

**Eighteenth Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group  
(CPWG/18)**

(Paris, France, 16-19 December 2014)

**Agenda Item 2: Administrative Matters**

**(CPWG/17 Report)**

(Presented by Federal Aviation Administration)

SUMMARY

This working paper presents draft of the Summary of Discussions from the Seventeenth Meeting of the Cross Polar Trans East Air Traffic Management Providers Working Group (CPWG/17) hosted by State ATM Corporation, 4-6 June 2014 in Samara, Russia.

**1. Introduction**

1.1 Please find attached the draft of the Summary of Discussions from the Seventeenth Meeting of the Cross Polar Trans East Air Traffic Management Providers Working Group (CPWG/17) hosted by State ATM Corporation, 4-6 June 2014 in Samara, Russia.

**2. Action by the Meeting**

3.1 The meeting is invited to:

- a. review and approve the information contained in this Working Paper.

**Summary of Discussions of the  
Seventeenth Meeting of the  
Cross Polar Trans East Air Traffic Management Providers Working Group  
(CPWG/17)  
3-6 June 2014 – Samara, Russia**

**1. Background**

1.1 The Seventeenth Meeting of the Cross Polar Trans East Air Traffic Management (ATM) Providers Working Group (CPWG/17) was hosted by State ATM Corporation 3-6 June 2014. The schedule included meetings of the Air Navigation Service Providers (ANSPs), the Pacific Project Team (PPT) and the CPWG/17 plenary meeting.

1.2 The CPWG was established to provide a forum for ANSPs and airspace users to meet and explore solutions for improving air traffic services (ATS) to aircraft which operate between North America and Asia via Cross Polar (CP) and Russian Trans East (RTE) routes.

1.3 Leah Moebius facilitated the meeting. Forty participants attended, representing the ANSPs from Canada, Iceland, Japan, Mongolia, Norway, Russia, Kazakhstan, and the United States (US); the International Air Transport Association (IATA); international airlines and operators, and industry. The list of participants is at **Appendix A**.

**2. Opening of the Meeting**

2.1. Assistant Director General from State ATM welcomed the attendees to Samara and to the 17<sup>th</sup> CPWG meeting. Leah also welcomed participants and invited self-introductions.

**3. Agenda Item 1: Review and approve Agenda**

3.1. The following agenda was approved by the meeting

Agenda Item 1: Review and approve Agenda

Agenda Item 2: Administrative Matters (CPWG/16 Report)

Agenda Item 3: Summary of Pertinent Issues from the ANSPs Meeting and other relevant meetings

Agenda Item 4: Report from the Pacific Project Team Meeting

Agenda Item 5: Provide Status on CPWG/16 Actions

Agenda Item 6: ATS Route Catalogue Update

Agenda Item 7: 2014-2016 Cross Polar Work Program

- Respective ANSPs' efforts for improving communications in the area
- Development of a single separation standard in region

- Improve/Increase efficiencies and predictability on Polar Routes

Agenda Item 8: Communications, Navigation, Surveillance (CNS) and Air Traffic Management (ATM) issues

- ANSP Updates/Presentations
  - NAV CANADA Update
  - FAA Anchorage Update
  - State ATM Corporation Update
  - ISAVIA Update
  - Avinor Update
  - JCAB Update
  - Mongolia Update
  - Kazakhstan Update
- Airline Updates/Presentations
  - IATA
  - Other Airlines
- Others

Agenda Item 9: Other Business

Agenda Item 10: Next Meeting

#### 4. Agenda Item 2: Administrative Matters

4.1. Seven working papers (WPs) and 20 information papers (IPs) were presented for discussion during the meeting:

Paper Number	Agenda Item	Action Number	Title of Paper	Presented by
WP/01	1		Proposed Agenda and Timetable	FAA
WP/02 (ANSPs Only)	7		Proposed CPWG Work Program	FAA
WP/03	2		CPWG/16 Action Item List	FAA
WP/04	6		Request for New Route and Propose Amendments to Other Routes	IATA – United
WP/05	6		Route Availability Process When ATS route Approval is Required - Russian Far East Route B915	IATA-United
WP/06	5	CP 15-07	Lessons Learned of VOLKAM14	JCAB
WP/07	5	CP 15-04, CP 16-05 and CP 16-07	Route Proposal between Russian Far East and North Pacific Route System	JCAB

Paper Number	Agenda Item	Action Number	Title of Paper	Presented by
WP/08	2		Summary of Discussions from CPWG/16	FAA
WP/09	6		AIR TRAFFIC SERVICES ROUTE CATALOGUE	State ATM
WP/10	5	#16-06	Reroutes and Coordination Issues Associated with Volcanic Events	
WP/11 (ANSPs Only)		ANSP MEETING	VOLKAM14 Report & Actions	State ATM
WP/12		ANSP Meeting	DRAFT VOLCANIC ASH CONTINGENCY PLAN FOR TRANS-EAST, NOPAC AND PACOTS	State ATM
WP/13	5	CP15-08	Isavia Update on Volcanic Ash	Isavia
WP/14	6		UAL Route Efficiency Request_NIKIN SULOK Rationalisation	UAL
WP/15	6		ISAVIA Boundary waypoints	Isavia
IP/01	1		List of Papers	FAA
IP/02	5	14-02	Update on Air Traffic Services Inter-facility Data Communication	FAA
IP/03	8		Provision of Alerting Service in the Arctic Region	FAA
IP/04	5	CP06-02, CP14-11	Incorporation Of The Anchorage Arctic Flight Information Region (FIR) Within The Anchorage Air Route Traffic Control Center's (ARTCCs) Advanced Technologies And Oceanic Procedures (ATOP) "Ocean21" Automation System	FAA
IP/05	5	CP07-02, CP12-04	Improving Efficiencies	FAA
IP/06	5	CP15-04	Notable Information from Associated Air Traffic Management Meetings: "Volcanic Ash and PACOTS Generation"	FAA
IP/07	5	CP14-07	ICAO Inter-Regional AIDC Task Force	FAA

Paper Number	Agenda Item	Action Number	Title of Paper	Presented by
IP/08	5	CP10-08	International Air Traffic Flow Management in Japan	JCAB
IP/09	5	CP16-04	User Trajectory Planning in the Pre-Oceanic Phase	FAA
IP/10	5	CP16-01	CFCG Update	FAA
IP/11	8		Airspace Structure of the Russian Federation	State ATM
Presentation			NavCanada Update	NavCanada
Presentation			Avinor Update	Avinor
<b>Pacific Project</b>				
WP01			PPT07 Meeting Agenda	IATA
WP02			PPT6 Summary of Discussions	IATA
WP03			PPT6 Action Item List	IATA
WP04			PPT07 PPT Terms of Reference	IATA
WP/05			CPWG Air Navigation Service Providers Initiatives Furthering a Seamless Airspace	FAA
WP06			PPT07 Pacific Project Initiatives	FAA
IP01			CPWG Terms of Reference	FAA

4.2. Copies of all WPs and IPs, as well as additional information presented during the meeting were made available on the CPWG web site at [http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/air\\_traffic\\_services/oceanic/ross\\_polar/](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/air_traffic_services/oceanic/ross_polar/)

**5. Agenda Item 3: Summary of Pertinent Issues from the ANSPs Meeting and other relevant meetings**

*ANSPs Meeting, 3 June 2014*

5.1. Leah informed the meeting that the ANSPs Meeting had included discussions on issues to be covered during the plenary meeting. Details would be provided during discussions on specific action items. The ANSPs reviewed and updated the CPWG Work Program, which was made available to all participants. Details of the review are reflected in Agenda Item 7 and Appendix E.

*Fourth Meeting of the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS/4)*

5.2. The US Federal Aviation Administration (FAA) informed the meeting that due to political unrest, the ICAO Asia Pacific Regional Office has postponed the TRASAS/4 meeting. A new date has not been proposed at this time.

5.3. When a new meeting date has been announced, the following outstanding actions from the CPWG will be addressed:

- CP11-01: Advance communications capabilities for the Arctic area;
- CP12-14: CPWG communications activities; and
- CP13-07: Request that TRASAS designate an ICAO representative to attend CPWG meetings

5.4. The FAA agreed to draft a paper for TRASAS/4 addressing these items, as well as the work of the CPWG since TRASAS/3, and coordinate with CPWG members prior to submitting.

## **6. Agenda Item 4: Report from the Pacific Project Team (PPT) Meeting**

6.1. Blair Cowles, IATA, facilitated the PPT meeting held on 3 June 2014. A report of the meeting and updated actions items are provided at **Appendix B**.

## **7. Agenda Item 5: Provide Status on CPWG/17 Actions**

*CP14-12 Consider expanding trial for ADS-C Climb/Descend Procedures (CDP) to ZAN Airspace*

7.1. ZAN updated the group on ADS-C CDP automation and noted that when ready as an operational capability, it will be installed and employed in New York, Oakland and Anchorage oceanic airspace. Initial deployment of the ADS-C CDP in the automated platform will be conducted as an operational trial in all three oceanic FIRs where the FAA provides air traffic services.

7.2. The FAA anticipated resuming the trials in January 2015 with full implementation in 2016. ADS-C CDP expansion into ZAN airspace is desired once ATOP software is updated in 2015 as a trial and operational in all FAA oceanic FIRs. An update to be provided at CPWG/18 meeting.

*CP14-08: Improve flexibility of military airspace*

7.3. NAV CANADA described the coordination underway with the Canadian Department of National Defence (DND) to work together for access to the Cold Lake military airspace. Ongoing discussions included tactical coordination for release of airspace based on traffic requirements, procedures for flight planning around restricted airspace, and charting of 5 NM buffer zones. Coordination with flight planning agencies will continue.

7.4. Following CPWG/16, NAV CANADA held several meetings and reported that although Airspace can't be closed on daily basis, there was agreement with the military to show availability, which was not much different than what is currently available. NAVCANADA will continue to meet and discuss issue and provide an update will be provided at CPWG/18 meeting.

*CP01-08C: ATFM Collaboration between the FAA/ATO and State ATM*

7.5. The proposed ATFM Annex and Letter of Agreement will be discussed following the meeting and an update to be provided at the CPWG/18 meeting.

*CP10-02: Provide flow constraint information*

7.5. State ATM presented information on hourly traffic load versus target capacity for certain sectors of several ACCs at intersections of major transit ATS routes.

*CP10-08: Improved contingency collaboration between State ATM and Japan Civil Aviation Bureau (JCAB)*

7.6. The proposed LOA was sent to Federal Air Transport Authority (FATA) and is currently under review. JCAB and State ATM will continue to work on a bilateral basis and provide updates to future meetings.

*CP16-04: Monitor Activities of the User Trajectory Planning (UTP) Program.*

7.7 FAA provided a paper on the User Trajectory Planning (UTP) Pre-Oceanic Phase program. Many of the features requested by operators are under consideration and would address gaps/inefficiencies in Oceanic Region. Airlines requested more details on UTP program and an update during Oceanic Work Group June 2014. FAA will provide an update to CPWG/18 meeting.

*CP04-31: Implement use of radar procedures between Magadan Area Control Center (ACC) and Anchorage Air Route Traffic Control Center (ARTCC)*

7.8 State ATM advised that the Providenia radar has been purchased and is in storage. Construction on Providenia radar had been delayed and is expected to begin in early 2015 with installation expected to take place in 2015-2016 timeframe.

*CP06-02: Implement Ocean21 in the Arctic FIR*

7.9 The FAA presented information regarding ongoing efforts to bring the Anchorage Arctic FIR, and associated domestic airspace, into the Anchorage Advanced Technologies and Oceanic Procedures (ATOP)/Ocean 21 automation system. The program has been delayed to the 2018 timeframe.

7.10 Offline testing in the Arctic FIR, between Anchorage ARTCC's two automation platforms, ATOP and Flight Data Processor 2000 (FDP2K), has been satisfactorily completed. This testing has determined the optimal Arctic airspace allocation between the two systems. Tentatively, that portion of the Anchorage Arctic FIR lying north of 73 degrees north latitude will be delegated to the new ATOP "Sector 64". This sector will provide air traffic service to aircraft transitioning to/from the Russian entry fixes between BARIP (745700N 168 58 24W) and DEVID (89 00 00N 168 58 24W). The airspace south of 73 degrees north will remain delegated to the FDP2K system, i.e. "Sector 4".

7.11 Additional testing and adaptation work remains as well as non-automation tasks such as safety case revision, workforce development and training, and revisions to pertinent Letters of Agreement between Anchorage and other ATSUs. A significant sub-element of the testing/adaptation work concerns Air Traffic Services Inter-facility Data Communications (AIDC). Currently, exchange of AIDC data between Anchorage and Edmonton ACC concerns only the FDP2K system and Edmonton's Canadian Automated Air Traffic Management System (CAATS). With the implementation of ATOP "Sector 64," Edmonton's CAATS system will face two automation platforms across the common FIR boundary were currently it only interfaces with one. Letters of Agreement, such as that between Anchorage and Gander HF Radio, will also need to be amended to reference the new sector. The FAA tentatively plans implementation of the Anchorage ATOP "Sector 64" for the first quarter of CY2015 and will provide an update at CPWG/18.

*CP14-11: Eliminate requirement to flight plan over named or latitude/longitude (lat/long) fixes at 141W*

7.12 The FAA informed the meeting that there was a current NOTAM (A0158) which addressed

communications for transit of the Anchorage Arctic CTA/FIR, which made it mandatory for all flights, regardless of CPDLC status, to make position reports, upon entering or exiting the CTA/FIR, via the appropriate HF en-route radio. All flights are required to maintain a listening watch on the current Gander HF radio frequency while transiting the CTA/FIR unless a satisfactory SELCAL check has been completed with Gander Radio upon, or prior to, CTA/FIR entry. The NOTAM includes restatement of communication requirements. With ATOP implementation, the FAA can look at lessening restrictions in a phased process. An update to be provided at the next meeting.

*CP14-13: Replacement of Bodo oceanic automation system*

7.13 Avinor provided an update on the planned replacement for the automation system at Bodo ACC. Based on some issues during testing, implementation has been postponed until stability of system is proved. Implementation anticipated by end of 2014. An update to be provided at next meeting.

*CP04-35: Shorten and simplify Form "R" and filing process*

7.14 During discussions at CPWG/16, State ATM noted that FATA offered to conduct a trial to address complexity of the R form but that airlines would need to be equipped with SITA software supporting transmission of attachment files. IATA agreed to send a letter to airlines asking for participation in the trials. No responses were received and it was noted that a trial with one airline would be challenging. UAL has expressed interest in participating in the trial and it was discussed that they would participate in the trial alone. IATA will work with UAL to conduct a trial and share results with other airlines to garner participation. UAL requested that the not require all flight/route combinations for Winter 2014 but instead list all entries and all exits to simplify the process. It was agreed to have United be the initial "test" airline and possibly use SITA Drop Box as a method to send the information. IATA and State ATM to further discuss as part of the trial to enable use for Winter 2014. An update to be provided at CPWG/18.

*CP08-12: Eliminate restrictions where possible*

7.15 Update on elimination of restrictions to be provided at next meeting.

*CP07-02: Add additional entry/exit fixes on the FIR boundaries*

7.16 The FAA provided a paper on new polar/non polar SALET and BARIP fixes and crossing constraints for flight planning at 141W in November 2014. These fixes are to be located at 74 57 00N 168 58 24W (BARIP) and 79 57 00N 168 58 24W (SALET). Traffic transitioning to/from BARIP and SALET will be required to file and overfly designated points along the Anchorage / Edmonton FIR boundary. Additionally, the implementation of BARIP will require an adjustment to the current routing requirements for fix PILUN. A revised NOTAM, containing these new restrictions, will be issued prior to the commencement date of the new routes. Currently, the new routes are expected to be available for use on November 13, 2014.

7.17 The track slot allocation parameters, in the Dynamic Ocean Track System (DOTS), for SALET and BARIP will be set the same as the other Cross Polar fixes, i.e. 10 minutes between crossing times. The **Track Users Advisory Guide (TAUG)** will also be updated prior to the commencement of the new routes.

*CP12-04: Monitor changes to Track Advisory Users Guide*

7.18 Update on changes to the TAUG will be proved at next meeting

*CP12-06: Coordination between State ATM and General Administration of Civil Aviation of China (CAAC) Air Traffic Management Bureau (ATMB)*

7.19 No progress on coordination with China ATMB. The special coordination meeting scheduled in September may be opportunity to discuss with China ATMB and move this item forward.

*CP14-10: Provide information on the Oakland FIR trial to merge Pacific Organized Track System (PACOTS) Tracks C/E*

7.20 The FAA presented information on the operational trial to merge PACOTS Tracks C and E to improve efficiencies for westbound aircraft. Tracks C and E are westbound tracks for aircraft destined to Japan from the North American west coast. Westbound PACOTS tracks are generated by the Oakland ARTCC Traffic Management Unit (TMU), with Track E being the first track generated. As a result, subsequent tracks may not be able to follow the most efficient route since they must be separated from Track E.

7.21 ZAN updated meeting on trial and that Oakland will need to do more work on coordination and advised ZAN that with summer weather patterns there was no opportunity to merge tracks. They expect the trial to resume in the Fall 2014 and an update will be provided at CPWG/18.

*CP15-03: Provide information on RTE and Arctic FIR traffic count data*

7.22 The FAA presented traffic count data over RTE and Anchorage Arctic FIR fixes. FAA requested more detailed information from IATA on North Pacific (NOPAC) traffic data, specifically, an hourly breakdown of traffic and traffic count data based on day of week. ZAN has the data available, but asked that IATA provide specific details on the information detailed counts requested. An update to be provided at next meeting

*CP16-02 Provide information on the Oakland FIR trial for User Preferred Routes (UPRs) on PACOTS Track F*

7.23 ZAN provided a verbal updated and told the meeting that the Track F UPR trial continues. There were no issues at this time and that an update to be provided at next meeting.

*CP16-03 Establish route from KUNAD to OTLER.*

7.24 Route proposal is ready for publication in November 2014. This action is closed.

*CP10-13: Expand Controller-Pilot Data Link Communications (CPDLC)/Automatic Dependent Surveillance – Contract (ADS-C) capability for Magadan FIR and install CPDLC/ADS-C at Murmansk*

7.25 State ATM will expand ADS-C/CPDLC services in two additional sectors at Magadan ACC in late 2014. A CPDLC/ADS workstation will also be added at Murmansk ACC in 2016. An update will be provided at next meeting.

*CP14-02: Establish flight data exchange between facilities*

7.26 State ATM reported that they would continue to work with Sapporo ACC to implement Air Traffic Services Interfacility Data Communications (AIDC) in 2015-2016. Following implementation in Sapporo ACC, State ATM would begin work with FAA to implement AIDC.

AIDC between Edmonton ACC and Reykjavik ACC was implemented in September 2013.

AIDC implementation between Vancouver ACC and Oakland ARTCC is contingent on the FAA upgrading software and is tentatively planned for Fall 2014.

AIDC in Magadan and Anchorage is planned for late 2015.

*CP14-07: Monitor the progress made by the Inter-Regional APAC/NAT AIDC Task Force*

7.27 The FAA provided an update on the global AIDC harmonization effort. The third Meeting of the IRAIDCTF (IRAIDC/3) took place 24 to 28 March 2014, in Montreal, Canada. Fourteen participants from India, Iceland, New Zealand, Philippines, Singapore, Thailand, and the United States of America attended. The main objective of the meeting was to review the consolidated draft version of the PAN Regional ICD for AIDC from the 2<sup>nd</sup> meeting. A WebEx is scheduled for 11 June 2014 to finalize draft document. An update to be provided at CPWG/18.

*CP16-01: Communications Failure Working Group*

7.28 The FAA presented a paper to the CPWG on the work underway by the CFCG including the 10-14 February 2014 meeting in Montreal which resulted in recommendation for “last assigned altitude” for 20 minutes and then follow the flight plan.

The Meeting had extensive discussion, reaching consensus on the following items:

- aircraft must not invoke the radio communication failure provisions (RCF) in Annex 2 unless all available means of communications as described in Annex 10 vol. II have been tried and failed;
- globally, an aircraft shall maintain last assigned speed, level or routing for 20 minutes after setting the Mode A Code to 7600, the ADS-B to emergency/urgency mode or failing to make an expected report;
- SIDs and STARs must have RCF procedures and these procedures should be readily accessible to the flight crew;
- the definition of “Filed flight plan” must be revised to include modifications submitted prior to departure;
- IFR flights should normally continue to destination airport, in accordance with the last ATC clearance received and acknowledged, unless the pilot considers it advisable to proceed in VMC to a suitable aerodrome;
- ATC shall be responsible for maintaining separation between the aircraft experiencing communication failure and other aircraft on the assumption that the aircraft will comply with the procedures above. If the aircraft does not comply with the Standards, ATC will take all possible action to safeguard all aircraft concerned; and
- A new Mode A Code (e.g. 7601) should be adopted to indicate an IFR aircraft is proceeding in VMC to a suitable aerodrome

7.29 The Meeting agreed that the next step would be development of rationales for each of the proposed changes. These rationales would be included with the proposals as they are coordinated with the Air Traffic Management Operations Panel (ATMOPSP) and the Flight Operations Panel (FLTOSP). The Group would also identify related documents for which consequential amendments would be needed.

An update will be provided at the next meeting.

*CP16-08: Invitation to INMARSAT to attend CPWG/17 meeting.*

7.30 INMARSAT was not able to attend meeting due to scheduling conflict. An invitation will be extended to attend the next meeting. This action is closed.

*CP10-14: Provide information on minimum level of service maintained outside operational hours for emergency diversions*

7.31 State ATM presented updated information on the Russian enroute alternate airports, noting that the number of international airports was increasing. UAL thanked State ATM for providing updates to the meeting and that it can be difficult to obtain weather information outside operational hours. UAL asked State ATM about status of Anadyr. IATA has been meeting with Russia on Airbus A380 and State ATM noted that it is clear in the AIP that Khabarovsk can handle A380. An update will be provided at the next meeting.

*CP16-07: Establish Routes from NETRI to NODAN, UB and/or BAMOK, UK to ERNIK, and BAMOK to ERNIK.*

7.32 State ATM to add routes to the ICAO Asia Pacific Route Catalogue. This action is closed.

*CP15-04: Develop CPWG Volcanic Ash Contingency Plan*

7.33 The second volcanic ash exercise in Kamchatka was conducted 4-5 March 2014 under the umbrella of the International Civil Aviation Organization (ICAO) and included participation from the Russian Federation, Japan and the United States.

7.34 To summarize the conclusions of VOLKAM/14, a debrief meeting was held in ICAO EUR/NAT regional office on 13-14 March 2014. The Debrief included discussions on Lessons learned and ten recommendations. The agreed recommendations were listed as tasks in an action plan to be addressed by VOLKAM participants. The next meeting is scheduled in PK in August 2014 and will include participation by the FAA, JCAB and State ATM.

*CP17-03 Propose New Route from PK FIR to Fukuoka FIR*

7.35 JCAB provided presentation on the recent VOLKAM exercise and proposed a new detour route from PK FIR to Fukuoka FIR for the meetings discussions. Airway R220, which is the northernmost route on NOPAC is only west bound and has an extremely high volume of traffic. All altitude zones are available. Considering the route which merges into R220 from Russian side, the altitude of detouring aircraft should be limited. JCAB noted that they could accept traffic only at or below FL300. There are some issues to be resolved in order to allow the detouring aircraft to merge into R220 at or above FL300.

7.36 JCAB noted that considering the route which merges into R220, it is supposed that the detouring aircraft would cross the boundary between Russia and Japan after descending to at or below FL300 in PK ACC in order to avoid the duplication of altitude. JCAB has asked IATA to investigate if the operators can accept this procedure. JCAB also requests PK ACC to investigate if they can make the detouring aircraft descend to at or below FL300 in their control airspace and enter Fukuoka FIR.

7.37 When the detouring aircraft merges into R220 at or above FL300, the aircraft, which is cruising on R220 at the same altitude as the detouring aircraft, it has to be re-routed on R580 in order to avoid the duplication of altitude. R580 is the route which is to the south of R220 and only west bound. The traffic volume on R580 is less than the one on R220, and the altitude zones except FL290, FL310 and FL330 are available. JCAB noted that this is only for contingency situation that a volcano catastrophically erupts. JCAB requests IATA to provide input on this at next meeting.

#### Consideration NEW Route from Fukuoka FIR to PK FIR

7.38 JCAB discussed west-bound NIPPI-OTLER and NIPPI-NETRI which were the assumed air routes used at VOLKAM14 exercise. The reroute procedures shall be conducted at Anchorage ARTCC. JCAB requests information from State ATM on communication environment and traffic features of B932 and G583 in PK FIR for further examination.

*CP15-06: Consider utilizing the ATM Volcanic Ash Contingency Plan (VACP) Template in the development of Volcanic Ash Contingency Plan for NOPAC and RTE*

7.39 A draft Volcanic Ash Contingency Plan has been developed for Trans-East, NOPAC, and PACOTS. This plan is currently being reviewed by members of VOLKAM exercises and is being coordinated by the ICAO EURNAT Office.

*CP15-07: Formalize teleconference format and process taking into consideration collaborative decision making (CDM)*

7.40 JCAB provided information on an information sheet that they developed for use during the VOLKAM14 teleconferences. The Fukuoka Air Traffic Management Center (ATMC) prepared the VOLKAM sheet at VOLKAM 14 exercise in advance, it was not utilized by the participants because registration on the WEB had not been finalized. The VOLKAM sheet was developed with the intent to aid verbal reports during the teleconferences as an information sharing tool. The VOLKAM sheets would be completed by participants prior to the call so that these can be used as discussion aids and to help reduce any miscommunication or problems with phone lines.

7.41 JCAB noted during their discussions that the VOLKAM sheet can help reduce discrepancies and benefit not only the participants in the teleconference but the Aeronautical Operational Control (AOC) as well and see how other airlines manage the operation during the exercises.

7.42 JCAB will work with the State ATM and FAA to revise the VOLKAM sheet for the next VOLKAM exercise.

#### CHG Message for In-Flight Status Aircraft

7.43 JCAB provided information on the CHG Message for In-Flight Status Aircraft to the meeting. Operators send CHG message to ATC facilities when their in-flight aircraft needs to change its route. Although the specifications of Russia and FAA system are designed to accept CHG message from in-flight aircraft, the JCAB system does not. They provided some questions to the ANSPs for discussion and further evaluation:

- Does the Flight Data deal with CHG message or is it automatically updated in flight plan?
- Do dispatch and the pilot agree with each other when CHG message is sent to ATC facilities?
- In Russia and FAA, do they issue re-route clearance when they receive CHG message from in-flight aircraft? If so, how do they issue clearance when the aircraft change its route outside of the controlled airspace?
- Is there any disadvantage when an ATC directly receive a route change request from in-flight aircraft?

JCAB has been summarizing the opinions from ATC facilities and airlines, and investigating the procedures for the receipt of CHG message from in-flight aircraft and will provide an update at the next meeting.

*CP15-08: Provide an update from Air Traffic Management Group (ATMG) with respect to NAT Volcanic Ash Contingency Plan*

7.44 Isavia provided paper on the recent decision by the International Volcanic Ash Task Force (IVATF) to transfer the responsibility for Volcanic Ash (VA) avoidance or the decision to fly or not to fly into area of known or forecast VA contamination from Air Traffic Management (ATM) to Aircraft Operators (AO). Based on this, an amendment to *Procedures for Air Navigation Services - Air Traffic Management* (ICAO DOC 444, PANS-ATM) was approved by the Air Navigation Commission (ANC) and pending the ICAO Council approval it was expected to take effect in November 2014

7.45 The PANS-ATM amendment signals a significant change in procedures concerning VA where the responsibility of VA avoidance is transferred to the Aircraft Operators (AO). Following such a change there is a requirement to amend the Air Traffic Management (ATM) VA contingency plan to reflect the amended procedures where the role of ATM will no longer focus on decision-making but instead be the distribution of information and provision of assistance when requested.

7.46 UAL asked question regarding PIREPS and ISAVIA will advise the MET office to issue a new chart, if necessary, and inform en-route aircraft.

*CP15-09: Streamline the process for establishing danger areas through NOTAM process*

7.47 The meeting noted that discussions were underway as part of the VOLKAM14 planning for each ANSP to ensure that they establish danger areas within their own FIRs. Issue came up during VOLKAM/14 exercise when Anchorage Center issued a NOTAM covering an area outside their FIR boundary. Isavia noted that within Reykjavik control area, there was very little information to issue NOTAMS, but they did. The FAA advised the meeting that they will not establish NOTAMS outside their own FIR. An update will be provided at next meeting.

*CP16-06: Review communications procedures between dispatchers and the ATCSCC relating to reroutes for Volcanic Ash.*

7.48 During the 16<sup>th</sup> Meeting of the Cross Polar Trans East Air Traffic Management Provider's Work Group (CPWG/16), American Airlines (AAL) presented a working paper (WP04) regarding events affecting an airborne flight during the eruption of the Kliuchevskoi Volcano on the Kamchatka Peninsula on 16 October 2013. The FAA provided an update on discussions that took place since the last CPWG meeting.

7.49 There were several issues noted with coordination of the new routing and issuance of the route to the flight crew. AAL noted that while they submitted a new flight plan to US domestic ATC, the flight plan was not received by the facility currently working the facility or those downstream in the contiguous 48 states. Flight plan information was sent successfully to both Russia and Japan. However, it was noted that there were some coordination issues with Japan because they had already received departure message information on the original flight plan.

7.50 The practice of operators reissuing new flight plans for airborne aircraft in the manner noted in AAL's working paper may not be the desired course of action for ANSPs. There is concern that during a large scale event, conflicting flight plan information could create high controller workload as automation and coordination issues are sorted through, in addition to separating traffic and issuing revised clearances. AAL noted that the issue with US domestic ATC automation was the main problem, not the foreign ANSPs. Russia uses a CHG message for re-route (based on EURO Control process).

7.51 There are shortfalls in existing procedures that are raised when volcanic activity or other events cause extensive route changes to be made. In particular, the following questions are raised-

- a) What is the best way to coordinate a reroute once an aircraft is airborne?
- b) What resources are available for coordination (e.g. MATMC, ATCSCC, etc.)?
- c) Who is responsible and what is the best mechanism for coordinating entry into airspace that was not originally part of the flights plan? For instance, in the case of AAL175, what would be the best way to assure timely coordination and approval to overfly Russian airspace?

7.52 The process will become a new CPWG action item (CP17-01) to further clarify the expectations and overall process during non-volcanic events as well as during volcanic events. It was agreed to address this as part of the August 2014 VOLKAM15 planning and trial.

#### HF Communication Contingency Plan

7.53 Isavia presented a paper on HF communication contingency plan Isavia has in the event of poor HF conditions in the Reykjavik CTA. BIRD will issue a NOTAM when there are blackout conditions. Greg commented that NAV Canada provides HF conditions at Gander Radio and is very helpful, especially for polar routes. The process used by BIRD is actually more informational and will be considered by NAV Canada at Gander Radio. New action was developed for ANSPs to provide information on respective HF Communication Plans and look at feasibility of standardizing procedures for the Polar region (CP17-05)

#### **Agenda Item 6: ATS Route Catalogue Update**

8.1. The meeting reviewed the updated ATS Route Catalogue presented by State ATM (**Appendix D**), which contained status and information on route proposals since CPWG/16.

- Two new polar/non-polar routes to be implemented in November at (SALET at 79.57N and BARIP at 74.57N)

8.2 UAL presented WP/4 to including the following proposals for State ATM consideration:

1. Preferred Route: LUMES G73 UB B915 FI G212 HAB B150 BIRBO B723 ODEKA R213 MAGIT.
2. Revision: Requested optimal connection DCT to ABOMA = 332.97Nm

3. Revision: IRKAN to BANIT so that KOKES can connect to B241 and B804
4. Revision: TERBO..BERBO or TERBO..PENOK

8.3 UAL presented a paper discussing current ATS route B915 and significant time and fuel savings when available by ATC approval for flights from various North American west coast airports to China. This route is frequently unavailable due to military use from FIX LANRI to FIX FX ((Troitskoy NDB). This route is not NOTAM's open or closed but is available upon request pending ATS approval through the MATFMC. UAL requests that State ATM review current process and if it can be more in line with route availability through NOTAMs. State ATM will review and provide an update at next CPWG meeting.

8.4 UAL provided an overview of cross polar routes and ATS network over continental Russia and suggested to the meeting that if you could connect all polar entry points to all polar exit points with straight lines. State ATM will review request and provide an update at next meeting.

8.5 UAL asked State ATM on status of A803 (SIMLI-FA) which is eastbound only (Route 26 in the route catalog). Additional entry/exit 50km east from SIMLI is planned by Russia and China. The SIMLI area is also near military area and Russia is awaiting progress from China. UAL requested that this might be an agenda item for discussion at the Special ICAO Meeting in September to highlight this issue to the Chinese for resolution. The ICAO meeting will be September 22 and 23 in China.

8.6 UAL presented paper proposing a new connection from RUTIN/BALOM to OLDEP so that NIKIN to SULOK has a more optimal connection. This can be used by all airlines to take advantage of avoiding headwinds in North America and then using Tail Winds in the Russian Federation/Mongolia/China and the existing route network would not change. State ATM will evaluate the proposal and provide an update at next meeting.

#### **Agenda Item 7: 2014-2015 Cross Polar Work Program**

**9.1.** During the ANSPs meeting, the Work Program and CPWG Planning Chart were reviewed and updated. Based on the discussions during the meeting, a *new Mid-Term Goal to implement further reductions to lateral separation in the Edmonton FIR was added. The following items were considered as completed and moved to the list of Completed Activities:*

- a. Eliminate 10 min track loading for RTE over Anchorage/Russian Boundary*
- b. Remove requirement for flight to file NOR OTS routes over Canada (NAV CANADA)*
- c. Implement ADS-C periodic contract and lateral and vertical conformance monitoring (Isavia)*
- d. Implement AIDC/OLDI for data exchange (Reykjavik and Edmonton FIRs)*
- e. Develop Arctic ATM Operational Contingency Plan*

The updated CPWG Work Program and Planning Chart are at Appendix E

## **Agenda Item 8: CNS and ATM Issues**

### ANSP Updates

#### *Isavia*

10.1 Isavia presented a paper introducing six new waypoints at Edmonton/Reykjavik boundary, effective from April 3<sup>rd</sup> 2014 and informs the group that filing a boundary waypoint is now mandatory for aircraft entering the Reykjavik CTA from the Edmonton CTA.

10.2 The norm is that the oceanic clearance starts at an oceanic entry point that is located on the NAT boundary. An exception to that has been the boundary between Edmonton and Reykjavik where aircraft have in many cases routed between waypoints within the Edmonton area to waypoints within the Reykjavik area without having to route via a boundary point. This situation could be fairly well handled in a manual coordination system, even when aircraft were routing on long direct flight legs towards the Reykjavik boundary (sometimes even routing from a waypoint in the Montreal airspace direct to a waypoint in the Reykjavik area).

10.3 There are however safety issues associated with this method since in those cases the oceanic clearance has been issued from a waypoint that was sometimes deep within the Canadian domestic airspace even though it was in reality only valid from the Reykjavik boundary. This has for example implications with respect to loss communication procedures and also with regard to when aircraft should change flight level or speed to comply with the oceanic clearance.

10.4 Those issues have now been compounded with the introduction of automatic coordination between Reykjavik and Edmonton and it was eventually decided for safety reasons that the oceanic clearance issued by Reykjavik to aircraft crossing the Edmonton/Reykjavik boundary needed to be changed so as to be valid only from the Reykjavik (NAT) boundary in the same manner as is done everywhere else in the NAT. The scarcity of defined waypoints on the Edmonton/Reykjavik boundary however leads to the clearance in many cases being issued from a 9-letter FDPS system calculated boundary crossing point that the pilot needs to enter into the FMS. Receiving such a waypoint via a data link clearance is not optimal but probably much worse for aircraft receiving the clearance via HF voice.

10.5 Because of this and in cooperation between Reykjavik, Edmonton and IATA it was determined that the best solution to this problem was to add six new waypoints to the Edmonton/Reykjavik boundary so as to create a series of boundary waypoints, normally spaced approximately 50 – 60 NM in latitude from 66 North to 81 North. Those waypoints was published in AIRAC April 3<sup>rd</sup> 2014

10.6 Traffic increase of 7.7percent in 2013 YOY, and first 5 months of 2014 the increase is 22% due to winds over the region driving aircraft into Iceland FIR. ADS-B installed in Iceland, Faroe Islands and Greenland. Final integration is in progress. Fused radar and ADS-B tracking will be implemented in June and ADS-B is on schedule for late 2014. Seamless ADS-B surveillance through the AS-B corridor is under discussion with NAV Canada. Flight planning north of 80N, significant points shall not be more than 60 minutes time. Some airlines plan too many waypoints (5minutes apart. Recommendation is about 40minutes apart) Maximum number of characters for route is 80 in their airspace, including blank spaces. HF communications is affected when too many waypoints are being reported

#### *State ATM Corporation*

10.7 State ATM presented information on airspace structure modernization in the Russian Federation in 2013-2014. Modernization of the airspace within Russia was presented through a power point illustrating the increases in traffic and currently includes 44 ACCs. In 2013, traffic increased by 7.6 percent over the

entire Russian airspace. International flights increased 6 percent and domestic over 10 percent. Through April 2014, there is an overall increase of 9% however, Trans East and Cross Polar actually decreased in the first four months of 2014.

10.8 State ATM provided an update on modernization efforts with a focus on ACC consolidations, automation of ATC in the terminal areas and CNS facilities. Providenia Bay Radar installation is expected to be available in 2015 which will enable radar handoffs to/from Anchorage Center. They plan to install ADS-B throughout the country and install GBAS/GRAS at 74 airports. HF improvements have been completed in Murmansk ACC.

#### *NAV Canada*

10.9 NAV CANADA provided update to the CPWG on initiatives since CPWG/17 with a focus on Edmonton Center. Polar Traffic up 5.3 percent, overall Arctic high traffic is up 3 percent, expansion of UPRs, some Arctic airspace changes, AIDC planning and Satellite ADS-B procedures under development. NAV CANADA is also considering more 5 letter waypoints now that there is less NCAs they are easier to implement. Aireon ADS-B looking for 15nm when implemented in 2017

#### *FAA -Anchorage Center Update*

10.10 ZAN provided an update including the addition of Sector 64 ATOG coverage in the Arctic. Traffic counts down about 1 percent from 2012, but up 3 percent first quarter 2014. Cross polar down slightly in first quarter this year

#### *Avinor*

10.11 Bodo Center will have full CNS/ATM capability implemented in late 2014/early 2015. Avinor provided an overview of Svalbard, which is a strategic airport in support of polar ETOPS.

#### *JCAB*

10.12 JCAB presented overview of Japan and Fukuoka Control, as previously discussed during the Pacific Project Meeting. Expected traffic by 2031 would be an increase of 135 percent in Fukuoka FIR with 58 percent of traffic being "over flight" compared to 42 percent in 2012. Restructuring of Japan airspace with upper airspace able to "free flight" and use CPDLC

#### *Kazakhstan*

10.13 General update of ACC support to Southern Cross Polar flights to/from India

### **Agenda Item 10: Next Meeting**

11.1 ICAO EURNAT Office generously offered to host the CPWG/18 meeting at the ICAO Offices in Paris, France. The Meeting is scheduled for December 15-19, 2014. Further details and information on travel requirements would be made available closer to that date.

11.2 CPWG/19 has been tentatively planned for Tokyo, Japan in April or May 2015 and hosted by JCAB and IATA. Details will be discussed at the next meeting.

## **12. Closing of the Meeting**

12.1 Leah thanked all participants for their support and participation in the meeting.

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**Pacific Project Team/7 Action Item List**

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP02-04	Consider implementation of flexible tracks between approved entry and exit points within the RTE region on a daily basis	State ATM provided information on the regulatory and legislative requirements for operating off-routes and publishing routes. Some flexibility could be provided over the high seas under certain situations.  UAL presented information on a paper trial conducted. Results indicated the potential for some time and fuel savings, however they were inconclusive.	IATA	State ATM is developing an implementation plan for UPRs, including timelines. This is a large exercise however State ATM will endeavor to provide an update at PPT/7.  State ATM has developed a roadmap and is coordinating with other ANSPs on their experience with UPRs. Focus on polar area's first then look at other areas.	December 2014	OPEN
PP02-05	Realignment of the NOPAC	JCAB and FAA will continue to pursue options for realignment of the NOPAC in conjunction with the Pacific Project.	JCAB/FAA/IATA	JCAB continues to study restrictions on Track 2 and will introduce a study to remove some of the restrictions IATA will provide input from airlines as and when required.  Remains ongoing and providing updates to IPACG and CPWG. Transition of 590 – coordinating with ENRI in order to introduce benefits goals for IATA. Give output to IPACG and CPWG on work.  Track 2 UPR will be discussed at June 2014 OWG and September IPACG.	December 2014	Open

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP04-01	Eliminate constraints used for track generation	FAA/JCAB to provide details of variables and track generation rules to be reviewed collaboratively	FAA/JCAB/IATA	<p>FAA had discussions at OWG to look at changing the track generation times, but it did not appear to be feasible to the airlines. The airline suggested resolution would have been earlier in the midnight shift which would have been a workload and human resource issue for FAA. IATA will canvass airlines and develop a consolidated airline position on the optimum track generation time for the FAA to consider.</p> <p>At request of ZOA, IATA drafted letter requesting track generation time closer to time of flights and awaiting response by ZOA. OWG is June 18<sup>th</sup>.</p> <p>Request the FAA generate westbound PACOTS later to take advance of newer winds.</p>	<p><del>May 2014</del>            June 2014</p>	Open
PP04-02	Eliminate constraints for flight planning	Collect and review information on airspace constraints, justification and any plans to eliminate them.	FAA/JCAB/IATA	<p>Restrictions are already listed by NOTAM. IATA aim to have a graphical representation and prioritization list of those to eliminate for the next PPT meeting.</p> <p>Steve pinkerton is working on graphic representation.</p>	<p><del>May 2013</del>            December 2014</p>	Open

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP05-01	Improve flight planning and eliminate constraints	IATA and the airline operators asked if it were possible to get early intent data from the DOTS+ system to assist with flight planning and track balancing.	FAA	<p>DOTS+ is in a system maintenance only mode. The provision of early data is under development as part of the User Trajectory Planning program.</p> <p>DOTS+On Line does not give adequate information. Track loading – don't know until its posted how many are on track. Especially true on merged Track C.. 20-25 flights on one track.</p> <p>CP track loading 20 airplanes on one track and 2 on very next track. If there was an early intent count of flights on particular track, operator may change to less traffic route.</p> <p>DOT+ is in maintenance mode. Need user trajectory planning as soon as possible.</p>	<del>May 2014</del> December 2014	Open

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Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP05-02	Collect NOPAC traffic count data	IATA asked if it were possible to get more detailed information on NOPAC traffic data, specifically, an hourly breakdown of traffic and traffic count data based on day of week.	FAA/IATA	ZAN has traffic count information, but would like to know exactly what is desired by IATA/the airlines.  No additional guidance from IATA, therefore detailed NOPAC data was not available at CPWG/17. Requested IATA provide more specific details so that this action can be addressed.	<del>May 2014</del> December 2014	Open
PP05-03	Improve efficiencies	IATA and operators requested that the FAA evaluate the possibility of developing "best equipped, best served" flex tracks in the Pacific.	FAA/IATA	Creation of such limited access tracks would require FAA rulemaking, which would be a 3-5 year process and may not ever be approved. JCAB indicated a similar timeframe if a rule change is required. IATA will reconsider and formalize the request.  IATA to work with Steve Kessler on this. They are working with Montreal office on this.	<del>May 2014</del> December 2014	Open
PP05-04	Establish Core Pacific Project Team	IATA and FAA to work with other PPT members to establish a core team to narrow the focus of the PPT and avoid duplication of efforts.	Pacific Project Core Team	First telecon has been held however the lack of a concrete work program has been a limiting factor in terms of the efficacy of the team.  Will discuss this along with WP/6	<del>May 2014</del> December 2014	Open

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Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP05-05	Determine baseline capabilities	To narrow and streamline the work of the Pacific Project, a determination of current capabilities and capacities is desired.	Pacific Project Core Team	IATA is compiling the information and will present a table for consideration at PPT/7  FAA WP/5 for PPT provided preliminary template for seamless airspace. Will coordinate ANSP input and provide updated version at next PPT/8 meeting.	<del>May 2014</del> December 2014	Open
PP05-06	Develop work program	Core team to determine a plan of action with desired goals.	Pacific Project Core Team	IATA to present a draft work program with timelines to the PPCT for consideration after IPACG in February 2014.  No updates provided - IATA paper is still a work in progress.	<del>May 2014</del> December 2014	Open
PP06-01	FAA Meeting Representation	IATA requests that an Oakland Center representative is added to future PPT/CPWG meetings.	FAA	FAA will assess the request.  Lack of resources, FAA cannot support. Recommends closing this item.	May 2014	CLOSED
PP06-02	ZAN/ZOA boundaries changes that might allow for the reduction of flight planning restrictions.	ZAN and ZOA are looking at this and working on possible airspace changes to allow 30/30 to be used in airspace in the Kodiak area.	FAA	There should be a resolution in early 2014. ZAN representative to update the next OWG and PPT/7.  FAA provided upate. This is implemented and item can be closed.	May 2014	-CLOSED

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP06-03	Zero track load times	State ATM would like ZAN to continue to work toward zeroing track load times for all routes.	FAA	ZAN to continue assessing opportunities.  Will work to get new automation in the area. Once this is done, FAA can do slow transition to lessen load times.  FAA to provide update at next meeting.	May 2014  December 2014	Open
PP06-04	Expansion of radar transfers to improve lateral/longitudinal separation requirements.	IATA asked that ANSPs look at boundary coordination procedures and moving toward radar handovers where possible.	FAA/State ATM	Radar handovers between ZAN and Magadan are planned but are dependent upon SSR infrastructure improvements by State ATM. This work is planned with a 2015-16 timeframe.  ZAN and Magadan are planned with 2015/2016 timeframe.	May 2014  December 2014	Open
PP06-05	Establish transitions from Russian airspace to R220.	As a result of outcomes from VOLKAM13, and requests from airlines, JCAB and State ATM have engaged in bilateral discussions regarding transitions from Russian airspace to NOPAC/R220.	JCAB/State ATM	JCAB and State ATM have prepared a draft LOA for use during volcanic exercise VOLKAM14 and will continue dialogue to evaluate establishing something more permanent.  JCAB and State ATM. State ATM provided NOTAM over northern Islands which will cause difficulties for JCAB. We need to coordinate with MOFA and this will take time.  Update at next meeting.	May 2014  December 2014	Open

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP06-06	Start R220 and R580 further west and allow UPRs to those start points.	Currently the routes start very close to Alaska and the suggestion is to start about 500 miles farther west, closer to Shemya.	FAA/State ATM	<p>State ATM said that it could be considered. Could start at NATES and ONEAL but would not want to start too far west of St Paul. ZAN will discuss internally. There is no impact on P-K traffic.</p> <p>Questions were raised if we terminate R220 start point to NATES, R580 and ONEAL.          You can already UPR to R220 to NATES – not further west. And UPR to OPAQ.</p> <p>Start NOPAC further west than current is limited by radar coverage, currently UPR to NATES for R220 and OPAKE for R580 is the limit. Need to discuss off-line and report back at next meeting.</p>	<p><del>May 2014</del>          December 2014</p>	Open

Action Number	Goal	Information/Status	Responsible Organization	Action Pending	Action Due	Status
PP06-07	Review of westbound NOPAC structure.	IATA requests that the FAA and State ATM review the westbound structure of the NOPAC and consider moving R220 further north,	FAA/State ATM	<p>There has been discussion between ZAN and P-K on the LOA to utilize that airspace, but no consideration of moving R220. This would require realignment of the airspace and it would also need to be classified as RNP4 airspace. ZAN need to look at a way to accomplish this task. State ATM said this is not feasible at this time.</p> <p>Further discussions with PK during ZAN visit. We could not come up with ideas to resolve/allow this request.</p> <p>Move R220 north involves evaluation of boundary buffer with Russia. This action will not be considered at this time. Close.</p>	May 2014	CLOSED
PP06-08	TRASAS4	TRASAS4 will be held in Bangkok 24-28 March 2014.	FAA/IATA	<p>FAA and IATA will collaborate on a submission/s to TRASAS on behalf on the PPT.</p> <p>TRASAS/4 was postponed.</p>	<u>when TRASAS/4 meeting is rescheduled.</u>	Open
PP07-01				UPR data back to State ATM	Dec 2014	OPEN
PP07-02				New action item list: provide IATA with definition of sample user routes and IATA will provide sample plans and benefits. 2 month date. Saving data for each UPR compared to traditional routes.	<u>December 2014</u>	OPEN

**Pacific Project (PPT/7) Meeting Report  
3 June 2014**

**Pacific Project**

The Pacific Project meeting was held on Tuesday afternoon June 3 from 1300L to 1700L and was attended by 37 people with Blair Cowles of IATA chairing the meeting. The FAA co-chair, Steve Pinkerton was unable to attend due to visa entry issues into Russia. The FAA was represented by two people, Leah Moebius, and Steve Kessler (Anchorage Center).

Below are notes and actions resulting from the meeting.

1. **Welcome and Introductions**
  - a. Blair Cowles, IATA, opened the meeting
  - b. Self-introductions
  - c. Reviewed proposed agenda – no comments were offered
2. **Pacific Project Team Members Updates**

**State ATM Corporation provided an update**

- Russia State ATM advised of two new routes, one polar and one non polar that will be open by November. The FAA will have routing constraints via 141W FIR with Edmonton until ATOP is introduced to Sector 64 (2015).
- Russia has begun evaluating feasibility of developing UPRs in the Polar Arctic Region. This would provide options for airlines to route between Anchorage FIR boundary fixes to multiple fixes prior to continental landfall. State ATM started to draft roadmap which will serve as the basis of UPR development in Russian Federation. Their focus would be on Oceanic section of Magadan Airspace in the next 12 months. It has CPDLC and ADS-C, the application is expanded to all sectors of Magadan.
- State ATM will also study UPR experience with other states. Have talked with other ANSPs and progressive methods of utilization and implementation.
  - Study user requirements
  - Study traffic demand vs. project volumes of charges.
  - Cost analysis improving existing coverage. Need to define advanced cns/atm technologies available
  - Definition of financial risk with modernization
- UAL requested that eastbound UPR also be considered since there is generally less eastbound polar traffic and a “trial” may be easier to do in this direction. Sabre flexibility should provide some significant benefits once this is implemented (no specific date, further discussions required)
- Opening of 2 entry/exit : BARIP and SALEB. Depending on discussions with ZAN, will be available November 2014.

**New action item list: provide IATA with definition of sample user routes and IATA will provide sample plans and benefits. 2 month date. Saving data for each UPR compared to traditional routes.  
Q: would UPRs go both directions?**

**A. Lets see whats more practical. Current polar routes are eastbound. Eastbound are fewer flights and might be easier to conduct trials.**

**Japan Civil Aviation Bureau (JCAB)**

The JCAB provided a presentation of UPR in the Fukuoka airspace that included those PACOTs that have become UPR to CONUS and Hawaii. IATA noted that there has not been much change with the NOPAC in the last 40 years and that the possibility of flexing in/out of NOPAC is of great interest to airlines. IATA appreciates JCAB and the FAA work being done to improve/increase efficiency in the reason. JCAB noted that one of the areas they need to study is feasibility of fixing/optimizing routes against upper wind. Discussed sample of tracks, PACOTs, to the group. East side of Japan there is no airway because there's flexible track made daily.

JCAB also provided a UPRs and DARPs Update after Pacific Project 6 meeting.

- a. March 2013 Track 1 UPR (Asia to North America) normal operation started.
- b. March 2013 Track K UPR (north America-southeast Asia) normal operation started.
- c. March 2013 UPR between Japan and Oceania. Normal operation started.
- d. July 2013: Track F UPR (North America-Asia)
- e. July 2013: UPR between Asia and Koror Trial started.
- f. Sept 2013: DARP
- g. Dec 2013 10 min longitudinal separation without MNT

JCAB has already introduced UPRs in areas that easy to introduce area. Future work will enhance DARP area. JCAB is starting to study introduction of flexible track into NOPAC area for future work.

**FAA**

FAA provided an update on activities since the last Pacific Project meeting including the implementation of 30/30 in Kodiak. Implementation has been successful overall except for the radar down for 45 days in Cold Bay – the FAA suspended use of 30/30 in that area during that time but it has been running smooth since then in every day operations.

During the IPACG meeting in February 2014, IATA proposed a paper on unrestricted UPR. It was determined that the proposal would not be considered at this time. In an effort to support further work on UPRs IATA is gathering data with number of airlines. The data is being collected during the first week of each month and is generated by airline dispatch offices. It includes actual flown flight plans compared against unrestricted UPR routes for various city pairs. The data gathering involves a small sample - 10 city pairs east/west bound - and involves unrestricted UPRs from departure to arrival with the provision that there is no UPRing through Chinese airspace. Through this exercise IATA hope to identify remaining 'low hanging fruit' for consideration in terms of UPR expansion. IATA also has some funding for modeling and this exercise may help identify where modelling could be most effectively employed. IATA will complete a report at the conclusion of the study and hopes to provide this at the next IPACG or next Pac Project.

**IATA**

IATA announced that ICAO Bangkok would be sending out invitations for a second "Special Coordination Meeting" to be held at the ICAO Regional sub-Office in Beijing during the two days prior to the next IATA RCG meeting (September 23-25). Countries being invited are China, Russia, Mongolia, North Korea, Kazakhstan, Japan and South Korea. The intent is to again focus on various issues in the Asia region that support both Cross Polar and Russian Trans East operations.

During June 3<sup>rd</sup> ANSP meeting, the members discussed the FAA WP/06 on the Pacific Project Initiative.

The FAA is proposing that the Pacific Project be homogenized into the CPWG and not a separate focus . IATA had been asked to support this however several airlines want to keep the Pacific Project separate standalone meeting with all the stake holders associated with Pacific operations or Pacific operators present. IATA appreciates the time and effort in generating this paper while we agree with the logic and some of the sentiments in the paper, IATA and airline members views the pacific project as a stand-alone meeting and opportunity it provides to look into pacific traffic in holistic fashion.

Agree that there are opportunities to be more effective but we would like to discuss with larger airline base mostly likely in September at the IATA RCG meeting. The Pacific Project took a great deal of effort by IATA and several airlines and they are reluctant to see it disappear or have it as a dedicated agenda item on the CPWG agenda at this stage. IATA will provide more a more detailed response at the CPWG/18 meeting.

**3. Pacific Project Team/5 Action Items Review (WP/02)**

Please see updated action item list.

**CPWG/17 Action List**

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP01-08C	Administration	ATFM collaboration between FAA/ATO and State ATM	State ATM and FAA reported on the status of the ATFM Annex and LOA. Will be discussed bilaterally.	FAA/State ATM	Work is in progress to update the agreements for signing.  Update to be provided to CPWG/18	Dec 2014	Open
CP04-31	Improve Efficiencies	Implement use of radar procedures between Magadan ACC and Anchorage ARTCC	State ATM reported that the Radar is purchased and in storage. No construction at this time. Implementation 2015/2016.	State ATM	Update to be provided to CPWG/18	Dec 2014	Open
CP04-35	Improve Efficiencies	Shorten and simplify Form "R" and filing process.	United Airlines proposed that the Russian Federation consider a change that would list the requested "unpaired" entry and exit fixes for a particular flight to reduce the complexity of the R Form process. State ATM responded that a trial had been offered to the airlines by FATA; however, there was a requirement that airlines be equipped with SITA software supporting transmission of attachment files.	Airlines/IATA	IATA sent letter to Airlines but did not receive any feedback on software capabilities. UAL would like to participate in trial. IATA will work on conducting trial with UAL and share results with Airlines.  In the interim, UAL to provide information/link to SITA Mail Box page which supports transmission of attachment files.  Airlines ask if Form R can be simplified and list all entries/all exits.  Update to be provided to CPWG/18	Dec 2014	Open
CP06-02	Improve Efficiencies	Implement Ocean 21 in the Arctic FIR	Anchorage ATOP "Sector 64" planned for implementation in 1 <sup>st</sup> Quarter CY2015.	FAA	Oceanic Work Group meeting is scheduled for June 18, 2014. The FAA will provide an update to CPWG/18.	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP07-02	Improve Efficiencies	Add additional entry/exit fixes on the FIR boundaries	Isavia reported on the establishment of six new fixes on the Reykjavik/Edmonton FIR boundary. State ATM proposed two new fixes on the boundary with ZAN. CAA of Mongolia presented information on a new boundary fix 110 km west of NIXAL.	State ATM/FAA	ZAN to implement 2 corresponding fixes along 141W (Shoup, Biite) to be available November 2014.  ZAN to explore process to enable relief from some 141 restraints when traffic is not an issue. DOTS+ is currently used but we don't have early intent. UTP may help with this.  Update to be provided to CPWG/18	Dec 2014	Open
CP08-12	Improve Efficiencies	Eliminate restrictions where possible	ZAN provided information on restrictions that had been cancelled since the last meeting.	FAA	ZAN noted that the implementation of Ocean 21 would demonstrate improvement in Arctic and Ocean.  Update to be provided to CPWG/18	Dec 2014	Ongoing
CP10-02	Improve Efficiencies	Provide flow constraint information	State ATM presented information on peak hour operations for various sectors.	State ATM	Update to be provided to CPWG/18	Dec 2014	Open
CP10-08	Contingency Response	Improved contingency collaboration between State ATM and JCAB	JCAB and State ATM agreed on LOA for ATFM. Will continue to work on a bilateral basis. Proposed LOA sent to FATA. Currently under review.	JCAB /State ATM/FATA	Update to be provided to CPWG/18	Dec 2014	Open
CP10-13	Improve Communications	Expand CPDLC/ADS-C capability for Magadan FIR and install CPDLC/ADS-C at Murmansk.	ADS-C/CPDLC services were expanded to all Sectors of Magadan ACC and will be in Late 2014 A CPDLC/ADS Workstation will also be added at Murmansk ACC in 2016.	State ATM	State ATM to provide an update to CPWG/18	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP10-14	Improve Efficiency	Provide information on minimum level of service maintained outside operational hours for emergency diversions	State ATM provided updates on Russian enroute alternate airports of interest. Traffic is up and the number of international airports is expanding. State ATM to clarify of H24 in Anadyr.	State ATM	Updates to be provided to CPWG/18  State ATM will add information to the alternate airports on 747-8 and major aircraft types in next update on alternate airports.	Dec 2014	Ongoing
CP11-01	Improve Communications	Advance communications capabilities for the Arctic area	It was agreed at CPWG/12 and CPWG/13 that the CPWG does not have the technical expertise to progress further improvements to communications in the Polar region.	FAA	FAA to develop recommendation to present to TRASAS/4	Next TRASAS Meeting	Open  This action will be addressed when TRASAS is rescheduled.
CP12-04	Improve Efficiencies	Monitor changes to Track Advisory Users Guide	ZAN reported that there had been no changes to the TAUG but there will be two new Russian entry fixes (BARIP and SALET) added November 2014.	FAA	FAA will provide updates on the TAUG as needed.	Dec 2014	Ongoing
CP12-06	Improve Efficiencies	Coordination between State ATM and ATMB	During CPWG/12, it was agreed to pursue proposal for a new entry/exit point east of SIMLI. United Airlines suggested that W223 westbound, which is now a domestic route, be made an international route.	State ATM/ATMB	This is a bilateral issue to be discussed outside of CPWG. State ATM has not been able to meet with ATMB.  IATA to extend invitation to ATMB for the special coordination meeting scheduled for September 2014  An update to be provided at the next meeting.	Sept 2014 with update Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP12-14	Improve Communications		Based on discussions during CPWG/12, it was agreed to amend the terms of reference of the Comm TF to continue to monitor initiatives and technologies. The CPWG agreed to recommend to the next TRASAS meeting that CPWG's communications activities be limited to a monitoring role.	FAA	FAA to develop recommendation that the CPWG Communications TF be dissolved to present to TRASAS/4	When next TRASAS meeting is scheduled .	Open  This action will be addressed when TRASAS is rescheduled.
CP13-07	Administration	Request that TRASAS designate an ICAO representative to attend CPWG meetings	The meeting agreed to request that TRASAS designate a representative from ICAO to attend CPWG meetings as an advisor or observer, in order that information can be exchanged with ICAO more frequently.	FAA	FAA to include request in the CPWG working/information paper to be presented to TRASAS/4.  FAA to extend invitation to both ICAO Paris and ICAO Bangkok to the Meeting.	When next TRASAS meeting is scheduled .	OPEN  This action will be addressed when TRASAS is rescheduled.

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP14-02	Improve communications	Establish flight data exchange between facilities	<p>State ATM will work with Sapporo to implement AIDC in 2015-2016.</p> <p>State ATM will work with FAA to implement AIDC following implementation with Sapporo. During bilateral meeting April 2014, agreed to use Asia Pac Control Doc 3.0. Tech experts are beginning early discussion.</p> <p>AIDC between Vancouver ACC and Oakland ARTCC is contingent on FAA software and is tentatively planned for Fall 2014.</p>	State ATM/ FAA/NAV CANADA	Updates to be provided to CPWG/18	Dec 2014	Open
CP14-07	Improve Communications	Monitor the progress made by the Inter-Regional APAC/NAT AIDC Task Force	FAA provided information on the process to consolidate the ICD for the North Atlantic and Asia/Pacific Regions to provide for harmonized AIDC.	FAA	Updates to be provided to CPWG/18	Dec 2014	Open Ongoing

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP14-08	Improve Efficiencies	Improve flexibility of military airspace	NAV CANADA presented information on the efforts underway to cooperatively share the Cold Lake military airspace. Held several meetings – can't be closed on daily basis but in discussions. Meetings will continue.	NAV CANADA	NAV CANADA to provide update to CPWG/18	Dec 2014	Open
CP14-10	Improve Efficiencies	Provide information on the Oakland FIR trial to merge PACOTS tracks C/E	FAA reported that the trial to merge PACOTS tracks C and E had been terminated temporarily. The trial is expected to resume in Fall 2014.	FAA	FAA to provide update at CPWG/18	Dec 2014	Open
CP14-11	Improve Efficiencies	Eliminate requirement to flight plan over named or lat/long fixes at 141W	ZAN briefed on a new NOTAM (A0158) written to simplify/reduce FIR NOTAMs. The NOTAM includes restatement of communication requirements. With ATOP implementation, can lessen restrictions in phased process.	FAA	Update to be provided to CPWG/18 on ATOP and continued efforts to eliminate restrictions.	Dec 2014	Open
CP14-12	Improve Efficiencies	Consider expanding trial for ADS-C CDP to ZAN airspace	FAA provided update on the status of the ADS-C CDP trial. Aiming to resume trials using automation in January 2015 with full implementation in 2016.	FAA	FAA to provide update at CPWG/18	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP14-13	Improve Efficiencies	Replacement of Bodo oceanic automation system	Avinor provided an update on the planned replacement for the automation system at Bodo ACC in May 2014. Replacement has been delayed until system stability is confirmed until at least Late 2014.	Avinor	Update to be provided to CPWG/18	Dec 2014	Open
CP15-03	Improve Efficiencies	Provide information on RTE and Arctic FIR traffic count data	FAA presented traffic count data over RTE and Arctic FIR fixes.	FAA/IATA	IATA to work with FAA for specific information on more detailed counts.  An update to be provided at CPWG/18	Dec 2014	Open
CP15-04	Develop CPWG Volcanic Ash Contingency Plan	Develop LOA between PK and Fukuoka at the bilateral meeting and also consider opportunities for reroute transitions.  Develop routings from RFE to NOPAC.	JCAB provided information on the temporary LOA that had been developed for VOLKAM14. The LOA includes temporary bi-directional routes to be used for avoidance of volcanic ash. Operators were asked to comment on the routes.	JCAB State ATM FAA IATA	.  Provide update on LOA at CPWG/18.  JCAB proposed new routes which will be added as a new Action Item	Dec 2014	Open  MERGE CP1605
CP15-05	Develop CPWG Volcanic Ash Contingency Plan	Consider amending LOAs between adjacent ACCs to introduce provisions on contingency reroutes		All ANSPs	Updates to be provided to CPWG/18	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP15-06	Develop CPWG Volcanic Ash Contingency Plan	Consider utilizing the ATM VACP Template in the development of Volcanic Ash Contingency Plan for NOPAC and RTE.	State ATM proposes Volcanic Ash Contingency Plan for Trans-East, NOPAC, & PACOTS as template.	State ATM	JCAB, State ATM & FAA are reviewing and providing comments to the proposed template. Further discussed at VOLKAM15. State ATM to provide update to CPWG/18	Aug 3-5, 2014	Open
CP15-07	Develop CPWG Volcanic Ash Contingency Plan	Formalize teleconference format and process taking into consideration collaborative decision making (CDM).	JCAB provided information on lessons learned from VOLKAM14 and proposed VOLKAM Sheet to share information. VOLKAM15 looking at other options for teleconference format.	FAA JCAB State ATM	This to be discussed and finalized at VOLKAM15  Update to be provided to CPWG/18	Dec 2014	Open
CP15-08	Develop CPWG Volcanic Ash Contingency Plan	Provide an update from ATMG with respect to NAT Volcanic Ash Contingency Plan.	Isavia reported that the IVATF agreed to transfer responsibility for volcanic ash avoidance or decision to fly or not fly from ATM to Aircraft Operators. An amendment to PANS ATM was approved and is expected to take effect in November 2014	Isavia	The proposal is still draft and will be presented to NATSPG.  An update to be provided to CPWG/18	Dec 2014	Open
CP15-09	Improve Safety	Streamline the process for establishing danger areas through NOTAM process	Discussions are underway for each ANSP to ensure that they establish danger areas within their own FIRs.	NAV CANADA FAA State ATM	Updates to be provided to CPWG/18	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP16-01	Improve Safety	Monitor the outcomes of the ICAO Communications Failure Coordination Group (CFCG)	NAV CANADA, Isavia and the FAA reported on the discussions of the CFCG.	NAV CANADA Isavia FAA	CFCG proposed last assigned altitude for 20 minutes then follow flight plan. CFCG is awaiting comments before forwarding recommendations to ICAO.  Updates on the progress of the CFCG will be presented to CPWG/18	Dec 2014	Open
CP16-02	Improve Efficiencies	Provide information on the Oakland FIR trial for UPRs on PACOTS Track F	FAA reported on a trial an operational trial of UPRs in conjunction with Track F	FAA	FAA to provide update to the Oceanic Working Group and CPWG/18	June 2014 Dec 2014	Open
CP16-03	Improve Efficiencies	Establish route from KUNAD to OTLER.	This action was carried forward from prior Action Item CP14-14.	State ATM	Route proposal ready for publication November 2014. This action is completed.		CLOSED
CP16-04	Improve Efficiencies	Monitor activities of the User Trajectory Planning (UTP) program	FAA reported on the UTP Pre-Oceanic Phase program. Many of the features requested by operators are under consideration and would address gaps/inefficiencies in Oceanic Region.	FAA	Airlines request more details on UTP program. FAA to provide more details on program, and if airline input is needed.  Airlines request more details on UTP program and an update during Oceanic Work Group June 2014. Updates on UTP will be presented to CPWG 18	June 2014 Dec 2014	Open
CP16-05	Improve Efficiencies	Establish routes between PK and Fukuoka FIRs	JCAB provided information on the temporary bi-directional routes which were developed for avoidance of volcanic ash, and the possibility of establishing permanent routes in the future.	JCAB State ATM FAA IATA	Operators and FAA were asked to provide comments on the routes  Update to be provided to CPWG/18	Dec 2014	Open

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP16-06	Improve Safety	Review communications procedures relating to reroutes for volcanic ash	American Airlines provided an overview of a situation on 16 Oct 2013 where communications issues affected a flight rerouting to avoid volcanic ash.  ZAN provided information on issues relating to communication between dispatchers and ATCSCC.  ANSPs to provide information on their process.  Look at formalizing process.	ANSPs	Update to be provided at CPWG/18	CLOSED	Closed and merged with CP17-01
CP16-07	Improve Efficiencies	Establish routes from NETRI to NODAN, UB and/or BAMOK, UK to ERNIK, and BAMOK to ERNIK	United Airlines requested addition of new route segments.	State ATM JCAB	State ATM to add routes to ATS Route Catalogue		CLOSED
CP16-08	Improve Communications	Consider inviting INMARSAT to attend CPWG/17 and present information on their new satellite coverage	Avinor requested that a representative from INMARSAT brief CPWG on their new satellite system and coverage	FAA	Invite INMARSAT TO CPWG/18	October 2014	CLOSED

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP17-01	Develop CPWG Volcanic Ash Contingency Plan	Harmonized process for CHG Message for In-Flight Status Aircraft	JCAB provided information regarding CHG Message and why their ATC facilities do not accept route change intentions by receiving CHG message when inflight aircraft changes route within Fukuoka FIR. Discussion on how other ANSPs and Airlines do this Based on questions to ANSPs and Airlines, and the variation in answers, it was agreed that there is no harmonized process.	JCAB State ATM	<p>ANSPs and Airlines to provide responses to JCAB on the following:</p> <ol style="list-style-type: none"> <li>1. Does the Flight Data deal with CHG message or is it automatically updated in flight plan?</li> <li>2. Do dispatchers and the pilot agree with each other when CHG message is sent to ATC facilities?</li> <li>3. Russia and FAA, do you issue re-route clearance when you receive CHG message from in-flight aircraft? If so, how do they issue clearance when the aircraft change its route outside of the controlled airspace?</li> <li>4. Is there any disadvantage when an ATC directly receive a route change request from in-flight aircraft?</li> </ol> <p>Agreement that there was a need to look at a harmonized process.</p> <p>Develop common procedure for use in VOLKAM/15 Trial and provide update at CPWG/18</p> <p>NOTE: This item was noted to have a direct relationship to CP16-06 and should be cross referenced.</p>	Dec 2014	Open
CP17-02	Develop CPWG Volcanic Ash Contingency Plan	To conduct planning exercise for VOLKAM15		State ATM JCAB FAA	Provide an update to CPWG/18 on preparatory meeting in August.	Dec 2014	

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP17-03	Develop CPWG Volcanic Ash Contingency Plan	Propose operational procedures for New Route from PK FIR to FUKUOKA FIR for VOLKAM15.	<p>Detouring aircraft on Route which merges into R220 at or above FL300. JCAB is proposing 2 procedures:</p> <ol style="list-style-type: none"> <li>1. Route merges into R220 – the detouring aircraft would cross boundary between Japan and Russia after descending at or below FL300 in PK.</li> <li>2. Detouring aircraft merges into R220 at or above FL300 and aircraft cruising on R220 at same altitude has to be rerouted on R580 to avoid duplicate altitude.</li> </ol> <p>Propose New Route from PK FIR to Fukuoka FIR</p> <p>west-bound NIPPI-OTLER and NIPPI-NETRI.</p> <p>Based on discussions, propose OMOTO R580 to R220 then NETR.</p>	IATA State	<p>IATA to provide feedback on this procedure.</p> <p>Request State ATM to coordinate with PK ACC if detouring aircraft can descend at or below FL300 in their airspace and enter Fukuoka FIR.</p> <p>Review for possibilities for determining permanent routes between Fukuoka and PK.</p> <p>Update CPWG/18 on 2 procedures that were proposed.</p> <p>JCAB to have sidebar to further discuss proposed route between RFE and NOPAC for VOLKAM exercises in extraordinary circumstances and only for volcanic ash avoidance.</p>	Dec 2014	
CP17-04	Develop CPWG Volcanic Ash Contingency Plan			JCAB Airlines ANSPs		Dec 2014	

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP17-05	Contingency Plan		Isavia provided IP on its HF Communication Contingency Plan.  Discussion on other ANSPs plans.	ANSPs	Provide information on HF Contingency Plan, if applicable.	Dec 2014	
CP17-06	Improve Efficiencies		ATS Route B915 provides significant time and fuel savings but because of military use of FIX LANRI to FIX FX, normal NOTAMs are not issued resulting in last minute changes, reroutes, etc.	State ATM	FL310 and higher will be published and used without restrictions.  State ATM will work to make this available. At the segment LANRI to FI.  Report at CPWG/18	Dec 2014	
CP17-07	Improve efficiencies		Propose new route LUMES G73 UB B915 FI G212 HAB B150 BIRBO B723 ODEKA R213 MAGIT	State ATM	Review proposal and provide update at CPWG/18	Dec 2014	Merge CP17-07; CP17-08; CP17-09
CP17-08	Improve efficiencies		Propose amendments to 3 current routes:  IRKAN to BANIT  Amend BANIT..ABOMA to DCT to ABOMA  TERBO...BERBO or TERBO...PENOK	State ATM	Review Proposal and provide update at CPWG/18	Dec 2014	
CP17-09	Improve Efficiencies		UAL proposes new connection from RUTIN/BALOM to OLDEP to optimize NIKIN to SULOK connection.	State ATM	Review Proposal and provide update at CPWG/18  State ATM to review 3 proposals and provide update at CPWG/18.	Dec 2014	

Action Number	Capacity Enhancement Goal	Supporting Goal Initiatives	Information/Status	Responsible Organization	Action Pending	Action Due	Status
CP17-10			State ATM requests FAA to look at lack of departure messages being provided to Russian and JCAB	FAA	Provide update to CPWG/18.	Dec 2014	

**Fifteenth Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG/17)**

(Samara, Russian Federation, June 03-06 2014)

**Agenda Item 6: ATS Route Catalogue**

**AIR TRAFFIC SERVICES ROUTE CATALOGUE**

(Presented by STATE ATM CORPORATION)

SUMMARY

This working paper presents status and information on route proposals since the Eleventh Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG/17) for the CPWG information and discussion.

**1. Introduction**

1.1 Since the Ninth meeting of the CPWG, the State ATM Corporation has provided an Air Traffic Services (ATS) Route Catalogue for the Polar Region for discussion and use during the meetings.

**2. Discussion**

2.1 **Attachment A** is the proposed ATS Route Catalogue for the CPWG's discussion and consideration.

**3. Recommendation**

3.1 The meeting is invited to:

- a. review the information contained in this Working Paper;
  - b. recommend changes or additions to the ATS Route Catalogue at **Attachment A**.
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Samara, Russian Federation  
June 3-6, 2014

**ATS ROUTE CATALOGUE**

**Section 1. Proposed Cross Polar Route Segments (CPRS)**

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
1	<b>CPRS/2</b>	RAMEL (8430.0N 16858.4W) - 8456.2N 16653.4E - 8331.IN 12736.3E - BESON (7921.0N 10431E) (bidirectional use)	State ATM Corporation. 2008	a) Implementation will be possible only after elaboration of procedures between oceanic sectors of Magadan, Murmansk ACCs and Anchorage ARTCC; b) Implementation is unreasonable. No stable communications. Safety concerns.		RUS USA	Implementation is deemed unreasonable.
2	<b>CPRS/3</b>	NALIM (8620.4N 16858.4W) - KUBON (8000.0N 12452.9E) - IRMAK (7601.4N 11830.0E) - ROMUL (7355.5N 11557.3E) - SALAK (7158.0N 11407.0E) - LALEN (6930.0N 11252.9E) - OLEMU (UERO 6831.0N 11228.0E) - RULAT (UERP 6624.0N 11202.0E) - IRBIS (6455.4N 11056.7E) - GIBRI (6318.6N 10953.4E) - DORIP (6054.2N 10831.5E) - PEKUN (6002.0N 10805.0E) - CI (Ust-Kut NDB) - URAMO (5542.9N 10526.0E) - MX (ZHIGALOVO) - then along the existing airways (bidirectional use)	State ATM Corporation. 2008	a) Open a new cross polar route; b) 8620.4N 16858.4W - 7600.4N 11839.6E segment is approved and ready for implementation; c) SALAK - LALEN - OLEMI - RULAT segment is under review and international coordination; d) IATA Top Priority		RUS USA	Published as G112 on Nov 1, 2010 (NALIM (8620.4N 16858.4W) - KUBON (8000.0N 12452.9E) segment is unavailable before Dec 16, .2010
3	<b>CPRS/12</b>	MAGUN (8500N 03200E) - BESED (8133.0N 05535.1E) - ANODI (7730.0N 06600.0E) - PINOG (7340.1N 06911.4E) - REFRI (6728.6N 07128.0E) - GIMIR (6528.9N 07242.0E) - R348 (H=8600 -16100) - GISUR (6120.6N 07324.2E) -5855.4N 07345.9E - ML (Chapayev NDB 5615.0N 07357.0E) - A302 - G487 - DAKIN (5409.5N 07224.3E) (bidirectional use)	State ATM Corporation. 2009	a) Establish a new route for flying from India, Pakistan and UAE to North America East Coast; b) Approved, ready for implementation after resolution of comm. Issues between Murmansk and Mys Kamennyi; c) Will be assigned R706 designator		RUS ISL	Published as G706 (NOTAM A3432/10) on Jul 1, 2010
4	<b>CPRS/13</b>	RIMAG (6828.0N 07335.8E) - OLDEM (6721.0N 07310.2E) - (6638.0N 07255.0E) - GONOK (6620.1N 07250.4E) - GIMIR (6528.9N 07242.0E) - LEBUL (6450.7N 07148.6E) - RILIS (6321.6N 06954.7E) -	Emirates Airlines	a) Open a new route; Approved and ready for implementation		RUS	Published as A947 on Nov 1, 2010

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
		URMAN (6146.2N 06806.9E) – ATREM (6058.6N 06714.0E) – BAGEN (6638.0N 07255.0E) – LUGIK (5943.0N 06556.0E) (bidirectional use)					
5	<b>CPRS/14</b>	SORLI (6228.0N 06602.0E) - BELEG (6341.3N 06642.0E) - MASUL (6455.1N 06639.8E) - SH (Salekhard VORDME 6635.3N 06636.4E) - GOPUS (6726.1N 06639.2E) - ADERA (6851.9N 06644.3E) - TUMOK (7113.0N 06654.5E) – LUGOT (7202.3N 06649.5E) - ANODI (7730.0N 06600.0E) (unidirectional use to ANODI)	Emirates Airlines	a) Transition from a new Crosspolar route; b) Approved and ready for implementation; c) Will be assigned G359 designator		RUS	Published as G359 (NOTAM A3429/10) on Jul 1, 2010
6	<b>CPRS/15</b>	PIREL (8000.0N 03500.0E) – ANODI (7730.0N 06600.0E) – then on B483 (bidirectional use)	State ATM Corporation. 14.05.2009	a) Open a new routing from China to North America; b) approved and ready for implementation. c) Will be assigned R705 designator		RUS NOR	Published as R705 (NOTAM A3427/10) on Jul 1, 2010
7	<b>CPRS/16</b>	ANODI (7730.0N 06600.0E) - MELAM (07610.7E 7657.0N) - TINEM (7459.4N 07610.7E) – DOSON (7331.0N 08022.9E) (bidirectional use)	State ATM Corporation. 14.05.2009	a) A new transition from Crosspolar route; b) ANODI - MELAN approved and ready for implementation			Published as R705 on Nov 1, 2010
8	<b>CPRS/17</b>	MX (ZHIGALOVO NDB 5448.0N 10509.0E) – GUSIN (5106.0N 10614.0E) (bidirectional use)	State ATM Corporation. 14.05.2009	a) Shorten the route by 15 km b) Approved for implementation as a route by coordination with ATC; c) Will assigned B934 designator		RUS	Implemented on March 11, 2010 (NOTAM A0404/10)
9	<b>CPRS/18</b>	NIBUL (5913.1N 06239.8E) – 5738.2N 06147.9E – EKB (Yekaterinburg/Koltsovo VORDME 5644.6N 06047.9E) (between 2100-7500 m unidirectional to NIBUL. between 8100-15100 m bidirectional)	State ATM Corporation. 14.05.2009	a) Shorten the route by 13 km; b) Under review		RUS	Published as G552 on May 05 2011
10	<b>CPRS/19</b>	RIVAS (7140.8N 08425.3E) - SIVDI (6951.1N 08736.9) – TESLA (6720.5N 09155.5E) – SAKAT (6526.6N 09432.4E) – OKASA (6225.8N 09728.3E) – KOSUM (5756.3N 10044.6E) - BRT (Bratsk VORDME) (bidirectional use)	Continental Airlines April 2008	a) Open up a route for flying from South-East Asia to North America; b) Under review		RUS	Published as R705 on Nov 1, 2010
11	<b>CPRS/20</b>	DAKIN (5409.5N 07224.3E) - ML (Chapayev NDB 5615.0N 07357.0E) - NJC (Nizhnevartovsk VORDME 6056.6N 07628.1E) (bidirectional use)	Emirates Airlines 2009	a) Open up a route for flying from Middle East to North America; b) Under review		RUS	Published as G715 on Nov 17, 2011

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
12	<b>CPRS/21</b>	BEBIR (6355.2N 06501.8E) - GUDIR (6734.5N 07001.6E) - NIDRA (7127.5N 07708.7E) (bidirectional use)	Emirates Airlines 2009	a) Shorten the existing route b) Under review		RUS	Published as G497 on Nov 17, 2011
13	<b>CPRS/22</b>	8530.0N 16858.6W	FAA December 4. 2009	a) Open up a new entry fix for Crosspolar routes b) Under review		RUS USA	4 <sup>th</sup> quarter 2010 NPRS/27
14	<b>CPRS/23</b>	8330.0N 16858.6W	FAA December 4. 2009	c) Open up a new entry fix for Crosspolar routes a) Under review		RUS USA	4 <sup>th</sup> quarter 2010 <b>NPRS/28</b>
15	<b>CPRS/24</b>	7800.0N 16858.6W	FAA December 4. 2009	d) Open up a new entry fix for Crosspolar routes a) Under review		RUS USA	4 <sup>th</sup> quarter 2010 <b>NPRS/29</b>
16	<b>CPRS/25</b>	7300.0N 16858.6W	FAA December 4. 2009	e) Open up a new entry fix for Crosspolar routes a) Under review		RUS USA	4 <sup>th</sup> quarter 2010 <b>NPRS/30</b>
17	<b>CPRS/26</b>	NIKIN (8100.0N 16858.6W)	FAA December 4. 2009	a) Relocate NIKIN b) Under review c) Relocation of NIKIN is unreasonable		RUS USA	4 <sup>th</sup> quarter 2010 Realignment is unjustified
18	<b>CPRS/27</b>	LISKI (7000.0N 16858.6W)	FAA December 4. 2009	d) Relocate LISKI e) Under review a) Relocation of LISKI is unreasonable		RUS USA	4 <sup>th</sup> quarter 2010 relocation of the entry fix is unnecessary
19	<b>CPRS/28</b>	833000N1685823W - 740039N 1360232E - ... a) NA (Nizhneyansk NDB 7125.0N 13608.0E) – G226; b) GIKSI (7141.7N 12854.0E) – G491 (B489. G493) (bidirectional use)	State ATM Corporation. 09.02.2010	a) Open a new cross polar route; a) Under review		RUS USA	Published as G493 and G812 on Nov17, 2011
20	<b>CPRS/29</b>	AMATI (780000N 1685824W) - GILOD (755416N 1720106E) - LUNOG (720705N 1565953E) - NOGDA (711205N 1544019E) – OTNIR (690000N 1500037E) - SIPVI (652256N 1441620E) - NERPA (643256N 1430619E) (двухсторонняя)	State ATM Corporation. 09.02.2010	b) Open a new cross polar route; a) Under review		RUS USA	Published as B806 on Okt 18, 2012
21	<b>CPRS/30</b>	7300.0N168 58.4W – LURET (7037.5N 14753.8E) – R351 (B933 . G7. G494 . G495. G806) (bidirectional use)	State ATM Corporation. 09.02.2010	a) Open a new cross polar route; b) Under review		RUS USA	under review
22	<b>CPRS/31</b>	ORVIT – 7500.0N 17000.0E -6500.0N 15300.0E – BANOT - .. B223 - LUMIN	Continental Airlines April 2010	a) New York – Tokio traffic; b) distance saving- 35.8 м.м. c) accepted for review		RUS	under review
23	<b>CPRS/32</b>	ORVIT – 7700.0N 18000.0E 7000.0N 16100.0E -	Continental	a) New York – Tokio traffic;		RUS	under review

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
		6500.0N 15500.0E - 6000.0N 15100.0E – ROMEM .. B337 - ANIMO	Airlines April 2010	b) distance saving - 40.2 м.м. c) accepted for review			
24	<b>CPRS/33</b>	DEVID (B480)– GIKSI .. G491 or G493 or B489	United Airlines April 2010	a) Transition routes for flying between Mid West US/US East Cost and Asia b) Accepted for review		RUS	under review
25	<b>CPRS/34</b>	a) RAMEL (G491) – TAKUN (G226); b) PETUL – RUTIN (G226); c) UNELI (G491) – HA (G226)	United Airlines April 2010	a) Transition routes for flying between Mid West US/US East Cost and Asia b) Accepted for review		RUS	under review
26	<b>CPRS/35</b>	a) NIKIN (G226) - UNELI; b) TAKUN (G226) – TIGNA (G491); c) HA (G226) – TEMGA (G491)	United Airlines April 2010	a) Transition routes for flying between Mid West US/US East Cost and Asia b) Accepted for review		RUS	under review
27	<b>CPRS/36</b>	a) ORVIT (G494) - TAKUN (G226); b) DILSA - RUTIN (G226)	United Airlines April 2010	a) Transition routes for flying between Mid West US/US East Cost and Asia b) Accepted for review		RUS	under review
28	<b>CPRS/37</b>	ANODI-ABERI	Emirates Airlines 19.05. 2010	a) Accepted for review b) Reviewed. Implementation is possible.		RUS	Published as G359 on Sep 22, 2011
29	<b>CPRS/38</b>	a) NELTI-A299-DONUS-TINRI далее G359 or b) NELTI- TINRI .. G359	Emirates Airlines 19.05. 2010	a) Accepted for review.		RUS	under review
30	<b>CPRS/39</b>	a) W104 TARSA-NOR b) W98 DOSON-KUTET	Continental Airlines April 2010	a) assign an international status b) streamline DAKIN – DEVID route for Delhi/Mumbai – Newark daily flights c) transition from DEVID		RUS	Published as a) R200 as b) G498 on Nov17, 2011
31	<b>CPRS/40</b>	B358 LANEP – IKADA	British Airways 17.01.11	Remove flight level restrictions between FL350-530		RUS	under review
32	<b>CPRS/41</b>	LURUN (852500N 1685824W) - TUSAT (833607N 1543003E) - UNTEK (791121N 1340410E) - NIGES (750546N 1265137E) - RANEN (735405c 1252913E) - NESPA (715403N 1233405E) - MOPUL (693331N 1232755E) - GANPA (664703N 1232204E) - ARLAG (651308N 1254435E) - SUBOS (635738N 1272559E) -	State ATM Corporation. 09.02.2010	a) Open a new cross polar route; b) Under review		RUS USA	Implemented as R494 on Oct 18, 2012

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
		TAGIL (631602N 1282035E) - Yakutsk VOR/DME (UTS) (620533N 1294705E) (двухсторонняя)					
33	<b>CPRS/42</b>	GIMON – NIRUT (76N035E)	2012	Purpose: for flights from India to existing routes to GIMON continue in the North America		RUS NOR	Published as A840 on March 07, 2013
34	<b>CPRS/43</b>	GIMON – AGATA (78N035E)	2012	Purpose: for flights from India to existing routes to GIMON continue in the North America		RUS NOR	Published as A841 on March 07, 2013
35	<b>CPRS/44</b>	ANODI – KOMEL (7730N035E)	2012	Use as a new Crosspolar route for flying from North America to Southeast Asia		RUS NOR	Published as A839 on March 07, 2013
36	<b>CPRS/45</b>	SIMLI-G494-B331-W205-WZ	2013	Reduce mileage		RUS	Will be published as G494, A803 on September 19, 2013
37	<b>CPRS/46</b>	NERPA (643256N 1430619E) –FA (Yekimchan) (530807N 1324953E) – MAGIT (474131N 1310900E) Unidirectional traffic from FA to MAGIT	2013	Extend the existing Crosspolar route		RUS	Will be published as B806 on September 19, 2013
38	<b>CPRS/47</b>	WZ (503808N 1280207E) – PARIS (512001N 1300004E) - FA (530807N 1324953E). Unidirectional traffic from WZ to FA	2013	Establish parallel routes		RUS	Will be published as A803 on September 19, 2013
39	<b>CPRS/48</b>	493236N 1281936E-AMERA- WZ (unidirectional traffic to WZ)	IATA	Establish parallel ATS routes (G494 is unidirectional to SIMLI)		RUS CHN	Under review and coordination. Negotiate with China, in different formats (IATA, ICAO, etc.)
40	<b>CPRS/49</b>	RITEK – 495025N 1182854E - HAILAR	IATA	Establish an additional entry/exit point	Reduce mileage	RUS CHN	Under review and coordination. Negotiate with China, in different formats (IATA, ICAO, etc.)
41	<b>CPRS/50</b>	SALET (7957N 16858W) – RODOK then along G495	State ATM	Establish an additional entry/exit point		RUS	To be published as

Item	Reference	Route description	Proposed by	Objectives/Comments	Benefits	FIR	Target Dates
1	2	3	4	5	6	7	8
			Corporation October 2013			FAA	G819 in 3 <sup>rd</sup> quarter 2014
42	<b>CPRS/51</b>	BARIP (7457N 16858W) – LUTEM – OLMIN – ZR (Зырянка) - ASKIB	State ATM Corporation October 2013	Establish an additional entry/exit point		RUS FAA	To be published as B722 in 3 <sup>rd</sup> quarter 2014

### Section 2. Proposed Trans-East Route Segments (TVRS)

Item	Reference	Route description	Proposed by	Objectives/Comments	Эффект внедрения	States	Target Dates
1	2	3	4	5		6	7
1	<b>TVRS/8</b>	G907 - BANOT (5940.6N 14908.7E) - NILOT (5611.0N 14142.7E) -6N 13726.1E –4809.5N 13131.6E –MAGIT (474131N 1310900E) – JMU (JIAMUSI) (unidirectional from 5340.6N 13726.1.E to 474131N 1310900E)	State ATM Corporation. 10.07.2007	a) Open up a new Transeast route to join JMU (JIAMUSI); b) Approved and ready for implementation; c) There is no connection in China airspace from 4741.3N 13108.4E – JMU (JIAMUSI); d) ASBAT – BA (Balagannoye); e) After opening of the above route. G212 ARGUK - HAB (Khabarovsk VORDME 4832.7N 13512.6E) will be used only for eastbound flying.		RUS CHN	Published as R213 on Oct 20, 2011
2	<b>TVRS/13</b>	ASKIB (5924.1N 14303.1E) - 5340.6N 13726.1E <b>(ASKIB (592407c 1430312B) - GIRUD (534038c 1372609B</b>	State ATM Corporation. 10.07.2007	a) Open up a new route; b) Approved and ready for implementation		RUS	Published as B722 on Oct 20, 2011
3	<b>CHUKO TKA-1</b>	LISKI (7024.3N 16858.3W) - PEVEK (UHMK) (6947.0N 17035.7E) - CHERSKY (UESS) (6844.6N 16120.2E) -Zyryanka (6543.8N 15046.2E) - INDIK (6316.0N 14312.0E) - Chagda (5845.0N 13039.0E) Flight Level Band 9600-11600 m (bidirectional use)	RACGAT/13	a) UESU – INDIK – Chagda segment is located to close to the existing FIR boundaries and is outside VHF and radar coverage. b) Developed and approved an alternative route G912		RUS USA	Implementation is deemed unreasonable
4	<b>TVRS/14</b>	BELEK (6817.1N 14247.1E) - RODOK (6633.7N 13710.1E) (bidirectional use)	Proposed by airlines August 1. 2009	a) Transition from G969 to G495; b) Approved and ready for implementation		RUS	Published as B969 (by NOTAM ) on Jul 1, 2010

Item	Reference	Route description	Proposed by	Objectives/Comments	Эффект внедрения	States	Target Dates
1	2	3	4	5		6	7
5	<b>TVRS/21</b>	ABAGO (5617.5N 14414.2E) - 5517.2N 14005.3E (ABAGO (561731c 1441418B) - GITAK (551707c 1400520B))	State ATM Corporation. апрель July 10. 2007	a) Open up a new route; Approved and ready for implementation		RUS	Published as G902 on Oct 20, 2011
6	<b>TVRS/22</b>	ARNAP (6440.0N 17025.0E) - ASMOK (6448.8N 16843.2E) – ILMUK (6456.1N 16714.7E) – LUVAK (6502.8N 16526.4E) – OSKON (6514.3N 16032.5E) – ABAPI (6502.5N 15718.3E) – RUBIS (6433.3N 15159.3E) – ELBIN (6340.5N 14532.7E) – INDIK (6316.0N 14312.0E) – KURAK (6247.0N 13651.0E) – LUKON (6230.9N 13338.4E) – UEEE (6205.5N 12947.0E)	State ATM Corporation. 30.03.2010	a) Open up a new route; b) North America and Alaska traffic to Afganistan, Kyrgystan (Manas), Beijing, Hong Kong, Mongolia and China; c) Approved and ready for implementation Assigned B155 designator		RUS	Published as B155 (by NOTAM A2204/10) on Jun 3, 2010
7	<b>TVRS/23</b>	NUZAN – 5141.2N 16239.1E – RIMLI (5142.3N 15806.8E) – B932	State ATM Corporation. April 2010	a) Transition between R220 and B932; b) Initial review completed		RUS USA	Published as G801 on Nov 17, 2011
8	<b>TVRS/24</b>	5005.0N 15900.0E – 4947.2N 15400.0E – B932	State ATM Corporation. April 2010	a) Transition between R220 and B932; b) Initial review completed		RUS USA	Published as G804 on Nov 17, 2011
9	<b>TVRS/25</b>	NYMPH - 5310.5N 166310.E – RIMLI (5142.3N 15806.8E) – B932	State ATM Corporation. April 2010	a) Transition between R220 and B932; b) Initial review completed		RUS USA	unacceptable at the moment
10	<b>TVRS/26</b>	NYMPH - 5325.0N 167126.E– B932 (5321.6N 16218.4E) -UHPP	United Airlines April 2010	a) Transition between G469 and B932 then to B915; b) Accepted for review		RUS USA	Published as G73 on Nov17, 2011
11	<b>TVRS/27</b>	OLCOT – NUZAN – 5141.0N 16237.6E – RIMLI – SENOR – G73 (B115)	United Airlines April 2010	a) Transition between R580 (A342) and B932 then to G73 (B115); b) Accepted for review		RUS USA	unacceptable at the moment
12	<b>TVRS/28</b>	OGDEN – 4855.5N 15636.2E – NETRI – LATAK – G103	United Airlines April. 2010	a) Transition between R580 (R451) and B932 then to G103; b) Accepted for review		RUS USA	unacceptable at the moment

Item	Reference	Route description	Proposed by	Objectives/Comments	Эффект внедрения	States	Target Dates
1	2	3	4	5		6	7
13	<b>TVRS/29</b>	NETRI – 4304.2N 14640.4E - NODAN	United Airlines April 2010	a) Transition between B932 and B915; b) Requires opening of a new entry/exit fix with Japan c) Accepted for review		RUS JPN	unacceptable at the moment
14	<b>TVRS/30</b>	A803 OSKON-UHMI UHMI - PEMID	Air Canada 14.02.2011	a) remove flight level restrictions 13100-16100		RUS	unacceptable at the moment
15	<b>TVRS/31</b>	a) KURAK (6247.0N 13651.0E) – ODANA б) KURAK – KUNIK	IATA декабрь 2010	a) reduce mileage b) provide transition from R819 to G494		RUS	unacceptable at the moment
16	<b>TVRS/32</b>	Okhotsk - N5340.6 E13726.1	State ATM Corporation. 10.07.2007	open up a new route		RUS	Published as B722 on Oct 20, 2011
17	<b>TVRS/33</b>	ABAGO – GITAK (N.5517.2 E14005.3)	State ATM Corporation. 10.07.2007	open up a new route		RUS	Published as G902 on Oct 20, 2011
18	<b>TVRS/34</b>	BIRBO – ODEKA (N4809.5 E13131.6)	State ATM Corporation. 10.07.2007	open up a new route		RUS	Published as B723 on Oct 20, 2011
19	<b>TVRS/35</b>	ARNAP (N 644000 E 1702510) –ASBAT (N635331 E1644434)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	extension R213		RUS	Published as R213 on May 31, 2012
20	<b>TVRS/36</b>	AMETO (N582137 E1532037)-NARIT (581534N 1525610E)- BAMUN (580808N 1522641E)-BENGA (575715N 1514437E)- BEBAT (573246N 1501419E)-GRUMA (N560501 E1453036)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	extension B237		RUS	Published as B237 on May 31, 2012
21	<b>TVRS/37</b>	BUMAT (615007N 1603257E)-BUSUL (612501N 1555402E )-DERUD (604907N 1522350E)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	extension A827		RUS	Published as A827 on May 31, 2012

Item	Reference	Route description	Proposed by	Objectives/Comments	Эффект внедрения	States	Target Dates
1	2	3	4	5		6	7
22	<b>TVRS/38</b>	BUMAT (615007N 1603257E)-LUNEK (605645N 1552506E)- ODERI (603231N 1532656E)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	route realignment		RUS	Published as A828 on May 31, 2012
23	<b>TVRS/39</b>	URABI (601201N 1544108E)-BANEB (601415N 1552423E)-SOPUR (601839N 1570605E)-RUNAB (602101N 1581731E)-BEBOR (602257N 1593711E)-DIREG (602413N 1610436E)-RAMKA (602426N 1613257E)-Tilichiki NDB (TK) (602154N 1660045E)-NELTA (605736N 1725315E)-RUSOR (611400N 1775600W)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	a) extension G370 b) Leaving the NOPAC		RUS	Published as G370 on May 31, 2012
24	<b>TVRS/40</b>	BALUB (564751N 1671435E)- MURTA (562209N 1634311E)- Ust-Kamchatsk NDB (UK) (561324N 1624114E)- OSMOR (551335N 1565706E)- TOSNO (550813N 1563047E)- BANIT (544949N 1550431E)- KORES (535524N 150000E)- GIRAN (532549N 1474300E)	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	route realignment		RUS	Published as B804 on May 31, 2012
25	<b>TVRS/41</b>	IRKAN-KOKUN-BANIT	Cathay Pacific 26.07.2011, RDGE/15 30.09.2011	route realignment		RUS	Consider after commissioning Ust-Khairuzovo SSR
26	<b>TVRS/42</b>	FA – WZ - SIMLI (Proposed alternative is FA – PARUS – SIMLI)	Pacific United Airlines	route realignment		RUS	
27	<b>TVRS/43</b>	SIBIR – LURED – EKVIK (decommission B451 LURED – IGROD)	IATA	To improve north-south traffic flows between Khabarovsk FIR and Fukuoka FIR	Reduce mileage	RUS JPN	under review
28	<b>TVRS/44</b>	KUNAD - OTLER	RUS 09.08.13	NOPAC transition to Trans-East	Reduce mileage	RUS	To be published as G815 in 3 <sup>rd</sup> quarter 2014
29	<b>TVRS/45</b>	LUMES - RIMLI	RUS 09.08.13	NOPAC transition to Trans-East	Reduce mileage	RUS	To be published as G816 in 3 <sup>rd</sup> quarter 2014
30	<b>TVRS/46</b>	Ust-Kamchatsk NDB (UK) - MIVAN (552730N 1615931E) - KEGOR (544042N 1611855E) - SIPVA	RUS 09.08.13	To support general aviation flights from US to China		RUS	After implementation of a new

Item	Reference	Route description	Proposed by	Objectives/Comments	Эффект внедрения	States	Target Dates
1	2	3	4	5		6	7
		(530624N 1600201E) - Khalaktyrka (HY) (530001N 1584736E) - PETIN (531012N 1582713E) – to be used by coordination with ATC					automated ATC system at PK ACC. Target date – 2014 – early 2015.
31	<b>TVRS/47</b>	NETRI – 430312N 1463915E - NODAN	RUS 09.08.13	To be used by coordination with ATC to avoid volcanic ash		RUS	Approved in Russia, no approval from Japan.

**Abberviations:**

- Proposed cross polar Route Segments (CPRS);
- Proposed Trans-East Route Segments (TVRS);
- Trans-Asian Route Segments (TARS);
- Asian Route Segments (ARS);
- Trans-polar Route Segments (TPRS);
- Trans-Siberian Route Segments (TSRS);
- Other Route Segments (DRS)

**Brief catalogue description:**

**Item 1.** Shows an ordinal number of a route proposal.

**Item 2.** Shows reference number of a route proposal.

**Item 3.** Route description consists only of IDENTs for NAVAIDS and 5LNC without coordinates. (where several NAVAIDS have same IDENT include name of NAVAID).

b) when available. route designators to be included.

c) unidirectional use of the route to be indicated in text (i.e. Westbound. Eastbound. etc.).

d) several routes being studied within a single airspace planning package will be entered as one proposal.

**Item 4.** Shows Flight Information Regions (FIR) concerned.

**Item 5.** Shows objectives/comments.

**Item 6.** Proposed by.

**Item 7.** Target dates.

Route proposals that can not be implemented should be marked with grey

Implemented proposals should be marked by green

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<i>FIR</i>	<i>CODE</i>
Afghanistan	AFG
Albania	ALB
Algeria	DZA
Armenia	ARM
Austria	AUT
Belarus	BLR
Belgium	BEL
Bosnia and Herzegovina	BIH
Bulgaria	BGR
China	CHN
Croatia	HRV
Cyprus	CYP
Czech Republic	CZE
Democratic People's Republic of Korea	PRK
Denmark	DNK
Egypt	EGY
Estonia	EST
Finland	FIN
France	FRA
Georgia	GEO
Germany	DEU
Greece	GRC
Hungary	HUN
Iceland	ISL
India	IND
Iran. Islamic Republic of	IRN
Iraq	IRQ
Ireland	IRL
Israel	ISR
Italy	ITA
Japan	JPN
Jordan	JOR
Kazakhstan	KAZ
Kuwait	KWT
Kyrgyzstan	KGZ
Latvia	LVA
Lebanon	LBN
Libyan Arab Jamahiriya	LBY
Lithuania	LTU
Luxembourg	LUX
Malta	MLT
Mongolia	MNG
Montenegro	MNE
Morocco	MAR
Netherlands	NLD
Norway	NOR
Pakistan	PAK
Poland	POL
Portugal	PRT
Republic of Azerbaijan	AZE
Republic of Moldova	MDA
Republic of Serbia	SRB
Romania	ROU
Russian Federation	RUS
Saudi Arabia	SAU
Slovak Republic	SVK
Slovenia	SVN

Spain	ESP
Sweden	SWE
Switzerland	CHE
Syrian Arab Republic	SYR
Tajikistan	TJK
The former Yugoslav Republic of Macedonia	MKD
Tunisia	TUN
Turkey	TUR
Turkmenistan	TKM
Ukraine	UKR
United Arab Emirates	ARE
United Kingdom	GBR
United States of America	USA
Uzbekistan	UZB

Легенда каталога маршрутов  
Legend catalog routes

	Предложения, которые не могут быть реализованы в данный момент	
AMATI (780000N 1685824W) - GILOD (755416N 1720106E)	Реализованные предложения	
AMATI (780000N 1685824W) - GILOD (755416N 1720106E)	Предложения, реализуемые в ближайшее время	
AMATI (780000N 1685824W) - GILOD (755416N 1720106E)	Предложения, находящиеся на рассмотрении	
Implementation is deemed unreasonable	Реализация считается необоснованным	
Published as ...	Опубликовано как ...	
Implemented on ...	Реализован с ...	
segment is unavailable before ...	Сегмент недоступен до ...	
under review ...	на рассмотрении	
expected date of commissioning	Планируемый срок ввода ...	
unacceptable at the moment	Неприемлем в данный момент	
Consider after commissioning Ust-Khairuzovo SSR	Рассмотреть после ввода в строй в ВРЦ Усть-Хайрюзово ВРЛ	

## **Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG)**

### **Work Program**

The Cross Polar Trans-East Air Traffic Management (ATM) Working Group (CPWG) is recognized by the International Civil Aviation Organization (ICAO) Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS) as a forum to improve the provision of air traffic services (ATS) to aircraft which operate between North America and Asia via Cross Polar and Russian Trans East routes. The CPWG is composed of representatives from the air navigation service providers (ANSPs) responsible for providing ATS in the Arctic and adjacent airspace, representatives from international organizations representing airspace operator groups, and international airlines that operate in the airspace.

#### **Background**

During the discussions at the sixth meeting of the CPWG (CPWG/6) held in Hong Kong China in November 2008, it was agreed a work program was needed that would focus on strategic objectives.

Further discussions during the seventh meeting of the CPWG (CPWG/7) held in Paris, France in June 2009 identified five objectives to provide the overall structure for the Work Program. They were:

- a. Reduce Separation Standards
- b. Improve Efficiencies for Traffic on Cross Polar and Russian Far East Routes (Routes, Procedures, and System Performance)
- c. Improve Communications
- d. Improve Weather Reporting
- e. Develop Contingency Plan/Safety

Based on these objectives, a Planning Chart was developed to document near- and mid-term activities, as well as to maintain a summary of accomplishments.

During a meeting of the air navigation service providers (ANSPs) held in Reykjavik, Iceland in June 2012 prior to the thirteenth meeting of the CPWG (CPWG/13), the group considered the value of the Planning Chart in the format that had been used. The meeting felt that the chart had expanded beyond the original intent, which was to serve as a list of near- and mid-term activities, as well as a summary of accomplishments.

It was agreed that the CPWG needed a written Work Program, which would describe and categorize the activities listed on the Planning Chart, and define near-term or mid-term planning goals. As goals are completed, they would be moved into a list of accomplishments that would be a part of the Work Program. The Planning Chart could become an appendix to the Work Program to track the status of the near-term items.

## **CPWG Objectives**

This section describes the five current objectives of the CPWG.

### **1      *Reduce and Harmonize Separation Standards in International Airspace***

It was agreed that the international operators would benefit from a reduction, as well as harmonization of the vertical, lateral and longitudinal separation standards across the Arctic airspace. This would allow for more efficient altitude changes.

Separation reductions would need to take into account the equipage of aircraft operating in the Arctic and adjacent airspace, and provide for a mixed environment, recognizing the existing and planned aircraft capabilities while providing benefits to operators implementing Required Navigation Performance (RNP).

### **2      *Improve/Increase Efficiencies for Cross Polar and Russian Far East Air Traffic***

Efficiencies could be provided through the development and enhancement of ATS routes, ATM and operator procedures, and improved system performance.

Route efficiencies to be considered include, but are not limited to, the following:

- New routes taking into account the reduced lateral separation standards
- Bi-directional routes
- Procedures for tactical re-routes
- Airline route proposals
- Additional boundary entry/exit points into China
- Implementation of radar hand-offs and procedures between Magadan and Anchorage Flight Information Regions (FIRs)
- ANSPs to work together to develop RVSM transition procedures between each FIR
- Flex Track System
- Simplifying Russian Form R Process
- Improved Air Traffic Flow Management (ATFM) tools and exchange of information between ANSPs and operators through use of the Dynamic Ocean Tracking System Plus (DOTS+) Gateway Reservation List (GRL) and DOTS+ Online (DPO)
- Polar Minimum Time Tracks

### **3      *Improve Communications in Arctic/Polar Region***

It is expected that improved communications in the Arctic airspace (*i.e.*, north of 80 degrees North) would provide enhanced operations.

Communication improvements to be considered include, but are not limited to, the following:

- Benefits from satellite technology (Iridium)
- High Frequency (HF) Air-Ground Data Link
- Current ANSP communication capabilities
- Implementation of Controller Pilot Data Link Communication (CPDLC) and Automatic Dependent Surveillance – Contract (ADS/C) capability for all polar routes
- Automated flight data exchange between facilities

- Monitor communications and data link performance

#### **4     *Improve Awareness of Space Weather Issues in Arctic/Polar Region***

Although the CPWG does not have responsibility for weather reporting, some related issues to be considered include, but are not limited to, the following:

- Improve exchange of long range weather and Notices to Airmen (NOTAM) information
- Maintain an awareness of research on space weather and its impact on aviation
- Recognition of the impacts of space weather, including sun spots and HF black outs

#### **5     *Improve Safety***

Activities enhancing safety to be considered include, but are not limited to, the following:

- Making contingency response information available, including volcanic activities
- Develop Arctic Volcanic Ash Contingency Plan for CPWG
- Procedures for the exchange of Russian missile launch information

### **Time Frames**

It was agreed that Near-Term activities were defined as those planned to be completed within 1-3 years, and Mid-Term activities would be completed in 4-10 years.

### **Maintenance of the Work Program**

The Work Program will be reviewed by the ANSPs prior to each CPWG meeting. As work commences on a particular goal, it will be moved from the Mid-Terms Goals (**Attachment A**) to the Near-Term Planning Chart (**Attachment B**). Similarly, as initiatives are completed, they would be moved to the list of accomplishments (**Attachment C**).

As new work programs are introduced, they will be added to the appropriate goal section.

## **Mid Term Goals (2017-2022)**

### **REDUCE AND HARMONIZE SEPARATION STANDARDS IN INTERNATIONAL AIRSPACE**

**Implement further reductions to lateral separation (aircraft equipage requirements)**  
Edmonton FIR

**Implement reduced longitudinal separation (aircraft equipage requirements)**  
Anchorage Arctic FIR (50NM)

**Implement further reductions to longitudinal separation (aircraft equipage requirements)**  
Anchorage Arctic FIR (30NM)

### **IMPROVE COMMUNICATIONS IN ARCTIC/POLAR REGION**

**Implement AIDC/OLDI for Data Exchange**  
Bodo and Murmansk FIRs

**Implement Periodic ADS-Reporting for all Polar Routes**  
Edmonton FIR starting this fall (Near term)

**Implement CPDLC**  
Murmansk FIR

Implement AIDC  
Murmansk/Anchorage

## CPWG Planning Chart

### Near Term Goals (2014-2017)

	Planning Goal	Action with	Status of Action and Target Date
<b>1</b>	<b>REDUCE AND HARMONIZE SEPARATION STANDARDS IN INTERNATIONAL AIRSPACE</b>		
	<b>Harmonize RVSM Transition Procedures</b>		
	Russian and Mongolian FIRs	State ATM/CAA Mongolia	2015/2016
		State ATM/North Korea	April 2014
	<b>Implement reduced longitudinal separation (aircraft equipage requirements)</b>		
	Edmonton FIR (5 min or 50NM)	NAV CANADA	TBD
	Reykjavik FIR (10 min)	Isavia	2015
	Reykjavik FIR (5 min)	Isavia	TBD
	Reykjavik FIR (25NM)	Isavia	Fall 2014
<b>2</b>	<b>IMPROVE/INCREASE EFFICIENCIES FOR CROSS POLAR AND RUSSIAN FAR EAST AIR TRAFFIC</b>		
	<b>Create seamless and homogeneous airspace for the traffic from North America to Asia with the expansion of User Preferred Routes (Pacific Project)</b>	ANSPs/Operators	TBD
	<b>Improve Efficiency on Cross Polar Routes</b>		
	Add entry/exit fixes on the Anchorage/Russian FIR boundary in order to provide additional parallel routes	FAA/State ATM	Ongoing (Polar 7, 8, & 9 have been added) Planning SALET and BAREP
	Eliminate restrictions to file entry fixes on the Anchorage/Edmonton FIR boundary	FAA/NAV CANADA	Spring 2015/Winter 2015 introducing ATOP with Edmonton and start to reduce restrictions then dependent on ADS-C and comm piece
	<b>Implement use of Radar Procedures between Magadan ACC and Anchorage ARTCC without Radar Data Sharing</b>		
	Anchorage Arctic FIR	FAA	2016
	Magadan FIR	FATA	2015/2016
	<b>Improve Air Traffic Flow Management (ATFM)</b>		

	<b>Planning Goal</b>	<b>Action with</b>	<b>Status of Action and Target Date</b>
	Establish CTA in Anchorage Arctic FIR	FAA	TBD
<b>3.</b>	<b>IMPROVE COMMUNICATIONS IN ARCTIC/POLAR REGION</b>		
	<b>Improve communications procedures</b>		
	Change procedures to retain connection with Iridium and HF DL north of 82N	Isavia	2014
	<b>Implement AIDC/OLDI for Data Exchange</b>		
	Magadan and Anchorage FIRs	FAA State ATM	2015-2016
	Khabarovsk ACC and Sapporo ACC	State ATM/JCAB	2016
	Reykjavik and Bodo FIRs (AIDC)	Isavia/Avinor	May 2014
	Murmansk and Reykjavik FIRs	State ATM/Isavia	January 2015
	<b>Implement CPDLC for All Polar Routes</b>		
	Murmansk FIR	State ATM	2015
	Bodo	Avinor	TBD
	Magadan FIR (All Sectors)	State ATM	January 2015
	<b>Implement ADS-C</b>		
	Anchorage Arctic FIR	FAA	2015
	Bodo	Avinor	January 2015
	Magadan FIR (All Sectors)	State ATM	Early 2014
	Edmonton FIR	NAV CANADA	Fall 2014
	<b>Monitor Communications and Data Link Performance</b>		
	Provide information on any issues relating to communications/data link performance at CPWG meetings	All ANSPs and Operators	Ongoing
<b>5.</b>	<b>IMPROVE SAFETY</b>		
	<b>Develop CPWG Volcanic Ash Contingency Plan</b>		
	Consider amending LOAs between adjacent ACCs to introduce provisions on contingency reroutes	All	2015
	Formalize teleconference format and process taking into consideration collaborative decision making (CDM)	FAA, State ATM, JCAB	2015 For discussion during next VOLKAM Steering Group Meeting.
	Streamline the process for issuing NOTAMs on volcanic ash	NAV CANADA, FAA, State ATM	2014

	Planning Goal	Action with	Status of Action and Target Date
	<b>Implement single AFTN address for each ANSP<sup>1</sup></b>		
	NAV CANADA	NAV CANADA	TBD
	State ATM	State ATM	2016
	CAAC ATMB	CAAC ATMB	Unknown
	CAA Mongolia	CAA Mongolia	2015
	Kazakhstan		2017

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<sup>1</sup> FAA and JCAB do not plan to implement a single AFTN address

## Completed Activities

### 1 REDUCE AND HARMONIZE SEPARATION STANDARDS IN INTERNATIONAL AIRSPACE

#### Implement RVSM FL290-410

##### Harmonize RVSM Transition Procedures

- Anchorage Arctic FIR
- Anchorage Oceanic FIR
- Russian FIRs
- Fukuoka FIR

#### Implement 10 Minute Longitudinal Separation for ATS Route B932

##### Implement reductions to lateral separation based on aircraft equipage requirements

- Anchorage Oceanic FIR (30NM)

##### Implement reductions to longitudinal separation based on aircraft equipage requirements

- Anchorage Oceanic FIR (30NM)

### 2 IMPROVE/INCREASE EFFICIENCIES FOR CROSS POLAR AND RUSSIAN FAR EAST AIR TRAFFIC

#### Harmonize Procedures for ATS Route B932

##### Improve Efficiency on Cross Polar Routes

- Add entry/exit fixes on the Reykjavik/ Russian FIR boundary
- Open new Kamchatka routes from PILUN and LISKI
- Open new routes south of ABERI

##### Improve Efficiency on Russian Trans East Routes

- Eliminate 10 min track loading for RTE over Anchorage/Russian Boundary

##### Improve Air Traffic Flow Management (ATFM)

- Implement DOTS Plus Online Track Advisory
- Reduce track loading to 10 minutes for Cross Polar fixes
- Remove requirement for flight to file NOR OTS routes over Canada

##### Improve ATFM Collaboration

- FAA/NAV CANADA
- FAA/State ATM
- NAV CANADA/State ATM

#### Make Tactical Re-Routes Available for Daily Operations

### 3. IMPROVE COMMUNICATIONS IN ARCTIC/POLAR REGION

#### Improve communications procedures

- Implement ADS-C periodic contract and lateral and vertical conformance monitoring

#### Implement AIDC/OLDI for Data Exchange

- Anchorage Arctic, Oceanic and Continental FIRs (AIDC)

Edmonton FIR (AIDC)  
Reykjavik and Edmonton FIRs

**Implement CPDLC for All Polar Routes**

Anchorage Arctic FIR  
Reykjavik FIR  
Magadan FIR

**Implement ADS-C for All Polar Routes**

Edmonton FIR (waypoints only)  
Reykjavik FIR  
Magadan FIR

- 4. IMPROVE AWARENESS OF SPACE WEATHER ISSUES IN ARCTIC/POLAR REGION**  
Develop Space Weather User Needs

- 5. IMPROVE SAFETY**

**Develop Arctic ATM Operational Contingency Plan**

Publish Document v2 on Web Site

**Implement single AFTN address**

Iceland  
Norway

**Implement ICAO Flight Plan 2012**