Eleventh North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/11)
Varadero, Cuba, 28-30 June 2023

Agenda Item 4: **NAM/CAR Regional Safety/Air Navigation Implementation**
4.2 Air Navigation Implementation Matters

INITIAL CONCEPT OF OPERATIONS FOR AN INFO-CENTRIC NATIONAL AIRSPACE SYSTEM

(Presented by United States)

EXECUTIVE SUMMARY	
This paper discusses the United States (U.S.) Federal Aviation Administration's (FAA) concept document describing future operations in the United States (U.S.) National Airspace System (NAS) titled "Initial Concept of Operations for an Info-Centric National Airspace System." This vision builds upon the Next Generation Air Transportation System (NextGen) to enhance current capabilities and facilitate new and novel operations. It supports the FAA's implementation of the ICAO Global Air Navigation Plan (GANP) Aviation System Block Upgrade (ASBU) threads for all three groups to help achieve the vision outlined in the ICAO Global ATM Operational Concept. A key operational principle of the FAA Info-Centric NAS vision is to "globally harmonize services and operations of the Info-Centric NAS." This FAA operational perspective of the future integrated environment can serve as a common reference to help harmonize lower-level concepts and associated services and operations defined by ICAO, the FAA, and other authorities.	
References:	- Charting Aviation's Future: Operations in an Info-Centric National Airspace System | Federal Aviation Administration (faa.gov) - Initial Concept of Operations for an Info-Centric National Airspace System | Federal Aviation Administration (faa.gov)

1. Introduction

1.1 The aviation world is eager to enable new and novel operations with new operational concepts that will also allow existing operations to continue both safely and efficiently. The FAA has recently developed both a vision and an initial concept of operations for info-centric operations that are designed to serve both the traditional air traffic management community and the extensible traffic management community in a safe, seamless, efficient, and equitable manner. This paper highlights the key aspects of this work and provides both the vision "Charting Aviation's Future: Operations in an Info-Centric National Airspace System" and the "Initial Concept of Operations for an Info-Centric National Airspace System" as references for future ICAO work that may develop lower-level concepts and associated services and operations.

2.   Discussion

2.1   The FAA recognizes the exciting new opportunities that are emerging in aviation and aerospace that will require significant investments in research and development of new and novel aircraft and information-driven operations. The future National Airspace System (NAS) must accommodate the resulting changes in operations generated by these new technologies.

2.2   In September of 2022, the FAA published "Charting Aviation's Future: Operations in an Info-Centric NAS" to provide a vision for how the FAA will build on the Next Generation Air Transportation System and trajectory-based operations foundations to serve both the traditional air traffic management community and the emerging new extensible traffic management community. This document can be found here: [Charting Aviation's Future: Operations in an Info-Centric National Airspace System | Federal Aviation Administration (faa.gov).](#)

2.3   In December of 2022, the FAA published the "Initial Concept of Operations for an Info-Centric National Airspace System". This concept document describes how technology advances are enabling changes to the future National Airspace System and anticipated changes in the areas of operations, safety assurance, and infrastructure. The document describes how the Info-Centric NAS vision will be met from an operational perspective. This document can be found here: [Initial Concept of Operations for an Info-Centric National Airspace System | Federal Aviation Administration (faa.gov).](#)

2.4   These documents support the FAA's implementation of the ICAO Global Air Navigation Plan (GANP) and its associated Aviation System Block Upgrade (ABSU) operational, information, and technology groups of threads where improvements are needed to achieve the vision outlined in the Global ATM Operational Concept.

2.5   The FAA's "Initial Concept of Operations for an Info-Centric National Airspace System" has 12 operational principles that are fundamental for the operation of the Info-Centric NAS. The final principle is important to ICAO work, stating the need to "globally harmonize services and operations of the Info-Centric-NAS." Future ICAO work should consider using this concept as a common reference in the development of lower-level concepts and associated services and operations for new and novel operations.

3.   Conclusion

3. 1   The meeting is invited to:
    a) Review the "Charting Aviation's Future: Operations in an Info-Centric NAS" document provided in the link in paragraph 2.2 of this paper;
    b) review the "Initial Concept of Operations for an Info-Centric National Airspace System" provided in the link in paragraph 2.3 of this paper;
    c) share feedback on this concept and related developments in other States to help globally harmonize services and operations of the Info-Centric NAS in accordance with the ICAO Global Air Navigation Plan and the Global ATM Operational Concept.

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