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INFORMATION PAPER

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**Fourth North American, Central American and Caribbean Working Group Meeting
(NACC/WG/4)**

Ottawa, Canada, 24 to 28 March 2014

**Agenda Item 3: Follow-up on the NAM/CAR Regional Performance-Based Air Navigation
Implementation Plan (NAM/CAR RPBANIP) Progress
3.1 ANI/WG and other regional group progress reports**

UPDATE ON THE MINI-GLOBAL DEMONSTRATION

(Presented by United States)

EXECUTIVE SUMMARY

This paper provides an update on the Mini-Global Demonstration, a program that has a goal of simulating a seamless transfer of data between air navigation service providers to ultimately promote more efficient operations across Flight Information Regions (FIRs). The Mini-Global Demo also fully supports the validation of ICAO Flight and Flow-Information for a Collaborative Environment (FF-ICE). The Demonstration is planned for September 2014, following a Risk Mitigation Demonstration in March 2014.

<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• ICAO BUDSS

1. Introduction

1.1 Several air navigation service providers (ANSPs) emphasize the use of demonstrations as a way to test systems and processes. One such demonstration is the Mini-Global Demonstration. This project is aimed at developing seamless information sharing across Flight Information Regions (FIRs), and involves collaboration among several service providers.

1.2 The Mini-Global Demonstration is scheduled to be held in September 2014, and will help participants observe the benefits of using standardized information exchange models of communication to transmit data, paving the way for a more efficient air traffic management system. It also aims to reduce the use of antiquated flight plan formats. Many ANSPs have committed to participating, while others will observe the full Demonstration.

2. Discussion

2.1 The Mini-Global Demonstration will work to increase global interoperability, and decrease inefficiencies. This purpose is fully in line with the goals of the Global Air Navigation Plan (GANP) and the Aviation System Block Upgrades (ASBUs). As noted before, to operate internationally, operators must be able to easily traverse multiple FIRs. To facilitate this, the Mini-Global Demonstration will seek to advance collaborative flight information exchanges amongst operators and other ANSPs worldwide. The Demonstration supports the ultimate goals of interoperability and harmonization.

2.2 To date, several air navigation service providers (ANSPs) and operators have committed to participating in or observing the Mini-Global Demonstration. Participants will be from Australia, Canada, South Korea, Singapore, Japan, and Portugal, with others scheduled to observe.

2.3 Several ANSPs held a Risk Mitigation Demonstration (RMD) on March 5, 2014, to identify associated demonstration risks and challenges that need to be addressed prior to the full Mini-Global Demonstration. The results generated from the RMD will be used to update the Mini-Global architecture, demonstration scenarios, and methodologies prior to the final demonstration, as needed. Additionally, technical interchange meetings will be held in Europe and Asia in late March and late April, respectively, to finalize technical details.

2.4 The full Mini-Global Demonstration will provide a scenario using simulated and live flight data in support of the concept of a seamless global sky. The demonstration capabilities that will be included in the Mini-Global Demo include flight plan submission, boundary coordination, dangerous goods, fleet prioritization, and common viewer.

2.5 The Demonstration will also show support for FF-ICE in its description of how flight information should develop for airspace users to reach and maintain the benefits as articulated in ICAO documents. FF-ICE covers important aspects of ATM flow management, flight planning, and trajectory management. Specifically, FF-ICE addresses data supporting performance-based collaborative decision-making, data related to managing the performance of a particular flight, and standard mechanism(s) to share flight information across collaborating participants. The global flight information exchange model (FIXM) will help with early realization and harmonization of FF-ICE.

2.6 The Mini-Global Demonstration will enable ANSPs to determine their current capabilities and level of compatibility with other air traffic management systems. It will also help States determine what changes, if any, are needed to further harmonize on the international level. The demonstration will help to identify and convey the benefits that can be achieved through the global harmonization of data exchanges.

2.7 In order to fully participate in the full Mini-Global Demonstration, participants had to note their commitment and sign a participation agreement by February 8, 2014. There are several levels of participation as part of the program.

2.8 In support of global harmonization and interoperability, the Mini-Global will also be part of ICAO's Block Upgrade Demonstration Symposium & Showcase (BUDSS), tentatively scheduled for May 2015. Papers on the Mini-Global Demo were also presented at the ICAO Assembly in 2013, again in support of global harmonization.

3. Conclusion

3.1 The meeting is invited to note the updated information provided in this paper, comment about experiences with demonstrations, and prepare for participation in the Mini-Global Demonstration, if applicable. For further information on this initiative, please contact Thien Ngo, FAA NextGen Office, via email at Thien.Ngo@faa.gov
