPUR KLIA2       | VOR/DME | 114.400   | 200/450 | 29     |     | 091X   | 200/450 | 40     | 02D45°72" N | 101D40°05' E | N FI 28Apr16; DVOR             |         |
| Malaysia                         | MLA  | KUALA LUMPUR INTL SEPANG | ILS     | 111.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 02D44°18" N | 101D40°38' E | N FI RWY 32L LLZ               |         |
| Malaysia                         | MLA  | KUALA TERENGGANU         | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 05D23°23" N | 103D06°42' E | N 21June07                     |         |
| Malaysia                         | MLA  | KUALA TERENGGANU         | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 04D58°48" N | 102D08°52' E | N DVOR                         |         |
| Malaysia                         | MLA  | KUALA TERENGGANU         | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 05D21°38" N | 103D04°54' E | N 21June07; DVOR               |         |
| Malaysia                         | MLA  | KUALATERENGGANU          | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 05D23°00" N | 103D06°00' E | N DVOR                         |         |
| Malaysia                         | MLA  | KUANTAN                  | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 03D46°36" N | 103D12°54' E | I                              |         |
| Malaysia                         | MLA  | KUANTAN                  | VOR/TAC | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 03D46°36" N | 103D12°48' E | I                              |         |
| Malaysia                         | MLA  | KUCHING                  | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 01D29°00" N | 110D20°00' E | I DME-40 AT GP                 |         |
| Malaysia                         | MLA  | KUCHING                  | VOR/DME | 114.500   | 300/450 | 29     |     | 092X   | 300/450 | 40     | 01D28°00" N | 110D18°00' E | I DVOR                         |         |
| Malaysia                         | MLA  | LABUAN                   | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 05D17°25" N | 115D15°18' E | I DVOR                         |         |
| Malaysia                         | MLA  | MALACCA                  | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 02D15°23" N | 102D15°02' E | I DVOR                         |         |
| Malaysia                         | MLA  | MERSING                  | VOR/DME | 116.800   | 250/450 | 29     |     | 115X   | 250/450 | 40     | 02D23°18" N | 103D52°24' E | N DVOR                         |         |



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| Country                         | Ctry | Location              | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks           |
|---------------------------------|------|-----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|-------------------|
| Malaysia                        | MLA  | MIRI                  | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 04D20°00' N | 114D00°00' E | I    |                   |
| Malaysia                        | MLA  | MIRI                  | VOR/DME | 112.400   | 300/450 | 29     |     | 071X   | 300/450 | 40     | 04D20°00' N | 113D59°00' E | N    |                   |
| Malaysia                        | MLA  | Miri Airport          | VOR/DME | 113.600   | 200/450 | 27     |     | 083X   | 200/450 | 37     | 04D18°11' N | 113D58°41' E | NAT  | 2May19; PLI; DVOR |
| Malaysia                        | MLA  | Mukah Airport         | VOR/DME | 115.300   | 200/450 | 27     |     | 100X   | 200/450 | 37     | 02D53°34' N | 112D30°21' E | NAT  | 04Dec18; DVOR     |
| Malaysia                        | MLA  | MULU (NEW)            | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 04D01°59' N | 114D47°43' E | N    | DVOR              |
| Malaysia                        | MLA  | NEW KUALA LUMPUR INTL | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/62.5 | 27     | 02D46°37' N | 101D42°15' E | N    | 14 L              |
| Malaysia                        | MLA  | NEW KUALA LUMPUR INTL | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 25/62.5 | 27     | 02D45°05' N | 101D43°48' E | N    | 32 R              |
| Malaysia                        | MLA  | NEW KUALA LUMPUR INTL | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 02D44°26' N | 101D41°55' E | N    | 14 R              |
| Malaysia                        | MLA  | NEW KUALA LUMPUR INTL | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 25/62.5 | 27     | 02D42°54' N | 101D42°57' E | N    | 32 L              |
| Malaysia                        | MLA  | NEW KUALA LUMPUR INTL | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 02D43°28' N | 101D44°17' E | N    | DVOR              |
| Malaysia                        | MLA  | NEW LIMBANG           | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 04D47°50' N | 115D00°08' E | N    | 3Jun02; DVOR      |
| Malaysia                        | MLA  | NEW SIBU              | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 02D15°00' N | 111D59°00' E | N    |                   |
| Malaysia                        | MLA  | NEW SIBU              | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 02D15°00' N | 112D00°00' E | N    | DVOR              |
| Malaysia                        | MLA  | PENANG                | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 05D17°14' N | 100D16°11' E | I    | DME 36 AT GP      |
| Malaysia                        | MLA  | PENANG                | VOR/DME | 116.200   | 300/450 | 29     |     | 109X   | 300/450 | 40     | 05D16°46' N | 100D15°39' E | I    | DVOR              |
| Malaysia                        | MLA  | PULAU LANGKAWI        | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 06D20°50' N | 099D44°34' E | I    | DME 44 AT GP      |
| Malaysia                        | MLA  | PULAU LANGKAWI        | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 06D21°21' N | 099D44°55' E | I    | DVOR              |
| Malaysia                        | MLA  | PULAU TULAI           | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 02D54°59' N | 104D06°39' E | N    | DVOR              |
| Malaysia                        | MLA  | SANDAKAN              | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 150/300 | 37     | 05D54°00' N | 118D03°00' E | I    |                   |
| Malaysia                        | MLA  | SANDAKAN              | VOR/DME | 114.000   | 150/300 | 27     |     | 087X   | 150/300 | 37     | 05D54°00' N | 118D04°00' E | I    | DVOR              |
| Malaysia                        | MLA  | SIBU                  | VOR/DME | 112.200   | 200/450 | 29     |     | 059X   | 200/450 | 40     | 02D14°49' N | 112D00°12' E | N    | Jun05; DVOR       |
| Malaysia                        | MLA  | SUBANG                | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 03D08°42' N | 101D32°30' E | I    | DME-36 AT GP      |
| Malaysia                        | MLA  | SUBANG                | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 03D17°48' N | 101D27°12' E | I    | DME-40 AT GP      |
| Malaysia                        | MLA  | SUBANG                | VOR/DME | 114.700   | 300/450 | 29     |     | 094X   | 300/450 | 40     | 03D19°30' N | 101D27°30' E | I    | DVOR              |
| Malaysia                        | MLA  | SULTAN ISMAIL         | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 01D39°50' N | 103D39°39' E | N    | 7Dec11; DVOR      |
| Malaysia                        | MLA  | TANJUNG SEPAT         | DME     | n/a       | n/a     | n/a    |     | 084X   | 200/450 | 40     | 02D39°44' N | 101D33°33' E | N    | 21Apr17           |
| Malaysia                        | MLA  | TAWAU                 | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 25/62.5 | 27     | 04D18°20' N | 118D06°19' E | I    |                   |
| Malaysia                        | MLA  | TAWAU                 | VOR/DME | 115.600   | 30/100  | 17     |     | 103X   | 30/100  | 27     | 04D19°31' N | 118D08°14' E | N    | DVOR              |
| Maldives                        | MLD  | GAN                   | VOR     | 113.400   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 00D41°36' S | 073D09°20' E | I    | CVOR              |
| Maldives                        | MLD  | MALE                  | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 04D10°00' N | 073D30°00' E | I    |                   |
| Maldives                        | MLD  | MALE                  | VOR/DME | 114.700   | 150/300 | 27     |     | 094X   | 150/300 | 37     | 04D11°00' N | 073D30°00' E | I    |                   |
| Marshall Islands                | MSI  | MAJURO ATOLL          | VOR/DME | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 00D00°00' N | 000D00°00' E | I    |                   |
| Micronesia, Federated States of | FSM  | CHUUK                 | DME     | n/a       | n/a     | n/a    |     | 111X   | 200/450 | 40     | 07D27°00' N | 151D50°00' E | I    |                   |
| Micronesia, Federated States of | FSM  | KOSRAE                | DME     | n/a       | n/a     | n/a    |     | 100X   | 200/450 | 40     | 05D21°00' N | 162D58°00' E | I    |                   |
| Micronesia, Federated States of | FSM  | POHNPEI               | DME     | n/a       | n/a     | n/a    |     | 047X   | 200/450 | 40     | 06D58°00' N | 158D21°00' E | I    |                   |
| Micronesia, Federated States of | FSM  | PONAPE                | VOR/DME | 111.000   | 100/450 | 23     |     | 047X   | 100/450 | 27     | 06D59°00' N | 158D13°00' E | I    |                   |
| Micronesia, Federated States of | FSM  | YAP                   | DME     | n/a       | n/a     | n/a    |     | 122X   | 200/450 | 40     | 09D29°00' N | 138D05°00' E | I    |                   |
| Mongolia                        | MON  | GOBI-ALTAI            | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 46D22°42' N | 096D12°57' E | N    | 19Dec13; DVOR     |
| Mongolia                        | MON  | MUREN                 | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 49D41°32' N | 100D23°27' E | N    | 20Nov08; DVOR     |
| Mongolia                        | MON  | SAINSHAND             | VOR/DME | 116.600   | 300/450 | 29     |     | 113X   | 300/450 | 40     | 44D54°11' N | 110D07°49' E | N    | 20Nov08; DVOR     |
| Mongolia                        | MON  | ULAAN BAATAR          | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 47D49°47' N | 106D47°04' E | I    |                   |
| Mongolia                        | MON  | ULAAN BAATAR          | VOR/DME | 116.000   | 300/450 | 29     |     | 107X   | 300/450 | 40     | 47D52°04' N | 106D44°01' E | I    |                   |
| Myanmar                         | BRM  | BAGO                  | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 17D19°00' N | 096D31°00' E | N    |                   |
| Myanmar                         | BRM  | DAWEI                 | VOR/DME | 112.000   | 200/450 | 29     |     | 057X   | 200/450 | 40     | 14D06°00' N | 098D12°00' E | I    |                   |
| Myanmar                         | BRM  | LASHIO                | VOR/DME | 116.800   | 200/450 | 29     |     | 115X   | 200/450 | 40     | 22D59°00' N | 097D45°00' E | N    |                   |
| Myanmar                         | BRM  | MANDALAY              | VOR/DME | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 21D56°00' N | 096D08°00' E | I    |                   |
| Myanmar                         | BRM  | MANDALAY NEW INTL     | ILS     | 110.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 21D43°00' N | 095D59°00' E | N    |                   |
| Myanmar                         | BRM  | MANDALAY NEW INTL     | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 21D43°00' N | 095D59°00' E | N    |                   |
| Myanmar                         | BRM  | PATHEIN               | VOR/DME | 115.600   | 200/450 | 29     |     | 103X   | 200/450 | 40     | 16D48°00' N | 094D47°00' E | I    |                   |
| Myanmar                         | BRM  | YANGON HLEGU          | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 17D05°00' N | 096D15°00' E | I    |                   |
| Myanmar                         | BRM  | YANGON MINGALADON     | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 120/450 | 37     | 16D54°00' N | 096D09°00' E | I    |                   |



Order: Country\_Location\_Frequency

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| Country       | Ctry | Location              | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks           |
|---------------|------|-----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|-------------------|
| Nauru         | NRU  | NAURU                 | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 00D32°00' S | 116D55°00 E | I    |                   |
| Nepal         | NPL  | BHAIRAWA              | VOR/DME | 114.700   | 150/300 | 27     |     | 094X   | 150/300 | 37     | 27D30°00' N | 083D26°00 E | I    | DVOR              |
| Nepal         | NPL  | BIRATNAGAR            | VOR/DME | 114.100   | 300/450 | 29     |     | 088X   | 300/450 | 40     | 26D29°00" N | 087D16°00 E | E    | DVOR              |
| Nepal         | NPL  | CHANDARGADI           | VOR/DME | 115.600   | 200/450 | 29     |     | 103X   | 200/450 | 40     | 26D34°11" N | 088D04°38 E | N    | 10Jun18; DVOR     |
| Nepal         | NPL  | DHANGADHI             | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 28D45°15" N | 080D34°58 E | N    | FI 10Jun18; DVOR  |
| Nepal         | NPL  | Guatam Buddha         | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 27D30°26" N | 083D23°34 E | ICAO | 2May19; PLI       |
| Nepal         | NPL  | Guatam Buddha         | VOR/DME | 117.000   | 200/450 | 27     |     | 117X   | 200/450 | 37     | 27D30°05" N | 083D26°00 E | ICAO | 2May19; PLI; NC   |
| Nepal         | NPL  | KATHMANDU             | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 27D41°49" N | 085D21°28 E | N    | FI 10Jun18        |
| Nepal         | NPL  | KATHMANDU             | VOR/DME | 113.200   | 300/450 | 29     |     | 079X   | 300/450 | 40     | 27D40°00" N | 085D21°00 E | I    | 16Oct09; DVOR     |
| Nepal         | NPL  | NEPALGUNJ             | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 28D06°00" N | 081D40°00 E | I    |                   |
| Nepal         | NPL  | POKHARA               | ILS     | 111.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 28D11°23" N | 084D00°03 E | N    | FI 22Oct19        |
| Nepal         | NPL  | POKHARA               | VOR/DME | 117.300   | 200/450 | 27     |     | 120X   | 200/450 | 37     | 28D11°23" N | 084D00°03 E | N    | FI 22Oct19; DVOR  |
| Nepal         | NPL  | POKHARA               | DME     | n/a       | n/a     | n/a    |     | 075X   | 200/450 | 40     | 28D12°00" N | 083D59°00 E | N    |                   |
| Nepal         | NPL  | SIMRA                 | VOR/DME | 112.900   | 300/450 | 29     |     | 076X   | 300/450 | 40     | 27D10°00" N | 084D59°00 E | I    | DVOR              |
| New Caledonia | NCL  | LIFOU                 | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 20D46°27" S | 167D14°26 E | N    | 37DBW             |
| New Caledonia | NCL  | NOUMEA TONTOUTA       | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 22D01°00" S | 166D12°00 E | I    | 19-06-2002        |
| New Caledonia | NCL  | NOUMEA TONTOUTA       | VOR/DME | 112.900   | 200/450 | 29     |     | 076X   | 200/450 | 40     | 22D00°00" S | 166D12°00 E | I    |                   |
| New Caledonia | NCL  | NOUMEA UERE           | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 22D19°00" S | 166D28°00 E | N    |                   |
| New Caledonia | NCL  | TONTOUTA              | VOR/DME | 114.750   | 200/450 | 29     |     | 094Y   | 200/450 | 40     | 21D56°41" S | 166D04°26 E | N    | 26Jan11           |
| New Zealand   | NZL  | ALEXANDRA             | DME     | n/a       | n/a     | n/a    |     | 118X   | 200/450 | 40     | 45D10°00" S | 169D29°00 E | N    |                   |
| New Zealand   | NZL  | AUCKLAND              | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 37D01°04" S | 174D45°54 E | I    | DME/GP, RWY 23 L  |
| New Zealand   | NZL  | AUCKLAND              | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 37D00°22" S | 174D48°28 E | I    | DME/GP, RWY 05 R  |
| New Zealand   | NZL  | AUCKLAND              | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 37D00°17" S | 174D48°49 E | I    |                   |
| New Zealand   | NZL  | CHRISTCHURCH          | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 43D28°12" S | 172D33°14 E | I    |                   |
| New Zealand   | NZL  | CHRISTCHURCH          | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 43D30°01" S | 172D31°07 E | I    | 28Dec09           |
| New Zealand   | NZL  | CHRISTCHURCH          | VOR/DME | 115.300   | 200/450 | 29     |     | 100X   | 200/450 | 40     | 43D30°15" S | 172D30°53 E | I    |                   |
| New Zealand   | NZL  | CHRISTCHURCH EYREWELL | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 43D23°56" S | 172D23°07 E | N    |                   |
| New Zealand   | NZL  | DUNEDIN               | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 45D56°07" S | 170D11°03 E | N    | 28Dec09           |
| New Zealand   | NZL  | DUNEDIN               | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 45D55°25" S | 170D12°34 E | N    | 28Nov12           |
| New Zealand   | NZL  | DUNEDIN               | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 45D47°40" S | 170D28°38 E | N    |                   |
| New Zealand   | NZL  | DUNEDIN HENLEY        | DME     | n/a       | n/a     | n/a    |     | 104X   | 200/450 | 40     | 45D56°45" S | 170D09°43 E | N    | FI 29NOV12        |
| New Zealand   | NZL  | GISBORNE              | VOR/DME | 114.200   | 200/450 | 29     |     | 089X   | 200/450 | 40     | 38D39°38" S | 177D58°39 E | N    |                   |
| New Zealand   | NZL  | HAMILTON              | VOR/DME | 114.000   | 200/450 | 29     |     | 087X   | 200/450 | 40     | 37D50°57" S | 175D20°19 E | N    |                   |
| New Zealand   | NZL  | HOKITIKA              | DME     | n/a       | n/a     | n/a    |     | 122X   | 200/450 | 40     | 42D43°46" S | 170D57°22 E | N    |                   |
| New Zealand   | NZL  | INVERCARGILL          | VOR/DME | 116.800   | 200/450 | 29     |     | 115X   | 200/450 | 40     | 46D24°42" S | 168D19°04 E | N    |                   |
| New Zealand   | NZL  | KAITAIA               | DME     | n/a       | n/a     | n/a    |     | 105X   | 200/450 | 40     | 35D01°46" S | 173D14°28 E | N    |                   |
| New Zealand   | NZL  | KERI KERI             | DME     | n/a       | n/a     | n/a    |     | 108X   | 200/450 | 40     | 35D15°45" S | 173D54°00 E | N    | 29NOV12           |
| New Zealand   | NZL  | MANAPOURI             | DME     | n/a       | n/a     | n/a    |     | 125X   | 200/450 | 40     | 45D29°49" S | 167D43°06 E | N    |                   |
| New Zealand   | NZL  | MOUNT MARY            | VOR/DME | 112.500   | 200/450 | 29     |     | 072X   | 200/450 | 40     | 44D08°06" S | 170D16°50 E | N    |                   |
| New Zealand   | NZL  | NAPIER                | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 39D27°14" S | 176D52°08 E | N    |                   |
| New Zealand   | NZL  | NELSON                | VOR/DME | 116.400   | 200/450 | 29     |     | 111X   | 200/450 | 40     | 41D18°06" S | 173D13°21 E | N    |                   |
| New Zealand   | NZL  | NEW PLYMOUTH          | VOR/DME | 114.400   | 200/450 | 29     |     | 091X   | 200/450 | 40     | 39D00°26" S | 174D11°02 E | N    |                   |
| New Zealand   | NZL  | OHAKEA                | VOR/TAC | 109.000   | 200/450 | 29     |     | 027X   | 200/450 | 40     | 40D12°35" S | 175D23°31 E | N    | MIL               |
| New Zealand   | NZL  | OHAKEA                | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 40D12°35" S | 175D24°01 E | N    | MIL RWY09, DME/GP |
| New Zealand   | NZL  | OHAKEA                | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 40D12°08" S | 175D22°20 E | N    | MIL RWY27, DME/GP |
| New Zealand   | NZL  | OHURA                 | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 38D49°36" S | 174D48°24 E | N    |                   |
| New Zealand   | NZL  | PALMERSTON NORTH      | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 40D19°13" S | 175D38°16 E | N    |                   |
| New Zealand   | NZL  | PARAPARAUMU           | DME     | n/a       | n/a     | n/a    |     | 120X   | 200/450 | 40     | 40D54°10" S | 174D58°55 E | N    |                   |
| New Zealand   | NZL  | QUEENSTOWN            | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 44D59°03" S | 168D46°58 E | N    |                   |
| New Zealand   | NZL  | ROTORUA               | VOR/DME | 112.100   | 200/450 | 29     |     | 058X   | 200/450 | 40     | 38D06°29" S | 176D18°50 E | N    |                   |



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| Country     | Ctry | Location                | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks              |
|-------------|------|-------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|----------------------|
| New Zealand | NZL  | TAUPO                   | DME     | n/a       | n/a     | n/a    |     | 114X   | 200/450 | 40     | 38D44'36" S | 176D04'28 E | N    |                      |
| New Zealand | NZL  | TAURANGA                | DME     | n/a       | n/a     | n/a    |     | 079X   | 200/450 | 40     | 37D40'39" S | 176D11'29 E | N    |                      |
| New Zealand | NZL  | TIMARU                  | DME     | n/a       | n/a     | n/a    |     | 106X   | 200/450 | 40     | 44D18'33" S | 171D13'31 E | N    |                      |
| New Zealand | NZL  | TORY                    | VOR/DME | 114.600   | 200/450 | 29     |     | 093X   | 200/450 | 40     | 41D11'09" S | 174D21'45 E | N    |                      |
| New Zealand | NZL  | WANGANUI                | DME     | n/a       | n/a     | n/a    |     | 107X   | 200/450 | 40     | 39D57'33" S | 175D01'36 E | N    |                      |
| New Zealand | NZL  | WELLINGTON              | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 41D19'02" S | 174D48'26 E | N    | DME/GP RWY34         |
| New Zealand | NZL  | WELLINGTON              | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 41D20'10" S | 174D48'22 E | N    | DME/GP RWY16         |
| New Zealand | NZL  | WELLINGTON              | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 41D20'14" S | 174D49'02 E | I    |                      |
| New Zealand | NZL  | WESTPORT                | DME     | n/a       | n/a     | n/a    |     | 116X   | 200/450 | 40     | 41D44'26" S | 171D34'47 E | N    |                      |
| New Zealand | NZL  | WHAKATANE               | DME     | n/a       | n/a     | n/a    |     | 124X   | 200/450 | 40     | 37D55'29" S | 176D54'57 E | N    |                      |
| New Zealand | NZL  | WHANGAREI               | DME     | n/a       | n/a     | n/a    |     | 120X   | 200/450 | 40     | 35D46'17" S | 174D21'43 E | N    |                      |
| New Zealand | NZL  | WHENUAPAI               | VOR/TAC | 108.800   | 200/450 | 29     |     | 025X   | 200/450 | 40     | 36D47'13" S | 174D37'53 E | N    | MIL                  |
| New Zealand | NZL  | WHENUAPAI               | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 36D47'05" S | 174D38'22 E | N    | MIL, DME/GP          |
| New Zealand | NZL  | WHENUAPAI               | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 36D47'48" S | 174D37'11 E | N    | MIL, GME/GP          |
| New Zealand | NZL  | WOODBOURNE              | VOR/DME | 115.600   | 200/450 | 29     |     | 103X   | 200/450 | 40     | 41D31'11" S | 173D51'46 E | N    |                      |
| Niue Island | NII  | ALOFI NIUE              | DME     | n/a       | n/a     | n/a    |     | 074X   | 200/450 | 40     | 19D05'34" S | 169D54'15 W | I    |                      |
| Pakistan    | PAK  | BACHA KHAN              | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 31D00'31" N | 071D30'48 E | N    | 14Jan13              |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | ILS     | 108.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 33D32'40" N | 072D50'55 E | N    | 6Apr.13 28L          |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | ILS     | 110.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 33D32'46" N | 072D50'56 E | N    | 6Nov.13 28R          |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | ILS     | 111.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 33D33'06" N | 072D48'07 E | N    | 6Nov.13 10R          |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | VOR     | 114.600   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 33D32'45" N | 072D51'31 E | N    | 6Nov.13 ; DVOR       |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | DME     | n/a       | n/a     | n/a    |     | 095X   | 200/450 | 40     | 33D32'48" N | 072D50'29 E | N    | 24Dec13-TDME28LT-DME |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | DME     | n/a       | n/a     | n/a    |     | 100X   | 200/450 | 40     | 33D33'05" N | 072D48'34 E | N    | 24Dec13-TDME10RT-DME |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | DME     | n/a       | n/a     | n/a    |     | 109X   | 200/450 | 40     | 33D32'46" N | 072D51'31 E | N    | 24Dec13              |
| Pakistan    | PAK  | BENZIR BHUTTO-BBIAP     | DME     | n/a       | n/a     | n/a    |     | 081X   | 200/450 | 40     | 33D32'54" N | 072D50'30 E | N    | 24Dec13-TDME28RT-DME |
| Pakistan    | PAK  | BINDO                   | VOR     | 113.300   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 29D40'00" N | 071D01'00 E | I    |                      |
| Pakistan    | PAK  | D.I.KHAN                | VOR     | 113.100   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 31D54'00" N | 070D53'00 E | N    |                      |
| Pakistan    | PAK  | FAISALABAD              | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 31D22'00" N | 072D59'00 E | N    |                      |
| Pakistan    | PAK  | FAISALABAD              | VOR/DME | 116.900   | 200/450 | 27     |     | 116X   | 200/450 | 37     | 31D21'30" N | 072D59'13 E | N    | DVOR                 |
| Pakistan    | PAK  | HYDERABAD               | VOR/DME | 114.700   | 200/450 | 29     |     | 094X   | 200/450 | 40     | 25D18'00" N | 068D23'00 E | N    | GROUND TRAINING      |
| Pakistan    | PAK  | ISLAMABAD BBIAP         | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 33D36'32" N | 073D07'00 E | N    | FI 6Jan14            |
| Pakistan    | PAK  | ISLAMABAD CHAKLALA      | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 33D37'00" N | 073D06'00 E | I    | DME NAT              |
| Pakistan    | PAK  | ISLAMABAD CHAKLALA      | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 33D36'00" N | 073D07'00 E | I    | DVOR                 |
| Pakistan    | PAK  | JIWANI                  | VOR/DME | 112.700   | 200/450 | 29     |     | 074X   | 200/450 | 40     | 25D04'00" N | 061D47'00 E | I    | DME NAT              |
| Pakistan    | PAK  | KARACHI INTL.           | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 24D54'00" N | 067D08'00 E | I    | SEC RWY              |
| Pakistan    | PAK  | KARACHI INTL.           | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 24D54'00" N | 067D09'00 E | I    | PRIMARY RWY          |
| Pakistan    | PAK  | KARACHI INTL.           | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 24D55'00" N | 067D11'00 E | I    |                      |
| Pakistan    | PAK  | LAHORE                  | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 31D31'00" N | 074D23'00 E | E    | DME NAT              |
| Pakistan    | PAK  | LAHORE                  | VOR/DME | 112.700   | 300/450 | 29     |     | 074X   | 300/450 | 40     | 31D30'00" N | 074D24'00 E | I    |                      |
| Pakistan    | PAK  | LAHORE AIAP             | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 31D32'23" N | 074D24'10 E | N    | rwly 36L             |
| Pakistan    | PAK  | LAHORE AIAP             | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 31D32'23" N | 074D24'10 E | N    | FI RWY36L            |
| Pakistan    | PAK  | MULTAN                  | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 30D12'00" N | 071D25'00 E | N    |                      |
| Pakistan    | PAK  | MULTAN                  | VOR     | 116.700   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 30D12'00" N | 071D25'00 E | I    |                      |
| Pakistan    | PAK  | NAWABSHAH               | VOR/DME | 112.900   | 300/450 | 29     |     | 076X   | 300/450 | 40     | 26D13'00" N | 068D23'00 E | I    |                      |
| Pakistan    | PAK  | New Gwadar Int. Airport | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 25/100  | 27     | 25D17'22" N | 062D28'41 E | NAT  |                      |
| Pakistan    | PAK  | PANJGUR                 | VOR/DME | 114.300   | 300/450 | 29     |     | 090X   | 300/450 | 40     | 26D57'00" N | 064D08'00 E | I    |                      |
| Pakistan    | PAK  | PESHAWAR                | VOR/DME | 114.300   | 100/450 | 23     |     | 090X   | 100/450 | 27     | 33D58'00" N | 071D31'00 E | I    | DVOR                 |
| Pakistan    | PAK  | QUETTA                  | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 80/100  | 27     | 30D14'24" N | 066D57'06 E | N    | 2Apr09               |
| Pakistan    | PAK  | QUETTA                  | VOR/DME | 114.700   | 100/150 | 23     |     | 094X   | 100/150 | 27     | 30D17'00" N | 066D53'00 E | N    | DVOR                 |
| Pakistan    | PAK  | RAHIM YAR KHAN          | VOR/DME | 113.700   | 300/450 | 29     |     | 084X   | 300/450 | 40     | 28D24'00" N | 070D17'00 E | I    | DME NAT              |
| Pakistan    | PAK  | SIALKOT                 | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 32D33'05" N | 074D22'52 E | N    |                      |



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| Country          | Ctry | Location                  | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                               |
|------------------|------|---------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|---------------------------------------|
| Pakistan         | PAK  | SIALKOT                   | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 32D31°06" N | 074D20°36 E | N    | DVOR                                  |
| Pakistan         | PAK  | Turbat IA                 | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 25/100  | 27     | 25D58°56" N | 063D00°42 E | NAT  | Naval Air Station PNS Siddiqui Turbat |
| Pakistan         | PAK  | Turbat IA                 | VOR/DME | 113.900   | 200/450 | 27     |     | 086X   | 200/450 | 37     | 25D59°00" N | 063D02°11 E | NAT  | Naval Air Station PNS Siddiqui Turbat |
| Pakistan         | PAK  | ZHOB                      | VOR/DME | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 31D21°00" N | 069D27°00 E | N    | DVOR                                  |
| Palau            | XXP  | No frequency assignment   | VDL 4   | 112.000   | 200/450 | 17     |     | n/a    | n/a     | n/a    | 07D30°33" N | 134D37°00 E | ICAO | No registered frequency assignment    |
| Papua New Guinea | PNG  | KAVIENG                   | VOR/DME | 116.400   | 300/450 | 29     |     | 111X   | 300/450 | 40     | 02D36°13" S | 150D50°11 E | N    |                                       |
| Papua New Guinea | PNG  | MADANG                    | VOR/DME | 116.300   | 300/450 | 29     |     | 110X   | 300/450 | 40     | 05D12°00" S | 145D48°00 E | I    |                                       |
| Papua New Guinea | PNG  | NADZAB                    | VOR/DME | 113.900   | 300/450 | 29     |     | 086X   | 300/450 | 40     | 06D34°00" S | 146D44°00 E | N    |                                       |
| Papua New Guinea | PNG  | PORT MORESBY              | ILS     | 109.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 09D26°00" S | 147D13°00 E | I    |                                       |
| Papua New Guinea | PNG  | PORT MORESBY              | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 09D27°00" S | 147D14°00 E | I    |                                       |
| Papua New Guinea | PNG  | PORT MORESBY              | VOR/DME | 117.000   | 300/450 | 29     |     | 117X   | 300/450 | 40     | 09D31°00" S | 147D03°00 E | I    |                                       |
| Papua New Guinea | PNG  | VANIMO                    | DME     | n/a       | n/a     | n/a    |     | 103X   | 25/100  | 27     | 02D40°52" S | 141D18°00 E | I    |                                       |
| Papua New Guinea | PNG  | WEWAK                     | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 03D45°00" S | 143D41°00 E | N    |                                       |
| Philippines      | PHL  | BACOLOD                   | ILS     | 109.700   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 10D39°00" N | 122D56°00 E | I    | RWT03 16MAR11                         |
| Philippines      | PHL  | BACOLOD                   | VOR/DME | 115.300   | 59/300  | 20     |     | 100X   | 59/300  | 27     | 10D38°19" N | 122D55°23 E | N    | 16MAR11                               |
| Philippines      | PHL  | BASCO                     | DME     | n/a       | n/a     | n/a    |     | 107X   | 300/450 | 40     | 20D27°00" N | 121D58°00 E | N    |                                       |
| Philippines      | PHL  | BUTUAN                    | VOR/DME | 112.500   | 40/100  | 17     |     | 072X   | 40/100  | 27     | 08D57°19" N | 125D29°11 E | N    |                                       |
| Philippines      | PHL  | CABANATUAN                | VOR/DME | 112.700   | 150/450 | 27     |     | 074X   | 150/450 | 37     | 15D28°03" N | 120D58°28 E | I    |                                       |
| Philippines      | PHL  | CAGAYAN DE ORO            | ILS     | 109.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 08D24°08" N | 124D36°29 E | N    | 16MAR11                               |
| Philippines      | PHL  | CAGAYAN DE ORO            | VOR/DME | 113.300   | 150/450 | 27     |     | 080X   | 150/450 | 37     | 08D24°56" N | 124D36°29 E | N    |                                       |
| Philippines      | PHL  | CAUAYAN                   | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 16D55°54" N | 121D44°53 E | N    | 16MAR11                               |
| Philippines      | PHL  | CLARK INTL. AIRPORT       | ILS     | 109.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 15D12°14" N | 120D34°10 E | N    | RWY02R                                |
| Philippines      | PHL  | CLARK INTL. AIRPORT       | ILS     | 110.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 15D10°18" N | 120D33°24 E | N    | RWY20L                                |
| Philippines      | PHL  | CLARK INTL. AIRPORT       | VOR/DME | 113.100   | 150/450 | 27     |     | 078X   | 150/450 | 37     | 15D11°00" N | 120D32°00 E | N    | DVOR                                  |
| Philippines      | PHL  | COTABATO                  | VOR/DME | 113.700   | 300/450 | 29     |     | 084X   | 300/450 | 40     | 07D10°03" N | 124D12°33 E | I    |                                       |
| Philippines      | PHL  | DAVAO                     | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 07D08°07" N | 125D39°26 E | N    | RWY05                                 |
| Philippines      | PHL  | DAVAO                     | ILS     | 109.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 07D06°54" N | 125D38°01 E | N    | RWY23                                 |
| Philippines      | PHL  | DAVAO                     | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 07D07°52" N | 125D39°14 E | I    |                                       |
| Philippines      | PHL  | DUMAGUETE                 | VOR     | 114.100   | 150/300 | 27     |     | n/a    | n/a     | n/a    | 09D20°01" N | 123D18°23 E | N    |                                       |
| Philippines      | PHL  | GENERAL SANTOS            | ILS     | 109.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 06D02°27" N | 123D05°53 E | N    | RWY17                                 |
| Philippines      | PHL  | GENERAL. SANTOS (TAMBLER) | VOR/DME | 114.500   | 40/100  | 17     |     | 092X   | 40/100  | 27     | 06D04°32" N | 125D05°32 E | N    | 16MAR11; DVOR                         |
| Philippines      | PHL  | ILOILO                    | VOR/DME | 116.300   | 100/450 | 23     |     | 110X   | 100/450 | 27     | 10D50°07" N | 122D29°31 E | N    |                                       |
| Philippines      | PHL  | JOMALIG                   | VOR/DME | 116.700   | 90/450  | 20     |     | 114X   | 90/450  | 27     | 14D42°18" N | 122D19°48 E | I    | 16MAR11                               |
| Philippines      | PHL  | KALIBO                    | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 11D40°23" N | 122D22°05 E | N    | 16MAR11                               |
| Philippines      | PHL  | KALIBO                    | VOR/DME | 113.000   | 100/450 | 23     |     | 077X   | 100/450 | 27     | 11D41°03" N | 122D22°56 E | N    | DVOR                                  |
| Philippines      | PHL  | LAOAG                     | VOR/DME | 112.900   | 90/450  | 20     |     | 076X   | 90/450  | 27     | 18D10°44" N | 120D31°45 E | I    |                                       |
| Philippines      | PHL  | LEGASPI                   | VOR/DME | 112.200   | 150/450 | 27     |     | 059X   | 150/450 | 37     | 13D09°01" N | 123D43°41 E | N    | DVOR                                  |
| Philippines      | PHL  | LIPA                      | VOR     | 115.100   | 150/450 | 27     |     | n/a    | n/a     | n/a    | 13D57°22" N | 121D07°36 E | N    |                                       |
| Philippines      | PHL  | LUBANG                    | VOR/DME | 117.500   | 300/450 | 29     |     | 122X   | 300/450 | 40     | 13D51°15" N | 120D06°25 E | I    |                                       |
| Philippines      | PHL  | MACTAN                    | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 10D17°43" N | 123D58°02 E | I    | RWY22                                 |
| Philippines      | PHL  | MACTAN                    | ILS     | 109.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 10D19°12" N | 123D59°31 E | I    | RWY04                                 |
| Philippines      | PHL  | MACTAN                    | VOR/DME | 114.300   | 300/450 | 29     |     | 090X   | 300/450 | 40     | 10D18°48" N | 123D59°17 E | N    | DVOR                                  |
| Philippines      | PHL  | MANILA                    | VOR/DME | 113.800   | 300/450 | 29     |     | 085X   | 300/450 | 40     | 14D30°28" N | 121D01°18 E | I    | DVOR                                  |
| Philippines      | PHL  | MANILA INTL.              | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 14D30°53" N | 121D01°49 E | I    | RWY06                                 |
| Philippines      | PHL  | MANILA INTL.              | ILS     | 109.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 14D29°50" N | 120D59°57 E | I    | RWY24                                 |
| Philippines      | PHL  | MASBATE                   | VOR/DME | 115.700   | 150/450 | 27     |     | 104X   | 150/450 | 37     | 12D22°09" N | 123D37°50 E | N    |                                       |
| Philippines      | PHL  | NAGA                      | VOR/DME | 114.700   | 150/450 | 27     |     | 094X   | 150/450 | 37     | 13D35°19" N | 123D16°05 E | N    |                                       |
| Philippines      | PHL  | PUERTO PRINCESA           | VOR/DME | 115.900   | 150/450 | 27     |     | 106X   | 150/450 | 37     | 09D44°29" N | 118D45°10 E | N    | DVOR                                  |
| Philippines      | PHL  | ROXAS                     | VOR/DME | 112.900   | 100/450 | 23     |     | 076X   | 100/450 | 27     | 11D35°49" N | 122D45°18 E | N    |                                       |
| Philippines      | PHL  | SAN FERNANDO              | VOR     | 114.500   | 150/450 | 27     |     | n/a    | n/a     | n/a    | 16D43°42" N | 120D21°29 E | N    |                                       |



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| Country           | Ctry | Location       | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks             |
|-------------------|------|----------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------------|
| Philippines       | PHL  | SAN JOSE       | VOR/DME | 117.100   | 150/450 | 27     |     | 118X   | 150/450 | 37     | 12D21°37' N | 121D02°35' E | N    |                     |
| Philippines       | PHL  | SANGA SANGA    | DME     | n/a       | n/a     | n/a    |     | 097X   | 150/300 | 37     | 05D04°00' N | 119D46°00' E | N    |                     |
| Philippines       | PHL  | SUBIC          | ILS     | 109.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 14D47°41' N | 120D16°10' E | N    | RWY07               |
| Philippines       | PHL  | SUBIC          | ILS     | 110.900   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 14D47°43' N | 120D16°32' E | N    | RWY25               |
| Philippines       | PHL  | SUBIC          | VOR/DME | 113.500   | 40/100  | 17     |     | 082X   | 40/100  | 27     | 14D46°10' N | 120D13°30' E | N    | RWY09; DVOR         |
| Philippines       | PHL  | TACLOBAN       | VOR/DME | 115.500   | 150/450 | 27     |     | 102X   | 150/450 | 37     | 11D14°01' N | 125D01°41' E | N    |                     |
| Philippines       | PHL  | TUGUEGAO       | DME     | n/a       | n/a     | n/a    |     | 058X   | 300/450 | 40     | 17D38°00' N | 121D44°11' E | N    | FI                  |
| Philippines       | PHL  | TUGUEGARAO     | VOR/DME | 112.100   | 300/450 | 29     |     | 058X   | 300/450 | 40     | 17D38°00' N | 121D44°11' E | N    |                     |
| Philippines       | PHL  | ZAMBOANGA      | ILS     | 109.100   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 06D55°18' N | 122D04°20' E | N    | RWY09               |
| Philippines       | PHL  | ZAMBOANGA      | VOR/DME | 113.900   | 50/300  | 17     |     | 086X   | 50/300  | 27     | 06D55°29' N | 122D03°20' E | I    |                     |
| Republic of Korea | KOR  | CHEJU JUNGSEOK | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/62.5 | 27     | 33D24°23' N | 126D42°41' E | N    | TRAINING            |
| Republic of Korea | KOR  | CHEONGJU       | VOR/DME | 109.000   | 250/450 | 29     |     | 027X   | 250/450 | 40     | 36D43°04' N | 127D29°38' E | I    | DVOR                |
| Republic of Korea | KOR  | CHEONGJU       | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 36D43°36' N | 127D30°50' E | I    | FI                  |
| Republic of Korea | KOR  | CHEONGJU       | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 25/100  | 27     | 36D42°30' N | 127D29°02' E | I    | 24R                 |
| Republic of Korea | KOR  | DAEGU          | TACAN   | n/a       | n/a     | n/a    |     | 125X   | 200/450 | 40     | 35D54°00' N | 128D39°00' E | N    | CO LOCATED WITH VOR |
| Republic of Korea | KOR  | DAEGU INT      | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 35D53°05' N | 128D40°26' E | I    | 13R                 |
| Republic of Korea | KOR  | DAEGU INT      | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 35D54°11' N | 128D38°37' E | I    | FI 31R DME LLZ      |
| Republic of Korea | KOR  | DAEGU INTL     | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/62.5 | 27     | 35D54°08' N | 128D38°34' E | N    | 31L                 |
| Republic of Korea | KOR  | DAEGU INTL     | VOR/DME | 116.500   | 25/100  | 17     |     | 112X   | 25/100  | 27     | 35D54°13' N | 128D38°28' E | N    | DVOR                |
| Republic of Korea | KOR  | GANGNEUNG      | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 37D44°52' N | 128D55°31' E | N    | DME 52 AT LOC       |
| Republic of Korea | KOR  | GANGNEUNG      | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 37D45°32' N | 128D57°01' E | N    | DVOR                |
| Republic of Korea | KOR  | GIMHAE         | TACAN   | n/a       | n/a     | n/a    |     | 117X   | 200/450 | 40     | 35D11°00' N | 128D56°00' E | N    |                     |
| Republic of Korea | KOR  | GIMHAE INTL    | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 35D11°47' N | 128D56°05' E | I    | DME 22 AT LOC       |
| Republic of Korea | KOR  | GIMHAE INTL    | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 35D11°48' N | 128D56°13' E | I    | FI                  |
| Republic of Korea | KOR  | GIMHAE INTL    | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 35D11°56' N | 128D56°08' E | I    | FI 26Dec13          |
| Republic of Korea | KOR  | GUNSAN         | ILS     | 110.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 33D55°08' N | 126D36°44' E | N    |                     |
| Republic of Korea | KOR  | GUNSAN         | VOR/TAC | 112.800   | 200/450 | 29     |     | 075X   | 200/450 | 40     | 35D53°00' N | 126D36°41' E | N    |                     |
| Republic of Korea | KOR  | GWANG JU       | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 35D06°44' N | 126D48°01' E | N    | FI 26Dec13 LLZ      |
| Republic of Korea | KOR  | GWANGJU        | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 35D08°21' N | 126D49°09' E | I    |                     |
| Republic of Korea | KOR  | GWANGJU        | VOR/DME | 114.400   | 40/100  | 17     |     | 091X   | 40/100  | 27     | 35D07°34' N | 126D48°44' E | N    | DVOR                |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 112.200   | 100/450 | 23     |     | 059X   | 100/450 | 27     | 35D48°35' N | 128D35°27' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 112.500   | 100/450 | 23     |     | 072X   | 100/450 | 27     | 35D58°37' N | 129D28°28' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 114.000   | 100/450 | 23     |     | 087X   | 100/450 | 27     | 35D07°21' N | 128D59°58' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 36D37°55' N | 128D19°31' E | I    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 115.500   | 100/450 | 23     |     | 102X   | 100/450 | 27     | 37D24°49' N | 126D55°42' E | I    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 115.600   | 100/450 | 23     |     | 103X   | 100/450 | 27     | 37D42°02' N | 128D45°13' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON ACC    | VOR/TAC | 116.900   | 100/450 | 23     |     | 116X   | 100/450 | 27     | 37D05°40' N | 127D01°54' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 37D28°29' N | 126D24°49' E | I    |                     |
| Republic of Korea | KOR  | INCHEON INTL   | ILS     | 108.550   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 37D26°35' N | 126D26°04' E | N    | FI New RWY16; NC    |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/100  | 27     | 37D29°10' N | 126D26°18' E | I    | 33 R DME 26 AT LOC  |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 15/100  | 27     | 37D27°07' N | 126D27°46' E | I    |                     |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 37D29°02' N | 126D26°04' E | I    | 33L DME 30 AT LOC   |
| Republic of Korea | KOR  | INCHEON INTL   | ILS     | 109.950   | 80/100  | 17     |     | n/a    | n/a     | n/a    | 37D27°57' N | 126D24°51' E | N    | FI New RWY34R; NC   |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 110.350   | 25/62.5 | 17     |     | 040Y   | 15/100  | 27     | 37D26°29' N | 126D26°37' E | I    |                     |
| Republic of Korea | KOR  | INCHEON INTL   | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 15/100  | 27     | 37D27°15' N | 126D28°00' E | I    | 15L DME 56 AT LOC   |
| Republic of Korea | KOR  | INCHEON INTL   | VOR/DME | 112.900   | 25/100  | 17     |     | 076X   | 25/100  | 27     | 37D25°58' N | 126D27°00' E | I    | T-VOR/DME           |
| Republic of Korea | KOR  | INCHEON INTL   | VOR/DME | 113.800   | 25/100  | 17     |     | 085X   | 25/100  | 27     | 37D29°42' N | 126D25°49' E | I    | T-VOR/DME           |
| Republic of Korea | KOR  | JEJU INTL      | VOR/DME | 109.000   | 200/450 | 29     |     | 027X   | 200/450 | 40     | 33D30°41' N | 126D29°15' E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | JEJU INTL      | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/100  | 27     | 33D30°58' N | 126D30°01' E | I    | DME 36 AT LOC       |
| Republic of Korea | KOR  | JEJU INTL      | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 25/100  | 27     | 33D29°54' N | 126D27°56' E | I    | DME 50 AT LOC       |
| Republic of Korea | KOR  | JEJU JUNGSEOK  | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 33D24°23' N | 126D42°41' E | N    | FI 26Dec13          |



## Order: Country\_Location\_Frequency

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| Country           | Ctry | Location         | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks             |
|-------------------|------|------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------------|
| Republic of Korea | KOR  | JEJU JUNGSIK     | VOR/DME | 117.900   | 40/100  | 17     |     | 126X   | 40/100  | 27     | 33D23'32" N | 126D42'52" E | N    |                     |
| Republic of Korea | KOR  | KANGNUNG         | TACAN   | n/a       | n/a     | n/a    |     | 056X   | 200/450 | 40     | 37D45'00" N | 128D58'00" E | N    |                     |
| Republic of Korea | KOR  | KWANGJU          | TACAN   | n/a       | n/a     | n/a    |     | 088X   | 200/450 | 40     | 35D08'00" N | 126D48'00" E | N    |                     |
| Republic of Korea | KOR  | MOKPO            | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 34D45'52" N | 126D23'18" E | N    | DME 44 AT LOC       |
| Republic of Korea | KOR  | MOKPO            | VOR/DME | 111.200   | 200/450 | 29     |     | 049X   | 200/450 | 40     | 34D45'35" N | 126D22'44" E | N    | DVOR                |
| Republic of Korea | KOR  | MUAN             | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 35D58'35" N | 126D22'58" E | N    | FI 26Dec13          |
| Republic of Korea | KOR  | MUAN             | VOR/DME | 111.000   | 200/450 | 29     |     | 047X   | 200/450 | 40     | 34D58'12" N | 126D23'00" E | N    | FI 26Dec13          |
| Republic of Korea | KOR  | MUAN             | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 35D00'23" N | 126D22'57" E | N    | FI 26Dec13          |
| Republic of Korea | KOR  | POHANG           | VOR/TAC | 109.600   | 200/450 | 29     |     | 033X   | 200/450 | 40     | 35D59'11" N | 129D24'31" E | N    | TERMINAL; DVOR      |
| Republic of Korea | KOR  | POHANG           | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 35D59'17" N | 129D26'02" E | I    | DME 46 AT LOC       |
| Republic of Korea | KOR  | PUSAN            | TACAN   | n/a       | n/a     | n/a    |     | 087X   | 200/450 | 40     | 35D07'00" N | 129D00'00" E | N    | CO LOCATED WITH VOR |
| Republic of Korea | KOR  | PYONGTAEK        | VOR/DME | 108.200   | 200/450 | 29     |     | 019X   | 200/450 | 40     | 36D58'00" N | 127D01'00" E | N    | T-VOR/DME           |
| Republic of Korea | KOR  | SACHEON          | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 25/100  | 27     | 35D04'52" N | 128D03'18" E | N    | DME 18 AT LOC       |
| Republic of Korea | KOR  | SACHEON          | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 25/62.5 | 27     | 35D05'50" N | 128D05'01" E | N    | DME 28 AT LOC       |
| Republic of Korea | KOR  | SACHEON          | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 35D05'51" N | 128D04'34" E | I    | DVOR                |
| Republic of Korea | KOR  | SACHEON          | TACAN   | n/a       | n/a     | n/a    |     | 037X   | 200/450 | 40     | 35D05'00" N | 128D05'00" E | N    |                     |
| Republic of Korea | KOR  | SEOUL GIMPO INTL | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/100  | 27     | 37D34'13" N | 126D46'22" E | I    | DME 20 AT LOC       |
| Republic of Korea | KOR  | SEOUL GIMPO INTL | ILS/DME | 108.700   | 25/62.5 | 17     |     | 024X   | 25/100  | 27     | 37D32'45" N | 126D48'12" E | I    | 26Dec13             |
| Republic of Korea | KOR  | SEOUL GIMPO INTL | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 50/100  | 27     | 37D32'44" N | 126D48'34" E | I    | 26Dec13             |
| Republic of Korea | KOR  | SEOUL GIMPO INTL | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/100  | 27     | 37D34'21" N | 126D46'32" E | I    | DME 44 AT LOC       |
| Republic of Korea | KOR  | SEOUL GIMPO INTL | VOR/DME | 113.600   | 25/100  | 17     |     | 083X   | 25/100  | 27     | 37D33'27" N | 126D47'31" E | I    | DVOR                |
| Republic of Korea | KOR  | SEOUL SINCHONRI  | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 37D26'00" N | 127D07'00" E | N    | TAC 46 AT LOC       |
| Republic of Korea | KOR  | SEOUL SINCHONRI  | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 37D26'00" N | 127D07'00" E | N    | T-VOR/DME           |
| Republic of Korea | KOR  | SEOUL SINCHONRI  | TACAN   | n/a       | n/a     | n/a    |     | 046X   | 200/450 | 40     | 37D26'00" N | 127D07'00" E | N    |                     |
| Republic of Korea | KOR  | SUWON            | ILS     | 108.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 37D14'00" N | 127D01'02" E | N    |                     |
| Republic of Korea | KOR  | SUWON            | TACAN   | n/a       | n/a     | n/a    |     | 022X   | 200/450 | 40     | 37D14'00" N | 127D01'00" E | N    |                     |
| Republic of Korea | KOR  | ULJIN            | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 36D46'00" N | 129D27'56" E | N    | FI 26Dec13          |
| Republic of Korea | KOR  | ULJIN            | TACAN   | n/a       | n/a     | n/a    |     | 100X   | 200/450 | 40     | 36D46'35" N | 129D27'26" E | N    | FI 26Dec13          |
| Republic of Korea | KOR  | ULSAN            | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/100  | 27     | 35D36'16" N | 129D21'02" E | I    | DME 40 AT LOC       |
| Republic of Korea | KOR  | ULSAN            | VOR/DME | 111.400   | 200/450 | 29     |     | 051X   | 200/450 | 40     | 35D35'54" N | 129D21'11" E | N    | FI 26Dec13; DVOR    |
| Republic of Korea | KOR  | WONJU            | VOR/DME | 110.200   | 25/100  | 17     |     | 039X   | 25/100  | 27     | 37D28'32" N | 127D58'30" E | I    | DVOR                |
| Republic of Korea | KOR  | WONJU            | TACAN   | n/a       | n/a     | n/a    |     | 053X   | 200/450 | 40     | 37D28'00" N | 127D58'00" E | N    |                     |
| Republic of Korea | KOR  | YANGYANG         | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 38D04'19" N | 128D39'29" E | I    |                     |
| Republic of Korea | KOR  | YANGYANG         | VOR/DME | 110.600   | 25/100  | 17     |     | 043X   | 25/100  | 27     | 38D03'48" N | 128D39'41" E | I    | DVOR                |
| Republic of Korea | KOR  | YECHON           | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/100  | 27     | 36D37'54" N | 128D20'10" E | N    | DME 30 AT LOC       |
| Republic of Korea | KOR  | YECHON           | TACAN   | n/a       | n/a     | n/a    |     | 026X   | 200/450 | 40     | 36D37'00" N | 128D19'00" E | N    |                     |
| Republic of Korea | KOR  | YEOSU            | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 34D51'13" N | 127D36'42" E | N    | FI 26Dec13 -acpt    |
| Republic of Korea | KOR  | YEOSU            | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/100  | 27     | 34D49'52" N | 127D37'21" E | I    | DME AT LOC          |
| Samoa             | SMO  | APIA FALEOLO     | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 13D49'00" S | 171D59'00" W | N    |                     |
| Samoa             | SMO  | APIA FALEOLO     | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 13D49'00" S | 171D59'00" W | I    |                     |
| Singapore         | SNG  | CHANGI           | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 25/62.5 | 27     | 01D22'00" N | 104D00'00" E | I    | DME-20 AT GP        |
| Singapore         | SNG  | CHANGI           | ILS/DME | 108.550   | 25/62.5 | 17     |     | 022Y   | 25/62.5 | 27     | 01D19'58" N | 104D00'15" E | N    | DEM-22 AT GP27Sep04 |
| Singapore         | SNG  | CHANGI           | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 25/62.5 | 27     | 01D21'00" N | 103D59'00" E | I    | DME-26 AT GP        |
| Singapore         | SNG  | CHANGI           | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 25/62.5 | 27     | 01D20'00" N | 103D59'00" E | I    | DME-34 AT GP        |
| Singapore         | SNG  | CHANGI           | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 01D21'21" N | 104D00'50" E | N    | DME42 at GP27Sep04  |
| Singapore         | SNG  | CHANGI           | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 25/62.5 | 27     | 01D23'00" N | 104D00'00" E | I    | DME-46 AT GP        |
| Singapore         | SNG  | CHANGI           | TACAN   | n/a       | n/a     | n/a    |     | 116X   | 200/450 | 40     | 01D21'02" N | 104D00'44" E | N    | harm not ok         |
| Singapore         | SNG  | LAZARUS ISLAND   | VOR/DME | 113.500   | 200/450 | 29     |     | 082X   | 200/450 | 40     | 01D13'00" N | 103D51'00" E | I    | DVOR                |
| Singapore         | SNG  | PAYA LEBAR       | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 01D22'00" N | 103D55'00" E | N    |                     |
| Singapore         | SNG  | PAYA LEBAR       | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 25/62.5 | 27     | 01D20'00" N | 103D54'00" E | N    |                     |



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| Country         | Ctry | Location             | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks              |
|-----------------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|----------------------|
| Singapore       | SNG  | PAYA LEBAR           | TACAN   | n/a       | n/a     | n/a    |     | 110X   | 200/450 | 40     | 01D22°00" N | 103D55°00' E | N    |                      |
| Singapore       | SNG  | PULAU TEKONG KECHIL  | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 01D25°00" N | 104D01°00' E | I    | DVOR                 |
| Singapore       | SNG  | PULAU UBIN           | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 01D25°00" N | 103D56°00' E | I    | DVOR                 |
| Singapore       | SNG  | SELETAR              | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 01D24°22" N | 103D51°38' E | N    | DME40X 13Aug.13      |
| Singapore       | SNG  | TENGAH               | ILS/DME | 108.100   | 25/62.5 | 17     |     | 018X   | 80/100  | 27     | 01D24°00" N | 103D42°00' E | N    |                      |
| Singapore       | SNG  | TENGAH               | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 25/62.5 | 27     | 01D22°00" N | 103D42°00' E | N    |                      |
| Singapore       | SNG  | TENGAH               | TACAN   | n/a       | n/a     | n/a    |     | 086X   | 200/450 | 40     | 01D24°00" N | 103D43°00' E | N    |                      |
| Solomon Islands | SLM  | GRACIOSA BAY         | DME     | n/a       | n/a     | n/a    |     | 075X   | 200/450 | 40     | 10D44°00" S | 165D47°00' E | N    |                      |
| Solomon Islands | SLM  | HONIARA              | VOR/DME | 112.600   | 200/450 | 29     |     | 073X   | 200/450 | 40     | 09D25°00" S | 160D01°00' E | I    | DVOR                 |
| Solomon Islands | SLM  | MUNDA                | DME     | n/a       | n/a     | n/a    |     | 074X   | 200/450 | 40     | 08D20°00" S | 157D15°00' E | N    |                      |
| Sri Lanka       | SLK  | KATUNAYAKE           | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 07D11°43" N | 079D53°40' E | ICAO | DME 36 at GP         |
| Sri Lanka       | SLK  | KATUNAYAKE           | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 07D10°01" N | 079D52°23' E | ICAO | DME 40 at GP         |
| Sri Lanka       | SLK  | KATUNAYAKE           | VOR/DME | 114.100   | 200/450 | 29     |     | 088X   | 200/450 | 40     | 07D09°41" N | 079D52°07' E | ICAO |                      |
| Sri Lanka       | SLK  | MATTALA              | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 06D16°18" N | 081D06°39' E | ICAO | DME 32 at GP         |
| Sri Lanka       | SLK  | MATTALA              | VOR/DME | 116.700   | 200/450 | 27     |     | 114X   | 200/450 | 37     | 06D18°14" N | 081D08°39' E | ICAO |                      |
| Thailand        | THA  | BANGKOK              | TACAN   | n/a       | n/a     | n/a    |     | 077X   | 200/450 | 40     | 13D55°00" N | 100D36°00' E | N    |                      |
| Thailand        | THA  | BANGKOK INTL         | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 13D55°43" N | 100D36°04' E | I    | FI 22Dec15           |
| Thailand        | THA  | Betong               | VOR/DME | 113.100   | 200/450 | 27     |     | 078X   | 200/450 | 37     | 05D47°08" N | 101D08°36' E | ICAO | 15Feb19; PLI         |
| Thailand        | THA  | BURIRUM              | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 15D14°22" N | 103D15°31' E | N    | FI 19MAR12           |
| Thailand        | THA  | BURIRUM              | VOR/DME | 117.200   | 200/450 | 29     |     | 119X   | 200/450 | 40     | 15D14°22" N | 103D15°31' E | N    | NOTAM; DVOR          |
| Thailand        | THA  | CHIANG MAI           | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 18D47°00" N | 098D58°00' E | I    | DME AT LOC           |
| Thailand        | THA  | CHIANG MAI           | VOR/DME | 116.900   | 200/300 | 29     |     | 116X   | 200/300 | 40     | 18D46°00" N | 098D58°00' E | I    | DVOR                 |
| Thailand        | THA  | CHIANG MAI           | TACAN   | n/a       | n/a     | n/a    |     | 109X   | 200/450 | 40     | 18D49°00" N | 098D58°00' E | N    |                      |
| Thailand        | THA  | CHIANG RAI           | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 19D58°00" N | 099D53°28' E | N    |                      |
| Thailand        | THA  | CHIANG RAI           | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 19D56°53" N | 099D53°00' E | N    | DVOR                 |
| Thailand        | THA  | CHUMPAE              | VOR/DME | 112.900   | 300/450 | 29     |     | 076X   | 300/450 | 40     | 16D39°00" N | 101D55°00' E | N    | DVOR                 |
| Thailand        | THA  | CHUMPHON             | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 10D42°40" N | 099D22°56' E | N    | FI 19MAR12           |
| Thailand        | THA  | CHUMPHON             | VOR/DME | 110.000   | 300/450 | 29     |     | 037X   | 300/450 | 40     | 10D42°40" N | 099D22°56' E | N    | DVOR                 |
| Thailand        | THA  | DON MUEANG INTL      | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 25/62.5 | 27     | 13D53°40" N | 100D35°40' E | I    |                      |
| Thailand        | THA  | DON MUEANG INTL      | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 25/62.5 | 27     | 13D53°51" N | 100D36°01' E | I    |                      |
| Thailand        | THA  | DON MUEANG INTL      | VOR/DME | 117.700   | 200/450 | 29     |     | 124X   | 200/450 | 40     | 13D53°36" N | 100D35°46' E | I    | DVOR                 |
| Thailand        | THA  | HUA HIN              | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 12D38°00" N | 099D57°00' E | N    | DVOR                 |
| Thailand        | THA  | KAMPHAENG SAEN       | VOR     | 114.500   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 14D09°00" N | 099D57°00' E | N    |                      |
| Thailand        | THA  | KHONKAEN             | VOR/DME | 114.900   | 150/350 | 27     |     | 096X   | 150/350 | 37     | 16D27°36" N | 102D47°00' E | N    | DVOR                 |
| Thailand        | THA  | KRABI                | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 08D06°27" N | 098D58°39' E | N    | FI 19MAR12           |
| Thailand        | THA  | KRABI                | VOR/DME | 111.000   | 300/450 | 29     |     | 047X   | 300/450 | 40     | 08D06°27" N | 098D58°39' E | N    | DVOR                 |
| Thailand        | THA  | LAMPANG              | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 18D16°37" N | 099D30°09' E | N    | 19MAR12              |
| Thailand        | THA  | LOEI                 | VOR/DME | 115.900   | 300/450 | 29     |     | 106X   | 300/450 | 40     | 17D27°00" N | 101D43°23' E | N    | DVOR                 |
| Thailand        | THA  | LOEI                 | TACAN   | n/a       | n/a     | n/a    |     | 100X   | 200/450 | 40     | 17D26°00" N | 101D43°00' E | N    | NOTAM C3030/96 14.11 |
| Thailand        | THA  | LOPBURI SAPHANNAK    | VOR     | 117.300   | 200/450 | 29     |     | n/a    | n/a     | n/a    | 14D57°00" N | 100D38°00' E | N    |                      |
| Thailand        | THA  | MAE HONG SON         | VOR/DME | 115.500   | 200/300 | 29     |     | 102X   | 200/300 | 40     | 19D19°10" N | 097D54°43' E | N    | AIP; DVOR            |
| Thailand        | THA  | MAESOT               | VOR/DME | 116.700   | 200/450 | 29     |     | 114X   | 200/450 | 40     | 16D41°55" N | 098D32°31' E | N    | DVOR                 |
| Thailand        | THA  | NAKHON PHANOM        | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 17D23°17" N | 104D38°18' E | N    | 19MAR12              |
| Thailand        | THA  | NAKHON PHANOM        | VOR/DME | 111.600   | 300/450 | 29     |     | 053X   | 300/450 | 40     | 17D23°17" N | 104D38°18' E | N    | DVOR                 |
| Thailand        | THA  | NAKHON PHANOM WEST   | TACAN   | n/a       | n/a     | n/a    |     | 089X   | 200/450 | 40     | 17D22°00" N | 102D48°00' E | N    |                      |
| Thailand        | THA  | NAKHON RATCHASIMA    | ILS/DME | 109.700   | 25/62.5 | 17     | 53  | 034X   | 80/100  | 27     | 14D56°47" N | 102D18°40' E | N    | 19MAR12              |
| Thailand        | THA  | NAKHON RATCHASIMA    | VOR/DME | 110.200   | 300/450 | 29     |     | 039X   | 300/450 | 40     | 14D56°47" N | 102D18°40' E | N    | DVOR                 |
| Thailand        | THA  | NAKHON RATCHASIMA    | VOR/DME | 113.700   | 200/450 | 29     |     | 084X   | 200/450 | 40     | 14D55°00" N | 102D07°00' E | N    | DVOR                 |
| Thailand        | THA  | NAKHON RATCHASIMA KO | TACAN   | n/a       | n/a     | n/a    |     | 125X   | 200/450 | 40     | 14D56°00" N | 102D05°00' E | N    |                      |
| Thailand        | THA  | NAKHON SI THAMMARAT  | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 08D32°29" N | 099D56°48' E | N    | 19MAR12              |
| Thailand        | THA  | NAKHON SI THAMMARAT  | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 08D32°29" N | 099D56°48' E | N    | DVOR                 |



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| Country  | Ctry | Location             | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks          |
|----------|------|----------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|------------------|
| Thailand | THA  | NAN                  | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 18D48°32' N | 100D46°57' E | N    | 19MAR12          |
| Thailand | THA  | NAN                  | VOR/DME | 115.700   | 200/450 | 29     |     | 104X   | 200/450 | 40     | 18D48°32' N | 100D46°57' E | N    | NOTAM; DVOR      |
| Thailand | THA  | NARATHIWAT           | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 06D31°49' N | 101D44°52' E | N    |                  |
| Thailand | THA  | NARATHIWAT           | VOR/DME | 116.300   | 200/450 | 29     |     | 110X   | 200/450 | 40     | 06D31°00' N | 101D46°00' E | N    | FI 19MAR12; DVOR |
| Thailand | THA  | PETCHABUN            | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 16D40°34' N | 101D11°48' E | N    | 19MAR12          |
| Thailand | THA  | PETCHABUN            | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 16D40°46' N | 101D11°47' E | N    | DVOR             |
| Thailand | THA  | PHITSANULOK          | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 16D46°13' N | 100D17°28' E | N    | FI 19MAR12       |
| Thailand | THA  | PHITSANULOK          | VOR/DME | 114.100   | 300/450 | 29     |     | 088X   | 300/450 | 40     | 16D46°13' N | 100D17°28' E | I    | DVOR             |
| Thailand | THA  | PHITSANULOK          | TACAN   | n/a       | n/a     | n/a    |     | 099X   | 200/450 | 40     | 16D46°00' N | 100D17°00' E | N    | MIL              |
| Thailand | THA  | PHRAE                | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 18D08°02' N | 100D09°58' E | N    | 19MAR12          |
| Thailand | THA  | PHRAE                | VOR/DME | 111.800   | 300/450 | 29     |     | 055X   | 300/450 | 40     | 18D08°02' N | 100D09°58' E | N    | DVOR             |
| Thailand | THA  | PHUKET               | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 25/62.5 | 27     | 08D06°48' N | 098D18°24' E | I    |                  |
| Thailand | THA  | PHUKET               | VOR/DME | 116.900   | 150/300 | 27     |     | 116X   | 150/300 | 37     | 08D06°00' N | 098D18°00' E | I    | DVOR             |
| Thailand | THA  | Prachinburi          | DME     | n/a       | n/a     | n/a    |     | 111X   | 200/450 | 37     | 14D07°07' N | 101D22°15' E | NAT  |                  |
| Thailand | THA  | PRACHUAP KHIRIKHAN   | TACAN   | n/a       | n/a     | n/a    |     | 084X   | 200/450 | 40     | 00D00°00' N | 00D00°00' E  | N    |                  |
| Thailand | THA  | RANONG               | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 09D47°18' N | 098D35°24' E | N    | FI 22Dec15       |
| Thailand | THA  | RANONG               | VOR/DME | 113.400   | 200/300 | 29     |     | 081X   | 200/300 | 40     | 09D46°43' N | 098D35°02' E | N    | DVOR             |
| Thailand | THA  | RAYONG               | VOR/DME | 112.500   | 300/450 | 29     |     | 072X   | 300/450 | 40     | 12D46°28' N | 101D40°10' E | N    | DVOR             |
| Thailand | THA  | ROI ET               | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 16D07°00' N | 103D46°19' E | N    | 19MAR12          |
| Thailand | THA  | ROI ET               | VOR/DME | 111.200   | 300/450 | 29     |     | 049X   | 300/450 | 40     | 16D07°00' N | 103D46°19' E | N    | DVOR             |
| Thailand | THA  | SAKHONNAKHON BANKHAI | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 07D12°50' N | 104D08°12' E | N    | 19MAR12          |
| Thailand | THA  | SAKHONNAKHON BANKHAI | VOR/DME | 114.200   | 300/450 | 29     |     | 089X   | 300/450 | 40     | 17D12°50' N | 104D08°12' E | N    | FI ; DVOR        |
| Thailand | THA  | SAKHONNAKHON BANKHAI | TACAN   | n/a       | n/a     | n/a    |     | 105X   | 200/450 | 40     | 07D11°00' N | 104D06°00' E | N    |                  |
| Thailand | THA  | SAMUI                | VOR/DME | 117.600   | 300/450 | 29     |     | 123X   | 300/450 | 40     | 09D33°00' N | 100D04°00' E | N    | DVOR             |
| Thailand | THA  | SONGKHLA HAT YAI     | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 300/450 | 37     | 06D55°49' N | 100D22°30' E | I    |                  |
| Thailand | THA  | SONGKHLA HAT YAI     | VOR/DME | 115.300   | 300/450 | 29     |     | 100X   | 300/450 | 40     | 06D56°00' N | 100D23°00' E | I    | DVOR             |
| Thailand | THA  | SONGKHLA HAT YAI     | TACAN   | n/a       | n/a     | n/a    |     | 077X   | 200/450 | 40     | 00D00°00' N | 00D00°00' E  | N    |                  |
| Thailand | THA  | Sukhorthai           | DME     | n/a       | n/a     | n/a    |     | 031X   | 200/450 | 37     | 17D14°08' N | 099D49°20' E | NAT  |                  |
| Thailand | THA  | SUKHOTHAI            | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 17D14°58' N | 099D49°07' E | N    | FI 19MAR12       |
| Thailand | THA  | SUKHOTHAI            | DME     | n/a       | n/a     | n/a    |     | 040X   | 200/450 | 40     | 17D13°00' N | 099D41°00' E | N    |                  |
| Thailand | THA  | SURATTHANI           | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/62.5 | 27     | 09D07°15' N | 099D07°00' E | I    | AIP              |
| Thailand | THA  | SURATTHANI           | VOR/DME | 110.600   | 150/450 | 27     |     | 043X   | 150/450 | 37     | 09D08°00' N | 099D08°00' E | I    | DVOR             |
| Thailand | THA  | SURATTHANI           | TACAN   | n/a       | n/a     | n/a    |     | 079X   | 200/450 | 40     | 09D06°00' N | 099D07°00' E | N    |                  |
| Thailand | THA  | SUVARNABHUMI         | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 13D40°17' N | 100D44°05' E | I    | FI 19MAR12       |
| Thailand | THA  | SUVARNABHUMI         | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 80/100  | 27     | 13D42°13' N | 100D44°35' E | I    | FI 19MAR12       |
| Thailand | THA  | SUVARNABHUMI         | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 13D39°24' N | 100D45°07' E | I    | FI 19MAR12       |
| Thailand | THA  | SUVARNABHUMI         | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 80/100  | 27     | 13D41°30' N | 100D45°40' E | I    | FI 19MAR12       |
| Thailand | THA  | SUVARNABHUMI         | VOR/DME | 111.400   | 200/450 | 29     |     | 051X   | 200/450 | 40     | 15D38°00' N | 100D43°00' E | I    | 23May03; DVOR    |
| Thailand | THA  | Tak                  | DME     | n/a       | n/a     | n/a    |     | 058X   | 200/450 | 37     | 16D53°59' N | 099D15°06' E | NAT  |                  |
| Thailand | THA  | TAKHLI               | TACAN   | n/a       | n/a     | n/a    |     | 095X   | 200/450 | 40     | 15D16°00' N | 100D18°00' E | N    |                  |
| Thailand | THA  | TRANG                | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 07D30°32' N | 099D37°34' E | I    | 19MAR12          |
| Thailand | THA  | U-TAPHAO             | VOR/DME | 110.800   | 200/450 | 29     |     | 045X   | 200/450 | 40     | 12D40°00' N | 101D00°00' E | I    | DME NAT; DVOR    |
| Thailand | THA  | U-TAPHAO             | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 25/62.5 | 27     | 12D39°00' N | 101D00°00' E | I    |                  |
| Thailand | THA  | U-TAPHAO             | TACAN   | n/a       | n/a     | n/a    |     | 105X   | 200/450 | 40     | 12D41°00' N | 101D00°00' E | N    |                  |
| Thailand | THA  | UBON RATCHATHANI     | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 15D14°23' N | 104D51°20' E | I    | AIP              |
| Thailand | THA  | UBON RATCHATHANI     | VOR/DME | 112.700   | 300/450 | 29     |     | 074X   | 300/450 | 40     | 15D14°42' N | 104D52°00' E | I    | DME NAT; DVOR    |
| Thailand | THA  | UBON RATCHATHANI     | TACAN   | n/a       | n/a     | n/a    |     | 093X   | 200/450 | 40     | 15D14°00' N | 104D52°00' E | N    |                  |
| Thailand | THA  | UDON THANI           | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 25/62.5 | 27     | 17D23°41' N | 102D46°16' E | N    | AIP              |
| Thailand | THA  | UDON THANI           | VOR/DME | 114.300   | 200/450 | 29     |     | 090X   | 200/450 | 40     | 17D23°00' N | 102D46°18' E | N    | DVOR             |
| Thailand | THA  | UDON THANI           | TACAN   | n/a       | n/a     | n/a    |     | 086X   | 200/450 | 40     | 17D23°00' N | 102D48°00' E | N    |                  |



Order: Country\_Location\_Frequency

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| Country     | Ctry | Location                      | Service | Frequency | VHFDOC  | VHFpwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude    | Cat. | Remarks             |
|-------------|------|-------------------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|--------------|------|---------------------|
| Timor-Leste | TME  | DILI                          | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 08D32°38" S | 125D31°40' E | N    | DVOR                |
| Tonga       | TON  | TONGATAPU                     | VOR/DME | 114.500   | 200/450 | 29     |     | 092X   | 200/450 | 40     | 21D14°00" S | 175D08°00' W | I    |                     |
| Tuvalu      | TUV  | FUNAFUTI                      | VOR/DME | 113.300   | 200/450 | 29     |     | 080X   | 200/450 | 40     | 08D31°00" S | 179D12°00' E | N    |                     |
| Vanuatu     | NHB  | PORT VILA BAUERFIELD          | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 25/62.5 | 27     | 17D41°00" S | 168D19°00' E | N    | OFFSET LOCALISOR    |
| Vanuatu     | NHB  | PORT VILA BAUERFIELD          | VOR/DME | 114.300   | 50/300  | 17     |     | 090X   | 50/300  | 27     | 17D39°00" S | 168D14°00' E | I    |                     |
| Vanuatu     | NHB  | SANTO PEKOA                   | DME     | n/a       | n/a     | n/a    |     | 092X   | 200/450 | 40     | 15D32°00" S | 167D08°00' E | N    | DME CO-LOCATED WITH |
| Viet Nam    | VTN  | BUON ME THUAT                 | ILS/DME | 109.700   | 25/62.5 | 17     |     | 034X   | 80/100  | 27     | 12D39°60" N | 108D07°23' E | N    | 2Jun15              |
| Viet Nam    | VTN  | BUON ME THUOT                 | ILS/DME | 108.900   | 25/62.5 | 17     |     | 026X   | 80/100  | 27     | 12D40°07" N | 108D02°30' E | N    | Fi 28Apr15          |
| Viet Nam    | VTN  | BUON-MA-THUOT                 | VOR/DME | 112.100   | 200/450 | 29     |     | 058X   | 200/450 | 40     | 12D40°00" N | 108D06°09' E | N    | 1Q01; DVOR          |
| Viet Nam    | VTN  | CAM RANH                      | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 11D58°40" N | 109D16°30' E | N    | Fi 20Jun17          |
| Viet Nam    | VTN  | CAM RANH                      | ILS/DME | 110.700   | 25/62.5 | 17     |     | 044X   | 80/100  | 27     | 11D59°40" N | 109D13°12' E | I    | 7Dec11              |
| Viet Nam    | VTN  | CAM RANH                      | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 12D00°50" N | 109D14°29' E | N    | Fi 20Jun17          |
| Viet Nam    | VTN  | CAM RANH                      | VOR/DME | 116.500   | 200/450 | 29     |     | 112X   | 200/450 | 40     | 11D10°49" N | 109D14°51' E | N    | 1Apr04; DVOR        |
| Viet Nam    | VTN  | CAN THO                       | VOR/DME | 113.200   | 200/450 | 29     |     | 079X   | 200/450 | 40     | 10D05°00" N | 105D42°34' E | N    | 7Jul08; DVOR        |
| Viet Nam    | VTN  | CANTHO                        | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 10D04°45" N | 105D41°58' E | N    | 8Oct10              |
| Viet Nam    | VTN  | CAT BI HAI PHONG              | VOR/DME | 117.400   | 200/450 | 29     |     | 121X   | 200/450 | 40     | 20D48°45" N | 106D41°52' E | N    | 20APR15             |
| Viet Nam    | VTN  | CHU LAI                       | VOR/DME | 112.400   | 200/450 | 29     |     | 071X   | 200/450 | 40     | 15D24°22" N | 108D42°21' E | N    | 14Apr05; DVOR       |
| Viet Nam    | VTN  | CHU LAI                       | VOR/DME | 115.200   | 200/450 | 29     |     | 099X   | 200/450 | 40     | 15D24°44" N | 108D42°16' E | N    | 1Oct12; DVOR        |
| Viet Nam    | VTN  | CHU LAI                       | VOR/DME | 116.600   | 200/450 | 29     |     | 113X   | 200/450 | 40     | 15D24°22" N | 108D42°21' E | N    | 14Apr05; DVOR       |
| Viet Nam    | VTN  | CHU LAI AIRPORT               | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 80/100  | 27     | 15D25°12" N | 108D41°27' E | I    | 12Apr17             |
| Viet Nam    | VTN  | CON SON                       | VOR/DME | 115.600   | 200/450 | 29     |     | 103X   | 200/450 | 40     | 08D43°00" N | 106D37°00' E | N    | DVOR                |
| Viet Nam    | VTN  | DA LAT LIEN KHUONG            | ILS/DME | 110.900   | 25/62.5 | 17     |     | 046X   | 80/100  | 27     | 11D45°14" N | 108D21°18' E | N    | 9Jan15 pm           |
| Viet Nam    | VTN  | DANANG                        | ILS     | 109.300   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 16D01°00" N | 108D11°00' E | I    |                     |
| Viet Nam    | VTN  | DANANG                        | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 16D02°37" N | 108D12°01' E | N    |                     |
| Viet Nam    | VTN  | DANANG                        | ILS/DME | 111.500   | 25/62.5 | 17     |     | 052X   | 80/100  | 27     | 16D02°37" N | 108D12°01' E | N    | 5Oct.10             |
| Viet Nam    | VTN  | DANANG                        | VOR/DME | 114.400   | 300/450 | 29     |     | 091X   | 300/450 | 40     | 16D03°00" N | 108D12°00' E | I    | DVOR                |
| Viet Nam    | VTN  | DIEN BIEN PHU                 | VOR/DME | 113.600   | 200/450 | 29     |     | 083X   | 200/450 | 40     | 21D23°45" N | 103D00°16' E | N    | 15Mar05; DVOR       |
| Viet Nam    | VTN  | DONG HOI                      | ILS/DME | 110.300   | 25/62.5 | 17     |     | 040X   | 80/100  | 27     | 17D30°58" N | 106D35°35' E | N    | 26Jun13             |
| Viet Nam    | VTN  | DONG HOI                      | VOR     | 115.200   | 300/450 | 29     |     | n/a    | n/a     | n/a    | 00D00°00" N | 00D00°00' E  | N    |                     |
| Viet Nam    | VTN  | DONG HOI                      | VOR/DME | 116.200   | 200/450 | 29     |     | 109X   | 200/450 | 40     | 17D30°00" N | 106D35°00' E | N    | 1Apr04; DVOR        |
| Viet Nam    | VTN  | HA NOI NOI BAI                | ILS/DME | 111.900   | 25/62.5 | 17     |     | 056X   | 80/100  | 27     | 21D12°52" N | 105D49°23' E | N    | Fi 8Jan15           |
| Viet Nam    | VTN  | HAI PHONG CAT BI              | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 20D49°03" N | 106D43°05' E | N    | DVOR                |
| Viet Nam    | VTN  | HAI-PHONG CAT-BI              | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 20D49°03" N | 106D43°05' E | N    | 1Q01; DVOR          |
| Viet Nam    | VTN  | HAIPHONG CATBI                | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 20D49°03" N | 106D42°48' E | N    | 03Dec.14            |
| Viet Nam    | VTN  | HANOI NOI BAI                 | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 21D13°00" N | 105D47°00' E | I    |                     |
| Viet Nam    | VTN  | HANOI NOI BAI                 | VOR/DME | 116.100   | 200/450 | 29     |     | 108X   | 200/450 | 40     | 21D12°00" N | 105D50°00' E | I    |                     |
| Viet Nam    | VTN  | HUE PHU-BAI                   | VOR/DME | 115.800   | 200/450 | 29     |     | 105X   | 200/450 | 40     | 16D24°00" N | 107D42°00' E | N    | DVOR                |
| Viet Nam    | VTN  | LIEN KHUONG                   | VOR/DME | 112.300   | 200/450 | 29     |     | 070X   | 200/450 | 40     | 11D45°30" N | 108D21°33' E | N    | 19Jun2007; DVOR     |
| Viet Nam    | VTN  | Long Thanh IA 1               | ILS/DME | 108.500   | 25/62.5 | 17     |     | 022X   | 25/100  | 27     | 10D46°20" N | 107D01°25' E | NAT  |                     |
| Viet Nam    | VTN  | Long Thanh IA 2               | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 25/100  | 27     | 10D47°48" N | 107D03°29' E | NAT  |                     |
| Viet Nam    | VTN  | Noi Bai International Airport | ILS/DME | 109.300   | 25/62.5 | 17     |     | 030X   | 80/100  | 27     | 21D13°34" N | 105D47°23' E | NAT  | RWY 29R             |
| Viet Nam    | VTN  | NOIBAI                        | ILS     | 110.500   | 25/62.5 | 17     |     | n/a    | n/a     | n/a    | 21D12°00" N | 010D54°00' E | N    |                     |
| Viet Nam    | VTN  | NOIBAI                        | VOR/DME | 116.100   | 130/450 | 23     |     | 108X   | 130/450 | 37     | 21D12°00" N | 010D55°00' E | N    |                     |
| Viet Nam    | VTN  | PHAN THIET                    | VOR/DME | 114.100   | 130/450 | 23     |     | 088X   | 130/450 | 37     | 10D55°00" N | 108D04°00' E | N    |                     |
| Viet Nam    | VTN  | PHAN THIET                    | VOR/DME | 115.700   | 30/450  | 17     |     | 104X   | 30/450  | 27     | 10D50°00" N | 108D04°00' E | N    |                     |
| Viet Nam    | VTN  | Phan Thiet airport            | ILS/DME | 109.500   | 25/62.5 | 17     |     | 032X   | 25/100  | 27     | 11D00°53" N | 108D14°10' E | NAT  |                     |
| Viet Nam    | VTN  | Phan Thiet airport            | VOR/DME | 112.600   | 200/450 | 27     |     | 073X   | 200/450 | 37     | 10D59°57" N | 108D13°38' E | NAT  |                     |
| Viet Nam    | VTN  | PHU CAT                       | ILS/DME | 110.100   | 25/62.5 | 17     |     | 038X   | 80/100  | 27     | 13D51°55" N | 109D06°21' E | N    | Fi 4Apr17           |
| Viet Nam    | VTN  | PHU CAT                       | VOR/DME | 115.500   | 200/450 | 29     |     | 102X   | 200/450 | 40     | 13D57°00" N | 100D24°00' E | N    |                     |
| Viet Nam    | VTN  | PHU CAT                       | VOR/DME | 116.300   | 130/450 | 23     |     | 110X   | 130/450 | 37     | 13D57°00" N | 109D02°00' E | N    |                     |
| Viet Nam    | VTN  | PHU QUOC                      | VOR/DME | 113.800   | 200/450 | 29     |     | 085X   | 200/450 | 40     | 10D13°59" N | 103D57°33' E | N    | 13Jan11; DVOR       |



# Order: Country\_Location\_Frequency

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| Country       | Ctry | Location         | Service | Frequency | VHFDOC  | VHFPwr | TRD | DME_Ch | DMEDOC  | DMEPwr | Latitude    | Longitude   | Cat. | Remarks                               |
|---------------|------|------------------|---------|-----------|---------|--------|-----|--------|---------|--------|-------------|-------------|------|---------------------------------------|
| Viet Nam      | VTN  | PLEIKU           | ILS/DME | 109.100   | 25/62.5 | 17     |     | 028X   | 80/100  | 27     | 14D00'15" N | 108D00'35 E | N    | FI 2Jun15, RWY 27                     |
| Viet Nam      | VTN  | PLEIKU           | VOR/DME | 113.400   | 200/450 | 29     |     | 081X   | 200/450 | 40     | 14D00'37" N | 108D00'57 E | N    | 7Jul08; DVOR                          |
| Viet Nam      | VTN  | QUI-NHON         | VOR/DME | 116.700   | 300/450 | 29     |     | 114X   | 300/450 | 40     | 00D00'00" N | 000D00'00 E | N    |                                       |
| Viet Nam      | VTN  | RACH GIA AIRPORT | VOR/DME | 115.100   | 200/450 | 29     |     | 098X   | 200/450 | 40     | 09D57'47" N | 105D09'08 E | N    | FI 9Mar18; DVOR                       |
| Viet Nam      | VTN  | TAN SON NHAT     | ILS/DME | 110.500   | 25/62.5 | 17     |     | 042X   | 25/62.5 | 27     | 10D49'00" N | 106D39'00 E | I    |                                       |
| Viet Nam      | VTN  | TAN SON NHAT     | ILS/DME | 111.700   | 25/62.5 | 17     |     | 054X   | 80/100  | 27     | 10D48'49" N | 106D38'36 E | N    | FI 15Mar13                            |
| Viet Nam      | VTN  | TAN SON NHAT     | VOR/DME | 116.700   | 300/450 | 29     |     | 114X   | 300/450 | 40     | 10D49'00" N | 106D39'00 E | I    | 15Mar05; DVOR , To be replaced by TSH |
| Viet Nam      | VTN  | TAN SON NHAT     | VOR/DME | 116.800   | 200/450 | 27     |     | 115X   | 200/450 | 37     | 10D49'06" N | 106D39'02 E | NAT  |                                       |
| Viet Nam      | VTN  | THO XUAN         | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 19D53'50" N | 105D29'34 E | N    | FI 9Mar14                             |
| Viet Nam      | VTN  | THO XUAN         | VOR/DME | 114.800   | 200/450 | 29     |     | 095X   | 200/450 | 40     | 19D53'50" N | 105D29'34 E | N    | FI 15Mar13                            |
| Viet Nam      | VTN  | TUY HOA          | ILS/DME | 111.100   | 25/62.5 | 17     |     | 048X   | 80/100  | 27     | 13D02'41" N | 109D20'07 E | N    | FI 4Apr17                             |
| Viet Nam      | VTN  | TUY HOA          | VOR/DME | 117.000   | 200/450 | 29     |     | 117X   | 200/450 | 40     | 13D01'41" N | 109D20'07 E | N    | 18Dec15; DVOR                         |
| Viet Nam      | VTN  | TUY HOA AP       | ILS/DME | 111.300   | 25/62.5 | 17     |     | 050X   | 80/100  | 27     | 13D03'28" N | 109D20'18 E | N    | 9Mar18                                |
| Viet Nam      | VTN  | VAN DON          | ILS/DME | 109.900   | 25/62.5 | 17     |     | 036X   | 80/100  | 27     | 21D07'48" N | 107D25'13 E | N    | 4Apr17                                |
| Viet Nam      | VTN  | VAN DON          | VOR/DME | 115.400   | 200/450 | 29     |     | 101X   | 200/450 | 40     | 21D07'07" N | 107D25'10 E | N    | FI 17Oct17; DVOR                      |
| Viet Nam      | VTN  | VINH             | ILS/DME | 108.300   | 25/62.5 | 17     |     | 020X   | 80/100  | 27     | 18D44'33" N | 105D40'26 E | N    | 8Oct10                                |
| Viet Nam      | VTN  | VINH             | VOR/DME | 113.100   | 200/450 | 29     |     | 078X   | 200/450 | 40     | 18D43'08" N | 105D40'06 E | N    | FI ; DVOR                             |
| Viet Nam      | VTN  | VUNGTAU          | VOR     | 114.700   | 130/450 | 23     |     | n/a    | n/a     | n/a    | 10D22'00" N | 107D06'00 E | N    |                                       |
| Viet Nam      | VTN  | WEST NOIBAI      | VOR/DME | 113.900   | 200/450 | 29     |     | 086X   | 200/450 | 40     | 21D16'13" N | 105D22'42 E | N    | 12Apr05; DVOR                         |
| Wallis Island | WAL  | WALLIS HIHIFO    | VOR/DME | 113.000   | 200/450 | 29     |     | 077X   | 200/450 | 40     | 13D14'00" S | 176D12'00 W | I    |                                       |

FREQUENCY LIST NO. 2

APPENDIX B

International and National Assignments in

FREQUENCY ORDER



# Order: Frequency\_Country\_Location

37th edition

| Frequency | DME ch | Country           | Ctry | Location                | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     |  | TRD | DME/TACAN |     | Remarks       |
|-----------|--------|-------------------|------|-------------------------|-------------|-------------|----------|------|--------------|-----|--|-----|-----------|-----|---------------|
|           |        |                   |      |                         |             |             |          |      | DOC          | PWR |  |     | DOC       | PWR |               |
| 108.100   | 018X   | China             | CHN  | SHANGHAI PUDONG         | 31D09'00" N | 121D46' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.100   | 018X   | China             | CHN  | SHENZUO BAOAN           | 22D37'00" N | 113D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.100   | 018X   | China             | CHN  | ZHONGQING JIANGBEI      | 29D42'00" N | 106D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.100   | 018X   | India             | IND  | Thanjavur               | 10D43'04" N | 079D05'43 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.100   | 018X   | Japan             | J    | IWAMI                   | 34D40'00" N | 131D48'00 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 25/62.5   | 27  | DME 18 AT GP  |
| 108.100   | 018X   | Japan             | J    | KANSAI INTL             | 34D26'00" N | 135D16'00 E | ILS/DME  | I    | 25/62.5      | 17  |  |     | 25/62.5   | 27  | DME 18 AT GP  |
| 108.100   | 018X   | Japan             | J    | TOKYO INTL.             | 35D33'00" N | 139D46'00 E | ILS/DME  | I    | 25/62.5      | 17  |  |     | 25/62.5   | 27  |               |
| 108.100   | 018X   | Malaysia          | MLA  | KOTA KINABALU           | 05D55'16" N | 116D02'35 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | 7Aug07 GP02   |
| 108.100   | 018X   | Malaysia          | MLA  | KUALA TERENGGANU        | 05D23'23" N | 103D06'42 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | 21June07      |
| 108.100   | 018X   | Nepal             | NPL  | KATHMANDU               | 27D41'49" N | 085D21'28 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | FI 10Jun18    |
| 108.100   | n/a    | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP     | 33D32'40" N | 072D50'55 E | ILS      | N    | 25/62.5      | 17  |  |     | n/a       | n/a | 6Apr.13 28L   |
| 108.100   | 018X   | Pakistan          | PAK  | New Gwadar Int. Airport | 25D17'22" N | 062D28'41 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 25/100    | 27  |               |
| 108.100   | 018X   | Republic of Korea | KOR  | INCHEON INTL            | 37D28'29" N | 126D24'49 E | ILS/DME  | I    | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.100   | 018X   | Republic of Korea | KOR  | SACHEON                 | 35D04'52" N | 128D03'18 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 25/100    | 27  | DME 18 AT LOC |
| 108.100   | 018X   | Republic of Korea | KOR  | ULJIN                   | 36D46'00" N | 129D27'56 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | FI 26Dec13    |
| 108.100   | 018X   | Singapore         | SNG  | TENGAH                  | 01D24'00" N | 103D42'00 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.150   | 018Y   | China             | CHN  | DONGMULANTOU            | 20D09'00" N | 110D40'00 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 25/100    | 27  | FI ; DVOR     |
| 108.200   | 019X   | China             | CHN  | BEIJIAZAO               | 40D03'00" N | 113D29' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR          |
| 108.200   | 019X   | China             | CHN  | DAQING                  | 46D46'00" N | 125D07' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR          |
| 108.200   | 019X   | China             | CHN  | GANZI                   | 31D47'00" N | 099D29' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |               |
| 108.200   | 019X   | China             | CHN  | JINGGANGSHAN            | 26D51'00" N | 114D42' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR          |
| 108.200   | 019X   | China             | CHN  | JINNING                 | 24D40'00" N | 102D48' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |               |
| 108.200   | 019X   | Republic of Korea | KOR  | PYONGTAEK               | 36D58'00" N | 127D01'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | T-VOR/DME     |
| 108.300   | n/a    | Cambodia          | KMR  | SIEM REAP               | 13D25'00" N | 103D50'00 E | ILS      | N    | 25/62.5      | 17  |  |     | n/a       | n/a | 9May08        |
| 108.300   | 020X   | China             | CHN  | CHANGZHI WANGCUN        | 36D15'00" N | 113D07' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | n/a    | China             | CHN  | HEFEI LUOGANG           | 31D47'00" N | 117D17' E   | ILS      | ICA  | 25/62.5      | 20  |  |     | n/a       | n/a |               |
| 108.300   | 020X   | China             | CHN  | HUANGSHAN TUNXI         | 29D43'00" N | 118D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | JIAMUSI                 | 46D51'00" N | 130D28' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | JIUZHAI HUANGLONG       | 32D50'00" N | 103D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | MEIZHOU MEIXIAN         | 24D16'00" N | 116D06' E   | ILS/DME  | NAT  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | SHANGHAI PUDONG         | 31D09'00" N | 121D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | TONGLIAO                | 43D34'00" N | 122D12' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | China             | CHN  | ZHUHAI JINWAN           | 21D59'00" N | 113D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |  |     | 25/62.5   | 20  |               |
| 108.300   | 020X   | India             | IND  | BANGALORE               | 13D12'24" N | 077D43'33 E | ILS/DME  | I    | 25/62.5      | 17  |  |     | 80/100    | 27  | 2May07        |
| 108.300   | 020X   | India             | IND  | Carnicobar              | 09D08'22" N | 092D48'51 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 25/100    | 27  |               |
| 108.300   | 020X   | India             | IND  | Doom Dooma              | 27D33'45" N | 095D34'43 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.300   | 020X   | India             | IND  | GOA                     | 15D23'02" N | 073D50'54 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.300   | 020X   | India             | IND  | GONDIA                  | 21D32'05" N | 080D17'59 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | 21Mar08       |
| 108.300   | 020X   | India             | IND  | Jewar                   | 28D10'31" N | 077D38'08 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 25/100    | 27  | 10L           |
| 108.300   | 020X   | India             | IND  | Kalaburagi airport      | 17D18'26" N | 076D56'51 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 25/100    | 27  |               |
| 108.300   | 020X   | India             | IND  | Panagarh                | 23D28'42" N | 087D26'09 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 80/100    | 27  |               |
| 108.300   | 020X   | India             | IND  | PENGPUI                 | 23D50'57" N | 092D37'20 E | ILS/DME  | N    | 25/62.5      | 17  |  |     | 80/100    | 27  | 8Sep08        |
| 108.300   | 020X   | India             | IND  | SRINAGAR                | 34D00'07" N | 074D45'23 E | ILS/DME  | NAT  | 25/62.5      | 17  |  |     | 80/100    | 27  |               |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|-------------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                         |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| 108.300   | 020X   | Lao People's Democratic | LAO  | Nongkhang            | 34D00'07" N | 074D45'23 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  |                     |
| 108.300   | n/a    | Malaysia                | MLA  | BUTTERWORTH          | 05D27'59" N | 100D23'33 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | NOT COMMISSION      |
| 108.300   | 020X   | Pakistan                | PAK  | BACHA KHAN           | 31D00'31" N | 071D30'48 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 14Jan13             |
| 108.300   | 020X   | Republic of Korea       | KOR  | CHEJU JUNGSEOK       | 33D24'23" N | 126D42'41 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | TRAINING            |
| 108.300   | 020X   | Republic of Korea       | KOR  | JEJU JUNGSIK         | 33D24'23" N | 126D42'41 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.300   | 020X   | Republic of Korea       | KOR  | SEOUL GIMPO INTL     | 37D34'13" N | 126D46'22 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 20 AT LOC       |
| 108.300   | 020X   | Singapore               | SNG  | CHANGI               | 01D22'00" N | 104D00'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-20 AT GP        |
| 108.300   | 020X   | Viet Nam                | VTN  | VINH                 | 18D44'33" N | 105D40'26 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 8Oct10              |
| 108.400   | 021X   | Bhutan                  | BTN  | PARO                 | 27D18'03" N | 089D30'19 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Updated 8Mar02      |
| 108.400   | 021X   | Japan                   | J    | KAGAWA               | 34D13'00" N | 134D01'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 108.500   | 022X   | Australia               | AUS  | NOWRA                | 34D57'06" S | 150D31'59 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 21 TRD - 44D |
| 108.500   | 022X   | Brunei Darussalam       | BRU  | BRUNEI               | 04D55'00" N | 011D45'00 W | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 28Sep09             |
| 108.500   | 022X   | China                   | CHN  | ABA HONGYUAN         | 32D30'00" N | 102D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | AERSHAN YIERSHI      | 47D18'00" N | 119D53' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | ALI KUNSHA           | 32D04'00" N | 080D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | ANSHUN               | 26D15'00" N | 105D53' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BAICHENG CHANGAN     | 45D29'00" N | 123D00' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BAISHAN              | 42D03'00" N | 127D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BAOTOU DONGHE        | 40D34'00" N | 109D59' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BAYANNAOER TIANJITAI | 40D55'00" N | 107D43' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BEIJING SHOUDU       | 40D05'00" N | 116D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BOLE ALASHANKOU      | 44D53'00" N | 082D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | BUERJIN KANASI       | 48D13'00" N | 086D58' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | CHANGDE TAOHUAYUAN   | 28D55'00" N | 111D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | CHANGZHOU BENNIU     | 31D55'00" N | 119D45' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | CHIFENG YULONG       | 42D08'00" N | 118D50' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | CHIZHOU JIUHUASHAN   | 30D43'00" N | 117D42' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | DALIAN ZHOUSHUIZI    | 46D45'00" N | 125D07' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | DAOCHENG YADING      | 29D20'00" N | 100D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | ERLIANHAOTE SAIWUSU  | 43D25'00" N | 112D04' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | FUYUAN DONGJI        | 48D11'00" N | 134D20' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | FUYUN KEKETUOHAI     | 46D48'00" N | 089D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GANNAN XIAHE         | 34D49'00" N | 102D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GANZI GESAER         | 31D45'00" N | 099D32' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GUANGZHOU BAIYUN     | 23D24'00" N | 113D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GUILIN LIANGJIANG    | 25D12'00" N | 110D02' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GUOLUO MAQIN         | 34D25'00" N | 100D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | GUYUAN LIUPANSHAN    | 36D03'00" N | 106D13' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | HAIKOU MEILAN        | 19D56'00" N | 110D26' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | HAIXI DELINGHA       | 37D07'00" N | 097D14' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | HAIXI HUATUGOU       | 38D11'00" N | 090D51' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | HAMI YINZHOU         | 42D50'00" N | 093D41' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China                   | CHN  | HANDAN               | 36D30'00" N | 114D24' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |



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| Frequency | DME ch | Country | Ctry | Location               | Latitude    | Longitude | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks |
|-----------|--------|---------|------|------------------------|-------------|-----------|-----------|------|--------------|-----|-----|-----------|-----|---------|
|           |        |         |      |                        |             |           |           |      | DOC          | PWR |     | DOC       | PWR |         |
| 108.500   | 022X   | China   | CHN  | HANGZHOU XIAOSHAN      | 30D13'00" N | 120D24'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | HEFEI XINQIAO          | 32D00'00" N | 116D57'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | n/a    | China   | CHN  | HEIHE ZUOZUO           | 50D11'00" N | 127D18'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |         |
| 108.500   | 022X   | China   | CHN  | HENGYANG NANYUE        | 26D43'00" N | 112D37'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | HUOLINGUOLE            | 45D29'00" N | 119D23'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | JINCHANG JINCHUAN      | 38D33'00" N | 102D19'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | JINING QUFU            | 35D17'00" N | 116D21'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | KANGDING               | 30D07'00" N | 101D45'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | n/a    | China   | CHN  | KELAMAYI               | 45D28'00" N | 084D56'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |         |
| 108.500   | 022X   | China   | CHN  | KUNMING CHANGSHUI      | 25D05'00" N | 102D55'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LANZHOU ZHONGCHUAN     | 36D29'00" N | 103D37'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LIANYUNGANG BAITABU    | 34D35'00" N | 118D52'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LIBO                   | 25D27'00" N | 107D58'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LIJIANG SANYI          | 26D41'00" N | 100D15'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LINCANG BOSHANG        | 23D43'00" N | 100D01'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LIPING                 | 26D18'00" N | 109D08'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | LVLIANG DAWU           | 37D41'00" N | 111D08'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | MANZHOU LI             | 49D33'00" N | 117D21'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | MOHE GULIAN            | 52D55'00" N | 122D24'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | PANZHIHUA BAOANYING    | 26D31'00" N | 101D47'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | QIANJIANG              | 29D31'00" N | 108D50'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | QIEMO YUDU             | 38D14'00" N | 085D28'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | RUOQIANG LOULAN        | 38D59'00" N | 088D01'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | SANMING SHAXIAN        | 26D26'00" N | 117D50'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | SANYA FENGHUANG        | 18D18'00" N | 109D23'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | SHACHE YEERQIANG       | 38D15'00" N | 077D02'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | TACHENG QIANQUAN       | 46D40'00" N | 083D19'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | TENGCHONG TUOFENG      | 24D55'00" N | 098D29'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | n/a    | China   | CHN  | TIANSHUI MAIJISHAN     | 34D33'00" N | 105D52'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |         |
| 108.500   | 022X   | China   | CHN  | TONGHUA SANYUANPU      | 42D02'00" N | 125D43'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | TONGREN FENGHUANG      | 27D53'00" N | 109D19'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | TULUFAN JIAOHE         | 43D01'00" N | 089D07'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | WEIFANG                | 36D39'00" N | 119D06'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | WENSHAN YANSHAN        | 23D32'00" N | 104D19'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | WUHAN TIANHE           | 30D46'00" N | 114D11'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | XINYUAN NALATI         | 43D25'00" N | 083D21'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | XISHUANGBANNA GASA     | 21D57'00" N | 100D46'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | YANTAI PENGLAI         | 37D38'00" N | 120D57'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | YIBIN WULIANGYE        | 28D51'00" N | 104D30'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | YICHUN LINDU           | 47D45'00" N | 128D59'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | YINCHUAN HEDONG        | 38D19'00" N | 106D24'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | 022X   | China   | CHN  | YINCHUAN HEDONG JI CHA | 38D18'00" N | 106D22'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |         |
| 108.500   | n/a    | China   | CHN  | YULIN                  | 38D22'00" N | 109D35'00 | E ILS     | I    | 25/62.5      | 17  |     | n/a       | n/a |         |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location           | Latitude    | Longitude   | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|-------------------|------|--------------------|-------------|-------------|-----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                   |      |                    |             |             |           |      | DOC          | PWR |     | DOC       | PWR |                     |
| 108.500   | n/a    | China             | CHN  | YUSHU BATANG       | 32D50'00" N | 097D00'     | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 108.500   | 022X   | China             | CHN  | ZHALANTUN          | 47D52'00" N | 122D46'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China             | CHN  | ZHANGJIAKOU        | 40D44'00" N | 114D54'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China             | CHN  | ZHENGZHOU XINZHENG | 34D31'00" N | 113D52'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China             | CHN  | ZHONGQING JIANGBEI | 29D44'00" N | 106D40'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | China             | CHN  | ZUNYI XINZHOU      | 27D47'00" N | 107D14'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.500   | 022X   | India             | IND  | Awantipur          | 33D53'12" N | 074D57'28 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.500   | 022X   | India             | IND  | AYODHYA            | 26D45'12" N | 082D08'58 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.500   | 022X   | India             | IND  | CHENNAI            | 12D58'56" N | 080D09'08 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 1Oct04              |
| 108.500   | 022X   | India             | IND  | Deoghar            | 24D26'49" N | 086D43'14 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.500   | 022X   | India             | IND  | HYDERABAD          | 17D13'40" N | 078D24'21 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | 2May07              |
| 108.500   | 022X   | India             | IND  | JHARSUGUDA         | 21D54'27" N | 084D02'19 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  |                     |
| 108.500   | 022X   | India             | IND  | NEW DELHI IGI      | 28D34'19" N | 077D07'10 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | 18Sep09             |
| 108.500   | 022X   | India             | IND  | SILCHAR            | 24D55'06" N | 092D59'29 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 7/02 DME/GP         |
| 108.500   | 022X   | Japan             | J    | AGUNI              | 34D26'00" N | 135D12'00 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13          |
| 108.500   | 022X   | Japan             | J    | TOKYO INTL.        | 35D34'00" N | 139D47'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.500   | n/a    | Malaysia          | MLA  | ALOR SETAR         | 07D47'82" N | 126D12'01 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 108.500   | 022X   | Malaysia          | MLA  | NEW KUALA LUMPUR   | 02D46'37" N | 101D42'15 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 14 L                |
| 108.500   | 022X   | Republic of Korea | KOR  | GIMHAE INTL        | 35D11'47" N | 128D56'05 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 22 AT LOC       |
| 108.500   | 022X   | Republic of Korea | KOR  | GWANG JU           | 35D06'44" N | 126D48'01 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13 LLZ      |
| 108.500   | n/a    | Republic of Korea | KOR  | SUWON              | 37D14'00" N | 127D01'02 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 108.500   | 022X   | Viet Nam          | VTN  | CHU LAI AIRPORT    | 15D25'12" N | 108D41'27 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | 12Apr17             |
| 108.500   | 022X   | Viet Nam          | VTN  | Long Thanh IA 1    | 10D46'20" N | 107D01'25 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.550   | 022Y   | China             | CHN  | BAZHONG ENYANG     | 31D44'00" N | 106D39'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | FUZHOU CHANGLE     | 25D56'00" N | 119D41'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | NANNING WUZUO      | 22D36'00" N | 108D12'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | QINGDAOJIAODONG    | 36D23'00" N | 120D05'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | SHANGHAI PUDONG    | 31D09'00" N | 121D50'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | ZHONGQING WUSHAN   | 31D04'00" N | 109D43'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | ZHUHAI JINWAN      | 22D01'00" N | 113D23'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | China             | CHN  | ZUOZHOU YUNLONG    | 29D02'00" N | 105D29'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.550   | 022Y   | Japan             | J    | NANKISHIRAHAMA     | 33D39'00" N | 135D22'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13          |
| 108.550   | 022Y   | Japan             | J    | NARITA INTL AP     | 35D44'00" N | 140D24'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13          |
| 108.550   | 022Y   | Japan             | J    | TAJIMA             | 35D31'00" N | 134D47'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.550   | 022Y   | Japan             | J    | YONAGUNI           | 24D28'00" N | 122D58'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.550   | n/a    | Republic of Korea | KOR  | INCHEON INTL       | 37D26'35" N | 126D26'04 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a | FI New RWY16; NC    |
| 108.550   | 022Y   | Singapore         | SNG  | CHANGI             | 01D19'58" N | 104D00'15 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DEM-22 AT GP27Sep04 |
| 108.600   | 023X   | China             | CHN  | JIXI               | 45D17'00" N | 131D11'     | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 108.650   | 023Y   | Japan             | J    | OYAMA              | 34D04'00" N | 139D34'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR    |
| 108.700   | 024X   | China             | CHN  | BEIJING DAXING     | 39D31'00" N | 116D25'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.700   | 024X   | China             | CHN  | BIJIE FEIXIONG     | 27D15'00" N | 105D27'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.700   | 024X   | China             | CHN  | CANGYUAN ZUOSHAN   | 23D16'00" N | 099D21'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.700   | 024X   | China             | CHN  | CHENGDU SHUANGLIU  | 30D33'00" N | 103D57'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location               | Latitude    | Longitude | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks        |
|-----------|--------|-------------------|------|------------------------|-------------|-----------|-----------|------|--------------|-----|-----|-----------|-----|----------------|
|           |        |                   |      |                        |             |           |           |      | DOC          | PWR |     | DOC       | PWR |                |
| 108.700   | 024X   | China             | CHN  | DALI HUANGCAOBA        | 25D38'00" N | 100D19'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | n/a    | China             | CHN  | DATONG YUNGANG         | 40D04'00" N | 113D27'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                |
| 108.700   | 024X   | China             | CHN  | DAXINGANLING           | 50D23'00" N | 124D06'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | DONGYING               | 37D29'00" N | 118D47'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | DUNHUANG MOGAO         | 40D09'00" N | 094D47'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | EERDUOSI YIJINHUOLUO   | 39D30'00" N | 109D50'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | HANZHONG CHENGGU       | 33D08'00" N | 107D13'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | HUAIAN LIANSHUI        | 33D48'00" N | 119D08'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | n/a    | China             | CHN  | HUAIHUA ZUOJIANG       | 27D27'00" N | 109D42'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                |
| 108.700   | 024X   | China             | CHN  | HUIZHOU PINGTAN        | 23D02'00" N | 114D36'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | JIEYANG CHAOSHAN       | 23D32'00" N | 116D29'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | JINGGANGSHAN           | 26D51'00" N | 114D45'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | JIUZHAI HUANGLONG      | 32D52'00" N | 103D41'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | KAILI HUANGPING        | 26D59'00" N | 107D59'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | LASA GONGGA            | 29D18'00" N | 090D53'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | NANCHONG GAOPING       | 30D48'00" N | 106D10'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | NANJING LUKOU          | 31D43'00" N | 118D52'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | NINGZUO ZUOGUHU        | 27D31'00" N | 100D44'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | QINGYANG XIFENG        | 35D48'00" N | 107D35'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | QINHUANGDAO            | 39D39'00" N | 119D02'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | QUANZHOU JINJIANG      | 24D47'00" N | 118D34'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | SHANGHAI PUDONG        | 31D07'00" N | 121D49'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | SHANGRAO               | 28D23'00" N | 117D58'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | SHIHEZI HUAYUAN        | 44D14'00" N | 085D52'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | SHIYAN WUDANGSHAN      | 32D36'00" N | 110D53'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | WANZHOU WUQIAO         | 30D48'00" N | 108D25'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | WENZHOU LONGWAN        | 27D53'00" N | 120D50'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | WUDALIANCHI DEDU       | 48D26'00" N | 126D06'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | XINGYI WANFENGLIN      | 25D04'00" N | 104D58'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | XINING CAOJIABAO       | 36D32'00" N | 102D00'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | YANJI CHAOYANGCHUAN    | 42D53'00" N | 129D28'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | n/a    | China             | CHN  | YIWU                   | 29D21'00" N | 120D02'00 | E ILS     | I    | 25/62.5      | 17  |     | n/a       | n/a |                |
| 108.700   | n/a    | China             | CHN  | YUNCHENG ZHANGXIAO     | 35D06'00" N | 111D00'   | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                |
| 108.700   | 024X   | China             | CHN  | YUTIAN WANFANG         | 36D48'00" N | 081D48'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China             | CHN  | ZHANGYE GANZHOU        | 38D48'00" N | 100D40'   | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                |
| 108.700   | 024X   | China - Hong Kong | HKG  | Chek Lap Kok           | 22D17'43" N | 113D53'43 | E ILS/DME | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | 30May19 rwy25L |
| 108.700   | 024X   | India             | IND  | DELHI                  | 28D32'24" N | 077D06'54 | E ILS/DME | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                |
| 108.700   | 024X   | India             | IND  | FURSATGANJ AP          | 26D14'98" N | 081D23'15 | E ILS/DME | N    | 25/62.5      | 17  |     | 80/100    | 27  | 3Apr02         |
| 108.700   | 024X   | India             | IND  | HUBLI                  | 15D21'31" N | 075D04'18 | E ILS/DME | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08        |
| 108.700   | 024X   | India             | IND  | INS Utkrosh-Port Blair | 11D37'37" N | 092D43'08 | E ILS/DME | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                |
| 108.700   | 024X   | India             | IND  | NAL(BIKANER)           | 28D03'34" N | 073D11'36 | E ILS/DME | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                |
| 108.700   | 024X   | Japan             | J    | HIROSHIMA              | 34D26'00" N | 132D56'00 | E ILS/DME | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 24 AT GP   |
| 108.700   | n/a    | Japan             | J    | KADENA                 | 26D21'00" N | 127D45'00 | E ILS     | N    | 25/62.5      | 17  |     | n/a       | n/a |                |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks    |
|-----------|--------|-------------------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------|
|           |        |                         |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |            |
| 108.700   | 024X   | Japan                   | J    | KANSAI INTL        | 34D27'00" N | 135D15'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13 |
| 108.700   | 024X   | Japan                   | J    | TSUSHIMA           | 34D18'00" N | 129D19'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | at LOC     |
| 108.700   | n/a    | Japan                   | J    | YOKOTA             | 35D46'00" N | 139D21'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | FI 26Dec13 |
| 108.700   | 024X   | Lao People's Democratic | LAO  | LUANG PRABANG      | 21D03'00" N | 101D28'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |            |
| 108.700   | 024X   | Malaysia                | MLA  | BINTULU (NEW)      | 03D07'00" N | 113D01'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |            |
| 108.700   | 024X   | Malaysia                | MLA  | KERTEH             | 04D32'04" N | 103D25'44 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 20Apr01    |
| 108.700   | 024X   | Maldives                | MLD  | MALE               | 04D10'00" N | 073D30'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |            |
| 108.700   | 024X   | Pakistan                | PAK  | LAHORE AIIAP       | 31D32'23" N | 074D24'10 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | rwy 36L    |
| 108.700   | 024X   | Pakistan                | PAK  | QUETTA             | 30D14'24" N | 066D57'06 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 2Apr09     |
| 108.700   | 024X   | Republic of Korea       | KOR  | DAEGU INT          | 35D53'05" N | 128D40'26 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 13R        |
| 108.700   | 024X   | Republic of Korea       | KOR  | DAEGU INTL         | 35D54'08" N | 128D38'34 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 31L        |
| 108.700   | 024X   | Republic of Korea       | KOR  | SEOUL GIMPO INTL   | 37D32'45" N | 126D48'12 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | 26Dec13    |
| 108.750   | 024Y   | China                   | CHN  | YULIN FUMIAN       | 22D26'00" N | 110D07' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.750   | 024Y   | China                   | CHN  | YULIN YUYANG       | 38D22'00" N | 109D34' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.750   | 024Y   | China                   | CHN  | ZHONGQING JIANGBEI | 29D45'00" N | 106D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.750   | 024Y   | China                   | CHN  | ZHOUSHAN PUTUOSHAN | 29D55'00" N | 122D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.800   | 025X   | China                   | CHN  | TIANMEN            | 30D38'00" N | 113D08' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |            |
| 108.800   | 025X   | New Zealand             | NZL  | WHENUAPAI          | 36D47'13" S | 174D37'53 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | MIL        |
| 108.900   | 026X   | Brunei Darussalam       | BRU  | BRUNEI             | 04D57'00" N | 114D56'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY03      |
| 108.900   | 026X   | China                   | CHN  | ALASHANZUOQI       | 38D44'00" N | 105D35' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | ANQING TIANZHUSHAN | 30D35'00" N | 117D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | BEIJING SHOUDU     | 40D03'00" N | 116D37' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | CHENGDU TIANFU     | 30D17'00" N | 104D24' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | CHENGDU TIANFU     | 30D19'00" N | 104D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | DAZHOU HESHI       | 31D08'00" N | 107D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | DIQING XIANGGELILA | 27D46'00" N | 099D41' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | GUOLUO MAQIN       | 34D24'00" N | 100D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | HUHEHAOTE BAITA    | 40D51'00" N | 111D50' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | JINAN YAOQIANG     | 36D52'00" N | 117D12' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | JIXI XINGKAIHU     | 45D17'00" N | 131D10' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | KUCHE GUIZI        | 41D40'00" N | 082D51' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | LANCANG JINGMAI    | 22D25'00" N | 099D46' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | LINFEN YAODU       | 36D07'00" N | 111D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | LIUPANSHUI YUEZHAO | 26D35'00" N | 104D57' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | n/a    | China                   | CHN  | LUOYANG            | 34D44'00" N | 112D24' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a | LUOYANG    |
| 108.900   | 026X   | China                   | CHN  | MUDANJIANG HAILANG | 44D30'00" N | 129D33' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | NANNING WUZUO      | 22D37'00" N | 108D11' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | NINGBO ZUOSHE      | 29D49'00" N | 121D28' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | RIZHAO SHANZIHE    | 35D24'00" N | 119D18' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | SANMING SHAXIAN    | 26D25'00" N | 117D49' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | SHANGHAI PUDONG    | 31D09'00" N | 121D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | SHAORYANG WUGANG   | 26D49'00" N | 110D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |
| 108.900   | 026X   | China                   | CHN  | SONGYUAN CHAGANHU  | 44D55'00" N | 124D32' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |            |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location              | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|-------------------------|------|-----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                         |      |                       |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| 108.900   | n/a    | China                   | CHN  | WUHAI                 | 39D46'00" N | 106D47' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 108.900   | 026X   | China                   | CHN  | WUXI SHUOFANG         | 31D28'00" N | 120D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | n/a    | China                   | CHN  | XICANGLINZHIJICHANGXI | 29D18'00" N | 094D21' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 108.900   | 026X   | China                   | CHN  | XINZHOU WUTAISHAN     | 38D35'00" N | 112D56' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | XUZHOU GUANYIN        | 34D03'00" N | 117D32' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | YANTAI PENGLAI        | 37D40'00" N | 120D59' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | YICHUN MINGYUESHAN    | 27D48'00" N | 114D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | ZHANGJIAJIE HEHUA     | 29D05'00" N | 110D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | ZHANJIANG             | 21D13'00" N | 110D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China                   | CHN  | ZHONGQING JIANGBEI    | 29D44'00" N | 106D39' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.900   | 026X   | China - Hong Kong       | HKG  | INTERNATIONAL         | 22D17'43" N | 113D53'42 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-26 AT GP 25L    |
| 108.900   | 026X   | India                   | IND  | BARAPANI              | 25D42'35" N | 091D58'13 W | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 11OCT13             |
| 108.900   | 026X   | India                   | IND  | DEHRADUM              | 30D11'32" N | 078D10'31 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08             |
| 108.900   | 026X   | India                   | IND  | HYDERABAD             | 17D13'51" N | 078D27'00 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | 21JAN19             |
| 108.900   | 026X   | India                   | IND  | KANNUR                | 11D55'12" N | 075D32'53 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 25May15          |
| 108.900   | 026X   | India                   | IND  | Kushinagar            | 26D46'57" N | 083D52'17 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.900   | 026X   | India                   | IND  | NAVI-MUMBAI RWY-26L   | 18D58'55" N | 073D02'42 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.900   | 026X   | India                   | IND  | PORBANDER             | 21D39'55" N | 069D38'51 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08             |
| 108.900   | 026X   | Indonesia               | INS  | Penajam Paser         | 01D10'01" S | 116D41'58 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 108.900   | 026X   | Japan                   | J    | AKITA                 | 39D37'00" N | 140D12'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 26 AT GP        |
| 108.900   | 026X   | Japan                   | J    | FUKUOKA               | 33D36'00" N | 130D27'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13          |
| 108.900   | 026X   | Japan                   | J    | KUSHIRO               | 43D02'00" N | 144D12'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME26 GP            |
| 108.900   | 026X   | Japan                   | J    | MIYAKOJIMA            | 24D46'00" N | 125D17'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13          |
| 108.900   | 026X   | Japan                   | J    | MIYAZAKI              | 31D53'00" N | 131D26'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 26 AT GP        |
| 108.900   | 026X   | Japan                   | J    | NAGOYA                | 35D16'00" N | 136D55'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 108.900   | 026X   | Japan                   | J    | TOKUSHIMA             | 34D08'00" N | 134D35'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.900   | 026X   | Japan                   | J    | TOKYO INTL.           | 35D34'00" N | 139D47'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.900   | 026X   | Lao People's Democratic | LAO  | PAKSE                 | 15D07'27" N | 105D47'12 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | installed in 2014   |
| 108.900   | n/a    | Malaysia                | MLA  | BUTTERWORTH           | 05D28'36" N | 100D23'42 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | NOT COMMISSION      |
| 108.900   | 026X   | Republic of Korea       | KOR  | INCHEON INTL          | 37D29'10" N | 126D26'18 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | 33 R DME 26 AT LOC  |
| 108.900   | 026X   | Republic of Korea       | KOR  | MUAN                  | 35D58'35" N | 126D22'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.900   | 026X   | Singapore               | SNG  | CHANGI                | 01D21'00" N | 103D59'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-26 AT GP        |
| 108.900   | 026X   | Viet Nam                | VTN  | BUON ME THUOT         | 12D40'07" N | 108D02'30 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 28Apr15          |
| 108.950   | 026Y   | China                   | CHN  | EZHOU HUAHU           | 30D21'00" N | 115D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.950   | 026Y   | China                   | CHN  | EZHOU HUAHU           | 30D19'00" N | 115D02' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.950   | 026Y   | China                   | CHN  | HAIKOU MEILAN         | 19D57'00" N | 110D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 108.950   | 026Y   | Japan                   | J    | MIHO                  | 35D29'00" N | 133D13'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13 RWY26 GP |
| 108.950   | 026Y   | Japan                   | J    | NOTO                  | 37D17'00" N | 136D57'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 108.950   | 026Y   | Japan                   | J    | TANEGASHIMA           | 30D37'00" N | 130D59'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13          |
| 109.000   | 027X   | China                   | CHN  | LONGZAOCUN            | 34D27'00" N | 108D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DME NAT; DVOR       |
| 109.000   | 027X   | Japan                   | J    | MIYAKE JIMA           | 34D07'00" N | 139D30'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 24Dec13; DVOR       |
| 109.000   | 027X   | New Zealand             | NZL  | OHAKEA                | 40D12'35" S | 175D23'31 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | MIL                 |
| 109.000   | 027X   | Republic of Korea       | KOR  | CHEONGJU              | 36D43'04" N | 127D29'38 E | VOR/DME  | I    | 250/450      | 29  |     | 250/450   | 40  | DVOR                |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location          | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|-------------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                         |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 109.000   | 027X   | Republic of Korea       | KOR  | JEJU INTL         | 33D30'41" N | 126D29'15 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR      |
| 109.050   | 027Y   | Japan                   | J    | NANKISHIRAHAMA    | 33D40'00" N | 135D22'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 24Dec13 ; DVOR     |
| 109.100   | n/a    | Cambodia                | KMR  | SIHANOUK VILLE    | 13D23'50" N | 103D48'12 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | 9May08                |
| 109.100   | 028X   | China                   | CHN  | CHENGDU SHUANGLIU | 30D33'00" N | 103D56' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | 028X   | China                   | CHN  | DALIAN ZHOUSHUIZI | 38D58'00" N | 121D32' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | n/a    | China                   | CHN  | HEFEI LUOGANG     | 31D46'00" N | 117D18' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a | RWY 14                |
| 109.100   | 028X   | China                   | CHN  | NANTONG XINGDONG  | 32D05'00" N | 120D58' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | 028X   | China                   | CHN  | SHANTOUJICHANG    | 23D26'00" N | 116D46' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | 028X   | China                   | CHN  | SHENZUO BAOAN     | 22D39'00" N | 113D47' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | n/a    | China                   | CHN  | XINING            | 36D32'00" N | 102D02'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.100   | 028X   | China                   | CHN  | ZHANJIANG         | 21D12'00" N | 110D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.100   | 028X   | India                   | IND  | BHUBANESHWAR      | 20D14'22" N | 085D49'18 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.100   | 028X   | India                   | IND  | COIMBATORE        | 11D02'11" N | 077D03'02 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.100   | 028X   | India                   | IND  | Darbhang          | 26D11'28" N | 085D56'00 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.100   | 028X   | India                   | IND  | HUBLI             | 15D21'34" N | 075D04'03 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 29Apr17            |
| 109.100   | 028X   | India                   | IND  | LILABARI          | 27D18'00" N | 094D06'20 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 7/02 DME/GP           |
| 109.100   | 028X   | India                   | IND  | SURAT             | 21D06'13" N | 072D43'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 109.100   | 028X   | Indonesia               | INS  | PANGKAL PINANG    | 02D10'25" S | 106D08'31 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | OFF OFF RWY-34        |
| 109.100   | 028X   | Indonesia               | INS  | YOGYAKARTA ADI    | 07D47'16" S | 110D25'41 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-09                |
| 109.100   | n/a    | Japan                   | J    | SHIMOFUSA         | 35D47'00" N | 140D01'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.100   | 028X   | Lao People's Democratic | LAO  | XIENGKHOANG       | 19D20'56" N | 103D09'33 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 6Feb18             |
| 109.100   | 028X   | Malaysia                | MLA  | NEW KUALA LUMPUR  | 02D45'05" N | 101D43'48 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 32 R                  |
| 109.100   | n/a    | Philippines             | PHL  | DAVAO             | 07D08'07" N | 125D39'26 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY05                 |
| 109.100   | n/a    | Philippines             | PHL  | MACTAN            | 10D17'43" N | 123D58'02 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | RWY22                 |
| 109.100   | n/a    | Philippines             | PHL  | MANILA INTL.      | 14D30'53" N | 121D01'49 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | RWY06                 |
| 109.100   | n/a    | Philippines             | PHL  | ZAMBOANGA         | 06D55'18" N | 122D04'20 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY09                 |
| 109.100   | 028X   | Republic of Korea       | KOR  | INCHEON INTL      | 37D27'07" N | 126D27'46 E | ILS/DME  | I    | 25/62.5      | 17  |     | 15/100    | 27  |                       |
| 109.100   | 028X   | Republic of Korea       | KOR  | SACHEON           | 35D05'50" N | 128D05'01 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 28 AT LOC         |
| 109.100   | 028X   | Thailand                | THA  | PETCHABUN         | 16D40'34" N | 101D11'48 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.100   | 028X   | Thailand                | THA  | SUARNABHUMI       | 13D40'17" N | 100D44'05 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12            |
| 109.100   | 028X   | Viet Nam                | VTN  | PLEIKU            | 14D00'15" N | 108D00'35 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 2Jun15, RWY 27     |
| 109.150   | 028Y   | China                   | CHN  | HUAIAN LIANSHUI   | 33D46'00" N | 119D06' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.150   | 028Y   | China                   | CHN  | YULIN FUMIAN      | 22D25'00" N | 110D06' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.150   | 028Y   | Japan                   | J    | KITAKYUSHU        | 33D50'00" N | 131D02'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13            |
| 109.150   | 028Y   | Japan                   | J    | KOBE              | 34D38'00" N | 135D14'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI DME 28 GP          |
| 109.200   | 029X   | China                   | CHN  | DONGSHAN          | 27D44'00" N | 120D37' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                  |
| 109.200   | 029X   | China                   | CHN  | WANZHOU           | 30D48'00" N | 108D25' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                  |
| 109.200   | 029X   | China                   | CHN  | WENZHO            | 27D45'00" N | 120D38'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 109.250   | 029Y   | Japan                   | J    | OKI               | 36D11'00" N | 133D19'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 26Dec13; DVOR         |
| 109.300   | 030X   | Australia               | AUS  | BRISBANE          | 27D23'08" S | 153D06'19 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 19R TRD-27D    |
| 109.300   | 030X   | Australia               | AUS  | MELBOURNE         | 37D39'36" S | 144D48'36 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 27 TRD - 94D   |
| 109.300   | 030X   | Australia               | AUS  | SYDNEY            | 33D56'51" S | 151D11'11 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 34R TRD - 168D |
| 109.300   | 030X   | Australia               | AUS  | TOWNSVILLE        | 19D14'07" S | 146D46'32 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 01 TRD - 204D  |



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| Frequency | DME ch | Country           | Ctry | Location            | Latitude    | Longitude   | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks          |
|-----------|--------|-------------------|------|---------------------|-------------|-------------|-----------|------|--------------|-----|-----|-----------|-----|------------------|
|           |        |                   |      |                     |             |             |           |      | DOC          | PWR |     | DOC       | PWR |                  |
| 109.300   | 030X   | China             | CHN  | BEIJING SHOUDU      | 40D03'00" N | 116D36'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | CHANGCHUN LONGJIA   | 44D00'00" N | 125D42'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | CHANGSHA HUANGHUA   | 28D10'00" N | 113D13'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | CHIZHOU JIUHUASHAN  | 30D44'00" N | 117D40'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | DUNHUANG MOGAO      | 40D09'00" N | 094D50'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | n/a    | China             | CHN  | GANZHOU HUANGJIN    | 25D50'00" N | 114D55'     | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                  |
| 109.300   | 030X   | China             | CHN  | GANZHOU HUANGJIN    | 25D51'00" N | 114D47'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | GUANGZHOU BAIYUN    | 23D24'00" N | 113D17'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | GUIYANG             | 26D31'00" N | 106D47'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | HAIBEI QILIAN       | 38D00'00" N | 100D40'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | HANDAN              | 36D32'00" N | 114D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | HECHI JINCHENGJIANG | 24D47'00" N | 107D43'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | HEFEI XINQIAO       | 31D58'00" N | 116D59'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | n/a    | China             | CHN  | JIAYUGUAN           | 39D51'00" N | 098D19'     | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                  |
| 109.300   | 030X   | China             | CHN  | JIEYANG CHAOSHAN    | 23D34'00" N | 116D31'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | JINING DAAN         | 35D38'00" N | 116D43'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | JINZHOU JINZHOUWAN  | 40D55'00" N | 121D16'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | JIUJIANG LUSHAN     | 29D29'00" N | 115D48'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | KUNMING CHANGSHUI   | 25D07'00" N | 102D57'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | LANZHOU ZHONGCHUAN  | 36D32'00" N | 103D37'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | NANYANGJICHANGCLOSE | 32D58'00" N | 112D36'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | QIONGHAI BOZUO      | 19D09'00" N | 110D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | RIZHAO SHANZIHE     | 35D23'00" N | 119D20'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | SHANHAIGUAN         | 39D58'00" N | 119D44'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | TAIYUAN WUSU        | 37D45'00" N | 112D36'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | TUMUSHUKE           | 39D54'00" N | 079D14'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | WUHAN TIANHE        | 30D47'00" N | 114D13'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | WULANCHABU JINING   | 41D07'00" N | 113D05'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | WULANHAOTE YILELITE | 46D12'00" N | 121D58'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | WULUMUQI DIWOBAO    | 43D55'00" N | 087D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | XIAN XIANYANG       | 34D26'00" N | 108D47'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | XICHANG QINGSHAN    | 28D00'00" N | 102D11'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | XILINHAOTE          | 43D53'00" N | 115D57'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | YANAN NANNIWAN      | 36D29'00" N | 109D27'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | YANJI CHAOYANGCHUAN | 42D52'00" N | 129D25'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | YINCHUAN HEDONG     | 38D20'00" N | 106D24'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | YINCHUANHEDONGJICHA | 38D20'00" N | 106D24'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China             | CHN  | ZHENGZHOU XINZHENG  | 34D31'00" N | 113D49'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 109.300   | 030X   | China - Hong Kong | HKG  | INTERNATIONAL       | 22D18'29" N | 113D56'07 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-30 AT GP 07R |
| 109.300   | 030X   | India             | IND  | BANGALORE           | 13D12'27" N | 077D40'55 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | 2May07           |
| 109.300   | 030X   | India             | IND  | DIMAPUR             | 25D52'38" N | 093D47'15 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | PLANNED          |
| 109.300   | 030X   | India             | IND  | Gaya                | 24D44'50" N | 084D56'12 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                  |
| 109.300   | 030X   | India             | IND  | Jewar               | 28D11'03" N | 077D35'13 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | 28R              |



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| Frequency | DME ch | Country           | Ctry | Location              | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|-------------------|------|-----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                   |      |                       |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 109.300   | 030X   | India             | IND  | NAVI-MUMBAI RWY-08R   | 18D59'15" N | 073D05'15 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.300   | 030X   | India             | IND  | Phalodi               | 27D05'41" N | 072D11'40 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 109.300   | 030X   | Indonesia         | INS  | MEDAN BARU            | 03D39'06" N | 098D53'04 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-05                |
| 109.300   | 030X   | Indonesia         | INS  | SORONG DOMINE         | 00D53'41" S | 131D17'51 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | OFF OFF RWY-09        |
| 109.300   | 030X   | Japan             | J    | AMAMI                 | 28D26'00" N | 129D43'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 30 AT GP          |
| 109.300   | 030X   | Japan             | J    | HAKODATE              | 41D46'00" N | 140D51'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 20Dec13               |
| 109.300   | 030X   | Japan             | J    | HANAMAKI              | 39D25'00" N | 141D08'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 20Dec13               |
| 109.300   | 030X   | Japan             | J    | HYAKURI               | 36D12'00" N | 140D25'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13            |
| 109.300   | 030X   | Japan             | J    | KUMAMOTO              | 32D50'00" N | 130D51'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.300   | 030X   | Japan             | J    | MATSUYAMA             | 33D49'00" N | 132D43'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-30 AT GP          |
| 109.300   | 030X   | Japan             | J    | NIIGATA               | 37D57'00" N | 139D06'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.300   | 030X   | Japan             | J    | RISHIRI               | 45D14'00" N | 141D11'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 26Dec13               |
| 109.300   | 030X   | Japan             | J    | SHIZUOKA              | 34D48'00" N | 138D10'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13            |
| 109.300   | 030X   | Japan             | J    | TOYAMA                | 36D39'00" N | 137D11'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | AT LOC                |
| 109.300   | 030X   | Malaysia          | MLA  | KOTA BHARU            | 06D09'53" N | 102D18'18 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 04Mar05               |
| 109.300   | 030X   | Malaysia          | MLA  | SANDAKAN              | 05D54'00" N | 118D03'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 150/300   | 37  |                       |
| 109.300   | 030X   | Nepal             | NPL  | Guatam Buddha         | 27D30'26" N | 083D23'34 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 80/100    | 27  | 2May19; PLI           |
| 109.300   | 030X   | Pakistan          | PAK  | ISLAMABAD BBIAP       | 33D36'32" N | 073D07'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 6Jan14             |
| 109.300   | 030X   | Pakistan          | PAK  | SIALKOT               | 32D33'05" N | 074D22'52 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 109.300   | n/a    | Philippines       | PHL  | CLARK INTL. AIRPORT   | 15D12'14" N | 120D34'10 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY02R                |
| 109.300   | 030X   | Republic of Korea | KOR  | INCHEON INTL          | 37D29'02" N | 126D26'04 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | 33L DME 30 AT LOC     |
| 109.300   | 030X   | Republic of Korea | KOR  | YANGYANG              | 38D04'19" N | 128D39'29 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.300   | 030X   | Republic of Korea | KOR  | YECHON                | 36D37'54" N | 128D20'10 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | DME 30 AT LOC         |
| 109.300   | 030X   | Singapore         | SNG  | PAYA LEBAR            | 01D22'00" N | 103D55'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.300   | 030X   | Thailand          | THA  | BURIRUM               | 15D14'22" N | 103D15'31 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12            |
| 109.300   | 030X   | Thailand          | THA  | DON MUEANG INTL       | 13D53'40" N | 100D35'40 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.300   | 030X   | Thailand          | THA  | PHRAE                 | 18D08'02" N | 100D09'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.300   | 030X   | Viet Nam          | VTN  | CANTHO                | 10D04'45" N | 105D41'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 8Oct10                |
| 109.300   | n/a    | Viet Nam          | VTN  | DANANG                | 16D01'00" N | 108D11'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.300   | 030X   | Viet Nam          | VTN  | Noi Bai International | 21D13'34" N | 105D47'23 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | RWY 29R               |
| 109.350   | 030Y   | China             | CHN  | HAIKOU MEILAN         | 19D57'00" N | 110D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.350   | 030Y   | China             | CHN  | XIANGYANG LIUJI       | 32D09'00" N | 112D17' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.350   | 030Y   | Japan             | J    | NAKASHIBETSU          | 43D35'00" N | 144D58'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.350   | 030Y   | Japan             | J    | OSHIMA                | 34D48'00" N | 139D22'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13            |
| 109.400   | 031X   | China             | CHN  | BAYANNAOER            | 40D55'00" N | 107D46' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                  |
| 109.400   | 031X   | China             | CHN  | LIUZAO                | 31D07'00" N | 121D40' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                  |
| 109.400   | 031X   | China             | CHN  | WUJIASHAN             | 31D03'00" N | 104D25' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                       |
| 109.500   | 032X   | Australia         | AUS  | AVALON                | 38D03'34" S | 144D27'50 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 18 TRD-7.50D   |
| 109.500   | 032X   | Australia         | AUS  | BRISBANE              | 27D22'13" S | 153D08'13 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 01R TRD-207D   |
| 109.500   | 032X   | Australia         | AUS  | CAIRNS                | 16D51'53" S | 145D44'35 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 33             |
| 109.500   | 032X   | Australia         | AUS  | CANBERRA              | 35D17'14" S | 149D11'40 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 25/100    | 27  | Runway 35 TRD 180D    |
| 109.500   | 032X   | Australia         | AUS  | EAST SALE             | 38D06'29" S | 147D08'06 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 22 TRD-54D     |
| 109.500   | 032X   | Australia         | AUS  | LAUNCESTON            | 41D32'03" S | 147D12'06 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 32 TRD - 147D. |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                      | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|------------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                              |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 109.500   | 032X   | Australia                    | AUS  | PERTH               | 31D57'43" S | 115D57'32 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 21 TRD - 13.5D |
| 109.500   | n/a    | Bangladesh                   | BGD  | DHAKA ZIA INTL      | 23D49'00" N | 090D24'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.500   | 032X   | China                        | CHN  | HUHEHAOTE BAITA     | 40D50'00" N | 111D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.500   | n/a    | China                        | CHN  | LUOYANG             | 34D44'00" N | 112D22' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a | LUOYANG               |
| 109.500   | 032X   | China                        | CHN  | SANYA FENGHUANG     | 18D18'00" N | 109D25' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  | FI                    |
| 109.500   | n/a    | China                        | CHN  | YICHANG             | 30D33'00" N | 111D30'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.500   | 032X   | China - Hong Kong            | HKG  | Chek Lap Kok        | 22D19'13" N | 113D52'41 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | FI 09Sep19; NC        |
| 109.500   | 032X   | Democratic People's Republic | KRE  | PYONGYANG SUNAN     | 39D11'16" N | 125D40'38 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.500   | 032X   | India                        | IND  | AMRITSAR            | 31D43'16" N | 074D47'30 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.500   | 032X   | India                        | IND  | BHAVNAGAR           | 21D44'52" N | 072D10'36 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 7/02 DME/GP           |
| 109.500   | 032X   | India                        | IND  | Bihta               | 25D35'22" N | 084D53'46 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.500   | 032X   | India                        | IND  | CALICUT             | 11D08'39" N | 075D55'57 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.500   | 032X   | India                        | IND  | DELHI               | 28D34'02" N | 077D05'17 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY10                 |
| 109.500   | 032X   | India                        | IND  | DIBRUGARH           | 28D27'38" N | 095D00'52 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.500   | 032X   | India                        | IND  | MUMBAI              | 19D05'12" N | 072D51'09 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI RWY09              |
| 109.500   | 032X   | India                        | IND  | VIJAWADA            | 16D31'39" N | 080D47'21 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08               |
| 109.500   | 032X   | Indonesia                    | INS  | TANJUNG PANDAN      | 02D43'48" S | 107D45'12 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-18                |
| 109.500   | 032X   | Lao People's Democratic      | LAO  | Nongkhang           | 20D36'48" N | 104D03'58 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 80/100    | 27  | 09Sep19; PLI;         |
| 109.500   | 032X   | Malaysia                     | MLA  | KUANTAN             | 03D46'36" N | 103D12'54 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.500   | n/a    | Papua New Guinea             | PNG  | PORT MORESBY        | 09D26'00" S | 147D13'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.500   | n/a    | Philippines                  | PHL  | GENERAL SANTOS      | 06D02'27" N | 123D05'53 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY17                 |
| 109.500   | n/a    | Philippines                  | PHL  | SUBIC               | 14D47'41" N | 120D16'10 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY07                 |
| 109.500   | 032X   | Republic of Korea            | KOR  | GIMHAE INTL         | 35D11'48" N | 128D56'13 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI                    |
| 109.500   | 032X   | Sri Lanka                    | SLK  | MATTALA             | 06D16'18" N | 081D06'39 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 80/100    | 27  | DME 32 at GP          |
| 109.500   | 032X   | Thailand                     | THA  | CHIANG RAI          | 19D58'00" N | 099D53'28 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.500   | 032X   | Thailand                     | THA  | ROI ET              | 16D07'00" N | 103D46'19 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.500   | 032X   | Thailand                     | THA  | SUKHOTHAI           | 17D14'58" N | 099D49'07 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12            |
| 109.500   | 032X   | Thailand                     | THA  | SURATTHANI          | 09D07'15" N | 099D07'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | AIP                   |
| 109.500   | 032X   | Thailand                     | THA  | SUARNABHUMI         | 13D42'13" N | 100D44'35 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12            |
| 109.500   | 032X   | Viet Nam                     | VTN  | Phan Thiet airport  | 11D00'53" N | 108D14'10 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 109.550   | 032Y   | China                        | CHN  | HEZE MUDAN          | 35D13'00" N | 115D44' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.550   | 032Y   | China                        | CHN  | LIANYUNGANG         | 34D25'00" N | 119D10' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.550   | 032Y   | China                        | CHN  | WULUMUQI DIWOBAO    | 43D55'00" N | 087D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.550   | 032Y   | China                        | CHN  | ZHANJIANGWUCHUANJIC | 21D28'00" N | 110D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.550   | 032Y   | China                        | CHN  | ZHANJIANGWUCHUANJIC | 21D29'00" N | 110D35' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.550   | 032Y   | China                        | CHN  | ZHONGQING           | 29D26'00" N | 107D41' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.600   | 033X   | China                        | CHN  | HECHI               | 24D48'00" N | 107D42' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                       |
| 109.600   | 033X   | China                        | CHN  | JIUTING             | 31D07'00" N | 121D20' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                  |
| 109.600   | 033X   | China                        | CHN  | MIZI                | 34D49'00" N | 108D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                       |
| 109.600   | 033X   | Japan                        | J    | SHONAI              | 38D49'00" N | 139D48'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 109.600   | 033X   | Republic of Korea            | KOR  | POHANG              | 35D59'11" N | 129D24'31 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | TERMINAL; DVOR        |
| 109.650   | 033Y   | French Polynesia             | OCA  | HUAHINE             | 16D41'07" S | 151D02'37 W | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 9Feb11                |
| 109.650   | 033Y   | Japan                        | J    | OBIHIRO             | 42D44'00" N | 143D13'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                   |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| 109.700   | 034X   | Australia         | AUS  | ADELAIDE             | 34D57'35" S | 138D30'55 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 23 TRD-50D   |
| 109.700   | 034X   | Australia         | AUS  | DARWIN               | 12D24'31" S | 130D51'46 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 29 TRD-109D  |
| 109.700   | 034X   | Australia         | AUS  | SYDNEY               | 33D56'39" S | 151D09'43 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 25 TRD - 74D |
| 109.700   | 034X   | Brunei Darussalam | BRU  | BRUNEI               | 04D55'00" N | 011D45'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY 21              |
| 109.700   | n/a    | Cambodia          | KMR  | PHNOM PENH AIRPORT   | 11D33'11" N | 104D50'75 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 109.700   | 034X   | China             | CHN  | AKESUHONGQIPO        | 41D15'00" N | 080D18' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | CHENGDE PUNING       | 41D07'00" N | 118D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | CHENGDU SHUANGLIU    | 30D31'00" N | 103D56' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | DEHONG MANGSHI       | 24D23'00" N | 098D31' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | JINGZHOU SHASHI      | 30D18'00" N | 112D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | n/a    | China             | CHN  | KUNMINGWUJIABAJICHA  | 24D59'00" N | 102D44' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 109.700   | 034X   | China             | CHN  | LIJIANG SANYI        | 26D39'00" N | 100D14' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | LINYI QIYANG         | 35D02'00" N | 118D24' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | NANYANG JIANGYING    | 32D58'00" N | 112D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | PUER SIMAO           | 22D48'00" N | 100D57' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | QIONGHAI BOAO        | 19D07'00" N | 110D27' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | QIQIHAER SANJIAZI    | 47D13'00" N | 123D55' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | TIANJIN BINHAI       | 39D06'00" N | 117D22' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | WANZHOU WUQIAO       | 30D47'00" N | 108D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | WULUMUQI DIWOBAO     | 43D54'00" N | 087D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | XIAMEN GAOQI         | 24D32'00" N | 118D06' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | n/a    | China             | CHN  | XICANGLINZHIJICHANGH | 29D18'00" N | 094D20' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 109.700   | n/a    | China             | CHN  | YIBINJICHANG         | 28D48'00" N | 104D32' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                     |
| 109.700   | 034X   | China             | CHN  | YINGKOU LANQI        | 40D31'00" N | 122D20' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | ZHANGJIAJIE HEHUA    | 29D06'00" N | 110D27' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China             | CHN  | ZHONGQING JIANGBEI   | 29D44'00" N | 106D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 109.700   | 034X   | China - Macao     | MAC  | MACAU                | 22D09'00" N | 113D34'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 109.700   | 034X   | India             | IND  | Charbatia            | 20D33'38" N | 085D53'50 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                     |
| 109.700   | 034X   | India             | IND  | Chennai RWY 25       | 12D58'59" N | 080D09'01 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 109.700   | 034X   | India             | IND  | Hirasar-Rajkot       | 22D22'05" N | 071D01'35 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 109.700   | 034X   | India             | IND  | INS Garud, Cochin    | 09D57'16" N | 076D16'12 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 109.700   | 034X   | India             | IND  | KANPUR CHAKERI       | 26D24'15" N | 080D23'56 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 18Sep09             |
| 109.700   | 034X   | India             | IND  | PUNE                 | 18D34'56" N | 073D55'52 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 26Jun08             |
| 109.700   | 034X   | Indonesia         | INS  | CURUG BUDIARTO       | 06D17'12" S | 106D33'30 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | OFF,RWY-30          |
| 109.700   | 034X   | Indonesia         | INS  | MALANG ABDUL         | 07D55'01" S | 112D42'38 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-35              |
| 109.700   | 034X   | Indonesia         | INS  | TARAKAN JUWATA       | 03D19'00" N | 117D33'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-24              |
| 109.700   | 034X   | Japan             | J    | CHUBU CENTRAIR       | 34D50'00" N | 136D49'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13          |
| 109.700   | 034X   | Japan             | J    | FUKUE                | 32D41'00" N | 128D50'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 109.700   | n/a    | Japan             | J    | KADENA               | 26D22'00" N | 127D47'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 109.700   | n/a    | Japan             | J    | MISAWA               | 40D42'00" N | 141D23'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | FI 24Dec13          |
| 109.700   | 034X   | Japan             | J    | TAKAMATSU            | 34D13'00" N | 134D00'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 34 AT GP        |
| 109.700   | n/a    | Japan             | J    | YOKOTA               | 35D44'00" N | 139D21'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 109.700   | 034X   | Pakistan          | PAK  | FAISALABAD           | 31D22'00" N | 072D59'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country              | Ctry | Location            | Latitude   | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|----------------------|------|---------------------|------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                      |      |                     |            |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 109.700   | 034X   | Pakistan             | PAK  | KARACHI INTL.       | 24D54'00"N | 067D08'00"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | SEC RWY               |
| 109.700   | 034X   | Pakistan             | PAK  | LAHORE AIIAP        | 31D32'23"N | 074D24'10"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI RWY36L             |
| 109.700   | n/a    | Philippines          | PHL  | BACOLOD             | 10D39'00"N | 122D56'00"E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | RWT03 16MAR11         |
| 109.700   | 034X   | Republic of Korea    | KOR  | YEOSU               | 34D51'13"N | 127D36'42"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13 -acpt      |
| 109.700   | 034X   | Singapore            | SNG  | CHANGI              | 01D20'00"N | 103D59'00"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-34 AT GP          |
| 109.700   | 034X   | Thailand             | THA  | BANGKOK INTL        | 13D55'43"N | 100D36'04"E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 22Dec15            |
| 109.700   | 034X   | Thailand             | THA  | LAMPANG             | 18D16'37"N | 099D30'09"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.700   | 034X   | Thailand             | THA  | NAKHON PHANOM       | 17D23'17"N | 104D38'18"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.700   | 034X   | Thailand             | THA  | NAKHON RATCHASIMA   | 14D56'47"N | 102D18'40"E | ILS/DME  | N    | 25/62.5      | 17  | 53  | 80/100    | 27  | 19MAR12               |
| 109.700   | 034X   | Thailand             | THA  | NAKHON SI THAMMARAT | 08D32'29"N | 099D56'48"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 109.700   | 034X   | Viet Nam             | VTN  | BUON ME THUAT       | 12D39'60"N | 108D07'23"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 2Jun15                |
| 109.750   | 034Y   | China                | CHN  | QINGDAOXINJIACHANG  | 36D22'00"N | 120D04'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.750   | 034Y   | China                | CHN  | SHENNONGJIAHONGPIN  | 31D38'00"N | 110D20'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.800   | 035X   | China                | CHN  | XINQIAO             | 32D00'00"N | 116D57'E    | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                       |
| 109.850   | 035Y   | Japan                | J    | OKUSHIRI            | 42D04'00"N | 139D27'00"E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 26Dec13; DVOR         |
| 109.850   | 035Y   | Japan                | J    | OSHIMA              | 34D47'00"N | 139D22'00"E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR      |
| 109.900   | 036X   | Australia            | AUS  | ALICE SPRINGS       | 23D48'56"S | 133D55'13"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 12 TRD-300D    |
| 109.900   | 036X   | Australia            | AUS  | CAIRNS              | 16D53'36"S | 145D45'21"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 15 TRD-335D    |
| 109.900   | 036X   | Australia            | AUS  | ESSENDON            | 37D43'53"S | 144D53'29"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 26 TRD - 88D.  |
| 109.900   | 036X   | Australia            | AUS  | HOBART              | 42D40'48"S | 147D31'34"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 12 TRD - 315D. |
| 109.900   | 036X   | Australia            | AUS  | PERTH               | 31D56'32"S | 115D57'25"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 24 TRD - 58D   |
| 109.900   | 036X   | Australia            | AUS  | SYDNEY              | 33D56'13"S | 151D11'31"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 07 TRD - 254D  |
| 109.900   | 036X   | Australia            | AUS  | TAMWORTH            | 31D04'12"S | 150D50'09"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 30R TRD - 133D |
| 109.900   | 036X   | China                | CHN  | BEIJING SHOUDU      | 40D05'00"N | 116D35'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | CHANGSHA HUANGHUA   | 28D12'00"N | 113D13'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | n/a    | China                | CHN  | GUANGHAN            | 30D57'00"N | 104D19'E    | ILS      | NAT  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 109.900   | 036X   | China                | CHN  | HAERBIN TAIPING     | 45D36'00"N | 126D13'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | HANGZHOU XIAOSHAN   | 30D14'00"N | 120D27'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | n/a    | China                | CHN  | HARBIN              | 45D37'00"N | 126D14'00"E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 109.900   | 036X   | China                | CHN  | KASHI               | 39D32'00"N | 076D02'E    | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | LIANCHENG           | 25D39'00"N | 116D44'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | SHIJIAZHUANG        | 38D15'00"N | 114D42'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | WUHAN               | 30D46'00"N | 114D12'00"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.900   | 036X   | China                | CHN  | WUXI SHUOFANG       | 31D30'00"N | 120D26'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China                | CHN  | XIAN XIANYANG       | 34D27'00"N | 108D46'E    | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | n/a    | China                | CHN  | YINCHUANHEDONGJICHA | 38D20'00"N | 106D24'E    | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 109.900   | 036X   | China                | CHN  | YINING              | 43D57'00"N | 081D20'E    | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 109.900   | 036X   | China - Hong Kong    | HKG  | Chek Lap Kok        | 22D19'13"N | 113D52'41"E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | 31May19               |
| 109.900   | 036X   | Cook Islands         | CKH  | RAROTONGA           | 21D12'21"S | 159D48'46"W | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.900   | 036X   | French Polynesia     | OCA  | TAHITI FAAA         | 17D33'37"S | 149D36'54"W | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.900   | 036X   | Guam (United States) | GUM  | SAIPAN              | 15D07'00"N | 145D44'00"E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 109.900   | 036X   | India                | IND  | BANGALORE           | 13D11'22"N | 077D43'51"E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 9Oct18; NC         |
| 109.900   | 036X   | India                | IND  | BHAVNAGAR           | 21D45'00"N | 072D11'00"E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | PROPOSED              |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location          | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                         |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 109.900   | 036X   | India                   | IND  | BHOPAL            | 23D17'34" N | 077D19'20 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 37  |                      |
| 109.900   | 036X   | India                   | IND  | JAIPUR            | 26D49'33" N | 075D49'09 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | India                   | IND  | KOLKATA           | 22D38'41" N | 088D26'52 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY01                |
| 109.900   | 036X   | India                   | IND  | LUCKNOW           | 26D45'43" N | 080D53'39 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | India                   | IND  | Rajahmundry       | 17D05'43" N | 081D47'53 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                      |
| 109.900   | 036X   | India                   | IND  | TRIVANDRUM        | 08D28'38" N | 076D55'34 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | India                   | IND  | UDAIPUR           | 24D37'11" N | 073D54'19 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | India                   | IND  | VARANASI          | 25D27'09" N | 082D50'45 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | Indonesia               | INS  | KENDARI HALUOLEO  | 04D05'00" S | 122D25'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-08               |
| 109.900   | 036X   | Indonesia               | INS  | SEMARANG AHMAD    | 06D58'28" S | 110D22'47 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-13               |
| 109.900   | 036X   | Lao People's Democratic | LAO  | VIENTIANE         | 17D58'36" N | 102D34'30 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | Malaysia                | MLA  | JOHOR BAHRU       | 01D39'18" N | 103D40'06 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-36 AT GP         |
| 109.900   | 036X   | Malaysia                | MLA  | PENANG            | 05D17'14" N | 100D16'11 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 36 AT GP         |
| 109.900   | 036X   | Malaysia                | MLA  | SUBANG            | 03D08'42" N | 101D32'30 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-36 AT GP         |
| 109.900   | 036X   | Myanmar                 | BRM  | YANGON MINGALADON | 16D54'00" N | 096D09'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 120/450   | 37  |                      |
| 109.900   | 036X   | New Caledonia           | NCL  | NOUMEA TONTOUTA   | 22D01'00" S | 166D12'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 19-06-2002           |
| 109.900   | 036X   | New Zealand             | NZL  | AUCKLAND          | 37D01'04" S | 174D45'54 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME/GP, RWY 23 L     |
| 109.900   | 036X   | New Zealand             | NZL  | CHRISTCHURCH      | 43D28'12" S | 172D33'14 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | New Zealand             | NZL  | DUNEDIN           | 45D56'07" S | 170D11'03 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 28Dec09              |
| 109.900   | 036X   | New Zealand             | NZL  | WELLINGTON        | 41D19'02" S | 174D48'26 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME/GP RWY34         |
| 109.900   | 036X   | Pakistan                | PAK  | LAHORE            | 31D31'00" N | 074D23'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME NAT              |
| 109.900   | n/a    | Philippines             | PHL  | CAGAYAN DE ORO    | 08D24'08" N | 124D36'29 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | 16MAR11              |
| 109.900   | n/a    | Philippines             | PHL  | DAVAO             | 07D06'54" N | 125D38'01 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY23                |
| 109.900   | n/a    | Philippines             | PHL  | MACTAN            | 10D19'12" N | 123D59'31 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | RWY04                |
| 109.900   | n/a    | Philippines             | PHL  | MANILA INTL.      | 14D29'50" N | 120D59'57 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | RWY24                |
| 109.900   | 036X   | Republic of Korea       | KOR  | JEJU INTL         | 33D30'58" N | 126D30'01 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 36 AT LOC        |
| 109.900   | 036X   | Republic of Korea       | KOR  | SEOUL GIMPO INTL  | 37D32'44" N | 126D48'34 E | ILS/DME  | I    | 25/62.5      | 17  |     | 50/100    | 27  | 26Dec13              |
| 109.900   | 036X   | Samoa                   | SMO  | APIA FALEOLO      | 13D49'00" S | 171D59'00 W | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | Sri Lanka               | SLK  | KATUNAYAKE        | 07D11'43" N | 079D53'40 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 80/100    | 27  | DME 36 at GP         |
| 109.900   | 036X   | Thailand                | THA  | CHIANG MAI        | 18D47'00" N | 098D58'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME AT LOC           |
| 109.900   | 036X   | Thailand                | THA  | CHUMPHON          | 10D42'40" N | 099D22'56 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12           |
| 109.900   | 036X   | Thailand                | THA  | PHUKET            | 08D06'48" N | 098D18'24 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 109.900   | 036X   | Thailand                | THA  | SONGKHLA HAT YAI  | 06D55'49" N | 100D22'30 E | ILS/DME  | I    | 25/62.5      | 17  |     | 300/450   | 37  |                      |
| 109.900   | 036X   | Viet Nam                | VTN  | VAN DON           | 21D07'48" N | 107D25'13 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 4Apr17               |
| 109.950   | 036Y   | China                   | CHN  | ANKANG FUQIANG    | 32D45'00" N | 108D53' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 109.950   | 036Y   | China                   | CHN  | WUHU XUANZHOU     | 31D06'00" N | 118D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 109.950   | n/a    | Republic of Korea       | KOR  | INCHEON INTL      | 37D27'57" N | 126D24'51 E | ILS      | N    | 80/100       | 17  |     | n/a       | n/a | FI New RWY34R; NC    |
| 110.000   | n/a    | Afghanistan             | AFG  | GHAZNI            | 33D30'00" N | 068D24'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a |                      |
| 110.000   | 037X   | China                   | CHN  | LINFEN            | 36D09'00" N | 111D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 110.000   | 037X   | Indonesia               | INS  | MAKASAR SULTAN    | 05D03'09" S | 119D34'01 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | FI ; DVOR            |
| 110.000   | 037X   | Thailand                | THA  | CHUMPHON          | 10D42'40" N | 099D22'56 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                 |
| 110.100   | 038X   | Australia               | AUS  | BRISBANE          | 27D24'27" S | 153D06'56 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 19L TRD-27D   |
| 110.100   | 038X   | Australia               | AUS  | PERTH             | 31D55'34" S | 115D58'09 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 03 TRD - 194D |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country              | Ctry | Location                | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|----------------------|------|-------------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                      |      |                         |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 110.100   | 038X   | Australia            | AUS  | SYDNEY                  | 33D55'39" S | 151D10'16 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 34L TRD - 168D |
| 110.100   | 038X   | Brunei Darussalam    | BRU  | BRUNEI                  | 04D55'00" N | 011D45'00 W | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 28Sep09               |
| 110.100   | 038X   | China                | CHN  | CHANGCHUN LONGJIA       | 43D59'00" N | 125D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | DONGYING                | 37D31'00" N | 118D47' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | EERDUOSI YIJINHUOLUO    | 39D29'00" N | 109D52' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | GUILIN LIANGJIANG       | 25D14'00" N | 110D02' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | KUNMING CHANGSHUI       | 25D06'00" N | 102D54' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | MANZHOU LI              | 49D34'00" N | 117D18' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | n/a    | China                | CHN  | NANTONG XINGDONG        | 32D04'00" N | 120D58' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 110.100   | 038X   | China                | CHN  | WEIHAI DASHUIBO         | 37D12'00" N | 122D14' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | n/a    | China                | CHN  | XICANGLINZHUIJICHANGM   | 29D11'00" N | 094D11' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 110.100   | 038X   | China                | CHN  | YANGZHOU TAIZHOU        | 32D35'00" N | 119D42' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | ZHONGQING JIANGBEI      | 29D42'00" N | 106D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.100   | 038X   | China                | CHN  | ZHUHAISANZAO            | 22D00'00" N | 113D23'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 110.100   | n/a    | Guam (United States) | GUM  | GUAM ANDERSON           | 13D35'00" N | 144D57'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 110.100   | 038X   | India                | IND  | AURANGABAD              | 19D51'47" N | 075D23'10 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.100   | 038X   | India                | IND  | HYDERABAD               | 17D27'15" N | 078D28'27 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.100   | 038X   | India                | IND  | INS Rajali              | 13D04'57" N | 079D42'37 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | Arrakonam             |
| 110.100   | 038X   | India                | IND  | INS Utkrosh, Port Blair | 11D39'17" N | 092D44'23 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 110.100   | 038X   | India                | IND  | JAMMU                   | 32D41'06" N | 074D50'13 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.100   | 038X   | India                | IND  | MANGALORE               | 12D57'38" N | 074D53'46 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.100   | 038X   | India                | IND  | MUMBAI                  | 19D05'42" N | 072D51'47 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | RWY14                 |
| 110.100   | 038X   | India                | IND  | Sarsawa                 | 29D59'39" N | 077D24'27 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 110.100   | 038X   | Indonesia            | INS  | BATAM HANG NADIM        | 01D08'12" S | 104D07'59 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-04                |
| 110.100   | 038X   | Indonesia            | INS  | GORONTALO               | 00D38'22" N | 122D51'46 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | WY-09                 |
| 110.100   | 038X   | Indonesia            | INS  | MAKASAR SULTAN          | 05D04'13" S | 119D33'50 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-21                |
| 110.100   | 038X   | Indonesia            | INS  | MEDAN POLONIA           | 03D34'07" N | 098D40'59 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-05                |
| 110.100   | n/a    | Indonesia            | INS  | SURABAYA JUANDA         | 07D22'57" S | 112D48'10 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY-10                |
| 110.100   | 038X   | Japan                | J    | FUKUE                   | 32D40'00" S | 128D50'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | DME Loc 3820Dec13     |
| 110.100   | 038X   | Japan                | J    | HACHIJOJIMA             | 33D07'00" N | 139D47'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME38 AT LOC          |
| 110.100   | 038X   | Japan                | J    | KOMATSU                 | 36D24'00" N | 136D25'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 38 AT GP          |
| 110.100   | n/a    | Japan                | J    | MEMANBETSU              | 43D52'00" N | 114D10'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                       |
| 110.100   | 038X   | Japan                | J    | OSAKA INTL.             | 34D48'00" N | 135D26'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 38 at GP              |
| 110.100   | 038X   | Japan                | J    | TOKUNOSHIMA             | 27D50'00" N | 128D53'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | AT LOC                |
| 110.100   | 038X   | Japan                | J    | TOKYO INTL.             | 35D36'00" N | 139D49'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13            |
| 110.100   | 038X   | Japan                | J    | UBE                     | 33D56'00" N | 131D18'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 38 AT GP          |
| 110.100   | 038X   | Japan                | J    | YAMAGATA                | 38D25'00" N | 140D22'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 38 AT GP          |
| 110.100   | n/a    | Malaysia             | MLA  | KUALA LUMPUR INTL       | 02D42'23" N | 101D41'56 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | FI R/W 14R LLZ        |
| 110.100   | 038X   | Malaysia             | MLA  | MIRI                    | 04D20'00" N | 114D00'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 110.100   | n/a    | Pakistan             | PAK  | KARACHI INTL.           | 24D54'00" N | 067D09'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | PRIMARY RWY           |
| 110.100   | 038X   | Papua New Guinea     | PNG  | PORT MORESBY            | 09D27'00" S | 147D14'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.100   | n/a    | Philippines          | PHL  | CLARK INTL. AIRPORT     | 15D10'18" N | 120D33'24 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY20L                |
| 110.100   | 038X   | Thailand             | THA  | KRABI                   | 08D06'27" N | 098D58'39 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12            |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location            | Latitude   | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks     |
|-----------|--------|-------------------|------|---------------------|------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-------------|
|           |        |                   |      |                     |            |             |          |      | DOC          | PWR |     | DOC       | PWR |             |
| 110.100   | 038X   | Thailand          | THA  | NARATHIWAT          | 06D31'49"N | 101D44'52 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |             |
| 110.100   | 038X   | Thailand          | THA  | PHITSANULOK         | 16D46'13"N | 100D17'28 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12  |
| 110.100   | 038X   | Thailand          | THA  | SUVARNABHUMI        | 13D39'24"N | 100D45'07 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12  |
| 110.100   | 038X   | Thailand          | THA  | UBON RATCHATHANI    | 15D14'23"N | 104D51'20 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | AIP         |
| 110.100   | 038X   | Thailand          | THA  | UDON THANI          | 17D23'41"N | 102D46'16 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | AIP         |
| 110.100   | 038X   | Viet Nam          | VTN  | HAIPHONG CATBI      | 20D49'03"N | 106D42'48 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 03Dec.14    |
| 110.100   | 038X   | Viet Nam          | VTN  | PHU CAT             | 13D51'55"N | 109D06'21 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 4Apr17   |
| 110.150   | 038Y   | China             | CHN  | QINGDAOJIAODONG     | 36D20'00"N | 120D05' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.150   | 038Y   | Japan             | J    | ODATE-NOSHIRO       | 40D11'00"N | 140D23'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 38 at GP |
| 110.150   | 038Y   | Japan             | J    | SAGA                | 33D09'00"N | 130D17'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13  |
| 110.200   | 039X   | Japan             | J    | TOTTORI             | 35D32'00"N | 134D10'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR        |
| 110.200   | 039X   | Republic of Korea | KOR  | WONJU               | 37D28'32"N | 127D58'30 E | VOR/DME  | I    | 25/100       | 17  |     | 25/100    | 27  | DVOR        |
| 110.200   | 039X   | Thailand          | THA  | NAKHON RATCHASIMA   | 14D56'47"N | 102D18'40 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR        |
| 110.300   | n/a    | American Samoa    | SMA  | PAGO PAGO           | 14D19'00"S | 170D42'00 W | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |             |
| 110.300   | 040X   | China             | CHN  | AKESU HONGQIPO      | 41D15'00"N | 080D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | ALETAI              | 47D45'00"N | 088D04' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | BAOSHAN YUNRUI      | 25D02'00"N | 099D09' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | BEIJING SHOUDU      | 40D04'00"N | 116D34' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  | DME AT GP   |
| 110.300   | 040X   | China             | CHN  | CHANGSHA HUANGHUA   | 28D10'00"N | 113D13' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | ENSHI XUJIAPING     | 30D20'00"N | 109D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | FUZHOU CHANGLE      | 25D55'00"N | 119D39' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | GUANGYUAN PANLONG   | 32D23'00"N | 105D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | GUIYANGLONGDONGBA   | 26D33'00"N | 106D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | HAERBIN TAIPING     | 45D38'00"N | 126D15' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | HETIAN              | 37D02'00"N | 079D50' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | n/a    | China             | CHN  | HULUNBEIER HAILAER  | 49D12'00"N | 119D48' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |             |
| 110.300   | n/a    | China             | CHN  | KUERLE              | 41D37'00"N | 086D09' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |             |
| 110.300   | n/a    | China             | CHN  | KUNMINGWUJIABAJICHA | 24D59'00"N | 102D44' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |             |
| 110.300   | 040X   | China             | CHN  | LASA GONGGA         | 29D17'00"N | 090D53' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | NANJING LUKOU       | 31D45'00"N | 118D52' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | SHANGHAI HONGQIAO   | 31D12'00"N | 121D20' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | SHENYANG TAOXIAN    | 41D37'00"N | 123D28' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | SHIJIAZHUANG        | 38D17'00"N | 114D41' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | WENZHOULONGWAN      | 27D55'00"N | 120D51' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | n/a    | China             | CHN  | WUHAN               | 30D48'00"N | 114D13'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a | FI          |
| 110.300   | 040X   | China             | CHN  | WULUMUQI DIWOBAO    | 43D54'00"N | 087D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | WUZHOUJICHANG_CLOSE | 23D27'00"N | 111D14' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | XIAMEN GAOQI        | 24D33'00"N | 118D08' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | XIAN XIANYANG       | 34D26'00"N | 108D44' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | XISHUANGBANNA GASA  | 21D59'00"N | 100D45' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | n/a    | China             | CHN  | ZHANGJIAJIE         | 29D06'00"N | 110D27'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |             |
| 110.300   | 040X   | China             | CHN  | ZHAOTONG            | 27D20'00"N | 103D46' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |
| 110.300   | 040X   | China             | CHN  | ZHENGZHOU XINZHENG  | 34D30'00"N | 113D51' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |             |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                      | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks           |
|-----------|--------|------------------------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-------------------|
|           |        |                              |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                   |
| 110.300   | 040X   | Cook Islands                 | CKH  | RAROTONGA          | 21D12'21" S | 159D47'54 W | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | Democratic People's Republic | KRE  | WONSAN KALMA       | 39D08'58" N | 127D30'05 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                   |
| 110.300   | n/a    | Guam (United States)         | GUM  | GUAM AGANA         | 13D29'00" N | 144D48'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | India                        | IND  | AGARTALA           | 23D52'48" N | 091D14'25 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | n/a    | India                        | IND  | AGRA               | 27D09'02" N | 077D56'56 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | IAF               |
| 110.300   | 040X   | India                        | IND  | AHMEDABAD          | 23D03'50" N | 072D37'13 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | CHENNAI            | 12D59'11" N | 080D09'18 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | COCHIN (INTL)      | 10D08'58" N | 076D22'56 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | DELHI              | 28D33'37" N | 077D07'10 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | RWY28             |
| 110.300   | n/a    | India                        | IND  | GOA                | 15D22'39" N | 073D48'54 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | India                        | IND  | GUWAHATI           | 26D05'48" N | 091D34'55 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | n/a    | India                        | IND  | GWALIOR            | 26D17'00" N | 078D14'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | India                        | IND  | IMPHAL             | 24D45'04" N | 093D53'32 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | KOLKATA            | 22D40'06" N | 088D26'59 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY19             |
| 110.300   | 040X   | India                        | IND  | MUMBAI             | 19D05'16" N | 072D52'25 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY27             |
| 110.300   | 040X   | India                        | IND  | NAGPUR             | 21D05'12" N | 079D03'04 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | PATNA              | 25D35'38" N | 085D05'34 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | India                        | IND  | RAIPUR             | 21D10'32" N | 081D44'40 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 16Feb07           |
| 110.300   | 040X   | Indonesia                    | INS  | BALI NGURAH RAI    | 08D44'59" S | 115D10'18 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-27            |
| 110.300   | 040X   | Indonesia                    | INS  | JAYAPURA           | 02D34'00" S | 140D31'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-30            |
| 110.300   | 040X   | Indonesia                    | INS  | NATUNA RANAI       | 03D53'41" N | 108D23'15 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  |                   |
| 110.300   | 040X   | Indonesia                    | INS  | TANJUNG REDEB      | 02D09'37" N | 117D26'02 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-19            |
| 110.300   | n/a    | Japan                        | J    | CHITOSE            | 42D49'00" N | 141D40'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | Japan                        | J    | KANOYA             | 31D22'00" N | 130D50'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 20Dec13           |
| 110.300   | 040X   | Japan                        | J    | MEMANBETSU         | 43D53'00" N | 144D10'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13 R40 GP |
| 110.300   | 040X   | Japan                        | J    | NAHA               | 26D13'00" N | 127D39'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-40 AT GP      |
| 110.300   | n/a    | Japan                        | J    | OKAYAMA            | 34D46'00" N | 135D52'00 E | ILS      | I    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | Malaysia                     | MLA  | KOTA KINABALU      | 05D56'00" N | 116D03'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-40 AT GP      |
| 110.300   | 040X   | Malaysia                     | MLA  | KUCHING            | 01D29'00" N | 110D20'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-40 AT GP      |
| 110.300   | 040X   | Malaysia                     | MLA  | SUBANG             | 03D17'48" N | 101D27'12 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-40 AT GP      |
| 110.300   | 040X   | Mongolia                     | MON  | ULAAN BAATAR       | 47D49'47" N | 106D47'04 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | 040X   | New Zealand                  | NZL  | AUCKLAND           | 37D00'22" S | 174D48'28 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME/GP, RWY 05 R  |
| 110.300   | 040X   | New Zealand                  | NZL  | CHRISTCHURCH       | 43D30'01" S | 172D31'07 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 28Dec09           |
| 110.300   | 040X   | New Zealand                  | NZL  | DUNEDIN            | 45D55'25" S | 170D12'34 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 28Nov12           |
| 110.300   | 040X   | New Zealand                  | NZL  | WELLINGTON         | 41D20'10" S | 174D48'22 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME/GP RWY16      |
| 110.300   | 040X   | Pakistan                     | PAK  | ISLAMABAD CHAKLALA | 33D37'00" N | 073D06'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME NAT           |
| 110.300   | 040X   | Pakistan                     | PAK  | MULTAN             | 30D12'00" N | 071D25'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 110.300   | n/a    | Philippines                  | PHL  | KALIBO             | 11D40'23" N | 122D22'05 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | 16MAR11           |
| 110.300   | 040X   | Republic of Korea            | KOR  | CHEONGJU           | 36D43'36" N | 127D30'50 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI                |
| 110.300   | n/a    | Republic of Korea            | KOR  | GUNSAN             | 33D55'08" N | 126D36'44 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 110.300   | 040X   | Republic of Korea            | KOR  | ULSAN              | 35D36'16" N | 129D21'02 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 40 AT LOC     |
| 110.300   | 040X   | Sri Lanka                    | SLK  | KATUNAYAKE         | 07D10'01" N | 079D52'23 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 80/100    | 27  | DME 40 at GP      |
| 110.300   | 040X   | Thailand                     | THA  | DON MUEANG INTL    | 13D53'51" N | 100D36'01 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                   |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                       |
| 110.300   | 040X   | Thailand          | THA  | NAN                  | 18D48'32" N | 100D46'57 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 110.300   | 040X   | Thailand          | THA  | SAKHONNAKHON         | 07D12'50" N | 104D08'12 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 110.300   | 040X   | Thailand          | THA  | TRANG                | 07D30'32" N | 099D37'34 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | 19MAR12               |
| 110.300   | 040X   | Viet Nam          | VTN  | CAM RANH             | 11D58'40" N | 109D16'30 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Jun17            |
| 110.300   | 040X   | Viet Nam          | VTN  | DONG HOI             | 17D30'58" N | 106D35'35 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 26Jun13               |
| 110.350   | 040Y   | China             | CHN  | GUANGZHOU BAIYUN     | 23D24'00" N | 113D18' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.350   | 040Y   | China             | CHN  | HANGZHOU XIAOSHAN    | 30D14'00" N | 120D27' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.350   | n/a    | ICAOTEST APAC     | ZZZ  | Groningen            | 52D52'52" N | 004D04'04 E | GBAS     | ICA  | 23/100       | 17  | 45  | n/a       | n/a |                       |
| 110.350   | 040Y   | Republic of Korea | KOR  | INCHEON INTL         | 37D26'29" N | 126D26'37 E | ILS/DME  | I    | 25/62.5      | 17  |     | 15/100    | 27  |                       |
| 110.450   | 041Y   | Japan             | J    | TAJIMA               | 35D31'00" N | 134D47'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 110.450   | 041Y   | Japan             | J    | TOKUNOSHIMA          | 27D49'00" N | 128D53'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 110.500   | 042X   | Afghanistan       | AFG  | KABUL                | 34D35'00" N | 069D10'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  |                       |
| 110.500   | 042X   | Australia         | AUS  | Oakey                | 27D24'59" S | 151D44'53 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Details Updated.      |
| 110.500   | 042X   | Australia         | AUS  | WILLIAMTOWN          | 32D48'23" S | 151D50'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 12 TRD - 310D  |
| 110.500   | 042X   | China             | CHN  | ANYANG HONGQIQU      | 35D52'00" N | 114D27' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | n/a    | China             | CHN  | BAOTOU DONGHE        | 40D33'00" N | 110D00' E   | ILS      | NAT  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 110.500   | 042X   | China             | CHN  | CHANGDU BANGDA       | 30D32'00" N | 097D07' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | CHENGDU TIANFU       | 30D17'00" N | 104D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | DANDONG LANGTOU      | 40D00'00" N | 124D17' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | HANGZHOU XIAOSHAN    | 30D15'00" N | 120D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | JINAN YAOQIANG       | 36D52'00" N | 117D12' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | NANCHANG CHANGBEI    | 28D50'00" N | 115D53' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | NANTONG XINGDONG     | 32D03'00" N | 120D58' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | SHENYANG TAOXIAN     | 41D39'00" N | 123D30' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | TASHIKUERGANJI CHANG | 37D40'00" N | 075D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | TIANJIN BINHAI       | 39D08'00" N | 117D20' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | WULUMUQI DIWOBAO     | 43D55'00" N | 087D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | XINYANG MINGGANG     | 32D32'00" N | 114D05' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | YICHANG SANXIA       | 30D32'00" N | 111D29' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | YUEYANG SANHE        | 29D19'00" N | 113D16' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | ZHONGQING JIANGBEI   | 29D42'00" N | 106D39' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China             | CHN  | ZHOUSHAN PUTUOSHAN   | 29D56'00" N | 122D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.500   | 042X   | China - Hong Kong | HKG  | Chek Lap Kok         | 22D19'59" N | 113D55'06 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | FI 31May19 rwy07N; NC |
| 110.500   | 042X   | Fiji              | FJI  | NAUSORI              | 18D02'00" S | 178D33'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Jan18            |
| 110.500   | 042X   | India             | IND  | BANGALORE            | 12D57'02" N | 077D40'56 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.500   | 042X   | India             | IND  | DELHI                | 28D34'09" N | 077D06'44 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY27                 |
| 110.500   | 042X   | India             | IND  | LILABARI             | 27D18'00" N | 094D06'20 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | Planned               |
| 110.500   | 042X   | India             | IND  | MADURAI              | 09D50'07" N | 078D05'18 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | 5Nov99                |
| 110.500   | 042X   | India             | IND  | MOPA AIRPORT         | 15D44'45" N | 073D50'29 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                       |
| 110.500   | 042X   | India             | IND  | RANCHI               | 23D18'34" N | 085D19'50 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.500   | 042X   | India             | IND  | VADODARA             | 22D20'35" N | 073D13'54 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.500   | 042X   | Indonesia         | INS  | BIAK FRANKAISEPO     | 01D11'45" S | 136D07'30 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-11                |
| 110.500   | 042X   | Indonesia         | INS  | JAKARTA SOEKARNO HTA | 06D07'13" S | 106D38'23 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-07R               |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location          | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                   |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 110.500   | 042X   | Indonesia         | INS  | MAKASAR SULTAN    | 05D04'13" S | 119D33'50 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-03               |
| 110.500   | 042X   | Indonesia         | INS  | MANADO            | 01D33'45" N | 124D55'36 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-36               |
| 110.500   | 042X   | Indonesia         | INS  | PALEMBANG SULT.   | 02D53'39" S | 104D41'24 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-29               |
| 110.500   | 042X   | Japan             | J    | ASAHIKAWA         | 43D42'00" N | 142D26'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 20Dec13              |
| 110.500   | 042X   | Japan             | J    | FUKUSHIMA         | 37D14'00" N | 140D26'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 42 AT GP         |
| 110.500   | 042X   | Japan             | J    | TOKYO INTL.       | 35D32'00" N | 139D49'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13           |
| 110.500   | 042X   | Malaysia          | MLA  | IPOH              | 04D33'24" N | 101D05'36 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 110.500   | 042X   | Malaysia          | MLA  | NEW SIBU          | 02D15'00" N | 111D59'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 110.500   | n/a    | Myanmar           | BRM  | MANDALAY NEW INTL | 21D43'00" N | 095D59'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                      |
| 110.500   | 042X   | Singapore         | SNG  | CHANGI            | 01D21'21" N | 104D00'50 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | DME42 at GP27Sep04   |
| 110.500   | 042X   | Thailand          | THA  | RANONG            | 09D47'18" N | 098D35'24 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 22Dec15           |
| 110.500   | 042X   | Thailand          | THA  | SUARNABHUMI       | 13D41'30" N | 100D45'40 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 19MAR12           |
| 110.500   | 042X   | Viet Nam          | VTN  | DANANG            | 16D02'37" N | 108D12'01 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 110.500   | 042X   | Viet Nam          | VTN  | HANOI NOI BAI     | 21D13'00" N | 105D47'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 110.500   | n/a    | Viet Nam          | VTN  | NOIBAI            | 21D12'00" N | 010D54'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                      |
| 110.500   | 042X   | Viet Nam          | VTN  | TAN SON NHAT      | 10D49'00" N | 106D39'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                      |
| 110.550   | 042Y   | China             | CHN  | BEIJING DAXING    | 39D30'00" N | 116D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.550   | 042Y   | China             | CHN  | BEIJING DAXING    | 39D28'00" N | 116D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.550   | 042Y   | China             | CHN  | TAIZHOU LUQIAO    | 28D32'00" N | 121D25' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.550   | 042Y   | China             | CHN  | XIANGYANG LIUJI   | 32D08'00" N | 112D17' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.600   | 043X   | China             | CHN  | CHAOSHAN          | 23D31'00" N | 116D28' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 110.600   | 043X   | China             | CHN  | KOULING           | 34D15'00" N | 109D14' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 110.600   | 043X   | China             | CHN  | XISHAN            | 25D04'00" N | 102D31' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 110.600   | 043X   | Republic of Korea | KOR  | YANGYANG          | 38D03'48" N | 128D39'41 E | VOR/DME  | I    | 25/100       | 17  |     | 25/100    | 27  | DVOR                 |
| 110.600   | 043X   | Thailand          | THA  | SURATTHANI        | 09D08'00" N | 099D08'00 E | VOR/DME  | I    | 150/450      | 27  |     | 150/450   | 37  | DVOR                 |
| 110.650   | 043Y   | Japan             | J    | SHIZUOKA          | 34D48'00" N | 138D12'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR     |
| 110.650   | 043Y   | Japan             | J    | TARAMA            | 24D39'00" N | 124D40'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR     |
| 110.650   | 043Y   | Japan             | J    | YUWA              | 39D37'00" N | 140D11'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 110.700   | n/a    | Australia         | AUS  | AMBERLEY          | 27D39'00" S | 152D43'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                      |
| 110.700   | 044X   | Australia         | AUS  | EDINBURGH         | 34D43'12" S | 138D36'47 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 18 TRD-08D    |
| 110.700   | n/a    | Australia         | AUS  | PEARCE            | 31D41'12" S | 116D01'01 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | Coordinates Updated. |
| 110.700   | 044X   | Australia         | AUS  | TINDAL            | 14D31'59" S | 132D23'15 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 14 TRD - 319D |
| 110.700   | 044X   | China             | CHN  | BEIHAI FUCHENG    | 21D33'00" N | 109D17' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  | 18Apr11              |
| 110.700   | 044X   | China             | CHN  | DALI              | 25D38'00" N | 100D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | n/a    | China             | CHN  | DONGYING          | 37D29'00" N | 118D47' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                      |
| 110.700   | 044X   | China             | CHN  | FUYANG            | 32D53'00" N | 115D44' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | 044X   | China             | CHN  | FUZHOU CHANGLE    | 25D57'00" N | 119D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | 044X   | China             | CHN  | JINGDEZHEN LUOJIA | 29D20'00" N | 117D11' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | 044X   | China             | CHN  | LINYI QIYANG      | 35D04'00" N | 118D24' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | n/a    | China             | CHN  | MIANYANG NANJIAO  | 31D26'00" N | 104D43' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                      |
| 110.700   | 044X   | China             | CHN  | QINGDAO LIUTING   | 36D14'00" N | 120D22' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | 044X   | China             | CHN  | QIQIHAER SANJIAZI | 47D13'00" N | 123D55' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |
| 110.700   | 044X   | China             | CHN  | SHANGHAI PUDONG   | 31D07'00" N | 121D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                      |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks               |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|-----------|------|--------------|-----|-----|-----------|-----|-----------------------|
|           |        |                   |      |                      |             |             |           |      | DOC          | PWR |     | DOC       | PWR |                       |
| 110.700   | 044X   | China             | CHN  | SHENZUO BAOAN        | 22D39'00" N | 113D48'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | TACHENG QIANQUAN     | 46D39'00" N | 083D21'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | TAIZHOU LUQIAO       | 28D34'00" N | 121D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | TANGSHAN SANNVHE     | 39D43'00" N | 117D58'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | WEIHAI WENDENG       | 37D10'00" N | 122D13'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | WUZHOU XIJIANG       | 23D23'00" N | 111D05'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | XINING CAOJIABAO     | 36D31'00" N | 102D03'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | YANGZHOU TAIZHOU     | 32D33'00" N | 119D43'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | China             | CHN  | ZHENGZHOU XINZHENG   | 34D32'00" N | 113D50'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | n/a    | China             | CHN  | ZHONGWEI SHAPOTOU    | 37D34'00" N | 105D08'     | E ILS     | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                       |
| 110.700   | 044X   | China             | CHN  | ZUNYI MAOTAI         | 27D58'00" N | 106D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.700   | 044X   | India             | IND  | CALICUT              | 11D07'55" N | 075D58'14 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08               |
| 110.700   | 044X   | India             | IND  | KHAJURAHO            | 24D49'30" N | 079D55'18 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                       |
| 110.700   | n/a    | Indonesia         | INS  | BANJARMASIN          | 03D26'19" S | 114D45'12 E | ILS       | I    | 25/62.5      | 17  |     | n/a       | n/a | RWY-10                |
| 110.700   | 044X   | Indonesia         | INS  | MERAUKE MOPAH        | 08D32'11" S | 140D24'52 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-16                |
| 110.700   | 044X   | Indonesia         | INS  | TIMIKA MOZES         | 04D32'11" S | 136D53'53 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-12                |
| 110.700   | 044X   | Japan             | J    | AGUNI                | 35D47'00" N | 140D24'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 24Dec13               |
| 110.700   | 044X   | Japan             | J    | KANSAI INTL          | 34D25'00" N | 135D14'00 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 44 AT GP          |
| 110.700   | 044X   | Malaysia          | MLA  | NEW KUALA LUMPUR     | 02D44'26" N | 101D41'55 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 14 R                  |
| 110.700   | 044X   | Malaysia          | MLA  | PULAU LANGKAWI       | 06D20'50" N | 099D44'34 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 44 AT GP          |
| 110.700   | 044X   | New Zealand       | NZL  | OHAKA                | 40D12'35" S | 175D24'01 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | MIL RWY09, DME/GP     |
| 110.700   | 044X   | New Zealand       | NZL  | WHENUAPAI            | 36D47'05" S | 174D38'22 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | MIL, DME/GP           |
| 110.700   | n/a    | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP  | 33D32'46" N | 072D50'56 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a | 6Nov.13 28R           |
| 110.700   | 044X   | Republic of Korea | KOR  | MOKPO                | 34D45'52" N | 126D23'18 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 44 AT LOC         |
| 110.700   | 044X   | Republic of Korea | KOR  | SEOUL GIMPO INTL     | 37D34'21" N | 126D46'32 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 44 AT LOC         |
| 110.700   | 044X   | Vanuatu           | NHB  | PORT VILA BAUERFIELD | 17D41'00" S | 168D19'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | OFFSET LOCALISOR      |
| 110.700   | 044X   | Viet Nam          | VTN  | CAM RANH             | 11D59'40" N | 109D13'12 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | 7Dec11                |
| 110.750   | 044Y   | China             | CHN  | BEIJING DAXING       | 39D28'00" N | 116D24'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.750   | 044Y   | China             | CHN  | BEIJING DAXING       | 39D31'00" N | 116D23'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.750   | 044Y   | China             | CHN  | GUANGZHOU BAIYUN     | 23D22'00" N | 113D18'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.750   | 044Y   | Japan             | J    | NEW CHITOSE          | 35D47'00" N | 141D41'00 E | ILS/DME   | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13            |
| 110.800   | 045X   | China             | CHN  | PANLONG              | 25D24'00" N | 102D56'     | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                       |
| 110.800   | 045X   | China             | CHN  | YICHUN               | 27D49'00" N | 114D19'     | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                       |
| 110.800   | 045X   | China             | CHN  | ZUAN                 | 34D06'00" N | 108D30'     | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                       |
| 110.800   | 045X   | Japan             | J    | UBE                  | 33D56'00" N | 131D17'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 110.800   | 045X   | Thailand          | THA  | U-TAPHAO             | 12D40'00" N | 101D00'00 E | VOR/DME   | I    | 200/450      | 29  |     | 200/450   | 40  | DME NAT; DVOR         |
| 110.850   | 045Y   | China             | CHN  | JINGGUAN             | 29D55'00" N | 106D32'     | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  |                       |
| 110.850   | 045Y   | Japan             | J    | MEMANBETSU           | 43D53'00" N | 144D10'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 110.850   | 045Y   | Japan             | J    | TOYAMA               | 36D39'00" N | 137D11'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                  |
| 110.900   | 046X   | Australia         | AUS  | SYDNEY               | 33D58'24" S | 151D11'40 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | Runway 16L TRD - 348D |
| 110.900   | 046X   | China             | CHN  | ALAER TALIMU         | 40D26'00" N | 081D16'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.900   | 046X   | China             | CHN  | LIUZHOU BAILIAN      | 24D13'00" N | 109D23'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |
| 110.900   | 046X   | China             | CHN  | NANJING LUKOU        | 31D43'00" N | 118D50'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                       |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                      | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|------------------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                              |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| 110.900   | 046X   | China                        | CHN  | NANNING WUZUO        | 22D35'00" N | 108D09' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | NANYANG JIANGYING    | 32D59'00" N | 112D37' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | NINGBO ZUOSHE        | 29D50'00" N | 121D26' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | SHANGHAI HONGQIAO    | 31D11'00" N | 121D20' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | TAIYUAN WUSU         | 37D44'00" N | 112D38' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | TIANJIN BINHAI       | 39D06'00" N | 117D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | YANCHENG NANYANG     | 33D26'00" N | 120D13' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | YANTAILAISHANJICHANG | 37D24'00" N | 121D22' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China                        | CHN  | YICHUN LINDU         | 47D44'00" N | 129D02' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 110.900   | 046X   | China - Hong Kong            | HKG  | INTERNATIONAL        | 22D18'34" N | 113D53'37 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-46 AT GP 25C    |
| 110.900   | 046X   | India                        | IND  | Delhi                | 28D32'50" N | 077D03'42 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | 29L                 |
| 110.900   | 046X   | India                        | IND  | DIMAPUR              | 25D52'39" N | 093D47'11 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 23/7/02             |
| 110.900   | 046X   | India                        | IND  | DURGAPUR             | 23D37'28" N | 087D14'33 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 22Nov11             |
| 110.900   | 046X   | India                        | IND  | HYDERABAD            | 17D15'45" N | 078D27'25 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | 2May07              |
| 110.900   | 046X   | India                        | IND  | INDORE               | 22D43'29" N | 075D48'35 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 110.900   | 046X   | India                        | IND  | RAJKOT               | 22D18'48" N | 070D46'60 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 110.900   | 046X   | India                        | IND  | TIRUCHIRAPALLI       | 10D45'56" N | 078D43'14 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 110.900   | 046X   | Indonesia                    | INS  | BALIKPAPAN SULTAN    | 01D16'25" S | 116D52'53 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-25              |
| 110.900   | n/a    | Indonesia                    | INS  | JAKARTA SOEKARNO HAT | 06D07'11" S | 106D40'29 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY-25R             |
| 110.900   | 046X   | Indonesia                    | INS  | MEDAN BARU           | 03D37'26" N | 098D51'24 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-23              |
| 110.900   | 046X   | Japan                        | J    | KOCHI                | 33D33'00" N | 133D39'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME46 AT GP         |
| 110.900   | 046X   | Japan                        | J    | NAGASAKI             | 32D56'00" N | 129D54'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 110.900   | 046X   | Japan                        | J    | NARITA INTL AP       | 35D48'00" N | 140D23'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13          |
| 110.900   | 046X   | Japan                        | J    | NEW CHITOSE          | 42D47'00" N | 141D41'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 46 AT GP        |
| 110.900   | 046X   | Japan                        | J    | SHIMOJISHIMA         | 24D51'00" N | 125D08'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 46 AT GP        |
| 110.900   | 046X   | Japan                        | J    | SHONAI               | 38D49'00" N | 139D48'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 46 AT GP        |
| 110.900   | 046X   | Lao People's Democratic      | LAO  | Bokeo International  | 20D18'43" N | 100D09'29 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | RWY 21              |
| 110.900   | n/a    | Philippines                  | PHL  | SUBIC                | 14D47'43" N | 120D16'32 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY25               |
| 110.900   | 046X   | Republic of Korea            | KOR  | POHANG               | 35D59'17" N | 129D26'02 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 46 AT LOC       |
| 110.900   | 046X   | Republic of Korea            | KOR  | SEOUL SINCHONRI      | 37D26'00" N | 127D07'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | TAC 46 AT LOC       |
| 110.900   | 046X   | Singapore                    | SNG  | CHANGI               | 01D23'00" N | 104D00'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-46 AT GP        |
| 110.900   | 046X   | Viet Nam                     | VTN  | DA LAT LIEN KHUONG   | 11D45'14" N | 108D21'18 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 9Jan15 pm           |
| 110.950   | 046Y   | Japan                        | J    | KUMEJIMA             | 26D22'00" N | 126D43'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI DME 46 LOC       |
| 111.000   | 047X   | China                        | CHN  | CHANGSHENGQIAO       | 29D25'00" N | 106D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 111.000   | 047X   | China                        | CHN  | LIANCHENG            | 25D39'00" N | 116D44' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                |
| 111.000   | 047X   | Japan                        | J    | OKAYAMA              | 34D45'00" N | 133D50'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 26Dec13; DVOR       |
| 111.000   | 047X   | Micronesia, Federated States | FSM  | PONAPE               | 06D59'00" N | 158D13'00 E | VOR/DME  | I    | 100/450      | 23  |     | 100/450   | 27  |                     |
| 111.000   | 047X   | Republic of Korea            | KOR  | MUAN                 | 34D58'12" N | 126D23'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13          |
| 111.000   | 047X   | Thailand                     | THA  | KRABI                | 08D06'27" N | 098D58'39 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                |
| 111.100   | 048X   | Australia                    | AUS  | GOLD COAST           | 28D10'42" S | 153D30'52 E | ILS/DME  | ICA  | 25/62.5      | 17  |     | 25/100    | 27  | Runway 14 TRD-331D  |
| 111.100   | 048X   | Australia                    | AUS  | WAGGA WAGGA          | 35D10'04" S | 147D27'30 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 23 TRD - 62D |
| 111.100   | 048X   | China                        | CHN  | CHANGSHA HUANGHUA    | 28D12'00" N | 113D13' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.100   | 048X   | China                        | CHN  | CHENGDU SHUANGLIU    | 30D35'00" N | 103D57' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks           |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-------------------|
|           |        |                   |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                   |
| 111.100   | 048X   | China             | CHN  | DALIAN ZHOUSHUIZI    | 38D58'00" N | 121D30' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | GUIYANG              | 26D33'00" N | 106D48' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | JINING DAAN          | 35D39'00" N | 116D45' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | JINZHOUJIICHANG      | 41D06'00" N | 121D03' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | KASHI                | 39D32'00" N | 075D59' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | LONGNAN CHENGXIAN    | 33D47'00" N | 105D46' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | RIKAZE DINGRI        | 28D36'00" N | 086D46' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | SHANAN LONGZI        | 28D25'00" N | 092D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | SHANGHAI PUDONG      | 31D07'00" N | 121D47' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | WUHAN TIANHE         | 30D45'00" N | 114D12' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | WULUMUQI DIWOBAO     | 43D55'00" N | 087D27' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China             | CHN  | XIAN XIANYANG        | 34D25'00" N | 108D44' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                   |
| 111.100   | 048X   | China - Hong Kong | HKG  | INTERNATIONAL        | 22D19'21" N | 113D56'02 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-48 AT GP 07C  |
| 111.100   | 048X   | India             | IND  | COCHIN (INTL)        | 10D09'06" N | 076D24'58 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 11OCT13           |
| 111.100   | 048X   | India             | IND  | Delhi                | 28D33'01" N | 077D03'53 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | Delhi RWY 29R     |
| 111.100   | 048X   | India             | IND  | Hakimpet             | 17D33'08" N | 078D30'34 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                   |
| 111.100   | 048X   | India             | IND  | HOLONGI              | 26D57'51" N | 093D37'31 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  |                   |
| 111.100   | 048X   | India             | IND  | JABALPUR             | 23D10'23" N | 080D02'38 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 11OCT13           |
| 111.100   | 048X   | India             | IND  | Purnea, Bihar-       | 25D45'37" N | 087D25'34 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                   |
| 111.100   | 048X   | India             | IND  | Tambaram             | 12D54'39" N | 080D06'50 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                   |
| 111.100   | 048X   | India             | IND  | VISHAKHAPATNAM       | 17D43'24" N | 083D14'52 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 6Oct06            |
| 111.100   | 048X   | Indonesia         | INS  | AMBON PATTIMURA      | 03D42'25" S | 128D05'23 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-04            |
| 111.100   | 048X   | Indonesia         | INS  | JAKARTA SOEKARNO HTA | 06D07'38" S | 106D39'39 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-25L           |
| 111.100   | 048X   | Indonesia         | INS  | MANADO               | 01D32'11" N | 124D55'33 E | ILS/DME  | NAT  | 25/20        | 17  |     | 25/100    | 27  |                   |
| 111.100   | 048X   | Indonesia         | INS  | PALEMBANG SULT.      | 02D53'59" S | 104D41'36 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-11            |
| 111.100   | 048X   | Indonesia         | INS  | PEKANBARU SULT.      | 00D28'20" N | 101D26'41 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-36            |
| 111.100   | n/a    | Japan             | J    | WAKKANAI             | 45D25'00" N | 141D49'00 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a |                   |
| 111.100   | 048X   | Malaysia          | MLA  | GONG KEDAK           | 04D51'16" N | 103D13'13 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 16Dec05           |
| 111.100   | 048X   | Malaysia          | MLA  | KOTA KINABALU        | 05D56'24" N | 116D03'12 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 07Aug07 20GP      |
| 111.100   | 048X   | New Zealand       | NZL  | OHAKEA               | 40D12'08" S | 175D22'20 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | MIL RWY27, DME/GP |
| 111.100   | 048X   | New Zealand       | NZL  | WHENUAPAI            | 36D47'48" S | 174D37'11 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | MIL, GME/GP       |
| 111.100   | 048X   | Republic of Korea | KOR  | GWANGJU              | 35D08'21" N | 126D49'09 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 111.100   | 048X   | Singapore         | SNG  | SELETAR              | 01D24'22" N | 103D51'38 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | DME40X 13Aug.13   |
| 111.100   | 048X   | Thailand          | THA  | U-TAPHAO             | 12D39'00" N | 101D00'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  |                   |
| 111.100   | 048X   | Viet Nam          | VTN  | TUY HOA              | 13D02'41" N | 109D20'07 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 4Apr17         |
| 111.150   | 048Y   | ICAOTEST APAC     | ZZZ  | Leeuwarden           | 52D43'21" N | 003D03'03 E | ILS/DME  | ICA  | 25/62.5      | 17  | 45  | 25/100    | 27  |                   |
| 111.200   | 049X   | China             | CHN  | DAZUOKOU             | 30D20'00" N | 109D28' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR              |
| 111.200   | 049X   | China             | CHN  | KANASI               | 48D13'00" N | 087D00' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 111.200   | 049X   | China             | CHN  | TENGCHONG            | 24D56'00" N | 098D28' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 111.200   | 049X   | China             | CHN  | YUNHE                | 28D07'00" N | 119D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 111.200   | 049X   | Republic of Korea | KOR  | MOKPO                | 34D45'35" N | 126D22'44 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 111.200   | 049X   | Thailand          | THA  | ROI ET               | 16D07'00" N | 103D46'19 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR              |
| 111.250   | 049Y   | Japan             | J    | KOBE                 | 34D38'00" N | 135D14'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR  |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                      | Ctry | Location            | Latitude    | Longitude   | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|------------------------------|------|---------------------|-------------|-------------|-----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                              |      |                     |             |             |           |      | DOC          | PWR |     | DOC       | PWR |                     |
| 111.300   | 050X   | China                        | CHN  | CHENGDU TIANFU      | 30D16'00" N | 104D26'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | CHENGDU TIANFU      | 30D18'00" N | 104D27'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | EZHOU HUAHU         | 30D21'00" N | 115D02'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | EZHOU HUAHU         | 30D19'00" N | 115D01'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | KUNMING CHANGSHUI   | 25D07'00" N | 102D56'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | NANJING LUKOU       | 31D42'00" N | 118D50'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | SHANGHAI HONGQIAO   | 31D10'00" N | 121D20'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | SHENZUO BAOAN       | 22D37'00" N | 113D49'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | YANCHENG NANYANG    | 33D24'00" N | 120D11'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | China                        | CHN  | YULIN YUYANG        | 38D20'00" N | 109D36'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.300   | 050X   | India                        | IND  | BELGAUM             | 15D51'23" N | 074D36'11 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 21Mar08             |
| 111.300   | 050X   | India                        | IND  | Delhi               | 28D32'13" N | 077D06'46 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | 11R                 |
| 111.300   | 050X   | India                        | IND  | KOLKATA             | 22D38'10" N | 088D26'50 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19Jun07             |
| 111.300   | 050X   | India                        | IND  | TIRUPATHI           | 13D37'46" N | 079D31'54 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 19Jun07             |
| 111.300   | 050X   | Indonesia                    | INS  | BANDA ACEH SULT     | 05D31'04" N | 095D25'27 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-17              |
| 111.300   | n/a    | Indonesia                    | INS  | MAKASAR SULTAN      | 05D03'35" S | 119D32'53 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY-31, OFF         |
| 111.300   | n/a    | Indonesia                    | INS  | PONTIANAK SUPADIO   | 00D08'33" S | 109D23'52 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 111.300   | n/a    | Japan                        | J    | ATSUGI              | 35D28'00" N | 139D27'00 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 111.300   | n/a    | Japan                        | J    | HACHINOHE           | 40D33'00" N | 141D27'00 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 111.300   | n/a    | Japan                        | J    | NYUTABARU           | 32D05'00" N | 131D26'00 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a |                     |
| 111.300   | 050X   | Malaysia                     | MLA  | TAWAU               | 04D18'20" N | 118D06'19 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 111.300   | n/a    | Pakistan                     | PAK  | BENZIR BHUTTO-BBIAP | 33D33'06" N | 072D48'07 E | ILS       | N    | 25/62.5      | 17  |     | n/a       | n/a | 6Nov.13 10R         |
| 111.300   | 050X   | Republic of Korea            | KOR  | JEJU INTL           | 33D29'54" N | 126D27'56 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME 50 AT LOC       |
| 111.300   | 050X   | Singapore                    | SNG  | TENGAH              | 01D22'00" N | 103D42'00 E | ILS/DME   | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                     |
| 111.300   | 050X   | Viet Nam                     | VTN  | Long Thanh IA 2     | 10D47'48" N | 107D03'29 E | ILS/DME   | NAT  | 25/62.5      | 17  |     | 25/100    | 27  |                     |
| 111.300   | 050X   | Viet Nam                     | VTN  | THO XUAN            | 19D53'50" N | 105D29'34 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 9Mar14           |
| 111.300   | 050X   | Viet Nam                     | VTN  | TUY HOA AP          | 13D03'28" N | 109D20'18 E | ILS/DME   | N    | 25/62.5      | 17  |     | 80/100    | 27  | 9Mar18              |
| 111.350   | 050Y   | China                        | CHN  | GUIYANG             | 26D33'00" N | 106D48'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.350   | 050Y   | China                        | CHN  | WEINING CAOHAH      | 26D50'00" N | 104D20'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.350   | 050Y   | China                        | CHN  | XUZHOU GUANYIN      | 34D03'00" N | 117D34'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.400   | 051X   | China                        | CHN  | NIUGUNTANG          | 29D33'00" N | 108D52'     | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                |
| 111.400   | 051X   | Democratic People's Republic | KRE  | PYONGYANG SUNAN     | 39D13'07" N | 125D40'32 E | VOR/DME   | NAT  | 150/450      | 27  |     | 150/450   | 37  | 27Jun08             |
| 111.400   | 051X   | Republic of Korea            | KOR  | ULSAN               | 35D35'54" N | 129D21'11 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR    |
| 111.400   | 051X   | Thailand                     | THA  | SUARNABHUMI         | 15D38'00" N | 100D43'00 E | VOR/DME   | I    | 200/450      | 29  |     | 200/450   | 40  | 23May03; DVOR       |
| 111.450   | 051Y   | China                        | CHN  | CHENGDU TIANFU      | 30D17'00" N | 104D23'     | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  |                     |
| 111.450   | 051Y   | Japan                        | J    | NAKASHIBETSU        | 43D35'00" N | 144D57'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 111.450   | 051Y   | Japan                        | J    | NOTO                | 37D17'00" N | 136D58'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR    |
| 111.450   | 051Y   | Japan                        | J    | TSUSHIMA            | 34D17'00" N | 129D20'00 E | VOR/DME   | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 111.500   | 052X   | Australia                    | AUS  | BRISBANE            | 27D21'15" S | 153D07'24 E | ILS/DME   | I    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 01L TRD-207D |
| 111.500   | 052X   | China                        | CHN  | CHANGZHOU BENNIU    | 31D54'00" N | 119D47'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.500   | 052X   | China                        | CHN  | GUANGZHOU BAIYUN    | 23D22'00" N | 113D16'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.500   | 052X   | China                        | CHN  | HAIKOU MEILAN       | 19D56'00" N | 110D28'     | E ILS/DME | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |
| 111.500   | 052X   | China                        | CHN  | HANGZHOU XIAOSHAN   | 30D14'00" N | 120D24'     | E ILS/DME | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                     |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks          |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------|
|           |        |                   |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                  |
| 111.500   | 052X   | China             | CHN  | NANNING WUZUO        | 22D34'00" N | 108D10' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.500   | 052X   | China             | CHN  | SHANGHAI PUDONG      | 31D07'00" N | 121D49' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.500   | 052X   | China             | CHN  | TIANJIN BINHAI       | 39D08'00" N | 117D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.500   | 052X   | China             | CHN  | WUHAN TIANHE         | 30D47'00" N | 114D14' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.500   | 052X   | China             | CHN  | YONGZHOU LINGLING    | 26D21'00" N | 111D36' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.500   | 052X   | India             | IND  | Bakhshi Ka Talab     | 26D59'21" N | 080D52'34 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  |                  |
| 111.500   | 052X   | India             | IND  | BANGALORE            | 13D11'23" N | 077D41'12 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 9Oct18           |
| 111.500   | 052X   | India             | IND  | SINDHUDURG           | 16D00'12" N | 073D32'28 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 80/100    | 27  | FI 21JAN19       |
| 111.500   | 052X   | Indonesia         | INS  | JAKARTA SOEKARNO HAT | 06D07'46" S | 106D40'32 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-07L          |
| 111.500   | 052X   | Indonesia         | INS  | PADANG MINANGKABAU   | 00D47'03" S | 100D16'57 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-33           |
| 111.500   | n/a    | Indonesia         | INS  | SOLO ADI SUMARMO     | 07D31'08" S | 110D44'48 W | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | RWY-26           |
| 111.500   | 052X   | Japan             | J    | NEW CHITOSE          | 42D46'00" N | 141D42'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                  |
| 111.500   | 052X   | Japan             | J    | OITA                 | 33D30'00" N | 131D44'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-52 AT GP     |
| 111.500   | 052X   | Japan             | J    | SHIMOJISHIMA         | 24D49'00" N | 125D09'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 52 AT GP     |
| 111.500   | 052X   | Japan             | J    | SHONAI               | 38D49'00" N | 139D47'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 26Dec13          |
| 111.500   | 052X   | Japan             | J    | TOTTORI              | 35D32'00" N | 134D11'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 52 AT GP     |
| 111.500   | n/a    | Malaysia          | MLA  | KUALA LUMPUR INTL    | 02D44'18" N | 101D40'38 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | FI RWY 32L LLZ   |
| 111.500   | 052X   | Republic of Korea | KOR  | GANGNEUNG            | 37D44'52" N | 128D55'31 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME 52 AT LOC    |
| 111.500   | 052X   | Republic of Korea | KOR  | YEOSU                | 34D49'52" N | 127D37'21 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | DME AT LOC       |
| 111.500   | 052X   | Singapore         | SNG  | PAYA LEBAR           | 01D20'00" N | 103D54'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                  |
| 111.500   | 052X   | Viet Nam          | VTN  | DANANG               | 16D02'37" N | 108D12'01 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 5Oct.10          |
| 111.550   | 052Y   | China             | CHN  | GUIYANG              | 26D33'00" N | 106D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.550   | 052Y   | China             | CHN  | WUHU XUANZHOU        | 31D05'00" N | 118D39' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.550   | 052Y   | Japan             | J    | MONBETSU             | 44D19'00" N | 143D24'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 24Dec13 at GP |
| 111.550   | 052Y   | Japan             | J    | OKI                  | 36D11'00" N | 133D20'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 200/450   | 37  | FI 52 at LOC     |
| 111.600   | 053X   | China             | CHN  | JINING               | 35D17'00" N | 116D21' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 111.600   | 053X   | China             | CHN  | PANLONG              | 25D48'00" N | 114D53'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 111.600   | 053X   | China             | CHN  | SUINING              | 30D28'00" N | 105D36' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                  |
| 111.600   | 053X   | China             | CHN  | ZUOLONG              | 25D48'00" N | 114D52' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 111.600   | 053X   | India             | IND  | Barrackpore          | 24D46'26" N | 088D21'28 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                  |
| 111.600   | 053X   | India             | IND  | Sarsawa              | 29D59'31" N | 077D25'48 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                  |
| 111.600   | 053X   | Thailand          | THA  | NAKHON PHANOM        | 17D23'17" N | 104D38'18 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR             |
| 111.700   | 054X   | China             | CHN  | BEIJING SHOUDU       | 40D06'00" N | 116D34' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | NANCHANG CHANGBEI    | 28D52'00" N | 115D54' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | QINGDAO LIUTING      | 36D17'00" N | 120D22' E   | ILS/DME  | NAT  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | QUANZHOU JINJIANG    | 24D48'00" N | 118D35' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | SHANGHAI HONGQIAO    | 31D12'00" N | 121D19' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | WUYISHAN             | 27D42'00" N | 118D00' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | WUZHOU XIJIANG       | 23D24'00" N | 111D06' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | YANTAILAISHANJICHANG | 37D23'00" N | 121D21' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China             | CHN  | YIWU                 | 29D21'00" N | 120D02' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                  |
| 111.700   | 054X   | China - Macao     | MAC  | MACAU                | 22D09'00" N | 113D32'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                  |
| 111.700   | 054X   | Indonesia         | INS  | BENGKULU FATMAWATI   | 03D51'34" S | 102D19'59 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-13           |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                               |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------------------------|
|           |        |                   |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                       |
| 111.700   | 054X   | Indonesia         | INS  | JAKARTA HALIM        | 06D16'22" S | 106D52'39 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | RWY-24                                |
| 111.700   | 054X   | Indonesia         | INS  | KEDIRI               | 07D44'26" S | 111D56'20 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | Dhoho Airport                         |
| 111.700   | 054X   | Indonesia         | INS  | PALANGKA RAYA TJILIK | 02D12'57" S | 113D56'20 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-34                                |
| 111.700   | 054X   | Indonesia         | INS  | TERNATE SULTAN       | 02D32'29" S | 101D05'26 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-14                                |
| 111.700   | 054X   | Japan             | J    | FUKUOKA              | 33D34'00" N | 130D28'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 20Dec13                               |
| 111.700   | 054X   | Japan             | J    | IZUMO                | 35D24'00" N | 132D53'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  |                                       |
| 111.700   | 054X   | Japan             | J    | KAGOSHIMA            | 31D49'00" N | 130D43'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | 20Dec13                               |
| 111.700   | 054X   | Japan             | J    | OBIHIRO              | 42D45'00" N | 143D13'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 54 at GP                              |
| 111.700   | 054X   | Japan             | J    | SENDAI               | 38D08'00" N | 140D54'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME-54 AT GP                          |
| 111.700   | 054X   | Japan             | J    | TOKYO INTL.          | 35D34'00" N | 139D46'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13                            |
| 111.700   | 054X   | Malaysia          | MLA  | ALOR SETAR           | 06D12'56" N | 100D24'37 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  |                                       |
| 111.700   | 054X   | Malaysia          | MLA  | BATU BERENDAM        | 02D15'36" N | 102D15'31 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI Rwy03GP                            |
| 111.700   | n/a    | Nepal             | NPL  | POKHARA              | 28D11'23" N | 084D00'03 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | FI 22Oct19                            |
| 111.700   | 054X   | Republic of Korea | KOR  | CHEONGJU             | 36D42'30" N | 127D29'02 E | ILS/DME  | I    | 25/62.5      | 17  |     | 25/100    | 27  | 24R                                   |
| 111.700   | 054X   | Viet Nam          | VTN  | TAN SON NHAT         | 10D48'49" N | 106D38'36 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 15Mar13                            |
| 111.800   | 055X   | China             | CHN  | CHAAN                | 32D04'00" N | 116D46' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 111.800   | 055X   | China             | CHN  | ZUNYI                | 27D46'00" N | 107D14' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 111.800   | 055X   | India             | IND  | Purnea, Bihar-       | 25D45'45" N | 087D23'45 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                       |
| 111.800   | 055X   | Japan             | J    | KANSAI               | 34D26'00" N | 135D15'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 111.800   | 055X   | Thailand          | THA  | PHRAE                | 18D08'02" N | 100D09'58 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                                  |
| 111.900   | n/a    | Australia         | AUS  | PEARCE               | 31D39'37" S | 116D00'48 E | ILS      | N    | 25/62.5      | 17  |     | n/a       | n/a | Coordinates Updated.                  |
| 111.900   | 056X   | Australia         | AUS  | RICHMOND             | 33D36'02" S | 150D46'01 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/100    | 27  | Runway 28 TRD - 107D                  |
| 111.900   | 056X   | China             | CHN  | BEIJING DAXING       | 39D28'00" N | 116D23' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | 056X   | China             | CHN  | BEIJING DAXING       | 39D31'00" N | 116D23' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | 056X   | China             | CHN  | FUZHOU CHANGLE       | 25D54'00" N | 119D40' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | 056X   | China             | CHN  | GUANGZHOU BAIYUN     | 23D22'00" N | 113D18' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | 056X   | China             | CHN  | LONGNAN CHENGXIAN    | 33D47'00" N | 105D48' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | 056X   | China             | CHN  | QINGDAOXINJICHANG    | 36D20'00" N | 120D06' E   | ILS/DME  | ICA  | 25/62.5      | 20  |     | 25/62.5   | 20  |                                       |
| 111.900   | n/a    | China             | CHN  | SHANGHAI PUDONG      | 31D09'00" N | 121D47' E   | ILS      | ICA  | 25/62.5      | 20  |     | n/a       | n/a |                                       |
| 111.900   | 056X   | Fiji              | FJI  | NADI                 | 17D46'12" S | 177D25'47 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Jan18                            |
| 111.900   | 056X   | Indonesia         | INS  | MADIUN ISWAHYUDI     | 07D37'56" S | 111D26'04 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-17                                |
| 111.900   | 056X   | Indonesia         | INS  | PANGKALAN BUN        | 02D42'17" S | 111D40'08 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | RWY-13                                |
| 111.900   | 056X   | Japan             | J    | AOMORI               | 40D43'00" N | 140D40'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | DME56 AT GP                           |
| 111.900   | 056X   | Japan             | J    | CHUBU CENTRAIR       | 34D53'00" N | 136D48'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Dec13                            |
| 111.900   | 056X   | Japan             | J    | NARITA INTL AP       | 35D47'00" N | 140D22'00 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | 24Dec13                               |
| 111.900   | 056X   | Malaysia          | MLA  | NEW KUALA LUMPUR     | 02D42'54" N | 101D42'57 E | ILS/DME  | N    | 25/62.5      | 17  |     | 25/62.5   | 27  | 32 L                                  |
| 111.900   | 056X   | Pakistan          | PAK  | Turbat IA            | 25D58'56" N | 063D00'42 E | ILS/DME  | NAT  | 25/62.5      | 17  |     | 25/100    | 27  | Naval Air Station PNS Siddiqui Turbat |
| 111.900   | 056X   | Republic of Korea | KOR  | DAEGU INT            | 35D54'11" N | 128D38'37 E | ILS/DME  | I    | 25/62.5      | 17  |     | 80/100    | 27  | FI 31R DME LLZ                        |
| 111.900   | 056X   | Republic of Korea | KOR  | INCHEON INTL         | 37D27'15" N | 126D28'00 E | ILS/DME  | I    | 25/62.5      | 17  |     | 15/100    | 27  | 15L DME 56 AT LOC                     |
| 111.900   | 056X   | Republic of Korea | KOR  | MUAN                 | 35D00'23" N | 126D22'57 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 26Dec13                            |
| 111.900   | 056X   | Viet Nam          | VTN  | CAM RANH             | 12D00'50" N | 109D14'29 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 20Jun17                            |
| 111.900   | 056X   | Viet Nam          | VTN  | HA NOI NOI BAI       | 21D12'52" N | 105D49'23 E | ILS/DME  | N    | 25/62.5      | 17  |     | 80/100    | 27  | FI 8Jan15                             |
| 112.000   | 057X   | Afghanistan       | AFG  | KABUL                | 34D31'00" N | 069D09'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                       |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                | Ctry | Location                | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                            |
|-----------|--------|------------------------|------|-------------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------------------------|
|           |        |                        |      |                         |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                    |
| 112.000   | 057X   | Australia              | AUS  | PARKES                  | 33D07'53" S | 148D14'14 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.               |
| 112.000   | 057X   | Brunei Darussalam      | BRU  | BRUNEI                  | 04D55'00" N | 114D54'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 112.000   | 057X   | China                  | CHN  | GUANLAN                 | 22D42'00" N | 114D02' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.000   | 057X   | China                  | CHN  | HUAYUAN                 | 28D34'00" N | 109D27' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.000   | 057X   | China                  | CHN  | NANJING LUKOU           | 31D44'00" N | 118D51' E   | VOR/DME  | NAT  | 100/250      | 30  |     | 100/250   | 30  | DVOR                               |
| 112.000   | 057X   | China                  | CHN  | YINCHUAN                | 38D20'00" N | 106D24' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.000   | n/a    | Hawaii (United States) | HWA  | No frequency registered | 18D55'00" N | 154D48'00 W | VDL 4    | ICA  | 200/450      | 17  |     | n/a       | n/a | o registered frequency             |
| 112.000   | 057X   | India                  | IND  | AGRA                    | 27D09'03" N | 077D56'51 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                               |
| 112.000   | 057X   | India                  | IND  | SHIRDI                  | 19D41'17" N | 074D23'47 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 21Jun17; DVOR                   |
| 112.000   | 057X   | India                  | IND  | SULUR                   | 11D00'47" N | 077D09'45 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 7Feb18; DVOR                    |
| 112.000   | n/a    | Japan                  | J    | KADENA                  | 26D21'00" N | 127D46'00 E | VOR      | N    | 300/450      | 29  |     | n/a       | n/a |                                    |
| 112.000   | 057X   | Japan                  | J    | KOMATSU                 | 36D24'00" N | 136D24'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 112.000   | 057X   | Myanmar                | BRM  | DAWEI                   | 14D06'00" N | 098D12'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 112.000   | n/a    | Palau                  | XXP  | No frequency assignment | 07D30'33" N | 134D37'00 E | VDL 4    | ICA  | 200/450      | 17  |     | n/a       | n/a | No registered frequency assignment |
| 112.050   | 057Y   | China                  | CHN  | FUSUI                   | 22D26'00" N | 107D49' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 112.050   | 057Y   | China                  | CHN  | HEZE                    | 35D11'00" N | 115D44' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.050   | 057Y   | China                  | CHN  | TIANSHAN                | 30D41'00" N | 115D07' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | AKESU                   | 41D15'00" N | 080D19' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | GANZHOU                 | 25D51'00" N | 114D48' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | MOHE                    | 52D54'00" N | 122D25' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.100   | 058X   | China                  | CHN  | PUER                    | 22D45'00" N | 100D57' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | QITAI                   | 43D59'00" N | 089D36' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | TAOLAI                  | 42D01'00" N | 100D58' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.100   | 058X   | China                  | CHN  | TIANJIN                 | 39D06'00" N | 117D21' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.100   | 058X   | China                  | CHN  | WANGQING                | 43D17'00" N | 129D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.100   | 058X   | China                  | CHN  | ZIYANG                  | 29D56'00" N | 104D44' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 112.100   | 058X   | India                  | IND  | BELGAUM                 | 15D51'22" N | 074D37'01 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 112.100   | 058X   | India                  | IND  | Carnicobar              | 09D08'49" N | 092D49'09 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                    |
| 112.100   | 058X   | India                  | IND  | JORHAT                  | 26D42'07" N | 094D08'55 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                               |
| 112.100   | 058X   | India                  | IND  | PATNA                   | 25D35'26" N | 085D05'24 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 112.100   | 058X   | Indonesia              | INS  | BANJARMASIN             | 03D26'39" S | 114D42'36 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 112.100   | 058X   | Indonesia              | INS  | PEKANBARU SULT.         | 02D25'32" N | 101D26'29 E | VOR/DME  | I    | 300/450      | 27  |     | 300/450   | 37  | DVOR                               |
| 112.100   | 058X   | Japan                  | J    | OITA                    | 33D13'00" N | 131D42'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 112.100   | 058X   | New Zealand            | NZL  | ROTORUA                 | 38D06'29" S | 176D18'50 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 112.100   | 058X   | Pakistan               | PAK  | ISLAMABAD CHAKLALA      | 33D36'00" N | 073D07'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 112.100   | 058X   | Pakistan               | PAK  | KARACHI INTL.           | 24D55'00" N | 067D11'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 112.100   | 058X   | Philippines            | PHL  | DAVAO                   | 07D07'52" N | 125D39'14 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 112.100   | 058X   | Philippines            | PHL  | TUGUEGARAO              | 17D38'00" N | 121D44'11 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 112.100   | 058X   | Viet Nam               | VTN  | BUON-MA-THUOT           | 12D40'00" N | 108D06'09 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 1Q01; DVOR                         |
| 112.150   | 058Y   | China                  | CHN  | WUSHAN                  | 31D04'00" N | 109D42' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.200   | 059X   | China                  | CHN  | LEDU                    | 36D36'00" N | 102D29' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 112.200   | 059X   | China                  | CHN  | LONGZHOU                | 22D21'00" N | 106D52' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 112.200   | 059X   | China                  | CHN  | TIANHE                  | 30D46'00" N | 114D12' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                 | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                           |
|-----------|--------|-------------------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------------------|
|           |        |                         |      |                      |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                   |
| 112.200   | 059X   | Fiji                    | FJI  | SUVA NAUSOR1         | 18D02'00" S | 178D33'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 112.200   | 059X   | India                   | IND  | Hashimara            | 26D42'00" N | 089D22'18 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 112.200   | 059X   | India                   | IND  | INS Kohassa-Shibpur  | 13D14'06" N | 093D02'56 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 112.200   | 059X   | India                   | IND  | INS Parundu, Ramnad  | 09D19'36" N | 078D58'13 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 112.200   | 059X   | India                   | IND  | SURAT                | 21D06'35" N | 072D44'28 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 29Aug06                           |
| 112.200   | 059X   | Indonesia               | INS  | KERINCI DEPATI PARBO | 02D06'57" S | 101D23'29 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | OFF,; DVOR                        |
| 112.200   | 059X   | Indonesia               | INS  | KUPANG ELTARI        | 10D09'59" S | 123D41'30 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 112.200   | 059X   | Indonesia               | INS  | MEDAN BARU           | 03D37'02" N | 098D51'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                              |
| 112.200   | 059X   | Japan                   | J    | TOKYO INTL.          | 35D34'00" N | 139D46'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR                  |
| 112.200   | 059X   | Lao People's Democratic | LAO  | LUANG NAMTHA         | 20D58'29" N | 101D24'10 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 17May2016; DVOR                   |
| 112.200   | 059X   | Malaysia                | MLA  | SIBU                 | 02D14'49" N | 112D00'12 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Jun05; DVOR                       |
| 112.200   | 059X   | Philippines             | PHL  | LEGASPI              | 13D09'01" N | 123D43'41 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                              |
| 112.200   | 059X   | Republic of Korea       | KOR  | INCHEON ACC          | 35D48'35" N | 128D35'27 E | VOR/TAC  | N    | 100/450      | 23  |     | 100/450   | 27  | FI 26Dec13; DVOR                  |
| 112.250   | 059Y   | China                   | CHN  | JIANGJINBAISHA       | 29D03'00" N | 106D04' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                   |
| 112.250   | 059Y   | India                   | IND  | REWA                 | 24D30'14" N | 081D13'43 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 112.250   | 059Y   | Japan                   | J    | YORON                | 27D03'00" N | 128D24'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 112.300   | 070X   | Australia               | AUS  | GOLD COAST           | 28D10'08" S | 153D30'15 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Name Change - Coordinates Updated |
| 112.300   | n/a    | Australia               | AUS  | TINDAL               | 14D31'09" S | 132D22'16 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a | Coordinates Updated.              |
| 112.300   | 070X   | Bhutan                  | BTN  | BUMTHANG             | 27D33'59" N | 090D44'36 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 6July17; DVOR                  |
| 112.300   | 070X   | China                   | CHN  | CHENGDE              | 41D07'00" N | 118D02' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                   |
| 112.300   | 070X   | China                   | CHN  | DALIAN ZHOUSHUIZI    | 38D57'00" N | 121D31' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                              |
| 112.300   | 070X   | China                   | CHN  | GEERMU               | 36D23'00" N | 094D44' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 112.300   | 070X   | China                   | CHN  | HUTUBI               | 44D15'00" N | 086D54' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                   |
| 112.300   | 070X   | China                   | CHN  | LONGZI               | 28D25'00" N | 092D13' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                   |
| 112.300   | 070X   | China                   | CHN  | YICHUN               | 47D45'00" N | 129D01' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 112.300   | 070X   | China                   | CHN  | YUNCHENG             | 35D07'00" N | 111D02' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 112.300   | 070X   | China                   | CHN  | YUTIAN               | 36D48'00" N | 081D45' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                   |
| 112.300   | 070X   | China                   | CHN  | ZHOUSHAN             | 29D55'00" N | 122D21' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR                         |
| 112.300   | 070X   | China                   | CHN  | ZUOXI                | 24D32'00" N | 103D44' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 112.300   | 070X   | China - Hong Kong       | HKG  | HONGKONG CHEUNG      | 22D13'10" N | 114D01'48 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 112.300   | 070X   | French Polynesia        | OCA  | RANGIROA             | 14D57'04" S | 147D40'24 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | next DME Ch. 70X                  |
| 112.300   | 070X   | India                   | IND  | INS Rajali           | 13D04'23" N | 079D41'24 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 112.300   | 070X   | India                   | IND  | SIRSA                | 29D33'36" N | 075D00'28 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI ; DVOR                         |
| 112.300   | 070X   | Japan                   | J    | HAKODATE             | 41D46'00" N | 140D50'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 112.300   | 070X   | Japan                   | J    | SHINODA              | 34D30'00" N | 135D27'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 112.300   | 070X   | Malaysia                | MLA  | KOTA BAHRU           | 06D09'49" N | 102D18'51 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                   |
| 112.300   | 070X   | Myanmar                 | BRM  | YANGON HLEGU         | 17D05'00" N | 096D15'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 112.300   | 070X   | New Zealand             | NZL  | WELLINGTON           | 41D20'14" S | 174D49'02 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 112.300   | 070X   | Viet Nam                | VTN  | LIEN KHUONG          | 11D45'30" N | 108D21'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 19Jun2007; DVOR                   |
| 112.400   | n/a    | Afghanistan             | AFG  | BAGRAM               | 34D56'45" N | 069D15'53 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | 23Aug2011                         |
| 112.400   | 071X   | Australia               | AUS  | CHRISTMAS ISLAND     | 10D25'49" S | 105D41'21 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated               |
| 112.400   | 071X   | Australia               | AUS  | LEARMONTH            | 22D14'05" S | 114D05'39 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 112.400   | 071X   | Australia               | AUS  | NORFOLK ISLAND       | 29D02'50" S | 167D55'56 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location             | Latitude    | Longitude   | Facility  | Cat. | LOC/VOR/GBAS |     |  | TRD | DME/TACAN |     |  | Remarks              |
|-----------|--------|-------------------|------|----------------------|-------------|-------------|-----------|------|--------------|-----|--|-----|-----------|-----|--|----------------------|
|           |        |                   |      |                      |             |             |           |      | DOC          | PWR |  |     | DOC       | PWR |  |                      |
| 112.400   | 071X   | China             | CHN  | HUOLINGUOLE          | 45D28'00" N | 119D30'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.400   | 071X   | China             | CHN  | KANGDING             | 30D08'00" N | 101D44'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.400   | 071X   | China             | CHN  | NANNING              | 22D35'00" N | 108D08'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.400   | 071X   | China             | CHN  | WUZHONG              | 37D55'00" N | 106D20'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.400   | 071X   | China             | CHN  | ZUOLING              | 27D38'00" N | 113D30'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.400   | 071X   | India             | IND  | PORBANDAR            | 21D39'05" N | 069D39'39 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 21Mar08; DVOR        |
| 112.400   | 071X   | India             | IND  | RAJAMUNDHRY          | 17D06'31" N | 081D48'59 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 21Mar08; DVOR        |
| 112.400   | 071X   | India             | IND  | SIKANDRABAD          | 28D23'36" N | 077D42'29 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.400   | 071X   | Japan             | J    | MIYAZAKI             | 31D53'00" N | 131D26'00 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.400   | 071X   | Malaysia          | MLA  | MIRI                 | 04D20'00" N | 113D59'00 E | VOR/DME   | N    | 300/450      | 29  |  |     | 300/450   | 40  |  |                      |
| 112.400   | 071X   | Viet Nam          | VTN  | CHU LAI              | 15D24'22" N | 108D42'21 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 14Apr05; DVOR        |
| 112.500   | 072X   | American Samoa    | SMA  | PAGO PAGO            | 14D20'00" S | 170D42'00 W | VOR/DME   | I    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.500   | 072X   | China             | CHN  | ASHILI               | 43D31'00" N | 087D00'     | E VOR/DME | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  |                      |
| 112.500   | 072X   | China             | CHN  | BADANJILIN           | 39D12'00" N | 101D34'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.500   | 072X   | China             | CHN  | BIJIE                | 27D15'00" N | 105D27'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.500   | 072X   | China             | CHN  | ERLIANHAOTE          | 43D24'00" N | 112D07'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | GAMA                 | 29D25'00" N | 094D27'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | HAERBIN              | 45D37'00" N | 126D15'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | SANYA                | 18D18'00" N | 109D10'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | SHANGXIAN            | 33D52'00" N | 109D56'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | YANTAILAISHANJICHANG | 37D22'00" N | 121D21'     | E VOR/DME | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | YEERQIANG            | 38D13'00" N | 077D04'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.500   | 072X   | China             | CHN  | YUANTAN              | 23D40'00" N | 113D14'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.500   | 072X   | China             | CHN  | ZHONGGU              | 31D12'00" N | 121D11'     | E VOR/DME | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 112.500   | 072X   | China             | CHN  | ZUOZUOBA             | 21D51'00" N | 100D56'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.500   | 072X   | Fiji              | FJI  | NADI                 | 17D39'00" S | 177D23'00 E | VOR/DME   | I    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.500   | 072X   | India             | IND  | CHENNAI              | 12D59'36" N | 080D10'15 E | VOR/DME   | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.500   | 072X   | India             | IND  | KOLKATA              | 22D38'43" N | 088D27'10 E | VOR/DME   | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.500   | 072X   | India             | IND  | MOGA                 | 30D47'47" N | 075D07'51 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 23/7/02; DVOR        |
| 112.500   | 072X   | Indonesia         | INS  | BIAK FRANSKAISEPO    | 01D10'57" S | 136D05'08 E | VOR/DME   | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 112.500   | 072X   | Indonesia         | INS  | NATUNA RANAI         | 03D54'39" N | 108D23'04 E | VOR/DME   | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 112.500   | 072X   | Japan             | J    | KUSHIRO              | 43D02'00" N | 144D12'00 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.500   | 072X   | Japan             | J    | TATEYAMA             | 34D57'00" N | 139D54'00 E | VOR/DME   | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.500   | 072X   | Malaysia          | MLA  | SULTAN ISMAIL        | 01D39'50" N | 103D39'39 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 7Dec11; DVOR         |
| 112.500   | 072X   | New Zealand       | NZL  | MOUNT MARY           | 44D08'06" S | 170D16'50 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.500   | 072X   | Philippines       | PHL  | BUTUAN               | 08D57'19" N | 125D29'11 E | VOR/DME   | N    | 40/100       | 17  |  |     | 40/100    | 27  |  |                      |
| 112.500   | 072X   | Republic of Korea | KOR  | INCHEON ACC          | 35D58'37" N | 129D28'28 E | VOR/TAC   | N    | 100/450      | 23  |  |     | 100/450   | 27  |  | FI 26Dec13; DVOR     |
| 112.500   | 072X   | Thailand          | THA  | RAYONG               | 12D46'28" N | 101D40'10 E | VOR/DME   | N    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.600   | 073X   | Australia         | AUS  | DARWIN               | 12D25'24" S | 130D54'23 E | VOR/DME   | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated  |
| 112.600   | 073X   | Australia         | AUS  | LAUNCESTON           | 41D32'38" S | 147D12'48 E | VOR/DME   | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated. |
| 112.600   | 073X   | China             | CHN  | DALI                 | 25D38'00" N | 100D19'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.600   | 073X   | China             | CHN  | GUYUAN               | 36D04'00" N | 106D12'     | E VOR/DME | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.600   | 073X   | China             | CHN  | SHANTOU              | 23D26'00" N | 116D46'     | E VOR/DME | NAT  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |



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| Frequency | DME ch | Country         | Ctry | Location              | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     |  | TRD | DME/TACAN |     |  | Remarks              |
|-----------|--------|-----------------|------|-----------------------|-------------|-------------|----------|------|--------------|-----|--|-----|-----------|-----|--|----------------------|
|           |        |                 |      |                       |             |             |          |      | DOC          | PWR |  |     | DOC       | PWR |  |                      |
| 112.600   | 073X   | China           | CHN  | TONGSHAN              | 34D05'00" N | 117D11' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.600   | 073X   | India           | IND  | BHUJ                  | 23D16'15" N | 069D40'13 E | VOR/DME  | N    | 150/450      | 27  |  |     | 150/450   | 37  |  | DVOR                 |
| 112.600   | 073X   | India           | IND  | DEHRADUN              | 30D11'24" N | 078D10'54 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | FI 10Apr03; DVOR     |
| 112.600   | 073X   | India           | IND  | INS Baaz-Campell bay  | 07D00'50" N | 093D55'33 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 112.600   | 073X   | India           | IND  | JHARSUGUDA            | 21D54'53" N | 084D03'35 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | FI 21Jun17; DVOR     |
| 112.600   | 073X   | India           | IND  | KANNUR                | 11D55'12" N | 075D32'53 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 25May15; DVOR        |
| 112.600   | 073X   | Indonesia       | INS  | LABUAN BAJO KOMODO    | 08D28'54" S | 119D53'05 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 112.600   | 073X   | Indonesia       | INS  | TERNATE SULTAN        | 00D50'27" N | 127D22'29 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 112.600   | 073X   | Japan           | J    | MIYAZU                | 35D29'00" N | 135D08'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.600   | 073X   | Malaysia        | MLA  | BINTULU (NEW)         | 03D09'00" N | 113D01'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.600   | 073X   | Malaysia        | MLA  | KUALA TERENGGANU      | 04D58'48" N | 102D08'52 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.600   | 073X   | Myanmar         | BRM  | BAGO                  | 17D19'00" N | 096D31'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.600   | 073X   | Solomon Islands | SLM  | HONIARA               | 09D25'00" S | 160D01'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.600   | 073X   | Viet Nam        | VTN  | Phan Thiet airport    | 10D59'57" N | 108D13'38 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 112.700   | 074X   | Australia       | AUS  | HOBART                | 42D49'58" S | 147D30'38 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated. |
| 112.700   | 074X   | Australia       | AUS  | MACKAY                | 21D10'23" S | 149D11'14 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated. |
| 112.700   | 074X   | Bangladesh      | BGD  | DHAKA ZIA INTL        | 23D49'00" N | 090D25'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.700   | 074X   | China           | CHN  | CHAIWOBAO             | 43D32'00" N | 087D56' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | DAWANGZHUANG          | 39D11'00" N | 116D34' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.700   | 074X   | China           | CHN  | DONGMULANTOU          | 20D09'00" N | 110D40' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | EJINAQI               | 41D59'00" N | 101D02' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | FUYUAN                | 48D10'00" N | 134D20' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | SHUYUAN               | 30D55'00" N | 121D52' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | TUMUSHUKE             | 39D52'00" N | 079D13' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | XIANGTANG             | 28D25'00" N | 115D55' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.700   | 074X   | China           | CHN  | YUSHU                 | 32D50'00" N | 097D00' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.700   | 074X   | China           | CHN  | ZHALANTUN             | 47D53'00" N | 122D46' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 112.700   | 074X   | China           | CHN  | ZUOJIANG              | 29D03'00" N | 106D39' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.700   | 074X   | India           | IND  | GONDIA                | 21D31'25" S | 080D17'20 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 4Jan08; DVOR         |
| 112.700   | 074X   | India           | IND  | NAGPUR                | 21D04'53" N | 079D03'22 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.700   | 074X   | Indonesia       | INS  | TIMIKA MOZES KILANGIN | 04D31'55" S | 136D53'12 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 112.700   | 074X   | Japan           | J    | NARITA                | 35D47'00" N | 140D16'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | FI 24Dec13 ; DVOR    |
| 112.700   | 074X   | Japan           | J    | SAKURA                | 35D47'00" N | 140D16'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 112.700   | 074X   | Malaysia        | MLA  | JOHOR BAHRU           | 01D43'48" N | 103D37'18 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 112.700   | 074X   | New Zealand     | NZL  | DUNEDIN               | 45D47'40" S | 170D28'38 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 112.700   | 074X   | Pakistan        | PAK  | JIWANI                | 25D04'00" N | 061D47'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DME NAT              |
| 112.700   | 074X   | Pakistan        | PAK  | LAHORE                | 31D30'00" N | 074D24'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  |                      |
| 112.700   | 074X   | Philippines     | PHL  | CABANATUAN            | 15D28'03" N | 120D58'28 E | VOR/DME  | I    | 150/450      | 27  |  |     | 150/450   | 37  |  |                      |
| 112.700   | 074X   | Thailand        | THA  | UBON RATCHATHANI      | 15D14'42" N | 104D52'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DME NAT; DVOR        |
| 112.800   | 075X   | Australia       | AUS  | WEIPA                 | 12D40'25" S | 141D55'21 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated. |
| 112.800   | 075X   | China           | CHN  | LIBO                  | 25D27'00" N | 107D57' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.800   | 075X   | China           | CHN  | LINYI                 | 35D03'00" N | 118D24' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 112.800   | 075X   | China           | CHN  | TIANSHUI              | 34D33'00" N | 105D49' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |



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| Frequency | DME ch | Country                 | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                         |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 112.800   | 075X   | India                   | IND  | BELLARY             | 15D09'55" N | 076D52'50 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 112.800   | 075X   | India                   | IND  | Gwalior             | 26D17'07" N | 078D13'06 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                      |
| 112.800   | 075X   | Indonesia               | INS  | POSO KASIGUNCU      | 01D24'29" S | 120D39'38 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 112.800   | 075X   | Indonesia               | INS  | YOGYAKARTA ADI      | 07D48'01" S | 110D18'34 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 112.800   | 075X   | Japan                   | J    | HANAMAKI            | 39D26'00" N | 141D09'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.800   | 075X   | Japan                   | J    | KUMAMOTO            | 32D50'00" N | 130D50'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR     |
| 112.800   | 075X   | Kiribati                | KIR  | TARAWA              | 01D22'59" S | 173D08'46 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.800   | 075X   | Lao People's Democratic | LAO  | ATTAPUE             | 14D48'01" N | 107D01'12 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 16Jun14; DVOR        |
| 112.800   | n/a    | Malaysia                | MLA  | IPOH                | 04D28'54" N | 101D01'00 E | VOR      | N    | 150/450      | 27  |     | n/a       | n/a | DVOR                 |
| 112.800   | 075X   | Malaysia                | MLA  | MULU (NEW)          | 04D01'59" N | 114D47'43 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.800   | 075X   | Myanmar                 | BRM  | MANDALAY            | 21D56'00" N | 096D08'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 112.800   | 075X   | Republic of Korea       | KOR  | GUNSAN              | 35D53'00" N | 126D36'41 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 112.900   | 076X   | Antarctica              | ATA  | TERRE ADELIE        | 66D40'00" S | 140D00'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FRANCE               |
| 112.900   | 076X   | Australia               | AUS  | MEEKATHARRA         | 26D36'25" S | 118D31'57 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 112.900   | 076X   | Australia               | AUS  | Oakey               | 27D23'59" S | 151D44'16 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 112.900   | 076X   | Australia               | AUS  | TENNANT CREEK       | 19D38'05" S | 134D10'55 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 112.900   | 076X   | China                   | CHN  | FUYANG              | 32D52'00" N | 115D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 112.900   | 076X   | China                   | CHN  | HENGYANG            | 26D42'00" N | 112D35' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | China                   | CHN  | HUATUGOU            | 38D10'00" N | 090D51' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | China                   | CHN  | KUNMINGWUJIABAJICHA | 25D00'00" N | 102D44' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                 |
| 112.900   | 076X   | China                   | CHN  | QINHUANGDAO         | 39D40'00" N | 119D05' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | China                   | CHN  | QIQIHAER            | 47D14'00" N | 123D55' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 112.900   | 076X   | China                   | CHN  | TAXIANNAN           | 37D32'00" N | 075D21' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | China                   | CHN  | WULIANGYE           | 28D50'00" N | 104D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | China                   | CHN  | YINCHUAN HEDONG     | 38D19'00" N | 106D23' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                 |
| 112.900   | 076X   | China                   | CHN  | YINING              | 43D57'00" N | 081D19' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 112.900   | 076X   | French Polynesia        | OCA  | TAHITI FAAA         | 17D32'54" S | 149D36'04 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 112.900   | 076X   | India                   | IND  | COIMBATORE          | 11D01'55" N | 077D02'56 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                 |
| 112.900   | 076X   | India                   | IND  | JAIPUR              | 26D49'31" N | 075D48'01 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.900   | 076X   | Indonesia               | INS  | KOTA BARU GUSTI     | 03D17'47" S | 116D09'47 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 112.900   | 076X   | Japan                   | J    | KUSHIMOTO           | 33D27'00" N | 135D48'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.900   | 076X   | Japan                   | J    | MONBETSU            | 44D18'00" N | 143D24'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 112.900   | 076X   | Malaysia                | MLA  | KUALA TERENGGANU    | 05D21'38" N | 103D04'54 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 21June07; DVOR       |
| 112.900   | 076X   | Nepal                   | NPL  | SIMRA               | 27D10'00" N | 084D59'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                 |
| 112.900   | 076X   | New Caledonia           | NCL  | NOUMEA TONTOUTA     | 22D00'00" S | 166D12'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 112.900   | 076X   | Pakistan                | PAK  | NAWABSHAH           | 26D13'00" N | 068D23'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                      |
| 112.900   | 076X   | Philippines             | PHL  | LAOAG               | 18D10'44" N | 120D31'45 E | VOR/DME  | I    | 90/450       | 20  |     | 90/450    | 27  |                      |
| 112.900   | 076X   | Philippines             | PHL  | ROXAS               | 11D35'49" N | 122D45'18 E | VOR/DME  | N    | 100/450      | 23  |     | 100/450   | 27  |                      |
| 112.900   | 076X   | Republic of Korea       | KOR  | INCHEON INTL        | 37D25'58" N | 126D27'00 E | VOR/DME  | I    | 25/100       | 17  |     | 25/100    | 27  | T-VOR/DME            |
| 112.900   | 076X   | Thailand                | THA  | CHUMPAE             | 16D39'00" N | 101D55'00 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                 |
| 113.000   | 077X   | Australia               | AUS  | CAIRNS              | 16D51'00" S | 145D44'38 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated  |
| 113.000   | 077X   | Australia               | AUS  | CARNARVON           | 24D52'55" S | 113D40'23 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | Details Updated.     |
| 113.000   | n/a    | Bangladesh              | BGD  | JESSORE             | 23D11'00" N | 089D09'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                      |



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| Frequency | DME ch | Country           | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                            |
|-----------|--------|-------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------------------------|
|           |        |                   |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                    |
| 113.000   | 077X   | China             | CHN  | CONGHUA             | 23D10'00" N | 113D15'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 113.000   | 077X   | China             | CHN  | CONGHUA             | 23D35'00" N | 113D35' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.000   | 077X   | China             | CHN  | HANGZHOU            | 30D14'00" N | 120D27' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.000   | 077X   | China             | CHN  | YIJUN               | 35D23'00" N | 109D06'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 113.000   | 077X   | India             | IND  | NANDED              | 19D10'55" N | 077D19'08 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Jun08; DVOR                      |
| 113.000   | 077X   | India             | IND  | PATHANKOT           | 32D14'46" N | 075D38'20 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 21Mar08; DVOR                      |
| 113.000   | 077X   | Japan             | J    | YAMAGATA            | 38D23'00" N | 140D21'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 113.000   | 077X   | Nauru             | NRU  | NAURU               | 00D32'00" S | 116D55'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 113.000   | 077X   | New Caledonia     | NCL  | NOUMEA UERE         | 22D19'00" S | 166D28'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 113.000   | 077X   | New Zealand       | NZL  | OHURA               | 38D49'36" S | 174D48'24 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 113.000   | 077X   | Philippines       | PHL  | KALIBO              | 11D41'03" N | 122D22'56 E | VOR/DME  | N    | 100/450      | 23  |     | 100/450   | 27  | DVOR                               |
| 113.000   | 077X   | Republic of Korea | KOR  | SEOUL SINCHONRI     | 37D26'00" N | 127D07'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | T-VOR/DME                          |
| 113.000   | 077X   | Wallis Island     | WAL  | WALLIS HIHIFO       | 13D14'00" S | 176D12'00 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 113.100   | 078X   | China             | CHN  | GUOLUO              | 34D20'00" N | 100D28' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 113.100   | 078X   | China             | CHN  | HETIAN              | 37D02'00" N | 079D52' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | n/a    | China             | CHN  | HOTAN               | 37D02'00" N | 079D52'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a | HETIAN                             |
| 113.100   | 078X   | China             | CHN  | JINZHOUWAN          | 40D54'00" N | 121D15' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 113.100   | 078X   | China             | CHN  | LASA                | 29D17'00" N | 090D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | China             | CHN  | MANZHOULI           | 49D19'00" N | 117D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | China             | CHN  | QIANXI              | 27D02'00" N | 106D01' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | China             | CHN  | TACHENG             | 46D39'00" N | 083D22' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | China             | CHN  | TAIYUAN             | 37D44'00" N | 112D37' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DME NAT; DVOR                      |
| 113.100   | 078X   | China             | CHN  | TAOJIAGONG          | 42D50'00" N | 093D40' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | China             | CHN  | YANGZHOU            | 32D32'00" N | 119D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 113.100   | 078X   | China             | CHN  | YANJI               | 42D53'00" N | 129D27' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.100   | 078X   | India             | IND  | AHMADABAD           | 23D04'20" N | 072D37'30 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 113.100   | 078X   | India             | IND  | LUCKNOW             | 26D45'44" N | 080D52'50 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 113.100   | 078X   | India             | IND  | TIRUCHIRAPALLI      | 10D45'45" N | 078D42'48 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 113.100   | 078X   | Indonesia         | INS  | WAIKABUBAK          | 09D24'31" S | 120D14'53 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                               |
| 113.100   | 078X   | Japan             | J    | ERABU               | 27D26'00" N | 128D42'00 E | VOR/TAC  | I    | 100/450      | 23  |     | 100/450   | 27  | Frequency/ChannelOK? 20Dec13; DVOR |
| 113.100   | 078X   | Japan             | J    | OSHIMA              | 34D43'00" N | 139D25'00 E | VOR/TAC  | N    | 100/450      | 23  |     | 100/450   | 27  | 26Dec13; DVOR                      |
| 113.100   | 078X   | Malaysia          | MLA  | KOTA KINABALU       | 05D54'00" N | 116D02'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 113.100   | n/a    | Pakistan          | PAK  | D.I.KHAN            | 31D54'00" N | 070D53'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                                    |
| 113.100   | 078X   | Philippines       | PHL  | CLARK INTL. AIRPORT | 15D11'00" N | 120D32'00 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                               |
| 113.100   | 078X   | Thailand          | THA  | Betong              | 05D47'08" N | 101D08'36 E | VOR/DME  | ICA  | 200/450      | 27  |     | 200/450   | 37  | 15Feb19; PLI                       |
| 113.100   | 078X   | Viet Nam          | VTN  | VINH                | 18D43'08" N | 105D40'06 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI ; DVOR                          |
| 113.200   | 079X   | Australia         | AUS  | BRISBANE            | 27D21'58" S | 153D08'21 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated                |
| 113.200   | n/a    | Australia         | AUS  | MANGALORE           | 36D53'09" S | 145D11'39 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                                    |
| 113.200   | 079X   | China             | CHN  | FENGHUO             | 34D33'00" N | 108D37' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                               |
| 113.200   | 079X   | China             | CHN  | PANZHIHUA           | 26D31'00" N | 101D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.200   | 079X   | China             | CHN  | TANGSHAN            | 39D42'00" N | 118D00' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 113.200   | 079X   | China             | CHN  | YIWU                | 29D19'00" N | 120D01' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR                          |
| 113.200   | 079X   | China - Hong Kong | HKG  | LUNG KWU CHAU       | 22D22'44" N | 113D53'01 E | VOR/DME  | I    | 70/450       | 20  |     | 70/450    | 27  | DVOR                               |



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|-----------|--------|-------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |                   |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| 113.200   | 079X   | India             | IND  | Bidar             | 17D54'29" N | 077D29'00 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                     |
| 113.200   | 079X   | India             | IND  | KISHANGARH        | 26D35'07" N | 074D48'32 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 22Mar17; DVOR    |
| 113.200   | 079X   | India             | IND  | Naliya            | 23D13'21" N | 068D53'29 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                     |
| 113.200   | 079X   | Indonesia         | INS  | PONTIANAK SUPADIO | 00D04'44" S | 109D22'29 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 113.200   | 079X   | Japan             | J    | IKI               | 33D45'00" N | 129D47'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 113.200   | 079X   | Nepal             | NPL  | KATHMANDU         | 27D40'00" N | 085D21'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | 16Oct09; DVOR       |
| 113.200   | 079X   | Viet Nam          | VTN  | CAN THO           | 10D05'00" N | 105D42'34 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 7Jul08; DVOR        |
| 113.300   | 080X   | China             | CHN  | BANGDA            | 30D31'00" N | 097D08' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | CHANGBAISHAN      | 42D05'00" N | 127D36' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                     |
| 113.300   | 080X   | China             | CHN  | CHANGSHA HUANGHUA | 28D12'00" N | 113D12' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | HUAIAN            | 33D46'00" N | 119D06' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | KELAMAYI          | 45D28'00" N | 084D55' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | LANCANG           | 22D23'00" N | 099D50' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                     |
| 113.300   | 080X   | China             | CHN  | NANYINGBINDAO     | 20D00'00" N | 110D08' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | SHACHE            | 38D25'00" N | 077D14' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | China             | CHN  | TUMUERTAI         | 41D50'00" N | 113D09' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.300   | 080X   | India             | IND  | ALLAHABAD         | 25D26'58" N | 081D43'46 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 21Mar08; DVOR       |
| 113.300   | 080X   | India             | IND  | DAMAN             | 20D26'19" N | 072D51'17 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Operated by Coast G |
| 113.300   | 080X   | India             | IND  | JAMMU             | 32D40'35" N | 074D50'11 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 113.300   | 080X   | India             | IND  | Tambaram          | 12D54'16" N | 080D07'18 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | DVOR                |
| 113.300   | 080X   | Indonesia         | INS  | JAKARTA HALIM     | 06D16'19" S | 106D53'13 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                |
| 113.300   | 080X   | Indonesia         | INS  | P BINTANG OKSIBIL | 04D54'26" S | 140D37'48 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | OFF OFF; DVOR       |
| 113.300   | 080X   | Japan             | J    | HYAKURI           | 36D11'00" N | 140D25'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR       |
| 113.300   | 080X   | Japan             | J    | KAGOSHIMA         | 31D42'00" N | 130D35'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR       |
| 113.300   | 080X   | Malaysia          | MLA  | KERTEH            | 04D31'54" N | 103D25'48 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 8Feb13; DVOR        |
| 113.300   | 080X   | New Caledonia     | NCL  | LIFOU             | 20D46'27" S | 167D14'26 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 37DBW               |
| 113.300   | n/a    | Pakistan          | PAK  | BINDO             | 29D40'00" N | 071D01'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a |                     |
| 113.300   | 080X   | Philippines       | PHL  | CAGAYAN DE ORO    | 08D24'56" N | 124D36'29 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  |                     |
| 113.300   | 080X   | Thailand          | THA  | HUA HIN           | 12D38'00" N | 099D57'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 113.300   | 080X   | Tuvalu            | TUV  | FUNAFUTI          | 08D31'00" S | 179D12'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                     |
| 113.350   | n/a    | China - Hong Kong | HKG  | Chek Lap Kok      | 22D19'11" N | 113D52'39 E | GBAS     | NAT  | 30/450       | 17  |     | n/a       | n/a |                     |
| 113.400   | 081X   | Bangladesh        | BGD  | CHITTAGONG        | 22D15'00" N | 091D50'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                     |
| 113.400   | 081X   | China             | CHN  | CHENGHAI          | 26D39'00" N | 100D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                     |
| 113.400   | 081X   | China             | CHN  | DONGLIHU          | 39D09'00" N | 117D31' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                     |
| 113.400   | 081X   | China             | CHN  | HUANGPING         | 26D58'00" N | 107D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                     |
| 113.400   | 081X   | China             | CHN  | QINGYANG          | 35D47'00" N | 107D36' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.400   | 081X   | China             | CHN  | SONGYUAN          | 44D54'00" N | 124D31' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                     |
| 113.400   | 081X   | China             | CHN  | ZUOZHOU           | 29D35'00" N | 120D48' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                |
| 113.400   | 081X   | India             | IND  | Hindon            | 28D42'24" N | 077D21'38 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                     |
| 113.400   | 081X   | India             | IND  | HUBLI             | 15D21'39" N | 075D04'37 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 23Jun08             |
| 113.400   | 081X   | Indonesia         | INS  | BANDA ACEH        | 05D31'21" N | 095D25'22 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |
| 113.400   | 081X   | Indonesia         | INS  | SURABAYA JUANDA   | 02D43'38" S | 107D45'11 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                |
| 113.400   | 081X   | Japan             | J    | IZUMO             | 35D25'00" N | 132D54'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                |



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|-----------|--------|-------------------------|------|----------------------|------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-------------------|
|           |        |                         |      |                      |            |             |          |      | DOC          | PWR |     | DOC       | PWR |                   |
| 113.400   | 081X   | Malaysia                | MLA  | NEW LIMBANG          | 04D47'50"N | 115D00'08 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 3Jun02; DVOR      |
| 113.400   | n/a    | Maldives                | MLD  | GAN                  | 00D41'36"S | 073D09'20 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a | CVOR              |
| 113.400   | 081X   | New Zealand             | NZL  | PALMERSTON NORTH     | 40D19'13"S | 175D38'16 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 113.400   | 081X   | Thailand                | THA  | RANONG               | 09D46'43"N | 098D35'02 E | VOR/DME  | N    | 200/300      | 29  |     | 200/300   | 40  | DVOR              |
| 113.400   | 081X   | Timor-Leste             | TME  | DILI                 | 08D32'38"S | 125D31'40 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.400   | 081X   | Viet Nam                | VTN  | PLEIKU               | 14D00'37"N | 108D00'57 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 7Jul08; DVOR      |
| 113.450   | 081Y   | Japan                   | J    | AGUNI                | 32D29'00"N | 130D10'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR  |
| 113.450   | 081Y   | Japan                   | J    | AMAKUSA              | 32D29'00"N | 130D10'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR  |
| 113.450   | 081Y   | Japan                   | J    | FUKUSHIMA            | 37D13'00"N | 140D26'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.500   | 082X   | China                   | CHN  | GUANGHAN             | 30D57'00"N | 104D19' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR              |
| 113.500   | 082X   | China                   | CHN  | JIAMUSI              | 46D50'00"N | 130D27' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.500   | 082X   | China                   | CHN  | RIKAZE               | 29D21'00"N | 089D16' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.500   | 082X   | China                   | CHN  | RIZHAO               | 35D25'00"N | 119D17' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 113.500   | 082X   | China                   | CHN  | YINGDE               | 24D11'00"N | 113D24' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.500   | 082X   | China                   | CHN  | ZUOKOU               | 40D18'00"N | 106D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.500   | 082X   | Cook Islands            | CKH  | RAROTONGA            | 21D12'10"S | 159D48'46 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 113.500   | 082X   | India                   | IND  | BHUBANESHWAR         | 20D14'37"N | 085D48'48 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR              |
| 113.500   | 082X   | India                   | IND  | COCHIN INTL          | 10D08'58"N | 076D22'23 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.500   | 082X   | India                   | IND  | LUDHIANA             | 30D51'21"N | 075D57'06 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 21Aug08; DVOR     |
| 113.500   | 082X   | India                   | IND  | MUNDRA               | 22D50'30"N | 069D46'29 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 22Dec14; DVOR     |
| 113.500   | 082X   | Indonesia               | INS  | BAJAWA TURELELO SOA  | 08D42'16"S | 121D02'49 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR              |
| 113.500   | 082X   | Indonesia               | INS  | GORONTALO            | 00D38'22"N | 122D51'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR              |
| 113.500   | 082X   | Japan                   | J    | ASAHIKAWA            | 43D40'00"N | 142D27'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR     |
| 113.500   | 082X   | Japan                   | J    | KOWA                 | 34D42'00"N | 136D57'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.500   | 082X   | Lao People's Democratic | LAO  | SAVANNAKHET          | 16D33'43"N | 104D46'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.500   | 082X   | Philippines             | PHL  | SUBIC                | 14D46'10"N | 120D13'30 E | VOR/DME  | N    | 40/100       | 17  |     | 40/100    | 27  | RWY09; DVOR       |
| 113.500   | 082X   | Republic of Korea       | KOR  | GANGNEUNG            | 37D45'32"N | 128D57'01 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.500   | 082X   | Singapore               | SNG  | LAZARUS ISLAND       | 01D13'00"N | 103D51'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.550   | 082Y   | China                   | CHN  | WEINING CAOHAJ       | 26D51'00"N | 104D20' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                   |
| 113.550   | 082Y   | China                   | CHN  | ZUOYANG              | 28D23'00"N | 113D20' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 113.600   | 083X   | China                   | CHN  | BAMIANSHAN           | 29D35'00"N | 108D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.600   | 083X   | China                   | CHN  | HUAIROU              | 40D19'00"N | 116D44' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 113.600   | 083X   | China                   | CHN  | LUKOU                | 31D45'00"N | 118D53' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 113.600   | 083X   | China                   | CHN  | SHANGHAIPUDONG       | 30D57'00"N | 121D52'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | China                   | CHN  | SHUYUAN              | 30D57'00"N | 121D52'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | China                   | CHN  | ZHANGYE              | 38D49'00"N | 100D37' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 113.600   | 083X   | India                   | IND  | GOA                  | 15D22'47"N | 073D48'45 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | India                   | IND  | JABALPUR             | 23D10'49"N | 080D03'34 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | Indonesia               | INS  | AMBON PATTIMURA      | 03D42'53"S | 128D05'13 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 39  | DVOR              |
| 113.600   | 083X   | Indonesia               | INS  | JAKARTA SOEKARNO HTA | 06D10'25"S | 106D33'53 E | VOR/DME  | I    | 200/450      | 27  |     | 200/450   | 37  | DVOR              |
| 113.600   | 083X   | Japan                   | J    | CHOSHI               | 35D44'00"N | 140D48'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | Malaysia                | MLA  | ALOR SETAR           | 06D11'09"N | 100D23'49 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 113.600   | 083X   | Malaysia                | MLA  | Miri Airport         | 04D18'11"N | 113D58'41 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | 2May19; PLI; DVOR |



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| Frequency | DME ch | Country           | Ctry | Location          | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                   |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 113.600   | 083X   | New Zealand       | NZL  | QUEENSTOWN        | 44D59'03" S | 168D46'58 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 113.600   | 083X   | Republic of Korea | KOR  | SEOUL GIMPO INTL  | 37D33'27" N | 126D47'31 E | VOR/DME  | I    | 25/100       | 17  |     | 25/100    | 27  | DVOR                 |
| 113.600   | 083X   | Viet Nam          | VTN  | DIEN BIEN PHU     | 21D23'45" N | 103D00'16 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 15Mar05; DVOR        |
| 113.700   | 084X   | Australia         | AUS  | MILDURA           | 34D13'31" S | 142D04'38 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 113.700   | 084X   | Australia         | AUS  | PERTH             | 31D56'42" S | 115D57'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 113.700   | 084X   | Australia         | AUS  | PROSERPINE        | 20D29'49" S | 148D33'11 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 113.700   | 084X   | China             | CHN  | ALI               | 31D58'00" N | 080D07' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                 |
| 113.700   | n/a    | China             | CHN  | BAOSHAN           | 22D55'00" N | 099D50'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a | FI                   |
| 113.700   | 084X   | China             | CHN  | BOLE              | 44D53'00" N | 082D19' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.700   | 084X   | China             | CHN  | FUYU              | 44D54'00" N | 124D48' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.700   | 084X   | China             | CHN  | HENGCHUN          | 21D56'00" N | 120D51'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | TACAN-84             |
| 113.700   | 084X   | China             | CHN  | JINAN             | 36D49'00" N | 117D12' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR            |
| 113.700   | 084X   | China             | CHN  | JINGNING          | 35D31'00" N | 105D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.700   | 084X   | China             | CHN  | LAIBIN            | 23D45'00" N | 109D08' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.700   | 084X   | China             | CHN  | LIJIANG           | 26D46'00" N | 100D16' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.700   | 084X   | China             | CHN  | RUOQIANG          | 38D57'00" N | 087D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 113.700   | 084X   | China             | CHN  | SANMING           | 26D24'00" N | 117D48' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 113.700   | 084X   | India             | IND  | KATHIAR           | 25D34'35" N | 087D33'36 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 23/7/02; DVOR        |
| 113.700   | 084X   | India             | IND  | MYSORE            | 12D13'34" N | 076D39'13 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 21Mar08; DVOR        |
| 113.700   | 084X   | Indonesia         | INS  | KAO KUABANG       | 01D11'06" N | 127D53'39 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 113.700   | 084X   | Japan             | J    | KOCHI             | 33D33'00" N | 133D41'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 113.700   | 084X   | Malaysia          | MLA  | KUANTAN           | 03D46'36" N | 103D12'48 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 113.700   | 084X   | Pakistan          | PAK  | RAHIM YAR KHAN    | 28D24'00" N | 070D17'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DME NAT              |
| 113.700   | 084X   | Philippines       | PHL  | COTABATO          | 07D10'03" N | 124D12'33 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                      |
| 113.700   | 084X   | Thailand          | THA  | NAKHON RATCHASIMA | 14D55'00" N | 102D07'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 113.750   | 084Y   | China             | CHN  | HUANGPI           | 30D52'00" N | 114D28' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 113.750   | 084Y   | Japan             | J    | ZAO-YAMADA        | 38D11'00" N | 140D20'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 113.800   | 085X   | Cambodia          | KMR  | SIEM REAP AIRPORT | 14D30'28" N | 121D01'18 E | VOR/DME  | N    | 25/100       | 17  |     | 25/100    | 27  | 100/1000 W; CVOR     |
| 113.800   | 085X   | China             | CHN  | ANKANGFUQIANGDONG | 32D45'00" N | 108D55' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.800   | 085X   | China             | CHN  | CHANGZHOU         | 31D55'00" N | 119D46' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                 |
| 113.800   | 085X   | China             | CHN  | XINGYI            | 25D03'00" N | 104D58' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 113.800   | n/a    | India             | IND  | HYDERABAD         | 17D13'40" N | 078D24'21 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | 2May07; DVOR         |
| 113.800   | 085X   | India             | IND  | LENGPUI           | 23D52'43" N | 092D35'05 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 2Jun15; DVOR      |
| 113.800   | 085X   | Malaysia          | MLA  | KOTA KINABALU     | 05D53'58" N | 116D02'02 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 07Aug07; DVOR        |
| 113.800   | 085X   | New Zealand       | NZL  | NAPIER            | 39D27'14" S | 176D52'08 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 113.800   | 085X   | Pakistan          | PAK  | SIALKOT           | 32D31'06" N | 074D20'36 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 113.800   | 085X   | Philippines       | PHL  | MANILA            | 14D30'28" N | 121D01'18 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                 |
| 113.800   | 085X   | Republic of Korea | KOR  | GIMHAE INTL       | 35D11'56" N | 128D56'08 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13           |
| 113.800   | 085X   | Republic of Korea | KOR  | INCHEON INTL      | 37D29'42" N | 126D25'49 E | VOR/DME  | I    | 25/100       | 17  |     | 25/100    | 27  | T-VOR/DME            |
| 113.800   | 085X   | Viet Nam          | VTN  | PHU QUOC          | 10D13'59" N | 103D57'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 13Jan11; DVOR        |
| 113.850   | 085Y   | China             | CHN  | ANYANG HONGQIQU   | 35D52'00" N | 114D27' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 113.850   | 085Y   | China             | CHN  | SANQINGSHAN       | 28D22'00" N | 117D56' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 113.850   | 085Y   | Japan             | J    | KITAKYUSHU        | 33D51'00" N | 131D02'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR     |



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| Frequency | DME ch | Country                 | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                               |
|-----------|--------|-------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------------------------|
|           |        |                         |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                       |
| 113.850   | 085Y   | Japan                   | J    | SUOH                | 33D51'00" N | 131D02'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR                      |
| 113.900   | 086X   | Australia               | AUS  | ARGYLE              | 16D38'04" S | 128D26'51 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated                   |
| 113.900   | 086X   | Australia               | AUS  | GERALDTON           | 28D47'25" S | 114D42'22 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.                  |
| 113.900   | 086X   | China                   | CHN  | DANDONG             | 40D15'00" N | 124D17' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | FUJIACHANG          | 29D55'00" N | 104D18' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | JIANSANJIANG        | 47D07'00" N | 132D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 113.900   | 086X   | China                   | CHN  | TULUFAN             | 43D01'00" N | 089D07' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 113.900   | 086X   | China                   | CHN  | WENGYUAN            | 24D20'00" N | 114D06' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | WUHAI               | 39D47'00" N | 106D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | WUXI                | 31D44'00" N | 120D11' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | WUXI                | 31D35'00" N | 120D21'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 113.900   | 086X   | China                   | CHN  | ZHANGJIAKOU         | 40D43'00" N | 114D57' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 113.900   | 086X   | India                   | IND  | PUNE                | 18D35'00" N | 073D54'00 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                                  |
| 113.900   | 086X   | India                   | IND  | Thanjavur           | 10D43'03" N | 079D06'14 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | DVOR                                  |
| 113.900   | 086X   | India                   | IND  | VARANASI            | 25D27'15" N | 082D51'33 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                                  |
| 113.900   | 086X   | Indonesia               | INS  | MEDAN POLONIA       | 03D30'16" N | 098D36'27 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                       |
| 113.900   | 086X   | Indonesia               | INS  | TALAUD MELONGUANE   | 04D01'05" N | 126D40'33 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                                  |
| 113.900   | 086X   | Japan                   | J    | OSAKA INTL.         | 34D47'00" N | 135D27'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 113.900   | 086X   | Japan                   | J    | SAPPORO             | 43D10'00" N | 141D18'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 113.900   | 086X   | Malaysia                | MLA  | NEW SIBU            | 02D15'00" N | 112D00'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 113.900   | 086X   | Pakistan                | PAK  | Turbat IA           | 25D59'00" N | 063D02'11 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | Naval Air Station PNS Siddiqui Turbat |
| 113.900   | 086X   | Papua New Guinea        | PNG  | NADZAB              | 06D34'00" S | 146D44'00 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  |                                       |
| 113.900   | 086X   | Philippines             | PHL  | ZAMBOANGA           | 06D55'29" N | 122D03'20 E | VOR/DME  | I    | 50/300       | 17  |     | 50/300    | 27  |                                       |
| 113.900   | 086X   | Samoa                   | SMO  | APIA FALEOLO        | 13D49'00" S | 171D59'00 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 113.900   | 086X   | Viet Nam                | VTN  | WEST NOIBAI         | 21D16'13" N | 105D22'42 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 12Apr05; DVOR                         |
| 113.950   | 086Y   | China                   | CHN  | LIUJI               | 32D10'00" N | 112D17' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                       |
| 113.950   | 086Y   | Japan                   | J    | AMAMI               | 28D26'00" N | 129D43'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR                         |
| 114.000   | 087X   | China                   | CHN  | DONGYING            | 37D31'00" N | 118D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 114.000   | 087X   | China                   | CHN  | FULING              | 29D41'00" N | 107D22' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 114.000   | 087X   | China                   | CHN  | HEIHE               | 50D10'00" N | 127D18' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 114.000   | 087X   | China                   | CHN  | LANZHOU             | 36D32'00" N | 103D37' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 114.000   | 087X   | China                   | CHN  | SHANGRAO            | 28D25'00" N | 117D58' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 114.000   | 087X   | India                   | IND  | CHABUA              | 27D27'42" N | 095D07'15 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 7Feb18; DVOR                          |
| 114.000   | 087X   | India                   | IND  | LUNKA-2             | 28D10'46" N | 074D06'36 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 114.000   | 087X   | India                   | IND  | VISAKHAPATNAM       | 17D40'04" N | 083D15'10 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                       |
| 114.000   | 087X   | Indonesia               | INS  | PUTUSSIBAU PANGSUMA | 00D50'21" N | 112D56'03 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                                  |
| 114.000   | 087X   | Japan                   | J    | NARITA INTL AP      | 35D56'00" N | 139D59'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 24Dec13 ; DVOR                        |
| 114.000   | 087X   | Lao People's Democratic | LAO  | XIENGKHOANG         | 19D27'00" N | 103D08'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 114.000   | 087X   | Malaysia                | MLA  | PULAU TULAI         | 02D54'59" N | 104D06'39 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 114.000   | 087X   | Malaysia                | MLA  | SANDAKAN            | 05D54'00" N | 118D04'00 E | VOR/DME  | I    | 150/300      | 27  |     | 150/300   | 37  | DVOR                                  |
| 114.000   | 087X   | New Zealand             | NZL  | HAMILTON            | 37D50'57" S | 175D20'19 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 114.000   | 087X   | Republic of Korea       | KOR  | INCHEON ACC         | 35D07'21" N | 128D59'58 E | VOR/TAC  | N    | 100/450      | 23  |     | 100/450   | 27  | FI 26Dec13; DVOR                      |
| 114.050   | 087Y   | China                   | CHN  | TIAOMA              | 27D59'00" N | 113D07' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |



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| Frequency | DME ch | Country     | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                           |
|-----------|--------|-------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-----------------------------------|
|           |        |             |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                   |
| 114.100   | 088X   | Australia   | AUS  | COCOS ISLAND       | 12D12'02" S | 096D50'27 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated               |
| 114.100   | 088X   | Australia   | AUS  | GOVE               | 12D15'54" S | 136D48'59 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 114.100   | 088X   | Australia   | AUS  | KALGOORLIE         | 30D47'23" S | 121D27'11 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 114.100   | 088X   | Australia   | AUS  | MELBOURNE          | 37D39'37" S | 144D50'31 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 114.100   | 088X   | Australia   | AUS  | PORT HEDLAND       | 20D22'43" S | 118D37'22 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 114.100   | 088X   | Australia   | AUS  | TOWNSVILLE         | 19D14'39" S | 146D45'29 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 114.100   | 088X   | China       | CHN  | LUOYANG            | 34D44'00" N | 112D23' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.100   | 088X   | China       | CHN  | MANGSHI            | 24D24'00" N | 098D32' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.100   | 088X   | China       | CHN  | PINGZHOU           | 23D01'00" N | 113D11' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.100   | 088X   | China       | CHN  | SHENYANG           | 41D38'00" N | 123D28' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.100   | 088X   | China       | CHN  | SHUOFANG           | 31D29'00" N | 120D26' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.100   | 088X   | China       | CHN  | XIABATANG          | 32D47'00" N | 097D16' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                              |
| 114.100   | 088X   | India       | IND  | BHAVNAGAR          | 21D45'00" N | 072D11'21 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.100   | 088X   | India       | IND  | SHIMLA             | 31D05'13" N | 077D03'53 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 24May11; DVOR                     |
| 114.100   | 088X   | Indonesia   | INS  | SUMENEP TRUNOJOYO  | 07D01'24" S | 113D53'26 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                              |
| 114.100   | 088X   | Japan       | J    | AOMORI             | 40D44'00" N | 140D42'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.100   | 088X   | Japan       | J    | YONAGO             | 35D30'00" N | 133D14'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.100   | 088X   | Malaysia    | MLA  | PULAU LANGKAWI     | 06D21'21" N | 099D44'55 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.100   | 088X   | Nepal       | NPL  | BIRATNAGAR         | 26D29'00" N | 087D16'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                              |
| 114.100   | n/a    | Philippines | PHL  | DUMAGUETE          | 09D20'01" N | 123D18'23 E | VOR      | N    | 150/300      | 27  |     | n/a       | n/a |                                   |
| 114.100   | 088X   | Sri Lanka   | SLK  | KATUNAYAKE         | 07D09'41" N | 079D52'07 E | VOR/DME  | ICA  | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 114.100   | 088X   | Thailand    | THA  | PHITSANULOK        | 16D46'13" N | 100D17'28 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                              |
| 114.100   | 088X   | Viet Nam    | VTN  | PHAN THIET         | 10D55'00" N | 108D04'00 E | VOR/DME  | N    | 130/450      | 23  |     | 130/450   | 37  |                                   |
| 114.200   | 089X   | Australia   | AUS  | BROKEN HILL        | 32D00'02" S | 141D28'48 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | Coordinates Updated               |
| 114.200   | 089X   | Australia   | AUS  | ESPERANCE          | 33D40'43" S | 121D49'18 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.              |
| 114.200   | 089X   | Australia   | AUS  | SUNSHINE COAST     | 26D35'52" S | 153D05'25 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Name Change. Coordinates Updated. |
| 114.200   | 089X   | China       | CHN  | FUZHOU             | 25D59'00" N | 119D15'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.200   | 089X   | China       | CHN  | XICHANG            | 28D00'00" N | 102D10' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.200   | 089X   | India       | IND  | LENGPUI            | 23D49'51" N | 092D37'24 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.200   | 089X   | India       | IND  | MANGALORE          | 12D57'43" N | 074D55'18 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 114.200   | 089X   | India       | IND  | Suratgarh          | 29D23'18" N | 073D54'16 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                   |
| 114.200   | 089X   | Indonesia   | INS  | MANADO             | 01D33'19" N | 124D55'40 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                              |
| 114.200   | 089X   | Indonesia   | INS  | PANGKAL PINANG     | 02D09'40" S | 106D08'25 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DME NAT; DVOR                     |
| 114.200   | 089X   | Indonesia   | INS  | PANGKAL PINANG     | 02D09'41" S | 106D08'29 E | VOR/DME  | I    | 200/450      | 27  |     | 200/450   | 37  | DVOR                              |
| 114.200   | 089X   | Japan       | J    | NAGOYA             | 35D16'00" N | 136D55'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                              |
| 114.200   | 089X   | New Zealand | NZL  | GISBORNE           | 38D39'38" S | 177D58'39 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                   |
| 114.200   | 089X   | Thailand    | THA  | SAKHONNAKHON       | 17D12'50" N | 104D08'12 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | FI ; DVOR                         |
| 114.250   | 089Y   | China       | CHN  | CAIDIAN            | 30D26'00" N | 114D09' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                   |
| 114.300   | 090X   | Australia   | AUS  | CURTIN             | 17D35'20" S | 123D51'07 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated               |
| 114.300   | 090X   | Cambodia    | KMR  | PHNOM PENH AIRPORT | 11D33'11" N | 104D50'75 E | VOR/DME  | N    | 25/100       | 17  |     | 25/100    | 27  | DVOR                              |
| 114.300   | 090X   | China       | CHN  | ALETAI             | 47D44'00" N | 088D05' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.300   | 090X   | China       | CHN  | GUIYANG            | 26D31'00" N | 106D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                              |
| 114.300   | 090X   | China       | CHN  | HUIZHOU            | 23D02'00" N | 114D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                   |



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| Frequency | DME ch | Country                 | Ctry | Location             | Latitude    | Longitude | Facility  | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                   |
|-----------|--------|-------------------------|------|----------------------|-------------|-----------|-----------|------|--------------|-----|-----|-----------|-----|---------------------------|
|           |        |                         |      |                      |             |           |           |      | DOC          | PWR |     | DOC       | PWR |                           |
| 114.300   | 090X   | China                   | CHN  | LANZHOU ZHONGCHUAN   | 36D30'00" N | 103D37'   | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                      |
| 114.300   | 090X   | China                   | CHN  | MILIN                | 29D11'00" N | 094D09'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.300   | 090X   | China                   | CHN  | QIEMO                | 38D09'00" N | 085D32'00 | E VOR/DME | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.300   | 090X   | China                   | CHN  | TONGHUA              | 42D04'00" N | 125D45'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.300   | 090X   | China                   | CHN  | XILINHAOTE           | 43D54'00" N | 115D57'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.300   | 090X   | China                   | CHN  | XUZHOU               | 34D03'00" N | 117D32'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.300   | 090X   | India                   | IND  | FURSATGANJ AP        | 26D15'04" N | 081D23'08 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  | 3Apr02; DVOR              |
| 114.300   | 090X   | India                   | IND  | Ratnagiri            | 17D00'47" N | 073D19'45 | E VOR/DME | NAT  | 200/450      | 27  |     | 200/450   | 37  | DVOR                      |
| 114.300   | 090X   | India                   | IND  | TUITICORN            | 08D43'13" N | 078D02'47 | E VOR/DME | NAT  | 200/450      | 27  |     | 200/450   | 37  | 11June2019; DVOR          |
| 114.300   | 090X   | Indonesia               | INS  | BENGKULU FATMAWATI   | 03D51'41" S | 102D20'21 | E VOR/DME | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                      |
| 114.300   | 090X   | Indonesia               | INS  | PALANGKA RAYA        | 02D14'37" S | 113D56'57 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.300   | 090X   | Japan                   | J    | KUGA                 | 34D05'00" N | 132D09'00 | E VOR/TAC | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.300   | 090X   | Kiribati                | KIR  | TARAWA               | 01D22'59" S | 173D08'46 | E VOR/DME | I    | 200/450      | 29  |     | 200/450   | 40  |                           |
| 114.300   | 090X   | Pakistan                | PAK  | PANJGUR              | 26D57'00" N | 064D08'00 | E VOR/DME | I    | 300/450      | 29  |     | 300/450   | 40  |                           |
| 114.300   | 090X   | Pakistan                | PAK  | PESHAWAR             | 33D58'00" N | 071D31'00 | E VOR/DME | I    | 100/450      | 23  |     | 100/450   | 27  | DVOR                      |
| 114.300   | 090X   | Philippines             | PHL  | MACTAN               | 10D18'48" N | 123D59'17 | E VOR/DME | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                      |
| 114.300   | 090X   | Thailand                | THA  | UDON THANI           | 17D23'00" N | 102D46'18 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.300   | 090X   | Vanuatu                 | NHB  | PORT VILA BAUERFIELD | 17D39'00" S | 168D14'00 | E VOR/DME | I    | 50/300       | 17  |     | 50/300    | 27  |                           |
| 114.350   | 090Y   | China                   | CHN  | ZUONING              | 22D45'00" N | 108D30'   | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  |                           |
| 114.400   | 091X   | China                   | CHN  | BAICHENG             | 45D29'00" N | 122D59'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.400   | 091X   | China                   | CHN  | DIANBA               | 44D07'00" N | 087D18'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.400   | 091X   | China                   | CHN  | HENGSHA              | 31D22'00" N | 121D50'   | E VOR/DME | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.400   | 091X   | China                   | CHN  | LVLIANG              | 37D41'00" N | 111D08'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.400   | 091X   | China                   | CHN  | SHANGHAIPUDONG       | 31D22'00" N | 121D51'00 | E VOR/DME | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.400   | 091X   | China                   | CHN  | ZHANGJIAJIE          | 29D05'00" N | 110D24'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.400   | 091X   | India                   | IND  | Ambala               | 30D22'19" N | 076D48'50 | E VOR/DME | NAT  | 200/450      | 27  |     | 200/450   | 37  |                           |
| 114.400   | 091X   | India                   | IND  | KISHANGANJ           | 26D06'00" N | 087D56'00 | E VOR/DME | N    | 150/450      | 27  |     | 150/450   | 37  | Planned                   |
| 114.400   | 091X   | Japan                   | J    | SHODO                | 34D31'00" N | 134D16'00 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                      |
| 114.400   | 091X   | Lao People's Democratic | LAO  | Nongkhong            | 20D37'51" N | 104D04'39 | E VOR/DME | ICA  | 200/450      | 27  |     | 200/450   | 37  | FI 09Sep19; PLI; DVOR; NC |
| 114.400   | 091X   | Malaysia                | MLA  | KUALA LUMPUR KLIA2   | 02D45'72" N | 101D40'05 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  | FI 28Apr16; DVOR          |
| 114.400   | 091X   | New Zealand             | NZL  | NEW PLYMOUTH         | 39D00'26" S | 174D11'02 | E VOR/DME | N    | 200/450      | 29  |     | 200/450   | 40  |                           |
| 114.400   | 091X   | Republic of Korea       | KOR  | GWANGJU              | 35D07'34" N | 126D48'44 | E VOR/DME | N    | 40/100       | 17  |     | 40/100    | 27  | DVOR                      |
| 114.400   | 091X   | Viet Nam                | VTN  | DANANG               | 16D03'00" N | 108D12'00 | E VOR/DME | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                      |
| 114.450   | 091Y   | China                   | CHN  | HEBAOHU              | 30D41'00" N | 113D58'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.450   | 091Y   | China                   | CHN  | JIAODONG             | 36D22'00" N | 120D04'   | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  |                           |
| 114.450   | 091Y   | India                   | IND  | OZAR                 | 20D07'12" N | 073D53'43 | E VOR/DME | NAT  | 200/450      | 27  |     | 200/450   | 37  |                           |
| 114.500   | 092X   | China                   | CHN  | CHAOYANG             | 41D32'00" N | 120D25'   | E VOR/DME | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR                 |
| 114.500   | 092X   | China                   | CHN  | CHONGZHOU            | 30D38'00" N | 103D41'   | E VOR/DME | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR                 |
| 114.500   | 092X   | China                   | CHN  | HANGLU               | 41D42'00" N | 082D59'   | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  | KUCHE                     |
| 114.500   | 092X   | China                   | CHN  | JIAGEDAQI            | 50D22'00" N | 124D07'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  |                           |
| 114.500   | 092X   | China                   | CHN  | JIAYUGUAN            | 39D51'00" N | 098D20'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |
| 114.500   | 092X   | China                   | CHN  | NANNING WUXU         | 22D35'00" N | 108D08'   | E VOR/DME | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                      |
| 114.500   | 092X   | China                   | CHN  | SHIQUANHE            | 32D27'00" N | 080D03'   | E VOR/DME | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                      |



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| Frequency | DME ch | Country     | Ctry | Location             | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     |  | TRD | DME/TACAN |     | Remarks                |
|-----------|--------|-------------|------|----------------------|-------------|-------------|----------|------|--------------|-----|--|-----|-----------|-----|------------------------|
|           |        |             |      |                      |             |             |          |      | DOC          | PWR |  |     | DOC       | PWR |                        |
| 114.500   | 092X   | China       | CHN  | XIAMEN               | 24D32'00" N | 118D07' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.500   | 092X   | China       | CHN  | XINZHENG             | 34D31'00" N | 113D50' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.500   | 092X   | India       | IND  | DIMAPUR              | 25D52'51" N | 093D46'54 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | DVOR                   |
| 114.500   | 092X   | India       | IND  | Hakimpet             | 17D33'07" N | 078D31'52 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |                        |
| 114.500   | 092X   | India       | IND  | UTTARLAI             | 25D48'42" N | 071D29'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | FI 7Feb18; DVOR        |
| 114.500   | 092X   | Indonesia   | INS  | MATARAM              | 08D33'45" S | 116D06'05 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  | OFF; DVOR              |
| 114.500   | 092X   | Indonesia   | INS  | MAUMERE FRANS SEDA   | 08D38'16" S | 122D14'15 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  | DVOR                   |
| 114.500   | 092X   | Indonesia   | INS  | SAMPIT H. ASAN       | 02D30'15" S | 122D58'42 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  | DVOR                   |
| 114.500   | 092X   | Japan       | J    | FUKUOKA              | 33D41'00" N | 130D23'00 E | VOR/TAC  | I    | 200/450      | 29  |  |     | 200/450   | 40  | 20Dec13; DVOR          |
| 114.500   | 092X   | Japan       | J    | KISARAZU             | 35D24'00" N | 139D54'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | DVOR                   |
| 114.500   | 092X   | Malaysia    | MLA  | KUCHING              | 01D28'00" N | 110D18'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  | DVOR                   |
| 114.500   | 092X   | Philippines | PHL  | GENERAL. SANTOS      | 06D04'32" N | 125D05'32 E | VOR/DME  | N    | 40/100       | 17  |  |     | 40/100    | 27  | 16MAR11; DVOR          |
| 114.500   | n/a    | Philippines | PHL  | SAN FERNANDO         | 16D43'42" N | 120D21'29 E | VOR      | N    | 150/450      | 27  |  |     | n/a       | n/a |                        |
| 114.500   | n/a    | Thailand    | THA  | KAMPHAENG SAEN       | 14D09'00" N | 099D57'00 E | VOR      | N    | 200/450      | 29  |  |     | n/a       | n/a |                        |
| 114.500   | 092X   | Tonga       | TON  | TONGATAPU            | 21D14'00" S | 175D08'00 W | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |                        |
| 114.550   | 092Y   | China       | CHN  | WUGANG               | 26D47'00" N | 110D37' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.600   | n/a    | Bangladesh  | BGD  | RAJSHAI              | 24D26'00" N | 088D37'00 E | VOR      | I    | 300/450      | 29  |  |     | n/a       | n/a |                        |
| 114.600   | 093X   | China       | CHN  | DAWU                 | 34D27'00" N | 100D12' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |                        |
| 114.600   | 093X   | China       | CHN  | JINZHOU              | 41D06'00" N | 121D03' E   | VOR/DME  | NAT  | 100/250      | 30  |  |     | 100/250   | 30  | DVOR                   |
| 114.600   | 093X   | China       | CHN  | MALONG               | 25D31'00" N | 103D36' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.600   | 093X   | China       | CHN  | NANHUI               | 31D04'00" N | 121D34' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.600   | 093X   | China       | CHN  | YANANJICHANG         | 36D41'00" N | 109D38' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  | DVOR                   |
| 114.600   | 093X   | China       | CHN  | ZUOCUN               | 23D09'00" N | 113D25' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.600   | 093X   | India       | IND  | COCHIN (NAVY)        | 09D56'41" N | 076D16'22 E | VOR/DME  | N    | 150/450      | 27  |  |     | 150/450   | 37  | Operated by Navy; DVOR |
| 114.600   | 093X   | India       | IND  | Pune                 | 18D34'48" N | 073D54'51 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |                        |
| 114.600   | 093X   | Indonesia   | INS  | JAKARTA SOEKARNO HAT | 05D57'40" S | 107D02'07 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  | DVOR                   |
| 114.600   | 093X   | Japan       | J    | RISHIRI              | 45D15'00" N | 141D11'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | DVOR                   |
| 114.600   | 093X   | Japan       | J    | YAO                  | 34D36'00" N | 135D36'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  | 26Dec13; DVOR          |
| 114.600   | 093X   | New Zealand | NZL  | TORY                 | 41D11'09" S | 174D21'45 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |                        |
| 114.600   | n/a    | Pakistan    | PAK  | BENZIR BHUTTO-BBIAP  | 33D32'45" N | 072D51'31 E | VOR      | N    | 200/450      | 29  |  |     | n/a       | n/a | 6Nov.13 ; DVOR         |
| 114.650   | 093Y   | China       | CHN  | HEZE                 | 35D11'00" N | 115D44' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |                        |
| 114.650   | 093Y   | China       | CHN  | JINGYAN              | 29D46'00" N | 104D02' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | DONGJIN              | 18D18'00" N | 109D26' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | ENSHI                | 30D17'00" N | 109D36' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.700   | 094X   | China       | CHN  | FUYUN                | 46D47'00" N | 089D32' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | GENGMA               | 23D31'00" N | 099D24' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.700   | 094X   | China       | CHN  | GUANZHUANG           | 40D02'00" N | 116D44' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.700   | 094X   | China       | CHN  | JINCHANG             | 38D33'00" N | 102D19' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  | DVOR                   |
| 114.700   | 094X   | China       | CHN  | TAOHUA               | 31D46'00" N | 117D07' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | TAXIANBEI            | 37D48'00" N | 075D12' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | WUDALIANCHI          | 48D26'00" N | 126D05' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | XINGLIN              | 24D34'00" N | 118D00' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |
| 114.700   | 094X   | China       | CHN  | YUDU                 | 38D13'00" N | 085D26' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |                        |



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| Frequency | DME ch | Country           | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks          |
|-----------|--------|-------------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------|
|           |        |                   |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                  |
| 114.700   | 094X   | India             | IND  | HYDERABAD          | 17D27'04" N | 078D27'42 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 114.700   | 094X   | Indonesia         | INS  | MAKASAR SULTAN     | 05D02'16" S | 119D31'08 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 114.700   | 094X   | Indonesia         | INS  | PADANG MINANGKABAU | 00D47'13" S | 100D16'41 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 114.700   | 094X   | Malaysia          | MLA  | SUBANG             | 03D19'30" N | 101D27'30 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR             |
| 114.700   | 094X   | Maldives          | MLD  | MALE               | 04D11'00" N | 073D30'00 E | VOR/DME  | I    | 150/300      | 27  |     | 150/300   | 37  |                  |
| 114.700   | 094X   | Nepal             | NPL  | BHAIRAWA           | 27D30'00" N | 083D26'00 E | VOR/DME  | I    | 150/300      | 27  |     | 150/300   | 37  | DVOR             |
| 114.700   | 094X   | Pakistan          | PAK  | HYDERABAD          | 25D18'00" N | 068D23'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | GROUND TRAINING  |
| 114.700   | 094X   | Pakistan          | PAK  | QUETTA             | 30D17'00" N | 066D53'00 E | VOR/DME  | N    | 100/150      | 23  |     | 100/150   | 27  | DVOR             |
| 114.700   | 094X   | Philippines       | PHL  | NAGA               | 13D35'19" N | 123D16'05 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  |                  |
| 114.700   | n/a    | Viet Nam          | VTN  | VUNGTAU            | 10D22'00" N | 107D06'00 E | VOR      | N    | 130/450      | 23  |     | n/a       | n/a |                  |
| 114.750   | 094Y   | China             | CHN  | NANNIWAN           | 36D25'00" N | 109D29' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 114.750   | 094Y   | China             | CHN  | YUEYANG SHANHE     | 29D20'00" N | 113D16' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 114.750   | 094Y   | China             | CHN  | YULIN              | 22D24'00" N | 110D06' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 114.750   | 094Y   | Japan             | J    | ODATE-NOSHIRO      | 40D12'00" N | 140D22'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI ; DVOR        |
| 114.750   | 094Y   | Japan             | J    | SAGA               | 33D09'00" N | 130D18'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR |
| 114.750   | 094Y   | New Caledonia     | NCL  | TONTOUTA           | 21D56'41" S | 166D04'26 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 26Jan11          |
| 114.800   | 095X   | China             | CHN  | MIANYANG           | 31D26'00" N | 104D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 114.800   | 095X   | China             | CHN  | SHANGHAIPUDONG     | 30D15'00" N | 121D13'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 114.800   | 095X   | China             | CHN  | SHIHEZI            | 44D14'00" N | 085D55' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 114.800   | 095X   | China             | CHN  | ZUODONG            | 30D15'00" N | 121D13' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 114.800   | 095X   | China - Hong Kong | HKG  | SIU MO TO          | 22D20'15" N | 113D58'55 E | VOR/DME  | I    | 70/450       | 20  |     | 70/450    | 27  | DVOR             |
| 114.800   | 095X   | India             | IND  | ALLAHABAD          | 25D26'00" N | 081D44'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | TRAINING         |
| 114.800   | 095X   | India             | IND  | Bhatinda           | 30D16'11" N | 074D45'24 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                  |
| 114.800   | 095X   | India             | IND  | DURGAPUR           | 23D37'28" N | 087D14'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 22Nov11; DVOR    |
| 114.800   | n/a    | India             | IND  | MANDVI             | 19D29'34" N | 072D53'24 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | Planned; DVOR    |
| 114.800   | 095X   | Indonesia         | INS  | MANADO             | 01D19'33" N | 124D54'51 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                  |
| 114.800   | 095X   | Indonesia         | INS  | MANADO             | 01D19'23" N | 124D57'18 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 114.800   | 095X   | Indonesia         | INS  | TANJUNG PINANG     | 00D56'11" S | 104D31'40 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 114.800   | 095X   | New Zealand       | NZL  | AUCKLAND           | 37D00'17" S | 174D48'49 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                  |
| 114.800   | 095X   | Republic of Korea | KOR  | INCHEON ACC        | 36D37'55" N | 128D19'31 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 26Dec13; DVOR |
| 114.800   | 095X   | Viet Nam          | VTN  | THO XUAN           | 19D53'50" N | 105D29'34 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 15Mar13       |
| 114.900   | 096X   | China             | CHN  | ERLIAN             | 43D38'00" N | 111D57' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 114.900   | 096X   | China             | CHN  | GUILIN             | 25D12'00" N | 110D02' E   | VOR/DME  | NAT  | 100/250      | 30  |     | 100/250   | 30  |                  |
| 114.900   | 096X   | China             | CHN  | JINGTAI            | 37D11'00" N | 104D04' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 114.900   | 096X   | China             | CHN  | KAIYUAN            | 42D37'00" N | 124D00' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 114.900   | 096X   | China             | CHN  | LINCANG            | 23D43'00" N | 100D01' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR             |
| 114.900   | 096X   | China             | CHN  | NANYANG            | 32D59'00" N | 112D38' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                  |
| 114.900   | 096X   | India             | IND  | Awantipur          | 33D52'48" N | 074D57'59 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                  |
| 114.900   | 096X   | India             | IND  | CHENNAI            | 13D00'13" N | 080D09'57 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 25Mar11; DVOR    |
| 114.900   | 096X   | India             | IND  | HOLLONGI           | 26D57'56" N | 093D37'21 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 114.900   | 096X   | India             | IND  | PRATAPGARH         | 24D01'48" N | 074D45'03 E | VOR/DME  | I    | 150/450      | 27  |     | 150/450   | 37  | DVOR             |
| 114.900   | 096X   | Indonesia         | INS  | CILACAP TUNGGUL    | 07D38'41" S | 109D02'08 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 114.900   | 096X   | Indonesia         | INS  | MALI ALOR          | 08D07'56" S | 124D35'49 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |



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| Frequency | DME ch | Country                 | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                    |
|-----------|--------|-------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------------|
|           |        |                         |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                            |
| 114.900   | n/a    | Indonesia               | INS  | MAUMERE WAI OTI     | 08D35'00" S | 122D21'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | DVOR                       |
| 114.900   | 096X   | Indonesia               | INS  | SILAMPARI           | 03D17'09" S | 102D55'01 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 114.900   | 096X   | Japan                   | J    | TOHOKU              | 40D49'00" N | 141D09'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 114.900   | n/a    | Japan                   | J    | TOKUSHIMA           | 34D08'00" N | 134D37'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                            |
| 114.900   | 096X   | Thailand                | THA  | KHONKAEN            | 16D27'36" N | 102D47'00 E | VOR/DME  | N    | 150/350      | 27  |     | 150/350   | 37  | DVOR                       |
| 114.950   | 096Y   | China                   | CHN  | HUILONGSHAN         | 30D36'00" N | 114D59' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                            |
| 115.000   | 097X   | Australia               | AUS  | WAGGA WAGGA         | 35D09'57" S | 147D28'09 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.       |
| 115.000   | 097X   | China                   | CHN  | DAZHOU              | 31D09'00" N | 107D26'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.000   | 097X   | China                   | CHN  | JINYA               | 31D02'00" N | 107D25' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                            |
| 115.000   | 097X   | China                   | CHN  | LIANYUNGANG         | 34D35'00" N | 118D53' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.000   | 097X   | China                   | CHN  | MEIXIAN             | 24D13'00" N | 116D04' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.000   | 097X   | India                   | IND  | BHUNTAR             | 31D41'04" N | 077D12'49 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 14Sep18; DVOR              |
| 115.000   | 097X   | India                   | IND  | GAYA                | 24D44'31" N | 084D56'38 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.000   | 097X   | India                   | IND  | JAMNAGAR            | 22D29'00" N | 070D03'00 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  |                            |
| 115.000   | n/a    | India                   | IND  | SALEM               | 11D46'57" N | 078D03'39 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | Planned                    |
| 115.000   | 097X   | Indonesia               | INS  | BANDAR LAMPUNG      | 05D14'31" N | 105D10'32 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 115.000   | 097X   | Indonesia               | INS  | KENDARI HALUOLEO    | 04D05'06" S | 122D24'47 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 115.000   | 097X   | Indonesia               | INS  | NUNUKAN NUNUKAN     | 04D08'16" N | 117D39'51 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 115.000   | 097X   | Japan                   | J    | NARITA INTL AP      | 35D49'00" N | 140D22'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | 24Dec13 ; DVOR             |
| 115.000   | 097X   | Lao People's Democratic | LAO  | PAKSE               | 15D11'48" N | 105D44'16 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.050   | 097Y   | French Polynesia        | OCA  | RANGIROA            | 14D57'02" S | 147D40'25 W | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | OPS Oct14                  |
| 115.050   | 097Y   | Japan                   | J    | IWAMI               | 34D41'00" N | 131D47'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.050   | 097Y   | Japan                   | J    | YONAGUNI            | 24D28'00" N | 123D00'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.100   | n/a    | Afghanistan             | AFG  | KANDAHAR            | 32D18'00" N | 065D47'00 E | VOR      | I    | 300/450      | 29  |     | n/a       | n/a |                            |
| 115.100   | 098X   | China                   | CHN  | AKESU               | 41D15'00" N | 080D17' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.100   | 098X   | China                   | CHN  | CHANGBEI            | 28D53'00" N | 115D54' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.100   | 098X   | China                   | CHN  | GUANGYUAN           | 32D23'00" N | 105D41' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.100   | 098X   | China                   | CHN  | HAILAER             | 49D12'00" N | 119D49' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.100   | 098X   | China                   | CHN  | HAMI YINZHOU        | 42D50'00" N | 093D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 115.100   | 098X   | China                   | CHN  | WULANCHABU          | 41D07'00" N | 113D04' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 115.100   | 098X   | Fiji                    | FJI  | LABASA              | 16D28'00" S | 179D21'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Modified 27Dec09           |
| 115.100   | 098X   | India                   | IND  | Doom Dooma          | 27D33'30" N | 095D34'40 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                            |
| 115.100   | 098X   | India                   | IND  | SHAHBAJ             | 18D41'30" N | 073D00'13 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Not yet commissioned; DVOR |
| 115.100   | 098X   | India                   | IND  | TRIVANDRUM          | 08D28'31" N | 076D55'31 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                       |
| 115.100   | 098X   | Indonesia               | INS  | BIMA S.M. SALAHUDIN | 08D32'23" S | 118D41'26 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 115.100   | 098X   | Indonesia               | INS  | SILANGIT SIBORONG   | 02D15'41" N | 098D59'08 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR/DME                   |
| 115.100   | 098X   | Japan                   | J    | NAHA                | 26D12'00" N | 127D39'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.100   | 098X   | Nepal                   | NPL  | NEPALGUNJ           | 28D06'00" N | 081D40'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                            |
| 115.100   | n/a    | Philippines             | PHL  | LIPA                | 13D57'22" N | 121D07'36 E | VOR      | N    | 150/450      | 27  |     | n/a       | n/a |                            |
| 115.100   | 098X   | Republic of Korea       | KOR  | SACHEON             | 35D05'51" N | 128D04'34 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.100   | 098X   | Singapore               | SNG  | PULAU UBIN          | 01D25'00" N | 103D56'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.100   | 098X   | Viet Nam                | VTN  | HAI PHONG CAT BI    | 20D49'03" N | 106D43'05 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 115.100   | 098X   | Viet Nam                | VTN  | HAI-PHONG CAT-BI    | 20D49'03" N | 106D43'05 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 1Q01; DVOR                 |



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| Frequency | DME ch | Country              | Ctry | Location         | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                |
|-----------|--------|----------------------|------|------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------------|
|           |        |                      |      |                  |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                        |
| 115.100   | 098X   | Viet Nam             | VTN  | RACH GIA AIRPORT | 09D57'47" N | 105D09'08 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 9Mar18; DVOR        |
| 115.150   | 098Y   | China                | CHN  | WUDANGSHAN       | 32D34'00" N | 110D56' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.150   | 098Y   | China                | CHN  | XIAODANYANG      | 31D40'00" N | 118D43' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.200   | 099X   | China                | CHN  | HANDAN           | 36D31'00" N | 114D25' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.200   | 099X   | China                | CHN  | TAIZHOU          | 28D34'00" N | 121D26' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                   |
| 115.200   | 099X   | China                | CHN  | TONGREN          | 27D52'00" N | 109D17' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.200   | 099X   | China                | CHN  | WANGJIACHUAN     | 36D46'00" N | 103D26' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                        |
| 115.200   | 099X   | India                | IND  | Baghdogra        | 26D41'08" N | 088D19'48 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                        |
| 115.200   | 099X   | India                | IND  | Halwara          | 30D44'58" N | 075D37'51 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                        |
| 115.200   | 099X   | India                | IND  | KADAPA-HYDERABAD | 14D30'35" N | 078D46'20 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | 9Sep19; NC             |
| 115.200   | 099X   | India                | IND  | LENGPUI          | 23D51'57" N | 092D44'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 8Sep08; DVOR           |
| 115.200   | 099X   | Indonesia            | INS  | MAMUJU TAMPA     | 02D35'36" S | 119D01'57 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                   |
| 115.200   | 099X   | Indonesia            | INS  | SEMARANG AHMAD   | 06D59'00" S | 110D23'00 E | VOR/DME  | N    | 200/450      | 17  |     | 200/450   | 27  | DVOR                   |
| 115.200   | 099X   | Japan                | J    | SHIMIZU          | 32D45'00" N | 133D00'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                   |
| 115.200   | 099X   | Viet Nam             | VTN  | CHU LAI          | 15D24'44" N | 108D42'16 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 1Oct12; DVOR           |
| 115.200   | n/a    | Viet Nam             | VTN  | DONG HOI         | 00D00'00" N | 000D00'00 E | VOR      | N    | 300/450      | 29  |     | n/a       | n/a |                        |
| 115.250   | 099Y   | China                | CHN  | ZHUGAO           | 30D35'00" N | 104D43' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                        |
| 115.250   | 099Y   | India                | IND  | Darbhangga       | 26D11'48" N | 085D54'25 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                        |
| 115.300   | 100X   | China                | CHN  | BAOSHAN          | 25D03'00" N | 099D10' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.300   | 100X   | China                | CHN  | DAFANGSHEN       | 43D53'00" N | 125D11' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                   |
| 115.300   | 100X   | China                | CHN  | DELINGHA         | 37D07'00" N | 097D17' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.300   | 100X   | China                | CHN  | LUOCHUAN         | 35D46'00" N | 109D22' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.300   | 100X   | China                | CHN  | SHENZUO BAOAN    | 22D38'00" N | 113D48' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                        |
| 115.300   | 100X   | China                | CHN  | WULUMUQI         | 43D54'00" N | 087D30' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.300   | 100X   | China                | CHN  | WUZHOU           | 23D22'00" N | 111D04' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.300   | 100X   | China                | CHN  | YANCHENG         | 33D25'00" N | 120D12' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.300   | 100X   | Guam (United States) | GUM  | GUAM AGANA       | 13D27'00" N | 144D57'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                        |
| 115.300   | 100X   | India                | IND  | KANPUR           | 26D24'21" N | 080D25'39 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 21Mar08; DVOR          |
| 115.300   | 100X   | India                | IND  | KOLHAPUR         | 16D39'50" N | 074D17'34 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                        |
| 115.300   | 100X   | Indonesia            | INS  | ROTE D.C.        | 10D45'52" S | 123D04'22 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | OFF OFF; DVOR          |
| 115.300   | 100X   | Japan                | J    | DAIGO            | 36D45'00" N | 140D21'00 E | VOR/TAC  | I    | 100/450      | 23  |     | 100/450   | 27  | 20Dec13; DVOR          |
| 115.300   | 100X   | Japan                | J    | WAKKANAI         | 45D24'00" N | 141D48'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                   |
| 115.300   | 100X   | Malaysia             | MLA  | Mukah Airport    | 02D53'34" N | 112D30'21 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | 04Dec18; DVOR          |
| 115.300   | 100X   | New Zealand          | NZL  | CHRISTCHURCH     | 43D30'15" S | 172D30'53 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                        |
| 115.300   | 100X   | Philippines          | PHL  | BACOLOD          | 10D38'19" N | 122D55'23 E | VOR/DME  | N    | 59/300       | 20  |     | 59/300    | 27  | 16MAR11                |
| 115.300   | 100X   | Thailand             | THA  | SONGKHLA HAT YAI | 06D56'00" N | 100D23'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                   |
| 115.350   | 100Y   | China                | CHN  | DAXING           | 39D28'00" N | 116D23' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                        |
| 115.400   | n/a    | Australia            | AUS  | MELBOURNE        | 37D40'06" S | 144D49'59 E | GBAS     | N    | 25/62.5      | 100 |     | 25/100    | n/a | G09A, G16A, G27A, G34A |
| 115.400   | 101X   | China                | CHN  | BOZUO            | 19D09'00" N | 110D26' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                        |
| 115.400   | 101X   | China                | CHN  | DALIANJEUJI      | 38D57'00" N | 121D34' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.400   | 101X   | China                | CHN  | JINTANG          | 30D52'00" N | 104D23' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                   |
| 115.400   | 101X   | China                | CHN  | ZUOSHUI          | 30D26'00" N | 115D16' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR              |
| 115.400   | 101X   | India                | IND  | HISSAR           | 29D11'53" N | 075D43'26 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                        |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks           |
|-----------|--------|-------------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|-------------------|
|           |        |                   |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                   |
| 115.400   | 101X   | India             | IND  | JAMSHEDPUR         | 22D48'45" N | 086D10'03 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.400   | 101X   | India             | IND  | KANCHEEPURAM       | 12D47'15" N | 079D42'45 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.400   | 101X   | India             | IND  | RAJKOT             | 22D18'47" N | 070D46'42 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 115.400   | 101X   | Indonesia         | INS  | BAU BAU BETOAMباري | 05D29'09" S | 122D34'06 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR              |
| 115.400   | 101X   | Japan             | J    | MISAWA             | 40D42'00" N | 141D23'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.400   | 101X   | Japan             | J    | NAKATANE           | 30D36'00" N | 130D59'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 24Dec13 ; DVOR    |
| 115.400   | 101X   | Malaysia          | MLA  | KUALATERENGGANU    | 05D23'00" N | 103D06'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 115.400   | 101X   | Thailand          | THA  | PETCHABUN          | 16D40'46" N | 101D11'47 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 115.400   | 101X   | Viet Nam          | VTN  | VAN DON            | 21D07'07" N | 107D25'10 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 17Oct17; DVOR  |
| 115.450   | 101Y   | China             | CHN  | WUHU               | 31D05'00" N | 118D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 115.500   | n/a    | Bangladesh        | BGD  | COMILLA            | 23D26'00" N | 091D11'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a |                   |
| 115.500   | 102X   | China             | CHN  | BAYANHAOTE         | 38D45'00" N | 105D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 115.500   | 102X   | China             | CHN  | CHIFENG            | 42D11'00" N | 118D48' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.500   | 102X   | China             | CHN  | DUNHUANG           | 40D09'00" N | 094D50' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.500   | 102X   | China             | CHN  | NALATI             | 43D26'00" N | 083D22' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.500   | 102X   | China             | CHN  | ZHAOTONG           | 27D19'00" N | 103D45' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR         |
| 115.500   | 102X   | China             | CHN  | ZHOUKOU            | 33D39'00" N | 114D39' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.500   | 102X   | China - Hong Kong | HKG  | SIU MO TO          | 22D20'15" N | 113D58'55 E | VOR/DME  | N    | 70/450       | 17  |     | 70/450    | 27  | FI FOR 2022; DVOR |
| 115.500   | 102X   | India             | IND  | AMRITSAR           | 31D42'25" N | 074D48'03 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR              |
| 115.500   | 102X   | India             | IND  | BANGALORE          | 12D56'59" N | 077D40'52 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.500   | 102X   | Indonesia         | INS  | AMBON PATTIMURA    | 03D36'53" S | 128D11'09 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DME NAT; DVOR     |
| 115.500   | 102X   | Indonesia         | INS  | PALEMBANG          | 02D52'43" S | 104D39'11 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DME NAT; DVOR     |
| 115.500   | 102X   | Japan             | J    | AMAMI              | 28D27'00" N | 129D35'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR     |
| 115.500   | 102X   | Japan             | J    | NIIGATA            | 37D57'00" N | 139D07'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR              |
| 115.500   | 102X   | Philippines       | PHL  | TACLOBAN           | 11D14'01" N | 125D01'41 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  |                   |
| 115.500   | 102X   | Republic of Korea | KOR  | INCHEON ACC        | 37D24'49" N | 126D55'42 E | VOR/TAC  | I    | 100/450      | 23  |     | 100/450   | 27  | FI 26Dec13; DVOR  |
| 115.500   | 102X   | Thailand          | THA  | MAE HONG SON       | 19D19'10" N | 097D54'43 E | VOR/DME  | N    | 200/300      | 29  |     | 200/300   | 40  | AIP; DVOR         |
| 115.500   | 102X   | Viet Nam          | VTN  | PHU CAT            | 13D57'00" N | 100D24'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.550   | 102Y   | China             | CHN  | JINGZHOU           | 30D15'00" N | 112D26' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                   |
| 115.600   | 103X   | Australia         | AUS  | ALBURY             | 36D04'05" S | 146D57'58 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | Details Updated.  |
| 115.600   | 103X   | China             | CHN  | NANTONG            | 32D05'00" N | 120D58' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.600   | 103X   | China             | CHN  | NANXIONG           | 25D05'00" N | 114D16' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR         |
| 115.600   | 103X   | China             | CHN  | PUZHEHEI           | 23D33'00" N | 104D19' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.600   | 103X   | China             | CHN  | TIANZHEN           | 40D24'00" N | 114D03' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR              |
| 115.600   | 103X   | China             | CHN  | XIANKANG           | 32D46'00" N | 108D39' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                   |
| 115.600   | 103X   | India             | IND  | Bareilly           | 28D25'20" N | 079D27'05 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                   |
| 115.600   | 103X   | India             | IND  | Phalodi            | 27D05'54" N | 072D11'47 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | DVOR              |
| 115.600   | 103X   | Japan             | J    | AWAJI              | 34D16'00" N | 134D43'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR     |
| 115.600   | 103X   | Malaysia          | MLA  | TAWAU              | 04D19'31" N | 118D08'14 E | VOR/DME  | I    | 30/100       | 17  |     | 30/100    | 27  | DVOR              |
| 115.600   | 103X   | Myanmar           | BRM  | PATHEIN            | 16D48'00" N | 094D47'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.600   | 103X   | Nepal             | NPL  | CHANDARGADI        | 26D34'11" N | 088D04'38 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 10Jun18; DVOR     |
| 115.600   | 103X   | New Zealand       | NZL  | WOODBOURNE         | 41D31'11" S | 173D51'46 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                   |
| 115.600   | 103X   | Republic of Korea | KOR  | INCHEON ACC        | 37D42'02" N | 128D45'13 E | VOR/TAC  | N    | 100/450      | 23  |     | 100/450   | 27  | FI 26Dec13; DVOR  |



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| Frequency | DME ch | Country     | Ctry | Location           | Latitude   | Longitude   | Facility | Cat.    | LOC/VOR/GBAS |         | TRD | DME/TACAN |     | Remarks                    |
|-----------|--------|-------------|------|--------------------|------------|-------------|----------|---------|--------------|---------|-----|-----------|-----|----------------------------|
|           |        |             |      |                    |            |             |          |         | DOC          | PWR     |     | DOC       | PWR |                            |
| 115.600   | 103X   | Viet Nam    | VTN  | CON SON            | 08D43'00"N | 106D37'00 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.650   | 103Y   | China       | CHN  | WULONG             | 29D28'00"N | 107D41'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.700   | 104X   | China       | CHN  | KASHI              | 39D32'00"N | 076D01'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.700   | 104X   | China       | CHN  | SHILONG            | 23D05'00"N | 113D51'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.700   | 104X   | China       | CHN  | SHUANGLIU          | 30D34'00"N | 103D56'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.700   | 104X   | China       | CHN  | WEIXIAN            | 36D21'00"N | 114D55'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.700   | 104X   | China       | CHN  | WULANHAOTE         | 46D11'00"N | 122D01'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.700   | 104X   | China       | CHN  | WULUMUQIDIWOPUJICH | 43D54'00"N | 087D28'     | E        | VOR/DME | ICA          | 100/250 | 30  | 100/250   | 30  | DVOR                       |
| 115.700   | 104X   | China       | CHN  | YABULAI            | 39D25'00"N | 102D46'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.700   | 104X   | India       | IND  | KALAMB             | 19D06'18"N | 073D23'53 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | Not yet commissioned       |
| 115.700   | 104X   | India       | IND  | Kushinagar         | 26D57'56"N | 083D53'16 E | VOR/DME  | NAT     | 200/450      | 27      |     | 200/450   | 37  |                            |
| 115.700   | 104X   | India       | IND  | LEH                | 34D08'00"N | 077D33'00 E | VOR/DME  | N       | 150/450      | 27      |     | 150/450   | 37  | Not yet commissioned; DVOR |
| 115.700   | 104X   | India       | IND  | PORT BLAIR         | 11D38'59"N | 092D44'45 E | VOR/DME  | I       | 300/450      | 29      |     | 300/450   | 40  |                            |
| 115.700   | 104X   | India       | IND  | SILCHAR            | 24D54'57"N | 092D58'51 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  |                            |
| 115.700   | 104X   | India       | IND  | TIRUPATHI          | 13D38'04"N | 079D32'21 E | VOR/DME  | N       | 150/450      | 27      |     | 150/450   | 37  | DVOR                       |
| 115.700   | 104X   | Indonesia   | INS  | MANOKWARI RENDANI  | 00D53'34"S | 134D03'00 E | VOR/DME  | N       | 200/450      | 27      |     | 200/450   | 37  | DVOR                       |
| 115.700   | 104X   | Indonesia   | INS  | PALU MUTIARA       | 00D55'00"S | 119D54'24 E | VOR/DME  | N       | 200/450      | 27      |     | 200/450   | 37  | DVOR                       |
| 115.700   | 104X   | Japan       | J    | KAJIKI             | 31D48'00"N | 130D44'00 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.700   | 104X   | Japan       | J    | ONJUKU             | 35D11'00"N | 140D22'00 E | VOR/TAC  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.700   | 104X   | Pakistan    | PAK  | ZHOB               | 31D21'00"N | 069D27'00 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.700   | 104X   | Philippines | PHL  | MASBATE            | 12D22'09"N | 123D37'50 E | VOR/DME  | N       | 150/450      | 27      |     | 150/450   | 37  |                            |
| 115.700   | 104X   | Thailand    | THA  | NAN                | 18D48'32"N | 100D46'57 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | NOTAM; DVOR                |
| 115.700   | 104X   | Viet Nam    | VTN  | PHAN THIET         | 10D50'00"N | 108D04'00 E | VOR/DME  | N       | 30/450       | 17      |     | 30/450    | 27  |                            |
| 115.750   | 104Y   | China       | CHN  | SHIZUO             | 31D40'00"N | 118D58'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.800   | n/a    | Bangladesh  | BGD  | SAIDPUR            | 25D45'00"N | 088D54'00 E | VOR      | I       | 200/450      | 29      |     | n/a       | n/a |                            |
| 115.800   | 105X   | China       | CHN  | LONGKOU            | 29D54'00"N | 113D41'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.800   | 105X   | China       | CHN  | WEIHAI             | 37D11'00"N | 122D13'     | E        | VOR/DME | NAT          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.800   | 105X   | India       | IND  | JALALABAD          | 27D41'40"N | 079D39'20 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  |                            |
| 115.800   | 105X   | Indonesia   | INS  | CURUG BUDIARTO     | 06D17'33"S | 106D34'57 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.800   | 105X   | Indonesia   | INS  | MERAUKE MOPAH      | 08D30'58"S | 140D24'49 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.800   | 105X   | Japan       | J    | FUKUE              | 32D40'00"N | 128D50'00 E | VOR/DME  | I       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.800   | 105X   | Viet Nam    | VTN  | HUE PHU-BAI        | 16D24'00"N | 107D42'00 E | VOR/DME  | N       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.900   | 106X   | Australia   | AUS  | ALICE SPRINGS      | 23D47'34"S | 133D52'41 E | VOR/DME  | I       | 200/450      | 29      |     | 200/450   | 40  | Coordinates Updated        |
| 115.900   | 106X   | China       | CHN  | BAISE              | 23D55'00"N | 106D38'     | E        | VOR/DME | NAT          | 200/400 | 30  | 200/400   | 30  | BAISE                      |
| 115.900   | 106X   | China       | CHN  | BOTOU              | 38D06'00"N | 116D34'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.900   | 106X   | China       | CHN  | CHAKA              | 36D46'00"N | 099D06'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.900   | 106X   | China       | CHN  | CHENGGU            | 33D08'00"N | 107D13'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.900   | 106X   | China       | CHN  | DAOCHENG           | 29D21'00"N | 100D02'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  |                            |
| 115.900   | 106X   | China       | CHN  | HANZHONG           | 33D04'00"N | 107D01'00 E | VOR/DME  | I       | 200/450      | 29      |     | 200/450   | 40  | DVOR                       |
| 115.900   | 106X   | China       | CHN  | KUERLE             | 41D36'00"N | 086D08'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.900   | 106X   | China       | CHN  | SHEKOU             | 22D29'00"N | 113D54'     | E        | VOR/DME | NAT          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.900   | 106X   | China       | CHN  | TONGLU             | 29D45'00"N | 119D39'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |
| 115.900   | 106X   | China       | CHN  | WANCHANG           | 43D46'00"N | 125D51'     | E        | VOR/DME | ICA          | 200/400 | 30  | 200/400   | 30  | DVOR                       |



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|-----------|--------|-------------------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------------------------|
|           |        |                   |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                    |
| 115.900   | 106X   | India             | IND  | Gorakhpur          | 26D43'55" N | 083D28'19 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                                    |
| 115.900   | 106X   | India             | IND  | IMPHAL             | 24D45'27" N | 093D54'61 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 115.900   | 106X   | India             | IND  | SRINAGAR           | 33D59'00" N | 074D47'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 115.900   | 106X   | India             | IND  | UDAIPUR            | 24D36'46" N | 073D53'39 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 115.900   | 106X   | Japan             | J    | OKAYAMA            | 34D40'00" N | 134D01'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | 26Dec13; DVOR                      |
| 115.900   | 106X   | Philippines       | PHL  | PUERTO PRINCESA    | 09D44'29" N | 118D45'10 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                               |
| 115.900   | 106X   | Thailand          | THA  | LOEI               | 17D27'00" N | 101D43'23 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 115.950   | 106Y   | China             | CHN  | ERTANG             | 24D40'00" N | 110D46' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 115.950   | 106Y   | China             | CHN  | HUILONG            | 30D18'00" N | 103D41' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 116.000   | 107X   | Australia         | AUS  | TAMWORTH           | 31D03'58" S | 150D49'49 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.               |
| 116.000   | 107X   | Cambodia          | KMR  | SIHANOUK VILLE     | 13D23'50" N | 103D48'12 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 9May08; DVOR                       |
| 116.000   | 107X   | China             | CHN  | HEKOU              | 31D19'00" N | 114D25' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 116.000   | 107X   | China             | CHN  | MAOTAI             | 27D56'00" N | 106D26' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 116.000   | 107X   | China             | CHN  | ZHONGHE            | 36D14'00" N | 103D47' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                    |
| 116.000   | 107X   | India             | IND  | Ayodhya Airport    | 26D44'48" N | 082D10'21 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                                    |
| 116.000   | 107X   | India             | IND  | BARAPANI           | 25D42'22" N | 091D58'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Proposed                           |
| 116.000   | 107X   | India             | IND  | Kalaburgi          | 17D18'23" N | 076D58'07 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Replace previous Gulbarga          |
| 116.000   | 107X   | India             | IND  | NAL(BIKANER)       | 28D04'01" N | 073D11'54 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                    |
| 116.000   | 107X   | Indonesia         | INS  | BATAM HANG NADIM   | 01D08'13" S | 104D07'57 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 116.000   | 107X   | Japan             | J    | AMI                | 36D01'00" N | 140D12'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 116.000   | 107X   | Mongolia          | MON  | ULAAN BAATAR       | 47D52'04" N | 106D44'01 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 116.100   | 108X   | Australia         | AUS  | AVALON             | 38D02'57" S | 144D27'33 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated                |
| 116.100   | n/a    | Australia         | AUS  | SYDNEY             | 33D57'48" S | 151D11'05 E | GBAS     | N    | 25/62.5      | 20  |     | 25/100    | n/a | G07A, G16A, G16B, G25A, G34A, G34B |
| 116.100   | 108X   | China             | CHN  | AERSHAN            | 47D21'00" N | 120D07' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 116.100   | 108X   | China             | CHN  | ALAER              | 40D25'00" N | 081D14' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |
| 116.100   | 108X   | China             | CHN  | EERDUOSI           | 39D29'00" N | 109D51' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 116.100   | 108X   | China             | CHN  | HUANGCHENG         | 37D39'00" N | 120D32' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 116.100   | 108X   | China             | CHN  | HUANGSHAN          | 29D44'00" N | 118D15' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 116.100   | 108X   | China             | CHN  | JIANGBEI           | 29D44'00" N | 106D39' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                               |
| 116.100   | 108X   | China - Hong Kong | HKG  | HONGKONG TUNG LUNG | 22D14'52" N | 114D17'35 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 116.100   | 108X   | India             | IND  | AGARTALA           | 23D53'22" N | 091D14'23 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 116.100   | 108X   | India             | IND  | DELHI              | 28D34'00" N | 077D05'42 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                               |
| 116.100   | 108X   | India             | IND  | MADURAI            | 09D49'52" N | 078D05'21 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                                    |
| 116.100   | 108X   | India             | IND  | RAIPUR             | 21D10'48" N | 081D44'34 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  |                                    |
| 116.100   | 108X   | Indonesia         | INS  | CIREBON            | 06D45'22" S | 108D32'18 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DME NAT; DVOR                      |
| 116.100   | 108X   | Indonesia         | INS  | LUWUK SYUKURAN     | 01D01'11" S | 122D47'06 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                               |
| 116.100   | 108X   | Indonesia         | INS  | MALANG ABDUL       | 07D55'49" S | 112D42'42 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                               |
| 116.100   | 108X   | Malaysia          | MLA  | NEW KUALA LUMPUR   | 02D43'28" N | 101D44'17 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                               |
| 116.100   | 108X   | Viet Nam          | VTN  | HANOI NOI BAI      | 21D12'00" N | 105D50'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                    |
| 116.100   | 108X   | Viet Nam          | VTN  | NOIBAI             | 21D12'00" N | 010D55'00 E | VOR/DME  | N    | 130/450      | 23  |     | 130/450   | 37  |                                    |
| 116.200   | n/a    | Afghanistan       | AFG  | DILARAM            | 32D10'00" N | 063D25'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                                    |
| 116.200   | 109X   | Bhutan            | BTN  | GELEPHU            | 26D53'04" N | 090D27'50 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 6July17; DVOR                   |
| 116.200   | 109X   | China             | CHN  | HONGYUAN           | 32D35'00" N | 102D20' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                    |



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|-----------|--------|------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|--|-----|-----------|-----|--|----------------------|
|           |        |                  |      |                   |             |             |          |      | DOC          | PWR |  |     | DOC       | PWR |  |                      |
| 116.200   | 109X   | China            | CHN  | LAOLIANGCANG      | 28D04'00" N | 112D12' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 116.200   | 109X   | India            | IND  | Gorakhpur         | 26D44'29" N | 083D27'08 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 116.200   | 109X   | India            | IND  | Jodhpur           | 26D15'26" N | 073D03'09 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 116.200   | 109X   | India            | IND  | VIJAYAWADA        | 16D31'14" N | 080D47'39 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Planned              |
| 116.200   | 109X   | Indonesia        | INS  | BALI NGURAH RAI   | 08D45'02" S | 115D09'48 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 116.200   | 109X   | Indonesia        | INS  | JAYAPURA          | 02D34'42" S | 140D30'60 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DME NAT; DVOR        |
| 116.200   | 109X   | Indonesia        | INS  | PALU MUTIARA      | 00D53'06" S | 119D53'41 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 116.200   | 109X   | Japan            | J    | YOKOSUKA          | 35D15'00" N | 139D35'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 116.200   | 109X   | Malaysia         | MLA  | PENANG            | 05D16'46" N | 100D15'39 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  | DVOR                 |
| 116.200   | 109X   | Mongolia         | MON  | MUREN             | 49D41'32" N | 100D23'27 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 20Nov08; DVOR        |
| 116.200   | 109X   | Viet Nam         | VTN  | DONG HOI          | 17D30'00" N | 106D35'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 1Apr04; DVOR         |
| 116.250   | 109Y   | China            | CHN  | SHANGMA           | 36D17'00" N | 120D15' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  |                      |
| 116.250   | 109Y   | China            | CHN  | WUCHUAN           | 21D29'00" N | 110D41' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  |                      |
| 116.300   | n/a    | Australia        | AUS  | GLADSTONE         | 23D51'55" S | 151D12'16 E | VOR      | N    | 200/450      | 29  |  |     | n/a       | n/a |  | Coordinates Updated. |
| 116.300   | 110X   | China            | CHN  | FUKANG            | 44D10'00" N | 087D58' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.300   | 110X   | China            | CHN  | LIUPANSHUI        | 26D38'00" N | 105D01' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.300   | 110X   | China            | CHN  | LONGMEN           | 23D38'00" N | 114D19' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  |  | FI ; DVOR            |
| 116.300   | 110X   | China            | CHN  | NINGBO            | 29D49'00" N | 121D27' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 116.300   | 110X   | China            | CHN  | NINGSHAN          | 33D19'00" N | 108D18' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 116.300   | 110X   | China            | CHN  | QILIAN            | 38D00'00" N | 100D35' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.300   | 110X   | China            | CHN  | TONGLIAO          | 43D33'00" N | 122D11' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 116.300   | 110X   | China            | CHN  | XISHUANGBANNA     | 21D58'00" N | 100D45' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 116.300   | 110X   | India            | IND  | Adampur           | 31D26'15" N | 075D45'27 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 116.300   | 110X   | India            | IND  | AURANGABAD        | 19D51'53" N | 075D23'39 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 116.300   | 110X   | India            | IND  | Charbatia         | 20D32'32" N | 085D52'56 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 116.300   | 110X   | Indonesia        | INS  | KAIMANA UTAROM    | 03D38'41" S | 133D41'38 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 116.300   | 110X   | Indonesia        | INS  | SOLO ADI SUMARMO  | 07D30'28" S | 110D47'40 E | VOR/DME  | N    | 150/450      | 29  |  |     | 150/450   | 40  |  | DVOR                 |
| 116.300   | 110X   | Japan            | J    | MATSUYAMA         | 33D49'00" N | 132D43'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 116.300   | 110X   | Japan            | J    | SENDAI            | 38D08'00" N | 140D55'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 116.300   | 110X   | Malaysia         | MLA  | LABUAN            | 05D17'25" N | 115D15'18 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 116.300   | 110X   | Myanmar          | BRM  | MANDALAY NEW INTL | 21D43'00" N | 095D59'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 116.300   | 110X   | Nepal            | NPL  | DHANGADHI         | 28D45'15" N | 080D34'58 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | FI 10Jun18; DVOR     |
| 116.300   | 110X   | Papua New Guinea | PNG  | MADANG            | 05D12'00" S | 145D48'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  |                      |
| 116.300   | 110X   | Philippines      | PHL  | ILOILO            | 10D50'07" N | 122D29'31 E | VOR/DME  | N    | 100/450      | 23  |  |     | 100/450   | 27  |  |                      |
| 116.300   | 110X   | Thailand         | THA  | NARATHIWAT        | 06D31'00" N | 101D46'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | FI 19MAR12; DVOR     |
| 116.300   | 110X   | Viet Nam         | VTN  | PHU CAT           | 13D57'00" N | 109D02'00 E | VOR/DME  | N    | 130/450      | 23  |  |     | 130/450   | 37  |  |                      |
| 116.350   | 110Y   | China            | CHN  | DEXIN             | 31D14'00" N | 104D22' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.400   | 111X   | Australia        | AUS  | ADELAIDE          | 34D56'49" S | 138D31'28 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated  |
| 116.400   | n/a    | Bangladesh       | BGD  | SYLHET            | 24D57'00" N | 091D52'00 E | VOR      | N    | 200/450      | 29  |  |     | n/a       | n/a |  |                      |
| 116.400   | 111X   | China            | CHN  | LINRU             | 34D08'00" N | 112D50' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 116.400   | 111X   | China            | CHN  | PENGLAI           | 37D40'00" N | 121D00' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.400   | 111X   | China            | CHN  | WENZHOUE          | 27D55'00" N | 120D51' E   | VOR/DME  | NAT  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 116.400   | 111X   | China - Macao    | MAC  | MACAU             | 22D08'00" N | 113D35'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |



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| Frequency | DME ch | Country                 | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                         |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 116.400   | 111X   | India                   | IND  | KHAJURAHO           | 24D48'54" N | 079D55'07 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.400   | 111X   | India                   | IND  | SRINAGAR            | 34D00'09" N | 074D45'15 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 116.400   | 111X   | Indonesia               | INS  | INDRAMAYU           | 01D05'00" N | 117D28'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 116.400   | 111X   | Indonesia               | INS  | PADANG TABING       | 00D52'47" S | 100D21'04 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | OFF; DVOR            |
| 116.400   | 111X   | Japan                   | J    | MUKAWA              | 42D33'00" N | 141D57'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.400   | 111X   | Japan                   | J    | NEW CHITOSE         | 42D33'00" N | 141D57'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 24Dec13 ; DVOR    |
| 116.400   | 111X   | Japan                   | J    | TOMO                | 34D17'00" N | 135D00'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.400   | 111X   | Mongolia                | MON  | GOBI-ALTAI          | 46D22'42" N | 096D12'57 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 19Dec13; DVOR        |
| 116.400   | 111X   | New Zealand             | NZL  | NELSON              | 41D18'06" S | 173D13'21 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 116.400   | 111X   | Papua New Guinea        | PNG  | KAVIENG             | 02D36'13" S | 150D50'11 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  |                      |
| 116.450   | 111Y   | China                   | CHN  | CHASHAN             | 30D09'00" N | 114D45' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                      |
| 116.500   | 112X   | Australia               | AUS  | KUNUNURRA           | 15D46'32" S | 128D42'31 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated. |
| 116.500   | 112X   | China                   | CHN  | DAHUSHAN            | 41D38'00" N | 122D06' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR            |
| 116.500   | 112X   | China                   | CHN  | GAOYAO              | 23D04'00" N | 112D29' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 116.500   | 112X   | China                   | CHN  | NANZUO              | 30D53'00" N | 120D25' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 116.500   | 112X   | China                   | CHN  | WUTAISHAN           | 38D35'00" N | 112D55' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 116.500   | 112X   | China                   | CHN  | XINING              | 36D31'00" N | 102D01' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 116.500   | 112X   | China                   | CHN  | YIBINJICHANG        | 28D47'00" N | 104D33' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR                 |
| 116.500   | 112X   | India                   | IND  | CALICUT             | 11D08'07" N | 075D57'18 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.500   | 112X   | India                   | IND  | CHANDIGARH          | 30D40'04" N | 076D48'25 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.500   | 112X   | India                   | IND  | HIRASAR AIRPORT     | 22D22'08" N | 071D01'52 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                      |
| 116.500   | 112X   | India                   | IND  | LILABARI            | 27D17'26" N | 094D05'49 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Planned; DVOR        |
| 116.500   | 112X   | Indonesia               | INS  | MADIUN ISWAHYUDI    | 07D38'00" S | 111D26'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 116.500   | 112X   | Japan                   | J    | NIJIMA              | 34D21'00" N | 139D16'00 E | VOR/TAC  | N    | 100/450      | 23  |     | 100/450   | 27  | 26Dec13; DVOR        |
| 116.500   | 112X   | Philippines             | PHL  | CAUAYAN             | 16D55'54" N | 121D44'53 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 16MAR11              |
| 116.500   | 112X   | Republic of Korea       | KOR  | DAEGU INTL          | 35D54'13" N | 128D38'28 E | VOR/DME  | N    | 25/100       | 17  |     | 25/100    | 27  | DVOR                 |
| 116.500   | 112X   | Singapore               | SNG  | PULAU TEKONG KECHIL | 01D25'00" N | 104D01'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.500   | 112X   | Thailand                | THA  | CHIANG RAI          | 19D56'53" N | 099D53'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.500   | 112X   | Viet Nam                | VTN  | CAM RANH            | 11D10'49" N | 109D14'51 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 1Apr04; DVOR         |
| 116.600   | 113X   | China                   | CHN  | LIPING              | 26D19'00" N | 109D09' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 116.600   | 113X   | China                   | CHN  | LONGNAN             | 33D47'00" N | 105D50' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 116.600   | 113X   | China                   | CHN  | NIULING             | 23D35'00" N | 116D24' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                      |
| 116.600   | 113X   | China                   | CHN  | WEIFANG             | 36D38'00" N | 119D07' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | DVOR                 |
| 116.600   | 113X   | India                   | IND  | BAGHDogra           | 26D41'14" N | 088D19'44 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 116.600   | 113X   | India                   | IND  | Bakhshi Ka Talab    | 26D59'28" N | 080D52'40 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | Forced Input         |
| 116.600   | 113X   | India                   | IND  | MUMBAI              | 19D05'11" N | 075D52'27 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | DVOR                 |
| 116.600   | 113X   | India                   | IND  | VISAKHAPATANAM      | 17D43'16" N | 083D13'28 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 10Apr03; DVOR        |
| 116.600   | 113X   | Indonesia               | INS  | TARAKAN JUWATA      | 03D02'00" N | 117D34'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                 |
| 116.600   | 113X   | Japan                   | J    | MIYAKO              | 39D52'00" N | 141D57'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.600   | 113X   | Japan                   | J    | OMURA               | 32D54'00" N | 129D55'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI ; DVOR            |
| 116.600   | 113X   | Lao People's Democratic | LAO  | LUANG PRABANG       | 19D54'29" N | 102D10'18 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 116.600   | 113X   | Malaysia                | MLA  | GONG KEDAK          | 05D47'50" N | 102D28'43 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 116.600   | 113X   | Mongolia                | MON  | SAINSHAND           | 44D54'11" N | 110D07'49 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | 20Nov08; DVOR        |



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| Frequency | DME ch | Country          | Ctry | Location        | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                               |
|-----------|--------|------------------|------|-----------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------------------------|
|           |        |                  |      |                 |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                                       |
| 116.600   | 113X   | New Zealand      | NZL  | CHRISTCHURCH    | 43D23'56" S | 172D23'07 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.600   | 113X   | Papua New Guinea | PNG  | WEWAK           | 03D45'00" S | 143D41'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.600   | 113X   | Viet Nam         | VTN  | CHU LAI         | 15D24'22" N | 108D42'21 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 14Apr05; DVOR                         |
| 116.650   | 113Y   | China            | CHN  | NANFENG         | 27D12'00" N | 116D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 116.650   | 113Y   | Japan            | J    | HACHIJO JIMA    | 33D07'00" N | 139D47'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR                         |
| 116.700   | 114X   | Australia        | AUS  | CANBERRA        | 35D16'53" S | 149D11'44 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated                   |
| 116.700   | 114X   | China            | CHN  | LIANSHENGWEI    | 22D13'00" N | 113D27' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.700   | 114X   | China            | CHN  | LUOGANG         | 31D46'00" N | 117D18' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.700   | 114X   | China            | CHN  | XUYONG          | 28D10'00" N | 105D25' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR                             |
| 116.700   | 114X   | China            | CHN  | YULIN           | 38D22'00" N | 109D34' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.700   | 114X   | India            | IND  | INDORE          | 22D43'22" N | 075D48'24 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.700   | 114X   | India            | IND  | Jorhat          | 26D43'47" N | 094D10'46 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                       |
| 116.700   | 114X   | Indonesia        | INS  | TANJUNG PANDAN  | 02D43'28" S | 107D45'11 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 116.700   | 114X   | Japan            | J    | KUMEJIMA        | 26D22'00" N | 126D43'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 116.700   | 114X   | Japan            | J    | MIHO            | 35D32'00" N | 133D06'00 E | VOR/TAC  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 116.700   | 114X   | Marshall Islands | MSI  | MAJURO ATOLL    | 00D00'00" N | 000D00'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.700   | n/a    | Pakistan         | PAK  | MULTAN          | 30D12'00" N | 071D25'00 E | VOR      | I    | 200/450      | 29  |     | n/a       | n/a |                                       |
| 116.700   | 114X   | Philippines      | PHL  | JOMALIG         | 14D42'18" N | 122D19'48 E | VOR/DME  | I    | 90/450       | 20  |     | 90/450    | 27  | 16MAR11                               |
| 116.700   | 114X   | Sri Lanka        | SLK  | MATTALA         | 06D18'14" N | 081D08'39 E | VOR/DME  | ICA  | 200/450      | 27  |     | 200/450   | 37  |                                       |
| 116.700   | 114X   | Thailand         | THA  | MAESOT          | 16D41'55" N | 098D32'31 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                                  |
| 116.700   | 114X   | Viet Nam         | VTN  | QUI-NHON        | 00D00'00" N | 000D00'00 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  |                                       |
| 116.700   | 114X   | Viet Nam         | VTN  | TAN SON NHAT    | 10D49'00" N | 106D39'00 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  | 15Mar05; DVOR , To be replaced by TSH |
| 116.750   | 114Y   | China            | CHN  | BAZHONG         | 31D44'00" N | 106D40' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 116.750   | 114Y   | India            | IND  | Bihta           | 25D35'21" N | 084D52'48 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                       |
| 116.800   | 115X   | China            | CHN  | CHANGHAI        | 39D16'00" N | 122D37' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.800   | 115X   | China            | CHN  | FUZHOU          | 25D56'00" N | 119D39' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.800   | 115X   | China            | CHN  | SANJIANG        | 25D46'00" N | 109D36' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 116.800   | 115X   | China            | CHN  | ZHONGYUAN       | 34D43'00" N | 113D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                                       |
| 116.800   | n/a    | India            | IND  | BANGALORE       | 13D24'05" N | 077D54'30 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | 3Jun08; DVOR                          |
| 116.800   | 115X   | India            | IND  | CHILLARKI       | 28D20'51" N | 076D39'58 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.800   | 115X   | Indonesia        | INS  | KETAPANG RAHADI | 01D48'59" S | 109D57'56 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                                  |
| 116.800   | 115X   | Indonesia        | INS  | TANJUNG REDEB   | 02D09'13" N | 117D25'50 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                                  |
| 116.800   | 115X   | Malaysia         | MLA  | MERSING         | 02D23'18" N | 103D52'24 E | VOR/DME  | N    | 250/450      | 29  |     | 250/450   | 40  | DVOR                                  |
| 116.800   | 115X   | Myanmar          | BRM  | LASHIO          | 22D59'00" N | 097D45'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.800   | 115X   | New Zealand      | NZL  | INVERCARGILL    | 46D24'42" S | 168D19'04 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                                       |
| 116.800   | 115X   | Viet Nam         | VTN  | TAN SON NHAT    | 10D49'06" N | 106D39'02 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                                       |
| 116.850   | 115Y   | China            | CHN  | JIAOBEI         | 36D19'00" N | 119D58' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                                       |
| 116.900   | 116X   | Australia        | AUS  | PARABURDOO      | 23D10'21" S | 117D44'13 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.                  |
| 116.900   | 116X   | Australia        | AUS  | ROCKHAMPTON     | 23D22'58" S | 150D28'18 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.                  |
| 116.900   | 116X   | China            | CHN  | DEQING          | 23D12'00" N | 111D46' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.900   | 116X   | China            | CHN  | HUHEHAOTE       | 40D43'00" N | 111D53' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.900   | 116X   | China            | CHN  | PUDONG          | 31D10'00" N | 121D46' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |
| 116.900   | 116X   | China            | CHN  | SANXIA          | 30D33'00" N | 111D28' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                                  |



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| Frequency | DME ch | Country                 | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     |  | TRD | DME/TACAN |     |  | Remarks              |
|-----------|--------|-------------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|--|-----|-----------|-----|--|----------------------|
|           |        |                         |      |                     |             |             |          |      | DOC          | PWR |  |     | DOC       | PWR |  |                      |
| 116.900   | 116X   | China                   | CHN  | XIAHE               | 34D48'00" N | 102D39' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 116.900   | 116X   | India                   | IND  | LEH                 | 34D07'57" N | 077D32'30 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 116.900   | 116X   | India                   | IND  | RANCHI              | 23D18'31" N | 085D19'36 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 116.900   | 116X   | India                   | IND  | SINNAR              | 19D48'00" N | 073D58'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Planned              |
| 116.900   | 116X   | Pakistan                | PAK  | FAISALABAD          | 31D21'30" N | 072D59'13 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 116.900   | 116X   | Republic of Korea       | KOR  | INCHEON ACC         | 37D05'40" N | 127D01'54 E | VOR/TAC  | N    | 100/450      | 23  |  |     | 100/450   | 27  |  | FI 26Dec13; DVOR     |
| 116.900   | 116X   | Thailand                | THA  | CHIANG MAI          | 18D46'00" N | 098D58'00 E | VOR/DME  | I    | 200/300      | 29  |  |     | 200/300   | 40  |  | DVOR                 |
| 116.900   | 116X   | Thailand                | THA  | PHUKET              | 08D06'00" N | 098D18'00 E | VOR/DME  | I    | 150/300      | 27  |  |     | 150/300   | 37  |  | DVOR                 |
| 117.000   | 117X   | Australia               | AUS  | COFFS HARBOUR       | 30D19'10" S | 153D07'15 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated  |
| 117.000   | n/a    | Australia               | AUS  | MOUNT GAMBIER       | 37D45'05" S | 140D47'07 E | VOR      | I    | 200/450      | 29  |  |     | n/a       | n/a |  | Coordinates Updated. |
| 117.000   | 117X   | China                   | CHN  | ANSHUN              | 26D15'00" N | 105D52' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.000   | 117X   | China                   | CHN  | CHENZHOU BEIHU      | 25D44'00" N | 112D48' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  |                      |
| 117.000   | 117X   | China                   | CHN  | JINJIANG            | 24D48'00" N | 118D35' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.000   | 117X   | China                   | CHN  | QUANZHOU            | 24D48'00" N | 118D36'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.000   | 117X   | China                   | CHN  | XUEJIADAO           | 35D57'00" N | 120D14' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.000   | 117X   | India                   | IND  | Kumbhigram          | 24D54'55" N | 092D59'08 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 117.000   | 117X   | India                   | IND  | SAMPLA              | 28D49'11" N | 076D49'10 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  |                      |
| 117.000   | 117X   | Indonesia               | INS  | BANDUNG HUSEIN      | 06D52'55" S | 107D30'44 E | VOR/DME  | N    | 200/450      | 27  |  |     | 200/450   | 37  |  | DVOR                 |
| 117.000   | 117X   | Japan                   | J    | SEKIYADO            | 36D01'00" N | 139D50'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.000   | 117X   | Japan                   | J    | YAKUSHIMA           | 30D23'00" N | 130D40'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.000   | 117X   | Nepal                   | NPL  | Guatam Buddha       | 27D30'05" N | 083D26'00 E | VOR/DME  | ICA  | 200/450      | 27  |  |     | 200/450   | 37  |  | 2May19; PLI; NC      |
| 117.000   | 117X   | Papua New Guinea        | PNG  | PORT MORESBY        | 09D31'00" S | 147D03'00 E | VOR/DME  | I    | 300/450      | 29  |  |     | 300/450   | 40  |  |                      |
| 117.000   | 117X   | Viet Nam                | VTN  | TUY HOA             | 13D01'41" N | 109D20'07 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | 18Dec15; DVOR        |
| 117.050   | 117Y   | China                   | CHN  | ZUOLING             | 31D50'00" N | 118D51' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 117.100   | 118X   | China                   | CHN  | DONGDINGRI          | 28D35'00" N | 086D54' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  |                      |
| 117.100   | 118X   | China                   | CHN  | JIUJIANG            | 29D27'00" N | 115D47' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.100   | 118X   | China                   | CHN  | LUANXIAN            | 39D44'00" N | 118D43' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.100   | 118X   | China                   | CHN  | MUDANJIANG          | 44D30'00" N | 129D33' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.100   | 118X   | China                   | CHN  | NANKANG             | 21D35'00" N | 109D25' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.100   | 118X   | China                   | CHN  | WUFENGXI            | 30D36'00" N | 104D29' E   | VOR/DME  | NAT  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.100   | 118X   | India                   | IND  | BHOPAL              | 23D16'58" N | 077D20'09 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.100   | 118X   | Indonesia               | INS  | SORONG DOMINE       | 00D53'46" S | 131D17'23 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.100   | 118X   | Japan                   | J    | OTSU                | 35D01'00" N | 135D50'00 E | VOR/DME  | I    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.100   | 118X   | Japan                   | J    | SHIMOJISHIMA        | 24D49'00" N | 125D09'00 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.100   | 118X   | Lao People's Democratic | LAO  | Bokeo International | 20D18'22" N | 100D09'16 E | VOR/DME  | NAT  | 200/450      | 27  |  |     | 200/450   | 37  |  |                      |
| 117.100   | 118X   | Malaysia                | MLA  | KERTEH              | 04D32'54" N | 103D25'30 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | DVOR                 |
| 117.100   | 118X   | Philippines             | PHL  | SAN JOSE            | 12D21'37" N | 121D02'35 E | VOR/DME  | N    | 150/450      | 27  |  |     | 150/450   | 37  |  |                      |
| 117.150   | 118Y   | China                   | CHN  | JINING DAAN         | 35D38'00" N | 116D43' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  |                      |
| 117.200   | 119X   | Australia               | AUS  | NEWMAN              | 23D25'16" S | 119D48'11 E | VOR/DME  | N    | 200/450      | 29  |  |     | 200/450   | 40  |  | Coordinates Updated. |
| 117.200   | 119X   | China                   | CHN  | HONGQIAO            | 31D12'00" N | 121D20' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.200   | 119X   | China                   | CHN  | JIUZHOU             | 22D14'00" N | 113D36' E   | VOR/DME  | ICA  | 200/400      | 30  |  |     | 200/400   | 30  |  | DVOR                 |
| 117.200   | 119X   | China                   | CHN  | SHAZIYING           | 40D06'00" N | 116D25' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |
| 117.200   | 119X   | China                   | CHN  | ZUOZHOUJICHANG      | 28D51'00" N | 105D23' E   | VOR/DME  | ICA  | 100/250      | 30  |  |     | 100/250   | 30  |  | DVOR                 |



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|-----------|--------|-----------|------|----------------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------------|
|           |        |           |      |                            |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                            |
| 117.200   | 119X   | India     | IND  | DEOGHAR                    | 24D26'46" N | 086D43'20 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | 05Mar20; DVOR              |
| 117.200   | 119X   | India     | IND  | SAKRAS                     | 27D50'54" N | 077D00'30 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                            |
| 117.200   | 119X   | India     | IND  | SINDHUDURG                 | 16D00'10" N | 073D33'16 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | FI 11June19; DVOR          |
| 117.200   | 119X   | Indonesia | INS  | BALIKPAPAN SULTAN          | 01D14'44" S | 116D56'25 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 117.200   | 119X   | Thailand  | THA  | BURIRUM                    | 15D14'22" N | 103D15'31 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | NOTAM; DVOR                |
| 117.300   | 120X   | Australia | AUS  | KARRATHA                   | 20D42'54" S | 116D46'26 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.       |
| 117.300   | 120X   | China     | CHN  | BAOTOU                     | 40D33'00" N | 109D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.300   | 120X   | China     | CHN  | DANGSHAN                   | 30D08'00" N | 120D30' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.300   | 120X   | China     | CHN  | DIQING                     | 27D47'00" N | 099D40' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.300   | 120X   | China     | CHN  | LIUZHOU                    | 24D12'00" N | 109D23' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.300   | 120X   | China     | CHN  | SHENNONGJIA                | 31D37'00" N | 110D20' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.300   | 120X   | China     | CHN  | YINGKOU                    | 40D31'00" N | 122D20' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.300   | 120X   | India     | IND  | COCHIN INTL                | 10D06'55" N | 076D40'54 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | Not Yet Commissioned; DVOR |
| 117.300   | 120X   | India     | IND  | DIBRUGARH                  | 27D29'14" N | 095D01'16 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                            |
| 117.300   | 120X   | India     | IND  | VADODARA                   | 22D19'51" N | 073D13'29 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                            |
| 117.300   | 120X   | Indonesia | INS  | KARIMUN JAWA               | 05D48'01" S | 110D28'48 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 117.300   | 120X   | Indonesia | INS  | NABIRE DOUW ATURURE        | 03D22'00" S | 135D30'00 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 117.300   | 120X   | Indonesia | INS  | WAINGAPU UMBU              | 09D40'11" S | 120D18'14 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |
| 117.300   | 120X   | Japan     | J    | KAGOSHIMA                  | 31D39'00" N | 130D51'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20Dec13; DVOR              |
| 117.300   | 120X   | Malaysia  | MLA  | IPOH                       | 04D34'24" N | 101D05'42 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 117.300   | 120X   | Nepal     | NPL  | POKHARA                    | 28D11'23" N | 084D00'03 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | FI 22Oct19; DVOR           |
| 117.300   | n/a    | Thailand  | THA  | LOPBURI SAPHANNAK          | 14D57'00" N | 100D38'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a |                            |
| 117.400   | 121X   | China     | CHN  | FUQING                     | 25D44'00" N | 119D23' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.400   | 121X   | China     | CHN  | FUZHOU                     | 25D44'00" N | 119D23'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 117.400   | 121X   | China     | CHN  | NANCHONG                   | 30D48'00" N | 106D11' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.400   | 121X   | China     | CHN  | WEISHI                     | 34D19'00" N | 114D04' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.400   | 121X   | India     | IND  | LUCKNOW                    | 26D45'44" N | 080D52'50 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 28Oct.2011; DVOR           |
| 117.400   | 121X   | India     | IND  | MOPA AIRPORT               | 15D44'49" N | 073D51'24 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  | Goa; DVOR                  |
| 117.400   | 121X   | Indonesia | INS  | PANGKALAN BUN              | 02D43'03" S | 111D41'12 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 117.400   | 121X   | Malaysia  | MLA  | MALACCA                    | 02D15'23" N | 102D15'02 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 117.400   | 121X   | Thailand  | THA  | NAKHON SI THAMMARAT        | 08D32'29" N | 099D56'48 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR                       |
| 117.400   | 121X   | Viet Nam  | VTN  | CAT BI HAI PHONG           | 20D48'45" N | 106D41'52 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 20APR15                    |
| 117.500   | 122X   | Australia | AUS  | MOUNT ISA                  | 20D39'53" S | 139D29'08 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | Coordinates Updated.       |
| 117.500   | 122X   | China     | CHN  | CHIZHOU                    | 30D43'00" N | 117D42' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.500   | 122X   | China     | CHN  | LINZUO                     | 29D21'00" N | 111D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.500   | 122X   | China     | CHN  | LUGUHU                     | 27D32'00" N | 100D45' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.500   | 122X   | China     | CHN  | QINGDAO                    | 36D17'00" N | 120D22' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.500   | 122X   | China     | CHN  | WENCHANG                   | 19D51'00" N | 110D47' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.500   | 122X   | China     | CHN  | XIDINGRI                   | 28D36'00" N | 086D38' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                            |
| 117.500   | 122X   | China     | CHN  | ZHONGWEI                   | 37D34'00" N | 105D07' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR                       |
| 117.500   | 122X   | India     | IND  | JALGAON                    | 20D57'50" N | 075D38'09 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 24May11; DVOR              |
| 117.500   | 122X   | India     | IND  | Noida Intl. Airport, Jewar | 28D10'33" N | 077D38'17 E | VOR/DME  | NAT  | 40/250       | 27  |     | 40/250    | 37  |                            |
| 117.500   | 122X   | India     | IND  | PANAGARH                   | 23D28'41" N | 087D25'22 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR                       |



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|-----------|--------|-------------------------|------|-------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|------------------|
|           |        |                         |      |                   |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                  |
| 117.500   | 122X   | India                   | IND  | THOISE            | 34D39'03" N | 077D23'28 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | FI ; DVOR        |
| 117.500   | 122X   | Indonesia               | INS  | JAMBI SULT. THAHA | 01D38'02" S | 103D38'33 E | VOR/DME  | N    | 200/450      | 27  |     | 200/450   | 37  | DVOR             |
| 117.500   | 122X   | Japan                   | J    | MIYAKOJIMA        | 24D47'00" N | 125D18'00 E | VOR/TAC  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.500   | 122X   | Lao People's Democratic | LAO  | VIENTIANE         | 18D00'37" N | 102D32'25 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.500   | 122X   | Philippines             | PHL  | LUBANG            | 13D51'15" N | 120D06'25 E | VOR/DME  | I    | 300/450      | 29  |     | 300/450   | 40  |                  |
| 117.550   | 122Y   | China                   | CHN  | SHIZUO            | 29D42'00" N | 107D00' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                  |
| 117.600   | 123X   | China                   | CHN  | JIUZHAI           | 32D51'00" N | 103D40' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.600   | 123X   | China                   | CHN  | LIANJIANG         | 26D13'00" N | 119D32' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.600   | 123X   | China                   | CHN  | LIANJIANG         | 26D13'00" N | 119D32'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.600   | 123X   | China                   | CHN  | LONGCHANG         | 40D51'00" N | 123D07' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 117.600   | 123X   | China                   | CHN  | TIANYANG          | 23D42'00" N | 106D57' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  | DVOR             |
| 117.600   | 123X   | China                   | CHN  | XINYANG           | 32D31'00" N | 114D03' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 117.600   | n/a    | India                   | IND  | CHENNAI           | 12D59'34" N | 080D09'42 E | GBAS     | N    | 23/100       | 17  |     | n/a       | n/a | FI GBAS 22Aug13  |
| 117.600   | 123X   | India                   | IND  | GUWAHATI          | 26D06'07" N | 091D35'09 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.600   | 123X   | India                   | IND  | LUNKA-1           | 28D34'13" N | 073D47'06 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.600   | 123X   | Japan                   | J    | MATSUMOTO         | 36D09'00" N | 137D55'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.600   | 123X   | Thailand                | THA  | SAMUI             | 09D33'00" N | 100D04'00 E | VOR/DME  | N    | 300/450      | 29  |     | 300/450   | 40  | DVOR             |
| 117.650   | 123Y   | China                   | CHN  | LIANYUNGANG       | 34D23'00" N | 119D09' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                  |
| 117.700   | 124X   | China                   | CHN  | CANGYUAN          | 23D14'00" N | 099D18' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 117.700   | 124X   | China                   | CHN  | JINGDEZHEN        | 29D20'00" N | 117D10' E   | VOR/DME  | NAT  | 200/400      | 30  |     | 200/400   | 30  | FI ; DVOR        |
| 117.700   | 124X   | China                   | CHN  | NANLANG           | 22D31'00" N | 113D33' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.700   | 124X   | China                   | CHN  | YUNLONG           | 29D02'00" N | 105D30' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  |                  |
| 117.700   | 124X   | China                   | CHN  | ZHENGDIING        | 38D16'00" N | 114D42' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.700   | n/a    | India                   | IND  | ALLAHABAD         | 25D26'00" N | 081D44'00 E | VOR      | N    | 200/450      | 29  |     | n/a       | n/a | TRAINING         |
| 117.700   | 124X   | India                   | IND  | Kalaikunda        | 22D20'13" N | 087D13'07 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                  |
| 117.700   | 124X   | India                   | IND  | KANDLA            | 23D06'42" N | 070D06'27 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 25May15; DVOR |
| 117.700   | 124X   | India                   | IND  | KANGRA GAGGAI     | 32D10'09" N | 076D15'47 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 22Apr15; DVOR    |
| 117.700   | 124X   | Japan                   | J    | ISHIGAKI          | 24D20'00" N | 124D11'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.700   | 124X   | Japan                   | J    | IWAKI             | 37D09'00" N | 140D59'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  |                  |
| 117.700   | 124X   | Japan                   | J    | OITA              | 33D29'00" N | 131D44'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI ; DVOR        |
| 117.700   | 124X   | Thailand                | THA  | DON MUEANG INTL   | 13D53'36" N | 100D35'46 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR             |
| 117.800   | 125X   | China                   | CHN  | ZUOJIANG          | 27D27'00" N | 109D42' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.800   | 125X   | India                   | IND  | JAISALMER         | 26D53'23" N | 070D52'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 10Apr03; DVOR    |
| 117.800   | 125X   | India                   | IND  | KOCHI             | 09D56'34" N | 076D16'28 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 4MAR13; DVOR     |
| 117.800   | 125X   | India                   | IND  | Navi Mubai        | 18D58'56" N | 073D03'59 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                  |
| 117.800   | 125X   | India                   | IND  | PAKYONG           | 27D13'39" N | 088D35'10 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 25May15; DVOR    |
| 117.800   | 125X   | Japan                   | J    | CHUBU CENTRAIR    | 34D51'00" N | 136D48'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR |
| 117.800   | 125X   | Japan                   | J    | MINAMIDAITO       | 25D51'00" N | 131D16'00 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | 24Dec13 ; DVOR   |
| 117.800   | 125X   | Lao People's Democratic | LAO  | Nongkhong         | 20D36'48" N | 104D03'58 E | VOR/DME  | ICA  | 200/450      | 27  |     | 200/450   | 37  | NC               |
| 117.800   | n/a    | Malaysia                | MLA  | KUALA LUMPOR      | 02D44'53" N | 101D41'49 E | GBAS     | N    | 23/100       | 17  |     | n/a       | n/a | FI 14KOG7DET     |
| 117.900   | 126X   | China                   | CHN  | BAIHESI           | 30D30'00" N | 104D12' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.900   | 126X   | China                   | CHN  | WUYISHAN          | 27D40'00" N | 117D59' E   | VOR/DME  | ICA  | 200/400      | 30  |     | 200/400   | 30  | DVOR             |
| 117.900   | 126X   | China                   | CHN  | YULIN             | 38D16'00" N | 109D43' E   | VOR/DME  | ICA  | 100/250      | 30  |     | 100/250   | 30  |                  |



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| Frequency | DME ch | Country           | Ctry | Location                | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------|------|-------------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                   |      |                         |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| 117.900   | 126X   | India             | IND  | ALIGARH                 | 27D49'46" N | 078D10'42 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  |                      |
| 117.900   | 126X   | India             | IND  | DUNDIGUL                | 17D37'41" N | 078D24'12 E | VOR/DME  | N    | 200/450      | 29  |     | 200/450   | 40  | FI 7Feb18; DVOR      |
| 117.900   | 126X   | India             | IND  | Jamnagar                | 22D27'56" N | 070D00'38 E | VOR/DME  | NAT  | 200/450      | 27  |     | 200/450   | 37  |                      |
| 117.900   | 126X   | India             | IND  | TEZPUR                  | 26D42'37" N | 092D46'48 E | VOR/DME  | N    | 150/450      | 27  |     | 150/450   | 37  | DVOR                 |
| 117.900   | 126X   | Japan             | J    | HIROSHIMA               | 34D26'00" N | 132D55'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | FI 20Dec13; DVOR     |
| 117.900   | 126X   | Japan             | J    | NARITA                  | 35D47'00" N | 140D22'00 E | VOR/DME  | I    | 200/450      | 29  |     | 200/450   | 40  | DVOR                 |
| 117.900   | 126X   | Republic of Korea | KOR  | JEJU JUNGSAK            | 33D23'32" N | 126D42'52 E | VOR/DME  | N    | 40/100       | 17  |     | 40/100    | 27  |                      |
| n/a       | 034X   | Australia         | AUS  | ALBANY                  | 34D57'00" S | 117D48'35 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated  |
| n/a       | 094X   | Australia         | AUS  | AMBERLEY                | 27D38'00" S | 152D42'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 073X   | Australia         | AUS  | ARMIDALE                | 30D31'40" S | 151D36'55 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 118X   | Australia         | AUS  | AYERS ROCK              | 25D10'17" S | 130D58'29 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 11OCT00              |
| n/a       | 100X   | Australia         | AUS  | BROOME                  | 17D56'48" S | 122D14'05 E | DME      | N    | n/a          | n/a |     | 80/100    | 27  |                      |
| n/a       | 087X   | Australia         | AUS  | COOMA                   | 36D21'16" S | 148D57'28 E | DME      | N    | n/a          | n/a |     | 80/100    | 27  | Coordinates Updated  |
| n/a       | 084X   | Australia         | AUS  | DARWIN                  | 12D24'49" S | 130D52'53 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated  |
| n/a       | 094X   | Australia         | AUS  | EDINBURGH               | 34D42'17" S | 138D36'45 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated  |
| n/a       | 095X   | Australia         | AUS  | GROOTE EYLANDT          | 13D58'31" S | 136D27'18 E | DME      | N    | n/a          | n/a |     | 80/100    | 27  | Name Updated.        |
| n/a       | 090X   | Australia         | AUS  | LORD HOWE IS.           | 31D31'44" S | 159D04'21 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 124X   | Australia         | AUS  | MERIMBULA               | 36D54'52" S | 149D53'58 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 057X   | Australia         | AUS  | MOOMBA                  | 28D06'15" S | 140D11'59 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 111X   | Australia         | AUS  | NOWRA                   | 34D57'00" S | 150D32'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 075X   | Australia         | AUS  | PEARCE                  | 31D40'26" S | 116D01'03 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 044X   | Australia         | AUS  | RICHMOND                | 33D36'27" S | 150D47'56 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 058X   | Australia         | AUS  | SYDNEY                  | 33D56'38" S | 151D10'57 E | DME      | I    | n/a          | n/a |     | 200/450   | 37  | Details Updated.     |
| n/a       | 070X   | Australia         | AUS  | TINDAL                  | 14D31'24" S | 132D22'23 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 082X   | Australia         | AUS  | TOWNSVILLE              | 19D16'44" S | 146D44'33 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 080X   | Australia         | AUS  | WILLIAMTOWN             | 32D47'49" S | 151D50'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | Coordinates Updated. |
| n/a       | 085X   | French Polynesia  | OCA  | HAO                     | 18D04'55" S | 140D56'27 W | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 019Y   | ICAOTEST APAC     | ZZZ  | Assen                   | 52D44'55" N | 005D22'43 E | TACAN    | ICA  | n/a          | n/a | 45  | 200/450   | 37  |                      |
| n/a       | 106X   | India             | IND  | AGATTI                  | 10D49'54" N | 072D10'48 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | Colocated with NDB   |
| n/a       | 059X   | India             | IND  | Pantnagar, Uttarakhand- | 29D02'11" N | 079D27'43 E | DME      | NAT  | n/a          | n/a |     | 200/450   | 37  |                      |
| n/a       | 105X   | Indonesia         | INS  | KAREL SADSUITUBUN       | 05D45'22" S | 132D45'43 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  |                      |
| n/a       | 111X   | Indonesia         | INS  | LARANTUKA               | 08D16'29" S | 122D59'57 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  |                      |
| n/a       | 085X   | Indonesia         | INS  | LONG BAWAN YUVAI        | 03D53'00" N | 115D42'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  | OFF                  |
| n/a       | 078X   | Indonesia         | INS  | MUKO MUKO MUKO          | 02D32'32" S | 101D05'19 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  | OFF                  |
| n/a       | 055X   | Indonesia         | INS  | PULAU BANDA             | 04D31'19" S | 129D54'15 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  | OFF                  |
| n/a       | 055X   | Indonesia         | INS  | SAMARINDA               | 00D28'55" N | 117D09'25 E | DME      | N    | n/a          | n/a |     | 200/450   | 37  | OFF                  |
| n/a       | 057Y   | Japan             | J    | AKENO                   | 34D32'00" N | 136D41'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 20Dec13           |
| n/a       | 108X   | Japan             | J    | AKITA                   | 39D43'00" N | 140D04'00 E | DME      | I    | n/a          | n/a |     | 200/450   | 40  | 20Dec13              |
| n/a       | 023X   | Japan             | J    | ASHIYA                  | 33D53'00" N | 130D39'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 098X   | Japan             | J    | ATSUGI                  | 35D27'00" N | 139D27'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 089X   | Japan             | J    | CHINEN                  | 26D10'00" N | 127D48'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 029X   | Japan             | J    | CHITOSE                 | 42D46'00" N | 141D40'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | NOT CO LOC VOR 116.9 |
| n/a       | 042X   | Japan             | J    | FUTENMA                 | 26D16'00" N | 127D45'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country                      | Ctry | Location       | Latitude   | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks                  |
|-----------|--------|------------------------------|------|----------------|------------|-------------|----------|------|--------------|-----|-----|-----------|-----|--------------------------|
|           |        |                              |      |                |            |             |          |      | DOC          | PWR |     | DOC       | PWR |                          |
| n/a       | 059Y   | Japan                        | J    | GIFU           | 35D23'00"N | 136D52'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 20Dec13               |
| n/a       | 116X   | Japan                        | J    | GOBOH          | 33D55'00"N | 135D06'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 023X   | Japan                        | J    | HACHINOHE      | 40D33'00"N | 141D28'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 037X   | Japan                        | J    | HAMAMATSU      | 34D45'00"N | 137D41'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 20Dec13                  |
| n/a       | 094X   | Japan                        | J    | HAMAMATSU      | 34D45'00"N | 137D43'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 077X   | Japan                        | J    | HOFU           | 34D02'00"N | 131D33'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 043X   | Japan                        | J    | IRUMA          | 35D50'00"N | 139D25'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 035X   | Japan                        | J    | IWAKUNI        | 34D10'00"N | 132D15'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 035X   | Japan                        | J    | IWOTO          | 24D47'00"N | 141D19'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 057X   | Japan                        | J    | KADENA         | 26D21'00"N | 127D46'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | CO LOCATED WITH VOR      |
| n/a       | 085X   | Japan                        | J    | KANOYA         | 31D22'00"N | 130D50'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 082Y   | Japan                        | J    | KOMATSUSHIMA   | 34D00'00"N | 134D38'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 20Dec13               |
| n/a       | 033Y   | Japan                        | J    | MAIZURU        | 35D33'00"N | 135D26'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 20Dec13               |
| n/a       | 058X   | Japan                        | J    | MATSUMAE       | 41D26'00"N | 140D05'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 090X   | Japan                        | J    | MATSUSHIMA     | 38D24'00"N | 141D14'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 023X   | Japan                        | J    | MINAMITOISHIMA | 24D18'00"N | 153D95'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 24Dec13               |
| n/a       | 043X   | Japan                        | J    | MISHIMA        | 34D46'00"N | 131D08'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 24Dec13               |
| n/a       | 087X   | Japan                        | J    | MORIYA         | 35D56'00"N | 139D59'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 095X   | Japan                        | J    | NASU           | 36D47'00"N | 140D02'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 097X   | Japan                        | J    | NYUTABARU      | 32D05'00"N | 131D27'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 095Y   | Japan                        | J    | OMINATO        | 41D14'00"N | 141D08'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 52 at LOC             |
| n/a       | 087Y   | Japan                        | J    | OMURA          | 32D56'00"N | 129D56'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 26Dec13               |
| n/a       | 058Y   | Japan                        | J    | OZUKI          | 34D03'00"N | 131D03'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 26Dec13               |
| n/a       | 053X   | Japan                        | J    | SHIGI          | 34D38'00"N | 135D40'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 26Dec                    |
| n/a       | 019X   | Japan                        | J    | SHIMOFUSA      | 35D48'00"N | 140D01'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 115Y   | Japan                        | J    | SHIMOTSUSHIMA  | 34D08'00"N | 129D17'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 029X   | Japan                        | J    | SHIZUHAMA      | 34D49'00"N | 138D18'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 105X   | Japan                        | J    | TACHIKAWA      | 35D43'00"N | 139D24'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 26Dec13               |
| n/a       | 122X   | Japan                        | J    | TAKAMATSU      | 34D20'00"N | 133D57'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 025X   | Japan                        | J    | TATEYAMA       | 34D58'00"N | 139D50'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 096X   | Japan                        | J    | TOKUSHIMA      | 34D08'00"N | 134D37'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 119X   | Japan                        | J    | TOYOTA         | 34D11'00"N | 131D01'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 26Dec13                  |
| n/a       | 041X   | Japan                        | J    | TSUIKI         | 33D41'00"N | 131D02'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 058Y   | Japan                        | J    | UTSUNOMIYA     | 36D31'00"N | 139D53'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 26Dec13               |
| n/a       | 085X   | Japan                        | J    | YOKOTA         | 35D45'00"N | 139D21'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 080X   | Malaysia                     | MLA  | BUTTERWORTH    | 05D28'00"N | 100D24'00 E | TACAN    | N    | n/a          | n/a |     | 300/350   | 27  | Range modified from 30/8 |
| n/a       | 084X   | Malaysia                     | MLA  | TANJUNG SEPAT  | 02D39'44"N | 101D33'33 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 21Apr17                  |
| n/a       | 111X   | Micronesia, Federated States | FSM  | CHUUK          | 07D27'00"N | 151D50'00 E | DME      | I    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 100X   | Micronesia, Federated States | FSM  | KOSRAE         | 05D21'00"N | 162D58'00 E | DME      | I    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 047X   | Micronesia, Federated States | FSM  | POHNPEI        | 06D58'00"N | 158D21'00 E | DME      | I    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 122X   | Micronesia, Federated States | FSM  | YAP            | 09D29'00"N | 138D05'00 E | DME      | I    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 075X   | Nepal                        | NPL  | POKHARA        | 28D12'00"N | 083D59'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                          |
| n/a       | 118X   | New Zealand                  | NZL  | ALEXANDRA      | 45D10'00"S | 169D29'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                          |



# Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country           | Ctry | Location            | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks              |
|-----------|--------|-------------------|------|---------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|----------------------|
|           |        |                   |      |                     |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                      |
| n/a       | 104X   | New Zealand       | NZL  | DUNEDIN HENLEY      | 45D56'45" S | 170D09'43 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | FI 29NOV12           |
| n/a       | 122X   | New Zealand       | NZL  | HOKITIKA            | 42D43'46" S | 170D57'22 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 105X   | New Zealand       | NZL  | KAITAIA             | 35D01'46" S | 173D14'28 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 108X   | New Zealand       | NZL  | KERI KERI           | 35D15'45" S | 173D54'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 29NOV12              |
| n/a       | 125X   | New Zealand       | NZL  | MANAPOURI           | 45D29'49" S | 167D43'06 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 120X   | New Zealand       | NZL  | PARAPARAUMU         | 40D54'10" S | 174D58'55 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 114X   | New Zealand       | NZL  | TAUPO               | 38D44'36" S | 176D04'28 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 079X   | New Zealand       | NZL  | TAURANGA            | 37D40'39" S | 176D11'29 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 106X   | New Zealand       | NZL  | TIMARU              | 44D18'30" S | 171D13'31 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 107X   | New Zealand       | NZL  | WANGANUI            | 39D57'33" S | 175D01'36 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 116X   | New Zealand       | NZL  | WESTPORT            | 41D44'26" S | 171D34'47 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 124X   | New Zealand       | NZL  | WHAKATANE           | 37D55'29" S | 176D54'57 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 120X   | New Zealand       | NZL  | WHANGAREI           | 35D46'17" S | 174D21'43 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 074X   | Niue Island       | NII  | ALOFI NIUE          | 19D05'34" S | 169D54'15 W | DME      | I    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 095X   | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP | 33D32'48" N | 072D50'29 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 24Dec13-TDME28LT-DME |
| n/a       | 100X   | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP | 33D33'05" N | 072D48'34 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 24Dec13-TDME10RT-DME |
| n/a       | 109X   | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP | 33D32'46" N | 072D51'31 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 24Dec13              |
| n/a       | 081X   | Pakistan          | PAK  | BENZIR BHUTTO-BBIAP | 33D32'54" N | 072D50'30 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | 24Dec13-TDME28RT-DME |
| n/a       | 103X   | Papua New Guinea  | PNG  | VANIMO              | 02D40'52" S | 141D18'00 E | DME      | I    | n/a          | n/a |     | 25/100    | 27  |                      |
| n/a       | 107X   | Philippines       | PHL  | BASCO               | 20D27'00" N | 121D58'00 E | DME      | N    | n/a          | n/a |     | 300/450   | 40  |                      |
| n/a       | 097X   | Philippines       | PHL  | SANGA SANGA         | 05D04'00" N | 119D46'00 E | DME      | N    | n/a          | n/a |     | 150/300   | 37  |                      |
| n/a       | 058X   | Philippines       | PHL  | TUGUEGAO            | 17D38'00" N | 121D44'11 E | DME      | N    | n/a          | n/a |     | 300/450   | 40  | FI                   |
| n/a       | 125X   | Republic of Korea | KOR  | DAEGU               | 35D54'00" N | 128D39'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | CO LOCATED WITH VOR  |
| n/a       | 117X   | Republic of Korea | KOR  | GIMHAE              | 35D11'00" N | 128D56'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 056X   | Republic of Korea | KOR  | KANGNUNG            | 37D45'00" N | 128D58'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 088X   | Republic of Korea | KOR  | KWANGJU             | 35D08'00" N | 126D48'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 087X   | Republic of Korea | KOR  | PUSAN               | 35D07'00" N | 129D00'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | CO LOCATED WITH VOR  |
| n/a       | 037X   | Republic of Korea | KOR  | SACHEON             | 35D05'00" N | 128D05'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 046X   | Republic of Korea | KOR  | SEOUL SINCHONRI     | 37D26'00" N | 127D07'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 022X   | Republic of Korea | KOR  | SUWON               | 37D14'00" N | 127D01'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 100X   | Republic of Korea | KOR  | ULJIN               | 36D46'35" N | 129D27'26 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | FI 26Dec13           |
| n/a       | 053X   | Republic of Korea | KOR  | WONJU               | 37D28'00" N | 127D58'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 026X   | Republic of Korea | KOR  | YECHON              | 36D37'00" N | 128D19'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 116X   | Singapore         | SNG  | CHANGI              | 01D21'02" N | 104D00'44 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | harm not ok          |
| n/a       | 110X   | Singapore         | SNG  | PAYA LEBAR          | 01D22'00" N | 103D55'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 086X   | Singapore         | SNG  | TENGAH              | 01D24'00" N | 103D43'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 075X   | Solomon Islands   | SLM  | GRACIOSA BAY        | 10D44'00" S | 165D47'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 074X   | Solomon Islands   | SLM  | MUNDA               | 08D20'00" S | 157D15'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 077X   | Thailand          | THA  | BANGKOK             | 13D55'00" N | 100D36'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 109X   | Thailand          | THA  | CHIANG MAI          | 18D49'00" N | 098D58'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 100X   | Thailand          | THA  | LOEI                | 17D26'00" N | 101D43'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | NOTAM C3030/96 14.11 |
| n/a       | 089X   | Thailand          | THA  | NAKHON PHANOM WEST  | 17D22'00" N | 102D48'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |
| n/a       | 125X   | Thailand          | THA  | NAKHON RATCHASIMA   | 14D56'00" N | 102D05'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                      |



## Order: Frequency\_Country\_Location

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| Frequency | DME ch | Country  | Ctry | Location           | Latitude    | Longitude   | Facility | Cat. | LOC/VOR/GBAS |     | TRD | DME/TACAN |     | Remarks             |
|-----------|--------|----------|------|--------------------|-------------|-------------|----------|------|--------------|-----|-----|-----------|-----|---------------------|
|           |        |          |      |                    |             |             |          |      | DOC          | PWR |     | DOC       | PWR |                     |
| n/a       | 099X   | Thailand | THA  | PHITSANULOK        | 16D46'00" N | 100D17'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  | MIL                 |
| n/a       | 111X   | Thailand | THA  | Prachinburi        | 14D07'07" N | 101D22'15 E | DME      | NAT  | n/a          | n/a |     | 200/450   | 37  |                     |
| n/a       | 084X   | Thailand | THA  | PRACHUAP KHIRIKHAN | 00D00'00" N | 000D00'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 105X   | Thailand | THA  | SAKHONNAKHON       | 07D11'00" N | 104D06'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 077X   | Thailand | THA  | SONGKHLA HAT YAI   | 00D00'00" N | 000D00'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 031X   | Thailand | THA  | Sukhorthai         | 17D14'08" N | 099D49'20 E | DME      | NAT  | n/a          | n/a |     | 200/450   | 37  |                     |
| n/a       | 040X   | Thailand | THA  | SUKHOTHAI          | 17D13'00" N | 099D41'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 079X   | Thailand | THA  | SURATTHANI         | 09D06'00" N | 099D07'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 058X   | Thailand | THA  | Tak                | 16D53'59" N | 099D15'06 E | DME      | NAT  | n/a          | n/a |     | 200/450   | 37  |                     |
| n/a       | 095X   | Thailand | THA  | TAKHLI             | 15D16'00" N | 100D18'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 105X   | Thailand | THA  | U-TAPHAO           | 12D41'00" N | 101D00'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 093X   | Thailand | THA  | UBON RATCHATHANI   | 15D14'00" N | 104D52'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 086X   | Thailand | THA  | UDON THANI         | 17D23'00" N | 102D48'00 E | TACAN    | N    | n/a          | n/a |     | 200/450   | 40  |                     |
| n/a       | 092X   | Vanuatu  | NHB  | SANTO PEKOA        | 15D32'00" S | 167D08'00 E | DME      | N    | n/a          | n/a |     | 200/450   | 40  | DME CO-LOCATED WITH |