RNAV II
WP/10
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International Civil Aviation Organization
UNDP/ICAO Regional Project RLA/98/003
Transition to the CNS/ATM Systems in the CAR and SAM Regions

Second Meeting/workshop of Air Traffic Management (ATM) Authorities and Planners
(Lima, Peru, 14 to 18 May 2001)

Agenda Item 1: **Evaluation of the pre-operational trials and demonstrations in the RNAV routes UT780, UT795 and UT799. – Pilots´ feedback**

(Presented by IATA)

Summary

This working paper presents the feedback collected by the IATA Regional Office from the pilots that have participated in the trials and demonstrations on the routes UT780, UT795 and UT799.

1. Introduction

1.1. At the previous meeting/workshop of the Air Traffic Management Authorities and Planners the IATA Regional Office was requisitioned to collect feedback from the pilots participating in the trials and demonstrations of the above routes. For this purpose a "Pilot Evaluation Form" was prepared and distributed to the participating airlines. This pilot form has a 15-item questionnaire to be filled out by the crewmembers. Ten of these items were formulated to collect general information of the flights such as date, flight number etc; no information related to these items is provided in this working paper. The remaining five items of the "Pilot Evaluation Form" were dedicated to:

10) Vertical and longitudinal separation
11) Route clearances and rerouting
13) Communications
14) Approval of the route by the crew based on reduction of operational costs
15) Suggestions by the crewmembers related to safety and regularity

1.2. A total of 258 reports were received from five airlines. All the statements received from the crewmembers have been classified by airway flown and listed accurately in Appendixes 2,3 and 4. All the input and suggestions received from the crewmembers were treated with minimum editing in order to avoid unintentional alterations of the statements. Original reports are available upon request.

(19 pages)

1.3. Appendix 3 deals with route UT799 only in its segment from MUGAS to PCX; the portion from URSUS to MUGAS is incorporated in Appendix 4 that deals with route UT795. The reason for this is that the portion from URSUS to MUGAS is a common portion for both routes.

1.4. The input collected for the three routes are summarized as follows:

2. **Analysis**

2.1. Route UT780 Santiago de Chile – Miami

2.1.1. Twenty-six reports received from American Airlines and United Airlines

2.1.2. The reports do not advise of any problems in relation to the vertical or longitudinal separation on the route. It is worth noting that there was excellent communication during entire route.

2.1.3. Two reports indicated that the flight was not cleared to airway UT780 by the controller. These two cases occurred during the beginning of the test phase, and is presumably because the controller was not informed of the test.

2.1.4. Ninety-six percent of the reports considered that implementation of this route will improve the system. The single report against the implementation of the route does not give any reason for it.

2.1.5. As for the rest of the routes, pilots are urged to issue a new chart with the data needed during the flight, such as frequencies, navigation aids, airports, escape routes, etc…

2.1.6. Acclaims from the pilots support the implementation of this route.

2.1.7. Two comments recommend the revising of the arrival into Santiago de Chile.

2.2. Route UT799 Rio de Janeiro – Miami

2.2.1. Seventy reports provided by American Airlines, United Airlines and VARIG

2.2.2. On the flight levels and longitudinal separation, there are no important notations.

2.2.3. Several pilots informed that a traffic conflict exists at the south end of UT799. It appears that the SID's and STAR's at SBGL do not connect with UT799.

2.2.4. Several reports inform of poor VHF communications in the vicinity of NABOL. In some instances it also includes poor HF communication. In contrast to the previous comments, two reports indicate good communications throughout the whole route.

2.2.5. When crews were asked to approve the route, 67 out of 70, or ninety-six percent were in favor. Three negative reports are based on poor flight levels, too much traffic and 15 minutes separations.

2.2.6. Among the positive reports we are told that the route reduces chattering and frequency congestion which brings about a reduction of miscommunication and language barriers which clearly results in the enhancement of safety.

2.3. Route UT795 Sao Paulo – Miami

2.3.1. Two hundred and thirty three reports provided by American Airlines, TAM, United Airlines and VARIG.

2.3.2. Regarding vertical separation 48 reports were received indicating problems with the clearance to desired flight levels, while four reports informed having no problems on the route. The main causes detected for not obtaining the requested flight levels are: traffic on the airway, interference with traffic in other airways, and the inability to obtain planned flight levels because of increase of longitudinal separation.

2.3.3. Sixteen reports informed that the longitudinal separation was 15 minutes and not 10 minutes as specified on the test terms of reference. Five reports informed that Curaçao FIR was requesting 15 minutes separation, four reports stated that Maiquetia was requesting 15 minutes and two reports do not specify the FIR.

2.3.4. Nineteen reported on problems related to the route. Basically, the reports advised of problems on the Manaus and Brasilia FIR, such as interference with other airways and possible lack of connection of the airway with SBGR SID'S and STAR's .

2.3.5. With regard to communication 109 reports informed of problems in the route. These problems are classified by FIR's as follows:

- Havana FIR – 15 reports. No communication ten minutes before GELOG in 120.25 and 123.7. Few reports noticed poor communication at GELOG.

- Kingston FIR – 2 reports – No communication 10 minutes prior to the FIR. No communication at the FIR.

- Curaçao FIR – 33 reports – All the reports express concern over no VHF communications in the neighborhood of DIBOK at the northwest corner of the Curaçao FIR.

- Maiquetia FIR – 44 reports – No VHF communication for a large part of the southern portion of the Maiquetia FIR. The report also reflects poor communication in HF.

- Manaos and Brasilia FIR's – 20 reports were received which reflect poor to no communication on the northern part of Manaus FIR on VHF. Also some spots detected in different parts of Brasilia and Manaos FIR. Reports inform that HF communications substituted wherever VHF unavailable.

2.3.6. One hundred fifty two reports, or 93 percent, voted for implementation of the route. Eleven reports do not agree with the implementation of the route due to traffic congestion, which made them unable to obtain optimum levels.

2.3.7. A great concern for the pilots is the using of two different charts to fly the route. It is essential, as soon as possible, to incorporate this and the previous routes in the regular chart or create a new RNAV chart for the CAR/SAM Region.

2.3.8. Two reports commented that VUMPI should be a compulsory reporting point. Others suggest to the development of parallel routes.

2.3.9. Finally, one report commented, "Saved 2.8 tons and 32 min".

3. **Suggested Action**

3.1. The Group is invited to take note of the input collected by the crew that participated in the tests and demonstrations, especially those related to safety.

3.2. Also the Group should take note of the following deficiencies and possible improvements reported and suggested by the crew members:

a. Revising the SID's and STAR's that connect the airways to the airports

b. Implement or improve communications wherever needed

c. Establish 10 minutes longitudinal separation

d. Application of RNP values and parallel routes

e. Application of RVSM to reduce congestion

f. Timely implementation of these routes in order that they may be published on regular charts

Long-haul RNAV Routes
Trials and Demonstrations Program
Caribbean and South America ICAO Regions
Pilots Evaluation Form

INSTRUCTIONS

Flight Crew - Please fill out one form per flight. Without this input permanent implementation of Long-haul RNAV routes will not be achievable. Upon arrival please hand this form to the flight operations agent or follow your airline's instructions. A complementary questionnaire will be filled out by the ATC controller.

Flight Operations Agent - Please forward this questionnaire to Angel Lucas, IATA Regional Operations Office: e mail - lucasa@iata.org - Telephone 1 305 266 7552 - Fax 1-305-266 7718, or follow your Airline's instructions. This evaluation program will end 22 March 2001.

1-Date	2-Airline	3-Flight #	4-From	5-To	6-Aircraft Registration	7-Aircraft type

8-Route Evaluated UT780 (SCL) ❑ UT795 (SAO) ❑ UT799 (RIO) ❑

9-Is the aircraft equipped with FMS ❑ IRS or INS ❑ GPS ❑

10-If unable to obtain the FL proposed in the Flight Plan, requested during flight or maintain 10 minutes longitudinal separation, please note reasons (e.g. ,not authorized by controller, traffic, weather conditions, aircraft weight, etc...)

11-If unable to proceed with the route approved in the Flight Plan, please note reasons (e.g., not authorized by controller, weather, traffic, etc…)

12-If you have ACARS on board.
Did you send messages to the ATC? Yes ❑ No ❑ Did you receive messages from the ATC? Yes ❑ No ❑

13-If unable to establish proper communication with ATC, please indicate if VHF or HF, position or portion of the route, control center and the possible reasons.

14-Additional comments - Compared to conventional route, do you consider that this route reduces the operational cost of your flight?
Yes ❑ No ❑

15-Please add any other comments that can help us to evaluate this route, especially in reference to Safety and Regularity issues.

Thank you for helping in improving the efficiency of the Air Transport in the CAR/SAM Region

Appendix 2

Reports from the "Pilots Evaluation Form" on the route UT780 Santiago de Chile - Miami

Answers to item number 10 – Problems encountered with Flight Levels and Separation

9 reports out of 26 make the following observations:

- 4 reports – "No problem with Flight Levels"
- "Fl290 for awhile due to traffic"
- "Miami controller authorized FL290 (filled 330) when reached Havana authorized fl370"
- "Unable initial FL due to traffic"
- "Unable to altitude requested due to turbulence"
- "Unable to climb to fl 350 according to on calculation we had longitudinal separation with American 912 ahead also 912 was on separate airway, we stayed at 310 until Havana airspace"

Answers to item 11 – Problems encountered in route

5 reports out of 26 make the following observations:

- 3 reports – No problems with the route selected
- 2 reports – Not cleared to proposed route by Santiago Control

Answers to item 13 – Problems encountered in communication

4 reports out of 26 make the following observations:

- "No contact with Lima on 128.7"
- "Good comm. on VHF"
- "Good comm. entire route "
- "Great route good communication"

Answers to item 14 – Compared with the standard route do you think this one is better?

25 reports out of 26 assert than the proposed RNAV route is better than the standard one. The report which is not in favor of the RNAV route does not provide the reason for this conclusion.

Answers to item 15 – Any comments or suggestions by the crew members

16 reports out of 26 make the following observations:

- 6 reports – Need chart, need freq., nav aid, escape routes, emergency airports… etc
- "Parallel routes will improve the system "
- "Since route is mostly over water it avoids convective activity over the land"
- "Route south bound should be changed to after SULNA direct TOY UW208 EMBAL Andes 4 arrival"
- "Route should be filed to TOY as this is normal clearance"
- "No problem with route"
- "Keeps you away from Andes better"
- "Lowers work load"
- "I like the small number of reporting points and I like no high altitude emergency escape routes"
- "Good route no problems noted"
- "Easier to flight than the old route"
- "Cut down operational work load"
- "South of GVY route infigies on high terrain area"
- "ATC controllers requiring high mach numbers to cross a fix at a certain time this increase operational cost of the route"

Appendix 3

Reports from the "Pilots Evaluation Form" on the route UT799 Rio de Janeiro - Miami

Pilots' comments provided in this annex refer only to the UT799 portion from MUGAS to PCX. Pilots' comments related to the rest of the route from MUGAS to URSUS (common part with UT795) are included in the next Annex 4

Answers to item number 10 – Problems encountered with Flight Levels and Separation

2 reports out of 69 reported

- "Requested FL350 for route assigned FL330 from GIG to north of BRS until aircraft ahead flew off another route allowing us to climb to FL350"
- "Unable to climb at NABOL due to traffic"

Answers to item 11 – Problems encountered in route

11 reports out of 69 reported:

- "Not authorized due to traffic rerouted UA315"
- "After BRS Brasilia center would like us on UT317 to PAI which is the arrival fix for Rio if you stay on UT799 after BRS you are in conflict with aircraft departing Rio northbound"
- "At BRS was cleared direct to PAI"
- "Need SID's. "
- "In RIO controllers does no know the route"
- "No authorized by the controller to use UT799"
- "Once the controlled turned us off route for traffic"
- "Terminate route at PAI VOR"
- "There is confusion over Brasilia the cleared routing is UT799 to PCX but ATC said they expected us to transition to UA317 for the arrival in GIG"
- "We were warned by other flight crew to watch out for the route change from UT799 to UA317 over Brasilia, We had to ask the controller and he took us off the filed route over Brasilia and put us on UA317"
- "Route should terminate at PAI not at PCX - facilitate approach"

Answers to item 13 – Problems encountered in communications

8 reports out of 69 reported:

- "A bit difficult around NABOL on 125.2 8855 55526 10094 125.05"
- "At NABOL unable to contact MANAOS center, on HF reception poor"

- ‘’Difficult contacting Brasilia on both HF and vhf from NABOL to 75 nm south of NABOLl”
- “Good comm. entire route”
- “No contact Brasilia approaching NABOL at fl330 on 125.2 called Manaos on HF”
- “No contact with Brasilia on 125.2 or 135.9 from NABOL to DAGLO”
- “Unable to talk to Manaos at crossing point from Brasilia”
- “VHF entire route”

Answers to item 14 – Compared with the standard route do you think this one is better?

Out of 69 reports, 66 consider that this route is superior to the standards one. 3 reports consider is inferior to the standard one due to:

- “Today was not beneficial”
- “Route was clogged. Route is not valid with 15 minutes “
- “No beneficial low FLs “

Answers to item 15 – Any comments or suggestions by the crew members

17 out of 69 reported:

- 8 report - Escape routes, airports frequencies on chart needed
- “As safe and regular as a non RNAV route”
- “Easier to flight than the old route”
- “Efficient RNAV route”
- “Most absolutely reduces operational cost, recommended we announce of frq 123.45 and in use”
- “No problems”
- “Please put it permanent”
- “Reduces chattering, miscommunication and enhances safety”
- “Route was clogged. Route is not valid with 15 minutes”
- “Several aircraft were observed on TCAS at our altitude. One instance required the controller in Brasilia control to vector us behind him”
- “Should we report deviations from UT799 on 123.45?”
- “This kind of routes are more efficient and should be implement as a permanent route”
- “Today was not beneficial”
- “Too much traffic”
- “Very efficient route”
- “Very nice route”
- “This route reduces chatter, freq. Congestion, miscommunications and languages barriers

Appendix 4

Reports from the "Pilots Evaluation Form" on the route UT795 Sao Paulo - Miami

Answers to item number 10 – Problems encountered with flight levels and Separation

60 out of 232 reported:

Although longitudinal separation and vertical separation are interrelated, it was classified into two groups for clear understanding.

Related to vertical separation

- 4 reports – "no problems in FL"
- "23 reports - No beneficial low FL's or not obtained the requested FL"
- "Over EKUNA was unable to climb FL390 due to another flight same route mach .82"
- "Controller had us to descend from FL350 to Fl310 due to us passing other UT095 traffic at fl 350 (non radar environment)"
- "Given FL250 climbing out of Miami, this is the first time in 4 years to have this happen. Miami told us this is due to traffic, if you look at the charts all 3 routes south begin at the same fix"
- "In Kingston area were need to descend to 330 due to control request due to traffic on UA311 and returned to 370 near ESPINO"
- "Initially flight planned alt of fl 350 but at controllers request we had to descend to FL310 prior to leaving radar coverage in Brazil"
- "Manus do not authorize FL350 intermediate altitude without justification, requested due to weather "
- "Not authorized by Maiquetia to FL390 at VUMPI"
- "Not authorized FL310 over SURDO due to traffic we descended to FL280"
- "Our proposed fl was 350 we had to stay at FL310 the entire flight due to traffic"
- "Restrictions on FL"
- "Takes longer to get altitude"
- "Unable FL's due to traffic. This happens every day I used this route. Traffic congestion"
- "Unable initial cruise FL350 till north of Manaos due to slower 767"
- "Unable to maintain FL350 in Manaos due to traffic 50 nm ahead"
- "Unable to obtain 350 or 310 upon entering Manaos airspace maintained FL280 because other traffic on UA315. Obtained FL350 80 nm prior to MUGAS with limited mach 0.79"
- "We were not authorized Maiquetia control to FL390 at VUMPI "
- "Due to traffic during 3 hours we reduced the speed from .82 to .8 to obtain the FL proposed"

- "We are not authorized by Manaos center to maintain FL proposed due to controllers ignore this rules"

Related to longitudinal separation

- 2 reports – "Curaçao maintaining 15 minutes longitudinal separation"
- "On Curaçao have to reduce from Mach .81 to Mach .76"
- "Over EKUNA requested FL390 and MAIQUETIA informed that Curaçao requested 15 min separation we had to maintain FL350"
- "Unable to get requested altitude due to traffic behind us he was 12 minutes behind but Maiquetia said they required 15 minutes separation on UT799"
- "Reduction on Manaos to mach .81 due to separation"
- "At SUMBA Maiquetia req. mach .74"
- "15 minutes separation instead 10 "
- "Curaçao using 15 min separation too much time We initially got FL270 but were given FL370 all the way to SAO PAULO"
- "During over flight Curaçao area this center requested us a 15 minutes separation between aircraft's when the correct separation on the routes is 10 minutes"
- "Not authorized due to a traffic behind with separation of 8 minutes"
- "Unable to obtain FL proposed on MAIQUETIA area due to MAIQUETIA wants 15 minutes separation (not 10 minutes) between another traffic on FL350"
- "Unable to step climb from FL310 to 350 due to AA980 being 10 minutes in from at FL350"
- "FL390 not authorized by Maiquetia control 127.95 due to 15 minutes aircraft spacing"

Answers to item 11 – Problems encountered in route

18 reports out of 232 reports make the following observations:

- "Miami center not cleared on UT795 controllers very hostile lost 40 minutes of flight"
- "No authorized by controller due to traffic"
- "Route should be go from MATEC to CURTI or MARCO RPR CURTI to pick up Tuca 2 Arrival to Sao Paulo"
- "A good idea is a shorter track to join UT795 instead of SCB UB694 until BRU then MARCO which is the present clearance "
- "Brasilia center cleared us direct to PASTA then UL5 with no further clearance. The controller could not understand why we wanted to go back to UT795, so next controller who spoke better English cleared us back to UT795"
- "Cleared by ATC to join UT795 at MARCO"
- "Miami center does no have route in the computer"

- "A problem exist with the airways UW9 from CPN to ATF, then route UT795 overlays those airway we had clearance problem with Brasilia center, they would only clear us on UW9, they said Manaos center would have to authorize the use of UT795, having RONIL and SURDO be the same is also a problem for controller"
- "Crl. Clearance did not recognize UT795 off of TONI departure to CPN cleared us via TONI SCB UB694 BRU then direct MARCO"
- "Deviation - + 20 nm from route due to weather"
- "Flight plan was not approved due to weather and traffic"
- "Minor weather deviation"
- "No authorized by controller till ATF"
- "Not authorized by controller until Marco intersection"
- "Send from SAO PAULO to East given TONI departure CSB transition direct to BRU NDB then dct to MARCO. Filled route was TONI dct CPN (than will never happed) BRU dct PASTA intersection (not on RTE) but obtained direct to MARCO the UT795"
- "The route of flight was never changed from the filled one"
- "Weather deviation at ATF"
- "Dispatch filed conventional route. Requested RNAV from Brasilia after MARCO, ATC advise unavailable"

Answers to item 13 – Problems encountered in communication

109 reports out of 232 reports made the following observations:

Related to Havana FIR

- "Unable to make contact with Havana center 10 min before Havana boundary 120.5, 123.7 128.7 contact was made on GELOC"
- "No communication with Havana in 120.25 prior entering fir."
- "No VHF coverage in 120.25 at GELOC –"
- "No contact with Havana 10 min prior"
- "Need to improve Havana center VHF coverage south of GELOG."
- "Does not exist coverage from Havana on 120.25 or 123.7"
- "Unable to contact Havana 10 min prior GELOG "
- "Unable to contact Havana center 10 minutes prior GELOG freq. 120.25 FL350, contact established 4 min before GELOG "
- "Unable to contact Havana freq. 120.25 till 10 NM se of GELOG at fl 310 "
- "Unable to contact Havana 10 minutes before DIBOK we contact just after DIBOK "
- "VHF with Havana north bound we could not receive on 120.25 or 123.7, relay aircraft said Havana was reading us"
- "Unable to com with Havana at GELOS"
- "Unable Havana at GELOG 120.25, we hear Havana the not hear us"

- "no contact Havana on 120.25 south of GELOG, established contact with Havana 4 minutes prior to GELOG"
- "Unable to contact Havana from 30 NM south of GELOG"
- "unable to establish contact with Havana 10 min prior to GELOG"

Related to Kingston FIR

- "No communication with Kingston on 128.1 entering fir. "
- "No contact with Kingston 10 min prior"
- "Lost contact with Kingston in DIBOK"

Related to Curaçao FIR

- Unable to establish contact with Curaçao on freq. 127.1 VHF form DIBOK intersection until crossing airway UG444 - Difficulties to establish contact with Curaçao on 127.1 neither 124.1 before DIBOK intersection we use to call 10 minutes before each position of entrance
- Unable to contact with Curaçao control 124,1 at DIBOK
- No contact with Curaçao on 127.1 until 12 minutes south of DIBOK
- Unable contact Curaçao 12 minutes south of DIBOK on 127.1 or 124.1
- Unable contact with Curaçao on 127.1 from DIBOK to 150 south
- Unable to contact Curaçao 127.1 at DIBOK
- Unable to contact Curaçao from 10 minutes south of DIBOK
- Unable VHF Curaçao at DIBOK used VHF relay with other aircraft
- 10 minutes before Curaçao boundary we were unable to establish communications with Curaçao control due to technical difficulties on 127.1 124.1 in the sector
- At DIBOK no Contact with Curaçao 127.1
- Curaçao control 124.1 over DIBOK intersection was difficult
- Curaçao do not reach DIBOK in 127.1
- Curaçao on 127.1 over DIBOK no contact
- also as instructed called Kingston on 128.1 at DIBOK due to out of range for Curaçao on 124.1
- No contact with Curaçao ATS at DIBOK
- No contact with Curaçao on 127.1 or 124.1 south bound from DIBOK
- No VHF contact for the first 80-100 mile into Curaçao airspace after passing their fir
- At DIBOK no contact for 10 minutes in 127.1 with Curaçao
- West north of Curaçao airspace has weak VHF coverage
- Western portion of Curaçao Airspace has poor VHF coverage
- Unable VHF com with northern Curaçao
- Unable to contact Curaçao at DIBOK –
- Unable com with Curaçao position at DIBOK
- Poor radio contact VHF at DIBOK with Curaçao.
- Position DIBOK unable to contact with Curaçao on 124.1 and 127.1 aprox 10 minutes into Curaçao

- we lost contact with Curaçao control 127.1 30 NM to DIBOK
- Problems with Curaçao on 127.1 and 124.1, 10 minutes before Curaçao control and also 10 minutes after already within Curaçao control airspace
- Poor communication in VHF with Curaçao control when entering Curaçao fir coming from Miami
- Unable to contact Curaçao on 127.1 at DIBOK
- Unable to communicate with Curaçao for 10 min after leaving Kingston
- No VHF from DIBOK south towards ESPINO freq. 127,1 per about 100 NM Curaçao center
- No com with Curaçao from 5 minutes before DIBOK until 10 minutes after
- and just established contact with Curaçao 80 NM after DIBOK -
-
- Related to Maiquetia FIR
-
- at VUMPI unable contact Maiquetia on VHF on HF communication ok
- no contact with Maiquetia over VUMPI
- At VUMPI unable contact Maiquetia neither on VHF on HF communication ok
- In VUMPI no comm. with Maiquetia in VHF neither in HF
- Maiquetia 127.95 no contact at VUMPI, HF 8855 worked ok
- Lost communication with Maiquetia 120 nm of VUMPI, unable to contact Maiquetia after that
- at VUMPI intersection no contact with Maiquetia on freq. 127.95.
- Poor radio contact with Maiquetia at ESPINO and
- No comm. from VULPI till 15 min beyond VHF 127.95, 130.6 and HF 8855
- Southern Maiquetia control unable on 127.95
- Unable to contact Maiquetia at the south boundary
- Unable to contact MAIQUETIA control on 127.95 and 130.6 on VUMPI
- Unable to contact VHF and HF with Maiquetia at VUMPI contact made 100 nm after
- Unable to establish comm. at Maiquetia FIR
- Unable VHF 127.95, 130.6, HF 8855 with Maiquetia control in VUMPI at 10 minutes after VUMPI I get relay with American 972
- Unable VHF comm. between VUMPI and 214 nm north of VUMPI with MAIQUETIA control on 127.95 or 130.6 as assigned by Manaus control
- At VUMPI no contact with Maiquetia, lost contact with Maiquetia on VHF prior to their fir with Manaos
- At VUMPI position we got contact with Maiquetia control 129.95 through relay Transbrasil 7766, clear contact to Maiquetia control 127.95 approximately 30 minutes after VUMPI position
- Attempted to log on ACARS with MAIQUETIA
- At VUMPI position no contact with Maiquetia
- Between VUMPI and EKUMA comm. only in HF 8855 with Maiquetia
- Minor difficulties at ESSIO lost contact Curaçao 127.1. Lost contact with Maiquetia 127.95 30 minutes to CUMPI

- Difficult to contact Maiquetia on VHF
- First contact with Maiquetia control 127.95 28 minutes after VUMPI position
- Had to call Maiquetia 127.95 on 8855 in southern Venezuelan reason out of VHF range HF comm. on 8855 only between VUMPI/EKUMA at MAIQUETIA
- At VUMPI was difficult to contact Maiquetia on 127.95 130.6 8855 and 5526, contact established 15 minutes later in 127.95
- It was unable establish comm. With Maiquetia ATC around VUMPI in VHF and HF
- Living Manaos airspace we had not comm. for 200 NM prior to talking with Maiquetia
- No contact with Maiquetia on 127.95 over VUMPI
- No contact with Maiquetia at VUMPI on 127.95 or 130.6
- No contact with Maiquetia center in 127.95 contact made in 8855
- No contact with Maiquetia from VUMPI until, 10 minutes after
- No contact with Maiquetia in VHF or HF
- No contact with Maiquetia on 127.95 over VUMPI
- Unable VHF contact with Maiquetia between VUMPI and EKUNA, HF contact only.
- Unable to establish com on 127.95 and 126.3 at VUMPI position
- Unable Maiquetia till aporx 100 NM north of VUMPI
- Maiquetia 127.95 contact only 218 NM after VUMPI
- No com with Maiquetia on 127.95 over VUMPI
- No contact after VUMPI for 15 minutes with Maiquetia
- No VHF contact with Maiquetia at VUMPI -
- When at 280 NM to VUMPI instructed by Maiquetia to contact Manaos in 124.4 the contact with Manaos was a 120 NM from VUMPI.
- Poor com with Maiquetia over EKUNA and no control with Maiquetia over VUMPI on 127.95
-
- Related to Manaus and Brasilia FIR
-
- Manaus communications bad at the northern side at FL280 must get south of VUMPI to talk to them
- Manaus center had terrible VHF comm. gaps both directions - we made position reports in HF 8855
- Manaus center on HF, only VHF till near Manaus
- Manaus center was difficult with HF Comm - the sun was up between VIBOT and NABOL
- No contact with Manaos on 126.3 over VILBO. No contact with Maiquetia over VUMPI on 127.95 , contact made on HF 8855
- Southern Manaos center unable on 123.9, contact made on 8855 then 123.9
- poor radio contact with Manaos at VUMPI
- In SURDO no contact with Manaos in all freq. 2479, 5526, 8855, 19996. 15 minutes later contact was established in 8855.
- Between SURDO and ATF no contact with Manaos on VHF nor HF.
- Unable to contact Manaos center 123.9 at SURDO

- Unable to contact Manaos center VHF 80 NM south of ARSAX until SURDO. Could hear Manaos transmitting to other aircraft. HF worked ok
- Unable VHF com in northern Brazil center prior to entering Manaos airspace and while in southern Manaos airspace unable com with Maiquetia initially and
- VHF contact with Manus unable southern ????? - ground radios very bad
- Unable Brasilia center between ARSAX and SURDO had to communicate with Manaos on HF from SURDO to UGEMU
- Poor radio com between SURDO and ATF at FL390 , com with Manaos established 10 minutes after SURDO
- Several HF freq. were very difficult to understand (especially 8855 Manaos
- There seemed to be route confusion with Brasilia control they keep trying to clear us to points on UW9
- Manaos center sector 5 aft to SURDO on numerous frequencies VHF and HF all aircraft were hearing Manaos center but they no hearing us
- No com from SURDO in VHF, HF is ok
- Lost com with Brasilia between ARSAX and aft
-

Answers to item 14 – Compared with the standard route do you think this one is better?

152 reports or 93 per cent declare that the route is more beneficial operationally than the standard one. Eleven reports consider that the route is not favorable due to the following reasons:

- Total flight time was the same as conventional route
- Unable FL's due to traffic. This happens every day I used this route. Traffic congestion
- While using these routes we seen to be stuck at lower altitudes for longer time. So if the idea is to save fuel it doesn't work
- Given Fl250 climbing out of Miami, this is the first time in 4 years to have this happen. Miami told us this is due to traffic, If you look at the charts all 3 routes south begin at the same fix. This system does not seem as efficient as regular airways. T routes to SJU they do not either work
- We used more fuel because we were unable to climb
- Takes longer to get altitude
- Unable to obtain the right levels
- Too many aircraft on the same route unable to maintain altitude
- Traffic
- This is the second time I have flown this route both times i have nor been able to take advantage - lost saving due to altitude restrains
- Traffic
-

Answers to item 15 – Any comments or suggestions by the crew members

68 reports out of 163 reports make the following observations:

-
- 24 reports - Need freq., escape routes, airports in chart.
- Fuel saved 2.5 tons 25 min
- Aircraft heading NW decompression instructions are confusing when with in 182 NM se VUMPI it should be either NW VUMPI or se EKUMA
- Chart is inadequate no emergency airports no terrain depicted, difficult to transpose position from RNAV chart to UAL lam Sam chart - no frequencies - no escape routes
- Created added hazard when pilots request and obtain clearance to fly wrong altitude for direction of flight. This is due in part to modern navigation systems enabling more precise flying of air routes center line
- Difficulty in SAO PAULO departures transition to UT795, SAO PAULO ATC had us back tracking if unable vector direct - recommended add freq.
- Difficult to trans late RNAV position with la high chart
- Excellent routing and comm. shouldn't way points on fir boundaries be compulsory reporting points
- Great improvement.
- Great route
- I would line to see way points that use reference to geographical location
- Excellent system much better that regular airway
- For the safety and regularity of the system, ATC involved will know and uses rules correctly
- It seems quite possible that with the comparable speed and number of aircraft scheduled to use this routes at about the same time some airplanes will be relegated to the low flight levels placing in jeopardy satisfactory destination arrival fuel
- Move the route slightly so it does nor coincide with exiting airways and conventional traffic
- Much better route operationally
- Route interferes with UW9
- No decompression route found in brief guide suggest to put into chart as booklets pages are not numbers
- No problems
- Obtained final altitude earlier with no problems
- Parallel routes or passing procedures with TCAS use
- Perfect route
- Please make these routes permanent, they are very efficient over standard routes
- Really like not making so many position reports
- Reduces radio chatter because no need to request direct
- Route after BRS is wrong 99 percent of the time you approach BRS UA317 PAI ILS 15, you never go to PCX
- Route approved by the crew

- Route is very beneficial and cost savings
- Route reduces congestion.
- Save time and money.
- Saved 2.8 tons and 32 minutes
- Some controllers unaware of these trials and demonstrations
- The RNAV route are effective allow to proceed directly to our destination saspo
- This is the second time I have flown this route both times I have nor been able to take advantage
- lost saving due to altitude restrains
- This system does not seem as efficient as regular airways. T routes to SJU they do not either work
- Too many aircraft on the same route unable to maintain altitude
- Total flight time was the same as conventional route
- Two directional parallel routes are needed
- Very nice, keep things more simple
- We used more fuel because we were unable to climb
- While using these routes we seen to be stuck at lower altitudes for longer time. So if the idea is to save fuel it doesn't work
- Parallel routes will improve the system.
- VUMPI needs to be a compulsory point in FIR Maiquetia Manaos for safety reasons in long haul non radar flights is safer to have the RNAV route, shown in your high act chart this way you can see airways that you cross and parallel with a few miles, important when deviating for weather
- VUMPI should be required position report since it is a FIR boundary