Summary of Discussions
Forty-sixth Meeting of the
Informal Pacific Air Traffic Control Coordinating Group
(IPACG/46)

October 20-21, 2020
Virtual

1.0 Background

1.1 The Forty-sixth Meeting of the Informal Pacific Air Traffic Control Coordinating Group (IPACG/46) was held virtually on Tuesday, October 20, and Wednesday, October 21, 2020. The IPACG was established to provide a forum for air traffic service providers and airspace users to informally meet and explore solutions to near term air traffic control (ATC) problems that limit capacity or efficiency within the Anchorage, Oakland, and Fukuoka Flight Information Regions (FIR).

2.0 Welcome and Opening Remarks

2.1 The meeting was co-chaired by Mr. Ahmad Usmani, Manager, Asia Pacific Group, Air Traffic International Office, Federal Aviation Administration (FAA) and Mr. Toshiya Shigenobu, Special Assistant to the Director, Japan Civil Aviation Bureau (JCAB). Mr. Usmani welcomed the meeting participants as well as introduced Mr. Shigenobu. Mr. Shigenobu thanked Mr. Usmani and shared that JCAB looks forward to a fruitful discussion for continued successful operations between Japan and the U.S. He added that JCAB is grateful for FAA support in conducting the IPACG meetings virtually, and noted that it has been a very difficult year for aviation due to the COVID-19 pandemic.

3.0 Submitted Papers

3.1 The working and information papers presented to IPACG/46 were made available on the IPACG website for the meeting participants:

https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/mission_support/ato_intl/ipacg/

4.0 Agenda Item 1: Review and Approve Agenda

4.1 Mr. Usmani drew the meeting's attention to the agenda and timetable for the IPACG/46 meeting. The following agenda was proposed and adopted by the meeting:

Agenda Item 1	Review and Approve Plenary Agenda
Agenda Item 2	Reports on Relevant Outcomes from Other Meetings
Agenda Item 3	Report on the Outcome of the Providers Meeting (PM25)

Agenda Item 4	Report on the Outcome of the FANS Inter-operability Team Meeting (FIT33)
Agenda Item 5	Air Traffic Oceanic Facility Updates
Agenda Item 6	Communications/Navigation/Surveillance (CNS) Issues
Agenda Item 7	Air Traffic Management (ATM) Issues
Agenda Item 8	Review and Update of CNS/ATM Planning Chart
Agenda Item 9	Action Item Review
Agenda Item 10	Other Business

5.0 Agenda Item 2: Reports on Relevant Outcomes from Other Meetings

5.1 Updates from OPDLWG [PPT01/FAA]

Ms. Theresa Brewer of the FAA provided an overview of the Operational Datalink Working Group Meeting (OPDLWG). She provided background on the work program; open and new job cards; future meetings and panel coordination. She reviewed the Communication Panel (CP) and functioning work groups including the Operational Datalink Specific Working Group. She also shared the OPDLWG general meeting notes for awareness.

5.2 Updates from PARMO/JASMA RASMAG/25 [IP01/PPT02/FAA]

Ms. Christine Falk of the FAA provided a summary of the relevant safety monitoring activities conducted for the North Pacific Airspace by two ICAO-endorsed monitoring agencies. The Japan Airspace Safety Monitoring Agency (JASMA) and Pacific Approvals Registry and Monitoring Organization (PARMO)) provide en route monitoring agency (EMA) and regional monitoring agency (RMA) services for North Pacific Airspace. The presentation increased awareness of the monitoring agency activities including their presentation of reports to both RASMAG/24 and the upcoming RASMAG/25. Ms. Falk noted that the RASMAG/24 produced five conclusions for review by APANPIRG/30. Three of the RASMAG conclusions concerned Performance-based Communication and Surveillance (PBCS). One of these conclusions requires States to include the filed Required Communication Performance (RCP) and Required Surveillance Performance (RSP) capability information for each flight operation listed on the annual traffic sample data (TSD). She added that one of the RASMAG/24 conclusions initiates a RASMAG effort to provide improved understanding of safety issues and initiatives identified by RASMAG. Safety Bulletins developed by relevant International Organizations and concerned States and endorsed by RASMAG were posted on the ICAO Asia/Pacific website and circulated by State Letter, in addition to informal circulation by RMAs and EMAs. These Safety Bulletins are the result of observed trends in reported events within the Asia Pacific Region. The monitoring agencies, IATA, IFALPA, and ICAO are developing the Safety Bulletins.

Mr. Shigenobu shared that JCAB is also examining these changes and will use the RASMAG Report as a beneficial reference.

6.0 Agenda Item 3: Report on Outcomes from IPACG Providers Meeting 25

On behalf of JCAB and FAA, Mr. Usmani stated that IPACG Providers Meeting 25 was held on October 19, 2020. He then provided the following summary of discussions from the meeting:

☐ **Space-Based ADS-B**

- Holly King from Oakland Center presented the FAA's recent work on space-based ADS-B. This work includes the following:

- Enhancements to the FAA's ATOP system, to process space-based ADS-B reports and update flight profiles

- Three regional projects to evaluate space-based ADS-B:
  - ✓ Anchorage – to support Shemya operations during radar outages (March 2022)
  - ✓ Oakland – to support arrivals and departures at 12-15 small airports in the South Pacific (April 2022)
  - ✓ New York – to support Bermuda operations during radar outages (June 2022)

☐ **Special Procedures for In-Flight Contingencies in Oceanic Airspace**

- Mr. Madison Walton, from FAA's Flight Standards Office, presented a paper on in-flight contingencies in oceanic airspace. This paper will be presented in the plenary as well.

☐ **Updates from Oakland Center**

- Ms. Holly King then presented a facility update for Oakland Center. Topics included the following:
  - 23NM lateral separation, which is projected for implementation in the 4th quarter of 2021
  - ZOA order 7110.50, which contains procedures for generating tracks around volcanic ash
  - The removal of the requirement to submit CPDLC position reports for flights entering the Oakland Oceanic CTA boundary
  - IATA requests for cost savings and efficiency during the COVID-19 global pandemic.

☐ **NOPAC Route System Redesign**

- The last item discussed was NOPAC Redesign, which will be presented during the plenary.

7.0 Agenda Item 4: Report on the Outcome of the FANS Inter-operability Team Meeting (FIT)

Mr. John Roman of the FAA reported on the outcomes of the FIT/33 meeting held October 14-15, 2020. He noted that participants from FAA, JCAB and satellite service providers (SSPs) presented nine papers on problem reports (PR), Performance-based Communication and Surveillance (PBCS) monitoring, FANS/Datalink issues and SSP updates as noted below.

The FAA Central Reporting Agency (CRA) report provided information about 16 new problem reports in the North and Central Pacific region. The total number of new reports is significantly lower than previous periods due to the reduced traffic levels in 2020.

JCAB CRA presented information on new problem reports, and there were 15 PR's submitted during the past year (from July 2019 to June 2020). Out of 15 PRs, 13 are from operators and the rest from Fukuoka ATM Center. 71% of those reports were due to "Datalink Failure." The smaller number of PRs submitted is undoubtedly due to the effects of the COVID-19 pandemic.

Regarding the AFN logon failure with Fukuoka (2939-KS, Closed) described in WP/02, some aircraft operators pointed out that there seemed to be difference between AIP's description and Jeppesen's chart showing that datalink is available in the whole Fukuoka FIR. JCAB made a contact with Jeppesen after the FIT meeting and received their comment as follows.
<Feedback from Jeppesen>
The datalink airspace limits are correctly defined in the Air Traffic Control pages of the airway manual , Japan State Rules and Procedures. However, Enroute coding and charting will need to be corrected. NavData will be updated for cycle 2013. Enroute P-41 (Jeppesen page index) CPDLC coverage will be updated and scheduled not later than cycle 2014. Enroute charts will be scheduled for the next routine revision.

The PBCS monitoring reports from JCAB and FAA showed similar results to past reports, with overall performance meeting requirements. The main source of reports not meeting PBCS requirements involves switching between satellite and VHF/HF paths, but this is a small percentage of overall traffic.

JCAB presented information about the Network Performance Assessment Center (NPAC), which was newly organized in April this year to monitor, analyze and assess the service level of each CNS system.

The meeting materials for all topics for FIT 33 were made available on the FAA IPACG website at:

https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/mission_support/ato_intl/ipacg/

8.0 Agenda Item 5: Air Traffic Oceanic Facility Updates

8.1 Updates from Air Traffic Management Center [PPT03/FAA]

Ms. Makoto Ishida of JCAB provided an update from the Air Traffic Management Center (ATMC) in Fukuoka, Japan. She noted that the ATMC oceanic sector consists of five sectors, and that the Trajectorized Oceanic Data Processing System (TOPS) transition was completed in February 2019. With TOPS, ATMC has the ability to adjust each sector boundary according to the traffic flow, achieving efficient operations with suitable PACOTS routes. She then shared ATMC's annual and daily traffic volumes and the RNP4/RNP10/PBCS/CPDLC filing rates. She also reviewed several recent initiatives including the data link transfer from ATMC to Manila Area Control Center (ACC), which began in January 2020. She noted that the data link transfer from Manila ACC to ATMC is still under consideration at Manila ACC. She also reviewed an operation of additional Gateways for westbound and eastbound high altitude UPRs in April 2020. She noted that when they carried out traffic verification prior to March 2020, there were approximately 600 to 700 flights per month, of which approximately 90 flights satisfied the condition of FL390 by 160E for eastbound high altitude UPR. She noted that the traffic volume dramatically decreased due to COVID-19. Therefore, in August 2020, there were only 4 out of 21 flights able to cross 160E at or above FL390. She noted that more flexible UPR routes may be actualized under the current situation. She then highlighted that there will be no additions or changes to the current Gateways and ATS routes to domestic airspace as currently described in the Aeronautical Information Publication (AIP) due to restricted airspace. ATMC will temporarily eliminate the restrictions against the separations from standard PACOTS and altitudes. JCAB anticipates that there will be some conflicts between PACOTS and UPR routes as traffic levels return to pre-COVID-19 levels. Therefore, they may consider bringing back the restrictions or establishing new standards as traffic levels recover to maintain a safe and efficient traffic flow. The conditions listed in the AIP will remain unchanged and they will publish a Notice to Airmen (NOTAM).

Mr. Gen Schnee of United Airlines (UA) expressed gratitude to Ms. Ishida and ATMC for granting requests for relief from PACOTS restrictions, even if only temporarily. He noted that it will be a timely implementation, and some positive changes from Eastbound high altitude UPRs are being seen. The recovery is very slow for passenger traffic, and there are opportunities as aircraft weights are typically lighter. He inquired if the relief in PACOTS restriction is irrespective of flight level and does not require high level UPR. Ms. Ishida then confirmed that there are indeed no altitude restrictions for high altitude UPRs. Mr. Schnee requested advance notice of the NOTAM if possible so that they could make adjustments in their flight plan system and asked about the timing for implementation. Ms. Ishida shared that the lifting of restrictions will be coordinated with Oakland Center in the near future. Mr. Blair Cowles of IATA also extended thanks to JCAB for the UPR flexibility and noted that the COVID-19 environment is difficult for both airlines and ANSPs. Mr. Cowles then highlighted

a recent event regarding ATC Zero at ZAN and advised JCAB and FAA that he would forward the report to the IPACG Chairs. Mr. Usmani and Mr. Shigenobu agreed to discuss the IATA report during PM/25 and provide a response.

8.2 Updates from Oakland Air Route Traffic Control Center (ZOA) (ARTCC) [PPT02/FAA]

Ms. Holly King of the FAA provided the ZOA ARTCC update for the FAA. She reviewed the current ZOA operational status, staffing, crew rotation, and training. She then covered the ZOA Contingency Procedures due to COVID-19, noting that Oakland Center had their first ATC event due to the pandemic in August 2020. As a result, all operational and non-operational areas were cleaned. ATC Limited was declared for KZOA (Domestic), but KZAK (Oceanic) remained fully operational. She shared that a barrier wall was used between the Oceanic and Domestic Areas to create two sterile rooms, and that modifications were being made to streamline these events based on lessons learned. Ms. King then reviewed that ZOA traffic data including volume, aircraft distribution types, equipage, and Climb Descend Procedure (CDP) usage. She also covered the commercial space activity of ASTRA (KODIAK PSCA) with launch attempts in August and September 2020.

Ms. King then discussed the FAA's Pacific Operators Technical Interchange Meeting (TIM), which is considering IATA requests for greater operational efficiency and cost-savings during COVID-19, including a request for the cancellation of the Track Advisory Program for Westbound Pacific Organized Tracks (PACOTS). She then provided ZOA's planned actions related to the removal of the Oakland Track Advisory Program. Lastly, she noted the updates to User Preferred Routes (UPR) guidance.

Mr. Gen Schnee of UA thanked the FAA for review of the aforementioned IATA requests. Mr. Schnee recommended that when a NOTAM indicates closure due to COVID cleaning, the FAA considers using consistent attributes to alert at the highest level possible, such as Q coding. UA would then flag the code in automation at the highest alert. He noted that UA prefers automation filtering to reduce human error as the effects can be significant.

Mr. Cowles of IATA thanked Ms. King for the update and for considering the ongoing requests for efficiencies. He noted that Ms. King joined a recent ICAO Meeting to discuss the ongoing work in ZOA, which encourages other ANSPs to undertake similar initiatives.

Mr. Gene Cameron of UA responded to the aircraft equipage in ZOA, which showed UA 772 equipment as non-PBCS. He shared that UA has nineteen 777-200 that are AIMS-1 equipped, and these aircraft fly domestically to the U.S., Hawaii, WATRS area, and Guam, and in January 2021, to Tokyo. He noted that the FAA has deemed that AIMS-1 does not meet the timing requirement for PBCS. However, the aircraft generally meet all 777-200 message performance criteria for RSP 180 and RCP 240. Though COVID-19 has reduced traffic, there is still a need

for reduced separation minima to continue efficiency. He added that UA will not retrofit these aircraft due to cost. He then asked if the FAA will support an exemption for 777-200 with AIMS-1. Mr. Usmani responded that he will have to investigate this request.

8.3 Updates from Anchorage Air Route Traffic Control Center (ZAN) [PPT03/FAA]

Mr. Tony Klancher of the FAA provided the ZAN facility update. He reviewed oceanic planning including ATOP Space Based ADS-B in late 2021 which will provide up to 95 percent surveillance coverage for the ATOP sector. He then briefly reviewed NOPAC Redesign, presented in depth by Mr. Dennis Addison of the FAA later in the meeting. He also briefed additional items including traffic volume and reduced operational staffing. He then provided the background on ATC Zero events and ZAN's exploration of possibilities to avoid ATC Zero events for cleaning by using ATC Alert and escape routes controlled by ZAN. The draft plan would allow up to an estimated 90% of desired routing to be utilized during a cleaning event. ZAN currently has no contingency availability for another facility to take over operations if forced to cease operation for a COVID cleaning. He added that they are exploring the use of simulator equipment to provide ATC services for CPDLC traffic to the Anchorage Airport area and overflights. However, the lack of voice/VHF capability in the simulator environment would be a major limitation. During the time of the cleaning, aircraft would be required to communicate via CPDLC. He noted that the plan is technically feasible and they are still working toward implementation.

Mr. Blair Cowles of IATA and Mr. Brett Jones of Atlas Air asked Mr. Klancher to further discuss an ATC Zero event which occurred on October 19, 2020. Mr. Cowles received an email from Atlas Air regarding their aircraft that was told to return to the airport in China as ATMC would not allow them to continue due to Anchorage COVID-19 cleaning. This caused an issue for aircrew rest, forcing the crew to stay overnight in China. ATMC informed the pilots that if their flight was active between the times posted, the flight would not be allowed to continue. Mr. Jones then asked if ZAN requested ground stops from other ANSPs at this time. Mr. Klancher informed Atlas that they had not done so. Mr. Cowles agreed to share further details with the co-chairs for review, including the initial ETA and boundary ETA. Ms. Ishida of JCABthen stated that there was confusion with the format of the NOTAMs. Mr. Stephen Thornton of FAA thanked her for the feedback, and shared that ZAN changed the previous format, which was more informative, to a standardized version per the U.S. NOTAM Office. He stated that Anchorage may consider reverting to the previous format to avoid another similar event.

Mr. Klancher continued the remainder of the ZAN briefing and highlighted potential updates to the Gateway Reservation List filing, including a review of other functionality in systems, which may allow for the operational collection/dissemination of information. Mr. Klancher also noted an upcoming

UPR simulation test in ZAN Airspace to evaluate the future reduction of UPR restrictions in ZAN airspace. He lastly reviewed space launch activities and relevant military exercises.

Mr. Schnee of UA noted that they have participated in high altitude UPR since its introduction of the Boeing 787 fleet ten years ago. He inquired about current challenges to expanding to all flights at all altitudes given that Space-Based ADS-B (SBA) is imminent. He then noted that UA is looking for UPR flexibilities to the boundaries. Mr. Klancher responded that they are planning to conduct a UPR paper trial to the boundary. Mr. Schnee replied that UA's interest in a trial may be more targeted to specific areas and city pairs, as a broad paper trial is difficult due to manpower challenges.

Mr. Steve Smith of American Airlines (AA) expressed similar concerns as UA including staffing issues, and would appreciate advance notice for when Anchorage prepares for the trial, as AA would like to participate. Mr. Klancher responded that ZAN will reach out to potential participants in the future.

9.0 Agenda Item 6: Communications/Navigation/Surveillance (CNS) Issues

9.1 IATA Airline Progress in Implementing PBCS [Verbal/IATA]

Mr. Blair Cowles of IATA provided IATA's report on airline progress in implementing PBCS. He noted that IATA normally conducts an annual PBCS survey for Pacific Operators in the month of March. COVID-19 impacted this work, and as a result, IATA solely focused on COVID-related activities and did not undertake a 2020 survey. He shared that IATA plans to undertake a global airline equipage survey in early 2021, which will be a comprehensive survey with information beyond PBCS. He hopes to share the results of survey at earliest opportunity in 2021.

10.0 Agenda Item 7: ATM Issues

10.1 Special Procedures for In-Flight Contingencies in Oceanic Airspace [IP01/FAA]

Mr. Madison Walton of the FAA delivered the presentation on the FAA's planned implementation of the amended Special Procedures for In-Flight Contingencies in Oceanic Airspace, which will be published in the Procedures for Air Navigation Service – Air Traffic Management (PANS-ATM) in November 2020. Mr. Walton informed the participants that the U.S. will implement the provisions of Amendment 9 to the PANS-ATM Chapter 15, Section 15.2 Special procedures for in-flight contingencies in oceanic airspace in its oceanic control areas (CTA) - KZAK, KZWY and PAZA. The International Notice highlights showed the basic changes in the amended procedure. Mr. Walton noted that it applies to aircraft operators, and that there are three (3) basic changes: the angle to depart cleared route or track, the distance to offset from the route or track, and the guidance to descend below FL 290.

Mr. Shigenobu thanked Mr. Walton for the presentation and added that Japan's AIP En Route 3.6 has also been implemented.

10.2 Report on Japan's Airspace Redesign Plan [PPT06/JCAB]

Mr. Sano of JCAB shared that JCAB will spend the next two years redesigning the airspace in western Japan and will then redesign the airspace in eastern Japan over three years. The unification of high altitude airspace will follow. This project will start next month, and they will provide progress reports at future IPACG meetings.

Mr. Usmani asked if JCAB will have to modify facilities at Tokyo or Kobe, assuming controllers from Sapporo will move there. Mr. Shigenobu responded that the controllers will go to Fukuoka and to Tokyo.

Mr. Dennis Addison asked if the control of high altitude sectors will move to Fukuoka, and Mr. Shigenobu confirmed. Mr. Addison then asked if ATMC has communications/transfer with Russia, and Mr. Shigenobu responded that there is no communication between oceanic, but Fukuoka ACC (Upper ACC) can conduct it with Russia.

10.3 North Pacific Route Structure Redesign [WP02/PPT03/FAA/JCAB]

Mr. Dennis Addison of the FAA delivered the joint FAA/JCAB paper on the proposed redesign of the NOPAC Route System. He stated that prior to the COVID-19 Pandemic, the January 2020 data supported the planned phased implementation. The COVID-19 pandemic caused changes to the NOPAC Route System operations, and implementing the NOPAC PBCS restructure with the current COVID-19 NOPAC aircraft PBCS capability would have a significant impact on many operators. He shared that JCAB and the FAA will carefully study the proposed NOPAC PBCS restructure to develop an informed phased implementation plan based on data, IATA/operator input and careful safety analysis. JCAB and the FAA would like to work with the operators to safely implement the NOPAC PBCS restructure with an acceptable level of negative impact.

In response to the briefing, Mr. Jones of Atlas Air stated that the Atlas Air Boeing 747-400 fleet is currently PBCS equipped at 90 percent and on track to equip to 100 percent. The remaining aircraft will be completed in the next 2 years. Their Boeing 747-8 fleet is 100 percent equipped. Their Boeing 767 and 777 fleet is 100 percent equipped and awaiting the regulator approval.

Mr. Cowles of IATA shared that a major cargo operator of the MD-11 aircraft advised IATA that it would move its MD-11 aircraft away from the NOPAC and only operate them in non-PBCS environments. He add that this notification was before COVID-19, and therefore the operator may still be using the aircraft in the NOPAC due to the necessary movement of cargo. As part of the upcoming survey, IATA will obtain an update on their plans.

Mr. Shigenobu responded that cargo flights have indeed increased and the FAA and JCAB originally estimated a 90 percent equipage rate to move to Phase 2. The ANSPs want to work with IATA to explore a reasonable percentage rate for operators moving forward. Mr. Cowles responded that IATA will support this effort and provide the necessary data for the FAA and JCAB. He noted that IATA has had excellent engagement from the operators including the major cargo airlines and highlighted the benefit of their engagement in IPACG.

Mr. Adam Davis of UPS shared the UPS fleet status noting that the Boeing 744, 748, and 767 currently file P2 and are PBCS compliant. The removal of MD-11s from the NOPAC, mentioned by Mr. Cowles of IATA, has been delayed due to the additional cargo needs required from Asia to North America during COVID-19.

Mr. Cowles of IATA added that, given the significant changes in the NOPAC traffic makeup, which has taken many by surprise, it would benefit all if IATA undertakes the survey immediately in order not to delay a useful discussion. He noted that IATA will not wait for a global survey.

Mr. Shigenobu responded that JCAB and the FAA will continue to discuss this issue based on operator input and will update IPACG on the progress moving forward.

10.4 IATA Economic Update [PPT09/IATA]

Mr. Blair Cowles shared that the economic situation for aviation remains bleak, and the financial situation is critical in many cases. The aviation market has experienced an 84.3 billion US dollar loss in 2020 with 52 percent fewer flights worldwide. The total revenue losses equate to 420 billion US dollars. IATA has noted some recovery in certain domestic markets, but has been impacted by a 2nd wave of COVID-19. China's domestic market has recovered 80 to 100 percent. The international traffic in APAC is far behind other international markets, however. The current estimate is that international markets may not recover until 2023-2024.

11.0 Agenda Item 8: Review and Update of CNS/ATM Planning Chart

Due to time constraints, the CNS/ATM Planning Chart was reviewed and updated during the final meeting of the IPACG PM/25.

12.0 Agenda Item 9: Action Item Review

Due to time constraints, Action Items from IPACG 46 were reviewed and updated during the final meeting of the IPACG PM/25.

13.0 Agenda Item 10: Other Business

Mr. Usmani announced, pending the status of the COVID-19 pandemic, IPACG/47 may be held virtually or in-person in the U.S. in the Fall of 2021, however further details would follow in time. Mr. Usmani then thanked Mr. Shigenobu and JCAB for their participation in IPACG/46. Mr. Shigenobu

thanked Mr. Usmani and the IPACG delegates for a productive meeting. They officially closed the meeting.

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Mr. Ahmad Usmani Co-chair for FAA	Mr. Toshiya Shigenobu Co-chair for JCAB