# ASIA AND PACIFIC REGIONS (APAC) AIR NAVIGATION PLAN

# VOLUME II

**TABLE OF CONTENTS**

PART 0 — Introduction ..... …0-1

PART I — General Planning Aspects (GEN) ..... …I-1

General Regional Requirements

Table GEN II-1 — Homogeneous areas and major traffic flows identified in the Asia and Pacific Regions

Specific Regional Requirements

Chart GEN II-APAC-1 - Homogeneous ATM Areas and Major Traffic Flows identified in the Asia and Pacific Regions

PART II — Aerodromes / Aerodrome Operations (AOP) ..... …II-1

General Regional Requirements

Table AOP II-1 — Requirements and capacity assessment in international aerodromes in the Asia and Pacific Regions

Specific Regional Requirements

PART III — Communications, Navigation and Surveillance (CNS) ..... …III-1

General Regional Requirements

Table CNS II-1 — Aeronautical Fixed Telecommunications Network (AFTN) Plan

Table CNS II-2 — Required ATN Infrastructure Routing Plan

Table CNS II-3 — ATS Direct Speech Circuits Plan

Table CNS II-4 — HF Network designators applicable for the Region

Specific Regional Requirements

Table CNS II-APAC-1 — ATS Inter-facility Data Communication (AIDC) Implementation Plan

Table CNS II-APAC-2 — Radio Navigation Aids

Table CNS II-APAC-3 — Surveillance

PART IV — Air Traffic Management (ATM) ..... …IV-1

General Regional Requirements

Specific Regional Requirements

Table ATM II-APAC-1 — Asia and Pacific Regions ATS Routes

Table ATM II-APAC-2 — SSR Codes Allocation Plan

PART V — Meteorology (MET) ..... …V-1

General Regional Requirements

Table MET II-1 — Meteorological watch offices

Table MET II-2 — Aerodrome meteorological offices

Table MET II-3 — VHF VOLMET broadcast

Specific Regional Requirements

PART VI — Search and Rescue Services (SAR) ..... …VI-1

General Regional Requirements

Table SAR II-1 — Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) in the Asia and Pacific Regions

Chart SAR II-1 — Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) in the Asia and Pacific Regions

Specific Regional Requirements

PART VII – Aeronautical Information Management (AIM) ..... VII-1

General Regional Requirements

Table AIM II-1 - Responsibility for the provision of AIS/AIM Facilities and Services in the Asia and Pacific Regions

Table AIM II-2 - Production responsibility for sheets of the World Aeronautical Chart — ICAO 1: 1 000 000 or Aeronautical Chart — ICAO 1: 500 000

Specific Regional Requirements

# APAC ANP, VOLUME II

# PART 0 – INTRODUCTION

## 1. GENERAL

1.1 The background to the publication of ANPs in three volumes is explained in the Introduction in Volume I. The procedure for amendment of Volume II is also described in Volume I.

1.2 Volume II contains dynamic plan elements related to:

a) the assignment of responsibilities to States for the provision of aerodrome and air navigation facilities and services; and

b) the mandatory requirements related to aerodrome and air navigation facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.3 Volume II does not list all facilities in the regions but only those required for international civil aviation operations in accordance with regional air navigation agreements. A regional air navigation agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified. Documents from the Integrated Aeronautical Information Package and other publications should be consulted for information on additional facilities and for operational information in general. Detailed guidance material or concepts, complementary to the material in Volumes I, II and III are contained in documents that are referenced as APAC Documents.

## 2. MANAGEMENT OF REGIONAL AIR NAVIGATION PLANS

2.1 The elements in Volume II are reviewed by the APANPIRG in accordance with its schedule of meetings, in consultation with provider and user States, and with the assistance of the ICAO APAC Regional Office.

2.2 The information on States' facilities and services included in Volume II should be updated following the process of regional air navigation agreements.

2.3 The development and maintenance of region-specific documents that provide detailed guidance material or concepts that are complementary to the material in Volumes I, II and III is the responsibility of the APANPIRG.

# APAC ANP, VOLUME II

# PART I – GENERAL PLANNING ASPECTS (GEN)

## 1. INTRODUCTION

1.1. The material in this part of Volume II of ANP is applicable to one or more parts of the ANP. It should be taken into consideration in the overall planning process for the Asia and Pacific Regions.

## 2. GENERAL REGIONAL REQUIREMENTS

2.1. To facilitate air navigation systems planning and implementation, homogenous ATM areas and/or major traffic flows/routing areas have been defined for the Regions. While these areas of routing do not encompass all movements in the Regions, they include the major routes. This includes the domestic flights in that particular area of routing.

*Homogeneous ATM area*

2.2. A homogeneous ATM area is an airspace with a common ATM interest, based on similar characteristics of traffic density, complexity, air navigation system infrastructure requirements or other specified considerations. In such an ATM area a common detailed plan will foster the implementation of interoperable ATM systems. Homogeneous ATM areas may extend over States, specific portions of States, or groupings of States. They may also extend over large oceanic and continental areas. They are considered areas of shared interest and requirements.

2.3. The method of identifying homogeneous ATM areas involves consideration of the varying degrees of complexity and diversity of the worldwide air navigation infrastructure. Based on these considerations, planning could best be achieved at the global level if it was organized based on ATM areas of common requirements and interest, taking into account traffic density and the level of sophistication required.

*Major traffic flows/routing areas*

2.4. A major traffic flow refers to a concentration of significant volumes of air traffic on the same or proximate flight trajectories. Major traffic flows may cross several homogeneous ATM areas with different characteristics.

2.5. A routing area encompasses one or more major traffic flows, defined for the purpose of developing a detailed plan for the implementation of ATM systems and procedures. A routing area may cross several homogeneous ATM areas with different characteristics. A routing area specifies common interests and requirements of underlying homogeneous areas, for which a detailed plan for the implementation of ATM systems and procedures either for airspace or aircraft will be specified.

2.6. The homogeneous ATM areas and major traffic flows/routing areas identified are given in **Table GEN II-1**.

## 3. SPECIFIC REGIONAL REQUIREMENTS

3.1. States shall establish and maintain a National Air Navigation Plan (NANP) that supports implementation of the Global Air Navigation Plan and regional air navigation planning. The NANP shall be accessible to key stakeholders, including ICAO; however, specific details related to national security may be withheld from public release.

The NANP should detail the State's assessment of its requirements and the implementation process for applicable global and regional air navigation planning elements.

States shall report their implementation progress and status of the applicable global and regional air navigation planning elements at least once each year (preferably prior to 01 April) to support:

- global and regional plans (including the Seamless Air Traffic Management Plan and the Regional Air Navigation Plan Volume III); and
- specific plans for aerodromes, Aeronautical Information Management (AIM), Air Traffic Flow Management (ATFM), Air Traffic Management (ATM) contingency and Search and Rescue (SAR).

*Note: a 'robust' status plan that is not subject to consideration as an APANPIRG Deficiency is one that is evaluated as achieving 90% or more implementation of the planning elements.*

The NANP should include the following Basic Planning Elements:

Background – a brief introduction aimed at high level decision-makers that describes the need for the plan with benefits and costs, including the necessity for global and regional harmonization and interoperability:

a) general (not necessarily quantitative) description of the Plan's benefits;

b) general description of the costs*; and

c) details of how the State Plan connects to the global and regional planning hierarchy.

**Note 1: this is a matter for the State to determine, and could be in terms of quantitative, qualitative, cost of implementation or cost of not implementing.*

**Note 2: ICAO do not require details of costs from States, as this is for the State's benefit.*

Stakeholder Consultation – high level descriptions and statements:

a) of the process used to consult with stakeholders, including the military; and

b) from key stakeholders (such as Heads of CAAs, ANSPs, military organisations, etc.) endorsing the State Plan.

Analysis – Information on the State's analysis of:

a) all applicable ASBU and regional elements deemed to be applicable, including a statement of the State's priorities* for implementation; and

b) elements that are deemed to be not applicable, and how these were determined.

**Note: this assessment should be guided by the priorities determined by APANPIRG*

Planning – descriptions of:

a) the implementation process, such as how the different stakeholders will work together, design systems and provide feedback on implementation; and
b) each applicable global and regional element's implementation managers (those responsible for execution of the implementation) and timelines.

Progress – details in the State Plan as to the progress of implementation against the planning timelines.

*Note 1: this also provides an indication that the Plan is a 'living document' subject to periodic review and update.*

*Note 2: ICAO would not normally be interested in the details of the Plan (except where specific need is identified at APANPIRG Contributory bodies). The NANP will need to address the BPEs at a high level and States should send detailed information only when requested by ICAO.*

3.2. The homogeneous ATM areas and major traffic flows/routing areas identified in the Asia and Pacific Regions are shown in **Chart GEN II APAC-1**.

**TABLE GEN II-1 - HOMOGENEOUS ATM AREAS AND MAJOR TRAFFIC FLOWS IDENTIFIED IN THE ASIA AND PACIFIC REGIONS**

EXPLANATION OF TABLE

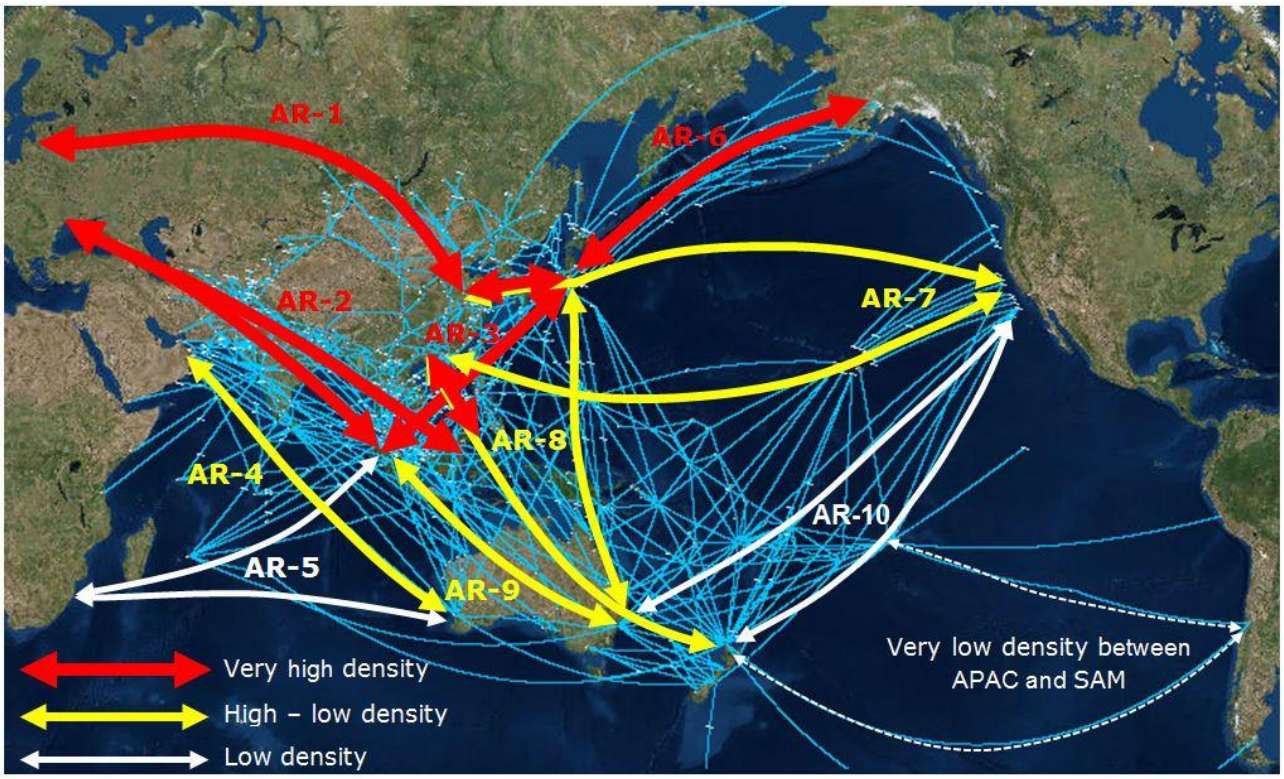
| Column | | |
|---|---|---|
| 1 | Area of Routing (AR) | Sequential number of area of routing |
| 2 | Homogeneous Areas and/or Traffic flows | Brief description and/or name |
| 3 | FIRs involved | List of FIRs concerned |
| 4 | Type of area covered | Brief description of type of area, examples:<br>Oceanic or Continental<br>High or low density<br>Oceanic en-route or Continental en-route |
| 5 | Remarks | Homogeneous ATM Area and/or Major Traffic Flow and Region(s) concerned |

| Area of routing (AR) | Homogeneous Areas and/or Traffic flows | FIRs involved | Type of area covered | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| AR1 | Between Europe and East Asia – north of the Himalayan Mountains | Ulan Bator<br>Urumqi FIR<br>Lanzhou FIR<br>Kunming FIR<br>Shenyang FIR<br>Beijing FIR<br>Guangzhou FIR<br>Shanghai FIR<br>Pyongyang FIR<br>Incheon FIR<br>Fukuoka FIR<br>Hong Kong FIR | Category S airspace (Asia/Pacific Seamless ATM Plan) high density | EUR/NAT-APAC, previously AR-3, Trans-Asia |
| AR2 | Between Europe and South/Southeast Asia – south of the Himalayan Mountains (includes Inter-Asian flow from India to Southeast Asia) | Kabul FIR<br>Lahore FIR<br>Karachi FIR<br>Delhi FIR<br>Kolkata FIR<br>Chennai FIR<br>Mumbai FIR<br>Yangon FIR<br>Bangkok FIR<br>Ha Noi FIR<br>Vientiane FIR<br>Phnom Penh FIR<br>Kuala Lumpur FIR<br>Singapore FIR<br>Jakarta FIR | Category S airspace, high density | EUR/NAT-APAC, previously AR-4, Trans-Asia |

| Area of routing (AR) | Homogeneous Areas and/or Traffic flows | FIRs involved | Type of area covered | Remarks |
|---|---|---|---|---|
| AR3 | Between Southeast Asia and East Asia | Singapore FIR<br>Jakarta FIR<br>Kuala Lumpur FIR<br>Ho Chi Minh FIR<br>Ha Noi FIR<br>Phnom Penh FIR<br>Vientiane FIR<br>Manila FIR<br>Sanya FIR<br>Hong Kong FIR<br>Taibei FIR<br>Guangzhou FIR<br>Shanghai FIR<br>Fukuoka FIR<br>Incheon FIR | Category S airspace, high density | APAC, previously AR-9, Inter-Asia |
| AR4 | Between West Asia (Middle East) and Australia | Mumbai FIR<br>Male FIR<br>Colombo FIR<br>Melbourne FIR | Category R airspace, low density | MID – APAC, previously AR-10, Trans-Indian Ocean |
| AR5 | Between Southern Africa and Southeast Asia/Australia | Mumbai FIR<br>Male FIR<br>Colombo FIR<br>Jakarta FIR<br>Kuala Lumpur FIR<br>Singapore FIR<br>Melbourne FIR | Category R airspace, low density | AFI – APAC, previously AR-1, Trans-Indian Ocean |
| AR6 | Between East Asia and North America – North Pacific | Incheon FIR<br>Fukuoka FIR<br>Anchorage Oceanic FIR<br>Oakland Oceanic FIR | Category R and S airspace, high density | APAC – NAM, previously AR-5, Trans-Pacific |
| AR7 | Between East Asia and North America – Central Pacific | Hong Kong FIR<br>Fukuoka FIR<br>Taibei FIR<br>Oakland Oceanic FIR | Category R airspace, low density (except for the portions between China and Republic of Korea/Japan and between Hawaii and the US mainland) | APAC – NAM, previously AR-6, Trans-Pacific |
| AR8 | Between East Asia and Australasia | Fukuoka FIR<br>Hong Kong FIR<br>Taibei FIR<br>Manila FIR<br>Ujung Pandang FIR<br>Port Moresby FIR<br>Brisbane FIR<br>Auckland Oceanic FIR | Category R and S airspace, low density (except for high density flow between China and Philippines | APAC, previously AR-2, Trans-Pacific |

| Area of routing (AR) | Homogeneous Areas and/or Traffic flows | FIRs involved | Type of area covered | Remarks |
|---|---|---|---|---|
| AR9 | Between Southeast Asia and Australia | Bangkok FIR<br>Ho Chi Minh FIR<br>Ha Noi FIR<br>Jakarta FIR<br>Kuala Lumpur FIR<br>Kota Kinabalu FIR<br>Ujung Pandang FIR<br>Brisbane FIR<br>Melbourne FIR | Category R and S airspace, low density | APAC, Trans-Pacific |
| AR10 | Between Australasia and North America | Brisbane FIR<br>Auckland Oceanic FIR<br>Nadi FIR<br>Tahiti FIR<br>Oakland Oceanic FIR | Category R airspace, low density | APAC – NAM, previously AR-8; note: the Low density between South Pacific and South America previously AR-7 is not considered to be a Major Traffic Flow |

**CHART GEN II-APAC-1 - HOMOGENEOUS ATM AREAS AND MAJOR TRAFFIC FLOWS IDENTIFIED IN THE ASIA AND PACIFIC REGIONS**



# APAC ANP, VOLUME II

# PART II – AERODROMES / AERODROME OPERATIONS (AOP)

## 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to aerodrome design and operations (AOP). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of AOP facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to AOP facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

## 2. GENERAL REGIONAL REQUIREMENTS

2.1 **Table AOP II-1** contains the list of facilities and services to be provided by the State concerned at each aerodrome that is listed in **Table AOP I-1** in Volume I. Table AOP II-1 shows the operational requirements at each aerodrome to be considered in planning the facilities and services for safe and efficient aircraft operations.

*Visual aids for low visibility aerodrome operations*

2.2 At aerodromes where there is a requirement to conduct low visibility operations, the appropriate visual and non-visual aids should be provided.

*Non-precision approach aids*

2.3 Where required by the topographic and/or environmental situation of an aerodrome, improved track guidance during departure and/or approach by specific non-visual and/or visual aids should be provided even if such aids would not normally be required in accordance with the SARPs.

*Reduced runway declared distances for take-off*

*Note. — In the following operational requirements the term "intersection" is used to cover both intersection and junction concepts.*

2.4 The reduced runway declared distances for take-off, as for those used for full runway declared distances, should consist of Take-Off Run Available (TORA), Take-Off Distance Available (TODA) and Accelerate-Stop Distance Available (ASDA).

2.5 The datum-line from which the reduced runway declared distances for take-off should be determined is defined by the intersection of the downwind edge of the specific taxiway with the runway edge. The loss, if any, of runway length due to alignment of the aircraft prior to take-off should be taken into account by the operators for the calculation of the aircraft's take-off weight.

2.6 Intersections used as intermediate take-off positions should be identified by the "taxiway designator" to which the datum-line of the associated reduced runway declared distance for take-off refers.

2.7 At each international aerodrome, specific minima visibility for take-off should be established, regulating the use of intersection take-off positions. These minima should permit the appropriate ATC unit to maintain a permanent surveillance of the ground movement operations, and the flight crews to constantly secure their position on the manoeuvring area, so as to exclude any potential risk of confusion as to the identification of the aircraft and intersections used for take-off. The minima should be consistent with the Surface Movement Guidance and Control System (SMGCS) provided at the aerodrome concerned.

2.8 The provision of marking and lighting aids together with signs should ensure the safe control and guidance of aircraft towards and at take-off intersections appropriate to the minima visibility criteria retained. At the runway holding position of the associated intersection take-off position, such signs should indicate the runway heading and the remaining TORA in metres.

2.9 At aerodromes regularly used by international commercial air transport, take-offs from runway/taxiway intersections may be justified for the following reasons:

a) runway capacity improvement;
b) taxi routes distances reduction;
c) noise alleviation; and
d) air pollution reduction.

2.10 The appropriate authorities should, upon prior consultation with aircraft operators, agree on the selection of suitable intermediate intersection take-off positions along the runway(s). Accordingly, authorities should determine the reduced runway declared distances for take-off associated with each selected intersection take-off position and establish the specific ATC rules and operational procedures/limitations. Such provisions should be published in the State Aeronautical Information Publications (AIP).

*Aerodrome capacity management*

2.11 As an integral part of the air navigation system, the aerodrome should provide the needed ground infrastructure including*, inter alia*, lighting; taxiways; runway, including exits; aprons and precise surface guidance to improve safety and to maximize aerodrome capacity in all weather conditions. An efficient aerodrome capacity planning and management should include:

a) reduction of runway occupancy time;
b) the capability to safely manoeuvre in all weather conditions whilst maintaining capacity;
c) precise surface guidance to and from a runway required in all conditions; and
d) availability of information on the position (to an appropriate level of accuracy) and intent of all vehicles and aircraft operating on the movement area for the appropriate ATM community members.

2.12 States should ensure that adequate consultation and, where appropriate, cooperation between airport authorities and users/other involved parties are implemented at all international aerodromes to satisfy the provisions of aerodrome capacity assessment and requirement.

2.13 When international aerodromes are reaching designed operational capacity, a better and more efficient utilization of existing runways, taxiways and aprons is required. Runway selection procedures and standard taxi routes at aerodromes should ensure an optimum flow of air traffic with a minimum of delay and a maximum use of available capacity. They should also, if possible, take account of the need to keep taxiing times for arriving and departing aircraft as well as apron occupancy time to a minimum. The Airport Collaborative Decision Making (A-CDM) concept should be implemented to improve airport capacity as early as possible.

*Aerodrome capacity assessment and requirement*

2.14 The declared capacity/demand condition at aerodromes should be periodically reviewed in terms of a qualitative analysis for each system component and, when applicable, the result of the qualitative assessment upon mutual agreement be used for information.

2.15 The future capacity/demand, based on a forecast for the next five years, should be agreed upon after close cooperation between aerodrome authorities and affected users.

2.16 Operators should consult with aerodrome authorities when future plans indicate a significant increased requirement for capacity resulting in one of the elements reaching a limiting condition.

2.17 Aerodrome capacity should be assessed by aerodrome authorities in consultation with the parties involved for each component (terminal/apron/aircraft operations) using agreed methods and criteria for level of delays.

2.18 Where restrictions in aerodrome capacity are identified, a full range of options for their reduction or removal should be evaluated by the aerodrome authority, in close cooperation with the operators and other involved parties. Such options should include technical/operational/procedural and environmental improvements and facility expansion.

2.19 At many aerodromes, airspace capacity has influence on the aerodrome capacity. If the declared capacity of a specified airspace has influence on aerodrome operations, this should be indicated and action undertaken to reach a capacity in this airspace corresponding to the aerodrome capacity.

2.20 The possibility of overcoming capacity limitations should also take the use of other aerodromes in the vicinity into consideration.

*Closure of regular aerodromes*

2.21 When a regular aerodrome is to be closed, States should ensure that sufficient alternate aerodromes remain open to provide for the safety and efficiency of aircraft approaching the regular aerodrome that may be required to divert to an alternate.

*Scheduling aerodrome maintenance*

2.22 States, when planning major aerodrome maintenance work that would affect the regularity of international aircraft operations, should consider the need to notify aircraft operators sufficiently in advance prior to undertaking the scheduled work.

## 3. SPECIFIC REGIONAL REQUIREMENTS

3.1 None.

## Table AOP II-1 – REQUIREMENTS AND CAPACITY ASSESSMENT IN INTERNATIONAL AERODROMES IN THE ASIA AND PACIFIC REGIONS

EXPLANATION OF THE TABLE

*Note: Columns 3 to 5 for physical characteristics relate to runways and taxiways. The physical characteristics of taxiways and aprons should be compatible with the aerodrome reference code (Column 3) and appropriate for the runways with which they are related.*

*Column*

1 Name of the city and aerodrome, preceded by the location indicator.

*Note 1— When the aerodrome is located on an island and no particular city or town is served by the aerodrome, the name of the island is included instead of a city.*

Designation of the aerodrome as:
RS — international scheduled air transport, regular use;
RNS — international non-scheduled air transport, regular use;
AS — international scheduled air transport, alternate use; and
ANS — international non-scheduled air transport, alternate use.

2 Required rescue and firefighting service (RFF). The required level of protection expressed by means of an aerodrome RFF category number, in accordance with Annex 14, Volume I, 9.2.

3 Aerodrome reference code (RC). The aerodrome reference code for aerodrome characteristics expressed in accordance with Annex 14, Volume I, chapter 1. The code letter or number within an element selected for design purposes is related to the critical aeroplane characteristics for which the facilities are provided.

4 Runway Designation numbers

5 Type of each of the runways to be provided. The types of runways, as defined in Annex 14, Volume I, Chapter 1, are:
NINST — non-instrument runway;
NPA — non-precision approach runway;
PA1 — precision approach runway, Category I;
PA2 — precision approach runway, Category II;
PA3 — precision approach runway, Category III.

6 Remarks. Additional information including critical design aircraft selected for determining RC, critical aircraft selected for determining the RFF category and critical aircraft for pavement strength. Only one critical aircraft type is shown if it is used to determine all the above three elements: otherwise different critical aircraft types need to be shown for different elements.

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| **AFGHANISTAN** | | | | | | |
| OAKB | KABUL/Kabul Intl | 8 | 4D | 11 | NPA | DC 10-30 |
| | RS | | | 29 | PAI | |
| | | | | | | |
| OAKN | KANDAHAR/Kandahar Intl | 8 | 4D | 05 | NPA | DC10-30 |
| | AS | | | 23 | NPA | |
| | | | | | | |
| **AMERICAN SAMOA (United States)** | | | | | | |
| NSTU | PAGO PAGO/Pago Pago Intl | 7 | 4D | 05 | PA1 | DC8 |
| | RS | | | 23 | NINST | |
| | | | | | | |
| **AUSTRALIA** | | | | | | |
| YPAD | ADELAIDE/Adelaide | 9 | 4E | 05 | NPA | A340 (RC), B747 (RFF) |
| | RS | | | 23 | PA1 | |
| | | | 3C | 12 | NPA | Q400 |
| | | | | 30 | NPA | |
| | | | | | | |
| YBBN | BRISBANE/Brisbane | 9 | 4F | 01R | PA1 | A380 (RC), B747-400 (RFF) |
| | RS | | | 19L | PA1 | |
| | | | 4F | 01L | PA1 | A380 (RC), B747 (RFF) |
| | | | | 19R | PA1 | |
| | | | | | | |
| YBCS | CAIRNS/Cairns Intl | 8 | 4F | 15 | PA1 | A380 (RC), B787 (RFF) |
| | RS | | | 33 | NPA | |
| | | | | | | |
| YSCB | CANBERRA/Canberra | 7 | 4E | 17 | NPA | B777-300 (RC), B737-800 (RFF) |
| | RS | | | 35 | PA2 | |
| | | | 3C | 12 | NPA | DHC-8 |
| | | | | 30 | NPA | |
| | | | | | | |
| YPDN | DARWIN/Darwin | 8 | 4F | 11 | NPA | A380 (RC), B747 (RFF) |
| | RS | | | 29 | PA1 | |
| | | | 3C | 18 | NINST | DHC-8 |
| | | | | 36 | NPA | |
| | | | | | | |
| YBCG | GOLD COAST/Gold Coast | 8 | 4E | 14 | PA1 | A330-300 |
| | RS | | | 32 | NPA | |
| | | | 1B | 17 | NINST | C208 |
| | | | | 35 | NINST | |
| | | | | | | |
| YMHB | HOBART/Hobart | 7 | 4C | 12 | PA1 | B727-200 |
| | AS | | | 30 | NPA | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| YMML | MELBOURNE/Melbourne | 9 | 4F | 16 | PA3 | A380 |
| | RS | | | 34 | PA1 | |
| | | | 4E | 09 | PA1 | B777 |
| | | | | 27 | PA1 | |
| | | | | | | |
| YSNF | NORFOLK I./Norfolk I. | 6 | 4D | 11 | NPA | B737 |
| | RS | | | 29 | NPA | |
| | | | 2C | 04 | NPA | DHC-8 |
| | | | | 22 | NINST | |
| | | | | | | |
| YPPH | PERTH/Perth | 9 | 4F | 06 | NPA | A380 (RC), B747 (RFF) |
| | RS | | | 24 | PA1 | |
| | | | 4F | 03 | PA1 | A380 (RC), B747 (RFF) |
| | | | | 21 | PA3 | |
| | | | | | | |
| YBSU | SUNSHINE COAST/Sunshine Coast | 7 | 4E | 13 | NPA | B777-300 (RC), A321 (RFF) |
| | RS | | | 31 | NPA | |
| | | | | | | |
| YSSY | SYDNEY/Kingsford Smith | 10 | 4F | 16R | PA2 | A380 |
| | RS | | | 34L | PA2 | |
| | | | 4E | 16L | PA1 | B777-300 |
| | | | | 34R | PA1 | |
| | | | 4F | 07 | PA1 | A380 |
| | | | | 25 | PA1 | |
| | | | | | | |
| YSWS | SYDNEY/Nancy-Bird Walton | 8 | 4F | 05 | PA1 | A380 (RC); B787 (RFF) |
| | RS | | | 23 | PA1 | |
| | | | | | | |
| **BANGLADESH** | | | | | | |
| VGEG | CHATTOGRAM/Shah Amanat Intl | 7 | 4E | 05 | NPA | B747 for RC B737-800 for Pavement Strength and RFF |
| | RS | | | 23 | PA1 | |
| | | | | | | |
| VGHS | DHAKA/Hazrat Shahjalal Intl | 9 | 4E | 14 | PA1 | B747 |
| | RS | | | 32 | NPA | |
| | | | | | | |
| VGSY | SYLHET/Osmani Intl | 8 | 4E | 11 | PA1 | B747 for RC B777-300ER for Pavement Strength and RFF |
| | RS | | | 29 | NPA | |
| | | | | | | |
| **BHUTAN** | | | | | | |
| VQGP | GELEPHU/Gelephu Intl | 4 | 3C | 11 | NPA | ATR 42 |
| | RS | | | 29 | | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| VQPR | PARO/Paro Intl | 6 | 3C | 15 | NPA | A319-115 |
| | RS | | | 33 | NPA | |
| | | | | | | |
| **BRUNEI DARUSSALAM** | | | | | | |
| WBSB | BRUNEI/Brunei Intl | 9 | 4E | 03 | NPA | B747 |
| | RS | | | 21 | PA1 | |
| | | | | | | |
| **CAMBODIA** | | | | | | |
| VDTI | PHNOM PENH/Techo Intl | 9 | 4F | 05 | PA2 | A380 |
| | RS | | | 23 | PA2 | |
| | | | | | | |
| VDSV | PREAH SIHANOUK/Sihanouk Intl | 7 | 4C | 03 | NPA | A321 |
| | RS | | | 21 | NPA, equipped ILS CAT I | |
| | | | | | | |
| VDSA | SIEM REAP/Siem Reap Angkor Intl | 9 | 4E | 05 | PA1 | A340-600 |
| | RS | | | 23 | PA1 | |
| | | | | | | |
| **CANADA[1]** | | | | | | |
| CYXX | ABBOTSFORD/Abbotsford | 7 | 4E | 07 | PA1 | B747 |
| | AS | | | 25 | NINSX | |
| | | | | | | |
| CYYC | CALGARY/Calgary Intl | 8 | 4E | 16 | PA1 | B747 |
| | AS | | | 34 | PA1 | |
| | | | 4E | 10 | NPA | |
| | | | | 28 | PA1 | B747 |
| | | | | | | |
| CYQQ | COMOX/Comox | 8 | 4E | 11 | NPA | B747 |
| | AS | | | 29 | NINSX | |
| | | | | | | |
| CYEG | EDMONTON/Edmonton Intl | 8 | 4E | 02 | PA1 | B747 |
| | RS | | | 20 | NPA | |
| | | | 4E | 12 | PA1 | B747 |
| | | | | 30 | PA1 | |
| | | | | | | |
| CYVR | VANCOUVER/Vancouver Intl | 9 | 4E | 08R | PA2 | B747 |
| | RS | | | 26L | PA1 | |
| | | | 4E | 08L | PA3 | B747 |
| | | | | 26R | PA3 | |
| | | | | | | |
| CYYJ | VICTORIA/Victoria Intl | 6 | 4D | 09 | PA1 | DC-68 |
| | RNS | | | 27 | PA1 | |
| | | | | | | |
| **CHINA** | | | | | | |
| ZBAA | BEIJING/Capital | 9 | 4E | 18R | PA1 | B747 |
| | RS | | | 36L | PA1 | |
| | | | 4E | 18L | PA1 | B747 |
| | | | | 36R | PA2 | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| ZGHA | CHANGSHA/Huanghua | 7 | 4D | 18 | NPA | MD82 |
| | RS | | | 36 | PA1 | |
| ZUUU | CHENGDU/Shuangliu | 7 | 4E | 02 | PA1 | B747 |
| | AS | | | 20 | PA1 | |
| ZUCK | CHONGQING/Jiangbei | 7 | 4E | 02 | PA1 | DC10 |
| | RS | | | 20 | PA1 | |
| ZYTL | DALIAN/Zhoushuizi | 8 | 4E | 10 | PA1 | B747 |
| | RS | | | 28 | PA1 | |
| ZSFZ | FUZHOU/Changle | 8 | 4E | 03 | PA1 | B747 |
| | RS | | | 21 | PA1 | |
| RCKH | GAOXIONG/Gaoxiong | 9 | 4E | 09L | PA1 | B747 |
| | RS | | | 27R | PA1 | |
| ZGGG | GUANGZHOU/Baiyun | 9 | 4E | 02R | PA1 | B747-400 |
| | RS | | | 20L | PA1 | |
| | | | | 02L | PA1 | B747-400 |
| | | | | 20R | PA1 | |
| ZGKL | GUILIN/Liangjiang | 8 | 4D | 01 | PA1 | B747 |
| | RS | | | 19 | PA1 | |
| ZSHC | HANGZHOU/Xiaoshen | 7 | 4D | 07 | PA1 | A300 |
| | RS | | | 25 | NPA | |
| ZYHB | HARBIN/Taiping | 6 | 4D | 05 | PA1 | A300 |
| | RS | | | 23 | PA1 | |
| ZSOF | HEFEI/Luogang | 5 | 4D | 14 | PA1 | B767 |
| | AS | | | 32 | NPA | |
| ZBHH | HOHHOT/Baita | 5 | 4D | 08 | PA1 | B737 |
| | RS | | | 26 | NPA | |
| ZSJN | JINAN/Yaoqiang | 6 | 4D | 01 | PA1 | A300 |
| | RS | | | 19 | NPA | |
| ZWSH | KASHI/Kashi | 6 | 4D | 08 | NPA | A300 |
| | AS | | | 26 | PA1 | |
| ZPPP | KUNMING/Wujiaba | 7 | 4E | 03 | PA1 | B747 |
| | RS | | | 21 | PA1 | |
| ZLLL | LANZHOU/Zhongchuan | 7 | 4D | 18 | NPA | B747 |
| | AS | | | 36 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| ZSNJ | NANJING/Lukou | 8 | 4E | 06 | PA1 | B747 |
| | RS | | | 24 | PA1 | |
| ZGNN | NANNING/Wuxu | 5 | 4D | 05 | PA1 | A300 |
| | AS | | | 23 | NPA | |
| ZSQD | QINGDAO/Liuting | 5 | 4D | 17 | PA1 | A300 |
| | RS | | | 35 | PA1 | |
| ZJSY | SANYA/Phoenix | 8 | 4E | 08 | PA1 | B747 |
| | RS | | | 26 | NPA | |
| ZSSS | SHANGHAI/Hongqiao | 9 | 4E | 18 | PA1 | B747 |
| | RS | | | 36 | PA1 | |
| ZSPD | SHANGHAI/Pudong | 9 | 4E | 17 | PA1 | B747 |
| | RS | | | 35 | PA1 | |
| ZYTX | SHENYANG/Taoxian | 7 | 4E | 06 | PA1 | B747 |
| | RS | | | 24 | PA1 | |
| ZGSZ | SHENZHEN/Bao'an | 7 | 4E | 15 | PA1 | B747 |
| | RS | | | 33 | PA1 | |
| RCSS | TAIBEI/Songshan | 9 | 4E | 10 | PA1 | B747 |
| | AS | | | 28 | PA1 | |
| RCTP | TAIBEI CITY/Taibei Intl | 9 | 4E | 05L | PA2 | B747 |
| | RS | | | 23R | PA2 | |
| | | | | 05R | PA1 | B747 |
| | | | | 23L | PA1 | |
| | | | | 06 | PA1 | B747 |
| | | | | 24 | PA1 | |
| ZBYN | TAIYUAN/Wusu | 7 | 4D | 13 | PA1 | A300 |
| | AS | | | 31 | PA1 | |
| ZBTJ | TIANJIN/Binhai | 7 | 4D | 16 | PA1 | A300 |
| | RS | | | 34 | PA1 | |
| ZWWW | URUMQI/Diwopu | 7 | 4D | 07 | PA1 | A300 |
| | RS | | | 25 | PA1 | |
| ZHHH | WUHAN/Tianhe | 7 | 4E | 04 | PA1 | B747 |
| | RNS | | | 22 | PA1 | |
| ZSAM | XIAMEN/Gaoqi | 7 | 4E | 05 | PA1 | B767 |
| | RS | | | 23 | NPA | |
| ZLXY | XI'AN/Xianyang | 6 | 4E | 05 | PA1 | A300 |
| | RS | | | 23 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| ZUXC | XICHANG/Qingshan | 6 | 4D | 18 | NPA | B767 |
| | RNS | | | 36 | PA1 | |
| | | | | | | |
| **COOK IS.** | | | | | | |
| NCAI | AITUTAKI/Aitutaki | 4 | 4C | 14 | NPA | ATR72 |
| | ANS | | | 32 | NPA | |
| | | | | | | |
| NCRG | RAROTONGA/Rarotonga Intl | 8 | 4D | 08 | PA1 | B787 |
| | RS | | | 26 | PA1 | |
| | | | | | | |
| **DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA** | | | | | | |
| ZKWS | KALMA/Kalma | 8 | 4E | 15 | NPA | B747-400 |
| | RNS | | | 33 | NPA | |
| | | | | | | |
| ZKPY | PYONGYANG/Sunan | 9 | 4D | 17 | PA1 | B747-400 |
| | RS | | | 35 | PA1 | |
| | | | | | | |
| **FIJI** | | | | | | |
| NFFN | NADI/Nadi Intl | 8 | 4E | 03 | PA1 | B747 |
| | RS | | | 21 | NINST | |
| | | | | 09 | NINST | B737-200 |
| | | | | 27 | NINST | |
| | | | | | | |
| NFSU | SUVA/Nausori | 5 | 4C | 10 | NPA | B737-200 |
| | RS | | | 28 | NPA | |
| | | | | | | |
| **FRENCH POLYNESIA (France)** | | | | | | |
| NTAA | TAHITI/Faaa | 9 | 4E | 04 | PA1 | B747 |
| | RS | | | 22 | NPA | |
| | | | | | | |
| **GUAM (United States)** | | | | | | |
| PGUA | GUAM I./Andersen AFB | 8 | 4E | 06R | PA1 | B747 |
| | AS | | | 24L | NPA | |
| | | | | | | |
| PGUM | GUAM I./Guam Intl | 8 | 4E | 06L | PA1 | B747 |
| | RS | | | 24R | NPA | |
| | | | | | | |
| **HONG KONG, China** | | | | | | |
| VHHH | HONG KONG/Hong Kong Intl | 10 | 4F | 07R | PA2 | A380 |
| | RS | | | 25L | PA2 | |
| | | | | 07C | PA2 | A380 |
| | | | | 25C | PA3 | |
| | | | | 07L | PA3 | A380 |
| | | | | 25R | PA1 | |
| | | | | | | |
| **INDIA** | | | | | | |
| VAAH | AHMEDABAD/Sardar Vallabhbhai Patel Intl | 9 | 4E | 05 | NPA | B777-300 |
| | RS | | | 23 | PA1 | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| VIAR | AMRITSAR/Sri Guru Ram Das Jee Intl | 8 | 4E | 16 | NPA | B-787 |
| | RS | | | 34 | PA3 | |
| VEAY | AYODHYA/Ayodhya | 7 | 4C | 11 | NPA | A-320 |
| | RS | | | 29 | PA1 | |
| VOBL | BANGALORE/Kempegowda Intl | 10 | 4F | 09L | PA1 | A380-800 |
| | RS | | | 27R | PA1 | |
| | | | | 09R | PA3 | |
| | | | | 27L | PA3 | |
| VABP | BHOPAL/Raja Bhoj | 7 | 4D | 12 | NPA | A321 |
| | RS | | | 30 | PA1 | |
| VEBS | BHUBANESWAR/Biju Patnaik Intl | | 4C | | | A321 |
| | RS | | | | | |
| VOCL | CALICUT/Calicut | 8 | 4D | 10 | PA1 | A300-600 |
| | RS | | | 28 | PA1 | |
| VOMM | CHENNAI/Chennai Intl | 9 | 4E | 07 | PA1 | B747-400 |
| | RS | | | 25 | PA1 | |
| | | | 4C | 12 | NPA | A320-200 |
| | | | | 30 | NPA | |
| VOCI | COCHIN/Cochin Intl | 9 | 4E | 09 | PA1 | B747-400 |
| | RS | | | 27 | PA1 | |
| VOCB | COIMBATORE/Coimbatore | 7 | 4C | 05 | NPA | A321 |
| | RS | | | 23 | PA1 | |
| VIDP | DELHI/Indira Gandhi Intl | 10 | 4F | 10 | PA1 | A-380 for RC & RFF/B777-900 ER for PCR |
| | RS | | | 28 | PA3 | |
| | | | 4E | 09 | PA1 | B747-400 |
| | | | | 27 | PA1 | |
| | | | 4F | 11R | PA3 | A-380 for RC & RFF/B777-900 ER for PCR |
| | | | | 29L | PA3 | |
| | | | 4F | 11L | PA3 | A-380 for RC & RFF/B777-900 ER for PCR |
| | | | | 29R | PA3 | |
| VEGY | GAYA/Gaya | 6 | 4C | 10 | NPA | A320-200 |
| | RS | | | 28 | PA1 | |
| VOGA | GOA/Manohar Intl | 9 | 4E | 10 | NPA | B777-300 |
| | RS | | | 28 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| VEGT | GUWAHATI/Lokpriya Gopinath Bordolai Intl | 7 | 4D | 02 | PA1 | A-321 |
| | RS | | | 20 | NPA | |
| VOHS | HYDERABAD/Rajiv Gandhi Intl | 9 | 4F | 09R | PA2 | B747-400 for RC & RFF / B777 for PCR |
| | RS | | | 27L | PA1 | |
| | | | | 09L | PA1 | B747-400 for RC & RFF / B777 for PCR |
| | | | | 27R | NPA | |
| VAID | INDORE/Devi Ahilya Bai Holkar | 7 | 4D | 07 | NPA | B767-400 |
| | RS | | | 25 | PA1 | |
| VIJP | JAIPUR/Jaipur Intl | 9 | 4E | 08 | NPA | B747-400 |
| | RS | | | 26 | PA3 | |
| VOKN | KANNUR/ Kannur Intl | 7 | 4E | 07 | NPA | B777-300ER for RC & PCR<br>A321 (RFF) |
| | RS | | | 25 | PA1 | |
| VECC | KOLKATA/Netaji Subhash Chandra Bose Intl | 9 | 4E | 01R | PA3 | B773 |
| | RS | | | 19L | PA2 | |
| | | | 4E | 01L | NPA | B747-400 |
| | | | | 19R | PA1 | |
| VILK | LUCKNOW/Chaudhry Charan Singh Intl | 7 | 4D | 09 | NPA | B767-400 |
| | RS | | | 27 | PA3 | |
| VOMD | MADURAI/Madurai | 7 | 4C | 09 | NPA | B737-800 |
| | RS | | | 27 | PA1 | |
| VOML | MANGALORE/Mangaluru Intl | 7 | 4D | 06 | NPA | B767-400 |
| | RS | | | 24 | PA1 | |
| VABB | MUMBAI/Chhatrapati Shivaji Maharaj Intl | 10 | 4F | 09 | PA1 | A-380 |
| | RS | | | 27 | PA1 | |
| | | | 4F | 14 | PAI | A-380 |
| | | | | 32 | NPA | |
| VANP | NAGPUR/Dr Babasaheb Ambedkar Intl | 7 | 4D | 14 | NPA | A321 |
| | RS | | | 32 | PA1 | |
| VEPT | PATNA/Jai Prakash Narayan Intl | 7 | 4C | 07 | NPA | A321 |
| | RS | | | 25 | PA1 | |
| VAHS | RAJKOT/Rajkot Intl | 7 | 4C | 05 | NPA | A321 |
| | RS | | | 23 | PA1 | |
| VASU | SURAT/Surat | 7 | 4C | 04 | NPA | A321 |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | RS | | | 22 | PA1 | |
| | | | | | | |
| VOTV | THIRUVANANTHAPURAM/ Thiruvananthapuram Intl | 9 | 4E | 14 | NPA | B777-300ER |
| | RS | | | 32 | PA1 | |
| | | | | | | |
| VOTR | THIRUCIRAPALLI/Tiruchirappalli | 7 | 4C | 09 | NPA | A320-200 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| VIBN | VARANASI/Lal Bahadur Shastri | 7 | 4C | 09 | NPA | A321 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| VOBZ | VIJAYAWADA/Vijayawada | 7 | 4C | 08 | NPA | A321 |
| | RS | | | 26 | PA1 | |
| | | | | | | |
| | | | | | | |
| **INDONESIA** | | | | | | |
| WITT | ACEH/Sultan Iskandar Muda | 8 | 4E | 17 | PA1 | B747-400 for RC |
| | RS | | | 35 | NPA | A330-200 for RFF |
| | | | | | | |
| WAPP | AMBON/Pattimura | 7 | 4D | 04 | PA1 | B767-300ER for RC |
| | AS | | | 22 | NPA | B737-900ER for RFF |
| | | | | | | |
| WADD | BALI/I Gusti Ngurah Rai | 9 | 4E | 09 | NPA | B747-400 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| WALL | BALIKPAPAN/Sultan Aji Muhammad Sulaiman Sepinggan | 8 | 4D | 07 | NPA | B767-300ER |
| | RS | | | 25 | PA1 | |
| | | | | | | |
| WICC | BANDUNG/Husein Sastranegara | 7 | 4C | 11 | NPA | B737-800 |
| | RS | | | 29 | NPA | |
| | | | | | | |
| WAOO | BANJARMASIN/Syamsudin Noor | 7 | 4D | 10 | PA1 | A300 for RC<br>B737-900ER for RFF |
| | RNS | | | 28 | NINST | |
| | | | | | | |
| WADY | BANYUWANGI/Banyuwangi | 6 | 4C | 08 | NINST | A320-200 |
| | AS | | | 26 | NINST | |
| | | | | | | |
| WIDD | BATAM/Hang Nadim | 9 | 4E | 04 | PA1 | B747 |
| | RS | | | 22 | NPA | |
| | | | | | | |
| WABB | BIAK/Frans Kaisiepo | 7 | 4C | 11 | PA1 | B737-800 |
| | AS | | | 29 | NPA | |
| | | | | | | |
| WIHH | JAKARTA/Halim Perdanakusuma | 9 | 4E | 06 | NPA | B747-400 |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | RS | | | 24 | PA1 | |
| | | | | | | |
| WIII | JAKARTA/Soekarno Hatta | 9 | 4E | 07L | PA1 | B777-300 ER |
| | RS | | | 25R | PA1 | |
| | | 9 | 4E | 07R | PA1 | B777-300 ER |
| | | | | 25L | PA1 | |
| | | 7 | 4C | 06 | NPA | B737-900 ER |
| | | | | 24 | NPA | |
| | | | | | | |
| WAJJ | JAYAPURA/Sentani | 7 | 4C | 12 | NINST | B737-900ER |
| | AS | | | 30 | PA1 | |
| | | | | | | |
| WICA | KERTAJATI / Kertajati | 7 | 4E | 14 | NPA | A330-200 for RC |
| | AS | | | 32 | NPA | B737-900ER for RFF |
| | | | | | | |
| WATT | KUPANG/El Tari | 7 | 4D | 07 | NPA | A300 for RC |
| | AS | | | 25 | NPA | B737-900ER For RFF |
| | | | | | | |
| WILL | LAMPUNG / Radin Inten II | 7 | 4C | 14 | NINST | B737-900ER |
| | AS | | | 32 | PA1 | |
| | | | | | | |
| WADL | LOMBOK / Lombok | 7 | 4E | 13 | PA1 | A330-200 for RC |
| | RS | | | 31 | NPA | B737-900ER for RFF |
| | | | | | | |
| WAAA | MAKASSAR/Sultan Hasanuddin | 8 | 4D | 13 | PA1 | B767-300 |
| | RS | | | 31 | NPA | |
| | | | | 03 | PA1 | B767-300 |
| | | | | 21 | PA1 | |
| | | | | | | |
| WAMM | MANADO/Sam Ratulangi | 7 | 4E | 18 | PA1 | A330-200 for RC |
| | RS | | | 36 | PA1 | B737-900ER for RFF |
| | | | | | | |
| WIMM | MEDAN/Kualanamu | 9 | 4E | 05 | PA1 | B747-400 |
| | RS | | | 23 | PA1 | |
| | | | | | | |
| WAKK | MERAUKE/Mopah | 7 | 4D | 16 | NPA | A300 for RC |
| | AS | | | 34 | NINST | B737-900ER for RFF |
| | | | | | | |
| WIEE | PADANG/Minangkabau | 9 | 4D | 15 | NPA | B767-400 |
| | RS | | | 33 | PA1 | |
| | | | | | | |
| WIPP | PALEMBANG/Sultan Mahmud Badaruddin II | 8 | 4D | 11 | NPA | B767-300 |
| | RS | | | 29 | PA1 | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| WIBB | PEKANBARU/Sultan Syarif Kasim II | 7 | 4C | 18 | NPA | B737-800 |
| | RS | | | 36 | PA1 | |
| | | | | | | |
| WIOO | PONTIANAK/Supadio | 7 | 4C | 15 | PA1 | B737-800 |
| | RS | | | 33 | NPA | |
| | | | | | | |
| WIAB | SABANG/Maimun Saleh | 4 | 4C | 10 | NINST | ATR72 for RC |
| | AS | | | 28 | NINST | ATR42 for RFF |
| | | | | | | |
| WAHS | SEMARANG/Jenderal Ahmad Yani | 7 | 4C | 13 | PA1 | B737-900ER |
| | RS | | | 31 | NPA | |
| | | | | | | |
| WIMN | SIBORONGBORONG/Raja Sisingamangaraja XII | 5 | 4C | 09 | NINST | B737-500 for RC |
| | RS | | | 27 | NINST | ATR 72 for RFF |
| | | | | | | |
| WAHQ | SOLO/Adi Soemarmo | 8 | 4D | 08 | NPA | B767-300 |
| | RS | | | 26 | PA1 | |
| | | | | | | |
| WARR | SURABAYA/Juanda | 8 | 4E | 10 | PA1 | B777-300ER for RC |
| | RS | | | 28 | NPA | A330-200 for RFF |
| | | | | | | |
| WIKT | TANJUNG PANDAN/H. AS. Hanandjoeddin | 6 | 4C | 18 | NPA | A320-200 |
| | RS | | | 36 | PA1 | |
| | | | | | | |
| WIDN | TANJUNG PINANG/Raja Haji Fisabilillah | 6 | 4C | 04 | NPA | A320-200 |
| | AS | | | 22 | NINST | |
| | | | | | | |
| WAQQ | TARAKAN/Juwata | 7 | 4D | 06 | PA1 | A300 for RC |
| | RS | | | 24 | NINST | B737-900ER for RFF |
| | | | | | | |
| WAHI | YOGYAKARTA / Yogyakarta | 8 | 4E | 11 | NPA | B777-300ER for RC |
| | RS | | | 29 | NPA | A330-200 for RFF |
| | | | | | | |
| **JAPAN** | | | | | | |
| RJSK | AKITA/Akita | 9 | 4E | 10 | NPA | B747 |
| | RS | | | 28 | PA1 | |
| | | | | | | |
| RJSA | AOMORI/Aomori | 9 | 4E | 06 | NPA | B747-400 |
| | RS | | | 24 | PA3 | |
| | | | | | | |
| RJEC | ASAHIKAWA/Asahikawa | 9 | 4E | 16 | NPA | B747-400 |
| | RS | | | 34 | PA1 | |
| | | | | | | |
| RJFF | FUKUOKA/Fukuoka | 9 | 4E | 16 | PA1 | B747-200 |
| | RS | | | 34 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| RJSF | FUKUSHIMA/Fukushima | 9 | 4E | 01 | PA1 | B747 |
| | RS | | | 19 | NPA | |
| | | | | | | |
| RJCH | HAKODATE/Hakodate | 9 | 4E | 12 | PA1 | B747-400 |
| | RS | | | 30 | NPA | |
| | | | | | | |
| RJSI | HANAMAKI/Hanamaki | 8 | 4E | 02 | NPA | B747 |
| | RS | | | 20 | PA1 | |
| | | | | | | |
| RJOA | HIROSHIMA/Hiroshima | 9 | 4E | 10 | PA3 | B747-400 |
| | RS | | | 28 | NPA | |
| | | | | | | |
| ROIG | ISHIGAKI/New Ishigaki | 9 | 4D | 04 | PA1 | A300-B4 |
| | RS | | | 22 | NPA | |
| | | | | | | |
| RJFK | KAGOSHIMA/Kagoshima | 9 | 4E | 16 | NPA | B747-400 |
| | RS | | | 34 | PA1 | |
| | | | | | | |
| RJBB | KANSAI/Kansai Intl | 10 | 4E | 06R | PA2 | B747-400 |
| | RS | | | 24L | PA2 | |
| | | | 4F | 06L | PA2 | A380 |
| | | | | 24R | PA2 | |
| | | | | | | |
| RJFR | KITAKYUSHU/Kitakyushu | 9 | 4E | 18 | PA1 | B747 |
| | RS | | | 36 | NPA | |
| | | | | | | |
| RJBE | KOBE/Kobe | 9 | 4E | 09 | PA1 | B747 |
| | RNS | | | 27 | NPA | |
| | | | | | | |
| RJFT | KUMAMOTO/Kumamoto | 9 | 4E | 07 | PA3 | B747-200 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| RJCK | KUSHIRO/Kushiro | 8 | 4E | 17 | PA3 | B747-400 |
| | RS | | | 35 | NPA | |
| | | | | | | |
| RJOM | MATSUYAMA/Matsuyama | 9 | 4E | 14 | PA1 | B747 |
| | RS | | | 32 | NPA | |
| | | | | | | |
| RJFM | MIYAZAKI/Miyazaki | 9 | 4D | 09 | NPA | B747-400 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| RJFU | NAGASAKI/Nagasaki | 9 | 4E | 14 | NPA | B747-400 |
| | RS | | | 32 | PA1 | |
| | | | | | | |
| RJGG | NAGOYA/Chubu Centrair Intl | 9 | 4F | 18 | PA2 | A380 |
| | RS | | | 36 | PA2 | |
| | | | | | | |
| ROAH | NAHA/Naha | 9 | 4E | 18 | NPA | B747-400 |
| | RS | | | 36 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| RJSN | NIIGATA/Niigata | 9 | 4E | 10 | NPA | B747-200 |
| | RS | | | 28 | PA1 | |
| | | | | | | |
| RJCB | OBIHIRO/Obihiro | 8 | 4E | 17 | NPA | B747-400 |
| | RS | | | 35 | PA1 | |
| | | | | | | |
| RJFO | OITA/Oita | 8 | 4E | 01 | PA1 | B747-400 |
| | RS | | | 19 | NPA | |
| | | | | | | |
| RJOB | OKAYAMA/Okayama | 9 | 4E | 07 | PA1 | B747-400 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| RJFS | SAGA/Saga | 8 | 4D | 11 | NPA | B767 |
| | RS | | | 29 | PA1 | |
| | | | | | | |
| RJCC | SAPPORO/New Chitose | 9 | 4E | 01L | PA1 | B747-400 |
| | RS | | | 19R | PA3 | |
| | | | | 01R | PA1 | B747-400 |
| | | | | 19L | NPA | |
| | | | | | | |
| RJSS | SENDAI/Sendai | 9 | 4E | 09 | NPA | B747-400 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| RORS | SHIMOJISHIMA/Shimojishima | 9 | 4E | 17 | PA1 | B747-200B |
| | RS | | | 35 | NPA | |
| | | | | | | |
| RJNS | SHIZUOKA/Shizuoka | 9 | 4E | 12 | NPA | B747-400 |
| | RS | | | 30 | PA1 | |
| | | | | | | |
| RJOT | TAKAMATSU/Takamatsu | 9 | 4E | 08 | NPA | B747-400 |
| | RS | | | 26 | PA1 | |
| | | | | | | |
| RJAA | TOKYO/Narita Intl | 10 | 4E | 16R | PA3 | A380 |
| | RS | | 4F | 34L | PA1 | |
| | | | 4E | 16L | PA1 | B777-300 |
| | | | | 34R | PA1 | |
| | | | | | | |
| RJTT | TOKYO/Tokyo Intl | 10 | 4E | 16L | NPA | B747-400 |
| | RS | | | 34R | PA2 | |
| | | | 4E | 04 | NPA | B747-400 |
| | | | | 22 | PA1 | |
| | | | 4E | 16R | NPA | B747-400 |
| | | | | 34L | PA1 | |
| | | | 4E | 05 | NPA | B777-300 |
| | | | | 23 | PA1 | |
| | | | | | | |
| RJNT | TOYAMA/Toyama | 9 | 4D | 02 | NPA | B777-200 |
| | RS | | | 20 | NPA | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| RJDC | YAMAGUCHI/Yamaguchi-Ube | 9 | 4D | 07 | PA1 | B777-200 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| **JOHNSTON I. (United States)** | | | | | | |
| PJON | JOHNSTON ATOLL/Johnston I | 7 | 4C | 05 | NPA | B727 |
| | RS | | | 23 | NPA | |
| | | | | | | |
| **KIRIBATI** | | | | | | |
| PLCH | KIRITIMATI I./Christmas I. | 6 | 4C | 08 | NPA | B727 |
| | RS | | | 26 | NPA | |
| NGTA | TARAWA/Bonriki Intl | 6 | 4C | 09 | NPA | B727-100 |
| | RS | | | 27 | NPA | |
| **LAO PEOPLE'S DEMOCRATIC REPUBLIC** | | | | | | |
| VLVT | VIENTIANE/Wattay Intl | 9 | 4E | 13 | PA1 | B747-400 (75% Load factor) |
| | RS | | | 31 | NPA | |
| | | | | | | |
| VLLB | LUANGPRABANG/Luangprabang Intl | 7 | 4C | 05 | NPA | A320 |
| | RS | | | 23 | PA1 | |
| | | | | | | |
| VLSK | KAISONPHOMVIHAN/Savannakhet Intl | 5 | 3C | 04 | NINST | ATR72 |
| | RS | | | 22 | NPA | |
| | | | | | | |
| VLPS | PAKSE/Pakse Intl | 7 | 4C | 15 | PA1 | A320 |
| | RS | | | 33 | NINST | |
| | | | | | | |
| **MACAO, CHINA** | | | | | | |
| VMMC | MACAO/Macao Intl | 9 | 4E | 16 | NPA | B747-400 |
| | RS | | | 34 | PA2 | |
| | | | | | | |
| **MALAYSIA** | | | | | | |
| WMKA | ALOR SETAR/Sultan Abdul Halim | 7 | 4E | 04 | PA1 | A333 (RC); A21N (RFF) CAT 7 based on current scheduled operations; CAT 8 available for A333 operations with prior arrangement (<700 movements in busiest consecutive 3 months) |
| | RNS | | | 22 | Take-Off RWY | |
| | | | | | | |
| WBGB | BINTULU/Bintulu | 7 | 4C | 17 | PA1 | B38M |
| | RNS | | | 35 | NPA | |
| | | | | | | |
| WMKI | IPOH/Sultan Azlan Shah | 7 | 4C | 04 | PA1 | A320 |
| | RS | | | 22 | Take-Off RWY | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| WMKJ | JOHOR BAHRU/Senai Intl | 8 | 4E | 16 | PA1 | B744 |
| | RS | | | 34 | NPA | |
| WMKC | KOTA BHARU/Sultan Ismail Petra | 7 | 4C | 10 | PA1 | A321N |
| | RS | | | 28 | NPA | |
| WBKK | KOTA KINABALU/Kota Kinabalu Intl | 9 | 4E | 02 | PA1 | B744 |
| | RS | | | 20 | PA1 | |
| WMKN | KUALA TERENGGANU/Sultan Mahmud | 7 | 4C | 04 | PA1 | B38M |
| | RNS | | | 22 | NPA | |
| WMKD | KUANTAN/Sultan Ahmad Shah | 8 | 4C | 18 | NPA | B38M |
| | RS | | | 36 | PA1 | |
| WBGG | KUCHING/Kuching Intl | 9 | 4E | 07 | NPA | B744 |
| | RS | | | 25 | PA1 | |
| WBKL | LABUAN/Labuan | 8 | 4E | 14 | PA1 | A333 |
| | RNS | | | 32 | NPA | |
| WMKM | MALACCA/Malacca | 7 | 4C | 03 | PA1 | A320 |
| | RS | | | 21 | NPA | |
| WBGR | MIRI/Miri | 7 | 4E | 02 | PA1 | B772 (RC); B38M (RFF) CAT 7 based on current scheduled operations; CAT 8 available for B772 operations with prior arrangement (<700 movements in busiest consecutive 3 months). |
| | RS | | | 20 | NPA | |
| WMKP | PENANG/Penang Intl | 9 | 4E | 04 | PA1 | B748F |
| | RS | | | 22 | NPA | |
| WMKL | PULAU LANGKAWI/Pulau Langkawi | 9 | 4E | 03 | PA1 | B744 |
| | RS | | | 21 | Take-Off RWY | |
| WBKS | SANDAKAN/Sandakan | 7 | 4C | 08 | PA1 | A321N |
| | RNS | | | 26 | NPA | |
| WMKK | SEPANG/KL Intl | 10 | 4F | 14L | PA1 | A388 |
| | RS | | | 32R | PA1 | |
| | | | | 14R | PA1 | |
| | | | | 32L | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | 15 | PA1 | |
| | | | | 33 | PA1 | |
| | | | | | | |
| WBGS | SIBU/Sibu | 7 | 4C | 13 | PA1 | A321N |
| | RNS | | | 31 | NPA | |
| | | | | | | |
| WMSA | SUBANG/Sultan Abdul Aziz Shah | 7 | 4E | 15 | PA1 | A359 (RC); B38M (RFF) CAT 7 based on current scheduled operations; CAT 8 available for A359 operations with prior arrangement (<700 movements in busiest consecutive 3 months). |
| | RS | | | 33 | NPA | |
| | | | | | | |
| WBKW | TAWAU/Tawau | 7 | 4D | 06 | NPA | B762 |
| | RS | | | 24 | PA1 | |
| | | | | | | |
| **MALDIVES** | | | | | | |
| VRMG | GAN/Gan Intl Airport | 8 | 4E | 10 | NPA | B777 |
| | RS | | | 28 | NPA | |
| | | | | | | |
| VRMH | HANIMAADHOO/Hanimaadhoo Intl Airport | 5 | 2C | 03 | NPA | DHC-8 (Dash8) |
| | RS | | | 21 | NPA | |
| | | | | | | |
| VRDA | MAAFARU/Maafaru Intl Airport | 7 | 4D | 06 | NPA | A320-200 |
| | RS | | | 24 | NPA | |
| | | | | | | |
| VRMV | MAAMIGILI/Villa Intl Airport Maamigili | 6 | 3C | 09 | NPA | ATR72-600 |
| | RS | | | 27 | NPA | |
| | | | | | | |
| VRMM | MALE/Velana Intl Airport | 9 | 4E | 18 | PA1 | B777 |
| | RS | | | 36 | PA1 | |
| | | | | | | |
| **MARSHALL IS.** | | | | | | |
| PKMJ | MAJURO ATOLL/Marshall I. Intl | 6 | 4C | 07 | NPA | B727-100 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| **MICRONESIA (FEDERATED STATES OF)** | | | | | | |
| PTPN | POHNPEI I./Pohnpei Intl | 6 | 4C | 09 | NPA | B727-100 |
| | RS | | | 27 | NPA | |
| | | | | | | |
| PTKK | WENO I./FM Chuuk Intl | 6 | 4C | 04 | NINST | B727-100 |
| | RS | | | 22 | NINST | |
| | | | | | | |
| PTYA | YAP I./Yap Intl | 6 | 4C | 07 | NPA | B727-100 |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | RS | | | 25 | NPA | |
| | | | | | | |
| **MONGOLIA** | | | | | | |
| ZMUB | ULAANBAATAR/Buyant-Ukhaa Intl | 7 | 4D | 14 | PA1 | B767-300 |
| | RS | | | 32 | NINST | |
| | | | | | | |
| ZMCK | ULAANBAATAR/Chinggis Khaan Intl (to be commissioned) | 9 | 4E | 11 | NPA | B747-400 |
| | RS | | | 29 | PA1 | |
| | | | | | | |
| **MYANMAR** | | | | | | |
| VYMD | Mandalay/Mandalay Intl | 9 | 4E | 17 | PA1 | B747-400 |
| | RS | | | 35 | NPA | |
| | | | | | | |
| VYNT | Naypyitaw/Naypyitaw Intl | 7 | 4E | 16 | PA1 | B747-400 for RC and Pavement Strength, B737-800 / A320 for RFF |
| | RS | | | 34 | NPA | |
| | | | | | | |
| VYYY | YANGON/Yangon Intl | 9 | 4E | 03 | NPA | B 747-200 |
| | RS | | | 21 | PA1 | |
| | | | | | | |
| **NAURU** | | | | | | |
| AUUU | NAURU I./Nauru I. | 6 | 4C | 12 | NPA | B727-100 |
| | RS | | | 30 | NPA | |
| | | | | | | |
| **NEPAL** | | | | | | |
| VNBW | BHAIRAHAWA/Gautam Buddha Intl | 9 | 4E | 10 | NPA | B777 |
| | RS | | | 28 | PA1 | |
| | | | | | | |
| VNKT | KATHMANDU/Tribhuvan Intl | 9 | 4E | 02 | NPA | B777 |
| | RS | | | 20 | NINST | |
| | | | | | | |
| VNPR | POKHARA/Pokhara Intl (Under Construction) | 8 | 4D | 12 | NPA | B737 |
| | RS | | | 30 | PA1 | |
| | | | | | | |
| **NEW CALEDONIA (France)** | | | | | | |
| NWWW | NOUMEA/La Tontouta | 8 | 4E | 11 | PA1 | A330-200 |
| | RS | | | 29 | NPA | |
| | | | | | | |
| **NEW ZEALAND** | | | | | | |
| NZAA | AUCKLAND/Auckland Intl | 10 | 4E | 05R | PA1 | A380 |
| | RS | | | 23L | PA1 | |
| | | | | | | |
| | | | | | | |
| NZCH | CHRISTCHURCH/Christchurch Intl | 9 | 4E | 02 | PA1 | A380 |
| | RS | | | 20 | PA1 | |
| | | | 3D | 11 | NPA | A320 |
| | | | | 29 | NPA | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| NZDN | DUNEDIN/Dunedin | 6 | 4D | 03 | NPA | A320 |
| | RS | | | 21 | NPA | |
| | | | | | | |
| NZHN | HAMILTON/Hamilton | 5 | 4D | 18L | NPA | A320 for RFF |
| | RS | | | 36R | NPA | R B767 for RC and pavement strength |
| | | | | | | |
| NZOH | OHAKEA/Ohakea | 7 | 4E | 09 | PA1 | B747 |
| | AS | | | 27 | PA1 | RFF Category as per NZ CAR 139.59(b)(2) |
| | | | | | | |
| NZQN | QUEENSTOWN/Queenstown | 7 | 4D | 05 | NPA | A320 |
| | RS | | | 23 | NPA | |
| | | | | | | |
| NZWN | WELLINGTON/Wellington Intl | 9 | 4E | 16 | NPA | B777 |
| | RS | | | 34 | NPA | |
| | | | | | | |
| **NIUE (New Zealand)** | | | | | | |
| NIUE | NIUE/ Hanan Intl | 6 | 4C | 10 | NPA | B737-200 |
| | RS | | | 28 | NINST | |
| | | | | | | |
| **NORTHERN MARIANA IS. (United States)** | | | | | | |
| PGSN | OBYAN/Saipan Intl | 8 | 4E | 07 | PA1 | B747 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| PGRO | ROTA I/Rota Intl | 5 | 4C | 09 | NPA | B737 |
| | RS | | | 27 | NPA | |
| | | | | | | |
| **PAKISTAN** | | | | | | |
| OPFA | FAISALABAD/Faisalabad Intl | 8 | 4D | 03 | PAI | A310 |
| | RS | | | 21 | NPA | |
| | | | | | | |
| OPGD | GWADAR/Gwadar Intl | 4 | 3C | 06 | NPA | ATR72 |
| | RS | | | 24 | NPA | |
| | | | | | | |
| OPIS | ISLAMABAD/Islamabad Intl | 10 | 4E | 10L | NPA | B747 |
| | RS | | | 28R | PA1 | |
| | | | 4F | 10R | PA1 | A380 |
| | | | | 28L | PA2 | |
| | | | | | | |
| OPKC | KARACHI/Jinnah Intl | 9 | 4E | 07L | NPA | A310 |
| | RS | | | 25R | PA1 | |
| | | | 4E | 07R | NPA | B747 |
| | | | | 25L | PA1 | |
| | | | | | | |
| OPLA | LAHORE/Allama Iqbal Intl | 9 | 4E | 18L | NPA | B747 |
| | RS | | | 36R | PA3B | |
| | | | 4E | 18R | NPA | EA 30 |
| | | | | 36L | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| OPMT | MULTAN/Multan Intl | 9 | 4E | 36 | PAI | B747 |
| | RS | | | 18 | NPA | |
| | | | | | | |
| OPNH | NAWABSHAH/Nawabshah | 9 | 4E | 02 | NPA | B747 |
| | AS | | | 20 | NPA | |
| | | | | | | |
| OPPS | PESHAWAR/Bacha Khan Intl | 9 | 4D | 17 | NPA | B777 |
| | RS | | | 35 | PA1 | |
| | | | | | | |
| OPQT | QUETTA/Quetta Intl | 9 | 4D | 13L | PAI | A310 |
| | RS | | | 31R | NINST | |
| | | | | | | |
| OPSD | SKARDU/Skardu Intl | 6 | 3C | 14 | NINST | ATR72 |
| | RS | | | 32 | NINST | |
| | | | | | | |
| **PALAU** | | | | | | |
| PTRO | BABELTHAUP I./Koror | 6 | 4C | | NPA | B727 |
| | RS | | | | NINST | |
| | | | | | | |
| **PAPUA NEW GUINEA** | | | | | | |
| AYPY | PORT MORESBY/Port Moresby | 7 | 4E | 14L | PA1 | B747 |
| | RS | | | 32R | PA1 | |
| | | | | | | |
| AYVN | VANIMO/Vanimo | 5 | 3C | 13 | NINST | FK27 |
| | RS | | | 31 | NINST | |
| | | | | | | |
| **PHILIPPINES** | | | | | | |
| RPMD | DAVAO/Francisco Bangoy Intl | 9 | 4E | 05 | NPA | B747-400 |
| | RNS | | | 23 | NPA | |
| | | | | | | |
| RPVI | ILOILO/Iloilo Intl | 7 | 4C | 02 | NPA | A321 |
| | RS | | | 20 | NPA | |
| | | | | | | |
| RPVK | KALIBO, AKLAN/Kalibo Intl | 7 | 4C | 05 | NPA | A321 |
| | RS | | | 23 | NPA | |
| | | | | | | |
| RPLI | LAOAG/Laoag Intl | 7 | 4C | 01 | NPA | A321 |
| | AS | | | 19 | NPA | |
| | | | | | | |
| RPVM | LAPU-LAPU/Mactan Cebu | 9 | 4E | 04 | NPA | B747-400 |
| | RS | | | 22 | NPA | |
| | | | | | | |
| RPLL | MANILA/Ninoy Aquino Intl | 9 | 4E | 06 | NPA | B747-400 |
| | RS | | | 24 | NPA | |
| | | | 4C | 13 | NINST | A321 |
| | | | | 31 | Take-off RWY | |
| | | | | | | |
| RPLC | PAMPANGA/Diosdado Macapagal Intl | 9 | 4E | 02 | NPA | B747-400 |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | RS | | | 20 | NPA | |
| | | | | | | |
| RPSP | PANGLAO /Bohol-Panglao Intl Airport | 7 | 4C | 03 | NPA | A321 |
| | RS | | | 21 | NPA | |
| | | | | | | |
| RPVP | PUERTO PRINCESA CITY/Puerto Princesa Intl | 9 | 4E | 09 | NINST | A330 |
| | RS | | | 27 | NPA | |
| | | | | | | |
| **REPUBLIC OF KOREA** | | | | | | |
| RKTU | CHEONGJU/Cheongju intl | 8 | 4E | 06L | PA1 | B747-400F (RFF) B747-400(RC) B747-300ER (pavement strength) |
| | RS | | | 24R | PA1 | |
| | | | | | | |
| RKTN | DAEGU/Daegu Intl | 7 | 4D | 31L | PA1 | A300-600 (RFF, RC) B747-400ER (pavement strength) |
| | RS | | | 13R | PA1 | |
| | | | | | | |
| RKPK | GIMHAE/Gimhae Intl | 9 | 4E | 18L | NPA | B747-400 (RFF, RC) B777-300ER (pavement strength) |
| | RS | | | 36R | PA1 | |
| | | | 4E | 18R | NPA | |
| | | | | 36L | PA2 | |
| | | | | | | |
| RKSS | GIMPO/Gimpo Intl | 10 | 4E | 14L | PA1 | B747-8(RFF) B747-400(RC) B787-10 (pavement strength) |
| | RNS | | | 32R | PA1 | |
| | | | 4E | 14R | PA3 | |
| | | | | 32L | PA1 | |
| | | | | | | |
| RKSI | INCHEON/Incheon Intl | 10 | 4F | 15R | PA3 | A380-800 |
| | RS | | | 33L | PA3 | |
| | | | 4F | 15L | PA3 | A380-800 |
| | | | | 33R | PA3 | |
| | | | 4F | 16L | PA3 | A380-800 |
| | | | | 34R | PA3 | |
| | | | 4F | 16R | PA3 | A380-800 |
| | | | | 34L | PA3 | |
| | | | | | | |
| RKPC | JEJU/Jeju Intl | 9 | 4E | 07 | PA2 | B777-300(RFF) B747-400(RC) B787-10 (pavement strength) |
| | RS | | | 25 | PA1 | |
| | | | 4C | 13 | NINST | B777-300(RFF) B737-900(RC) B787-10 (pavement strength) |
| | | | | 31 | NINST | |
| RKJB | MUAN/Muan Intl | 9 | 4E | 01 | PA1 | B747-400 (RFF, RC) B747-400ER (pavement strength) |
| | RS | | | 19 | PA1 | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| RKNY | YANGYANG/Yangyang Intl | 7 | 4E | 33 | PA1 | A330-200(RFF) B747-400 (RC, pavement strength) |
| | RS | | | 15 | NPA | |
| | | | | | | |
| **SAMOA** | | | | | | |
| NSFI | FAGALI'I/Fagali'i Intl | 3 | 1B | 10/28 | NINST | DHC6-300 |
| | RS | | | | | |
| | | | | | | |
| NSFA | FALEOLO/Faleolo Intl | 8 | 4D | 08 | NPA | B767 |
| | RS | | | 26 | NINST | |
| | | | | | | |
| **SINGAPORE** | | | | | | |
| WSAP | PAYA LEBAR/Paya Lebar (RSAF) | 9 | 4E | 02 | PA1 | B747 |
| | AS | | | 20 | PA1 | |
| | | | | | | |
| WSSL | SELETAR/Seletar | 7 | 3C | 03 | NINST | B737 |
| | RS | | | 21 | NINST | |
| | | | | | | |
| WSSS | SINGAPORE/Changi | 10 | 4F | 02L | PA2 | A380 |
| | RS | | | 20R | PA1 | B777-300ER |
| | | | 4F | 02C | PA1 | A380 |
| | | | | 20C | PA2 | B777-300ER |
| | | | | | | |
| **SOLOMON IS.** | | | | | | |
| AGGH | HONIARA/Henderson | 6 | 4C | 06 | NINST | B737-200 |
| | RS | | | 24 | NPA | |
| | | | | | | |
| **SRI LANKA** | | | | | | |
| VCBI | COLOMBO/Bandaranaike Intl | 9 | 4E | 04 | PA1 | B747 |
| | RS | | | 22 | PA1 | |
| | | | | | | |
| VCCJ | JAFFNA / Jaffna intl | 5 | 3C | 05 | NINST | ATR72 |
| | RS | | | 23 | NINST | |
| | | | | | | |
| VCRI | MATTALA/ Mattala Rajapaksa Intl | 10 | 4F | 05 | NPA | A380 |
| | RS | | | 23 | PAI | |
| | | | | | | |
| VCCC | RATMALANA / Colombo Intl | 6 | 3C | 04 | NINST | ATR 72 |
| | RNS | | | 22 | NINST | |
| | | | | | | |
| **THAILAND** | | | | | | |
| VTBD | BANGKOK/Don Mueang Intl | 9 | 4E | 03L | PA1 | B747-400 |
| | RS | | | 21R | PA2 | |
| | | | 4E | 03R | NPA | B747-400 |
| | | | | 21L | PA1 | |
| | | | | | | |
| VTBS | BANGKOK/Suvarnabhumi Intl | 10 | 4F | 01L | PA2 | A380 |
| | RS | | | 19R | PA2 | |
| | | | 4F | 01R | PA2 | A380 |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | 19L | PA2 | |
| | | | | | | |
| VTCC | CHIANG MAI/Chiang Mai Intl | 9 | 4E | 18 | NPA | B747 |
| | RS | | | 36 | PA1 | |
| | | | | | | |
| VTCT | CHIANG RAI/Mae Fah Luang-Chiang Rai Intl | 9 | 4E | 03 | PA1 | B747 |
| | RS | | | 21 | NPA | |
| | | | | | | |
| VTSG | KRABI/Krabi | 9 | 4E | 32 | NPA | B747-400 |
| | RS | | | 14 | NPA | |
| | | | | | | |
| VTSP | PHUKET/Phuket Intl | 9 | 4E | 09 | NPA | B747 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| VTBU | RAYONG/U-Tapao Rayong Pattaya Intl | 10 | 4E | 18 | PA1 | B747-400 (RC) |
| | RS | | | 36 | NPA | A380 (RFF category) |
| | | | | | | |
| VTSS | SONGKHLA/Hat Yai Intl | 9 | 4E | 08 | NPA | B747-400 |
| | RS | | | 26 | PA1 | |
| | | | | | | |
| VTSM | SURAT THANI/Samui | 6 | 4C | 17 | NPA | A319 |
| | RS | | | 35 | NPA | |
| | | | | | | |
| VTSB | SURAT THANI/Surat Thani | 8 | 4E | 04 | NPA | A300-600 |
| | RS | | | 22 | PA1 | |
| | | | | | | |
| **TIMOR-LESTE** | | | | | | |
| WPDL | DILI/Presidente Nicolau Lobato Intl | 6 | 3C | 08 | NPA | A320-200 |
| | RS | | | 26 | NPA | |
| | | | | | | |
| WPDB | SUAI/Commander-in-Chief of the FALINTIL – Kay Rala Xanana Gusmão Intl | 5 | 3C | 17 | NPA | ATR 72 |
| | RNS | | | 35 | NPA | |
| | | | | | | |
| **TONGA** | | | | | | |
| NFTF | FUA'AMOTU/Fua'amotu Intl | 6 | 4C | 11 | NPA | B737-200 |
| | RS | | | 29 | NPA | |
| | | | | | | |
| NFTV | VAVA'U/Vava'u | 4 | 2B | 08 | NINST | CS12 |
| | RS | | | 26 | NINST | |
| | | | | | | |
| **TUVALU** | | | | | | |
| NGFU | FUNAFUTI/Funafuti Intl | 4 | 3C | 03 | NINST | HS74 |
| | RS | | | 21 | NINST | |
| | | | | | | |
| **UNITED STATES[1]** | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| PANC | ANCHORAGE/Anchorage Intl | 9 | 4E | 06R | PA3 | B747 |
| | RS | | | 24L | NPA | |
| | | | 4E | 14 | NINST | B747 |
| | | | | 32 | NINST | |
| | | | | | | |
| PAED | ANCHORAGE/Elemendorf AFB | 9 | 4E | 05 | PA1 | B747 |
| | AS | | | 23 | NINST | |
| | | | | | | |
| PACD | COLD BAY/Cold Bay | 7 | 4D | 14 | PA1 | B757 |
| | AS | | | 32 | NPA | |
| | | | | | | |
| KPAE | EVERETT/Snohomish County-Paine Field | 8 | 4E | 16R | PA1 | B747 |
| | AS | | | 34L | NINST | |
| | | | | | | |
| PAEI | FAIRBANKS/Eielson AFB | 9 | 4E | 13 | PA1 | B747 |
| | AS | | | 31 | PA1 | |
| | | | | | | |
| PAFA | FAIRBANKS/Fairbanks Intl | 8 | 4E | 01L | PA3 | B747 |
| | RS | | | 19R | PA1 | |
| | | | | | | |
| KFAT | FRESNO/Fresno Air Terminal | 7 | 4D | 11L | NPA | B757 |
| | AS | | | 29R | PA1 | |
| | | | | | | |
| PHTO | HILO/Hilo Intl | 8 | 4E | 08 | NPA | B747 |
| | AS | | | 26 | PA1 | |
| | | | | | | |
| PHNL | HONOLULU/Oahu Intl | 9 | 4E | 08L | PA1 | B747 |
| | RS | | | 26R | NINST | |
| | | | 4E | 04R | PA1 | B747 |
| | | | | 22L | NINST | |
| | | | 4E | 08R | NINST | B747 |
| | | | | 26L | NPA | |
| | | | | | | |
| PHOG | KAHULUI/Kahului | 8 | 4D | 02 | PA1 | DC10 |
| | AS | | | 20 | NPA | |
| | | | | | | |
| PAKN | KING SALMON/King Salmon | 8 | 4E | 11 | PA1 | B747 |
| | AS | | | 29 | NPA | |
| | | | | | | |
| KLAX | LOS ANGELES/Los Angeles Intl | 9 | 4E | 07R | PA1 | B747 |
| | RS | | | 25L | PA2 | |
| | | | 4E | 07L | PA1 | B747 |
| | | | | 25R | PA2 | |
| | | | 4E | 06L | PA1 | B747 |
| | | | | 24R | PA3 | |
| | | | | 06R | PA1 | B747 |
| | | | | 24L | PA1 | |
| | | | | | | |
| KOAK | OAKLAND/Metropolitan Oakland | 9 | 4E | 11 | PA1 | B747 |
| | AS | | | 29 | PA2 | |
| | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| KONT | ONTARIO/Ontario Intl | 8 | 4E | 08L | PA1 | B747 |
| | AS | | | 26R | PA1 | |
| | | | | | | |
| KPMD | PALMDALE/Palmdale P.F.T.I. | 8 | 4E | 07 | NINST | B747 |
| | AS | | | 25 | PA1 | |
| | | | | | | |
| KPDX | PORTLAND/Portland Intl | 9 | 4E | 10R | PA3 | B747 |
| | AS | | | 28L | NPA | |
| | | | 4E | 10L | NPA | B747 |
| | | | | 28R | PA1 | |
| | | | | | | |
| KSMF | SACRAMENTO/Metropolitan | 7 | 4D | 16R | PA2 | DC10 |
| | AS | | | 34L | NPA | |
| | | | | | | |
| KSAN | SAN DIEGO/San Diego (AFSS) | 8 | 4E | 09 | PA1 | B747 |
| | AS | | | 27 | NPA | |
| | | | | | | |
| KSFO | SAN FRANCISCO/San Francisco Intl | 9 | 4E | 10R | NINST | B747 |
| | RS | | | 28L | PA1 | |
| | | | 4D | 01R | NINST | B747 |
| | | | | 19L | PA1 | |
| | | | 4E | 10L | NINST | B747 |
| | | | | 28R | PA3 | |
| | | | 4E | 01L | NINST | B747 |
| | | | | 19R | NINST | |
| | | | | | | |
| KSJC | SAN JOSE/San Jose Intl | 7 | 4D | 12R | PA1 | DC10 |
| | RS | | | 30L | PA1 | |
| | | | | | | |
| KBFI | SEATTLE BOEING FIELD/King County Intl | 8 | 4E | 13R | PA1 | B747 |
| | AS | | | 31L | NPA | |
| | | | | | | |
| KSEA | SEATTLE/Seattle-Tacoma Intl | 9 | 4E | 16R | PA3 | B747 |
| | RS | | | 34L | PA1 | |
| | | | 4E | 16L | NPA | B747 |
| | | | | 34R | PA1 | |
| | | | | | | |
| KGEG | SPOKANE/Spokane Intl | 7 | 4E | 03 | PA1 | B747 |
| | AS | | | 21 | PA2 | |
| | | | | | | |
| KSCK | STOCKTON/Metropolitan | 8 | 4E | 11L | NINST | B747 |
| | AS | | | 29R | PA1 | |
| | | | | | | |
| KIAD | WASHINGTON/Dulles Intl | 9 | 4E | 01L | NPA | B747 |
| | RS | | | 19R | PA1 | |
| | | | 4D | 01R | PA2 | B707-300B |
| | | | | 19L | NPA | |
| | | | | | | |
| | | | | | | |
| **VANUATU** | | | | | | |

| City/Aerodrome/Designation | | RFF category | Physical characteristics | | | Remarks |
|---|---|---|---|---|---|---|
| | | | RC | RWY No. | RWY type | |
| 1 | | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| NVVV | PORT-VILA/Bauerfield | 6 | 4C | 11 | NPA | B737-200 |
| | RS | | | 29 | NINST | |
| | | | | | | |
| NVSS | SANTO/Pekoa | 3 | 2B | 12 | NPA | SW4 |
| | RS | | | 30 | NINST | |
| | | | | | | |
| **VIET NAM** | | | | | | |
| VVCT | CAN THO/Can Tho | 8 | 4E | 06 | PA1 | B747-400 |
| | RS | | | 24 | NPA | |
| | | | | | | |
| VVDN | DA NANG/Da Nang | 9 | 4E | 17L | NPA | B747-400B |
| | RS | | | 35R | PA1 | |
| | | | | 17R | NPA | B777-200 |
| | | | | 35L | PA1 | |
| | | | | | | |
| VVNB | HA NOI/Noi Bai | 9 | 4E | 11L | PA1 | B747-400 |
| | RS | | | 29 R | PA1 | |
| | | | 4E | 11R | PA2 | B747-400 |
| | | | | 29L | PA1 | |
| | | | | | | |
| VVCI | HAI PHONG/Cat Bi | 8 | 4E | 07 | PA1 | A350-900 |
| | RS | | | 25 | NPA | |
| | | | | | | |
| VVTS | HO CHI MINH/Tan Son Nhat | 9 | 4E | 07R | PA1 | B777-200ER |
| | RS | | | 25L | PA1 | |
| | | | 4E | 07L | NPA | B747-400 |
| | | | | 25R | PA1 | |
| | | | | | | |
| VVPB | HUE/Phu Bai | 7 | 4C | 09 | NPA | A321 |
| | RS | | | 27 | PA1 | |
| | | | | | | |
| VVCR | KHANH HOA/Cam Ranh | 8 | 4E | 02L | PA1 | A321 |
| | RS | | | 20R | NPA | |
| | | | | 02R | PA1 | B777 |
| | | | | 20L | PA1 | |
| | | | | | | |
| VVPQ | KIEN GIANG/Phu Quoc | 9 | 4E | 10 | PA1 | B747-400 |
| | RS | | | 28 | PA1 | |
| | | | | | | |
| VVVD | QUANG NINH/Van Don | 9 | 4E | 03 | PA1 | A350 |
| | RS | | | 21 | NPA | |
| | | | | | | |
| **WALLIS and FUTUNA IS. (France)** | | | | | | |
| NLWW | WALLIS/Hihifo | 6 | 4C | 08 | NPA | B737 |
| | RS | | | 26 | NPA | |
| | | | | | | |

*Note 1 — Outside ASIA/PAC Indicated for coordination*

# APAC ANP, VOLUME II

# PART III – COMMUNICATIONS, NAVIGATION AND SURVEILLANCE (CNS)

## 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to Communication, Navigation and Surveillance (CNS). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of CNS facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to CNS facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

## 2. GENERAL REGIONAL REQUIREMENTS

### Communications

*Aeronautical Fixed Service (AFS)*

2.1 The aeronautical fixed service should comprise the following systems and applications that are used for ground-ground (i.e. point-to-point and/or point-to-multipoint) communications in the international aeronautical telecommunication service:

a) ATS direct speech circuits and networks;
b) meteorological operational circuits, networks and broadcast systems, including World Area Forecast System – Internet File Service (WIFS) and/or Satellite Distribution System for Information Relating to Air Navigation (SADIS);
c) the Aeronautical Fixed Telecommunications Network (AFTN);
d) the Common ICAO Data Interchange Network (CIDIN);
e) the Air Traffic Services (ATS) Message Handling Services (AMHS); and
f) the Inter-Centre Communications (ICC).

2.2 To meet the data communication requirements, a uniform high-grade aeronautical network should be provided, based on the Aeronautical Telecommunication Network (ATN), taking into account the existence and continuation of current networks.

2.3 Contingency procedures should be in place to ensure that, in case of a communication centre breakdown, all the parties concerned are promptly informed of the prevailing situation. All possible arrangements should be made to ensure that, in case of breakdown of a communications centre or circuit, at least high-priority traffic continues to be handled by appropriate means.

2.4 AFS planning should permit flexibility in detailed development and implementation. The required AFTN Stations and Centres are listed in the AFTN Plan in **Table CNS II-1**.

*The Aeronautical Telecommunication Network (ATN)*

2.5 The ATN should be able to:

a) support applications carried by the existing networks;
b) support gateways enabling inter-operation with existing networks; and
c) support ground-ground communications traffic associated with air-ground data link applications.

2.6 The ATN should make optimum use of dedicated bilateral/multilateral aeronautical links and other communication means commensurate with the operational Quality of Service (QoS) requirements.

2.7 The implementation of the ATN should take into account the need for cost-effective evolution in terms of network capacity, requirements and time-frame and allow for a progressive transition from existing communication networks and services to a uniform, harmonised and integrated communications infrastructure, capable of supporting the implementation of future aeronautical services such as Flight and Flow Information in a Collaborative Environment (F-FICE), System-Wide Information Management (SWIM) applications, etc.

2.8 In case means other than dedicated bilateral links are used by the ATN, States should ensure that Service Level Agreements (SLA) are met in terms of implementation priority, high availability, priority in restoration of service and appropriate levels of security.

2.9 The ATN should provide for interregional connections to support data exchange and mobile routing within the global ATN.

2.10 In planning the ATN, provisions should be made, where required, for interfacing with other international networks. The required ATN Infrastructure Routing Plan is described under **Table CNS II-2**.

*Network services*

2.11 The Internet Society (ISOC) communications standards for the Internet Protocol Suite (IPS) should be used for the implementation of AMHS.

2.12 The migration from legacy bit-oriented protocols such as X.25 Protocol suite to IPS should be planned.

2.13 The migration of international or sub-regional ground networks to the ATN based on Internet Protocol (IP) to support AFS communication requirements, while reducing costs, should be planned.

2.14 States should ensure that the solutions provided for the implementation of the ATN meet the air traffic management and aeronautical fixed service requirements. Such requirements should consist of:

a) Performance requirements: availability, continuity, integrity, monitoring and alerting criteria per data flow. In the case where a Required Communication Performance (RCP) is globally prescribed, requirements derived from RCP should be stated;
b) Interoperability requirements;
c) Safety and security requirements, duly derived after the identification of operational hazards and threats, and allocation of objectives; and
d) Implementation process requirements (creation, test, migration, upgrades, priority in restoration of service, termination).

*Network management*

2.15 An ICAO centralised off-line network management service is provided to participating AFTN/AMHS centres in the Asia and Pacific Regions under the ATS Messaging Centre (AMC).

2.16 In the case of integrated communications services procured and shared by several States, organizational provisions should allow for the planning and performing of the management of technical performance, network configuration, fault, security, cost division/allocation, contract, orders and payment.

*Specific Air Traffic Management (ATM) requirements*

2.17 Where ATS speech and data communication links between any two points are provided, the engineering arrangements should be such as to avoid the simultaneous loss of both circuits. The required ATS direct speech circuits plan is detailed under **Table CNS II-3**.

2.18 Special provisions should be made to ensure a rapid restoration of ATS speech circuits in case of outage, as derived from the performance and safety requirements.

2.19 Data circuits between ATS systems should provide for both high capacity and message integrity.

2.20 The Inter-Centre Communication (ICC), consisting of ATS Inter-facility Data Communication (AIDC) application and the Online Data Interchange (OLDI) application, should be used for automated exchange of flight data between ATS units to enhance the overall safety of the ATM operation and increase airspace capacity.

2.21 Where Voice over IP is planned or implemented between ATS units for voice communications, it should meet the ATS requirements. When data and voice are multiplexed, particular attention should be paid to the achievement of the ATM performance and safety requirements.

*Specific Meteorological (MET) requirements*

2.22 The increasing use of the GRIB (Gridded Binary or General Regularly-distributed Information in Binary form) and BUFR (Binary Universal Form for the Representation of meteorological data) code forms for the dissemination of the upper wind and temperature and significant weather forecasts and the planned transition to digital form using Extensible Mark-Up Language (XML)/Geography Mark-Up Language (GML) for the dissemination of OPMET data should be taken into account in the planning process of the ATN.

2.23 In planning the ATN, account should be taken of changes in the current pattern of distribution of meteorological information resulting from the increasing number of long-range direct flights and the trend towards centralized flight planning.

*Specific Aeronautical Information Management (AIM) requirements*

2.24 The aeronautical fixed service should meet the requirements to support efficient provision of aeronautical information services through appropriate connections to Area Control Centres (ACCs), Flight Information Centres (FICs), aerodromes and heliports at which an information service is established.

*Aeronautical Mobile Service (AMS)*

2.25 To meet the air-ground data communication requirements, a high-grade aeronautical network should be provided based on the ATN, recognising that other technologies may be used as part of the transition. The network needs to integrate the various data links in a seamless fashion and provide for end-to-end communications between airborne and ground-based facilities.

2.26 Whenever required, use of suitable techniques on VHF or higher frequencies should be made. The required HF Network designators applicable for the Asia and Pacific Regions are listed in **Table CNS II-4**.

2.27 Aerodromes having a significant volume of International General Aviation (IGA) traffic should also be provided with appropriate air-ground communication channels.

*Air-Ground Data Link Communications*

2.28 A Strategy for the harmonised implementation of the data link communications in the Asia and Pacific Regions should be developed based on the Global Operational Data Link Document (GOLD) adopted by ICAO Regions and the Aviation System Block Upgrade (ASBU) methodology.

2.29 Where applicable, Controller-Pilot Data Link Communications (CPDLC), based on ATN VDL data link Mode 2 (VDL2) and/or FANS-1/A, should be implemented for air-ground data link communications.

2.30 Partial or divergent aircraft data link evolutions that result in excluding messages from aircraft systems should not be pursued. Interim steps or phases toward full implementation of the common technical

definition in ground systems should only be pursued on a regional basis, after coordination between all States concerned.

2.31 Harmonization of operational procedures for implementation of the above packages is essential. States, Planning and Implementation Regional Groups (PIRGs) and air navigation services providers should adopt common procedures to support seamless ATS provision across FIR boundaries, rather than each State or Region developing and promulgating unique procedures for common functions.

*Required Communication Performance (RCP)*

2.32 The Required Communication Performance (RCP) concept characterizing the performance required for communication capabilities that support ATM functions without reference to any specific technology should be applied wherever possible.

2.33 States should determine, prescribe and monitor the implementation of the RCP in line with the provisions laid down in the *ICAO Manual on Required Communication Performance* (Doc 9869).

**Navigation**

*Navigation Infrastructure*

2.34 The navigation infrastructure should meet the requirements for all phases of flight from take-off to final approach and landing.

*Note: Annex 10 to the Convention on International Civil Aviation—Aeronautical Telecommunications, Volume I— Radio Navigation Aids, Attachment B, provides the strategy for introduction and application of non-visual aids to approach and landing.*

2.35 The ASIA/PAC Regional Performance-Based Navigation (PBN) Implementation Plan provides guidance to air navigation service providers, airspace operators and users, regulators, and international organizations, on the expected evolution of the regional air navigation system in order to allow planning of airspace changes, enabling ATM systems and aircraft equipage. It takes due account of the operational environment of the Asia and Pacific Regions.

*PBN Transition Strategy*

2.36 During transition to performance-based navigation (PBN), sufficient ground infrastructure for conventional navigation systems should remain available. Before existing ground infrastructure is considered for removal, users should be given reasonable transition time to allow them to equip appropriately to attain a performance level equivalent to PBN.. States should approach removal of existing ground infrastructure with caution to ensure that safety is not compromised. This should be guaranteed by conducting safety assessments and consultations with the users.

*Use of specific navigation aids*

2.37 Where, within a given airspace, specific groups of users have been authorized by the competent authorities to use special aids for navigation. The respective ground facilities should be located and aligned so as to provide for full compatibility of navigational guidance with that derived from the SARPs.

2.38 States should ensure and oversee that service providers take appropriate corrective measures promptly whenever required by a significant degradation in the accuracy of navigation aids (either space based or ground based or both) is detected.

**Surveillance**

2.39 An important element of modern air navigation infrastructure required to manage safely increasing levels and complexity of air traffic is aeronautical surveillance systems.

2.40 When operating Mode S radars, States should coordinate with their corresponding ICAO Regional Office the assignment of their corresponding interrogator identifier (II) codes and surveillance identifier (SI) codes, particularly where areas of overlapping coverage will occur.

**Frequency Management**

*Aeronautical Mobile Service (AMS)*

2.41 Frequencies should be assigned to all VHF Aeronautical Mobile Service (AMS) facilities in accordance with the principles laid out in Annex 10, Volume V and *ICAO Handbook on Radio Frequency Spectrum Requirements for Civil Aviation* (Doc 9718) Volumes I and II, and take into account:

a) agreed geographical separation criteria based on 25 kHz or 8.33 kHz interleaving between channels;
b) agreed geographical separation criteria for the implementation of VDL services;
c) the need for maximum economy in frequency demands and in radio spectrum utilization; and
d) a deployment of frequencies which ensures that international services are planned to be free of interference from other services using the same band.

2.42 The priority order to be followed in the assignment of frequencies to service is:

a) ATS channels serving international services (ACC, APP, TWR, FIS);
b) ATS channels serving national purposes;
c) channels serving international VOLMET services;
d) channels serving ATIS and PAR; and
e) channels used for other than ATS purposes.

2.43 The criteria used for frequency assignment planning for VHF AMS facilities serving international requirements should, to the extent practicable, also be used to satisfy the need for national VHF AMS facilities.

2.44 Special provisions should be made, by agreement between the States concerned, for the sharing and the application of reduced protection of non-ATS frequencies in the national sub-bands, so as to obtain a more economical use of the available frequency spectrum consistent with operational requirements.

2.45 States should ensure that no air/ground frequency is utilized outside its designated operational coverage and that the stated operational requirements for coverage of a given frequency can be met for the transmission sites concerned, taking into account terrain configuration.

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

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

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

*Support to ICAO Positions for ITU World Radiocommunication Conferences (WRCs)*

2.48 Considering the importance and continuous demand of the radio frequency spectrum and for the protection of the current aeronautical spectrum and the allocation of new spectrum for the new services and system to be implemented in civil air navigation, States and international organizations are to support ICAO's position at ITU World Radiocommunication Conferences (WRCs) and in regional and other international activities conducted in preparation for ITU WRCs.

*Note: The Handbook on Radio Frequency Spectrum Requirements for Civil Aviation (Doc 9718) Volume I, contains ICAO policy statements relevant to the aviation requirements for radio frequency spectrum. The handbook is intended to assist States and ICAO in preparing for ITU WRCs.*

## 3. SPECIFIC REGIONAL REQUIREMENTS

### Communications

*Aeronautical Fixed Telecommunication Network (AFTN)*

3.1 States operating AFTN circuits which do not function satisfactorily 97 per cent of the time during which the circuit is scheduled to be in operation, should exchange monthly circuit performance data. Where a circuit consistently achieves 97 per cent reliability, the exchange of performance data may cease. The circuit performance data should be exchanged directly between the correspondent stations, with copies to the administrations concerned and to the ICAO APAC Regional Office. States should also identify the causes for inadequate circuit performance and take necessary remedial measures.
[ASIA/PAC/3, Conc. 10/2]

3.2 States responsible for the operation of AFTN circuits, which do not adequately meet transit time requirements should record transit time statistics on the twenty-third day of each third month (January, April, July and October) of each year, in accordance with the existing practices, for the AFTN circuits and terminals under their jurisdiction which do not meet the specified transit time criteria. The data recorded should be exchanged directly between the correspondent stations, with copies to administrations concerned and to the ICAO APAC Regional Office.
[ASIA/PAC/3, Conc. 10/3]

*Specific ATM requirements*

3.3 The AIDC implementation requirements are detailed under **Table CNS II-APAC-1, ATS Inter-facility Data Communication (AIDC) Implementation Plan** Columns 1 to 4.

*Common regional network services*

3.4 States should consider implementing digital communication networks or circuits in a coordinated manner in order to meet current and future AFS communication requirements for data/voice communications and to facilitate the introduction of ATN.
[APANPIRG/11, Conc. 11/14]

### Navigation

3.5 The navigation system to be used in the Asia and Pacific Regions is documented in the Navigation strategy and periodically reviewed by APANPIRG. The latest version of the ASIA/PAC navigation strategy can be found at http://www.icao.int/APAC/Pages/edocs.aspx. The required conventional navigation infrastructure is detailed under **Table CNS II-APAC-2, Radio Navigation Aids**, Columns 3 to 6.

3.6 States should continue to provide ICAO with information on their flight inspection activities for inclusion in the ASIA/PAC Catalogue of Flight Inspection Units and circulation to States in the ASIA/PAC Region and to the ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG).
[ASIA/PAC/3, Conc. 12/8]

3.7 Unless otherwise specified by the APAC navigation strategy, States that have not yet done so, should install VHF omnidirectional radio range (VOR) supplemented by Distance Measuring Equipment (DME) as the primary aid for en-route navigation and, except in specified circumstances, delete any parallel requirement for a Non-Directional Radio Beacon (NDB) from the ANP.
[ASIA/PAC/3, Rec. 5/22]

3.8 GNSS-enabled area navigation systems for all RNP navigation specifications are adopted as minimum requirement in the ASIA/PAC Region.
[APANPIRG/22, Conc. 22/22]

3.9 State aviation authorities, in partnership with other State's agencies are requested to prohibit malicious and unintentional interference to GNSS and regulate legitimate uses of technology to preserve aviation utility of GNSS.
[APANPIRG/22, Conc. 22/28]

3.10 In order to reduce the likelihood of CFIT accidents, States should review non-precision approach procedures with LNAV lines of minima to include CDFA profile. States should also include Baro-VNAV in the current and new RNP APCH approach procedures and consequent LNAV/VNAV approach minima.
[APANPIRG/19, Conc. 19/28]

**Surveillance**

3.11 The surveillance system to be used in the Asia and Pacific Regions is documented in the Surveillance strategy and periodically reviewed by APANPIRG. The latest version of the ASIA/PAC surveillance strategy can be found at http://www.icao.int/APAC/Pages/edocs.aspx. The required surveillance infrastructure is detailed under **Table CNS II-APAC-3, Surveillance**.

*ADS-C*

3.12 The 2nd edition of the Global Operational Data Link Document (GOLD) was adopted as ASIA/PAC regional guidance material for use by States and airspace users as the basis for operating Automatic Dependent Surveillance- Contract (ADS-C) and Controller Pilot Data Link Communications (CPDLC), in conjunction with Annex 10 - Aeronautical Telecommunications Volume II- Communications Procedures including those with PANS status and the Procedures for Air Navigation Services- Air Traffic Management (PANS ATM Doc 4444).
[APANPIRG/20, Conc.20/73 and APANPIRG/24, Conc.24/34]

*ADS-B*

3.13 Mode S Extended Squitter (1090 ES) is to be used as the data link for ADS-B radar like services in the Asia and Pacific Regions in the near term.
[APANPIRG/14, Conc.14/20]

3.14 States are urged to consider following regional policy on supporting the provision of direct controller pilot communication capability associated with ADS-B data sharing between adjacent FIRs of States. In order to provide radar like separation services using ADS-B, it is necessary for the controllers to have Direct Controller Pilot Communication (DCPC). In some cases, to achieve radar like separation services it may be necessary for States to provide VHF radio voice communication services for use by adjacent States. It is therefore recommended that States capable to do so, support the provision of VHF radio voice communication services to adjacent States when this is required to support the delivery of ADS-B based separation. The cost allocated to such service provision shall be agreed between the States concerned.
[APANPIRG/19, Conc.19/38]

3.15 States are urged to support the provision of VHF radio voice air/ground communication infrastructure for use by adjacent States and States sharing ADS-B data and providing VHF voice air-ground communication infrastructure to adjacent States. States should co-ordinate with ICAO APAC

Regional Office and their national Telecommunication Regulatory Authority for assignment of specific VHF radio frequencies to be used by the adjacent States.
[APANPIRG/22, Conc.22/32]

*SSR*

3.16 Due to the low density of SSR interrogator installations in the Asia and Pacific Regions, only Interrogator Identifier (not Surveillance Identifier) codes are used for SSRs Mode S in the areas of overlapping coverage.
[APANPIRG/19, Conc.19/40]

3.17 While implementing SSR Mode S, States should take into account following issues while assigning Interrogator Identifier codes for these installations:

- for planning the implementation of SSR Mode S administrations, States should ensure that the interrogators with overlapping coverage are not operating with the same Interrogator Identifier (II) codes; and

- where, the coverage of the interrogator extends beyond the boundaries of the State, the II code and PRF should be coordinated with the ICAO APAC Regional Office and the neighboring States.

3.18 Administrations should inform the ICAO APAC Regional Office about the assigned II codes and PRFs for these installations.
[APANPIRG/19, Conc.19/40]

3.19 The implementation of Mode S Radar ground stations has increased in the Asia and Pacific Regions, therefore States in these Regions are urged to have aircraft registered, which are equipped with Mode S transponder, regularly inspected to ensure correct operation of these transponders.
[APANPIRG17, Conc.17/29]

**Frequency Management**

3.20 The ICAO APAC Regional Office, based on the information provided for this purpose by States, will issue Frequency Lists Nos. 1, 2 and 3 at periodic intervals.
[ASIA/PAC/3, Conc.11/4, 11/5 and 12/9]

3.21 In the case of an unidentified interfering station, States should notify the ICAO APAC Regional Office utilizing the procedure and report form developed by the Fifth Session of the Communications Division (1954) and updated by the Communications Divisional Meeting (1978). However, in the case of persistent harmful interference to an aeronautical service which may affect safety, it should be immediately reported to ICAO and to the ITU, using the prescribed format, for appropriate action.
[ASIA/PAC/3, Conc.11/6]

3.23 States, where aeronautical stations are experiencing HF radio interference, should take necessary actions in coordination with the respective radio regulators to identify the source of interference and to eliminate the problem.
[APANPIRG/17, Conc.17 /32]

*Aeronautical Mobile Service (AMS)*

3.24 The provision of Aeronautical Mobile (R) Service in the Asia and Pacific Regions will be guided by the following strategy:

- VHF voice service, backed by CPDLC and HF will be the primary communication medium for transcontinental traffic; and a combination of CPDLC and HF voice will be the communication medium for oceanic traffic.

- The requirement for basic voice communication will continue, supplemented by Data-Link Flight Information Service (DFIS) applications including D-VOLMET, D-ATIS and PDC to significantly reduce pressure on VHF spectrum congestion. [APANPIRG/18, Conc.18/29, partly]

## TABLE CNS II-1 AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AFTN) PLAN

EXPLANATION OF THE TABLE

*Column*

1 The AFTN Centres/Stations of each State are listed alphabetically. Each circuit appears twice in the table. The categories of these facilities are as follows:

M - Main AFTN COM Centre
T - Tributary AFTN COM Centre
S - AFTN Station

2 Category of circuit:

M - Main trunk circuit connecting Main AFTN communication centres.
T - Tributary circuit connecting Main AFTN communication centre and Tributary AFTN Communications Centre.
S - AFTN circuit connecting an AFTN Station to an AFTN Communication Centre.

3 Type of circuit provided:

LTT/a - Landline teletypewriter, analogue (e.g. cable, microwave)

LTT/d - Landline teletypewriter, digital (e.g. cable, microwave)
LDD/a - Landline data circuit, analogue (e.g. cable, microwave)
LDD/d - Landline data circuit, digital (e.g. cable, microwave)
SAT/a/d - Satellite link, with /a for analogue or /d for digital

4 Circuit signalling speed in bits/s.

5 Circuit protocols

6 Data transfer code (syntax):

ITA-2 - International Telegraph Alphabet No. 2 (5-unit Baudot code).
IA-5 - International Alphabet No. 5 (ICAO 7-unit code).
CBI - Code and Byte Independency (ATN compliant).

7 Remarks

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **AFGHANISTAN** | | | | | | |
| **Kabul/OAKB** | | | | | | |
| Karachi/OPKC | S | SAT/d | 2400 bps | None | IA-5 | |
| Tehran/OIII | S | LDD/d | 2400 bps | None | IA-5 | |
| | | | | | | |
| **AMERICAN SAMOA** | | | | | | |
| **Pago Pago/NSTU** | | | | | | |
| Salt Lake City/KSLC | S | LDD/d | 2400 bps | IP | IA-5 | |
| | | | | | | |
| **AUSTRALIA** | | | | | | |
| **Brisbane/YBBB** | | | | | | |
| Christchurch/NZCH | T | LDD/d | 2400 bps | X.25 | IA-5 | MPLS VPN AMHS-IPS 2017 |
| Honiara/AGGG | S | LDD/d | N/A | HTTP | IA-5 | INTERNET |
| Jakarta/WIII | S | SAT/d | 64 Kbps | AMHS/IPS | IA-5 | IP VPN |
| Makassar/WAAA | S | | | | IA-5 | IP VPN for AIDC |
| Nadi/NFFN | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | INTERNET |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Nauru/ANAU | S | LDD/d | N/A | HTTP | IA-5 | |
| Port Moresby/AYPM | S | LDD/d | 128 Kbps | IP | IA-5 | INTERNET |
| Port Vila/NVVV | S | LDD/d | N/A | HTTP | IA-5 | INTERNET |
| Dili/WPDL | S | LDD/d | N/A | HTTP | IA-5 | INTERNET |
| Singapore/WSSS | M | LDD/d | 64 Kbps | X.25 | IA-5 | AMHS/OSI 2015 |
| United States/KSLC | M | LDD/d | 64 Kbps | X.25 | IA-5 | MPLS/VPN AMHS/IPS 2017 |
| Johannesburg/FAOR | M | LDD/d | 64 Kbps | X.25 | IA-5 | IP VPN |
| | | | | | | |
| **BANGLADESH** | | | | | | |
| **Dhaka/VGHS** | | | | | | |
| Bangkok/VTBB | S | SAT/d | 32 Kbps | AMHS/OSI | IA-5 | |
| Kolkata/VECC | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **BHUTAN** | | | | | | |
| **Paro-S/VQPR** | | | | | | |
| Mumbai/VABB | S | Internet | 64 Kbps | IP | IA-5 | IP VPN over Internet |
| Bangkok/VTBB | S | Internet | 64 Kbps | IP | IA-5 | IP VPN over Internet |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **BRUNEI DARUSSALAM** | | | | | | |
| **Brunei/WBSB** | | | | | | |
| Singapore/WSSS | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Kuala Lumpur/WMKK | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **CAMBODIA** | | | | | | |
| Phnom Penh/VDPP | | | | | | |
| Bangkok/VTBB | S | SAT/d | 64 Kbps | IPS | IA-5 | |
| | | | | | | |
| **CHINA** | | | | | | |
| **Beijing/ZBBB** | | | | | | |
| Bangkok/VTBB | M | SAT/da | 2400 bps | X.25 | IA-5 | |
| Guangzhou/ZGGG | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Karachi/OPKC | M | LDD/d | 2400 bps | X.25 | IA-5 | |
| Kathmandu/VNKT | S | SAT/d | 300 bps | None | IA-5 | |
| Russian Federation/UHHH | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Pyongyang/ZKKK | S | SAT/d | 9600 bps | X.25 | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Seoul/RKSS | S | SAT/d | 9600 bps | X.25 | IA-5 | |
| Fukuoka/RJJJ | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Ulaan Baatar/ZMUB | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Yangon/VYYY | S | LDD/d | 9600 bps | None | IA-5 | |
| | | | | | | |
| **Guangzhou/ZGGG** | | | | | | |
| Beijing/VTBB | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Hanoi/VVNB | S | SAT/d | 300 bps | None | IA-5 | |
| Hong Kong/VHHH | M | LDD/d | 2400 bps | None | IA-5 | |
| Macao/VMMC | S | LDD/d | 2400 bps | None | IA-5 | |
| Haikou/ZJHK | S | LDD/d | 9600 bps | None | IA-5 | |
| | | | | | | |
| **Haikou/ZJHK** | | | | | | |
| Guangzhou/ZGGG | S | LDD/d | 9600 bps | None | IA-5 | |
| Hong Kong/VHHH | S | LDD/d | 2400 bps | None | IA-5 | |
| **Taibei/RCTP** | | | | | | |
| Hong Kong/VHHH | S | LDD/d | 4800 bps | X.25 | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Manila/RPLL | S | LDD/d | 300 bps | None | ITA-2 | |
| Fukuoka/RJJJ | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **Hong Kong China/VHHH** | | | | | | |
| Bangkok/VTBB | M | LDD/d | 64 Kbps | CLNP/X.25 | IA-5 | |
| Guangzhou/ZGGG | M | LDD/d | 2400 bps | None | IA-5 | |
| Ho Chi Minh/VVTS | S | LDD/d | 2400 bps | None | IA-5 | |
| Macao/VMMC | S | LDD/d | 64 Kbps | CLNP/X.25 | IA-5 | |
| Manila/RPLL | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| Haikou/ZJHK | S | LDD/d | 2400 bps | None | IA-5 | |
| Taibei/RCTP | S | LDD/d | 4800 bps | X.25 | IA-5 | |
| Fukuoka/RJJJ | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **MACAO CHINA** | | | | | | |
| **Macau/VMMC** | | | | | | |
| Hong Kong/VHHH | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Guangzhou/ZGGG | S | LDD/d | 2400 bps | None | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| **COOK ISLANDS** | | | | | | |
| **Rarotonga/NCRG** | | | | | | |
| Christchurch/NZCH | S | LDD/d | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **DPR KOREA** | | | | | | |
| **Pyongyang/ZKKK** | | | | | | |
| Beijing/ZBBB | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **FIJI** | | | | | | |
| **Nadi/NFFN** | | | | | | |
| Brisbane/YBBB | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Funafuti/NGFU | S | SAT/d | Internet | IP | IA-5 | VPN over Internet |
| Noumea/NWWW | S | SAT/d | 9600 bps | Asynch. | IA-5 | |
| Tarawa/NGTT | S | SAT/d | Internet | IP | IA-5 | VPN over Internet |
| United States/KSLC | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| Wallis Is./NLWW | S | SAT/d | 9600 bps | Asynch. | IA-5 | Via Noumea |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| **FRENCH POLYNESIA (France)** | | | | | | |
| **Papeetee /NTAA** | | | | | | |
| Christchurch/NZCH | S | SAT/d | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **INDIA** | | | | | | |
| **Mumbai/VABB** | | | | | | |
| Bangkok/VTBB | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Kolkata/VECC | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Colombo/VCCC | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Karachi/OPKC | M | SAT/d | 2400 bps | None | IA-5 | |
| Kathmandu/VNKT | S | SAT/a | 50 bauds | None | ITA-2 | |
| Muscat/OOMS | M | SAT/a | 300 bauds | None | ITA-2 | |
| Nairobi/HKNA | M | SAT/a | 50 bauds | None | ITA-2 | |
| Paro/VQPR | S | SAT/a | 900 bauds | None | ITA-2 | Plan to upgrade to 64 Kbps 2017 LDD/d using IA5 X.25 |
| Singapore/WSSS | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Kolkata/VECC** | | | | | | |
| Dhaka/VGZR | S | LDD/d | 64 Kbps | None | IA-5 | |
| Mumbai | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **Delhi/VIDP** | | | | | | |
| Tashkent/UTTT | S | SAT/a | 50 bauds | None | ITA-2 | |
| | | | | | | |
| **Chennai/VOMM** | | | | | | |
| Kuala Lumpur/WMKK | S | LDD/d | 64 Kbps | None | IA-5 | |
| | | | | | | |
| **INDONESIA** | | | | | | |
| **Jakarta/WIII** | | | | | | |
| Brisbane/YBBB | S | SAT/d | 64 Kbps | AMHS/IPS | IA-5 | IP VPN |
| Singapore/WSSS | S | LDD/d | 128 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **Makassar/WAAA** | | | | | | |
| Brisbane/YBBB | S | | | | | IP VPN for AIDC |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| **JAPAN** | | | | | | |
| **Fukuoka-M/RJJJ** | | | | | | |
| Beijing/ZBBB | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Hong Kong/VHHH | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| Russian Federation/UUUU | M | LTT | 64 Kbps | X.25 | IA-5 | |
| Seoul/RKSS | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| Singapore/WSSS | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| United States/KSLC | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Taibei/RCTP | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **KIRIBATI** | | | | | | |
| **Tarawa-S/NGTT** | | | | | | |
| Nadi/NFFN | S | SAT/d | Internet | IP | IA-5 | VPN over Internet |
| **LAO PDR** | | | | | | |
| **Vientiane-S/VLVT** | | | | | | |
| Bangkok/VTBB | S | SAT/d | 32 kbps | None | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Hanoi/VVNB | S | SAT/d | 2400 bps | None | IA-5 | |
| | | | | | | |
| **MALASIA** | | | | | | |
| **Kuala Lumpur-S/WMKK** | | | | | | |
| Bangkok/VTBB | S | SAT/d | 64 Kbps | None | IA-5 | |
| Brunei/WBSB | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| Chennai/VOMM | S | LDD/d | 64 Kbps | None | IA-5 | |
| Singapore/WSSS | S | SAT/d | 64 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **MALDIVES** | | | | | | |
| **Male-S/VRMM** | | | | | | |
| Colombo/VCCC | S | SAT/d | 32 Kbps | None | IA-5 | |
| | | | | | | |
| **MARSHALL ISLAND** | | | | | | |
| **Majuro-S/PKMJ** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **MICRONESIA, FEDERATED STATES OF** | | | | | | |
| **Chuuk-S/PTKK** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **Kosrae-S/PTSA** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **Ponapei-S/PTPN** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **YAP-S/PTYA** | | | | | | |
| **YAP-S/PTYA** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **MONGOLIA** | | | | | | |
| **Ulaanbaatar-S/ZMUB** | | | | | | |
| Beijing/ZBBB | S | LDD/d | 64 Kbps | X.25 | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Russian Federation/UIII | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **MYANMAR** | | | | | | |
| **Yangon-S/VYYY** | | | | | | |
| Bangkok/VTBB | S | SAT/d | 9600 bps | None | IA-5 | |
| Beijing/ZBBB | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **NAURU** | | | | | | |
| **Nauru-S/ANAU** | | | | | | |
| Brisbane/YBBB | S | LDD/d | N/A | HTTP | IA-5 | Internet |
| | | | | | | |
| **NEPAL** | | | | | | |
| **Katmandu-S/VNKT** | | | | | | |
| Beijing/ZBBB | S | SAT/d | 300 baud | None | IA-5 | |
| Mumbai/VABB | S | SAT/a | 50 baud | None | ITA-2 | |
| | | | | | | |
| **NEW CALEDONIA, (FRANCE)** | | | | | | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Noumea-S/NWWW** | | | | | | |
| Nadi/NFFN | S | SAT/d | 9600 bps | Asynch. | IA-5 | |
| | | | | | | |
| **NEW ZEALAND** | | | | | | |
| **Christchurch-T/NZCH** | | | | | | |
| Faleolo/NSFA | S | LDD/d | 64 Kbps | IP | IA-5 | |
| Brisbane/YBBB | T | LDD/d | 2400 bps | X.25 | IA-5 | MPLS VPN AMHS-IPS 2017 |
| Niue/NIUE | S | E-mail | | | | |
| Papeetee/NTAA | S | SAT/d | 64 Kbps | IP | IA-5 | |
| Rarotonga/NCRG | S | LDD/d | 64 Kbps | IP | IA-5 | |
| Tongatapu/NFTF | S | LDD/d | 64 Kbps | IP | IA-5 | |
| USA/KSLC | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **NIUE IS** | | | | | | |
| **Niue-S/NIUE** | | | | | | |
| Christchurch/NZCH | S | E-mail | | | | |
| | | | | | | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **PAKISTAN** | | | | | | |
| **Karachi-M/OPKC** | | | | | | |
| Beijing/ZBBB | M | LDD/d | 2400 bps | X.25 | IA-5 | |
| Mumbai/VABB | M | SAT/d | 2400 bps | None | IA-5 | |
| Kabul/OAKB | S | SAT/d | 2400 bps | None | IA-5 | |
| Kuwait/OKBK | M | LDD/d | 2400 bps | None | IA-5 | |
| | | | | | | |
| **PALAU** | | | | | | |
| **Koror-S/PTRO** | | | | | | |
| United States/KSLC | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **PAPUA NEW GUINEA** | | | | | | |
| **Port Moresby-S/AYPM** | | | | | | |
| Brisbane/YBBB | S | LDD/d | 128 Kbps | IP | IA-5 | |
| **PHILIPPINES** | | | | | | |
| **Manila-S/RPLL** | | | | | | |
| Hong Kong/VHHH | S | LDD/d | 9600 bps | X.25 | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Singapore/WSSS | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Taibei/RCTP | S | LDD/d | 300 baud | None | ITA-2 | |
| | | | | | | |
| **REPUBLIC OF KOREA** | | | | | | |
| **Seoul-S/RKSS** | | | | | | |
| Beijing/ZBBB | S | SAT/d | 9600 bps | X.25 | IA-5 | |
| Fukuoka/RJJJ | S | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **SAMOA** | | | | | | |
| **Faleolo-S/NSFA** | | | | | | |
| Christchurch/NZCH | S | LDD/d | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **SINGAPORE** | | | | | | |
| **Singapore-M/WSSS** | | | | | | |
| Bahrain/OBBI | M | LTT/d | 64 Kbps | X.25 | IA-5 | |
| Bangkok/VTBB | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Brisbane/YBBB | M | LDD/d | 64 Kbps | X.25 | IA-5 | AMHS/OSI 2015 |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Brunei/WBSB | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Colombo/VCCC | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Ho-Chi-Minh/VVTS | S | LDD/d | 128 Kbps | X.25 | IA-5 | |
| Jakarta/WIII | S | LDD/d | 128 Kbps | X.25 | IA-5 | |
| Kuala Lumpur/WMKK | S | SAT/d | 64 Kbps | X.25 | IA-5 | |
| Mumbai/VABB | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| London/EGGG | M | LDD/d | 128 Kbps | None | IA-5 | |
| Manila/RPLL | S | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Fukuoka/RJJJ | M | LDD/d | 9600 bps | X.25 | IA-5 | |
| | | | | | | |
| **SOLOMON IS.** | | | | | | |
| **Honiara-S/AGGG** | | | | | | |
| Brisbane/YBBBB | S | LDD/d | N/A | HTTP | IA-5 | Internet |
| **SRI LANKA** | | | | | | |
| **Colombo-M/VCCC** | | | | | | |
| Mumbai/VABB | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Male/VRMM | S | SAT/d | 32 Kbps | None | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Singapore/WSSS | S | LDD/d | 64 kbps | X.25 | IA-5 | |
| | | | | | | |
| **THAILAND** | | | | | | |
| **Bangkok-M/VTBB** | | | | | | |
| Beijing/ZBBB | M | SAT/d | 2400 bps | X.25 | IA-5 | |
| Mumbai/VABB | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Dhaka/VGHS | S | SAT/d | 32 Kbps | AMHS/OSI | IA-5 | |
| Ho Chi Minh/VVTS | S | SAT/d | 2400 bps | None | IA-5 | |
| Hong Kong/VHHH | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Kuala Lumpur/WMKK | S | SAT/d | 64 Kbps | None | IA-5 | |
| Phnom Penh/VDPP | S | SAT/d | 64 Kbps | IPS | IA-5 | |
| Paro/VQPR | S | Internet | N/A | None | IA-5 | VPN over Internet |
| Rome/LIII | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| Singapore/WSSS | M | LDD/d | 64 Kbps | AMHS/OSI | IA-5 | |
| Vientiane/VLVT | S | SAT/d | 32 Kbps | None | IA-5 | |
| Yangon/VYYY | S | SAT/d | 9600 bps | None | IA-5 | |
| | | | | | | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **TIMOR LESTE** | | | | | | |
| **Dili/WPDL** | | | | | | |
| Brisbane/YABB | S | LDD/d | N/A | HTTP | IA-5 | Internet |
| | | | | | | |
| **TONGA** | | | | | | |
| **Tongatapu-S/NFTF** | | | | | | |
| Christchurch/NZCH | S | LDD/d | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **TUVALU** | | | | | | |
| **Funafuti-S/NGFU** | | | | | | |
| Nadi/NFFN | S | SAT/d | Internet | IP | IA-5 | VPN over Internet |
| United States/KSLC | M | LDD/d | 64 Kbps | X.25 | IA-5 | MPLS/VPN AMHS/IPS 2017 |
| | | | | | | |
| **UNITED STATES** | | | | | | |
| **USA-M/KSLC** | | | | | | |
| Brisbane/YBBB | M | LDD/d | 64 Kbps | X.25 | IA-5 | MPLS/VPN AMHS/IPS 2017 |
| Christchurch/NZCH | S | LDD/d | 9600 bps | X.25 | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Chuuk/PTKK | S | Internet | 64 Kbps | IP | IA-5 | |
| Koror/PTRO | S | Internet | 64 Kbps | IP | IA-5 | |
| Kosrae/PTSA | S | Internet | 64 Kbps | IP | IA-5 | |
| MajuroPKMJ | S | Internet | 64 Kbps | IP | IA-5 | |
| Nadi/NFFN | M | LDD/d | 9.6 Kbps | X.25 | IA-5 | |
| Pago Pago/NSTU | S | SAT/d | 2400 bps | IP | IA-5 | |
| Ponapei/PTPN | S | Internet | 64 Kbps | IP | IA-5 | |
| Fukuoka/RJJJ | M | LDD/d | 64 Kbps | X.25 | IA-5 | |
| YapPTYA | S | Internet | 64 Kbps | IP | IA-5 | |
| | | | | | | |
| **VANUATU** | | | | | | |
| **Port Vila-S/NVVV** | | | | | | |
| Brisbane/YBBB | S | LDD/d | N/A | HTTP | IA-5 | Internet |
| | | | | | | |
| **VIET NAM** | | | | | | |
| **Hanoi-S/VVNB** | | | | | | |
| Vientiane/VLVT | S | SAT/d | 2400 bps | None | IA-5 | |

| State/Station | Category | Requirement | | | | Remarks |
|---|---|---|---|---|---|---|
| | | Type | Signalling Speed | Protocol | Code | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Ho Chi Minh/VVTS | S | SAT/d | 2400 bps | None | IA-5 | |
| Guangzhou/ZGGG | S | SAT/d | 300 bps | None | IA-5 | |
| | | | | | | |
| **Ho Chi Minh-S/VVTS** | | | | | | |
| Bangkok/VTBB | S | SAT/d | 2400 bps | None | IA-5 | |
| Hanoi/VVNB | S | SAT/d | 2400 bps | None | IA-5 | |
| Hong Kong/VHHH | S | LDD/d | 2400 bps | None | IA-5 | |
| Singapore/WSSS | S | LDD/d | 128 Kbps | X.25 | IA-5 | |
| | | | | | | |
| **WALLIS IS/ (FRANCE)** | | | | | | |
| **Wallis-S/NLWW** | | | | | | |
| Nadi/NFFN | S | SAT/d | 9600 bps | IP | IA-5 | Via Noumea |

## TABLE CNS II-2 REQUIRED ATN INFRASTRUCTURE ROUTING PLAN

EXPLANATION OF THE TABLE

*Column*

1 Name of the Administration and Location of the ATN Router

2 Type of Router (in end systems (ES) of the Administration shown in column 1)

3 Type of Interconnection:

Inter-Regional: Connection between different Regions/ domains
Intra-Regional: Connection within a Region/ domain.

4 Connected Router: List of the Administration and location of the ATN routers to be connected with the router shown in column 1)

5 Bandwidth: Link Speed expressed in bits per second (bps)

6 Network Protocol: If Internet Protocol Suite is used, indicate version of IP (IPv4 or IPv6)

7 Via: The media used to implement the interconnection of the routers. (in case of IP service bought from a service provider, indicate VPN)

DDN (public telecomm leased line)
VSAT
VPN

8 Remarks

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **Afghanistan** Kabul | BIS | Intra-Regional | Pakistan | 64000bps | IPS | | Intra-domain |
| | BIS | Inter-Regional | Iran | 9600 bps | IPS | | |
| **American Samoa** Pago Pago | | | United States | | | | Intra-domain |
| **Australia** Brisbane | BBIS | Intra-Regional | Fiji | 64000 bps | CLNP/IP-SNDCF (IPv4) | DDN | Implemented |
| | BIS | Intra-Regional | Indonesia | 64000 bps | IPS | | Not implemented |
| | BBIS | Intra-Regional | Japan | 64000 bps | IPS/IP-SNDCF | VPN | Not implemented |
| | BIS | Intra-Regional | New Zealand | 64000 bps | IPS | VPN | Not implemented |
| | BBIS | Intra-Regional | Singapore | 64000 bps | CLNP/IP-SNDCF | DDN | ATN/AMHS trial planned to completed by end 2015 |
| | BBIS | Inter-Regional | South Africa | 64000 bps | TBD | | Not implemented |
| | BBIS | Inter-Regional | United States | 64000 bps | DDN lease line/IPS | | |
| **Bangladesh** Dhaka | BIS | Intra-Regional | India | 64000 bps | leased line/IPS | DDN | Implemented |
| | BIS | Intra-Regional | Thailand | 32000 bps | IPv4 | VSAT | Implemented |
| **Bhutan** Paro | BIS | Intra-Regional | India | 64000 bps | IPS | | TBD. Presently using AFTN via VPN through public internet |
| **Brunei Darussalam** Brunei | BIS | Intra-Regional | Malaysia | 64000 bps | IPS | | |
| | BIS | Intra-Regional | Singapore | 9600 bps | IPv4 | DDN | ATN/AMHS trial commence on 2017 |
| **Cambodia** Phnom Penh | BIS | Intra-Regional | Thailand | 64000 bps | IPv4 | VSAT | Implemented |
| **China** Beijing | BIS | Intra-Regional | DPR Korea | 9600 bps | X.25 | | Router Implemented |
| | BBIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25 | DDN | Router Implemented |
| | BBIS | Intra-Regional | India | 64000 bps | X.25/IPS | DDN | IOT/POT completed. - Migrate to IPS |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| | BBIS | Intra-Regional | Japan | 64000 bps | IPS/SNDCF | VPN | Implementation planned from 2016 onwards |
| | BBIS | Inter-Regional | Kuwait | 64000 bps | X.25 | | Router Implemented |
| | BIS | Intra-Regional | Macao, China | 64000 bps | X.25 | | Implemented |
| | BIS | Intra-Regional | Mongolia | 9600 bps | X.25 | | Router Implemented |
| | BIS | Intra-Regional | Myanmar | 64000 bps | IPS/IPv4 | | Implementation on going/Plan Q4/15 |
| | BIS | Intra-Regional | Nepal | 9600 bps | X.25 | | Router Implemented |
| | BIS | Intra-Regional | Pakistan | 64000 bps | X.25 | | Router Implemented |
| | BIS | Intra-Regional | Republic of Korea | 64000 bps | X.25 | | Implemented |
| | BBIS | Inter-Regional | Russian Federation | 64000 bps | X.25 | | Router Implemented |
| | BBIS | Intra-Regional | Thailand | 64000 bps | CLNP/X.25 | DDN | |
| | BIS | Intra-Regional | Vietnam | 9600 bps | X.25 | | |
| Taibei | BIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25 | DDN | TBD |
| | BIS | Intra-Regional | Japan | 64000 bps | IPS | VPN | Implement from 2016 onwards Scheduled after CRV |
| **Hong Kong, China** | BBIS | Intra-Regional | China | 64000 bps | X.25 | DDN | Router Implemented |
| | BIS | Intra-Regional | Macao, China | 64000 bps | X.25 | DDN | Implemented |
| | BBIS | Intra-Regional | Japan | 64000 bps | X.25/SNDCF | VPN | Scheduled for Q4/2017 |
| | BIS | Intra-Regional | Philippines | 64000 bps | X.25/IPS | DDN | Scheduled for Q4/2016 |
| | BBIS | Intra-Regional | Taibei | 64000 bps | X.25 | DDN | TBD |
| | BBIS | Intra-Regional | Thailand | 64000 bps | CLNP/X.25 | DDN | Implemented |
| | BIS | Intra-Regional | Viet Nam | 64000 bps | X.25 | DDN | TBD |
| **Macao, China** | BIS | Intra-Regional | China | 64000 bps | X.25 | | Implemented |
| | BIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25 | DDN | Implemented |
| **Cook Islands** Rarotonga | | | New Zealand | 796 kbps | IPS | | Intra-domain |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| **DPR Korea** Pyongyang | BIS | Intra-Regional | China | 9600 bps | X.25 | | |
| **Fiji** Nadi | BBIS | Intra-Regional | Australia | 64000 bps | CLNP/IP-SNDCF (IPv4) | DDN | Implemented |
| | BIS | Intra-Regional | Kiribati | Internet | IPv4 | VPN | Intra-domain (User Agent) - Implementation Q3 2015 |
| | BIS | Intra-Regional | New Caledonia | 64000 bps | IPS (IPv4) | DDN | Intra-domain - Implementation planned for 2016<br>Connected with Wallis |
| | BIS | Intra-Regional | Tuvalu | Internet | IPv4 | VPN | Intra-domain (User Agent) - Implementation Q3 2015 |
| | BBIS | Inter-Regional | United States | 9600 bps | CLNP/X.25-SNDCF | DDN | The protocol will be upgraded to IPS/SNDCF in 2016 |
| | BIS | Intra-Regional | Wallis Islands | Internet | IPv4 | VPN | Connected with New Caledonia - Planned to be implemented in 2016 |
| **French Polynesia** Papeete | | | New Zealand | 64000 bps | IPS | | Intra-domain |
| **India** Mumbai | BIS | Intra-Regional | Bangladesh | 64000 bps | leased line/IPS | DDN | Implemented |
| | BIS | Intra-Regional | Bhutan | 64000 bps | IPS | | TBD. Presently using AFTN via VPN through public internet |
| | BBIS | Intra-Regional | China | 64000 bps | X. 25/IPS | DDN | IOT/POT completed. - Migrate to IPS |
| | BIS | Inter-Regional | Kenya | 64000 bps | TBD | TBD | Presently using AFTN via VPN via public internet |
| | BIS | Intra-Regional | Nepal | 64000 bps | IPS | | Implemented |
| | BIS | Inter-Regional | Oman | 64000 bps | IPS | | IOT completed. POT planned. TMC to be signed |
| | BIS | Intra-Regional | Pakistan | 64000 bps | IPS | | IOT/POT completed. TMC to be signed |
| | BBIS | Intra-Regional | Singapore | 64000 bps | X.25 | DDN | Implementation Plan Q4/15 |
| | BIS | Intra-Regional | Sri Lanka | 64000 bps | IPS | DDN | IOT/POT Completed. |
| | BBIS | Intra-Regional | Thailand | 64000 bps | CLNP/X. 25 | DDN | Implemented |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| | BBIS | Intra-Regional | Nairobi | 64000 bps | IPS | | |
| **Indonesia** Jakarta | BIS | Intra-Regional | Australia | 64000bps | IPS | | Not Implemented |
| | BIS | Intra-Regional | Singapore | 64000 bps | IPv4 | VSAT | ATN/AMHS trial to be completed by end 2015. Implementation Plan Q1/16 |
| **Japan** Tokyo | BBIS | Intra-Regional | Australia | 64000 bps | IPS/IP-SNDCF | VPN | Schedule after CRV |
| | BBIS | Intra-Regional | China | 64000 bps | IPS/IP-SNDCF | VPN | Implement from 2016 onwards Schedule after CRV |
| | BBIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25/SNDCF | VPN | Scheduled for Q4/2017 |
| | BBIS | Inter-Regional | Europe | 64000 bps | IP-SNDCF | DDN/ VPN | TBD |
| | BIS | Intra-Regional | Republic of Korea | 64000 bps | IPS(IPv4) | VPN | Implement from 2016 onwards Scheduled after CRV |
| | BBIS | Inter-Regional | Russia Federation | 64000 bps | IP-SNDCF | DDN/ VPN | TBD |
| | BBIS | Intra-Regional | Singapore | 64000 bps | IPS/SNDCF | DDN | Scheduled for Q1/2018 |
| | BIS | Intra-Regional | Taibei | 64000 bps | IPS | VPN | Implement from 2016 onwards Scheduled after CRV |
| | BBIS | Inter-Regional | United States | 64000 bps | X.25-SNDCF | DDN/ VPN | Implemented |
| **Kiribati** Tarawa | BIS | Intra-Regional | Fiji | Internet | IPv4 | VPN | Intra-domain (User Agent) - Implementation Q3 2015 |
| **Lao PDR** Vientiane | BIS | Intra-Regional | Thailand | 32000 bps | IPv4 | VSAT | Implemented |
| | BIS | Intra-Regional | Viet Nam | 9600 bps | X.25 | | |
| **Malaysia** Kuala Lumpur | BIS | Intra-Regional | Brunei | 64000 bps | IPS | | |
| | BIS | Intra-Regional | Singapore | 64000 bps | IPv4 | VSAT | Scheduled for Q1/2018 |
| | BIS | Intra-Regional | Thailand | 64000 bps | IPv4 | VSAT | Implemented |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| **Maldives** Male | BIS | Intra-Regional | Sri Lanka | 64000 bps | X.25 | | |
| **Marshall Islands** Majuro | BIS | Inter-Regional | United States | 64000 bps | IP | | VPN over Internet Intro-domain |
| **Micronesia Federated State of** | BIS | Inter-Regional | United States | 64000 bps | IP | VPN | VPN over Internet |
| Chuuk | | | | | | | Intra-domain |
| Kosrae | | Inter-Regional | United States | 64000 bps | IP | VPN | VPN over Internet/Intra-domain |
| Ponapei | | Inter-Regional | United States | 64000 bps | IP | VPN | VPN over Internet/Intra-domain |
| Yap | | Inter-Regional | United States | 64000 bps | IP | VPN | VPN over Internet/Intra-domain |
| **Mongolia** Ulanbaatar | BIS | Intra-Regional | China | 9600 bps | X.25 | | Router Implemented |
| **Myanmar** Yangon | BIS | Intra-Regional | China | 64000 bps | IPv4 | VSAT/ DDN | Implementation on going and planned Q4/15 |
| | BIS | Intra-Regional | Thailand | 32000 bps | IPv4 | VSAT | Implemented |
| **Nepal** Kathmandu | BIS | Intra-Regional | China | 9600bps | X.25 | | Router Implemented |
| | BIS | Intra-Regional | India | 64000 bps | IPS | | Implemented |
| **New Caledonia** Noumea | | | Fiji | 64000 bps | IPS (IPv4) | DDN | Intra-domain - Implementation 2016 Connect with Wallis |
| **New Zealand** Christchurch | BIS | Intra-Regional | Australia | 64000 bps | IPS | VPN | Not Implemented |
| | | | Cook Is. | 796 kbps | IPS | | Intra-domain |
| | | | French Polynesia | 64000 bps | IPS | | Intra-domain |
| | | | Samoa | 1.1 Mb | IPS | | Intra-domain |
| | | | Tonga | 85000 bps | IPS | | Intra-domain |
| | BIS | Inter-Regional | USA | 64000 bps | IPS | | |
| **Pakistan** Karachi | BIS | Intra-Regional | Afghanistan | 64000 bps | IPS | | |
| | BIS | Intra-Regional | China | 64000 bps | X.25 | | |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| | BIS | Intra-Regional | India | 64000 bps | IPS | | IOT/POT completed. TMC to be signed |
| | BIS | Inter-Regional | Oman | 64000 bps | - | | |
| | BIS | Inter-Regional | Iran | 64000 bps | - | | |
| | BIS | Inter-Regional | Kuwait | 64000 bps | - | | |
| **Philippines** | BIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25/IPS | DDN | Scheduled for Q4/2016 |
| | BIS | Intra-Regional | Singapore | 64000 bps | IPv4 | DDN | 2016 |
| | | Intra-Regional | United States | 64000 bps | IPS | | to be implemented in 2016 |
| **Republic of Korea** Seoul | BIS | Intra-Regional | China | 64000 bps | X.25 | | Implemented |
| | BIS | Intra-Regional | Japan | 64000 bps | IPS(IPv4) | VPN | Implementation from 2016 onwards scheduled after CRV |
| **Samoa** Faleolo | | | New Zealand | 1.1 Mb | IPS | | Intra-domain |
| **Singapore** Singapore | BBIS | Intra-Regional | Australia | 64000 bps | CLNP/IP-SNDCF | DDN | ATN/AMHS trial planned to completed by end 2015 |
| | BBIS | Inter-Regional | Bahrain | 64000 bps | IPv4 | DDN | |
| | BIS | Intra-Regional | Brunei | 9600 bps | IPv4 | DDN | ATN/AMHS trial commence on 2017 |
| | BBIS | Intra-Regional | India | 64000 bps | X.25 | DDN | Implemented |
| | BIS | Intra-Regional | Indonesia | 64000bps | IPv4 | VSAT | ATN/AMHS trial to be completed by end 2015. Implementation Plan Q1/16 |
| | BBIS | Intra-Regional | Japan | 64000 bps | IPS/SNDCF | DDN | ATN/AMHS trial commence on 2017 Scheduled for Q1/2018 |
| | BIS | Intra-Regional | Malaysia | 64000 bps | IPv4 | VSAT | Scheduled for Q1/2018 |
| | BIS | Intra-Regional | Philippines | 64000 bps | IPv4 | DDN | 2016 |
| | BIS | Intra-Regional | Sri Lanka | 64000 bps | IPv4 | DDN | Implementation Plan Q1/16 |
| | BBIS | Intra-Regional | Thailand | 64000 bps | CLNP/X.25 | DDN | Implemented |
| | BBIS | Inter-Regional | United Kingdom | 128000 bps | IPv4 | VPN | Implemented |
| | BIS | Intra-Regional | Viet Nam | 9600 bps | X.25 | DDN | ATN/AMHS trial planned to be completed by end 2015 |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| **Sri Lanka** Colombo | BIS | Intra-Regional | India | 64000 bps | IPS | DDN | Implementation planned for Q4/15 |
| | BIS | Intra-Regional | Maldives | 64000 bps | X.25 | | TBD |
| | BIS | Intra-Regional | Singapore | 64000 bps | IPv4 | DDN | Implementation Plan Q1/16 |
| **Thailand** Bangkok | BIS | Intra-Regional | Bangladesh | 32000 bps | IPv4 | VSAT | Implemented |
| | BIS | Intra-Regional | Cambodia | 64000 bps | IPv4 | VSAT | Implemented |
| | BBIS | Intra-Regional | China | 64000 bps | CLNP/X.25 | DDN | |
| | BBIS | Intra-Regional | Hong Kong, China | 64000 bps | CLNP/X.25 | DDN | Implemented |
| | BBIS | Intra-Regional | India | 64000 bps | CLNP/X.25 | DDN | Implemented |
| | BBIS | Inter-Regional | Italy | 64000 bps | IPv4 | DDN | |
| | BIS | Intra-Regional | Lao PDR. | 32000 bps | IPv4 | VSAT | Implemented |
| | BIS | Intra-Regional | Malaysia | 64000 bps | IPv4 | VSAT | Implemented |
| | BIS | Intra-Regional | Myanmar | 32000 bps | IPv4 | VSAT | Implemented |
| | BBIS | Intra-Regional | Singapore | 64000 bps | CLNP/X.25 | DDN | Implemented |
| | BIS | Intra-Regional | Viet Nam | 64000 bps | IPv4 | VSAT | |
| **Tonga** Tongatapu | BIS | Intra-Regional | New Zealand | 85000 bps | IPS | | Intra-domain |
| **Tuvalu** Faleolo | BIS | Intra-Regional | Fiji | Internet | IPv4 | VPN | Intra-domain (User Agent) - Implementation planned for Q3 2015 |
| **United States** Salt Lake City | BBIS | Inter-Regional | Australia | 64000 bps | IPS | | |
| | | | American Samoa | | | | Intra-domain |
| | BBIS | Inter-Regional | Fiji | 9600 bps | CLNP/X.25-SNDCF | DDN | The protocol will be upgraded to IPS/SNDCF in 2016 |
| | BBIS | Inter-Regional | Japan | 64000 bps | X.25-SNDCF | DDN/ VPN | Implemented |
| | | Intra-Regional | Marshall Islands | 64000 bps | IP | | Intra-domain/Internet |

| Administration And Locations | Type of Router | Type of Interconnection | Connected Router | Bandwidth | Network Protocol | Via | Remark |
|---|---|---|---|---|---|---|---|
| | | Intra-Regional | Micronesia, Federated State of | 64000 bps | IP | | Intra-domain |
| | BIS | Inter-Regional | New Zealand | 64000 bps | IPS | | Implemented |
| | | Intra-Regional | Philippines | 64000 bps | IP | | to be implemented in 2016 |
| **Viet Nam** Ho Chi Minh/Hanoi | BIS | Intra-Regional | China | 9600 bps | X.25 | | |
| | BIS | Intra-Regional | Hong Kong, China | 64000 bps | X.25 | DDN | TBD |
| | BIS | Intra-Regional | Lao PDR. | 9600 bps | X.25 | | |
| | BIS | Intra-Regional | Singapore | 9600 bps | X.25 | DDN | ATN/AMHS trial planned to be completed by end 2015 |
| | BIS | Intra-Regional | Thailand | 64000 bps | IPv4 | VSAT | |
| **Wallis Islands** | BIS | Intra-Regional | Fiji | Internet | IPv4 | VPN | Connected with New Caledonia - Implemented in 2016 |

## TABLE CNS II-3 - ATS DIRECT SPEECH CIRCUITS PLAN

EXPLANATION OF THE TABLE

*Column*

1 and 2 — Circuit terminal stations are listed alphabetically by the Terminal I.

3 — A — indicates ATS requirement for the establishment of voice communication within 15 seconds
D — indicates requirements for instantaneous communications

4 — Type of service specified:

LTF — landline telephone (landline, cable, UHF, VHF, satellite)
RTF — radiotelephone

5 — Type of circuits; Direct (D) or Switched (S)
D — indicates a direct circuit connecting Terminals I and II.
S — indicates that a direct circuit does not exist and that the connection is established via switching at the switching centre(s) indicated in column 6.
IDD — International direct dialling by public switch telephone network

*Note 1.— Number of D and/or S circuits between Terminals I and II are indicated by numerical prefix, i.e. 2 D/S means 2 direct circuits and one switched circuit.*

*Note 2.— Pending the implementation of proper ATS voice circuits, and provided that aeronautical operational requirements are met, IDD services may be used for the ATS voice communications in low traffic areas.*

6 — Location of switching centre(s). Alternate routing location, if available, is indicated in brackets.

7 — Remarks

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **AFGHANISTAN** | | | | | | |
| KABUL ACC | KARACHI | A | LTF | D | | |
| | LAHORE | A | LTF | D | | |
| **AMERICAN SAMOA (United States)** | | | | | | |
| PAGO PAGO APP | ALOFI | A | LTF | D | | |
| | APIA/FALEOLO | A | LTF | D | | |
| | NADI | A | LTF | D | | |
| **AUSTRALIA** | | | | | | |
| BRISBANE ACC | AUCKLAND | A | LTF | D | | |
| | BALI | A | LTF | D | | |
| | HONIARA | A | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | NADI | A | LTF | S | OAKLAND | |
| | OAKLAND | A | LTF | D | | |
| | PORT MORESBY | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| MELBOURNE | BRISBANE | A | LTF | D | NETWORK OPERATION | |
| | COLOMBO | A | LTF | D | | |
| | DIEGO GARCIA | A | LTF | D | | |
| | JAKARTA | A | LTF | S | BRISBANE | |
| | JOHANNESBERG | A | LTF | D | | |
| | MALE | A | LTF | D | | |
| | MAURITIUS | A | LTF | D | | |
| | JAKATA ACC | A | LTF | D | | |
| | BRISBANE | X | LTF | D | | |
| | | | | | | |
| PERTH APP | JAKATA ACC | A | LTF | D | | |
| **BANGLADESH** | | | | | | |
| DHAKA ACC | AGARTALA | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | GUWAHATI | A | LTF | D | | |
| | YANGON | A | LTF | S | BANGKOK | |
| **BRUNEI DARUSSALAM** | | | | | | |
| BRUNEI ACC | KOTA KINABALU | A | LTF | D | | |
| | LABUAN | A | LTF | D | | |
| | LIMBANG | A | LTF | D | | |
| | MIRI | A | LTF | D | | |
| **CAMBODIA** | | | | | | |
| PHNOM PENH ACC | BANGKOK | A | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | VIENTIANE | A | LTF | S | BANGKOK | |
| **CHINA** | | | | | | |
| BEIJING ACC | DALIAN | A | LTF | D | | |
| | HOHHOT | A | LTF | D | | |
| | JINAN | A | LTF | D | | |
| | SHENYANG | A | LTF | D | | |
| | TAIYUAN | A | LTF | D | | |
| | ULAANBAATAR | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |
| | GUANGZHOU | A | LTF | D | | |
| | GUILIN | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | GUIYANG | A | LTF | D | | |
| | WUHAN | A | LTF | D | | |
| | NANCHANG | A | LTF | D | | |
| | | | | | | |
| CHENGDU ACC | GUIYANG | A | LTF | D | | |
| | KUNMING | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | LHASA | A | LTF | D | | |
| | WUHAN | A | LTF | D | | |
| | XI'AN | A | LTF | D | | |
| | | | | | | |
| DALIAN ACC | BEIJING | A | LTF | D | | |
| | PYONGYANG | A | LTF | D | | |
| | QINGDAO | A | LTF | D | | |
| | INCHEON | A | LTF | D | | |
| | SHENYANG | A | LTF | D | | |
| | | | | | | |
| GUANGZHOU ACC | CHANGSHA | A | LTF | D | | |
| | GUILIN | A | LTF | D | | |
| | HAIKOU | A | LTF | D | | |
| | HONG KONG | D | LTF | D | | |
| | MACAO | A | LTF | D | | |
| | NANCHANG | A | LTF | D | | |
| | NANNING | A | LTF | D | | |
| | SANYA | A | LTF | D | | |
| | TAIBEI | A | LTF | D | | |
| | XIAMEN | A | LTF | D | | |
| | | | | | | |
| GUILIN ACC | CHANGSHA | A | LTF | D | | |
| | GUANGZHOU | A | LTF | D | | |
| | GUIYANG | A | LTF | D | | |
| | NANNING | A | LTF | D | | |
| | | | | | | |
| GUIYANG ACC | CHANGHSA | A | LTF | D | | |
| | CHENGDU | A | LTF | D | | |
| | GUILIN | A | LTF | D | | |
| | KUNMING | A | LTF | D | | |
| | NANNING | A | LTF | D | | |
| | | | | | | |
| HAIKOU ACC | GUANGZHOU | A | LTF | D | | |
| | HA NOI | A | LTF | D | | |
| | HONG KONG | A | LTF | D | | |
| | NANNING | A | LTF | D | | |
| | SANYA | A | LTF | D | | |
| | | | | | | |
| HAILAR ACC | CHITA | A | LTF | D | | |
| | HARBIN | A | LTF | D | | |
| | SHENYANG | A | LTF | D | | |
| | | | | | | |
| HARBIN ACC | KHABAROVSK | A | LTF | D | | |
| | HAILAR | A | LTF | D | | |
| | SHENYANG | A | LTF | D | | |
| | VLADIVOSTOK | A | LTF | D | | |
| | | | | | | |
| HEFEI ACC | JINAN | A | LTF | D | | |
| | NANCHANG | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | WUHAN | A | LTF | D | | |
| | | | | | | |
| HOHHOT ACC | BEIJING | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | TAIYUAN | A | LTF | D | | |
| | ULAANBAATAR | A | LTF | D | | |
| | | | | | | |
| JINAN ACC | BEIJING | A | LTF | D | | |
| | HEFEI | A | LTF | D | | |
| | QINGDAO | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | TAIYUAN | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |
| | | | | | | |
| KUNMING ACC | CHENGDU | A | LTF | D | | |
| | GUIYANG | A | LTF | D | | |
| | HANOI | A | LTF | D | | |
| | NANNING | A | LTF | D | | |
| | VIENTIANE | A | LTF | D | | |
| | YANGON | A | LTF | S | BANGKOK | |
| | | | | | | |
| LANZHOU ACC | CHENGDU | A | LTF | D | | |
| | HOHHOT | A | LTF | D | | |
| | LHASA | A | LTF | D | | |
| | ULAANBAATAR | A | LTF | D | | |
| | URUMQI | A | LTF | D | | |
| | XI'AN | A | LTF | D | | |
| | | | | | | |
| LHASA | CHENGDU | A | LTF | D | | |
| | KATHMANDU | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | URUMQI | A | LTF | D | | |
| | | | | | | |
| NANCHANG ACC | CHANGSHA | A | LTF | D | | |
| | GUANGZHOU | A | LTF | D | | |
| | HEFEI | A | LTF | D | | |
| | WUHAN | A | LTF | D | | |
| | XIAMEN | A | LTF | D | | |
| | | | | | | |
| NANNING | GUANGZHOU | A | LTF | D | | |
| | GUILIN | A | LTF | D | | |
| | GUIYANG | A | LTF | D | | |
| | HAIKOU | A | LTF | D | | |
| | HA NOI | A | LTF | D | | |
| | KUNMING | A | LTF | D | | |
| | | | | | | |
| QINGDAO ACC | DALIAN | A | LTF | D | | |
| | JINAN | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | INCHEON | A | LTF | D | | |
| | | | | | | |
| SANYA ACC | GUANGZHOU | A | LTF | D | | |
| | HAIKOU | A | LTF | D | | |
| | HA NOI | A | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | HONG KONG | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | | | | | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| SHANGHAI ACC | FUKUOKA | A | LTF | D | | |
| | HEFEI | A | LTF | D | | |
| | JINAN | A | LTF | D | | |
| | NAHA | A | LTF | D | | |
| | | | | | | |
| SHENYANG ACC | BEIJING | A | LTF | D | | |
| | DALIAN | A | LTF | D | | |
| | HAILAR | A | LTF | D | | |
| | HARBIN | A | LTF | D | | |
| | PYONGYANG | A | LTF | D | | |
| | VLADIVOSTOK | A | LTF | D | | |
| | | | | | | |
| SHENZHEN | MACAO | A | LTF | D | | |
| | | | | | | |
| TAIBEI ACC | GUANGZHOU | A | LTF | D | | |
| | HONG KONG | D | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | NAHA | D | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | INCHEON | A | LTF | D | | |
| | XIAMEN | A | LTF | D | | |
| | | | | | | |
| TAIYUAN ACC | BEIJING | A | LTF | D | | |
| | HOHHOT | A | LTF | D | | |
| | JINAN | A | LTF | D | | |
| | XI'AN | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |
| | | | | | | |
| URUMQI ACC | ALMA-ATA | A | RTF | D | | |
| | BARNUAL | A | RTF | D | | |
| | BISHEKEK | A | RTF | D | | |
| | KHOVD | A | RTF | D | | |
| | LAHORE | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | RAWALPIND | A | LTF | D | | |
| | ULAANBAATAR | A | LTF | D | | |
| | | | | | | |
| WUHAN ACC | CHANGSHA | A | LTF | D | | |
| | CHENGDU | A | LTF | D | | |
| | HEFEI | A | LTF | D | | |
| | NANCHANG | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |
| | | | | | | |
| XIAMEN ACC | GUANGZHOU | A | LTF | D | | |
| | NANCHANG | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | TAIBEI | A | LTF | D | | |
| | | | | | | |
| XI'AN ACC | CHENGDU | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | TAIYUAN | A | LTF | D | | |
| | ZHENGZHOU | A | LTF | D | | |
| | | | | | | |
| ZHANJIANG | HONG KONG | A | LTF | D | | |
| | | | | | | |
| ZHENGZHOU ACC | BEIJING | A | LTF | D | | |
| | JINAN | A | LTF | D | | |
| | TAIYUAN | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | WUHAN | A | LTF | D | | |
| | XI'AN | A | LTF | D | | |
| | | | | | | |
| ZHUHAI APP | HONG KONG | A | LTF | D | | |
| | MACAO | D | LTF | D | | |
| **HONG KONG, China** | | | | | | |
| HONG KONG ACC | GUANGZHOU | D | LTF | D | | |
| | MACAO | D | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | SANYA | A | LTF | D | | |
| | SHANTOU | A | LTF | D | | |
| | ZHANJIANG | A | LTF | D | | |
| | TAIBEI | D | LTF | D | | |
| | ZHUHAI | A | LTF | D | | |
| **MACAO, China** | | | | | | |
| MACAO TWR | SHENZHEN | A | LTF | D | | |
| | HONG KONG | D | LTF | D | | |
| | ZHUHAI | D | LTF | D | | |
| **COOK IS.** | | | | | | |
| RAROTONGA | AUCKLAND | A | LTF | D | | |
| | TAHITI/PAPEETE | A | LTF | D | | |
| **DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA** | | | | | | |
| PYONGYANG ACC | DALIAN | A | LTF | D | | |
| | SHENYANG | A | LTF | D | | |
| | INCHEON | A | LTF | D | | RTF |
| | KHABAROVSK | A | LTF | D | | |
| **FIJI** | | | | | | |
| NADI ACC | ALOFI | A | LTF | D | | |
| | APIA | A | LTF | D | | |
| | AUCKLAND | A | LTF | S | BRISBANE | |
| | BRISBANE | A | LTF | D | | |
| | HONIARA | A | LTF | S | SYDNEY | |
| | NAURU | A | IDD | D | | |
| | NOUMEA | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | PAGO PAGO | A | LTF | D | | |
| | PORT VILA | A | LTF | D | | |
| | TONGAPATU | A | IDD | D | | |
| | WALLIS | A | LTF | D | | |
| **FRENCH POLYNESIA (France)** | | | | | | |
| TAHITI/PAPEETE ACC | AUCKLAND | A | LTF | IDD | | |
| | ISLA DE PASCUA | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | RAROTONGA | A | LTF | D | | |
| **GUAM (United States)** | | | | | | |
| GUAM I. | MOEN | A | LTF | D | | |
| | YAP | A | LTF | D | | |
| **INDIA** | | | | | | |
| AGARTALA APP | KOLKATA | A | LTF | D | | |
| | DHAKA | A | LTF | D | | |
| | | | | | | |
| AHMEDABAD APP | MUMBAI | A | LTF | D | | |
| | KARACHI | A | LTF | D | MUMBAI | D/S |
| | | | | | | |
| AMRITSAR APP | DELHI | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | LAHORE | A | LTF | D | | |
| | | | | | | |
| KOLKATA ACC | AGARTALA | A | LTF | D | | |
| | MUMBAI | A | LTF | D | | |
| | DHAKA | A | LTF | D | | |
| | DELHI | A | LTF | D | | |
| | GUWAHATI | A | LTF | D | | |
| | KATHMANDU | A | LTF | D | | |
| | CHENNAI | A | LTF | D | | |
| | NAGPUR | A | LTF | D | | |
| | VARANASI | A | LTF | D | | |
| | YANGON | A | LTF | D | | |
| | | | | | | |
| CHENNAI ACC | MUMBAI | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | COLOMBO | A | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | TIRUCHCHIRAPPALLI | A | LTF | D | | |
| | TRIVANDRUM | A | LTF | D | | |
| | YANGON | A | LTF | IDD | | |
| | | | | | | |
| DELHI ACC | AMRITSAR | A | LTF | D | | |
| | MUMBAI | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | KARACHI | A | LTF | D | | D/S |
| | KATHMANDU | A | LTF | IDD | | |
| | LAHORE | A | LTF | D | | |
| | VARANASI | A | LTF | D | | 2D |
| | | | | | | |
| GUWAHATI | KOLKATA | A | LTF | D | | |
| | DHAKA | A | LTF | D | | |
| | | | | | | |
| MUMBAI ACC | AHMEDABAD | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | DELHI | A | LTF | D | | |
| | KARACHI | A | LTF | D | | 2D |
| | CHENNAI | A | LTF | D | | |
| | MALE | A | LTF | IDD | | |
| | MAURITIUS | A | LTF | IDD | | |
| | MOGADISHU | A | LTF | IDD | | |
| | MUSCAT/SEEB | A | LTF | D | | |
| | NAGPUR | A | LTF | D | | |
| | SEYCHELLES | A | LTF | D | | |
| | | | | | | |
| NAGPUR APP | MUMBAI | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | | | | | | |
| TIRUCHCHIRAPPALLI APP | CHENNAI | A | LTF | D | | |
| | | | | | | |
| TRIVANDRUM ACC | CALICUT | A | LTF | D | | |
| | COLOMBO | A | LTF | IDD | | |
| | CHENNAI | A | LTF | D | | |
| | MALE | A | LTF | D | | |
| | | | | | | |
| VARANASI ACC | KOLKATA | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | DELHI | A | LTF | D | | |
| | KATHMANDU | A | LTF | D | | |
| **INDONESIA** | | | | | | |
| BALI ACC | BRISBANE | A | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | KUPANG | A | LTF | D | | |
| | MANADO | A | LTF | D | | |
| | SURABAYA | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| BATAM TWR | JAKARTA | A | LTF | D | | |
| | SINGAPORE | D | LTF | D | | |
| | TANJUNG PINANG | D | LTF | D | | |
| | | | | | | |
| BIAK APP | DARWIN | A | LTF | D | | |
| | JAYAPURA | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| JAKARTA ACC | BALI | A | LTF | D | | |
| | BATAM | A | LTF | D | | |
| | KOTA KINABALU | A | LTF | S | SINGAPORE | |
| | KUALA LUMPUR | A | LTF | S | SINGAPORE | |
| | MANILA | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | PADANG | A | LTF | D | | |
| | PEKAN BARU | X | LTF | D | | |
| | PERTH | A | LTF | D | | |
| | PONTIANAK | A | LTF | D | | |
| | RANAI | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | SYDNEY | X | LTF | D | | |
| | TANJUNG PINANG | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| JAYAPURA APP | BIAK | A | LTF | D | | |
| | PORT MORESBY | A | LTF | D | | |
| | VANIMO | A | LTF | D | | |
| | | | | | | |
| KUPANG APP | BALI | A | LTF | D | | |
| | DARWIN | A | LTF | D | | |
| | | | | | | |
| MANADO | BALI | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| MEDAN ACC | COLOMBO | A | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | CHENNAI | A | LTF | D | | |
| | PADANG | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | SINGAPORE | A | LTF | S | JAKARTA | |
| | | | | | | |
| PADANG | JAKARTA | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | PEKAN BARU | A | LTF | D | | |
| | | | | | | |
| PEKAN BARU APP | JAKARTA | X | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | MALACCA | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | | | | | | |
| PONTIANAK TWR | JAKARTA | A | LTF | D | | |
| | KUCHING | A | RTF | D | | |
| | RANAI | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | TANJUNG PINANG | A | LTF | D | | |
| | | | | | | |
| RANAI | JAKARTA | A | LTF | D | | |
| | KUCHING | A | LTF | D | | |
| | PONTIANAK | A | LTF | D | | |
| | | | | | | |
| SURABAYA | BALI | A | LTF | D | | |
| | | | | | | |
| TANJUNG PINANG | BATAM | D | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | PONTIANAK | A | LTF | D | | |
| | SINGAPORE | D | LTF | D | | |
| | | | | | | |
| UJUNG PANDANG | BALI | D | LTF | D | | |
| | BIAK | A | LTF | D | | |
| | BRISBANE | A | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | KOTA KINBALU | A | LTF | D | | |
| | MANADO | A | LTF | D | | |
| | MANILA | A | LTF | S | JAKARTA | |
| | PORT MORESBY | A | LTF | S | JAKARTA, SYDNEY | |
| | OAKLAND | A | LTF | D | | |
| **JAPAN** | | | | | | |
| FUKUOKA ACC | INCHEON | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | | | | | | |
| NAHA ACC | MANILA | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | SHANGHAI | A | LTF | D | | |
| | INCHEON | A | LTF | D | | |
| | TAIBEI | A | LTF | D | | |
| | | | | | | |
| SAPPORO ACC | KHABAROVSK | D | LTF | D | | |
| | VLADIVOSTOK | A | LTF | D | | |
| | YUZHNO SAKHALINSK | A | LTF | D | | |
| | | | | | | |
| TOKYO ACC | ANCHORAGE | A | LTF | S | | |
| | ANCHORAGE | D | LTF | D | | |
| | OAKLAND | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | INCHEON | A | LTF | D | | |
| **JOHNSTON I. (United States)** | | | | | | |
| JOHNSTON I. TWR | OAKLAND | A | LTF | D | | |
| **KIRIBATI** | | | | | | |
| TARAWA | OAKLAND | A | LTF | D | | |
| KIRITIMATI I. | OAKLAND | A | LTF | D | | |
| **LAO PEOPLE'S DEMOCRATIC REPUBLIC** | | | | | | |
| VIENTIANE FIC | BANGKOK | A | LTF | D | | |
| | HA NOI | A | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | KUNMING | A | LTF | D | | |
| | PHNOM PENH | A | LTF | S | BANGKOK | |
| | YANGON | A | LTF | S | BANGKOK | |
| **MALAYSIA** | | | | | | |
| JOHOR BAHRU APP | SINGAPORE | D | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | | | | | | |
| KOTA KINABALU ACC | BRUNEI | A | LTF | D | | |
| | JAKARTA | A | LTF | S | SINGAPORE | |
| | KUALA LUMPUR | A | LTF | D | | |
| | KUCHING | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | MIRI | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | TAWAU | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | | | | | | |
| KUALA LUMPUR ACC | BANGKOK | A | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | JAKARTA | A | LTF | S | SINGAPORE | |
| | JOHOR BAHRU | A | LTF | D | | |
| | KUANTAN | A | LTF | D | | |
| | KOTA KINABALU | A | LTF | D | | |
| | CHENNAI | A | LTF | D | | |
| | MALACCA | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | PEKAN BARU | A | LTF | D | | |
| | SINGAPORE | D | LTF | D | | |
| | | | | | | |
| KUANTAN APP | SINGAPORE | A | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | | | | | | |
| KUCHING APP | KOTA KINABALU | A | LTF | D | | |
| | PONTIANAK | A | LTF | D | | |
| | RANAI | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | | | | | | |
| LABUAN | BRUNEI | A | LTF | D | | |
| | | | | | | |
| LIMBANG | BRUNEI | A | LTF | D | | |
| | | | | | | |
| MALACCA APP | KUALA LUMPUR | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | PEKAN BARU | A | LTF | D | | |
| | | | | | | |
| MIRI | BRUNEI | A | LTF | D | | |
| | KOTA KINABALU | D | LTF | D | | |
| | | | | | | |
| TAWAU APP | KOTA KINABALU | A | LTF | D | | |
| **MALDIVES** | | | | | | |
| MALE FIC | COLOMBO | A | LTF | IDD | | |
| | MUMBAI | A | LTF | IDD | | |
| | CHENNAI | A | LTF | IDD | | |
| | MAURITIUS | A | LTF | IDD | | |
| | MELBOURNE | A | LTF | IDD | | |
| | TRIVANDRUM | A | LTF | IDD | | |
| **MARSHALL IS.** | | | | | | |
| MAJURO APP | OAKLAND | A | LTF | D | | |
| | | | | | | |
| KWAJALEIN APP | OAKLAND | A | LTF | D | | |
| **MICRONESIA, FEDERATED STATES OF** | | | | | | |
| KOSRAE APP | OAKLAND | A | LTF | D | | |
| | | | | | | |
| MOEN APP | GUAM I. | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | | | | | | |
| POHNPEI APP | OAKLAND | A | LTF | D | | |
| | | | | | | |
| YAP APP | GUAM I. | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| **MONGOLIA** | | | | | | |
| ULAANBAATAR ACC | ABAKAN | A | LTF | D | | |
| | BARNAUL | A | LTF | D | | |
| | BEIJING | A | LTF | D | | |
| | HUHHOT | A | LTF | D | | |
| | IRKUTSK | A | LTF | D | | |
| | KYZYL | A | LTF | D | | |
| | LANZHOU | A | LTF | D | | |
| | MUREN | A | LTF | D | | |
| | URUMQI | A | LTF | D | | |
| **MYANMAR** | | | | | | |
| YANGON ACC | BANGKOK | A | LTF | D | | |
| | KOLKATA | A | LTF | D | | |
| | DHAKA | A | LTF | S | BANGKOK | |
| | KUNMING | A | LTF | S | BANGKOK | |
| | CHENNAI | A | LTF | IDD | | |
| | VIENTIANE | A | LTF | S | BANGKOK | |
| **NAURU** | | | | | | |
| NAURU FIC | HONIARA | A | LTF | S | SYDNEY | |
| | NADI | A | LTF | D | | |
| | PORT MORESBY | A | LTF | S | SYDNEY | |
| **NEPAL** | | | | | | |
| KATHMANDU | KOLKATA | A | LTF | D | | |
| | DELHI | A | LTF | IDD | | |
| | LASHA | A | LTF | D | | |
| | VARANASI | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **NEW CALEDONIA (France)** | | | | | | |
| NOUMEA/LA TONTOUTA APP | HONIARA | A | LTF | S | SYDNEY, NADI | |
| | NADI | A | LTF | D | | |
| | PORT VILA | A | LTF | S | NADI | |
| **NEW ZEALAND** | | | | | | |
| AUCKLAND | ALOFI | A | LTF | IDD | | |
| | CHRISTCHURCH | A | LTF | D | | |
| | ISLA DE PASCUA | A | LTF | IDD | | |
| | NADI | A | LTF | D | | |
| | OAKLAND | A | LTF | IDD | | |
| | RAROTONGA | A | LTF | IDD | | |
| | BRISBANE | A | LTF | D | | |
| | TAHITI/PAPEETE | A | LTF | IDD | | |
| **NIUE (New Zealand)** | | | | | | |
| ALOFI APP | AUCKLAND | A | LTF | IDD | | |
| | NADI | A | LTF | D | | |
| | PAGO PAGO | A | LTF | D | | |
| **NORTHERN MARIANA IS. (United States)** | | | | | | |
| SAIPAN APP | OAKLAND | A | LTF | D | | |
| **PAKISTAN** | | | | | | |
| KARACHI ACC | AHMEDABAD | A | LTF | S | MUMBAI | D/S |
| | MUMBAI | A | LTF | D | | 2D |
| | DELHI | A | LTF | D | | D/S |
| | KABUL | A | LTF | D | | |
| | MUSCAT | A | LTF | D | | 2D |
| | TEHRAN | A | LTF | D | | 2D |
| | | | | | | |
| LAHORE ACC | AMRITSAR | A | LTF | D | | |
| | DELHI | A | LTF | D | | 2D |
| | DUSHANBE | A | LTF | D | | (Planned) |
| | KABUL | A | LTF | D | | |
| | URUMQI | A | LTF | D | | |
| **PAPUA NEW GUINEA** | | | | | | |
| PORT MORESBY ACC | BRISBANE | A | LTF | D | | |
| | CAIRNS | A | LTF | D | | |
| | HONIARA | A | LTF | D | | |
| | JAYAPURA | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | S | SYDNEY, JAKARTA | |
| **PHILIPPINES** | | | | | | |
| DAVAO APP | MACTAN | A | LTF | D | | |
| | MANILA | | | | | NC |
| | | | | | | |
| LAOAG APP | MANILA | A | LTF | D | | |
| | | | | | | |
| MACTAN APP | DAVAO | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | ZAMBOANGA | A | LTF | D | | |
| | TAGBILARAN TOWER | A | LTF | D | | |
| | | | | | | |
| MACTAN ACC | BACOLOD APP | A | LTF | D | | |
| | LAGUINDINGAN APP | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |
| BACOLOD APP | ILOILO TOWER | A | LTF | D | | |
| | | | | | | |
| KALIBO APP | ROXAS TOWER | A | LTF | D | | |
| | CATICLAN TOWER | A | LTF | D | | |
| | | | | | | |
| MANILA ACC | DAVAO | | | | | |
| | HO CHI MINH | A | LTF | D | | |
| | HONG KONG | A | LTF | D | | |
| | KOTA KINABALU | A | LTF | D | | |
| | LAOAG | A | LTF | D | | |
| | MACTAN | A | LTF | D | | |
| | NAHA | A | LTF | D | | |
| | FUKUOKA | A | LTF | D | | |
| | OAKLAND | D | LTF | D | | |
| | SANYA | A | LTF | D | | Planned |
| | SINGAPORE | A | LTF | D | | |
| | SUBIC BAY | A | LTF | D | | |
| | TAIBEI | D | LTF | D | | |
| | UJUNG PANDANG | D | LTF | D | | |
| | CLARK | A | LTF | D | | |
| | LEGASPI | A | LTF | D | | |
| | BACOLOD | A | LTF | D | | |
| | LAGUINDINGAN | A | LTF | D | | |
| **REPUBLIC OF KOREA** | | | | | | |
| INCHEON ACC | DALIAN | A | LTF | D | | |
| | FUKUOKA | A, D | LTF | D | | A type connected |
| | PYONGYANG | A | LTF | D | | |
| | TOKYO | A, D | LTF | D | | D type connected |
| **SAMOA** | | | | | | |
| APIA/FALEOLO | AUCKLAND | A | LTF | D | | |
| | PAGO PAGO | A | LTF | D | | |
| | NADI | A | LTF | D | | |
| | TONGATAPU | A | LTF | D | | |
| **SINGAPORE** | | | | | | |
| SINGAPORE ACC | BATAM | D | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | JAKARTA | A | LTF | D | | |
| | JOHOR BAHRU | D | LTF | D | | |
| | KOTA KINABALU | A | LTF | D | | |
| | KUALA LUMPUR | D | LTF | D | | |
| | KUANTAN | A | LTF | D | | |
| | KUCHING | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | MEDAN | A | LTF | S | JAKARTA | |
| | PEKAN BARU | A | LTF | D | | |
| | PONTIANAK | A | LTF | D | | |
| | TANJUNG PINANG | D | LTF | D | | |
| **SOLOMON IS.** | | | | | | |
| HONIARA ACC | BRISBANE | A | LTF | D | | |
| | NADI | A | LTF | S | SYDNEY | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| TERMINAL I | TERMINAL II | TYPE | SERVICE | D/S | TO BE SWITCHED VIA | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | NAURU | A | LTF | S | SYDNEY | |
| | NOUMEA | A | LTF | S | SYDNEY, NADI | |
| | OAKLAND | A | LTF | S | | |
| | PORT MORESBY | A | LTF | D | | |
| **SRI LANKA** | | | | | | |
| COLOMBO ACC | BRISBANE | A | LTF | D | | |
| | CHENNAI | A | LTF | D | | |
| | MALE | A | LTF | D | | |
| | MEDAN | A | LTF | D | | |
| | TRIVANDRUM | A | LTF | D | | |
| **THAILAND** | | | | | | |
| BANGKOK ACC | HO CHI MINH | A | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | PHNOM PENH | A | LTF | D | | |
| | VIENTIANE | A | LTF | D | | |
| | YANGON | A | LTF | D | | |
| **TONGA** | | | | | | |
| TONGATAFU APP | AUCKLAND | A | LTF | D | | |
| | NADI | A | IDD | D | | |
| **TUVALU** | | | | | | |
| FUNAFUTI APP | NADI | | | | | |
| **UNITED STATES** | | | | | | |
| ANCHORAGE ACC | ANADYR | A | LTF | D | | |
| | MAGADAN | A | LTF | D | | |
| | OAKLAND | A | LTF | D | | |
| | TOKYO | A | LTF | S | OAKLAND | |
| | TOKYO | D | LTF | D | | |
| | VANCOUVER | A | LTF | D | | |
| | PETROPAVLOVSK-KAMCHATSKY | A | LTF | D | | |
| | VANCOUVER | D | LTF | D | | |
| | | | | | | |
| OAKLAND | AUCKLAND | A | LTF | IDD | | |
| | BIAK | A | LTF | D | | |
| | BRISBANE | A | LTF | D | | |
| | KIRITIMATI I. TWR | A | LTF | D | | |
| | GUAM I. | A | LTF | D | | |
| | HONIARA | A | LTF | D | | |
| | JOHNSTON I. TWR | A | LTF | D | | |
| | KOROR | A | LTF | D | | |
| | KOSRAE | A | LTF | D | | |
| | KAWJALEIN | A | LTF | D | | |
| | MAJURO ATOLL | A | LTF | D | | |
| | MANILA | D | LTF | D | | |
| | MOEN | A | LTF | D | | |
| | NADI | A | LTF | D | | |
| | NAHA | A | LTF | D | | |
| | NAURU | A | LTF | D | | |
| | PAGO PAGO APP | A | LTF | D | | |
| | POHNPEI | A | LTF | D | | |
| | PORT MORESBY | A | LTF | D | | |
| | SAIPAN | A | LTF | D | | |
| | SAPPORO | A | LTF | D | | |
| | TAHITI | A | LTF | D | | |
| | TARAWA TWR | A | LTF | D | | |

| ATS REQUIREMENTS FOR SPEECH COMMUNICATIONS | | | CIRCUIT | | | REMARKS |
|---|---|---|---|---|---|---|
| **TERMINAL I** | **TERMINAL II** | **TYPE** | **SERVICE** | **D/S** | **TO BE SWITCHED VIA** | |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| | TOKYO | A | LTF | D | | |
| | UJUNG PANDANG | A | LTF | D | | |
| | VANCOUVER | D | LTF | D | | |
| | YAP | A | LTF | D | | |
| **VANUATU** | | | | | | |
| PORT VILA | NADI | A | LTF | D | | |
| | NOUMEA | A | LTF | S | | |
| **VIET NAM** | | | | | | |
| HA NOI ACC | NANNING | A | LTF | D | | |
| | HO CHI MINH | A | LTF | D | | |
| | KUNMING | A | LTF | D | | |
| | SANYA | A | LTF | D | | |
| | VIENTIANE | A | LTF | D | | |
| | | | | | | |
| HO CHI MINH ACC | BANGKOK | A | LTF | D | | |
| | HA NOI | A | LTF | D | | |
| | HONG KONG | A | LTF | D | | |
| | KUALA LUMPUR | A | LTF | D | | |
| | MANILA | A | LTF | D | | |
| | PHNOM PENH | A | LTF | D | | |
| | SANYA | A | LTF | D | | |
| | SINGAPORE | A | LTF | D | | |
| | VIENTIANE | A | LTF | D | | |
| **WALLIS AND FUTUNA IS. (France)** | | | | | | |
| WALLIS | NADI | A | LTF | D | | Via IDD |
| | | | | | | |

## TABLE CNS II-4 HF NETWORK DESIGNATORS

EXPLANATION OF THE TABLE

*Column*

1 Name of station, preceded by its location indicator.
2 Network designators assigned to the facility providing HF radiotelephony en-route aeronautical communications (selected from the provisions of the allotment plan in Appendix S27 to the ITU Radio Regulations).

***NOTES***

- *The ICAO designators for HF MWARA and VOLMET networks in the Asia and Pacific regions are derived from the ITU allotment area abbreviations as contained in Appendix S27 to the ITU Radio Regulations. The additionally sectorised sub-networks in accordance with provision 27/21 of the ITU Radio Regulation Appendix 27 were agreed and allocated by ASIA/PAC/3 RAN Meeting and consequential APANPIRG meetings.*

*ITU allotment area:*

- *Two- and three-letter alpha entries indicate major world air route areas (MWARA) and Four-letter alpha entries indicate VOLMET areas. Few frequencies selected from RDARA network are also included for en-route aeronautical communication.*

| Location Indicator and Name of Location | | HF en-route family |
|---|---|---|
| 1 | | 2 |
| OAKB | Kabul | MID 2 |
| YBBN | Brisbane | VASIA |
| YBBB | Brisbane | |
| YPXM | Christmas Is | SEA |
| YPDN | Darwin | SEA |
| YMMM | Melbourne | |
| YPPM | Perth | SW, NW, INO1 and SEA3 |
| VGHS | Dhaka | SEA 1A |
| VGFR | PARO/Paro | SEA 1A |
| VDPP | Phnom-Penh | SEA 2 |
| ZBPE | Beijing | NP, EA 1, VASIA |
| ZGZU | Guangzhou | EA 1, SEA 1A, VASIA |

| Location Indicator and Name of Location | | HF en-route family |
|---|---|---|
| 1 | | 2 |
| ZPKM | Kunming | EA 1, SEA 1A |
| ZGSY | Sanya | EA , SEA |
| ZSHA | Shanghai | CWP, EA 1, NP |
| ZYSH | Shenyang | EA 1 |
| RCSS | Taibei | CWP |
| ZWUQ | Urumqi | MID 2, EA 1 |
| VHHK | Hong Kong | CWP, SEA 2, VPAC |
| NCRG | Avarua/Rorotonga | SP, RDARA 9 |
| ZKKK | Pyongyang | CWP, EA 1, EA 2, NCA 3 |
| NFFN | Nadi | SP, RDARA 9 |
| NTTT | Tahiti | SP |
| VOMF | Chennai | SEA 1B |
| VIDF | Delhi | MID 2 |
| VECF | Kolkata | SEA 1A, VASIA |
| VABF | Mumbai (FIC) | MID 2, INO, VASIA |
| WADZ | Bali | SEA 3 |
| WIIZ | Jakarta | SEA 3 |
| WIMZ | Medan | SEA 1B |
| WAAZ | Ujungpandang | SEA 3 |
| RORG | Naha | CWP |
| RJDG | Fukuoka | CWP, NP |
| RJTG | Tokyo | CWP, NP, VPAC |
| NGTA | Tarawa/Bonriki Int'l. | SP, RDARA 9 |
| VLVT | Vientiane | SEA 2 |
| WBFC | Johor Bahru | SEA 1 |
| WMFC | Kuala Lumpur | SEA 1B, SEA 2 |
| VRMM | Male | |

| Location Indicator and Name of Location | | HF en-route family |
|---|---|---|
| 1 | | 2 |
| | | |
| ZMUB | Ulaan Baatar | NCA 3, EA 1, EA 2 |
| VYYY | Yangon | SEA 1A |
| ANAU | Nauru | CWP, RDARA 9 |
| VNSM | Kathmandu | SEA 1A, MID 2 |
| NZZO | Auckland | SP, VPAC |
| NIUE | | RDARA 9 |
| OPKR<br><br>OPLR | Karachi<br><br>Lahore | MID 2, VASIA<br><br>MID 2 |
| AYPY | Port Moresby | CWP |
| RPHI | Manila | CWP, SEA 2 |
| RKRR | Incheon | NCA 3, CWP |
| NSFA | Faleolo | SP, RDARA 9 |
| WSJC | Singapore | SEA 2, SEA 3, VASIA |
| AGGH | Honiara | RDARA 9 |
| VCCC | Colombo | SEA 1B, INO |
| VTBB | Bangkok | VASIA |
| NFTF | Fua'amotu Int'l. | SP, RDARA 9 |
| NGFU | Funafuti Int'l. | SP, RDARA 9 |
| PHZH | Honolulu | SP, NP, CEP, CWP, VPAC |
| NVVV | Port Vila | RDARA 9 |
| VVNB<br>VVTS | Ha Noi<br>Ho Chi Minh | SEA 2<br>SEA 2 |
| NLWW | Wallis/Hihifo | RDARA 9 |

## HF FREQUENCIES AND THEIR ICAO NETWORK DESIGNATORS BASED ON ITU APPENDIX S27 ALLOTMENT AREAS

| Frequency (kHz) | ITU allotment area | CEP-1 | CEP-2 | CWP-1 | CWP-2 | EA-1 | EA-2 | INO-1 | MID-2 | NCA-3 | NP | RDARA-9 | SEA-1A | SEA-1B | SEA-2 | SEA-3 | SP | VASIA | VPAC | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 2 863 | V PAC | | | | | | | | | | | | | | | | | | X | |
| 2 869 | CEP | | X | | | | | | | | | | | | | | | | | |
| 2 932 | NP | | | | | | | | | | X | | | | | | | | | |
| 2 947 | 9 | | | | | | | | | | | X | | | | | | | | |
| 2 965 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 2 998 | CWP | | | | X | | | | | | | | | | | | | | | |
| 3 004 | NCA | | | | | | | | | X | | | | | | | | | | |
| 3 016 | EA | | | | | X | | | | | | | | | | | | | | |
| 3 413 | CEP | X | | | | | | | | | | | | | | | | | | |
| 3 425 | 9B | | | | | | | | | | | X | | | | | | | | |
| 3 455 | CWP | | | X | | | | | | | | | | | | | | | | |
| 3 458 | V ASIA | | | | | | | | | | | | | | | | | | X | |
| 3 467 | MID, SP | | | | | | | | X | | | | | | | | X | | | |
| 3 470 | SEA | | | | | | | | | | | | | X | | X | | | | |
| 3 473 | MID (1) | | | | | | | | | | | | | | | | | | | |
| 3 476 | INO | | | | | | | X | | | | | | | | | | | | |
| 3 485 | EA, SEA | | | | | | X | | | | | | | | X | | | | | |
| 3 491 | SEA | | | | | | | | | | | | X | | | | | | | |
| 4 657 | CEP | X | X | | | | | | | | | | | | | | | | | |
| 4 666 | CWP | | | | X | | | | | | | | | | | | | | | |
| 5 547 | CEP | | X | | | | | | | | | | | | | | | | | |
| 5 559 | SP | | | | | | | | | | | | | | | | X | | | |
| 5 574 | CEP | X | | | | | | | | | | | | | | | | | | |
| 5 628 | NP | | | | | | | | | | | X | | | | | | | | |
| 5 634 | INO | | | | | | | X | | | | | | | | | | | | |
| 5 643 | SP | | | | | | | | | | | | | | | | X | | | |
| 5 649 | SEA | | | | | | | | | | | | | | X | | | | | |
| 5 652 | CWP | | | | | | | | | | | | | | | | | | | |
| 5 655 | EA, SEA | | | | | | X | | | | | | | | X | | | | | |
| 5 658 | MID | | | | | | | | X | | | | | | | | | | | |
| 5 661 | CWP | | | | | | | | | | | | | | | | | | | |
| 5 664 | NCA | | | | | | | | | X | | | | | | | | | | |
| 5 670 | EA (3) | | | | | | | | | | | | | X | | | | | | |
| 5 673 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 6 532 | CWP | | | X | | | | | | | | | | | | | | | | |
| 6 553 | 9 | | | | | | | | | | | X | | | | | | | | |
| 6 556 | SEA | | | | | | | | | | | | X | | | X | | | | |
| 6 562 | CWP | | | | | | | | | | | | | | | | | | | |
| 6 571 | EA | | | | | X | | | | | | | | | | | | | | |
| 6 625 | MID (1) | | | | | | | | | | | | | | | | | | | |
| 6 655 | NP | | | | | | | | | | X | | | | | | | | | |
| 6 661 | NP | | | | | | | | | | (1) | | | | | | | | | |
| 6 673 | CEP | | X | | | | | | | | | | | | | | | | | |
| 6 676 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 6 679 | V PAC | | | | | | | | | | | | | | | | | | X | |
| 8 828 | V PAC | | | | | | | | | | | | | | | | | | X | |
| 8 843 | CEP | X | | | | | | | | | | | | | | | | | | |
| 8 846 | 9 | | | | | | | | | | | X | | | | | | | | |
| 8 849 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 8 867 | SP | | | | | | | | | | | | | | | | X | | | |
| 8 879 | INO | | | | | | | X | | | | | | | | | X | | | |
| 8 897 | EA | | | | | X | | | | | | | | | | | | | | |
| 8 903 | CWP | | | X | X | | | | | | | | | | | | | | | |

| Frequency (kHz) | ITU allotment area | CEP-1 | CEP-2 | CWP-1 | CWP-2 | EA-1 | EA-2 | INO-1 | MID-2 | NCA-3 | NP | RDARA-9 | SEA-1A | SEA-1B | SEA-2 | SEA-3 | SP | VASIA | VPAC | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 8 942 | SEA | | | | | | | | | | | | | | X | | | | | |
| 8 951 | (3) | | | | | | | | | | X | | | | | | | | | |
| 10 018 | MID | | | | | | | | X | | | | | | | | | | | |
| 10 039 | RDARA 3B, C(3) | | | | | | | | | X | | | | | | | | | | |
| 10 042 | EA | | | | | X | | | | | | | | | | | | | | |
| 10 048 | NP | | | | | | | | | | X | | | | | | | | | |
| 10 057 | CEP | X | | | | | | | | | | | | | | | | | | |
| 10 066 | SEA | | | | | | | | | | | | X | | | | | | | |
| 10 081 | CWP | | | X | X | | | | | | | | | | | | | | | |
| 10 084 | SP | | | | | | | | | | | | | | | | (1) | | | |
| 11 282 | CEP | | X | | | | | | | | | | | | | | | | | |
| 11 285 | SEA | | | | | | | | | | | | | X | | | | | | |
| 11 297 | (3) | | | | | | | | | | | | | | X | | | | | |
| 11 327 | SP | | | | | | | | | | | | | | | | (1) | | | |
| 11 330 | NP | | | | | | | | | | X | | | | | | | | | |
| 11 339 | 9 | | | | | | | | | | | X | | | | | | | | |
| 11 384 | CWP | | | | X | | | | | | | | | | | | | | | |
| 11 387 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 11 396 | EA, SEA | | | | | | X | | | | | | | | X | X | | | | |
| 13 261 | (3) | | | | | | | | | | | | | | | | X | | | |
| 13 273 | (3) | | | | | | | | | | X | | | | | | | | | |
| 13 282 | V PAC | | | | | | | | | | | | | | | | | | X | |
| 13 285 | V ASIA | | | | | | | | | | | | | | | | | X | | |
| 13 288 | MID, (3) | | X | | | | | | X | | | | | | | | | | | |
| 13 297 | EA | | | | | X | | | | | | | | | | | | | | |
| 13 300 | CWP | | | X | X | | | | | | | | | | | | | | | |
| 13 303 | EA, NCA | | | | | | | | | X | | | | | | | | | | |
| 13 306 | NCA, (1) INO | | | | | | | X | | | | | | | | | | | | |
| 13 309 | EA, SEA | | | | | | X | | | | | | | | X | | | | | |
| 13 318 | SEA | | | | | | | | | | | | | X | | X | | | | |
| 13 354 | (3) | X | | | | | | | | | | | | | | | | | | |
| 17 904 | (4) | X | X | X | X | | | | | | X | | | | | | X | | | |
| 17 907 | EA, SEA | | | | | | X | | | | | | | X | X | X | | | | |
| 17 958 | NCA | | | | | | | | | X | | | | | | | | | | |
| 17 961 | INO | | | | | | | X | | | | | | | | | | | | |

# TABLE CNS II-APAC-1-ATS INTER-FACILITY DATA COMMUNICATION (AIDC) IMPLEMENTATION PLAN

EXPLANATION OF THE TABLE

*Column*

1 State/Administration – the name of the State/Administration;

2 Location of AIDC end system – the location of the AIDC end system under the supervision of State/Administration identified in column 1;

3 AIDC Pair – the correspondent AIDC end system;

Location – location of the correspondent AIDC end system

State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system

A "/" is placed between the location and State/Administration

4 Transmission Means – the transmission means used for the AIDC messages exchanged between the corresponding AIDC pair, AFTN, AFTN/AMHS;

5 Target Date of Implementation – date of implementation of the AIDC end system in the form of xQyyyy or yyyy (quarter year);

6 Remarks – any additional information describing the AIDC end system or the AIDC service between the corresponding AIDC pair.

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **AFGHANISTAN** | Kabul ACC | Kabul ACC /Afghanistan | AFTN/AMHS | | |
| | | Karachi ACC/Pakistan | AFTN | | |
| **AUSTRALIA** | Brisbane ACC | Oakland ARTCC /USA | AFTN | Implemented | |
| | | | AFTN/AMHS | | |
| | | Auckland ACC /New Zealand | AFTN | Implemented | ICD V.1.0 |
| | | | AFTN/AMHS | | |
| | | Melbourne ACC /Australia | AFTN | Implemented | |
| | | Ujung Pandang ACC /Indonesia | AFTN/Direct Link | Implemented | LOA to be updated |
| | | Nadi ACC/Fiji | AFTN | Implemented | |
| | | | AFTN/AMHS | Implemented | |
| | | Port Moresby/PNG | AFTN/AMHS | 4Q2018 | |
| | Melbourne ACC | Brisbane ACC /Australia | AFTN | Implemented | |
| | | | AFTN/AMHS | | |
| | | Jakarta ACC /Indonesia | AFTN | | |
| | | | AFTN/AMHS | 4Q2019 | |
| | | Mauritius ACC /Mauritius | AFTN | Implemented | |
| | | | AFTN/AMHS | | |
| **BANGLADESH** | Dhaka ACC | Kolkata ACC /India | AFTN/AMHS | 4Q2018 | |
| | | Yangon ACC /Myanmar | AFTN/AMHS | 4Q2018 | ICD V.2.0 |
| **CAMBODIA** | Phnom Penh ACC | Bangkok ACC /Thailand | AMHS | 3Q2019 | |
| | | Vientiane ACC/Laos PDR | AFTN | | Operational test will be conducted from June 2018 |
| | | Ho Chi Minh ACC/Viet Nam | AFTN/AMHS | 2016 | |
| **CHINA** | Beijing ACC | Ulaanbaatar ACC/Mongolia | AFTN | | |
| | Sanya ACC | Hong Kong ACC /Hong Kong China | AFTN | Implemented | |
| | | Ho Chi Minh ACC /Vietnam | AFTN | | |
| | Kunming ACC | Yangon ACC /Myanmar | AFTN | | |
| | Lhasa ACC | Kathmandu ACC/Nepal | AFTN | | |
| | Guangzhou ACC | Hong Kong ACC /Hong Kong, China | AFTN | | Operational trail planned for 2Q2018 |
| | Taibei ACC | Hong Kong ACC /Hong Kong, China | AFTN | Implemented | |

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | Fukuoka ATMC/Japan | AFTN | Implemented | ICD V.3.0 |
| | | Manila ACC/Philippines | AFTN | | |
| | | | AFTN/AMHS | 4Q2018 | |
| | Urumqi ACC | Lahore ACC /Pakistan | AFTN/AMHS | | |
| | Dalian ACC | Incheon ACC /Republic of Korea | AFTN | Implemented | ICD V.3.0 (trial operation) |
| | Shanghai ACC | Fukuoka ATMC /Japan | AFTN | | |
| **HONG KONG, CHINA** | Hong Kong ACC | Guangzhou ACC /China | AFTN | | Operational trail planned for 2Q2018 |
| | | Sanya ACC /China | AFTN | Implemented | |
| | | Manila ACC /Philippines | AFTN | | Coordination for technical test on the new ATM system – on going |
| | | Taibei ACC /China | AFTN | Implemented | |
| **MACAO, CHINA** | Macao ATZ | | | | Automatic transfer of control with adjacent ATC units is applicable instead of AIDC |
| **FIJI** | Nadi ACC | Auckland ACC /New Zealand | AFTN | Implemented | ICD V.1.0 |
| | | Brisbane ACC /Australia | AFTN/AMHS | Implemented | ICD V. 1.0 |
| | | Oakland ARTCC /USA | AFTN/AMHS | Implemented | ICD V.1.0 |
| **FRANCE**<br>***FRENCH POLYNESIA***<br>***NEW CALEDONIA*** | Papeete ACC | Auckland ACC /New Zealand | AFTN | Implemented | ICD V. 2.0 |
| | | Oakland ARTCC /USA | AFTN | Implemented | |
| **INDIA** | Ahmedabad ACC | Karachi ACC /Pakistan | AFTN | 4Q2018 | LOA signed for test trials |
| | Chennai ACC | Colombo ACC / Sri Lanka | AFTN/AMHS | 4Q2018 | |
| | | Jakarta ACC /Indonesia | AFTN | 4Q2019 | |
| | | Kuala Lumpur ACC / Malaysia | AFTN | 4Q2018 | ICD V.3.0 (LOA to be updated 4Q18) |
| | | Male ACC /Maldives | AFTN | 3Q2018 | LOA signed for trial operations |
| | | Yangon ACC /Myanmar | AFTN | 4Q2018 | ICD V.2.0 |
| | Delhi ACC | Karachi ACC /Pakistan | AFTN | 1Q2019 | |
| | | Lahore ACC /Pakistan | AFTN | 1Q2019 | |
| | Kolkata ACC | Dhaka ACC /Bangladesh | AFTN/AMHS | 4Q2018 | |
| | | Yangon ACC /Myanmar | AFTN | 4Q2018 | ICD V.2.0 |
| | | Kathmandu ACC /Nepal | AFTN | | |

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | Mumbai ACC | Karachi ACC /Pakistan | AFTN/AMHS | 1Q2019 | |
| | | Male ACC /Maldives | AFTN | 3Q2018 | |
| | | Muscat ACC /Oman | AFTN | 4Q2018 | |
| | | Seychelles ACC / Mauritius | AFTN | | |
| | Trivandrum ACC | Male ACC/Maldives | AFTN | 3Q2018 | LOA for test trials signed |
| | Varanasi ACC | Kathmandu ACC /Nepal | AFTN | | |
| **INDONESIA** | Jakarta ACC | Melbourne /Australia | AFTN/AMHS | 4Q2019 | |
| | | Colombo ACC / Sri Lanka | AFTN/AMHS | 4Q2019 | |
| | | Singapore ACC /Singapore | AFTN/AMHS | 4Q2019 | ICD V.3.0 |
| | | Kuala Lumpur ACC / Malaysia | AFTN | 4Q2019 | ICD V.3.0 |
| | | Kota Kinabalu ACC /Malaysia | AFTN | 4Q2019 | |
| | | Chennai ACC /India | AFTN | 4Q2019 | |
| | Ujung Pandang ACC | Brisbane ACC /Australia | AFTN/Direct Link | Implemented | LOA to be updated |
| | | Oakland ARTCC /USA | AFTN/AMHS | | Subject to Indonesia to join CRV |
| | | Port Moresby ACC/ PNG | AFTN | | |
| | | Kota Kinabalu ACC/Malaysia | AFTN | | |
| | | Manila ACC/Philippines | AFTN/AMHS | 4Q2018 | Technical tests until 4Q2018 |
| **JAPAN** | Fukuoka ATMC | Manila ACC/Philippines | AFTN/AMHS | 1Q2019 | |
| | | Anchorage ACC /USA | AFTN | Implemented | ICD V.2.0 |
| | | Incheon ACC /Republic of Korea | AFTN | Implemented | ICD V.1.0 |
| | | Oakland ARTCC /USA | AFTN | Implemented | ICD V.2.0 |
| | | Shanghai ACC /China | AFTN | | |
| | | Taibei ACC /Taibei, China | AFTN | Implemented | ICD V.3.0 |
| **LAO PEOPLE'S DEMOCRATIC REPUBLIC** | Vientiane ACC | Bangkok ACC /Thailand | AFTN/AMHS | 3Q2019 | Test conducted in 2017 |
| | | Hanoi ACC /Veitnam | AFTN/AMHS | | Test conducted in 2017- on-going |
| | | Phnom Penh ACC /Cambodia | AFTN | | Operational test will be conducted from June 2018 |
| | | Yangoon ACC/ Myanmar | AFTN | 4Q2018 | ICD V.2.0 |
| | | Ho Chi Minh ACC/ Vietnam | AFTN/AMHS | | |

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **MALAYSIA** | Kuala Lumpur ACC | Bangkok ACC /Thailand | AFTN | 3Q2019 | ICD V.3.0 |
| | | Singapore ACC /Singapore | AFTN | 2Q2018 | ICD V.3.0 |
| | | Chennai ACC /India | AFTN | 4Q2018 | ICD V.3.0 (LOA to be updated 4Q18) |
| | | Ho Chi Minh ACC /Vietnam | AFTN | | |
| | | Jakarta ACC /Indonesia | AFTN | 4Q2019 | ICD V.3.0 |
| | Kota Kinabalu ACC | Ujung Pandang ACC /Indonesia | AFTN | | |
| | | Manila ACC /Philippines | AFTN/AMHS | 4Q2019 | |
| | | Singapore ACC /Singapore | AFTN/AMHS | 4Q2020 | ICD V.3.0 |
| | | Jakarta ACC /Indonesia | AFTN | 4Q2019 | |
| | Kuching ACC | Singapore ACC /Singapore | AFTN | 4Q2020 | ICD V.3.0 |
| **MALDIVES** | Male ACC | Mumbai ACC/India | AFTN | 3Q2018 | |
| | | Chennai ACC /India | AFTN | 3Q2018 | LOA signed for trial operations |
| | | Mauritius ACC/Mauritius | AFTN | | |
| | | Colombo ACC/Sri Lanka | AFTN | 2018 | |
| | | Trivandrum ACC/India | AFTN | 3Q2018 | LOA for test trials signed |
| **MONGOLIA** | Ulaanbaatar ACC | Beijing ACC/ China | AFTN | 2016 | |
| **MYANMAR** | Yangon ACC | Bangkok ACC /Thailand | AFTN/AMHS | 3Q2019 | ICD V.2.0 |
| | | Kolkata ACC /India | AFTN | 4Q2018 | |
| | | Chennai ACC /India | AFTN | 4Q2018 | ICD V.2.0 |
| | | Kunming ACC /China | AFTN | | |
| | | Vientianne ACC /Lao PDR | AFTN | 4Q2018 | ICD V.2.0 |
| | | Dhaka ACC /Bangladesh | AFTN/AMHS | 4Q2018 | ICD V.2.0 |
| **NEPAL** | Kathmandu ACC | Kolkata ACC /India | AFTN | | |
| | | Varanasi ACC/India | AFTN | | |
| | | Lhasa ACC /China | AFTN | | |
| **NEW ZEALAND** | Auckland ACC | Brisbane ACC /Australia | AFTN | Implemented | ICD V.1.0 |
| | | Nadi ACC /Fiji | AFTN | Implemented | ICD V.1.0 |
| | | Oakland ARTCC /USA | AFTN | Implemented | ICD V.2.0 |
| | | Papeete ACC /French Polynesia | AFTN | Implemented | ICD V.2.0 |
| | | | AFTN/AMHS | | |

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **PAKISTAN** | Karachi ACC | Mumbai ACC /India | AFTN | 2018 | |
| | | Muscat ACC /Oman | AFTN | | |
| | | Tehran ACC /Iran | AFTN | | |
| | | Delhi ACC /India | AFTN | | |
| | | Ahmadabad ACC /India | AFTN | 4Q2018 | LOA signed for test trials |
| | | Kabul ACC /Afghanistan | AFTN | | |
| | Lahore ACC | Delhi ACC /India | AFTN | | |
| | | Urumqui ACC /China | AFTN/AMHS | | |
| | | Tajakistan ACC /Tajakistan | AFTN | | |
| **PAPUA NEW GUINEA** | Port Moresby | Brisbane ACC/Australia | AFTN/AMHS | 4Q2018 | |
| | | Ujung Pandang ACC/Indonesia | AFTN | | |
| | | Oakland ARTCC | AFTN | | Subject to PNG to join CRV |
| **PHILIPPINES** | Manila ACC | Hong Kong ACC /Hong Kong, China | AFTN | | Coordination for Technical test on the new ATM system – on going |
| | | | AFTN/AMHS | 1Q2019 | |
| | | Singapore ACC /Singapore | AFTN/AMHS | 4Q2018 | ICD V.3.0 Topsky-HE ATM System |
| | | Taibei ACC/China | AFTN | | ATMC-ATMS |
| | | | AFTN/AMHS | 4Q2018 | |
| | | Kota Kinabalu ACC /Malaysia | AFTN/AMHS | 4Q2019 | Philippines is ready by lQ2019. Target date of implementation depends on the readiness of adjacent ACC's. |
| | | Ho Chi Minh ACC /Viet Nam | AFTN/AMHS | 1Q2019 | |
| | | Oakland ARTCC /USA | AFTN/AMHS | 1Q2019 | |
| | | Fukoka ATMC /Japan | AFTN/AMHS | 1Q2019 | |
| | | Ujung Pandang ACC /Indonesia | AFTN/AMHS | 4Q2018 | |
| **REPUBLIC OF KOREA** | Incheon ACC | Fukoka ATMC /Japan | AFTN | Implemented | ICD V.1.0 |
| | | Dalian ACC/China | AFTN | Implemented | ICD V.3.0 (Trial operation) |
| **SINGAPORE** | Singapore ACC | Ho Chi Minh ACC /Vietnam | AFTN/AMHS | Implemented | ICD V.1.0 |
| | | Manila ACC /Philippines | AFTN/AMHS | 4Q2018 | ICD V.3.0 Topsky-HE ATM System |
| | | Jakarta ACC /Indonesia | AFTN/AMHS | 4Q2019 | ICD V.3.0 |

| State/Administration | Location of AIDC System ATSU1 | AIDC System Pair<br>ATSU2 /Correspondent State – Administration | Transmission Means | Target date of Implementation xQyyyy or yyyy | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | Kuala Lumpur ACC /Malaysia | AFTN/AMHS | 2Q2018 | ICD V.3.0 |
| | | Kota Kinabalu ACC /Malaysia | AFTN/AMHS | 4Q2020 | ICD V.3.0 |
| | | Kuching /Malaysia | AFTN/AMHS | 4Q2020 | ICD V.3.0 |
| **SRI LANKA** | Colombo ACC | Male ACC /Maldives | AFTN/AMHS | 2018 | |
| | | Jakarta ACC / Indonesia | AFTN/AMHS | 4Q2019 | |
| | | Chennai ACC /India | AFTN/AMHS | 4Q2018 | |
| **THAILAND** | Bangkok ACC | Kuala Lumpur ACC /Malaysia | AFTN | 3Q2019 | ICD V.3.0 |
| | | Phnom Penh ACC /Cambodia | AMHS | 3Q2019 | |
| | | Vientiane ACC /Lao PDR | AFTN/AMHS | 3Q2019 | |
| | | Yangon ACC /Myanmar | AFTN/AMHS | 3Q2019 | ICD V.2.0 |
| **UNITED STATES** | Oakland ARTCC | Anchorage ARTCC /United States | AFTN | Implemented | ICD V 2.0 |
| | | Auckland OAC /New Zealand | AFTN | Implemented | ICD V.2.0 |
| | | Fukuoka ATMC /Japan | AFTN | Implemented | ICD V.2.0 |
| | | Nadi ATMC /Fiji | AFTN | Implemented | ICD V.2.0 |
| | | Brisbane ACC /Australia | AFTN | Implemented | ICD V.2.0 |
| | | Tahiti ACC /Tahiti | AFTN | Implemented | ICD V 2.0 |
| | | Port Moresby/PNG | AFTN | | Subject to PNG to join CRV |
| | | Manila /Philippines | AFTN/AMHS | 1Q2019 | |
| | | Ujung Padang/Indonesia | AFTN/AMHS | | Subject to Indonesia to join CRV |
| | Anchorage ARTCC | Fukuoka ATMC /Japan | AFTN | Implemented | ICD V.2.0 |
| | | Oakland ARTCC /United States | AFTN | Implemented | ICD V.2.0 |
| **VIET NAM** | Ho Chi Minh ACC | Sanya ACC /China | AFTN | | |
| | | | AFTN/AMHS | | |
| | | Phnom Penh ACC /Cambodia | AFTN/AMHS | 2016 | |
| | | Vientiane ACC /Lao PDR | AFTN/AMHS | | |
| | | Singapore ACC /Singapore | AFTN/AMHS | Implemented | ICD V.1.0 |
| | | Manila ACC /Philippines | AFTN/AMHS | 1Q2019 | |
| | | Kuala Lumpur ACC /Malaysia | AFTN | | |
| | Hanoi ACC | Vientiane ACC/Lao PDR | AFTN/AMHS | | Test conducted in 2017- on-going |

## Table CNS II-APAC-2 RADIO NAVIGATION AIDS

EXPLANATION OF THE TABLE

*Column*

1 Name of the State and city (and aerodrome if different name than the city) or, for en-route aids, the location of the facility.

2 The designator number and runway type:

NINST — Visual flight runway
NPA — Non-precision approach runway
PA1 — Precision approach runway, Category I
PA2 — Precision approach runway, Category II
PA3 — Precision approach runway, Category III

and functions:

T — Terminal
E — En route

*Note.— Precision approach category refers to the standard of facility performance to be achieved and maintained in accordance with the relevant Annex 10 specifications and not to the specifications of the ILS equipment itself, which are not necessarily the same.*

3 ILS — Instrument landing system

4 L — Locator, either associated with an ILS or for use as an approach aid at an aerodrome.

5 DME — Distance measuring equipment. Aligned with the ILS shown in column 3 when the DME is required to serve as a substitute for a marker beacon. When aligned with VOR in column 6, indicates the DME to be collocated with the VOR.

6 VOR — VHF omnidirectional radio range.

7 Blank

8 Implementation Status for ILS

9 Implementation status for Locator

10 Implementation status for DME

11 Implementation status for VOR

12 Remarks

*Note.— Columns* 3 to 6 *use the following symbols:*

R – Required

Blank Entry means no requirement.

*Note.— Columns 8* to 11 *use the following symbols:*

I — Implemented.

X — Implementation status undetermined. (in red)

N — Not implemented. (in red)

P — Planned (need to fill up Remarks column with planned implementation date in

MM/YY format)

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **AMERICAN SAMOA (United States)** | | | | | | | | | | | |
| PAGO PAGO | 05 PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **AUSTRALIA** | | | | | | | | | | | |
| Adelaide | PA1 | R | | R | R | | | | | | |
| | T | | | R | R | | I | | I | I | |
| | E | | | R | R | | | | I | I | |
| Albany | PA1 | R | | R | | | | | | | NDB |
| | T | | | R | | | I | | I | | NDB |
| Albury | NPA | | | R | R | | | | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Alice Springs | PA1 | R | | R | R | | | | | | |
| | T | | | R | R | | I | | I | I | |
| | E | | | R | R | | | | I | I | |
| Amberly | PA1 | R | | | | | I | | | | DoD |
| Armidale | NPA | | | R | | | | | | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Avalon | PA1 | R | | R | R | | | | I | | |
| | T | | | R | R | | I | | I | I | |
| | E | | | R | R | | | | I | I | |
| Ayers Rock | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Beermullah | PA1 | R | | | | | I | | | | DoD |
| Brisbane | 01 PA1 | R | | R | R | | I | | I | I | |
| | 19PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Broken Hill | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Broome | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Cairns | 15PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Canberra | 35PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Carnarvon | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Christmas Island | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Cocos Island | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Coffs Harbour | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Cooma | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Cunnamulla | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Curtin | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Darwin | 29PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| East Sale | 22PA1 | R | | R | | | I | | I | | DoD |
| | T | R | | R | | | I | | I | | DoD |
| Edinburgh | 18PA1 | R | | | | | I | | | | DoD |
| Esperance | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Essendon | 16PA1 | R | | | | | I | | | | |
| | T | R | | | | | I | | | | |
| Geralton | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Gladstone | 10PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Gold Coast | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Gove | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Groote Eylandt | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Hobart | 12PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Kalgoorie | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Karratha | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Kununurra | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Launceston | 32PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Learmonth | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Lord Howe Island | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Mackay | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Managalore | NPA | | | | R | | | | | I | |
| | E | | | | R | | | | | I | |
| Meekatharra | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Melbourne | 16PA3 | R | | R | R | | I | | I | I | |
| | 27PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Merimbula | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Mildura | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Moomba | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | NDB |
| | E | | | R | | | | | I | | NDB |
| Mount Gambier | NPA | | | | R | | | | | I | |
| | T | | | | R | | | | | I | |
| | E | | | | R | | | | | I | |
| Mount Isa | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Newman | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Norfolk Island | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Nowra | 21PA1 | R | | R | | | I | | I | | DoD |
| | T | | | R | | | | | I | | DoD |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | R | | | | | I | | DoD |
| Oakey | 14PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Paraburdoo | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Parkes | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Pearce | 36PA1 | R | | | | | I | | | | DoD |
| | 18PA1 | R | | | | | I | | | | DoD |
| Perth | 03PA1 | R | | R | R | | I | | I | I | |
| | 21PA1 | R | | R | R | | I | | I | I | |
| | 24PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Port Headland | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Proserpine | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Richmond | 28PA1 | R | | | | | I | | | | DoD |
| Rock Hampton | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Sydney | 34R PA1 | R | | R | R | | I | | I | I | |
| | 34L PA2 | R | | R | R | | I | | I | I | |
| | 16R PA2 | R | | R | R | | I | | I | I | |
| | 16L PA1 | R | | R | R | | I | | I | I | |
| | 25PA1 | R | | R | R | | I | | I | I | |
| | 7PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Tamworth | 30R PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Tennant Creek | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Tindal | 14PA1 | R | | | R | | I | | | I | DoD |
| | T | | | | R | | | | | I | |
| | E | | | | R | | | | | I | |
| Townsville | 01PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Wagga Wagga | 23PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Weipa | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| Williamsdale | E | | | | R | | | | | I | |
| Williamstown | 12PA1 | R | | | | | I | | | | DoD |
| Yarrowee | E | | | | R | | | | | I | |
| **BANGLADESH** | | | | | | | | | | | |
| CHITTAGONG | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| COMILLA | E | | | | R | | | | | X | |
| DHAKA (Zia intl) | 14 PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| RAJSHAHI | E | | | | R | | | | | X | |
| SAIDPUR | E | | | | R | | | | | X | |
| **BHUTAN** | | | | | | | | | | | |
| PARO | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | R | R | | | | I | I | |
| **BRUNEI DARUSSALAM** | | | | | | | | | | | |
| BRUNEI | 21 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **CAMBODIA** | | | | | | | | | | | |
| PHNOM PENH | 23 PA1 | R | R | R | R | | X | X | I | I | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| SIEM REAP (Ankor) | NPA | | R | R | R | | | X | I | I | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **CHINA** | | | | | | | | | | | |
| ALTAY | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| ANDONG | E | | | R | R | | | | I | I | |
| BAIHESI | E | | | R | R | | | | I | I | |
| BOSE | E | | | R | R | | | | I | I | |
| BAOTOU | E/T | | | R | R | | | | I | I | |
| BEIJING (Capital) | 18R PA1 | R | R | R | | | I | I | I | | |
| | 36L PA1 | R | R | | | | I | I | | | |
| | 18L PA1 | R | R | | | | I | I | | | |
| | 36R PA2 | R | R | R | R | | I | I | I | I | |
| | 01 PA2 | R | R | | | | I | I | I | | |
| | 19 PA1 | R | R | | | | I | I | I | | |
| CENCUN | E | | | R | R | | | | I | I | |
| CHA'AN | E | | | R | R | | | | I | I | |
| CHANGCHUN/Longjia | 06 PA1 | R | R | R | | | I | I | I | | |
| | 24 PA1 | R | R | R | | | I | I | I | | |
| CHANGHAI | E | | | R | R | | | | I | I | |
| CHANGSHA/Huanghua | 18 PA1 | R | R | R | R | | I | I | I | I | |
| | 36PA1 | R | R | R | | | I | | I | | |
| CHANGSHENGQIAO | E | | | R | R | | | | I | I | |
| CHANGZHOU | E/T | | | R | R | | | | I | I | |
| CHANGZHOU/Benniu | 11 PA1 | R | R | R | R | | I | I | I | I | |
| | 29 PA1 | R | R | | | | I | I | I | | |
| CHAOSHAN | E | | | R | R | | | | I | I | |
| CHAOYANG | E/T | | | R | R | | | | I | I | |
| CHENGDU/Shuangliu | 20R PA1 | R | R | R | R | | I | I | I | I | |
| | 02L PA2 | R | R | | | | I | I | | | |
| | 02R PA3 | R | R | | | | I | I | I | | |
| | 20L PA1 | R | R | | | | I | I | I | | |
| CHENGHAI | E | | | R | R | | | | I | I | |
| CHONGQING/Jiangbei | 02L PA1 | R | R | R | R | | I | I | I | I | |
| | 20R PA1 | R | R | | | | I | I | I | | |
| | 02R PA1 | R | R | | | | I | I | I | | |
| | 20L PA1 | R | R | | | | I | I | I | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| CHONGZHOU | E | | | R | R | | | | I | I | |
| CONGHUA | E | | | R | R | | | | I | I | |
| DAGUSHAN | E | | | | | | | | | | |
| DAHUSHAN | E | | | R | R | | | | I | I | |
| DALI | E/T | | | R | R | | | | I | I | |
| DALIAN/Zhoushuizi | 28 PA1 | R | R | R | R | | I | I | I | I | |
| | 10 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| DANDONG | E/T | | | R | R | | | | I | I | |
| DANGSHAN | E | | | R | R | | | | I | I | |
| DAWANGZHUANG | E | | | R | R | | | | I | I | |
| DENGKOU | E | | | R | R | | | | I | I | |
| DONGLIHU | E | | | R | R | | | | I | I | |
| DONGMULANTOU | E | | | R | R | | | | I | I | |
| DONGSHAN | E | | | R | R | | | | I | I | |
| DONGYING | E/T | | | R | R | | | | I | I | |
| DUNHUANG | E/T | | | R | R | | | | I | I | |
| EJINAQI | E | | | R | R | | | | I | I | |
| ENSHI | E | | | R | R | | | | I | I | |
| EREN | E | | | R | R | | | | I | I | |
| ERENHOT | E/T | | | R | R | | | | I | I | |
| FENGHUO | E | | | R | R | | | | I | I | |
| FUJIACHANG | E | | | R | R | | | | I | I | |
| FUKANG | E | | | R | R | | | | I | I | |
| FULING | E | | | R | R | | | | I | I | |
| FUQING | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| FUYANG | E | | | R | R | | | | I | I | |
| FUYU | E | | | R | R | | | | I | I | |
| FUZHOU/Changle | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| GANLANBA | E | | | R | R | | | | I | I | |
| GAOYAO | E | | | R | R | | | | I | I | |
| GENGMA | E | | | R | R | | | | I | I | |
| GUANGZHOU (Baiyun) | 02L PA1 | R | R | R | R | | I | I | I | | |
| | 20R PA1 | R | R | R | | | I | I | I | | |
| | 01 PA1 | R | R | R | | | I | I | I | | |
| | 19 PA1 | R | R | R | | | I | I | I | | |
| | 02R PA1 | R | R | R | | | I | I | I | | |
| | 20L PA1 | R | R | R | | | I | I | I | | |
| GUILIN/Liangjiang | 01 PA1 | R | R | R | R | | I | I | I | I | |
| | 19 PA1 | R | R | R | | | I | I | I | | |
| GUANLAN | E | | | R | R | | | | I | I | |
| GUANZHUANG | E | | | R | R | | | | I | I | |
| GUIYANG | E/T | | | R | R | | | | I | I | |
| GUIYANG/Longdongbao | 01 PA1 | R | R | R | R | | I | I | I | I | |
| | 19 PA1 | R | R | R | | | I | I | I | | |
| HAIKOU/Meilan | 09 PA1 | R | R | R | R | | I | I | I | I | |
| | 19 PA1 | R | R | R | | | I | I | I | | |
| HAILAR | E | | | R | R | | | | I | I | |
| HAMI | E/T | | | R | R | | | | I | I | |
| HANGZHOU (Xiaoshan) | 07 PA1 | R | R | R | R | | I | I | I | I | |
| | 25 PA1 | R | R | | | | I | I | | | |
| | 06 PA1 | R | R | | | | I | I | I | | |
| | 24 PA1 | R | R | | | | I | I | I | | |
| HARBIN (Taiping) | 23 PA1 | R | R | R | R | | I | I | I | I | |
| | 05 PA1 | R | R | | | | I | I | | | |
| HEFEI (Xinqiao) | 15 PA1 | R | R | R | R | | I | I | I | I | |
| | 33 PA1 | R | R | | | | I | I | I | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | R | R | | | | I | I | |
| HEIHE | E/T | | | R | R | | | | I | I | |
| HEDONG | E | | | R | R | | | | I | I | |
| HENGSHA | E | | | R | R | | | | I | I | |
| HEKOU | E | | | R | R | | | | I | I | |
| HOHHOT/Baita | 08 PA1 | R | R | R | R | | I | I | I | I | |
| | 26 PA1 | R | R | | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| HOTAN/Hotan | 11 PA1 | R | R | R | R | | I | I | I | I | |
| | 29 PA 1 | R | R | | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| HUAIAN | E/T | | | R | R | | | | I | I | |
| HUAIAN/Lianshui | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | 22 PA1 | R | R | | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| HUANGCHENG | E | | | R | R | | | | I | I | |
| HUANGHUA | E/T | | | R | R | | | | I | I | |
| HUANGPING | E | | | R | R | | | | I | I | |
| HUANGSHAN/Tunxi | 13 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |
| HUAIROU | E | | | R | R | | | | I | I | |
| HUAYUAN | E | | | R | R | | | | I | I | |
| HULUNBEIER/Hailar | 27 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |
| JIAYUGUAN | E/T | | | R | R | | | | I | I | |
| JIEYANG/Chaoshan | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | 22 PA1 | R | R | | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| JINAN (Yaoqiang) | 01 PA1 | R | R | R | R | | I | I | I | I | |
| | 19 PA1 | R | R | | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| JINGNING | E | | | R | R | | | | I | I | |
| JINGTAI | E | | | R | R | | | | I | I | |
| JINNING | E | | | R | R | | | | I | I | |
| JINTANG | E | | | R | R | | | | I | I | |
| JIUTING | E | | | R | R | | | | I | I | |
| JINZHOU | E | | | R | R | | | | I | I | |
| KAIYUAN | E | | | R | R | | | | I | I | |
| KASHI/Kashi | 08 PA1 | R | R | R | R | | I | I | I | I | |
| | 26 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| KOULING | E | | | R | R | | | | I | I | |
| KUNMING (Changshui) | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | R | | | I | I | I | | |
| | 04 PA1 | R | R | R | | | I | I | I | | |
| | 22 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| KUQA | E/T | | | R | R | | | | I | I | |
| LAIBIN | E | | | R | R | | | | I | I | |
| LANZHOU (Zhongchuan) | 36 PA1 | R | R | R | R | | I | I | I | I | |
| | 18 PA1 | R | R | R | | | | | | | |
| | E | | | R | R | | | | I | I | |
| LAOLIANGCANG | E | | | R | R | | | | I | I | |
| LEDU | E | | | R | R | | | | I | I | |
| LHASA/Gonggar | 09L PA1 | R | R | R | R | | I | I | I | I | |
| | 27R PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| LIANJIANG | E | | | R | R | | | | I | I | |
| LIANSHENGWEI | E | | | R | R | | | | I | I | |
| LIBO | E/T | | | R | R | | | | I | I | |
| LIJIANG/Sanyi | 02 PA1 | R | R | R | R | | I | I | I | I | |
| | 20 PA1 | R | R | R | | | I | I | I | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | R | R | | | | I | I | |
| LILING | E | | | R | R | | | | I | I | |
| LINLI | E | | | R | R | | | | I | I | |
| LIUPANSHUI | E/T | | | R | R | | | | I | I | |
| LIUZAO | R | | | R | R | | | | I | I | |
| LONGKOU | E | | | R | R | | | | I | I | |
| LONGMEN | E | | | R | R | | | | I | I | |
| LONGZAOCUN | E | | | R | R | | | | I | I | |
| LONGZHOU | E | | | R | R | | | | I | I | |
| LUANXIAN | E | | | R | R | | | | I | I | |
| LUOGANG | E | | | R | R | | | | I | I | |
| LUXI | E | | | R | R | | | | I | I | |
| MALONG | E | | | R | R | | | | I | I | |
| MANZHOULI/Xijiao | 12 PA1 | R | R | R | R | | I | I | I | I | |
| | 30 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| MIZI | E | | | R | R | | | | I | I | |
| MOLING | E | | | R | R | | | | I | I | |
| MUDANJIANG/Hailang | 22 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |
| NALATI | E/T | | | R | R | | | | I | I | |
| NANCHANG/Changbei | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| NANCHONG | E/T | | | R | R | | | | I | I | |
| NANJING (Lukou) | 06 PA1 | R | R | R | R | | I | I | I | I | |
| | 24 PA1 | R | R | R | | | I | I | I | | |
| | 07 PA1 | R | R | R | | | I | I | I | | |
| | 25 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| NANKANG | E | | | R | R | | | | I | I | |
| NANLANG | E | | | R | R | | | | I | I | |
| NANNING (Wuxu) | 05 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA 1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| NANTONG | E | | | R | R | | | | I | I | |
| NANXIONG | E | | | | | | | | | | |
| NANXUN | E | | | R | R | | | | I | I | |
| NANYINGBINDAO | E | | | R | R | | | | I | I | |
| NINGBO/Lishe | 13 PA1 | R | R | R | R | | I | I | I | I | |
| | 31 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| NINGSHAN | E | | | R | R | | | | I | I | |
| NIULING | E | | | R | R | | | | I | I | |
| PANLONG | E | | | R | R | | | | I | I | |
| PENGLAI | E | | | R | R | | | | I | I | |
| PINGZHOU | E | | | R | R | | | | I | I | |
| PIXIAN | E | | | R | R | | | | I | I | |
| POTOU | E | | | R | R | | | | I | I | |
| QIANXI | E | | | R | R | | | | I | I | |
| QIEMO | E | | | R | R | | | | I | I | |
| QIJIANG | E | | | R | R | | | | I | I | |
| QINGDAO/Liuting | 17 PA1 | R | R | R | R | | I | I | I | I | |
| | 35 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| QINGYANG | E/T | | | R | R | | | | I | I | |
| QIQIHAR/Sanjiazi | 17 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| QITAI | E | | | R | R | | | | I | I | |
| QUANZHOU/Jinjiang | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| RIKAZE | E/T | | | R | R | | | | I | I | |
| SANJIANG | E | | | R | R | | | | I | I | |
| SANXIA | E/T | | | R | R | | | | I | I | |
| SANYA/Phoenix | 08 PA1 | R | R | R | R | | I | I | I | I | |
| | 26 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| SHACHE | E | | | R | R | | | | I | I | |
| SHANGHAI (Hongqiao) | 18L PA1 | R | R | R | R | | I | I | I | I | |
| | 36R PA1 | R | R | R | | | I | I | I | | |
| | 18R PA1 | R | R | R | | | I | I | I | | |
| | 36L PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| SHANGHAI (Pudong) | 17L PA3 | R | R | R | R | | I | I | I | I | |
| | 35R PA2 | R | R | R | | | I | I | I | | |
| | 16R PA1 | R | R | R | | | I | I | I | | |
| | 34L PA1 | R | R | R | | | I | I | I | | |
| | 17R PA1 | R | R | R | | | I | I | I | | |
| | 35L PA1 | R | R | R | | | I | I | I | | |
| | 16L PA1 | R | R | R | | | I | I | I | | |
| | 34R PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| SHANGRAO | E | | | R | R | | | | I | I | |
| SHANTOU | E | | | R | R | | | | I | I | |
| SHAZIYING | E | | | R | R | | | | I | I | |
| SHEKOU | E | | | R | R | | | | I | I | |
| SHENGZHOU | E | | | R | R | | | | I | I | |
| SHENYANG (Taoxian) | 06 PA1 | R | R | R | R | | I | I | I | I | |
| | 24 PA1 | R | R | R | | | I | I | I | | |
| | E | | | | | | | | I | I | |
| SHENZHEN/Baoan | 33 PA1 | R | R | R | R | | I | I | I | I | |
| | 15 PA1 | R | R | R | | | I | I | I | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 16 PA1 | R | R | R | | | I | I | I | | |
| | 34 PA1 | R | R | R | | | I | I | I | | |
| SHILONG | E | | | R | R | | | | I | I | |
| SHIQIU | E | | | R | R | | | | I | I | |
| SHUYUAN | E | | | R | R | | | | I | I | |
| SHUOFANG | E/T | | | R | R | | | | I | I | |
| TACHENG | E | | | R | R | | | | I | I | |
| TAIYUAN/Wusu | 31 PA1 | R | R | | R | | I | I | | I | |
| | 13 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| TAOHUA | E | | | R | R | | | | I | I | |
| TIANJIN (Binhai) | 34l PA1 | R | R | R | R | | I | I | I | I | |
| | 16R PA1 | R | R | R | | | I | I | I | | |
| | 34R PA2 | R | R | R | | | I | I | I | | |
| | 16L PA2 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| TIANMEN | E | | | R | R | | | | I | I | |
| TIANZHEN | E | | | R | R | | | | I | I | |
| TONGLIAO | E/T | | | R | R | | | | I | I | |
| TONGLU | E | | | R | R | | | | I | I | |
| TUMURTAI | E | | | R | R | | | | I | I | |
| URUMQI (Diwopu) | 25 PA1 | R | R | R | R | | I | I | I | I | |
| | 07 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| WANCHANG | E | | | R | R | | | | I | I | |
| WANGQING | E | | | R | R | | | | I | I | |
| WEIHAI/Dashuipo | 02 PA1 | R | R | R | R | | I | I | I | I | |
| | 20 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| WEIXIAN | E | | | R | R | | | | I | I | |
| WENZHOU/Longwan | 03 PA1 | R | R | R | R | | I | I | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 21 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| WONGYUAN | E | | | R | R | | | | I | I | |
| WUFENGXI | E | | | R | R | | | | I | I | |
| WUHAN/Tianhe | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | 22 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| WUXI | E | | | R | R | | | | I | I | |
| WUXI/Shoufang | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| WUZHONG | E | | | R | R | | | | I | I | |
| XIAMEN (Gaoqi) | 05 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| XI'AN (Xianyang) | 05L PA1 | R | R | R | R | | I | I | I | I | |
| | 23R PA1 | R | R | R | | | I | I | I | | |
| | 05R PA2 | R | R | R | | | I | I | I | | |
| | 23L PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| XIANGTANG | E | | | R | R | | | | I | I | |
| XICHANG (Qingshan) | 36 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |
| XINGLIN | E | | | | | | | | | | |
| XINGTANG | E | | | | | | | | | | |
| XILINHOT | E | | | R | R | | | | I | I | |
| XINGLIN | E | | | R | R | | | | I | I | |
| XINING/Caojiapu | 11 PA1 | R | R | R | R | | I | I | I | I | |
| | 29 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| XINQIAO | E | | | R | R | | | | I | I | |
| XINZHENG | E/T | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| XISHAN | E | | | R | R | | | | I | I | |
| XISHUANGBANNA/Gasa | 16 PA1 | R | R | R | R | | I | I | I | I | |
| | 34 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| XISHUI | E | | | R | R | | | | I | I | |
| XUEJIADAO | E | | | R | R | | | | I | I | |
| XUYONG | E | | | R | R | | | | I | I | |
| XUZHOU/Guanyin | 09 PA1 | R | R | R | R | | I | I | I | I | |
| | 27 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| YABRAI | E | | | R | R | | | | I | I | |
| YAN'AN | E/T | | | R | R | | | | I | I | |
| YANCHENG/Nanyang | 04 PA1 | R | R | R | | | I | I | I | I | |
| | 22 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| YANJI/Chaoyangchuan | 09 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA1 | R | R | | | | II | I | | | |
| | E | | | R | R | | | | I | I | |
| YANTAI/Penglai | 05 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| YIBIN | E | | | R | R | | | | I | I | |
| YINCHUAN | E/T | | | R | R | | | | I | I | |
| YINCHUAN/Hedung | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | 21 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | | I I | |
| YIWU | 02 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| YINGDE | E | | | R | R | | | | I | I | |
| YUANTAN | E | | | R | R | | | | I | I | |
| YUNCHENG | E/T | | | R | R | | | | I | I | |
| ZHANGJIAJIE/Hehua | 08 PA1 | R | R | R | R | | I | I | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 26 PA1 | R | R | | | | I | I | | | |
| | E | | | R | R | | | | I | I | |
| ZHAOTONG | E/T | | | R | R | | | | I | I | |
| ZHENGZHOU/Xinzheng | 02 PA1 | R | R | R | R | | I | I | I | I | |
| | 30 PA1 | R | R | R | | | I | I | I | | |
| | E | | | R | R | | | | I | I | |
| ZHOUKOU | E | | | R | R | | | | I | I | |
| ZHOUSHAN | E/T | | | R | R | | | | I | I | |
| ZIYANG | E | | | R | R | | | | I | I | |
| ZU'AN | E | | | R | R | | | | I | I | |
| **COOK IS.** | | | | | | | | | | | |
| RAROTONGA | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **DEMOCRATIC PEOPLE'S REP. OF KOREA** | | | | | | | | | | | |
| PYONGYANG | 17PA1 | R | R | R | R | | I | I | I | I | |
| | 35 PA1 | R | R | | | | I | I | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **FIJI** | | | | | | | | | | | |
| NADI | 02 PA1 | R | R | | | | I | I | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SUVA (Nausori) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **FRENCH POLYNESIA (France)** | | | | | | | | | | | |
| RANGIROA | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | | R | | | | | I | |
| TAHITI (Faaa) | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **GUAM (United States)** | | | | | | | | | | | |
| GUAM I. | 06L PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| GUAM I. (Anderson AFB) | 06R PA1 | R | | R | R | | X | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **HONG KONG, China** | | | | | | | | | | | |
| HONG KONG | 07R PA2 | R | | R | R | | I | | I | I | |
| | 25L PA2 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| | 07L PA2 | R | | R | R | | I | | I | I | |
| | 25R PA3 | R | | R | R | | I | | I | I | |
| **INDIA** | | | | | | | | | | | |
| AHMEDABAD | 23 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| AMRITSAR | 34 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| BAGDOGRA | E | | | R | R | | | | X | X | |
| BELGAUM | E | | | R | R | | | | I | I | |
| BHUBANESHWAR | E | | | R | R | | | | I | I | |
| CALICUT | NPA | | R | R | R | | | X | I | I | |
| CHENNAI | 07 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| COIMBATORE | E | | | R | R | | | | I | I | |
| DELHI (Indira Ghandi) | 28 PA2 | R | R | R | R | | I | I | I | I | |
| | 27 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| GUWAHATI | E | | | R | R | | | | X | X | |
| IMPHAL | E | | | R | R | | | | X | X | |
| KOLKATA | 19L PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| LUCKNOW | 27 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MADURAI | E | | | | R | | | | | I | |
| MUMBAI (Chhatrapati Shiviji Intl) | 27 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAGPUR | 32 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PATNA | 25 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PORT BLAIR | E | | | R | R | | | | I | I | |
| PRATAPGARH | E | | | R | R | | | | I | I | |
| SILCHAR | E | | | R | R | | | | X | X | |
| TIRUCHCHIRAPPALLI | 27 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TRIVANDRUM | 32 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| VARANASI | 27 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| VISHAKHAPATNAM | E | | | R | R | | | | I | I | |
| **INDONESIA** | | | | | | | | | | | |
| AMBON (Patimura) | 22 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | R | R | | | | I | I | |
| BALI (Ngurah Rai) | 27 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| BALIKPAPAN (Sepinggan) | 25 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| BANJARMASIN (Syamsudin Noor) | 10 PA1 | R | R | R | R | | I | I | I | I | |
| | E | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| BATAM (Hang Nadmn) | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| BIAK (Frans Kaisiepo) | 11 PA1 | R | R | R | R | | X | X | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| JAKARTA (Halim Perdanakusuma) | 24 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| JAKARTA (Soekarno Hattal) | 07R PA1 | R | R | R | R | | I | I | I | I | |
| | 07L PA1 | R | R | R | R | | N | I | I | I | |
| | T | | R | R | R | | | I | I | I | |
| | E | | R | R | R | | | I | I | I | |
| JAYAPURA (Sentani) | 30 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KETAPANG | 34 PA1 | R | | R | R | | N | | N | N | |
| | T | | | R | R | | | | N | N | |
| | E | | | R | R | | | | N | N | |
| KUPANG (El Tari) | 25 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MANADO (Sam Ratulangi) | 18 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| MEDAN (Polonia) | 05 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MERAUKE (Mopah) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PADANG (Tabing) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PALEMBANG (Sultan Mahmud Badaruddin II) | 27 NPA | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PANGKALPINANG | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PEKANBARU | 36 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PONTIANAK (Supadio) | 15 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SURABAYA (Juanda) | 10 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TANJUNG PINANG (Kijang) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TARAKAN | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TIMIKA(Tembagapura) | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| UJUNG PANDANG (Hasanuddin) | 13 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **JAPAN** | | | | | | | | | | | |
| ASAHIKAWA | E | | | R | R | | | | I | I | |
| DAIGO | E | | | R | | | | | I | | |
| ERABU | E | | | R | R | | | | I | I | |
| FUKUE | E | | | R | R | | | | I | I | |
| FUKUOKA | 16 PA1 | R | R | R | R | | I | I | I | I | |
| | 34 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| GOBOH | E | | | R | | | | | I | | |
| HAKODATE | 12 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| HIROSHIMA | 10 PA3 | R | R | R | R | | I | I | I | I | |
| | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| IKI | E | | | R | R | | | | I | I | |
| IWAKI | E | | | R | R | | | | I | I | |
| KAGOSHIMA | 34 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KANSAI | 06L PA2 | R | R | R | R | | I | I | I | I | |
| | 06R PA2 | R | R | R | R | | I | I | I | I | |
| | 24L PA2 | R | R | R | R | | I | I | I | I | |
| | 24R PA2 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| KOMATSU | E | | | R | R | | | | I | I | |
| KOWA | E | | | R | | | | | I | | |
| KUGA | E | | | R | R | | | | I | I | |
| KUMAMOTO | 07 PA3 | R | R | R | R | | I | I | I | I | |
| | 07 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| KUSHIMOTO | E | | | R | R | | | | I | I | |
| MIHO | E | | | R | R | | | | I | I | |
| MINAMI DAITO | E | | | R | R | | | | I | I | |
| MIYAKE JIMA | E | | | R | R | | | | I | I | |
| MIYAZU | E | | | R | R | | | | I | I | |
| NAGASAKI | 32 PA2 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAGOYA | 18 PA2 | R | R | R | R | | I | I | I | I | |
| | 36 PA3 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAHA | 36 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NARITA | 34L PA1 | R | R | R | R | | I | I | I | I | |
| | 34R PA1 | R | R | R | R | | I | I | I | I | |
| | 16L PA1 | R | R | R | R | | I | I | I | I | |
| | 16R PA3 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NIIGATA | 28 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| OITA | 01 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| OKAYAMA | 07 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| ONJUKU | E | | | R | | | | | I | | |
| OSAKA | 32L PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| OSHIMA | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| OTSU | E | | | R | R | | | | I | I | |
| SAPPORO (New Chitose) | 01L PA1 | R | R | R | R | | I | I | I | I | |
| | 01R PA1 | R | R | R | R | | I | I | I | I | |
| | 19R PA3 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SENDAI | 27 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SHIMIZU | E | | | R | R | | | | I | I | |
| SHINODA | E | | | R | R | | | | I | I | |
| TAKAMATSU | 26 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TATEYAMA | E | | | R | | | | | I | | |
| TOKYO (Haneda) | 22 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA1 | R | R | R | R | | I | I | I | I | |
| | 34L PA1 | R | R | R | R | | I | I | I | I | |
| | 34R PA3 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **JOHNSTON I (United States)** | | | | | | | | | | | |
| JOHNSTON ATOLL (Johnston I.) | NPA | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| **KIRIBATI** | | | | | | | | | | | |
| KIRITIMATI I. | NPA | | | R | R | | | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| TARAWA (Bonriki Intl) | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **LAO PEOPLE'S DEMOCRATIC REPUBLIC** | | | | | | | | | | | |
| PAKSE | E | | | | R | | | | | X | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| VIENTIANE (Wattay) | 14 PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **MACAO, China** | | | | | | | | | | | |
| MACAO | 34 PA2 | R | | R | R | | I | | I | I | |
| | 16 IGS | | | | | | | | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **MALAYSIA** | | | | | | | | | | | |
| ALOR SETAR (Sultan Abdul Halim) | | | | | | | | | | | |
| | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| IPOH (Sultan Azian Shah) | | | | | | | | | | | |
| | PA-I 04 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| JOHOR BAHRU | 16 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KERTEH | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KOTA BHARU (Sultan Ismail Petra) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KOTA KINABALU | 02 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KUALA TERENGGANU (Sultan Mahmud) | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KUANTAN | 18 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| KUCHING | 25 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| LABUAN | NPA | R | R | R | R | | X | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MALACCA | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MERSING | E | | | R | R | | | | I | I | |
| MIRI | 02 PA1 02 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PENANG | 04 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PULAU LANGKAWI | 03 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PULAU TIOMAN | NPA | | | R | R | | | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| SANDAKAN | 08 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SIBU | 13 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SEPANG (KL Intl) | 32R PA1 | R | | R | R | | I | | I | I | |
| | 14L PA1 | R | | R | R | | I | | I | I | |
| | 32L PA1 | R | | R | R | | I | | I | I | |
| | 14R PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SUBANG (Sultan Abdul Aziz Shah) | 33 PA1 | R | R | R | R | | I | I | I | I | |
| | 15 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| TAWAU | NPA | R | R | R | R | | X | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **MALDIVES** | | | | | | | | | | | |
| DHARAVANDHOO | NPA | | | | | | X | X | X | X | |
| FUVAHMULAH | NPA | | | | | | X | X | X | X | |
| GAN | NPA | | | R | R | | X | X | I | I | |
| HANIMADHOO | NPA | | | | | | X | X | X | X | |
| KAADEDHOO | NPA | | | | | | X | X | X | X | |
| KADHDHOO | NPA | | | | | | X | X | X | X | |
| KOODDOO | NPA | | | | | | X | X | X | X | |
| MAAMIGILI | NPA | | | | | | X | X | X | X | |
| MALE | 36 PA1 | R | | R | R | | I | X | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| THIMARAFUSHI | NINST | | | | | | X | X | X | X | |
| **MARSHALL IS.** | | | | | | | | | | | |
| MAJURO ATOLL (Marshall Is. Intl) | NPA | | | R | R | | | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **MICRONESIA (FEDERATED STATES OF)** | | | | | | | | | | | |
| KOSRAE | NPA | | R | R | | | | X | X | | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| POHNAPEI | NPA | | | R | R | | | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| WENO I. (FM Chuuk Intl) | NPA | | R | R | | | | X | X | | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| YAP | NPA | | R | | R | | | X | | X | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **MONGOLIA** | | | | | | | | | | | |
| ULAANBAATAR | 14 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **MYANMAR** | | | | | | | | | | | |
| BAGO | E | | | R | R | | | | I | I | |
| CHANMYATHAZI | E | | | | R | | | | I | I | |
| | T | | | | R | | | | I | I | |
| DAWEI | E | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| HEHO | T | | | R | R | | | | I | I | |
| HLEGU | T | | | R | R | | | | I | I | |
| LASHIO | E | | | R | R | | | | I | I | |
| MANDALAY | 17PA1 | R | | R | R | | I | | I | I | |
| | T | | | | | | | | | | |
| MYEIK | 18PA1 | R | | | | | I | | | | |
| MYITKYINA | T | | | R | R | | | | I | I | |
| NAYPYITAW | 16PA1 | R | | R | R | | I | | I | I | |
| | T | | | | | | | | | | |
| NYAUNG U | T | | | R | R | | | | I | I | |
| PATHEIN | E | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| SITTWE | T | | | R | R | | | | I | I | |
| TACHILEIK | T | | | R | R | | | | I | I | |
| THANDWE | T | | | R | R | | | | I | I | |
| YANGON | 21PA1 | R | | | | | I | | | | Use of Hlegu VOR/DME |
| | T | | | R | R | | | | I | I | |
| **NAURU** | | | | | | | | | | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| NAURU I. | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **NEPAL** | | | | | | | | | | | |
| BHAIRAHAWA | E | | | R | R | | | | X | X | |
| BIRATNAGAR | E | | | R | R | | | | X | X | |
| JANAKPUR | E | | | | R | | | | | X | |
| KATHMANDU | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| NEPALGUNJ | E | | | R | R | | | | X | X | |
| SIMARA | E | | | R | R | | | | X | X | |
| **NEW CALEDONIA (France)** | | | | | | | | | | | |
| NOUMEA (La Tontouta) | 11 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **NEW ZEALAND** | | | | | | | | | | | |
| AUCKLAND | 05 PA1 | R | R | R | R | | I | I | I | I | |
| | 23 PA1 | R | R | | | | I | I | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| CHRISTCHURCH | 02 PA1 | R | R | R | R | | I | I | I | I | |
| | 20 PA1 | R | R | | | | I | I | | | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| HOKITIKA | E | | | R | | | | | I | | |
| WELLINGTON | NPA | | R | R | R | | | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **NORTHERN MARIANA IS. (United States)** | | | | | | | | | | | |
| OBYAN (Saipan Intl) | 07 PA1 | R | | | R | | X | | | X | |
| | T | | | | R | | | | | X | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | | R | | | | | X | |
| **NIUE (New Zealand)** | | | | | | | | | | | |
| NIUE | NPA | | R | | | | | X | | | |
| | T | | | R | | | | | X | | |
| | E | | | R | | | | | X | | |
| **PAKISTAN** | | | | | | | | | | | |
| GWADAR Int'l | NPA | | | | | | | | | | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| ISLAMABAD (Chaklala) | 30 PA1 | R | | R | R | | I | X | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KARACHI (Jinnah) | 25R PA1 | R | R | R | R | | I | I | | I | MARKERS/ILS |
| | 25L PA1 | R | | R | R | | I | | I | I | TDME/ILS |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | DME/VOR |
| LAHORE | 36R PA3 | R | R | R | R | | I | I | I | I | TDME/ILS CAT-IIIB |
| | 36L PA1 | R | | | | | I | | | | TDME/ILS CAT-I |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MULTAN | 36 PA | R | | | | | I | | | | TDME/VOR |
| | T | | | | R | | | | | I | |
| | E | | | R | R | | | | I | I | |
| NAWABSHAH | NPA | | | R | R | | | | I | I | DVOR/DME |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PANJGUR | E | | | R | R | | | | I | I | |
| PESHAWAR (BACHA KHAN Int'l) | 35 PA | R | | R | R | | I | | I | I | TDME/ILS |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| RAHIM YAR KHAN | E | | | R | R | | | | I | I | |
| SUKKUR | E | | | | | | | | | | NDB |
| ZHOB | E | | | R | R | | | | I | I | |
| **PALAU** | | | | | | | | | | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| KOROR | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | | | | | X | | |
| **PAPUA NEW GUINEA** | | | | | | | | | | | |
| KIETA | | | | R | R | | | | X | X | |
| MADANG | E | | | R | R | | | | X | X | |
| MOUNT HAGEN | NINST | | | R | | | | | X | | |
| NADZAB | | | | R | R | | | | X | X | |
| PORT MORESBY | 14L PA1 | R | R | R | R | | X | X | X | X | |
| | 32R PA1 | R | | R | R | | X | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| VANIMO | NINST | | | R | | | | | X | | |
| WEWAK | E | | | R | R | | | | X | X | |
| **PHILIPPINES** | | | | | | | | | | | |
| BACOLOD-SILAY | 03PA1 | R | | R | R | | I | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| BASCO | T | | | R | | | | | I | | |
| BUTUAN | T | | | R | R | | | | I | I | |
| | E | | | | | | | | | | |
| CABANATUAN | E | | | R | R | | | | I | I | |
| CATICLAN | T | | | R | | | | | I | | |
| CAUAYAN | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| CLARK | 02PA1 | R | | R | R | | I | | I | I | |
| | 20PA1 | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| COTABATO | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| DAVAO | 05 PA1 | R | | R | R | | I | | I | I | |
| | 23 PA1 | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| DUMAGUETE | NPA | | | | R | | | | | I | |
| | T | | | | | | | | | | |
| ILOILO | 02NPA | R | | R | R | | I | | I | I | |
| | 20PA1 | | | | | | | | | | |
| JOMALIG | E | | | R | R | | | | I | I | |
| KALIBO | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| LAGUINDINGAN | T | | | R | R | | | | I | I | |
| | E | | | | | | | | | | |
| LAOAG | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| LEGASPI | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| LIPA | E | | | | R | | | | | I | |
| LUBANG | E | | | R | R | | | | I | I | |
| MACTAN | 04 PA1 | R | | R | R | | I | | I | I | |
| | 22 PA1 | R | | R | R | | I | | I | I | |
| MANILA | 06 PA1 | R | | R | R | | I | | I | I | |
| | 24 PA1 | R | | R | R | | I | | I | I | |
| | 13NPA | | | R | R | | | | I | I | |
| | E | | | | | | | | | | |
| NAGA | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| PUERTA PRINCESA | 27NPA | | | R | R | | | | I | I | |
| | 09NINST | | | | | | | | | | |
| ROXAS | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | | | | | | | | |
| SAN FERNANDO | E | | | | R | | | | | I | |
| SAN JOSE | NPA | | | R | R | | | | I | I | |
| SUBIC | T | | | R | R | | | | I | I | |
| TACLOBAN | NPA | | | R | R | | | | I | I | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| TAMBLER | 17PA1 | R | | R | R | | I | | I | I | |
| | T | | | | | | | | | | |
| | 35NPA | | | R | R | | | | I | I | |
| TUGUEGARAO | NPA | | | R | | | | | I | I | |
| | T | | | | | | | | | | |
| ZAMBOANGA | 09PA1 | R | | R | R | | I | | I | I | |
| | 27NPA | | | R | R | | | | I | I | |
| **REPUBLIC OF KOREA** | | | | | | | | | | | |
| ANGYANG | E | | | R | R | | | | I | I | TACAN |
| BUSAN | 36R PA1 | R | | R | R | | I | | I | I | |
| (GIMHAE) | 36L PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | TACAN |
| CHEONGJU | 24R PA1 | R | | R | R | | I | | I | I | |
| | 06L PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| DAEGU | 31L PA1 | R | | R | R | | I | | I | I | |
| | 13R PA1 | R | | R | R | | I | | I | I | |
| | 31R NPA | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| (DALSUNG) | E | | | R | R | | | | I | I | TACAN |
| INCHEON | 15L PA3 | R | | R | R | | I | | I | I | |
| | 15R PA3 | R | | R | R | | I | | I | I | |
| | 16 PA3 | R | | R | R | | I | | I | I | |
| | 33L PA3 | R | | R | R | | I | | I | I | |
| | 33R PA3 | R | | R | R | | I | | I | I | |
| | 34 PA3 | R | | R | | | I | | I | | |
| | T | R | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| JEJU | 07 PA2 | R | | R | R | | I | | I | I | |
| | 25 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | TACAN |
| PYUNGCHANG (GANGWON) | E | | | R | R | | | | I | I | TACAN |
| MUAN | 01 PA1 | R | | R | R | | I | | I | I | |
| | 19 PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| POHANG | E | | | R | R | | | | I | I | TACAN |
| SEOUL | 14R PA2 | R | | R | R | | I | | I | I | |
| (GIMPO) | 14L PA1 | R | | R | R | | I | | I | I | |
| | 32R PA1 | R | | R | R | | I | | I | I | |
| | 32L PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| SONGTAN | E | | | R | R | | | | I | I | TACAN |
| YANGYANG | 33 PA1 | R | | R | R | | I | | I | I | |
| | 33 NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| YANGJU | E | | | R | R | | | | I | I | |
| YECHEON | E | | | R | R | | | | I | I | |
| **SAMOA** | | | | | | | | | | | |
| FALEOLO (Faleolo Intl) | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **SINGAPORE** | | | | | | | | | | | |
| PAYA LEBAR | NPA | | | | R | | | | | I | |
| | T | | | | R | | | | | I | |
| SELETAR | NINST | | | | | | | | | | |
| SINGAPORE (Changi) | 02L PA2 | R | | R | | | I | | I | | |
| | 20R PA1 | R | | R | | | I | | I | | |
| | 02C PA1 | R | | R | R | | I | | I | I | |
| | 20C PA2 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **SOLOMON IS.** | | | | | | | | | | | |
| HONIARA (Henderson) | NPA | | R | R | R | | | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **SRI LANKA** | | | | | | | | | | | |
| COLOMBO (Bandaranaike) | 04 PA1 | R | R | R | R | | N | I | I | I | |
| | 22 PA1 | R | R | R | R | | I | I | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| HIGURAKGODA (Mineriya) | 25 PA1 | R | | R | R | | N | | N | N | |
| | T | | | R | R | | | | N | N | |
| | E | | | R | R | | | | N | N | |
| **THAILAND** | | | | | | | | | | | |
| BANGKOK / Don Mueang INTL | 21LPA1 | R | | R | R | | I | | I | I | |
| | 21RPA2 | R | | R | R | | I | | I | I | |
| | 03LPA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| BANGKOK / Suvarnabhumi INTL | 19LPA2 | R | | R | R | | I | | I | I | |
| | 19RPA2 | R | | R | R | | I | | I | I | |
| | 01LPA2 | R | | R | R | | I | | I | I | |
| | 01RPA2 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | | | | | | | | |
| BURIRAM | 04PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| CHIANG MAI / INTL | 36PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| CHIANG RAI / Mae Fah Luang -Chiang Rai INTL | 03PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| CHUMPHON | 24PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| CHUM PHAE | E | | | R | R | | | | I | I | |
| KHON KAEN | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| KRABI | 32PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| LAMPANG | NPA | | | R | R | | I | | I | I | GP: Not Installed |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| LOEI | NPA | | | R | R | | | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| MAE HONG SON | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAKHON PHANOM | 15PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAKHON RATCHASIMA / Khorat | 06PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAKHON RATCHASIMA | E | | | R | R | | | | I | I | |
| NAKHON SI THAMMARAT | 19PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NAN | 02PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| NARATHIWAT | 02PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PATTANI | | | | | | | | | | | NDB |
| PHETCHABUN | 36PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | E | | | R | R | | | | I | I | |
| PHITSANULOK | 32PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PHARE | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | | | |
| PHUKET / INTL | 27PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| PRACHINBURI | E | | | | | | | | | | NDB |
| PRACHUAP KHIRI KHAN / Hua Hin | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| RANONG | 02PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| RAYONG / U-Tapao Pattaya INTL | 18PA1 | R | R | R | R | | I | I | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| RAYONG | E | | | R | R | | | | I | I | |
| ROI ET | 36PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SAKHON NAKHON | 23PA1 | R | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SONGKHLA / Hat Yai INTL | 26PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SUKHOTHAI | 36PA1 | R | | R | | | I | | I | | |
| | T | | | R | | | | | I | | DME collocated with NDB |
| | E | | | R | | | | | I | | |
| SURAT THANI | 22PA1 | R | | R | R | | I | | I | I | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| SURAT THANI / Samui | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TAK | T | | | | | | | | | | NDB |
| | E | | | | | | | | | | |
| TAK / Mae Sot | NPA | | | R | R | | | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TRANG | 08PA1 | R | | R | R | | I | | I | I | |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| TRAT | NPA | | | R | | | | | I | | NDB |
| | T | | | R | | | | | I | | |
| | E | | | R | | | | | I | | |
| UBON RATCHATHANI | 23PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| UDON THANI | 30PA1 | R | | R | R | | I | | I | I | NDB |
| | T | | | R | R | | | | I | I | |
| | E | | | R | R | | | | I | I | |
| **TONGA** | | | | | | | | | | | |
| FUA'AMOTU | NPA | | R | R | R | | | x | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| VAVA'U | NPA | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| **TUVALU** | | | | | | | | | | | |
| FUNAFUTI | NPA | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| **UNITED STATES** | | | | | | | | | | | |
| HONOLULU | 08L PA1 | R | R | R | R | | X | X | X | X | |
| | 04R PA1 | R | R | R | R | | X | X | X | X | |

| Requirements | | | | | | | Implementation Status (Nov. 15) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State City/location (aerodrome) | Runway Function | ILS | L | DME | VOR | | ILS | L | DME | VOR | Remarks |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| KAHULUI | 02 PA1 | R | | R | R | | X | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **VANUATU** | | | | | | | | | | | |
| PORT VILA (Bauerfield) | NPA | | | R | R | | | | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| SANTO (Pekoa) | NPA | | | | | | | | | | |
| | T | | | | | | | | | | |
| | E | | | | | | | | | | |
| **VIET NAM** | | | | | | | | | | | |
| DA NANG | 35R PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| HA NOI (Noi Bai) | 11 PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| HO CHI MINH (Tan Son Nhut) | 25R PA1 | R | R | R | R | | X | X | X | X | |
| | T | | | R | R | | | | X | X | |
| | E | | | R | R | | | | X | X | |
| **WALLIS AND FUTUNA IS. (France)** | | | | | | | | | | | |
| WALLIS (Hihifo) | NPA | | R | R | R | | | I | I | I | 02/15 |
| | T | | | R | R | | | | I | I | 02/15 |
| | E | | | R | R | | | | I | I | 02/15 |

## Table CNS II-APAC-3 SURVEILLANCE

EXPLANATION OF THE TABLE

*Column*

1 ATS Units to consider are ACC units and Approach units responsible for International airports and alternate aerodromes, International airports and alternate aerodromes.

2 The category may be: R, S, T or AD. Categories R,S, T are defined in the Seamless ATM plan. AD means Aerodrome.

3 Indicate Yes if part(s) of the airspace referred to in Column 2 is (are) not covered by surveillance listed in column 6, and in column remarks when such gaps are planned to be bridged

4 Indicate Yes or No.

Indicate No in case of standalone displays of ATS surveillance data (should not be used operationally)

5 Indicate Yes or No

6 List all types of surveillance used:

PSR
SSRmS
SSRmAC
ADS-B
ADS-C
MLAT
WAM
PRM

7 According to the definition in Doc 9830 Appendix B

8 Remarks

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **AUSTRALIA** | | | | | | | |
| **International Airports** | | | | | | | |
| **Adelaide** | C | | | | | | Adelaide, Summertown |
| TCU | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| APP | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| TWR | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| **Cairns** | C | | | | | | Redden Creek, Hanns Tableland |
| TCU | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| APP | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| TWR | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| **Brisbane** | C | | | | | | Mt Hardgrave, Brisbane, Mt Sommerville |
| EC | | | YES | YES | PSR+SSRmAC+SSRmS+ADS-B | | |
| APP | | | YES | YES | PSR+SSRmAC+SSRmS+ | | |
| ACC | | | YES | YES | PSR+SSRmAC+SSRmS+ADS-B | | |
| TWR | | | YES | YES | PSR+SSRmAC+SSRmS+A-SMGCS+SMR | 2 | |
| **Gold Coast** | C | | | | | | Mt Sommerville, Mt Hardgrave |
| APP | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| TWR | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| **Melbourne** | **C** | | | | | | Gelliebrand Hill, Mt Macedon |
| EC | | | YES | YES | PSR+SSRmAC+SSRmS+ADS-B+ | | |
| APP | | | YES | YES | PSR+SSRmAC+SSRmS | | |
| ACC | | | YES | YES | PSR+SSRmAC+SSRmS+ADS-B | | |
| TWR | | | YES | YES | PSR+SSRmAC+SSRmS+ADS-B+A-SMGCS+SMR | 2 | |
| **Perth** | **C** | | | | | | Perth, Kalamunda, Eclipse Hill |
| TCU | | | YES | YES | PSR+SSRmAC+SSRmS | | |
| APP | | | YES | YES | PSR+SSRmAC+SSRmS | | |
| TWR | | | YES | YES | PSR+SSRmAC+SSRmS+A-SMGCS+SMR | 2 | |
| **Sydney** | **C** | | | | | | Sydney, Mt Boyce, Cecil Park |
| TCU | | | YES | YES | PSR+SSRmS+SSRmAC+WAM+MLAT | | |
| APP | | | YES | YES | PSR+SSRmS+SSRmAC+WAM+MLAT | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| TWR | | | YES | YES | PSR+SSRmS+SSRmAC+A-SMGCS+WAM+MLAT+SMR | 2 | |
| **Darwin** | **C** | | | | | | Darwin, Knuckeys Lagoon |
| APP | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| TWR | | | YES | YES | PSR+SSRmS+SSRmAC | | |
| **Hobart** | **D** | | | | | | Hobart |
| APP | | | YES | YES | WAM+ADS-B | | |
| TWR | | | YES | YES | WAM+ADS-B | | |
| **Karratha** | D | | | | | | Karratha |
| APP | | | YES | YES | ADS-B | | |
| TWR | | | YES | YES | ADS-B | | |
| **Alternate aerodromes** | | | | | | | |
| **Alice Springs** | D | | | | | | Alice Springs |
| APP | | | YES | YES | ADS-B | | |
| TWR | | | YES | YES | ADS-B | | |
| **Avalon** | D | | | | | | Gellibrand Hill, Mt Macedon |
| APP | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| TWR | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| **Canberra** | C | | | | | | Mt Majura, Mt Bobbara |
| APP | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| TWR | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| **Coffs Harbour** | D | | | | | | The Round Mountain, Point Lookout |
| APP | | | YES | YES | SSRm(S)+SSRm(A/C)+ADS-B | | |
| TWR | | | YES | YES | SSRm(S)+SSRm(A/C)+ADS-B | | |
| **Kalgoorlie** | G | Over aerodrome | YES | YES | - | | |
| **Launceston** | D | | | | | | Launceston |
| APP | | | YES | YES | WAM+ ADS-B | | |
| TWR | | | YES | YES | WAM+ ADS-B | | |
| **Learmonth** | G | | YES | YES | ADS-B | | Learmonth |
| **Port Hedland** | G | Over aerodrome | YES | YES | - | | |
| **Rock Hampton** | D | | | | | | Mt Alma |
| APP | | | YES | YES | SSRm(S)+SSRm(A/C) | | |
| TWR | | | YES | YES | SSRm(S)+SSRm(A/C) | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **Tindal** | C | | | | | | Tindal |
| APP | | | YES | YES | PSR+SSRm(A/C) | | |
| TWR | | | YES | YES | PSR+SSRm(A/C) | | |
| **Townsville** | C | | | | | | Townsville, Tabletop |
| APP | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| TWR | | | YES | YES | PSR+ SSRm(S)+SSRm(A/C) | | |
| **Other aerodromes** | | | | | | | |
| Broome | D | | YES | YES | ADS-B | | Broome |
| Albury | D | | YES | YES | Higher level SSR coverage | | Mt Bobbara |
| Tamworth | D | | YES | YES | ? | | The Round Mountain |
| Mackay | D | | YES | YES | SSRm(A/C) | | Swampy Ridge |
| Hamilton Island | D | | YES | YES | SSRm(A/C) | | Swampy Ridge |
| **BANGLADESH** | | | | | | | |
| Dhaka APP | C | | | | PSR+SSRm AC | | |
| **BRUNEI DARUSALAM** | | | | | | | |
| Brunei APP | | | | | PSR + SSRmAC | | |
| **CAMBODIA** | | | | | | | |
| | | | | | SSRmAC | | |
| **CHINA** | | | | | | | |
| Beijing ACC | | | | | PSR + SSRmAC | | |
| Beijing APP | | | | | PSR + SSRmAC | | |
| Beijing TWR | | | | | PSR + SSRmAC | | |
| Tianjin APP | | | | | | | |
| Tianjin TWR | | | | | SSRmAC | | |
| Shijiazhuang APP | | | | | | | |
| Shijiazhuang TWR | | | | | SSRmAC | | |
| Taiyuan ACC | | | | | PSR + SSRmAC | | |
| Taiyuan APP | | | | | | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Taiyuan TWR | | | | | PSR + SSRmAC | | |
| Hohhot ACC | | | | | SSRmAC | | |
| Hohhot APP | | | | | | | |
| Hohhot TWR | | | | | SSRmAC | | |
| Guangzhou ACC | | | | | PSR + SSRmAC | | |
| Guangzhou APP | | | | | PSR + SSRmAC | | |
| Guangzhou TWR | | | | | PSR + SSRmAC | | |
| Shenzhen APP | | | | | | | |
| Shenzhen TWR | | | | | PSR + SSRmAC | | |
| Zhuhai ACC | | | | | PSR + SSRmAC | | |
| Zhuhai APP | | | | | PSR + SSRmAC | | |
| Zhuhai TWR | | | | | PSR + SSRmAC | | |
| Sanya ACC | | | | | PSR + SSRmAC | | |
| Sanya APP | | | | | PSR + SSRmAC | | |
| Sanya TWR | | | | | PSR + SSRmAC | | |
| Haikou ACC | | | | | PSR + SSRmAC | | |
| Haikou APP | | | | | | | |
| Haikou TWR | | | | | PSR + SSRmAC | | |
| Changsha ACC | | | | | PSR + SSRmAC | | |
| Changsha APP | | | | | | | |
| Changsha TWR | | | | | PSR + SSRmAC | | |
| Enshi TWR | | | | | SSRmAC | | |
| Wuhan ACC | | | | | PSR + SSRmAC | | |
| Wuhan APP | | | | | | | |
| Wuhan TWR | | | | | PSR + SSRmAC | | |
| Zhengzhou ACC | | | | | PSR + SSRmAC | | |
| Zhengzhou APP | | | | | | | |
| Zhengzhou TWR | | | | | PSR + SSRmAC | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Guilin ACC | | | | | PSR + SSRmAC | | |
| Guilin APP | | | | | | | |
| Guilin TWR | | | | | PSR + SSRmAC | | |
| Nanning ACC | | | | | SSRmAC | | |
| Nanning TWR | | | | | SSRmAC | | |
| Zhanjiang ACC | | | | | SSRmAC | | |
| Zhanjiang APP | | | | | | | |
| Zhanjiang TWR | | | | | SSRmAC | | |
| Shantou ACC | | | | | PSR + SSRmAC | | |
| Shantou APP | | | | | | | |
| Shantou TWR | | | | | PSR + SSRmAC | | |
| Kunming ACC | | | | | PSR + SSRmAC + AC | | |
| Kunming APP | | | | | | | |
| Kunming TWR | | | | | PSR + SSRmAC | | |
| Chengdu ACC | | | | | PSR + SSRmAC + ADS-C | | |
| Chengdu APP | | | | | | | |
| Chengdu TWR | | | | | PSR + SSRmAC | | |
| Guiyang ACC | | | | | PSR + SSRmAC | | |
| Guiyang APP | | | | | | | |
| Guiyang TWR | | | | | PSR + SSRmAC | | |
| Chongqing ACC | | | | | PSR + SSRmAC | | |
| Chongqing APP | | | | | | | |
| Chongqing TWR | | | | | PSR + SSRmAC | | |
| Shanghai ACC | | | | | PSR + SSRmAC | | |
| Shanghai APP | | | | | PSR + SSRmAC | | |
| Shanghai TWR | | | | | PSR + SSRmAC | | |
| Jinan ACC | | | | | SSRmAC | | |
| Jinan APP | | | | | | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Jinan TWR | | | | | SSRmAC | | |
| Qingdao ACC | | | | | SSRmAC | | |
| Qingdao APP | | | | | | | |
| Qingdao TWR | | | | | SSRmAC | | |
| Hefei ACC | | | | | PSR + SSRmAC | | |
| Hefei APP | | | | | | | |
| Hefei TWR | | | | | PSR + SSRmAC | | |
| Nanjing ACC | | | | | PSR + SSRmAC | | |
| Nanjing APP | | | | | | | |
| Nanjing TWR | | | | | PSR + SSRmAC | | |
| Lianyungang ACC | | | | | SSRmAC | | |
| Lianyungang APP | | | | | | | |
| Lianyungang TWR | | | | | SSRmAC | | |
| Xuzhou TWR | | | | | SSRmAC | | |
| Hangzhou ACC | | | | | PSR + SSRmAC | | |
| Hangzhou APP | | | | | | | |
| Hangzhou TWR | | | | | PSR + SSRmAC | | |
| Nanchang ACC | | | | | PSR + SSRmAC | | |
| Nanchang APP | | | | | | | |
| Nanchang TWR | | | | | PSR + SSRmAC | | |
| Fuzhou ACC | | | | | PSR + SSRmAC | | |
| Fuzhou APP | | | | | | | |
| Fuzhou TWR | | | | | PSR + SSRmAC | | |
| Wenzou TWR | | | | | SSRmAC | | |
| Xiamen ACC | | | | | PSR + SSRmAC | | |
| Xiamen APP | | | | | | | |
| Xiamen TWR | | | | | PSR + SSRmAC | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Shenyang ACC<br>Shenyang APP<br>Shenyang TWR | | | | | PSR + SSRmAC<br><br>PSR + SSRmAC | | |
| Dalian ACC<br>Dalian APP<br>Dalian TWR<br><br>Harbin ACC<br>Harbin APP<br>Harbin TWR<br><br>Xi'an ACC<br>Xi'an APP<br>Xi'an TWR<br><br>Lanzhou ACC<br>Lanzhou APP<br>Lanzhou TWR<br><br>Urumqi ACC<br>Urumqi APP<br>Urumqi TWR | | | | | PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>SSRmAC + AC<br><br>SSRmAC<br><br>PSR + SSRmAC + AC<br><br>PSR + SSRmAC | | |
| **HONG KONG, CHINA**<br>Hong Kong ACC<br>Hong Kong APP<br>Hong Kong TWR | <br>S<br>T<br>AD | | Yes | Yes | <br>PSR + SSRmAC + ADS-B<br>PSR + SSRmAC<br>PSR + SSRmAC + MLAT | 2 | SMR, A-SMGCS |
| **MACAO, CHINA**<br>Macao TWR | AD | | Yes | Yes | SSRmS+SSRmAC | | SMR |
| **DPR KOREA**<br>**Pyongyang**<br>Pyongyang ACC<br>Pyongyang APP<br>Pyongyang TWR | | | | | <br><br>PSR + SSRmAC + ADS-B<br>PSR + SSRmAC + ADS-B | | <br><br>PAR |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **FIJI** | | | | | | | |
| Naid ACC | | | | | ADS-B + ADS-C | | |
| Nadi APP | | | | | ADS-B | | |
| **FRENCH POLYNESIA** | | | | | | | |
| Tahiti ACC | | | | | SSRmAC + ADS-B + ADS-C | | |
| Tahiti APP | | | | | SSRmAC | | |
| Tahiti TWR | | | | | | | |
| **INDIA** | | | | | | | |
| Chennai ACC | | | | | PSR + ADS-C | | MI |
| Chennai APP | | | | | PSR + ADS-C | | MI |
| Chennai TWR | | | | | PSR + ADS-C | | A-SMGCS |
| Delhi ACC | | | | | PSR + ADS-C | | MI |
| Delhi APP | | | | | PSR + ADS-C | | MI |
| Delhi TWR | | | | | PSR + ADS-C | | A-SMGCS |
| Kolkata ACC | | | | | PSR + ADS-C | | MI |
| Kolkata APP | | | | | PSR + ADS-C | | MI |
| Kolkata TWR | | | | | PSR + ADS-C | | A-SMGCS |
| Mumbai ACC | | | | | PSR + ADS-C | | MI |
| Mumbai APP | | | | | PSR + ADS-C | | MI |
| Mumbai TWR | | | | | PSR + ADS-C | | A-SMGCS |
| Bangalore APP | | | | | PSR | | MI |
| Bangalore TWR | | | | | PSR | | MI |
| Shamshabad ACC | | | | | PSR | | MI |
| Shamshabad APP | | | | | PSR | | MI |
| Shamshabad TWR | | | | | PSR | | MI |
| **INDONESIA** | | | | | | | |
| Jakarta ACC | | | | | PSR + SSRmAC + ADS-B | | ADS-B Trial |
| Jakarta APP | | | | | PSR + SSRmAC + ADS-B | | ADS-C Trial, A-SMGCS |
| Medan ACC | | | | | PSR + SSRmAC + ADS-B | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Medan APP | | | | | PSR + ADS-B | | |
| Tanjung Pinang APP | | | | | SSRmAC | | |
| Pontianak APP | | | | | ADS-B | | |
| Pekanbaru APP | | | | | PSR + SSRmAC + ADS-B | | |
| Palembang APP | | | | | PSR + SSRmAC + ADS-B | | |
| Ujung Pandang ACC | | | | | PSR + SSRmAC + ADS-B | | |
| Ujung Pandang APP | | | | | PSR + SSRmAC + ADS-B | | ADS-C Trial, A-SMGCS |
| Banjarmasin APP | | | | | SSRmAC + ADS-B | | |
| Balikpapan APP | | | | | PSR + SSRmAC + ADS-B | | |
| Yogyakarta APP | | | | | PSR | | |
| Surabaya APP | | | | | PSR | | A-SMGCS |
| Bali ACC | | | | | | | |
| Bali APP | | | | | ADS-B | | A-SMGCS |
| Biak APP | | | | | SSRmAC + ADS-B | | |
| Jayapura ACC | | | | | PSR | | |
| Jayapura APP | | | | | PSR | | |
| Kupang ACC | | | | | ADS-B | | |
| Kupang APP | | | | | ADS-B | | |
| Tarakan ACC | | | | | PSR + ADS-B | | |
| Batam ACC | | | | | SSRmS | | |
| Batam APP | | | | | SSRmS + ADS-B | | |
| Sorong ACC | | | | | SSRmS + ADS-B | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **JAPAN** | | | | | | | |
| Fukuoka ATMC | | | | | ADS-C | | |
| Narita APP | | | | | PSR + SSRmAC + SSRmS | | |
| Narita TWR | | | | | MLAT, PSRMLAT | | SMR |
| Haneda TWR | | | | | MLAT | | SMR |
| Chubu APP | | | | | PSR + SSRmAC + SSRmS | | |
| Chubu TWR | | | | | MLAT | | SMR |
| Osaka APP | | | | | PSR + SSRmAC + SSRmS | | |
| Osaka TWR | | | | | MLAT | | SMR |
| Kansai APP | | | | | PSR + SSRmAC + SSRmS | | |
| Kansai TWR | | | | | MLAT | | SMR |
| Fukuoka ACC | | | | | PSR + SSRmAC + SSRmS | | |
| Fukuoka APP | | | | | PSR + SSRmAC + SSRmS | | |
| Fukuoka TWR | | | | | MLAT | | SMR |
| Naha ACC | | | | | PSR + SSRmAC + SSRmS | | |
| Naha APP | | | | | PSR + SSRmAC + SSRmS | | |
| Naha TWR | | | | | MLAT | | SMR |
| Hakodate APP | | | | | PSR + SSRmAC | | |
| Sendai APP | | | | | PSR + SSRmAC | | |
| Tokyo ACC | | | | | PSR + SSRmAC + SSRmS | | |
| Tokyo APP | | | | | PSR + SSRmAC + SSRmS | | |
| Niigata APP | | | | | PSR + SSRmAC | | |
| Chubu APP | | | | | PSR + SSRmAC + SSRmS | | |
| Hiroshima APP | | | | | PSR + SSRmAC | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Takamatsu APP | | | | | PSR + SSRmAC | | |
| Kochi APP | | | | | PSR + SSRmAC | | |
| Matsuyama TWR | | | | | SSRmAC | | |
| Kitakyusyu TWR | | | | | SSRmAC | | |
| Nagasaki APP | | | | | PSR + SSRmAC | | |
| Oita APP | | | | | PSR + SSRmAC | | |
| Kumamoto APP | | | | | PSR + SSRmAC | | |
| Miyazaki APP | | | | | PSR + SSRmAC | | |
| Kagoshima APP | | | | | PSR + SSRmAC | | |
| Shimojishima APP | | | | | PSR + SSRmAC | | |
| Ishigaki APP | | | | | PSR + SSRmAC | | |
| Sapporo ACC | | | | | PSR + SSRmAC + SSRmS | | |
| **LAO PDR**<br>Vientiane ACC<br>Vientiane APP | | | | | <br>SSRmAC + SSRmS<br>PSR | | |
| **MALAYSIA**<br>Langkawi APP | | | | | <br>PSR + SSRmAC | | |
| Kuala Lumpur ACC<br>Lumpur APP | | | | | PSR + SSRmAC + SSRmS<br>PSR + SSRmAC + ADS-C | | |
| Johor Bharu APP | | | | | PSR + SSRmS | | |
| Kota Bharu APP | | | | | PSR + SSRmS | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| K. Kinabalu ACC<br>K. Kinabalu APP<br><br>Kuching ACC<br>Kuching APP<br>Kuching TWR<br><br>Miri APP | | | | | PSR + SSRmAC<br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC<br><br>PSR + SSRmAC | | |
| **MONGOLIA**<br>Ulaanbaatar ACC<br>Ulaanbaatar APP | | | | | ADS-C<br>ADS-C | | |
| **MYANMAR**<br>Yangon ACC<br>Yangon APP<br><br>Mandalay APP | | | Yes<br>Yes<br><br>Yes | Yes<br>Yes<br><br>Yes | SSRmAC + ADS-C<br>SSRmAC + ADS-C<br><br>PSR + SSRmAC | | |
| **NEPAL**<br>Kathmandu APP | | | | | PSR + SSRmAC | | |
| **NEW CALEDONIA**<br>Tontouta ACC<br><br>Tontouta APP | A, D<br><br>G | Yes | Yes | Not applicable | ADS-B | Not applicable | ADS-B Tier 3 implemented, Tier 2 in progress |
| **NEW ZEALAND**<br>Chrischurch ACC<br>Christchurch TWR | | | | | PSR + SSRmAC + SSRmS | | |
| Auckland ACC<br>Auckland TWR<br><br><br>Wellington TWR | | | | | SSRmAC + SSRmS | | Auckland A-SMGCS has no SMR |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Queenstown TWR | | | | | | | Wide Area MDS planned for Queenstown in 2010 |
| **PAKISTAN** | | | | | | | |
| Karachi ACC | | | | | PSR + SSRmAC | | |
| Karachi APP | | | Yes | Yes | PSR + SSRmAC | Nil | |
| Karachi TWR | | | | | PSR + SSRmAC | | |
| Lahore ACC | | | | | PSR + SSRmAC | | |
| Lahore APP | | | Yes | Yes | PSR + SSRmAC | Nil | |
| Lahore TWR | | | | | PSR + SSRmAC | | |
| Islamabad APP | | | Yes | No | PSR + SSRmAC | Nil | |
| Islamabad TWR | | | | | PSR + SSRmAC | | |
| **PAPUA NEW GUINEA** | | | | | | | |
| Jacksons APP | | | | | PSR + SSRmAC | | |
| Moresby ACC | | | | | PSR + SSRmAC | | |
| **PHILIPPINES** | | | | | | | |
| Manila ATM Center | | | | | SSRmAC + SSRmS + ADS-B | | Planned implementation on Dec. 16 |
| Manila ACC | | | | | SSRmAC + SSRmS | | |
| Manila APP | | | | | PSR + SSRmAC + SSRmS | | |
| Clark APP | | | | | PSR + SSRmAC | | |
| Mactan APP | | | | | PSR + SSRmAC | | |
| Kalibo/Caticlan APP | | | | | PSR + SSRmAC + SSRmS | | Planned implementation on Dec. 16 |
| Bacolod APP | | | | | PSR + SSRmAC + SSRmS | | Planned implementation on Dec. 16 |
| Davao APP | | | | | PSR + SSRmAC + SSRmS | | Planned implementation on Dec. 16 |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **REPUBLIC OF KOREA** | | | | | | | |
| Jeju APP | T | No | Yes | Yes | PSR + SSRmAC + SSRmS | | |
| Jeju TWR | T | No | No | No | PSR + SSRmAC + SSRmS | 2 | SMR, A-SMGCS |
| Jungwon APP | T | No | No | Yes | PSR + SSRmAC | | |
| CheongjuTWR | T | No | No | No | PSR + SSRmAC | | |
| Incheon ACC | S | No | | Yes | PSR + SSRmAC | | |
| Incheon TWR | T | No | Yes | No | PSR + SSRmAC | 3 | SMR, A-SMGCS |
| Seoul APP | T | No | Yes | Yes | PSR + SSRmAC | | |
| Gimpo TWR | T | No | Yes | No | PSR + SSRmAC | | SMR |
| Gangneung APP | T | No | No | No | PSR + SSRmAC | | |
| Yangyang TWR | | | | | PSR + SSRmAC | | |
| Gimhae APP | T | No | No | Yes | PSR + SSRmAC | | |
| Gimhae TWR | T | No | No | No | PSR + SSRmAC | | SMR |
| Daegu APP | T | No | No | No | PSR + SSRmAC | | |
| Daegu TWR | T | No | No | No | PSR + SSRmAC | | |
| Gwangju APP | T | No | No | Yes | PSR + SSRmAC | | |
| Gwangju TWR | T | No | No | No | | | |
| Muan TWR | T | No | No | No | PSR + SSRmAC | | |
| **SINGAPORE** | | | | | | | |
| Singapore ACC | S | | Yes | Yes | PSR + SSRmS + ADS-B + ADS-C | | |
| Singapore APP | T | | Yes | Yes | PSR + SSRmS+SSRmAC | | |
| Singapore TWR | AD | | Yes | Yes | PSR+ADS-B+MLAT | 2 | |
| **SRI LANKA** | | | | | | | |
| Colombo ACC | | | | | SSRmAC + ADS-B + ADS-C | | ADS-C Trial |
| Colombo APP | | | | | PSR | | |
| **THAILAND** | | | | | | | |
| Bangkok ACC | S | | YES | YES | PSR + SSRmAC + SSRmS | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Bangkok APP | T | | YES | YES | PSR + SSRmAC + SSRmS | | |
| Suvarnabhumi TWR | AD | | YES | YES | SMR + MLAT + A-SMGCS | 2 | |
| Don Mueang TWR | AD | | YES | YES | SSRmAC | | |
| Chiang Mai APP | T | | YES | YES | SSRmS | | |
| Chiang Mai TWR | AD | | YES | YES | SSRmS | | |
| Hat Yai APP | T | | YES | YES | SSRmS | | |
| Hat Yai TWR | AD | | YES | YES | SSRmS | | |
| Phuket APP | T | | YES | YES | SSRmS | | |
| Phuket TWR | AD | | YES | YES | SSRmS | | |
| Suratthani APP | T | | YES | YES | SSRmS | | |
| Suratthani TWR | AD | | YES | YES | SSRmS | | |
| Ubonratchathani APP | T | | YES | YES | SSRmS | | |
| Ubonratchathani TWR | AD | | YES | YES | SSRmS | | |
| Phitsanulok APP | T | | YES | YES | PSR | | |
| Phitsanulok TWR | AD | | YES | YES | PSR | | |
| Hua Hin APP | T | | YES | YES | PSR | | |
| Hua Hin TWR | AD | | YES | YES | PSR | | |
| U Taphao | | | | | SSRmAC | | |
| **TONGA** | | | | | ADS-B | | |
| **UNITED STATES** | | | | | | | |
| Alaska ACC | | | | | ADS-B + ADS-C | | |
| Hilo, Hawaii ACC | | | | | SSRmAC | | |
| Hilo, Hawaii APP | | | | | PSR | | |
| Hilo, Hawaii TWR | | | | | | | |
| Honolulu, Hawaii ACC | | | | | SSRmS | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Honolulu, Hawaii APP<br>Honolulu, Hawaii TWR | | | | | PSR | | |
| Kahului, Hawaii APP<br>Kahului, Hawaii TWR | | | | | PSR + SSRmAC | | |
| Kokee, Hawaii ACC | | | | | PSR | | |
| Lihue, Hawaii APP<br>Lihue, Hawaii TWR | | | | | PSR + SSRmAC | | |
| Mount Kaala, Hawaii ACC | | | | | PSR + SSRmAC | | |
| Pahoa, Hawaii ACC | | | | | SSRmAC | | |
| Kunianiau, Hawaii ACC | | | | | SSRmAC | | |
| Guam ACC | | | | | PSR + SSRmAC | | |
| Mount Santa Rosa, Guam ACC<br>Mount Santa Rosa, Guam APP<br>Mount Santa Rosa, Guam TWR | | | | | PSR + SSRmS<br>PSR + SSRmAC | | |
| Kona, Hawaii ACC | | | | | SSRmAC | | |
| **VIET NAM**<br>Hanoi ACC | | | | | PSR + SSRmAC + ADS-B | | |
| Noibai APP<br>Noibai TWR | | | | | SSRmAC | | SMR, A-SMGCS |
| Ho Chi Minh ACC | | | | | PSR + SSRmAC + ADS-B +ADS-C | | |
| Danang APP | | | | | PSR | | |
| Honoi ACC | | | | | | | |
| Tansan Nhat APP | | | | | PSR | | |

| ATS Units Served | Category of airspace | Surveillance Gaps | Integration of Surveillance Information into ATC Situation Display | Multi-Surveillance Data Processing Capability | Surveillance Used | Level of A-SMGCS Implemented | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Tansan Nhat TWR | | | | | | | SMR, A-SMGCS |

# APAC ANP, VOLUME II

# PART IV - AIR TRAFFIC MANAGEMENT (ATM)

## 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to air traffic management (ATM). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of ATM facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to ATM facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

## 2. GENERAL REGIONAL REQUIREMENTS

*Optimization of traffic flows*

2.1 The Planning and Implementation Regional Groups (PIRG), through regional air navigation agreement, are responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Region(s) through the set-up of appropriate mechanisms for regional and inter-regional planning and coordination.

2.2 Whenever practicable, States should, in close coordination with operators, establish the most efficient routings.

2.3 The requirements for regional ATS route network, in particular, for ATS routes over the high seas and airspace of undetermined sovereignty, should be agreed upon through regional air navigation agreement.

*Note: States' AIPs and other States publications should be consulted for information on the implemented ATS routes.*

*Aircraft Identification-SSR Code Management*

2.4 Within the context of Air Traffic Management (ATM) and the provision of air traffic services (ATS), SSR code management is a key element of ATM to ensure continuous, unambiguous aircraft identification. The number of Secondary Surveillance Radar (SSR) codes is limited and poor management of the assignment of SSR codes results in capacity constraints and aircraft delays. States and Air Navigation Service Providers (ANSP) should apply the SSR Code Allocation Plan approved by the APANPIRG. The SSR Codes Allocation Plan of the Asia and Pacific Regions is addressed in the Specific Regional Requirements of Volume II.

## 3. SPECIFIC REGIONAL REQUIREMENTS

*Optimization of traffic flows*

3.1 The ATS routes agreed through regional air navigation or bi/multi-lateral agreement as appropriate within sovereign airspace (including those not implemented for specific reasons) are listed in **Table ATM II-APAC-1, Asia and Pacific Regions ATS Routes**. Proposed ATS routes that have not been agreed are listed in the Asia/Pacific ATS Route Catalogue, available on the ICAO APAC Regional Office website.

3.2 Selection of designators shall be in accordance with Annex 11, Appendix 1 and can be made from the following allocation table, until such time as APAC ATS route designators are managed by ICAO International Codes and Routes Designators (ICARD):

| | |
|---|---|
| **Letter** | |
| **Conventional (A, B, G, R – ref Appendix 2, Annex 11)** | 200-224, 325-349, 450-474, 575-599 |
| **RNAV (L, M, N, P)** | 500-524, 625-649, 750-774, 875-899 |

3.3 ATS route proposals shall be considered for designation as RNAV routes and not conventional routes wherever practicable. Three number designators should be used, but a zero (‘0’) shall not be the first number.

3.4 States must complete appropriate bilateral coordination with neighbouring States/FIRs before submitting a regional ATS route proposal for change, deletion or addition, to the ICAO APAC Regional Office. A Regional Air Navigation Plan 'Amendment Proposal Template' is available on the ICAO APAC website under 'APAC Electronic Documents'.

*Aircraft Identification-SSR Code Management*

3.5 The SSR Codes Allocation Plan of the Asia and Pacific Regions is in **Table ATM II-APAC-2, SSR Codes Allocation Plan**.

3.6 Mode A Code A1000 is reserved for use as a conspicuity code for Mode S equipped aircraft, operating in airspace under Mode S surveillance, where Aircraft Identification (Flight ID) is used for unambiguous ATC identification of aircraft and to enable coupling of the ATS surveillance system information with the flight plan.

**Table ATM II- APAC- 1 – Asia and Pacific Regions ATS Routes**

EXPLANATION OF THE TABLE

*Column*

*1* *Designator of ATS route and Type (Conventional, RNAV5 or RNAV1 etc.)*

*2* *Significant points defining the ATS routes. Only prominent locations have been listed. Additional points where facilities are provided to complete navigational guidance along a route, but not otherwise marking significant characteristics of the route (change of heading of centre line, intersection with other routes, etc.) have normally not been included. Locations shown in parentheses indicate significant points outside the Region.*

*Note 1. Not representing the operator's requirements. Operator's required route and/or navaids are shown in square brackets ([ ]).*

*Note 2. Subject to further study. Including the associated navigation aid coverage.*

*Note 3 Subject to military agreement.*

*Note 4. Not acceptable at present.*

*Note 5. At present, implementation possible only during specific periods (e.g. weekends, nights, etc., as published).*

*Note 6. At present, implementation of the RNAV route only possible above FL 300, or as published.*

*Note 7. Unidirectional use.*

*Note 8. For ATS route or part thereof is RNAV 1*

*Note 9: Acronyms used for route names are only intended as a rough guide to the location of the routes:*

*IND - India*
*SEA - South East Asia*
*SCS - South China Sea*
*PHI - Philippines*
*THA - Thailand*
*TPE - Taipei*
*PRD - Pearl River Delta*
*KAB - Kabul*
*IDO - Indonesia*
*COL - Colombo*
*CHA - China*
*IATA - earlier IATA requested routes in China*
*WPC - West Pacific Area*

*Whenever reference to name States is made in Table ATM II-XX in connection with the above notes, the following abbreviations, based on those indicated in Location Indicators (Doc 7910), are used:*

*Note 10: Route names in parenthesis refer to the original names from an earlier route catalogue. They are renamed following consolidation of China routes and ARNR TF 3 meeting.*
*Note 11: route segments which have not been implemented are shown by bold significant points.*

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A1 | LIMLA 1546.0N 09836.0E<br>BANGKOK<br>UBON<br>DANANG<br>BUNTA<br>IKELA 1839.7N 11214.7E<br>CHEUNG CHAU<br>ELATO 2220.0N 11730.0E<br>MAKUNG<br>TAIBEI<br>KAGOSHIMA<br>HACHIJO JIMA | A91 | (KYAKHTA)<br>SERNA 5018.5N 10628.1E<br>ULAN BATOR |
| A201 | LASHIO<br>AGARTALA<br>RAJSHAHI<br>MONDA 2521.00N 08626.25E<br>PATNA<br>LUCKNOW | A202 | CHEUNG CHAU<br>SIKOU 2050.6N 11130.0E<br>SAMAS 2030.3N 11029.7E<br>ASSAD 182028N 1074053E<br>XONUS 1804.2N 10714.0E<br>DONGHOI<br>VILAO 1718.0N 10600.0E<br>SAVANNAKET<br>KORAT<br>BANGKOK |
| A204 | YOROI 4500.5N 14147.1E<br>RISHIRI<br>AKSUN 4545.1N 14054.3E<br>(SELTI)(4713.3N 14013.3E) | A206 | ASSAD<br>VINH<br>NONGT<br>LUANG PRABANG |
| A211 | MANADO<br>TARAKAN<br>TAWAU | A212 | PUPIS<br>PAGO PAGO<br>NIUE |
| A215 | PORT MORESBY<br>MERAUKE<br>HASANUDDIN<br>KEVOK 0425.0S 11500.0E | A216 | COOKTOWN<br>AKMIP 1200.0S 14448.6E<br>KIKORI<br>GUNNY 0500.00N 14400.00E<br>RICHH 1711.49N 14249.12E |
| A218 | HARBIN<br>(EKIMCHAN)<br>(MYS SHMIDTA)<br>BARROW | A219 | KARACHI<br>NAWABSHAM<br>KALAT 2902.0N 06635.0E<br>SERKA 2951.0N 06615.0E<br>KANDAHAR<br>(TERMEZ) |
| A220 | CLUKK 3605.0N 12450.0E<br>TAHITI | A221 | GUAM<br>ROTA IS<br>TINIAN IS<br>SAIPAN |
| A222 | GUAM<br>POHNPEI<br>KOSRAE<br>KWAJALEIN | A224 | JOHOR BAHRU<br>MERSING |
| A325 | PRARATAPGARH<br>TASOP 2514.1N 07045.0E<br>KARACHI<br>JIWANI | A326 | SHIGEZHUANG<br>OKTON 3911.2N 11653.5E<br>TIANJIN<br>MAKNO 3827.6N 12110.0E<br>SANKO 3814.2N 12228.4E<br>DONVO 3734.0N 12320.0E<br>AKARA 3130.0N 12330.0E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A331 | ZIGIE 2419.0N 15717.5W<br>SEDAR 4530.4N 12643.0W | A332 | APACK 2402.8N 15619.3W<br>AMITY 2626.0N 15229.0W<br>HEMLO 4318.2N 12640.8W |
| A334 | HAT YAI<br>KOTA BHARU | A337 | ADKAK 3354.0N 14210.0E<br>TEGOD 2100.0N 14512.0E<br>JUNIE 1132.5N 14706.3E<br>KISME 0500.0N 14805.4E |
| A338 | CHRISTCHURCH<br>APORO5000.0S 17120.0E<br>BYRD | A339 | PERTH<br>CURTIN<br>ELBIS 0905.9S 12743.7E<br>SHREE 0539.0N 13109.2E<br>KEITH 2100.0N 13456.8E<br>SABGU 2529.9N 13459.3E<br>MAKDA 2716.0N 13551.2E<br>TAXON 3000.0N 13714.5E<br>YOSHI |
| A340 | RAYONG<br>BISOR 1221.0N 10247.0E<br>PHNOM PENH | A341 | KOTA KINABALU<br>SANDAKAN<br>ZAMBOANGA |
| A342 | COLD BAY<br>OLCOT 5125.8N 16533.3E | A344 | ROZAX 0245.6S 11140.0E<br>SUMBAWA |
| A345 | PYONGYANG<br>GOLOT 4012.5N 12430.5E<br>FENGCHENG<br>KAIYUAN<br>HAILAR<br>KAGAK 4916N 11806E<br>MANLI 4935N 11727E<br>TELOK 4938N 11722E<br>(CHITA) | A346 | OVRON 202104.21S 1485721.17E<br>AUCKLAND |
| A347 | MUMBAI<br>BODAR 2236.3N 07413.3E<br>PRATAPGAPH<br>DELHI | A348 | MELBOURNE<br>EAST SALE<br>NISEP 4146.6S 15601.5E |
| A364 | SHACHE<br>KASHI<br>KURUM 4006.0N 07407.0E | A450 | DENPASSAR<br>HASSANUDDIN<br>CAHYO 033000N 1333000E<br>YAP IS<br>GUAM<br>WAKE<br>KATHS 2104.6N 16123.4W |
| A453 | KABUL<br>GHAZNI<br>KANDAHAR<br>(ZAHEDAN)<br>(BANDER ABBAS) | A454 | KARACHI<br>PARET 2527.2N 06451.5E<br>TAPDO 2424.0N 06120.0E<br>(VUSET) |
| A455 | PESHAWAR<br>METAR 3406.0N 07128.0E<br>KOTAL 3406.0N 07109.0E | A456 | AMRITSAR<br>LAHORE<br>MOLTA 3012.0N 07236.2E<br>BINDO |
| A457 | HAT YAI<br>TAMOS 0632.2N 10024.0E<br>ALOR SETAR<br>PENANG<br>KUALA LUMPUR<br>JOHOR BAHRU | A460 | KUQA<br>REVKI 4232.5N 8013.2E<br>(KIRBALTABAY) |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A461 | DAWANGZHUANG<br>WEIXIAN<br>ZHOUKOU<br>HEKOU<br>LONGKOU<br>LILING<br>YINGDE<br>SHILONG<br>BEKOL 2232.6N 11408.0E<br>CHEUNGCHAU<br>NOMAN 2000.0N 11640.3E<br>MUMOT 1930.4N 11714.5E<br>AVMUP 1843.3N 11808.3E<br>SAN FERNANDO<br>CABANATUAN<br>MANILA<br>SAN JOSE<br>ZAMBOANGA<br>AMBON<br>DARWIN<br>ALICE SPRINGS<br>LEIGH CREEK | A462 | KOLKATA<br>DHAKA |
| A464 | CHIANG MAI<br>BANGKOK<br>HAT YAI<br>IPOH<br>BATU ARANG<br>KUALA LUMPUR<br>SINGAPORE<br>TINDAL<br>TAROOM<br>LORD HOWE IS<br>AUCKLAND | A465 | KOLKATA<br>VISHAKAPATNAM<br>CHENNAI<br>COLOMBO |
| A466 | (KABUL)<br>SANAM 3305.0N 07003.0E<br>DERA ISMAIL KHAN<br>JHANG 3116.0N 07218.0E<br>SAMAR 3120.8N 07434.0E<br>ASARI 3048.3N 07509.6E<br>DELHI | A467 | BIRATNAGAR<br>KATIHAR<br>KOLKATA |
| A468 | KUQA<br>KAMUD 4134.0N 07850.0E | A469 | HO CHI MINH<br>CONSON IS |
| A470 | HONG KONG<br>MAGOG 2217.3N 11549.4E<br>SHANTOU<br>XINGLIN<br>FUZHOU<br>YUNHE<br>TONGLU<br>HANGZHOU<br>LISHUI<br>BANTA<br>PIXIAN | A472 | KOTAL 3406.0N 07109.0E<br>METAR 3406.0N 07128.0E<br>BAREV 3406.0N 07135.0E<br>PESHAWAR |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A474 | DELHI<br>ASOVO<br>MUMBAI<br>MURUS 0600.0S 06319.7E<br>(PLAISANCE) | A575 | PYONGYANG<br>GOLOT 4012.5N 12430.5E<br>FENGCHENG<br>DONGYANGJIAO<br>DAHUSHAN<br>CHAOYANG<br>ANDIN 4106.0N 11843.5E<br>GUBEIKOU<br>FENGNING<br>EREN<br>INTIK 4341.5N 11155.0E<br>SAINSHAND<br>ULAN BATOR<br>(KYZYL) |
| A576 | MEDAN<br>SINGAPORE<br>DENPASAR<br>CURTIN<br>ALICE SPRINGS<br>PARKES<br>SYDNEY | A577 | SHIKANG<br>KADET2100.0N 11934.0E |
| A578 | TONIK 3200.0N 14600.0E<br>PHONPEI<br>NAURU<br>TARAWA<br>NADI<br>AUCKLAND | A579 | SYDNEY<br>NADI<br>CARRP 1904.4N 15935.0W |
| A580 | AUCKLAND<br>NAUSORI<br>APIA | A581 | BAGO<br>CHIANG MAI<br>CHIANG RAI<br>PONUK 2018.8N 10023.0E<br>SAGAG 2111.5N 10137.4E<br>BIDRU<br>KUNMING<br>MAGUOHE<br>QIANXI<br>HUAYUAN<br>LINLI<br>WUHAN |
| A582 | JOMALIG<br>NAHA<br>KAGOSHIMA<br>IKISHIMA<br>BUSAN<br>SEOUL | A583 | CHEUNG CHAU<br>SABNO 1859.1N 11550.7E<br>MAVRA 1814.4N 11615.1E<br>AKOTA 1706.6N 11651.6E<br>IBOBI 1354.4N 11832.6E<br>REKEL 1324.1N 11848.3E<br>LEGED 1301.9N 11859.6E<br>TOKON 1142.0N 11940.3E<br>ZAMBOANGA |
| A584 | TONGA<br>NIUE<br>APIA<br>FUNAFUTI<br>NAURU | A585 | PALEMBANG<br>JAKARTA<br>PORT HEDLAND<br>CEDUNA<br>ADELAIDE |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A586 | INTOS 3722.00N 13120.00E<br>PUSAN<br>CHEJU<br>ERABU<br>NAHA | A587 | SUMBAWA<br>ALICE SPRINGS |
| A588 | DALIAN<br>WAFANGDIAN<br>WANGBINGOU<br>KAIYUAN<br>CHANGCHUN<br>HARBIN<br>SIMLI 5017.4N 12722.1E | A589 | DELHI<br>BUTOP 2919.7N 07523.9E<br>ASARI 3048.3N 07509.5E |
| A590 | JOMALIG<br>MINAMI DAITO<br>YOSHI 3310.2N 13857.4E<br>OYAMA<br>KAGIS 3549.0N 14234.0E<br>PABBA 3700.0N 14400.0E<br>PASRO 1417.1N 16040.5E<br>AMOTT 6054.0N 15121.6W | A591 | QINDAO<br>XUEJIADAO<br>LATUX 3532.0N 12044.0E<br>MUDAL 3651.0N 12322.0E<br>AGAVO 3710.0N 12400.0E |
| A592 | PUPIS 1000.0S 17105.5W<br>APIA<br>VAVA'U<br>TONGA | A593 | TANGHEKOU<br>XILIUHETUN<br>SHIGEZHUANG<br>POTOU<br>PIXIAN<br>WUXI<br>SHANGHAI<br>NANHUI<br>FUKUE |
| A595 | FUKUOKA<br>IKISHIMA<br>CHEJU | A596 | HUAIROU<br>HUAILAI<br>TIANZHEN<br>LIANGCHENG<br>BAOTOU<br>DENGKOU<br>YABRAI |
| A597 | KUSHIMOTO<br>MONPI 2100.0N 14036.0E<br>GUAM<br>HONIARA<br>NOUMEA<br>AUCKLAND | A598 | BRISBANE<br>HONIARA<br>NAURU<br>MAJURO |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| A599 | CHITTAGONG<br>LINSO 2322.5N 09855.0E<br>GENGMA<br>KUNMING<br>LUXI<br>BOSE<br>LAIBIN<br>GAOYAO<br>PINGZHOU<br>ZHULIAO<br>WONGYUAN<br>NANXIONG<br>GANZHOU<br>NANFENG<br>SHANGRAO<br>TONGLU<br>NANXUN<br>SHANGHAI | A791 | (IMLOT)<br>JIWANI<br>KARACHI<br>PRATAGARH<br>BHOPAL<br>JAMSHEDPUR<br>KOLKATA |
| B200 | ENKIP 3547.0S 17730.0E<br>FICKY 3133.6N 12123.5W | B202 | UBON<br>PAKSE<br>PLEIKU |
| B203 | KATHMANDU<br>BAGDOGRA<br>GUWAHATI<br>SILCHAR<br>IMPHAL<br>LASHIO | B204 | GOMES 1324.0N 10135.3E<br>SIEM REAP |
| B205 | RAYONG<br>BOKAK 1257.5N 10230.0E<br>SIEM REAP | B206 | URUMQI<br>FUKANG<br>ALTAY<br>GOPTO 4905.5N 08728.0E<br>(AKTASH) |
| B209 | JAMSHEDPUR<br>KHAJURAHO<br>TIGER 2828.8N 07214.9E | B210 | TASOP 2513.3N 07048.9E<br>NAWABSHAH |
| B211 | MUMBAI<br>EPKOS 1653.1N 07407.2E<br>CHENNAI | B213 | LHASA<br>CHENGDU |
| B214 | NASAN<br>LADON 2106.2N 10258.0E<br>AKSAG 2049.1N 10027.3E | B215 | DAWANGZHUANG<br>TAIYUAN<br>YINCHUAN<br>YABRAI<br>JIUQUAN<br>HAMI<br>FUKANG<br>URUMQI<br>KUQA<br>SHACHE<br>HONGQILAPU<br>PURPA 3656.5N 07524.5E<br>GILGIT<br>ISLAMABAD |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| B218 | KUNMING<br>SIMAO 2243.1N 16058.2E<br>SAGAG 2111.5N 10137.4E<br>VIENTIANE<br>LOEI<br>CHUM PHAE | B219 | PENANG<br>KOTA BHARU |
| B220 | BRISBANE<br>PORT MORESBY | B221 | NINAS 3100.0N 12215.0E<br>PINOT 3125.2N 12214.2E<br>SAGUT 3500.0N 12040.3E<br>XUEJIADAO |
| B222 | VINIK 0838.6N 11613.8E<br>KOTA KINABALU | B223 | DABUR 5147.1N 14235.9E<br>LUMIN 4545.0N 14150.3E<br>WAKKANAI |
| B326 | HONIARA<br>CHOKO 2022.6N 16053.0W | B328 | EREN<br>TAMURTAI<br>TIANZHEN<br>NANCHENGZI<br>WEIXIAN |
| B329 | PHNOM PENH<br>PAKSE<br>LEBAL 1630.2N 10556.7E<br>VILAO 1722.0N 10605.0E | B330 | HONG KONG<br>TAMOT<br>PINGZHOU<br>GAOYAO<br>DOUJIANG<br>QUIANXI<br>FUJIACHANG<br>JINGTAI<br>YABRAI<br>MORIT 4202.0N 10249.0E<br>NIDOR 5029.4N 09125.8E<br>(LIKAR) |
| B331 | CHEUNG CHAU<br>KAPLI 2110.0N 11730.0E<br>HENGCHUN | B332 | SANKO 3814.2N 12228.4E<br>TOMUK 3843.0N 12400.0E<br>PYONGYANG<br>SINSONGCHON<br>SONDO 3947.0N 12713.6E<br>KANSU 3838.0N 13228.5E |
| B333 | AUCKLAND<br>PORT MORESBY | B334 | BEIJIN<br>TANGHEKOU<br>FENGNING<br>TONGLIAO |
| B337 | (TAKHTOYAMSK)<br>ANIMO 4508.3N 14337.8E<br>ASAHIKAWA | B338 | MERSING<br>TEKONG<br>ANITO 0017.0S 10452.0E |
| B339 | ULAN BATOR<br>POLHO 4447.0N 11315.0E<br>FENGNING | B345 | KATHMANDU<br>BHARATPUR<br>BHAIRAHAWA<br>LUCKNOW |
| B346 | LUANG PRABANG<br>NOBER 1516.6N 10040.1E<br>BANGKOK | B349 | BALI<br>POTIP 2141.6S 12508.0E |
| B450 | SYDNEY<br>LORD HOWE IS<br>NORFORK IS<br>PAGO PAGO | B451 | HAILAR<br>QIQIHAR<br>HARBIN<br>BISUN 4314.0N 13111.8E<br>(VLADIVOSTOK)<br>IGROD 4139.0N 13647.0E<br>KADBO 3914.0N 13745.0E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| B452 | TONIK 3200.0N 14600.0E<br>HONIARA<br>NADI | B453 | MIDDLETON IS<br>KATCH 5400.0N 13600.0W<br>DAASH 4226.5N 12600.1W |
| B454 | PAGO PAGO<br>RAROTONGA<br>TONYS 3019.9N 12249.2W | B455 | VAVA'U<br>NISEX 1547.3S 17136.4W |
| B456 | WEWAK<br>JAYAPURA | B459 | MUMBAI<br>CLAVA 0134.0N 06000.0E<br>(PRASLIN) |
| B460 | KHORAT<br>SAVANNAKET | B462 | MACKAY<br>OVRON 202104.21S 1485721.17E<br>PORT MORESBY<br>KADAB 0458.0S 14100.0E<br>BIDOR 0400.0S 13130.0E<br>TACLOBAN<br>MANILA<br>CABANATUAN<br>LAOAG<br>MIYAKO JIMA<br>OKINAWA |
| B463 | BAGO<br>MANDALAY<br>LASHIO | B465 | KOLKATA<br>CHITTAGONG<br>MANDALAY<br>LUANG PRABANG<br>HANOI |
| B466 | JOHOR BAHRU<br>BATU ARANG<br>CHENNAI<br>MUMBAI | B467 | KANGWON<br>INTOS 3722.0N 13120.0E<br>KANSU 3838.0N 13228.5E<br>NULAR 4059.2N 13411.0E<br>(TEKUK) 4241.0N 13527.4E |
| B468 | DIENBIEN<br>LADON 2106.2N 10258.0E<br>LUANG PRABANG | B469 | SINGAPORE<br>JAKARTA<br>CARNARVON<br>GERALDTON<br>PERTH<br>CAIGUNA<br>WHYALLA<br>GRIFFITH<br>SYDNEY |
| B470 | SINGAPORE<br>PANGKALPINANG<br>JAKARTA | B472 | LIPA<br>ILO ILO<br>COTABATO<br>SELSO 0400.0N 12616.0E<br>TOREX 0724.0N 13335.0E<br>GOVE<br>NORMANTON |
| B473 | LIPA<br>ROXAS<br>CAGAYAN-DE-ORO<br>DAVAO<br>SADAN 0400.0N 12805.0E<br>CAIRNS | B474 | SYDNEY<br>SANTO<br>NANUMEA<br>CHOKO 2022.6N 16053.0W |
| B480 | (RAZDOLITE)<br>LETBI 5011.9N 10330.6E<br>BULGAN | B575 | AUCKLAND<br>TONGA<br>PAGO PAGO |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | MORIT 4202.0N 10249.0E | | |
| B576 | TAIBEI<br>CHEJU<br>SEOUL | B577 | NADI<br>WALLIS IS<br>APIA<br>PAGO PAGO<br>FICKY 3133.5N 12123.5W |
| B578 | BRISBANE<br>NOUMEA<br>TAHITI | B579 | PHUKET<br>LANGKAWI<br>PENANG |
| B580 | SYDNEY<br>NOUMEA<br>CHOKO 2022.6N 16053.0W | B581 | NADI<br>FICKY 3133.5N 12123.5W |
| B583 | BRUNEI<br>DARWIN | B584 | DENPASAR<br>ELANG 0056.0S 11449.5E<br>KOTA KINABALU |
| B586 | NOUMEA<br>SEKMO<br>KAPKI<br>PORT MORESBY<br>GUAM<br>OMLET 2100.0N 14259.2E<br>OSHIMA | B587 | ST GEORGE<br>KOWANYAMA<br>OPABA 0851.5S 13804.0E<br>TIMIKA<br>BIAK<br>RENAN 0330.0N 13416.6E<br>ENDAX 1415.0N 13000.0E<br>ATVIP 2100.0N 12422.0E<br>HUALIEN |
| B589 | PORT MORESBY<br>KAPKI 1014.9S 14817.7E<br>BUKA<br>MAJURO | B590 | NOUMEA<br>PORT VILA<br>NAURU |
| B591 | SHANGHAI<br>TAIBEI<br>HENCHUN | B592 | KOTA KINABALU<br>JAKARTA |
| B593 | KOLKATA<br>COMILLA<br>AGARTALA<br>GUWAHATI | B594 | COMILLA<br>ONEKA 223448N 0913214E<br>CTG VOR |
| B595 | TAHITI<br>KONA | B596 | RAROTONGA<br>DOVRR 1843.0N 15740.0W |
| B597 | ERABU<br>TANEGASHIMA<br>SHIMIZU | B598 | DARWIN<br>THURSDAY ISLAND<br>PORT MORESBY<br>KAPKI 1014.9S 14817.7E<br>HONIARA<br>PORT VILA<br>NADI<br>NAUSORI<br>TONGA<br>RAROTONGA |
| B599 | NOUMEA<br>NADI<br>TAHITI | B757 | KATCH 5400.0N 13600.0W<br>CAPE NEWENHAM<br>NULUK 5822.9N 17706.1W |
| B932 | BAMOK 5625.5N 17249.3E<br>(NETRI 4739.3N 15000.0E)<br>ODERI 4439.0N 14515.2E<br>MEMANBETSU | G200 | CHRISTMAS IS.<br>COCOS IS<br>(PLAISANCE) |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| G202 | (KANDAHAR)<br>ZHOB<br>RAHIM YAR KHAN | G203 | MIHO<br>PUSAN |
| G204 | ELNEX<br>SHENGXIAN<br>METAN<br>SHANGHAI | G205 | OVRON 202104.21S<br>1485721.17E<br>GURNEY<br>JUNIE |
| G206 | DILARAM<br>KABUL<br>SABAR<br>PURPA | G208 | MUMBAI<br>PARTY 2414.6N 07052.0E<br>KARACHI<br>PANJGUR<br>(ZAHEDAN) |
| G209 | LAERMONTH<br>CHRISTMAS ISLAND<br>PALEMBANG | G210 | PANJGUR<br>KARACHI<br>MUMBAI |
| G212 | (KHABAROVSK)<br>ARGUK 4753.5N 13439.4E<br>HAIQING<br>JIAMUSI<br>HARBIN<br>TONGLIAO<br>GUBEIKOU<br>QINBAIKOU<br>NANCHENGZI<br>TAIYUAN<br>YIJUN<br>SANYUAN<br>XIAOYANZHUANG<br>NINGSHAN<br>WUFENGXI<br>FUJIACHANG<br>WEINING<br>MAGUOHE<br>KUNMING | G213 | BIAK<br>BEKUB 0350.0N 13845.0E<br>GUAM |
| G214 | JIWANI<br>PANJGUR<br>RAHIM YAR KHAN<br>MOLTA 3012.0N 07236.2E | G215 | DUTCH HARBOR<br>OLCOT 5125.8N 16533.3E |
| G216 | (DORAB)<br>ALPOR 2404.7N 06120.0E<br>LATEM 2431.7N 06449.7E<br>KARACHI | G218 | HOHHOT<br>TUMURTAI<br>POLHO 4447.0N 11315.0E<br>SOLOK 4954.0N 11545.0E |
| G219 | VIRUT 0230.8N 10402.7E<br>TEKONG | G221 | PHUCAT<br>BUNTA 1650.0N 10923.7E<br>BAOLONG<br>HAIKOU<br>SAMAS<br>SIKOU |
| G222 | SAPDA<br>BROOME<br>AYERS ROCK<br>PARKES | G223 | ADKAK<br>TONIK 3200.0N 14600.0E<br>NAURU<br>NADI |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | | | NAUSORI<br>NIUE<br>AITUTAKI<br>TAHITI<br>(LIMA) |
| G224 | NORFORK IS<br>NADI<br>PAGO PAGO<br>TAHITI<br>ISLA DE PASCUA<br>(SANTIAGO) | G325 | COLOMBO<br>TIRUCHCHIRAPPALLI |
| G326 | BALI<br>TENNANT CREEK<br>BRISBANE | G327 | NANHUI<br>NINAS 3100.0N 12215.0E<br>AKARA 3130.0N 12330.0E |
| G329 | BRISBANE<br>NORFORK IS | G330 | SHANGHAI<br>POMOK<br>NANTONG<br>GURNI 3209.2N 12058.5E<br>PIMOL 3215.0N 11944.0E |
| G331 | PHUKET<br>PADET<br>DAWEI | G332 | TANGHEKOU<br>CHAOYANG |
| G333 | DELHI<br>ESDEM<br>TIGER 2828.8N 07214.9E | G334 | KUALA LUMPUR<br>TIOMAM<br>BUNTO 0242.0N 10600.0E<br>DOTAS 0201.1N 10820.5E<br>SIBU |
| G335 | KATHMANDU<br>JANAKPUR<br>PATNA | G336 | DHANBAD<br>PATNA<br>SIMRA<br>KATHMANDU |
| G337 | PERTH<br>CHRISTMAS IS<br>PEKANBARU | G338 | CHOIBALSAN<br>KAGAK |
| G339 | PUSAN<br>FUKUOKA<br>KAGOSHIMA<br>TANEGASHIMA<br>PAKDO<br>GUAM | G340 | QINGBAIKOU<br>HUAILAI |
| G341 | CHANGCHUN<br>WANGQING | G342 | CAIRNS<br>HONIARA |
| G344 | COMFE 3624.0N 14618.0E<br>CUTEE 4624.9N 16218.6E<br>CUDDA 5647.9N 16018.1W | G345 | UNTAN<br>CHANGZHOU<br>LISHUI |
| G346 | KIMCHAEK<br>NULAR 4059.2N 13411.0E<br>IGROD 4139.0N 13647.0E | G347 | AUCKLAND<br>POPIR 2500.0S 17804.8W<br>PADDI 1825.7N 15854.8W |
| G348 | PARO<br>BAGDOGRA<br>MECHI<br>KATHMANDU | G424 | (DAR ES SALAAM)<br>VUTAS 0912.0N 06000.0E<br>ALATO 1340.7N 06344.0E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| G450 | (MOGADISHU)<br>MUMBAI<br>NAGPUR<br>KOLKATA | G451 | AHMEDBAD<br>SASRO 2404.3N 07100.0E<br>PARTY 2414.6N 07052.0E |
| G452 | (ZAHEDAN)<br>RAHIM YAR KHAN<br>TIGER 2828.8N 07214.9E<br>DELHI | G453 | KUALA LUMPUR<br>KOTA BHARU |
| G454 | SABDI 035418N 0771940E<br>DUKET 020110N 0753650E<br>GAN VOR<br>ISMAT 024153S 0715059E<br>IKADU 034641S 0710839E<br>BOBOD 060000S 0694106E | G455 | SHANGHAI<br>PINOT 3125.2N 12214.2E<br>AKARA 3130.0N 12330.0E |
| G457 | DOVRR 1843.0N 15740.0W<br>ELLMS 0500.0S 16704.1W<br>PAGO PAGO<br>FAROA 2500.0S 17502.3W<br>DIVSO 3452.3S 17624.5E | G458 | BANGKOK<br>SURAT THANI<br>PHUKET |
| G459 | CAIRNS<br>TIMIKA | G460 | KUCHING<br>SIBU<br>BINTULU<br>BRUNEI |
| G463 | RAJSHAHI<br>DHAKA<br>CHITTAGONG<br>BAGO<br>BETNO 1505.8N 09812.7E<br>BANGKOK | G464 | PONTIANAK<br>ROZAX 0245.0S 11140.0E<br>BALI<br>KARRATHA<br>BALLIDU<br>PERTH |
| G465 | (PRASLIN)<br>MALE<br>COLOMBO | G466 | HO CHI MINH<br>PHUCAT<br>HENGCHUN |
| G467 | LUBANG<br>JOMALIG<br>GUAM | G468 | PENANG<br>MEDAN |
| G469 | PORT HEIDEN<br>ST PAUL IS<br>NYMPH 5324.5N 16814.4E | G470 | XIANYANG<br>FENGHUO<br>CHANGWU<br>JINGNING<br>JINGTAI<br>QITAI |
| G471 | SHILONG<br>LONGMEN<br>GANGZHOU | G472 | KARACHI<br>AHMEDABAD<br>NAGPUR<br>BHUBANESHWAR<br>PATHEIN<br>BAGO |
| G473 | BAGO<br>MAKAS 1649.7N 09830.0E<br>PHITSANULOKE<br>UBON | G474 | BANGKOK<br>MENAM 1357.3N 10247.7E<br>SOURN 1345.5N 10600.0E<br>ANINA 1359.0N 10725.0E<br>PHUCAT |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| G575 | TAHITI<br>RANGIROA<br>FICKY 3133.5N 12123.5W | G576 | CHEER 5310.0N 14000.1W<br>SPONJ 4992.0N 13005.1W |
| G578 | GURAG 2100.0N 12725.0E<br>DILIS 1431.0N 12600.0E<br>TACLOBAN<br>MACTAN<br>ZAMBOANGA<br>DENPASAR<br>PORT HEDLAND<br>PARABURDOOD<br>PERTH | G579 | JAKARTA<br>PALEMBANG<br>SINGAPORE<br>JOHOR BAHRU |
| G580 | TOMAN 0121.5N 10547.0E<br>NIMIX 0124.9N 10759.2E<br>ATETI 0125.7N 10830.1E<br>KUCHING<br>MIRI<br>BRUNEI | G581 | HONG KONG<br>ELATO 2220.0N 11730.0E<br>HENGCHUN<br>MIYAKO JIMA<br>BISIS 2647.0N 12633.0E<br>ERABU<br>TAPOP 3240.0N 13607.9E |
| G582 | PUGER 0324.1N 10017.6E<br>BATU ARANG<br>PEKAN | G583 | EMMONAK<br>BESAT 5945.0N 17925.1W<br>(UST-BOLSHERETSK)<br>BISIV 4456.3N 14412.3E<br>MONBETSU |
| G584 | KUALA LUMPUR<br>PEKAN<br>KUCHING | G585 | MIHO<br>POHANG<br>SEOUL |
| G586 | YINGDE<br>ERTANG | G587 | TAIBEI<br>PABSO 2538.0N 12252.0E<br>BULAN 2704.0N 12400.0E |
| G588 | MOOREN<br>KHOVD<br>TEBUS 4725.1N 09027.7E<br>TESAN 4701.7N 08947.8E<br>FUKANG | G590 | SIMRA<br>VARANASI<br>KHAJURAHO<br>BHOPAL<br>INDORE<br>BODAR 2236.3N 07413.3E |
| G591 | CAIRNS<br>NOUMEA<br>NORFORK IS<br>AUCKLAND | G593 | FUNAFUTI<br>NAUSORI<br>NIUE<br>RAROTONGA |
| G594 | TIAMU<br>TAHITI<br>RAROTONGA<br>AUCKLAND<br>SOLIT 2355.0S 07500.0E<br>(PLAISANCE) | G595 | (TAHITI)<br>SYDNEY<br>MABAD 2648.4S 07500.0E<br>(PLAISNACE) |
| G597 | DONVO 3734.0N 12320.0E<br>AGAVO 3710.0N 12400.0E<br>SEOUL<br>KANGNUNG<br>MIHO | G598 | LUCKNOW<br>APIPU 2658.6N 08300.0E<br>SIMARU |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | OTSU<br>KOWA<br>OSHIMA<br>VENUS 3618.2N 14042.1E | | |
| G599 | AUCKLAND<br>TAHITI | R200 | PINGZHOU<br>LIANSHENGWEI<br>BIGRO<br>ZHANJIANG |
| R201 | BANGKOK<br>UTAPAO | R202 | PHRAE<br>TATEL 1729.1N 098 45.8E |
| R203 | SAPAM 0804.6N 09733.0E<br>PHUKET | R204 | KEITH 2100.0N 13456.5E<br>KALIN 0000.0N 14200.0E<br>LIDIT 0918.0S 14220.0E<br>HORN IS<br>CAIRNS |
| R205 | ANARAK<br>BIRJAND | R 206 | PORT HEDLAND<br>CHRISTMAS IS<br>JAKARTA |
| R207 | VIENTIANE<br>NAN<br>CHIANG MAI<br>MANDALAY | R208 | KUALA LUMPUR<br>KUALA TRENGGANU<br>KANTO 0649.9N 10348.3E |
| R209 | TATOX 0857.0N 09702.0E<br>LANGKAWI | R210 | PORT MORESBY<br>CAIRNS |
| R211 | SWAMP 3619.2N14032.3E<br>IWAKI<br>NIIGATA<br>KADBO 3914.0N 13745.4E<br>AVGOK 4336.0N 13815.0E<br>VELTA 4529.0N 13710.0E | R212 | (DIEGO GARCIA)<br>GUDUG 0704.6S 07500.0E<br>PIBED 0520.2S 09044.0E |
| R215 | CHIANG RAI<br>NAN<br>LUANG PRABANG | R217 | NODAN 4025.0N 14500.0E<br>SENDAI<br>NIIGATA |
| R218 | DELHI<br>DIPAS 2738.3N 07551.9E<br>JAIPUR | R220 | IWAKI<br>NANAC 3854.2N 14313.9E<br>NIPPI 4942.6N 15920.8E<br>NODLE 6117.0N 15200.0W |
| R221 | MERSING<br>PULAU TIOMAN | R222 | AVGOK 4336.0N 13815.0E<br>(YEDINKA) |
| R223 | BRUNEI<br>ELANG 0056.0S 11449.5E | R224 | YANJI<br>VASRO 4227.8N 12944.4E<br>KANSU |
| R325 | KATHMANDU<br>JANAKPUR<br>DUMKA 2411.0N 08721.3E<br>KOLKATA<br>PHUKET<br>HAT YAI<br>IPOH<br>JOHOR BAHRU | R326 | NORFOLK IS<br>CHRISTCHURCH |
| R327 | GISBORNE<br>FAROA | R328 | DANANG<br>HUE<br>LEBAL 1630.2N 10556.7E<br>SAVANNAKHET |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| R329 | KAGLU 1231.2N 07200.0E<br>MALE<br>GAN<br>(DIEGO GARCIA) | R330 | SHEMYA<br>POWAL 5024.3N 16530.8E |
| R332 | MAJURO<br>BONRIKI<br>AKUMO 0614.9S 17535.5E<br>ROTUMA<br>NADI | R334 | RAYONG<br>KOH KONG<br>SIHANOUK<br>PHU QUOC |
| R335 | VINH<br>ALPHA 1832.6N 10319.7E<br>VIENTIANE | R336 | ADAK<br>CARTO 4840.5N 16847.0E |
| R337 | TACLOBAN<br>KOROR | R338 | NOME<br>NINNA 5455.7N 17158.8E |
| R339 | SIKOU 2050.6N 11130.0E<br>HUGUANG<br>NANNING<br>BOSE | R340 | AMBON<br>WALGETT |
| R341 | KODIAK<br>NINNA 5455.7N 17158.8E | R342 | MANADO<br>BONDA 0200.0N 12451.2E<br>PEDNO 0400.0N 12521.0E<br>GENERAL SANTOS<br>DAVAO |
| R343 | NANXIANG<br>WUXI<br>LISHUI<br>HEFEI<br>WUHAN<br>LONGKOU<br>LAOLIANGCANG<br>DARONGJIANG<br>LAIBIN<br>NANNING | R344 | KATHMANDU<br>BIRATNAGAR<br>KATIHAR<br>RAJSHAHI |
| R345 | ROIET<br>BIDEM 142153.57N 1034750.07E<br>SIEM REAP | R346 | TOWNSVILLE<br>PORT MORESBY |
| R347 | NIIGATA<br>SADO<br>EKVIK 3944.7N 13636.5E<br>IGROD 4139.0N 13647.0E<br>(VELTA) 4529.0N 13710.0E | R348 | KADAP 0200.0S 08409.6E<br>LATEP 0610.3S 07500.0E<br>(DIEGO GARCIA) |
| R349 | LEMOK 1000.0N 10302.2E<br>RASER 1000.0N 10506.0E<br>HO CHI MINH | R450 | KIETA<br>HONIARA |
| R451 | ADAK<br>OGDEN 4929.2N 16102.3E | R452 | SONDO 3947.0N 12713.6E<br>HAMUN 3955.1N 12731.1E<br>KIMCHAEK<br>UAMRI 4217.6N 13041.8E<br>(TEKUK) 4241.0N 13527.4E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| R453 | NADI<br>APIA | R455 | PONTIANAK<br>KUCHING |
| R457 | CHENNAI<br>TIRUCHIRAPALLI<br>MADURAI<br>GUTEG 091100.0N0773154.0E<br>TRIVANDRUM<br>MALE | R458 | MUMBAI<br>EPKOS 1653.0N 07407.2E<br>BELGAUM |
| R460 | DELHI<br>ALIGARH<br>LUCKNOW<br>VARANASI<br>GAYA<br>KOLKATA | R461 | MUMBAI<br>MABTA 1708.5N 07321.8E<br>BELGAUM<br>COIMBATORE<br>COLOMBO<br>MEDAN<br>KUALA LUMPUR |
| R462 | (SEEB)<br>DENDA 2442.5N 06054.8E<br>JIWANI<br>KARACHI<br>UPAIPUR<br>DELHI | R463 | APACK 2402.6N 15619.2W<br>ALCOA 3750.0N 12550.0W |
| R464 | BITTA 2332.0N 15529.0W<br>BEBOP 3700.0N 12500.0W | R465 | CLUTS 2300.0N 15439.0W<br>CLUKK 3605.0N 12450.0W |
| R467 | KUALA LUMPUR<br>GUNIP 0429.9N 09931.9E | R468 | BANGKOK<br>BOKAK 1257.5N 10230.0E<br>PHNOM PENH<br>SAPEN 1102.2N 10611.0E<br>HO CHI MINH |
| R469 | PEKANBARU<br>SINGAPORE | R470 | VIENTIANE<br>UDON THANI<br>KHON KAEN |
| R472 | KOLKATA<br>RAJSHAHI<br>GUWAHATI | R473 | LILING<br>NANXIONG<br>WONGYUANG<br>ZHULIAO<br>PINGZHOU<br>TAMOT 2221.5N 11352.0E |
| R474 | GAOYAO<br>NANNING<br>LONGZHOU<br>HANOI<br>VIENTIANE<br>BANGKOK | R575 | PAPRA 1546.0N 10711.0E<br>KOH KONG<br>UPNEP 0942.2N 10029.6E<br>SURAT THANI |
| R576 | DENNS 2222.0N 15353.0W<br>DINTY 3329.0N 12235.0W | R577 | EBBER 2143.0N 15309.0W<br>ELKEY 3241.0N 12203.0W |
| R578 | FITES 2049.0N 15300.0W<br>FICKY 3133.5N 12123.5W | R580 | OATIS 3800.0N 14345.0E<br>OMOTO 4859.7N 16000.7E<br>AMOTT 6053.9N 15121.8W |
| R581 | KOLKATA<br>MONDA 2521.0N 08626.4E | R582 | NORFOLK IS<br>RAROTONGA |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | SIMARA | | |
| R583 | TAIBEI<br>BISIS 2647.1N 12633.1E<br>OKINAWA<br>MINAMIDAITO<br>SABGU<br>BUNGO | R584 | AVLAS<br>SALVA 2222.7N 13059.7E<br>KEITH 2100.0N 13456.48E<br>GUAM<br>TRUK<br>POHNPEI<br>KWAJALEIN<br>MAJURO<br>JOHNSTON IS<br>CHOKO 2022.9N 16053.2E |
| R585 | CITTA 2818.9N 14507.2W<br>GATES 3412.7N 12303.9W | R587 | BRISBANE<br>PORT VILA |
| R588 | PHUKET<br>RELIP<br>PHNOM PENH<br>PLEIKU | R590 | AMBON<br>COTABATO |
| R591 | CAPE NEWENHAM<br>AKISU 4734.3N 16119.3E<br>ABETS 3605.0N 14425.0E | R592 | BALI<br>ONSLOW<br>PERTH |
| R594 | LUCKNOW<br>JALALABAD<br>DELHI | R595 | ANPU<br>MIYAKO JIMA<br>KEITH 2100.0N 13456.5E<br>GUAM |
| R597 | CABANATUAN<br>SARSI 1642.0N 12316.9E<br>SKATE 1716.7N 12423.0E | R598 | KOLKATA<br>RAJSHAHI<br>SAIDPUR<br>COOCH BEHAR<br>BOGOP<br>PARO |
| R599 | KIETA<br>GIZO<br>HONIARA<br>PORT VILA<br>WHANGAREI<br>AUCKLAND | | |
| | RNAV Routes | | |
| L43 | (ODNIX) 404759N 0754949E<br>OGIGI 401810N 0755424E<br>KASHI | L181 | (POMIR) 383500N 0713800E<br>AGVUT 375828N 0745451E<br>YARKANT |
| L301 | BANGKOK<br>DAWEI<br>VISHAKHAPATNAM<br>BUSBO 191454N 0780736E<br>KARKU 205827.65N 0690639.01E<br>ANKOX 220256.40N 0662842.06E<br>RASKI 230330N 0635200E<br>(VAXIM 231900N 0611100E) | L333 | KHAJURAHO<br>JAIPUR<br>TIGER 2828.8N 07214.9E |
| L500 | (SANTIAGO)<br>AUCKLAND | L501 | (RIO GALLEGOS)<br>AUCKLAND |
| L503 | BRISBANE<br>IGEVO 3636.5S 16300.0E<br>CHRISTCHURCH | L504 | SINGAPOREMANADO |
| L505 | BUSBO 191454N 0780736E | L507 | KOLKATA |

| Designator Type | Significant Points | Designator Type | Significant Points |
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| 1 | 2 | 1 | 2 |
| | KAMOL 193806N 0734000E<br>EXOLU 201250N 0713410E | | BAGO<br>BANGKOK |
| L508 | RAROTONGA<br>CHRISTCHURCH<br>MELBOURNE | L509 | GAYA<br>ASARI 3048.3N 07509.5E |
| L510 | IBANI 250000N 0764311E<br>ELBAB 201333N 0815954E<br>LEKIR 071632N 0965243E<br>GIVAL 070000N 0980000E | L512 | INTOS 3722.0N 13120.0E<br>NIIGATA |
| L513 | PERTH<br>HOBART<br>AUCKLAND | L515 | OBMOG 1154.1N 09623.5E<br>IKULA 1000.0N 09721.2E<br>PHUKET |
| L516 | KITAL 2003.0N 06018.0E<br>ELKEL 0149.0N 06911.0E<br>(DIEGO GARCIA) | L517 | MIRI<br>GULIB 0409.3N 11028.1E<br>TERIX 0415.4N 10934.9E |
| L518 | UDAIPUR<br>PRATAPGARH<br>INDORE<br>MONPI 220414N 0755956E<br>DUBOX 202215N 0764956E<br>BEVSU 192649N 0771533E<br>GUMIT 185931N 0772802E<br>HYDERABAD<br>VIJAYWADA<br>GOPNU 155112N 0820224E<br>EGOLU 141858N 0844952E<br>SADAP 120605.6N 0884120.8E | L521 | SYDNEY<br>AUCKLAND |
| L625 | LUSMO 0333.7N 10655.7E<br>AKMON 0812.8N 11013.4E<br>ALDAS 1056.9N 11212.3E<br>ANOKI 1222.0N 11315.0E<br>ARESI 1358.4N 11427.0E<br>AKOTA 1706.6N 11651.6E<br>AVMUP 1843.3N 11808.3E<br>POTIB 2100.0N 12045.5E | L626 | KATHUMANDU<br>ONISA 2858.1N 08005.5E<br>DELHI |
| L628 | LUBANG<br>IBOBI 1354.4N 11832.6E<br>GUKUM 1356.8N 11637.2E<br>ARESI 1358.4N 11427.0E<br>MESOX 1358.4N 11427.0E<br>DAMEL 1358.7N 11130.6E<br>VEPAM 1358.0N 11000.0E<br>PHUCAT | L629 | PEKAN<br>DOLOX 0448.7N 10522.9E |
| L635 | PEKAN<br>MABLI 0417.3N 10612.9E | L637 | BITOD 0715.3N 10612.9E<br>TANSONNHET |
| L639 | BHOPAL<br>NINIM 231102N 0755956E<br>AGRIX 230924N 0742027E<br>AHMEDABAD<br>LAXOM 224830N 0705000E<br>GUREV 225728N 0682241E<br>RUPAM 225728N 0675218E<br>RITPO 225728N 0665748E<br>MILUP 225728N 0645000E<br>RASKI 230330N 0635200E | L642 | CHEUNG CHAU<br>EPDOS 1900.0N 11333.3E<br>ENBOK 1833.4N 11329.5E<br>EGEMU 1700.0N 11217.0E<br>VEPAM 1358.0N 11000.0E<br>PHANTHIET<br>CONSON IS<br>ESPOB 0700.0N 10533.4E<br>ENREP 0452.4N 10414.8E<br>MERSING |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| L643 | TANSONNHET<br>CONSON | L644 | CONSON<br>JAKARTA |
| L645 | COLOMBO<br>SULTO 0738.6N 08801.9E<br>SAMAK 0758.7N 09425.0E<br>SAPAM 0804.6N 09733.0E<br>PHUKET | L649 | BRUNEI<br>ISKUD 0536.6N 11452.3E<br>URKET 0811.5N 11450.0E<br>LAXOR 0949.6N 11458.5E |
| L756 | CLAVA<br>MALE | L759 | DELHI<br>POSIG 2713.0N 07734.9E<br>AGRA<br>KHAJURAHO<br>PHUKET |
| L760 | AGRA<br>GURTI 2743.8N 07747.8E<br>DELHI | L762 | ASUNA 005948N 1030954E<br>MIBEL 012351N 1020816E<br>MOZES 024249.49N 0995551.90E<br>MEDAN<br>ANSAX 060000N 0953030E |
| L774 | (PLAISANCE)<br>LELED 116.5S 07500.0E<br>ELATI 0200.0S 08957.7E<br>KETIV 0042.0S 09200.0E<br>MEDAN | L875 | VUTAS 091206N 0600004E<br>MOXET 110146N 0645024E<br>GOLEM 115739N 0672213E<br>EGOGI 121100N 0690000E<br>GOKUM 122025N 0701005E<br>OLNIK 122850N 0711440E<br>BEDIL 123500N 0715958E<br>DOLPI 124641N 0732711E<br>MANGALORE(MML)<br>PEXEG 130415N 0760230E<br>BANGALORE (BIA)<br>CHENNAI (MMV) |
| L888 | BIDRU 22 43.1N 100 57.9E<br>MAKUL 24 03.1N 100 34.6E<br>NIVUX 26 00.0N 100 00.0E<br>PEXUN 30 55.9N 100 00.0E<br>SANLI 32 00.0N 100 00.0E<br>NOLEP 38 34.5N 088 42.5E<br>SADAN 40 04.6N 086 00.0E<br>KUQA VOR (KCA) | L894 | KITAL 2003.0N 06018.0E<br>MALE<br>SUNAN 0028.7S 07800.0E<br>DADAR 0200.0S 07927.1E<br>PERTH |
| L896 | SAPDA 1200.0S 11125.6E<br>NISOK 0302.9N 09200.0E<br>DUGOS 0853.1N 08447.9E<br>CHENNAI | L897 | CHRISTMAS ISLAND<br>KETIV 0042.0S 09200.0E<br>COLOMBO |
| L899 | HANIMAADHOO<br>TRIVANDRUM | M300 | (EMURU 2215.6N 05849.8E)<br>LOTAV 2037.0N 06057.0E<br>CALICUT<br>MADURAI<br>SALAX 0212.4N 10133.7E |
| M501 | GUAM<br>LIMLE 1639.7N 13000.0E<br>SKATE 1722.2N 12425.6E<br>LAOAG<br>NOMAN 2000.0N 11640.3E | M502 | BANGKOK<br>AKATO 1337.3N 09910.3E<br>LALIT 1252.4N 09225.1E |
| M503 | BEGMO 2800.0N 12150.0E<br>PONEN 2537.5N 12024.0E<br>OBKEL 2500.0N 11953.0E<br>LAPUG 2259.7N 11722.8E | M504 | ALPOR 2404.7N 06120.0E<br>NODER 2350.0N 06700.0E<br>TELEM 2402.0N 06846.0E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | LELIM 2256.4N 11718.7E | | |
| M505 | BUON MA THUOT<br>MONDULKIRI<br>SIEM RIEP | M510 | CAN THO<br>PHNOM PENH |
| M512 | COLOMBO<br>ANIVE 0540.9N 07800.0E<br>MALE | M520 | SERNA 5018.5N 10628.1E<br>POLHO 4447.0N 11315.0E |
| M522 | VINIK 0838.5N 11613.8E<br>KOTA KINABALU<br>MAMOK 0405.1N 11547.2E<br>DENPASAR | M625 | MELBOURNE<br>WELLINGTON |
| M626 | KOTA BHARU<br>DAWEI<br>BAGO | M635 | SINGAPORE<br>RAMPY 0615.0 11320.8E<br>CURTIN |
| M638 | DOSTI 255800N 0650300E<br>KARACHI<br>MINAR 235000N 0680000E<br>SAPNA 233000N 0675000E<br>IGANU 220410.00N 0675605.00E<br>KARKU 205827.65N 0690639.01E<br>EXOLU 201250N 0713410E<br>MUMBAI | M639 | IGEVO 3636.5S 16300.0E<br>WELLINGTON |
| M641 | MADURAI<br>BIKOK 0817.0N 07836.0E<br>COLOMBO<br>COCOS IS<br>PERTH | M643 | HOBART<br>CHRISTCHURCH |
| M644 | RAYONG<br>KOTA BHARU | M646 | HENGCHUN<br>ABVAR 1924.8N 12037.7E<br>LAOAG<br>SAN FERNANDO<br>MANILA<br>TOKON 1142.0N 11940.5E<br>PUERTO PRINCESA<br>KOTA KINABALU<br>BRUNEI<br>DARMU 0401.7N 11240.6E<br>KAMIN 0234.7N 10855.9E<br>SABIP 0209.7N 10750.7E<br>ESPIT 0200.2N 10726.4E<br>OBLOT 0142.9N 10641.8E<br>TOMAN 0121.8N 10547.3E |
| M750 | KILOG 2152.5N 11441.6E<br>ENVAR 2159.5N 11730.0E<br>MOLKA 2639.5N 12400.0E<br>MOMPA 3050.5N 12955.1E<br>BUNGU 3407.1N 13929.9E | M751 | MERSING<br>PEKAN<br>KOTA BHARU<br>REGOS 1200.0N 10035.1E<br>BANGKOK |
| M753 | ENREP 0452.4N 10414.8E<br>BITOD 0715.3N 10407.3E<br>PHU QUOC<br>PHNOM PENH | M754 | BRUNEI<br>VINIK 0838.6N 11613.8E<br>TENON 0915.3N 11616.5E<br>LULBU 1104.7N 11624.4E<br>NOBEN 1234.4N 11631.1E<br>GUKUM 1356.8N 11637.2E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | | | AKOTA 1706.6N 11651.6E |
| M755 | PHNOM PENH<br>KISAN 1032.3N 10440.5E<br>BITOD 0415.4N 10407.1E | M757 | BANGKOK<br>KASNI 130450N 1004042E<br>OBLEX 072948N 1003228E<br>KARMI 062940N 1003121E<br>ANGUN 050809N 1000736E |
| M758 | PEKAN<br>LUSMO 0333.7N 10655.7E<br>TERIX 0415.4N 10934.7E<br>OLKIT 0450.1N 11149.1E<br>KOTA KINABALU | M759 | OLKIT 0450.1N 11149.1E<br>BRUNEI |
| M761 | PEKAN<br>BOBOB 0222.1N 10706.1E<br>SABIP 0209.7N 10750.5E<br>AGOBA 0158.7N 10830.0E<br>KUCHING | M765 | KOTA BHARU<br>IGARI 0656.2N 10335.2E<br>BITOD 0715.3N 10407.3E<br>CONSON<br>DAGAG 0927.8N 10826.5E<br>MAPNO 1013.1N 11020.1E |
| M766 | COLOMBO<br>JAKARTA<br>INDRAMAYU<br>MADIN 0617.9S 11023.0E<br>CUCUT 0617.7S 11106.0E<br>SURABAYA<br>BALI<br>DARWIN | M767 | JOMALIG<br>TOKON 1142.0N 11940.3E<br>TENON 0915.3N 11616.5E<br>TEGID 0857.2N 11551.6E<br>TODAM 0631.7N 11235.4E |
| M768 | DARWIN<br>BRUNEI<br>DOGOG 0525.3N 11407.5E<br>ASISU 0559.1N 11320.8E<br>TODAM 0631.6N 11235.6E<br>LAGOT 0716.5N 11132.7E<br>AKMON 0812.9N 11013.1E<br>MOXON 0849.5N 10921.3E<br>DAGAG 0927.8N 10826.5E<br>TANSONNHAT | M769 | BANGKOK<br>LEBIM 130515N 1002825E<br>DANDO 073054N 1002024E<br>RIGTO 064228N 1001504E<br>ALOR SETAR |
| M770 | KOTA BHARU<br>RANONG<br>BUBKO 1911.1N 08839.8E<br>KAKID 2038.6N 08659.9E<br>JAMSHEDPUR | M771 | MERSING<br>DOLOX 0448.7N 10522.9E<br>DUDIS 0700.0N 10648.6E<br>DAGAG 0927.8N 10826.5E<br>DOXAR 1222.0N 11022.7E<br>DAMEL 1358.7N 11130.6E<br>DONDA 1442.2N 11201.3E<br>DOSUT 1702.0N 11340.8E<br>DULOP 1814.2N 11432.6E<br>DUMOL 1900.0N 11426.8E<br>HONG KONG |
| M773 | BUBKO 1911.1N 08839.8E<br>LEGOS 2138.0N 08805.3E<br>KOLKATA | M774 | SINGAPORE<br>KIKEM 0952.9S 12607.4E |
| M875 | KAKID 2038.6N 08659.9E<br>BUTOP 2919.7N 07523.9E<br>GUGAL 3014.5N 07358.0E<br>DERA ISMAIL KHAN | M890 | LUCKNOW<br>CHANDIGARH<br>SAMAR 3120.8N 07434.0E |
| M904 | BANGKOK | N502 | PARDI 0034.0S 10413.0E |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | U-TAPHAO<br>DIPUN<br>SIRAT<br>TONIK<br>TIDAR<br>ODONO<br>UPRON<br>ENREP | | BOBAG 0102.5N 10329.9E |
| N509 | ELATI 0200.0S 08957.7E<br>PORT HEDLAND | N519 | MUMBAI<br>GUREV 225728N 0682241E<br>SAPNA 233000N 0675000E<br>MINAR 235000N 0680000E<br>KARACHI |
| N563 | (EMURU 2214.0N 05853.6E)<br>REXOD 2112.5N 06138.5E<br>BANGALORE<br>MEDAN<br>SALAX 0212.4N 10133.7E | N564 | DUGOS 0853.1N 08447.9E<br>AKMIL 1151.6N 08006.9E |
| N571 | (RAGMA 2306.0N 06105.7E)<br>PARAR 2226.5N 06307.0E<br>VAMPI 0610.9N 09735.1E<br>GUNIP 0429.9N 09931.8E | N628 | PEKANBARU<br>BUSUX 0355.0S 06000.0E<br>(PRASLIN) |
| N633 | KUALA LUMPUR<br>PEKANBARU<br>POSOD 0329.5S 09409.9E<br>PEDPI 1316.6S 07500.0E<br>(PLAISANCE) | N640 | TRIVANDRUM<br>BIKOK 0817.0N 07836.0E<br>COLOMBO<br>LEARMONTH<br>MOUNT HOPE<br>ADELAIDE |
| N645 | BRUNEI<br>ELANG 005535.64S 1145003.10E<br>SURABAYA | N750 | SYDNEY<br>CHRISTCHURCH |
| N759 | MELBOURNE<br>AUCKLAND | N774 | AUCKLAND<br>SYDNEY |
| N875 | DENPASAR<br>PONTIANAK<br>ARUPA 0031.7N 10848.8E<br>NIMIX 0124.9N 10759.4E<br>BOBOB 0222.1N 10706.0E<br>ENREP 0452.4N 10414.7E | N877 | LAGOG 083536N 0915948E<br>VISHAKHAPATNAM<br>NAGPUR<br>NINIM 231102N 0755956E<br>PRATAGRAPH |
| N884 | MERSING<br>LUSMO 0333.7N 10655.7E<br>LAGOT 0716.6N 11131.5E<br>LAXOR 0949.6N 11448.5E<br>LULBU 110936.07N 1163217.70E<br>LEGED 130113.24N 1190006.94E<br>LUBANG<br>CABANATUAN<br>MIYAKOJIMA | N891 | PAPA UNIFORM<br>ENREP 0452.4N 10414.8E<br>IGARI 0656.2N 10335.2E<br>SAMOG 0800.0N 13014.6E<br>RAYONG<br>BANGKOK |
| N892 | HENGCHUN<br>KABAM 2100.0N 11925.7<br>MUMOT 1930.4N 11714.5E<br>MAVRA 1814.4N 11615.1E<br>MIGUG 1516.4N 11400.0E | N893 | TELEM 2407.0N 06846.0E<br>AHMEDABAD |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | MESOX 1358.8N 11302.7E<br>MUGAN 1222.0N 11152.3E<br>MAPNO 1013.1N 11020.1E<br>MOXON 0849.5N 10921.3E<br>MELAS 0704.9N 10808.4E<br>MABLI 0417.3N 10612.9E<br>MERSING | | |
| N895 | BETNO 1505.8N 09812.7E<br>PATHEIN<br>BHUBANESWAR<br>NAGPUR<br>BODAR 2236.3N 07413.3E<br>AHMEDABAD<br>PARTY 2414.6N 07052.0E | P173 | TAPIS 3431.0N 06909.0E<br>DAVET 3657.6N 06447.2E |
| P501 | ARAMA 0136.9N 10307.2E<br>BOBAG 0102.5N 10329.9E<br>ANITO 0017.0S 10452.0E | P518 | KARKU 205827.65N 0690639.01E<br>IGANU 220410.00N 0675605.00E<br>RITPO 225728.00N 0665748.00E<br>KABIM 233002.00N 0662131.00E<br>PARET 252712N 0645130E<br>PANJGUR |
| P570 | (MIBSI 2341.7N 05755.4E)<br>KITAL 2003.0N 06018.0E<br>TRIVANDRUM<br>KATUNAYAKE<br>PEKANBARU | P574 | (KUSRA)<br>TOTOX 2150.5N 06222.5E<br>BISET 1823.4N 06918.1E<br>BELGAUM<br>CHENNAI<br>PUGER 0324.0N 10017.5E |
| P627 | PHUKET<br>KADAP 0200.0S 08409.6E<br>KALBI<br>(PLAISANCE) | P628 | LANGKAWI<br>PORT BLAIR<br>RAHIM YAR KHAN |
| P632 | BHUBANESWAR<br>KAKID 203833N 0865951E<br>BESPU 210319.08N 0881325.63E<br>MAPDI 211314.74N 0884310.80E<br>IMENO 214026.69N 0900133.67E<br>CHATTOGRAM | | |
| P640 | BYRRD<br>LIBTI 761200S 1662700E<br>BOLAD 750200S 1673300E<br>GAKTO 700000S 1710000E<br>IPLUG 650000S 1713500E<br>KARKO 600000S 1720500E<br>MIBAD 550000S 1722700E<br>POLOR 500500S 1724000E<br>HELGE | P646 | BANGKOK<br>JAMSHEDPUR<br>PATHEIN<br>VARANASI |
| P648 | KOTA KINABALU<br>JAKARTA | P751 | (ADEN)<br>ANGAL 1614N 06000E<br>MUMBAI |
| P756 | MALE<br>MEDAN | P761 | CHENNAI<br>PORT BLAIR |
| P762 | DAWEI<br>PORT BLAIR<br>COLOMBO | P880 | IGEVO 03636.29S 16300.00E<br>SLOPE HILL VOR 04459.03S 16846.57E |
| P895 | IGAMA 134105.00N0715958.00E<br>AKLON 112110.00N0745424.00E | P901 | IKELA 1839.7N 11214.7E<br>CHEUNG CHAU |

| Designator Type | Significant Points | Designator Type | Significant Points |
|---|---|---|---|
| 1 | 2 | 1 | 2 |
| | COCHIN<br>GUTEG 091100.00N 0773154.00E<br>BIKOK 81706.00N0783555.00E | | |
| UB467 | YEDINKA<br>VELTA 4529N 13710E<br>TEKUK 4241N 13527.4E<br>NULAR 4059.2N 13411E<br>(KANSU) 3838.0N 13228.5E | UL425 | (KUTVI)<br>ASPUX 1744.00N 06000.00E<br>DONSA 1434.14N 06511.32E<br>VANVO 1043.00N 07200.00E |
| UM551 | DONSA 1435.3N 06511.6E<br>ANGAL 1614.1N 06000.1E<br>(AVAVO) 1646.3N 05526.1E | | |

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## TABLE ATM II-APAC-2 SSR CODES ALLOCATION PLAN OF THE ASIA AND PACIFIC REGIONS

| FIR | 0001-0077 | 0100-0177 | 0200-0277 | 0300-0377 | 0400-0477 | 0500-0577 | 0600-0677 | 0700-0777 | 1001-1077 | 1100-1177 | 1200-1277 | 1300-1377 | 1400-1477 | 1500-1577 | 1600-1677 | 1700-1777 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BANGKOK | | | | | | | | I | D | D | D | D | D | | | |
| BEIJING | I | | | | | | D | | | | | | | | | |
| BRISBANE | | | | 14 | 14 | | | | I | I | I | | | | | |
| CHENNAI | | | D | | | | I | | | | | | | | | |
| COLOMBO | | | | | | | | | | | | | | | | |
| DHAKA | | | | | | | | | | | | | | | | |
| DELHI | | | D | | | I | | | | | | | | | | |
| FUKUOKA | | | | | D | | | | D | D | D | D | D | D | | D |
| GUANGZHOU | | | | | | | D | | | | | | | | | |
| HANOI | | | | | | | | | | | | | | | | I |
| HO CHI MINH | | | | | | | | | | | | | | | | |
| HONG KONG, CHINA | | | | | | | | | | | | | | | | |
| INCHEON | | | D | D | | | | | | | | | | | D | |
| JAKARTA | | | | | | | | | | | | | | | | D |
| KABUL | | | | | | | | | | | | | | | | |
| KARACHI | | | | | | | | | | | | D | | | | |
| KATHMANDU | | D | | | | | | | | | | | | | | |
| KOLKATA | | | D | | I | | | | | | | | | | | |
| KOTA KINABALU | | | | | I | D | | | | | | | | | | |
| KUALA LUMPUR | | | | D | | | | | | | | | | | | |
| KUNMING | | | | | | | | | | | | | | | | |
| LAHORE | | D | | | | | | | | | | | | | | |
| LANZHOU | | | | | | | | | | D | | | | | | |
| MALE | | | D | | | | | | | | | | | | | |
| MANILA | | | | D | | | D | | | | | | | | | |
| MELBOURNE | | | | | | | | | | | | I | I | I | | |
| MUMBAI | | | D | I | | | | | | | | | | | | |
| NADI | | | | | | I | | | | | | | | | | |
| NEW ZEALAND | | | I | | | | | | | | | | | | | |
| PHNOM PENH | | | | | | | | | | | | | | | I(1) | |
| PORT MORESBY | | | | D | D | | | | | | | | | | | |
| PYONGYANG | | | | | | D | | | | | | | | | | |
| SHANGHAI | | I | | | | | | D | D | | | | | | | |
| SHENYANG | | | | | | | | | | D | I | | | | | |
| SINGAPORE | D | I | | | | | | | | | | | | | | |
| TAHITI | | | | | | | | | | | | | | | | |
| TAIBEI | | | | D | | | D | | D | D | | | | D | | |
| UJUNG PANDANG | | | | | | | | | | | | | | | D | |
| ULAAN BATAAR | | | | D | D | | | | | | | | | | | |
| URUMQI | | | | | | | | | D | | | | | | | |
| VIENTIANE | | | D | | | | | | | | | | | | I(2) | |
| WUHAN | | | | D | | | | | | | | | | D | | |
| YANGON | | | | | | | | | | | | | | | | |
| FIR | 2001-2077 | 2100-2177 | 2200-2277 | 2300-2377 | 2400-2477 | 2500-2577 | 2600-2677 | 2700-2777 | 3000-3077 | 3100-3177 | 3200-3277 | 3300-3377 | 3400-3477 | 3500-3577 | 3600-3677 | 3700-3777 |
| BANGKOK | | | | | | | | | | | | D | | | | |
| BEIJING | | | | D | | | | | I | | | | D | | | |
| BRISBANE | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CHENNAI | | | | | | | | D | | | | D | | | | |
| COLOMBO | | | | | | | | | | | | | | | | |
| DHAKA | | | | | | | | | | | | | | | | |
| DELHI | | | | | | | | | | | | D | | | | |
| FUKUOKA | D | D | D | D | D | D | | | | I(13) | I | D | D | | I | I |
| GUANGZHOU | | | | | D | | | | | I | | | D | | | |
| HANOI | | | | | | | | | | | | | | | | |
| HO CHI MINH | | | | | | | | | | | | | | | | |
| HONG KONG, CHINA | | | | | | | | | | | | I(15) | | I | | |
| INCHEON | | | | | | | | | | | | | | | | |
| JAKARTA | | | | I | I | D | | | | | | D | | | | |
| KABUL | | | | | | | | | | | | | | | | |
| KARACHI | | | | | | | | | | | D | | D | | | |
| KATHMANDU | | | | | | I | | | | | | | | | | |
| KOLKATA | | | | | | | D | | | | | D | | | | |
| KOTA KINABALU | I | | | | | | | | | D | | | | | | |
| KUALA LUMPUR | | I | | | | | I | | D | | | | D | | | |
| KUNMING | | | D | D | | | | | | | | | | | | |
| LAHORE | D | | | | | | | | | | | | | | D | |
| LANZHOU | | D | | | | | | | | | | | | | | |
| MALE | | | | | | | | | | | | | | | | |
| MANILA | | | | | | | | I | | | | | | | | |
| MELBOURNE | | | | | | | | | | | | | | | | |
| MUMBAI | | | | | | | | | | | | D | | | | |
| NADI | | | | | | | | | | | | | D | | | |
| NEW ZEALAND | | | | | | | | | | | | | | | | |
| PHNOM PENH | | | | | | | | | | | | | | | | |
| PORT MORESBY | | | | | | | | | | | | | | | | |
| PYONGYANG | | | | | | | | | | | | | | | | |
| SHANGHAI | | | | | | | | D | | | | | | | | |
| SHENYANG | | | | | | D | | | | | | | | | | |
| SINGAPORE | | | I | | | | | | | | | | | | | |
| TAHITI | | | | | | | I | | | | | | | | | |
| TAIBEI | D | D | | | | | I | | | | | | | | | |
| UJUNG PANDANG | | | | | | | | | | | | | | | | |
| ULAAN BATAAR | | | | | | | | | | | | | | | | |
| URUMQI | | | | D | | | | | | | | | | | | |
| VIENTIANE | | | | | | | | | | | | | | | | |
| WUHAN | | | | | | | | | | | | | | | | |
| YANGON | | | | | | | | | | | | | | | | |
| FIR | 4000-4077 | 4100-4177 | 4200-4277 | 4300-4377 | 4400-4477 | 4500-4577 | 4600-4677 | 4700-4777 | 5000-5077 | 5100-5177 | 5200-5277 | 5300-5377 | 5400-5477 | 5500-5577 | 5600-5677 | 5700-5777 |
| BANGKOK | | | D | D | D | D | | | | | | | | | | |
| BEIJING | | | | | | | | | | | | | | | | |
| BRISBANE | | | | | | | | | | | | | | | | |
| CHENNAI | | | | | | | | | | | | | | | | |
| COLOMBO | D | | | | | | | | | | | | | | | |
| DHAKA | | D | | | | | | I | | | | | | D | D | |
| DELHI | | | | | | | | | | | | | | | | |
| FUKUOKA | | | | | | | D | D | | | D(11) | D | D | D | D | D |
| GUANGZHOU | | | | | | D | | | | | | | | | | |
| HANOI | | D | | | | | D | | | | | | | | | |
| HO CHI MINH | | | | | | | | | | | | | | I | I | D |
| HONG KONG, CHINA | | | | | | | | | | I | D | I | | | | I(16) |
| INCHEON | | I | D | I(12) | I(12) | D | | | D | D | D | | | | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAKARTA | | | | | | | | D | | | | | | | | |
| KABUL | | | | | | | | | | | | D | | | | |
| KARACHI | | | | D | | | | | | | | | | | | |
| KATHMANDU | | | | | | | | | | | | | | | | |
| KOLKATA | | | | | | | | | | | | | | | | |
| KOTA KINABALU | | | | | | | | | | | D | | | | | |
| KUALA LUMPUR | D | | | | | | | | | D | | | I | | | |
| KUNMING | | | | | | | | | | | | | | | | |
| LAHORE | | | D | | D | I | | | | | | | | | | |
| LANZHOU | | | | | | | | | | | | | | | | |
| MALE | | | | | | | | | | | | | | | | |
| MANILA | D | | D | | | | | | | | | | | | | |
| MELBOURNE | | | | | | | | | | | | | | | | |
| MUMBAI | | | | | | | | | | | | | | | | |
| NADI | | | | | | | | | | | | | | | | |
| NEW ZEALAND | | | | | | | | | | | | | | | | |
| PHNOM PENH | | | | | | | | | D(3) | | | | | | | |
| PORT MORESBY | | | | | | | | | | | | | | | | |
| PYONGYANG | I | | | | | | | | | | | | | | | |
| SHANGHAI | | | | | | | | | | | | | | | | |
| SHENYANG | | | | | | | | | | | | | | | | |
| SINGAPORE | | | D | D | | | D | | | | | | | | | |
| TAHITI | | | | | | | | | | | | | | | | |
| TAIBEI | | | | D | D | D | D | | | | | | | | | |
| UJUNG PANDANG | | I | | | D | D | D | | I | | | | | | D | |
| ULAAN BATAAR | | | I | | D | | | | | | | | | | | |
| URUMQI | | | | | | D | | | | | | | | | | |
| VIENTIANE | | | | | | | | | | | | | | | | |
| WUHAN | D | | | | | | | | | | | | | | | |
| YANGON | | | | | | | | | I(4)D | | I(5)D | | | | | |
| FIR | 6000-6077 | 6100-6177 | 6200-6277 | 6300-6377 | 6400-6477 | 6500-6577 | 6600-6677 | 6700-6777 | 7000-7077 | 7100-7177 | 7200-7277 | 7300-7377 | 7400-7477 | 7500 | 7600 | 7700 |
| BANGKOK | | I | | | | | | | | | D | | | | | |
| BEIJING | | | | | | | | | | | | | | | | |
| BRISBANE | | | | | | | | | | | | | | | | |
| CHENNAI | | | | | | | | | | | | | | | | |
| COLOMBO | | | | | | | | | | | | I | | | | |
| DHAKA | | | | | | | | | | | | | | | | |
| DELHI | | | | D | | | | | | | | | | | | |
| FUKUOKA | I | I (13) | D | | D | | | | I(13) | | | D | | | | |
| GUANGZHOU | | | | | | | | | | | | | | | | |
| HANOI | | | | | | | | | I | | | | | | | |
| HO CHI MINH | D | | | | | | | | | | | | | | | |
| HONG KONG, CHINA | | | | | | | | | | | | | | | | |
| INCHEON | | | | | | | D | D | | I | D | | D | | | |
| JAKARTA | | | D | | D | | | I | | I | D | | | | | |
| KABUL | | | | | | | | | | I | | | | | | |
| KARACHI | | | | | | | | | | | I | | D | | | |
| KATHMANDU | | | | | | | | | | | | | | | | |
| KOLKATA | | | | | | | | | | | | | | | | |
| KOTA KINABALU | | | | | | | | | | | | | | | | |
| KUALA LUMPUR | | | | | | | | | | | | | | | | |
| KUNMING | | | | | I(9) | | | | | | | D | | | | |
| LAHORE | | | | | | | | | | | | | | | | |
| LANZHOU | | | I(6) | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MALE | | | | | | | | | | | | | I | | | |
| MANILA | | | | | | I | | | | | | | | | | |
| MELBOURNE | | | | | | | | | | | | | | | | |
| MUMBAI | | | | D | | | | | | | | | | | | |
| NADI | | | | | | | | | | | | | | | | |
| NEW ZEALAND | | | | | | | | | | | | | | | | |
| PHNOM PENH | | | | | | | | | | | | | | | | |
| PORT MORESBY | | | | | | | | | | | | | I | | | |
| PYONGYANG | | | | | | | | | | | | | | | | |
| SHANGHAI | | | | I | | | | | | | | | | | | |
| SHENYANG | | | | | I(10) | | | | | | | D | | | | |
| SINGAPORE | | | | | | | | | | | | | | | | |
| TAHITI | | | | | | | | | | | | | | | | |
| TAIBEI | | | I | | | | | | | | D | | | | | |
| UJUNG PANDANG | | | | D | | | I | | I | | D | | | | | |
| ULAAN BATAAR | | | | | | | | | | | | | | | | |
| URUMQI | | | I(7) | | | | | | | | | | | | | |
| VIENTIANE | | | | | | | | | | | | | | | | |
| WUHAN | | | I(8) | | | | | | | | | | | | | |
| YANGON | | | | | | | | | | | | | | | | |

I = International, D = Domestic
1 = Codes/claves 1600-1637
2 = Codes/claves 1640-1677
3 = Codes/claves 5010-5077
4 = Codes/claves 5000 international/5001-5007 domestic
5 = Codes/claves 5200 international/5201-5207 domestic
6 = Codes/claves 6200-6217
7 = Codes/claves 6220-6237
8 = Codes/claves 6240-6277
9 = Codes/claves 6400-6447
10 = Codes/claves 6450-6477
11 = Not available for use in the western part of the Fukuoka FIR
12 = Not for southbound flights
13 = For eastbound/northeast bound flights
14 = Not available for use in Northeastern Australia
15 = For flights bound for China and for destinations within the Manila and Taipei FIRs
16 = Not for flights bound for destinations within and overflying the Fukuoka FIR
* All codes available for domestic use in Australia and New Zealand except where indicated
Note: codes have not been issued for the Auckland Oceanic FIR (NZ), Anchorage and Oakland Oceanic FIRs (USA), Honiara FIR, Nauru FIR and the Sanya FIR

# ASIA/PAC ANP, VOLUME II

# PART V – METEOROLOGY (MET)

## 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in the ICAO SARPs and PANS related to aeronautical Meteorology (MET). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of MET facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the MET facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the States concerned to implement the requirements specified.

## 2. GENERAL REGIONAL REQUIREMENTS

*Meteorological offices*

2.1 In the Asia and Pacific Regions, Meteorological Watch Offices (MWO) have been designated to maintain continuous watch on meteorological conditions affecting flight operations within their area(s) of responsibility, as indicated at **Table MET II-1**.

*Meteorological observations and reports*

2.2 In the Asia and Pacific Regions, routine observations, issued as a METAR, should be made throughout the 24 hours of each day at intervals of one hour or, for RS and AS designated aerodromes[1] if so determined by regional air navigation agreement, at intervals of one half-hour at aerodromes as indicated in **Table MET II-2**. For aerodromes included on the VHF VOLMET broadcast as indicated in **Table MET II-3**, routine observations, issued as METAR, should be made throughout the 24 hours of each day.

2.3 At aerodromes that are not operational throughout 24 hours, METAR should be issued at least 3 hours prior to the aerodrome resuming operations in the Asia and Pacific Regions.

*Forecasts*

2.4 In the Asia and Pacific Regions, an aerodrome forecast, issued as a TAF, should be for the aerodromes indicated in **Table MET II-2**.

2.5 In the Asia and Pacific Regions, the period of validity of a routine TAF should be of 12-, 18-, 24- or 30-hours to meet the requirements indicated in **Table MET II-2**.

2.6 In the Asia and Pacific Regions, the forecast maximum and minimum temperatures expected to occur during the period of validity, together with their corresponding day and time of occurrence, should be included in TAF at aerodromes indicated in **Table MET II-2**.

2.7 In the Asia and Pacific Regions, landing forecasts (prepared in the form of a trend forecast) should be provided at aerodromes indicated in **Table MET II-2**.

*Requirements for and use of communications*

2.8 Operational meteorological information prepared as METAR, SPECI and TAF for aerodromes indicated in **Table MET II-2**, and SIGMET and AIRMET messages prepared for flight information regions or control areas indicated in **Table MET II-1**, should be disseminated to the international OPMET databanks designated for the Asia and Pacific Regions (namely Bangkok, Brisbane, Nadi, Singapore and Tokyo) and to

[1] Refer to Table AOP II-1, Explanation of the table

the centres designated for the operation of the aeronautical fixed service satellite distribution system (SADIS 2G) and the Internet-based service (Secure SADIS FTP) and WIFS in the Asia and Pacific Regions.

2.9 SIGMET messages should be disseminated to other meteorological offices in the Asia and Pacific Regions in accordance with the regional OPMET bulletin exchange scheme.

2.10 Special air-reports that do not warrant the issuance of a SIGMET should be disseminated to other meteorological offices in the Asia and Pacific Regions in accordance with the regional OPMET bulletin exchange scheme.

2.11 In the Asia and Pacific Regions, meteorological information for use by aircraft in flight should be supplied through VOLMET broadcasts.

2.12 In the Asia and Pacific Regions, the aerodromes for which METAR and SPECI are to be included in VOLMET broadcasts, the sequence in which they are to be transmitted and the broadcast time, is indicated in **Table MET II-3**.

## 3. SPECIFIC REGIONAL REQUIREMENTS

*Service for operators and flight crew members.*

3.1 In the Asia and Pacific Regions, scheduled VOLMET broadcasts should contain TAF and SIGMET.

3.2 In the Asia and Pacific Regions, METAR, SPECI and TAF should be available for uplink to aircraft in flight via D-VOLMET.

## TABLE MET II-1 - METEOROLOGICAL WATCH OFFICES

EXPLANATION OF THE TABLE

Column

1 Name of the State where meteorological service is required

2 Name of the Flight Information Region (FIR) or Control Area (CTA) where meteorological service is required
*Note: The name is extracted from the ICAO Location Indicators (Doc 7910) updated quarterly. If a State wishes to change the name appearing in Doc 7910 and this table, ICAO should be notified officially.*

3 ICAO location indicator of the FIR or CTA

4 Name of the meteorological watch office (MWO) responsible for the provision of meteorological service for the FIR or CTA
*Note: The name is extracted from the ICAO Location Indicators (Doc 7910) updated quarterly. If a State wishes to change the name appearing in Doc 7910 and this table, ICAO should be notified officially.*

5 ICAO location indicator of the responsible MWO

6 Requirement for SIGMET information (excluding for volcanic ash and for tropical cyclones) to be provided by the MWO for the FIR or CTA concerned, where:
Y – Yes, required
N – No, not required

7 Requirement for SIGMET information for volcanic ash to be provided by the MWO for the FIR or CTA concerned, where:
Y – Yes, required
N – No, not required

8 Requirement for SIGMET information for tropical cyclone to be provided by the MWO for the FIR or CTA concerned, where:
Y – Yes, required
N – No, not required

9 Requirement for AIRMET information to be provided by the MWO for the FIR or CTA concerned, where
Y – Yes, required
N – No, not required

| State | FIR or CTA Where Meteorological Service is Required | | Responsible Meteorological Watch Office | | Meteorological Service to Be Provided | | | |
|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Name | ICAO Location Indicator | SIGMET (WS) | SIGMET (WV) | SIGMET (WC) | AIRMET (WA) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Afghanistan** | KABUL FIR / SSR | OAKX | KABUL AD | OAKB | Y | Y | N | N |
| **Australia** | BRISBANE FIR<br>MELBOURNE FIR | YBBB<br>YMMM | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | Y |
| | BRISBANE FIR<br>MELBOURNE FIR | YBBB<br>YMMM | MELBOURNE (WORLD MET CENTRE, BUREAU OF METEOROLOGY) | YMMC | Y | Y | Y | N |
| | BRISBANE FIR<br>MELBOURNE FIR | YBBB<br>YMMM | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | Y |
| **Bangladesh** | DHAKA FIR / SRR | VGFR | HAZRAT SHAHJALAL INTERNATIONAL AIRPORT | VGHS | Y | Y | Y | N |
| **Cambodia** | PHNOM PENH FIR / SRR | VDPF | TECHO INTERNATIONAL AIRPORT | VDTI | Y | Y | Y | N |
| **China** | BEIJING FIR / SRR | ZBPE | BEIJING/CAPITAL | ZBAA | Y | Y | Y | N |
| | GUANGZHOU FIR / SRR | ZGZU | GUANGZHOU/BAIYUN | ZGGG | Y | Y | Y | N |
| | KUNMING FIR / SRR | ZPKM | CHENGDU/SHUANGLIU | ZUUU | Y | Y | Y | N |
| | LANZHOU FIR / SRR | ZLHW | XI'AN/XIANYANG | ZLXY | Y | Y | N | N |
| | SANYA FIR / SRR | ZJSA | HAIKOU/MEILAN | ZJHK | Y | Y | Y | N |
| | SHANGHAI FIR / SRR | ZSHA | SHANGHAI/HONGQIAO | ZSSS | Y | Y | Y | N |
| | SHENYANG FIR / SRR | ZYSH | SHENYANG/TAOXIAN | ZYTX | Y | Y | N | N |
| | TAIBEI FIR / SRR | RCAA | TAIBEI CITY/TAIBEI INTL AP | RCTP | Y | Y | Y | N |
| | URUMQI FIR / SRR | ZWUQ | URUMQI/DIWOPU | ZWWW | Y | Y | N | N |
| | WUHAN FIR / SRR | ZHWH | WUHAN/TIANHE | ZHHH | Y | Y | N | N |
| | HONG KONG FIR / SRR | VHHK | HONG KONG/INTL | VHHH | Y | Y | Y | N |
| **Democratic People's Republic of Korea** | PYONGYANG FIR / SRR | ZKKP | SUNAN | ZKPY | Y | Y | Y | N |
| **Fiji** | NADI FIR / SRR | NFFF | NADI/INTL | NFFN | Y | Y | N | N |
| **French Polynesia** | TAHITI FIR / SRR | NTTT | TAHITI/FAAA | NTAA | Y | Y | Y | N |
| **India** | CHENNAI FIR / SRR | VOMF | CHENNAI | VOMM | Y | Y | Y | N |
| | DELHI FIR / SRR | VIDF | DELHI/INDIRA GHANDI INTL | VIDP | Y | Y | N | N |
| | KOLKATA FIR / SRR | VECF | KOLKATA/KOLKATA | VECC | Y | Y | N | N |
| | MUMBAI FIR / SRR | VABF | MUMBAI/CHHATRAPATI SHIVAJI INTL. | VABB | Y | Y | Y | N |

| State | FIR or CTA Where Meteorological Service is Required | | Responsible Meteorological Watch Office | | Meteorological Service to Be Provided | | | |
|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Name | ICAO Location Indicator | SIGMET (WS) | SIGMET (WV) | SIGMET (WC) | AIRMET (WA) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Indonesia** | JAKARTA FIR/UIR / SRR | WIIF | JAKARTA/SOEKARNO-HATTA (COMM CENTER) | WIII | Y | Y | Y | N |
| | UJUNG PANDANG FIR/UIR / SRR | WAAF | UJUNG PANDANG/HASANUDDIN (COMM CENTER) | WAAA | Y | Y | Y | N |
| **Japan** | FUKUOKA FIR / TOKYO SRR | RJJJ | TOKYO (CITY) | RJTD | Y | Y | Y | N |
| **Lao People's Democratic Republic** | VIENTIANE FIR / SRR | VLVT | VIENTIANE/WATTAY | VLVT | Y | Y | Y | N |
| **Malaysia** | KOTA KINABALU FIR / SRR<br>KUALA LUMPUR FIR / SRR | WBFC<br>WMFC | SEPANG/KL INTL AIRPORT | WMKK | Y | Y | Y | N |
| **Maldives** | MALE FIR / SRR | VRMF | MALE/INTL | VRMM | Y | Y | Y | N |
| **Mongolia** | ULAANBAATAR FIR / SRR | ZMUB | ULAANBAATAR | ZMUB | Y | Y | N | N |
| **Myanmar** | YANGON FIR / SRR | VYYY | YANGON INTL | VYYY | Y | Y | Y | N |
| **Nauru** | NAURU FIR / SRR | ANAU | NAURU I. | ANYN | Y | Y | Y | N |
| **Nepal** | KATHMANDU FIR / SRR | VNSM | KATHMANDU | VNKT | Y | Y | N | N |
| **New Zealand** | AUCKLAND OCEANIC FIR / SRR<br>NEW ZEALAND FIR / SRR | NZZO<br>NZZC | WELLINGTON (AVIATION WEATHER CENTRE) | NZKL | Y | Y | Y | N |
| **Pakistan** | KARACHI FIR / SRR | OPKR | KARACHI/JINNAH INT'L | OPKC | Y | Y | Y | N |
| | LAHORE FIR / SRR | OPLR | LAHORE/ALLAMA IQBAL INT'L | OPLA | Y | Y | Y | N |
| **Papua New Guinea** | PORT MORESBY FIR / SRR | AYPM | PORT MORESBY INTL | AYPY | Y | Y | Y | N |
| **Philippines** | MANILA FIR / SRR | RPHI | MANILA/NINOY AQUINO INTL, PASAY CITY, METRO MANILA | RPLL | Y | Y | Y | N |
| **Republic of Korea** | INCHEON FIR / SRR | RKRR | INCHEON | RKSI | Y | Y | Y | N |
| **Singapore** | SINGAPORE FIR / SRR | WSJC | SINGAPORE/CHANGI | WSSS | Y | Y | Y | N |
| **Solomon Islands** | HONIARA FIR / SRR | AGGG | HONIARA (HENDERSON) | AGGH | Y | Y | Y | N |
| **Sri Lanka** | COLOMBO FIR / SRR | VCBI | BANDARANAIKE INTL AIRPORT COLOMBO | VCBI | Y | Y | Y | N |
| **Thailand** | BANGKOK FIR / SRR | VTBB | BANGKOK/SUVARNABHUMI INTL AIRPORT | VTBS | Y | Y | Y | N |
| **United States** | ANCHORAGE FIR | PAZA | ANCHORAGE | PAWU | Y | Y | N | N |
| | OAKLAND OCEANIC / HONOLULU SRR | KZAK | HONOLULU | PHFO | Y | Y | Y | N |
| | OAKLAND OCEANIC FIR | KZAK | KANSAS CITY | KKCI | Y | Y | Y | N |

| State | FIR or CTA Where Meteorological Service is Required | | Responsible Meteorological Watch Office | | Meteorological Service to Be Provided | | | |
|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Name | ICAO Location Indicator | SIGMET (WS) | SIGMET (WV) | SIGMET (WC) | AIRMET (WA) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Viet Nam** | HA NOI FIR / SRR<br>HO CHI MINH FIR / SRR | VVHN<br>VVHM | GIA LAM | VVGL | Y | Y | Y | N |

**TABLE MET II-2 - AERODROME METEOROLOGICAL OFFICES**

EXPLANATION OF THE TABLE

Column

1 Name of the State where meteorological service is required

2 Name of the aerodrome (listed in Tables AOP) where meteorological service is required

*Note: The name is extracted from the ICAO Location Indicators (Doc 7910) updated quarterly. If a State wishes to change the name appearing in Doc 7910 and this table, ICAO should be notified officially.*

3 ICAO location indicator of the aerodrome (listed in Tables AOP)

4 Designation of the aerodrome (listed in Tables AOP):
RG – international general aviation, regular use
RS – international scheduled air transport, regular use
RNS – international non-scheduled air transport, regular use
AS – international scheduled air transport, alternate use
ANS – international non-scheduled air transport, alternate use

5 Name of the aerodrome meteorological office responsible for the provision of meteorological service

*Note: The name is extracted from the ICAO Location Indicators (Doc 7910) updated quarterly. If a State wishes to change the name appearing in Doc 7910 and this table, ICAO should be notified officially.*

6 ICAO location indicator of the responsible aerodrome meteorological office

7 Requirement for METAR/SPECI from the aerodrome concerned, where:
Y – Yes, required
N – No, not required

8 Requirement for information on the state of the runway provided by the appropriate airport authority to be included as supplementary information in METAR/SPECI from the aerodrome concerned, where:
Y - Yes, required
N- No, not required

9 Requirement for trend forecast to be appended to METAR/SPECI from the aerodrome concerned, where
Y – Yes, required
N – No, not required

10 Requirement for TAF from the aerodrome concerned, where
T – Requirement for 12/18/24-hour validity aerodrome forecasts in TAF code (12/18/24H)
X – Requirement for 30-hour validity aerodrome forecasts in TAF code (30H)
N – No, not required

11 Requirement for maximum and minimum temperature (expected to occur during the period of validity of the TAF) to be included in TAF from the aerodrome concerned, where:
Y – Yes, required
N – No, not required

12 Availability of METAR/SPECI and TAF from the aerodrome concerned, where:
F – Full availability: OPMET information as listed issued for the aerodrome all through the 24-hour period
P – Partial availability: OPMET information as listed not issued for the aerodrome for the entire 24-hour period

| State | Aerodrome (listed in Tables AOP) where meteorological service is to be provided | | | Responsible aerodrome meteorological office | | Observations and forecasts to be provided | | | | | METAR/SPECI and TAF availability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Afghanistan** | KABUL INTERNATIONAL | OAKB | RS | KABUL INTERNATIONAL | OAKB | Y | | Y | T | | F |
| | KANDAHAR | OAKN | AS | KABUL INTERNATIONAL | OAKB | Y | | | T | | F |
| **American Samoa (United States)** | PAGO PAGO INTERNATIONAL, TUTUILA I. | NSTU | RS | NWS FORECAST OFFICE HONOLULU, HI. | PHFO | Y | | | T | | F |
| **Australia** | ADELAIDE | YPAD | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | X | N | F |
| | ALICE SPRINGS | YBAS | AS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | AVALON | YMAV | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | BUSSELTON/BUSSELTON MARGARET RIVER | YBLN | AS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | BRISBANE | YBBN | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | X | N | F |
| | BROOME | YBRM | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | CAIRNS | YBCS | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | CANBERRA | YSCB | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMFR | Y | N | N | T | N | F |
| | CHRISTMAS ISLAND | YPXM | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | COCOS (KEELING) ISLANS INTL | YPCC | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | COFFS HARBOUR | YCFS | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | DARWIN | YPDN | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | X | N | F |
| | GERALDTON | YGEL | AS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | GOLD COAST | YBCG | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | HOBART | YMHB | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | HORN ISLAND | YHID | RNS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | KALGOORLIE/KALGOORLIE-BOULDER | YPKG | AS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | LAUNCESTON | YMLT | AS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | LEARMONTH | YPLM | AS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |

| State | Aerodrome (listed in Tables AOP) where meteorological service is to be provided | | | Responsible aerodrome meteorological office | | Observations and forecasts to be provided | | | | | METAR/SPECI and TAF availability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | LORD HOWE ISLAND | YLHI | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | MELBOURNE | YMML | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | X | N | F |
| | NORFOLK ISLAND | YSNF | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| | PERTH/PERTH INTL | YPPH | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | X | N | F |
| | PORT HEDLAND | YPPD | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | ROCKHAMPTON | YBRK | AS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | SUNSHINE COAST | YBSU | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | SYDNEY/KINGSFORD SMITH | YSSY | RS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | X | N | F |
| | TINDAL | YPTN | AS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | TOOWOOMBA/BRISBANE WEST WELLCAMP | YBWW | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | TOWNSVILLE | YBTL | RS | BRISBANE (REGIONAL FORECASTING CENTRE) | YBRF | Y | N | N | T | N | F |
| | WILLIAMTOWN | YWLM | AS | MELBOURNE (REGIONAL FORECASTING CENTRE) | YMRF | Y | N | N | T | N | F |
| **Bangladesh** | HAZRAT SHAHJALAL INTERNATIONAL AIRPORT, DHAKA | VGHS | RS | HAZRAT SHAHJALAL INTERNATIONAL AIRPORT, DHAKA | VGHS | Y | | Y | T | | F |
| | SHAH AMANAT INTL. CHITTAGONG | VGEG | RS | HAZRAT SHAHJALAL INTERNATIONAL AIRPORT, DHAKA | VGHS | Y | | Y | T | | F |
| | SYLHET/Osmani Intl | VGSY | RS | | | | | | | | |
| **Bhutan** | PARO/INTL | VQPR | RS | PARO/INTL | VQPR | Y | | | | | P |
| **Brunei Darussalam** | BRUNEI/INTL | WBSB | RS | BRUNEI/INTL | WBSB | Y | | | X | | F |
| **Cambodia** | SIEM REAP ANGKOR | VDSA | RS | TECHO INTERNATIONAL AIRPORT | VDTI | Y | | Y | T | N | F |
| | SIHANOUK | VDSV | RS | TECHO INTERNATIONAL AIRPORT | VDTI | Y | | Y | T | N | F |
| | TECHO | VDTI | RS | TECHO INTERNATIONAL AIRPORT | VDTI | Y | | Y | T | N | F |
| **China** | BEIJING/CAPITAL | ZBAA | RS | BEIJING/CAPITAL | ZBAA | Y | | Y | X | | F |
| | CHANGSHA/HUANGHUA | ZGHA | RS | CHANGSHA/HUANGHUA | ZGHA | Y | | | T | | F |
| | CHENGDU/SHUANGLIU | ZUUU | AS | CHENGDU/SHUANGLIU | ZUUU | Y | | | T | | F |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | CHONGQING/JIANGBEI | ZUCK | RS | CHONGQING/JIANGBEI | ZUCK | Y | | Y | T | | F |
| | DALIAN/ZHOUSHUIZI | ZYTL | RS | DALIAN/ZHOUSHUIZI | ZYTL | Y | | | T | | F |
| | FUZHOU/CHANGLE | ZSFZ | RS | FUZHOU/CHANGLE | ZSFZ | Y | | | T | | F |
| | GAOXIONG | RCKH | RS | TAIBEI CITY/TAIBEI INTL AP | RCTP | Y | | Y | X | | F |
| | GUANGZHOU/BAIYUN | ZGGG | RS | GUANGZHOU/BAIYUN | ZGGG | Y | | Y | X | | F |
| | GUILIN/LIANGJIANG | ZGKL | RS | GUILIN/LIANGJIANG | ZGKL | Y | | | T | | F |
| | HANGZHOU/XIAOSHAN | ZSHC | RS | HANGZHOU/XIAOSHAN | ZSHC | Y | | | T | | F |
| | HARBIN/TAIPING | ZYHB | RS | HARBIN/TAIPING | ZYHB | Y | | | T | | F |
| | HEFEI/XINQIAO | ZSOF | AS | HEFEI/XINQIAO | ZSOF | Y | | | T | | F |
| | HOHHOT/BAITA | ZBHH | RS | HOHHOT/BAITA | ZBHH | Y | | | T | | F |
| | JINAN/YAOQIANG | ZSJN | RS | JINAN/YAOQIANG | ZSJN | Y | | | T | | F |
| | KASHI/LAINING | ZWSH | AS | KASHI/LAINING | ZWSH | Y | | | X | | F |
| | KUNMING/CHANGSHUI | ZPPP | RS | KUNMING/CHANGSHUI | ZPPP | Y | | | X | | F |
| | LANZHOU/ZHONGCHUAN | ZLLL | AS | LANZHOU/ZHONGCHUAN | ZLLL | Y | | | T | | F |
| | NANJING/LUKOU | ZSNJ | RS | NANJING/LUKOU | ZSNJ | Y | | | T | | F |
| | NANNING/WUXU | ZGNN | AS | NANNING/WUXU | ZGNN | Y | | | T | | F |
| | QINGDAO/JIAODONG | ZSQD | RS | QINGDAO/JIAODONG | ZSQD | Y | | | T | | F |
| | SANYA/PHOENIX | ZJSY | RS | SANYA/PHOENIX | ZJSY | Y | | | T | | F |
| | SHANGHAI/HONGQIAO | ZSSS | RS | SHANGHAI/HONGQIAO | ZSSS | Y | | Y | X | | F |
| | SHANGHAI/PUDONG | ZSPD | RS | SHANGHAI/HONGQIAO | ZSSS | Y | | Y | X | | F |
| | SHENYANG/TAOXIAN | ZYTX | RS | SHENYANG/TAOXIAN | ZYTX | Y | | Y | T | | F |
| | SHENZHEN/BAOAN | ZGSZ | RS | SHENZHEN/BAOAN | ZGSZ | Y | | | X | | F |
| | TAIBEI CITY/TAIBEI INTL AP | RCTP | RS | TAIBEI CITY/TAIBEI INTL AP | RCTP | Y | | Y | X | | F |
| | TAIBEI/SONGSHAN | RCSS | AS | TAIBEI CITY/TAIBEI INTL AP | RCTP | Y | | | T | | F |
| | TAIYUAN/WUSU | ZBYN | AS | TAIYUAN/WUSU | ZBYN | Y | | | T | | F |
| | TIANJIN/BINHAI | ZBTJ | RS | TIANJIN/BINHAI | ZBTJ | Y | | | X | | F |
| | URUMQI/TIANSHAN | ZWWW | RS | URUMQI/TIANSHAN | ZWWW | Y | | | X | | F |
| | WUHAN/TIANHE | ZHHH | RNS | WUHAN/TIANHE | ZHHH | Y | | Y | T | | F |
| | XIAMEN/GAOQI | ZSAM | RS | XIAMEN/GAOQI | ZSAM | Y | | Y | T | | F |
| | XI'AN/XIANYANG | ZLXY | RS | XI'AN/XIANYANG | ZLXY | Y | | Y | T | | F |
| **Cook Islands** | AITUTAKI/Aitutaki | NCAI | ANS | | | | | | | | |
| | RAROTONGA INTL. | NCRG | RS | NADI/INTL | NFFN | Y | | | T | | F |
| **Democratic People's Republic of Korea** | KALMA/Kalma | ZKWS | RNS | | | | | | | | |
| | SUNAN | ZKPY | RS | SUNAN | ZKPY | Y | | Y | T | | F |
| **Fiji** | NADI/INTL | NFFN | RS | NADI/INTL | NFFN | Y | | Y | T | | F |
| | NAUSORI/INTL | NFNA | RS | NADI/INTL | NFFN | Y | | | T | | F |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **French Polynesia (France)** | TAHITI FAAA | NTAA | RS | TAHITI FAAA | NTAA | Y | | Y | T | | F |
| **Hong Kong, China** | HONG KONG/INTERNATIONAL | VHHH | RS | HONG KONG/INTERNATIONAL | VHHH | Y | N | Y | X | Y | F |
| **India** | AHMEDABAD | VAAH | RS | AHMEDABAD | VAAH | Y | | | X | | F |
| | AMRITSAR | VIAR | RS | DELHI (IGI) | VIDP | Y | | | X | | F |
| | BANGALORE INTL. AIRPORT | VOBL | RS | BANGALORE INTL. AIRPORT | VOBL | Y | | Y | X | | F |
| | CALICUT | VOCL | RS | THIRUVANANTHAPURAM | VOTV | Y | | | X | | F |
| | CHENNAI | VOMM | RS | CHENNAI | VOMM | Y | | Y | X | | F |
| | COCHIN INTL. | VOCI | RS | THIRUVANANTHAPURAM | VOTV | Y | | Y | X | | F |
| | COIMBATORE | VOCB | RS | CHENNAI | VOMM | Y | | | T | | F |
| | DELHI (IGI) | VIDP | RS | DELHI (IGI) | VIDP | Y | | Y | X | | F |
| | GAYA | VEGY | RS | PATNA | VEPT | Y | | | T | | F |
| | GUWAHATI | VEGT | RS | GUWAHATI | VEGT | Y | | Y | T | | F |
| | HYDERABAD INTL. AIRPORT | VOHS | RS | HYDERABAD INTL. AIRPORT | VOHS | Y | | Y | X | | F |
| | JAIPUR | VIJP | RS | JAIPUR | VIJP | Y | | Y | T | | F |
| | KOLKATA | VECC | RS | KOLKATA | VECC | Y | | Y | X | | F |
| | LUCKNOW | VILK | RS | LUCKNOW | VILK | Y | | Y | T | | F |
| | MANGALORE | VOML | RS | BANGALORE INTL. AIRPORT | VOBL | Y | | | T | | F |
| | MUMBAI | VABB | RS | MUMBAI | VABB | Y | | Y | X | | F |
| | NAGPUR | VANP | RS | NAGPUR | VANP | Y | | Y | T | | F |
| | PATNA | VEPT | RS | PATNA | VEPT | Y | | | X | | F |
| | THIRUVANANTHAPURAM | VOTV | RS | THIRUVANANTHAPURAM | VOTV | Y | | | X | | F |
| | TIRUCHIRAPPALLI | VOTR | RS | CHENNAI | VOMM | Y | | | T | | F |
| | VARANASI | VIBN | RS | LUCKNOW | VILK | Y | | | X | | F |
| **Indonesia** | ACEH/SULTAN ISKANDAR MUDA | WITT | RS | ACEH/SULTAN ISKANDAR MUDA | WITT | Y | N | Y | T | N | F |
| | BALI I GUSTI NGURAH RAI | WADD | RS | BALI I GUSTI NGURAH RAI | WADD | Y | N | Y | X | N | F |
| | BALIKPAPAN/SULTANAJI MUHAMMAD SULAIMAN SEPINGGAN | WALL | RS | BALIKPAPAN/SULTANAJI MUHAMMAD SULAIMAN SEPINGGAN | WALL | Y | N | Y | X | N | F |
| | BATAM/HANG NADIM | WIDD | RS | BATAM/HANG NADIM | WIDD | Y | N | Y | T | N | F |
| | JAKARTA/SOEKARNO-HATTA | WIII | RS | JAKARTA/SOEKARNO-HATTA | WIII | Y | N | Y | X | N | F |
| | JAKARTA/HALIM PERDANAKUSUMA | WIHH | RNS | JAKARTA/HALIM PERDANAKUSUMA | WIHH | Y | N | Y | X | N | F |
| | JAYAPURA/SENTANI | WAJJ | RS | JAYAPURA/SENTANI | WAJJ | Y | N | Y | T | N | F |
| | KERTAJATI/KERTAJATI | WICA | RS | KERTAJATI/KERTAJATI | WICA | Y | N | Y | T | N | F |
| | LABUAN BAJO/KOMODO | WATO | RS | LABUAN BAJO/KOMODO | WATO | Y | N | Y | T | N | F |
| | LOMBOK/ZAINUDDIN ABDUL MAJID | WADL | RS | LOMBOK/ZAINUDDIN ABDUL MAJID | WADL | Y | N | Y | T | N | F |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | MAKASSAR/SULTAN HASANUDDIN | WAAA | RS | MAKASSAR/SULTAN HASANUDDIN | WAAA | Y | N | Y | X | N | F |
| | MANADO/SAMRATULANGI | WAMM | RS | MANADO/SAMRATULANGI | WAMM | Y | N | Y | X | N | F |
| | MEDAN/KUALANAMU | WIMM | RS | MEDAN/KUALANAMU | WIMM | Y | N | Y | T | N | F |
| | PADANG/MINANGKABAU | WIEE | RS | PADANG/MINANGKABAU | WIEE | Y | N | Y | T | N | F |
| | PEKANBARU/SULTAN SYARIF KASIM II | WIBB | RS | PEKANBARU/SULTAN SYARIF KASIM II | WIBB | Y | N | Y | T | N | F |
| | SURABAYA/JUANDA | WARR | RS | SURABAYA/JUANDA | WARR | Y | N | Y | T | N | F |
| | YOGYAKARTA/KULON PROGO | WAHI | RS | YOGYAKARTA/KULON PROGO | WAHI | Y | N | Y | T | N | F |
| **Japan** | AKITA | RJSK | RS | TOKYO INTL | RJTT | Y | | | X | | P |
| | AOMORI | RJSA | RS | TOKYO INTL | RJTT | Y | | | X | | F |
| | ASAHIKAWA | RJEC | RS | SAPPORO/NEW CHITOSE | RJCC | Y | | | X | | F |
| | CHUBU CENTRAIR INTL | RJGG | RS | CHUBU CENTRAIR INTL | RJGG | Y | | Y | X | | F |
| | FUKUOKA | RJFF | RS | FUKUOKA | RJFF | Y | | Y | X | | F |
| | FUKUSHIMA | RJSF | RS | TOKYO INTL | RJTT | Y | | | X | | F |
| | HAKODATE | RJCH | RS | SAPPORO/NEW CHITOSE | RJCC | Y | | | X | | F |
| | HANAMAKI | RJSI | RS | TOKYO INTL | RJTT | Y | | | X | | P |
| | HIROSHIMA | RJOA | RS | KANSAI INTL | RJBB | Y | | | X | | F |
| | ISHIGAKI | ROIG | RS | NAHA | ROAH | Y | | | X | | F |
| | KAGOSHIMA | RJFK | RS | FUKUOKA | RJFF | Y | | | X | | P |
| | KANSAI INTL | RJBB | RS | KANSAI INTL | RJBB | Y | | Y | X | | F |
| | KITAKYUSHU | RJFR | RS | FUKUOKA | RJFF | Y | | | X | | F |
| | KUMAMOTO | RJFT | RS | FUKUOKA | RJFF | Y | | | X | | F |
| | KUSHIRO | RJCK | RS | SAPPORO/NEW CHITOSE | RJCC | Y | | | X | | F |
| | MATSUYAMA | RJOM | RS | KANSAI INTL | RJBB | Y | | | X | | P |
| | MIYAZAKI | RJFM | RS | FUKUOKA | RJFF | Y | | | X | | F |
| | NAGASAKI | RJFU | RS | FUKUOKA | RJFF | Y | | | X | | P |
| | NAHA | ROAH | RS | NAHA | ROAH | Y | | | X | | F |
| | NARITA INTL | RJAA | RS | NARITA INTL | RJAA | Y | | Y | X | | F |
| | NIIGATA | RJSN | RS | TOKYO INTL | RJTT | Y | | | X | | F |
| | OITA | RJFO | RS | FUKUOKA | RJFF | Y | | | X | | F |
| | OKAYAMA | RJOB | RS | FUKUOKA | RJFF | Y | | | X | | P |
| | SAGA | RJFS | RS | FUKUOKA | RJFF | Y | | | X | | P |
| | SAPPORO/NEW CHITOSE | RJCC | RS | SAPPORO/NEW CHITOSE | RJCC | Y | | | X | | F |
| | SENDAI | RJSS | RS | TOKYO INTL | RJTT | Y | | | X | | P |
| | SHIMOJISHIMA | RORS | RS | NAHA | ROAH | Y | | | X | | F |
| | SHIZUOKA | RJNS | RS | TOKYO INTL | RJTT | Y | | | X | | P |
| | TAKAMATSU | RJOT | RS | KANSAI INTL | RJBB | Y | | | X | | P |
| | TOKYO INTL | RJTT | RS | TOKYO INTL | RJTT | Y | | Y | X | | F |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | TOYAMA | RJNT | RS | TOKYO INTL | RJTT | Y | | | X | | F |
| **Kiribati** | CHRISTMAS ISLAND | PLCH | RS | NADI/INTL | NFFN | Y | | | T | | F |
| | TARAWA/BONRIKI INTL | NGTA | RS | NADI/INTL | NFFN | Y | | | T | | F |
| **Lao People's Democratic Republic** | LUANG PRABANG | VLLB | RS | LUANG PRABANG | VLLB | Y | | | T | | P |
| | PAKSE | VLPS | RS | PAKSE | VLPS | Y | | | T | | P |
| | SAVANNAKHET | VLSK | RS | SAVANNAKHET | VLSK | Y | | | T | | P |
| | VIENTIANE (WATTAY) | VLVT | RS | VIENTIANE (WATTAY) | VLVT | Y | | Y | T | | P |
| **Macao, China** | MACAO/INTL AIRPORT | VMMC | RS | MACAO/INTL AIRPORT | VMMC | Y | | Y | X | | F |
| **Malaysia** | ALOR SETAR/Sultan Abdul Halim | WMKA | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | IPOH/Sultan Azlan Shah | WMKI | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | JOHOR BAHRU/SULTAN ISMAIL | WMKJ | RS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | KOTA BHARU/Sultan Ismail Petra | WMKC | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | KOTA KINABALU/INTL | WBKK | RS | KOTA KINABALU/INTL | WBKK | Y | N | Y | T | N | F |
| | KUALA TERENGGANU/Sultan Mahmud | WMKN | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | KUANTAN/Haji Ahmad Shah | WMKD | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | KUCHING/INTL | WBGG | RS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| | LABUAN/Labuan | WBKL | RNS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| | MALACCA/Malacca | WMKM | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | MIRI/Miri | WBGR | RNS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| | PENANG/INTL | WMKP | RS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | PULAU LANGKAWI/INTL | WMKL | RS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | SANDAKAN/Sandakan | WBKS | RNS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | RS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | Y | X | N | F |
| | SIBU/Sibu | WBGS | RNS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| | SUBANG/Sultan Abdul Aziz Shah | WMSA | RNS | SEPANG/KL INTERNATIONAL AIRPORT | WMKK | Y | N | | T | N | F |
| | TAWAU/Tawau | WBKW | RNS | KOTA KINABALU/INTL | WBKK | Y | N | | T | N | F |
| **Maldives** | GAN/GAN INTERNATIONAL AIRPORT | VRMG | AS | IBRAHIM NASIR INTERNATIONAL AIRPORT | VRMM | Y | | | X | | F |
| | HANIMAADHOO | VRMH | RS | IBRAHIM NASIR INTERNATIONAL AIRPORT | VRMM | Y | | | X | | F |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | IBRAHIM NASIR INTERNATIONAL AIRPORT | VRMM | RS | IBRAHIM NASIR INTERNATIONAL AIRPORT | VRMM | Y | | | X | | F |
| | VILLA AIRPORT MAAMIGILI | VRMV | RS | IBRAHIM NASIR INTERNATIONAL AIRPORT | VRMM | Y | | | | | |
| **Marshall Islands** | MARSHALL ISLANDS/INTL MAJURO ATOLL | PKMJ | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | P |
| **Micronesia (Federated States of)** | POHNPEI INTL, POHNPEI ISLAND | PTPN | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | P |
| | WENO ISLAND, FM CHUUK INTL. | PTKK | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | F |
| | YAP INTL, YAP ISLAND | PTYA | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | F |
| **Mongolia** | ULAANBAATAR/BUYANT-UKHAA | ZMUB | RS | ULAANBAATAR/BUYANT-UKHAA | ZMUB | Y | | Y | X | | F |
| | ULAANBAATAR/CHINGGIS KHAAN | ZMCK | RS | ULAANBAATAR/BUYANT-UKHAA | ZMUB | Y | | Y | X | | F |
| **Myanmar** | MANDALAY INTERNATIONAL | VYMD | RS | | | | | | | | |
| | NAYPYITAW INTERNATIONAL | VYNT | RS | | | | | | | | |
| | YANGON INTERNATIONAL | VYYY | RS | YANGON INTERNATIONAL | VYYY | Y | | Y | T | | F |
| **Nauru** | NAURU AIRPORT | ANYN | RS | NAURU AIRPORT | ANYN | Y | | Y | T | | F |
| **Nepal** | BHAIRAHAWA/Gautam Buddha Intl | VNBW | RS | BHAIRAHAWA | VNBW | Y | | Y | T | | P |
| | KATHMANDU/Tribhuvan Intl | VNKT | RS | KATHMANDU | VNKT | Y | | Y | T | | F |
| | POKHARA/Pokhara Intl | VNPR | RS | POKHARA | VNPR | Y | | Y | T | | P |
| **New Caledonia (France)** | NOUMEA LA TONTOUTA | NWWW | RS | NOUMEA LA TONTOUTA | NWWW | Y | | Y | T | | F |
| **New Zealand** | AUCKLAND INTL | NZAA | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | X | N | F |
| | CHRISTCHURCH INTL | NZCH | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | X | N | F |
| | DUNEDIN | NZDN | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | T | N | F |
| | HAMILTON | NZHN | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | T | N | F |
| | OHAKEA | NZOH | AS | KELBURN (MET OFFICE) | NZKL | Y | N | N | X | N | F |
| | QUEENSTOWN | NZQN | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | T | N | F |
| | WELLINGTON INTL | NZWN | RS | KELBURN (MET OFFICE) | NZKL | Y | N | N | X | N | F |
| **Niue (New Zealand)** | NIUE INTL | NIUE | RS | NADI/INTL | NFFN | Y | | | T | | F |
| **Northern Mariana Islands (United States)** | ANDERSON AFB, GUAM ISLAND | PGUA | AS | ANDERSON AFB, GUAM ISLAND | PGUA | Y | | | T | | F |
| | FRANCISCO C. ADA/SAIPAN INTERNATIONAL, OBYAN | PGSN | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | F |
| | GUAM INTERNATIONAL, GUAM ISLAND | PGUM | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | X | | F |

| State | Aerodrome (listed in Tables AOP) where meteorological service is to be provided | | | Responsible aerodrome meteorological office | | Observations and forecasts to be provided | | | | | METAR/SPECI and TAF availability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | ROTA/INTL, ROTA I. | PGRO | RS | NWS FORECAST OFFICE, TIYAN, GUAM | PGUM | Y | | | T | | F |
| **Pakistan** | FAISALABAD INT'L | OPFA | RS | FAISALABAD INT'L | OPFA | Y | N | Y | X | Y | F |
| | ISLAMABAD INT'L | OPIS | RS | ISLAMABAD INT'L | OPIS | Y | N | Y | X | N | F |
| | KARACHI/JINNAH INT'L | OPKC | RS | KARACHI/JINNAH INT'L | OPKC | Y | N | Y | T | N | F |
| | LAHORE/ALLAMA IQBAL INT'L | OPLA | RS | LAHORE/ALLAMA IQBAL INT'L | OPLA | Y | N | Y | X | Y | F |
| | MULTAN INT'L | OPMT | RS | MULTAN INT'L | OPMT | Y | N | Y | X | Y | F |
| | NEW GWADAR/INTL. | OPGW | RS | KARACHI/JINNAH INT'L | OPKC | Y | N | Y | X | N | F |
| | PESHAWAR INT'L/BACHA KHAN INTERNATIONAL | OPPS | RS | PESHAWAR INT'L/BACHA KHAN INTERNATIONAL | OPPS | Y | N | Y | T | N | F |
| | QUETTA/SAMUNGLI INTERNATIONAL | OPQT | RS | QUETTA/SAMUNGLI INTERNATIONAL | OPQT | N | N | N | X | N | |
| | SIALKOT INT'L | OPST | RS | SIALKOT INT'L | OPST | Y | N | Y | X | Y | F |
| | SKARDU INT'L | OPSD | RS | SKARDU INT'L | OPSD | Y | N | N | N | N | P |
| **Palau** | BABELTHUAP/KOROR, BABELTHUAP ISLAND | PTRO | RS | WASHINGTON (NWS NATIONAL MET CENTER), DC. | KWBC | Y | | | T | | F |
| **Papua New Guinea** | PORT MORESBY INTL | AYPY | RS | PORT MORESBY INTL | AYPY | Y | | | T | | F |
| | VANIMO | AYVN | | | | Y | | | | | F |
| **Philippines** | DAVAO/FRANCISCO BANGOY INTL | RPMD | RNS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| | DIOSDADO MACAPAGAL, PAMPANGA | RPLC | RS | MANILA/NINOY AQUINO INTL | RPLL | Y | | Y | X | | F |
| | KALIBO, AKLAN/Kalibo Intl Airport | RPVK | RS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| | LAOAG, LAOAG INTL | RPLI | AS | MANILA/NINOY AQUINO INTL | RPLL | Y | | Y | X | | F |
| | LAPU-LAPU/MACTAN INTL | RPVM | RS | MANILA/NINOY AQUINO INTL | RPLL | Y | | Y | X | | F |
| | MANILA/NINOY AQUINO INTL | RPLL | RS | MANILA/NINOY AQUINO INTL | RPLL | Y | | Y | T | | P |
| | PUERTO PRINCESA CITY/Puerto Princesa Intl Airport | RPVP | RS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| | SUBIC BAY, SUBIC BAY INTL | RPLB | ANS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| | TAMBLER, GEN. SANTOS, SOUTH COTABATO | RPMR | RNS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| | ZAMBOANGA INTL | RPMZ | RNS | MANILA/NINOY AQUINO INTL | RPLL | Y | | N | T | | P |
| **Republic of Korea** | CHEONGJU | RKTU | RS | INCHEON INTL | RKSI | Y | | | X | Y | F |
| | DAEGU INTL | RKTN | RS | INCHEON INTL | RKSI | Y | | | X | Y | F |
| | GIMHAE INTL | RKPK | RS | INCHEON INTL | RKSI | Y | | | X | Y | F |
| | GIMPO | RKSS | RS | INCHEON INTL | RKSI | Y | | Y | X | Y | F |
| | INCHEON INTL | RKSI | RS | INCHEON INTL | RKSI | Y | | Y | X | Y | F |
| | JEJU INTL | RKPC | RS | INCHEON INTL | RKSI | Y | | Y | X | Y | F |
| | MUAN | RKJB | RS | INCHEON INTL | RKSI | Y | | Y | X | Y | F |
| | YANGYANG | RKNY | RS | INCHEON INTL | RKSI | Y | | Y | X | Y | F |

| State | Aerodrome (listed in Tables AOP) where meteorological service is to be provided | | | Responsible aerodrome meteorological office | | Observations and forecasts to be provided | | | | | METAR/SPECI and TAF availability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Samoa** | FAGALI'I/INTL | NSFI | RS | | | | | | | | |
| | FALEOLO/INTL | NSFA | RS | FALEOLO/INTL | NSFA | Y | | Y | T | | F |
| **Singapore** | PAYA LEBAR (RSAF) | WSAP | AS | SINGAPORE/CHANGI | WSSS | Y | | | X | | F |
| | SELETAR | WSSL | RS | SINGAPORE/CHANGI | WSSS | Y | | | X | | F |
| | SINGAPORE/CHANGI | WSSS | RS | SINGAPORE/CHANGI | WSSS | Y | | Y | X | | F |
| **Solomon Islands** | HONIARA (HENDERSON) | AGGH | RS | HONIARA (HENDERSON) | AGGH | Y | | Y | T | | F |
| **Sri Lanka** | HINGURAKGODA/MINNERIYA | VCCH | | | | Y | | | | | F |
| | KATUNAYAKE/BANDARANAIKE INTERNATIONAL AIRPORT COLOMBO | VCBI | RS | KATUNAYAKE/BANDARANAIKE INTERNATIONAL AIRPORT COLOMBO | VCBI | Y | | Y | X | | F |
| | MATTALA/MATTALA RAJAPAKSA INTERNATIONAL AIRPORT | VCRI | RS | MATTALA/MATTALA RAJAPAKSA INTERNATIONAL AIRPORT | VCRI | Y | | Y | X | | F |
| **Thailand** | BANGKOK/DON MUEANG INTL AIRPORT | VTBD | RS | BANGKOK/SUVARNABHUMI INTL AIRPORT | VTBS | Y | | Y | X | | F |
| | BANGKOK/SUVARNABHUMI INTL AIRPORT | VTBS | RS | BANGKOK/SUVARNABHUMI INTL AIRPORT | VTBS | Y | | Y | X | | F |
| | CHIANG MAI/CHIANG MAI INTL. AIRPORT | VTCC | RS | CHIANG MAI/CHIANG MAI INTL. AIRPORT | VTCC | Y | | Y | X | | F |
| | CHIANG RAI/MAE FAH LUANG-CHIANG RAI INTL AIRPORT | VTCT | RS | CHIANG MAI/CHIANG MAI INTL. AIRPORT | VTCC | Y | | Y | X | | F |
| | KRABI/KRABI AIRPORT | VTSG | RS | PHUKET/PHUKET INTL AIRPORT | VTSP | Y | | Y | T | | F |
| | PHUKET/PHUKET INTL AIRPORT | VTSP | RS | PHUKET/PHUKET INTL AIRPORT | VTSP | Y | | Y | X | | F |
| | RAYONG/U-TAPAO RAYONG PATTAYA INTL AIRPORT | VTBU | RS | RAYONG/U-TAPAO PATTAYA INTL AIRPORT | VTBU | Y | | Y | T | | F |
| | SONGKHLA/HAT YAI INTL AIRPORT | VTSS | RS | SONGKHLA/HAT YAI INTL AIRPORT | VTSS | Y | | Y | T | | F |
| | SURAT THANI/SAMUI AIRPORT | VTSM | RS | SONGKHLA/HAT YAI INTL AIRPORT | VTSS | Y | | Y | T | | P |
| | SURAT THANI/SURAT THANI AIRPORT | VTSB | RS | SONGKHLA/HAT YAI INTL AIRPORT | VTSS | Y | | Y | T | | P |
| **Timor-Leste** | DILI/PRESIDENTE NICOLAU LOBATU INTERNATIONAL AIRPORT | WPDB | RS | | | | | | | | |
| | SUAI | WPDL | RNS | | | | | | | | |
| **Tonga** | FUA'AMOTU INTL. | NFTF | RS | NADI/INTL | NFFN | Y | | | T | | F |
| | VAVA'U | NFTV | RS | NADI/INTL | NFFN | Y | | | T | | F |
| **Tuvalu** | FUNAFUTI/INTL | NGFU | RS | | | Y | | | T | | F |
| **United States** | ANCHORAGE/ELMENDORF AFB, AK. | PAED | AS | ELMENDORF AFB, AK | PAED | Y | | | T | | F |

| State | Aerodrome (listed in Tables AOP) where meteorological service is to be provided | | | Responsible aerodrome meteorological office | | Observations and forecasts to be provided | | | | | METAR/SPECI and TAF availability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | ICAO Location Indicator | Use | Name | ICAO Location Indicator | METAR/SPECI | State of the runway | Trend forecast | TAF | Temperature Tx/Tn | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | COLD BAY, AK. | PACD | AS | NWS FORECAST OFFICE, ANCHORAGE, AK | PAFC | Y | | | T | | F |
| | FAIRBANKS INTERNATIONAL, AK. | PAFA | RS | NWS FORECAST OFFICE, FAIRBANKS, AK | PAFG | Y | | | X | | F |
| | FAIRBANKS/EIELSON AFB, AK. | PAEI | AS | EIELSON AFB, AK | PAEI | Y | | | T | | F |
| | HILO INTERNATIONAL, HILO HI. | PHTO | AS | NWS FORECAST OFFICE HONOLULU, HI. | PHFO | Y | | | X | | F |
| | HONOLULU INTERNATIONAL, OAHU, HI. | PHNL | RS | NWS FORECAST OFFICE HONOLULU, HI. | PHFO | Y | | | X | | F |
| | KAHULUI, HI. | PHOG | AS | NWS FORECAST OFFICE HONOLULU, HI. | PHFO | Y | | | X | | F |
| | KING SALMON, AK. | PAKN | AS | NWS FORECAST OFFICE, ANCHORAGE, AK | PAFC | Y | | | T | | F |
| | TED STEVENS ANCHORAGE INTERNATIONAL, AK. | PANC | RS | NWS FORECAST OFFICE, ANCHORAGE, AK | PAFC | Y | | | X | | F |
| **Vanuatu** | PORT VILA/BAUERFIELD | NVVV | RS | PORT VILA/BAUERFIELD | NVVV | Y | | | T | | F |
| | SANTO/PEKOA | NVSS | RS | PORT VILA/BAUERFIELD | NVVV | Y | | | T | | F |
| **Viet Nam** | CAM RANH | VVCR | RS | CAM RANH | VVCR | Y | | Y | T | | F |
| | CAN THO | VVCT | RS | CAN THO | VVCT | Y | | Y | T | | F |
| | DA NANG | VVDN | RS | DA NANG | VVDN | Y | | Y | T | | F |
| | HA NOI/NOI BAI | VVNB | RS | HA NOI/NOI BAI | VVNB | Y | | Y | T | | F |
| | HAI PHONG/Cat Bi | VVCI | RS | HAI PHONG/Cat Bi | VVCI | Y | | Y | X | | F |
| | HO CHI MINH/TAN SON NHAT | VVTS | RS | HO CHI MINH/TAN SON NHAT | VVTS | Y | | Y | T | | F |
| | HUE/PHU BAI | VVPB | RS | HUE/PHU BAI | VVPB | Y | | Y | T | | F |
| | PHU QUOC | VVPQ | RS | PHU QUOC | VVPQ | Y | | Y | T | | F |
| | QUANG NINH/Van Don | VVVD | RS | QUANG NINH/Van Don | VVVD | Y | | Y | T | | F |
| **Wallis and Futuna Islands (France)** | WALLIS HIHIFO | NLWW | RS | NADI/INTL | NFFN | Y | | | T | | F |

## TABLE MET II-3 – VOLMET BROADCASTS

EXPLANATION OF THE TABLE

The transmitting station appears at the top of each block.

Names in lower case letters indicate aerodromes for which reports (routine or selected special) are required.

Names in upper-case letters indicate aerodromes for which forecasts are required.

| Tokyo | Hong Kong | Auckland | |
|---|---|---|---|
| 10–15<br>40–45 | 15–20<br>45–50 | 20–25 | 50–55 |
| Narita Int'l<br>Tokyo Int'l<br>Sapporo/New Chitose<br>Chubu Centrair Int'l<br>Kansai Int'l<br>Fukuoka<br>Incheon | Hong Kong<br>Naha<br>Taibei<br>Gaoxiong<br>Manila<br>Mactan<br>Guangzhou | Auckland<br>Christchurch<br>Wellington<br>Nadi<br>Faleolo<br>Nouméa<br>Rarotonga<br>Tahiti | Auckland<br>Christchurch<br>Wellington<br>Nadi<br>Faleolo<br>Nouméa<br>Pago Pago<br>Tahiti |
| NARITA INT'L<br>KANSAI INT'L | HONG KONG | NADI<br>NOUMÉA | AUCKLAND<br>CHRISTCHURCH |

| Honolulu | | |
|---|---|---|
| 10–15<br>40–45 | 15–20<br>45–50 | 20–25<br>50–55 |
| Honolulu<br>Hilo<br>Kahului<br>Agana | San Francisco<br>Los Angeles<br>Seattle<br>Portland<br>Sacramento<br>Ontario<br>Las Vegas | Anchorage<br>Fairbanks<br>King Salmon<br>Elmendorf<br>Cold Bay<br>Vancouver |
| SIGMET | SIGMET | SIGMET |
| HONOLULU<br>HILO<br>AGANA | SAN FRANCISCO<br>SEATTLE<br>LOS ANGELES | ANCHORAGE<br>FAIRBANKS<br>VANCOUVER<br>COLD BAY |

| Sydney | Kolkata | Bangkok | Karachi | Singapore | Mumbai |
|---|---|---|---|---|---|
| 00–05<br>30–35 | 05–10<br>35–40 | 10–15<br>40–45 | 15–20<br>45–50 | 20–25<br>50–55 | 25–30<br>55–60 |
| Sydney<br>Brisbane<br>Melbourne<br>Townsville<br>Adelaide<br>Alice Springs<br>Darwin<br>Perth | Kolkata<br>Delhi<br>Dhaka<br>Yangon<br>Kathmandu | Bangkok/Suvarnabhumi<br>Yangon<br>Ha Noi<br>Ho-Chi-Minh<br>Phnom-Penh<br>Utapao<br>Vientiane<br>Phuket<br>Chiang Mai<br>Bangkok/Don Mueang | Karachi<br>Islamabad<br>Lahore<br>Delhi<br>Mumbai | Singapore<br>Sebang<br>Jakarta<br>Kuching<br>Brunei<br>Kota Kinabalu<br>Denpasar<br>Penang | Mumbai<br>Ahmadabad<br>Chennai<br>Colombo<br>Karachi<br>Male |
| 00–05<br>SYDNEY<br>BRISBANE | KOLKATA<br>DELHI | BANGKOK<br>YANGON | KARACHI<br>LAHORE<br>MUMBAI<br>DELHI | 20–25<br>SINGAPORE<br>SEBANG | MUMBAI<br>COLOMBO<br>MALE |
| 30–35 | HO-CHI-MINH | | SINGAPORE | 50–55 | |

| Sydney | Kolkata | Bangkok | Karachi | Singapore | Mumbai |
|---|---|---|---|---|---|
| 00–05<br>30–35 | 05–10<br>35–40 | 10–15<br>40–45 | 15–20<br>45–50 | 20–25<br>50–55 | 25–30<br>55–60 |
| MELBOURNE<br>PERTH | | | | SINGAPORE<br>JAKARTA | |

| Guangzhou | | | Beijing | | |
|---|---|---|---|---|---|
| 00–05<br>30–35 | 05–10<br>35–40 | 10–15<br>40–45 | 15–20<br>45–50 | 20–25<br>50–55 | 25–30<br>55–60 |
| Xiamen | Guangzhou<br>Nanning<br><br><br><br><br><br>GUANGZHOU | Changsha<br>Chengdu<br>Kunming<br>Wuhan<br><br><br><br><br>CHENGDU | Beijing<br>Harbin<br>Dalian<br>Shenyang<br>Hohhot<br>Taiyuan<br>Tianjin<br><br>BEIJING | Hangzhou<br>Shanghai<br><br><br><br><br><br>SHANGHAI | Lanzhou<br>Xían<br>Urumqi<br><br><br><br><br>XÍAN |

– END OF SECTION –

# APAC ANP, VOLUME II

## PART VI - SEARCH AND RESCUE (SAR)

### 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to Search and Rescue (SAR). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

### 2. GENERAL REGIONAL REQUIREMENTS

2.1 The Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) for the Asia and Pacific Regions are listed in **Table SAR II-1** and depicted in **Chart SAR II-1**.

2.2 In cases where the minimum SAR facilities are temporarily unavailable, alternative suitable means should be made available.

2.3 In cases where a SAR alert is proximate to a Search and Rescue Region (SRR) boundary (e.g. 50 NM or less), or it is unclear if the alert corresponds to a position entirely contained within an SRR, the adjacent RCC or RSC should be notified of the alert immediately.

### 3. SPECIFIC REGIONAL REQUIREMENTS

3.1 None.

## TABLE SAR II-1 - RESCUE COORDINATION CENTRES (RCCS) AND RESCUE SUB-CENTRES (RSCS) IN THE ASIA AND PACIFIC REGIONS

EXPLANATION OF THE TABLE

Column

1. State
2. Name of the Rescue Coordination Centre (RCC) and Rescue Sub-Centre (RSC).
3. SAR points of contact (SPOC). Name of the SPOC.
4. Remarks. Supplementary information such as the type of RCC (e.g. maritime or aviation or joint).

- SPOC – SAR Point of contact for the reception of alert messages detected by the COSPAS-SARSAT system (for complete contact information, go to https://www.cospas-sarsat.int/en/contact-lists-mccs-and-spocs )
- SRU – Search and Rescue Unit
- Extra long-range (ELR) – aircraft with a radius of action of 2 780 km (1 500 NM) or more, plus 2 ½ hours search remaining.
- Very long range (VLR) – aircraft with a radius of action of more than 1 850 km (1 000 NM) plus 2 ½ hours search remaining.
- Long range (LRG) – aircraft with a radius of action of 1 390 km (750) plus 2 ½ hours search remaining.
- Medium range (MRG) – aircraft with a radius of action of 740 km (400 NM) plus 2 ½ hours search remaining.
- Short range (SRG) – aircraft with a radius of action of 280 km (150 NM) plus ½ hour search remaining.
- Helicopter (HEL-L) – light helicopter with a radius of action for rescue purposes of up to 185 km (100NM) and a capacity for evacuating 1 to 5 persons.
- Helicopter (HEL-M) – medium helicopter with a radius of action for rescue purposes of 185 to 370 km (100 to 200 NM) and a capacity for evacuating 6 to 15 persons.
- Helicopter (HEL-H) – heavy helicopter with a radius of action for rescue purposes of more than 370 km (200 NM) and a capacity for evacuating more than 15 persons.
- Rescue boat (RB) – short-range coastal or river craft with an approximate speed of 14 knots or higher.
- Rescue vessel (RV) – vessel possessing sea-going qualities, long range and reasonable speed. Patrol, customs, pilotage and other craft fulfil the purpose if assigned a high priority for search and rescue operations.

| State | Name of and RCC/RSC | SPOC | Remarks |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| **AFGHANISTAN** | | CENTAF-AUAB<br>CAOC JSRC<br>Associated MCC:<br>TRMCC | |

| | | | |
|---|---|---|---|
| **AUSTRALIA** | JRCC Australia | JRCC Australia | JRCC Australia is a Joint Aeronautical and Maritime RCC located in Canberra<br>Thursday Island: HEL-M, RV<br>Cairns: MRG/HEL-M, RV<br>Townsville: VLR/HEL-M, RV<br>Yeppoon: HEL-M, RV<br>Whitsunday Islands: HEL-M, RV<br>Brisbane: ELR/HEL-M, RV<br>Coffs Harbour: RV<br>Newcastle: HEL-M, RV<br>Sydney: ELR/HEL-M, RV<br>Melbourne: MRG/HEL-M, RV<br>Hobart: HEL-M, RV<br>Adelaide: ELR/HEL-M, RV<br>Perth: MRG/HEL-M, RV<br>Port Headland: RV<br>Broome: HEL-H, RB<br>Darwin: ELR/HEL-M, RV |
| **BANGLADESH** | Dhaka RCC | Dhaka RCC | Dhaka: SRG, RV |
| **BRUNEI DARUSSALAM** | | NSARCC Associated MCC: SIMCC | |
| **CAMBODIA** | Phnom-Penh RCC | Air Navigation and Safety Department, State Secretariat of Civil Aviation Cambodia (SSCA) | Phnom-Penh: MRG, RV |
| **CHINA** | Beijing RCC<br>Guangzhou RCC<br>Kunming RCC<br>Lanzhou RCC<br>Shanghai RCC<br>Shenyang RCC<br>Taibei RCC<br>Uramqi RCC<br>Wuhan RCC | CNMCC (China Maritime Search and Rescue Centre) | Beijing: MRG/SRG, RV<br>Tianjin: RV<br>Guangzhou: MRG/SRG, RV<br>Sanya: RV<br>Shantou: RV<br>Zhanjiang: RV<br>Kunming: SRG, RV<br>Lanzhou: SRG, RV<br>Fuzhou: RV<br>Lianyungang: RV<br>Shanghai: MRG/SRG,<br>RV/ RB<br>Qingdao: RV<br>Yantai: RV<br>Wenzhou: RV<br>Xiamen: RV<br>Dalian: RV<br>Qinhuangdao: RV<br>Chiayi: LRG/HEL-M<br>Chilung: RV<br>Hsinghu: LRG/HEL-M<br>Hualien: RV<br>Uramqi: SRG<br>Wuhan: SRG |
| **DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (DPRK)** | Pyongyang RCC | MRCC | Pyongyang: MRG/HEL-M,<br>RV |
| **FIJI** | Nadi RCC | Nadi RCC Associated MCC: AUMCC | Nadi: ELR/HEL-M, RV/RB |
| **FRENCH POLYNESIA** | Tahiti RCC | Tahiti RCC Associated | Papeete: MRG/HEL-M,<br>RV/RB |

| | | | |
|---|---|---|---|
| | | MCC: FMCC | |
| **HONG KONG, CHINA** | Hong Kong RCC | HKMRCC | Hong Kong: MRG/HEL-M, RV/RB |
| **INDIA** | Mumbai RCC<br>Kolkata RCC<br>Delhi RCC<br>Chennai RCC | INMCC | Mumbai: ELR/HEL-M, RV/RB<br>Kolkata: ELR/HEL-M<br>Delhi: ELR/HEL-M, RV/RB<br>Chennai: ELR/HEL-M |
| **INDONESIA** | Biak RCC<br>Jakarta RCC<br>Medan RSC<br>Padang RSC<br>Pekanbaru RSC<br>Pontianak RSC<br>Tanjung RSC<br>Pinang RSC<br>Surabaya RCC<br>Balikpapan RSC<br>Banjarmasin RSC<br>Denpasar RSC<br>Kupang RSC<br>Ujung Pandang RCC<br>Ambon RSC<br>Manado RSC | IDMCC | Biak: LRG<br>Jayapura: SRG/HEL-M, RB<br>Merauke: RB<br>Sorong: SRG/HEL-M, RB<br>Jakarta: LRG/HEL-M, RB<br>Medan RSC: LRG/HEL-M, RV/RB<br>Padang RSC: SRG, RV/RB<br>Pekanbaru RSC: SRG/HEL-L, RB<br>Pontianak RSC: SRG/HEL-L, RB<br>Tanjung RSC: SRG, RB<br>Pinang RSC:<br>Surabaya: LRG/HEL-L, RV/RB<br>Balikpapan RSC: SRG/HEL-M, RV/RB<br>Banjarmasin RSC: SRG, RB<br>Denpasar RSC: LRG, RV/RB<br>Kupang RSC: SRG/HRL-M, RB<br>Ujung Pandang: LRG/HEL-L, RV/RB<br>Ambon RSC: SRG, RV/RB<br>Manado RSC: SRG/HEL-L, RV/RB |
| **JAPAN** | Tokyo RCC | JAMCC | Kushiro: HEL-M, RV<br>Hakodate: HEL-M, RV<br>Hachinohe: LRG, RV<br>Niigata: HEL-M, RV<br>Tokyo: LRG/HEL-M, RV<br>Komatsu: LRG, RV<br>Miho: HEL-M, RV<br>Iwakuni: LRG<br>Fukuoka: MRG/HEL-M, RV<br>Nagasaki; HEL-M, RV<br>Kagoshima: HEL-M<br>Naha: LRG/MRG, RV<br>Ishigaki: HEL-M, RV<br>Kushiro: HEL-H, RV<br>Chitose: MRG<br>Hakodate: HEL-H, RV<br>Shiogama: HEL-H, RV<br>Niigata: HEL-H, RV<br>Tokyo: MRG, ELR<br>Yokohama: HEL-H, RV<br>Nagoya: HEL-H, RV<br>Kobe: HEL-H, RV<br>Iwakuni: LRG<br>Fukuoka: HEL-H, RV<br>Kagoshima: HEL-H, RV<br>Naha: MRG |
| **LAO PDR** | Vientiane RCC | Vientiane RCC<br>Associated MCC: VNMCC | Vientiane: MRG/HEL-M |
| **MACAO, CHINA** | | Macao Marine Department Associated MCC: HKMCC | RV/RB |

| | | | |
|---|---|---|---|
| **MALAYSIA** | Kuala Lumpur RCC<br>Butterworth RSC<br>Kuantan RSC<br>Kota Kinabaku RCC<br>Kuching RSC<br>Labuan RSC | ARCC Kuala Lumpur<br>Associated MCC:<br>SIMCC | Alor Setar: SRG<br>Butterworth RSC: ELR/HEL-H, RV/RB<br>Kota Bharu: ELR/HEL-H<br>Kuantan RSC: ELR/HEL-H, RB<br>Klung: HEL-H<br>Kuala Lumpur: ELR/HEL-H, RV/RB<br>Brunei: SRG/HEL-M, RV/RB<br>Kota Kinabalu<br>Kuching RSC: MRG/HEL-H, RV/RB<br>Labuan RSC: MRG/HEL-H, RV<br>Miri: MRG/HEL-M, RB<br>Sandakan: MRG/HEL-M<br>Sibu: MRG/HEL-M<br>Tawau: MRG/HEL-H |
| **MALDIVES** | Male RCC | Maldives Airport Company Ltd<br>Associated MCC:<br>INMCC | Male: SRG/HEL-M, RV/RB |
| **MONGOLIA** | Ulaanbatar RCC | ARCC Associated MCC: CMCC | |
| **MYANMAR** | Yangon RCC | Associated MCC:<br>SIMCC | Yangon: MRG/SRG/HEL-M, RV/RB |
| **NAURU** | Nauru RCC | Nauru RCC Associated MCC: AUMCC | Nauru: ELR/VLR/SRG, RV/RB |
| **NEPAL** | Kathmandu RCC | Department of Civil Aviation Associated MCC: INMCC | Kathmandu: MRG/HEL-M |
| **NEW CALEDONIA** | New Caledonia RSC | RSC Tontouta<br>Associated MCC:<br>AUMCC | Noumea: SRG/HEL-L, RV/RB |
| **NEW ZEALAND** | New Zealand RCC | RCCNZ Associated MCC: AUMCC | Auckland: ELR/HEL-M, RVRB<br>Christchurch: MRG/HEL, RB<br>Wellington: HEL-M, RB |
| **PAKISTAN** | Karachi RCC<br>Lahore RCC | PAMCC | Karachi: MRG, RV<br>Lahore: MRG |
| **PAPUA NEW GUINEA** | Port Moresby RCC | MRCC Port Moresby<br>Associated MCC:<br>AUMCC | Lae: MRG, RB<br>Madang: SRG, RB<br>Port Moresby: ELR, RV<br>Rabaul: RB<br>Wewak: SRG |
| **PHILIPPINES** | Manila RCC | CAAP ORCC<br>Associated MCC:<br>HKMCC | Manila: LRG/HEL-M, RB<br>Mactan: LRG/HEL-L, RV<br>Zamboanga: RV |
| **REPUBLIC OF KOREA** | Incheon RCC | KOMCC | Chuncheon: SRG<br>Daegu: MRG/HEL-L<br>Gangneung: SRG<br>Gimhae: SRG/HEL-M, RV<br>Gimpo: SRG/HEL-M<br>Gunsan: HEL-M<br>Gwangju: MRG/HEL-M<br>Incheon: MRG/HEL-M, RV<br>Jeju: SRG/HEL-M, RV<br>Mokpo: HEL-M<br>Mukho: RV<br>Osan: MRG/HEL-H<br>Pohang: HEL-M, RV<br>Yangyang RSC, RB |
| **SINGAPORE** | Singapore RCC | SIMCC | Singapore: LRG/HEL-H, RV/RB |

| | | | |
|---|---|---|---|
| **SOLOMON IS.** | Honiara RCC | MRCC Honiara<br>Associated MCC: AUMCC | Honiara: ELR/VLR/SRG, RV/RB |
| **SRI LANKA** | Colombo RCC | Colombo RCC<br>Associated MCC: INMCC | Colombo/Ratmalana: LRG/HEL-M, RV |
| **THAILAND** | Bangkok RCC | THMCC | Bangkok: MRG/HEL-L<br>Sattahip: MRG/HEL-L<br>Songkhla: SRG/HEL-L<br>Khok Kathiam: SRG/HEL-L<br>Prachuap Kiri-Khan: SRG |
| **UNITED STATES** | Elmendorf RCC<br>Honolulu RCC<br>Juneau RCC<br>Langley RCC<br>Long Beach RCC<br>Seattle RCC | USMCC | Anchorage: ELR<br>Fairbanks: ELR<br>Guam I: ELR<br>Hito: HEL-M, RV<br>Honolulu: VLR/HEL-L, RV/RB<br>Adak: VLR<br>Juneau: RV<br>Ketchikan: RV<br>Kodiak: VLR/HEL-L/ HEL-M, RV<br>Sitka: HEL-M, RV<br>Eureka: HEL-L<br>Long Beach: VLR<br>Los Angeles: ELR/SRG/ HEL-L, RV<br>Sacramento: VLR<br>Sandiego: ELR/SRG/HEL-L, RV<br>San Francisco: HEL-M, RV<br>Astoria: SRG/HEL-L, RV<br>Port Angeles: HEL-L, RV |
| **VANUATU** | Port Vila RCC | Vanuatu Ports and Marine Department<br>Associated MCC: AUMCC | Port Vila: SRG, RV/RB |
| **VIET NAM** | Ha Noi RCC<br>Ho Chi Minh RCC<br>Da Nang RSC | VNRCC | Cat Bi: HEL-M, RV/RB<br>Gia Lam: LRG/SRG/HEL-H<br>Hoa Lac: HEL-H/HEL-M<br>Noi Bai: LRG/MRG/HEL-H<br>Vinh:MRG/HEL-M, RV/RB<br>Can Tho: SRG/HEL-M, RV/RB<br>Da Lat/Lien Khuong: SRG/HEL-M<br>Da Nang RSC: LRG/MRG/SRG/HEL-L/HEL-M, RV/RB<br>Nha Trang: MRG/HEL-H, RV/RB<br>Phu Cat: SRG/HEL-H<br>Phu Quoc: SRG/HEL-H/HEL-M, RV/RB<br>Tan Son Nhat: LRG/SRG/HEL-L<br>Vung TauHEL-H, RV |

CHART SAR II-1

RESCUE COORDINATION CENTRES (RCCS) AND RESCUE SUB-CENTRES (RSCS) FOR THE ASIA AND PACIFIC REGIONS

TBD

# APAC ANP, VOLUME II

## PART VII - AERONAUTICAL INFORMATION MANAGEMENT (AIM)

### 1. INTRODUCTION

1.1 This part of the APAC ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to AIS/AIM and aeronautical charts (MAP). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of AIS/AIM facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the AIS/AIM facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

### 2. GENERAL REGIONAL REQUIREMENTS

2.1 The responsibility for the provision of AIS/AIM facilities and services in the Asia and Pacific Regions, is reflected in the Asia and Pacific Regions **Table AIM II-1,** which shows the list of designated international NOTAM Office (NOF), designated State for AIP production, designated State for aeronautical charts (MAP) production, designated State for the provision of the authoritative Integrated Aeronautical Information Database (IAID) and designated State for the provision of the pre-flight information services.

2.2 States should designate and implement an authoritative Integrated Aeronautical Information Database (IAID) where data sets are integrated and used to produce current and future AIS/AIM products and services, which is a fundamental step in the transition to AIM. The designation of authoritative databases should be clearly stated in the Aeronautical Information Package AIP.

2.3 The national plans for the transition from AIS to AIM identifying clearly the timelines for the implementation of the different elements of the ICAO Roadmap for the transition from AIS to AIM should be submitted by States to the ICAO Asia and Pacific Regions Regional Office. States should also inform the ICAO APAC Regional Office of any update.

2.4 States should take necessary measures to ensure that aeronautical information and data they provide meet the regulatory Aeronautical Data quality requirements.

2.5 The Quality Management System (QMS) in AIS/AIM should define procedures to meet the safety and security objectives associated with the management of aeronautical data and information.

2.6 Recognizing the need to maintain or enhance existing safety levels of operations, States should ensure that any change to the existing systems or the introduction of new systems used for processing aeronautical data and/or information are preceded by a safety assessment.

2.7 Technical services responsible for origination of the raw aeronautical information should be acquainted with the requirements for promulgation and advance notification of changes that are operationally significant as established in Annexes 11 and 14 and other relevant ICAO documentation. They should take due account of the time needed by AIS/AIM for the preparation, production and issue of the relevant material, including the compliance with the AIRAC procedures.

2.8 AIS/AIM personnel should be involved in the air navigation planning processes. This should ensure the timely preparation of appropriate AIS documentation and that the effective dates for changes to the air navigation system and procedures are satisfied.

2.9 States should produce relevant aeronautical charts required for civil air operations employing visual air navigation independently or in support of other forms of air navigation. The production responsibility

for sheets of the World Aeronautical Chart (WAC) — ICAO 1: 1 000 000 or Aeronautical Chart — ICAO 1: 500 000 (*as an alternative to the World Aeronautical Chart — ICAO 1:1 000 000)* is set out in **Table AIM II-2**.

## 3. SPECIFIC REGIONAL REQUIREMENTS

3.1 The priority regional requirements for AIM implementation are:

a) Establishment of AIS either as a separate entity within or, ideally, separated from the civil aviation administration in accordance with the guidance provided in ICAO Doc 8126 – AIS Manual Chapter 3;

b) Implementation of quality management systems for aeronautical information;

c) Establishment of formal agreements between AIS providers and aeronautical data originators specifying the content, quality, maintenance and timing of provision of aeronautical data that is required to be promulgated in AIP, and the quality management process that shall be applied;

d) Implementation of internet-accessible electronic AIP generated from a digital database of aeronautical information;

*Note: some existing aeronautical information products may not be suitable for migration into digital datasets*

e) The taking of all necessary measures to develop and implement AIM training programs for AIS personnel, including training in digital data management, and end-to-end quality management processes; and

f) Provision of full access to the relevant ICAO Annexes and Documents to all personnel having responsibility for the origination, reception, management and/or distribution of aeronautical information and aeronautical data.

## TABLE AIM II-1 - RESPONSIBILITY FOR THE PROVISION OF AIS/AIM FACILITIES AND SERVICES IN THE ASIA AND PACIFIC REGIONS

*Note: To be completed*

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory
2 Designated international NOTAM Office (NOF)
3 Designated State for AIP production
4 Designated State for aeronautical charts (MAP) production
5 Designated State for the provision of the authoritative Integrated Aeronautical Information Database (IAID)
6 Designated State for the provision of pre-flight information services
7 Remarks — additional information, as appropriate.

| State | NOF | AIP | MAP | IAID | Pre-flight briefing | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Afghanistan | | | | | | |
| Australia | Sydney | | | | | |
| Bangladesh | Dhaka | | | | | |
| Bhutan | Paro | | | | | |
| Brunei Darussalam | | | | | | |
| Cambodia | Phnom Penh | | | | | |
| China | Beijing | | | | | |
| Hong Kong, China | Hong Kong | | | | | |
| Macao, China | | | | | | |
| Cook Islands | | | | | | |
| Democratic People's Rep. of Korea | Pyongyang | | | | | |
| Fiji | Nadi | | | | | |
| French Polynesia | Tahiti | | | | | |
| India | Chennai<br>Delhi<br>Kolkata<br>Mumbai | | | | | |
| Indonesia | Jakarta | | | | | |
| Japan | Tokyo | | | | | |
| Kiribati | | | | | | |
| Lao Peoples' Democratic Republic | Vientiane | | | | | |
| Malaysia | Kota Kinabalu<br>Kuala Lumpur | | | | | |
| Maldives | Male | | | | | |
| Marshall Islands | | | | | | |
| Micronesia (Federated States of) | | | | | | |
| Mongolia | Ulaanbaatar | | | | | |
| Myanmar | | | | | | |
| Nauru | Nauru | | | | | |
| Nepal | Kathmandu | | | | | |
| New Caledonia | | | | | | |
| New Zealand | Apia | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Christchurch | | | | | |
| Pakistan | Karachi | | | | | |
| Palau | | | | | | |
| Papua New Guinea | Port Moresby | | | | | |
| Philippines | Manila | | | | | |
| Republic of Korea | Incheon | | | | | |
| Samoa | | | | | | |
| Singapore | Singapore | Singapore | Singapore | Singapore | Singapore | |
| Solomon Islands | Honiara | | | | | |
| Sri Lanka | Colombo | | | | | |
| Thailand | Bangkok | | | | | |
| Timor-Leste | | | | | | |
| Tonga | | | | | | |
| United States of America | | | | | | |
| Vanuatu | Port Vila | | | | | |
| Viet Nam | Ho Chi Minh | | | | | |

## TABLE AIM II-2 - PRODUCTION RESPONSIBILITY FOR SHEETS OF THE WORLD AERONAUTICAL CHART - ICAO 1:1 000 000 OR AERONAUTICAL CHART — ICAO 1: 500 000

EXPLANATION OF THE TABLE

*Column:*

1 Name of the State accepting production responsibility.

2 World Aeronautical Chart — ICAO 1:1 000 000/Aeronautical Chart — 1: 500 000 sheet number(s) for which production responsibility is accepted.

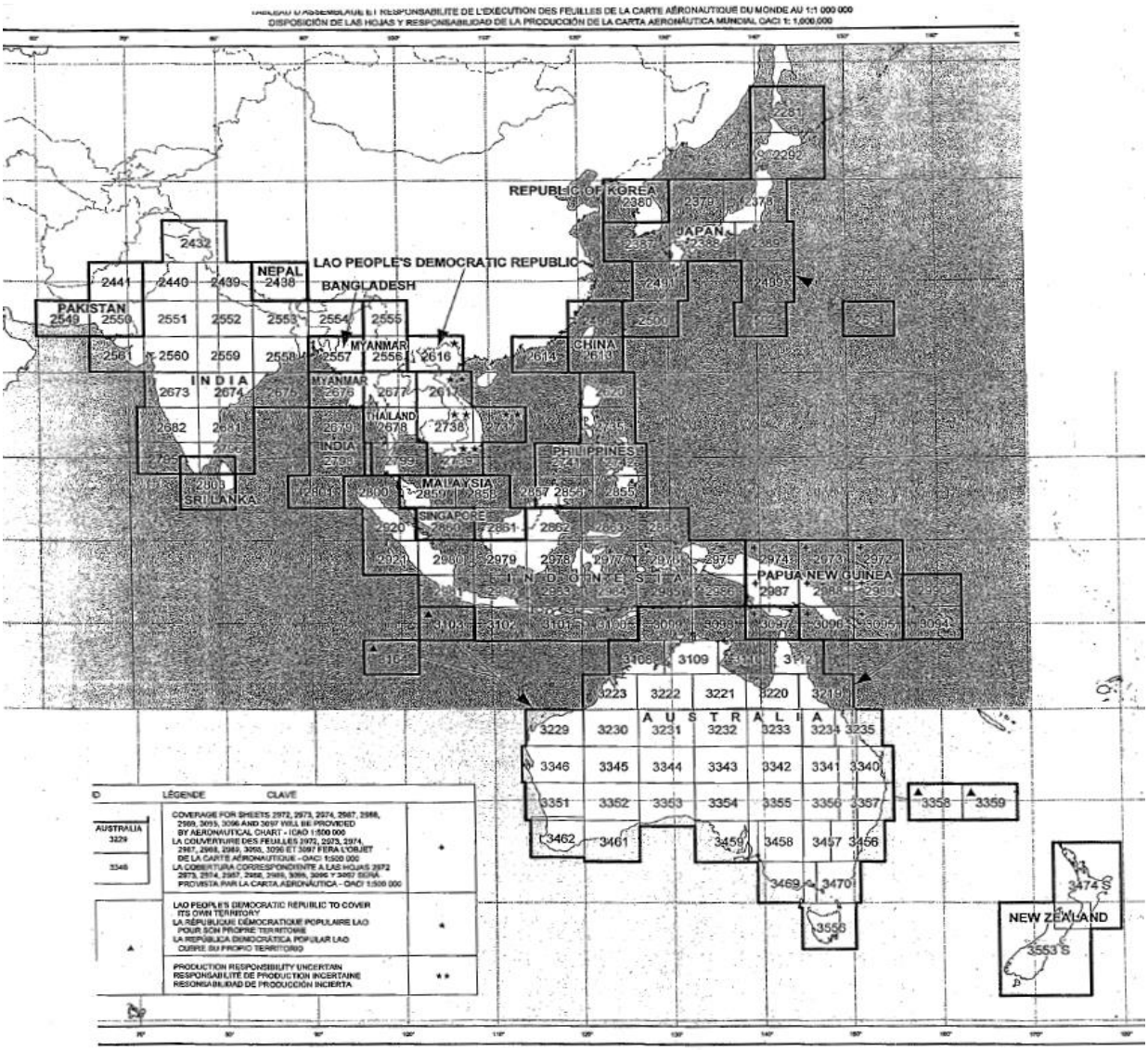
3 Remarks.

*Note — In those instances where the production responsibility for certain sheets has been accepted by more than one State, these States by mutual agreement should define limits of responsibility for those sheets. This should be reflected in the Remarks column.*

| State | Sheet number(s) | Remarks |
|---|---|---|
| **1** | **2** | **3** |
| Afghanistan | 2336, 2337, 2430, 2431, 2442 | |
| Australia | 3097, 3098, 3099, 3103, 3108, 3109, 3110, 3111, 3112, 3164, 3219, 3220, 3221, 3222, 3223, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3456, 3457, 3458, 3459, 3461, 3462, 3469, 3470, 3556 | |
| Solomon Islands | 2990, 3094 | |
| Bangladesh | 2557 | |
| Bhutan | | |
| Brunei Darussalam | | |
| Cambodia | | |
| China | | |
| Hong Kong, China | | |
| Macao, China | | |
| Cook Islands | | |
| Democratic People's Rep. of Korea | | |
| Fiji | | |
| French Polynesia | | |
| India | 2432, 2439, 2440, 2551, 2552, 2553, 2554, 2558, 2559, 2560, 2561, 2673, 2674, 2675, 2679, 2681, 2682<br><br>2795<br><br>2796<br><br>2798, 2801 | With western sheet edge extended to meridian 71 E<br><br>With western sheet edge extended to meridian 71E<br>Excluding Sri Lanka |

| | | |
|---|---|---|
| Indonesia | 2800, 2862, 2863, 2864, 2920, 2921, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 3100, 3101, 3102 | |
| Japan | 2281, 2292, 2378, 2379, 2387, 2388, 2389, 2489, 2491, 2500, 2502, 2504 | |
| Kiribati | | |
| Lao Peoples' Democratic Republic | 2616<br><br>2617 | Lao PDR to cover its own territory<br><br>Lao PDR to cover its own territory and Viet Nam to cover Ho Chi Minh |
| Malaysia | 2858, 2859, 2861 | |
| Maldives | | |
| Marshall Islands | | |
| Micronesia (Federated States of) | | |
| Mongolia | | |
| Myanmar | 2555, 2556, 2676 | |
| Nauru | | |
| Nepal | 2438 | |
| New Caledonia | | |
| New Zealand | 3474, 3553 | |
| Pakistan | 2441, 2549, 2550 | |
| Palau | | |
| Papua New Guinea | 2972, 2973, 2974, 2987, 2988, 2989, 3095, 3096 | |
| Philippines | 2620, 2735, 2741, 2742, 2855, 2856 | |
| Republic of Korea | 2380 | |
| Samoa | | |
| Singapore | 2860 | |
| Sri Lanka | 2803 | With sheet lines extended to include the whole of Sri Lanka |
| Thailand | 2677, 2678, 2799 | |
| Timor-Leste | | |
| Tonga | | |
| Vanuatu | | |
| Viet Nam | 2617, 2737, 2738, 2739 | Lao PDR to cover its own territory and Viet Nam to cover Ho Chi Minh FIR |

Note: a scan of the AIM FASID chart follows for checking purposes


DISPOSICIÓN DE LAS HOJAS Y RESPONSABILIDAD DE LA PRODUCCIÓN DE LA CARTA AERONÁUTICA MUNDIAL OACI 1: 1.000.000
REPUBLIC OF KOREA
JAPAN
LAO PEOPLE'S DEMOCRATIC REPUBLIC
BANGLADESH
NEPAL
PAKISTAN
MYANMAR
CHINA
INDIA
THAILAND
PHILIPPINES
MALAYSIA
SINGAPORE
SRI LANKA
INDONESIA
PAPUA NEW GUINEA
AUSTRALIA
NEW ZEALAND
LÉGENDE
CLAVE
COVERAGE FOR SHEETS 2972, 2973, 2974, 2967, 2968, 2969, 3095, 3096 AND 3097 WILL BE PROVIDED BY AERONAUTICAL CHART - ICAO 1:500 000
LA COUVERTURE DES FEUILLES 2972, 2973, 2974, 2967, 2968, 2969, 3095, 3096 ET 3097 FERA L'OBJET DE LA CARTE AÉRONAUTIQUE - OACI 1:500 000
LA COBERTURA CORRESPONDIENTE A LAS HOJAS 2972, 2973, 2974, 2967, 2968, 2969, 3095, 3096 Y 3097 SERÁ PROVISTA POR LA CARTA AERONÁUTICA - OACI 1:500 000
LAO PEOPLE'S DEMOCRATIC REPUBLIC TO COVER ITS OWN TERRITORY
LA RÉPUBLIQUE DÉMOCRATIQUE POPULAIRE LAO POUR SON PROPRE TERRITOIRE
LA REPÚBLICA DEMOCRÁTICA POPULAR LAO CUBRE SU PROPIO TERRITORIO
PRODUCTION RESPONSIBILITY UNCERTAIN
RESPONSABILITÉ DE PRODUCTION INCERTAINE
RESPONSABILIDAD DE PRODUCCIÓN INCIERTA