

**Twenty Third Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/23)**

Santiago, Chile, 26-27 March 2009

Agenda Item 4: Review Open Action Items

DARP TRIAL IN TAHITI

(Presented by SEAC-PF)

SUMMARY

In this working paper, SEAC-PF proposes to ACNZ and Air Tahiti Nui a validation of the re-route process initiated by AOC.

1. INTRODUCTION

The TIARE system is now deployed in Tahiti ACC, including AIDC (ATS Inter-facility Data Communication) version 2 and DATALINK functionalities.

As planned during the twenty second ISPACG meeting, AIDC v2 tests have successfully been conducted with ACNZ.

In July 08, November 2008, January 2009 and February 2009, pre-operational Data Link operations have been conducted by the SEAC-PF with the TIARE system.

Some dedicated trials consisted in exchanging the DARP CPDLC messages (downlink message #24, and uplink message #83) with an aircraft, and were concluded successfully.

The validation of these two functions enables now to test the full re-route process.

2. DARP VALIDATION PROCESS

2.1 Objective

The SEAC-PF would like to validate the re-route processes initiated by AOC : the initiation of the re-routing would be triggered by the Air Tahiti Nui flight crew.

The overall processes followed for these tests will be the one described by Airways New Zealand in its ISPACG/22 WP-02 Rev.1, as stated in annex.

Three scenarios would be tested :

- One flight crossing Tahiti FIR, re-routed inside the Tahiti FIR without changing the exit point of the FIR,
- One flight crossing Tahiti FIR, re-routed inside the FIR implying to change the route until the ADES (including the exit point of the Tahiti FIR),
- One flight crossing New Zealand FIR, re-routed inside the FIR before entering the FIR of Tahiti, implying to change the route until the ADES (including the exit point of the New Zealand FIR).

2.2 Proposed process

SEAC-PF proposes to:

- assess the feasibility of DARP tests with ACNZ and Air Tahiti Nui during the meeting,
- identify the relevant point(s) of contacts,
- finalize a test document between Tahiti, Air Tahiti Nui and ACNZ,
- plan the tests ,
- put in place the mitigation means, if any,
- operate the tests.
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A target timeframe for the tests could be September 2009.

The test document needs to instantiate the sequences mentioned in annex.

3. **ACTION BY THE MEETING**

The meeting is invited to note the successful tests led by SEAC-PF as regards its new system TIARE, and particularly AIDC v2 and Data Link functions.

ACNZ and Air Tahiti Nui are invited to give remarks and confirm if they are interested in the proposed validation process of the re-routing.

RE-ROUTE PROCEDURES AOC INITIATED – DARP

Aircraft Operations Centre	Flight Crew	ATSU
Generate the re-route		
Notify flight crew via ACARS of the planned DARP message.		
Send the DARP message to flight crew for acceptance.	Accept/Reject DARP via ACARS	
Upon acceptance, uplink the new flight plan (re-route) to flight crew.	Load the new re-route into the FMS inactive route (Boeing) or Secondary F-PLN (Airbus).	
	Delete waypoints already crossed.	
	Check entire route sequence to destination.	
	Downlink the modified re-route request to ATSU.	Check for conflicts and coordinate with adjacent ATSU as required.
		Where requested clearance is available, uplink clearance to flight crew.
	Check uplinked ATC route clearance matches the route in FMS and printed flight plan.	
	Accept the clearance.	Transmit the aircraft's new cleared route data to next ATSU via AIDC.
	Load the re-route clearance as an active route in FMS.	
	Check LNAV track displays direct to next waypoint.	
	Execute and verify aircraft tracking.	
	Send ACARS message to Operations Centre notifying that the aircraft is operating on an amended clearance.	
	Request and load the new en-route weather forecast into the FMS for accurate fuel and ETA predictions.	