



ICAO

International Civil Aviation Organization

**Tenth Meeting of the Surveillance Implementation
Coordination Group (SURICG/10)**

Bangkok, Thailand, 21 - 23 April 2025

Agenda Item 5: Review of regional requirements for Surveillance in the e-ANP, Seamless ANS Plan and the reported implementation status

REVIEW OF SUR INFORMATION IN CNS TABLES IN e-ANP VOL II

(Presented by the Secretariat)

SUMMARY

This paper summarized the need for review and update to the **TABLE CNS II tables** specified in ICAO APAC e-ANP Vol II by APAC States/Administrations. The paper reminds States/Administrations to review the data affecting their administration and provide feedback to ICAO on the data's accuracy in the requisite format to update the relevant CNS requirements in all volumes of e-ANP.

1. INTRODUCTION

1.1 The ICAO Secretariat frequently shares the need to maintain up-to-date CNS requirements in ICAO APAC e-ANP and reminds States/Administrations to submit/update status to various fields of e-ANP as necessary in a timely manner in various ICAO CNS contributory bodies meetings.

1.2 The ICAO APAC e-ANP is published in **three volumes** and can be accessed at <http://www.icao.int/APAC/Pages/APAC-eANP.aspx>. Appendix A - Procedure for the amendment (PfA) of Regional Air Navigation Plans of e-ANP Vol I shares detailed procedures to update all volumes of e-ANP. The Procedure for amendment (PfA) forms can be accessed at the ICAO APAC Webpage at [this link](#).

1.3 This paper shares concerns about outdated information provided in e-ANP Vol II related to surveillance facilities and requests states to update them following the PfA procedure.

2. DISCUSSION

2.1 As informed earlier, e-ANP is published in three volumes per the globally agreed procedure in all regions.

e-ANP Volume I

2.1 *e-ANP Volume I Part III CNS* constitutes the agreed regional requirements considered the minimum necessary for effective planning and implementation of CNS facilities and services in the

Asia and Pacific Region and complements the provisions of ICAO SARPs related to CNS. It contains **stable plan elements** related to the assignment of responsibilities to States for the provision of CNS facilities and services within the ICAO Asia and Pacific Regions in accordance with Article 28 of the Convention on International Civil Aviation (Doc 7300) and mandatory requirements related to the CNS facilities and services to be implemented by States in accordance with regional air navigation agreements. The **amendments to e-ANP Volume I** necessitate **approval by the Council**.

e-ANP Volume II

2.2 *e-ANP Volume II Part III* CNS complements the provisions in ICAO SARPs and PANS related to 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 the current to medium-term mandatory requirements related to CNS facilities and services to be implemented by States in accordance with regional air navigation agreements involving the APANPIRG. Such agreement indicates a commitment by the State(s) concerned to implement the specified requirement (s). The amendment of these elements **does not require approval by the Council**.

2.3 e-ANP Volume II contains the General Regional Requirements and Specific Regional Requirements related to CNS from Member States. As such, Member States are encouraged to review the information contained in the following tables in e-ANP Volume II:

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

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

e-ANP Volume III

2.4 e-ANP Volume III contains dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization, taking into consideration emerging programs such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP) (Doc 9750). The e-ANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of Volume III would not require approval by the Council (approval of Part II is under the responsibility of the relevant PIRG).

2.5 It should be noted that e-ANP Volume III should be used as a tool for monitoring and reporting the status of implementation of the elements planned through the use of tables/databases and/or references to online monitoring tools, as endorsed by APANPIRG. The status of implementation is updated regularly as endorsed by APANPIRG. Updating e-ANP Vol III by incorporating the latest requirements defined in Seamless ANS Plan V4.0 is in process.

NEED FOR UPDATE OF TABLE CNS II-3- SURVEILLANCE

2.6 During SURICG/8, the ICAO Secretariat requested States/administrations to update the information contained in Table CNS II-APAC-3 SURVEILLANCE of e-ANP Volume II. The Secretariat consolidated the updates into the Table and circulated the revised information through state letter Ref.: AN 3/3 – AP192/23 (CNS) on 20 December 2023, provided in **Appendix A**. With the circulation of the state letter, the Secretariat revised the Table again with some feedback from the States.

2.7 SURICG/9 reviewed the consolidated table by the Secretariat with reference to the Revised Surveillance Strategy of APAC. The updated table is provided in **Appendix B** of this paper. The meeting was requested to urge states to verify and update the **TABLE CNS II-3- SURVEILLANCE** following the PfA process. However, no further comments are received.

2.8 This year, the ICAO Secretariat shared concerns about outdated information in the current e-ANP Vol II and requested all contributory bodies to update the table under their responsibilities. All contributory bodies that have met till today have formulated a draft conclusion to demonstrate the commitment of States/Administrations to update the information of e-ANP Vol II.

2.9 The current information provided in **TABLE CNS II-3- SURVEILLANCE** is outdated and requires immediate updates. Data updated during the SURICG/9 meeting can be utilized to update the required information; all CNS tables in the Word file mentioned in the ICAO APAC e-ANP Vol II are uploaded to the [ICAO APAC ANP Webpage](#) with instructions on how to file a PfA.

2.10 With the aforementioned, the following draft conclusion is proposed for meeting adoption:

Draft Conclusion SURICG/10/XX- Update the TABLE CNS II-APAC-3			
What: The current TABLE CNS II-APAC-3 SURVEILLANCE of e-ANP Vol II is outdated and requires immediate updates.			Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical
Why: to update e-ANP Vol II		Follow-up:	☒ Required from States
When: 23 April 2025		Status: group	Draft to be adopted by Sub-
Who: ☒ Sub groups ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☒ Other: ACSICG			

2.11 It is to be noted that all proposed draft conclusions will be presented to CNS SG/29 for adoption. If adopted by CNS SG/29, the ICAO Secretariat will share a State Letter to all APAC States/Administrations for necessary action.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this paper;
- b) urge States/Administrations to review and update *the* **TABLE CNS II-APAC-3 SURVEILLANCE of e-ANP Vol II** following the PfA process;

- c) approach ICAO APAC Office in case of any assistance in using the process; and
- d) discuss any matters as appropriate.



International Civil Aviation Organization	Organisation de l'aviation civile internationale	Organización de Aviación Civil Internacional	Международна я организация гражданской авиации	منظمة الطيران المدني الدولي	国际民用 航空组织
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Ref.: AN 3/3 – AP192/23 (CNS)

20 December 2023

Subject: Proposal for Amendment of the ICAO Asia and Pacific Air Navigation Plan, Volume II, PART III – Communications, Navigation and Surveillance (CNS) (Serial No.: APAC-II 23/19 – CNS)

Action required: Please reply not later than **22 January 2024**

Dear Sir/Madam,

1. I wish to draw your attention to the attached Proposal for Amendment of the ICAO Asia and Pacific Air Navigation Plan, Volume II Part III – CNS (Serial No.: APAC-II 23/19 – CNS), which has been originated by SURICG/8 Secretariat.
2. In accordance with the established procedure for the amendment of Air Navigation Plans, I am to enquire whether your Administration has any objection to the proposal.
3. Since it is desirable to finalize action on this proposal with minimal delay, please provide your reply by the earliest practicable date and, in any event, not later than **22 January 2024**.
4. In the event that the views of your Administration are not received by that date, it will be presumed that you have no objection to the proposed changes and the proposal will be processed accordingly.

Yours sincerely,

Tao Ma
ICAO Regional Director
Asia and Pacific

Enclosure:

Proposal for Amendment (Serial No.: APAC-II 23/19 – CNS)



**PROPOSAL FOR AMENDMENT OF THE ICAO
ASIA AND PACIFIC REGIONS AIR NAVIGATION PLAN, VOLUME II**

(Serial No.: APAC-II 23/19 – CNS)

a) Plan:	Doc 9673, Asia and Pacific Air Navigation Plan (ANP), Volume II		
b) Proposed amendment:	Editorial Note: Amendments are arranged to show deleted text using strikeout (text to be deleted), and added text with grey shading (text to be inserted) <i>Add, Amend or Delete</i> requirement as follows: Volume II PART III – COMMUNICATIONS, NAVIGATION AND SURVEILLANCE (CNS) - In respect of CNS Surveillance, amend Table CNS II-APAC-3 SURVEILLANCE of e-ANP Volume II (cf. Part III, Table CNS II APAC-3, Page III-108)		
c) Originated by:	Secretariat		
d) Originator's reasons for amendment:	The Eighth Meeting of the Surveillance Implementation Coordination Group (SURICG/8) required this table to be updated.		
e) Intended date of: implementation	As soon as possible after final approval of the proposal.		
f) Proposal circulated to the following States and International Organizations:	All APAC Member States	EUR/NAT NACC	[LIST OTHER STATES AND/OR INTERNATIONAL ORGANIZATIONS] CANSO IATA IFALPA IFATCA
	* <i>for information</i>		
g) Secretariat Comments:	1. Nil		

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	

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
Perth	C						Perth, Kalamunda, Eclipse Hill
TCU			YES	YES	PSR+SSRmAC+SSRmS	2	
APP			YES	YES	PSR+SSRmAC+SSRmS		
TWR			YES	YES	PSR+SSRmAC+SSRmS+A-SMGCS+SMR		
Sydney	C						Sydney, Mt Boyce, Cecil Park
TCU			YES	YES	PSR+SSRmS+SSRmAC+WAM+MLAT	2	
APP			YES	YES	PSR+SSRmS+SSRmAC+WAM+MLAT		
TWR			YES	YES	PSR+SSRmS+SSRmAC+A-SMGCS+WAM+MLAT+SMR		
Darwin	C						Darwin, Knuckeyes 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)		

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 Coffs Harbour	D	Over aerodrome	YES	YES	PSR+ SSRm(S)+SSRm(A/C)		The Round Mountain, Point Lookout
APP	G		YES	YES	SSRm(S)+SSRm(A/C)+ADS-B		Launceston
TWR			YES	YES	SSRm(S)+SSRm(A/C)+ADS-B		
Kalgoorlie			YES	YES	-		
Launceston	D	Over aerodrome					
APP	YES		YES	WAM+ ADS-B	Learmonth		
TWR	YES		YES	WAM+ ADS-B			
Learmonth	G		YES	YES			ADS-B
Port Hedland	G		YES	YES	-		Mt Alma
Rock Hampton	D						
APP			YES	YES	SSRm(S)+SSRm(A/C)		
TWR			YES	YES	SSRm(S)+SSRm(A/C)		Tindal
Tindal	C						
APP	C	YES	YES	PSR+SSRm(A/C)	Townsville, Tabletop		
TWR		YES	YES	PSR+SSRm(A/C)			
Townsville							
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		

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
BRUNEI DARUSALAM Brunei APP					PSR + SSRmAC		
CAMBODIA					SSRmAC		
CHINA Beijing ACC Beijing APP Beijing TWR (ZBAA)			YES YES YES	YES YES YES	PSR + SSRmAC + SSRmAC+ADS-B PSR + SSRmAC + SSRmAC+ADS-B PSR + SSRmAC SSRmS+SSRmAC+SMR+AD	2	
Beijing TWR (ZBAD)			YES	YES	PSR+SSRmS+SSRmAC+SMR+ADS-B+MLAT+A-SMGCS	4	
Tianjin APP Tianjin TWR			YES YES	YES YES	PSR+SSRmS+SSRmAC+ADS-B SSRmAC SSRmS+SSRmAC+SMR+ADS-B+MLAT+A-SMGCS	2	
Shijiazhuang APP Shijiazhuang TWR			YES YES	YES YES	SSRmS+SSRmAC+ADS-B SSRmAC-SSRmS+SSRmAC+ADS-B		
Taiyuan ACC Taiyuan APP Taiyuan TWR			YES YES YES	YES YES YES	PSR + SSRmAC PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR + SSRmAC PSR+SSRmS+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
Hohhot ACC Hohhot APP Hohhot TWR			YES YES YES	YES YES YES	SSRmAC +ADS-B SSRmAC+ADS-B SSRmAC +ADS-B		
Guangzhou ACC Guangzhou APP Guangzhou TWR			YES YES YES	YES YES YES	PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+SMR+ADS-B+A-SMGCS	2	
Shenzhen APP Shenzhen TWR			YES YES	YES YES	SSRmS+SSRmAC+ADS-B PSR +SSRmS+SSRmAC+ADS-B+SMR+A-SMGCS		
Zhuhai ACC Zhuhai APP Zhuhai TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B		
Sanya ACC Sanya APP Sanya TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B		
Haikou ACC Haikou APP Haikou TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B+SMR+MLAT		
Changsha ACC Changsha APP Changsha TWR			YES YES YES	YES YES YES	PSR +SSRmS+SSRmAC+ADS-B SSRmS+SSRmAC+ADS-B PSR +SSRmS+SSRmAC+ADS-B+SMR+MLAT+A-SMGCS		

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
Enshi TWR			YES	YES	SSRmAC		
Wuhan ACC Wuhan APP Wuhan TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT+A-SMGCS	2	
Zhengzhou ACC Zhengzhou APP Zhengzhou TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT+A-SMGCS	2	
Guilin ACC Guilin APP Guilin TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT		
Nanning ACC Nanning TWR			YES YES	YES YES	SSRmS+SSRmAC+ADS-B SSRmAC+ADS-B		
Zhanjiang ACC Zhanjiang APP Zhanjiang TWR			YES YES YES	YES YES YES	PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B		
Shantou ACC Shantou APP Shantou TWR			YES YES YES	YES YES YES	PSR SSRmS + SSRmAC +ADS-B PSR SSRmS + SSRmAC +ADS-B PSR SSRmS + SSRmAC +ADS-B		
Kunming ACC Kunming APP Kunming TWR			YES YES YES	YES YES YES	PSR +SSRmS + SSRmAC + AC ADS-B PSR +SSRmS + SSRmAC + AC ADS-B PSR +SSRmS + SSRmAC + AC 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
Chengdu ACC			YES	YES	+ SMR+MLAT PSR +SSRmS + SSRmAC + ADS-C +ADS-B		
Chengdu APP			YES	YES	PSR +SSRmS + SSRmAC + ADS-C +ADS-B		
Chengdu TWR (ZUUU)			YES	YES	PSR +SSRmS + SSRmAC + ADS-C +ADS-B+SMR+MLAT+A-SMGCS	2	
Chengdu TWR (ZUTF)			YES	YES	PSR+SSRmS+SSRmAC+ADS- B+SMR+MLAT+A-SMGCS	2	
Guiyang ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Guiyang APP			YES	YES	PSR+SSRmS+SSRmAC+ADS-B		
Guiyang TWR			YES	YES	PSR + SSRmS+ SSRmAC +ADS- B+SMR+MLAT+A-SMGCS	2	
Chongqing ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Chongqing APP			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Chongqing TWR			YES	YES	PSR + SSRmS+ SSRmAC +ADS- B+SMR+MLAT+A-SMGCS	2	
Shanghai ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Shanghai APP			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Shanghai TWR (ZSSS)			YES	YES	PSR + SSRmS+ SSRmAC +ADS- B+SMR+MLAT+A-SMGCS	2	
Shanghai TWR(ZSPD)			YES	YES	PSR+SSRmS+SSRmAC+ADS- B+SMR+A-SMGCS	2	
Jinan ACC			YES	YES	SSRmS+ SSRmAC +ADS-B		
Jinan APP			YES	YES	SSRmS+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
Jinan TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Qingdao ACC			YES	YES	SSRmS+ SSRmAC +ADS-B		
Qingdao APP			YES	YES	SSRmS+SSRmAC+ADS-B	2	
Qingdao TWR			YES	YES	SSRmS+SSRmAC+ADS-B		
Hefei ACC			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Hefei APP			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Hefei TWR			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Nanjing ACC			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Nanjing APP			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B	2	
Nanjing TWR			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B+SMR+A-SMGCS		
Lianyungang ACC			YES	YES	SSRmS+ SSRmAC +ADS-B		
Lianyungang APP			YES	YES	SSRmS+ SSRmAC +ADS-B		
Lianyungang TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Xuzhou TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Hangzhou ACC			YES	YES	PSR+ SSRmS +SSRmAC + ADS-B		
Hangzhou APP			YES	YES	PSR+ SSRmS +SSRmAC + ADS-B	2	
Hangzhou TWR			YES	YES	PSR+ SSRmS +SSRmAC + ADS-B+SMR+MLAT+A-SMGCS		
Nanchang ACC			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Nanchang APP			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Nanchang TWR			YES	YES	PSR+SSRmS+ SSRmAC +ADS-B		
Fuzhou ACC			YES	YES	PSR+SSRmS+ 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
Fuzhou APP Fuzhou TWR			YES YES	YES YES	PSR+SSRmS+ SSRmAC +ADS-B PSR+SSRmS+ SSRmAC +ADS-B		
Wenzou TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Xiamen ACC Xiamen APP Xiamen TWR			YES YES YES	YES YES YES	PSR+ SSRmAC +ADS-B SSRmAC +ADS-B PSR+ SSRmAC +ADS-B+ SMR+MLAT+A-SMGCS	2	
Shenyang ACC Shenyang APP Shenyang TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+A-SMGCS	2	
Dalian ACC Dalian APP Dalian TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+A-SMGCS	2	
Harbin ACC Harbin APP Harbin TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+ MLAT+ A-SMGCS	2	
Xi'an ACC Xi'an APP Xi'an TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+ MLAT		
Lanzhou ACC Lanzhou APP			YES YES	YES YES	SSRmS+ SSRmAC+ AC+ ADS-B SSRmS+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
Lanzhou TWR Urumqi ACC Urumqi APP Urumqi TWR			YES YES YES YES	YES YES YES YES	SSRmS+ SSRmAC +ADS-B PSR+SSRmS +SSRmAC +AC ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR+ SSRmS +SSRmAC +ADS-B+SMR+MLAT+A-SMGCS	2	
HONG KONG, CHINA Hong Kong ACC Hong Kong APP Hong Kong TWR	S T AD		Yes	Yes	PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B + MLAT	2	SMR, A-SMGCS
MACAO, CHINA Macao TWR	AD		Yes	Yes	SSRmS+SSRmAC		SMR
DPR KOREA Pyongyang Pyongyang ACC Pyongyang APP Pyongyang TWR					PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B		PAR
FIJI Naid ACC Nadi APP					ADS-B + ADS-C ADS-B		
FRENCH POLYNESIA Tahiti ACC Tahiti APP					SSRmAC + ADS-B + ADS-C 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
Tahiti TWR							
INDIA Chennai ACC Chennai APP Chennai TWR Delhi ACC Delhi APP Delhi TWR Kolkata ACC Kolkata APP Kolkata TWR Mumbai ACC Mumbai APP Mumbai TWR Bangalore APP Bangalore TWR Shamshabad ACC Shamshabad APP Shamshabad TWR					PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR PSR PSR PSR PSR	MI MI A-SMGCS MI MI A-SMGCS MI MI A-SMGCS MI MI A-SMGCS MI MI MI	
INDONESIA Jakarta ACC			YES	YES	PSR + SSRmS + ADS-B		ADS-B Trial A-SMGCS, MLAT, 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
Jakarta APP Medan ACC Aceh APP			YES	YES	PSR + SSRmS + ADS-B PSR + SSRmAC + ADS-B SSRmS + ADS-B		
Medan APP			YES	YES	PSR SSRmS + ADS-B		
Tanjung Pinang APP			YES	YES	SSRmS		
Padang APP			YES	YES	SSRmS		
Pontianak APP			YES	YES	SSRmS + ADS-B		
Pekanbaru APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Palembang APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Ujung Pandang ACC			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Ujung Pandang APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		ADS-C Trial, A-SMGCS
Banjarmasin APP			YES	YES	SSRmAC SSRmS + ADS-B		
Balikpapan APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Yogyakarta APP			YES	YES	PSR SSRmS		
Surabaya APP			YES	YES	PSR SSRmS + ADS-B		A-SMGCS, MLAT
Semarang APP			YES	YES	SSRmS + ADS-B		
Bali APP			YES	YES	SSRmS + ADS-B		A-SMGCS

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
Biak APP			YES	YES	SSRmAC SSRmS + ADS-B		
Jayapura ACC					PSR		
Jayapura APP			YES	YES	PSR SSRmS + ADS-B		
Kupang ACC					ADS-B		
Kupang APP			YES	YES	SSRmS + ADS-B		
Tarakan ACC					PSR + ADS-B		
Tarakan APP			YES	YES	SSRmS + ADS-B		
Batam ACC					SSRmS		
Batam APP					SSRmS + ADS-B		
Sorong ACC					SSRmS + ADS-B		
Manado APP			YES	YES	SSRmS + ADS-B		
Ambon APP			YES	YES	SSRmS + ADS-B		
Merauke APP			YES	YES	SSRmS + ADS-B		
JAPAN							
Fukuoka ATMC			Yes		ADS-C		
Narita APP			Yes		PSR + SSRmAC + SSRmS		
Narita TWR			Yes		MLAT , PSR MLAT + PRM		SMR
Haneda TWR			Yes		MLAT + PRM		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
Chubu APP Chubu TWR			Yes Yes		PSR + SSRmAC + SSRmS MLAT		SMR
Osaka APP Osaka TWR			Yes Yes		PSR + SSRmAC + SSRmS MLAT		SMR
Kansai APP Kansai TWR			Yes Yes		PSR + SSRmAC + SSRmS MLAT		SMR
Fukuoka ACC Fukuoka APP Fukuoka TWR			Yes Yes Yes	Yes	PSR + SSRmAC + SSRmS + WAM PSR + SSRmAC + SSRmS MLAT		SMR
Kobe ACC Naha ACC Naha APP Naha TWR			Yes Yes Yes	Yes	SSRmAC + SSRmS + WAM PSR + SSRmAC + SSRmS PSR + SSRmAC + SSRmS MLAT		SMR
Hakodate APP			Yes		PSR + SSRmAC		
Sendai APP			Yes		PSR + SSRmAC		
Tokyo ACC Tokyo APP Tokyo TWR			Yes Yes Yes	Yes	PSR + SSRmAC + SSRmS + WAM PSR + SSRmAC + SSRmS MLAT + PRM		SMR
Niigata APP			Yes		PSR + SSRmAC		
Hiroshima APP			Yes		PSR + SSRmAC		
Takamatsu APP			Yes		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
Kochi APP Matsuyama TWR Kitakyusyu TWR Nagasaki APP Oita APP Kumamoto APP Miyazaki APP Kagoshima APP Shimojishima APP Sakishima APP Ishigaki APP Sapporo ACC			Yes Yes Yes Yes Yes Yes Yes Yes Yes		PSR + SSRmAC SSRmAC SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC + SSRmS + WAM		
LAO PDR Vientiane ACC Vientiane APP	S T		Yes Yes	Yes Yes	SSRmAC + SSRmS + ADS-B PSR-SSRmS		ADS-B for monitoring only
MALAYSIA Langkawi 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
Kuala Lumpur ACC Lumpur APP Johor Bharu APP Kota Bharu APP K. Kinabalu ACC K. Kinabalu APP Kuching ACC Kuching APP					PSR + SSRmAC + SSRmS PSR + SSRmAC + ADS-C PSR + SSRmS PSR + SSRmS PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC		
MALDIVES Maldives ACC Maldives APP Maldives TWR	A,D,G	No	Yes	Yes	SSRmS + ADS-B		
MONGOLIA							
Ulaanbaatar ACC Ulaanbaatar APP					ADS-C ADS-C		
MYANMAR Yangon ACC Yangon APP Mandalay APP			Yes Yes Yes	Yes Yes Yes	SSRmAC + ADS-C SSRmAC + ADS-C PSR + SSRmAC		
NEPAL Kathmandu 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
NEW CALEDONIA Tontouta ACC	A, D	Yes	Yes	Not applicable	ADS-B	Not applicable	ADS-B Tier 3 implemented, Tier 2 in progress
Tontouta APP	G						
NEW ZEALAND Christchurch ACC	C D G		YES	YES	ADS-B+MLAT+PSR + SSRmAC + SSRmS	NOT APPLICABLE	
Christchurch TWR	C D G		YES	YES	ADS-B+PSR+SSRmAC+SSRmS	NA	Surface movements for situational awareness using ADSB
Auckland ACC	C D G		YES	YES	ADS-B+PSR + SSRmAC + SSRmS	NA	
Auckland TWR	C D G		YES	YES	ADSB+MLAT+PSR+SSRmAC+SSRmS		Auckland A-SMGCS has no SMR. Auckland uses surface movements for LVO using ADSB+MLAT - it has no SMR
Wellington TWR	C D G		YES	YES	ADSB+PSR+SSRmAC+SSRmS	NA	Surface movements for situational awareness using ADSB
Queenstown TWR	C D G		YES	YES	ADSB+MLAT	NA	Wide Area MDS planned for Queenstown in 2010 Surface movements for

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
							situational awareness using ADSB+MLAT
PAKISTAN Karachi ACC Karachi APP Karachi TWR Lahore ACC Lahore APP Lahore TWR Islamabad APP Islamabad TWR			Yes Yes Yes	Yes Yes No	PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC	Nil Nil Nil	
PAPUA NEW GUINEA Jacksons APP Moresby ACC					PSR + SSRmAC PSR + SSRmAC		
PHILIPPINES Manila ATM Center Manila ACC Manila APP Clark APP Mactan APP					SSRmAC + SSRmS + ADS-B SSRmAC + SSRmS PSR + SSRmAC + SSRmS PSR + SSRmAC PSR + SSRmAC		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
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
REPUBLIC OF KOREA							
Jeju APP	T	No	Yes	Yes	PSR + SSRmAC + SSRmS	2	SMR, A-SMGCS
Jeju TWR	T	No	No	No	PSR + SSRmAC + SSRmS + ADS-B + MLAT		
Jungwon APP	T	No	No	Yes	PSR + SSRmAC	3	SMR, A-SMGCS
CheongjuTWR	T	No	No	No	PSR + SSRmAC		
Incheon ACC	S	No		Yes	PSR + SSRmAC + ADS-B		
Incheon TWR	T	No	Yes	No	PSR + SSRmAC + SSRmS + ADS-B + MLAT		
Seoul APP	T	No	Yes	Yes	PSR + SSRmAC		
Gimpo TWR	T	No	Yes	No	PSR + SSRmAC		
Gangneung APP	T	No	No	No	PSR + SSRmAC		
Yangyang TWR					PSR + SSRmAC		
Gimhae APP	T	No	No	Yes	PSR + SSRmAC		SMR
Gimhae TWR	T	No	No	No	PSR + SSRmAC		
Daegu APP	T	No	No	No	PSR + SSRmAC		
Daegu TWR	T	No	No	No	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
Gwangju APP Gwangju TWR Muan TWR	T T T	No No No	No No No	Yes No No	PSR + SSRmAC PSR + SSRmAC		
SINGAPORE Singapore ACC Singapore APP Singapore TWR	S T AD		Yes Yes Yes	Yes Yes Yes	PSR + SSRmS + ADS-B + ADS-C PSR + SSRmS+SSRmAC PSR+ADS-B+MLAT	2	
SRI LANKA Colombo ACC Colombo APP					SSRmAC + ADS-B + ADS-C PSR		ADS-C Trial
THAILAND Bangkok ACC Bangkok APP Suvarnabhumi TWR Don Mueang TWR Chiang Mai APP Chiang Mai TWR Hat Yai APP Hat Yai TWR Phuket APP Phuket TWR Suratthani APP	S T AD AD T AD T AD T AD T		YES YES YES YES YES YES YES YES YES YES YES	YES YES YES YES YES YES YES YES YES	PSR + SSRmAC + SSRmS PSR + SSRmAC + SSRmS SMR + MLAT + A-SMGCS SSRmAC SSRmS SSRmS SSRmS SSRmS SSRmS	2	

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
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		
Honolulu, Hawaii APP					PSR		
Honolulu, Hawaii TWR							
Kahului, Hawaii APP					PSR + SSRmAC		
Kahului, Hawaii TWR							

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
Kokee, Hawaii ACC					PSR		
Lihue, Hawaii APP 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					PSR + SSRmS		
Mount Santa Rosa, Guam APP					PSR + SSRmAC		
Mount Santa Rosa, Guam TWR							
Kona, Hawaii ACC					SSRmAC		
VIET NAM Hanoi ACC					PSR + SSRmAC + ADS-B		
Noibai APP					PSR + SSRmAC + ADS-B		
Noibai TWR					PSR + SSRmAC + ADS-B		SMR, A-SMGCS

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
Ho Chi Minh ACC Danang APP Hanoi ACC Tansan Nhat APP Tansan Nhat TWR					PSR + SSRmAC + ADS-B + ADS-C PSR + SSRmAC + SSRmS + ADS-B PSR + SSRmAC + SSRmS + ADS-B PSR + SSRmAC + SSRmS + ADS-B		SMR, A-SMGCS

General Guidance

It is the responsibility of a State originating an amendment proposal to ensure that the proposal is consistent, complete and unambiguous, whilst it is the responsibility of the Regional Office to verify that this is the case before processing the proposal; and in particular ensure that it is:

- a) **fully justified:** It should state the operational requirement that support the proposed change.
- b) **accurate:** This applies in particular to typographical errors which can be critical in the case of geographical coordinates or air route headings.
- c) **complete:** The proposal should give full details under the seven headings under which it is presented. Proposals for changes in airspace organization, ATS routes, location of facilities, etc. should always be accompanied by simplified, although accurate, sketches, charts, diagrams, etc.
- d) **consistent:** The consequences produced by proposals should be properly reflected throughout the plan. Amendment proposals need to be systematically examined for the potential need for consequential amendment, and, if necessary, refer the proposal back to the originating State for consultation. Any consequential amendments should then be combined with the original into one multiple amendment proposal and processed in the established manner.
- e) **timely:** Proposed implementation dates should allow sufficient time for the required processing formalities to be completed.

The following minimum information should be given to States in respect of each proposal that is circulated to them for comments:

- a) Plan (a reference to the air navigation plan document should be given);
- b) Proposed amendment;
- c) Originated by xxx;
- d) Originator's reason for amendment;
- e) Intended date of implementation;
- f) Proposal circulated to the following States and organizations; and
- g) Secretariat comments.

Each proposal should be complete in itself and be stated in narrative form whenever possible. Item e) should provide a realistic implementation date or alternatively the phrase “As soon as possible after final approval of the proposal” may be used. Item g) should include additional explanatory comments or background information which is considered necessary for a clear understanding of the amendment proposal, both by States and by Headquarters as well as comments of technical and operational nature that would indicate the added value of Secretariat’s examination of the proposal. The concurrence of the State(s) whose facilities will be affected by proposals submitted by international organizations or initiated by the Secretariat should also be shown under this item.

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Table CNS II-APAC-3 SURVEILLANCE of e-ANP Volume II with Proposed Changes

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		

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 Perth	C		YES	YES	PSR+SSRmAC+SSRmS+ADS-B+A-SMGCS+SMR	2	Perth, Kalamunda, Eclipse Hill
TCU			YES	YES	PSR+SSRmAC+SSRmS	2	
APP			YES	YES	PSR+SSRmAC+SSRmS		
TWR Sydney	C		YES	YES	PSR+SSRmAC+SSRmS+A-SMGCS+SMR		2
TCU			YES	YES	PSR+SSRmS+SSRmAC+WAM+MLAT		
APP			YES	YES	PSR+SSRmS+SSRmAC+WAM+MLAT		
TWR Darwin	C		YES	YES	PSR+SSRmS+SSRmAC+A-SMGCS+WAM+MLAT+SMR	2	Darwin, Knuckeys Lagoon
APP			YES	YES	PSR+SSRmS+SSRmAC		
TWR			YES	YES	PSR+SSRmS+SSRmAC		
Hobart	D		YES	YES	WAM+ADS-B		Hobart
APP			YES	YES	WAM+ADS-B		
TWR			YES	YES	WAM+ADS-B		
Karratha	D		YES	YES	ADS-B		Karratha
APP			YES	YES	ADS-B		
TWR			YES	YES	ADS-B		
Alternate aerodromes	D						Alice Springs
Alice Springs							

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
APP TWR Avalon	D	Over aerodrome	YES YES	YES YES	ADS-B ADS-B		Gellibrand Hill, Mt Macedon
APP TWR Canberra	C		YES YES	YES YES	PSR+ SSRm(S)+SSRm(A/C) PSR+ SSRm(S)+SSRm(A/C)		Mt Majura, Mt Bobbara
APP TWR Coffs Harbour	D		YES YES	YES YES	PSR+ SSRm(S)+SSRm(A/C) PSR+ SSRm(S)+SSRm(A/C)		The Round Mountain, Point Lookout
APP TWR Kalgoorlie	G		YES YES YES	YES YES YES	SSRm(S)+SSRm(A/C)+ADS-B SSRm(S)+SSRm(A/C)+ADS-B -		Launceston
Launceston	D						
APP TWR Learmonth	G	Over aerodrome	YES	YES	WAM+ ADS-B		Learmonth
Port Hedland	G		YES	YES	WAM+ ADS-B ADS-B		
Rock Hampton	D						
APP TWR Tindal	C		YES YES	YES YES	SSRm(S)+SSRm(A/C) SSRm(S)+SSRm(A/C)		Mt Alma
APP TWR Townsville	C		YES YES	YES YES	PSR+SSRm(A/C) PSR+SSRm(A/C)		Tindal
APP			YES	YES	PSR+ SSRm(S)+SSRm(A/C)		Townsville, Tabletop

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 Other aerodromes			YES	YES	PSR+ SSRm(S)+SSRm(A/C)		
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 Phnom Penh ACC			YES	YES	SSRmAC SSRmS + ADS-B		
Phnom Penh APP			YES	YES	SSRmS + ADS-B		
Phnom Penh TWR			YES	YES	SSRmS + ADS-B + MLAT		
Siem Reap APP			YES	YES	SSRmS + ADS-B		
Siem Reap TWR			YES	YES	SSRmS + ADS-B		
Sihanoukville APP			YES	YES	SSRmS + ADS-B		
Sihanoukville TWR			YES	YES	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
CHINA							
Beijing ACC			YES	YES	PSR + SSRmS +SSRmAC+ADS-B	2	
Beijing APP			YES	YES	PSR + SSRmS +SSRmAC+ADS-B		
Beijing TWR (ZBAA)			YES	YES	PSR + SSRmAC SSRmS+SSRmAC+SMR+AD-ADS-B		
Beijing TWR (ZBAD)			YES	YES	PSR+SSRmS+SSRmAC+SMR+ADS-B+MLAT+A-SMGCS	4	
Tianjin APP			YES	YES	PSR+SSRmS+SSRmAC+ADS-B	2	
Tianjin TWR			YES	YES	SSRmAC SSRmS+SSRmAC+SMR+ADS-B+MLAT+A-SMGCS		
Shijiazhuang APP			YES	YES	SSRmS+SSRmAC+ADS-B		
Shijiazhuang TWR			YES	YES	SSRmAC -SSRmS+SSRmAC+ADS-B		
Taiyuan ACC			YES	YES	PSR + SSRmAC PSR+SSRmS+SSRmAC+ADS-B		
Taiyuan APP			YES	YES	PSR+SSRmS+SSRmAC+ADS-B		
Taiyuan TWR			YES	YES	PSR + SSRmAC PSR+SSRmS+SSRmAC+ADS-B		
Hohhot ACC			YES	YES	SSRmAC +ADS-B		
Hohhot APP			YES	YES	SSRmAC+ADS-B		
Hohhot TWR			YES	YES	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
Guangzhou ACC Guangzhou APP Guangzhou TWR			YES YES YES	YES YES YES	PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+SMR+ADS-B+A-SMGCS	2	
Shenzhen APP Shenzhen TWR			YES YES	YES YES	SSRmS+SSRmAC+ADS-B PSR +SSRmS+SSRmAC+ADS-B+SMR+A-SMGCS		
Zhuhai ACC Zhuhai APP Zhuhai TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B		
Sanya ACC Sanya APP Sanya TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B		
Haikou ACC Haikou APP Haikou TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B+SMR+MLAT		
Changsha ACC Changsha APP Changsha TWR			YES YES YES	YES YES YES	PSR +SSRmS+SSRmAC+ADS-B SSRmS+SSRmAC+ADS-B PSR +SSRmS+SSRmAC+ADS-B+SMR+MLAT+A-SMGCS		
Enshi TWR			YES	YES	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
Wuhan ACC Wuhan APP Wuhan TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT+A-SMGCS	2	
Zhengzhou ACC Zhengzhou APP Zhengzhou TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT+A-SMGCS	2	
Guilin ACC Guilin APP Guilin TWR			YES YES YES	YES YES YES	PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B PSR + SSRmS+ SSRmAC +ADS-B +SMR+MLAT		
Nanning ACC Nanning TWR			YES YES	YES YES	SSRmS+SSRmAC+ADS-B SSRmAC+ADS-B		
Zhanjiang ACC Zhanjiang APP Zhanjiang TWR			YES YES YES	YES YES YES	PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B PSR+SSRmS+SSRmAC+ADS-B		
Shantou ACC Shantou APP Shantou TWR			YES YES YES	YES YES YES	PSR SSRmS + SSRmAC +ADS-B PSR SSRmS + SSRmAC +ADS-B PSR SSRmS + SSRmAC +ADS-B		
Kunming ACC			YES	YES	PSR +SSRmS + SSRmAC + AC 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
Kunming APP			YES	YES	PSR +SSRmS + SSRmAC + AC ADS-B		
Kunming TWR			YES	YES	PSR +SSRmS + SSRmAC + AC ADS-B + SMR+MLAT		
Chengdu ACC			YES	YES	PSR +SSRmS + SSRmAC + ADS-C +ADS-B		
Chengdu APP			YES	YES	PSR +SSRmS + SSRmAC + ADS-C +ADS-B		
Chengdu TWR (ZUUU)			YES	YES	PSR +SSRmS + SSRmAC + ADS-C +ADS-B+SMR+MLAT+A-SMGCS	2	
Chengdu TWR (ZUTF)			YES	YES	PSR+SSRmS+SSRmAC+ADS-B+SMR+MLAT+A-SMGCS	2	
Guiyang ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Guiyang APP			YES	YES	PSR+SSRmS+SSRmAC+ADS-B		
Guiyang TWR			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B+SMR+MLAT+A-SMGCS	2	
Chongqing ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Chongqing APP			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Chongqing TWR			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B+SMR+MLAT+A-SMGCS	2	
Shanghai ACC			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B		
Shanghai APP			YES	YES	PSR + SSRmS+ 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
Shanghai TWR (ZSSS)			YES	YES	PSR + SSRmS+ SSRmAC +ADS-B+SMR+MLAT+A-SMGCS	2	
Shanghai TWR(ZSPD)			YES	YES	PSR+SSRmS+SSRmAC+ADS-B+SMR+A-SMGCS	2	
Jinan ACC Jinan APP Jinan TWR			YES YES YES	YES YES YES	SSRmS+ SSRmAC +ADS-B SSRmS+SSRmAC+ADS-B SSRmS+ SSRmAC +ADS-B		
Qingdao ACC Qingdao APP Qingdao TWR			YES YES YES	YES YES YES	SSRmS+ SSRmAC +ADS-B SSRmS+SSRmAC+ADS-B SSRmS+SSRmAC+ADS-B	2	
Hefei ACC Hefei APP Hefei TWR			YES YES YES	YES YES YES	PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B		
Nanjing ACC Nanjing APP Nanjing TWR			YES YES YES	YES YES YES	PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B+SMR+A-SMGCS	2	
Lianyungang ACC Lianyungang APP Lianyungang TWR			YES YES YES	YES YES YES	SSRmS+ SSRmAC +ADS-B SSRmS+ SSRmAC +ADS-B SSRmS+ SSRmAC +ADS-B		
Xuzhou TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Hangzhou ACC			YES	YES	PSR+ SSRmS +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
Hangzhou APP Hangzhou TWR			YES YES	YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B+SMR+MLAT+A-SMGCS	2	
Nanchang ACC Nanchang APP Nanchang TWR			YES YES YES	YES YES YES	PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B		
Fuzhou ACC Fuzhou APP Fuzhou TWR			YES YES YES	YES YES YES	PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B PSR +SSRmS+ SSRmAC +ADS-B		
Wenzhou TWR			YES	YES	SSRmS+ SSRmAC +ADS-B		
Xiamen ACC Xiamen APP Xiamen TWR			YES YES YES	YES YES YES	PSR + SSRmAC +ADS-B SSRmAC +ADS-B PSR + SSRmAC +ADS-B+ SMR+MLAT+A-SMGCS	2	
Shenyang ACC Shenyang APP Shenyang TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+A-SMGCS	2	
Dalian ACC Dalian APP Dalian TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+A-SMGCS	2	

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
Harbin ACC Harbin APP Harbin TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+ MLAT+ A-SMGCS	2	
Xi'an ACC Xi'an APP Xi'an TWR			YES YES YES	YES YES YES	PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B PSR+ SSRmS +SSRmAC + ADS-B SMR+ MLAT		
Lanzhou ACC Lanzhou APP Lanzhou TWR			YES YES YES	YES YES YES	SSRmS+ SSRmAC+ AC + ADS-B SSRmS+SSRmAC+ADS-B SSRmS+ SSRmAC +ADS-B		
Urumqi ACC			YES	YES	PSR+SSRmS +SSRmAC + AC ADS-B		
Urumqi APP Urumqi TWR			YES YES	YES YES	PSR+SSRmS+SSRmAC+ADS-B PSR+ SSRmS +SSRmAC +ADS-B+SMR+MLAT+A-SMGCS	2	
HONG KONG, CHINA Hong Kong ACC Hong Kong APP Hong Kong TWR	S T AD		Yes Yes Yes	Yes Yes Yes	PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B + MLAT	2	SMR, A-SMGCS
MACAO, CHINA Macao TWR	AD		Yes	Yes	SSRmS+SSRmAC		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
DPR KOREA Pyongyang Pyongyang ACC Pyongyang APP Pyongyang TWR					PSR + SSRmAC + ADS-B PSR + SSRmAC + ADS-B		PAR
FIJI Naid ACC Nadi APP					ADS-B + ADS-C ADS-B		
FRENCH POLYNESIA Tahiti ACC Tahiti APP Tahiti TWR					SSRmAC + ADS-B + ADS-C SSRmAC		
INDIA Chennai ACC Chennai APP Chennai TWR Delhi ACC Delhi APP Delhi TWR Kolkata ACC Kolkata APP Kolkata TWR					PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR + ADS-C		MI MI A-SMGCS MI MI A-SMGCS MI MI A-SMGCS

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
Mumbai ACC Mumbai APP Mumbai TWR Bangalore APP Bangalore TWR Shamshabad ACC Shamshabad APP Shamshabad TWR					PSR + ADS-C PSR + ADS-C PSR + ADS-C PSR PSR PSR PSR PSR		MI MI A-SMGCS MI MI MI MI MI
INDONESIA							
Jakarta ACC	S		YES	YES	PSR + SSRmS + ADS-B		ADS-B Trial A-SMGCS, MLAT, SMR
Ujung Pandang ACC	S		YES	YES	SSRmS + ADS-B + ADS-C		
Jakarta APP	T		YES	YES	PSR + SSRmS + ADS-B	2	MLAT & SMR
Ujung Pandang APP	T		YES	YES	SSRmS + ADS-B		
Medan APP	T		YES	YES	SSRmS		
Pekanbaru APP	T		YES	YES	SSRmS + ADS-B		
Tanjung Pinang APP	T		YES	YES	SSRmS + ADS-B		
Palembang APP	T		YES	YES	SSRmS + ADS-B		
Yogyakarta APP	T		YES	YES	SSRmS + ADS-B		
Surabaya APP	T		YES	YES	SSRmS + ADS-B	1	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
Bali APP	T		YES	YES	SSRmS + ADS-B		
Pontianak APP	T		YES	YES	SSRmS + ADS-B		
Balikpapan APP	T		YES	YES	SSRmS		
Jayapura APP	T		YES	YES	SSRmS + ADS-B		
Medan ACC					PSR + SSRmAC + ADS-B		
Aceh APP			YES	YES	SSRmS + ADS-B		
Medan APP			YES	YES	PSR SSRmS + ADS-B		
Tanjung Pinang APP			YES	YES	SSRmS		
Padang APP			YES	YES	SSRmS		
Pontianak APP			YES	YES	SSRmS + ADS-B		
Pekanbaru APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Palembang APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Ujung Pandang ACC			YES	YES	PSR + SSRmAC SSRmS + ADS-B		
Ujung Pandang APP			YES	YES	PSR + SSRmAC SSRmS + ADS-B		ADS-C Trial, A-SMGCS
Banjarmasin APP			YES	YES	SSRmAC SSRmS + ADS-B		
Balikpapan APP			YES	YES	PSR + SSRmAC 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
Yogyakarta APP			YES	YES	PSR SSRmS		
Surabaya APP			YES	YES	PSR SSRmS + ADS-B		A-SMGCS, MLAT
Semarang APP			YES	YES	SSRmS + ADS-B		
Bali APP			YES	YES	SSRmS + ADS-B		A-SMGCS
Biak APP			YES	YES	SSRmAC SSRmS + ADS-B		
Jayapura ACC					PSR		
Jayapura APP			YES	YES	PSR SSRmS + ADS-B		
Kupang ACC					ADS-B		
Kupang APP			YES	YES	SSRmS + ADS-B		
Tarakan ACC					PSR + ADS-B		
Tarakan APP			YES	YES	SSRmS + ADS-B		
Batam ACC					SSRmS		
Batam APP					SSRmS + ADS-B		
Sorong ACC					SSRmS + ADS-B		
Manado APP			YES	YES	SSRmS + ADS-B		
Ambon APP			YES	YES	SSRmS + ADS-B		
Merauke APP			YES	YES	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			Yes		ADS-C		
Narita APP			Yes		PSR + SSRmAC + SSRmS		
Narita TWR			Yes		MLAT, PSR, MLAT + PRM		SMR
Haneda TWR			Yes		MLAT + PRM		SMR
Chubu APP			Yes		PSR + SSRmAC + SSRmS		
Chubu TWR			Yes		MLAT		SMR
Osaka APP			Yes		PSR + SSRmAC + SSRmS		
Osaka TWR			Yes		MLAT		SMR
Kansai APP			Yes		PSR + SSRmAC + SSRmS		
Kansai TWR			Yes		MLAT		SMR
Fukuoka ACC			Yes	Yes	PSR + SSRmAC + SSRmS + WAM		
Fukuoka APP			Yes		PSR + SSRmAC + SSRmS		
Fukuoka TWR			Yes		MLAT		SMR
Kobe ACC			Yes	Yes	SSRmAC + SSRmS + WAM		
Naha ACC			Yes		PSR + SSRmAC + SSRmS		
Naha APP			Yes		PSR + SSRmAC + SSRmS		
Naha TWR			Yes		MLAT		SMR
Hakodate APP			Yes		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
Sendai APP			Yes		PSR + SSRmAC		SMR
Tokyo ACC			Yes	Yes	PSR + SSRmAC + SSRmS + WAM		
Tokyo APP			Yes		PSR + SSRmAC + SSRmS		
Tokyo TWR			Yes		MLAT + PRM		
Niigata APP			Yes		PSR + SSRmAC		
Hiroshima APP			Yes		PSR + SSRmAC		
Takamatsu APP			Yes		PSR + SSRmAC		
Kochi APP			Yes		PSR + SSRmAC		
Matsuyama TWR					SSRmAC		
Kitakyusyu TWR					SSRmAC		
Nagasaki APP			Yes		PSR + SSRmAC		
Oita APP			Yes		PSR + SSRmAC		
Kumamoto APP			Yes		PSR + SSRmAC		
Miyazaki APP			Yes		PSR + SSRmAC		
Kagoshima APP			Yes		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
Shimojishima APP Sakishima APP Ishigaki APP Sapporo ACC			Yes Yes Yes	 Yes	PSR + SSRmAC PSR + SSRmAC PSR + SSRmAC + SSRmS + WAM		
LAO PDR Vientiane ACC Vientiane APP	S T		Yes Yes	Yes Yes	SSRmAC + SSRmS + ADS-B PSR SSRmS		ADS-B for monitoring only
MALAYSIA Kuala Lumpur ACC Kuala Lumpur APP Kuala Lumpur TWR Langkawi APP Johor Bharu APP K. Kinabalu ACC	R,S T AD T T S	YES	YES YES YES YES YES YES	YES YES YES YES YES YES	PSR + SSRmAC + SSRmS + ADS-B + ADS-C PSR + SSRmAC + SSRmS + ADS-B MLAT PSR + SSRmAC + SSRmS + ADS-B PSR + SSRmS PSR + SSRmAC + SSRmS +	2	Spaced based ADS-B and ADS-B Data Sharing projects are under reviewed. SMRs are used for situational awareness. Planned for A-SMGCS level upgrade in 2026.

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 APP	T		YES	YES	ADS-B PSR + SSRmAC + SSRmS +		
Kuching ACC	S		YES	YES	ADS-B PSR + SSRmAC + SSRmS +		
Kuching APP	T		YES	YES	ADS-B PSR + SSRmAC + SSRmS +		
Miri APP	T		YES	YES	ADS-B PSR + SSRmAC + SSRmS		
Kuala Lumpur ACC Lumpur APP					PSR + SSRmAC + SSRmS PSR + SSRmAC + ADS-C		
Johor Bharu APP					PSR + SSRmS		
Kota Bharu APP					PSR + SSRmS		
K. Kinabalu ACC K. Kinabalu APP					PSR + SSRmAC PSR + SSRmAC		
Kuching ACC Kuching APP					PSR + SSRmAC		
MALDIVES Maldives ACC Maldives APP Maldives TWR	A,D,G	No	Yes	Yes	SSRmS + ADS-B		
MONGOLIA							

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
Ulaanbaatar ACC Ulaanbaatar APP					ADS-C ADS-C		
MYANMAR Yangon ACC Yangon APP Mandalay APP			Yes Yes Yes	Yes Yes Yes	SSRmAC + ADS-C SSRmAC + ADS-C PSR + SSRmAC		
NEPAL Kathmandu APP					PSR + SSRmAC		
NEW CALEDONIA Tontouta ACC Tontouta APP	A, D G	Yes	Yes	Not applicable	ADS-B	Not applicable	ADS-B Tier 3 implemented, Tier 2 in progress
NEW ZEALAND Christchurch ACC Christchurch TWR	C D G C D G		YES YES	YES YES	ADS-B+MLAT+PSR + SSRmAC + SSRmS ADS-B+PSR+SSRmAC+SSRmS	NOT APPLICABLE NA	Surface movements for situational awareness using ADSB
Auckland ACC	C D G		YES	YES	ADS-B+PSR + SSRmAC + SSRmS	NA	

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
Auckland TWR	C D G		YES	YES	ADSB+MLAT+PSR+SSRmAC+SSRmS		Auckland A-SMGCS has no SMR Auckland uses surface movements for LVO using ADSB+MLAT - it has no SMR
Wellington TWR	C D G		YES	YES	ADSB+PSR+SSRmAC+SSRmS	NA	Surface movements for situational awareness using ADSB
Queenstown TWR	C D G		YES	YES	ADSB+MLAT	NA	Wide Area MDS planned for Queenstown in 2010 Surface movements for situational awareness using ADSB+MLAT
PAKISTAN Karachi ACC	S		Yes	Yes	PSR + SSRmAC+ SSRmS+ADS-B		
Karachi APP	T		Yes	Yes	PSR + SSRmAC+ SSRmS+ADS-B		
Karachi TWR	AD		Yes	Yes	PSR + SSRmAC+ SSRmS+ADS-B	NIL	PSR, SSR and ADS-B data is only being used for situational awareness
Lahore ACC	S		Yes	Yes	PSR + SSRmAC+ 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
Lahore APP	T	NIL	Yes	Yes	PSR + SSRmAC+SSRmS+ADS-B	V	PSR, SSR and ADS-B data is only being used for situational awareness
Lahore TWR	AD		Yes	Yes	PSR + SSRmAC+SSRmS+ADS-B+MLAT+SMR		
Islamabad ACC	S		Yes	Yes	PSR + SSRmAC+SSRmS+ADS-B		
Islamabad APP	T		Yes	Yes	PSR + SSRmAC+SSRmS+ADS-B		
Islamabad TWR	AD		Yes	Yes	PSR + SSRmAC+SSRmS+ADS-B		
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		

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
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
REPUBLIC OF KOREA							
Jeju APP	T	No	Yes	Yes	PSR + SSRmAC + SSRmS	2	SMR, A-SMGCS
Jeju TWR	T	No	No	No	PSR + SSRmAC + SSRmS + ADS-B + MLAT		
Jungwon APP	T	No	No	Yes	PSR + SSRmAC		
CheongjuTWR	T	No	No	No	PSR + SSRmAC		
Incheon ACC	S	No		Yes	PSR + SSRmAC + ADS-B	3	SMR, A-SMGCS
Incheon TWR	T	No	Yes	No	PSR + SSRmAC + SSRmS + ADS-B + MLAT		
Seoul APP	T	No	Yes	Yes	PSR + SSRmAC		
Gimpo TWR	T	No	Yes	No	PSR + SSRmAC		
Gangneung APP	T	No	No	No	PSR + SSRmAC		SMR
Yangyang 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
Gimhae APP Gimhae TWR	T T	No No	No No	Yes No	PSR + SSRmAC PSR + SSRmAC		SMR
Daegu APP Daegu TWR	T T	No No	No No	No No	PSR + SSRmAC PSR + SSRmAC		
Gwangju APP Gwangju TWR Muan TWR	T T T	No No No	No No No	Yes No No	PSR + SSRmAC PSR + SSRmAC		
SINGAPORE Singapore ACC Singapore APP Singapore TWR	S T AD		Yes Yes Yes	Yes Yes Yes	PSR + SSRmS + ADS-B + ADS-C PSR + SSRmS+SSRmAC PSR+ADS-B+MLAT	2	
SRI LANKA Colombo ACC Colombo APP					SSRmAC + ADS-B + ADS-C PSR		ADS-C Trial
THAILAND Bangkok ACC Bangkok APP Suvarnabhumi TWR Don Mueang TWR Chiang Mai APP Chiang Mai TWR	S T AD AD T AD		YES YES YES YES YES YES	YES YES YES YES YES YES	PSR + SSRmAC + SSRmS PSR + SSRmAC + SSRmS SMR + MLAT + A-SMGCS SSRmAC SSRmS SSRmS	2	

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
Hat Yai APP Hat Yai TWR	T AD		YES YES	YES YES	SSRmS SSRmS		
Phuket APP Phuket TWR	T AD		YES YES	YES YES	SSRmS SSRmS		
Suratthani APP Suratthani TWR	T AD		YES YES	YES YES	SSRmS SSRmS		
Ubonratchathani APP Ubonratchathani TWR	T AD		YES YES	YES YES	SSRmS SSRmS		
Phitsanulok APP Phitsanulok TWR	T AD		YES YES	YES YES	PSR PSR		
Hua Hin APP Hua Hin TWR	T AD		YES YES	YES YES	PSR PSR		
U Taphao					SSRmAC		
TONGA					ADS-B		
UNITED STATES Alaska ACC	R, S		YES	YES	ADS-B + ADS-C + SSRmS + SSRmAC + PSR + WAM		This facility also provides limited approach control services to the Juneau aerodrome

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
Anchorage, Alaska APP	T		YES	YES	ADS-B + SSRmAC + PSR	2	Anchorage, Alaska APP
Anchorage, Alaska TWR	AD		YES	YES	ADS-B + MLAT + SMR		Anchorage, Alaska TWR
Fairbanks, Alaska APP	T		Yes	Yes	ADS-B + SSRmAC + PSR		Fairbanks, Alaska APP
Anchorage, Alaska APP	T		YES	YES	ADS-B + SSRmAC + PSR		Anchorage, Alaska APP
Hilo, Hawaii ACC Hilo, Hawaii APP Hilo, Hawaii TWR	AD				SSRmAC PSR	2	
Honolulu, Hawaii ACC	S		YES	YES	ADS-B + SSRmS + PSR		Honolulu ACC and APP are a single, integrated facility with one ATC automation system
Honolulu, Hawaii APP	T		YES	YES	ADS-B + SSRmS + PSR		APP provides services for Hilo, Kahului, Kona, and Lihue aerodromes
Honolulu, Hawaii TWR	AD		YES	YES	ADS-B + MLAT + SMR		
Kahului, Hawaii APP Kahului, Hawaii TWR	AD				PSR + SSRmAC		
Kokee, Hawaii ACC					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
Lihue, Hawaii APP Lihue, Hawaii TWR Mount Kaala, Hawaii ACC Pahoa, Hawaii ACC Kunianiau, Hawaii ACC Guam ACC Mount Santa Rosa, Guam ACC Mount Santa Rosa, Guam APP Mount Santa Rosa, Guam TWR Kona, Hawaii ACC TWR	AD S AD		YES	YES	PSR + SSRmAC PSR + SSRmAC SSRmAC SSRmAC ADS-B + SSRmS + SSRmAC + PSR PSR + SSRmS PSR + SSRmAC SSRmAC		Guam ACC and APP are a single, integrated facility with one ATC automation system
VIET NAM Hanoi ACC Noibai APP					PSR + SSRmAC + ADS-B 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
Noibai TWR					PSR + SSRmAC + ADS-B		SMR, A-SMGCS
Ho Chi Minh ACC					PSR + SSRmAC + ADS-B +ADS-C		
Danang APP					PSR + SSRmAC+ SSRmS + ADS-B		
Hanoi ACC							
Tansan Nhat APP					PSR + SSRmAC + SSRmS + ADS-B		
Tansan Nhat TWR					PSR + SSRmAC + SSRmS + ADS-B		SMR, A-SMGCS