Twenty Second Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/22)

Papeete, Tahiti, 12-14 March 2008

Agenda Item 2

TAHITI MODERNIZATION PROGRAM

Presented by DSNA/SEAC-PF

SUMMARY

This information paper provides information on the ongoing modernization of Tahiti Air Traffic Services, highlighting key elements regarding the scope and milestones.

1 INTRODUCTION

Tahiti ACC current ATC system is composed of a flight data processing system (called SIGMA) and an air situation display/datalink system (VIVO). The operation started more than 10 years ago.

DSNA (French Air Navigation Service Provider) initiated in 2003 the Tahiti modernization program addressing:

- The procurement of a new commercial off the shelf system for the Air Traffic Control centre by the end of 2008,
- A secondary surveillance radar (SSR) by the end of 2008,
- A new VHF/HF communication system in 2009.

2 DISCUSSION

2.1 TIARE ATM system

TIARE[1] (replacement of SIGMA/VIVO) CFT was issued in 2005. Its scope covers :

- Flight plans management including support of User Preferred routes and ATS Inter-facility Data Communication (AIDC),

[1] Traitement des Informations ADS et Radar pour l'exploitation (ADS and Radar Data processing for air traffic control)

- Air Situation display built from secondary radar tracks where available, ADS-B and ADS-C tracks when available, or flight plan tracks.
- Controller-Pilot Datalink Communication,
- Conflict Detection/Probe facility for the oceanic airspace,
- Support functions such as safety nets, supervision, configuration, recording/replay,
- Training and validation platforms

TIARE is an integrated ATM system accommodating en-route, approach and tower control (Faaa'a and Moorea) as well as providing AIS facilities to support notam and briefing office activities.

A five years contract was awarded in March 2007 to Thales Air systems (main contractor) and Egisavia.

The introduction of European regulations (Eurocontrol ESARR 4 and European Union Single Sky) with organisational and procedural impacts at the same time was considered by DSNA a serious challenge successfully overcome thanks to close and early involvement of the French National Supervisory Authority (Direction du Contrôle et de la Sécurité).

Current achievements :

- Operational hazard analysis and preliminary safety case in 2006-2007,
- TIARE factory acceptance tests were successfully performed in November 2007,
- On-site installation started in January 2008.

Next steps :

- Training from March to May 08
- Technical and operational validation activities from initial[2] SAT (July 08) onward
- SAT complement regarding the introduction of radar in October 2008,
- Current services operations will use TIARE system (including CPDLC and ADS-C) by the end of December 2008.

2.2 Tahiti Radar

The secondary monopulse radar is located on the highest point of Tahiti Island, Marau's Mountain. The radar pedestal building was commissionned in January 2008

Next steps :

- Antenna installation: april 2008,
- Radiolink commissioning: September 2008
- Radar data assessment and processing by TIARE system: as from October 2008,
- Radar services and safety nets : July 2009.

[2] Focusing on VIVO-SIGMA scope plus conflict probe

2.3 CARTOUM Voice Communication Switch

CARTOUM is being deployed by DSNA in French overseas territories. It handles VHF and HF communications, internal and external phone communications. Easily configurable control panels will be available on each working position.
CARTOUM will be deployed in Tahiti in 2009.

2.4 Service provision evolution

An incremental process including close coordination with adjacent FIRs ANSPs (Airways New Zealand, FAA, Chile) and airlines, subject to operational assessment and safety approval, is expecting:

- current services (as described in the AIP) operations will use TIARE system (including CPDLC and ADS-C) by the end of December 2008,
- radar services (including safety nets) as from July 2009,
- reduction of oceanic en-route separation minima targeted in 2009-2010.

3 ACTION BY THE MEETING

The meeting is invited to note the information provided in this paper.