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INFORMATION PAPER

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Third NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/3)
Mexico City, Mexico, 4 to 6 April 2016

- Agenda Item 4: Follow-up, Performance Evaluation and Monitoring of the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) Targets**
- 4.1 Progress Reports of the Task Forces and the ANI/WG**

COLLABORATIVE DECISION MAKING (CDM) PROCESS UTILIZED IN THE ESTABLISHMENT OF A NEW WEST ATLANTIC ROUTE SYSTEM (WATRS) ROUTE (NAM/CAR/SAM NATIONAL ROUTE L463)

(Presented by Trinidad and Tobago and United States)

EXECUTIVE SUMMARY	
The idea of a notional route L463 was conceptualised to offload air traffic from the existing LIMA routes within the WATRS area. This would provide operators another North American (NAM) - South American (SAM) city pair option resulting in additional optimum altitudes.	
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
<i>Reference:</i>	<ul style="list-style-type: none">• NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP)

1. Introduction

1.1 During the Workshop on Regional Implementation on Performance-Based Navigation (PBN) Airspace Redesign for the CAR Region (Mexico City, Mexico, 4 to 8 May 2015) Piarco (TTZP) presented a redesign of its airspace to facilitate operators in obtaining their optimum cruising levels. This would entail the creation of parallel Area Navigation (RNAV) 5 routes emanating from San Juan (TJZS) Flight Information Region (FIR) into the TTZP FIR and Georgetown (SYGC) FIR.

1.2 Mr. Jorge Chades, on behalf of the Federal Aviation Administration (FAA) informed the ANI/WG/2 Meeting in Punta Arenas, Costa Rica, 1 to 4 June 2015, that United States would not be in a position to make wholesale changes to its existing WATRS and GOMEX airway structure but was willing to collaborate with neighbouring FIRs to harmonize any cross boundary concepts.

1.3 In July 2015, Piarco completed a study done on the main city pairs that air traffic utilizes through the TTZP FIR. The FAA office (Oceanic and Offshore) discussed it with Mr. Chades and he came up with the idea of adding a notional “L” route east of the current WATRS route system that could be used to help with the city pair information that Piarco provided.

2. Discussion

2.1 The FAA was advised by Piarco that two airlines: United (UAL) and Air Canada (ACA) sometimes utilize an Oceanic Route within the New York (KZWY)/TTZP FIR when they depart Newark (KEWR) and Toronto (CYYZ), respectfully destined for Rio de Janeiro (SBGL) and Sao Paulo (SBGR). In considering the United States agreement to participate in the PBN initiative, the FAA office (Oceanic and Offshore) then conceptualized the “L” route (L463). A depiction was shared with New York Air Navigation Service Provider (ANSP) for their input, and involved the FAA PBN office and the NACC PBN rapporteur. It was then introduced to Piarco for their perusal.

2.2 This concept was discussed with IATA and an opportunity was given to share the idea with representatives from American Airlines (AAL), Delta Airlines (DAL) and FedEx who were enthusiastic with the potential of this route to improve the flow of aircraft moving from the North Eastern, United States to Rio de Janeiro (Brazil), Sao Paulo (Brazil) and Buenos Aires (Argentina). This spiralled discussions between both Piarco and New York. Additionally, Piarco collaborated with Paramaribo, Suriname (SMPM) and Amazonica, Brazil (SBAZ) FIRs to further extend the L463 route south of its FIR boundary.

2.3 There were concerns by Piarco about the lateral separation between this new proposed route and other established routes from the SYGC (Guyana) and SMPM (Suriname) FIR south into SBAZ (Brazil). The routes examined were the UA312 STM UZ52, UL776 and UZ43 (See Figure 1/ Figure 2 in **Appendix A**). Email exchanges between TTZP and SBAZ resulted in obtaining preferential routings for operators south of the Piarco FIR destined to either Rio de Janeiro (Brazil) or Sao Paulo (Brazil). Amazonica FIR examined this new route proposal and its lateral separation against the other established routes and made an analysis that lateral separation is ensured. This would enable operators to obtain their preferred optimum cruising levels whilst operating on these routes simultaneously. (See Figure 1/ Figure 2/ Figure 3 in **Appendix B**)

2.4 Three entry points BNJEE/CITRS/DRDGE into the Piarco FIR were given as options for New York to decide where they would like the new route to enter the TTZP FIR. This will ensure that the aircraft enters via a Coordination Point (COP) as Piarco is about to implement Air Traffic Services Inter-Facility Data Communication (AIDC) with New York and this will greatly assist the air traffic controllers in a conflict resolution. Further deliberations decided that waypoint CITRS was the most suited due to the fact that, it was basically on a straightened trajectory and resulted in less mileage for operators (4 Nautical Miles).

2.5 Through several teleconferences and emails an agreement on what would be the best route for both New York and Piarco was decided. The route would start at Bermuda VOR (BDA) and enter the TTZP FIR at CITRS then exit the TTZP FIR via TRAPP (See Figure 1 in **Appendix C**). There will be radar coverage and VHF coverage until approximately 60 NM north of TRAPP. Then aircraft will logon to Controller-Pilot Data Link Communication (CPDLC) and Automatic Dependent Surveillance - Contract (ADS-C) with TTZP. During a bilateral meeting held between the FAA (New York and Oceanic and Offshore representatives) and Piarco on 17 to 18 February 2016, a TELCON with IATA confirmed that while the airlines would have preferred position BNJEE, position CITRS still provided some excellent benefits. The most recent update of the “L” route depiction is to be submitted to the IATA CAR office for validation.

3. Conclusions

3.1 The creation of the L463 will bring the following benefits to users:

- Availability of airlines in obtaining their required cruising levels
- Track miles to be flown will be reduced
- Reduce the congestion being experienced between Piarco and San Juan FIRs
- Provide the airspace users an additional option to destinations SBGR (Sao Paulo) and SBGL (Rio de Janeiro)
- Reduce the amount of Air Traffic Control (ATC) coordination and ensuring the route traverses minimum FIRs
- Segregate PBN equipped aircraft from other aircraft utilizing ground-based navigational aids

4. Suggested Action

4.1 The meeting is invited to take note of the information provided in this Information Paper as an example of the CDM process.

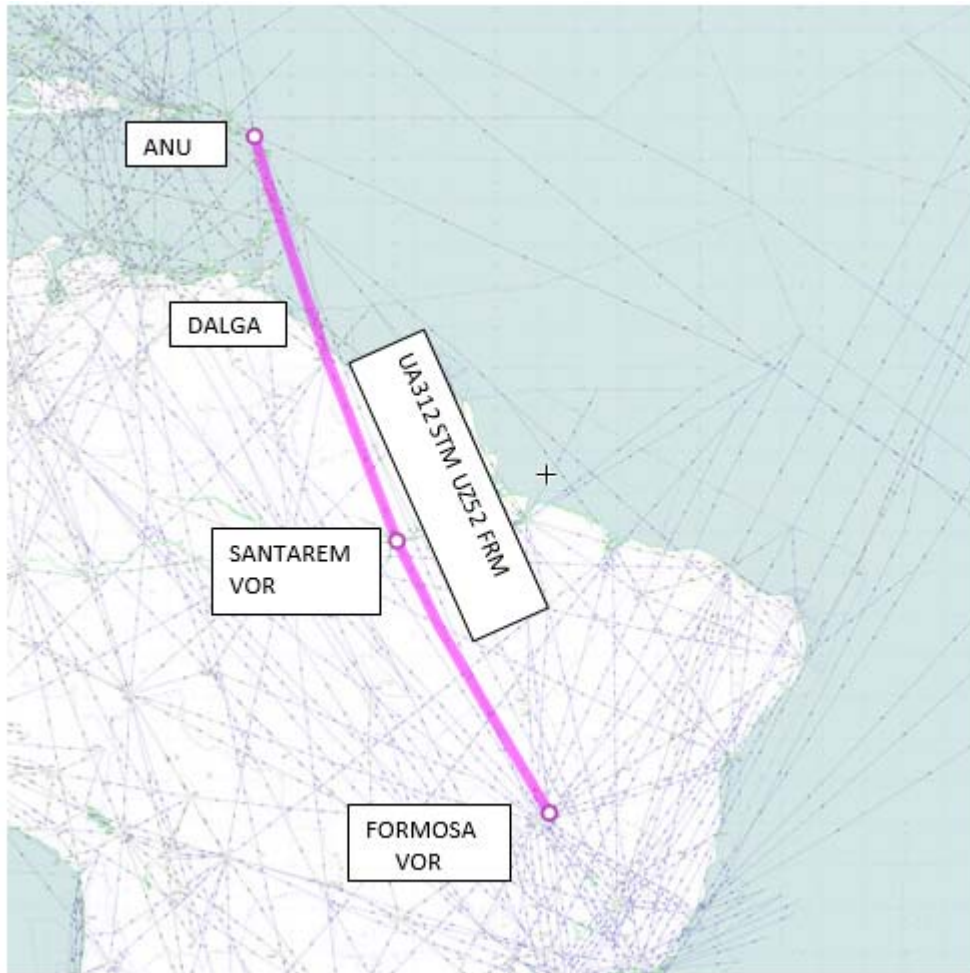
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APPENDIX A

FIGURE 1: UL776



FIGURE 2: UA312 STM UZ52 FRM



APPENDIX B

Figure 1: *Routing to SBGL (RIO DE JANEIRO)

L463 SIROS UZ43 PMS UZ26 PORMI UZ24 MAVGU

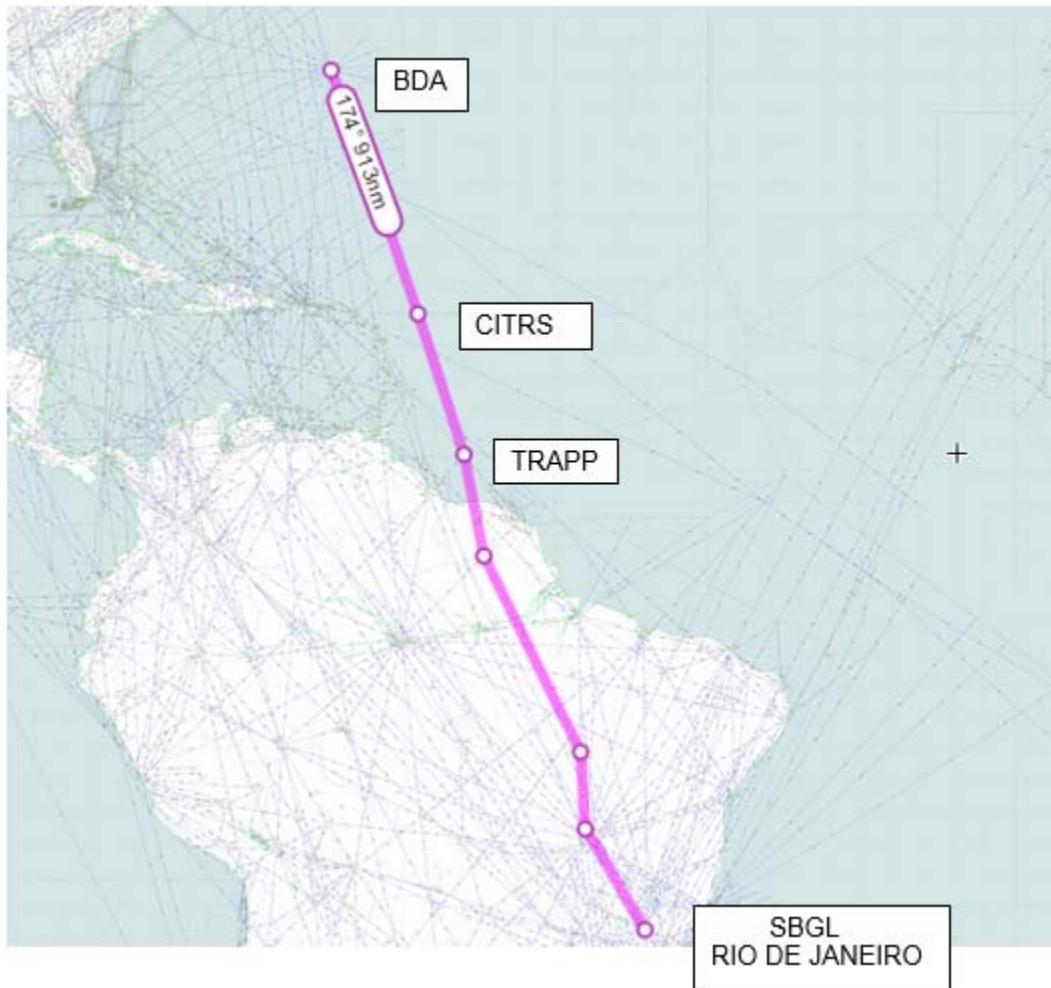


Figure 2: *Routing to SBGL (RIO DE JANEIRO)

L463 SIROS UZ43 PMS UZ26 BSI UZ6 ISOPI UZ35 LUVSU UZ24 MAVGU



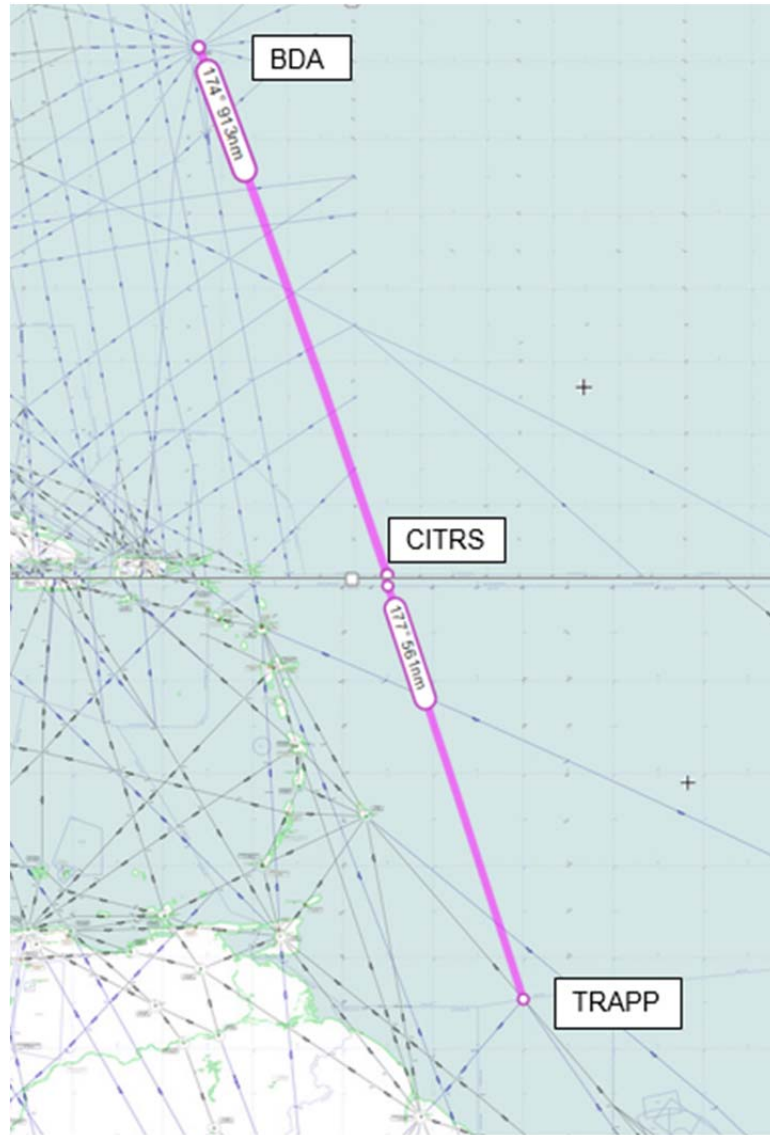
Figure 3: *Routing to SBGR (SAO PAULO)

L463 SIROS UZ43 PMS UZ26 BSI UZ6 NIMKI UZ38 MOXEP



APPENDIX C

Figure 1: L463



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