Thirty-Third Meeting of the Informal South Pacific Air Traffic Services Coordinating Group

Monday 18th – Friday 22nd March 2019

Queenstown, New Zealand

Record of Meeting – FIT26

Tuesday 19 March – Wednesday 20 March 2019

Meeting starts 9:00am

1   Opening Remarks

Brad Cornell – Boeing, opened the meeting by welcoming all delegates. He also expressed condolences for the tragic events that occurred in Christchurch last week.

Brad thanked Airways NZ for putting on a great event.

Introductions of those present at FIT26

Airbus	Clement Selles, Jean-Francois Bousquie
AirNZ	Mark Shepherd
Airservices	Chris McCormack, Anthony Smith
Airways NZ	Johl Brown, Paul Radford, Trevor Land, Allan London, Mat Fraser
American Airlines	Steve Smith
Boeing	Brad Cornell, Michael Matyas
CAA NZ	Kate Madden, David Wills, (Sean Rogers arrived later)
DGAC Chile	Francisco Uzieda, Jose Murua
FAA	Dustin Byerly, Julia Fuller, Braks Etta
Fiji Airports	Ratu Navula
Hawaiian Air	Kalani Sloat
IFALPA	David Griffin
Inmarsat	Lisa Bee
Iridium	Tracie Cook
PNG Services	Phil Irvine, Doko Iru

2   Update from Operators

2.1 Air New Zealand - Mark Shepherd

Picking up from ISPACG32, our PBCS implementation went ahead on schedule, which was very important for the North Atlantic. Auckland Oceanic and all surrounding datalink FIRs working well for us. We had one issue with an ATC clock, which was resolved promptly, so pleased that reporting does work. We are in the process of introducing new fleet of A320/A321 aircraft, FANS A+ equipped. A couple of new PRs on the CRA website concerning B777 and 787.

One question that is continually asked is why there is CPDLC is not more widely used in Australia – comments particularly around surveillance airspace out by Lord Howe. In particular, modern aircraft

like the NEO and 787 monitor frequency uplinks, populate the radio and provide a reminder of what to carry out. We have this automation that could be used, but isn't being used.

Airservices respond to Mark by saying – with the 321 departing Brisbane coming back to NZ, the Lord Howe airspace is essentially through use of the VHF. We essentially run it as a surveillance sector, so primarily the comms is VHF. Upon departure they still log-on to BNE as a backup then the AirNZ transiting between MEL and NZ is the traditional Oceanic services. Mark, Chris and Tony took the discussion off-line and reached an agreement for greater use of CPDLC around Lord Howe Island.

2.2 Airservices Australia – Chris McCormack

We are working with Thales to roll out the new OneSKY platform. Our current system is end of life and we are working with Thales to achieve some improvements that will improve our use of AIDC messaging. Adam Watkin has done some great work in providing Thales with a list of possible enhancements and we are expecting a reply this week. We have rolled out a new voice switch, so there was a lot of training involved with controllers, but feedback has been positive and that it provides good functionality. It allows us to improve the way we currently do our sectorizations. Allows us to merge more frequencies into positions than what we could do previously.

2.3 DGAC Chile – Francisco Uzieda

Working with AKL Oceanic and FIR regarding radio failure procedure. Making changes in our regulation regarding this. We are approaching similar airspace between AKL and Australia in that manner.

Regarding PBN, we are working on RNP2 – should be updated by end of year. Finally, after many years (4-6 yrs), we have a contract with Thales to improve our ATM system, so will have at end of this year (we hope Oct-Dec) to have implemented v7.1 – allows us to have AIDC.

Finally, the ADS-B approach in Chile by means of satellite to be used in north part of Chile near Peru. If all well, maybe we can get surveillance over Pacific Ocean, which would be great for us.

2.4 Fiji Airports – Ratu Navula

Regarding PBN, we have had our first set of discussion with airlines regarding design of an RNP-AR approach into Nadi for landing on Runway 20. Currently, landing on Runway 20 is only possible through a visual circling manoeuvre, however, Airlines have stated their reservations on the use of the manoeuvre. The RNP-AR approach that is being proposed is to mitigate the visual circling manoeuvre and also to give Airlines an improved opportunity to land in Nadi whenever wind conditions favour landing on Runway 20. In addition to the RNP-AR approach, a RNP-AR Standard Instrument Departure procedure will be designed also to cater for Departures off Runway 02, which is the departure towards the North of the Airport. STARs will be designed also for Runway 02 in Nadi. Fiji Airports has contracted Aeropath NZ for the design of the procedures.

We have finalised the LOA with Australia which incorporates the new PBCS separation standards. Discussion with New Caledonia is also ongoing on the LOA.

Operational procedures regarding CPDLC descent into Norfolk Island by Air New Zealand A320NEO and A321NEO aircrafts have been finalised. Awaiting confirmation of timeline from Air New Zealand. This will require an amendment to our Letter of Agreement with ACNZ regarding coordination procedures on operations into Norfolk Island.

Regarding the ADS-B Surveillance, planned rollout of the Surveillance Control service in 2020. The new domestic airspace where Surveillance Control will be provided will be in place by March 2020. Training on the ICAO 054 – Radar course - will commence in May 2019. Part of the project, includes the progressive replacement of the ADS-B ground stations and the refurbishment of the Control Towers and ATM Operations Centre to allow for console replacements and installation of the new ATM Surveillance Control workstations.

PBCS implementation in the Nadi FIR was last year. Signed a contract with Airways NZ for post-monitoring of our PBCS data for which a working paper and performance data will be presented by Paul this morning.

PROJECTS
A number of projects are currently underway, which are as follows:
- Upgraded our voice comms system within oceanic, HF and Tower Systems. Currently addressing some reliability issues with our HF VSCS and this is being dealt with our Supplier;
- Another project is the runway extension at Nausori Airport – our 2nd International Airport for Jet operations. Currently we are limited in terms of length / width of runway. The current project is to widen and lengthen the runway to ensure maximum loading for our Jet Operators into this airport. The planned timeline for completion is 2020, which will also include the installation of a new ILS/DME.
- **CRV Project –** We have completed voice testing with Oakland Centre and Auckland Centre. AMHS Connectivity testing with Salt Lake Communication Centre was also planned for last week, however, nil update on the AMHS Connectivity testing. Still awaiting the confirmation of timelines for testing of the voice circuits with Brisbane Centre.

2.5 **FAA – Julia Fuller**

PBCS filing was pretty low at 40% and now upward to 60%, which is welcomed by the by controllers. For FAA it is very much dependent on flow.

HFDL – ran into issues earlier this year. One operator started using HFDL at an incredibly high level. Submitted a PR, but this identified how badly performance can be impacted and we were simply not getting messages in time to know what was going on. Definitely since then there has been dramatic improvements.

Outages do have a high impact whereby the controllers were seeing their sector cues overloaded. We are working to develop with members of TAIC analyst sub-group to develop a common approach to detecting outages.

Regarding the Welcome Message – something we just started using. Latency monitor – no actual update. There is a technical center meeting in April 2019 to discuss where we want to go with that.

3   Update from Communication Service Providers

3.1   Inmarsat Australia - Lisa Bee

We are monitoring performance to optimize I4 constellation. We are working to implement a fast satellite voice over IP communication service provider to our network, which is not available yet – as it requires ANSP voice switch for flight data process. Much faster ground-air connection, enabling higher communications.

Lisa acknowledged to Paul that the problem reports identifying delays/issues would be helpful to see and she will coordinate with London tech support on these. Lisa has not heard of the issues to do with transition, so if you are seeing issues I agree this would be helpful for us to investigate. Paul added that the performance we see is not what we would expect to see.

3.2 Iridium - Tracie Cook

Our new constellation finalized earlier in the year. Michael Hooper sends his apologies, however if anyone has questions, please let me know and I can take them back and will get answers for you.

4   Working Papers

4.1 WP-001 – Problem Report Briefing, CRA / Clement Selles & Jean-Francois Bousquie, Airbus

Clement and Jean-Francois spoke to the paper, which shows problem reports since last year. Clement went through each PR with the group. *For detailed information about each PR, please review WP-001*.

Last year a total of 62 new PR's were allocated. It is worth to note that since the start of PBCS operations in some FIRs, some airlines have started filing PR's on their own for issues not necessarily reportable at ATC level, but it still is relevant for OEM's to investigate.

PR's will continually be reported and outcomes communicated.

4.2 WP-002 - NZZO PBCS Report 2018, Airways NZ / Paul Radford

Paul spoke to the paper. NZZO report for 2018 on FANS 1/8 performance, which the ICAO recommended forming. *Please refer to the performance table summarized in Attachment A of WP-002*.

Paul is currently putting together a combined consolidated report, which will be available to present tomorrow morning (*see point 7.8, Wed 20 Mar*).

4.3 **WP003 – Standardisation to confirm CDA, Airways NZ / Paul Radford**

Paul spoke to the paper. FANS 1/8 doesn't have built-in CDA, only way we know current data authority is to send them a message and get a response. Paul suggested we offer an agreed standardization and for this purpose we will agree we will move to a free text welcome message which aligns with the NAT and North Pacific, but it may not happen overnight, and would expect the ANSPs to do it when they can – i.e. upon an ATM refresh. From an Auckland perspective making the change is minimal in terms of software time and testing. Problem we have is we don't have any software resource because all resource is on new ATM currently.

ACTION: Paul will work on a standardization of using free text. Transitioning this to a global method would be preferred option.

4.4 **WP-004 - NFFF FANS1/A Performance Report 2018, Fiji Airports / Paul Radford**

Paul spoke to the paper. Nadi only started doing analysis mid-year 2018, so we haven't got a lot of reports from first half of last year. *Please refer to the performance table summarized in Attachment A of WP-004*.

4.5 **WP-005 - FANS PR Briefing, CRA / Mike Matyas, Boeing**

Mike spoke to the paper which outlined recent investigation and disposition of submitted Future Air Navigation System (FANS) problem reports (PR) that are relevant to ISPACG. Worst data was through third quarter 2018, which could have to do with the satellite migration in progress – however I don't have any firm evidence to support that, but it's our best engineering judgement. The CRA has updated the status or progress of old PRs, which are relevant to ISPACG.

These PRs were discussed and are outlined in the WP-005 paper. Note: PR2773 - Point E is still ongoing – not closed – at time of presentation.

Mark Shepherd added that when we introduced latency monitor we made decision not to delete the value on FIR. We considered the effect adjacent FIRs but only issue we have had has been one clock issue with an FIR – continue with that leaving - leaving the value until FIR complete. Mike added that that's the difference between Boeing and Airbus a CPOC transfer authority, Boeing keep latency value monitor whereas Boeing wait until clear.

As a side note - as time goes on and as more airplanes operating on SATCOM systems. In general, only one system should be in use at one.

Mike Matyas invites FIT to note content of paper, resolution of active open PR's

4.6 **WP-006 – Safety Services over Certus Evaluation. Boeing / Mike Matyas**

Mike spoke to paper. The FAA sponsor Performance-based operations Aviation Rulemaking Committee (PARC) which is essentially a government industry group providing reports/advice to the

FAA. Mike invited FIT to note content of paper, which is subject to acceptance or rejection of proposal under paragraph (2.8). If accepted, then please provide contact information for each participating ATS provider for coordination and sharing of Safety Services-over-Certus performance data.

4.7 WP-007 – PBCS Briefing, Airservices Australia / Chris McCormack

Chris spoke to the paper, which observes performance of the CPDLC and ADS-C from Brisbane and Melbourne FIRs as specified in the global operational data link document (GOLD). Data has been provided to Paul to include into his regional report for presentation tomorrow.

5 Information Papers

5.1 IP-001 – Departure Clearances, Airbus / Clement Selles & Jean-Francois Bousquie

Clement spoke to the paper. Paper presents AEEC 623 DCL issues that have recently been reported on Airbus aircraft. This was highlighted as an Air New Zeeland problem here in NZ. Airways NZ did a fix in January, which means we don't have to override aircraft type and we thank Airways NZ for positive answers to cope with our issues.

5.2 IP-002 - DGAC Chile AIDC Update / Francisco Uzieda

Francisco spoke to the paper, which provided information regarding the AIDC project carried out by the DGAC of Chile and the planned development involved in it. DGAC signed a contract with Thales which will allow Santiago OAC to have AIDC under standard ICD 3.0 ASIA PAC. After Thales signed the contract they have 12-months to get this setup and 2 more months to get it working. It's already developed with small arrangement to fit into our system. Somewhere around Aug-Sep 2019 we are commencing tests with AKL Oceanic.

One thing important to note is that two more working stations are considered into the contract. So will be able to drop off our current national development and start working solely with Thales. It is expected that the new system will be in production by March 2020 and will allow us to have a robust system that meets the requirements to achieve the maximum milestones defined in the Pacific FIR Seamless Airspace Chart.

6 Presentations

6.1 NZZO Feedback, Airways NZ / Paul Radford

Paul presented an overview of NZZO Feedback for the PBCS, Performance, HFDL, Iridium and PBCS monitoring in 2018.

Some highlighted points were that with Iridium we are seeing a significant performance improvement, which is excellent news. PBCS was implemented in March 2018, and 75% of FANS1A

traffic in NZZO is now indicating PBCS status in FPL. No operational issues reported, at this stage. We have 965 PBCS Charter members, 1227 airlines signed to CR/CLMA website and there is a lot of use.

We implemented the latency monitor uplink in June 2018, which supports safety requirement #15 on aircraft mitigating late message receipt. We received four rejects in the first two months. Airbus testing is scheduled for 29 Mar 2019, with a fix lined up for that. Anticipated roll out over the next 18-months.

Paul spoke through the graphs on his presentation. Regarding the ADS-C RSP180 RGS – one significant change is Iridium constellation. This is up around 99.7% at 180" mark, which is out performing from the last 12-months and easily meeting the spec now.

Regarding the RGS/GES SATCOM, first half of the year Iridium was well below requirements, however 2nd half of the year there was no problem.

HFDL Performance when used in 'next on busy' mode does not cause significant performance deterioration. Performance when used as primary media in event of SATCOM failure does not meet RSP180 performance requirements. Number of airlines using it has increased on last 12-months.

When HFDL is operating as primary mode we have a degraded performance. Some aircraft seem to use more HF than others.

The RCP240/RSP180 specifications call for a safety availability of 0.999. In 2018 a global assessment based on reported outages to NZZO shows there were 29 unplanned outages. A review of the global outages and assessing if an operational impact was felt in NZZO shows 8 unplanned outages had operational impact.

One problem as an ANSP is we try and determine what impact we have in reported outages had on our operations and what impact it has on our operations staff. NAT TIG and ICAO OPSLWG PCBS Group are working on this question.

PBCS Monitoring is a useful tool to do an analysis on. The main use is ease of table/graphs and the major advantage is tracking issues with aircraft. Four ANSPs loaded in there, so if you get a problem with aircraft fleet you can now use this tool to take a look at what the fleet is doing in other airspace. Aggregating data is a significant bonus.

6.2 **NiuSky –PNG Services / Phil Irvine**

We have gone through an ATM Transition – areas sector has no more strips and we are now live with the new model since early September 2018 (NiuSky). This is largely successful – the functionality is basic, but we are progressing as we go.

We are driving the rest of the transition as other systems are failing – for example, links are challenging to get working properly.

Surveillance – struggling to get ADS-B network up. Moresby was first online (two sites). Currently we are reviewing ADS-B from space (receiving a feed that we are evaluating) due to problems we are having with remote site in terms of power, and vandalism issues are holding us back. Price is an issue but this versus failing systems is working out the same.

Communications – our remote VHF/ADS-B site at Mount Dimodimo was significantly vandalized – land owners destroyed it, so this is now abandoned. HF is ready and in progress.

ADS-C/CPDLC testing expected to occur in late Apr/May 2019. We have overcome a lot of communications issues. Datalink has helped with comms.

AIDC – initial testing with Airservices to commence late March. Go live in Apr 2019 (Moresby – BN) with testing in Oakland by end of June 2019.

CRV – working on link requirements. Targeting fourth quarter this year. We are currently establishing link requirements and working with local PCCW agent on connection options. Our link with Oakland is up and down, so CRV will overcome a lot of communication problems for us.

Next ISAPCG34 I should be able to talk to you about a successful update.

6.3 FANS PR Debrief, Airbus / Clement Selles & Jean-Francois Bousquie

Clement spoke to the slides regarding multiple PR's, which may provide added value for you. *Please refer to the presentation for detail discussed on PRs.*

Paul added that one problem we have is that the connections are automated. Coming out of AKL to the Tasman is right on the boundary. We see duplicated requests all the time. Clement responded that the new software is released, not all aircraft are eligible to make this change. Some aircraft will, but for others it will take time.

Airservices asked if there is a VSP to wait until we try again. Clement advised to ask crew to log in/off again, however there is always the risk of having VHF. Usually re-login works. Mike Matyas advised that the other thing Boeing is proposing if a message fails, is wait 2-3mins then resend the message.

6.4 Datalink Oakland Centre, FAA / Julia Fuller – presentation

Julia spoke to the presentation. We have been monitoring data since Feb 2019. Further updates at ISAPCG34.

Paul added that he doesn't think we are seeing as many unreported outages like we used to in early days. Probably a major was one occurrence where we had a hardware failure in CSP – but didn't get that reported until 3 days. There are significant outages for Airways NZ and Oakland and Brisbane. We check our data on a monthly basis for something that may be unreported.

7   Closing Comments – Brad Cornell

- We are continuing to work through the PR's.

- Probably the biggest thing is the availability number issue to raise and bring forward to ISPACG. Paul agreed and then ISPACG can go out to CSPs and Satellite Service Providers again saying – ''here are the figures what are we going to do about it. **Address at the next meeting (FIT27).**

Paul also added that feedback from the ATCs back at 2005 was not good. Maybe because the performance we were seeing was more affected by the outages, maybe more frequent - can't quote recall – but what we are seeing now is we only had 8 affected outages last year, which is not enough to tweak controllers. Yes, the figures are bad, but outages not having an impact on us. RCP240/RSP180 require performance by the CSPs and ASPs and we certainly are not meeting that.

Meeting closed for the day – 2.40pm. Adjourned until tomorrow.

Wednesday 20 March 2019 - meeting starts 9:00am. FIT26 continued.

7   Presentations

7.8 **FANS1A Consolidated Performance Report – Paul Radford**

Paul spoke to the excel spreadsheet, which is a standard format that came out from regional office back in Nov 2018. Anything less than 500 is not a significance of concern. *Please refer to the report for full details.*

- ISAPCG RSP180 – no significant issues

- ISAPCG RCP240 – no significant issues

- ISAPCG RSP180 – this is only reporting exceptions (ie do not meet the criteria).

- ISPACG RCP240 – operator and operator type outlined that do not meet performance specs.

One thing to consider is to take up these results with ICAO and IATA, which is one way for specs to increase.

There is not many PBCS qualitied aircraft. HF users not meeting performance specs and not seeing a lot of PBCS qualitied aircraft reporting.

David Griffin asked – are these airlines capable of satellite and choosing to use HF? Mark Shepherd advised you can turn it off manually or choose it to be off all the time. Mike Matyas added that typically the avionics would try to use HF first, then SATCOM, then HF.

Paul Radford added that what we see from observation of the data is some aircraft are observed as using HFDL more often than others. Problem for Paul is if they have the HFDL turned on and they have SATCOM fail then that's when performance goes out the window. Aircraft is still thinking they got data the reality is they haven't, and much rather it is turned off and they went to voice, where it's clear. Have a look at operators who are using HF more often than not. There must be something in the aircraft that is making them use HF.

Jean-Francois added that this criteria may not be right one because it gives too much importance to HFDL performance compared to the cases where you don't have HFDL. If you have a SATCOM issue immediately you know that you are aware of it. When using HF then the performance is set to low. For me, performance criteria used to consider this is not fair.

Paul added that as an ANSP point of view, if they don't tell us when they have SATCOM failure, and tell us no longer PBCS and using HF data, then we could be applying foreign separations on those aircraft.

Paul reminded all ANSPs if you have PBCS qualitied aircraft that are not meeting 99.9% or 99.0% criteria you are meant to report that performance to CRA File and investigate if yourself on what the issue is. If the aircraft is not near the 95% as an ANSP you are required to report that aircraft to your regulator and to ISPACG.

This consolidated report needs to go to the ISPACG report for approval before sending through to ICAO.

ACTION – All: Please review consolidated report.

7.9 **Flimsy 1 – in relation to WPs-003 CPDLC Current Data Authority (CDA) / Paul Radford**

Paul spoke to the paper. He asks you all to please review this paper and note that meeting reviewed the current free-text in use by the FAA.

Brad asked if this text was being used in the NAT, or if they are using something different. Paul advised they are using something similar.

Mark asked if there is any data on when the message is ignored. Julia advised it is not too bad, but there are issues of it not being delivered. Dustin added that the welcome message can be delayed too – perhaps they go beyond the FIR when we get the welcome message.

Mark added operators would like notice on when changes are being made. Paul will add this to the paper.

7.10   **PBCS Monitoring / Julia Fuller - Presentation**

Julia spoke to the presentation outlining trends and failures on the graphs and tables within. Further updates will be presented to ISAPCG34 in particular to regards to Outages.

8   **General Business**

No comments.

Meeting closed – 9.41am