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авиации

منظمة الطيران  
المدني الدولي

国际民用  
航空组织

**Ref:** APAC 10/11 - CNS: AP056/10 (CNS)

29 March 2010

**Subject:** Proposal for amendment of  
ASIA/PAC Facilities and Services Implementation  
Document (FASID) (Serial No.: APAC 10/11 – CNS)

**Action Req'd:** Reply at your earliest convenience  
preferably, **not later than 6 May 2010**

Sir/Madam,

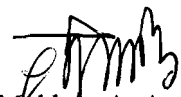
I have the honour to communicate to you the attached proposal for amendment of the ICAO ASIA/PAC Facilities and Services Implementation Document (FASID) originated by the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG).

In accordance with the established procedure for the amendment of FASID, I am to inquire whether your Government has any objection to the proposal.

Since it is desirable to finalize this proposal with minimum of delay, I shall be grateful if you will let me have your reply by the earliest practicable date and, in any event, **not later than 6 May 2010**.

In the event that the views of your Government are not received by that date, it will be presumed that it has no objection to the proposed changes and the proposal will be processed accordingly.

Accept, Sir/Madam, the assurances of my highest consideration.

  
Mokhtar A. Awan  
Regional Director

**Enclosure:** Proposal for Amendment of ASIA/PAC FASID  
Vol. II, (Serial No.: APAC 10/11 – CNS)  
Table CNS 4A – Surveillance Systems

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**Proposal for amendment of Facilities and Services**  
**Implementation Document (FASID)**

(Serial No.: APAC 10/11 - CNS)

- a) **Plan:** ASIA/PAC FASID Doc 9673
- b) **Proposal amendment:** Replace the existing Table CNS 4A – Surveillance Systems with an updated Table provided in the attachment.  
  
(cf. Doc 8673, Part IV, Table CNS 4A)
- c) **Originated by:** Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG)
- d) **Originator's reason:** APANPIRG/20 noted that FASID Table 4 had been renamed as Table CNS 4A and observed that requirements specified in existing Table CNS 4A for Surveillance Systems of many States were either out of date or lack adequate information on their plans for implementation of surveillance systems.  
  
APANPIRG/20 reviewed an updated Table and proposed to replace the Table CNS 4A with the updated Table in accordance with the established procedure.
- e) **Intended date of Implementation:** To be implemented progressively commencing early 2010.
- f) **Proposal circulated to the following States and Organization:**
- |                             |                                |
|-----------------------------|--------------------------------|
| Afghanistan                 | Micronesia, Federated State of |
| Australia                   | Mongolia                       |
| Bangladesh                  | Myanmar                        |
| Bhutan                      | Nepal                          |
| Brunei Darussalam           | Nauru                          |
| Cambodia                    | New Zealand                    |
| China                       | Pakistan                       |
| <i>cc: Hong Kong, China</i> |                                |
| <i>Macao, China</i>         |                                |
| Cook Islands                | Palau                          |
| DPR Korea                   | Papua New Guinea               |
| France                      | Philippines                    |
| Fiji                        | Republic of Korea              |
| India                       | Samoa                          |
| Indonesia                   | Singapore                      |
| Japan                       | Solomon Islands                |
| Kiribati                    | Sri Lanka                      |
| Lao PDR                     | Timor Laste                    |
| Malaysia                    | Thailand                       |
| Maldives, Republic of       | Tonga                          |
| Marshal Islands             | Vanuatu                        |
| Viet Nam                    | United States                  |
| IFALPA                      | IATA                           |
- g) **Secretariat comment:** This proposal is processed in accordance with Conclusion 20/52 of APANPIRG/20 to replace the existing Table CNS 4A with the updated Table.

**TABLE CNS 4A**  
**SURVEILLANCE SYSTEMS**

EXPLANATION OF THE TABLE

*Column*

1	Name of country and location of the facility or FIR
2	Air Traffic Services Unit served by the facility
3	PSR – Primary Surveillance Radar
4	Coverage of Primary Surveillance Radar in nautical miles
5	SSR – Secondary Surveillance Radar and Modes implemented will be indicated within Brackets, namely Mode A, C & S
6	Coverage of Secondary Surveillance Radar and/or ADS-B in nautical miles
7	ADS-B Automatic Dependent Surveillance Broadcast
8	ADS-C Automatic Dependent Surveillance Contract
9	SMR – Surface Movement Radar
10	A-SMGCS – Advanced Surface Movement Guidance and Control System
11	PAR – Precision Approach Radar
12	Remarks

**Note:**

The following codes are used in columns 3, 5, 7, 8, 9, 10, 11 and 12

I - required and implemented

for column 5, I - stands for implementation using conventional SSR while

MI - stands for implementation using Monopulse SSR

X - required but not implemented status not determined

N - required but not implemented

A - existing facility provided to supplement or substitute the requirement

F - future Plan

< - year planned commissioning year to be used as appropriate in conjunction with 'F' & 'N'

> - year planned decommissioning year to be used as appropriate in conjunction with 'A' & 'I'

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
<b>AFGHANISTAN</b>											
<b>AUSTRALIA</b>											
Hans Tableland	Cairns TUC Brisbane EC			MI(A/C)>14 MI (ACS) F<14	250	250 F<10					
Redden Creek	CairnsACC Cairns APP Cairns TWR	I	50	MI(A/C)>08 MF(A/C/S)F<10	250	250F<12					
Tabletop	Brisbane ACC			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Swampy Ridge	Brisbane ACC			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Mount Alma	Brisbane ACC			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Mount Hardgrave	Brisbane ACC Coolangatta APP Coolangatta TWR			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Brisbane Airport	Brisbane APP Brisbane TWR	I	50	MI(A/C)>08 MF(A/C/S)<10	250	250 F<12					
Mount Sommerville	Coolangatta APP Coolangatta TWR	I	50	MI(A/C/S)	250	250 F<12					
Round Mountain	Brisbane ACC Sydney APP			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Mount Boyce	Melbourne ACC Sydney APP Brisbane ACC Melbourne ACC			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Sydney Airport	Sydney APP Sydney TWR	I	50	MI(A/C)>08 MF(A/C/S)<10	250	250F<12		I			

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Mount Majura	Canberra APP	I	50	MI(A/C)>08 MF(A/C/S)F<10	250	250F<12					in Melbourne
Mount Bobbara	Canberra TWR Melbourne ACC (in Melbourne) Canberra APP Canberra TWR			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Mount Macedon	Melbourne ACC  Melbourne APP Melbourne TWR			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Gellibrand Hill	Melbourne ACC Melbourne APP Melbourne TWR	I	50	MI(A/C/S)	250	250F<12					
Summertown	Adelaide ACC  Adelaide APP Adelaide TWR Melbourne ACC			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Adelaide Airport	Adelaide ACC  Adelaide APP Adelaide TWR	I	50	MI(A/C)>08 MF(A/C/S)F<10	250	250 F<12					
Kalamunda	Perth ACC  Perth APP Perth TWR			MI(A/C)>14 MI(ACS)F<14	250	250 F<10					
Perth Airport	Perth ACC  Perth APP Perth TWR	I	50	MI(A/C)>08 MF(A/C/S)F<10	250	250F<12					
Darwin (military ATC facility)	Brisbane ACC			MI(A/C)	160						SSR data only
Tindal (military ATC facility)	Brisbane ACC			MI(A/C)	250						SSR data only

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Oakey (military ATC facility)	Brisbane ACC			MI(A/C)	250						SSR data only
East sale (military ATC facility)	Melbourne ACC			MI(A/C)	250						SSR data only
Darwin	Brisbane ACC			MI(A/C)>14 MI(ACS) F<14	250	250 F<10					
Bundaberg	Brisbane ACC				250	I					
Balgo Hill	Brisbane ACC				250	FF<2009					
Caiguna	Melbourne ACC				250	I					
Doongan	Brisbane ACC				250	FF<2009					
Esperance	Melbourne ACC				250	I					
Jackson	Brisbane ACC				250	FF<2009					
Thursday Island	Brisbane ACC				250	I					
Ayers Rock AP	Melbourne ACC				250	FF<2009					
Birdsville	Melbourne ACC				250	FF<2009					
Broken Hill	Melbourne ACC				250	I					
Mornington Island	Brisbane ACC				250	FF<2009					
West Gap (Alice Springs)	Brisbane ACC				250	I					
Warburton	Melbourne ACC				250	FF<2009					
Broome	Brisbane ACC				250	FF<2009					
Leonora	Brisbane ACC				250	I					
Longreach	Brisbane ACC				250	I					
Telfer	Brisbane ACC				250	I					
Meekatharra	Brisbane ACC				250	I					

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Mount Isa (DCA Hill)	Brisbane ACC				250	FF<2009					
Newman	Brisbane ACC				250	I					
Oodnadatta	Brisbane ACC				250	FF<2009					
Tennant Creek	Brisbane ACC				250	I					
Karratha	Brisbane ACC				250	I					
Billabong	Melbourne ACC				250	I					
Gove	Melbourne ACC				250	FF<2009					
Bourke	Melbourne ACC				250	I					
Nullabor	Melbourne ACC				250	FF<2009					
Woomera	Melbourne ACC				250	I					
TAS WAM Multilat	Melbourne ACC				100	FF<2009					MLAT F<2010
Sydney Airport	Sydney TCU				40	F<2010				I	MLAT F<2010
<b>BANGLADESH</b>											
Dhaka	Dhaka APP			I(A/C)	200						
<b>BHUTAN</b>											
<b>BRUNEI DARUSALAM</b>											
Brunei Airport	Brunei APP	I	80	I(A/C)	250						
<b>CAMBODIA</b>											
				I(A/C)	250						VDPP 2011, VDSV 2010
<b>CHINA</b>											
Beijing-1	Beijing TWR Beijing APP			MI(A/C)	200						Mode S when required

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Beijing-2	Beijing ACC Beijing TWR Beijing APP Beijing ACC	I	60	MI(A/C)	200						
Beijing-3	Beijing TWR Beijing APP Beijing ACC	I	200	MI(A/C)	250						
Tianjin	Tianjin TWR			MI(A/C)	200						
Shijiazhuang	Shijiazhuang TWR Beijing ACC			MI(A/C)	200						
Taiyuan	Taiyuan TWR Taiyuan ACC	I	60	MI(A/C)	200						
Hohhot	Hohhot TWR, ACC			MI(A/C)	200						
Manbanshan	Hohhot ACC			MI(A/C)	200						
Sunite	Hohhot ACC			MI(A/C)	200						
Guangzhou-1	Guangzhou TWR Guangzhou APP Guangzhou ACC	I	60	MI(A/C)	200						
Guangzhou-2	Guangzhou TWR Guangzhou APP Guangzhou ACC	I	60	MI(A/C)	200						
Guangzhou-3	Guangzhou TWR Guangzhou APP Guangzhou ACC			MI(A/C)	200						
Shenzhen	Shenzhen TWR Guangzhou APP Guangzhou ACC	I	60	MI(A/C)	200						
Shaoguan	Guangzhou ACC			MI(A/C)	200						
Zhuhai	Zhuhai TWR Zhuhai APP Zhuhai ACC	I	60	MI(A/C)	200						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Sanya	Sanya TWR Sanya APP Sanya ACC	I	150	MI(A/C)	250						
Sanya-2	Sanya TWR,APP,ACC			MI(A/C)	250						
Haikou	Haikou TWR Haikou ACC	I	60	MI(A/C)	200						
Changsha	Changsha TWR Changsha ACC	I	60	MI(A/C)	200						
Changsha-2	Changsha TWR, ACC			MI(A/C)	200						
Enshi	Enshi TWR Wuhan ACC			MI(A/C)	200						
Wuhan	Wuhan TWR Wuhan ACC	I	60	MI(A/C)	200						
Wuhan-2	Wuhan TWR , ACC			MI(A/C)	200						
Zhengzhou-1	Zhengzhou TWR Zhengzhou ACC	I	60	I(A/C)	200						
Zhengzhou-2	Zhengzhou TWR Zhengzhou ACC	I	60	MI(A/C)	200						
Zhoukou	Zhengzhou ACC			MI(A/C)	200						
Guilin -1	Guilin TWR Guilin ACC			I(A/C)	200						
Guilin - 2	Guilin TWR Guilin ACC	I	60	MI(A/C)	200						
Nanning	Nanning TWR Nanning ACC			MI(A/C)	200						
Zhanjiang	Zhanjiang TWR Zhanjiang ACC			I (A/C)	200						
Shantou	Shantou TWR Shantou ACC	I	60	MI(A/C)	200						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Jieyang	Shantou TWR Shantou ACC			MI(A/C)	200						
Kunming	Kunming TWR Kunming ACC	I	60	I(A/C)	200		I				
Chengdu	Chengdu TWR Chengdu ACC	I	60	I(A/C)	200		I				
Guiyang - 1	Guiyang TWR Guiyang ACC			I(A/C)	200						
Guiyang - 2	Guiyang TWR Guiyang ACC	I	60	MI(A/C)	200						
Chongqing	Chongqing TWR Chongqing ACC	I	60	MI(A/C)	200						
Shanghai-1	Shanghai TWR Shanghai APP Shanghai ACC	I	60	MI(A/C)	200						
Shanghai-2	Shanghai TWR Shanghai APP Shanghai ACC	I	60	I(A/C)	200						
Jinan	Jinan TWR, ACC			MI(A/C)	200						
Jinan-2	Jinan TWR, ACC			MI(A/C)	200						
Qingdao	Qingdao TWR Qingdao ACC			MI(A/C)	200						
Hefei	Hefei TWR Hefei ACC	I	60	MI(A/C)	200						
Nanjing	Nanjing TWR Nanjing ACC	I	60	MI(A/C)	200						
Lianyungang	Lianyungang TWR Lianyungang ACC			MI(A/C)	200						
Xuzhou	Xuzhou TWR			MI(A/C)	200						
Hangzhou	Hangzhou TWR Hangzhou ACC	I	60	MI(A/C)	200						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Nanchang	Nanchang TWR Nanchang ACC	I	60	I(A/C)	200						
Nanchang-2	Nanchang TWR, ACC			I(A/C)	200						
Ganzhou	Nanchang ACC			MI(A/C)	200						
Shangrao	Nanchang ACC			MI(A/C)	200						
Fuzhou	Fuzhou TWR Fuzhou ACC	I	60	MI(A/C)	200						
Wenzhou	Wenzou TWR			MI(A/C)	200						
Xiamen	Xiamen TWR Xiamen ACC	I	60	MI(A/C)	200						
Xiamen	Xiamen TWR, ACC			MI(A/C)	200						
Shenyang	Shenyang TWR Shenyang ACC	I	60	MI(A/C)	200						
Shenyang-2	Shenyang TWR Shenyang ACC	I	60	MI(A/C)	200						
Dalian	Dalian TWR Dalian ACC	I	60	I(A/C)	200						
Dalian-2	Dalian TWR, ACC			MI(A/C)	200						
Harbin	Harbin TWR Harbin ACC	I	60	MI(A/C)	200						
Xi'an	Xi'an TWR Xi'an ACC	F<2000	60	I(A/C)	200						
Lanzhou	Lanzhou TWR Lanzhou ACC			MI(A/C)							
Urumqi	Urumqi TWR Urumqi ACC	I	60	MI(A/C)	200		I				
<b>HONG KONG, CHINA</b> Beacon Hill	Hong Kong ACC Hong Kong APP			MI(A/C)	250						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Mount Parker	Hong Kong TWR Hong Kong ACC Hong Kong APP Hong Kong TWR	I	200	MI(A/C)	250						
Tai Mo Shan	Hong Kong ACC Hong Kong APP Hong Kong TWR	I	140	MI(A/C)	250						
Sha Chau	Hong Kong APP Hong Kong TWR	I	80	MI(A/C)	250						
Hong Kong Int'l Airport	Hong Kong APP Hong Kong ACC Hong Kong TWR					F<2013		I	I		PRM I in 2000
<b>MACAO, CHINA</b> Macao	Macao TWR			MI(A/C)	200			F<2010			
<b>COOK ISLANDS</b>											
<b>DPR KOREA</b> Pyongyang	Pyongyang ACC Pyongyang APP Pyongyang TWR	I	60	MI(A/C) MI(A/C)	200 200					I	
<b>FIJI</b>	Naid ACC Nadi APP					F<2010 F<2010	I				
<b>FRENCH POLYNESIA</b>	Tahiti ACC Tahiti APP			N<2008(A/C) N<2008(A/C)	250	F<2012	I				
<b>INDIA</b> Ahmadabad		I	60	MI	256						
Trivandrum		I	60	MI	256						
Hyderabad		I	60	MI	256						
Guwahati		I	60	MI	256						
Kolkata		I	60	MI	256		I				

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Chennai		I	60	MI	256		I				
Delhi		I	60/220	MI	256		I				RSR=220NM
Mumbai		I	60/220	MI	256		I	F			"
Mangalore				MI	256						
Berhampur				MI	256						
Varanasi				MI	256						
Nagpur				MI	256						
<b>INDONESIA</b>											
Banda Aceh	Medan ACC Jakarta ACC			I(A/C) MI (A/C)	240 240	I 2008					
Medan	Medan APP Jakarta ACC	I	90	MI(A/C)	240	I <2008					Pre-operation, ADS-B not integrated to ATC system
Natuna	Jakarta ACC			I(A/C)	240						
Tanjung Pinang	Tanjung Pinang APP Jakarta ACC	I	90	I(A/C)	240	I<2008					
Pontianak	Pontianak APP Jakarta ACC	I	90	I(A/C)	240	I<2008					
Pekanbaru	Pekanbaru APP Medan ACC Jakarta ACC	I	90	I(A/C)	240	I<2008					
Palembang	Palembang APP Jakarta ACC	I	90	MI(A/C)	240	I 2008					
Jakarta/Cengkareng	Jakarta APP Jakarta ACC Jakarta FIR	I	90	I(A/C) MI(A/C)	240 240	I 2008 F<2007			F 2010		ADS-C Trial ADS-B Trial

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Jakarta/Halim	Jakarta ACC					F<2007					
Semarang	Ujung Pandang ACC Jarkata ACC			I(A/C)	240	I<2009					
Banjarmasin	Banjarmasin APP Ujung Pandang ACC			MI (A/C)	240	I<2009					
Balikpapan	Balikpapan APP Ujung Pandang ACC	I	90	MI(A/C)	240	I<2009					
Yogyakarta	Yogyakarta APP Ujung Pandang ACC Jakarta ACC	I	90	MI(A/C)	240						
Surabaya	Surabaya APP Ujung Pandang ACC Jakarta ACC	I	90	MI(A/C)	240	I<2009			F 2011		
Bali	Bali APP Ujung Pandang ACC	I	90	MI(A/C)	240	I<2009			F 2011		
Waingapu	Ujung Pandang ACC			I(A/C)	240	I<2008					
Ujung Pandang	Ujung Pandang APP Ujung Pandang ACC Ujung Pandang FIR	I	90	I(A/C) I(A/C)	240 240	I<2008 F<2007		X	F 2011		ADS-C Trial ADS-B Trial
Manado	Ujung Pandang ACC			I(A/C)	240	I<2010					
Ambon	Ujung Pandang ACC			I(A/C)	240	I<2008					
Kendari	Ujung Pandang ACC			I(A/C)	240	I<2010					
Biak	Biak APP Ujung Pandang ACC			I(A/C)	240	I<2010					
Jayapura	APP ACC	2009									
Kupang	APP ACC					I<2010					

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Tarakan	ACC	F<2010				I<2009					
Batam	APP ACC				F(S)<2009 F(S)<2009	I<2009					
Sorong	ACC				F(S)<2009	I<2008					
<b>JAPAN</b>											
Narita Airport	Narita TWR					F<2009		I			
Haneda Airport	Haneda TWR							I			
Nagoya Airport	Nagoya TWR							I			
Osaka Airport	Osaka TWR							I			
Kansai Airport	Kansai TWR							I			
Naha Airport	Naha TWR Naha APP	I	60	I(A/C)	60			I			
Hakodate Airport	Hakodate APP	I	60	I(A/C)	60						
Sendai Airport	Sendai APP	I	60	I(A/C)	60						
Narita Airport - 1	Narita APP	I	60	I(A/C)	60						
Narita Airport - 2	Narita APP	I	60	I(A/C)	60						
Handeda Airport - 1	Tokyo APP	I	60	I(A/C)	60						
Handeda Airport - 2	Tokyo APP	I	60	I(A/C)	60						
Niigata Airport	Niigata APP	I	60	I(A/C)	60						
Nagoya Airport - 1	Nagoya APP	I	60	I(A/C)	60						
Nagoya Airport - 2	Nagoya APP	I	60	I(A/C)	60						
Chubu Airport - 1	Chubu APP	I	80	I(A/C)	80						
Chubu Airport - 2	Chubu APP	I	80	I(A/C)	80						
Osaka Airport - 1	Osaka APP	I	80	I(A/C)	80						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Osaka Airport - 2	Osaka APP	I	80	I(A/C)	80						
Kansai Airport - 1	Kansai APP	I	80	I(A/C)	80						
Kansai Airport - 2	Kansai APP	I	80	I(A/C)	80						
Hiroshima Airport	Hiroshima APP	I	60	I(A/C)	60						
Takamatsu Airport	Takamatsu APP	I	60	I(A/C)	60						
Kouchi Airport	Kouchi APP	I	60	I(A/C)	60						
Fukuoka Airport - 1	Fukuoka APP	I	60	I(A/C)	60						
Fukuoka Airport - 2	Fukuoka APP	I	60	I(A/C)	60						
Nagasaki Airport	Nagasaki APP	I	60	I(A/C)	60						
Oita Airport	Oita APP	I	60	I(A/C)	60						
Kumamoto Airport	Kumamoto APP	I	60	I(A/C)	60						
Miyazaki Airprot	Miyazaki APP	I	60	I(A/C)	60						
Kagoshima Airport - 1	Kagoshima APP	I	60	I(A/C)	60						
Kagoshima Airport - 2	Kagoshima APP	I	60	I(A/C)	60						
Naha Airport	Naha APP	I	60	I(A/C)	60						
Shimojishima Airport	Shimojishima APP	I	60	I(A/C)	60						
Kushiro	Sapporo ACC		200	I(A/C)	200						
Yokotsudake	Sapporo ACC	I	200	MI(A/C)	200						
Hachinohe	Sapporo ACC	I	200	I(A/C)	200						
Jobonzan	Sapporo ACC Tokyo ACC	I	200	I(A/C)	200						
Oginojo	Sapporo ACC Tokyo ACC	I	200	MI(A/C)	250						
Yamada	Tokyo ACC	I	200	I(A/C)	200						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Hakone	Tokyo ACC	I	200	I(A/C)	200						
Mikawa	Tokyo ACC	I	200	I(A/C)	200						
Mikuniyama	Tokyo ACC	I	200	I(A/C)	200						
Hirata	Tokyo ACC Fukuoka ACC	I	200	I(A/C)	200						
Imanoyama	Tokyo ACC Fukuoka ACC	I	200	I(A/C) MI(A/C)	200 F(250)						
Kaseda	Fukuoka ACC Naha ACC	I	200	I(A/C)	200						
Sangunzan	Fukuoka ACC	I	200	I(A/C)	200						
Amami	Fukuoka ACC Naha ACC	I	200	I(A/C) MI(A/C)	200 F(250)						
Miyakojima	Naha ACC	I	200	I(A/C)	200						
Yaedake	Naha ACC	I	200	I(A/C) MI(A/C)	200 F(250)						
Iwaki	Tokyo ACC			MI(A/C)	250						
Hachijo	Tokyo ACC			MI(A/C)	250						
Fukue	Fukuoka ACC			MI(A/C)	250						
Nihonkai	TBD			MI(A/C)	F(250)						
<b>KIRIBATI</b>											
<b>LAO PDR</b>											
Vientiane	Vientiane APP	I	80								
Vientiane	Vientiane ACC			MI(A/C)	250						
Savannakhet	Vientiane ACC			MI(A/C)	250						
Xieng Kuang	Vientiane ACC			MI(A/C/S)	250	F<2015					

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
<b>MALAYSIA</b>											
Langkawi	Langkawi APP Kuala Lumpur ACC	I	60	MI (A/C)	200						
Subang	Lumpur APP Kuala Lumpur ACC	I	60	MI (A/C)	200		F<2007				
Genting Highlands	Kuala Lumpur ACC			MI(A/C)	200						
Kulala Lumpur (KLIA)	Lumpur APP Kuala Lumpur ACC	I	60	MI(A/C)	200			I			
Johor	Johor Bharu APP Kuala Lumpur ACC	I	60	MI (S)	200						
Kota Bharu	Kota Bharu APP Kuala Lumpur ACC	I I	60 60	MI (S)	200						
Kota Kinabalu	K. Kinabalu APP K. Kinabalu ACC	I	60	MI(A/C)	200						
Kuching	Kuching APP K. Kinabalu ACC	I	60	MI(A/C)	200						
Miri	Miri APP K. Kinabalu ACC Kuching ACC	I	60	MI (A/C)	200						
<b>MALDIVES</b>											
<b>MARSHALL ISLANDS</b>											
<b>MICRONESIA (FEDERATED STATE OF)</b>											
<b>MONGOLIA</b>											
	Ulaanbaatar ACC Ulaanbaatar APP					<2008 <2008	I I				
<b>MYANMAR</b>											
Yangon	Yangon APP Yangon ACC			MI(A/C/S)	200		I				



Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Lak Pass	Karachi ACC Lahore ACC			MI(A/C)	200						
Rojhan	Karachi ACC Lahore ACC			MI(A/C)	200						
Lahore Airport	Lahore ACC Lahore APP Lahore TWR	I	98	MI(A/C)	200						
Islamabad Airport	Lahore ACC Islamabad APP Islamabad TWR	I	98	MI(A/C)	200						
<b>PAPUA NEW GUINEA</b> Jacksons airport	Jacksons APP Moresby ACC	I	60	I(A/C)	200						
<b>PHILIPPINES</b>											
Manila	Manila APP	I F<2012	60	I(A/C) M(A/C/S) F<2012	90						
Tagaytay	Manila ACC			MI(A/C/S)	250						
Clark	Clark APP	I	70	MI(A/C)	70						
Mactan	Mactan APP	I F<2012	70	I(A/C)	70						
Kalibo	Kalibo/Caticlan APP	F<2012		M(A/C/S) F<2012							
Bacolod	Bacolod APP	F<2012		M(A/C/S) F<2012							
Davao	Davao APP	F<2012		M(A/C/S) F<2012							
Subic	Subic APP	I	70	I(A/C)	70						
Laoag	Manila ACC Manila ATM Center			MI(A/C) M(A/C/S) F<2012	250 250						

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Aparri	Manila ATM Center			M(A/C/S) F<2012							
Mount Majic	Manila ACC Manila ATM Center			MI(A/C) M(A/C/S) F<2012	250						
Palawan RCAG	Manila ATM Center			M(A/C/S) F<2012							
Zamboanga	Manila ATM Center			M(A/C/S) F<2012							
Manila ATM Center	Manila ATM Center					F<2012					
Puerto Princesa	Manila ATM Center					F<2012					
<b>REPUBLIC OF KOREA</b>											
Jeju	Jeju TWR Jeju APP	I	60	I(A/C)	200			I			
Cheongju	CheongjuTWR										
Incheon-1	Incheon TWR Seoul APP, ACC	I	60	MI(A/C)	200	F<2008		I	I		
Incheon-2	Incheon TWR Seoul APP, ACC	I	60	MI(A/C)	200						
Yangyang	Yangyang TWR										
Gimhae	Gimhae TWR Gimhae APP	I	60	I(A/C)	200			I			
Daegu	Daegu APP	I	60	MI(A/C)	200						
Cheongju	Jungwon APP	I	60	MI(A/C)	200						
Gimpo	Gimpo TWR Gimpo APP, ACC	I	60	MI(A/C)	200			I I	F<2006		
<b>SINGAPORE</b>											
Singapore	Singapore ACC Singapore APP Singapore TWR	I I	220 70	MI(A/C) MI(A/C)	250 200	F<2010	I				

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
	Singapore APP	I	70	MI(A/C)	200						
<b>SOLOMON ISLANDS</b>											
<b>SRI LANKA</b>											
Bandaranaike Airport	Colombo APP	I	90								
Mount Pidurutalagala	Colombo ACC			MI(A/C)	200	F<2010	I				ADS-C trial
<b>THAILAND</b>											
Bangkok	Bangkok APP Bangkok ACC Bangkok TWR	I	80	MI(A/C)	250	F<2010					
Bangkok/ Suvarnabhumi AP	Bangkok APP Bangkok ACC Bangkok/SVB TWR	I	80	MI(A/C/S)	250			I	I		A-SMGCSLevel2
Chiang Mai	Chiang Mai APP Bangkok ACC	I>2010	60	MI(A/C)>2010 F(A/C/S)<2010	250 250						
Ubon Rachathani	Bangkok ACC			MI(A/C)>2009 F(A/C/S)<2009	250 250						
Surat Thani	Bangkok ACC Hat Yai APP Phuket APP			MI(A/C)>2009 F(A/C/S)<2009	250 250						
Hat Yai	Hat Yai APP Bangkok ACC	I>2010	60	F(A/C/S)<2010	250						
Phuket	Phuket APP	I>2009	60	F(A/C/S)<2009	250						
Phitsanulok	Phitsanulok APP	I	60								
Hua Hin	Hua Hin APP	I	60								
U Taphao (Military Installation)	U Taphao			I(A/C)	200						
<b>TONGA</b>											
						F<2010					

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
<b>UNITED STATES</b>											
Alaska	ACC					2003	I<2006				
Hilo, Hawaii	ACC APP TWR	I	60	I(A/C)	200						
Honolulu, Hawaii	ACC APP TWR	I	60	I(S)							
Kahului, Hawaii	APP TWR	I	60	I(A/C)							
Kokee, Hawaii	ACC	I	200								
Lihue, Hawaii	APP TWR	I	60	I(A/C)							
Mount Kaala, Hawaii	ACC	I	200	I(A/C)							
Pahoa, Hawaii	ACC			I(A/C)							
Kunianiau, Hawaii	ACC			I(A/C)							
Guam	ACC	I	200	I(A/C)							
Mount Santa Rosa, Guam	APP TWR	I	60	I(A/C)							
Mount Santa Rosa, Guam	ACC	I									
Kona, Hawaii	ACC			F(A/C)	200						
Mount Kaala, Hawaii	ACC	F	250								
Mount Santa Rosa, Guam	ACC	F<2000	250	F(S)<2000	250						
<b>VANUATU</b>											
<b>VIET NAM</b>											
Hanoi/Noibai	Hanoi ACC Noibai APP Noibai TWR	I	80	MI(A/C) MI (A/C)	200 250	F<2013					
								F<2011	F<2011		

Country/Location	ATS Units Served	PSR	Coverage of PSR (NM)	SSR(A/C/S)	Coverage of SSR/ADS-B (NM)	ADS-B	ADS-C	SMR	A-SMGCS	PAR	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
Danang/Sontra	Ho Chi Minh ACC Danang APP Hanoi ACC	I I	80 80	MI (A/C)	250						
Qui Nhon	Ho Chi Minh ACC Danang APP Hanoi ACC			MI (A/C)	250						
Ca Mau	Ho Chi Minh ACC			MI (A/C)	250						
Nghe An/Vinh	Hanoi ACC			MI (A/C)	250						
Tansan Nhat	Tansan Nhat APP Ho Chi Minh ACC Tansan Nhat TWR	I  F	80	MI (A/C)	250	F<2011	I (2006)	F<2012	F<2012		F<2010