



International Civil Aviation Organization

**Trans-Regional Airspace and Supporting ATM Systems Steering Group
Third Meeting (TRASAS/3)**

Paris, France, 19 – 20 October 2010

Agenda Item 3: Work currently underway to enhance the ATS route network

CROSS POLAR TRANS-EAST AIR TRAFFIC MANAGEMENT WORKING GROUP

(Presented by the United States of America)

SUMMARY

This paper provides information on the activities of the Cross Polar Trans East Air Traffic Management Providers' Working Group (CPWG).

1 Introduction

- 1.1 The Cross Polar Trans-East Air Traffic Management (ATM) Providers' Working Group (CPWG) provides a forum where air navigation service providers (ANSPs) and operators meet to address operational issues and develop solutions related to the provision or use of air traffic services for the Cross Polar flows. The CPWG aims to identify, design and implement short and mid-term solutions to ATM issues. The group is facilitated by the United States (US) Federal Aviation Administration (FAA) and meets biannually at locations determined through group consensus.
- 1.2 This paper highlights relevant work accomplished during the Eighth Meeting of the CPWG (CPWG/8) hosted by the FAA in Atlanta, Georgia, USA from 1 to 3 December 2009, and the Ninth Meeting of the CPWG (CPWG/9) hosted by NAV CANADA in Montreal, Canada from 28 to 30 April 2010.

2 Highlights of CPWG/8 & CPWG/9 Meetings

- 2.1 State ATM reported on their progress on the planned implementation of Reduced Vertical Separation Minima (RVSM) in Russia, the Central Asia States and Mongolia on 17 November 2011. Under the proposed RVSM flight level table for the Russian Federation, Russian air traffic control (ATC) facilities will assign flight levels (FL), which will eliminate the need for transition from feet to meters and resolve transition issues with Anchorage Air Route Traffic Control Center (ZAN).
- 2.2 The FAA presented information on the status of the planned implementation of 50 nautical miles (NM) lateral separation based on Required Navigation Performance 10 (RNP 10). 50 NM lateral separation between operators/aircraft approved for RNP 10 or RNP 4 operations in the Anchorage Arctic FIR is planned for implementation 18 November 2010 and in the Edmonton FIR by mid 2011. In this regard, FAA proposed an amendment to the North American (NAM) Regional Supplementary Procedures (SUPPS) for the application of 50 NM lateral separation in the Anchorage FIR. The proposed amendment was endorsed by the CPWG, and submitted to the International Civil Aviation

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Organization (ICAO) North American, Central American and Caribbean (NACC) Regional Office for approval.

- 2.3 The FAA, State ATM Corporation, and the airlines discussed the use of tactical reroutes at CPWG/6. Tactical reroutes are conducted in many regions of the world with minimal complexity between the operator and the various air traffic service providers. Generally a reroute is either requested by the pilot when the filed routing and/or filed flight level are not available due to traffic. The air navigation service provider (ANSP) may also initiate a request to the operator, through the Airline Operations Center (AOC) or directly to the pilot, when a conflict of traffic will occur and a tactical reroute could eliminate that conflict.
- 2.3.1 A paper trial was conducted on 7 April 2010 between United Airlines, the ZAN Traffic Management Unit, and the Russian Main Air Traffic Flow Management Center in Moscow. There were several factors that made the process more complex when a flight is approaching Russian airspace and the need for a tactical reroute exists:
 - a. The transfer of control must be completed within 30 minutes of the Russian entry fix;
 - b. Russia requires a Change Message FPL to be sent, which is not consistent with global practices for operators; and
 - c. Evaluation of the reroute is more essential for the operator due to onward routings within and/or out of Russia to the west which must be considered.
- 2.3.2 In summary, this process would have worked for an actual tactical reroute, although it is somewhat labor intensive and time consuming. It is believed that Air Traffic Services Interfacility Data Communication (AIDC) may, in fact, alleviate most of this process and reduce the transfer of control time. The process to tactically reroute flights into Russian airspace can be accomplished with some modification to the trial completed on 7 April. Additional paper trials will be conducted over the next few months in an effort to simplify the procedure and eliminate most of the labor intensive process.
- 2.4 Several changes to ATS routes have been implemented to improve regional efficiency. B932 was realigned and moved further north to end at the eastern Russian FIR fix BAMOK. A new segment of B932 was extended into ZAN airspace ending at McGrath (MCG). The ANSPs reduced the longitudinal separation standard on B932 from 15 minutes to 10 minutes, which harmonized the separation standard with that applied by Japan. In addition, B932 was made available bi-directionally.
- 2.5 The CPWG noted that new Kamchatka routes from PILUN and LISKI had been implemented as well as new international airways south of the waypoint ABERI in order to support and improve efficiency of operations between Middle East/Pakistan/India and North America.
- 2.5.1 The ANSPs, in coordination with the airlines, continue to explore new airways and fixes to improve efficiency. Discussions continue on the development of an ATS Route Catalogue that would contain all route proposals as well as responses. This will be a useful tool for the ANSPs and airlines as they continue steps to increase the efficiencies in the Cross Polar Region.
- 2.6 The CPWG agreed to establish a standardized procedure for lost communications in the Polar region and proposed a corresponding amendment to the ICAO North American (NAM) SUPPS that was agreed by the group. The FAA submitted the NAM amendment to the ICAO NACC Regional Office in March 2010. ICAO responded with correspondence proposing new language which was discussed and agreed during the CPWG/9 meeting. Once the NAM amendment is finalized then the same amendment will be submitted to the remaining regions covered by Arctic Airspace.
- 2.7 The International Air Transport Association (IATA) updated the CPWG on their Pacific Project proposal. The aim of the Pacific Project is to improve operational efficiency and environmental outcomes by enabling aircraft to utilize current on board technology efficiently with User Preferred

Routes the primary navigation means on this traffic flow. The Pacific Project was endorsed in principle by the ANSPs at the CPWG/8 meeting.

- 2.8 The FAA presented a draft format for an ATM Operational Contingency Plan for the Arctic Area during the CPWG/9 meeting. This plan would address catastrophic failures and facilitate coordination between adjacent Area Control Centers (ACCs) in an emergency. The development of a contingency plan is mandated by ICAO Annex 11. The ANSPs agreed that this was an important task and have been working together to provide information on their respective plans and provide to the FAA to be compiled into one document.
- 2.9 The FAA provided information to the CPWG on the development of a *Global Interface Control Document (ICD)*. The purpose of the Global ICD is to ensure that data interchange between units equipped with automated ATS systems used for ATM is to a common base standard, and that the evolutionary development is coordinated and implemented globally. Therefore, the Global ICD was developed to preserve the common base standard set out in the ICAO Automatic Dependent Surveillance (ADS) Panel Guidance Material, while allowing for regional differences as required. The CPWG noted the benefits that would be achieved by commonality of ICDs and will continue to follow the progress.
- 2.10 The CPWG Space Weather Subgroup is developing a document that will capture user service needs for space weather information and how it is incorporated into the operational decision making process. A draft document was presented at the meeting. The group is expected to discuss the document and it is anticipated that it will be endorsed at CPWG/10.

3 Discussion

- 3.1 The CPWG was established in March 2006 and has met bi-annually since then. The ICAO European and North Atlantic Office will host the tenth meeting of the CPWG in Paris, 2-5 November 2010.
- 3.2 This informal working group continues to provide a forum for ANSPs, airlines and industry to discuss issues, requests, and work collaboratively for solutions and results.
- 3.3 The CPWG wishes to thank ICAO and the TRASAS for its continued support of its efforts and work program and looks forward to continued cooperation by its members for greater efficiencies in the Polar Region.

4 Conclusions

- 4.1 The meeting is invited to note the information provided in this paper; and note that the Full Summary of Discussions for the CPWG/8 and materials presented at the CPWG/9 meeting can be found at the following website:
http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/enroute/oceanic/cross_polar/.

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