



International Civil Aviation Organization

**The Twenty-First Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/21)**

Bangkok, Thailand, 27 June – 01 July 2011

**Agenda Item 6: Provision of ATM/AIS/SAR in the Asia/Pacific Region, including associated
CNS matters**

AIR TRAFFIC FLOW MANAGEMENT (ATFM) COLLABORATIVE INITIATIVES

(Presented by the United States of America)

SUMMARY

This paper presents an update to the U.S. Federal Aviation Administration (FAA) Air Traffic Control System Command Center (ATCSCC) collaborative initiatives.

This paper relates to –

Strategic Objectives:

- A: *Safety – Enhance global civil aviation safety*
- C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

- GPI-1 Flexible use of airspace
- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-8 Collaborative airspace design and management
- GPI-9 Situational awareness

1. INTRODUCTION

1.1 As economies emerge from the global economic slowdown, the much needed air transportation sector will help facilitate economic recovery. The aviation industry, not exempt from this slow down, continues to ambitiously develop efficiencies to reduce fuel consumption, noise, and other environmental impacts. These efficiencies can be realized throughout their routes, from departure gate to arrival gate. Historically, Air Traffic Control (ATC) facilities are focused on the airspace they serve. By design and responsibility, ATC facilities have a lesser connection to airspace and activities beyond their airspace borders.

1.2 Although optimization of an Air Navigation Service Provider's (ANSP) service may occur within specific airspace, if that service is not interconnected beyond that airspace then service efficiency, along with airline efficiencies, can suffer. The application of an ATFM strategy can be used to accomplish integration of ATC services beyond airspace borders to realize efficiencies that will have a positive impact on airline, State and ANSP economies. As with other ANSPs, the FAA provides service to domestic and international airline stakeholders that have global airline alliances and business models that rely on routes and destinations well beyond our airspace borders. These

airline alliances provide enhanced economic benefits to domestic and international stakeholders alike and challenge the FAA to improve capacity, safety and efficiency as far along routes and destinations as possible.

1.3 The challenges to improve capacity, safety and efficiency require partnership with other ANSPs to facilitate a more seamless ATFM flow beyond our service area. The FAA's ATFM strategy continues to develop, maintain and enhance relationships with foreign ANSPs and colleagues around the globe. FAA collaborations with other ANSPs have enhanced and promoted:

- a) ATFM harmonization
- b) Commerce
- c) Disaster management
- d) Search and rescue
- e) Security
- f) Environmental benefits
- g) Support of ICAO ATFM strategies

2. DISCUSSION

2.1 The FAA ATCSCC participates in numerous collaborative telephone conferences (telecons) with global ANSPs daily. These telecons are used to: provide ATFM system and weather information, coordinate ATFM initiatives, manage security and humanitarian efforts and enhance cooperation and response to natural and man-made disasters and impacts.

2.2 The ATCSCC engages in three daily telecons with NavCanada and two telecons with Mexico to discuss North American flows. Coordination on routes and traffic management initiatives are collaboratively agreed to and mutually implemented, resulting in a harmonization and optimization of ATC services and airspace capacities throughout North America. Additionally, these ANSPs contact the ATCSCC, as needed throughout the day, to tactically implement strategies and initiatives to ensure seamless ATFM. AT flows are routinely rerouted through adjacent ANSPs to provide safer and more efficient operations around traffic congestion, weather and turbulence. Information is shared with stakeholders to allow them to maximize their business decision and response to system constraints.

2.3 The ATCSCC engages in daily telecons with EUROCONTROL, Brazil and Chile to exchange ATFM system information, weather constraints and expected ATFM initiatives. Additional telecons are held, as needed, to mitigate ATFM impacts. Examples of these additional telecons are the disaster mitigation telecons held in April 2010 mitigating the impacts of the Eyjafjallajökull volcanic eruption. Recently the ATCSCC engaged in a series of telecons in May of this year on another eruption in Iceland of Grímsvötn that caused air transportation disruptions in Europe. Although ash emissions from Grímsvötn slowed after a few days, the ash plume was propelled above FL600 and impacted over a thousand flights. Again, information is shared with stakeholders to allow maximization of business decisions and responses to system constraints.

2.4 The ATCSCC and Russia State ATM have held monthly practice telecons to develop volcanic ash contingency procedures. Familiarity with each facility's processes and coordination procedures was obtained and a web-based conference process to collaborate on mitigation initiatives and electronically share information was established. State ATM and the ATCSCC are in negotiations to establish their first Letter of Agreement (LOA) to document ATFM procedures for collaboration on ATFM information exchange and any contingency that may impact air traffic.

2.5 The Japan Civil Aviation Bureau (JCAB) Air Traffic Management Center (ATMC) and the ATCSCC conduct telecons three times a week to exchange ATFM system and weather information, coordinate ATFM initiatives, and enhance cooperation and response to natural and man

made disasters and impacts. Just recently, in March 2011, these telecons enhanced both ANSP’s responses to the impacts caused by the massive earthquake and resulting tsunami off Japan’s Northern coast. These telecons enabled JCAB ATMC to pass real-time information to the ATCSCC on the major airports that had closed from the impacts of this event.

2.6 Throughout this event, ATMC and the ATCSCC continued to hold telecons. This resulted in enhanced collaboration and a significant exchanged of valuable information. For example, valuable and timely information was exchanged on the area and range of the hazardous radiation arising from the troubled nuclear reactor. This information allowed stakeholder collaboration on user preferred routings to circumvent these areas.

2.7 Every summer the ATCSCC engages in a series of hurricane telecons with ANSPs in the Caribbean and South America. The ATCSCC uses owned telephone technologies to support ATFM collaboration and mitigation of hurricane impacts in this area. ATCSCC support is provided whether the hurricane is forecasted to impact FAA airspace or not.

2.8 As the FAA continues to develop relationships with our colleagues around the globe, it is recognized that the FAA benefits from every ANSP contact and collaboration. The lessons learned from these relationships are invaluable and mutually beneficial. Global ANSP collaboration has allowed service increases for ATFM harmonization, disaster management, security, search and rescue response and environmental benefits from fuel efficient practices that result in a healthier airline economy.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

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