



ICAO

*International Civil Aviation Organization***SEVENTH MEETING OF SPECTRUM REVIEW WORKING GROUP (SRWG/7)***Bangkok, Thailand, 15 – 17 February 2023***Agenda Item 5:** Review of Frequency List 2 in the Region**REVIEW OF FREQUENCY LIST 2 IN APAC REGION**

(Presented by the Secretariat)

SUMMARY

This paper presents the status of Frequency List 2 and the planned migration to Frequency Finder global database.

1. INTRODUCTION

1.1 Frequency List No. 2 is prepared and published by the ICAO Asia and Pacific Office, which is the list of facilities in the band 108 - 117.975 MHz and 960 - 1215 MHz. The Thirty Fifth Edition was published in March 2022 and circulated by State Letter AP046/22 (CNS). The Frequency List 2 is also accessible at https://portal.icao.int/RO_APAC/Meetings/Pages/CNSDOCS.aspx.

1.2 The purpose of the Frequency Lists is to provide comprehensive information for frequency planning. It should be emphasized that in order for the Lists to be of real value for frequency planning, these documents should be up to date. To accomplish this, it is essential that States coordinate with the Regional Office for any change in assignment or requirement for new frequencies prior to their use. The Regional Office will update the Lists on a regular basis.

2. DISCUSSION

2.1 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

Agenda Item 5

15-17/02/23

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.

2.2 Planning principles for frequency assignment - Radio Navigation Aids**2.2.1 VHF omnidirectional radio range (VOR) and distance measuring equipment (DME).**

The following criteria is used in the selection of frequencies for VOR and/or VOR/DME:

i) For VORs used for en-route flight operations, the required geographic separations are;

550 NM between 200 NM/45K co-channel facilities,
705 NM between 300 NM/45K ER co-channel facilities, and
220 NM for adjacent channel facilities.

ii) For VORs providing service up to 60K, the required geographic separation between co-channel facilities is 720NM;

iii) For VORs used in terminal areas, (40 NM/25K), the required geographic separations are;

200 NM for co-channel, and
60 NM for adjacent channel. (based on 100 kHz channel spacing)

iv) For VORs used for final approach and landing (25 NM/10K), the required geographic separations are;

130 NM for co-channel, and
30 NM for adjacent channel. (based on 100 kHz channel spacing)

2.2.2 Instrument Landing System (ILS):

The density of ILS installations in the Asia and Pacific Regions permits the assignment of frequencies with 175 NM as the geographic separation for co-channel operation.

2.3 The publication of Frequency List 2 is circulated with two appendices:

APPENDIX A: International and National Assignments in Country Order;

APPENDIX B: International and National Assignments in Frequency Order.

2.4 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.

2.5 Following the Planning principles for frequency assignment - Radio Navigation Aids, refer to the section 2.2 of this paper, which was agreed by ASIA/PAC/3 RAN in 1993, the ICAO Asia

and Pacific Office developed a standalone computer tool, Frequency Manager, to estimate, register assignments and generate the Frequency Lists (Appendix A and B of the published list).

2.6 In APAC region, the frequency coordination for VHF COM at Regional Office has been implemented with Frequency Finder tool since 2016. The up-to-date database (equivalent to Frequency List No. 3 in APAC region) is transparent and visible to all Frequency Finder users.

2.7 ICAO has been making continuous efforts in improving the Frequency Finder tool and encouraging States/Administration to implement the latest version released on the webpage of FSMP to make as much as possible benefits in transition to global database.

2.8 The Frequency Finder tool has incorporated VHF NAV module since 2020, and ICAO APAC Regional Office has started to introduce the (revised) frequency assignment planning criteria for NAV¹ facilities, review the currency of the Frequency List No.2, in particular in the light of the increased congestion and even saturation of this band for future ILS or VOR frequency assignments as well as the expected implementation of GBAS/VDB, furthermore, ensure that the Frequency List is correct and up-to date and lists all NAV stations that are currently in operation or planned.

2.9 ICAO APAC Regional Office has duplicated its work on the VHF NAV module of Frequency Finder as well as on the existing frequency management program for new facility frequency planning upon request from States. It is observed that the consistency between the Frequency Manager and Frequency Finder is very satisfactory.

2.10 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.

2.11 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. With the Doc 9718 Volume II overrides previous RAN meeting outcome, except for NDB, States/Administrations are invited to note on the Conclusion and refer to Doc 9718 Volume II when considering the planning of Aeronautical Frequency Bands concerned.

2.12 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.

¹ In this paper NAV systems or NAV facilities refer to ILS (Localizer and Glide Path), VOR, DME and GBAS/VDB.

Agenda Item 5

15-17/02/23

2.13 There was a plan to host a Frequency Finder workshop at ICAO APAC Office in 2020, the COVID-19 pandemic made it impossible. ICAO is planning another Frequency Finder workshop in October 2023 to support the migration of Frequency List 2 to Frequency Finder global database.

2.14 As an interim solution, the publication of Frequency List 2 (36th edition) will be prepared by Frequency Finder. The list has incorporated all comments from States after the publication of Frequency List 2 edition 35th in 2022, as well as the day to day coordinated assignments with States/Administration. A sample of this list is provided in Appendix to this paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) adopt the revised Frequency List 2 provided in Appendix; and
- c) discuss any relevant matter as appropriate.



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHF | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|-------------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------|
| 108.100 | n/a | China | CHN | CHONGQING | 29D43`00" N | 106D39` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.100 | 018X | China | CHN | SHANGHAIPUDONG | 31D08`00" N | 121D48` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.100 | 018X | India | IND | Thanjavur | 10D43`04" N | 079D05` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.100 | 018X | Japan | J | IWAMI | 34D40`00" N | 131D48` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 108.100 | 018X | Malaysia | MLA | KOTA KINABALU | 05D55`16" N | 116D02` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 7Aug07 GP02 |
| 108.100 | 018X | Malaysia | MLA | KUALA TERENGGANU | 05D23`23" N | 103D06` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21June07 |
| 108.100 | 018X | Nepal | NPL | KATHMANDU | 27D41`49" N | 085D21` 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` 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` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 108.100 | 018X | Republic of Korea | KOR | INCHEON INTL | 37D28`29" N | 126D24` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.100 | 018X | Republic of Korea | KOR | SACHEON | 35D04`52" N | 128D03` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 108.100 | 018X | Singapore | SNG | TENGAH | 01D24`00" N | 103D42` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.150 | 018Y | China | CHN | DONGMULANTOU | 20D09`00" N | 110D40` E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | FI ; DVOR |
| 108.200 | 019X | China | CHN | DAQING | 46D46`00" N | 125D08` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 108.200 | 019X | China | CHN | DATONG | 40D03`00" N | 113D29` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 108.200 | 019X | China | CHN | JINGGANGSHAN | 26D51`00" N | 114D43` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 108.200 | 019X | Republic of Korea | KOR | PYONGTAEK | 36D58`00" N | 127D01` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | 9May08 |
| 108.300 | 020X | China | CHN | CHANGZHI | 36D16`00" N | 113D08` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | n/a | China | CHN | HUANGSHAN | 29D44`00" N | 118D16` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.300 | n/a | China | CHN | JIAMUSI | 46D51`00" N | 130D29` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.300 | 020X | China | CHN | JIUZHAI | 32D50`00" N | 103D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | n/a | China | CHN | MEIXIAN | 24D16`00" N | 116D06` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.300 | 020X | China | CHN | SHANGHAIPUDONG | 31D06`00" N | 121D30` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | n/a | China | CHN | TONGLIAO | 43D34`00" N | 112D12` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.300 | 020X | China | CHN | ZHUHAISANZAO | 22D00`00" N | 113D23` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | 020X | India | IND | BANGALORE | 13D12`24" N | 077D43` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 2May07 |
| 108.300 | 020X | India | IND | Doom Dooma | 27D33`45" N | 095D34` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | 020X | India | IND | GOA | 15D23`02" N | 073D50` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | 020X | India | IND | GONDIA | 21D32`05" N | 080D17` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 108.300 | 020X | India | IND | Kalaburagi airport | 17D18`26" N | 076D56` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 108.300 | 020X | India | IND | Panagarh | 23D28`42" N | 087D26` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | 020X | India | IND | PENGPUI | 23D50`57" N | 092D37` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 8Sep08 |
| 108.300 | 020X | India | IND | SRINAGAR | 34D00`07" N | 074D45` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | 020X | Lao People's Democratic | LAO | Nongkhang | 34D00`07" N | 074D45` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.300 | n/a | Malaysia | MLA | BUTTERWORTH | 05D27`59" N | 100D23` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | NOT COMMISSION |
| 108.300 | 020X | Pakistan | PAK | BACHA KHAN | 31D00`31" N | 071D30` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | TRAINING |
| 108.300 | 020X | Republic of Korea | KOR | JEJU JUNGSEOK | 33D24`23" N | 126D42` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | DME 20 AT LOC |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|---------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 108.300 | 020X | Singapore | SNG | CHANGI | 01D22°00" N | 104D00° 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° E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 8Oct10 |
| 108.400 | 021X | Bhutan | BTN | PARO | 27D18°03" N | 089D30° E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Updated 8Mar02 |
| 108.400 | 021X | Japan | J | KAGAWA | 34D13°00" N | 134D01° E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 108.500 | 022X | Australia | AUS | NOWRA | 34D57°06" S | 150D31° 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° W | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 28Sep09 |
| 108.500 | 022X | China | CHN | ALI | 32D05°00" N | 080D03° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | ANSHUN | 26D16°00" N | 105D53° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | n/a | China | CHN | BAOTOU | 40D34°00" N | 109D59° E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | China | CHN | BAYANNAOER | 40D56°00" N | 107D43° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | BEIJING | 40D06°00" N | 116D37° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | BOLE | 44D54°00" N | 082D17° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | CHANGBAISHAN | 42D03°00" N | 127D36° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | n/a | China | CHN | CHIFENG | 42D09°00" N | 118D50° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | China | CHN | DAQING | 46D46°00" N | 125D08° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | GUILIN | 25D12°00" N | 110D02° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | HAIKOU | 19D56°00" N | 110D26° E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 108.500 | n/a | China | CHN | HANDAN | 36D31°00" N | 114D25° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | n/a | China | CHN | HANGZHOU | 30D13°00" N | 120D25° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | n/a | China | CHN | HEIHE | 50D11°00" N | 127D18° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | China | CHN | JINCHANG | 38D00°00" N | 102D20° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | JINING | 35D18°00" N | 116D22° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | KANGDING | 30D08°00" N | 101D45° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | n/a | China | CHN | KELAMAYI | 45D29°00" N | 084D56° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | n/a | China | CHN | LANZHOU | 36D30°00" N | 103D37° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | n/a | China | CHN | LIANYUNGANG | 34D35°00" N | 118D53° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | China | CHN | LIBO | 25D28°00" N | 107D58° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | LINCANG | 23D44°00" N | 100D02° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | LIPING | 26D19°00" N | 109D08° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | MANZHOU | 49D34°00" N | 117D21° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | PANZHOU | 26D32°00" N | 101D48° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | QIANZHOU | 29D32°00" N | 108D50° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | TENGCHONG | 24D56°00" N | 098D29° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | TIANSHUI | 34D33°00" N | 105D53° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | TONGREN | 27D54°00" N | 109D19° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | TULUFAN | 43D02°00" N | 089D07° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | n/a | China | CHN | WENSHAN | 23D33°00" N | 114D19° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | China | CHN | XISHUANGBANNA | 21D58°00" N | 100D46° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | China | CHN | YICHUN | 47D45°00" N | 129D00° E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | n/a | China | CHN | YULIN | 38D22°00" N | 109D35° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | n/a | China | CHN | YUSHU | 32D50°00" N | 097D01° E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | ICAOTEST APAC | ZZZ | Leeuwarden | 52D52°52" N | 020D20° E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 108.500 | 022X | India | IND | CHENNAI | 12D58°56" N | 080D09° E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 10Oct04 |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 108.500 | 022X | India | IND | HYDERABAD | 17D13`40" N | 078D24` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 2May07 |
| 108.500 | 022X | India | IND | JHARSUGUDA | 21D54`27" N | 084D02` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.500 | 022X | India | IND | NEW DELHI IGI | 28D34`19" N | 077D07` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 18Sep09 |
| 108.500 | 022X | India | IND | SILCHAR | 24D55`06" N | 092D59` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |
| 108.500 | 022X | Japan | J | TOKYO INTL. | 35D34`00" N | 139D47` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | Malaysia | MLA | NEW KUALA LUMPUR | 02D46`37" N | 101D42` 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` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.500 | 022X | Viet Nam | VTN | CHU LAI AIRPORT | 15D25`12" N | 108D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 12Apr17 |
| 108.550 | 022Y | Japan | J | NANKISHIRAHAMA | 33D39`00" N | 135D22` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 24Dec13 |
| 108.550 | 022Y | Japan | J | TAJIMA | 35D31`00" N | 134D47` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 108.550 | 022Y | Japan | J | YONAGUNI | 24D28`00" N | 122D58` 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` 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` 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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 108.650 | 023Y | Japan | J | OYAMA | 34D04`00" N | 139D34` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 108.700 | 024X | China | CHN | CHENGDU | 30D33`00" N | 103D57` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | n/a | China | CHN | DATONG | 40D04`00" N | 113D28` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | 024X | China | CHN | EERDUOSI | 39D30`00" N | 109D51` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | HANZHONG | 33D03`00" N | 107D01` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | HUAIAN | 33D48`00" N | 119D08` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | n/a | China | CHN | HUAIHUA | 27D27`00" N | 109D43` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | 024X | China | CHN | JINGGANGSHAN | 26D51`00" N | 114D45` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | JIUZHAI | 32D52`00" N | 103D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | NANCHONG | 30D47`00" N | 106D09` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | n/a | China | CHN | QUANZHOU | 24D47`00" N | 118D35` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | 024X | China | CHN | SHANGHAIPUDONG | 31D04`00" N | 121D30` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | WANZHOU | 30D48`00" N | 108D25` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | XINGYI | 25D04`00" N | 104D58` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | China | CHN | XINING | 36D32`00" N | 102D01` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | n/a | China | CHN | YANJI | 42D53`00" N | 129D28` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | n/a | China | CHN | YIWU | 29D21`00" N | 120D02` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | n/a | China | CHN | YUNCHENG | 35D07`00" N | 111D04` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | n/a | China | CHN | ZHONGWEI | 37D34`00" N | 105D08` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | 024X | China - Hong Kong | HKG | Chek Lap Kok | 22D17`43" N | 113D53` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | 30May19 rwy25L |
| 108.700 | 024X | India | IND | DELHI | 28D32`24" N | 077D06` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.700 | 024X | India | IND | FURSATGANJ AP | 26D14`98" N | 081D23` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 3Apr02 |
| 108.700 | 024X | India | IND | HUBLI | 15D21`31" N | 075D04` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 108.700 | 024X | India | IND | NAL(BIKANER) | 28D03`34" N | 073D11` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------|
| 108.700 | 024X | Japan | J | HIROSHIMA | 34D26`00" N | 132D56` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.700 | 024X | Japan | J | KANSAI INTL | 34D27`00" N | 135D15` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |
| 108.700 | 024X | Japan | J | TSUSHIMA | 34D18`00" N | 129D19` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 108.700 | 024X | Malaysia | MLA | BINTULU (NEW) | 03D07`00" N | 113D01` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 108.700 | 024X | Malaysia | MLA | KERTEH | 04D32`04" N | 103D25` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 20Apr01 |
| 108.700 | 024X | Maldives | MLD | MALE | 04D10`00" N | 073D30` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 108.700 | 024X | Pakistan | PAK | LAHORE AIIAP | 31D32`23" N | 074D24` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | rwyt 36L |
| 108.700 | 024X | Pakistan | PAK | QUETTA | 30D14`24" N | 066D57` 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` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | 26Dec13 |
| 108.800 | 025X | New Zealand | NZL | WHENUAPAI | 36D47`13" S | 174D37` E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | MIL |
| 108.900 | 026X | Brunei Darussalam | BRU | BRUNEI | 04D57`00" N | 114D56` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY03 |
| 108.900 | 026X | China | CHN | BEIJING | 40D03`00" N | 116D37` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | 026X | China | CHN | CHONGQING | 29D44`00" N | 106D39` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | 026X | China | CHN | DAZHOU | 31D08`00" N | 107D26` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | 026X | China | CHN | DIQING | 27D46`00" N | 099D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | n/a | China | CHN | HUHHOT | 40D51`00" N | 111D51` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | JINAN | 36D53`00" N | 117D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | LINZHI | 29D19`00" N | 094D21` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | LOYANG | 34D45`00" N | 112D24` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | LUOYANG |
| 108.900 | 026X | China | CHN | NANNING | 22D14`00" N | 108D11` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | n/a | China | CHN | NINGBO | 29D50`00" N | 121D28` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | WUHAI | 39D47`00" N | 106D48` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | WUXI | 31D29`00" N | 120D25` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | n/a | China | CHN | XUZHOU | 34D03`00" N | 117D32` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 108.900 | 026X | China | CHN | ZHANGJIAJIE | 29D06`00" N | 110D26` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | 026X | China | CHN | ZHANJIANG | 21D14`00" N | 110D21` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 108.900 | 026X | China - Hong Kong | HKG | INTERNATIONAL | 22D17`43" N | 113D53` 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` W | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 11OCT13 |
| 108.900 | 026X | India | IND | DEHRADUM | 30D11`32" N | 078D10` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 108.900 | 026X | India | IND | HYDERABAD | 17D13`51" N | 078D27` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | 21JAN19 |
| 108.900 | 026X | India | IND | KANNUR | 11D55`12" N | 075D32` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 25May15 |
| 108.900 | 026X | India | IND | PORBANDER | 21D39`55" N | 069D38` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 108.900 | 026X | Japan | J | AKITA | 39D37`00" N | 140D12` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |
| 108.900 | 026X | Japan | J | KUSHIRO | 43D02`00" N | 144D12` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | DME26 GP |
| 108.900 | 026X | Japan | J | MIYAKOJIMA | 24D46`00" N | 125D17` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 24Dec13 |
| 108.900 | 026X | Japan | J | MIYAZAKI | 31D53`00" N | 131D26` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 108.900 | 026X | Japan | J | TOKUSHIMA | 34D08`00" N | 134D35` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 108.900 | 026X | Japan | J | TOKYO INTL. | 35D34`00" N | 139D47` 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` 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` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 108.900 | 026X | Singapore | SNG | CHANGI | 01D21`00" N | 103D59` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 28Apr15 |
| 108.950 | 026Y | Japan | J | MIHO | 35D29`00" N | 133D13` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 108.950 | 026Y | Japan | J | TANEGASHIMA | 30D37`00" N | 130D59` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 109.000 | 027X | Japan | J | MIYAKE JIMA | 34D07`00" N | 139D30` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 24Dec13; DVOR |
| 109.000 | 027X | New Zealand | NZL | OHAKEA | 40D12`35" S | 175D23` E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | MIL |
| 109.000 | 027X | Republic of Korea | KOR | CHEONGJU | 36D43`04" N | 127D29` E | VOR/DME | I | 250/450 | 29 | | 250/450 | 40 | DVOR |
| 109.000 | 027X | Republic of Korea | KOR | JEJU INTL | 33D30`41" N | 126D29` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 109.050 | 027Y | Japan | J | NANKISHIRAHAMA | 33D40`00" N | 135D22` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | 9May08 |
| 109.100 | n/a | China | CHN | CHENGDU | 30D34`00" N | 103D56` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.100 | n/a | China | CHN | DALIAN | 38D58`00" N | 121D33` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.100 | n/a | China | CHN | HEFEI | 31D46`00" N | 117D19` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | RWY 14 |
| 109.100 | 028X | China | CHN | SHANTOU | 23D26`00" N | 116D46` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.100 | n/a | China | CHN | XINING | 36D32`00" N | 102D02` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.100 | 028X | China | CHN | ZHANJIANG | 21D12`00" N | 110D22` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.100 | 028X | India | IND | BHUBANESHWAR | 20D14`22" N | 085D49` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.100 | 028X | India | IND | COIMBATORE | 11D02`11" N | 077D03` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.100 | 028X | India | IND | HUBLI | 15D21`34" N | 075D04` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 29Apr17 |
| 109.100 | 028X | India | IND | LILABARI | 27D18`00" N | 094D06` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.100 | 028X | Indonesia | INS | PANGKAL PINANG | 02D10`25" S | 106D08` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-09 |
| 109.100 | n/a | Japan | J | SHIMOFUSA | 35D47`00" N | 140D01` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.100 | 028X | Lao People's Democratic | LAO | XIENGHOUANG | 19D20`56" N | 103D09` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY05 |
| 109.100 | n/a | Philippines | PHL | MACTAN | 10D17`43" N | 123D58` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | RWY22 |
| 109.100 | n/a | Philippines | PHL | MANILA INTL. | 14D30`53" N | 121D01` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | RWY06 |
| 109.100 | n/a | Philippines | PHL | ZAMBOANGA | 06D55`18" N | 122D04` 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` E | ILS/DME | I | 25/62.5 | 17 | | 15/100 | 27 | |
| 109.100 | 028X | Republic of Korea | KOR | SACHEON | 35D05`50" N | 128D05` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 109.100 | 028X | Thailand | THA | SUVARNABHUMI | 13D40`17" N | 100D44` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 109.100 | 028X | Viet Nam | VTN | PLEIKU | 14D00`15" N | 108D00` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 2Jun15 |
| 109.150 | 028Y | Japan | J | KITAKYUSHU | 33D50`00" N | 131D02` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-----------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 109.150 | 028Y | Japan | J | KOBE | 34D38'00" N | 135D14' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI DME 28 GP |
| 109.200 | 029X | China | CHN | DONGSHAN | 27D45'00" N | 120D38' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.200 | 029X | China | CHN | WANZHOU | 30D48'00" N | 108D26' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.200 | 029X | China | CHN | WENZHO | 27D45'00" N | 120D38' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.250 | 029Y | Japan | J | OKI | 36D11'00" N | 133D19' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 26Dec13; DVOR |
| 109.300 | 030X | Australia | AUS | BRISBANE | 27D23'08" S | 153D06' 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' 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' 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' E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | Runway 01 TRD - 204D |
| 109.300 | n/a | China | CHN | BEIJING | 40D04'00" N | 116D36' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | 030X | China | CHN | CHANGCHUN | 44D00'00" N | 125D42' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | n/a | China | CHN | DUNHUANG | 40D10'00" N | 094D50' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | n/a | China | CHN | GANZHOU | 25D52'00" N | 114D48' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | 030X | China | CHN | GUANGZHOU | 23D25'00" N | 113D18' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | n/a | China | CHN | JIUQUAN | 39D52'00" N | 098D19' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | 030X | China | CHN | LANZHOU | 36D32'00" N | 103D37' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | 030X | China | CHN | NANYANG | 33D00'00" N | 112D38' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | 030X | China | CHN | QINHUANGDAO | 39D59'00" N | 119D45' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | n/a | China | CHN | TAIYUAN | 37D44'00" N | 112D37' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | n/a | China | CHN | XICHANG | 28D00'00" N | 102D11' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | 030X | China | CHN | XILINHAOTE | 43D54'00" N | 115D57' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | 030X | China | CHN | ZHENGZHOU | 34D32'00" N | 113D49' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | 030X | China - Hong Kong | HKG | INTERNATIONAL | 22D18'29" N | 113D56' 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' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 2May07 |
| 109.300 | 030X | India | IND | DIMAPUR | 25D52'38" N | 093D47' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | PLANNED |
| 109.300 | 030X | India | IND | Phalodi | 27D05'41" N | 072D11' E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.300 | 030X | Indonesia | INS | MEDAN BARU | 03D39'06" N | 098D53' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-05 |
| 109.300 | 030X | Indonesia | INS | SORONG DOMINE | 00D53'41" S | 131D17' 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' 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' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | 20Dec13 |
| 109.300 | 030X | Japan | J | HANAMAKI | 39D25'00" N | 141D08' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | 20Dec13 |
| 109.300 | 030X | Japan | J | HYAKURI | 36D12'00" N | 140D25' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |
| 109.300 | 030X | Japan | J | KUMAMOTO | 32D50'00" N | 130D51' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.300 | 030X | Japan | J | MATSUYAMA | 33D49'00" N | 132D43' 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' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.300 | 030X | Japan | J | RISHIRI | 45D14'00" N | 141D11' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 26Dec13 |
| 109.300 | 030X | Japan | J | SHIZUOKA | 34D48'00" N | 138D10' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 109.300 | 030X | Japan | J | TOYAMA | 36D39'00" N | 137D11' 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' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 04Mar05 |
| 109.300 | 030X | Malaysia | MLA | SANDAKAN | 05D54'00" N | 118D03' E | ILS/DME | I | 25/62.5 | 17 | | 150/300 | 37 | |
| 109.300 | 030X | Nepal | NPL | Guatam Buddha | 27D30'26" N | 083D23' E | ILS/DME | ICA | 25/62.5 | 17 | | 80/100 | 27 | 2May19; PLI |
| 109.300 | 030X | Pakistan | PAK | ISLAMABAD BBIAP | 33D36'32" N | 073D07' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 6Jan14 |
| 109.300 | 030X | Pakistan | PAK | SIALKOT | 32D33'05" N | 074D22' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------------------|------|-----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 109.300 | n/a | Philippines | PHL | CLARK INTL. AIRPORT | 15D12`14" N | 120D34` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | |
| 109.300 | 030X | Republic of Korea | KOR | YECHON | 36D37`54" N | 128D20` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.300 | 030X | Thailand | THA | BURIRUM | 15D14`22" N | 103D15` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.300 | 030X | Thailand | THA | PHRAE | 18D08`02" N | 100D09` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 109.300 | 030X | Viet Nam | VTN | CANTHO | 10D04`45" N | 105D41` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 8Oct10 |
| 109.300 | n/a | Viet Nam | VTN | DANANG | 16D01`00" N | 108D11` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.300 | 030X | Viet Nam | VTN | Noi Bai International | 21D13`34" N | 105D47` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | RWY 29R |
| 109.350 | 030Y | Japan | J | NAKASHIBETSU | 43D35`00" N | 144D58` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.350 | 030Y | Japan | J | OSHIMA | 34D48`00" N | 139D22` 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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.400 | 031X | China | CHN | SHANGHAIHONGQIAO | 31D08`00" N | 121D40` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.500 | 032X | Australia | AUS | AVALON | 38D03`34" S | 144D27` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | Runway 33 |
| 109.500 | 032X | Australia | AUS | CANBERRA | 35D17`14" S | 149D11` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | Runway 32 TRD - 147D. |
| 109.500 | 032X | Australia | AUS | PERTH | 31D57`43" S | 115D57` 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` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.500 | n/a | China | CHN | HUHEHAOTE | 40D51`00" N | 111D48` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.500 | n/a | China | CHN | LOYANG | 34D44`00" N | 112D22` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | LUOYANG |
| 109.500 | 032X | China | CHN | SANYA | 18D18`00" N | 109D26` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI |
| 109.500 | n/a | China | CHN | YICHANG | 30D33`00" N | 111D30` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | |
| 109.500 | 032X | India | IND | AMRITSAR | 31D43`16" N | 074D47` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.500 | 032X | India | IND | BHAVNAGAR | 21D44`52" N | 072D10` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 7/02 DME/GP |
| 109.500 | 032X | India | IND | CALICUT | 11D08`39" N | 075D55` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.500 | 032X | India | IND | DELHI | 28D34`02" N | 077D05` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY10 |
| 109.500 | 032X | India | IND | DIBRUGARH | 28D27`38" N | 095D00` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.500 | 032X | India | IND | MUMBAI | 19D05`12" N | 072D51` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI RWY09 |
| 109.500 | 032X | India | IND | VIJAWADA | 16D31`39" N | 080D47` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 109.500 | 032X | Indonesia | INS | TANJUNG PANDAN | 02D43`48" S | 107D45` 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` E | ILS/DME | ICA | 25/62.5 | 17 | | 80/100 | 27 | 09Sep19; PLI; |
| 109.500 | 032X | Malaysia | MLA | KUANTAN | 03D46`36" N | 103D12` 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` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.500 | n/a | Philippines | PHL | GENERAL SANTOS | 06D02`27" N | 123D05` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY17 |
| 109.500 | n/a | Philippines | PHL | SUBIC | 14D47`41" N | 120D16` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|--------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 109.500 | 032X | Sri Lanka | SLK | MATTALA | 06D16'18" N | 081D06' 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' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.500 | 032X | Thailand | THA | ROI ET | 16D07'00" N | 103D46' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 109.500 | 032X | Thailand | THA | SUKHOTHAI | 17D14'58" N | 099D49' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 109.500 | 032X | Thailand | THA | SURATTHANI | 09D07'15" N | 099D07' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | AIP |
| 109.500 | 032X | Thailand | THA | SUVARNABHUMI | 13D42'13" N | 100D44' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 109.600 | 033X | China | CHN | SHANGHAIHONGQIAO | 31D07'00" N | 121D20' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.600 | 033X | Japan | J | SHONAI | 38D49'00" N | 139D48' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.600 | 033X | Republic of Korea | KOR | POHANG | 35D59'11" N | 129D24' E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | TERMINAL; DVOR |
| 109.650 | 033Y | French Polynesia | OCA | HUAHINE | 16D41'07" S | 151D02' W | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 9Feb11 |
| 109.650 | 033Y | Japan | J | OBIHIRO | 42D44'00" N | 143D13' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 109.700 | 034X | Australia | AUS | ADELAIDE | 34D57'35" S | 138D30' 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' 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' 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' 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' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | China | CHN | CHENGDU | 30D31'00" N | 103D56' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | n/a | China | CHN | CHONGQING | 29D44'00" N | 106D39' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | n/a | China | CHN | DEHONG | 24D24'00" N | 098D31' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | n/a | China | CHN | KUNMING | 25D00'00" N | 102D45' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | China | CHN | LIJIANG | 26D39'00" N | 110D14' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | n/a | China | CHN | LINZHI | 29D19'00" N | 094D21' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | China | CHN | PUER | 22D48'00" N | 100D58' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | 034X | China | CHN | TIANJIN | 39D07'00" N | 117D23' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | n/a | China | CHN | URUMQI | 43D54'00" N | 087D29' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | China | CHN | XIAMEN | 24D32'00" N | 118D07' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | n/a | China | CHN | YIBIN | 28D48'00" N | 104D33' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | China - Macao | MAC | MACAU | 22D09'00" N | 113D34' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.700 | 034X | India | IND | Charbatia | 20D33'38" N | 085D53' E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.700 | 034X | India | IND | Hirasar-Rajkot | 22D22'05" N | 071D01' E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 109.700 | 034X | India | IND | INS Garud, Cochin | 09D57'16" N | 076D16' E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 109.700 | 034X | India | IND | KANPUR CHAKERI | 26D24'15" N | 080D23' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 18Sep09 |
| 109.700 | 034X | India | IND | PUNE | 18D34'56" N | 073D55' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 26Jun08 |
| 109.700 | 034X | Indonesia | INS | CURUG BUDIARTO | 06D17'12" S | 106D33' 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' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-35 |
| 109.700 | 034X | Indonesia | INS | TARAKAN JUWATA | 03D19'00" N | 117D33' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-24 |
| 109.700 | 034X | Japan | J | CHUBU CENTRAIR | 34D50'00" N | 136D49' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 20Dec13 |
| 109.700 | 034X | Japan | J | FUKUE | 32D41'00" N | 128D50' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.700 | n/a | Japan | J | KADENA | 26D22'00" N | 127D47' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | n/a | Japan | J | MISAWA | 40D42'00" N | 141D23' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | FI 24Dec13 |
| 109.700 | 034X | Japan | J | TAKAMATSU | 34D13'00" N | 134D00' 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' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.700 | 034X | Pakistan | PAK | FAISALABAD | 31D22'00" N | 072D59' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|----------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 109.700 | 034X | Pakistan | PAK | KARACHI INTL. | 24D54`00" N | 067D08` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI RWY36L |
| 109.700 | n/a | Philippines | PHL | BACOLOD | 10D39`00" N | 122D56` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 -acpt |
| 109.700 | 034X | Singapore | SNG | CHANGI | 01D20`00" N | 103D59` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 22Dec15 |
| 109.700 | 034X | Thailand | THA | LAMPANG | 18D16`37" N | 099D30` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 109.700 | 034X | Thailand | THA | NAKHON PHANOM | 17D23`17" N | 104D38` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 109.700 | 034X | Thailand | THA | NAKHON RATCHASIMA | 14D56`47" N | 102D18` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 2Jun15 |
| 109.850 | 035Y | Japan | J | OKUSHIRI | 42D04`00" N | 139D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 26Dec13; DVOR |
| 109.850 | 035Y | Japan | J | OSHIMA | 34D47`00" N | 139D22` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 109.900 | 036X | Australia | AUS | ALICE SPRINGS | 23D48`56" S | 133D55` 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` 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` 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` 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` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | Runway 30R TRD - 133D |
| 109.900 | n/a | China | CHN | BEIJING | 40D04`00" N | 116D36` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | CHANGDE | 28D56`00" N | 111D39` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | CHANGSHA | 28D13`00" N | 113D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | GUANGHAN | 30D56`00" N | 104D19` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | HAERBIN | 45D37`00" N | 126D14` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | HANGZHOU | 30D14`00" N | 120D27` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | HARBIN | 45D37`00" N | 126D14` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | KASHI | 39D32`00" N | 076D01` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | 036X | China | CHN | LIANCHENG | 25D40`00" N | 116D44` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.900 | n/a | China | CHN | MUDANJIANG | 44D31`00" N | 129D34` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | SHIJIAZHUANG | 38D16`00" N | 114D42` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | 036X | China | CHN | WUHAN | 30D46`00" N | 114D12` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | n/a | China | CHN | XI'AN | 34D27`00" N | 108D45` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | n/a | China | CHN | YINCHUAN | 38D24`00" N | 106D24` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 109.900 | 036X | China | CHN | YINING | 43D58`00" N | 081D21` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.900 | 036X | China - Hong Kong | HKG | Chek Lap Kok | 22D19`13" N | 113D52` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | 31May19 |
| 109.900 | 036X | Cook Islands | CKH | RAROTONGA | 21D12`21" S | 159D48` W | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | French Polynesia | OCA | TAHITI FAAA | 17D33`37" S | 149D36` W | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | Guam (United States) | GUM | SAIPAN | 15D07`00" N | 145D44` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | India | IND | BANGALORE | 13D11`22" N | 077D43` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 9Oct18; NC |
| 109.900 | 036X | India | IND | BHAVNAGAR | 21D45`00" N | 072D11` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | PROPOSED |
| 109.900 | 036X | India | IND | BHOPAL | 23D17`34" N | 077D19` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 37 | |
| 109.900 | 036X | India | IND | JAIPUR | 26D49`33" N | 075D49` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 109.900 | 036X | India | IND | KOLKATA | 22D38`41" N | 088D26` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY01 |
| 109.900 | 036X | India | IND | LUCKNOW | 26D45`43" N | 080D53` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | India | IND | Rajahmundry | 17D05`43" N | 081D47` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 109.900 | 036X | India | IND | TRIVANDRUM | 08D28`38" N | 076D55` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | India | IND | UDAIPUR | 24D37`11" N | 073D54` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | India | IND | VARANASI | 25D27`09" N | 082D50` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | Indonesia | INS | KENDARI HALUOLEO | 04D05`00" S | 122D25` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-08 |
| 109.900 | 036X | Indonesia | INS | SEMARANG AHMAD | 06D58`28" S | 110D22` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | Malaysia | MLA | JOHOR BAHRU | 01D39`18" N | 103D40` 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` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 120/450 | 37 | |
| 109.900 | 036X | New Caledonia | NCL | NOUMEA TONTOUTA | 22D01`00" S | 166D12` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | New Zealand | NZL | DUNEDIN | 45D56`07" S | 170D11` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | 28Dec09 |
| 109.900 | 036X | New Zealand | NZL | WELLINGTON | 41D19`02" S | 174D48` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | 16MAR11 |
| 109.900 | n/a | Philippines | PHL | DAVAO | 07D06`54" N | 125D38` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY23 |
| 109.900 | n/a | Philippines | PHL | MACTAN | 10D19`12" N | 123D59` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | RWY04 |
| 109.900 | n/a | Philippines | PHL | MANILA INTL. | 14D29`50" N | 120D59` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 50/100 | 27 | 26Dec13 |
| 109.900 | 036X | Samoa | SMO | APIA FALEOLO | 13D49`00" S | 171D59` W | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | Sri Lanka | SLK | KATUNAYAKE | 07D11`43" N | 079D53` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 109.900 | 036X | Thailand | THA | PHUKET | 08D06`48" N | 098D18` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 109.900 | 036X | Thailand | THA | SONGKHLA HAT YAI | 06D55`49" N | 100D22` E | ILS/DME | I | 25/62.5 | 17 | | 300/450 | 37 | |
| 109.900 | 036X | Viet Nam | VTN | PLEIKU | 14D00`11" N | 108D00` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 28Apr15 |
| 109.900 | 036X | Viet Nam | VTN | VAN DON | 21D07`48" N | 107D25` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 4Apr17 |
| 109.950 | n/a | Republic of Korea | KOR | INCHEON INTL | 37D27`57" N | 126D24` 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` E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 110.000 | 037X | Indonesia | INS | MAKASAR SULTAN | 05D03`09" S | 119D34` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | FI ; DVOR |
| 110.000 | 037X | Thailand | THA | CHUMPHON | 10D42`40" N | 099D22` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 110.100 | 038X | Australia | AUS | BRISBANE | 27D24`27" S | 153D06` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | Runway 03 TRD - 194D |
| 110.100 | 038X | Australia | AUS | SYDNEY | 33D55`39" S | 151D10` 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` W | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 28Sep09 |
| 110.100 | n/a | China | CHN | ANQING | 30D35`00" N | 117D02` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | 038X | China | CHN | CHANGCHUN | 43D59`00" N | 125D40` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|----------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-------------------|
| 110.100 | 038X | China | CHN | CHONGQING | 29D42`00" N | 106D38` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.100 | n/a | China | CHN | GUILIN | 25D14`00" N | 110D02` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | n/a | China | CHN | LINZHI | 29D11`00" N | 094D11` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | 038X | China | CHN | TANGSHAN | 39D43`00" N | 117D59` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.100 | 038X | China | CHN | WEIHAI | 37D12`00" N | 122D14` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.100 | n/a | China | CHN | XIANGFAN | 32D09`00" N | 112D17` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | n/a | China | CHN | XUZHOU | 34D04`00" N | 117D35` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | 038X | China | CHN | ZHUHAISANZAO | 22D00`00" N | 113D23` 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` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | 038X | India | IND | AURANGABAD | 19D51`47" N | 075D23` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.100 | 038X | India | IND | HYDERABAD | 17D27`15" N | 078D28` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.100 | 038X | India | IND | INS Rajali | 13D04`57" N | 079D42` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | Arrakonam |
| 110.100 | 038X | India | IND | JAMMU | 32D41`06" N | 074D50` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.100 | 038X | India | IND | MANGALORE | 12D57`38" N | 074D53` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.100 | 038X | India | IND | MUMBAI | 19D05`42" N | 072D51` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | RWY14 |
| 110.100 | 038X | India | IND | Sarsawa | 29D59`39" N | 077D24` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 110.100 | 038X | Indonesia | INS | BATAM HANG NADIM | 01D08`12" S | 104D07` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY-04 |
| 110.100 | 038X | Indonesia | INS | GORONTALO | 00D38`22" N | 122D51` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | WY-09 |
| 110.100 | 038X | Indonesia | INS | MAKASAR SULTAN | 05D04`13" S | 119D33` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-21 |
| 110.100 | 038X | Indonesia | INS | MEDAN POLONIA | 03D34`07" N | 098D40` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY-10 |
| 110.100 | 038X | Japan | J | FUKUE | 32D40`00" S | 128D50` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | DME Loc 3820Dec13 |
| 110.100 | 038X | Japan | J | HACHIJIOJIMA | 33D07`00" N | 139D47` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.100 | 038X | Japan | J | OSAKA INTL. | 34D48`00" N | 135D26` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 110.100 | 038X | Japan | J | UBE | 33D56`00" N | 131D18` 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` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.100 | n/a | Pakistan | PAK | KARACHI INTL. | 24D54`00" N | 067D09` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY20L |
| 110.100 | 038X | Thailand | THA | KRABI | 08D06`27" N | 098D58` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 110.100 | 038X | Thailand | THA | NARATHIWAT | 06D31`49" N | 101D44` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.100 | 038X | Thailand | THA | PHITSANULOK | 16D46`13" N | 100D17` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 110.100 | 038X | Thailand | THA | SUARNABHUMI | 13D39`24" N | 100D45` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 110.100 | 038X | Thailand | THA | UBON RATCHATHANI | 15D14`23" N | 104D51` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | AIP |
| 110.100 | 038X | Thailand | THA | UDON THANI | 17D23`41" N | 102D46` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 4Apr17 |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-------------|
| 110.150 | 038Y | Japan | J | ODATE-NOSHIRO | 40D11`00" N | 140D23` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 110.200 | 039X | Japan | J | TOTTORI | 35D32`00" N | 134D10` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.200 | 039X | Republic of Korea | KOR | WONJU | 37D28`32" N | 127D58` E | VOR/DME | I | 25/100 | 17 | | 25/100 | 27 | DVOR |
| 110.200 | 039X | Thailand | THA | NAKHON RATCHASIMA | 14D56`47" N | 102D18` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 110.300 | n/a | American Samoa | SMA | PAGO PAGO | 14D19`00" S | 170D42` W | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | AKESU | 41D16`00" N | 080D16` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | n/a | China | CHN | ALETAI | 47D45`00" N | 088D05` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | BAOSHAN | 25D02`00" N | 099D10` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | BEIJING | 40D04`00" N | 116D36` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | DME AT GP |
| 110.300 | n/a | China | CHN | CHANGSHA | 28D12`00" N | 113D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | ENSHI | 30D20`00" N | 109D29` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | n/a | China | CHN | FUZHOU | 25D55`00" N | 119D39` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | GUANGYUAN | 32D23`00" N | 105D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | 040X | China | CHN | GUANGZHOU | 23D22`00" N | 113D18` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | n/a | China | CHN | GUIYANG | 26D34`00" N | 106D48` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | HAERBIN | 45D38`00" N | 126D16` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | HAILAER | 49D12`00" N | 119D48` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | HETIAN | 37D03`00" N | 079D51` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | KUERLE | 41D38`00" N | 086D09` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | KUNMING | 25D00`00" N | 102D45` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | LASA | 29D18`00" N | 090D54` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | n/a | China | CHN | NANJING | 31D45`00" N | 118D53` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | SHANGHAI HONGQIAO | 31D13`00" N | 121D20` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.3 | n/a | China | CHN | SHENYANG | 41D38`00" N | 123D28` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | SHIJIAZHUANG | 38D18`00" N | 114D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | n/a | China | CHN | URUMQI | 43D54`00" N | 087D29` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | WENZHO | 27D55`00" N | 120D50` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | WUHAN | 30D48`00" N | 114D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | FI |
| 110.300 | 040X | China | CHN | WUZHOU | 23D27`00" N | 111D15` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | n/a | China | CHN | XI'AN | 34D27`00" N | 108D45` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | XIAMEN | 24D33`00" N | 118D07` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | n/a | China | CHN | ZHANGJIAJIE | 29D06`00" N | 110D27` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | China | CHN | ZHAOTONG | 27D20`00" N | 103D46` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | 040X | China | CHN | ZHENGZHOU | 34D31`00" N | 113D52` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | 040X | Cook Islands | CKH | RAROTONGA | 21D12`21" S | 159D47` 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` 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` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | India | IND | AGARTALA | 23D52`48" N | 091D14` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | n/a | India | IND | AGRA | 27D09`02" N | 077D56` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | IAF |
| 110.300 | 040X | India | IND | AHMEDABAD | 23D03`50" N | 072D37` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | India | IND | CHENNAI | 12D59`11" N | 080D09` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | India | IND | COCHIN (INTL) | 10D08`58" N | 076D22` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|--------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-------------------|
| 110.300 | 040X | India | IND | DELHI | 28D33`37" N | 077D07`E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | RWY28 |
| 110.300 | n/a | India | IND | GOA | 15D22`39" N | 073D48`E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | India | IND | GUWAHATI | 26D05`48" N | 091D34`E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | n/a | India | IND | GWALIOR | 26D17`00" N | 078D14`E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | India | IND | IMPHAL | 24D45`04" N | 093D53`E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | India | IND | KOLKATA | 22D40`06" N | 088D26`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY19 |
| 110.300 | 040X | India | IND | MUMBAI | 19D05`16" N | 072D52`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY27 |
| 110.300 | 040X | India | IND | NAGPUR | 21D05`12" N | 079D03`E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | India | IND | PATNA | 25D35`38" N | 085D05`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | India | IND | RAIPUR | 21D10`32" N | 081D44`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 16Feb07 |
| 110.300 | 040X | Indonesia | INS | BALI NGURAH RAI | 08D44`59" S | 115D10`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-27 |
| 110.300 | 040X | Indonesia | INS | JAYAPURA | 02D34`00" S | 140D31`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`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.300 | 040X | Indonesia | INS | TANJUNG REDEB | 02D09`37" N | 117D26`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-19 |
| 110.300 | n/a | Japan | J | CHITOSE | 42D49`00" N | 141D40`E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | Japan | J | KANOYA | 31D22`00" N | 130D50`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 20Dec13 |
| 110.300 | 040X | Japan | J | MEMANBETSU | 43D53`00" N | 144D10`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`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`E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | Malaysia | MLA | KOTA KINABALU | 05D56`00" N | 116D03`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`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`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`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | New Zealand | NZL | AUCKLAND | 37D00`22" S | 174D48`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`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | 28Dec09 |
| 110.300 | 040X | New Zealand | NZL | DUNEDIN | 45D55`25" S | 170D12`E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | 28Nov12 |
| 110.300 | 040X | New Zealand | NZL | WELLINGTON | 41D20`10" S | 174D48`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`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | DME NAT |
| 110.300 | 040X | Pakistan | PAK | MULTAN | 30D12`00" N | 071D25`E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | n/a | Philippines | PHL | KALIBO | 11D40`23" N | 122D22`E | ILS | N | 25/62.5 | 17 | | n/a | n/a | 16MAR11 |
| 110.300 | 040X | Republic of Korea | KOR | CHEONGJU | 36D43`36" N | 127D30`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`E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.300 | 040X | Republic of Korea | KOR | ULSAN | 35D36`16" N | 129D21`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`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`E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.300 | 040X | Thailand | THA | NAN | 18D48`32" N | 100D46`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 110.300 | 040X | Thailand | THA | SAKHONNAKHON | 07D12`50" N | 104D08`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 110.300 | 040X | Thailand | THA | TRANG | 07D30`32" N | 099D37`E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 19MAR12 |
| 110.300 | 040X | Viet Nam | VTN | CAM RANH | 11D58`40" N | 109D16`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`E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 26Jun13 |
| 110.350 | 040Y | Republic of Korea | KOR | INCHEON INTL | 37D26`29" N | 126D26`E | ILS/DME | I | 25/62.5 | 17 | | 15/100 | 27 | |
| 110.400 | 041X | China | CHN | XUEJIADAO | 35D58`00" N | 120D14`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.450 | 041Y | Japan | J | TAJIMA | 35D31`00" N | 134D47`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 110.450 | 041Y | Japan | J | TOKUNOSHIMA | 27D49`00" N | 128D53` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.500 | 042X | Afghanistan | AFG | KABUL | 34D35`00" N | 069D10` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | |
| 110.500 | 042X | Afghanistan | AFG | KABUL | 34D35`36" N | 069D10` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | |
| 110.500 | 042X | Australia | AUS | OAKEY | 27D24`59" S | 151D44` E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | Details Updated. |
| 110.500 | 042X | Australia | AUS | WILLIAMTOWN | 32D48`23" S | 151D50` E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | Runway 12 TRD - 310D |
| 110.500 | n/a | China | CHN | BAOTOU | 40D33`00" N | 110D00` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | China | CHN | CHANGDU | 30D32`00" N | 097D08` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.500 | n/a | China | CHN | DANDONG | 40D01`00" N | 124D17` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | n/a | China | CHN | JINAN | 36D50`00" N | 117D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | China | CHN | NANCHANG | 28D51`00" N | 115D54` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.500 | 042X | China | CHN | NANTONG | 32D03`00" N | 120D59` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.500 | n/a | China | CHN | SHENYANG | 41D39`00" N | 123D30` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | China | CHN | TIANJIN | 39D09`00" N | 117D20` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | n/a | China | CHN | ZHOUSHAN | 29D56`00" N | 122D22` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | China - Hong Kong | HKG | Chek Lap Kok | 22D19`59" N | 113D55` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 26Jan18 |
| 110.500 | 042X | India | IND | BANGALORE | 12D57`02" N | 077D40` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | 042X | India | IND | DELHI | 28D34`09" N | 077D06` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | RWY27 |
| 110.500 | 042X | India | IND | LILABARI | 27D18`00" N | 094D06` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | Planned |
| 110.500 | 042X | India | IND | MADURAI | 09D50`07" N | 078D05` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 5Nov99 |
| 110.500 | 042X | India | IND | MOPA AIRPORT | 15D44`45" N | 073D50` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.500 | 042X | India | IND | RANCHI | 23D18`34" N | 085D19` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | 042X | India | IND | VADODARA | 22D20`35" N | 073D13` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | 042X | Indonesia | INS | BIAK FRANSKAISEPO | 01D11`45" S | 136D07` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-07R |
| 110.500 | 042X | Indonesia | INS | MAKASAR SULTAN | 05D04`13" S | 119D33` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-03 |
| 110.500 | 042X | Indonesia | INS | MANADO | 01D33`45" N | 124D55` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-36 |
| 110.500 | 042X | Indonesia | INS | PALEMBANG SULT. | 02D53`39" S | 104D41` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | RWY-29 |
| 110.500 | 042X | Japan | J | ASAHIKAWA | 43D42`00" N | 142D26` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | 20Dec13 |
| 110.500 | 042X | Japan | J | FUKUSHIMA | 37D14`00" N | 140D26` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 110.500 | 042X | Malaysia | MLA | IPOH | 04D33`24" N | 101D05` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | 042X | Malaysia | MLA | NEW SIBU | 02D15`00" N | 111D59` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | Singapore | SNG | CHANGI | 01D21`21" N | 104D00` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | DME42 at GP27Sep04 |
| 110.500 | 042X | Thailand | THA | RANONG | 09D47`18" N | 098D35` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 22Dec15 |
| 110.500 | 042X | Thailand | THA | SUVARNABHUMI | 13D41`30" N | 100D45` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 19MAR12 |
| 110.500 | 042X | Viet Nam | VTN | DANANG | 16D02`37" N | 108D12` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.500 | n/a | Viet Nam | VTN | NOIBAI | 21D12`00" N | 010D54` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.500 | 042X | Viet Nam | VTN | TAN SON NHAT | 10D49`00" N | 106D39` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.550 | 042Y | ICAOTEST APAC | ZZZ | Henglo | 52D52`52" N | 005D05` E | ILS/DME | ICA | 25/62.5 | 17 | | 25/100 | 27 | |
| 110.600 | 043X | Republic of Korea | KOR | YANGYANG | 38D03`48" N | 128D39` E | VOR/DME | I | 25/100 | 17 | | 25/100 | 27 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------|
| 110.600 | 043X | Thailand | THA | SURATTHANI | 09D08'00" N | 099D08' E | VOR/DME | I | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 110.650 | 043Y | Japan | J | SHIZUOKA | 34D48'00" N | 138D12' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 110.650 | 043Y | Japan | J | TARAMA | 24D39'00" N | 124D40' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 110.650 | 043Y | Japan | J | YUWA | 39D37'00" N | 140D11' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.700 | n/a | Australia | AUS | AMBERLEY | 27D39'00" S | 152D43' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | 044X | Australia | AUS | EDINBURGH | 34D43'12" S | 138D36' 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' E | ILS | N | 25/62.5 | 17 | | n/a | n/a | Coordinates Updated. |
| 110.700 | 044X | Australia | AUS | TINDAL | 14D31'59" S | 132D23' E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | Runway 14 TRD - 319D |
| 110.700 | 044X | China | CHN | BEIHAI | 21D33'00" N | 109D18' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 18Apr11 |
| 110.700 | n/a | China | CHN | DALI | 25D39'00" N | 100D19' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | n/a | China | CHN | DONGYING | 37D30'00" N | 118D47' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | n/a | China | CHN | FUYANG | 32D53'00" N | 115D44' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | 044X | China | CHN | FUZHOU | 25D57'00" N | 119D40' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.700 | n/a | China | CHN | JINGDEZHEN | 29D21'00" N | 117D11' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | n/a | China | CHN | LINYI | 35D04'00" N | 118D25' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | 044X | China | CHN | QINGDAO | 36D15'00" N | 120D23' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.700 | n/a | China | CHN | QIQIHAER | 47D14'00" N | 123D56' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | 044X | China | CHN | SHANGHAIPUDONG | 31D07'00" N | 121D48' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.700 | 044X | China | CHN | SHENZHEN | 22D38'00" N | 113D49' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.700 | n/a | China | CHN | WEIHAI | 37D11'00" N | 122D14' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.700 | 044X | China | CHN | XINING | 36D31'00" N | 102D04' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.700 | 044X | India | IND | CALICUT | 11D07'55" N | 075D58' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 110.700 | 044X | India | IND | KHAJURAHO | 24D49'30" N | 079D55' E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.700 | n/a | Indonesia | INS | BANJARMASIN | 03D26'19" S | 114D45' E | ILS | I | 25/62.5 | 17 | | n/a | n/a | RWY-10 |
| 110.700 | 044X | Indonesia | INS | MERAUKE MOPAH | 08D32'11" S | 140D24' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-16 |
| 110.700 | 044X | Indonesia | INS | TIMIKA MOZES | 04D32'11" S | 136D53' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-12 |
| 110.700 | 044X | Japan | J | AGUNI | 35D47'00" N | 140D24' E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 24Dec13 |
| 110.700 | 044X | Japan | J | KANSAI INTL | 34D25'00" N | 135D14' 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' 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' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | DME 44 AT GP |
| 110.700 | 044X | New Zealand | NZL | OHAKEA | 40D12'35" S | 175D24' 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' 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' 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' 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' 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' 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' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 7Dec11 |
| 110.750 | 044Y | Japan | J | NEW CHITOSE | 35D47'00" N | 141D41' E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 24Dec13 |
| 110.800 | 045X | Japan | J | UBE | 33D56'00" N | 131D17' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.800 | 045X | Thailand | THA | U-TAPHAO | 12D40'00" N | 101D00' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DME NAT; DVOR |
| 110.850 | 045Y | Japan | J | MEMANBETSU | 43D53'00" N | 144D10' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.850 | 045Y | Japan | J | TOYAMA | 36D39'00" N | 137D11' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 110.900 | 046X | Australia | AUS | SYDNEY | 33D58'24" S | 151D11' E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | Runway 16L TRD - 348D |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 110.900 | 046X | China | CHN | GUANGZHOU | 23D25`00" N | 113D19` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.900 | n/a | China | CHN | LIUZHOU | 24D13`00" N | 109D24` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | n/a | China | CHN | NANJING | 31D44`00" N | 118D51` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | 046X | China | CHN | NANNING | 22D36`00" N | 108D10` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.900 | n/a | China | CHN | NINGBO | 29D50`00" N | 121D27` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | 046X | China | CHN | SHANGHAIHONGQIAO | 31D11`00" N | 121D20` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 110.900 | n/a | China | CHN | TAIYUAN | 37D44`00" N | 112D39` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | 046X | China | CHN | TIANJIN | 39D07`00" N | 117D21` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.900 | n/a | China | CHN | YANCHENG | 33D26`00" N | 120D13` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | n/a | China | CHN | YANTAI | 37D23`00" N | 121D21` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 110.900 | 046X | China - Hong Kong | HKG | INTERNATIONAL | 22D18`34" N | 113D53` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | DME-46 AT GP 25R |
| 110.900 | 046X | ICAOTEST APAC | ZZZ | Groningen | 53D53`53" N | 005D05` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | |
| 110.900 | 046X | India | IND | DIMAPUR | 25D52`39" N | 093D47` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 23/7/02 |
| 110.900 | 046X | India | IND | DURGAPUR | 23D37`28" N | 087D14` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 22Nov11 |
| 110.900 | 046X | India | IND | HYDERABAD | 17D15`45" N | 078D27` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | 2May07 |
| 110.900 | 046X | India | IND | INDORE | 22D43`29" N | 075D48` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.900 | 046X | India | IND | RAJKOT | 22D18`48" N | 070D46` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.900 | 046X | India | IND | TIRUCHIRAPALLI | 10D45`56" N | 078D43` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.900 | 046X | Indonesia | INS | BALIKPAPAN SULTAN | 01D16`25" S | 116D52` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY-25R |
| 110.900 | 046X | Indonesia | INS | MEDAN BARU | 03D37`26" N | 098D51` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-23 |
| 110.900 | 046X | Japan | J | KOCHI | 33D33`00" N | 133D39` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 110.900 | 046X | Japan | J | NARITA INTL AP | 35D48`00" N | 140D23` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 24Dec13 |
| 110.900 | 046X | Japan | J | NEW CHITOSE | 42D47`00" N | 141D41` 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` 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` 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` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | RWY 21 |
| 110.900 | n/a | Philippines | PHL | SUBIC | 14D47`43" N | 120D16` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY25 |
| 110.900 | 046X | Republic of Korea | KOR | POHANG | 35D59`17" N | 129D26` 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` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 9Jan15 pm |
| 110.950 | 046Y | Japan | J | KUMEJIMA | 26D22`00" N | 126D43` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI DME 46 LOC |
| 111.000 | 047X | China | CHN | CHONGQING | 29D27`00" N | 106D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.000 | 047X | China | CHN | LIANCHENG | 25D39`00" N | 116D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.000 | 047X | Japan | J | OKAYAMA | 34D45`00" N | 133D50` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 26Dec13; DVOR |
| 111.000 | 047X | Micronesia, Federated States | FSM | PONAPE | 06D59`00" N | 158D13` E | VOR/DME | I | 100/450 | 23 | | 100/450 | 27 | |
| 111.000 | 047X | Republic of Korea | KOR | MUAN | 34D58`12" N | 126D23` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13 |
| 111.000 | 047X | Thailand | THA | KRABI | 08D06`27" N | 098D58` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 111.100 | 048X | Australia | AUS | GOLD COAST | 28D10`42" S | 153D30` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | Runway 23 TRD - 62D |
| 111.100 | n/a | China | CHN | CHENGDU | 30D35`00" N | 103D57` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-------------------|
| 111.100 | n/a | China | CHN | DALIAN | 38D58`00" N | 121D31` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.100 | n/a | China | CHN | GUIYANG | 26D25`00" N | 106D32` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.100 | 048X | China | CHN | JINZHOU | 41D05`00" N | 121D03` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | China | CHN | KASHI | 39D32`00" N | 076D03` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | China | CHN | MANZHOU | 49D34`00" N | 117D18` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | China | CHN | SHANGHAIPUDONG | 31D07`00" N | 121D48` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | China - Hong Kong | HKG | INTERNATIONAL | 22D19`21" N | 113D56` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | DME-48 AT GP 07L |
| 111.100 | 048X | India | IND | COCHIN (INTL) | 10D09`06" N | 076D24` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 11OCT13 |
| 111.100 | 048X | India | IND | Delhi | 28D33`01" N | 077D03` E | ILS/DME | NAT | 25/62.5 | 17 | | 25/100 | 27 | Delhi RWY 29R |
| 111.100 | 048X | India | IND | HOLONGI | 26D57`51" N | 093D37` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | India | IND | JABALPUR | 23D10`23" N | 080D02` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 11OCT13 |
| 111.100 | 048X | India | IND | Tambaram | 12D54`39" N | 080D06` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.100 | 048X | India | IND | VISHAKHAPATNAM | 17D43`24" N | 083D14` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 6Oct06 |
| 111.100 | 048X | Indonesia | INS | AMBON PATTIMURA | 03D42`25" S | 128D05` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | RWY-25L |
| 111.100 | 048X | Indonesia | INS | PALEMBANG SULT. | 02D53`59" S | 104D41` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-11 |
| 111.100 | 048X | Indonesia | INS | PEKANBARU SULT. | 00D28`20" N | 101D26` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.100 | 048X | Malaysia | MLA | GONG KEDAK | 04D51`16" N | 103D13` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 16Dec05 |
| 111.100 | 048X | Malaysia | MLA | KOTA KINABALU | 05D56`24" N | 116D03` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 07Aug07 20GP |
| 111.100 | 048X | New Zealand | NZL | OHAKEA | 40D12`08" S | 175D22` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.100 | 048X | Singapore | SNG | SELETAR | 01D24`22" N | 103D51` 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` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.100 | 048X | Viet Nam | VTN | TUY HOA | 13D02`41" N | 109D20` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 4Apr17 |
| 111.200 | 049X | China | CHN | BUERJIN | 48D13`00" N | 087D01` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.200 | 049X | China | CHN | ENSHI | 30D20`00" N | 109D29` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.200 | 049X | China | CHN | TENGCHONG | 24D57`00" N | 098D29` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.200 | 049X | China | CHN | YUNHE | 28D08`00" N | 119D34` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.200 | 049X | Republic of Korea | KOR | MOKPO | 34D45`35" N | 126D22` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.200 | 049X | Thailand | THA | ROI ET | 16D07`00" N | 103D46` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 111.250 | 049Y | Japan | J | KOBE | 34D38`00" N | 135D14` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 111.300 | 050X | China | CHN | NANTONG | 32D06`00" N | 120D59` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.300 | n/a | China | CHN | SHANGHAI HONGQIAO | 31D11`00" N | 121D20` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.300 | 050X | China | CHN | SHENZHEN | 22D38`00" N | 113D49` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.300 | 050X | India | IND | BELGAUM | 15D51`23" N | 074D36` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 21Mar08 |
| 111.300 | 050X | India | IND | KOLKATA | 22D38`10" N | 088D26` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19Jun07 |
| 111.300 | 050X | India | IND | TIRUPATHI | 13D37`46" N | 079D31` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 19Jun07 |
| 111.300 | 050X | Indonesia | INS | BANDA ACEH SULT | 05D31`04" N | 095D25` 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` 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` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.300 | n/a | Japan | J | ATSUGI | 35D28`00" N | 139D27` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 111.300 | n/a | Japan | J | HACHINOHE | 40D33`00" N | 141D27` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.300 | n/a | Japan | J | NYUTABARU | 32D05`00" N | 131D26` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.300 | 050X | Malaysia | MLA | TAWAU | 04D18`20" N | 118D06` 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` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.300 | 050X | Viet Nam | VTN | THO XUAN | 19D53`50" N | 105D29` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 9Mar18 |
| 111.400 | 051X | China | CHN | QIANZHOU | 29D34`00" N | 108D52` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.400 | 051X | Democratic People's Republic | KRE | PYONGYANG SUNAN | 39D13`07" N | 125D40` E | VOR/DME | NAT | 150/450 | 27 | | 150/450 | 37 | 27Jun08 |
| 111.4 | 051X | India | IND | Barrackpore | 24D46`26" N | 088D21` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 111.400 | 051X | Republic of Korea | KOR | ULSAN | 35D35`54" N | 129D21` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 111.400 | 051X | Thailand | THA | SUARNABHUMI | 15D38`00" N | 100D43` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 23May03; DVOR |
| 111.450 | 051Y | Japan | J | NAKASHIBETSU | 43D35`00" N | 144D57` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.450 | 051Y | Japan | J | NOTO | 37D17`00" N | 136D58` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 111.450 | 051Y | Japan | J | TSUSHIMA | 34D17`00" N | 129D20` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.500 | 052X | Australia | AUS | BRISBANE | 27D21`15" S | 153D07` E | ILS/DME | I | 25/62.5 | 17 | | 25/100 | 27 | Runway 01L TRD-207D |
| 111.500 | n/a | China | CHN | CHANGZHOU | 31D55`00" N | 119D48` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.500 | 052X | China | CHN | GUANGZHOU | 23D22`00" N | 113D17` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.500 | 052X | China | CHN | HAIKOU | 19D56`00" N | 110D27` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.500 | 052X | China | CHN | TIANJIN | 39D09`00" N | 117D22` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.500 | 052X | India | IND | Bakhshi Ka Talab | 26D59`21" N | 080D52` E | ILS/DME | NAT | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.500 | 052X | India | IND | BANGALORE | 13D11`23" N | 077D41` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 9Oct18 |
| 111.500 | 052X | India | IND | SINDHUDURG | 16D00`12" N | 073D32` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-07L |
| 111.500 | 052X | Indonesia | INS | PADANG MINANGKABAU | 00D47`03" S | 100D16` 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` W | ILS | N | 25/62.5 | 17 | | n/a | n/a | RWY-26 |
| 111.500 | 052X | Japan | J | NEW CHITOSE | 42D46`00" N | 141D42` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.500 | 052X | Japan | J | OITA | 33D30`00" N | 131D44` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 26Dec13 |
| 111.500 | 052X | Japan | J | TOTTORI | 35D32`00" N | 134D11` 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` 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` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.500 | 052X | Viet Nam | VTN | DANANG | 16D02`37" N | 108D12` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 5Oct.10 |
| 111.550 | 052Y | Japan | J | MONBETSU | 44D19`00" N | 143D24` 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` E | ILS/DME | N | 25/62.5 | 17 | | 200/450 | 37 | FI 52 at LOC |
| 111.600 | 053X | China | CHN | GANZHOU | 25D48`00" N | 114D53` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.600 | 053X | China | CHN | JINING | 35D18`00" N | 116D21` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.600 | 053X | China | CHN | PANLONG | 25D48`00" N | 114D53` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.600 | 053X | India | IND | Barrackpore | 24D46`26" N | 088D21` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 111.600 | 053X | Thailand | THA | NAKHON PHANOM | 17D23`17" N | 104D38` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 111.700 | n/a | China | CHN | BEIJING | 40D04`00" N | 116D36` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.700 | 054X | China | CHN | NANCHANG | 28D53`00" N | 115D54` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.700 | n/a | China | CHN | QINGDAO | 36D17`00" N | 120D22` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | |
| 111.700 | 054X | China | CHN | QUANZHOU | 24D49`00" N | 118D36` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.700 | 054X | China | CHN | SHANGHAIHONGQIAO | 31D13`00" N | 121D20` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.700 | n/a | China | CHN | WUYISHAN | 27D42`00" N | 118D00` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.700 | n/a | China | CHN | YANTAI | 37D25`00" N | 121D23` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.700 | 054X | China - Macao | MAC | MACAU | 22D09`00" N | 113D32` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.700 | 054X | Indonesia | INS | BENGKULU FATMAWATI | 03D51`34" S | 102D19` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-13 |
| 111.700 | 054X | Indonesia | INS | JAKARTA HALIM | 06D16`22" S | 106D52` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | RWY-24 |
| 111.700 | 054X | Indonesia | INS | PALANGKA RAYA TJILIK | 02D12`57" S | 113D56` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-34 |
| 111.700 | 054X | Indonesia | INS | TERNATE SULTAN | 02D32`29" S | 101D05` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-14 |
| 111.700 | 054X | Japan | J | FUKUOKA | 33D34`00" N | 130D28` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | 20Dec13 |
| 111.700 | 054X | Japan | J | IZUMO | 35D24`00" N | 132D53` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | |
| 111.700 | 054X | Japan | J | KAGOSHIMA | 31D49`00" N | 130D43` E | ILS/DME | I | 25/62.5 | 17 | | 25/62.5 | 27 | 20Dec13 |
| 111.700 | 054X | Japan | J | OBIHIRO | 42D45`00" N | 143D13` 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` 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` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 26Dec13 |
| 111.700 | 054X | Malaysia | MLA | ALOR SETAR | 06D12`56" N | 100D24` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | |
| 111.700 | 054X | Malaysia | MLA | BATU BERENDAM | 02D15`36" N | 102D15` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI Rwy03GP |
| 111.700 | n/a | Nepal | NPL | POKHARA | 28D11`23" N | 084D00` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 15Mar13 |
| 111.800 | 055X | Japan | J | KANSAI | 34D26`00" N | 135D15` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 111.800 | 055X | Thailand | THA | PHRAE | 18D08`02" N | 100D09` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 111.900 | n/a | Australia | AUS | PEARCE | 31D39`37" S | 116D00` E | ILS | N | 25/62.5 | 17 | | n/a | n/a | Coordinates Updated. |
| 111.900 | 056X | Australia | AUS | RICHMOND | 33D36`02" S | 150D46` E | ILS/DME | N | 25/62.5 | 17 | | 25/100 | 27 | Runway 28 TRD - 107D |
| 111.900 | n/a | China | CHN | SHANGHAIPUDONG | 31D10`00" N | 121D47` E | ILS | I | 25/62.5 | 17 | | n/a | n/a | |
| 111.900 | 056X | Fiji | FJI | NADI | 17D46`12" S | 177D25` E | ILS/DME | I | 25/62.5 | 17 | | 80/100 | 27 | FI 26Jan18 |
| 111.900 | 056X | Indonesia | INS | MADIUN ISWAHYUDI | 07D37`56" S | 111D26` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-17 |
| 111.900 | 056X | Indonesia | INS | PANGKALAN BUN | 02D42`17" S | 111D40` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | RWY-13 |
| 111.900 | 056X | Japan | J | AOMORI | 40D43`00" N | 140D40` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | 24Dec13 |
| 111.900 | 056X | Malaysia | MLA | NEW KUALA LUMPUR | 02D42`54" N | 101D42` E | ILS/DME | N | 25/62.5 | 17 | | 25/62.5 | 27 | 32 L |
| 111.900 | 056X | Republic of Korea | KOR | DAEGU INT | 35D54`11" N | 128D38` 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` 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` 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` 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` E | ILS/DME | N | 25/62.5 | 17 | | 80/100 | 27 | FI 8Jan15 |
| 112.000 | 057X | Afghanistan | AFG | KABUL | 34D31`00" N | 069D09` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 112.000 | 057X | Australia | AUS | PARKES | 33D07`53" S | 148D14` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|-------------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------------------------|
| 112.000 | 057X | Brunei Darussalam | BRU | BRUNEI | 04D55`00" N | 114D54` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.000 | 057X | China | CHN | GUANLAN | 22D43`00" N | 114D02` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.000 | 057X | China | CHN | HUAYUAN | 28D35`00" N | 109D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.000 | 057X | China | CHN | NANJING | 31D45`00" N | 118D52` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.000 | n/a | Hawaii (United States) | HWA | No frequency registered | 18D55`00" N | 154D48` W | VDL 4 | ICA | 200/450 | 17 | | n/a | n/a | o registered frequency |
| 112.000 | 057X | India | IND | AGRA | 27D09`03" N | 077D56` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.000 | 057X | India | IND | SHIRDI | 19D41`17" N | 074D23` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 21Jun17; DVOR |
| 112.000 | 057X | India | IND | SULUR | 11D00`47" N | 077D09` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 7Feb18; DVOR |
| 112.000 | n/a | Japan | J | KADENA | 26D21`00" N | 127D46` E | VOR | N | 300/450 | 29 | | n/a | n/a | |
| 112.000 | 057X | Japan | J | KOMATSU | 36D24`00" N | 136D24` E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.000 | 057X | Myanmar | BRM | DAWEI | 14D06`00" N | 098D12` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.000 | n/a | Palau | XXP | No frequency assignment | 07D30`33" N | 134D37` E | VDL 4 | ICA | 200/450 | 17 | | n/a | n/a | No registered frequency assignment |
| 112.100 | n/a | China | CHN | GANZHOU | 25D52`00" N | 114D48` E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 112.100 | 058X | China | CHN | MOHE | 52D55`00" N | 122D25` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.100 | 058X | China | CHN | TIANJIN | 39D07`00" N | 117D21` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.100 | 058X | China | CHN | WANGQING | 43D18`00" N | 129D47` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.100 | 058X | China | CHN | ZIYANG | 30D06`00" N | 104D41` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.100 | 058X | India | IND | BELGAUM | 15D51`22" N | 074D37` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.100 | 058X | India | IND | JORHAT | 26D42`07" N | 094D08` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.100 | 058X | India | IND | PATNA | 25D35`26" N | 085D05` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.100 | 058X | Indonesia | INS | BANJARMASIN | 03D26`39" S | 114D42` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.100 | 058X | Indonesia | INS | PEKANBARU SULT. | 02D25`32" N | 101D26` E | VOR/DME | I | 300/450 | 27 | | 300/450 | 37 | DVOR |
| 112.100 | 058X | Japan | J | OITA | 33D13`00" N | 131D42` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.100 | 058X | New Zealand | NZL | ROTORUA | 38D06`29" S | 176D18` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.100 | 058X | Pakistan | PAK | ISLAMABAD CHAKLALA | 33D36`00" N | 073D07` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.100 | 058X | Pakistan | PAK | KARACHI INTL. | 24D55`00" N | 067D11` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 112.100 | 058X | Philippines | PHL | DAVAO | 07D07`52" N | 125D39` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 112.100 | 058X | Philippines | PHL | TUGUEGARAO | 17D38`00" N | 121D44` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | |
| 112.100 | 058X | Viet Nam | VTN | BUON-MA-THUOT | 12D40`00" N | 108D06` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 1Q01; DVOR |
| 112.200 | 059X | China | CHN | WUHAN | 30D47`00" N | 114D12` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.200 | 059X | Fiji | FJI | SUVA NAUSOR1 | 18D02`00" S | 178D33` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.200 | 059X | India | IND | INS Parundu, Ramnad | 09D19`36" N | 078D58` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 112.200 | 059X | India | IND | PANTNAGAR | 29D02`11" N | 079D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 112.200 | 059X | India | IND | SURAT | 21D06`35" N | 072D44` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 29Aug06 |
| 112.200 | 059X | Indonesia | INS | KERINCI DEPATI PARBO | 02D06`57" S | 101D23` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | OFF,; DVOR |
| 112.200 | 059X | Indonesia | INS | KUPANG ELTARI | 10D09`59" S | 123D41` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.200 | 059X | Indonesia | INS | MEDAN BARU | 03D37`02" N | 098D51` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.200 | 059X | Japan | J | TOKYO INTL. | 35D34`00" N | 139D46` 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` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 17May2016; DVOR |
| 112.200 | 059X | Malaysia | MLA | SIBU | 02D14`49" N | 112D00` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Jun05; DVOR |
| 112.200 | 059X | Philippines | PHL | LEGASPI | 13D09`01" N | 123D43` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.200 | 059X | Republic of Korea | KOR | INCHEON ACC | 35D48`35" N | 128D35` E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | FI 26Dec13; DVOR |
| 112.250 | 059Y | Japan | J | YORON | 27D03`00" N | 128D24` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------------------|
| 112.300 | 070X | Australia | AUS | GOLD COAST | 28D10'08" S | 153D30' 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' E | VOR | I | 200/450 | 29 | | n/a | n/a | Coordinates Updated. |
| 112.300 | 070X | Bhutan | BTN | BUMTHANG | 27D33'59" N | 090D44' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 6July17; DVOR |
| 112.300 | 070X | China | CHN | DALIAN | 38D58'00" N | 121D31' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | China | CHN | GEERMU | 36D24'00" N | 094D45' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | China | CHN | LUXI | 24D32'00" N | 103D45' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | China | CHN | YICHUN | 47D45'00" N | 129D01' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | China | CHN | YUNCHENG | 35D08'00" N | 111D02' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | China | CHN | ZHOUSHAN | 29D56'00" N | 122D22' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 112.300 | 070X | China - Hong Kong | HKG | HONGKONG CHEUNG | 22D13'10" N | 114D01' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | French Polynesia | OCA | RANGIROA | 14D57'04" S | 147D40' 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' E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 112.300 | 070X | India | IND | SIRSA | 29D33'36" N | 075D00' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 112.300 | 070X | Japan | J | HAKODATE | 41D46'00" N | 140D50' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | Japan | J | SHINODA | 34D30'00" N | 135D27' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.300 | 070X | Malaysia | MLA | KOTA BAHRU | 06D09'49" N | 102D18' E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 112.300 | 070X | Myanmar | BRM | YANGON HLEGU | 17D05'00" N | 096D15' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.300 | 070X | New Zealand | NZL | WELLINGTON | 41D20'14" S | 174D49' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.300 | 070X | Viet Nam | VTN | LIEN KHUONG | 11D45'30" N | 108D21' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 19Jun2007; DVOR |
| 112.400 | n/a | Afghanistan | AFG | BAGRAM | 34D56'45" N | 069D15' E | VOR | N | 200/450 | 29 | | n/a | n/a | 23Aug2011 |
| 112.400 | 071X | Australia | AUS | CHRISTMAS ISLAND | 10D25'49" S | 105D41' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 112.400 | 071X | Australia | AUS | LEARMONTH | 22D14'05" S | 114D05' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.400 | 071X | Australia | AUS | NORFOLK ISLAND | 29D02'50" S | 167D55' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.400 | 071X | China | CHN | KANGDING | 30D09'00" N | 101D44' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.400 | 071X | China | CHN | LILING | 27D38'00" N | 113D32' E | VOR/DME | I | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.400 | 071X | India | IND | PORBANDAR | 21D39'05" N | 069D39' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 112.400 | 071X | India | IND | RAJAMUNDHRY | 17D06'31" N | 081D48' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 112.400 | 071X | India | IND | SIKANDRABAD | 28D23'36" N | 077D42' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.400 | 071X | Japan | J | MIYAZAKI | 31D53'00" N | 131D26' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.400 | 071X | Malaysia | MLA | MIRI | 04D20'00" N | 113D59' E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | |
| 112.400 | 071X | Viet Nam | VTN | CHU LAI | 15D24'22" N | 108D42' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 14Apr05; DVOR |
| 112.500 | 072X | American Samoa | SMA | PAGO PAGO | 14D20'00" S | 170D42' W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.500 | 072X | China | CHN | ERLIANHAOTE | 43D25'00" N | 112D07' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | HARBIN | 45D38'00" N | 126D16' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | JINGHONG | 21D52'00" N | 100D56' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | LINZHI | 29D26'00" N | 094D27' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | SANYA | 18D19'00" N | 109D10' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | SHANGHAIHONGQIAO | 31D13'00" N | 121D12' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | SHANGXIAN | 33D52'00" N | 109D57' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | China | CHN | YANTAI | 37D23'00" N | 121D21' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | Fiji | FJI | NADI | 17D39'00" S | 177D23' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.500 | 072X | India | IND | CHENNAI | 12D59'36" N | 080D10' E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.500 | 072X | India | IND | KOLKATA | 22D38'43" N | 088D27' E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 112.500 | 072X | India | IND | MOGA | 30D47`47" N | 075D07`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`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.500 | 072X | Indonesia | INS | NATUNA RANAI | 03D54`39" N | 108D23`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.500 | 072X | Japan | J | KUSHIRO | 43D02`00" N | 144D12`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | Japan | J | TATEYAMA | 34D57`00" N | 139D54`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.500 | 072X | Malaysia | MLA | SULTAN ISMAIL | 01D39`50" N | 103D39`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 7Dec11; DVOR |
| 112.500 | 072X | New Zealand | NZL | MOUNT MARY | 44D08`06" S | 170D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.500 | 072X | Philippines | PHL | BUTUAN | 08D57`19" N | 125D29`E | VOR/DME | N | 40/100 | 17 | | 40/100 | 27 | |
| 112.500 | 072X | Republic of Korea | KOR | INCHEON ACC | 35D58`37" N | 129D28`E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | FI 26Dec13; DVOR |
| 112.500 | 072X | Thailand | THA | RAYONG | 12D46`28" N | 101D40`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.600 | 073X | Australia | AUS | DARWIN | 12D25`24" S | 130D54`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 112.600 | 073X | Australia | AUS | LAUNCESTON | 41D32`38" S | 147D12`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.600 | 073X | China | CHN | DALI | 25D39`00" N | 100D19`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | China | CHN | GUYUAN | 36D05`00" N | 106D13`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | China | CHN | SHANTOU | 23D26`00" N | 116D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | China | CHN | TONGSHAN | 34D06`00" N | 117D12`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | India | IND | BHUJ | 23D16`15" N | 069D40`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.600 | 073X | India | IND | DEHRADUN | 30D11`24" N | 078D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 10Apr03; DVOR |
| 112.600 | 073X | India | IND | JHARSUGUDA | 21D54`53" N | 084D03`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 21Jun17; DVOR |
| 112.600 | 073X | India | IND | KANNUR | 11D55`12" N | 075D32`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 25May15; DVOR |
| 112.600 | 073X | Indonesia | INS | LABUAN BAJO KOMODO | 08D28`54" S | 119D53`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.600 | 073X | Indonesia | INS | TERNATE SULTAN | 00D50`27" N | 127D22`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.600 | 073X | Japan | J | MIYAZU | 35D29`00" N | 135D08`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | Malaysia | MLA | BINTULU (NEW) | 03D09`00" N | 113D01`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | Malaysia | MLA | KUALA TERENGGANU | 04D58`48" N | 102D08`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.600 | 073X | Myanmar | BRM | BAGO | 17D19`00" N | 096D31`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.600 | 073X | Solomon Islands | SLM | HONIARA | 09D25`00" S | 160D01`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | Australia | AUS | HOBART | 42D49`58" S | 147D30`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.700 | 074X | Australia | AUS | MACKAY | 21D10`23" S | 149D11`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.700 | 074X | Bangladesh | BGD | DHAKA ZIA INTL | 23D49`00" N | 090D25`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.700 | 074X | China | CHN | DAWANGZHUANG | 39D11`00" N | 116D34`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | China | CHN | NANCHANGXIANGTAN | 28D26`00" N | 115D55`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | China | CHN | QIJIANG | 29D03`00" N | 106D39`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | China | CHN | YUSHU | 32D51`00" N | 097D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | India | IND | GONDIA | 21D31`25" S | 080D17`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 4Jan08; DVOR |
| 112.700 | 074X | India | IND | NAGPUR | 21D04`53" N | 079D03`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.700 | 074X | Indonesia | INS | TIMIKA MOZES KILANGIN | 04D31`55" S | 136D53`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.700 | 074X | Japan | J | NARITA | 35D47`00" N | 140D16`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | FI 24Dec13 ; DVOR |
| 112.700 | 074X | Japan | J | SAKURA | 35D47`00" N | 140D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.700 | 074X | Malaysia | MLA | JOHOR BAHRU | 01D43`48" N | 103D37`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.700 | 074X | New Zealand | NZL | DUNEDIN | 45D47`40" S | 170D28`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.700 | 074X | Pakistan | PAK | JIWANI | 25D04`00" N | 061D47`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DME NAT |
| 112.700 | 074X | Pakistan | PAK | LAHORE | 31D30`00" N | 074D24`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 112.700 | 074X | Philippines | PHL | CABANATUAN | 15D28`03" N | 120D58` E | VOR/DME | I | 150/450 | 27 | | 150/450 | 37 | |
| 112.700 | 074X | Thailand | THA | UBON RATCHATHANI | 15D14`42" N | 104D52` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DME NAT; DVOR |
| 112.800 | 075X | Australia | AUS | WEIPA | 12D40`25" S | 141D55` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.800 | 075X | China | CHN | LIBO | 25D27`00" N | 107D58` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | China | CHN | LINYI | 35D03`00" N | 118D25` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | China | CHN | TIANSHUI | 34D34`00" N | 105D50` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | India | IND | BELLARY | 15D09`55" N | 076D52` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.800 | 075X | India | IND | GWALIOR | 26D17`08" N | 078D13` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | Indonesia | INS | POSO KASIGUNCU | 01D24`29" S | 120D39` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.800 | 075X | Indonesia | INS | YOGYAKARTA ADI | 07D48`01" S | 110D18` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.800 | 075X | Japan | J | HANAMAKI | 39D26`00" N | 141D09` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | Japan | J | KUMAMOTO | 32D50`00" N | 130D50` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 112.800 | 075X | Kiribati | KIR | TARAWA | 01D22`59" S | 173D08` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | Lao People's Democratic | LAO | ATTAPUE | 14D48`01" N | 107D01` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 16Jun14; DVOR |
| 112.800 | n/a | Malaysia | MLA | IPOH | 04D28`54" N | 101D01` E | VOR | N | 150/450 | 27 | | n/a | n/a | DVOR |
| 112.800 | 075X | Malaysia | MLA | MULU (NEW) | 04D01`59" N | 114D47` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.800 | 075X | Myanmar | BRM | MANDALAY | 21D56`00" N | 096D08` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.800 | 075X | Republic of Korea | KOR | GUNSAN | 35D53`00" N | 126D36` E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | |
| 112.900 | 076X | Antarctica | ATA | TERRE ADELIE | 66D40`00" S | 140D00` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FRANCE |
| 112.900 | 076X | Australia | AUS | MEEKATHARRA | 26D36`25" S | 118D31` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.900 | 076X | Australia | AUS | OAKEY | 27D23`59" S | 151D44` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.900 | 076X | Australia | AUS | TENNANT CREEK | 19D38`05" S | 134D10` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 112.900 | 076X | China | CHN | FUYANG | 32D53`00" N | 115D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | China | CHN | KUNMING | 25D01`00" N | 102D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | China | CHN | QIQIHAER | 47D15`00" N | 123D55` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | China | CHN | YINCHUAN | 38D19`00" N | 106D24` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | French Polynesia | OCA | TAHITI FAAA | 17D32`54" S | 149D36` W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.900 | 076X | India | IND | COIMBATORE | 11D01`55" N | 077D02` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 112.900 | 076X | India | IND | JAIPUR | 26D49`31" N | 075D48` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | Indonesia | INS | KOTA BARU GUSTI | 03D17`47" S | 116D09` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 112.900 | 076X | Japan | J | KUSHIMOTO | 33D27`00" N | 135D48` E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | Japan | J | MONBETSU | 44D18`00" N | 143D24` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 112.900 | 076X | Malaysia | MLA | KUALA TERENGGANU | 05D21`38" N | 103D04` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21June07; DVOR |
| 112.900 | 076X | Nepal | NPL | SIMRA | 27D10`00" N | 084D59` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 112.900 | 076X | New Caledonia | NCL | NOUMEA TONTOUTA | 22D00`00" S | 166D12` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 112.900 | 076X | Pakistan | PAK | NAWABSHAH | 26D13`00" N | 068D23` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 112.900 | 076X | Philippines | PHL | LAOAG | 18D10`44" N | 120D31` E | VOR/DME | I | 90/450 | 20 | | 90/450 | 27 | |
| 112.900 | 076X | Philippines | PHL | ROXAS | 11D35`49" N | 122D45` E | VOR/DME | N | 100/450 | 23 | | 100/450 | 27 | |
| 112.900 | 076X | Republic of Korea | KOR | INCHEON INTL | 37D25`58" N | 126D27` E | VOR/DME | I | 25/100 | 17 | | 25/100 | 27 | T-VOR/DME |
| 112.900 | 076X | Thailand | THA | CHUMPAE | 16D39`00" N | 101D55` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.000 | 077X | Australia | AUS | CAIRNS | 16D51`00" S | 145D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 113.000 | 077X | Australia | AUS | CARNARVON | 24D52`55" S | 113D40` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | Details Updated. |
| 113.000 | n/a | Bangladesh | BGD | JESSORE | 23D11`00" N | 089D09` E | VOR | N | 200/450 | 29 | | n/a | n/a | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------------------------|
| 113.000 | 077X | China | CHN | CONGHUA | 23D10`00" N | 113D15`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.000 | 077X | China | CHN | GUANGZHOU | 23D35`00" N | 113D35`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.000 | 077X | China | CHN | HANGZHOU | 30D14`00" N | 120D28`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.000 | 077X | China | CHN | YIJUN | 35D23`00" N | 109D06`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.000 | 077X | India | IND | NANDED | 19D10`55" N | 077D19`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Jun08; DVOR |
| 113.000 | 077X | India | IND | PATHANKOT | 32D14`46" N | 075D38`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 113.000 | 077X | Japan | J | YAMAGATA | 38D23`00" N | 140D21`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.000 | 077X | Nauru | NRU | NAURU | 00D32`00" S | 116D55`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 113.000 | 077X | New Caledonia | NCL | NOUMEA UERE | 22D19`00" S | 166D28`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 113.000 | 077X | New Zealand | NZL | OHURA | 38D49`36" S | 174D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 113.000 | 077X | Philippines | PHL | KALIBO | 11D41`03" N | 122D22`E | VOR/DME | N | 100/450 | 23 | | 100/450 | 27 | DVOR |
| 113.000 | 077X | Republic of Korea | KOR | SEOUL SINCHONRI | 37D26`00" N | 127D07`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`W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 113.100 | 078X | China | CHN | HAMI | 42D51`00" N | 093D40`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | China | CHN | HETIAN | 37D02`00" N | 079D52`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | n/a | China | CHN | HOTAN | 37D02`00" N | 079D52`E | VOR | I | 200/450 | 29 | | n/a | n/a | HETIAN |
| 113.100 | 078X | China | CHN | LASA | 29D18`00" N | 091D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | China | CHN | MANZHOU LI | 49D20`00" N | 117D39`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | China | CHN | QIANXI | 27D03`00" N | 106D02`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | China | CHN | TACHENG | 46D40`00" N | 083D21`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | China | CHN | TAIYUAN | 37D46`00" N | 112D38`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DME NAT; DVOR |
| 113.100 | 078X | China | CHN | YANJI | 42D53`00" N | 129D27`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | India | IND | AHMADABAD | 23D04`20" N | 072D37`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.100 | 078X | India | IND | LUCKNOW | 26D45`44" N | 080D52`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.100 | 078X | India | IND | TIRUCHIRAPALLI | 10D45`45" N | 078D42`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 113.100 | 078X | Indonesia | INS | WAIKABUBAK | 09D24`31" S | 120D14`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.1 | 078X | Japan | J | ERABU | 27D26`00" N | 128D42`E | VOR/TAC | I | 100/450 | 23 | | 100/450 | 27 | Frequency/ChannelOK? 20Dec13; DVOR |
| 113.100 | 078X | Japan | J | OSHIMA | 34D43`00" N | 139D25`E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | 26Dec13; DVOR |
| 113.100 | 078X | Malaysia | MLA | KOTA KINABALU | 05D54`00" N | 116D02`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.100 | n/a | Pakistan | PAK | D.I.KHAN | 31D54`00" N | 070D53`E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 113.100 | 078X | Philippines | PHL | CLARK INTL. AIRPORT | 15D11`00" N | 120D32`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 113.100 | 078X | Thailand | THA | Betong | 05D47`08" N | 101D08`E | VOR/DME | ICA | 200/450 | 27 | | 200/450 | 37 | 15Feb19; PLI |
| 113.100 | 078X | Viet Nam | VTN | VINH | 18D43`08" N | 105D40`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 113.200 | 079X | Australia | AUS | BRISBANE | 27D21`58" S | 153D08`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 113.200 | n/a | Australia | AUS | MANGALORE | 36D53`09" S | 145D11`E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 113.200 | 079X | China | CHN | PANZHUIHUA | 26D32`00" N | 101D48`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.200 | 079X | China | CHN | TANGSHAN | 39D43`00" N | 118D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.200 | 079X | China | CHN | XIAN | 34D33`00" N | 108D38`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.200 | 079X | China | CHN | YIWU | 29D20`00" N | 120D02`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 113.200 | 079X | China - Hong Kong | HKG | LUNG KWU CHAU | 22D22`44" N | 113D53`E | VOR/DME | I | 70/450 | 20 | | 70/450 | 27 | DVOR |
| 113.200 | 079X | India | IND | KISHANGARH | 26D35`07" N | 074D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 22Mar17; DVOR |
| 113.200 | 079X | Indonesia | INS | PONTIANAK SUPADIO | 00D04`44" S | 109D22`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.200 | 079X | Japan | J | IKI | 33D45`00" N | 129D47`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------|
| 113.200 | 079X | Nepal | NPL | KATHMANDU | 27D40`00" N | 085D21`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | 16Oct09; DVOR |
| 113.200 | 079X | Viet Nam | VTN | CAN THO | 10D05`00" N | 105D42`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 7Jul08; DVOR |
| 113.300 | 080X | China | CHN | CHANGDU | 30D33`00" N | 097D07`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | CHANGSHA | 28D12`00" N | 113D14`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | HUAIAN | 33D46`00" N | 119D07`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | KELAMAYI | 45D29`00" N | 084D56`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | NANYINGBINDAO | 20D01`00" N | 110D08`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | SHACHE | 38D26`00" N | 077D14`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | China | CHN | TUMUERTAI | 41D51`00" N | 113D09`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | India | IND | ALLAHABAD | 25D26`58" N | 081D43`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 113.300 | 080X | India | IND | DAMAN | 20D26`19" N | 072D51`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Operated by Coast G |
| 113.300 | 080X | India | IND | JAMMU | 32D40`35" N | 074D50`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | India | IND | Tambaram | 12D54`16" N | 080D07`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.300 | 080X | Indonesia | INS | JAKARTA HALIM | 06D16`19" S | 106D53`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.300 | 080X | Indonesia | INS | P BINTANG OKSIBIL | 04D54`26" S | 140D37`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | OFF OFF; DVOR |
| 113.300 | 080X | Japan | J | HYAKURI | 36D11`00" N | 140D25`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 113.300 | 080X | Japan | J | KAGOSHIMA | 31D42`00" N | 130D35`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 113.300 | 080X | Malaysia | MLA | KERTEH | 04D31`54" N | 103D25`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 8Feb13; DVOR |
| 113.300 | 080X | New Caledonia | NCL | LIFOU | 20D46`27" S | 167D14`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 37DBW |
| 113.300 | n/a | Pakistan | PAK | BINDO | 29D40`00" N | 071D01`E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 113.300 | 080X | Philippines | PHL | CAGAYAN DE ORO | 08D24`56" N | 124D36`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 113.300 | 080X | Thailand | THA | HUA HIN | 12D38`00" N | 099D57`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.300 | 080X | Tuvalu | TUV | FUNAFUTI | 08D31`00" S | 179D12`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`E | GBAS | NAT | 30/450 | 17 | | n/a | | |
| 113.400 | 081X | Bangladesh | BGD | CHITTAGONG | 22D15`00" N | 091D50`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 113.400 | 081X | China | CHN | QINGYANG | 35D48`00" N | 107D36`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.400 | 081X | China | CHN | SHENGZHOU | 29D36`00" N | 120D49`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.400 | 081X | India | IND | HUBLI | 15D21`39" N | 075D04`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 23Jun08 |
| 113.400 | 081X | Indonesia | INS | BANDA ACEH | 05D31`21" N | 095D25`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.400 | 081X | Indonesia | INS | SURABAYA JUANDA | 02D43`38" S | 107D45`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.400 | 081X | Japan | J | IZUMO | 35D25`00" N | 132D54`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.400 | 081X | Malaysia | MLA | NEW LIMBANG | 04D47`50" N | 115D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 3Jun02; DVOR |
| 113.400 | n/a | Maldives | MLD | GAN | 00D41`36" S | 073D09`E | VOR | I | 200/450 | 29 | | n/a | n/a | CVOR |
| 113.400 | 081X | New Zealand | NZL | PALMERSTON NORTH | 40D19`13" S | 175D38`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 113.400 | 081X | Thailand | THA | RANONG | 09D46`43" N | 098D35`E | VOR/DME | N | 200/300 | 29 | | 200/300 | 40 | DVOR |
| 113.400 | 081X | Timor-Leste | TME | DILI | 08D32`38" S | 125D31`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.400 | 081X | Viet Nam | VTN | PLEIKU | 14D00`37" N | 108D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 7Jul08; DVOR |
| 113.450 | 081Y | Japan | J | AGUNI | 32D29`00" N | 130D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 113.450 | 081Y | Japan | J | AMAKUSA | 32D29`00" N | 130D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 113.450 | 081Y | Japan | J | FUKUSHIMA | 37D13`00" N | 140D26`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | China | CHN | DENGKOU | 40D19`00" N | 107D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | China | CHN | GUANGHAN | 30D57`00" N | 104D20`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | China | CHN | JIAMUSI | 46D50`00" N | 130D28`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 113.500 | 082X | China | CHN | RIKAZE | 29D21`00" N | 089D16`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | China | CHN | YINGDE | 24D12`00" N | 113D25`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | Cook Islands | CKH | RAROTONGA | 21D12`10" S | 159D48`W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 113.500 | 082X | ICAOTEST APAC | ZZZ | Amsterdam | 52D52`52" N | 004D04`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 113.500 | 082X | India | IND | BHUBANESHWAR | 20D14`37" N | 085D48`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.500 | 082X | India | IND | COCHIN INTL | 10D08`58" N | 076D22`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | India | IND | LUDHIANA | 30D51`21" N | 075D57`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 21Aug08; DVOR |
| 113.500 | 082X | India | IND | MUNDRA | 22D50`30" N | 069D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 22Dec14; DVOR |
| 113.500 | 082X | Indonesia | INS | BAJAWA TURELELO SOA | 08D42`16" S | 121D02`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.500 | 082X | Indonesia | INS | GORONTALO | 00D38`22" N | 122D51`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.500 | 082X | Japan | J | ASAHIKAWA | 43D40`00" N | 142D27`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 113.500 | 082X | Japan | J | KOWA | 34D42`00" N | 136D57`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | Lao People's Democratic | LAO | SAVANNAKHET | 16D33`43" N | 104D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | Philippines | PHL | SUBIC | 14D46`10" N | 120D13`E | VOR/DME | N | 40/100 | 17 | | 40/100 | 27 | RWY09; DVOR |
| 113.500 | 082X | Republic of Korea | KOR | GANGNEUNG | 37D45`32" N | 128D57`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.500 | 082X | Singapore | SNG | LAZARUS ISLAND | 01D13`00" N | 103D51`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | China | CHN | HUAIROU | 40D20`00" N | 116D45`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | China | CHN | QIANZHOU | 29D36`00" N | 108D43`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | China | CHN | SHANGHAIPUDONG | 30D57`00" N | 121D52`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | China | CHN | SHUYUAN | 30D57`00" N | 121D52`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | India | IND | GOA | 15D22`47" N | 073D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | India | IND | JABALPUR | 23D10`49" N | 080D03`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | Indonesia | INS | AMBON PATTIMURA | 03D42`53" S | 128D05`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 39 | DVOR |
| 113.600 | 083X | Indonesia | INS | JAKARTA SOEKARNO HTA | 06D10`25" S | 106D33`E | VOR/DME | I | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.600 | 083X | Japan | J | CHOSHI | 35D44`00" N | 140D48`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | Malaysia | MLA | ALOR SETAR | 06D11`09" N | 100D23`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.600 | 083X | Malaysia | MLA | Miri Airport | 04D18`11" N | 113D58`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | 2May19; PLI; DVOR |
| 113.600 | 083X | New Zealand | NZL | QUEENSTOWN | 44D59`03" S | 168D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 113.600 | 083X | Republic of Korea | KOR | SEOUL GIMPO INTL | 37D33`27" N | 126D47`E | VOR/DME | I | 25/100 | 17 | | 25/100 | 27 | DVOR |
| 113.600 | 083X | Viet Nam | VTN | DIEN BIEN PHU | 21D23`45" N | 103D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 15Mar05; DVOR |
| 113.700 | 084X | Australia | AUS | MILDURA | 34D13`31" S | 142D04`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 113.700 | 084X | Australia | AUS | PERTH | 31D56`42" S | 115D57`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 113.700 | 084X | Australia | AUS | PROSERPINE | 20D29`49" S | 148D33`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 113.700 | 084X | China | CHN | ALI | 31D59`00" N | 080D08`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | n/a | China | CHN | BAOSHAN | 22D55`00" N | 099D50`E | VOR | I | 200/450 | 29 | | n/a | n/a | FI |
| 113.700 | 084X | China | CHN | BOLE | 44D53`00" N | 082D20`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | China | CHN | FUYU | 44D55`00" N | 124D48`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | China | CHN | HENGCHUN | 21D56`00" N | 120D51`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | TACAN-84 |
| 113.700 | 084X | China | CHN | JINAN | 36D50`00" N | 117D14`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 113.700 | 084X | China | CHN | JINGNING | 35D32`00" N | 105D43`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | China | CHN | LAIBIN | 23D45`00" N | 109D13`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | China | CHN | LIJIANG | 26D46`00" N | 110D16`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | India | IND | KATHIAR | 25D34`35" N | 087D33`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 23/7/02; DVOR |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 113.700 | 084X | India | IND | MYSORE | 12D13`34" N | 076D39`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 113.700 | 084X | Indonesia | INS | KAO KUABANG | 01D11`06" N | 127D53`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.700 | 084X | Japan | J | KOCHI | 33D33`00" N | 133D41`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.700 | 084X | Malaysia | MLA | KUANTAN | 03D46`36" N | 103D12`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | |
| 113.700 | 084X | Pakistan | PAK | RAHIM YAR KHAN | 28D24`00" N | 070D17`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DME NAT |
| 113.700 | 084X | Philippines | PHL | COTABATO | 07D10`03" N | 124D12`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 113.700 | 084X | Thailand | THA | NAKHON RATCHASIMA | 14D55`00" N | 102D07`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.750 | 084Y | Japan | J | ZAO-YAMADA | 38D11`00" N | 140D20`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.800 | 085X | Cambodia | KMR | SIEM REAP AIRPORT | 14D30`28" N | 121D01`E | VOR/DME | N | 25/100 | 17 | | 25/100 | 27 | 100/1000 W; CVOR |
| 113.800 | 085X | China | CHN | ANKANG | 32D43`00" N | 108D54`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.800 | 085X | China | CHN | CHANGZHOU | 31D55`00" N | 119D47`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.800 | 085X | China | CHN | XINGYI | 25D04`00" N | 104D58`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.800 | n/a | India | IND | HYDERABAD | 17D13`40" N | 078D24`E | VOR | N | 200/450 | 29 | | n/a | n/a | 2May07; DVOR |
| 113.800 | 085X | India | IND | LENGPUI | 23D52`43" N | 092D35`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 2Jun15; DVOR |
| 113.800 | 085X | Malaysia | MLA | KOTA KINABALU | 05D53`58" N | 116D02`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 07Aug07; DVOR |
| 113.800 | 085X | New Zealand | NZL | NAPIER | 39D27`14" S | 176D52`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 113.800 | 085X | Pakistan | PAK | SIALKOT | 32D31`06" N | 074D20`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.800 | 085X | Philippines | PHL | MANILA | 14D30`28" N | 121D01`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.800 | 085X | Republic of Korea | KOR | GIMHAE INTL | 35D11`56" N | 128D56`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`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`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 13Jan11; DVOR |
| 113.850 | 085Y | Japan | J | KITAKYUSHU | 33D51`00" N | 131D02`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 113.850 | 085Y | Japan | J | SUOH | 33D51`00" N | 131D02`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 113.900 | 086X | Australia | AUS | ARGYLE | 16D38`04" S | 128D26`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 113.900 | 086X | Australia | AUS | GERALDTON | 28D47`25" S | 114D42`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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | China | CHN | FUJIACHANG | 29D56`00" N | 104D18`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | China | CHN | SHANGHAIHONGQIAO | 31D35`00" N | 121D20`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | China | CHN | WENGYUAN | 24D21`00" N | 114D07`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | China | CHN | WUHAI | 39D48`00" N | 106D48`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | China | CHN | WUXI | 31D35`00" N | 120D21`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | India | IND | PUNE | 18D35`00" N | 073D54`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 113.900 | 086X | India | IND | Thanjavur | 10D43`03" N | 079D06`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.900 | 086X | India | IND | VARANASI | 25D27`15" N | 082D51`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 113.900 | 086X | Indonesia | INS | MEDAN POLONIA | 03D30`16" N | 098D36`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 113.900 | 086X | Indonesia | INS | TALAUD MELONGUANE | 04D01`05" N | 126D40`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 113.900 | 086X | Japan | J | OSAKA INTL. | 34D47`00" N | 135D27`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | Japan | J | SAPPORO | 43D10`00" N | 141D18`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | Malaysia | MLA | NEW SIBU | 02D15`00" N | 112D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 113.900 | 086X | Papua New Guinea | PNG | NADZAB | 06D34`00" S | 146D44`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | |
| 113.900 | 086X | Philippines | PHL | ZAMBOANGA | 06D55`29" N | 122D03`E | VOR/DME | I | 50/300 | 17 | | 50/300 | 27 | |
| 113.900 | 086X | Samoa | SMO | APIA FALEOLO | 13D49`00" S | 171D59`W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 113.900 | 086X | Viet Nam | VTN | WEST NOIBAI | 21D16`13" N | 105D22`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 12Apr05; DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|-----------------------------------|
| 113.950 | 086Y | Japan | J | AMAMI | 28D26`00" N | 129D43` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 114.000 | 087X | China | CHN | FULING | 29D42`00" N | 107D23` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | China | CHN | HEIHE | 50D10`00" N | 127D18` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | China | CHN | SHANGRAO | 28D25`00" N | 117D58` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | India | IND | CHABUA | 27D27`42" N | 095D07` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 7Feb18; DVOR |
| 114.000 | 087X | India | IND | LUNKA-2 | 28D10`46" N | 074D06` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | India | IND | VISAKHAPATNAM | 17D40`04" N | 083D15` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 114.000 | 087X | Indonesia | INS | PUTUSSIBAU PANGSUMA | 00D50`21" N | 112D56` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.000 | 087X | Japan | J | NARITA INTL AP | 35D56`00" N | 139D59` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | 24Dec13 ; DVOR |
| 114.000 | 087X | Lao People's Democratic | LAO | XIENKHOANG | 19D27`00" N | 103D08` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | Malaysia | MLA | PULAU TULAI | 02D54`59" N | 104D06` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.000 | 087X | Malaysia | MLA | SANDAKAN | 05D54`00" N | 118D04` E | VOR/DME | I | 150/300 | 27 | | 150/300 | 37 | DVOR |
| 114.000 | 087X | New Zealand | NZL | HAMILTON | 37D50`57" S | 175D20` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.000 | 087X | Republic of Korea | KOR | INCHEON ACC | 35D07`21" N | 128D59` E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | FI 26Dec13; DVOR |
| 114.100 | 088X | Australia | AUS | COCOS ISLAND | 12D12`02" S | 096D50` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 114.100 | 088X | Australia | AUS | GOVE | 12D15`54" S | 136D48` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 114.100 | 088X | Australia | AUS | KALGOORLIE | 30D47`23" S | 121D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 114.100 | 088X | Australia | AUS | MELBOURNE | 37D39`37" S | 144D50` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 114.100 | 088X | Australia | AUS | PORT HEDLAND | 20D22`43" S | 118D37` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 114.100 | 088X | Australia | AUS | TOWNSVILLE | 19D14`39" S | 146D45` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 114.100 | 088X | China | CHN | DEHONG | 24D25`00" N | 098D32` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | China | CHN | LUOYNAG | 34D44`00" N | 112D24` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | China | CHN | PINGZHOU | 23D01`00" N | 113D11` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | China | CHN | SHENYANG | 41D38`00" N | 123D29` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | China | CHN | WUXI | 31D30`00" N | 120D26` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | China | CHN | YUSHU | 32D48`00" N | 097D16` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | India | IND | BHAVNAGAR | 21D45`00" N | 072D11` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | India | IND | SHIMLA | 31D05`13" N | 077D03` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 24May11; DVOR |
| 114.100 | 088X | Indonesia | INS | SUMENEP TRUNOJOYO | 07D01`24" S | 113D53` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.100 | 088X | Japan | J | AOMORI | 40D44`00" N | 140D42` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | Japan | J | YONAGO | 35D30`00" N | 133D14` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | Malaysia | MLA | PULAU LANGKAWI | 06D21`21" N | 099D44` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.100 | 088X | Nepal | NPL | BIRATNAGAR | 26D29`00" N | 087D16` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.100 | n/a | Philippines | PHL | DUMAGUETE | 09D20`01" N | 123D18` E | VOR | N | 150/300 | 27 | | n/a | n/a | |
| 114.100 | 088X | Sri Lanka | SLK | KATUNAYAKE | 07D09`41" N | 079D52` E | VOR/DME | ICA | 200/450 | 29 | | 200/450 | 40 | |
| 114.100 | 088X | Thailand | THA | PHITSANULOK | 16D46`13" N | 100D17` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.100 | 088X | Viet Nam | VTN | PHAN THIET | 10D55`00" N | 108D04` E | VOR/DME | N | 130/450 | 23 | | 130/450 | 37 | |
| 114.200 | 089X | Australia | AUS | BROKEN HILL | 32D00`02" S | 141D28` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | Coordinates Updated |
| 114.200 | 089X | Australia | AUS | ESPERANCE | 33D40`43" S | 121D49` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 114.200 | 089X | Australia | AUS | SUNSHINE COAST | 26D35`52" S | 153D05` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Name Change. Coordinates Updated. |
| 114.200 | 089X | China | CHN | FUZHOU | 25D59`00" N | 119D15` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.200 | 089X | China | CHN | XICHANG | 28D00`00" N | 102D11` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.200 | 089X | India | IND | LENGPUI | 23D49`51" N | 092D37` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------------|
| 114.200 | 089X | India | IND | MANGALORE | 12D57`43" N | 074D55` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.200 | 089X | Indonesia | INS | MANADO | 01D33`19" N | 124D55` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.200 | 089X | Indonesia | INS | PANGKAL PINANG | 02D09`40" S | 106D08` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DME NAT; DVOR |
| 114.200 | 089X | Indonesia | INS | PANGKAL PINANG | 02D09`41" S | 106D08` E | VOR/DME | I | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.200 | 089X | Japan | J | NAGOYA | 35D16`00" N | 136D55` E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.200 | 089X | New Zealand | NZL | GISBORNE | 38D39`38" S | 177D58` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.200 | 089X | Thailand | THA | SAKHONNAKHON | 17D12`50" N | 104D08` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | FI ; DVOR |
| 114.300 | 090X | Australia | AUS | CURTIN | 17D35`20" S | 123D51` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 114.300 | 090X | Cambodia | KMR | PHNOM PENH AIRPORT | 11D33`11" N | 104D50` E | VOR/DME | N | 25/100 | 17 | | 25/100 | 27 | DVOR |
| 114.300 | 090X | China | CHN | ALETAI | 47D45`00" N | 088D05` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | GUIYANG | 26D31`00" N | 106D47` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | LANZHOU | 36D31`00" N | 103D37` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | LINZHI | 29D12`00" N | 094D09` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | QIEMO | 38D09`00" N | 085D32` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | XILINHAOTE | 43D55`00" N | 115D58` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | China | CHN | XUZHOU | 34D04`00" N | 117D33` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | India | IND | FURSATGANJ AP | 26D15`04" N | 081D23` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 3Apr02; DVOR |
| 114.300 | 090X | India | IND | Ratnagiri | 17D00`47" N | 073D19` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.300 | 090X | India | IND | TUITICORN | 08D43`13" N | 078D02` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | 11June2019; DVOR |
| 114.300 | 090X | Indonesia | INS | BENGKULU FATMAWATI | 03D51`41" S | 102D20` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.300 | 090X | Indonesia | INS | PALANGKA RAYA | 02D14`37" S | 113D56` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | Japan | J | KUGA | 34D05`00" N | 132D09` E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | Kiribati | KIR | TARAWA | 01D22`59" S | 173D08` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 114.300 | 090X | Pakistan | PAK | PANJGUR | 26D57`00" N | 064D08` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 114.300 | 090X | Pakistan | PAK | PESHAWAR | 33D58`00" N | 071D31` E | VOR/DME | I | 100/450 | 23 | | 100/450 | 27 | DVOR |
| 114.300 | 090X | Philippines | PHL | MACTAN | 10D18`48" N | 123D59` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.300 | 090X | Thailand | THA | UDON THANI | 17D23`00" N | 102D46` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.300 | 090X | Vanuatu | NHB | PORT VILA BAUERFIELD | 17D39`00" S | 168D14` E | VOR/DME | I | 50/300 | 17 | | 50/300 | 27 | |
| 114.400 | 091X | China | CHN | HENGSHA | 31D22`00" N | 121D51` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.400 | 091X | China | CHN | SHANGHAIPUDONG | 31D22`00" N | 121D51` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.400 | 091X | China | CHN | ZHANGJIAJIE | 29D06`00" N | 110D26` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.400 | 091X | India | IND | KISHANGANJ | 26D06`00" N | 087D56` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | Planned |
| 114.400 | 091X | India | IND | LATUR | 18D24`59" N | 076D28` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 8Sep08; DVOR |
| 114.400 | 091X | Japan | J | SHODO | 34D31`00" N | 134D16` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.400 | 091X | Lao People's Democratic | LAO | Nongkhong | 20D37`51" N | 104D04` 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` 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` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.400 | 091X | Republic of Korea | KOR | GWANGJU | 35D07`34" N | 126D48` E | VOR/DME | N | 40/100 | 17 | | 40/100 | 27 | DVOR |
| 114.400 | 091X | Viet Nam | VTN | DANANG | 16D03`00" N | 108D12` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.500 | 092X | China | CHN | ALI | 32D28`00" N | 080D04` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | China | CHN | CHAOYANG | 41D32`00" N | 120D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 114.500 | 092X | China | CHN | CHONGZHOU | 30D39`00" N | 103D41` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 114.500 | 092X | China | CHN | JIUQUAN | 39D51`00" N | 098D21` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|---------------|------|----------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------------|
| 114.500 | n/a | China | CHN | KUQA | 41D44`00" N | 083D01`E | VOR | I | 200/450 | 29 | | n/a | n/a | KUCHE |
| 114.500 | 092X | China | CHN | NANNING | 22D36`00" N | 108D11`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | China | CHN | XIAMEN | 24D33`00" N | 118D07`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | China | CHN | ZHENGZHOU | 34D31`00" N | 113D50`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | ICAOTEST APAC | ZZZ | Leeuwarden | 52D52`52" N | 020D20`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 114.500 | 092X | ICAOTEST APAC | ZZZ | Rotterdam | 53D53`53" N | 005D05`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 114.500 | n/a | India | IND | BANGALORE | 13D12`23" N | 077D43`E | VOR | N | 200/450 | 29 | | n/a | n/a | 2May07; DVOR |
| 114.500 | 092X | India | IND | DIMAPUR | 25D52`51" N | 093D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | India | IND | DIU | 20D42`00" N | 070D54`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 4Apr08 |
| 114.500 | 092X | India | IND | UTTARLAI | 25D48`42" N | 071D29`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 7Feb18; DVOR |
| 114.500 | 092X | Indonesia | INS | MATARAM | 08D33`45" S | 116D06`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | OFF; DVOR |
| 114.500 | 092X | Indonesia | INS | MAUMERE FRANS SEDA | 08D38`16" S | 122D14`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.500 | 092X | Indonesia | INS | SAMPIT H. ASAN | 02D30`15" S | 122D58`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.500 | 092X | Japan | J | FUKUOKA | 33D41`00" N | 130D23`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 114.500 | 092X | Japan | J | KISARAZU | 35D24`00" N | 139D54`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.500 | 092X | Malaysia | MLA | KUCHING | 01D28`00" N | 110D18`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.500 | 092X | Philippines | PHL | GENERAL. SANTOS | 06D04`32" N | 125D05`E | VOR/DME | N | 40/100 | 17 | | 40/100 | 27 | 16MAR11; DVOR |
| 114.500 | n/a | Philippines | PHL | SAN FERNANDO | 16D43`42" N | 120D21`E | VOR | N | 150/450 | 27 | | n/a | n/a | |
| 114.500 | n/a | Thailand | THA | KAMPHAENG SAEN | 14D09`00" N | 099D57`E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 114.500 | 092X | Tonga | TON | TONGATAPU | 21D14`00" S | 175D08`W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 114.600 | n/a | Bangladesh | BGD | RAJSHAI | 24D26`00" N | 088D37`E | VOR | I | 300/450 | 29 | | n/a | n/a | |
| 114.600 | 093X | China | CHN | CENCUN | 23D09`00" N | 113D25`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.600 | 093X | China | CHN | JINZHOU | 41D06`00" N | 121D04`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.600 | 093X | China | CHN | NANHUI | 31D05`00" N | 121D34`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.600 | 093X | China | CHN | YANAN | 36D41`00" N | 109D38`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.600 | 093X | India | IND | COCHIN (NAVY) | 09D56`41" N | 076D16`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | Operated by Navy; DVOR |
| 114.600 | 093X | India | IND | KOLHAPUR | 16D39`56" N | 074D17`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 21Mar08; DVOR |
| 114.600 | 093X | Indonesia | INS | JAKARTA SOEKARNO HAT | 05D57`40" S | 107D02`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.600 | 093X | Japan | J | RISHIRI | 45D15`00" N | 141D11`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.600 | 093X | Japan | J | YAO | 34D36`00" N | 135D36`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 26Dec13; DVOR |
| 114.600 | 093X | New Zealand | NZL | TORY | 41D11`09" S | 174D21`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.600 | n/a | Pakistan | PAK | BENZIR BHUTTO-BBIAP | 33D32`45" N | 072D51`E | VOR | N | 200/450 | 29 | | n/a | n/a | 6Nov.13 ; DVOR |
| 114.700 | 094X | China | CHN | BEIJING | 40D03`00" N | 116D44`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.700 | 094X | China | CHN | ENSHI | 30D18`00" N | 109D36`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.700 | 094X | China | CHN | GENGMA | 23D32`00" N | 099D35`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.700 | 094X | China | CHN | JINCHANG | 38D33`00" N | 102D20`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.700 | 094X | India | IND | HYDERABAD | 17D27`04" N | 078D27`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.700 | 094X | Indonesia | INS | MAKASAR SULTAN | 05D02`16" S | 119D31`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.700 | 094X | Indonesia | INS | PADANG MINANGKABAU | 00D47`13" S | 100D16`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.700 | 094X | Malaysia | MLA | SUBANG | 03D19`30" N | 101D27`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 114.700 | 094X | Maldives | MLD | MALE | 04D11`00" N | 073D30`E | VOR/DME | I | 150/300 | 27 | | 150/300 | 37 | |
| 114.700 | 094X | Nepal | NPL | BHAIRAWA | 27D30`00" N | 083D26`E | VOR/DME | I | 150/300 | 27 | | 150/300 | 37 | DVOR |
| 114.700 | 094X | Pakistan | PAK | HYDERABAD | 25D18`00" N | 068D23`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | GROUND TRAINING |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 114.700 | 094X | Pakistan | PAK | QUETTA | 30D17`00" N | 066D53` E | VOR/DME | N | 100/150 | 23 | | 100/150 | 27 | DVOR |
| 114.700 | 094X | Philippines | PHL | NAGA | 13D35`19" N | 123D16` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 114.700 | n/a | Viet Nam | VTN | VUNGTAU | 10D22`00" N | 107D06` E | VOR | N | 130/450 | 23 | | n/a | n/a | |
| 114.750 | 094Y | Japan | J | ODATE-NOSHIRO | 40D12`00" N | 140D22` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 114.750 | 094Y | Japan | J | SAGA | 33D09`00" N | 130D18` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 26Dec13; DVOR |
| 114.750 | 094Y | New Caledonia | NCL | TONTOUTA | 21D56`41" S | 166D04` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 26Jan11 |
| 114.800 | 095X | China | CHN | ANDONG | 30D15`00" N | 121D13` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.800 | 095X | China | CHN | SHANGHAIPUDONG | 30D15`00" N | 121D13` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.800 | 095X | China - Hong Kong | HKG | SIU MO TO | 22D20`15" N | 113D58` E | VOR/DME | I | 70/450 | 20 | | 70/450 | 27 | DVOR |
| 114.800 | 095X | India | IND | ALLAHABAD | 25D26`00" N | 081D44` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | TRAINING |
| 114.800 | 095X | India | IND | DURGAPUR | 23D37`28" N | 087D14` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 22Nov11; DVOR |
| 114.800 | n/a | India | IND | MANDVI | 19D29`34" N | 072D53` E | VOR | N | 200/450 | 29 | | n/a | n/a | Planned; DVOR |
| 114.800 | 095X | Indonesia | INS | MANADO | 01D19`33" N | 124D54` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 114.800 | 095X | Indonesia | INS | MANADO | 01D19`23" N | 124D57` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.800 | 095X | Indonesia | INS | TANJUNG PINANG | 00D56`11" S | 104D31` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.800 | 095X | New Zealand | NZL | AUCKLAND | 37D00`17" S | 174D48` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 114.800 | 095X | Republic of Korea | KOR | INCHEON ACC | 36D37`55" N | 128D19` 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` 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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | n/a | China | CHN | GUILING | 25D13`00" N | 110D02` E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 114.900 | 096X | China | CHN | JINGTAI | 37D12`00" N | 104D05` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | 096X | China | CHN | KAIYUAN | 42D38`00" N | 124D00` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | 096X | China | CHN | LINCHANG | 23D44`00" N | 100D02` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | 096X | India | IND | CHENNAI | 13D00`13" N | 080D09` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 25Mar11; DVOR |
| 114.900 | 096X | India | IND | HOLLONGI | 26D57`56" N | 093D37` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.900 | 096X | India | IND | PRATAPGARH | 24D01`48" N | 074D45` E | VOR/DME | I | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 114.900 | 096X | Indonesia | INS | CILACAP TUNGGUL | 06D45`22" S | 108D32` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | 096X | Indonesia | INS | MALI ALOR | 08D07`56" S | 124D35` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.900 | n/a | Indonesia | INS | MAUMERE WAI OTI | 08D35`00" S | 122D21` E | VOR | N | 200/450 | 29 | | n/a | n/a | DVOR |
| 114.900 | 096X | Indonesia | INS | SILAMPARI | 03D17`09" S | 102D55` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 114.900 | 096X | Japan | J | TOHOKU | 40D49`00" N | 141D09` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 114.900 | n/a | Japan | J | TOKUSHIMA | 34D08`00" N | 134D37` E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 114.900 | 096X | Thailand | THA | KHONKAEN | 16D27`36" N | 102D47` E | VOR/DME | N | 150/350 | 27 | | 150/350 | 37 | DVOR |
| 115.000 | 097X | Australia | AUS | WAGGA WAGGA | 35D09`57" S | 147D28` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 115.000 | 097X | China | CHN | DAZHOU | 31D09`00" N | 107D26` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.000 | 097X | China | CHN | LIANYUGANG | 34D36`00" N | 118D53` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.000 | 097X | China | CHN | MEIXIAN | 24D16`00" N | 116D06` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.000 | 097X | India | IND | BHUNTAR | 31D41`04" N | 077D12` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 14Sep18; DVOR |
| 115.000 | 097X | India | IND | GAYA | 24D44`31" N | 084D56` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.000 | 097X | India | IND | JAMNAGAR | 22D29`00" N | 070D03` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 115.000 | n/a | India | IND | SALEM | 11D46`57" N | 078D03` E | VOR | N | 200/450 | 29 | | n/a | n/a | Planned |
| 115.000 | 097X | Indonesia | INS | BANDAR LAMPUNG | 05D14`31" N | 105D10` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.000 | 097X | Indonesia | INS | KENDARI HALUOLEO | 04D05`06" S | 122D24` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------------|
| 115.000 | 097X | Indonesia | INS | NUNUKAN NUNUKAN | 04D08`16" N | 117D39`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.000 | 097X | Japan | J | NARITA INTL AP | 35D49`00" N | 140D22`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`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.050 | 097Y | French Polynesia | OCA | RANGIROA | 14D57`02" S | 147D40`W | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | OPS Oct14 |
| 115.050 | 097Y | Japan | J | IWAMI | 34D41`00" N | 131D47`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.050 | 097Y | Japan | J | YONAGUNI | 24D28`00" N | 123D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | n/a | Afghanistan | AFG | KANDAHAR | 32D18`00" N | 065D47`E | VOR | I | 300/450 | 29 | | n/a | n/a | |
| 115.100 | 098X | China | CHN | AKESU | 41D16`00" N | 080D17`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | China | CHN | GUANGYUAN | 32D23`00" N | 105D41`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | China | CHN | HAILAER | 49D12`00" N | 119D49`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | China | CHN | HAMI | 42D50`00" N | 093D38`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | China | CHN | NANCHANG | 28D53`00" N | 115D55`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | Fiji | FJI | LABASA | 16D28`00" S | 179D21`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Modified 27Dec09 |
| 115.100 | 098X | India | IND | Doom Dooma | 27D33`30" N | 095D34`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 115.100 | 098X | India | IND | SHAHBAJ | 18D41`30" N | 073D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Not yet commissioned; DVOR |
| 115.100 | 098X | India | IND | TRIVANDRUM | 08D28`31" N | 076D55`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 115.100 | 098X | Indonesia | INS | BIMA S.M. SALAHUDIN | 08D32`23" S | 118D41`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.100 | 098X | Indonesia | INS | SILANGIT SIBORONG | 03D17`09" S | 102D55`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.100 | 098X | Japan | J | NAHA | 26D12`00" N | 127D39`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | Nepal | NPL | NEPALGUNJ | 28D06`00" N | 081D40`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 115.100 | n/a | Philippines | PHL | LIPA | 13D57`22" N | 121D07`E | VOR | N | 150/450 | 27 | | n/a | n/a | |
| 115.100 | 098X | Republic of Korea | KOR | SACHEON | 35D05`51" N | 128D04`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.100 | 098X | Singapore | SNG | PULAU UBIN | 01D25`00" N | 103D56`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`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`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 1Q01; DVOR |
| 115.100 | 098X | Viet Nam | VTN | RACH GIA AIRPORT | 09D57`47" N | 105D09`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 9Mar18; DVOR |
| 115.200 | 099X | China | CHN | HANDAN | 36D32`00" N | 114D25`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.200 | 099X | China | CHN | HUANGYAN | 28D34`00" N | 121D26`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.200 | 099X | China | CHN | TONGREN | 27D52`00" N | 109D18`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.200 | 099X | India | IND | KADAPA-HYDERABAD | 14D30`35" N | 078D46`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | 9Sep19; NC |
| 115.200 | 099X | India | IND | LENGPUI | 23D51`57" N | 092D44`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 8Sep08; DVOR |
| 115.200 | 099X | India | IND | Sarsawa | 29D59`31" N | 077D25`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 115.200 | 099X | Indonesia | INS | MAMUJU TAMPA | 02D35`36" S | 119D01`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.200 | 099X | Indonesia | INS | SEMARANG AHMAD | 06D59`00" S | 110D23`E | VOR/DME | N | 200/450 | 17 | | 200/450 | 27 | DVOR |
| 115.200 | 099X | Japan | J | SHIMIZU | 32D45`00" N | 133D00`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.200 | 099X | Viet Nam | VTN | CHU LAI | 15D24`44" N | 108D42`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`E | VOR | N | 300/450 | 29 | | n/a | n/a | |
| 115.300 | 100X | China | CHN | BAOSHAN | 25D03`00" N | 099D10`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.300 | 100X | China | CHN | CHANGCHUN | 43D54`00" N | 125D11`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.300 | 100X | China | CHN | XI'AN | 34D27`00" N | 108D45`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DME NAT; DVOR |
| 115.300 | 100X | China | CHN | YANCHENG | 33D25`00" N | 120D12`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.300 | 100X | Guam (United States) | GUM | GUAM AGANA | 13D27`00" N | 144D57`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 115.300 | 100X | ICAOTEST APAC | ZZZ | Maastricht | 51D51`51" N | 006D06`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEpwr | Remarks |
|-----------|--------|-------------------|------|--------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------------|
| 115.300 | 100X | India | IND | KANPUR | 26D24`21" N | 080D25`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 21Mar08; DVOR |
| 115.300 | 100X | Indonesia | INS | ROTE D.C. | 10D45`52" S | 123D04`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | OFF OFF; DVOR |
| 115.300 | 100X | Japan | J | DAIGO | 36D45`00" N | 140D21`E | VOR/TAC | I | 100/450 | 23 | | 100/450 | 27 | 20Dec13; DVOR |
| 115.300 | 100X | Japan | J | WAKKANAI | 45D24`00" N | 141D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.300 | 100X | Malaysia | MLA | Mukah Airport | 02D53`34" N | 112D30`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | 04Dec18; DVOR |
| 115.300 | 100X | New Zealand | NZL | CHRISTCHURCH | 43D30`15" S | 172D30`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 115.300 | 100X | Philippines | PHL | BACOLOD | 10D38`19" N | 122D55`E | VOR/DME | N | 59/300 | 20 | | 59/300 | 27 | 16MAR11 |
| 115.300 | 100X | Thailand | THA | SONGKHLA HAT YAI | 06D56`00" N | 100D23`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 115.400 | n/a | Australia | AUS | MELBOURNE | 37D40`06" S | 144D49`E | GBAS | N | 25/62.5 | 100 | | 25/100 | n/a | G09A, G16A, G27A, G34A |
| 115.400 | 101X | China | CHN | DALIAN | 38D58`00" N | 121D34`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.400 | 101X | China | CHN | JINTANG | 30D52`00" N | 104D23`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.400 | 101X | China | CHN | XISHUI | 30D26`00" N | 115D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 115.400 | 101X | India | IND | JAMSHEDPUR | 22D48`45" N | 086D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.400 | 101X | India | IND | KANCHEEPURAM | 12D47`15" N | 079D42`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.400 | 101X | India | IND | RAJKOT | 22D18`47" N | 070D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.400 | 101X | Indonesia | INS | BAU BAU BETOAMبارI | 05D29`09" S | 122D34`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.400 | 101X | Japan | J | MISAWA | 40D42`00" N | 141D23`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.400 | 101X | Japan | J | NAKATANE | 30D36`00" N | 130D59`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 24Dec13 ; DVOR |
| 115.400 | 101X | Malaysia | MLA | KUALATERENGGANU | 05D23`00" N | 103D06`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.400 | 101X | Thailand | THA | PETCHABUN | 16D40`46" N | 101D11`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.400 | 101X | Viet Nam | VTN | VAN DON | 21D07`07" N | 107D25`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 17Oct17; DVOR |
| 115.500 | n/a | Bangladesh | BGD | COMILLA | 23D26`00" N | 091D11`E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 115.500 | 102X | China | CHN | CHIFENG | 42D11`00" N | 118D49`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.500 | 102X | China | CHN | DUNHUANG | 40D10`00" N | 094D45`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.500 | 102X | China | CHN | XINYUAN | 43D26`00" N | 083D23`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.500 | 102X | China | CHN | ZHAOTONG | 27D19`00" N | 103D45`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 115.500 | 102X | China | CHN | ZHOUKOU | 33D40`00" N | 114D38`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.500 | 102X | China - Hong Kong | HKG | SIU MO TO | 22D20`15" N | 113D58`E | VOR/DME | N | 70/450 | 17 | | 70/450 | 27 | FI FOR 2022; DVOR |
| 115.500 | 102X | India | IND | AMRITSAR | 31D42`25" N | 074D48`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 115.500 | 102X | India | IND | BANGALORE | 12D56`59" N | 077D40`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.500 | 102X | Indonesia | INS | AMBON PATTIMURA | 03D36`53" S | 128D11`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DME NAT; DVOR |
| 115.500 | 102X | Indonesia | INS | PALEMBANG | 02D52`43" S | 104D39`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DME NAT; DVOR |
| 115.500 | 102X | Japan | J | AMAMI | 28D27`00" N | 129D35`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 115.500 | 102X | Japan | J | NIIGATA | 37D57`00" N | 139D07`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.500 | 102X | Philippines | PHL | TACLOBAN | 11D14`01" N | 125D01`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 115.500 | 102X | Republic of Korea | KOR | INCHEON ACC | 37D24`49" N | 126D55`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`E | VOR/DME | N | 200/300 | 29 | | 200/300 | 40 | AIP; DVOR |
| 115.500 | 102X | Viet Nam | VTN | PHU CAT | 13D57`00" N | 100D24`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.600 | 103X | Australia | AUS | ALBURY | 36D04`05" S | 146D57`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | Details Updated. |
| 115.600 | 103X | China | CHN | NANTONG | 32D06`00" N | 120D59`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.600 | 103X | China | CHN | NANXIONG | 25D07`00" N | 114D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 115.600 | 103X | China | CHN | TIANZHEN | 40D25`00" N | 114D03`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.600 | 103X | China | CHN | WENSHAN | 23D33`00" N | 104D19`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------------|
| 115.600 | 103X | India | IND | Phalodi | 27D05'54" N | 072D11' E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.600 | 103X | Japan | J | AWAJI | 34D16'00" N | 134D43' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 115.600 | 103X | Malaysia | MLA | TAWAU | 04D19'31" N | 118D08' E | VOR/DME | I | 30/100 | 17 | | 30/100 | 27 | DVOR |
| 115.600 | 103X | Myanmar | BRM | PATHEIN | 16D48'00" N | 094D47' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 115.600 | 103X | Nepal | NPL | CHANDARGADI | 26D34'11" N | 088D04' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 10Jun18; DVOR |
| 115.600 | 103X | New Zealand | NZL | WOODBOURNE | 41D31'11" S | 173D51' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.600 | 103X | Republic of Korea | KOR | INCHEON ACC | 37D42'02" N | 128D45' E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | FI 26Dec13; DVOR |
| 115.600 | 103X | Viet Nam | VTN | CON SON | 08D43'00" N | 106D37' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | CHENGDU | 30D34'00" N | 103D56' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 115.700 | 104X | China | CHN | KASHI | 39D33'00" N | 076D01' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | SHILONG | 23D05'00" N | 113D51' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | URUMQI | 43D55'00" N | 087D28' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | WEIXIAN | 36D22'00" N | 114D55' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | WULANHAOTE | 46D12'00" N | 122D05' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | China | CHN | YABULAI | 39D26'00" N | 102D46' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | India | IND | KALAMB | 19D06'18" N | 073D23' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Not yet commissioned |
| 115.700 | 104X | India | IND | Kushinagar | 26D57'56" N | 083D53' E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 115.700 | 104X | India | IND | LEH | 34D08'00" N | 077D33' 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' E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 115.700 | 104X | India | IND | SILCHAR | 24D54'57" N | 092D58' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.700 | 104X | India | IND | TIRUPATHI | 13D38'04" N | 079D32' E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 115.700 | 104X | Indonesia | INS | MANOKWARI RENDANI | 00D53'34" S | 134D03' E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.700 | 104X | Indonesia | INS | PALU MUTIARA | 00D55'00" S | 119D54' E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 115.700 | 104X | Japan | J | KAJIKI | 31D48'00" N | 130D44' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | Japan | J | ONJUKU | 35D11'00" N | 140D22' E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | Pakistan | PAK | ZHOB | 31D21'00" N | 069D27' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.700 | 104X | Philippines | PHL | MASBATE | 12D22'09" N | 123D37' E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 115.700 | 104X | Thailand | THA | NAN | 18D48'32" N | 100D46' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | NOTAM; DVOR |
| 115.700 | 104X | Viet Nam | VTN | PHAN THIET | 10D50'00" N | 108D04' E | VOR/DME | N | 30/450 | 17 | | 30/450 | 27 | |
| 115.800 | n/a | Bangladesh | BGD | SAIDPUR | 25D45'00" N | 088D54' E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 115.800 | 105X | China | CHN | LONGKOU | 29D56'00" N | 113D42' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.800 | 105X | China | CHN | WEIHAI | 37D11'00" N | 122D14' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.800 | 105X | India | IND | JALALABAD | 27D41'40" N | 079D39' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.800 | 105X | Indonesia | INS | CURUG BUDIARTO | 06D17'33" S | 106D34' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.800 | 105X | Indonesia | INS | MERAUKE MOPAH | 08D30'58" S | 140D24' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.800 | 105X | Japan | J | FUKUE | 32D40'00" N | 128D50' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.800 | 105X | Viet Nam | VTN | HUE PHU-BAI | 16D24'00" N | 107D42' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | Australia | AUS | ALICE SPRINGS | 23D47'34" S | 133D52' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 115.900 | 106X | China | CHN | BOSE | 23D54'00" N | 106D39' E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | BAISE |
| 115.900 | 106X | China | CHN | BOTOU | 38D06'00" N | 116D34' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | China | CHN | CHANGCHUN | 43D46'00" N | 125D51' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | China | CHN | HANZHONG | 33D04'00" N | 107D01' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | China | CHN | KUERLE | 41D37'00" N | 086D08' E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|--------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------------------------|
| 115.900 | 106X | China | CHN | SHEKOU | 22D30`00" N | 113D54` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | China | CHN | TONGLU | 29D46`00" N | 119D40` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | India | IND | IMPHAL | 24D45`27" N | 093D54` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | India | IND | SRINAGAR | 33D59`00" N | 074D47` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 115.900 | 106X | India | IND | UDAIPUR | 24D36`46" N | 073D53` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 115.900 | 106X | Japan | J | OKAYAMA | 34D40`00" N | 134D01` E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | 26Dec13; DVOR |
| 115.900 | 106X | Philippines | PHL | PUERTO PRINCESA | 09D44`29" N | 118D45` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 115.900 | 106X | Thailand | THA | LOEI | 17D27`00" N | 101D43` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 116.000 | 107X | Australia | AUS | TAMWORTH | 31D03`58" S | 150D49` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 116.000 | 107X | Cambodia | KMR | SIHANOUK VILLE | 13D23`50" N | 103D48` 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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.000 | 107X | India | IND | BARAPANI | 25D42`22" N | 091D58` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Proposed |
| 116.000 | 107X | India | IND | Kalaburgi | 17D18`23" N | 076D58` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Replace previous Gulbarga |
| 116.000 | 107X | India | IND | NAL(BIKANER) | 28D04`01" N | 073D11` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 116.000 | 107X | Indonesia | INS | BATAM HANG NADIM | 01D08`13" S | 104D07` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.000 | 107X | Japan | J | AMI | 36D01`00" N | 140D12` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.000 | 107X | Mongolia | MON | ULAAN BAATAR | 47D52`04" N | 106D44` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 116.100 | 108X | Australia | AUS | AVALON | 38D02`57" S | 144D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 116.100 | n/a | Australia | AUS | SYDNEY | 33D57`48" S | 151D11` E | GBAS | N | 25/62.5 | 20 | | 25/100 | n/a | G07A, G16A, G16B, G25A, G34A, G34B |
| 116.100 | 108X | China | CHN | CHONGQING | 29D43`00" N | 106D39` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | China | CHN | EERDUOSI | 39D29`00" N | 109D52` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | China | CHN | HUANGCHENG | 37D39`00" N | 120D33` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | China | CHN | TUNXI | 29D44`00" N | 118D15` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | China - Hong Kong | HKG | HONGKONG TUNG LUNG | 22D14`52" N | 114D17` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | India | IND | AGARTALA | 23D53`22" N | 091D14` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | India | IND | DELHI | 28D34`00" N | 077D05` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 116.100 | 108X | India | IND | MADURAI | 09D49`52" N | 078D05` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 116.100 | 108X | India | IND | RAIPUR | 21D10`48" N | 081D44` E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 116.100 | 108X | Indonesia | INS | CIREBON | 06D45`22" S | 108D32` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DME NAT; DVOR |
| 116.100 | 108X | Indonesia | INS | LUWUK SYUKURAN | 01D01`11" S | 122D47` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.100 | 108X | Indonesia | INS | MALANG ABDUL | 07D55`49" S | 112D42` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.100 | 108X | Malaysia | MLA | NEW KUALA LUMPUR | 02D43`28" N | 101D44` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.100 | 108X | Viet Nam | VTN | HANOI NOI BAI | 21D12`00" N | 105D50` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 116.100 | 108X | Viet Nam | VTN | NOIBAI | 21D12`00" N | 101D55` E | VOR/DME | N | 130/450 | 23 | | 130/450 | 37 | |
| 116.200 | n/a | Afghanistan | AFG | DILARAM | 32D10`00" N | 063D25` E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 116.200 | 109X | Bhutan | BTN | GELEPHU | 26D53`04" N | 090D27` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 6July17; DVOR |
| 116.200 | 109X | China | CHN | LAOLIANGCANG | 28D04`00" N | 112D13` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.200 | 109X | India | IND | VIJAYAWADA | 16D31`14" N | 080D47` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Planned |
| 116.200 | 109X | Indonesia | INS | BALI NGURAH RAI | 08D45`02" S | 115D09` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.200 | 109X | Indonesia | INS | JAYAPURA | 02D34`42" S | 140D30` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DME NAT; DVOR |
| 116.200 | 109X | Indonesia | INS | PALU MUTIARA | 00D53`06" S | 119D53` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.200 | 109X | Japan | J | YOKOSUKA | 35D15`00" N | 139D35` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.200 | 109X | Malaysia | MLA | PENANG | 05D16`46" N | 100D15` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 116.200 | 109X | Mongolia | MON | MUREN | 49D41`32" N | 100D23` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Nov08; DVOR |
| 116.200 | 109X | Viet Nam | VTN | DONG HOI | 17D30`00" N | 106D35` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 1Apr04; DVOR |
| 116.300 | n/a | Australia | AUS | GLADSTONE | 23D51`55" S | 151D12` E | VOR | N | 200/450 | 29 | | n/a | n/a | Coordinates Updated. |
| 116.300 | n/a | China | CHN | FUKANG | 44D10`00" N | 088D00` E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 116.300 | 110X | China | CHN | LONGMEN | 23D39`00" N | 114D20` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 116.300 | 110X | China | CHN | NINGBO | 29D50`00" N | 121D28` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | China | CHN | NINGSHAN | 33D19`00" N | 108D19` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | China | CHN | TONGLIAO | 43D33`00" N | 122D12` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | China | CHN | XISHUANGBANNA | 21D59`00" N | 100D45` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | India | IND | AURANGABAD | 19D51`53" N | 075D23` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | India | IND | Charbatia | 20D32`32" N | 085D52` E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.300 | 110X | Indonesia | INS | KAIMANA UTAROM | 03D38`41" S | 133D41` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.300 | 110X | Indonesia | INS | SOLO ADI SUMARMO | 07D30`28" S | 110D47` E | VOR/DME | N | 150/450 | 29 | | 150/450 | 40 | DVOR |
| 116.300 | 110X | Japan | J | MATSUYAMA | 33D49`00" N | 132D43` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | Japan | J | SENDAI | 38D08`00" N | 140D55` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | Malaysia | MLA | LABUAN | 05D17`25" N | 115D15` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.300 | 110X | Myanmar | BRM | MANDALAY NEW INTL | 21D43`00" N | 095D59` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.300 | 110X | Nepal | NPL | DHANGADHI | 28D45`15" N | 080D34` 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` E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 116.300 | 110X | Philippines | PHL | ILOILO | 10D50`07" N | 122D29` E | VOR/DME | N | 100/450 | 23 | | 100/450 | 27 | |
| 116.300 | 110X | Thailand | THA | NARATHIWAT | 06D31`00" N | 101D46` 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` E | VOR/DME | N | 130/450 | 23 | | 130/450 | 37 | |
| 116.400 | 111X | Australia | AUS | ADELAIDE | 34D56`49" S | 138D31` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 116.400 | n/a | Bangladesh | BGD | SYLHET | 24D57`00" N | 091D52` E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 116.400 | 111X | China | CHN | LINRU | 34D09`00" N | 112D51` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | China | CHN | WENZHO | 27D55`00" N | 120D51` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | China - Macao | MAC | MACAU | 22D08`00" N | 113D35` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | India | IND | KHAJURAHO | 24D48`54" N | 079D55` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | India | IND | SRINAGAR | 34D00`09" N | 074D45` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.400 | 111X | Indonesia | INS | INDRAMAYU | 01D05`00" N | 117D28` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.400 | 111X | Indonesia | INS | PADANG TABING | 00D52`47" S | 100D21` E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | OFF; DVOR |
| 116.400 | 111X | Japan | J | MUKAWA | 42D33`00" N | 141D57` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | Japan | J | NEW CHITOSE | 42D33`00" N | 141D57` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | FI 24Dec13 ; DVOR |
| 116.400 | 111X | Japan | J | TOMO | 34D17`00" N | 135D00` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.400 | 111X | Mongolia | MON | GOBI-ALTAI | 46D22`42" N | 096D12` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 19Dec13; DVOR |
| 116.400 | 111X | New Zealand | NZL | NELSON | 41D18`06" S | 173D13` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.400 | 111X | Papua New Guinea | PNG | KAVIENG | 02D36`13" S | 150D50` E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | |
| 116.500 | 112X | Australia | AUS | KUNUNURRA | 15D46`32" S | 128D42` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 116.500 | 112X | China | CHN | DAHUSHAN | 41D39`00" N | 122D08` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 116.500 | 112X | China | CHN | GAOYAO | 23D04`00" N | 112D29` E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | China | CHN | SHANGHAIHONGQIAO | 30D54`00" N | 120D26` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | China | CHN | XINING | 36D32`00" N | 102D02` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | China | CHN | YIBIN | 28D48`00" N | 104D33` E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|---------------------------------------|
| 116.500 | 112X | India | IND | CALICUT | 11D08`07" N | 075D57`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | India | IND | CHANDIGARH | 30D40`04" N | 076D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | India | IND | HIRASAR AIRPORT | 22D22`08" N | 071D01`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 116.500 | 112X | India | IND | LILABARI | 27D17`26" N | 094D05`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Planned; DVOR |
| 116.500 | 112X | Indonesia | INS | MADIUN ISWAHYUDI | 07D38`00" S | 111D26`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.500 | 112X | Japan | J | NIJIMA | 34D21`00" N | 139D16`E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | 26Dec13; DVOR |
| 116.500 | 112X | Philippines | PHL | CAUAYAN | 16D55`54" N | 121D44`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 16MAR11 |
| 116.500 | 112X | Republic of Korea | KOR | DAEGU INTL | 35D54`13" N | 128D38`E | VOR/DME | N | 25/100 | 17 | | 25/100 | 27 | DVOR |
| 116.500 | 112X | Singapore | SNG | PULAU TEKONG KECHIL | 01D25`00" N | 104D01`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | Thailand | THA | CHIANG RAI | 19D56`53" N | 099D53`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.500 | 112X | Viet Nam | VTN | CAM RANH | 11D10`49" N | 109D14`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 1Apr04; DVOR |
| 116.600 | 113X | China | CHN | LIPING | 26D19`00" N | 109D10`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.600 | 113X | China | CHN | WEIFANG | 36D39`00" N | 119D07`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.600 | 113X | India | IND | BAGHDODGRA | 26D41`14" N | 088D19`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.600 | 113X | India | IND | Bakhshi Ka Talab | 26D59`28" N | 080D52`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | Forced Input |
| 116.600 | 113X | India | IND | MUMBAI | 19D05`11" N | 075D52`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 116.600 | 113X | India | IND | VISAKHAPATANAM | 17D43`16" N | 083D13`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 10Apr03; DVOR |
| 116.600 | 113X | Indonesia | INS | TARAKAN JUWATA | 03D02`00" N | 117D34`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.600 | 113X | Japan | J | MIYAKO | 39D52`00" N | 141D57`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.600 | 113X | Japan | J | OMURA | 32D54`00" N | 129D55`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`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.600 | 113X | Malaysia | MLA | GONG KEDAK | 05D47`50" N | 102D28`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.600 | 113X | Mongolia | MON | SAINSHAND | 44D54`11" N | 110D07`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | 20Nov08; DVOR |
| 116.600 | 113X | New Zealand | NZL | CHRISTCHURCH | 43D23`56" S | 172D23`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.600 | 113X | Papua New Guinea | PNG | WEWAK | 03D45`00" S | 143D41`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.600 | 113X | Viet Nam | VTN | CHU LAI | 15D24`22" N | 108D42`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 14Apr05; DVOR |
| 116.650 | 113Y | Japan | J | HACHIJO JIMA | 33D07`00" N | 139D47`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 116.700 | 114X | Australia | AUS | CANBERRA | 35D16`53" S | 149D11`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 116.700 | 114X | China | CHN | HEFEI | 31D47`00" N | 117D18`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | China | CHN | XUYONG | 28D10`00" N | 105D25`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 116.700 | 114X | China | CHN | YULIN | 38D23`00" N | 109D35`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | China | CHN | ZHUHAISANZAO | 22D13`00" N | 113D28`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | India | IND | INDORE | 22D43`22" N | 075D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.700 | 114X | Indonesia | INS | TANJUNG PANDAN | 02D45`12" S | 107D45`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | Japan | J | KUMEJIMA | 26D22`00" N | 126D43`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | Japan | J | MIHO | 35D32`00" N | 133D06`E | VOR/TAC | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | Marshall Islands | MSI | MAJURO ATOLL | 00D00`00" N | 000D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 116.700 | n/a | Pakistan | PAK | MULTAN | 30D12`00" N | 071D25`E | VOR | I | 200/450 | 29 | | n/a | n/a | |
| 116.700 | 114X | Philippines | PHL | JOMALIG | 14D42`18" N | 122D19`E | VOR/DME | I | 90/450 | 20 | | 90/450 | 27 | 16MAR11 |
| 116.700 | 114X | Sri Lanka | SLK | MATTALA | 06D18`14" N | 081D08`E | VOR/DME | ICA | 200/450 | 27 | | 200/450 | 37 | |
| 116.700 | 114X | Thailand | THA | MAESOT | 16D41`55" N | 098D32`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.700 | 114X | Viet Nam | VTN | QUI-NHON | 00D00`00" N | 000D00`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | |
| 116.700 | 114X | Viet Nam | VTN | TAN SON NHAT | 10D49`00" N | 106D39`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | 15Mar05; DVOR , To be replaced by TSH |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-----------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------|
| 116.800 | 115X | China | CHN | CHANGHAI | 39D16`00" N | 122D37`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.800 | 115X | China | CHN | FUZHOU | 25D57`00" N | 119D40`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.800 | n/a | India | IND | BANGALORE | 13D24`05" N | 077D54`E | VOR | N | 200/450 | 29 | | n/a | n/a | 3Jun08; DVOR |
| 116.800 | 115X | India | IND | CHILLARKI | 28D20`51" N | 076D39`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.800 | 115X | Indonesia | INS | KETAPANG RAHADI | 01D48`59" S | 109D57`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.800 | 115X | Indonesia | INS | TANJUNG REDEB | 02D09`13" N | 117D25`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.800 | 115X | Malaysia | MLA | MERSING | 02D23`18" N | 103D52`E | VOR/DME | N | 250/450 | 29 | | 250/450 | 40 | DVOR |
| 116.800 | 115X | Myanmar | BRM | LASHIO | 22D59`00" N | 097D45`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.800 | 115X | New Zealand | NZL | INVERCARGILL | 46D24`42" S | 168D19`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.800 | 115X | Viet Nam | VTN | TAN SON NHAT | 10D49`06" N | 106D39`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 116.900 | 116X | Australia | AUS | PARABURDOO | 23D10`21" S | 117D44`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 116.900 | 116X | Australia | AUS | ROCKHAMPTON | 23D22`58" S | 150D28`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 | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.900 | 116X | China | CHN | HUHHOT | 40D45`00" N | 111D49`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.900 | 116X | China | CHN | PUDONG | 31D10`00" N | 121D47`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.900 | 116X | China | CHN | YICHANG | 30D34`00" N | 111D29`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 116.900 | 116X | India | IND | LEH | 34D07`57" N | 077D32`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.900 | 116X | India | IND | RANCHI | 23D18`31" N | 085D19`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 116.900 | 116X | India | IND | SINNAR | 19D48`00" N | 073D58`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Planned |
| 116.900 | 116X | Pakistan | PAK | FAISALABAD | 31D21`30" N | 072D59`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 116.900 | 116X | Republic of Korea | KOR | INCHEON ACC | 37D05`40" N | 127D01`E | VOR/TAC | N | 100/450 | 23 | | 100/450 | 27 | FI 26Dec13; DVOR |
| 116.900 | 116X | Thailand | THA | CHIANG MAI | 18D46`00" N | 098D58`E | VOR/DME | I | 200/300 | 29 | | 200/300 | 40 | DVOR |
| 116.900 | 116X | Thailand | THA | PHUKET | 08D06`00" N | 098D18`E | VOR/DME | I | 150/300 | 27 | | 150/300 | 37 | DVOR |
| 117.000 | 117X | Australia | AUS | COFFS HARBOUR | 30D19`10" S | 153D07`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated |
| 117.000 | n/a | Australia | AUS | MOUNT GAMBIER | 37D45`05" S | 140D47`E | VOR | I | 200/450 | 29 | | n/a | n/a | Coordinates Updated. |
| 117.000 | 117X | China | CHN | ANSHUN | 26D16`00" N | 105D53`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.000 | 117X | China | CHN | JINJIANG | 24D48`00" N | 118D56`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.000 | 117X | China | CHN | QUANZHOU | 24D48`00" N | 118D36`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.000 | 117X | India | IND | Kumbhigram | 24D54`55" N | 092D59`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 117.000 | 117X | India | IND | SAMPLA | 28D49`11" N | 076D49`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 117.000 | 117X | India | IND | YELAHANKA | 13D05`13" N | 077D35`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 24May11; DVOR |
| 117.000 | 117X | Indonesia | INS | BANDUNG HUSEIN | 06D52`55" S | 107D30`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.000 | 117X | Japan | J | SEKIYADO | 36D01`00" N | 139D50`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.000 | 117X | Japan | J | YAKUSHIMA | 30D23`00" N | 130D40`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.000 | 117X | Nepal | NPL | Guatam Buddha | 27D30`05" N | 083D26`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`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 117.000 | 117X | Viet Nam | VTN | TUY HOA | 13D01`41" N | 109D20`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 18Dec15; DVOR |
| 117.100 | 118X | China | CHN | BEIHAI | 21D35`00" N | 109D27`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | China | CHN | JIUJIANG | 29D28`00" N | 115D47`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | China | CHN | LUANXIAN | 39D44`00" N | 118D44`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | China | CHN | MUDANJIANG | 44D31`00" N | 129D34`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | China | CHN | WUFENGXI | 30D36`00" N | 104D29`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | India | IND | BHOPAL | 23D16`58" N | 077D20`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|---------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|----------------------------|
| 117.100 | 118X | Indonesia | INS | SORONG DOMINE | 00D53`46" S | 131D17`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | Japan | J | OTSU | 35D01`00" N | 135D50`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | Japan | J | SHIMOJISHIMA | 24D49`00" N | 125D09`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`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 117.100 | 118X | Malaysia | MLA | KERTEH | 04D32`54" N | 103D25`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.100 | 118X | Philippines | PHL | SAN JOSE | 12D21`37" N | 121D02`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | |
| 117.200 | 119X | Australia | AUS | NEWMAN | 23D25`16" S | 119D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 117.200 | 119X | China | CHN | JIUZHOU DAO | 22D15`00" N | 113D37`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.200 | 119X | China | CHN | LUZHOU | 28D51`00" N | 105D23`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.200 | 119X | China | CHN | SHANGHAI HONGQIAO | 31D13`00" N | 121D20`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.200 | 119X | China | CHN | SHAZIYING | 40D06`00" N | 116D28`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.200 | 119X | India | IND | DEOGHAR | 24D26`46" N | 086D43`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | 05Mar20; DVOR |
| 117.200 | 119X | India | IND | SAKRAS | 27D50`54" N | 077D00`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 117.200 | 119X | India | IND | SINDHUDURG | 16D00`10" N | 073D33`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | FI 11June19; DVOR |
| 117.200 | 119X | Indonesia | INS | BALIKPAPAN SULTAN | 01D14`44" S | 116D56`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.200 | 119X | Thailand | THA | BURIRUM | 15D14`22" N | 103D15`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | NOTAM; DVOR |
| 117.300 | 120X | Australia | AUS | KARRATHA | 20D42`54" S | 116D46`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 117.300 | 120X | China | CHN | BAOTOU | 40D33`00" N | 110D00`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.300 | 120X | China | CHN | DIQING | 27D47`00" N | 099D41`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.300 | 120X | China | CHN | HANGZHOU | 30D09`00" N | 120D30`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.300 | 120X | China | CHN | LIUZHOU | 24D12`00" N | 109D24`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.300 | 120X | India | IND | COCHIN INTL | 10D06`55" N | 076D40`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | Not Yet Commissioned; DVOR |
| 117.300 | 120X | India | IND | DIBRUGARH | 27D29`14" N | 095D01`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 117.300 | 120X | India | IND | VADODARA | 22D19`51" N | 073D13`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 117.300 | 120X | Indonesia | INS | KARIMUN JAWA | 05D48`01" S | 110D28`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.300 | 120X | Indonesia | INS | NABIRE DOUW ATURURE | 03D22`00" S | 135D30`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.300 | 120X | Indonesia | INS | WAINGAPU UMBU | 09D40`11" S | 120D18`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.300 | 120X | Japan | J | KAGOSHIMA | 31D39`00" N | 130D51`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20Dec13; DVOR |
| 117.300 | 120X | Malaysia | MLA | IPOH | 04D34`24" N | 101D05`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.300 | 120X | Nepal | NPL | POKHARA | 28D11`23" N | 084D00`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`E | VOR | N | 200/450 | 29 | | n/a | n/a | |
| 117.400 | 121X | China | CHN | FUQING | 25D44`00" N | 119D23`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.400 | 121X | China | CHN | FUZHOU | 25D44`00" N | 119D23`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.400 | 121X | China | CHN | NANCHONG | 30D48`00" N | 106D11`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.400 | 121X | India | IND | LUCKNOW | 26D45`44" N | 080D52`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 28Oct.2011; DVOR |
| 117.400 | 121X | India | IND | MOPA AIRPORT | 15D44`49" N | 073D51`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | Goa; DVOR |
| 117.400 | 121X | Indonesia | INS | PANGKALAN BUN | 02D43`03" S | 111D41`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.400 | 121X | Malaysia | MLA | MALACCA | 02D15`23" N | 102D15`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.400 | 121X | Thailand | THA | NAKHON SI THAMMARAT | 08D32`29" N | 099D56`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`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 20APR15 |
| 117.500 | 122X | Australia | AUS | MOUNT ISA | 20D39`53" S | 139D29`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | Coordinates Updated. |
| 117.500 | 122X | China | CHN | LINLI | 29D21`00" N | 111D39`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.500 | 122X | China | CHN | QINGDAO | 36D17`00" N | 120D22`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order) 07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------------|------|-------------------|-------------|-----------|----------|------|---------|--------|-----|---------|--------|------------------|
| 117.500 | 122X | China | CHN | ZHONGWEI | 37D34`00" N | 105D08`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.500 | 122X | India | IND | JALGAON | 20D57`50" N | 075D38`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 24May11; DVOR |
| 117.500 | 122X | India | IND | PANAGARH | 23D28`41" N | 087D25`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.500 | 122X | India | IND | THOISE | 34D39`03" N | 077D23`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | FI ; DVOR |
| 117.500 | 122X | Indonesia | INS | JAMBI SULT. THAHA | 01D38`02" S | 103D38`E | VOR/DME | N | 200/450 | 27 | | 200/450 | 37 | DVOR |
| 117.500 | 122X | Japan | J | MIYAKOJIMA | 24D47`00" N | 125D18`E | VOR/TAC | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.500 | 122X | Lao People's Democratic | LAO | VIENTIANE | 18D00`37" N | 102D32`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.500 | 122X | Philippines | PHL | LUBANG | 13D51`15" N | 120D06`E | VOR/DME | I | 300/450 | 29 | | 300/450 | 40 | |
| 117.600 | 123X | China | CHN | BAISE | 23D43`00" N | 106D58`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | China | CHN | FUZHOU | 26D13`00" N | 119D33`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | China | CHN | JIUZHAI | 32D51`00" N | 103D41`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | China | CHN | LIANJIANG | 26D13`00" N | 119D32`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | n/a | India | IND | CHENNAI | 12D59`34" N | 080D09`E | GBAS | N | 23/100 | 17 | | n/a | n/a | FI GBAS 22Aug13 |
| 117.600 | 123X | India | IND | GUWAHATI | 26D06`07" N | 091D35`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | India | IND | LUNKA-1 | 28D34`13" N | 073D47`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | Japan | J | MATSUMOTO | 36D09`00" N | 137D55`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.600 | 123X | Thailand | THA | SAMUI | 09D33`00" N | 100D04`E | VOR/DME | N | 300/450 | 29 | | 300/450 | 40 | DVOR |
| 117.700 | 124X | China | CHN | JINGDEZHEN | 29D20`00" N | 117D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 117.700 | 124X | China | CHN | NANLANG | 22D32`00" N | 113D34`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.700 | 124X | China | CHN | ZHENGDDING | 38D17`00" N | 114D42`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.700 | n/a | India | IND | ALLAHABAD | 25D26`00" N | 081D44`E | VOR | N | 200/450 | 29 | | n/a | n/a | TRAINING |
| 117.700 | 124X | India | IND | KANDLA | 23D06`42" N | 070D06`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 25May15; DVOR |
| 117.700 | 124X | India | IND | KANGRA GAGGAI | 32D10`09" N | 076D15`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 22Apr15; DVOR |
| 117.700 | 124X | Japan | J | ISHIGAKI | 24D20`00" N | 124D11`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.700 | 124X | Japan | J | IWAKI | 37D09`00" N | 140D59`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | |
| 117.700 | 124X | Japan | J | OITA | 33D29`00" N | 131D44`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | FI ; DVOR |
| 117.700 | 124X | Thailand | THA | DON MUEANG INTL | 13D53`36" N | 100D35`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.800 | 125X | China | CHN | HUAIHUA | 27D27`00" N | 109D42`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.800 | 125X | India | IND | JAISALMER | 26D53`23" N | 070D52`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 10Apr03; DVOR |
| 117.800 | 125X | India | IND | KOCHI | 09D56`34" N | 076D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 4MAR13; DVOR |
| 117.800 | 125X | India | IND | Navi Mubai | 18D58`56" N | 073D03`E | VOR/DME | NAT | 200/450 | 27 | | 200/450 | 37 | |
| 117.800 | 125X | India | IND | PAKYONG | 27D13`39" N | 088D35`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 25May15; DVOR |
| 117.800 | 125X | Japan | J | CHUBU CENTRAIR | 34D51`00" N | 136D48`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 117.800 | 125X | Japan | J | MINAMIDAITO | 25D51`00" N | 131D16`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | 24Dec13 ; DVOR |
| 117.800 | 125X | Lao People's Democratic | LAO | Nongkhang | 20D36`48" N | 104D03`E | VOR/DME | ICA | 200/450 | 27 | | 200/450 | 37 | NC |
| 117.800 | n/a | Malaysia | MLA | KUALA LUMPOR | 02D44`53" N | 101D41`E | GBAS | N | 23/100 | 17 | | n/a | n/a | FI 14KOG7DET |
| 117.900 | 126X | China | CHN | BOHESI | 30D31`00" N | 104D12`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.900 | 126X | China | CHN | WUYISHAN | 27D41`00" N | 117D59`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |
| 117.900 | 126X | India | IND | ALIGARH | 27D49`46" N | 078D10`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | |
| 117.900 | 126X | India | IND | DUNDIGUL | 17D37`41" N | 078D24`E | VOR/DME | N | 200/450 | 29 | | 200/450 | 40 | FI 7Feb18; DVOR |
| 117.900 | 126X | India | IND | TEZPUR | 26D42`37" N | 092D46`E | VOR/DME | N | 150/450 | 27 | | 150/450 | 37 | DVOR |
| 117.900 | 126X | Japan | J | HIROSHIMA | 34D26`00" N | 132D55`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | FI 20Dec13; DVOR |
| 117.900 | 126X | Japan | J | NARITA | 35D47`00" N | 140D22`E | VOR/DME | I | 200/450 | 29 | | 200/450 | 40 | DVOR |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|-------------------|-------------|-----------|----------|------|--------|--------|-----|---------|--------|----------------------|
| 117.900 | 126X | Republic of Korea | KOR | JEJU JUNGSUK | 33D23`32" N | 126D42`E | VOR/DME | N | 40/100 | 17 | | 40/100 | 27 | |
| n/a | 034X | Australia | AUS | ALBANY | 34D57`00" S | 117D48`E | DME | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated |
| n/a | 094X | Australia | AUS | AMBERLEY | 27D38`00" S | 152D42`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 073X | Australia | AUS | ARMIDALE | 30D31`40" S | 151D36`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 118X | Australia | AUS | AYERS ROCK | 25D10`17" S | 130D58`E | DME | N | n/a | n/a | | 200/450 | 40 | 11OCT00 |
| n/a | 100X | Australia | AUS | BROOME | 17D56`48" S | 122D14`E | DME | N | n/a | n/a | | 80/100 | 27 | |
| n/a | 087X | Australia | AUS | COOMA | 36D21`16" S | 148D57`E | DME | N | n/a | n/a | | 80/100 | 27 | Coordinates Updated |
| n/a | 084X | Australia | AUS | DARWIN | 12D24`49" S | 130D52`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated |
| n/a | 094X | Australia | AUS | EDINBURGH | 34D42`17" S | 138D36`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated |
| n/a | 095X | Australia | AUS | GROOTE EYLANDT | 13D58`31" S | 136D27`E | DME | N | n/a | n/a | | 80/100 | 27 | Name Updated. |
| n/a | 090X | Australia | AUS | LORD HOWE IS. | 31D31`44" S | 159D04`E | DME | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 124X | Australia | AUS | MERIMBULA | 36D54`52" S | 149D53`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 057X | Australia | AUS | MOOMBA | 28D06`15" S | 140D11`E | DME | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 111X | Australia | AUS | NOWRA | 34D57`00" S | 150D32`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 075X | Australia | AUS | PEARCE | 31D40`26" S | 116D01`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 044X | Australia | AUS | RICHMOND | 33D36`27" S | 150D47`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 058X | Australia | AUS | SYDNEY | 33D56`38" S | 151D10`E | DME | I | n/a | n/a | | 200/450 | 37 | Details Updated. |
| n/a | 070X | Australia | AUS | TINDAL | 14D31`24" S | 132D22`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 082X | Australia | AUS | TOWNSVILLE | 19D16`44" S | 146D44`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 080X | Australia | AUS | WILLIAMTOWN | 32D47`49" S | 151D50`E | TACAN | N | n/a | n/a | | 200/450 | 40 | Coordinates Updated. |
| n/a | 085X | French Polynesia | OCA | HAO | 18D04`55" S | 140D56`W | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 023X | ICAOTEST APAC | ZZZ | Henglo | 51D51`51" N | 005D05`E | TACAN | ICA | n/a | n/a | | 200/450 | 37 | |
| n/a | 106X | India | IND | AGATTI | 10D49`54" N | 072D10`E | DME | N | n/a | n/a | | 200/450 | 40 | Colocated with NDB |
| n/a | 105X | Indonesia | INS | KAREL SADSUITUBUN | 05D45`22" S | 132D45`E | DME | N | n/a | n/a | | 200/450 | 37 | |
| n/a | 111X | Indonesia | INS | LARANTUKA | 08D16`29" S | 122D59`E | DME | N | n/a | n/a | | 200/450 | 37 | |
| n/a | 085X | Indonesia | INS | LONG BAWAN YUVAI | 03D53`00" N | 115D42`E | DME | N | n/a | n/a | | 200/450 | 37 | OFF |
| n/a | 078X | Indonesia | INS | MUKO MUKO MUKO | 02D32`32" S | 101D05`E | DME | N | n/a | n/a | | 200/450 | 37 | OFF |
| n/a | 055X | Indonesia | INS | PULAU BANDA | 04D31`19" S | 129D54`E | DME | N | n/a | n/a | | 200/450 | 37 | OFF |
| n/a | 055X | Indonesia | INS | SAMARINDA | 00D28`55" N | 117D09`E | DME | N | n/a | n/a | | 200/450 | 37 | OFF |
| n/a | 057Y | Japan | J | AKENO | 34D32`00" N | 136D41`E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 20Dec13 |
| n/a | 108X | Japan | J | AKITA | 39D43`00" N | 140D04`E | DME | I | n/a | n/a | | 200/450 | 40 | 20Dec13 |
| n/a | 023X | Japan | J | ASHIYA | 33D53`00" N | 130D39`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 098X | Japan | J | ATSUGI | 35D27`00" N | 139D27`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 089X | Japan | J | CHINEN | 26D10`00" N | 127D48`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 029X | Japan | J | CHITOSE | 42D46`00" N | 141D40`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`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 059Y | Japan | J | GIFU | 35D23`00" N | 136D52`E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 20Dec13 |
| n/a | 116X | Japan | J | GOBOH | 33D55`00" N | 135D06`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 023X | Japan | J | HACHINOHE | 40D33`00" N | 141D28`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 037X | Japan | J | HAMAMATSU | 34D45`00" N | 137D41`E | DME | N | n/a | n/a | | 200/450 | 40 | 20Dec13 |
| n/a | 094X | Japan | J | HAMAMATSU | 34D45`00" N | 137D43`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 077X | Japan | J | HOFU | 34D02`00" N | 131D33`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 043X | Japan | J | IRUMA | 35D50`00" N | 139D25`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|------------------------------|------|----------------|-------------|-----------|----------|------|--------|--------|-----|---------|--------|--------------------------|
| n/a | 035X | Japan | J | IWAKUNI | 34D10`00" N | 132D15` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 035X | Japan | J | IWOTO | 24D47`00" N | 141D19` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 057X | Japan | J | KADENA | 26D21`00" N | 127D46` E | TACAN | N | n/a | n/a | | 200/450 | 40 | CO LOCATED WITH VOR |
| n/a | 085X | Japan | J | KANOYA | 31D22`00" N | 130D50` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 082Y | Japan | J | KOMATSUSHIMA | 34D00`00" N | 134D38` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 20Dec13 |
| n/a | 033Y | Japan | J | MAIZURU | 35D33`00" N | 135D26` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 20Dec13 |
| n/a | 058X | Japan | J | MATSUMAE | 41D26`00" N | 140D05` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 090X | Japan | J | MATSUSHIMA | 38D24`00" N | 141D14` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 023X | Japan | J | MINAMITOISHIMA | 24D18`00" N | 153D95` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 24Dec13 |
| n/a | 043X | Japan | J | MISHIMA | 34D46`00" N | 131D08` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 24Dec13 |
| n/a | 087X | Japan | J | MORIYA | 35D56`00" N | 139D59` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 095X | Japan | J | NASU | 36D47`00" N | 140D02` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 097X | Japan | J | NYUTABARU | 32D05`00" N | 131D27` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 095Y | Japan | J | OMINATO | 41D14`00" N | 141D08` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 52 at LOC |
| n/a | 087Y | Japan | J | OMURA | 32D56`00" N | 129D56` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 26Dec13 |
| n/a | 058Y | Japan | J | OZUKI | 34D03`00" N | 131D03` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 26Dec13 |
| n/a | 053X | Japan | J | SHIGI | 34D38`00" N | 135D40` E | DME | N | n/a | n/a | | 200/450 | 40 | 26Dec |
| n/a | 019X | Japan | J | SHIMOFUSA | 35D48`00" N | 140D01` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 115Y | Japan | J | SHIMOTSUSHIMA | 34D08`00" N | 129D17` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 029X | Japan | J | SHIZUHAMA | 34D49`00" N | 138D18` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 105X | Japan | J | TACHIKAWA | 35D43`00" N | 139D24` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 26Dec13 |
| n/a | 122X | Japan | J | TAKAMATSU | 34D20`00" N | 133D57` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 025X | Japan | J | TATEYAMA | 34D58`00" N | 139D50` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 096X | Japan | J | TOKUSHIMA | 34D08`00" N | 134D37` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 119X | Japan | J | TOYOTA | 34D11`00" N | 131D01` E | DME | N | n/a | n/a | | 200/450 | 40 | 26Dec13 |
| n/a | 041X | Japan | J | TSUIKI | 33D41`00" N | 131D02` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 058Y | Japan | J | UTSUNOMIYA | 36D31`00" N | 139D53` E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 26Dec13 |
| n/a | 085X | Japan | J | YOKOTA | 35D45`00" N | 139D21` E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 080X | Malaysia | MLA | BUTTERWORTH | 05D28`00" N | 100D24` 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` E | DME | N | n/a | n/a | | 200/450 | 40 | 21Apr17 |
| n/a | 111X | Micronesia, Federated States | FSM | CHUUK | 07D27`00" N | 151D50` E | DME | I | n/a | n/a | | 200/450 | 40 | |
| n/a | 100X | Micronesia, Federated States | FSM | KOSRAE | 05D21`00" N | 162D58` E | DME | I | n/a | n/a | | 200/450 | 40 | |
| n/a | 047X | Micronesia, Federated States | FSM | POHNPEI | 06D58`00" N | 158D21` E | DME | I | n/a | n/a | | 200/450 | 40 | |
| n/a | 122X | Micronesia, Federated States | FSM | YAP | 09D29`00" N | 138D05` E | DME | I | n/a | n/a | | 200/450 | 40 | |
| n/a | 075X | Nepal | NPL | POKHARA | 28D12`00" N | 083D59` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 118X | New Zealand | NZL | ALEXANDRA | 45D10`00" S | 169D29` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 104X | New Zealand | NZL | DUNEDIN HENLEY | 45D56`45" S | 170D09` E | DME | N | n/a | n/a | | 200/450 | 40 | FI 29NOV12 |
| n/a | 122X | New Zealand | NZL | HOKITIKA | 42D43`46" S | 170D57` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 105X | New Zealand | NZL | KAITAIA | 35D01`46" S | 173D14` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 108X | New Zealand | NZL | KERI KERI | 35D15`45" S | 173D54` E | DME | N | n/a | n/a | | 200/450 | 40 | 29NOV12 |
| n/a | 125X | New Zealand | NZL | MANAPOURI | 45D29`49" S | 167D43` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 120X | New Zealand | NZL | PARAPARAUMU | 40D54`10" S | 174D58` E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 114X | New Zealand | NZL | TAUPO | 38D44`36" S | 176D04` E | DME | N | n/a | n/a | | 200/450 | 40 | |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|-------------------|------|---------------------|-------------|-----------|----------|------|--------|--------|-----|---------|--------|----------------------|
| n/a | 079X | New Zealand | NZL | TAURANGA | 37D40`39" S | 176D11`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 106X | New Zealand | NZL | TIMARU | 44D18`30" S | 171D13`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 107X | New Zealand | NZL | WANGANUI | 39D57`33" S | 175D01`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 116X | New Zealand | NZL | WESTPORT | 41D44`26" S | 171D34`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 124X | New Zealand | NZL | WHAKATANE | 37D55`29" S | 176D54`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 120X | New Zealand | NZL | WHANGAREI | 35D46`17" S | 174D21`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 074X | Niue Island | NII | ALOFI NIUE | 19D05`34" S | 169D54`W | DME | I | n/a | n/a | | 200/450 | 40 | |
| n/a | 095X | Pakistan | PAK | BENZIR BHUTTO-BBIAP | 33D32`48" N | 072D50`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`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`E | DME | N | n/a | n/a | | 200/450 | 40 | 24Dec13 |
| n/a | 081X | Pakistan | PAK | BENZIR BHUTTO-BBIAP | 33D32`54" N | 072D50`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`E | DME | I | n/a | n/a | | 25/100 | 27 | |
| n/a | 107X | Philippines | PHL | BASCO | 20D27`00" N | 121D58`E | DME | N | n/a | n/a | | 300/450 | 40 | |
| n/a | 097X | Philippines | PHL | SANGA SANGA | 05D04`00" N | 119D46`E | DME | N | n/a | n/a | | 150/300 | 37 | |
| n/a | 058X | Philippines | PHL | TUGUEGAO | 17D38`00" N | 121D44`E | DME | N | n/a | n/a | | 300/450 | 40 | FI |
| n/a | 125X | Republic of Korea | KOR | DAEGU | 35D54`00" N | 128D39`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`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 056X | Republic of Korea | KOR | KANGNUNG | 37D45`00" N | 128D58`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 088X | Republic of Korea | KOR | KWANGJU | 35D08`00" N | 126D48`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 087X | Republic of Korea | KOR | PUSAN | 35D07`00" N | 129D00`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`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 046X | Republic of Korea | KOR | SEOUL SINCHONRI | 37D26`00" N | 127D07`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 022X | Republic of Korea | KOR | SUWON | 37D14`00" N | 127D01`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 100X | Republic of Korea | KOR | ULJIN | 36D46`35" N | 129D27`E | TACAN | N | n/a | n/a | | 200/450 | 40 | FI 26Dec13 |
| n/a | 053X | Republic of Korea | KOR | WONJU | 37D28`00" N | 127D58`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 026X | Republic of Korea | KOR | YECHON | 36D37`00" N | 128D19`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 116X | Singapore | SNG | CHANGI | 01D21`02" N | 104D00`E | TACAN | N | n/a | n/a | | 200/450 | 40 | harm not ok |
| n/a | 110X | Singapore | SNG | PAYA LEBAR | 01D22`00" N | 103D55`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 086X | Singapore | SNG | TENGAH | 01D24`00" N | 103D43`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 075X | Solomon Islands | SLM | GRACIOSA BAY | 10D44`00" S | 165D47`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 074X | Solomon Islands | SLM | MUNDA | 08D20`00" S | 157D15`E | DME | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 077X | Thailand | THA | BANGKOK | 13D55`00" N | 100D36`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 109X | Thailand | THA | CHIANG MAI | 18D49`00" N | 098D58`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 100X | Thailand | THA | LOEI | 17D26`00" N | 101D43`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`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 125X | Thailand | THA | NAKHON RATCHASIMA | 14D56`00" N | 102D05`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 099X | Thailand | THA | PHITSANULOK | 16D46`00" N | 100D17`E | TACAN | N | n/a | n/a | | 200/450 | 40 | MIL |
| n/a | 111X | Thailand | THA | Prachinburi | 14D07`07" N | 101D22`E | DME | NAT | n/a | n/a | | 200/450 | 37 | |
| n/a | 084X | Thailand | THA | PRACHUAP KHIRIKHAN | 00D00`00" N | 000D00`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 105X | Thailand | THA | SAKHONNAKHON | 07D11`00" N | 104D06`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 077X | Thailand | THA | SONGKHLA HAT YAI | 00D00`00" N | 000D00`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 031X | Thailand | THA | Sukhorthai | 17D14`08" N | 099D49`E | DME | NAT | n/a | n/a | | 200/450 | 37 | |
| n/a | 040X | Thailand | THA | SUKHOTHAI | 17D13`00" N | 099D41`E | DME | N | n/a | n/a | | 200/450 | 40 | |



APAC Frequency List No. 2 (Frequency Order)

07_Oct_2022

| Frequency | DME ch | Country | Ctry | Location | Latitude | Longitude | Facility | Cat. | VHFDOC | VHFpwr | TRD | DMEDOC | DMEPwr | Remarks |
|-----------|--------|----------|------|------------------|-------------|-----------|----------|------|--------|--------|-----|---------|--------|---------------------|
| n/a | 079X | Thailand | THA | SURATTHANI | 09D06`00" N | 099D07`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 058X | Thailand | THA | Tak | 16D53`59" N | 099D15`E | DME | NAT | n/a | n/a | | 200/450 | 37 | |
| n/a | 095X | Thailand | THA | TAKHLI | 15D16`00" N | 100D18`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 105X | Thailand | THA | U-TAPHAO | 12D41`00" N | 101D00`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 093X | Thailand | THA | UBON RATCHATHANI | 15D14`00" N | 104D52`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 086X | Thailand | THA | UDON THANI | 17D23`00" N | 102D48`E | TACAN | N | n/a | n/a | | 200/450 | 40 | |
| n/a | 092X | Vanuatu | NHB | SANTO PEKOA | 15D32`00" S | 167D08`E | DME | N | n/a | n/a | | 200/450 | 40 | DME CO-LOCATED WITH |