



## DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

**Second Meeting (DGCA-MID/2)**  
*(Jeddah, Saudi Arabia, 20-22 May 2013)*

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### **Agenda Item 5: Air Navigation**

#### THE MINI-GLOBAL DEMONSTRATION

*(Presented by the United States)*

##### **SUMMARY**

This paper presents information on the U.S. Federal Aviation Administration's plan to conduct a Mini-Global Demonstration. The demonstration is under development and planned for 2014. The main goal of the demonstration is to simulate a seamless transfer of data between air navigation service providers to ultimately promote more efficient operations across Flight Information Regions

### **1. INTRODUCTION**

1.1 In an effort to increase the compatibility of air navigation systems across the globe, the Federal Aviation Administration (FAA) is developing a project entitled the Mini-Global Demonstration. This project is aimed at collaborating with other air navigation service providers (ANSPs) in developing seamless operations across Flight Information Regions (FIRs).

1.2 The FAA is developing plans for the Mini-Global Demonstration, which is scheduled to be held in 2014. The demonstration will help participants observe the benefits of using up-to-date and more efficient modes of communication to transmit data, and thereby create greater efficiencies in air traffic control systems. It also aims to reduce the use of antiquated flight plan formats. ANSPs are invited to participate or observe. Discussion

### **2. DISCUSSION**

2.1 The FAA believes that the ICAO-proposed Aviation System Block Upgrade (ASBU) initiative is the best approach toward reaching the international aviation community's modernization goals. The ASBUs enable global interoperability and allow for flexibility and scalable building blocks. Although every item within the ASBU system is not applicable to every airspace, States will need to accept the new SARPs that will be required to support applicable ASBUs.

2.2 The program in the United States for modernization is called the Next Generation Air Transportation System, or NextGen. It will transform the United States' airspace system from one that is patterned on ground-based infrastructure to one that uses satellite technology. It will utilize the standards, recommended practices and procedures developed in the ASBUs. The NextGen system is a fundamental change in the management and operation of flight, and includes advancements in communication, navigation, surveillance, air traffic management technologies, safety, energy, and the environment.

2.3 The success of global modernization efforts rely in part on effective collaboration with operators, other air navigation services providers, and international partners. 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.

2.4 To achieve flight information exchanges across FIRs, operators and ANSPs must effortlessly share common information describing each flight. This common information is the flight object (FO). The purpose of the FO is to ensure that all systems and stakeholders have a consistent view of the flight, and that the data is widely and easily available, subject to appropriate access controls.

2.5 To participate in or observe the Mini-Global Demonstration, operators or service providers will be able to link on via the internet. Participants will be asked to provide live or simulated data, while observers will be able to monitor and watch how the data is used and shared.

2.6 The goal of the demonstration is to show how ANSPs and flight operators can share common flight information in order to:

- Improve collaborative decision-making (CDM)
- Improve air traffic management (ATM)
- Promote international standardization of flight information
- Reduce the reliance on antiquated flight plan formats

2.7 The Mini-Global Demonstration will provide a scenario using simulated or live flight data in support of the concept of a seamless global sky. The 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.

2.8 Assessing the compatibility of FO standards will also work to improve the fidelity of predicted flight behavior and enable the optimization of planning for all phases of the flight. The United States also believes this will ultimately reduce the dependence on antiquated flight plan formats and support the global concept of seamless flight operations and interoperability.

2.9 The Mini-Global Demonstration is under development and will be held with global partners in 2014.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the information provided in this Information Paper, and consider participating in, or observing, the 2014 Mini-Global Demonstration. For further information on this initiative or how to participate, contact Ian Ross, FAA NextGen Office – International Programs, at [ian.ross@faa.gov](mailto:ian.ross@faa.gov).