



ICAO

International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

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Mexico City, 29 August - 1 September 2023

- Agenda Item 3: Follow-up of NACC/WG 2022-2023 Action Plan**
3.2 Presentation by the implementation analysis to the Aviation System Block Upgrades (ASBU) elements Task Forces

IMPLEMENTATION AND IMPROVEMENT OF AIR TRAFFIC MANAGEMENT (ARIES) ROADMAP

(Presented by CANSO)

EXECUTIVE SUMMARY	
This working paper presents the proposed development of the <i>Air Traffic Management (ATM) Roadmap for Implementation of Enhanced Services (ARIES)</i> Program. The objectives of this program are to support the ANSPs/States of the region in their long-term planning process.	
Action:	Suggested actions are presented in Section 4.
Strategic Objectives:	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Economic Development of Air Transport• Environmental Protection
References:	<ul style="list-style-type: none">• Second Meeting of Rapporteurs of the North American, Central American and Caribbean Working Group (NACC/WG/RAP/02) in March 2023.

1. Introduction

1.1 The implementation of new technologies and a homogeneous level of maturity in all air navigation service providers (ANSPs) including interoperability and redundancy of all systems is essential to meet the new challenges of the aeronautical industry.

1.2 The ***Air Traffic Management (ATM) Roadmap for Implementation of Enhanced Services (ARIES)*** program aims to bring all ANSPs to the same level of maturity by exchanging aeronautical information in a fast, simple, efficient, transparent, and seamless manner for all those operating in the aviation system.

1.3 The process contemplates the integration of the program development activities as part of the process, which the ICAO NACC Office already started, in cooperation between both Organizations in order to avoid duplication of efforts, increase data collection, and be more efficient and directed to the same objectives.

2. ARIES Development

2.1 The initiative for the creation of ARIES was born under decision NACC/WG/RAP/02/06 "Creation of a strategy and roadmap for the implementation of air navigation for the CAR Region" at the Second Meeting of Rapporteurs of the North American, Central American and Caribbean Working Group (NACC/WG/RAP/02/)

2.2 In order to develop this program, it is necessary to count on all those involved in the region's aeronautical system, such as States, Air Navigation Service Providers (ANSPs), Airports, international organizations (ACI-LAC, ALTA, CANSO, IATA, ICAO, to mention a few), industry and data from all in the region, to identify current needs, regional objectives, national and regional priorities and establish short, medium and finally long-term objectives.

2.3 This process requires a scheme that helps to obtain accurate information to support decision making. In this regard, the proposed scheme is the following:

Infrastructure and services

1. Establish the current CNS infrastructure by State/ANSP and Regionally for Air Traffic Management services.
2. Establish the current Air Traffic Management infrastructure.
3. Establish the current airport infrastructure.
4. Establish the ATM and airport services of States/ANSPs and the region.

Regional Statistics

2.4 It is essential to have individual and regional data to support decision making, for example:

1. Air traffic control and airport operations statistics for at least the last five (5) years.
2. Annual growth expectations.
3. Identification of national needs and objectives in which all stakeholders are integrated.
4. Identification of regional objectives.
5. Establish national and regional measurement mechanisms through Key Performance Indicators, as stated in version seven of the Global Air Navigation Plan.

2.5 Other key elements for the development of ARIES are:

1. Human Resource Development
2. Allocation of the necessary investment for the development of the identified national and regional projects.
3. Establish the necessary investment plans by ANSP/State.

3. Integration between ARIES and ICAO NACC Office activities

3.1 ARIES will be fed directly from "State Air Navigation Plans", air navigation and airport information available from the ICAO NACC office, and consuming information from all NACC WGs.

3.2 Data obtained from the States is planned to directly impact the development of ARIES as follows:

Activity		Information to be used by ARIES
Evaluation of BBB and ASBU elements		Identification of the infrastructure and services currently in operation in the States and the region.
Implementation and measurement of Key Performance Indicators		Establish current operational bases and future goals.
ICAO AN-SPA Analysis		Satisfy state and regional requirements. Identification of new infrastructure Number and expectations in terms of human resources Training needs Investment Implementation schedule

4. CANSO's support to the development of the ARIES Program

4.1 The development of ARIES requires everyone's commitment and demands a continuous collection of fundamental data for the optimal development of the strategic plans of each ANSP/State.

4.2 CANSO will take the data requested in section 2 of the working paper, which will be provided by the ANSPs/States through the ICAO Regional Office in Mexico, break it down, analyze it, and compile the information to develop the strategic plan by ANSP/State. Strategic plans will follow the GANP, ASBU, BBB and CATS Global Council guidelines.

4.3 CANSO will link each strategic plan and ensure that the set of regional plans has an integrated, feasible, and interconnected approach.

4.4 CANSO, together with the ICAO Regional Office in Mexico, will review the development of the strategic plans and report on progress during the NACC/WG meetings.

5. Suggested actions

5.1 The meeting is invited to:

- a) review the information provided in this working paper;
- b) integrate the necessary feedback to CANSO within the analysis process of the BBB States and ASBU elements to support the development of ARIES;
- c) participate in the continuous evaluation of the program development;
- d) support the activities proposed by the program;
- e) finally, the ICAO NACC Office is requested to maintain coordination and joint work between both organizations in order to avoid duplicated activities and maximize the benefit of the region; and
- f) any additional actions deemed necessary.

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