



International Civil Aviation Organization

**Fifth Meeting of Aeronautical Telecommunication Network (ATN)
Transition Task Force of APANPIRG**

Phuket, Thailand, 9-13 June 2003

Agenda Item 9: Review ATN implementation activities/issues

CNS/ATM IMPLEMENTATION AND PLANNING MATRIX

SUMMARY

This paper presents the Regional CNS/ATM implementation and Planning Matrix for review and updating of ATN related issues.

(Presented by Secretariat)

1. Introduction

1.1 In order to provide implementation status of various elements of the new CNS/ATM systems for assessment by APANPIRG and States, the Eleventh Meeting of ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG/11) adopted Conclusion 11/37 for developing and maintaining CNS/ATM Implementation Planning Matrix against ASIA/PAC FIRs.

2. Discussion

CNS/ATM Implementation Planning Matrix

2.1 The APANPIRG/13 meeting considered the draft CNS/ATM implementation Matrix prepared and presented in accordance with Conclusion 11/37 of APANPIRG/11. The Matrix contained the implementation status of CNS elements such as ATN, AIDC, CPDLC, GNSS and ADS. It was noted that the Matrix would be reviewed regularly by APANPIRG and its Sub-Groups to assess progress of implementation. It was therefore agreed that the Matrix would be further developed progressively and kept up to date to reflect implementation status of major CNS/ATM elements covering all ASIA/PAC FIRs.

3. Action by the meeting

3.1 The meeting is invited to review the CNS/ATM Implementation and Planning Matrix provided in the Attachment, with respect to ATN and propose changes, as required

Appendix to ATTF/5-WP/26

Updated version of CNS/ATM Implementation Planning Matrix

State/ Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AIDC	CPDLC	GNSS		ADS-B	ADS-C	Remarks
				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
AUSTRALIA	ATN tests were conducted. BIS Router and Backbone BIS Router will be implemented by 2004. and AMHS in 2005.	AFTN based AIDC Implemented between Brisbane and Auckland.	Implemented to support FANS1/A equipped aircraft.	Implemented (S) 260 GPS NPA Final 26 aerodromes to be completed 2002.	Developed en-route as (P) for approval to use in domestic airspace.	ADS-B trial being conducted.	FANS 1/A ADS-C implemented.	
BANGLADESH								
BHUTAN	ATN BIS Router planned for 2005							
CAMBODIA								
CHINA	ATN BIS Router will be implemented by 2005.	AIDC between ACCs within China are being implemented.	Implemented to support ATS Route L888 and polar routes. Trial on HF data link conducted for use in western China.		Implemented in certain airspace as (S).		FANS 1/A ADS-C implemented to support L888 and polar routes.	
HONG KONG, CHINA	AMHS and BBIS tests were conducted with Japan and Thailand for implementation in 2004 Trial with Australia being conducted.	Trial on the AFTN based AIDC with Guangzhou China commenced. Implementation planned for 2002/2003.	Trials continuing for CPDLC. D-ATIS D-VOLMET and PDC implemented. VDL Mode-2 trial planned for 2002.		Implemented in certain airspace as (S).		FANS 1/A Trials continuing for ADS-C.	

State/ Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AIDC	CPDLC	GNSS		ADS-B	ADS-C	Remarks
				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
MACAO, CHINA								
COOK ISLANDS								
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA								
FIJI	ATN BIS Router will be implemented in 2005.	Implementation of AFTN based AIDC with Brisbane and Auckland in 2002.	FANS-1. Implemented since 1997.	NPA procedures for (S) to be completed in Dec. 2002.	Implemented as (S).	ADS-B trials in 2002/2003 Implementation in 2004.	ADS-C implemented in oceanic airspace using EUROCAT 2000 X.	
FRANCE French Polynesia Tahiti		Implementation of limited message sets with adjacent centres under discussion.	FANS-1. Implemented since 1996.				FANS 1/A ADS-C implemented since March 1999.	
INDIA	ATN BIS router and BBIS router planned for implemented at Mumbai in 2005.		FANS-1. Implemented at Kolkata and Chennai.		SBAS(S). Planned for 2005.		FANS 1/A ADS-C implemented at Kolkata and Chennai.	
INDONESIA	ATN BIS router planned implementation in 2005.	AFTN based AIDC planned for implementation between Brisbane and Jakarta in 2004.	FANS-1/A. CPDLC in Jakarta, Ujung Pandang FIRs planned for 2004.	Planned for implementation in 2002as (S). Procedure to be completed in 2006.			FANS 1/A ADS-C trial planned for Jakarta and Ujung Pandang FIRs for 2004.	

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State/ Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AIDC	CPDLC	GNSS		ADS-B	ADS-C	Remarks
				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
JAPAN	ATN BBIS will be implemented in 2002. Router Tests are progressing. AMHS implementation between Japan and USA. Hong Kong planned for 2004.	AIDC based. AFTN procedure implemented with USA.	FANS1/A system Implemented in Tokyo FIR.				FANS 1/A. ADS-C implemented in Tokyo FIR.	
KIRIBATI								
LAO PDR	ATN BIS Router planned for implementation with Bangkok in 2002.		FANS-1/A Planned for Bay of Bengal and South China Sea areas. Equipment is under test operation.		Implemented as (S).		FANS-1/A. ADS-C planned for Bay of Bengal and South China Sea areas. Equipment under test operation.	
MALAYSIA	ATN BIS Router planned for 2005.	ATN based. Planned for AIDC 2005.	Planned for Bay of Bengal and South China Sea areas.	NPA (S) at KLIA planned for 2003.			FANS 1/A ADS-C planned for Bay of Bengal and South China Sea areas.	
MALDIVES								
MARSHALL ISLANDS				NPA (S) implemented at Majuro Atoll.				
MICRONESIA FEDERATED STATES OF								
Chuuk				NPA(S) implemented				

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				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
Kosrae				NPA(S) implemented				
Pohnpei				NPA(S) implemented				
Yap				NPA(S) implemented				
MONGOLIA	ATN BIS Router planned for 2005.		Function available. Regular trials are conducted.	GPS procedures are being developed.	Implemented as (P).	ADS-B trial in progress implementation planned for 2002/2003.	FANS 1/A ADS-C implemented since August 1998.	
MYANMAR								
NAURU								
NEPAL	BIS Router planned for 2005.			Development of arrival procedure and NPA as (S) completed. Departure procedure is being developed.	Implemented as (S).			
NEW ZEALAND	BIS Router planned for 2005	AFTN based AIDC implemented between New Zealand and Australia. Tests with Fiji and USA planned for 2002.	FANS/1A. Implemented				FANS 1/A Implemented ADS-C.	
PAKISTAN	Implementation of ATN considered for Phase II (2005-2010).							RADAR coverage provided in Karachi and Lahore FIRs.
PAPUA NEW GUINEA								

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				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
PHILIPPINES	ATN BIS Router planned for 2005. Implementation for AMHS also planned.		D-ATIS and CPDLC Planned for 2006.				FANS 1/A ADS-C planned for 2006.	
REPUBLIC OF KOREA	ATN BIS planned for 2005.	AFTN based AIDC implemented between Incheon ACC and Seoul APP.					FANS 1/A ADS-C planned for 2002.	
SINGAPORE	ATN BIS Router planned for 2005.		Implemented since 1997. Integrated in the ATC system in 1999. D-ATIS implemented since February 2000.		Implemented (S).		FANS 1/A ADS-C implemented since 1997. Integrated with ATC system in 1999.	
SRI LANKA	ATN BIS Router Planned for 2005.		CPDLC implemented since November 2000.	NPA (S) planned for 2003.			FANS 1 /A ADS-C implemented since November 2000.	GPS based domestic route structure being developed.
THAILAND	ATN G/G system implemented for domestic services. BBIS/BIS Routers planned for 2002. AMHS test with Hong Kong conducted.	ATN based AIDC Implemented in Domestic Sector.	FANS-1/A Implemented.		Implemented as (S).		FANS 1/A ADS-C Implemented.	
TONGA								
UNITED STATES								

State/ Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AIDC	CPDLC	GNSS		ADS-B	ADS-C	Remarks
				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
Anchorage				NPA(S) implemented	En-route (P) implemented	ADS-B trials continuing.	FANS/1-ADS-C 2004.	
Fairbanks				NPA(S) implemented				
Guam (Agana NAS)				NPA(S) implemented				
Guam (Anderson)				NPA(S) implemented				
Honolulu Intl.				NPA(S) implemented	En-route (P) implemented		FANS 1/A ADS-C planned for Dec. 2004	
Johnston Atoll				NPA(S) implemented				
Kahului				NPA(S) implemented				
Oakland	ATN BBIS will be implemented in 2002. Router Tests are progressing. AMHS implementation between Japan and USA in 2004.	Implemented using AFTN procedure. ATN AIDC planned for 2005.	FANS-1 2001. Phase I ATN CPDLC implemented in Sept 2001. Phase IA planned for implementation at 20 en-route centres in USA for en-route function in 2006/2007 time frame.	NPA (S) implemented	En-route (P) implemented		FANS-1/A ADS-C planned for Dec. 2004.	
Saipan				NPA (S) implemented				
VANUATU								

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				NPA Supplemental Means (S) Primary means (P)	En-route Supplemental Means (S) Primary means (P)			
VIETNAM	ATN BIS Router planned for 2003 and AMHS in 2005.	ATN based AIDC planned between Ho- Chi-Minh and Bangkok in 2005.	Planned for 2004.	Planned for NPA (S) for 2004.	Implemented as (S) planned for 2004.		FANS 1/A ADS-C planned for 2004.	Most of air space in Hanoi and Ho-Chi- Minh FIRs covered by RADAR.