



International Civil Aviation Organization

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

Phuket, Thailand, 9 – 13 June 2003

Agenda Item 8: Review status of implementation of AFTN circuits, evaluated circuit capacity and consider timescale for transition to ATN

Status Report on Australia's AFTN International Circuits

(Presented by Australia)

SUMMARY

This Information Paper presents a status report on Australia's International AFTN circuits to Johannesburg, Singapore and future upgrade programs.

1. Introduction

This document provides update information on proposed changes to Australia's AFTN International circuits. These changes include:

1. Additional AFTN circuit from Brisbane to Johannesburg;
2. Relocation of the X.25 AFTN circuit to Singapore from Sydney to Melbourne; and
3. Investigation to fully diversify Fiji and New Zealand AFTN/Speech circuits from Australia.

2. AFTN Circuit Brisbane - Johannesburg

The Thirteenth African Planning and Implementation Regional Group (APIRG/13) Meeting in its Conclusion 13/9 had proposed to change the AFIASIA/PAC entry/exit point from Mauritius to Johannesburg. The meeting reviewed the request for designation of correspondent location for the entry/exit point in the ASIA/PAC Region. Recognising that Brisbane is one of two entry/exit points between AFI and the ASIA/PAC Region linking Mauritius in the AFI region, Australia agreed to further investigate and study the requirement and agreed to present the findings to the CNS/MET Sub Group meeting held in July 2002.

Due to the unsatisfactory performance and stability of the AFTN circuit between Australia and Mauritius which is made up of many segments which extends to London and then back to Mauritius, the circuit will be discontinued and replaced by installing a 64k link from Brisbane to Johannesburg.

This will involve the following actions:

1. Remove the Sydney-Mauritius Circuit (FIMP – 50 Baud). Removal of the circuit will also allow rationalisation to occur in Sydney and decommission of other equipment that is currently required to provide the service.
2. Install a new 64k digital satellite AFTN X.25 circuit from Brisbane to Johannesburg (FAJS). The circuit will be established from Brisbane to Perth using fibre optic cabling and then from Perth to Johannesburg via satellite.

The service is expected to be available in the next couple of months. Both Airservices Australia and ATNS have provided information to their appropriate telecommunication carriers and are waiting on the link to be established between the two countries before being able to establish the X.25 service.

3. AFTN Circuit Singapore - Melbourne

The 2400 baud COP-B circuit to Singapore from Sydney was converted to a X.25 protocol on 13th November 2002 as stage 1 of upgrading the service.

The Airservices Australia Singapore International Private Line (IPL) from Sydney was relocated to Melbourne on the 5th of March 2003. The cutover was successful with only two minutes interruption to the circuit. The circuit will provide diversity within Australia as part of Australia's AFTN Disaster Recovery Plan to relocate its AFTN Centre to Melbourne in the event of losing its primary AFTN Message Switching Centre in Brisbane.

Investigation into full Diversification of AFTN Circuits to Fiji and New Zealand

Airservices Australia is currently investigating the requirement to provide full diversification of AFTN and speech services between Australia, Fiji and New Zealand.

Currently the service is provided by multiplexing all AFTN and voice services to Fiji and New Zealand over a 64kbps link between Australia and Auckland where Fiji traffic is then switched onto a 64kbps link between Auckland and Nadi.

The proposed solution will investigate the provision of a dedicated 64kbps links between Australia and Fiji and a 64kbps link between Australia and New Zealand allowing full diversification to be implemented.

This work is continuing and will involve consultation with Airports Fiji Limited and Airways Corporation of New Zealand.

It is anticipated that the changes will take effect over the next three to four months.

It is still to be determined whether the AFTN circuit between Brisbane and Salt Lake City will be maintained. Further advice on the reliability of the circuits between Fiji and the USA and New Zealand and the USA will need to be ascertained before a recommendation can be put forward on the viability of maintaining the Brisbane to Salt Lake City circuit.

5. AFTN Statistics

Message statistics of Australia's main AFTN International circuits are shown for the months of November 2002 to February 2003. All circuits listed below except for Mauritius are performing within their specifications. The Mauritius circuit which is known for its instability will be decommissioned when the new Entry/Exit point to Johannesburg is commissioned.

From - To		FEB 03		JAN 03		DEC 02		NOV 02	
		MSGs	CHTRS	MSGs	CHTRS	MSGs	CHTRS	MSGs	CHTRS
BRISBANE >	MAURITIUS	9154	3188694	9613	3404682	7541	2602727	8072	2795407
MAURITIUS >	BRISBANE	15513	4448263	13306	4200226	8561	2947269	8554	3210055
BRISBANE >	NZ	150360	36875175	136898	34447400	131194	34070183	116312	29677273
NZ >	BRISBANE	39505	8919072	37518	8530276	39267	8966756	37715	8628277
BRISBANE >	NADI	28479	8408837	22204	6448185	24383	7073611	19215	5661849
NADI >	BRISBANE	10708	3400530	11783	3865570	9062	2445603	8452	2644440
BRISBANE >	SALT LAKE	84444	23414080	71592	20306222	80364	22290823	70985	19789270
SALT LAKE >	BRISBANE	163656	58917880	153296	55530156	167153	61274129	143124	50049279
BRISBANE >	SINGAPORE	84497	26319814	87315	26670840	94876	29315259	77362	23059892
SINGAPORE >	BRISBANE	81444	27313080	93012	30650582	97519	32029951	84394	28345892

6. Action by the meeting

The meeting is requested to note the ongoing work in Australia to improve current AFTN International services with neighbouring States which will also provide Australia with the necessary infrastructure required for the implementation of the ATN.