



**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 – **ISPACG Plenary**

Wednesday 20 March – Thursday 21 March 2019

Meeting starts 1:00pm

1. Opening Remarks

Mat welcomed the group and welcomed new delegates joining us today; Craig McFarlane (NAVBLUE), Allan Twigg (United Airlines) and Sean Rogers (CAA).

Mat added that Allan London is departing ISPACG therefore this is his final time in attendance. He is here as a subject matter expert for the group.

Mat and Dustin both expressed their sympathies to Christchurch after the latest tragedy occurring last Friday and that our thoughts are with them.

Dustin thanked Airways NZ for putting on a great venue. Apologies were given on behalf of the FAA delegation absent at this meeting, due to last minute late cancellations.

Agenda was published on the website Thursday 13 March 2019, reviewed and accepted.

Introductions of those present at ISPACG Plenary

Airbus	Clement Selles, Jean-Francois Bousquie
AirNZ	Capt. 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
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
NAVBLUE	Craig McFarlane
PNG Services	Phil Irvine, Doko Iru
United Airlines	Capt. Allan Twigg

2. Update from ANSPs

2.1 Airservices Australia - Chris McCormack & Tony Smith / Presentation

Chris spoke to the presentation. We are transitioning over the next few years to the new CMATS platform and as part of this there are new buildings and equipment being constructed around the country.

For the past 12 months or so they have been working with Frequentis on the new voice switch (VCS) deployed in Perth, Melbourne, Sydney and Brisbane. Brisbane was upgraded last month (23-24 Feb 2019) and is working very well and providing improved frequency management. The new VCS allows more frequencies to be combined at a single position in turn allows better utilization of staff in periods of low traffic volume and workload.

This in turn has allowed staff to move to the Brisbane Tower and TCU in time for the opening of Brisbane's new parallel runway in 2020. Airservices has been working with Brisbane Airports Corporation around this, and for us that means a lot of cross training, procedure design work and stakeholder engagement.

The Gold Coast ILS was commissioned last month (28 Feb 2019). Our community engagement around this was immense.

Airservices is planning AIDC message testing with Moresby in April 2019 with a view to continue use of AIDC messages in an operational trial ongoing.

Planning for PBCS implementation planning is underway with the intent to retain current standards in parallel with PBCS standards.

2.2 Tahiti – not present at ISPACG33.

2.3 Fiji Airports – Ratu Navula / Presentation

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 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.

2.4 DGAC Chile – Francisco Uzieda

Working with AKL Oceanic and FIR regarding radio failure procedure and Changes have been made into our regulation in order to harmonize radio failure procedure over the South Pacific.

Regarding PBN, we are working on RNP2, which should be updated by end of this year. This will provide Lan Chile fleet to have RPN2 approved.

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.

The ADS-C to be used in north part of Chile near Peru. If all well, maybe we can get surveillance over that airspace, which would be great for us. This is a big step for us, because our system and personnel does not allow us to fully give that service in that area. Big effort in order to note down series of LHD reports we have had because of Peru Lima area control center transferring traffic to us not according to standards.

Regarding the procedures we have with Oceanic AKL - version of the flight plan and reroute procedure – I do not have notes regarding the procedure, however I believe flight levels are working correctly and have been lower since FPL Version Procedure. Reroute procedure I believe we had just 2 or 3 this year, but my understanding is this is working perfectly. Mat agreed it was.

Jean-Francois asked Francisco exactly what he meant by 'RPN2 approved'. Francisco advised that the procedure department in DGAC regulate companies to have the option to get certified with that standardization. Currently Chile does not have it. Jean-Francois added Airbus are confident, whenever aircraft flies with the GPS in primary navigation is committed, we know that we are below RNP2, but as such today there are no aircraft certified RPN2 as such. So far its RNP4 or RNP1. Francisco will pass this info on to their regulation department.

2.5 Airways NZ - Johl Brown

Airways NZ have four key projects underway; Queenstown Approach, Skyline X, One Centre Two Locations, and Digital Towers.

Queenstown Approach: services using surveillance and are set to begin on the 28th March 2019. The move brings the delivery of our air traffic services in Queenstown in line with our other main airports and will help us to manage future increases of flights as the region continues to grow. We will continue to move away from procedural approach and towards surveillance approach, most likely post ADSB mandate in Dec 2021. Further work is being done around looking at how our aerodrome services will evolve post ADSB mandate in Dec 2021. This will facilitate surveillance to near ground level in all controlled airspace and remove any procedural approach into our regional airports.

Skyline X / One Centre Two Locations: we are moving towards the introduction of Skyline X as well as our One Centre Two Locations ideology. Buildings will be complete mid to late 2019. Skyline X to be operational mid-2020. Skyline X to be delivered with the two new centres. New tools to be available MTCD, TBFM, CPDLC Domestic. Stripless operations will be in full swing as well. Oceanic to move to Skyline X platform in 2021.

Digital Towers: We have signed a contract with Frequentis for a digital tower implementation in Invercargill and work is being done for an Auckland contingency solution. Auckland contingency digital tower will be a prototype for a full digital tower replacement when Auckland Tower needs to go due to a new domestic terminal being built from mid to late 2020's.

2.6 PNG Services - Doko Iru / Presentation

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 – landowners 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 many 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 many communication problems for us.

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

2.7 FAA - Dustin Byerly / Presentation: Oakland Centre Update

Dustin spoke to the presentation. Dustin did ask the group to visit the FAA Oakland ARTCC webpage, and ensure you do point out to us if you see any information that may be outdated.

Regarding Oceanic Equipage, the 777 family is by far the largest user of our airspace followed by the 737. The number of flights are up to nearly 900 flights per day with most of those being RPN10 and almost 80% RPN4 and utilizing Data Link.

On 28th February 2019, the Tailored arrival was permanently turned off and the PIRAT ONE arrival will now be the preferred arrival into KSFO (San Fran) and KOAK (Oakland).

Commercial space is becoming a real issue for us at Oakland, because there are more and more missions occurring out in the airspace and we are struggling to keep up with the pace of missions in the pacific. One example is a mission occurring on 25Mar and it will essentially close half of the CP route structure between HWI and CAL. We will see more and more of these missions and there is not a lot we can do about this, so we do have to keep our relationships/comms positive with the operators. Commercial space component - SPACE X – continues to be a big customer on the west coast and so we showed them our protocols in hopes to build that working relationship.

Wake Island is radar detected. Oakland have a procedure in place and we make a call to their radar centre to shut down the radar for aircraft entry into the airspace.

SENEAM slide – spoke to bullets points. No update from them for almost a year.

Dustin reminded Allan if he is still receiving weather deviation issues to please let him know and he is happy to take these on. Allan thanked Dustin for forwarding the weather deviation presentation. The team this summer have seen a big improvement – frequency is a lot less – so it looks like the message is getting out.

Jean-Francois asked what the difference is between a Tailored arrival versus a PIRAT One? Dustin advised that the Tailored arrival is an arrival the aircrews have to request clearance – but now they can file a PIRATE One, which means no request needed – it is just part of their flight plan for San Francisco and Oakland.

3. Update from Airlines

3.1 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.

A320 and A321 NEO fleets are all PBCS capable and RPN4 capable. Our RNP10 aircraft - what we call CO Classic – will be retiring end of 2021. After this all AirNZ aircraft will be PBCS and RPN4.

3.2 Hawaiian Airlines Update – Kalani Sloat

The 767 were removed from the fleet as of January 2019. Currently operating A321NEOs and A330s and B787s should be arriving first quarter of 2021. One 321 missed its conformality upgrade due to a delivery delay, and initially did not have SATCOM installed. However, our entire fleet should now be fully capable.

Dustin asked if the Hawaiian Airlines NEOs are ITP equipped as well. Kalani confirmed they are.

3.3 Qantas – not present at ISPACG33

3.4 United Airlines – Allan Twigg

United is operating 240 ETOPS frequently between Houston and Sydney in both directions. United also recently received 240 ETOPS on the 777-300ER (operates to/from AKL). Beginning in April, United will down gauge the AKL flight to a 777-200ER.

3.5 Virgin – not present at ISAPCG33

3.6 American Airlines – Steve Smith

We have taken delivery of our first A320 NEOs. One is outdoing domestic runs. First place we will operate is ETOPS version. Replace our classic 757s Phoenix to Hawaii. First ETOPS to Hawaii from LA.

Replacing the old 757 from Phoenix out to the islands – slowly replacing our classic ETOPS 321 from Hawaii. As delivery comes those are the first place they will go.

Asked by our 777 fleet captain to bring up the new contingency procedure that's in North Atlantic on March 28th. American Airlines has made a decision to implement the same contingency plans in all Oceanic regions for planning and consistency. For crew training, consistency, you can expect

American Airlines to use these new plans starting March 28th. Big difference is a no less than 30 degree offset left or right into 5 nautical miles offset to support the tighter separation – effective globally March 28th. United confirmed they are doing the same. AirNZ will be flying the 5 nautical miles into North Atlantic. Then in Nov 2020 we will be flying the 5 nautical miles elsewhere.

3.7 Delta – not present at ISPACG33

4. Review of work conducted since ISPACG32

4.1 Update from FIT26 – Brad Cornell

- 4.1.1 From a reporting stand point things are looking good. A lot more people signing up to the website. Also, thank you to Airways NZ for hosting the ISAPCG website.
- 4.1.2 Saw 211 PRs filed - 60% were related to South Pacific. 208 PRs last year with 15% contributed to South Pacific. The PR details are available to review in the working papers.
- 4.1.3 We continue to see improvements with performance monitoring. Specifically, we noticed an improvement with Iridium over last half of last year / beginning of this year, which is encouraging. Notice number of operators are pretty low and number of flights low, but good performance.
- 4.1.4 Major issue we continue to see is system availability - we are not making headway there. Last year probably took a step back. Again, papers show the large impact. We are already in March and close to already exceeding target. Other regions have noticed this issue as well. We need to either change our target or we have to make improvements. Something for ISPACG to consider.
- 4.1.5 All the ISAPCG states agree to transition from using the position report to a trans-standardize free text message. Goal is to get that standardized on what Oakland Centre are using, but everyone agrees they will transition to that. Some ANSPs will be able to do it sooner over others.

4.2 Update on ICAO - Braks Etta, FAA / IP-003 – APAC ICAO Update

Braks spoke to the paper, which presented Asia Pacific (APAC) ICAO outcomes of meetings and workshops held over the past year that may affect, or be of interest to, ISAPCG delegates. This paper deals with what we do discuss, but it is also good to see how ICAO handles some of this. Operationally you are doing it, but there is a broader group that are trying to make things more standardized and harmonized.

4.3 IATA – not present at ISPACG33

4.4 US Air Force – not present at ISPACG33

4.5 IFALPA – David Griffin

No immediate update. Going forward we want to be involved more. Next ISPACG will give an update.

4.6 Iridium – not present, departed ISPACG yesterday

4.7 Inmarsat – Lisa Bee / Presentation

Spoke to the presentation slides. We are working towards developing a better coverage map for aviation systems. We are evolving the satellite voice capability with a new secure one-step VOIP access fast G2A dialing service. Communications present the most significant constraint to reduced separation minima. It is about 30 seconds for ground-to-air connection.

Meeting closed 2.45pm. Readjourn **9am tomorrow morning**.

Thursday 21 March 2019 - meeting starts 9:00am

4.8 Update from Planning Team – Mat Fraser and Dustin Byerly / Presentation

Spoke to the presentation. Please refer to the PT Minutes for greater detail regarding the below points;

- 4.8.1 **Contingency Routes** – In an unforeseen event, all ANSPs need to have a plan in place to start restoring services in the Pacific. At minimum to have a basic route structure in place so that commands center can continue to run. Dustin encouraged ANSPs this week to take a look at the Oakland route structure (display map) and to advise him of any glaring issues – he received a good response back.
- 4.8.2 **SATVoice in lieu of HR trial** – presentation shared with the group later in the day.
- 4.8.3 **30S163E Coordination Issues between AsA/AGL/ACNZ** – there is long standing issue between Airways, Airservices, and Nadi around 30S163E and AIDC coordination. We are trying to come to a solution in terms of who coordinates with what – ongoing discussion.
- 4.8.4 **Database sharing between ANSP's** – any changes in the airspace contact Julia Fuller- FAA so she can make sure everyone has information about changes.
- 4.8.5 **ADS-C and ADS-B ITP update** – presentation shared with group later in the day.
- 4.8.6 **VOLKAM and VOLCEX update** – We want to revise our VOLCEX in ISPACG meetings so that these are part of ISPACG going forward and we run some sort of exercise and discuss lessons learnt from other exercise that ANSPs participate in.

- 4.8.7 **Seamless airspace chart review** – please keep this updated as far as changes in technology occur. John Wennes asked whether the ANSPs want to consider putting on PBCS implementation starters. So please have a think about this.
- 4.8.8 **ASPIRE Update** – Braks provided update to advise that ASPIRE is closing.
- 4.8.9 **ISAPCG LoA Review** – resending out later this year for signing. Will update LoA and formalize procedures for rotation duties for hosting ISPACG.
- 4.8.10 **Unmanned Free Balloons discussion** – provided three papers. Feel free to request from Dustin to view those papers if you want copies.
- 4.8.11 **Issues with FANS aircraft transiting McMurdo Airspace** – currently this is an issue for Airways NZ and Santiago when McMurdo airspace is activated down in Antarctica, flights transiting the lower altitudes entering McMurdo airspace lose the ability to retain their CPLC and AIDC connections with AKL Oceanic. There are currently no formal procedures when McMurdo airspace is activated. CAA are making enquiries in terms of regulatory aspects of how we control this and who is responsible – it’s an ongoing issue. Dustin is looking to see if FAA can assist and come up with a more formalized procedure.
- 4.8.12 **Coordination issues with flights departing Honolulu and Guam** – Julia commented that HNL is working on a fix to their system, as there are a couple of issues and we are hoping a fix will be implemented in 2019. WIP to resolve issue.
- 4.8.13 **AIDC Update** – Do Brisbane first then Oakland.
- 4.8.14 **Space Based ADS-B update** – please see presentation update from Braks Etta.
- 4.8.15 **DOC7030 amendment proposal** – Paul made a proposal to standardize how we do Doc7030.

5. Review of Open Action Items ISPACG32

5.1 (Action 1E) ADS-C CDP ITP / Dustin Byerly - Presentation

Dustin spoke to the presentation. The CDP manual trial ended 15 Feb 2013 with T24 software installed in June 2016, the automated procedure approved for use in September 2016 and in November 2016 an update to the PANS-ATM Doc 4444 included the ADS-C CDP.

When we turned on PBCS the numbers jumped up – over 15 per day – as high as sometimes 25 per day. So, CDP is very widely used in our FIR. The controllers like the tool and there is no PBCS requirement in place to use the CDP.

Number of ITP requests have trended up. Nine requests for month of January and trending upward. Due to the infrequency of ITP use, controllers are not nearly as comfortable with using it, because they are unfamiliar with ITP requests. As more airlines are equipped controllers will be more comfortable with using it. CDP is controller initiated. ITP is pilot operated.

Controllers prefer CDP procedure, only because most haven’t even seen an ITP. CDP we are using every day, so controllers are much more confident in what’s going on with CDP versus ITP. As more and more equipage in the Pacific occurs, controllers will become familiar with ITP.

5.2 (Action 6A) DARP Expansion. Tahiti not present at ISPACG33.

Mat added that late last year Airways were running a DARP trial with them, but he has had no feedback.

5.3 (Action 6P) DARP Expansion – PNG Development / Phil Irvine Update

This is on list of things to do this year targeting end of 2019. Have AIDC capability shortly then training then DARP trial for end of this year.

5.4 (Action 6Q) DARP Expansion – Inter-operability / Mat Fraser Update

Similar to 6A- DARP expansion. Airways NZ with Tahiti we have not seen issues with AIDC. Main issues are around incorrect flight plan handling in terms of flight plan truncation, route modification – new staff there perhaps are not as familiar with approved procedures in that regard.

5.5 (Action 8A) Enroute Speed Variation Concerns / Dustin Byerly, Presentation

Dustin spoke to the Unannounced Speed Changes presentation. The data collated so far indicates that aircrews are not fully complying with the procedure. Oakland will work to raise pilots' awareness and compliance with the procedure. The data has been given to FAA Flight Standards, IATA and IFALPA to help gain operator compliance. Changes have been made around condensing the Welcome Message notifying ATC of speed changes and this has helped a lot. Dustin acknowledged to the Airlines that you are addressing this issue and appreciated your work on this.

As we look toward reducing separation this has come up with CRM panels that as some point need to assign speeds, so keep all that in mind.

5.6 (Action 10C) GOLD Implementation in Fiji / Ivan Wong absent

Fiji Airports has discussed this with Paul Radford. We have implemented most required PBCS recommendation post monitoring. Action to be left open as not specific information shared that this should be closed.

5.7 (Action 29A) ADS-B ITP / Paul Radford absent (in CHC today look at new ATM platform).

5.8 (Action 16-5) Introduction of GNSS/RNP2 / Dustin Byerly

Dustin shared a little history on this – Dennis Addison talked about RNP2 GNSS possibly looking at doing some work in the South Pacific as far as getting the ability to get aircraft in and out of island more efficiently. FAA came to the realization we did not think business case was quite there yet, just do not have the number of volume here for the work to be done yet. Put on hold.

5.9 (Action 19-1) **RNP4 Lateral Separation of 23NM** / Dustin Byerly

We have begun SRM work to implement that separation standard in the Pacific. As of right now, we do not have a route structure at the particular plot. We are looking at and in talks with JCAB and Anchorage NOPAC redesign. We had a good meeting with about 2 weeks ago and we talked about what the route structure might look like. It is a phased implementation and potentially we will see the first phase of that project sometime in 2020. We also agreed we would take lessons learnt and ideas gained from NOPAC redesign and start looking at the CDP. Makes sense to look at a redesign – but can't image this would take place before 2023-2024, but it is on our radar.

Note: Mat advised these actions will be left open and carried forwarded to the next ISPACG(34)

6. Working Papers

6.1 WP-001 – update from PARMO – Julia Fuller, FAA (on behalf of Christine Falk)

PARMO (Pacific Approvals Registry and Monitoring Organization) is both a Regional Monitoring Agency (RMA) and Enroute Monitoring Agency (EMA) in the ICAO Asia and Pacific Region. Julia Fuller spoke to the slides that Christine Falk put together which summarizes the safety monitoring reports produced by PARMO. States or the ANSP should provide monthly event reports and traffic sample data to the PARMO. Any questions, please contact Christine Falk.

6.2 WP-002 – Early Introduction of RNP2 Based Separation Standards - Air New Zealand, Mark Shepherd (on behalf of Steve Kelly)

This is a request for RNP2 standard on the Tasman, which will be permitted by ICAO in Nov 2020. Airservices and Airways NZ to consider this request. More airplanes are becoming capable. Air space during certain times of the day is busy. We see potential in that piece of airspace.

Action – Mat: we will provide an update at ISPACG34 and in the meantime, we will ask our technical department to see what the likelihood is of being able to achieve something by Nov 2020.

7. Information Papers

7.1 IP-001 – Airservices Australia Chris McCormack (on behalf of Terence Palmer, Network Service Lead)

Chris spoke to the paper. The Common aeronautical VPN (CRV) is a cross-border, cost-effective, and dedicated IP enabled communications network for States provided by a common network service provider, PCCW Global limited, after a selection process. It enables or facilitates a number of ASBU modules, including B1-SWIM, B1-FICE, B1-DATM, B1-NOPS and B1-AMET, and solves current limitations (obsolescence, lack of standardization, poor escalation processes) and aeronautical communication deficiencies.

The local point of contacts are noted within the paper.

Mat added as a point of interest once this goes live we will have some offline discussions in terms of how we will manage the transfer of CRV messages between Santiago and NZ – current system not reliable. Pending successful implementation of CRV throughout the South Pacific, we will be looking to meet similar network between Auckland and Chile.

7.2 IP-002 – Long Range Air Traffic Flow Management, Airservices Australia / Chris McCormack

Chris spoke to the paper. LR-ATFM will enable long haul international flights to be integrated into Australia's air traffic flow management process to smooth arrivals into our major airports and enhance demand and capacity management overall.

Chris also spoke to the **presentation** and summarized how this will work from the west and from the east, and outlined the anticipated benefits, timeline and next steps.

There was a lengthy group discussion around RTA's and speed changes.

Allan said the reason for the speed change was primarily related to how you communicate the delay through another FIR and the impact that has on your traffic crossing behind and in front of each other. We did a trial with Air New Zealand last year and we found that our weather information that we had in our system was probably better than what the crew had in their aircraft. We chose a time 3 days out that we thought the aircraft would crossover. Probably 85-90% of time they crossed 1-2 mins of time that we estimated they would cross. Improvements to this might be around avionics or calculating times at boundaries – and there was a lot of discussion around this.

Jean-Francois provided some experiences based on RTA trials carried out for 2 years now. Example - last evening in China there was a flight where 40 RTAs were tested. As soon as you put in an RTA it is automatically taken into account by the aircraft systems, therefore the speed is no longer fixed. If you don't want the crew to be burdened by this the solution is through the extended EPP ADSC which provides you with trajectory data. In Europe this is how speed variations are chosen so you can meet RTA time at a particular point, but the speed varies. Our controllers know how this can impact on the traffic so they need to know the speed variation and this is given by the ADSC EPP based on the ATM.

Mark agreed with Jean-Francois and added that this was his experience with the trial with Airways. The airplane is continuously changing speed to meet the RTA. We did find it was viable, we see the potential on the Tasman in particular with adjacent FIRs, so in a 3-hour flight we see the potential to absorb the delay in the Enroute phase. As per the point Jean-Francois made, you can't advise the new speed because it's a variable against the RTA therefore we might have to give you 5 notifications of speed change in 3 hours.

Airservices asked the question around if the avionics takes into account the full grib wind all the way to the top of descent? Allan Twigg responded that it is going to use the winds within the area of the airplane currently, then after a period of time will start blending the winds. As you transition across different wind fields, coming back to Marks point about speeds are going to vary, the airplane is only estimating what the wind field is going to be. Once the airplane senses the wind change, it is going to adjust the speed to meet the time. You also need to layout what you want the problem to be; do you want to meet the time limit to fix and impact traffic with various speed changes that are going to

occur, or do you want to maintain separation with a fixed value and unlikely meet the RTA over the fixed.

Mark added, however, that airlines do definitely support Airservices proposal.

Chris acknowledged the points raised we will collaborate and come up with a solution. Matt added that the Long Range format will be in our next system, Skyline X, and Mat is happy to put Chris in contact with our people who have the same issues.

Steve Smith (American Airlines) added that this sounds similar to effort Heathrow airport are trialling in London – call arrive on time initiative and smooth out traffic peak. Where to take delay is discussion. But this can ripple back to gate issues at LA – ie take delay on ground there - but not a viable solution there. But anything we can do to reduce holding on ground is good.

IFALPA asked - part of the problem is we are working with sector winds, so does ATC use forecast winds or actual winds that the aircraft are recording. Allan advised that domestically, winds are loaded into Skyline. From an Oceanic point of view, we break up OCS into 50 nautical mile slots/grids, so we have almost a wind calculation for each 50-mile slot - measuring in minute/secs each one of those 50-mile forecast winds. Then when we do an ADS report we extract the actual wind data and update our weather model. So we forecast in the most part, then we get the updates or get an update from someone ahead of you as they are more accurate. IFALPA agreed this was much more detailed than the airplane.

Break for morning tea 10:32. Back at 11am

7.3 IP-003 – Asia Pacific International Civil Aviation ICAO Update / Braks Etta, FAA

Braks spoke to the paper. This paper presents Asia Pacific (APAC) ICAO outcomes of meetings and workshops held over the past year that may affect, or be of interest to, the ISPACG/33 meeting participants.

Braks added, as part of the LoA for this group we are supposed to provide a report to the sub-group. Secondly, we have representatives from ANSPs that attend ICAO meetings present a paper on what our thoughts are, which are taken seriously by ICAO. I think we consider that so we are more effective as a group working with ICAO.

7.4 IP-004 – ADS-B Implementation / Braks Etta, FAA

Braks spoke to paper which provided guidance for airspace users regarding the United States mandate for ADS-B Out equipage, effective 1 January 2020. A key point to note is that the FAA published a regulatory requirement for all aircraft operating within certain airspace to be equipped with ADS-B Out technology by January 1, 2020.

8. PRESENTATIONS

8.1 SATVOICE Trial – FAA / Dustin Byerly

Dustin spoke to the presentation. Primary objective is to accrue operational experience at San Francisco Radio and collect data using SATVOICE as a prime means of voice communications, via radio operator, for ATM functions and safety services in lieu of HF.

Participating organizations include United Airlines, Collins (ARINC), FAA and Inmarsat. *Participating aircraft mentioned in slide 4.*

SATVOICE Trial began 25 Feb 2019 and has delivered 2000 clearances. This trial can be extended if all stakeholders agree. *Refer to slide 6 for a breakdown of trial information collected.*

Mark – any thought to the call back procedure whether that will become permanent? Allan – first phase just to mirror current processes to make sure you can do with SATVOICE as per what we doing through HF. Trial period was to see where there are gaps in that process. Once feedback is worked through then they will determine what the next steps are.

8.2 VOLCAM South Pacific - FAA / Dustin Byerly

This exercise was introduced after the 2010 eruption of Eyjafjallajökull volcano in Iceland, which caused significant disruption. It has been a number of years since our last exercise and Oakland last participated in a North Pacific simulated eruption, which is a critical spot for air traffic from North America to Asia up to eastern Siberia.

The ATC responsibilities are covered in the ICAO Doc4444 part 15.8.

We are seeing a lot of incidents worldwide (not necessarily volcanic), therefore these exercises can be applied to various contingency exercises. It does come down to communication and coordinating with the right people and ensuring ANSP's are ready. Critical point is to ensure your email lists and phone numbers are updated so you are obviously prepared.

A number of outlets participate – VO, VAAC, ATMC, ACC, NOF, MWO, ANSP, Airlines and ICAO.

There are a number of challenges that come with this, one being getting participation levels. Time is another challenge; however, we speed up the exercise (not real time). There are the costs associated with these types of exercises, however they are a critical part of our training. It is beneficial to be creative which the exercise, i.e.; using various ash drifts help during the trial.

8.3 APAC VOLCEX 19/01 – CAA NZ / Kate Madden

Kate spoke to the presentation. The CAA NZ are running an activity in May 2019. Paula Allsop is managing this. It is planned to start out of Rauol Island. This is a desktop exercise – so it won't affect normal operations. Expectation messages will go out as per normal and people will follow the normal processes. A good test for the communication channels. Ash will move at an alarming rate to speed up exercise. There will be web conferencing throughout the exercise. The exercise provide an opportunity

for you to test your own processes and procedures (contingency plan) and practice essential communication with other originations.

Break for lunch, 11:50am. Return at 12.45pm

9. Other Business / Comments

No other business.

10. Closing Remarks

- 10.1** Mat advised the group ISPACG33 was a farewell for some delegates and we are saying goodbye to three delegates of which have contributed a great deal of time and expertise over the years so it is fitting to recognize those people and say thank you to; Jean-Francois Bousquie, Allan London and Dustin Byerly. Each were presented with a bottle of Central Otago wine.
- 10.2** Thanks was also extended to all for attendance and support of the meeting. The meeting delegates agreed that it was important to maintain the forum for exchange of information.
- 10.3** It was proposed for DGAC Chile to host the ISPACG-34 in Santiago in 2020 – however this will be discussed/confirmed at the upcoming check-in meeting held in October 2019 (date to be confirmed).

ISAPCG33 / FIT26 Closed – 1.20pm