



Agenda Item 3: Activities for the development of the air navigation systems/services
3.2 Air Traffic Management (ATM)

**IMPLEMENTATION OF STANDARDIZED DEPARTURE/ARRIVAL ROUTES (SID/STAR)
FOR AREA NAVIGATION (RNAV) ROUTES**

(Presented by Cuba)

SUMMARY

This working paper shows the need for establishing standardized departure/arrival routes in those aerodromes linked by RNAV routes.

References:

- Report of the C/CAR WG/5 Meeting (Mexico City, Mexico, February 2005)
- ICAO Annex 11 – Air Traffic Services
- Doc. 9426-AN/924, Air Traffic Services Planning Manual.

1. Introduction

1.1 The implementation of RNAV routes in the Central Caribbean provided considerable benefits in the flexible use of the airspace in this sub-region by increasing the possibilities of obtaining optimum flight levels and great savings of time and fuel for users, without diminishing safety rates in air operations.

1.2 Aircraft with area navigation (RNAV) capacity are at present obtaining significant benefits from the implementation of RNAV routes in our Region, however, in many aerodromes already linked with the mentioned routes, standardized departures and arrivals are not available.

2. Discussion

2.1 Advantages obtained by the implementation of RNAV routes are being in a way limited due to the lack of implementation of standardized departure and arrival routes that allow flying standard flight paths, facilitating both the planning and the performance of operations at aerodromes where the mentioned routes arrive or from where are originated.

2.2 Although it is considered that standardized departure routes (SID) and standardized arrival routes (STAR) are usually needed only at high traffic density aerodromes where routing departure and/or arrival routes may be complex, taking into account the use of runways and/or the variable relation between departure and arrival configurations in some meteorological conditions and/or traffic conditions, we could also state that even in terminal areas of relatively low density movement, standardized departure/arrival routes facilitate a safe, ordered and quick traffic flow arrangements, also providing a clear description of the flight paths, both for the benefit of the crew and for air traffic control.

2.3 The C/CAR WG/5 Meeting approved Decision 5/5, Implementation Programmes of SID and STAR Standardized Procedures in the Central Caribbean, for the development and publication of SID and STAR procedures which allow linking international airports which operationally so require with RNAV routes. In compliance with the above, we could state that at present all RNAV routes with origin/destination at Cuban international airports end in significant points where a standardized arrival route starts or they start where a standardized departure route ends.

3. Suggested Action

3.1 The Meeting is invited to:

- a) take note of the contents of this Working Paper; and
- b) develop and present for the consideration of the Eighth Meeting of Directors of Civil Aviation of the Central Caribbean an action plan for the implementation of standardized SID and STAR routes at those international airports of the Central Caribbean linked by RNAV routes.