

International Civil Aviation Organization



**THE TWELFTH WORKING GROUP MEETING OF
AERONAUTICAL TELECOMMUNICATION NETWORK
(ATN) IMPLEMENTATION CO-ORDINATION GROUP OF
APANPIRG (ATNICG WG/12)**



5 – 8 August, Renton, WA, USA

Agenda Item 7: Update CNS FASID Tables based on MTA

**REVIEW OF FASID (DOC 9673)
VOLUME II, CNS TABLES 1B AND 1C**

(Presented by the Secretariat)

SUMMARY

Asia and Pacific Regions Air Navigation Plan (Doc 9673), Volume II, FASID provides implementation information in respect of facilities and services in the region. Information provided in a tabular form is considered a planning tool and is used in monitoring the progress of implementation. In this paper FASID tables related to ATN/AMHS implementation in the region are reviewed. The meeting is invited to review and provide updates to the information in these tables based on MTA structure, so that amendment to the Tables could be proposed.

1. INTRODUCTION

1.1 Asia and Pacific Regions Air Navigation Plan (Doc 9673), Volume II Facilities and Services Implementation Document (FASID) Tables CNS – 1B Aeronautical telecommunication network (ATN) router plan and Table CNS – 1C ATS message handling service (AMHS) routing plan were taken up for review by APANPIRG in its Twenty Second meeting held from 7 to 11 September 2011. The meeting after reviewing the updated Tables adopted them through its Conclusion 22/17 based on the recommendations of the Fifteenth meeting of CNS/MET Sub Group.

1.2 The FASID Tables CNS – 1B, 1C adopted by APANPIRG/22 were subsequently processed and approved through amendment proposals through State Letters APAC 12/8 - CNS: AP104/12 (CNS) and APAC 12/5 – CNS : AP102/12 (CNS) dated 9 August 2012.

1.3 The Seventh Meeting of Aeronautical Telecommunication Network Implementation Co-ordination Group of APANPIRG (ATNICG/7) held in March 2012 in Chiang Mai further updated the information contained in these tables based on the input received from the States during the meeting. The changes was integrated into the above mentioned amendment proposals.

2. DISCUSSION

2.1 Volume II, Asia and Pacific Regions Air Navigation Plan (Doc 9673) (FASID) includes the ANS facilities and services implementation plans for the region. Part IV, of the volume contains FASID Tables on CNS facilities. These tables are reviewed periodically to assess the implementation status of various planned facilities with respect to the planned schedule.

2.2 It has been noted that a significant development has taken place in the implementation of AMHS in the region since the time of last review. There was also considered necessary to review these tables based on MTA to MTA connections. Tables last updated in APANPIRG/22 and subsequently approved through amendment process are placed at **Attachments A and B** respectively.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review the information provided in FASID Tables CNS 1B and 1C and update it where required.

TABLE CNS 1B**AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) ROUTER PLAN**

EXPLANATION OF THE TABLE

Column

1	Administration – the name of the Administration, State or Organization responsible for management of the router
2	Location of Router
3	Type of Router: BBIS - Backbone Boundary Intermediate System BIS - Boundary Intermediate System
4	Type of Interconnection: Inter - Regional - Connection provided with stations in other ICAO regions Intra - Regional - Connection provided between BBIS stations Sub - Regional - Connection provided between a BBIS station and a BIS station
5	Interconnection, Connected to router of: name of the location of the correspondent router
6	Link Speed - Speed requirements of the interconnecting link
7	Link Protocol - Protocol requirements for the interconnecting link
8	Target Date of Implementation - date of implementation of the router TBD - To be determined
9	Remarks

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
Afghanistan	Kabul	BIS	Sub-Regional	Pakistan	64000bps	IPS	2013	Intra-domain
		BIS	Inter-Regional	Iran	9600 bps	IPS	2013	
American Samoa	Pago Pago			United States			2013	Intra-domain
Australia	Brisbane	BBIS	Intra-Regional	Fiji	64000 bps	CLNP/IP-SNDCF	2011	
		BIS	Sub-Regional	Indonesia	9600 bps	X.25	TBD	Not implemented
		BBIS	Intra-Regional	Japan	64000 bps	TBD	2012	Not implemented
				Nauru			2013	Intra-domain
		BIS	Sub-Regional	New Zealand	64000 bps	IPS	2013	Not Implemented
				Papua New Guinea			2013	Intra-domain
		BBIS	Intra-Regional	Singapore	64000 bps	CLNP/IP-SNDCF	2011	
		BBIS	Inter-Regional	South Africa	TBD	TBD	TBD	Not implemented
				Solomon Islands		VPN	2012	Intra-domain
				Timor Leste		VPN	2013	Intra-domain
				Vanuatu		VPN	2010	Intra-domain
BBIS	Inter-Regional	United States	64000 bps	TBD	2012			
Bangladesh	Dhaka	BIS	Sub-Regional	India	64000 bps	IPS	TBD	
		BIS	Sub-Regional	Thailand	9600 bps	X.25	2013	
Bhutan	Paro	BIS	Sub-Regional	India	9600 bps	IPS	TBD	
Brunei Darussalam	Brunei	BIS	Sub-Regional	Malaysia	64000 bps	X.25	2013	
		BIS	Sub-Regional	Singapore	9600 bps	X.25	2013	Circuit implemented

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
Cambodia	Phnom Penh	BIS	Sub-Regional	Thailand	9600 bps	X.25	2013	
China	Beijing	BIS	Sub-Regional	DPR Korea	9600 bps	X.25	2013	Router Implemented
		BBIS	Intra-Regional	Hong Kong, China	64000 bps	X.25	2012	Router Implemented
		BBIS	Intra-Regional	India	64000 bps	X.25	2012	Interoperability trials in progress (9600 bps)
		BBIS	Intra-Regional	Japan	64000 bps	X.25	2011	Router Implemented
		BBIS	Inter-Regional	Kuwait	64000 bps	X.25	2013	Router Implemented
		BIS	Sub-Regional	Macau, China	64000 bps	X.25	2012	Implemented
		BIS	Sub-Regional	Mongolia	9600 bps	X.25	2013	Router Implemented
		BIS	Sub-Regional	Myanmar	9600 bps	X.25	2013	Router Implemented
		BIS	Sub-Regional	Nepal	9600 bps	X.25	2013	Router Implemented
		BIS	Sub-Regional	Pakistan	64000 bps	X.25	2013	Router Implemented
		BIS	Sub-Regional	Republic of Korea	64000 bps	X.25	2011	Implemented
		BBIS	Inter-Regional	Russian Federation	64000 bps	X.25	2012	Router Implemented
		BBIS	Intra-Regional	Thailand	64000 bps	X.25	2011	Router Implemented
	BIS	Sub-Regional	Vietnam	9600 bps	X.25	2013		
		Taibei	BIS	Sub-Regional	Hong Kong, China	64000 bps	X.25	2012
	BIS		Sub-Regional	Japan	64000 bps	X.25	2013	
Hong Kong, China	Hong Kong	BBIS	Intra-Regional	China	64000 bps	X.25	2012	
		BIS	Sub-Regional	Macau, China	64000 bps	X.25	2009	Implemented
		BBIS	Intra-Regional	Japan	64000 bps	X.25	TBD	
		BIS	Sub-Regional	Philippines	64000 bps	X.25	2015	

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
		BBIS	Sub-Regional	Taipei	64000 bps	X.25	2012	
		BBIS	Intra-Regional	Thailand	64000 bps	X.25	2003	Router Implemented
		BIS	Sub-Regional	Viet Nam	64000 bps	X.25	2013	
Macau, China	Macau	BIS	Sub-Regional	China	64000 bps	X.25	2012	Implemented
		BIS	Sub-Regional	Hong Kong, China	64000 bps	X.25	2009	Implemented
Cook Islands	Rarotonga			New Zealand	9600 bps	IPS	2013	Intra-domain
DPR Korea	Pyongyang	BIS	Sub-Regional	China	9600 bps	X.25	2013	
Fiji	Nadi	BBIS	Intra-Regional	Australia	64000 bps	CLNP/IP-SNDCF	2011	
				Kiribati	9600 bps	VPN	2011	Intra-domain
		BIS	Sub-Regional	New Caledonia			2013	Intra-domain
				Tuvalu		VPN	2011	Intra-domain
		BBIS	Inter-Regional	United States	9600 bps	X.25	2011	Circuit implemented
				Wallis Islands			2013	Intra-domain
French Polynesia	Papeete			New Zealand	9600 bps	IPS	2013	Intra-domain
India	Mumbai	BIS	Sub-Regional	Bangladesh	64000 bps	IPS	TBD	
		BIS	Sub-Regional	Bhutan	9600 bps	IPS	TBD	
		BBIS	Intra-Regional	China	64000 bps	X.25	2012	Interoperability trials in progress (9600 bps)
		BIS	Inter-Regional	Kenya	9600 bps	TBD	TBD	
		BIS	Sub-Regional	Nepal	9600 bps	IPS	TBD	
		BIS	Inter-Regional	Oman	9600 bps	IPS	2012	Interoperability trials in Q2/2012

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
		BIS	Sub-Regional	Pakistan	9600 bps	IPS	2012	Interoperability test completed in 2010. Trial operations in progress.
		BBIS	Intra-Regional	Singapore	64000 bps	X.25	2011	Circuit Implemented
		BIS	Sub-Regional	Sri Lanka	9600 bps	IPS	TBD	
		BBIS	Intra-Regional	Thailand	64000 bps	X.25	2012	Trials Commence from Q2/2012
Indonesia	Jakarta	BIS	Sub-Regional	Australia	9600 bps	X.25	TBD	
		BIS	Sub-Regional	Singapore	19200 bps	IPS	2012	Circuit implemented
Japan	Tokyo	BBIS	Intra-Regional	Australia	64000 bps	TBD	2012	Not implemented
		BBIS	Intra-Regional	China	64000 bps	X.25	2011	
		BBIS	Intra-Regional	Hong Kong, China	64000 bps	X.25	TBD	
		BBIS	Inter-Regional	Europe	64000 bps	X.25	2013	
		BIS	Sub-Regional	Republic of Korea	64000 bps	X.25	TBD	
		BBIS	Inter-Regional	Russia Federation	64000 bps	X.25	2013	
		BBIS	Intra-Regional	Singapore	64000 bps	X.25	2011	
		BIS	Sub-Regional	Taipei	64000 bps	X.25	2013	
		BBIS	Inter-Regional	United States	64000 bps	X.25	2006	Circuit implemented
Kiribati	Tarawa	BIS	Sub-Regional	Fiji	9600 bps	VPN	2011	Intra-domain
Lao PDR	Vientiane	BIS	Sub-Regional	Thailand	9600 bps	X.25	2013	
		BIS	Sub-Regional	Viet Nam	9600 bps	X.25	2013	

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
Malaysia	Kuala Lumpur	BIS	Sub-Regional	Brunei	64000 bps	X.25	2013	
		BIS	Sub-Regional	Singapore	64000 bps	X.25	2007	Circuit implemented
		BIS	Sub-Regional	Thailand	64000 bps	X.25	2013	
Maldives	Male	BIS	Sub-Regional	Sri Lanka	64000 bps	X.25	2013	
Marshall Islands	Majuro			United States			2006	Intra-domain
Micronesia Federated State of	Chuuk			United States			2006	Intra-domain
	Kosrae			United States			2006	Intra-domain
	Ponapei			United States			2006	Intra-domain
	Yap			United States			2006	Intra-domain
Mongolia	Ulaanbaatar	BIS	Sub-Regional	China	9600 bps	X.25	2013	
Myanmar	Yangon	BIS	Sub-Regional	China	9600 bps	X.25	2013	
		BIS	Sub-Regional	Thailand	9600 bps	X.25	2013	
Nauru	Nauru			Australia			2013	Intra-domain
Nepal	Kathmandu	BIS	Sub-Regional	China	9600bps	X.25	2013	
		BIS	Sub-Regional	India	9600 bps	IPS	TBD	
New Caledonia	Noumea			Fiji			2013	Intra-domain
New Zealand	Christchurch	BIS	Sub-Regional	Australia	64000 bps	IPS	2013	
				Cook Is.	9600 bps	IPS	2013	Intra-domain
				French Polynesia	9600 bps	IPS	2013	Intra-domain
				Samoa	9600 bps	IPS	2013	Intra-domain
				Tonga	9600 bps	IPS	2013	Intra-domain

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
		BIS	Inter-Regional	USA	64000 bps	IPS	2013	
Pakistan	Karachi	BIS	Sub-Regional	Afghanistan	64000 bps	IPS	2013	
		BIS	Sub-Regional	China	64000 bps	X.25	2013	
		BIS	Sub-Regional	India	9600 bps	IPS	2012	Interoperability test completed in 2010. Trial operations in progress.
		BIS	Inter-Regional	Oman	64000 bps	-	2013	
		BIS	Inter-Regional	Iran	64000 bps	-	2013	
		BIS	Inter-Regional	Kuwait	64000 bps	-	2013	
Palau	Koror			United States			2006	Intra-domain
Papua New Guinea	Port Moresby			Australia			2013	Intra-domain
Philippines	Manila	BIS	Sub-Regional	Hong Kong, China	64000 bps	X.25	2015	Circuit Implemented
		BIS	Sub-Regional	Singapore	64000 bps	X.25	2015	
Republic of Korea	Seoul	BIS	Sub-Regional	China	64000 bps	X.25	2011	Implemented
		BIS	Sub-Regional	Japan	64000 bps	X.25	TBD	
Samoa	Faleolo			New Zealand	9600 bps	IPS	2013	Intra-domain

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
Singapore	Singapore	BBIS	Intra-Regional	Australia	64000 bps	CLNP/IP-SNDCF	2012	
		BBIS	Inter-Regional	Bahrain	64000 bps	IPS	2012	
		BIS	Sub-Regional	Brunei	9600 bps	X.25	2013	
		BBIS	Intra-Regional	India	64000 bps	X.25	2011	Implemented
		BIS	Sub-Regional	Indonesia	19200 bps	IPS	2012	
		BBIS	Intra-Regional	Japan	64000 bps	X.25	TBD	
		BIS	Sub-Regional	Malaysia	64000 bps	IPS	2013	Circuit implemented
		BIS	Sub-Regional	Philippines	64000 bps	X.25	2015	
		BIS	Sub-Regional	Sri Lanka	64000 bps	X.25	2013	
		BBIS	Intra-Regional	Thailand	64000 bps	X.25	2012	
		BBIS	Inter-Regional	United Kingdom	64000 bps	IPS	2012	Implemented
		BIS	Sub-Regional	Viet Nam	9600 bps	X.25	2013	
Solomon Islands	Honiara			Australia		VPN	2012	Intra-Domain
Sri Lanka	Colombo	BIS	Sub-Regional	India	9600 bps	IPS	TBD	
		BIS	Sub-Regional	Maldives	64000 bps	X.25	2013	
		BIS	Sub-Regional	Singapore	64000 bps	X.25	2013	
Thailand	Bangkok	BIS	Sub-Regional	Bangladesh	9600 bps	X.25	2013	
		BIS	Sub-Regional	Cambodia	9600 bps	X.25	2013	
		BBIS	Intra-Regional	China	64000 bps	X.25	2011	
		BBIS	Intra-Regional	Hong Kong, China	64000 bps	X.25	2009	Implemented

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
		BBIS	Intra-Regional	India	64000 bps	X.25	2012	Trials commence from 2Q 2012
		BBIS	Inter-Regional	Italy	64000 bps	X.25	2013	Circuit implemented
		BIS	Sub-Regional	Lao PDR.	9600 bps	X.25	2013	
		BIS	Sub-Regional	Malaysia	64000 bps	X.25	2013	
		BIS	Sub-Regional	Myanmar	9600 bps	X.25	2013	
		BBIS	Intra-Regional	Singapore	64000 bps	X.25	2012	
		BIS	Sub-Regional	Viet Nam	9600 bps	X.25	2013	
Timor Leste	Dili			Australia		VPN	2013	Intra-domain
Tonga	Tongatapu			New Zealand	9600 bps	IPS	2013	Intra-domain
Tuvalu	Funafuti			Fiji		VPN	2011	Intra-domain
United States	Salt Lake City	BBIS	Inter-Regional	Australia	64000 bps	TBD	2012	
				American Samoa			2013	Intra-domain
		BBIS	Inter-Regional	Fiji	9600 bps	X.25	2011	Circuit implemented
		BBIS	Inter-Regional	Japan	64000 bps	X.25	2006	Circuit implemented
				Marshall Islands			2006	Intra-domain
				Micronesia, Federated State of			2006	Intra-domain
		BIS	Inter-Regional	New Zealand	64000 bps	IPS	2013	Circuit Implemented
		Palau			2006	Intra-domain		
Vanuatu	Port Vila			Australia		VPN	2010	Intra-domain

Administration	Location of Router	Type of Router	Type of Interconnection	Interconnection, Connected to router of:	Link Speed	Link Protocol	Target date of Implementation	Remarks
1	2	3	4	5	6	7	8	9
Viet Nam	Ho Chin Minh/Hanoi	BIS	Sub-Regional	China	9600 bps	X.25	2013	
		BIS	Sub-Regional	Hong Kong, China	64000 bps	X.25	2013	
		BIS	Sub-Regional	Lao PDR.	9600 bps	X.25	2013	
		BIS	Sub-Regional	Singapore	9600 bps	X.25	2013	
		BIS	Sub-Regional	Thailand	9600 bps	X.25	2013	
Wallis Islands	Wallis			Fiji			2013	Intra-domain

IV-CNS 1C-1

Table CNS 1C

AMHS ROUTING PLAN

EXPLANATION OF THE TABLE

Column

- | | |
|---|---|
| 1 | Administration – the name of the Administration, State or Organization responsible for management of the facility |
| 2 | Location of Facility |
| 3 | Facility Type:
AMHS
UA (Location of AMHS) |
| 4 | Target Date of Implementation – date of implementation of the ATSMHS
TBD – To be determined |
| 5 | Remarks |

Note: AMHS – ATS Message Handling System which may include Message Transfer Agents and AFTN/AMHS gateways services.

Administration	Location of Facility	Facility Type	Target Date of Implementation	Remarks
Afghanistan	Kabul	AMHS	2013	
American Samoa	Pago Pago	UA (Salt Lake City)	2013	
Australia	Brisbane	AMHS	2006	Implemented
Bangladesh	Dhaka	AMHS	2013	
Bhutan	Paro	UA (Mumbai)	2013	
Brunei Darussalam	Brunei	AMHS	2013	
Cambodia	Phnom Penh	AMHS	2013	
China	Beijing	AMHS	2011	Implemented
	Taibei	AMHS	2010	
Hong Kong, China	Hong Kong	AMHS	2009	Implemented
Macau, China	Macau	AMHS	2009	Implemented
Cook Island	Rarotonga	UA (Christchurch)	2013	Implemented
DPR Korea	Pyongyang	AMHS	2013	
Fiji	Nadi	AMHS	2010	Implemented
French Polynesia	Papeete	AMHS	2013	
India	Mumbai	AMHS	2011	Implemented
Indonesia	Jakarta	AMHS	2009	Implemented
	Ujung Pandang	AMHS	2010	
	NOTAM Office DGCA	AMHS	2012	
Japan	Fukuoka	AMHS	2006	Implemented
Kiribati	Tarawa	UA (Nadi)	2011	
Lao PDR	Vientiane	AMHS	2012	
Malaysia	Kuala Lumpur	AMHS	2013	

Administration	Location of Facility	Facility Type	Target Date of Implementation	Remarks
Maldives	Male	AMHS	2013	
Marshall Island	Majuro	UA (Salt Lake City)	2006	UA Implemented
Micronesia Federated State of	Chuuk	UA (Salt Lake City)	2006	UA Implemented
	Kosrai	UA (Salt Lake City)	2006	UA Implemented
	Ponapei	UA (Salt Lake City)	2006	UA Implemented
	Yap	UA (Salt Lake City)	2006	UA Implemented
Mongolia	Ulaanbaatar	AMHS	2013	
Myanmar	Yangon	AMHS	2013	
Nauru	Nauru	UA (Brisbane)	2013	
Nepal	Kathmandu	AMHS	2013	
New Caledonia	Noumea	AMHS	2013	
New Zealand	Christchurch	AMHS	2012	
Niue Is.	Niue	UA (Christchurch)	2013	
Pakistan	Karachi	AMHS	2009	Implemented. 50 UA implemented in Pakistan and all International traffic through AFTN/AMHS Gateway.
Palau	Koror	UA (Salt Lake City)	2006	UA Implemented
Papua New Guinea	Port Moresby	UA (Brisbane)	2013	
Philippines	Manila	AMHS	2015	
Republic of Korea	Seoul	AMHS	2010	Implemented
Samoa	Faleolo	UA (Christchurch)	2013	
Singapore	Singapore	AMHS	2007	Implemented
Solomon Is.	Honiara	UA (Brisbane)	2012	
Sri Lanka	Colombo	AMHS	2013	
Thailand	Bangkok	AMHS	2011	

Administration	Location of Facility	Facility Type	Target Date of Implementation	Remarks
Timor Leste	Dili	UA (Brisbane)	2013	
Tonga	Tongatapu	UA (Christchurch)	2013	
Tuvalu	Funafuti	UA (Nadi)	2011	
United States	Salt Lake City	AMHS	2005	Implemented
Vanuatu	Port Vila	UA (Brisbane)	2010	Implemented
Viet Nam	Ho Chi Minh	AMHS	2013	
Wallis Is.	Wallis	AMHS	2013	