International Civil Aviation Organization

Fourteenth Meeting of APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/14)

Bangkok, Thailand, 28 June – 2 July 2004

Agenda Item 4: Consider problems and make specific recommendations concerning the provision of ATM/AIS/SAR in the Asia/Pacific Region

FINAL REPORT OF THE 18TH MEETING OF THE INFORMAL SOUTH PACIFIC AIR TRAFFIC SERVICES COORDINATING GROUP (ISPACG/18)

(Presented by the United States of America)

SUMMARY

This information paper provides information on the outcome of the meeting of the Informal South Pacific Air Traffic Services Coordinating Group (ISPACG), which was held in Nadi, Fiji on 23-26 February 2004.

1. Background.

1.1 The Informal South Pacific Air Traffic Services Coordinating Group (ISPACG) was established by Letter of Agreement between the following South Pacific ATS Providers: United States FAA, Airservices Australia, Airways Corporation of New Zealand, Civil Aviation Authority of Papua New Guinea, Airports Fiji Limited, and Le Service d'État de l'Aviation Civile en Polynesie Française. The purpose is to promote a cost effective South Pacific ATS aviation environment that is responsive to change, meets the needs of the aviation industry, is economically sustainable, and maintains or enhances present levels of safety.

1.2 In the conduct of the activities of the ISPACG, the forum applies the following principles:

- Promote an ATS system that is responsive to and meets the needs of customers
- Ensure that the introduction of new technology and procedures maintains or enhances the present levels of safety
- Harmonize ATS practices and procedures consistent with regional and global activity
- Undertake activities and provide outputs that are cost effective and efficient for both customers and service providers
- Promote advantages in new technology where benefits can be derived
- Achieve a cooperative customer/service provider environment

1.3 The 18th Meeting of the ISPACG (ISPACG/18) was held in Nadi, Fiji on 23-26 February 2004. The report of the meeting is at Appendix A.

1.4 ISPACG/19 will be hosted by Airservices Australia in Brisbane, Australia from 28 February to 03 March 2005.

2. Discussion

2.1 Of particular interest to this meeting are the following:

a. Agreement was completed for Auckland to provide ATM contingency services in Tahiti Flight Information Region (FIR), while Brisbane was expected to finalise contingency arrangements with Papua New Guinea by 30 April 2004.

b. A working group was established to implement 30NM lateral and 30NM longitudinal (30/30) separation. It was agreed that the first implementation would be over the Tasman Sea, with a target date of 25 November 2004. The meeting agreed that assistance from ICAO was not yet required, as the resources for implementation exist within ISPACG.

c. A working group was established to assist in the development of geographically seamless data communications to develop a gateway function which allows ATS providers to communicate with data link equipped aircraft, regardless of which technology is installed.

3. Recommendation

3.1 The meeting is invited to note the work undertaken by this regional ATS coordinating group.

Appendix A – Summary of Discussions ISPACG/18

FINAL REPORT

of the

EIGHTEENTH MEETING

of the

INFORMAL SOUTH PACIFIC AIR TRAFFIC SERVICES CO-ORDINATING GROUP (ISPACG/18)

Nadi, Fiji
23-26 February 2004

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INFORMAL SOUTH PACIFIC AIR TRAFFIC SERVICES CO-ORDINATING GROUP (ISPACG)

PURPOSE

To promote a cost effective South Pacific Air Traffic Services (ATS) aviation environment that is responsive to change, meets the needs of the aviation industry, is economically sustainable, and maintains or enhances present levels of safety.

PRINCIPLES

In the conduct of the activities of the ISPACG, the forum will apply the following principles:

1. Promote an ATS system that is responsive to and meets the needs of our customers.

2. Ensure that the introduction of new technology and procedures maintains or enhances the present levels of safety.

3. Harmonise ATS practices and procedures consistent with regional and global activity.

4. Undertake activities and provide outputs that are cost effective and efficient for both customers and service providers.

5. Promote advantages in new technology where benefits can be derived.

6. Achieve a cooperative customer/service provider environment.

PRIMARY OBJECTIVE

To implement an Air Traffic Management (ATM) concept of operations that includes an evolutionary development of individual user/airline defined optimum routes with the ability to perform multiple user defined reroutes anywhere in the region.

BACKGROUND OF THE MEETING

1. PLACE AND DURATION

1.1 The eighteenth meeting of the Informal South Pacific Air Traffic Services Co-ordinating Group (ISPACG) was hosted by Airports Fiji Limited and held at the Tanoa International Hotel, Nadi, Fiji, from 23-26 February 2004.

2. ATTENDANCE

2.1 The meeting was attended by participants representing South Pacific air traffic service providers (ATSP) and regulatory authorities, airlines, the International Air Transport Association (IATA), International Federation of Air Line Pilots' Associations (IFALPA), International Federation of Air Traffic Controllers' Associations (IFATCA), international aviation organisations, representatives from communications service providers, and airline/equipment manufacturers. A list of participants is included as part of this report.

3. OFFICERS AND SECRETARIAT

3.1 Leslie McCormick of the United States Federal Aviation Administration (FAA) chaired the meeting, with Mark Goodall of Airways New Zealand and Ron Rigney of Airservices Australia serving as co-chairs.

3.2 Joanne Kendall of Airways New Zealand provided secretariat support services to the meeting.

ACCOMPLISHMENTS OF THE MEETING

- The Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) Regional Airspace Safety Monitoring Advisory Group (RASMAG) has been established and will meet in April 2004. Funding issues will be addressed by this group.

- Agreement has been completed for Auckland to provide ATM contingency services in Tahiti Flight Information Region (FIR), while Brisbane is expected to finalise contingency arrangements with Papua New Guinea by 30 April 2004.

- The meeting agreed to establish a working group to implement 30NM lateral and 30NM longitudinal (30/30) separation across the Tasman Sea by 25 November 2004.

- Action Item 16-12 regarding REPORT REACHING was closed with an INFORMAL RESPONSE received from the International Civil Aviation Organization (ICAO).

- Generic required navigation performance (RNP) airspace was implemented in Australian administered airspace 17 April 2003.

- User preferred routes (UPRs) have been established between defined city pairs.

- Dynamic airborne re-route program (DARP) Procedures are now being progressed and reported by the FANS Implementation Team (FIT).

- The FIT approved domestic controller-pilot data link communication (CPDLC) Requests for Change (RFC) to the FANS-1/A Operations Manual (FOM).

- Fiji agreed to implement ATS inter-facility data communications (AIDC).

- The meeting agreed to establish a working group to assist in the development of geographically seamless data communications to develop a gateway function which allows ATS providers to communicate with data link equipped aircraft, regardless of which technology is installed.

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SUMMARY OF THE MEETING

1.0 ADMINISTRATION

1.1 The eighteenth meeting of ISPACG was opened by **Leslie McCormick** of the United States Federal Aviation Administration (FAA) who welcomed the participants and thanked Airports Fiji Limited for hosting the meeting. Following her opening remarks, she introduced the co-chairs, **Mark Goodall**, Manager Oceanic Business, Airways New Zealand (Airways) and **Ron Rigney** of Airservices Australia, and discussed the administrative arrangements for the meeting.

1.2 **Mark Goodall** spoke of FANS-1/A and en route oceanic traffic. He suggested that ISPACG should be entertaining thoughts of extending benefits to customers and looking for new ideas to provide these benefits.

1.3 **Ron Rigney** spoke of the changing landscape, suggesting that representatives from Emirates and Virgin Blue airlines be invited to attend the next ISPACG meeting and advised that commencing on 18 May Hawaiian Airlines would be flying between Honolulu and Sydney four times a week. In October 2003 he attended the Indian Ocean ATS Coordinating Meeting in Melbourne where they had agreed to have the Indian Ocean Operations Manual included into the FOM.

1.4 The meeting noted that the ICAO Asia Pacific Regional Office was unable to send a representative to this meeting due to staff and funding shortages. ISPACG assists the Regional Office in addressing relevant air traffic management (ATM) matters for the major traffic flow between North America and the South Pacific, and it is hoped that an ICAO representative will be available to participate in future ISPACG meetings.

2.0 WORK PROGRAM

2.1 The meeting reviewed the ISPACG/17 Open Action Items and updated the Action List (See Appendix A).

2.2 **Action Item 16-1: Central Reporting Agency**
APANPIRG Regional Airspace Safety Monitoring Advisory Group (RASMAG) has been established and will meet in April 2004. Funding issues will be addressed by this group, thereby closing it as an ISPACG Action Item.

2.3 **Action Item 16-2: Strategic Planning**
See Appendix B, Updated Capacity Enhancement Table (Standing Action Item)

2.4 **Action Item 16-4: ATM Contingency Plans**
Mark Goodall, Airways, advised the group that contingency arrangements for the Tahiti FIR had been implemented and that Airways was in discussion with Airservices in Brisbane regarding possible ATS across the Tasman Sea in the event of catastrophic failure at Auckland Centre.

2.5 **Yoshiki Imawaka, Japan Civil Aviation Bureau (JCAB),** presented a proposed amendment to ICAO Regional Supplementary Procedures (Doc 7030) relating to ATC contingency procedures to be used during the failure of datalink in the oceanic controlled airspace. Discussion followed about procedures for loss of communications and an impromptu working group was established to outline the concerns and possible solutions for loss of communications (refer Action Item 16.7).

2.6 **Action Item 16-5: FIT Report**
See 4.0 Future Work Programmes, FIT Report and Recommendations (Standing Action Item)

2.7 **Action Item 16-6: Regional Lateral Offset Procedures**
No progress – awaiting outcome of the work of the ICAO Separation and Airspace Safety Panel (SASP).

2.8 **Action Item 16-7: Aircraft Loss of Communications Procedures**
Roger Kiely, FAA, presented the proposed amendment to the Regional Supplementary Procedures, Doc 7030/4 and a letter from ICAO Asia and Pacific Regional Office who requested clarification on a number of issues before ICAO Headquarters would endorse the proposed amendment.

2.9 A sub-group was formed to review and modify the procedures. The FAA will finalize the response and forward it to ICAO .

2.10 **Action Item 16-8 Implementation of 30/30**
Mark Goodall, Airways, reiterated that RNP-4 exclusive airspace is not acceptable for the application of 30/30 within the Auckland Oceanic FIR. Airways sought consensus from ISPACG regarding non-exclusive RNP-4 airspace. Airways is awaiting the approval and publication of the Doc 7030 amendment for 30/30.

2.11 **Roger Kiely, FAA,** described a proposal where consideration is being given to using information provided in Field 18 of the flight plan to differentiate between aircraft RNP capabilities and allow the FAA HOST computer to determine the RNP capability. The filing of a single "R" in Field 10a is supposed to reflect RNP capability for an entire route of flight. This limitation impacts the ability of ATS providers in providing service to aircraft with differing RNP capabilities in areas where, for example, RNP-4 and RNP-10 standards will be applied.

2.12 There was considerable discussion on how to differentiate between RNP values. ICAO needs to address in its review of the flight plan format, however, a regional solution needs to be agreed in order not to delay the implementation of 30/30.

2.13 **Leslie McCormick, FAA**, presented a proposed task list for implementation of 30/30 separation in Pacific oceanic airspace. It was presented for potential use as a means to track progress toward timely implementation of 30/30. It further suggests that ISPACG recommend to ICAO the establishment of a regional task force for the safe and timely implementation of 30/30.

2.14 **Ron Rigney, Airservices,** informed the meeting that the 7030 amendment for 30/30 was now in the last stage of completion, having been referred to the Air Navigation Commission for final consideration by 20 February 2004. Provided there are no last-minute changes, the Air Navigation Commission is expected to forward a recommendation to the President of the ICAO Council by the end of February and final endorsement of the 7030 amendment for 30/30 is expected to be received by 10 March 2004.

2.15 Following discussions by the group, the meeting decided to establish a working group under ISPACG to implement 30/30. This working group would consider use of the proposed task list and the differentiation of RNP values in the ICAO flight plan. The meeting agreed that assistance from ICAO was not yet required, as the resources for implementation exist within ISPACG. It was agreed that the first implementation would be over the Tasman Sea, with a target date of 25 November 2004. A report on the progress toward implementation of 30/30 will be presented to the next meeting of the APANPIRG Air Traffic Management/Aeronautical Information Services/Search and Rescue Sub-group.

2.16 **Action Item 16-12: REPORT REACHING**
An INFORMAL RESPONSE was received from ICAO and the meeting agreed to close this item.

2.17 **Action Item 16-13: Application of "Rule of 11" in Oceanic Airspace**
Adam Watkin, Airservices, reported that the Rule of 11 has been available for use in Australian airspace since the early 1990s. The use of this separation standard in Australia currently requires the time difference to be determined by radar or passage over a radio fix. A proposal has been submitted to amend the Australian Manual of Air Traffic Services (MATS) to permit controllers to use a pilot report over a *waypoint* to determine the separation minimum.

2.18 **Allan London, Airways,** advised that the current Rule of 11 requires the time difference to be determined by radar. Rule of 11 using pilot reports/estimates for waypoints did not pass the safety case conducted by Airways due to time estimate variances. Another safety case assessment will be conducted and subject to that assessment airways will seek approval to implement

2.19 A question was raised during the meeting as to whether common timekeeping procedures for the Pacific would help.

2.20 **Terri Anton, ARINC,** advised that they provided $\pm$ 1 second and used NTP/NTP servers for system time. Servers got their time from more than one GPS source and a WWV source for comparison which converted to UTC.

2.21 **Sylvain Laviolette, SITA,** informed the group that timekeeping is converted into UTC and taken directly off the GDC clock which is based on UTC time. (Refer Appendix C)

2.22 **Action Item 17-1: RNP Airspace**
Adam Watkin, Airservices, informed the group that generic RNP airspace was implemented in Australian administered airspace in April 2003, however, a number of problems had been encountered since the implementation. For example, there was confusion as to the meaning of RNP-4 "approval" and occasional use of "R" by aircraft that were RNP-5 approved.

2.23 **Peni Verebasaga, Strategic Air Services Ltd (SASL),** advised that RNP-10 had been implemented in Fiji airspace since 21 August 2003.

2.24 **Antoine Martin, SCTA France,** said Tahiti was expecting RNP-10 and 50NM lateral by the 3rd quarter 2004 and 50NM longitudinal is planned for 1st quarter 2005.

2.25 **Action Item 17-2: UPRs**
Adam Watkin, Airservices, advised that the first phase of the UPR project, the introduction of UPRs between Australia and New Zealand, had simulated numerous scenarios and permutations of UPRs from the Brisbane TAAATS simulator. A number of risks that had previously been identified were assessed during various scenarios. As a result of this assessment, Airservices would be deferring the widespread implementation of UPRs until the identified risks could be mitigated and a conflict probe was available in TAAATS. In the meantime, the UPR project team is considering a number of strategies that include UPR implementation restricted to defined Australia/New Zealand city pairs, for example on or south of the Melbourne - Auckland tracks.

2.26 **Steve Kelly, Air NZ,** expressed appreciation that Airservices was considering restricted implementation of UPR while waiting for their issues to be addressed.

2.27 **Mark Goodall, Airways,** advised the meeting that Airways is ready to accept unrestricted UPRs and undertook to advise the airlines of any progress.

2.28 **Peni Verebasaga, SASL,** informed the meeting that aircraft meeting the requirements of at least RNP-10 could fly UPRs. He will review this requirement and report back to the next ISPACG.

2.29 **Action Item 17-3/17-4: DARP**
Dave Maynard, FAA, advised the meeting a successful DARP had been completed for an aircraft re-routing in Auckland airspace and being transferred to Oakland FIR.

2.30 In the future, DARP procedures will be progressed and reported by the FIT.

2.31 **Action Item 17-5: Automatic Dependent Surveillance – Broadcast (ADS-B)**
Adam Watkin, Airservices, provided an update on the ADS-B trials within Australia. Currently there are 8 ADS-B equipped aircraft, with up to 5 more being equipped in 2004. The collection and analysis of ADS-B data has shown close agreement between ADS-B and radar position reports, and leaves no doubt that ADS-B is at *least* as accurate as radar. A performance report has been sent to the Civil Aviation Safety Authority recommending the approval of a 5NM separation standard between ADS-B aircraft.

2.32 Airservices intends to deploy 20 ADS-B sites in remote regions of Australia to provide surveillance capability over the majority of the country above flight level 300. It is expected that a contract to supply ADS-B ground systems will be awarded within the first quarter of 2004. The ADS-B ground stations are expected to become operational by the end of 2005.

2.33 Airservices has established an ADS-B Implementation Team (ABIT), similar to FIT, to consider issues relating to ADS-B. More information is available on Airservices' ADS-B website http://www.airservicesaustralia.com/pilotcentre/projects/adsb/adsb.htm

2.34 **Mark Goodall, Airways,** advised the meeting Airways had conducted an extensive surveillance review last year. The outcome, given that most of New Zealand is within radar coverage, was to retain radar aerials and upgrade. However, as a separate project, Airways intended to conduct an ADS-B trial for some areas in the lower part of the South Island.

2.35 **Action Item 17-6: Oceanic Safety Performance Standards**

Tom Kraft, FAA, reported on the progress of RTCA Special Committee (SC) 189/Eurocae Working Group (WG) 53's current work related Performance Requirements Standard (SPR) for air traffic data link services in oceanic and remote airspace (oceanic) and to the FANS-1/A Operations Manual (FOM). The report also invited ISPACG partners to help complete the SPR and provided recommendations to ISPACG on using RTCA SC-189-WG-53 guidance material and standards to meet appropriate ICAO and state regulatory requirements. The Oceanic SPR Standard schedule is as follows:

06 Feb 04	PU24, Version 1, SPR Standard for air traffic data link services in oceanic ad remote airspace.
15 Mar 04	Comments due
05 Apr 04	PU24, Version 2, includes new material
30 Apr 04	Comments due
01 Jun 04	PU24, Version 3, start of 60 day final review and consultation.

2.36 **Action Item 17-7: Unlawful Interference**

Ron Rigney, Airservices, summarised the current arrangements for the notification of unlawful interference and noted that there were several different means available to signal unlawful interference. These various means of signalling could be categorised under the following key elements of communications and surveillance:

Communications		**Surveillance**	
VHF/HF/SATCOM	Voice – including covert signalling	Radar - SSR	SSR Code selection
CPDLC	Emergency messages	ADS	ADS emergency mode

2.37 In discussion on the use of CPDLC/ADS for signalling unlawful interference, the meeting noted that use of the ADS Emergency Mode could be checked for covert or inadvertent activation by use of CPDLC to up-link "REPORT SPEED. CONFIRM ADS". However there was no procedure for covert signalling using CPDLC as a sole means to indicate unlawful interference.

2.38 The meeting recognised the sensitivities associated with national security requirements, and requested the assistance of States and organisations to provide publicly available procedures for signalling unlawful interference, as published in aeronautical information publications, etc.

2.39 Ron Rigney agreed to prepare a table for each State to complete with publicly available unlawful interference codes.

2.40 **Action Item 17-8: Reduced Vertical Separation Minimum (RVSM) Traffic Movement Sample**

Leslie McCormick, FAA, presented a report on behalf of the Pacific Approvals Registry and Monitoring Organization (PARMO)containing a summary of large height deviation reports received by the PARMO for the year 2003. In addition, an update of the vertical collision risk for Pacific airspace was included and presented. The vertical collision risk estimate for this period is roughly a factor of 30 below the TLS of 5.0 x 10-9 fatal accidents per flight hour. However, this estimate was based on a composite of old parameters combined with recent traffic counts and was not representative of a complete calendar year of large height deviation reporting.

2.41 It was requested that a traffic sample be collected by all States for the period 1-30 April 2004 and provided to PARMO. Specification for the data is supplied in Appendix D.

2.42 **Action Item 17-9: Pre Departure Clearances**

Mark Goodall, Airways, advised that Airways is developing a business case, in consultation with customers, for the delivery of pre-departure clearances via the ARINC Communications Addressing and Reporting System (ACARS) which is included in the Business Plan for the year ending June 2005. Initial implementation is likely to be restricted to flights departing Auckland Airport.

2.43 **Action Item 17-10: Domestic CPDLC**

The FIT approved a domestic CPDLC RFC to the FOM.

2.44 **Action Item 17-11: AIDC**

Peni Verebasaga, SASL, advised the meeting that Fiji is AIDC capable and working with Auckland and Brisbane in order to implement across the FIR Boundary.

2.45 **Action Item 17-12: Terminal Procedures**

Leslie McCormick, FAA, advised that there are two primary FAA programmes addressing the improvement of safety and efficiency in the terminal as well as the enroute environment: the National Airspace Redesign (NAR); and the RNP Programme.

- The NAR is a long term program managed by the FAA Air Traffic Airspace Management Office. The NAR is tasked with evaluating the air traffic environment in the National Airspace System and developing strategies to improve safety, efficiency, flexibility, and predictability, increase system capacity, and reduce delays. Detailed information on the NAR can be found at *http://www2.faa.gov/ats/nar/*

- The RNP Program's guidelines are contained in the *Roadmap for Performance-Based Navigation*, published by the FAA in July 2003 after extensive consultation with U.S. National Airspace System stakeholders. The Roadmap provides specific U.S. RNP implementation goals and timelines. A copy of the *Roadmap* document is available at *http://www1.faa.gov/avr/afs/afs400/rnproadmap.pdf*

2.46 **Mark Goodall, Airways,** advised that Airways had established an RNP project team tasked with establishing RNP routes and arrivals within New Zealand domestic airspace.

2.47 While accepting there are financial constraints, the meeting agreed that all ATSP should invite terminal procedures specialists to the next ISPACG meeting.

2.48 **Action Item 17.13: Monthly Monitoring Data**
The Central Reporting Agency reminded the meeting of the need for monthly data link monitoring data.

2.49 **Action Item 18.1: ATS Data Link Gateways**
Reed Sladen, FAA, presented a proposal to establish a small working group to develop a case for a data link gateway that supports all technologies. The meeting endorsed the proposal. (Refer 5.2 below)

4.0 FIT REPORT

4.1 **Brad Cornell, Boeing ATM,** presented the report of the FIT, which was held on 23-24 February 2004.

4.2 Action Items from FIT/10 are listed below. Most major items were closed out with the exception of RFC04-nnn regarding amending standard free text.

- UPR/DARP
- Performance Statistics
- Problem Reports – 21 closed; 13 new
- CPDLC Position Reports in Oakland FIR
- Performance Monitoring Update (Tom Kraft) – need to be looking at new ways to collect and correlate things for the future.
- Tailored Arrivals
- FANS-1/A Operations Manual (approved by ICAO) – 19 RFCs; 16 agreed
- Additional Working Papers – Failed transfers; position reporting; ADS performance accuracy

4.3 New Action Items that arose at the meeting are:

- Resolve provision of performance monitoring data for Nadi Area Control Centre (ACC)
- Work with JCAB to identify and resolve issues relating to use of Multifunctional Transport Satellite (MTSAT)
- Follow up on ARINC “bad avionics” listing
- Detail performance monitoring data – tie into performance monitoring with Nadi ACC
- Close the problem reports as appropriate
- Schedule another transfer failure monitoring programme
- Prepare RFC on procedure for CLB/DES TO REACH BY
- Develop RFC on high frequency data link (HFDL) by email for this FOM update (prior to the IPACG FIT meeting on 7-8 June 2004)
- Nadi ACC to review the data on transfer failure and determine appropriate action.

5.0 FUTURE WORK PROGRAMMES

5.1 The meeting established the following working groups and defined the Terms of Reference as noted below**.**

5.2 Terms of Reference for the Working Group for the Implementation of 30NM Lateral/30NM Longitudinal Separation (30/30/WG)

a) To develop benefits-driven implementation plans for the implementation of 30NM lateral/30NM longitudinal (30/30) separation within selected areas and airspace in the South Pacific;

b) To consider the need for guidance material on the implementation of 30/30, and if required, to develop such guidance material;

c) To ensure the conduct of any required safety assessments based on an appropriate collision risk model (CRM); and

d) To address any other matters as appropriate and relevant to the implementation of 30/30 within the South Pacific airspace.

e) The working group will include participation from air traffic service providers, regulatory authorities and International Organizations represented at ISPACG.

5.3 Terms of Reference for the Working Group for the Development of a Data Link Gateway that Accepts Various Technologies

a) Develop the requirements for a gateway, and the associated safety case and cost/benefit analysis.

b) Present these to an appropriate industry panel to enable all parties to review the requirements and safety case analysis, and accept the approach.

6.0 OTHER BUSINESS

6.1 **David Maynard, FAA,** reported that overdue position reports continued to be an issue. The most recent analysis covering the period of 1-17 January 2004 indicated that the number of overdue position reports had remained constant since Oakland ARTCC began tracking and reporting on this issue at ISPACG/17 in 2003.

6.2 The airlines requested that Oakland e-mail (to who??) on a daily basis the date, time and flight ID of each occurrence when a controller had to ask for a position report.

6.3 It was recommended that aircraft operators explain the importance of this problem to flight crews, and remind them of the requirements for position reporting, and the need to communicate any technical problems to the FIT.

6.4 **Adam Watkin, Airservices,** highlighted Airservices Australia's initiatives with regard to the development and implementation of Flexible Use of Airspace (FUA) and UPR/Trajectories, which is now reflected in the Australian ATM Strategic Plan (AATMSP). Interested parties are invited to contact the respective project managers for further information.

- **UPR**
  Greg McDonald
  Airservices Australia
  Email greg.mcdonald@airservicesaustralia.com
  Ph +61 3 9339-2516

- **FUA**
  John Milton
  Airservices Australia
  Email john.milton@airservicesaustralia.com
  Ph +61 3 9339-2410

6.5 **Craig Roberts, Airservices,** described the tailored arrival concept developed by Boeing Air Traffic Management (ATM) to maximise the capabilities of current airborne equipment in order to enhance scheduling predictability while reducing fuel-burn, noise, and engine emissions. The result of that development work is a dynamic procedure known as a Tailored Arrival. Boeing ATM, the European Air Traffic Alliance, Qantas Airways, and Airservices Australia have agreed to participate in a trial for data collection using TAAATS capabilities in Australian domestic airspace and Qantas in-service aircraft.

6.6 **Adam Watkin, Airservices,** summarized the TAAATS software enhancements being implemented by Airservices Australia. He further informed the meeting that responsibility for the provision of ATS in Nauru FIR will be transferred to Airservices effective 10 June 2004. The Director General Nauru will continue to promulgate changes to AIP. The provision of HF communication is not yet determined.

6.7 **Debbie Simmonds, Airservices,** presented the Australian ATM Strategic Plan. It outlined the collaborative framework established by Australia for the ATM Strategic Planning process and highlights the benefits of using such a methodology for the future development of ATM within the Region. Interested parties are invited to contact her for further information:

Debbie Simmonds
ATM Strategic Planning Coordinator
ASTRA Secretariat
Airservices Australia
Email Debbie.simmonds@airservicesaustralia.com
Ph +61 2 6268 5105

6.8 **Mark Goodall, Airways,** reported on the successful on time on budget implementation of the Skyline radar system in New Zealand. Interested parties are invited to contact

Lew Jenkins
Manager Main Trunk Business
Email: jenkinsl@airways.co.nz

7.0 STRATEGIC PLANNING

The Capacity Enhancements Table was updated by the meeting. Refer **Appendix B**.

8.0 CLOSING

8.1 Closing remarks were made by each of the co-chairs, noting the work of the group and the outcomes that had been reached during the meeting. Particular thanks were expressed to Airports Fiji Limited for hosting the meeting and also to AFL and SASL for each hosting a social function during the course of the conference.

8.2 ISPACG/19 will be hosted by Airservices Australia in Brisbane, Australia from 28 February to 03 March 2005. Further details will be advised later this year.

MEETING DOCUMENTATION

Paper	Title	Presented by
WP/01	Proposed Agenda	Co-Chairs
WP/02	Open Action Items – ISPACG/17	Co-Chairs
WP/03	ATM Contingency Plans	Airways
WP/04	ATM Contingency Plans	CAB Japan
WP/05	Report into the Implementation of RNP Airspace within Australia	Australia
WP/06	Preparation for the implementation of 30/30 & airspace RNP designation	Airways
WP/07	Plans for RNP determination from ICAO flight plan	FAA
WP/08	Preparation For The Implementation of 30nm Lateral and Longitudinal Separation	FAA
WP/09	Application of the "Rule of 11" in Oceanic Airspace	Australia
WP/10	Implementation of the "Rule of 11"	Airways
WP/11	Report on the implementation of UPRs between Australia & New Zealand	Australia
WP/12	Trans-Tasman UPR	Airways
WP/13	Update on the implementation of ADS-B in Australia	Australia
WP/14	ADS-B	Airways
WP/15	Oceanic Safety Performance Requirements (SPR) Standards for Data Link	FAA
WP/16	RSVM Traffic Movement Sample	PARMO
WP/17	Delivery of pre-departure clearances via ACARSs	Airways
WP/18	Overdue position reports	FAA
WP/19	Federal Aviation Administration update to the Capacity Enhancements Table	FAA
WP/20	Airways New Zealand Update to the Capacity Enhancements Table	Airways
WP/21	User Preferred Routes in the Nadi FIR	Fiji
WP/22	RNP 10 Implementation in Fiji	Fiji
WP/23	Update on AIDC Messaging Between Adjacent FIRs	Fiji
WP/24	ICAO Comments to Proposed Amendment to Regional Supplementary Procedures on Loss of Communications	FAA
WP/25	DARP/User Preferred Route	FAA
WP/26	Unlawful Interference	Australia
IP/01	Flexible use of airspace and the implementation of user preferred routes in the Australian airspace context	Australia
IP/02	Tailored arrivals trial	Australia
IP/03	TAATS alerts review enhancement process (TAREP)	Australia
IP/04	Provision of air traffic services in Nauru FIR	Australia
IP/05	Australian ATM strategic plan & framework	Australia
IP/06	RSVM Traffic Movement Sample	PARMO
IP/07	Successful implementation of Skyline radar system	Airways
IP/08	FAA Terminal Procedures Programmes	FAA
IP/09	Oceanic/Domestic Air Traffic Services (ATS) Gateway Proposal Converging Domestic & Oceanic Data Link Operations	FAA

18th MEETING OF THE
INFORMAL SOUTH PACIFIC AIR TRAFFIC SERVICES COORDINATING GROUP
(ISPACG/18)
(Nadi, Fiji - 24-26 February 2004)

Agenda Item 3: Review relevant work conducted since the last meeting

OPEN ACTION ITEMS – ISPACG/18

Number	Action Item	Last Status Update	Action Officer(s)	Action Pending	Target Date
16-1	Funding for Continuation of Central Reporting Agency Activities	APANPIRG Regional Airspace Safety Monitoring Advisory Group (RASMAG) has been established and will meet in April 2004. Funding issues will be addressed by this group.		Closed	
16-2	Strategic Planning	Standing action item.	Co-Chairs (Lead) All ISPACG Participants	Review and update table of CNS/ATM technologies and enhancements for next meeting	On going
16-4	ATM Contingency Plans	Standing Action Item Discussions are continuing between Brisbane and Auckland Centres. Brisbane is expected to finalise contingency arrangements with Papua New Guinea by 30 April 2004. Agreement has been completed for Auckland to provide contingency services in Tahiti FIR.	 Mark Goodall, Airways/ Ron Rigney, Airservices Ron Rigney, Airservices	 Report progress to ISPACG/19 Finalize arrangements Report progress to ISPACG/19 Closed	 Mar 2005 Apr 2004 Mar 2005

Number	Action Item	Last Status Update	Action Officer(s)	Action Pending	Target Date
16-5	Report on FANS Interoperability Team Activities	Standing action item.	Brad Cornell, Boeing ATM		Mar 2005
16-6	Review Need for Regional Implementation of Lateral Offset Procedures	SASP continues to progress the broader issues relating to 1NM and 2NM lateral off sets.	All ATS Providers	Report outcome of SASP discussions to ISPACG/19	Mar 2005
16-7	Aircraft Loss of Communications Procedures	The United States submitted a proposed amendment to regional supplementary procedures. ICAO HQ had reviewed amendment and had a significant list of questions which need to be resolved.	Leslie McCormick, FAA	Develop response to ICAO Headquarters addressing their concerns. Report outcome to ISPACG/19	Mar 2004 Mar 2005
16-8	Working Group for the Implementation of 30/30	Australia and New Zealand agreed to establish a working group to implement 30/30 across the Tasman Sea by 25 November 2004. Progress report to be provided to ATM/AIS/SAR/SG/14 (28 June – 02 July 2004)	Ron Rigney, Airservices/Mark Goodall, Airways Ron Rigney, Airservices	Implement 30/30 Prepare report	25 Nov 2004 Jun 2004
16-12	Address REPORT REACHING issue as requested by FIT	INFORMAL REPSONSE received from ICAO.		Closed	
16-13	Application of “Rule of 11” in Oceanic Airspace	Both Australia and New Zealand are still looking at applying the Rule of 11 using estimates and reports over waypoints.	Adam Watkin, Airservices/ Allan London, Airways	Report to ISPACG/19	Mar 2005

Number	Action Item	Last Status Update	Action Officer(s)	Action Pending	Target Date
17-1	RNP Airspace	Generic RNP airspace was implemented in Australian administered airspace 17 April 2003. Fiji reported they have been RNP10 capable since 21 August 2003. Tahiti is expecting RNP-10 and 50NM lateral by the 3rd quarter 2004 and 50NM longitudinal is due 1st quarter 2005.	Jean-Pierre Carle, SEAC	Closed Report progress to ISPACG/19	 Mar 2005
17-2	UPRs	Trans Tasman UPRs deferred pending the inclusion of conflict probe within TAAATS. Determine what process airlines should follow to establish UPRs between city pairs. Fiji will review their requirement for aircraft to be RNP-10 approved in order to operate on UPRs.	Ron Rigney, Airservices Mark Goodall, Airways Peni Verebasaga, SASL	Report progress to ISPACG/19 Advise airlines of any process Advise ISPACG/19	Mar 2005 Mar 2004 Mar 2005
17-3	DARP	Being progressed and reported by the FIT	FIT	Closed	
17-4	DARP Procedures	Being progressed and reported by the FIT	FIT	Closed	
17-5	ADS-B	Australia provided an update on the ADSB trial and their implementation programme.	Adam Watkin, Airservices	Provide update report for ISPACG/19	Mar 2005
17-6	Oceanic Safety Performance Requirements (SPR) Standards for Data Link	The draft SPR Version 1 (still not yet completed) was presented to the meeting. Work is on-going by RTCA/Eurocae sub group.	All ATS Providers	Review SPR and provide comments to Tom Kraft, FAA	22 Mar 2004

Number	Action Item	Last Status Update	Action Officer(s)	Action Pending	Target Date
17-7	Unlawful Interference	There appear to be several different means to indicate unlawful interference used by states.	Ron Rigney, Airservices	Prepare table for each state to complete with publicly available unlawful interference codes.	Jun 2004
			All ATS Providers	Provide information applicable within their states	Aug 2004
				Report outcome to ISPACG/19	Mar 2005
17-8	RVSM Traffic Movement Sample	Standing Action Item	All ATS providers	Provide traffic movement data for the period 1-30 Apr UTC. This data should be in the required Excel spreadsheet format, see Appendix D	21 May 2004
17-9	Pre Departure Clearances	Included in the Airways NZ Business Plan for the 04/05 financial year.	Mark Goodall, Airways	Report progress to ISPACG/19	Mar 2005
17-10	Domestic CPDLC	FIT approved Domestic CPDLC RFC to POM.	FIT	Closed	
17-11	AIDC	Fiji to implement AIDC	Peni Verebasaga, SASL	Trials with Brisbane	Apr 2004
			Peni Verebasaga, SASL	Trials with Auckland	Apr 2004
			David Maynard, FAA	Investigate possibility of AIDC prior to implementation of ATOP	Apr 2004
17-12	Terminal Procedures	Develop streamlined terminal control procedures to ensure that benefits gained enroute Oceanic are not subsequently lost.	All ATS Providers	Provide update on progress and plans	Mar 2005
			All ATS Providers	Bring Terminal Procedures representative to ISPACG/19	Mar 2005

Number	Action Item	Last Status Update	Action Officer(s)	Action Pending	Target Date
17-13	Monthly Monitoring Data	CRA reminded the meeting of the need for monthly data link monitoring data.	Apenisa Nagatalevu, AFL	Co-ordinate data supply with Boeing ATM	Mar 2005
18-1	ATS Data Link Gateways	Develop a gateway function which allows ATS providers to communicate with data link equipped aircraft, regardless of which technology is installed.	Reed Sladen, FAA	Establish a working group to assist in the development of geographically seamless data communications.	

Updated Capacity Enhancement Table

CAPACITY ENHANCEMENT	ACTION WITH	ESTIMATED COMPLETION DATE	DATE COMPLETED	NOTES
Implement RVSM in Domestic Airspace				
Australia	Airservices		Feb-02	
Fiji	AFL		Feb-00	
New Zealand	Airways		Feb-00	
PNG	CAA of PNG		Feb-02	
Solomon Islands	Airservices		Feb-02	
Tahiti	SEAC Tahiti		Feb-00	Up to F390
United States	FAA	Jan-05		Feb 2000 (PAC oceanic)
Implement RNP10				
Australia	Airservices		2000	Phased implementation
Fiji	AFL		**Aug-03**	
New Zealand	Airways		Dec-98	
PNG	CAA of PNG	TBD		Airservices
Solomon Islands	Airservices		Dec-98	F245 - F600
Tahiti	SEAC Tahiti	**Oct/Nov-04**		
United States	FAA		Dec-98	
Implement RNP4				
Australia	Airservices	TBD		
Fiji	AFL	TBD		
New Zealand	Airways	TBD		
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices	TBD		
Tahiti	SEAC Tahiti	TBD		
United States	FAA	2005		

CAPACITY ENHANCEMENT	ACTION WITH	ESTIMATED COMPLETION DATE	DATE COMPLETED	NOTES
Implement 50NM Lateral Separation				
Australia	Airservices		Dec-98	
Fiji	AFL		**Aug-03**	ADS aircraft only
New Zealand	Airways		Dec-98	
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices		Dec-98	
Tahiti	SEAC Tahiti	**Oct/Nov-04**		
United States	FAA		Dec-98	
Implement 50NM Longitudinal Separation				
Australia	Airservices		Jul-00	
Fiji	AFL		**Aug-03**	ADS aircraft only
New Zealand	Airways		Jul-00	ADS aircraft only
PNG	CAA of PNG			
Solomon Islands	Airservices		Jul-01	
Tahiti	SEAC Tahiti	**2005**		
United States	FAA	**4th Qtr 2004**		
Implement 30NM Lateral Separation				
Australia	Airservices	**25 Nov 2004**		**Trans-Tasman**
Fiji	AFL	TBD		
New Zealand	Airways	**25 Nov 2004**		**Trans-Tasman**
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices	TBD		
Tahiti	SEAC Tahiti	TBD		
United States	FAA	2005		

CAPACITY ENHANCEMENT	ACTION WITH	ESTIMATED COMPLETION DATE	DATE COMPLETED	NOTES
Implement 30NM Longitudinal Separation				
Australia	Airservices	**25 Nov 2004**		**Trans-Tasman**
Fiji	AFL	TBD		
New Zealand	Airways	**25 Nov 2004**		**Trans-Tasman**
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices	TBD		
Tahiti	SEAC Tahiti	TBD		
United States	FAA	2005		
Implement UPRs				
Australia	Airservices			Partial implementation YSSY/NZAA-KLAX
Fiji	AFL			**Has UPR capability**
New Zealand	Airways			Has UPR capability
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices			Partial implementation YSSY/NZAA-KLAX
Tahiti	SEAC Tahiti			Partial implementation YSSY/NZAA-KLAX
United States	FAA			Partial implementation YSSY/NZAA-KLAX
Implement UPR DARP				
Australia	Airservices			
Fiji	AFL			
New Zealand	Airways			Has DARP capability
PNG	CAA of PNG			
Solomon Islands	Airservices			
Tahiti	SEAC Tahiti	**Mid 2005**		**Partial implementation - Trial NZZ0 KZAK 04**
United States	FAA			Trial NZZO KZAK

CAPACITY ENHANCEMENT	ACTION WITH	ESTIMATED COMPLETION DATE	DATE COMPLETED	NOTES
Application of Tactical Lateral Offsets for Climb & Descent				
Australia	Airservices	N/A		
Fiji	AFL	**N/A**		
New Zealand	Airways	TBD		
PNG	CAA of PNG	N/A		
Solomon Islands	Airservices	N/A		
Tahiti	SEAC Tahiti	N/A		
United States	FAA		Dec-98	
Implement AIDC Messaging with Neighbouring FIRS for Co-ordination				
Australia	Airservices		Aug-99	NFFF, KZAK to go
Fiji	AFL	**Aug 04**		YBBB, NZZO, KZAK to go
New Zealand	Airways		Jul-00	NFFF, KZAK, NTTT to go, Partial with KZAK
PNG	CAA of PNG			
Solomon Islands	Airservices			
Tahiti	SEAC Tahiti	May-03	May-03	**Partial with NZZO - ABI message 2005**
United States	FAA	Dec-03		Partial with Japan Mar 99, NZZO Dec 02
Introduce an Integrated ATC System Including ADS/CPDLC				
Australia	Airservices		Jan-00	
Fiji	AFL		Jan-01	
New Zealand	Airways		Jul-00	
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices		Jan-00	
Tahiti	SEAC Tahiti		1999	
United States	FAA	Dec-03		Mar 99-CPDLC only

CAPACITY ENHANCEMENT	ACTION WITH	ESTIMATED COMPLETION DATE	DATE COMPLETED	NOTES
Implement ADS-B				
Australia	Airservices	**30 June 2004**		
Fiji	AFL	**TBD**		
New Zealand	Airways	TBD		Considering implementation in areas of inadequate radar coverage only
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices	TBD		
Tahiti	SEAC Tahiti	TBD		**Study in progress**
United States	FAA	TBD		Jan 01 - Anchorage FIR only
Terminal Procedures				
Australia	Airservices	TBD		Conducting tailored arrival trials Terminal procedures included in ATM Strategic Plan
Fiji	AFL	TBD		
New Zealand	Airways	TBD		RNP terminal project in place
PNG	CAA of PNG	TBD		
Solomon Islands	Airservices	TBD		
Tahiti	SEAC Tahiti	TBD		
United States	FAA	TBD		Developing criteria, aircraft qualification and approval guidance

North Atlantic (NAT) Timekeeping General Procedures

Importance of Accurate Time

It must be recognised that proper operation of a correctly functioning long range navigation system will ensure that the aircraft follows its cleared track. Air traffic control (ATC) applies at least the minimum standard separation between cleared tracks and thereby assures the safe **lateral** separation of aircraft. However, longitudinal separation between subsequent aircraft following the same track and between aircraft on intersecting tracks are assessed in terms of differences in estimated times of arrival (ETA) and actual time of arrival (ATA) at common waypoints. Aircraft clock errors which contribute to position report time errors can therefore lead to an erosion of actual longitudinal separation between aircraft. It is thus vitally important that prior to entry into the NAT Minimum Navigations Performance Specification (MNPS) airspace, the time reference system used during flight is accurately synchronised to coordinated universal time (UTC), and that the calculation of waypoint ETAs and the reporting of waypoint ATAs are based on this system. Many modern aircraft master clocks can only be reset while the aircraft is on the ground. Thus, the pre-flight procedures for any NAT MNPS flight **must include** a UTC time check and re-synchronisation of the aircraft master clock. Lists of acceptable time sources for this purpose have been promulgated by NAT air traffic service (ATS) providers.

The following are examples of acceptable time standards:

(1) Global positioning system (GPS) (corrected to UTC) - Available at all times to those crews who can access time via approved on-board GPS (TSO-C129) equipment.

(2) WWV - National Institute of Standards (NIST - Fort Collins, Colorado). WWV operates continually H24 on 2500, 5000, 10,000, 15,000 and 20,000 kHz (AM/SSB) and provides UTC (voice) once every minute.

(3) CHU - National Research Council (NRC - Ottawa, Canada) - CHU operates continually H24 on 3330, 7335 and 14,670 kHz (SSB) and provides UTC (voice) once every minute (English even minutes, French odd minutes).

(4) BBC - British Broadcasting Corporation (United Kingdom). The BBC transmits on a number of domestic and world-wide frequencies and transmits the Greenwich time signal (referenced to UTC) once every hour on most frequencies, although there are some exceptions.

Further details of these and other acceptable time references can be found in aeronautical information publications of the NAT ATS Provider States. In general, any other source of UTC that can be shown to the State of the Operator or the State of Registry of the aircraft to be equivalent, may be allowed for this purpose.

NAT Definition of “Other Means”

OTHER MEANS - Position information derived from advanced ATC ground automation systems that take into account multiple sources of information, namely voice reports, automatic dependent surveillance and/or controller-pilot data link communication reports, estimates and weather information, may be the basis for applying all time-based longitudinal separation standards.

SPECIFICATION FOR A TRAFFIC MOVEMENT SAMPLE TO SUPPORT EXAMINATION OF THE STATUS OF OPERATORS AND AIRCRAFT USING PACIFIC AIRSPACE WHERE REDUCED VERTICAL SEPARATION MINIMUM (RVSM) IS APPLIED

Presented by Pacific Approvals Registry and Monitoring Organization (PARMO)

SUMMARY

This working paper provides specifications for a 1 –30 April 2004 traffic movement sample to support the Pacific Approvals Registry and Monitoring Organization (PARMO) annual examination of the State reduced vertical separation minimum (RVSM) approval status of operators and aircraft using Pacific flight information regions (FIRs) where RVSM has been implemented. The paper notes that this request for a traffic sample is identical to that put before the Group at its Seventeenth Meeting in March 2003. The paper identifies the information required for a flight and provides a possible format for the data comprising the sample from an FIR. In addition, the paper notes that the results of the examination will be provided, insofar as possible, to the next meeting of the Air Traffic Services/Aeronautical Information Services/Search and Rescue Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group.

1.0 Background

1.1 At its Ninth Meeting (reference 1), the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) considered work already underway within the Region to progress implementation of reduced vertical separation minimum (RVSM). After review, the APANPIRG established the ICAO RVSM Implementation Task Force (RVSM TF). As its first effort, the APANPIRG charged the RVSM TF with introducing RVSM into Pacific flight information regions (FIRs).

1.2 At its Second Meeting (reference 2), the RVSM TF agreed that the Pacific Approvals Registry and Monitoring Organization (PARMO), provided as a service by the FAA Technical Center, would serve as the regional monitoring agency (RMA) called for in ICAO RVSM guidance material. This decision was affirmed at the Tenth Meeting of the APANPIRG (reference 3).

1.3 On 24 February 2000, RVSM was implemented in the following Pacific FIRs: Anchorage, Auckland, Brisbane, Nadi, Naha, Oakland, Tahiti and Tokyo; and on 1 April 2000, in the Port Moresby FIR.

1.4 Among the duties and responsibilities of the PARMO (reference 4, Appendix L) is: “to provide the means for identifying non-RVSM approved operators using Pacific airspace where RVSM is applied; and notifying the appropriate State approval authority”.

1.5 In fulfilment of this responsibility, the PARMO conducted examinations in calendar years 2000, 2001, 2002 and 2003 of the approval status of operators and aircraft using Pacific RVSM airspace. The first was based on a June 2000 sample of traffic movements from all Pacific FIRs and the second on a 15 April through 14 May 2001 sample. The PARMO presented ISPACG/16 (reference 5) with a request to conduct a one-month sample of traffic in all South Pacific FIRs where RVSM is applied. The results of each examination served as the basis for communications with State authorities and subsequent improvements.

1.6 The motivation for the February 2002 request to the ISPACG was direction from the APANPIRG at its Twelfth Meeting (reference 6), where the meeting “noted the need of the

PARMO to collect a 4-week sample of traffic movements in early calendar year 2002 from those Pacific FIRs where the RVSM is applied in order to perform another analysis." (reference 6, paragraph 2.1.31). The results of the April 2002 sample were reported to the Thirteenth Meeting of the APANPIRG in reference 7. The APANPIRG noted the results of the examination of RVSM-approval compliance and urged States to cooperate with the APARMO in providing information necessary to assist State authorities.

1.7 The purpose of this working paper is to propose that a 1 –30 April 2004 sample of traffic movements be collected from Pacific FIRs where the RVSM is applied in order to support a PARMO examination of the State RVSM approval status of operators and aircraft.

2.0 Background

2.1 The PARMO maintains a database of State RVSM approvals issued in connection with RVSM introduction into the Pacific Region. In addition, the PARMO regularly acquires the latest version of a similar database maintained by the North Atlantic (NAT) Central Monitoring Agency (CMA). The union of these two databases is termed the Unified PARMO Database of Approvals. Further, the PARMO regularly consults the database of State RVSM approvals maintained by EUROCONTROL in connection with Continental European RVSM, which was implemented on 24 January 2002.

2.2 Each State approval in the Unified PARMO Database of Approvals identifies an aircraft by operator, type and registration number. The PARMO calendar year 2000, 2001, 2002, and 2003 examinations of approval status consisted of comparing the operator, aircraft type and, where provided, registration number of each flight in each FIR traffic movement sample to the entries in the database. All flights which appeared not to have State RVSM approval were then checked further against the EUROCONTROL database. Those flights failing this matching were then analyzed in order to remove any possible coding errors in preparing the samples. This flights still appearing to lack State RVSM approval were then the object of subsequent correspondence between the APARMO and the relevant State authorities and operators.

3.0 Discussion

3.1 This section of the working paper presents the proposed specification for the 2004 sample of traffic movements to be used by the PARMO in examining the State approval status of operators and aircraft using Pacific airspace where RVSM is applied. It will be seen that this sample is identical in content and format to that requested at ISPACG/17 in March 2003.

3.2 Sample Period

3.2.1 The traffic sample should cover all flights operating in Pacific airspace where RVSM is applied for the period 1 April through 30 April 2004. Each Pacific ATS provider is requested to send its traffic movement sample to the PARMO by e-mail not later than 21 May 2004. The e-mail address for the PARMO is aparmo@faa.gov.

3.3 Flight Level Band

3.3.1 The traffic sample should cover those flights operating between flight levels 290 and 410, inclusive.

3.4 Format

3.4.1 The traffic sample from an FIR should be provided as an Excel spreadsheet in order to facilitate comparisons with the Unified PARMO Database of Approvals and with the EUROCONTROL database of State RVSM approvals.

3.5 Information Required for Each Traffic Movement

3.5.1 Table 1 presents the NECESSARY and OPTIONAL information requested for each flight. The PARMO found that all ATS providers assembling the calendar year 2000 and 2001 traffic samples were able to provide the entries shown as NECESSARY in the table, while several were also able to provide those shown as OPTIONAL. The OPTIONAL entries will provide the PARMO with further identifying information for use in examining any flight which does not appear in an State RVSM approvals database, and will also allow the PARMO to provide updates to certain safety oversight quantities which need to be examined periodically. A spreadsheet providing a recommended format is available for download from the PARMO web page at http://www.tc.faa.gov/acb300/parmo.

3.5.2 It is important to note that it is the content – rather than the format of the information on the spreadsheet - that is important to the examination of the State approval status of operators and aircraft using Pacific airspace where RVSM is applied. Thus, if an ATS provider finds it more convenient to use a format different from that shown on the PARMO web page, the PARMO will still be able to use the FIR traffic movement sample.

Date (either month/day/year or day/month/year format)	NECESSARY
Aircraft call sign	NECESSARY
Aircraft Type	NECESSARY
Aircraft Registration Number	OPTIONAL
Does Item 10 of Flight Plan Indicate That the Operator and Aircraft are RVSM-Approved? (Does a “W” Appear in Item 10 of Flight Plan?)	OPTIONAL
Origin Aerodrome	NECESSARY
Destination Aerodrome	NECESSARY
Entry Fix into RVSM Airspace	NECESSARY
Time at Entry Fix	NECESSARY
Flight Level at Entry Fix	NECESSARY
Exit Fix from RVSM Airspace	NECESSARY
Time at Exit Fix	NECESSARY
Flight Level at Exit Fix	NECESSARY
First Fix Within RVSM Airspace OR First Airway Within RVSM Airspace	OPTIONAL
Time at First Fix	OPTIONAL
Flight Level at First Fix	OPTIONAL
Second Fix Within RVSM Airspace OR Second Airway Within RVSM Airspace	
Time at Second Fix	OPTIONAL
Flight Level at Second Fix	OPTIONAL
(Continue with as many Fix/Time/Flight-Level entries as are required to describe the flight’s movement within RVSM airspace)	OPTIONAL

Table 1. Information Required for a Flight in Traffic Sample

4.0 Recommendations

4.1 The ISPACG is invited to:

a. examine the contents of the working paper and offer comments. In particular, the ISPACG is invited to suggest any additions, deletions or modifications to the information requested in the traffic sample; and

b. endorse the collection of the sample of traffic movements described in this paper.

4.2 Each Pacific ATS provider is requested to submit its traffic movement sample to the PARMO by e-mail not later than **21 May 2004**. The PARMO e-mail address is **aparmo@faa.gov**. A spreadsheet providing a recommended format is available for download from the PARMO web page at **http://www.tc.faa.gov/acb300/parmo**.

4.3 Each Pacific ATS provider is requested to submit its traffic movement sample to the PARMO by e-mail not later than **21 May 2004**. The PARMO e-mail address is **aparmo@faa.gov**. A spreadsheet providing a recommended format is available for download from the PARMO web page at **http://www.tc.faa.gov/acb300/parmo**.

References

1. Report of the Ninth Meeting of the Asia/Pacific Planning and Implementation Regional Group (APANPIRG/9), ICAO Asia and Pacific Office, Bangkok, August 1998.

2. Report of the Second Meeting of the ICAO Reduced Vertical Separation Minimum Implementation Task Force (RVSM/TF/2), Los Angeles, 8 – 12 February 1999.

3. Report of the Tenth Meeting of the Asia/Pacific Planning and Implementation Regional Group (APANPIRG/10), ICAO Asia and Pacific Office, Bangkok, August 1999.

4. Report of the Sixth Meeting of the ICAO Reduced Vertical Separation Minimum Implementation Task Force (RVSM/TF/6), Singapore, 10 – 14 April 2000.

5. Report of the Sixteenth Meeting of the Informal South Pacific Air Traffic Services Coordinating Group (ISPACG/16), Papeete, Tahiti, 13-15 February 2002.

6. Report of the Twelfth Meeting of the Asia/Pacific Planning and Implementation Regional Group (APANPIRG/12), ICAO Asia and Pacific Office, Bangkok, 20-24 August 2001.

7. "Assessment of Non-State-Approved Operators Using Pacific RVSM Airspace Based on an April 2002 Traffic Sample," Thirteenth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/13), Bangkok, Thailand, 9 – 13 September 2002.

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