



International Civil Aviation Organization and the Directorate General of Air Communication, Indonesia

SIXTH MEETING OF AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) TRANSITION TASK FORCE OF APANPIRG



Bali, Indonesia, 26-30 April 2004

Agenda Item 7: Review the status of implementation of AFTN circuits, evaluate circuit capacity and consider timescale for transition to ATN

**REVIEW STATUS OF IMPLEMENTATION OF
THE ASIA/PAC AFTN PLAN - TABLE CNS-1A**

(Presented by the Secretariat)

SUMMARY

This paper presents AFTN Plan for review by the meeting.

1. INTRODUCTION

1.1 The AFTN Plan (Table CNS-1) is provided in a tabular form in Attachment 1 and the Chart CNS-1 is at Attachment 2 to this paper for review by this meeting.

2. DISCUSSION

2.1 The AFTN Plan was reviewed and updated regularly by the ATN Transition Task Force Meetings and the CNS/MET Sub-Group meetings to reflect the changes in status of AFTN circuits implemented based on changes in operational requirements and circuit performance.

2.2 In accordance with Conclusion 13/11 of APANPIRG/13 meeting held in September 2002, an amendment proposal APAC 02/7-COM was processed to replace the Table CNS-1A contained in Part IV of the ASIA/PAC FASID with an updated Table. Comments provided by States in response to the amendment proposal were incorporated while updating the Table. States were notified of the approval of the proposal in December 2002. Subsequently, the Table and Chart contained in the FASID were updated.

2.3 The plan was reviewed by the fifth meeting of ATN Transition Task Force held in July 2003. Since then signalling speed and communication protocol for several circuits have been upgraded to meet the operational requirements. It is therefore required to review and update the Table CNS-1A and also to examine how the transition to ATN should be reflected in appropriate CNS Tables.

3. ACTION BY THE MEETING

3.1 The meeting is expected to:

- a) review the AFTN Plan (Table CNS-1A); and
- b) update entries, as required.

TABLE CNS 1A - AFTN PLAN*Explanation of the Table**Column*

1	The AFS station or facility of individual State, listed alphabetically. Each circuit appears twice in the Table.
2	Category of circuit M - Main trunk circuit connecting Main AFTN communication centres. T - Tributary circuit connecting Main AFTN communication centre and AFTN stations to relay or retransmit AFTN traffic. S - AFTN circuit which is used to transmit and receive AFTN traffic to and from a Main or Tributary AFTN communication centre directly connected to it and does not relay AFTN traffic except for the purpose of serving national station(s).
3 and 7	Type of circuit provided: HF RTT High frequency radio teletype LTT landline teletypewriter LTT/a landline teletypewriter, analogue (eg. cable, microwave) LTT/d landline teletypewriter, digital (eg. cable, microwave) LDD/a landline data circuit, analogue (eg. cable, microwave) LDD/d landline data circuit, digital (eg. cable, microwave) SAT/n/a/d satellite link, the number indicates the number of hubs in the circuit: Also use/a for analogue or/d for digital appropriate to the tail circuit.
4 and 8	Circuit signalling speed, current or planned.
5 and 9	Circuit protocols, current or planned. COP-B Character oriented data link control procedure – System Category - B X. 25 X.25 protocol
6 and 10	Data transfer code (syntax), current or planned. ITA-2 International Telegraph Alphabet No. 2 (Baudot code) IA-5 International Alphabet No. 5 (7 - unit code)
11	Target date of implementation
12	Remarks
Note 1:	Circuit is required for alternate routing and for national routing for international traffic.
Note 2:	Requirements exist for speech and data (S + DX) communication.

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
AMERICAN SAMOA PAGO PAGO - S/NSTU United States/KSLC	S	LDD/d	2400 bps	X.25	IA-5						
AUSTRALIA BRISBANE - M/YBBB	T	LDD/d	2400 bps	X.25	IA-5						
Christchurch/NZCH	S	LDD/d	2400 bps	X.25	IA-5	LTT	75 baud	None	IA-5		Note 2 Internet as interim measur Note 1,2
Honiara/AGGC	S	SAT/d	9600 bps	X.25	IA-5						
Jakarta/WIII	S	LTT	50 baud	None	ITA-2						
Mauritius/FIMP	S	LTT	50 baud	None	ITA-2						
Nadi/NFFN	M	LDD/d	2400 bps	X.25	IA-5						
Nauru/ANAU	S	SAT/d	9600 bps	X.25	IA-5	SAT/d	2400 bps	X.25	IA-5		Note 2 Internet as interim measur Note 2
Port Moresby/AYPM	S	SAT/d	9600 bps	X.25	IA-5						
Port Vila/NVVV	S	LTT	300 baud	None	ITA-2						
Santiago/SCSC	M					LDD/d	2400 bps	X.25	IA-5	12/03	Internet as interim measur Current routing via USA
Singapore/WSSS	M	LDD/d	2400 bps	X.25	IA-5						
United States/KSLC	M	SAT/d	2400 bps	X.25	IA-5						
Johannesburg	M	SAT/d	64 Kbps	X.25	IA-5						
BANGLADESH DHAKA - S/VGZR											
Bangkok/VTBB	S	SAT/d	300 baud	None	IA-5						
Kolkata/VECC	S	LDD/d	64 Kbps	X.25	IA-5						
BHUTAN PARO - S/VQPR											
Mumbai/VABB	S					SAT/a	300 baud	None	ITA-2	09/03	Dial-up
BRUNEI DARUSSALAM BRUNEI - S/WBSB											
Singapore/WSSS	S	LDD/d	2400 bps	X.25	IA-5						
Kuala Lumpur/WMKK	S					LDD/d	2400 bps	X.25	IA-5		Note 1,2
CAMBODIA PHNOM PENH - S/VDPP											
Bangkok/VTBB	S	SAT/d	300 baud	None	IA-5						Note 2
CHINA BEIJING - M/ZBBB											
Guangzhou/ZGGC	S	LDD/d	9600 bps	X.25	IA-5						
Karachi/OPKC	M	LTT	50 baud	None	ITA-2	LDD/a	300 baud	None	IA-5	12/03	
Kathmandu/VNKT	S	SAT/d	300 baud	None	IA-5						
Russian Fedration/UHHH	M	SAT/d	2400 bps	None	IA-5						
Pyongyang/ZKKK	S	SAT/d	300 baud	None	IA-5						(Khabarovsk)
Seoul/RKSS	S	SAT/d	9600 bps	X.25	IA-5						
Tokyo/RJAA	M	LDD/d	9600 bps	X.25	IA-5						
Ulaan Baatar/ZMUE	S	SAT/d	300 baud	None	IA-5						Note 2
Yangon/VYYY	S	SAT/d	300 baud	None	IA-5						

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
GUANGZHOU-M/ZGGG Beijing/ZBBB Hanoi/VVNB Hong Kong/VHHH Macau/VMMC Sanya/ZJSY	M S M S S	LDD/d SAT/d LDD/d LDD/d LDD/d	9600 bps 2400 bps 2400 bps 2400 bps 2400 bps	X.25 None None None None	IA-5 IA-5 IA-5 IA-5 IA-5						Note 1
SANYA-S/ZJSY Guangzhou/ZGGC Hong Kong/VHHH	S S	LDD/d LDD/d	2400 bps 2400 bps	None None	IA-5 IA-5						
TAIBEI - S/RCTP Hong Kong/VHHH Manila/RPLL Naha/ROAH	S S S	LDD/d LTT LDD/d	4800 bps 75 baud 4800 bps	X.25 None X.25	IA-5 ITA-2 IA-5	LDD/d	300 baud	None	ITA-2	12/03	
HONG KONG, CHINA HONG KONG-M/VHHH Bangkok/VTBB Guangzhou/ZGGC Ho-Chi-Minh/VVTS Macau/VMMC Manila/RPLL Sanya/ZJSY Taibei/RCTP Tokyo/RJAA	M S S S S S S S S M	LDD/d LDD/d SAT/d LDD/d LDD/d LDD/d LDD/d LDD/d LDD/d LDD/d	2400 bps 2400 bps 2400 bps 2400 bps 300 baud 2400 bps 2400 bps 4800 bps 9600 bps	X.25 None None None None None None X.25 X.25	IA-5 IA-5 IA-5 IA-5 ITA-2 IA-5 IA-5 IA-5 IA-5						
MACAU, CHINA MACAU - S/VMMC Hong Kong/VHHH Guangzhou/ZGGC	S S	LDD/d LDD/d	2400 bps 2400 bps	None None	IA-5 IA-5						
COOK ISLAND RAROTONGA-S/NCRG Christchurch/NZCH	S	LDD/d	2400 bps	None	IA-5						
DPR KOREA PYONGYANG-S/ZKKK Beijing/ZBBB	S	SAT/d	300 baud	None	IA-5						
FIJI NADI - M/NFFN Brisbane/YBBE Christchurch/NZCH Funafuti/NGFU Noumea/NWWW Tarawa/NGTT	M S S S S S	LDD/d LDD/d LDD/d LDD/d LDD/d LDD/d	2400 bps 2400 bps 2400 bps 2400 bps 2400 bps 2400 bps	X.25 X.25 X.25 X.25 None	IA-5 IA-5 IA-5 IA-5 IA-5	LDD/d	2400 bps	None	IA-5	12/03	Note 2 Note 2 Dial-up Note 2

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
United States/KSLC Wallis Is./NLWW	M S	SAT/d	2400 bps	X.25	IA-5	LDD/a	2400 bps	None	IA-5	when traffic justifies	Note 2 Current routing via Noumea
FRENCH POLYNESIA (FRANCE) PAPEETE/NTAA Christchurch/NZCH	S	LDD/d	2400 bps	X.24	IA-5						
INDIA MUMBAI - M/VABB	M	LDD/d	2400 bps	X.25	IA-5						
Bangkok/VTBB	S	LDD/d	9600 bps	X.25	IA-5						
Kolkata/VECC	M	LDD/d	64 kbps	X.25	IA-5						
Colombo/VCCC	M	LDD/d	200 baud	None	ITA-2						Note 2
Karachi/OPKC	M	SAT/a	50 baud	None	ITA-2						Note 2
Kathmandu/VNKT	S	SAT/a	300 baud	None	ITA-2						
Muscat Seeb/OOMS	M	SAT/a	50 baud	None	ITA-2						
Nairobi/HKNC	M	SAT/a									
Paro/VQPR	S					SAT/a	300 baud	None	ITA-2	09/03	Dial-up
KOLKATA - S/VECC Dhaka/VGZR	S	LDD/d	64 Kbps	X.25	IA-5						
Mumbai/VABB	S	LDD/d	9600 bps	X.25	IA-5						
DELHI - S/VIDD Tashkent/UTTT	S	SAT/a	50 baud	None	ITA-2						
CHENNAI - S/VOMM Kuala Lumpur/WMKK	S	LDD/d	9600 bps	X.25	IA-5						Note 1, 2
INDONESIA JAKARTA - S/WIII	S	SAT/d	9600 bps	X.25	IA-5						Note1,2
Brisbane/YBBE	S	SAT/d	2400 bps	X.25	IA-5						Note 2
Singapore/WSSS											
JAPAN TOKYO - M/RJAA	M	LDD/d	9600 bps	X.25	IA-5						
Beijing/ZBBB	M	LDD/d	9600 bps	X.25	IA-5						
Hong Kong/VHHH	M	LTT	2400 bps	None	IA-5						
Russian Federation/UHHH	M	LTT	200 baud	None	IA-5						
Russian Federation/UUUL	M	LDD/d	9600 bps	X.25	IA-5	LDD	2400 bps	None	IA-5	12/03	(Khabarovsk) (Moscow)
Naha/ROAH	S	LDD/d	9600 bps	X.25	IA-5						
Seoul/RKSS	S	LDD/d	9600 bps	X.25	IA-5						
Singapore/WSSS	M	LDD/d	9600 bps	X.25	IA-5						
United States/KSLC	M	LDD/d	9600 bps	X.25	IA-5						Note 2
NAHA - S/ROAH Taibei/RCTP	S	LDD/d	4800 bps	X.25	IA-5						
Tokyo/RJAA	S	LDD/d	9600 bps	X.25	IA-5						

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
KIRIBATI TARAWA - S/NGTT Nadi/NFFN	S	LDD/d	2400 bps	None	IA-5						
LAO PDR VIENTIANE - S/VLVT Bangkok/VTBB Hanoi/VVNB	S S	SAT/d SAT/d	300 baud 9600 bps	COP-B None	IA-5 IA-5						Note 2
MALAYSIA KUALA LUMPUR-S/WMKK Bangkok/VTBB Brunei/WBSB Chennai/VOMM Singapore/WSSS	S S S S	SAT/d LDD/d LDD/d SAT/d	2400 bps 2400 bps 9600 bps 1200 bps	X.25 X.25 X.25 X.25	IA-5 IA-5 IA-5 IA-5						Note 1, 2 Note 1, 2 Note 1, 2 Note 2
MALDIVES MALE - S/VRMM Colombo/VCCC	S	LTT	50 baud	None	ITA-2	SAT/d	9600 bps	X.25	IA-5	12/03	Note 2
MARSHALL ISLAND MAJURO - S/PKMJ United States/KSLC	S	SAT/d	1200 bps	X.25	IA-5						
MICRONESIA FEDERATED STATE OF CHUUK - S/PTKK United States/KSLC	S	SAT/a	1200 bps	X.25	IA-5						
KOSRAE - S/PTSA United States/KSLC	S	SAT/a	1200 bps	X.25	IA-5						
PONAPEI - S/PTPN United States/KSLC	S	SAT/a	1200 bps	X.25	IA-5						
YAP - S/PTYA United States/KSLC	S	SAT/a	1200 bps	X.25	IA-5						
MONGOLIA ULAANBAATAR-S/ZMUB Beijing/ZBBB Russian Federation/UII	S S	SAT/d LTT	300 baud 50 baud	None None	IA-5 ITA-2						Note 2 (Irkutsk)
MYANMAR YANGON - S/VYYY Bangkok/VTBB Beijing/ZBBB	S S	SAT/d SAT/d	300 baud 300 baud	COP-B None	IA-5 IA-5						Note 2 Note 1,2

State/Station	Cat.	CURRENT				PLANNED				Target date of implemen- tation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
NAURU NAURU - S/ANAU Brisbane/YBBE	S					SAT/d	2400 bps	X.25	IA-5		Internet as interium measur
NEPAL KATHMANDU - S/VNKT Beijing/ZBBB Mumbai/VABB	S S	SAT/d SAT/a	300 baud 50 baud	None None	IA-5 ITA-2						
NEW CALEDONIA (FRANCE) NOUMEA - S/NWWW Nadi/NFFN	S	LDD/d	2400 bps	X.25	IA-5						Note 2
NEW ZEALAND CHRISTCHURCH-T/NZCH Brisbane/YBBE Nadi/NFFN Niue/NIUE Papeete/NTAA Rarotonga/NCRG Tongatapu/NFTF USA/KSLC	T S S S S S S	LDD/d LDD/d	2400 bps 2400 bps	X.25 X.25	IA-5 IA-5						Note 2 Note 1, 2 Currently by FAX
NIUE IS NIUE - S/NIUE Christchurch/NZCH	S										
PAKISTAN KARACHI - M/OPKC Beijing/ZBBB Mumbai/VABB Kabul/OAKB Kuwait/OKBK	M M S M	LTT SAT/a SAT/d SAT/a	50 baud 200 baud 300 baud 50 baud	None None None None	ITA-2 ITA-2 IA-5 ITA-2	LDD/a	300 baud	None	IA-5	12/03	Note 2 Note 2
PALAU KOROR - S/PTRO United States/KSLC	S	SAT/d	1200 bps	X.25	IA-5						
PAPUA NEW GUINEA PORT MORESBY-S/AYPM Brisbane/YBBE	S	SAT/d	9600 bps	X.25	IA-5						Note 2
PHILIPPINES MANILA - S/RPLL Hong Kong/VHHH Singapore/WSSS Taibei/RCTP	S S S	LDD/d LDD/d LTT	300 baud 300 baud 75 baud	None None None	ITA-2 ITA-2 ITA-2	LDD/d	300 baud	None	IA-5 IA-5	12/03	Note 2 Note 1, 2 Note 1, 2

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
REPUBLIC OF KOREA SEOUL - S/RKSS Beijing/ZBBB Tokyo/RJAA	S S	SAT/d LDD/d	9600 bps 9600 bps	X.25 X.25	IA-5 IA-5						Note 2
SAMOA APIA - S/NSFA USA/KSLC	S	LDD/d	2400	X.25	IA-5						
SINGAPORE SINGAPORE-M/WSSS Bahrain/OBBI Bangkok/VTBB Brisbane/YBBE Brunei/WBSB Colombo/VCCC Ho-Chi-Minh/VVTS Jakarta/WIII Kuala Lumpur/WMKK London/EGGC Manila/RPLL Tokyo/RJAA	M M M S M S S S M S S M	LTT LDD/d LDD/d LDD/d LDD/d SAT/a SAT/d SAT/d LDD/d LDD/d LDD/d LDD/d	200 baud 1200 bps 2400 bps 2400 bps 9600 bps 300 baud 2400 bps 1200 bps 1200 bps 300 baud 9600 bps	None X.25 X.25 X.25 X.25 None X.25 X.25 X.25 None X.25	ITA-2 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 ITA-2 IA-5	SAT/a	2400 bps	None	IA-5	09/03	Note 2 Note 2 Note 1, 2
SOLOMON IS. HONIARA - S/AGGG Brisbane/YBBE	S					LTT	75 baud	None	IA-5		Internet as intermedium measur
SRI LANKA COLOMBO - M/VCCC Mumbai/VABB Male/VRMM Singapore/WSSS	M S M	LDD/d LTT LDD/d	64 kbps 50 baud 9600 bps	X.25 None X.25	IA-5 ITA-2 IA-5	SAT/d	9600 bps	X.25	IA-5	12/03	Note2
THAILAND BANGKOK - M/VTBB Mumbai/VABB Dhaka/VGZR Ho-Chi-Minh/VVTS Hong Kong/VHHH Kuala Lumpur/WMKK Phnom Penh/VDPP Rome/LII Singapore/WSSS Vientiane/VLVT Yangon/VYY\	M S S M S S M M S S S	LDD/d SAT/d SAT/d LDD/d SAT/d SAT/d LDD/d LDD/d SAT/d SAT/d SAT/d	2400 bps 300 baud 2400 bps 2400 bps 2400 bps 2400 bps 300 baud 2400 bps 1200 bps 300 baud 300 baud	X.25 None None X.25 X.25 X.25 None X.25 X.25 COP-B COP-B	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5						Note 1, 2 Note 2 Note 2 Note 2
TONGA TONGATAPU - S/NFTF Cristchurch/NZCH	S	LDD/d	2400 bps	None	IA-5						

State/Station	Cat.	CURRENT				PLANNED				Target date of implementation	Remarks
		Type	Signalling Speed	Protocol	Code	Type	Signalling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
TUVALU FUNAFUTI - S/NGFU Nadi/NFFN	S					LDD/d	2400 bps	None	IA-5	12/03	Dial-up
UNITED STATES USA-M/KSLC Apia/NSFA Brisbane/YBBE Christchurch Chuuk/PTKK Koror/PTRO Kosrae/PTSA Majuro/PKMJ Nadi/NFFN Pago Pago/NSTU Ponapei/PTPN Tokyo/RJAA Yap/PTYA	S M S S S S S M S S S M S	LDD/d SAT/d LDD/d SAT/d SAT/d SAT/d SAT/d SAT/d SAT/d SAT/a LDD/d SAT/d	2400 bps 2400 bps 9600 bps 1200 bps 1200 bps 1200 bps 1200 bps 2400 bps 2400 bps 1200 bps 9600 bps 1200 bps	X.25 X.25 X.25 X.25 X.25 X.25 X.25 X.25 X.25 X.25 X.25 X.25	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5						Under test. Planned implementation by 7/03
VANUATU PORT VILA - S/NVVV Brisbane/YBBE	S	LTT	300 baud	None	ITA-2						Internet as interim measure
VIET NAM HANOI-S/VVNB Vientiane/VLVT Ho-Chi-Minh/VVTS Guangzhou/ZGGG	S S S	SAT/d SAT/d SAT/d	9600 bps 9600 bps 2400 bps	None None None	IA-5 IA-5 IA-5						
HO-CHI-MINH - S/VVTS Bangkok/VTBB Hanoi/VVNB Hong Kong/VHHH Singapore/WSSS	S S S S	SAT/d SAT/d SAT/d SAT/a	2400 bps 9600 bps 2400 bps 300 baud	None None None None	IA-5 IA-5 IA-5 IA-5						
WALLIS IS. (FRANCE) WALLIS - S/NLWW Nadi/NFFN	S					LDD/A	2400 bps	None	IA-5		Current routing via Noumea Circuit will be implemented when traffic justifies.

