



International Civil Aviation Organization

Fourth ATN Transition Task Force Meeting

Mumbai, 8-12 April 2002

Agenda Item 3: Review ATN technical documents and transition issues

CNS/ATM IMPLEMENTATION AND PLANNING MATRIX

(Presented by Secretariat)

SUMMARY

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

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

2.1 The Regional Office issued a State Letter in June 2001 with a questionnaire to obtain necessary information for inclusion in the Matrix. The most of replies received from States were based on implementation status of a State rather than by FIRs.

2.2 Based on the information provided by States, a draft Matrix was prepared and presented to the Ninth meeting of the CNS/ATM Implementation Coordination Sub Group (CNS/ATM/ IC/SG/9) of APANPIRG held in Bangkok from 11 to 15 March 2002, for review.

2.3 The CNS/ATM/IC/SG/9 meeting reviewed the draft CNS/ATM implementation Matrix provided in Attachment to this paper. It contained implementation status of CNS elements such as ATN, AIDC, CPDLC, GNSS and ADS. It was expected to be reviewed by APANPIRG and its Sub-Groups on a regular basis to assess progress of implementation. The Matrix would be further developed progressively to include implementation status of major CNS/ATM elements covering all ASIA/PAC FIRs.

2.4 While reviewing the Matrix, the CNS/ATM/IC/ SG/9 considered the need to include SBAS and GBAS and split the ADS column into two to indicate ADS-C and ADS-B separately. It was also recognized that status, such as trial and demonstration or operational use should be reflected including the name of location where such facilities are provided. In view of the foregoing, the meeting formulated the following Draft Decision.

Draft Decision 9/2 – Modification to the CNS/ATM Implementation Matrix

That, the CNS/ATM Implementation Planning Matrix in Appendix A be modified to include SBAS and GBAS and split the ADS column into two for ADS-C and ADS-B to indicate implementation status separately.

3. Action by the meeting

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

CNS/ATM Implementation Planning Matrix
Implementation Status of CNS Elements

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AIDC	CPDLC	GNSS		ADS	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.	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-C Implemented. ADS-B trial being conducted	
BANGLADESH							
BHUTAN							
BRUNEI DARUSSALAM	Implementation of ATN BIS Router planned by 2005.		No CPDLC planned in view of full VHF coverage within their airspace.	NPA (S) planned for 2003.		No ADS planned due to complete Radar coverage.	
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).	Implemented to support L888 and polar routes.	

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HONG KONG, CHINA	AMHS and BBIS Tests were conducted with Japan and Thailand for implementation in 2003. Trial with Australia being conducted.	Trial 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)	Trials continuing for ADS-C.	
MACAO, CHINA							
COOK ISLANDS							
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA							
FIJI	ATN BIS Router will be implemented in 2005.	Trial planned implementation in 2004.	EUROCAT 2000 X system implemented for CPDLC.	NPA procedures for (S) to be completed in Dec. 2002.	Implemented as (S).	Implemented in oceanic airspace using EUROCAT 2000 X. ADS-B trials in 2002/2003. Implementation in 2004.	

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FRANCE French Polynesia Tahiti		Implementation of limited message sets with adjacent centres under discussion.	Implemented since 1996.			Implemented since March 1999.	
INDIA	ATN BIS router and BBIS router planned for implemented at Mumbai in 2005.		Implemented at Kolkata and Chennai.			Implemented at Kolkata and Chennai.	
INDONESIA			CPDLC in Jakarta, Ujung Pandang FIRs planned for 2003.	Planned for implementation in 2002as (S).		70% of area covered by RADAR ADS trial planned for Jakarta and Ujung Pandang FIRs for 2003.	
JAPAN	AMHS and Router Tests are progressing with USA and Australia for implementation in 2005. ATN BBIS will be implemented in 2002.	AIDC based on AFTN procedure implemented with USA.	Implemented in Tokyo FIR.			Implemented in Tokyo FIR.	

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KIRIBATI							
LAO PDR	ATN BIS Router planned for implementation with Bangkok in 2002.		Planned for Bay of Bengal and South China Sea areas. Equipment is under test operation.		Implemented as (S).	Planned for Bay of Bengal and South China Sea areas. Equipment under test operation.	
MALAYSIA	ATN BIS Router planned for 2005.		Planned for Bay of Bengal and South East Asia areas and the equipment is under test operation.			Planned for Bay of Bengal and South East Asia areas and equipment is under test operation.	
MALDIVES							
MARSHALL ISLANDS				NPA (S) implemented at Majuro Atoll.			

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MICRONESIA FEDERATED STATES OF							
Chuuk				NPA(S) implemented			
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-C implemented since August 1998. ADS-B trial in progress implementation planned for 2002/2003.	
MYANMAR							
NAURU							

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NEPAL				Development of arrival procedure and NPA as (S) completed end development of departure procedure is being develop.	Implemented as (S).		
NEW ZEALAND		Implemented between New Zealand and Australia. Tests with Fiji and USA being conducted.	Implemented			Implemented	
PAKISTAN	Implemented of ATN considered for Phase II (2005-2010).					RADAR coverage in Karachi and Lahore FIRs.	
PAPUA NEW GUINEA							

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PHILIPPINES	ATN BIS Router planned for 2005. Implementation for AMHS also planned.		D-ATIS and CPDLC Planned for 2006.			Planned for 2006.	
REPUBLIC OF KOREA							
SINGAPORE	ATN BIS Router planned for 2005.		Implemented since 1997. Integrated in the ATC system in 1999. D-ATIS implemented since February 2000.			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.		ADS implemented since November 2000.	GPS based domestic route structure being developed.

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THAILAND	ATN G/G system implemented for domestic services. BBIS/BIS Routers planned for 2002. AMHS test with Hong Kong conducted.	Implemented in Domestic Sector.	Implemented		Implemented as (S).	Implemented	
TONGA							
UNITED STATES							
Anchorage			Implemented	NPA(S) implemented	En-route (P) implemented		
Fairbanks				NPA(S) implemented			
Guam (Agana NAS)				NPA(S) implemented			
Guam (Anderson)				NPA(S) implemented			
Honolulu Intl.			Implemented	NPA(S) implemented	En-route (P) implemented	ADS-C planned for Dec. 2004	
Johnston Atoll				NPA(S) implemented			
Kahului				NPA(S) implemented			

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Los Angeles		Implemented using AFTN procedure. ATN AIDC planned for 2005.	Implemented 2001.	NPA (S) implemented	En-route (P) implemented	ADS-C planned for Dec. 2004.	
Saipan				NPA (S) implemented			
VIETNAM	ATN BIS Router planned for 2005 and AMHS in 2005.		Planned for 2003 – 2005	Planned for NPA (S) for 2003-2005 period	Implemented as (S) planned for 2002	Most of air space in Hanoi and Ho- Chi-Minh FIRs covered by RADAR. ADS planned for 2003-2005.	