



Agenda Item 4: Specific Air Navigation Activities and Developments
4.4 Air Traffic Management (ATM)

Revisions to the West Atlantic Route System (WATRS)

(Presented by the United States of America)

SUMMARY

Current operations indicate that test routings in WATRS provide operator fuel savings over conventional Air Traffic Service (ATS) Routes. Revisions to WATRS can provide increased capacity, additional fixed routes, and flexibility through implementation of a more efficient lateral separation standard and redesign of the ATS Route Structure.

1. Introduction

1.1. The West Atlantic Route System was redesigned in 1995 for more efficient operation. This revision was extremely successful, resulting in the elimination of many restrictive routing requirements, and prepared the airspace for the introduction of Reduced Vertical Separation Minima. Currently, improved aircraft navigation and ground ATC capability including the use of Ocean21 automation system at New York Center, provides us an opportunity to implement additional separation reductions and to reorganize the route system to increase capacity and efficiency in this area. We have designated this effort as the “WATRS Plus¹ Airspace Redesign and Separation Reduction Initiative” (WATRS Plus airspace is depicted in the attached diagram, **Appendix**).

2. Discussion

2.1 Currently there are two test routes transiting WATRS airspace. Operators using these routes between certain city-pairs have experienced fuel savings over the standard ATS routes in WATRS and have requested additional routings.

2.2 The current structure of WATRS airspace, and the lateral separation requirement of 90 nautical miles between routes does not lend itself to adding additional fixed routes because they would conflict with existing heavily traveled north/south routes. This would cause undue restrictions on all

¹ WATRS Plus refers to the designated route system and surrounding FAA-controlled airspace.

aircraft in the airspace and would result in unfavorable altitude assignments and other restrictions that may impact operator costs (time and fuel).

2.3 Preliminary studies indicate that a lateral separation reduction from 90 to 50 nautical miles in WATRS Plus airspace is attainable using Required Navigation Performance (RNP) 10 as the minimum navigation performance standard. Preliminary analyses of aircraft navigation performance indicates that the ICAO endorsed Target Level of Safety (TLS) can be met in the WATRS Plus airspace.

2.4 It is estimated that WATRS Plus separation reduction and airspace redesign could be implemented in approximately two years. The FAA will coordinate this effort with all appropriate States/Territories/International Organizations and operators with the intent to share data and jointly establish a plan to revise the WATRS airspace. This revision would include lateral separation reduction, new route structure, and the increased ability to file and fly random routes. Because FAA will be in a position to re-evaluate border crossing points along the southern Miami and San Juan Flight Information Regions, an opportunity exists to analyze routes originating further south in the Caribbean and South America feeding traffic to/from WATRS.

2.5 To begin international coordination, FAA has worked with the ICAO North American, Central American, and the Caribbean (NACC) Regional Office to establish a NAT/CAR ATS Routes Working Group. An initial meeting has been scheduled for 19-21 September, 2006 in Miami, Florida. The ICAO NACC office has already forwarded meeting invitations to the appropriate North Atlantic and Caribbean States, Territories and International Organizations requesting that they provide technical and operational expert representation. In addition to the actual configuration of the airspace, the remit of the group will include harmonizing the WATRS Plus airspace redesign with adjoining ATS route structures in accordance with Global Plan Initiative 1, Optimize the ATS route structure in both terminal and en-route airspace. Meetings will also be scheduled during the course of the next two years to address the operator and airworthiness aspects of RNP 10, if that becomes the facilitating standard.

2.6 In preparation for the 19-21 September meeting, the FAA has scheduled a meeting for 22 August in Washington DC with IATA Miami and Montreal representatives and a small group of airline representatives. The objectives of this meeting are to review the preliminary airspace redesign plan, discuss related operational issues and obtain operator input to aid in planning for the September meeting.

3. Actions Suggested:

3.1 The meeting is invited to:

- a) take note of the information in this paper; and
- b) encourage States/Territories/International Organizations to participate in the NAT/CAR ATS Routes Working Group.

APPENDIX**DIAGRAM: WATRS PLUS AIRSPACE**

- WATRS Plus airspace being considered for oceanic lateral separation reduction
- Chart only intended to show general location of WATRS Plus airspace
- Full WATRS coordinates posted at www.faa.gov/ats/ato/watrs.htm

