1.	AGENDA REVIEW
2.	REVIEW OUTSTANDING ACTION ITEMS FROM FIT 9 4
3.	NEW ACTION ITEMS FIT 10 (AUCKLAND 2003) 8
4.	USER-PREFERRED ROUTES AND UPR / AIRBORNE RE-ROUTE TRIALS 10
5.	PROBLEM REPORTS 10
6.	SYSTEM PERFORMANCE REVIEW 10
7.	FIRST ATTEMPT CONNECTION SUCCESS RATE 11
8.	CPDLC POSITION REPORTS IN OAKLAND'S AIRSPACE
9.	TRANSFER OF CONTROL PROCEDURES FOR SHORT FIR TRANSITS 11
10.	BOEING CERTIFICATION APPROACH FOR HF DATA LINK
11.	OVERVIEW OF NATFIG MEETING 12
12.	OVERVIEW OF WORLD FANS ACTIVITIES
13.	REVIEW PACIFIC OPERATIONS MANUAL
14.	PRESENTATION OF WP ON STD FREE TEXT13
15.	PRESENTATION OF WP ON FREE TEXT 13
	PRESENTATION OF WP ON CPDLC ROUTE CLEARANCES AND DUPLICATE POINTS
17.	PRESENTATION OF WP ON REMOVAL OF FIR WAYPOINTS FOR UPRS 13
18.	PRESENTATION OF WP - 3 AND 4 CHARACTER AIRPORT IDENTIFIER 13
19.	DISCUSSION OF FANS OPERATIONS WITHIN BAY OF BENGAL
20.	PROPOSED WORK PROGRAM FOR ISPACG CONSIDERATION

# 1. Agenda Review

The FIT Chairman, Brad Cornell, welcomed participants and introduced the proposed agenda. The agenda was accepted as presented.

### Around the Room Review

This year each ATSU and DSP was requested to prepare a short presentation in lieu of a verbal update.

#### Auckland – ACNZ

- An upgrade of OCS software in May 02 unfortunately resulted in a drop in system performance and reliability ACNZ believes that the problem is now understood and is working to restore full reliability.
- ACNZ and Airservices Australia (AsA) have introduced a new Trans-Tasman route structure
- ACNZ is working with AsA to introduce UPRs in the Tasman Sea by September 2003.
- AIDC between Auckland and Brisbane has been operating for 18 months
- Limited AIDC with Oakland ABI for DARPs will transition to full AIDC when ATOP implemented.
- AIDC with Fiji later in 2003 once issue of short transits between 2 FIRs on UPRs is solved.

#### Brisbane – AsA

- RNP4 being introduced throughout Australian airspace during second quarter of 2003.
- Will be reducing ADS separation to 30/30nm throughout Australian airspace during second quarter of 2003.
- Working with ACNZ to remove boundary waypoints for UPRs.
- Working with ACNZ to introduce UPRs in Tasman Sea.
- Project under way to introduce UPRs throughout Australian domestic airspace.
- ADS-B introduced into Queensland's Burnett Basin area in first quarter of 2003. Currently
  have limited local participation with 15 equipped aircraft have future plans to extend
  ADS-B surveillance to other areas within Australian domestic airspace.
- Class A airspace introduced into Solomon Islands FIR between FL245 and FL600.
- Has seen new data link airlines operating within airspace Lan Chile, Air Caledonie, Emirates, also conducting data link testing with USAF.
- Issue with same identifier for different navaids e.g. LHI, LH for Lord Howe Island. Aircraft are tracking to a different navaid on the island than expected, which causes route conformance warning within Australian system.

#### Tahiti – SEAC PF

- Airlines no longer have any requirement to provide Track Definition Messages (TDMs) for UPRs (since February 2003).
- Planning to end the requirement for CPDLC position reports in addition to ADS reporting within the airspace – trial to begin shortly to test the technical capability of the ground system.
- Introducing Cleared Level Adherence Monitoring (CLAM) during 2003 will be introduced with a new version of VIVO software.
- AIDC expected to be available by the end of 2003/beginning of 2004.
- ADS separation minima being investigated. Working towards 50/50nm separation.

Fiji - AFL

- ADS reporting has been introduced across the FIR. A CPDLC position report is only required at the FIR entry position to confirm Current Data Authority.
- AIDC testing has been performed with Brisbane during the last year. Some operational issues have been identified and still need to be progressed.

- AIDC will be introduced using voice as backup for approximately one month no date has been set
- When AIDC testing is completed with Brisbane, testing will commence with Auckland.

#### Oakland - FAA

- Has commenced partial AIDC interface with Auckland during a test phase.
- Technical issues have so far prevented southbound UPRs further southbound tests to commence within 60 days (by mid-May 2003).
- PACOTS Tracks 20, 21, X and W have been eliminated. Tracks are no longer being published, however the Oakland Center Traffic Management Unit will continue to generate the tracks and issue a Track Definition Message (TDM) to the users who have requested them. Refer to IP04
- 50nm lateral separation introduced on all routes within the Oakland FIR.
- General lack of CPDLC reporting within airspace identified the problem was initially thought to be a flight crew issue. The CRA is investigating audit data obtained from problem reports filed relating to 777 operations. Oakland center is compiling a list to forward to the CRA relating to possible similar 747 operations.

#### SITA

Status report

 Generally a good year for FANS with an increase in traffic of 33% from December 2001 to December 2002. A small lull in operations was seen at the end of 2001, but traffic has recovered.

Refer to presentation

ARINC

**Refer to presentations** 

# 2. Review outstanding action items from FIT 9

### 1 Tahiti will check if its ground system can read concatenated ADS reports

Toulouse requests a test with the Boeing lab to check whether the issue has been resolved.

New Action: Kemal Rebai, Suzie Ness. Test still pending.

#### 2

The FIT should review the "trials" status of UPR operations at the next meeting.

**Remains OPEN.** Auckland is ready to remove the trial status – Other ATSUs agreed that internal coordination within each organization would be required to ensure that no issues remain prior to removal of the trial status.

New Action: Brisbane, Fiji, Oakland, Tahiti

Closed – Trial status removed.

#### 3

Auckland and Brisbane are working on the elimination of boundary crossing waypoint requirements between their Flight Information Regions (FIRs) and will report back to the FIT with the methodology once it is established (ACTION: Mark Goodall, Adam Watkin)

(CLOSED – The trial was successful and there is an expectation that in the future the boundary crossing point requirement will be removed by all ATSUs for UPRs.)

Airways NZ / Airservices Australia – tests have been conducted and FIR boundary crossing points are not required by either system, but a change to the requirement has not yet been implemented. BN has no problem with the idea for FANS aircraft, however it requires a waypoint for non-FANS aircraft.

The current requirement to calculate a boundary crossing point creates a workload issue for the airlines.

Airways NZ questioned whether there was any benefit in removing the requirement until all ATSUs can comply. Fiji no longer requires a TDM and believes that the requirement for a boundary crossing point could also be removed.

New Action: Paul Radford to assist Fiji in working towards removing requirement. Closed

#### 4

Tahiti will obtain an AIDC capability target date and report back to the FIT.

Tahiti expects that a new version of the system due to be tested in July/August 2002 will enable the route field to be read from the flight plan and a TDM will no longer be required. AIDC requires further study and new FDP specifications. Full AIDC capability not expected until 2004/2005. Operators considered such a delay in implementation unacceptable and requested that Tahiti investigate the possibility of implementing the capability in a shorter time frame so that the full benefits can be derived from the overall system.

Item remains **OPEN –** Operators requested that an update be provided prior to the next meeting. Action Item: Roland Dugail to provide a status update to the FIT prior to the next meeting.

## Closed – Report provided JP Carle – AIDC capability end 03 / beginning 04

5 Operators and Air Traffic Service Providers (ATSPs) should continue to stress the need for avoidance of the inappropriate use of free text (ACTION: operators and ATSPs). ATSPs should provide data on use of inappropriate free text directly to the airlines concerned wherever possible (ACTION: ATSPs).

#### Remains OPEN

Action Item: Continued vigilance by airlines and ATSUs is required to ensure that users are trained in the correct use of free text.

6

ARINC will update the FIT on HF data link system performance at future meetings).

#### Presentation provided - see Appendix 3

The CRA raised the issue of ARINC's message routing in relation to HF data link and believed that if a downlink message is sent by SATCOM then the message could be returned by HF, leading to a concern that overall performance goals will be reduced. Boeing stated that HF data link will be implemented on 777s beginning with AIMS block point 03. ATS messages will only be allowed to use the HF data link system when VHF and SATCOM data link systems are not available.

#### Terri Anton to check ARINC routing tables.

**CLOSED** – Using dynamic routing a message arriving via SATCOM will be returned by SATCOM, ARINC won't check network first.

New Action: Terri Anton to check to see if a downlink AOC message delivered by HF will affect the delivery path of an ATC message.

New Action: Terri Anton to ensure that HF data link is only used for ATS messages when there is no SATCOM connection available.

Closed – Presentation provided by Tom McMahon – refer to ARINC presentations

# 7 Testing is planned on Boeing wide bodies to obtain relief from an AFM restriction on the use of SATCOM voice as a required communications system for oceanic operations; Boeing will advise when it is to take place (ACTION: Brad Cornell).

#### Remains OPEN

Boeing is in the process of coordinating a change to the Airplane Flight Manual (AFM) with the FAA relating to the use of SATCOM for ATC communications. Once the AFM wording has been revised Boeing will coordinate with the FAA to revise the Master Minimum Equipment List (MMEL) to provide similar relief as is currently allowed for SATCOM data link operations. Action: Brad Cornell

8 One ATSU uses the MONITOR message to indicate to the pilot that data link operations will continue in the next sector, but believes that the intent of the CONTACT message is that data link operations should cease until the next sector

authorizes further data link use. Other ATSUs do not believe that the intent is so specific. Was the CONTACT message intended to be interpreted as "stop using data link"?

Action Item: Adam Watkin to clarify the intent of MONITOR/CONTACT messages with ICAO/OPLINKP. Completed POM RFC REQD – Define intent of MONITOR / CONTACT – procedure for suspending data link use. Action: Craig Roberts - E-mail distribution by 21 March 2003 Closed - refer RFC 03/012 RFC 03/012 rejected by Airservices Australia Action remains Open Adam Watkin to rewrite RFC procedure and obtain necessary consensus from within Airservices prior to resubmitting RFC to FIT.

9 The FIT CRA will coordinate on the development of a trial that will see an airborne re-route procedure used in conjunction with a UPR.

**Action Item: Brad Cornell** 

Open – Hoped that trial would occur prior to FIT 10, however delay occurred and the trial will be rescheduled.

New target date has been set for a northbound trial between Auckland and Los Angeles by mid-April, 2003. Southbound trial by mid-May 2003.

10 Operators recommended that controllers leave the pilot to request any change to the UPR instead of offering track shortening, as in most cases the flight planning system has made the most efficient choice of route and an amended route clearance will decrease the available benefits.

Action Item - a recommendation that guidance material be added to the SPOM to dissuade controllers from offering an amended route clearance from a UPR. Open - Draft POM RFC required Action: Craig Roberts - E-mail distribution by 21 March 2003 Closed – refer RFC 03/013

11 PR 380 SITA to check with ARINC – dynamic routing works differently between two service providers – SITA will obtain log from Qantas to investigate the issue, which will take approximately one month. Action Item: Karen Stephenson

Closed

12 When multiple clearance elements are sent where one element is dependent on another, then message elements should be included in the one message. The proposal requires further investigation to ensure that there is no possibility of the pilot misunderstanding that the first clearance element has to be performed before the second.

Action Item: Craig Roberts, Alan London.

Closed – POM RFC provided and agreed by group

13 Current Australian AIP requires a CPDLC report from departing aircraft as soon as possible after passing 45 NM so that domestic/oceanic controllers have a visual indication in label that the centre is holding data authority. Objections from airlines due to crew workload. Airservices to review current AIP entry. Action: Airservices

# Possibility of sending Pos Rpt on ground Sydney prior to departure??? Further work to be done by AsA

14 Nadi still requires CPDLC and ADS reports for an interim period (suggested one month) until the system is more mature and the testing phase has been completed. Action Item: Nadi to advise FIT when dual reporting no longer required.

Closed – ADS reporting only - CPDLC report required on boundary.

15 Nadi to conduct AIDC testing with adjacent FIRs Action: Nadi to report results to FIT Work continues

# 3. New Action Items FIT 10 (Auckland 2003)

# 1 Boeing CDU ATC Data Link Log Page Displays

Occasional mismatch occurs between left and right CDU ATC data link log pages - when mismatch occurs between left and right display, the left side display is always correct.

Action - Boeing to issue Operations Manual Bulletin (OMB) Suzie Ness

# 2 WP4 - Oakland Controllers not receiving CPDLC pos reports as expected.

One issue with the B777 has been identified, but does not account for all reported occurrences. KZOA also noticed some occurrences with B747-400. More info required on individual aircraft.

Action - Oakland Center to provide any available data and new occurrences to Boeing David Maynard – Initial data received from Bob Hansen on 18 Mar 03

### 3 Air New Zealand - A320 being introduced on Tasman routes

Is AOC position reporting via SATCOM acceptable to ATSUs as a means of reducing HF voice congestion?

Action - all ATSUs

### 4 FAA position with respect to RFC #02/10 (Domestic Operations)

FAA to present RFC to HQ for FAA approval - response to be provided to IPACG meeting – April 21<sup>st</sup>, 2003.

Action - FAA Roger Kiely

### 5 Elimination of boundary crossing waypoint requirements between Brisbane / Nadi Flight Information Regions (FIRs)

Action - Brisbane to work with Nadi when Nadi AIDC available Adam Watkin

6 Issue raised on use of same identifier for different navaids – e.g. LHI and LH for Lord Howe Island.

Action Open – no delegation of individual responsibility

## 7 Occurrences of failed data link connections on the first attempt

# ATSUs will investigate possible causes of failed connection attempts that may be resulting from current automation and timing issues.

8 High percentage (approx 20%) of transfer failures occurring across over all ATSUs. The pilot should send boundary position report as a prompt that the connection has not transferred before taking action to disconnect and logon to next ATSU.

POM RFC required Action: Craig Roberts – E-mail distribution by 21 March 2003 Closed – refer RFC 03/014

#### 9 Reporting of Monthly Performance Data

Fiji was asked to investigate the necessary requirements for providing data in the short to medium-term. Action: Fiji

10 Invitation to New FANS Operators

The meeting discussed the prospect of inviting operators new to FANS, or those who have been operating FANS without access to a FIT-type group, to future meetings. Lan Chile was invited to FIT 10, but could not attend.

Operators suggested for invitations to the next IPACG/FIT meeting in Tokyo included Mongolia and Magadan. Action: IPACG Co-Chairs

Closed – Invitation to attend the Tokyo IPACG FIT meeting in April 2003 extended to CAA Mongolia and Magadan ACC.

# 4. User-Preferred Routes and UPR / Airborne Re-Route Trials

Review last year's UPR operations and procedures by participating ATSUs and airlines. Please focus reports on operational benefits and or lessons learned from last year's UPR trial. As you know we want to remove the "trial" status for UPR operations so please come prepared to discuss that specific issue.

All ATSUs agreed to remove the 'trial" status from User Preferred Route operations. In addition Oakland informed the team that due to the large amount of UPR usage they are no longer going to produce PACOTS tracks.

A planned one-off trial to prove procedures and system performance did not meet the target of occurring prior to the FIT 10 meeting due to an issue found with an airline flight planning system. The issue has now been resolved and a new target date has been set for a northbound trial between Auckland and Los Angeles by mid-April, 2003. United Airlines has expressed interest in being involved in the northbound trial.

Oakland will have the capability to begin a southbound trial between Los Angeles and Auckland within 60 days (by mid-May, 2003). Oakland has agreement for a 30-day test period.

The airborne re-route from an Auckland/Los Angeles UPR is required to remain wholly within the Auckland and Oakland FIRs. Expansion of the trial to other city pairs will require further coordination.

For flights in the future (i.e. after commencement of a trial period), consideration will be given to allowing the trial to include the Los Angeles/Sydney city pairs when the route transits only the Oakland/Auckland/Brisbane FIRs (i.e. remains clear of the Nadi FIR).

Discussion of technical issues surrounding AIDC exchanges ensued.

# 5. Problem Reports

Same process as last time, we'll send out a dump of PR data prior to the meeting.

During the general Problem Report discussion, the group agreed to close the following PRs: 242, 245, 289, 322, 329, 333, 342, 359, 361, 366, 380, 386, 389, 390, 403, 408, 409, 410, 413, 414, 415, 416, 419, 420, 424, 426, 430, 434, 435.

After the conclusion of the general FIT meeting, Suzie Ness met with representatives from the ATSUs to discuss specific instances of transfer failures, which occurred between January 2002 and March 2003. During this discussion, the group agreed to close all transfer and connection failure PRs which occurred prior to January, 2002 as well as two others which have been corrected by a software modification. The PRs closed during this discussion are: 210, 230, 292, 293, 294, 318, 326, 328, 353, 371, 381, 383, 390, 392, 394, 395, 411, 412.

#### **Refer to presentation**

# 6. System Performance Review

ATSUs are requested to send in system performance data up through January 02 so we can prepare our normal composite system performance statistics.

The ATSUs that currently provide monthly performance data were asked to ensure that each month is reported when the data becomes available rather than proving multi-month blocks of

data at one time. Fiji was asked to investigate the necessary requirements for providing data in the short to medium-term.

#### **Refer to presentation**

# 7. First Attempt Connection Success Rate

All ATSUs seem to have a first connection atempt success rate of ~85 to 87%. Although most connections are establashed on subsequent atempts we would like to take some time to discuss possible causes for the lower than expected connect rate.

Data collected from various ATSUs throughout 2002 indicated that there might have been a problem with data link connections on the first attempt. Discussions at the meeting suggested that some of the statistics might be inflated by some automated systems making multiple connection attempts in quick succession. Other causes considered were the message sequences involved when an aircraft transits the "corner" of an FIR and that FIR does not accept control of the aircraft following coordination with adjoining ATSUs.

ATSUs will investigate possible causes of failed connection attempts that may be resulting from current automation and timing issues.

# 8. CPDLC Position Reports in Oakland's Airspace

Some operators are not sending CPDLC position reports when operating in Oakland's FIR. This issue was raised during the IPACG FIT and it was requested that it be reviewed at the ISPACG FIT as well.

#### Discussion of WP4.

Controllers within Oakland's airspace have not been receiving CPDLC position reports as expected. The problem was originally considered to be a flight crew training issue. Some of these occurrences can be attributed to a known issue with the 777 avionics, which will be corrected by Boeing in late 2003. The CRA will investigate further.

Controllers have also noticed some occurrences of a similar situation with individual B747-400 aircraft. Boeing requires more information on these and future occurrences.

# 9. Transfer of Control Procedures for Short FIR Transits

We discussed this last year, and we in the problem investigation business have reviewed a number of audits since then where this has been the root cause of the reported problem. Let's review our procedures and make sure we are all on the same page.

RFC raised and agreed

#### Refer to RFC 02/012

# **10.** Boeing Certification Approach for HF Data Link

There has been much discussion regarding the use HFDL for use with ATS messages. We will review the certification approach agreed to with the FAA.

#### Discussion on use of HFDL for ATS purposes.

Boeing provided a briefing on their plans for certification of HF datalink for ATS communications. The FAA requires that HF be the third media selected after VHF and SATCOM.

Much discussion on use of HFDL for ATS purposes ensued. The meeting agreed that the use of HFDL within certain regions, such as Polar routes, is an advantage and HFDL would also provide a delivery medium when a SATCOM connection is lost. However, HFDL performance does not currently meet South Pacific performance requirements. While the group agreed that third place is acceptable, the South Pacific states do not want aircraft with HFDL only or an inoperative SATCOM system to dispatch and use ATS data link.

ARINC advised that it is changing its routing tables from July 2003 to make HFDL the last media tried for ATS purposes (i.e. media selection order will be VDL AOA, VHF, SATCOM, HFDL). Media selection for AOC purposes will continue to try HFDL prior to SATCOM.

JCAB commented that HFDL may be able to be used for ATS communications except when reduced separation is being applied. JCAB is studying the issue.

The Boeing presentation included information on the introduction of a latency timer in the B777 Block Point 03 upgrade – primarily for FANS operations in Europe.

Refer to Boeing presentation on HFDL certification.

# 11. Overview of NATFIG Meeting

NATFIG held week of 3 March 2003. Overview provided by Roger Kiely, FAA.

**Refer to Presentation** 

# 12. Overview of World FANS Activities

Briefing provided on accommodation of FANS investigations currently being undertaken in Europe by LINK 2000+ and within FAA domestic airspace by an RTCA sub-group. Work by both groups will continue throughout 2003/2004.

Briefing provided on Asia Pacific Airspace Safety monitoring (APASM) task force with regards to the funding of RVSM and ATS data link system monitoring. The group continues to investigate a regional funding mechanism.

# 13. Review Pacific Operations Manual

In the interest of harmonizing FANS procedures across regions the concept of a Pacific Operations Manual (POM) instead of a South Pacific Operations Manual (SPOM) has been widely supported. Therefore we would like to review and hopefully approve the draft POM that has recently been completed. We will also discuss the document revision process and deal with any RFCs that were generated during the meeting.

# Proposed RFCs presented and most agreed. RFC 02/10 to be presented to FAA Headquarters for consideration prior to IPACG meeting – Action: Roger Kiely.

POM officially adopted. The SPOM RFCs approved by FIT will be included in the next version of the Pacific Operations Manual.

Some discussion ensued on expansion of the POM to include other regions, specifically the Indian Ocean as interest has already been expressed.

# 14. Presentation of WP on Std free text.

Working Paper presented by Airservices Australia – Refer to WP...

# **15. Presentation of WP on Free text**

Working Paper presented by Airservices Australia – Refer to WP...

# 16. Presentation of WP on CPDLC Route Clearances and Duplicate Waypoints.

Working Paper presented by Airservices Australia – Refer to WP...

# 17. Presentation of WP on Removal of FIR Waypoints for UPRs

Working Paper presented by Airservices Australia – Refer to WP...

# 18. Presentation of WP - 3 and 4 Character Airport Identifier.

#### Working Paper presented by the USAF – Refer to WP...

Opinion was that most airports do have a four-letter character available. Any space character used for padding the character field would more than likely be rejected by most ground system Flight Data Processors. The USAF will perform further investigation on compliance with current airport character requirements.

# 19. Discussion of FANS Operations Within Bay of Bengal

A FANS trial is currently under way within Bay of Bengal airspace. The results of discussions were that operators involved with the trial are encouraged to adopt POM procedures and ATS SR&O requirements to ensure the standardisation of operational and safety requirements with other regions.

# 20. Proposed Work Program for ISPACG Consideration

- Introduction of "Airborne re-routes from UPRs" trial during 2003.
- Introduction of 30/30nm separation throughout South Pacific airspace.
- Accommodation of ATN operations within the Oceanic environment.
- Introduction of Constant Descent RNAV (CD RNAV) Arrivals at major airports throughout the region to reduce fuel burn, emissions and noise.