



Agenda

Item 2:

Analysis of Version 04 of the SAM ATS routes network and SAM-CAR inter-regional ATS routes

OPTIMIZATION OF THE SAM ROUTES NETWORK

(Presented by the Secretariat)

SUMMARY

In this Working Paper, Version 04 of the SAM Region Route Optimization Program is presented, with respect to the routes proposed and accepted in the ATSRO/8. It incorporates information on the coordinations developed between the Secretariat and States and between States, from January to May 2018, in addition to the contributions of the SAMIG/21 Meeting. The aforementioned data must be analyzed to define publication and effective implementation.

Referencess:

- Reports of ATS/RO Meetings
- Reports of SAM/IG Meetings
- CONOPS PBN of the SAM Region - Period 2018-2020

Strategic Objectives of ICAO:

*A - Seguridad operacional
D - Desarrollo económico del transporte aéreo
E - Protección del medio ambiente*

1 Background

1.1 Taking into account the need to deepen the PBN implementation in the SAM Region, the SAM/IG/16 Meeting concluded that Project RLA/06/901 should be requested to develop activities to formulate a new version of the SAM Optimized Routes Network.

1.2 The Tenth Meeting of the Coordination Committee of Project RLA/06/901 (RCC/10) approved, among other activities to support the optimization of the South American airspace for 2017, the hiring of two experts for a period of three weeks to develop the Version 04 of the SAM Route Network according to the PBN SAM Operational Concept - Period 2018-2020.

1.3 The consultants, Mr. Luiz Antonio dos Santos and Mr. Tomas Macedo Cisneros, under the support of the Regional Project RLA/06/901, prepared a preliminary report for the Optimization of the ATS Route Network of the SAM Region, Version 04. This report covered improvement proposals, involving realignment and elimination of routes, as well as implementation of new RNAV routes.

2 **Analysis**

2.1 In September 2017, the ATSRO/8 Meeting analyzed 95 initiatives of version 4, accepting 30 of them and rejecting 13.

2.2 The ATSRO/8 formulated the following Conclusion:

Conclusion ATSRO/8-1 Implementation of Version 04 of the SAM Route Network

The delegates of SAM States approve the Route Network Version 04 optimisation initiatives shown as approved in Appendix A to this part of the report. Following the Meeting, if any State concerned must consult, revise or validate internally any initiative, it shall communicate any resulting comment, requirement or cancellation in a working paper to be submitted to the SAM/IG/20 meeting, scheduled for October 2017.

Notwithstanding the above, the AIRAC publication dates for the implementation, modification, or deletion of the approved routes are agreed in three stages, as follows:

- a) Publish AIP AMDT or SUP on 26 April 2018, effective on 21 June 2018;*
- b) Publish AIP AMDT or SUP on 21 June 2018, effective on 16 August 2018; and*
- c) Publish AIP AMDT or SUP on 16 August 2018, effective on 11 October 2018.*

The aforementioned publication dates must be ratified by the States for the routes under their responsibility, via teleconference with the Regional Office, at least forty-five (45) calendar days in advance.

2.3 **Appendix A** of this Working Paper presents a set of 33 initiatives (three additional to those accepted in ATSRO/8, since coordination was carried out with Colombia and other multilaterals during the III PBN meeting of the Mexico NACC Office). This appendix also details the progress of the coordination developed, the initiatives that have evolved in domestic routes, the cancelled initiatives, etc.

3 **Suggested Actions**

3.1 The Meeting is invited to analyse Appendix A of this Working Paper, based on the Route Version 04, the ATSRO/8 report and the SAMIG/21 report. The 33 initiatives indicated have been subject of bilateral/multilateral coordination since January 2018.

3.2 In this regard, the Meeting is invited to coordinate in detail with its peers from adjacent States and the Secretariat the corresponding implementation activities.

APPENDIX A

COORDINATION OF SAM ROUTES - VERSION 04

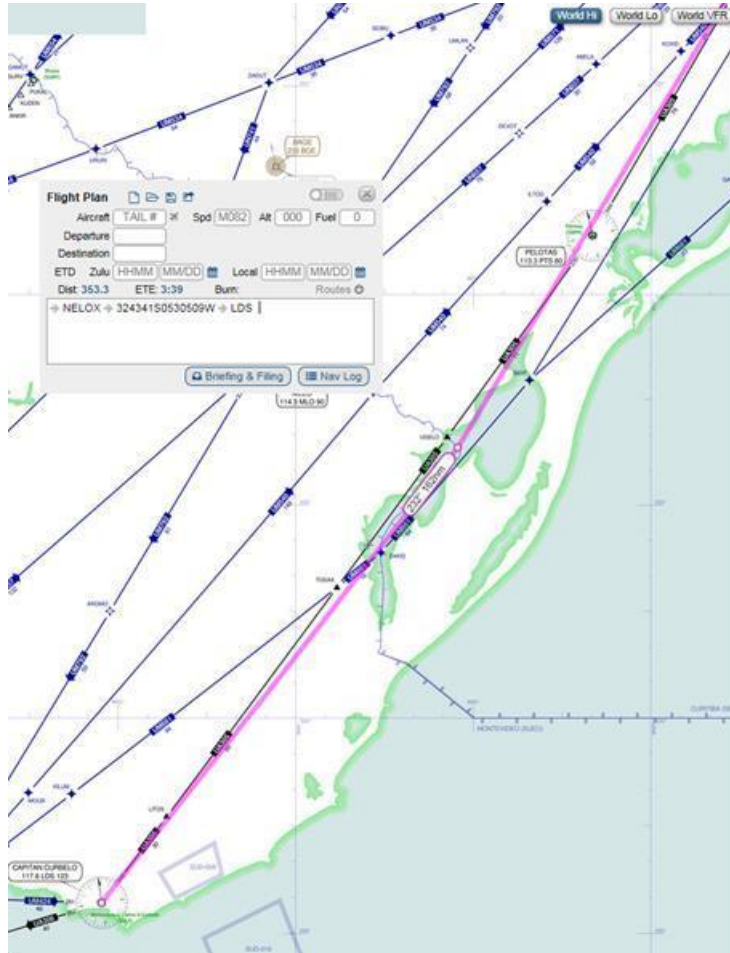
RESULTS OF ATS/RO 08 TELECONFERENCES

As of 25 May 2018

List of initiatives adopted by the ATSRO/8 meeting, which have been subject to bilateral/multilateral coordination for implementation purposes

Initiative/ Route (s)	States involved	Notes
4-02 (UA305 – UM424 ->)	Brazil - Uruguay	ver UM661 (4-79)
4-79 (<- UM 661 ->)	Brazil - Uruguay	
4-03 (UA310 - UM 792->)	Brazil - Uruguay - Argentina	
4-04 (UA319 – NEW UP407)	Panama - Colombia- Curacao	
4-06 (UA323)	Panama -Colombia - Brazil	
4-09 (UQ103 – UL342 ->)	Colombia –Venezuela- Curazao Dominican Republic	see also 4-21
4-21 (NEW UN xxx)	Curazao- Colombia -Venezuela	see also 4-09 and 4-95
4-23	Panama -Colombia	see also 4-24
4-24 (nueva UN XXX)	Panama -Colombia	
4-26 (<- UL540 ->)	Bolivia - Brazil	
4-27 (UM788)	Brazil	
4-31 (<- UM 665 ->)	Ecuador - Peru	
4-33 (UA556 - NEW UP526 – UM402)	Argentina - Paraguay-Uruguay	
4-34		Proposal eliminated
4-35 (<- UM424 ->)	Argentina -Chile	
4-36 (new domestic route UT687 Argentina , NOT to be included in the e-ANP)	Argentina – Chile- Uruguay	
4-38 (New domestic route UT691 Argentina , NOT to be included in the e-ANP)	Argentina -Chile	
4-39 (New UN 776)	Colombia -Ecuador	
4-44 (UM 657 ->)	Argentina -Bolivia –Brazil- Paraguay	
4-49 (UA304)	Bolivia - Peru	
4-53 (UA573 – NEW RNAV)	Bolivia - Peru	on STAND BY
4-55 (UB650)	Argentina - Chile	
4-61 (UM 783->)	Argentina Chile	
4-62 (UM530)	Ecuador- Peru- Brazil- Bolivia	
4-63 and 4-64	Colombia- Brazil	
4-73 (UG432 – NEW UN 779)	Venezuela	
4-83 (NEW UN 785)	Argentina- Brazil -Paraguay	
4-84 (UL 322 ->)	Guyana - Trinidad and Tobago	INPUT from KLM. Pre- agreement reached at III PBN in Mexico
4-85 (<- UL206 -> <-UL309 ->)	Venezuela -Brazil -Colombia	
4-88 (UX XXX)	Venezuela - Brazil - Colombia Peru Also Trinidad and Tobago	INPUT from KLM. Pre- agreement reached at III PBN in Mexico
4-92 (NEW UP 535	Venezuela- Guyana - Brazil	
4-94 (NEW UP 776)	Colombia -Peru -Venezuela	INPUT from KLM
4-95 (new UP 549)	Venezuela - Guyana - Colombia	

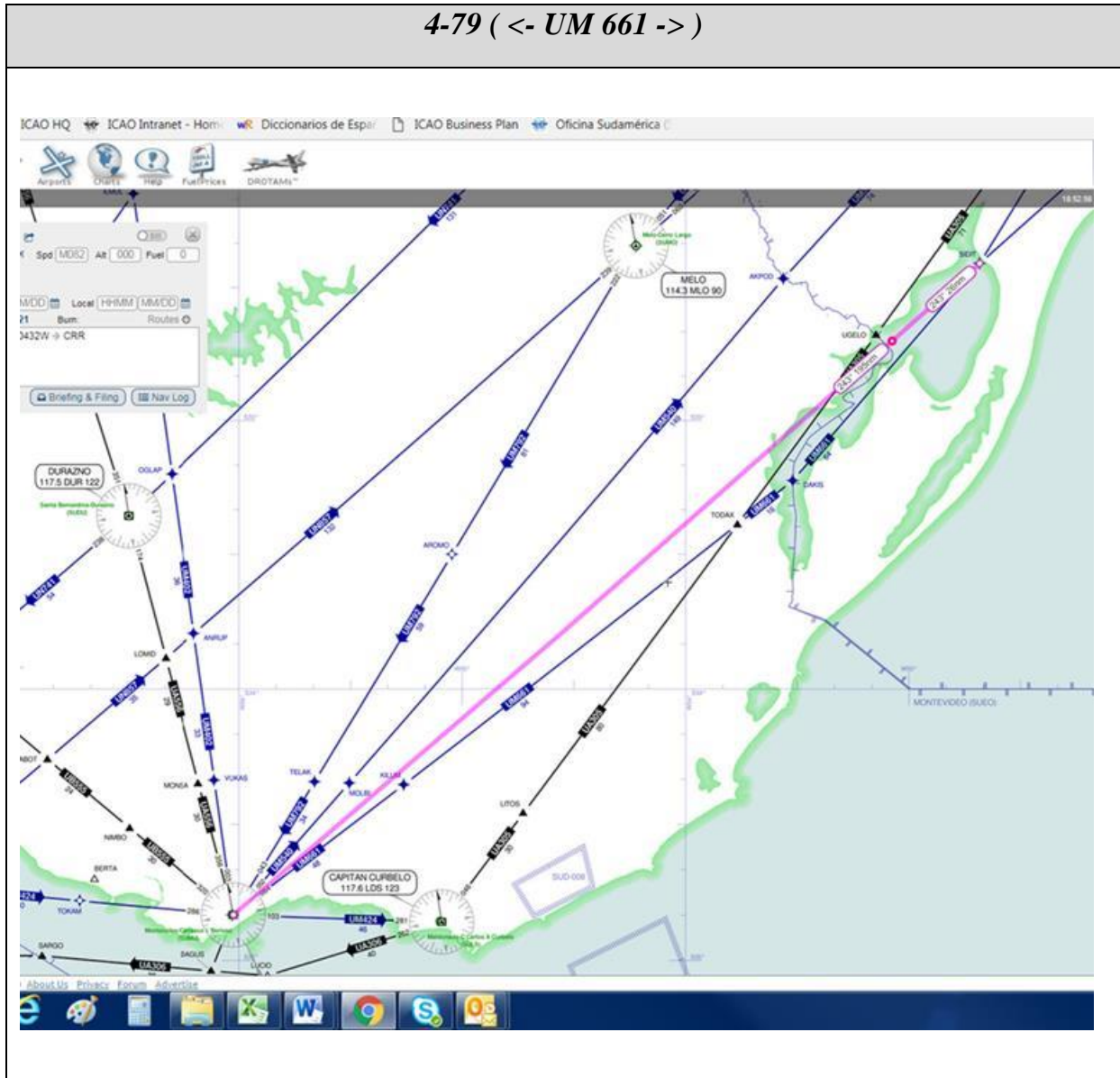
4-02 (UA305 – UM424 ->) ..see UM661 (4-79)



States	Description	Results		
Brazil Uruguay	UA305 deleted between NELOX and LDS. RNAV UM xxx created between NELOX and LDS. 0.4 NM saved.	Through WP/07, Uruguay agrees to extend airway UM424 from NELOX to LDS. *Uruguay agrees to publish in June. Brazil agrees to extend from NELOX to LDS. Brazil proposes publication in June 2018. ACTION: NOTE.- SEE ALSO ROUTE 4-79 BRA-URU: DELETE UA305 BRA-URU: EXTEND UM424 NELOX TO LDS VOR BRA/URU: THE FIR BOUNDARY POINT WOULD BE TOLEP. AGREE ON COORDINATES.		
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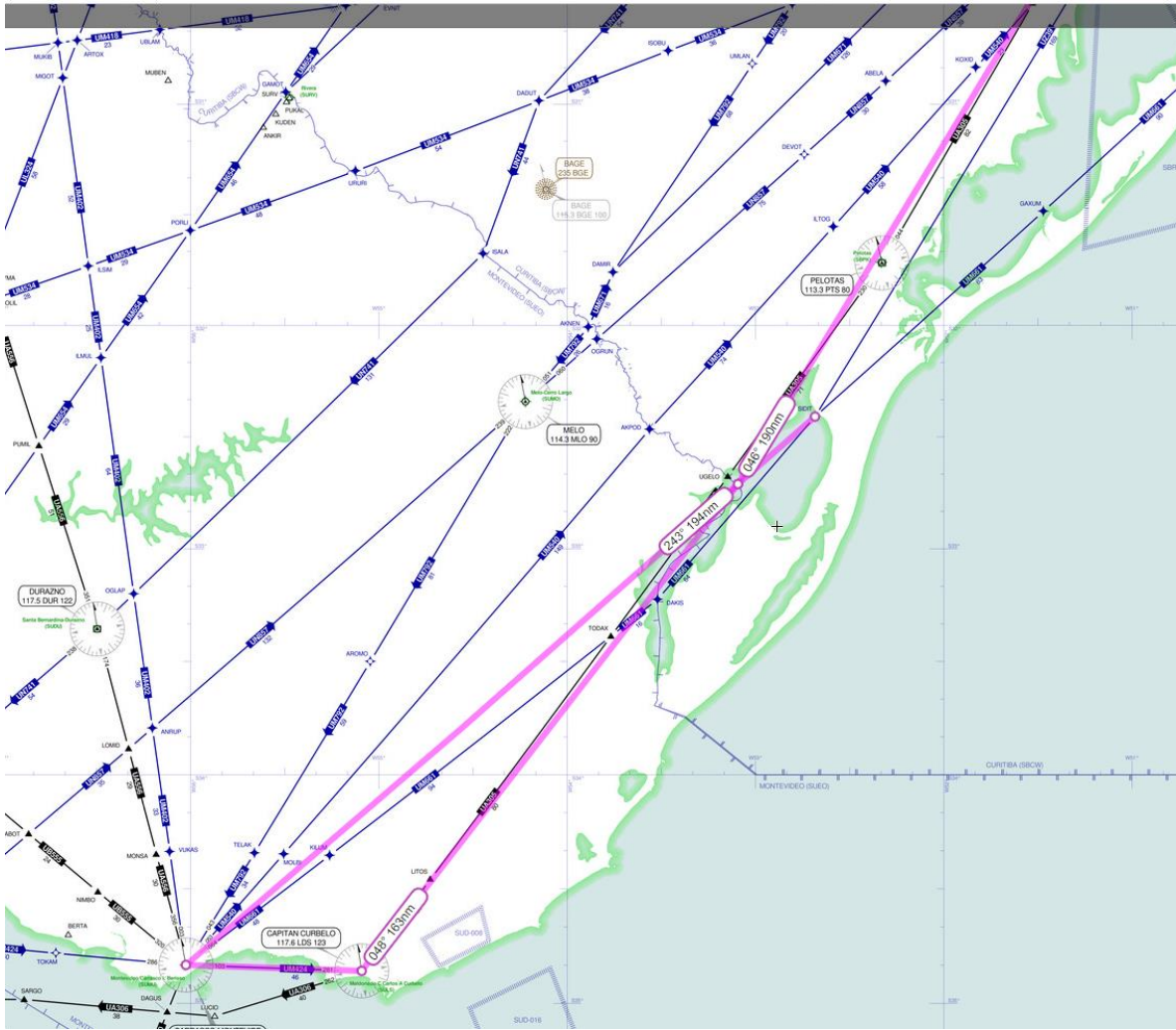
4-79 (<- UM 661 ->)



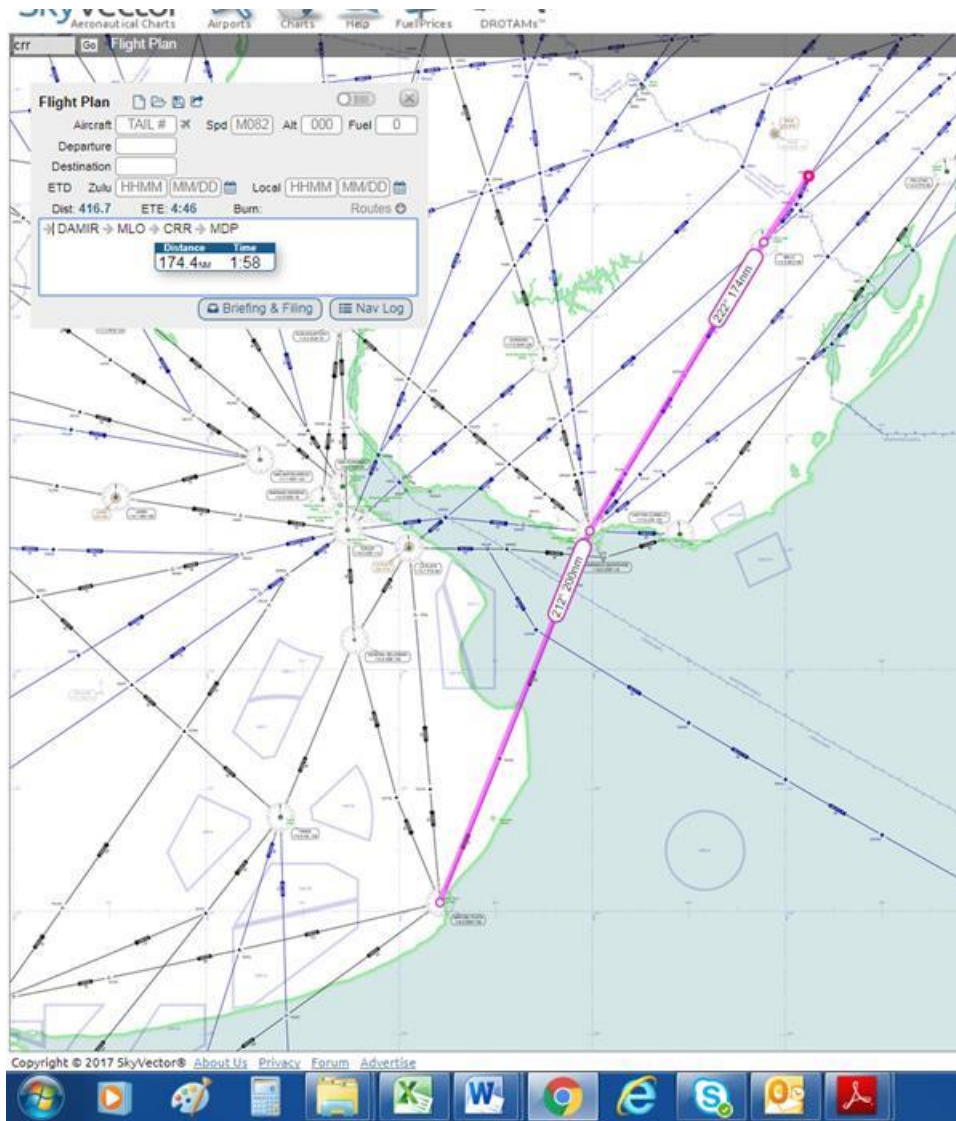
States	Description	Results		
Brazil Uruguay	Realign UM661.	Brazil: Agrees and proposes publication in August 2018, effective October. Uruguay: Agrees in accordance with WP/07, with publication in August 2018. NOTE.- SEE ALSO ROUTE 4-02 ACTION: BRA- URU: REALIGN DIRECT UM661 SIDIT - TOLEP - CRR BRA/URU: FIR BOUNDARY POINT WOULD BE TOLEP. AGREE ON COORDINATES.		
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		BRA-URU AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER		

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ADDITIONAL GRAPH UM 424 AND UM 661



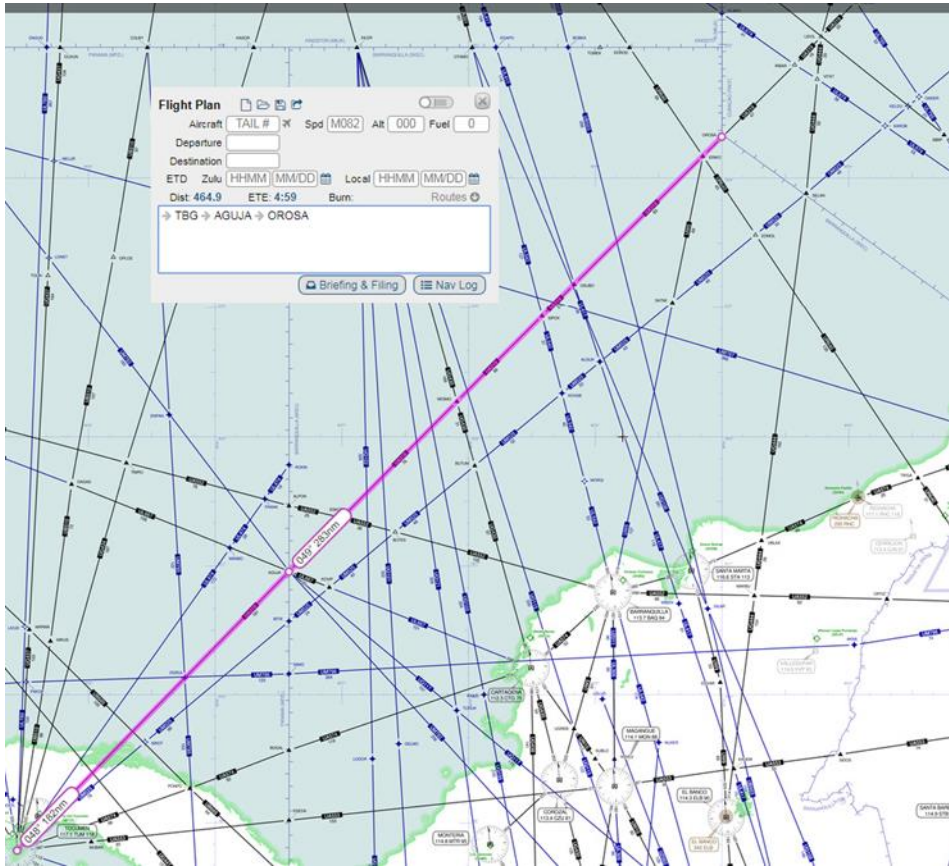
4-03 (UA310 - UM 792->)



States	Description	Results
Brazil Uruguay Argentina	Delete route UA310. Extend UM792.	Brazil: Already implemented. Plans to publish in April, effective June. Uruguay: Agrees, in accordance with WP/07. Argentina: Agrees.
		<p>ACTION:</p> <p>BRA – URU: REALIGN UM792: DAMIR – FIR BOUNDARY – MELO. AGREE ON 5LNC POINT.</p> <p>URU – ARG: EXTEND UM792 CRR MDP</p> <p>URU – ARG: DELETE UA310 CRR - MDP.</p> <p>BRA-ARG-URU AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER</p>

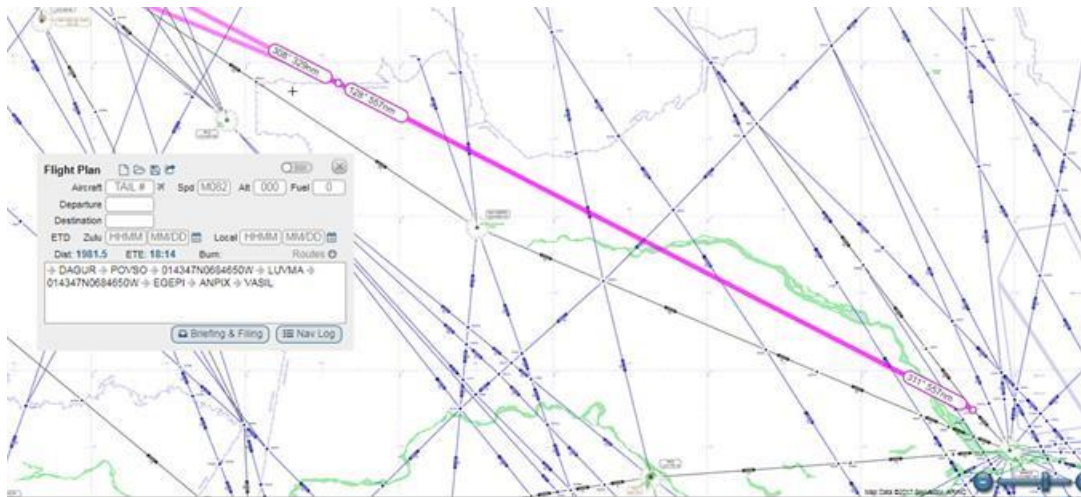
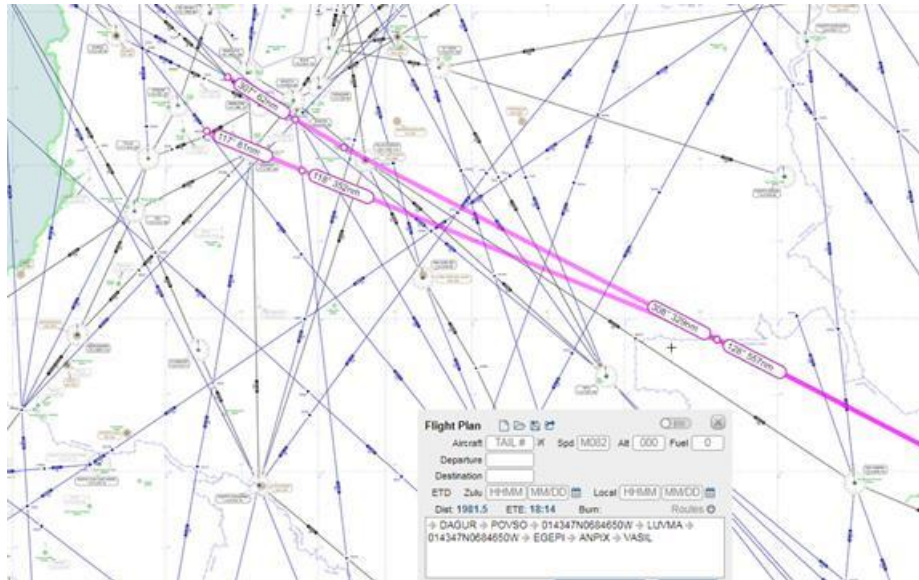
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4-04 (UA319 – NEW UP407)



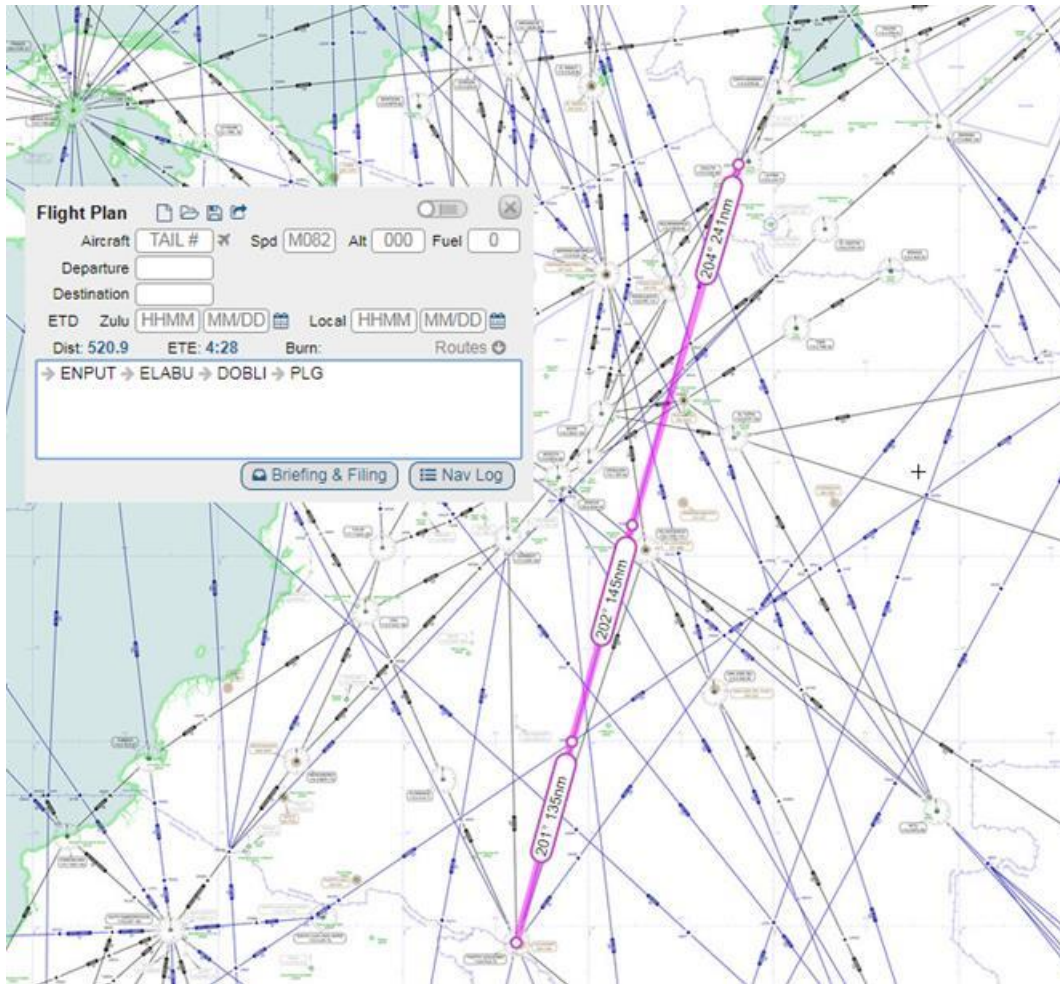
<i>States</i>	<i>Description</i>	<i>Results</i>
<p>Panama Colombia Curacao</p>	<p>Delete route UA319 TABOGA (TBG) - BETIR. Create bidirectional RNAV route between TABOGA (TBG) - AGUJA – OROSA, maintaining previous path. Coordinate with CAR Region the creation of RNAV route in segment OROSA – PALAS.</p>	<p>Colombia agrees. Pending confirmation by Panama. In order to coordinate with Curacao and DR, the proposal will be sent or taken to the III PBN in Mexico.</p> <p>ACTION: SAM RO: Assign number of new ROUTE UNnnn COL- PAN: DELETE UA319 and PUBLISH new route.</p> <p>CURACAO and DR: CONFIRM ROUTE between OROSA and PALAS</p> <p>DEFINE IN JULY 2018, III PBN – MEXICO</p> <p>TBD PUBLICATION</p>
	<p>DISCUSS AT MX III PBN</p>	

4-06 (UA323)



States	Description	Results
<p>Panama Colombia Brazil</p>	<p>Delete route UA323 from TABOGA (TBG) to MANAUS (MNS). Extend route UL423 bidirectional from AMBALEMA (ABL) - ANPIX - LUVMA - SIGEP - KOKBO - RECIFE (REC). Segment TABOGA (TBG) - ANPIX currently covered by route UM459.</p>	<p>Colombia made proposal, supplemented by a domestic route DAGUR - BRACO. Brazil agreed and also implements domestic route MNS VOR - SGC VOR. Confirm Panama boundary. ACTION: PAN - COL: AGREE ON FLOWS → ← THROUGH DAKMO - →ARORO and RNG - TBG BRA - PAN- COL: Delete UA323 BRA - COL: AGREE BRACO 2 THROUGH NEW FIR POINT. BRAZIL CREATES DOMESTIC ROUTE MANAUS - SAO GABRIEL. COLOMBIA CREATES DOMESTIC ROUTE DAGUR - POVSO - BRACO2 (N01 43 53 W 068 47 58)</p> <p>TBD</p>

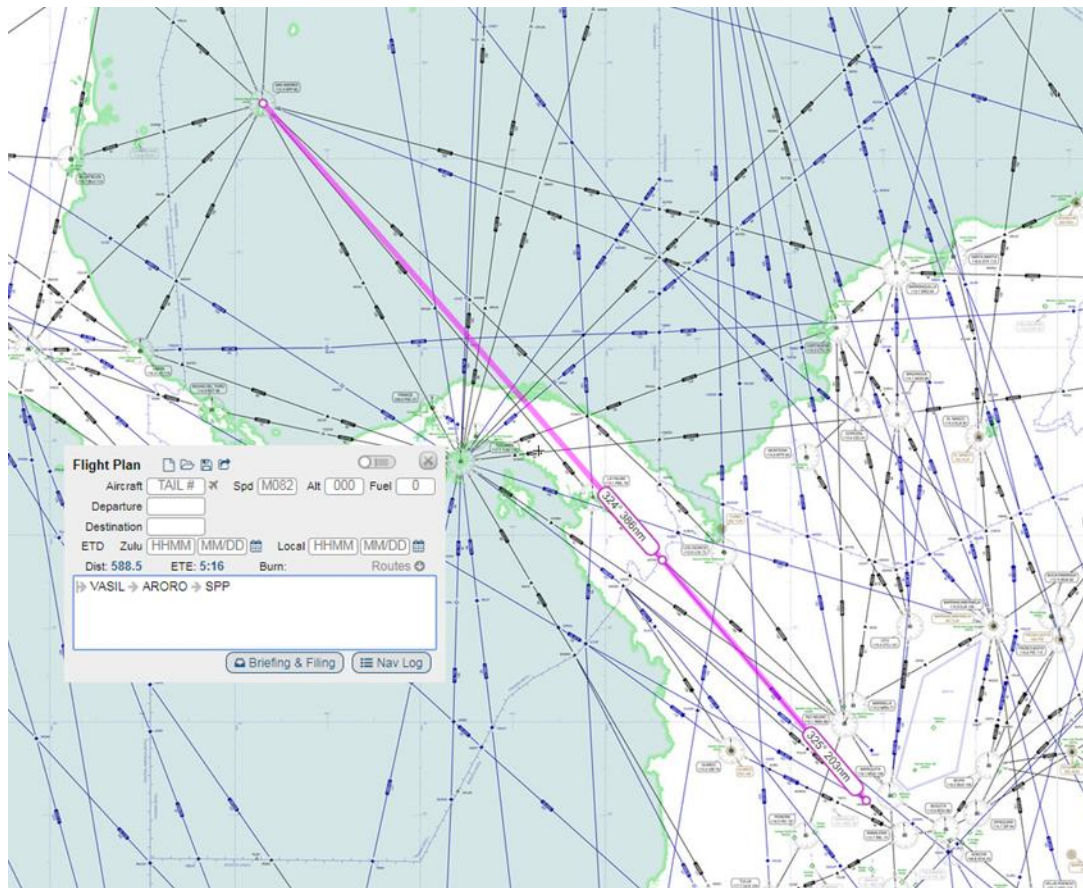
4-09 (UQ103 – UL342 ->)SEE ALSO 4-21



States	Description	Results
<p>Colombia Venezuela Curacao Dominican Republic</p>	<p>Segment NOREX - MENE MAUROA (MAU) - ENPUT currently deleted. UL342 currently implemented from PUNTA CANA (PNA) – KARUM – CHAVE – ENPUT.</p> <p>Pending coordination Colombia segment ENPUT – PUERTO LEGUIZAMO (PLG) and deletion of route UQ103.</p> <p>Peru accepts proposal.</p>	<p>COL AGREES TO EXTEND UL 342 ENPUT – ELABU – DOBLI – PLG. See proposal 4-21. DELETE UQ 103 BUT MAINTAIN ITS POINTS ELABU DOBLI</p> <p>ACTION: COL: DELETE UQ 103 COL: EXTEND UL 342 from ENPUT-ELABU-DOBLI-PLG</p> <p>PUBLISH together 4-09, 4-21 and 4-95</p> <p>COL: AIP PUBLICATION TBD</p>

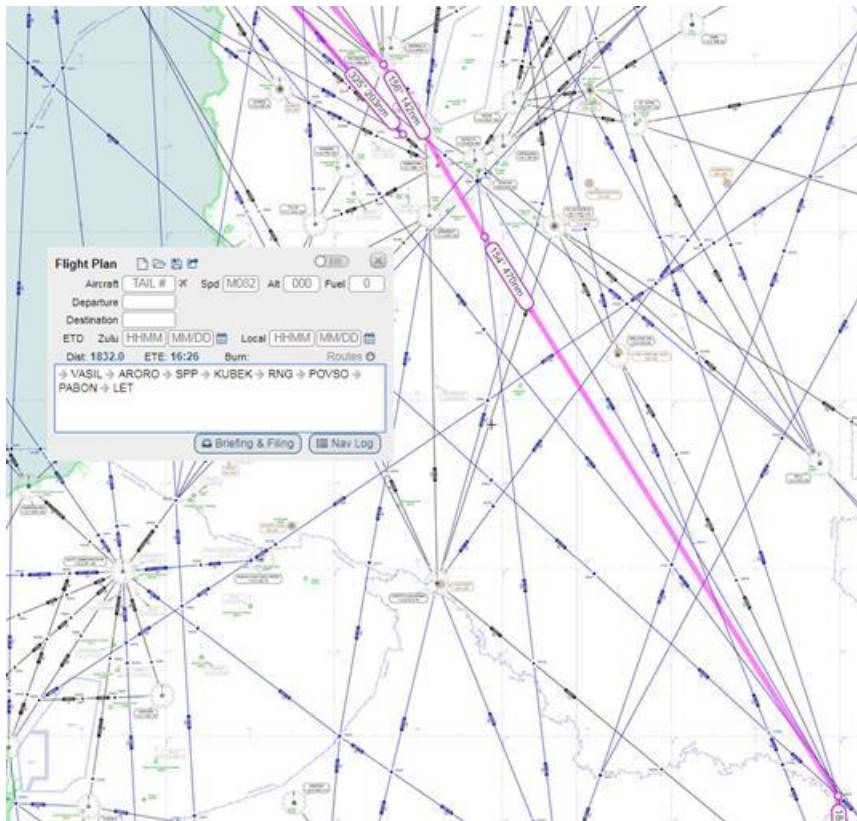
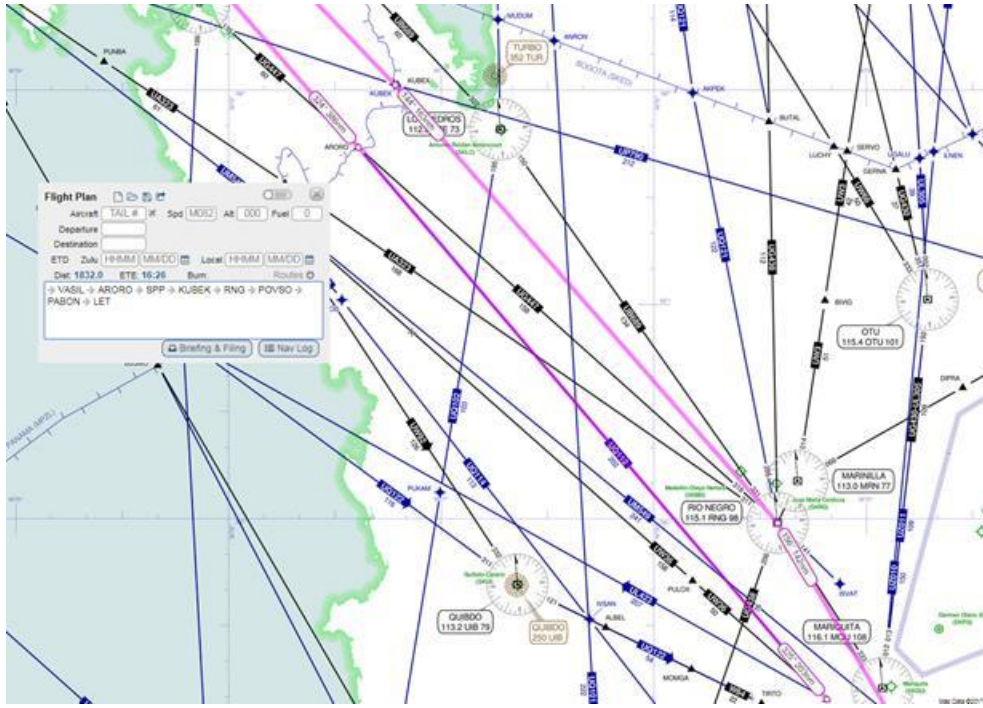
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4-23see also 4-24



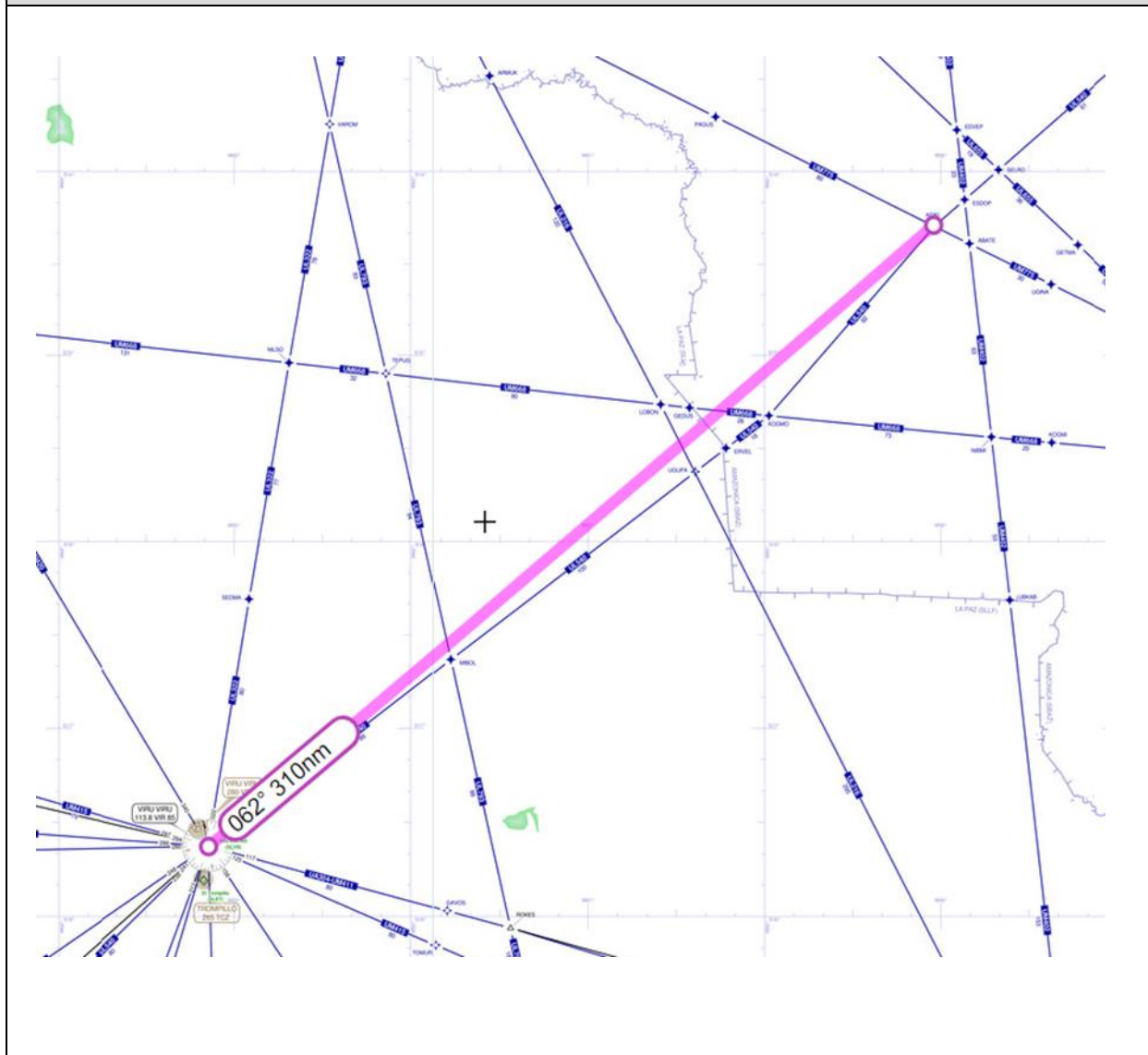
States	Description	Results
<p>Panama Colombia</p>	<p>Delete route UG447 segment BOGOTÁ (BOG) – SAN ANDRÉS (SPP). Create RNAV route segment SAN ANDRÉS (SPP) – ARORO – VASIL. Delete domestic route UQ112 segment ARORO – VASIL. >>>>>> Panama accepts proposal SAN ANDRÉS (SPP) – ARORO. Pending coordination with Colombia segment ARORO – VASIL and deletion of route UQ112.</p>	<p>1. COLOMBIA AGREES TO DELETE UG447 2. AGREE TO CREATE REGIONAL ROUTE VASIL – ARORO – SPP (UNIDIRECTIONAL SE - NW) 3. DELETE LOCAL RNAV ROUTE UQ112. 4. REVIEW SKSP STAR PROCS CONNECTING NEW RNAV ROUTE THAT REPLACES UG447 WITH SKSP. 5. COL WILL CREATE SID AND/OR FLOW FROM SKRG TO ARORO.</p> <p>ACTION: ALL: Coordinate with PANAMA Teleconf. unidirectional routes ARORO → and ← DAKMO and KUBEK(¿?) SAM RO: Assign new RNAV route UN XXX</p> <p>TBD</p>

4-24 (new UN XXX)



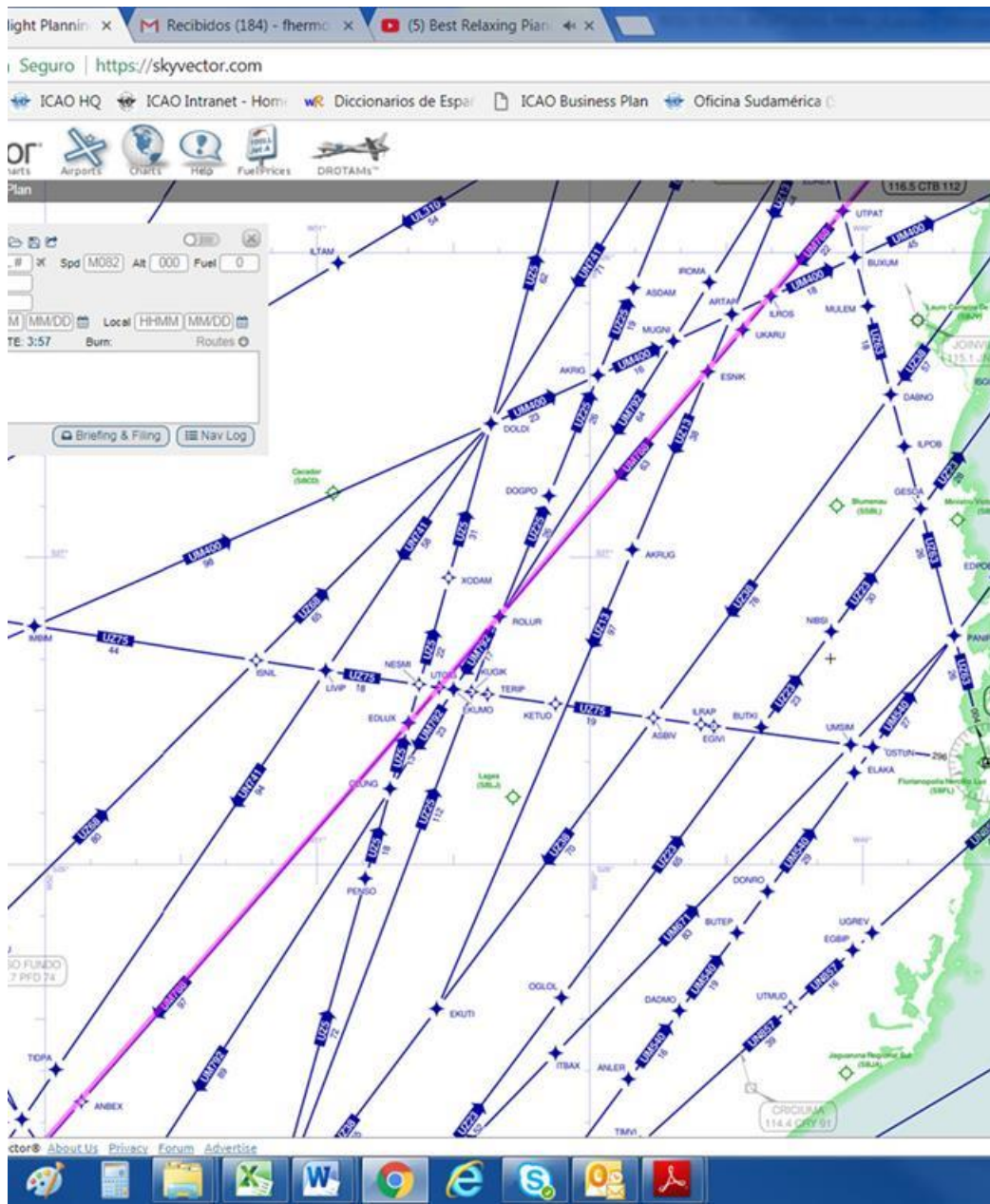
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<i>States</i>	<i>Description</i>	<i>Results</i>
Panama Colombia	<p>Delete route UB689 segment SAN ANDRÉS (SPP) – LETICIA (LET). Create RNAV route segment SAN ANDRÉS (SPP) – RIO NEGRO (RNG) – MARIQUITA (MQU) – SOACHA (SOA) – MARTU. Delete domestic route UQ111 segment SOACHA (SOA) – PABON.</p> <p>Panama accepts proposal SAN ANDRÉS (SPP) – LIM FIR. Pending coordination with Colombia segment LIM FIR – MARTU and deletion of route UQ112.</p>	<p>COLOMBIA :</p> <ol style="list-style-type: none"> 1. DELETE UB689 SPP – LET: AGREES 2. DELETE UQ111 (SOA – PABON): AGREES 3. PROPOSAL OF RNAV ROUTE SPP – KUBEK – RNG – POVSO (N03 56 20 W074 12 54 now in BOGOTA TMA) – PABON - LET <p>ACTION:</p> <p>ALL: Coordinate with PANAMA Teleconf. unidirectional routes ARORO → and ← DAKMO and KUBEK (¿direction?)</p> <p>ATTENTION: KUBEK also crosses UP 790. SAM RO: Assign new RNAV route UN XXX</p> <p>TBD</p>

4-26 (<- UL540 ->)



States	Description	Results
Bolivia Brazil	Realign UL540.	Bolivia: Proposes realignment of UL540 between Viru Viru and ASIKI with a common point of transfer in the intersection with UM668 (15°17'54.34''; 060°15'01.7''). Brazil: Agrees to the proposal of Bolivia.
	COORDINATE SAMIG/21 AT	ACTION: BRA – URU: REALIGN UL540. CONFIRM FIR BOUNDARY POINT XXXXX. 15°17'54.34''S; 060°15'01.7''W BOL – BRA: AIP PUBLICATION TBD

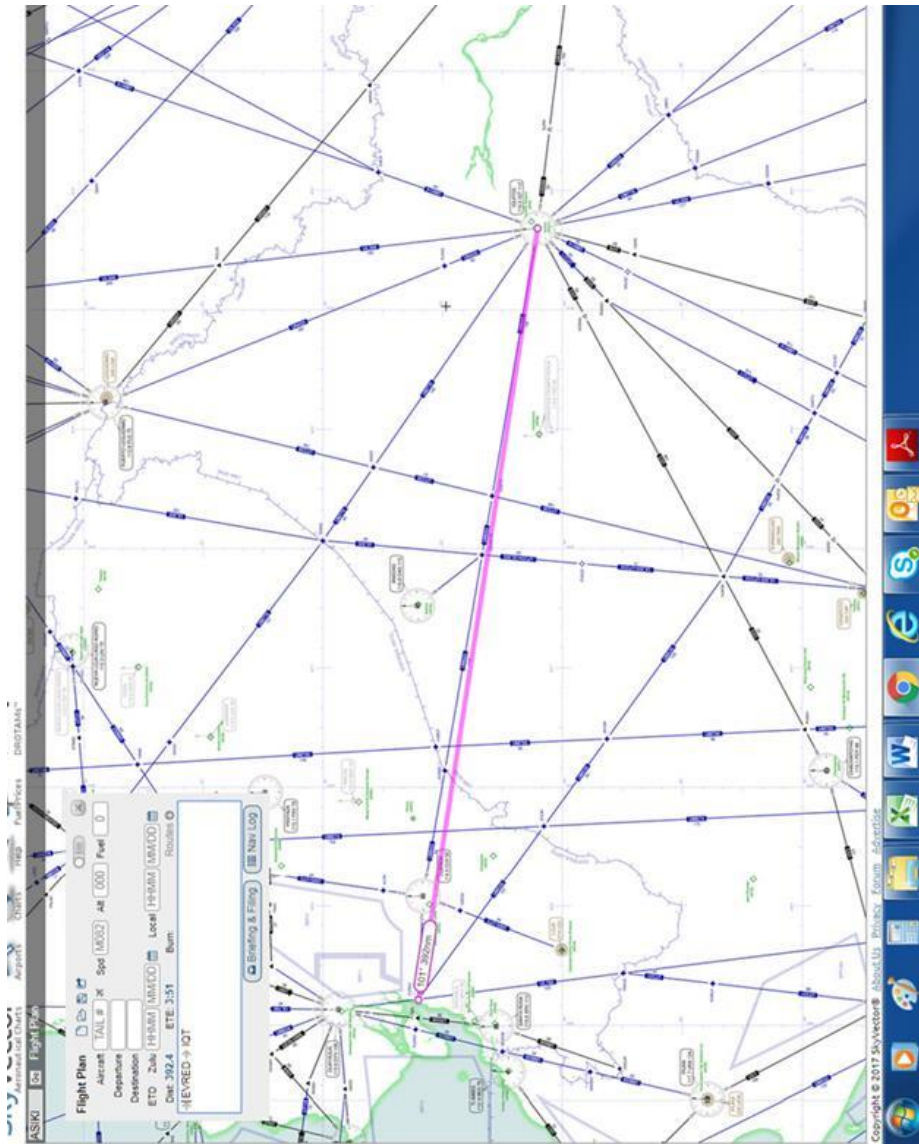
4-27 (UM788)



States	Description	Results
Brazil	Delete UM788.	Brazil: Will be deleted in publication of April 2018. ACTION: DELETE UM788. BRA: AIP PUBLICATION TBD

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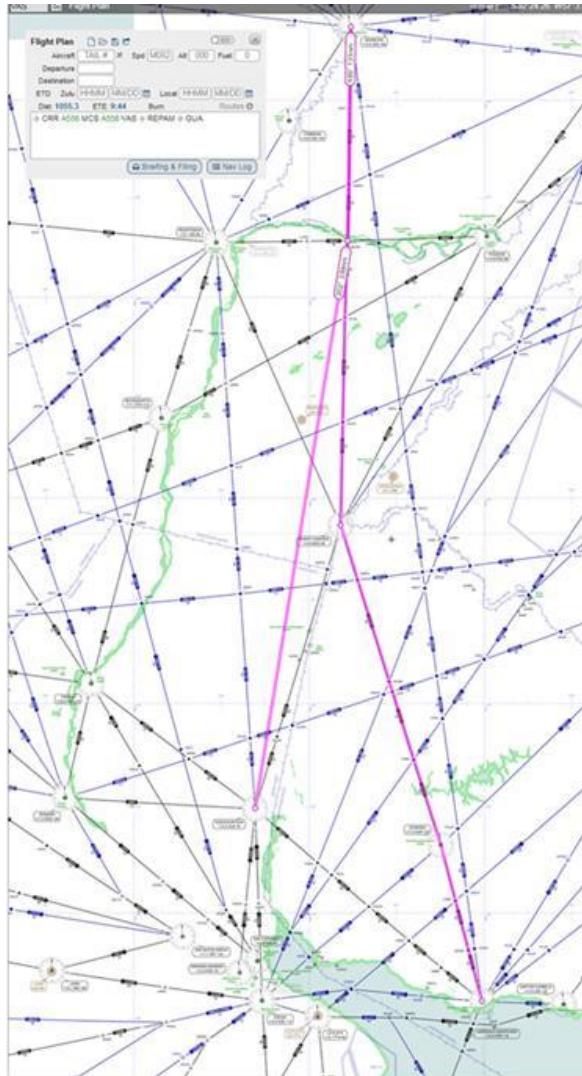
4-31 (<- UM 665 ->)



States	Description	Results
Ecuador Peru	Realign route UM665 segment EVRED – IQUITO (IQT).	Ecuador accepts the proposal. Peru accepts the proposal. Pending creation of LIM FIR.
		<p>ACTION: REALIGN UM665 FIR BOUNDARY AGREED KUMET (03 04 58.80S /077 56 12 W)</p> <p>PER - ECU: AIP PUBLICATION TBD</p>

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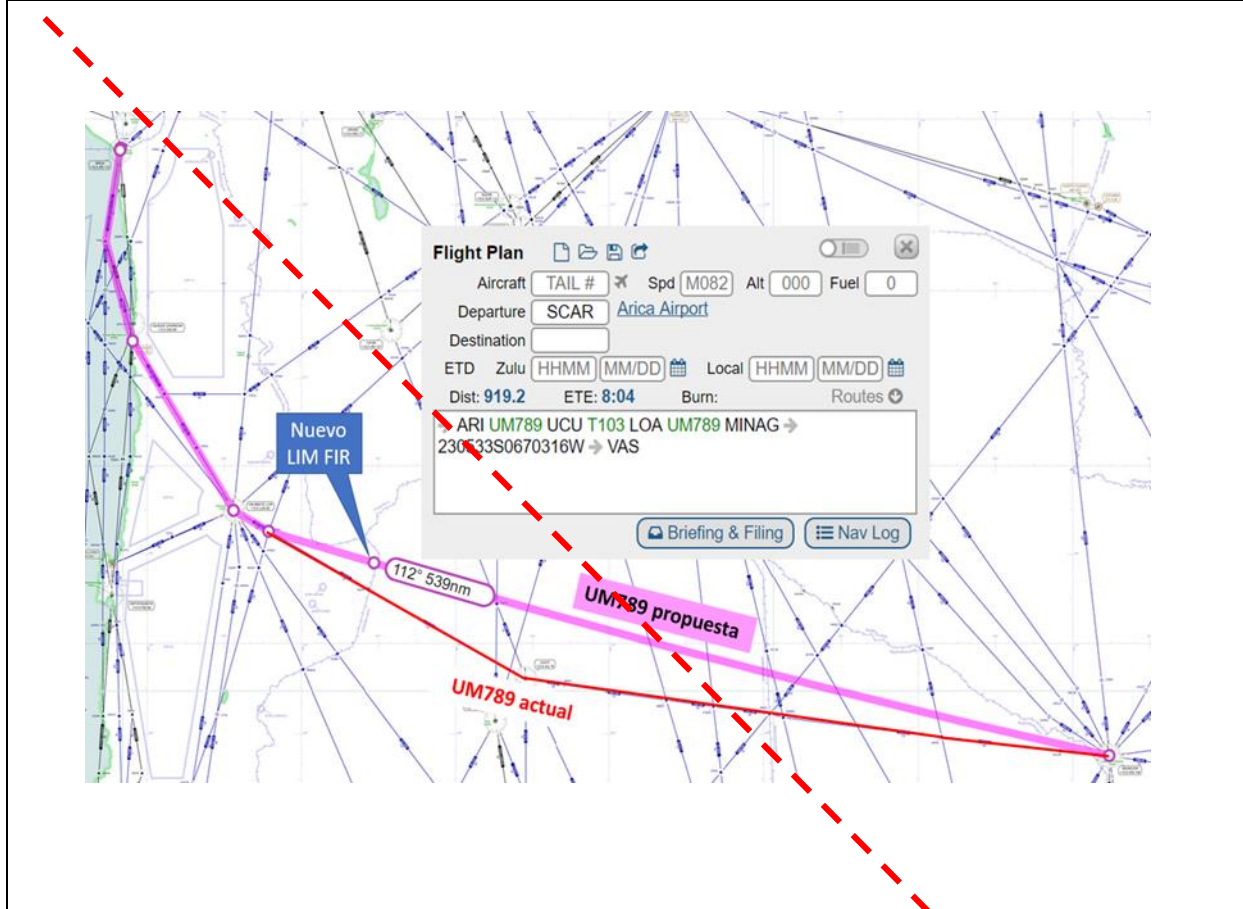
4-33 (UA556 - NEW UP526 – UM402)



States	Description	Results
Argentina, Paraguay Uruguay	Delete UA556	Argentina: Proposes deletion of UA556 and creation of UMXXX from REPAM to GUA. Paraguay: Proposes deletion of UA556 in full and creation of UMXXX. Proposes publication in April, effective June. Uruguay: Proposes deletion of UA556 in full and creation of an RNAV route along the same path. Proposes publication in April, effective June. ACTION: CONSIDER SAMIG20 REPORT 6.9, REGARDING ROUTE UM402 ARGENTINA: STUDYING SEGMENT REPAM - GUA VOR AND DELETION OF UM402 PARAGUAY WILL REVIEW FLIGHT STATISTICS FOR THIS PROPOSAL IATA: Reports that there are no operations on UM 402 south of VAS.
	COORDINATE AT SAMIG/21	PUBLICATION T B D

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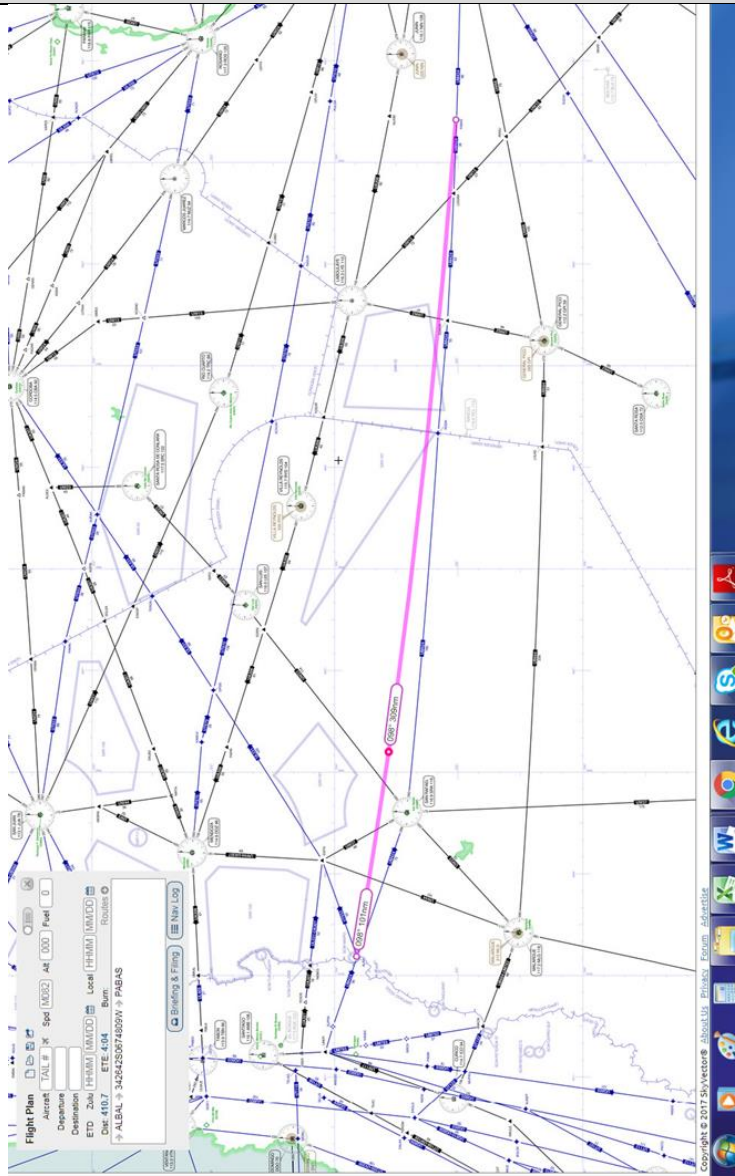
4-34 PROPOSAL ELIMINATED



States	Description	Results
Argentina Chile Paraguay Bolivia	Realign UM789. ARGENTINA REQUESTS TO CANCEL PROPOSAL.	Argentina: Agrees. Chile: Agrees. Bolivia: has no objection to the route (requires no coordination between Bolivia and Chile). Proposes coordinates of point of transfer Argentina - Chile (26 06 03 S / 067 01 22 W). Paraguay: No objection. ARGENTINA REQUESTS TO CANCEL PROPOSAL.

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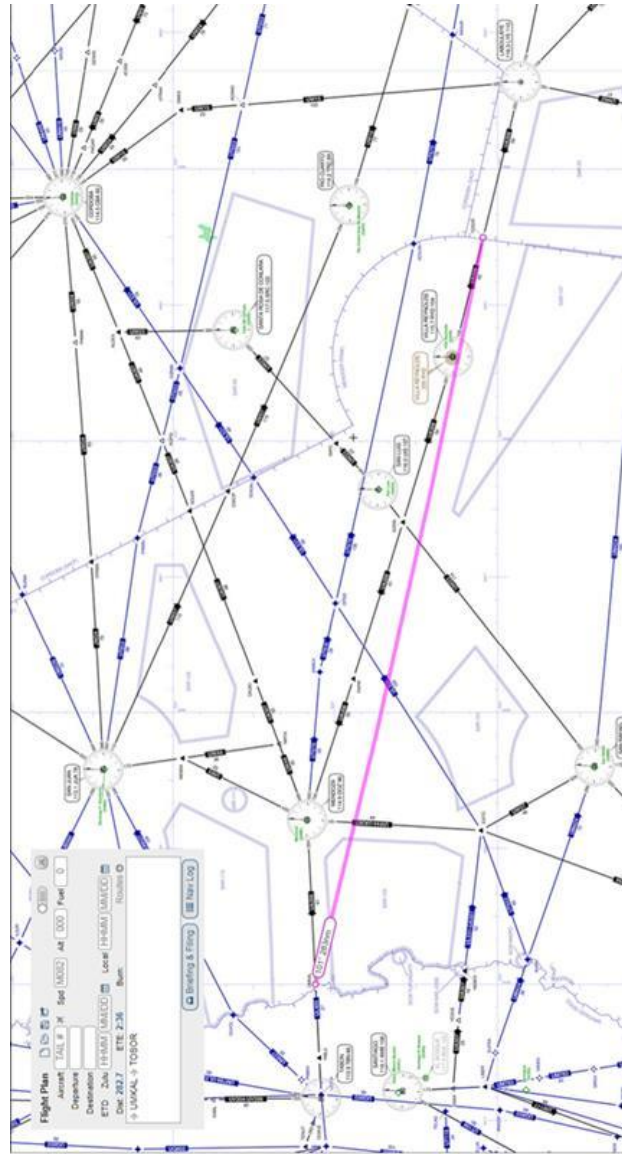
4-35 (<- UM424 - >)



States	Description	Results
Argentina Chile	Realign UM424	Argentina: Agrees. Chile: Agrees. ACTION: REALIGN UM424. ALBAL – BOBAP (ALREADY IN 5LNC) - ARG: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER

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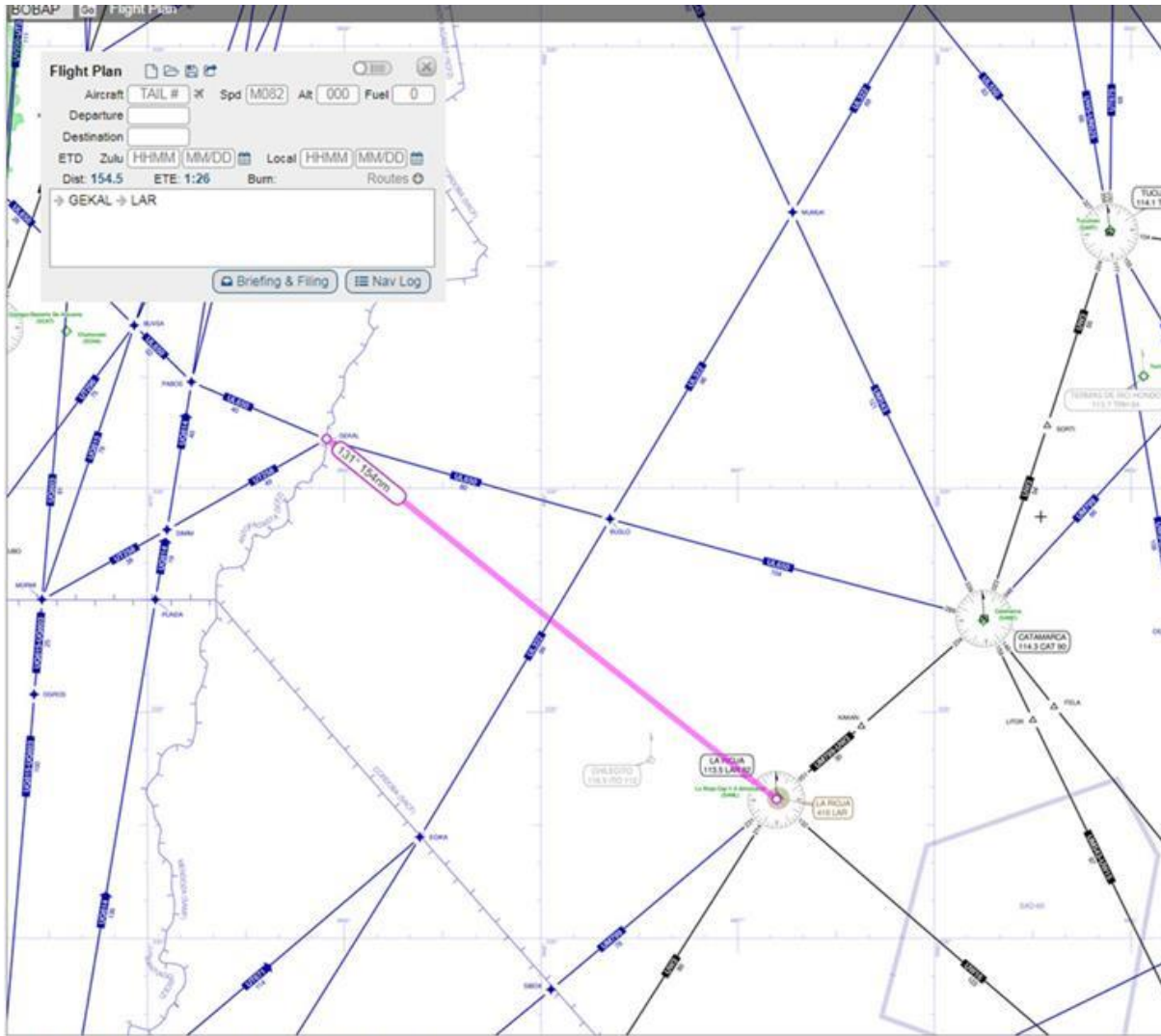
4-36 (new domestic route UT687 Argentina, NOT to be included in the e-ANP)



States	Description	Results
Argentina Chile Uruguay	Delete UA306. Realign UL405.	Argentina: Agrees, without deleting UA306 due to flow to Mendoza. Chile: Agrees. Uruguay: Agrees. ACTION: ARGENTINA OPTIMISES FLOW TOSOR – UMKAL WITH DOMESTIC RNAV ROUTE UT XXX IN ARGENTINA. ALREADY DESIGNED. NO CHANGES TO UL306 OR UL405. ARG: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER

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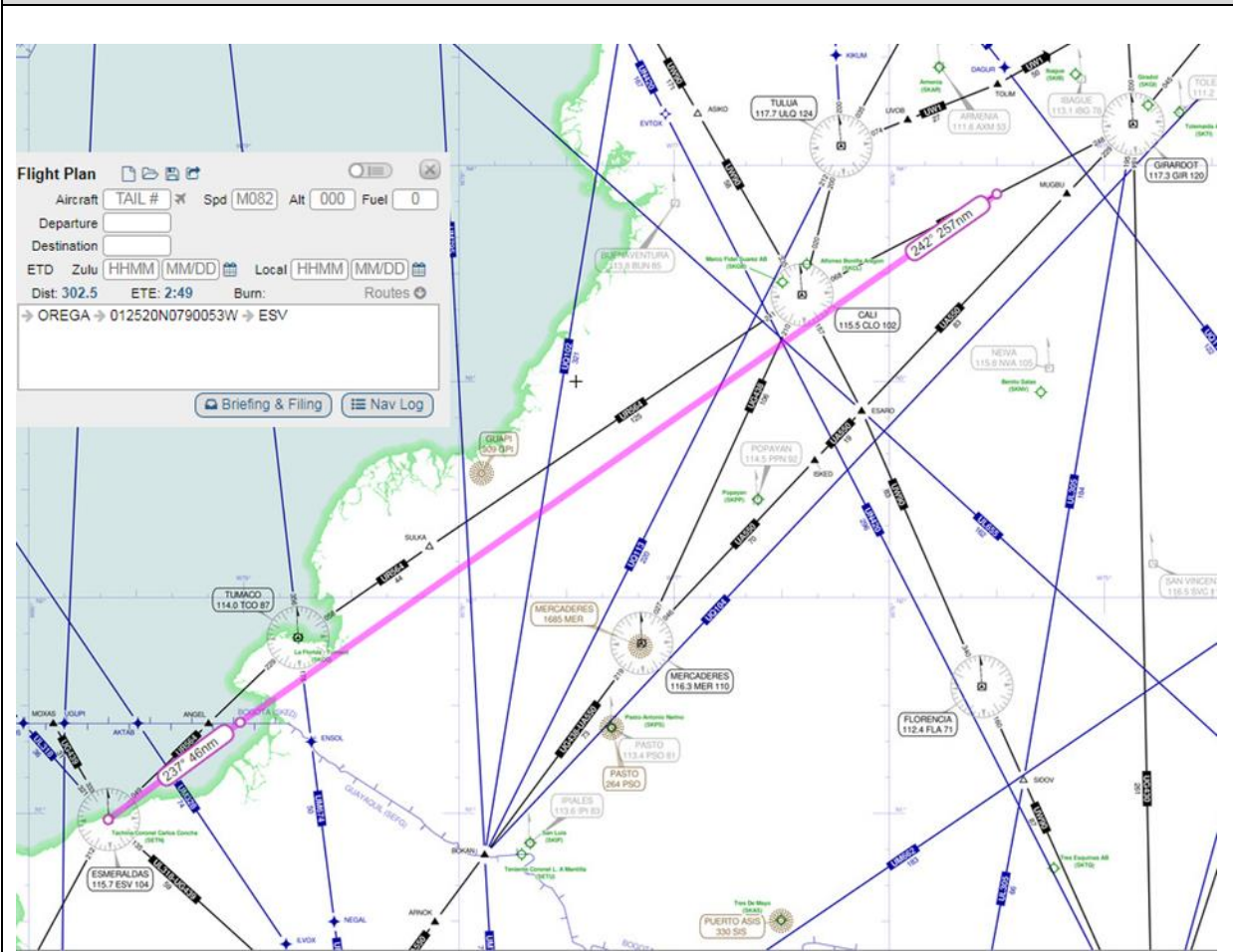
4-38 (new domestic route UT691 Argentina, NOT to be included in the e-ANP)



States	Description	Results
Argentina Chile	Realign UL650.	Argentina: Agrees to realign to LAR. Chile: Agrees and proposes transfer coordinates (24 55 28 S / 069 08 46 W).
		ACTION: ARGENTINA IMPLEMENTS DOMESTIC RNAV ROUTE UT 691 GEKAL – LAR VOR. ALREADY DESIGNED. ARG: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER

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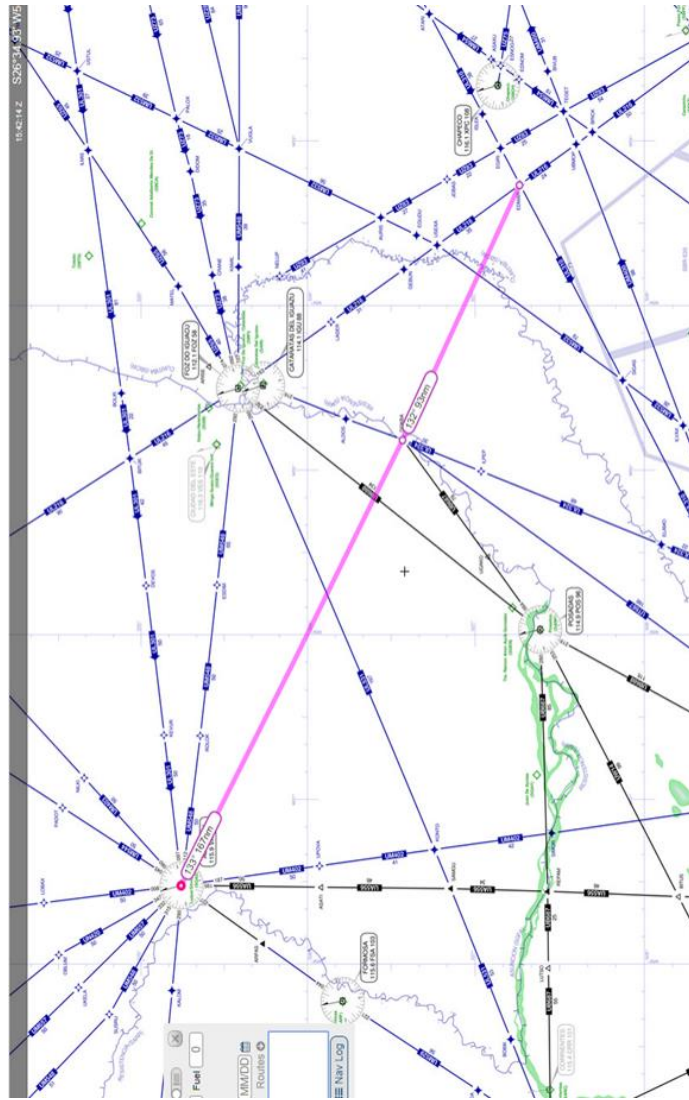
4-39 (new UN 776)



States	Description	Results
<p>Colombia Ecuador</p>	<p>Delete route UR564 segment GIRARDOT (GIR) – ANGEL - ESMERALDAS (ESV). Create RNAV route GIRARDOT (GIR) – ESMERALDAS (ESV).</p> <p>Ecuador accepts the proposal.</p> <p>Pending coordination with Colombia segment LIM FIR – GIRARDOT (GIR).</p>	<p>COLOMBIA</p> <ol style="list-style-type: none"> 1. AGREES TO DELETE UR564 2. PROPOSES RNAV ROUTE OREGA – GAVUT (N01 25 07 W078 59 58) – ESV <p>ECUADOR: RE - confirm</p> <p>ACTION ECU – COL: CREATE UN776 with point GAVUT (N01 25 07/ W078 59 58)</p> <p>ECU and COL: AIP PUBLICATION TBD</p>

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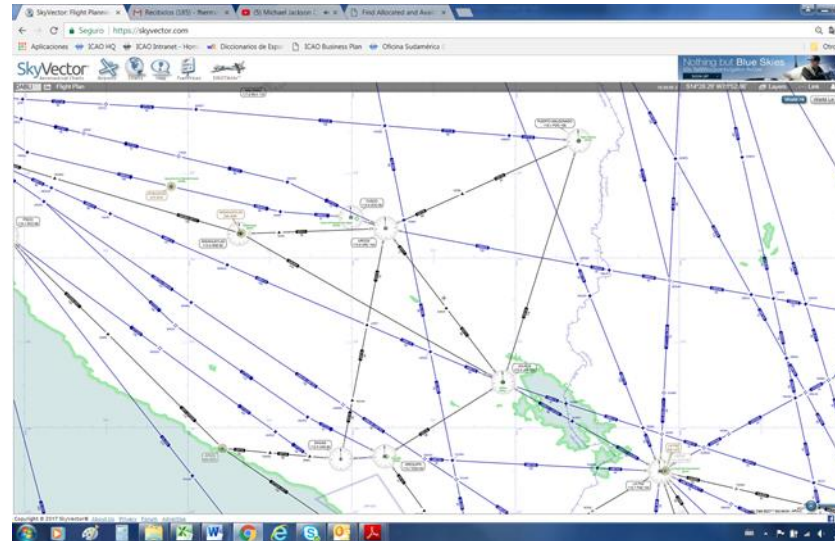
4-44 (UM 657 ->)



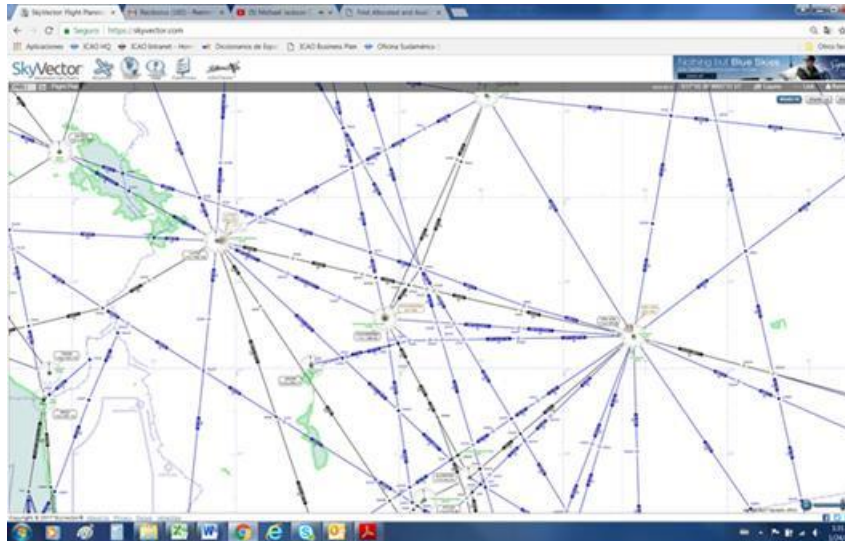
States	Description	Results
Argentina Bolivia Brazil Paraguay	Realign UM657	Proposal to extend UM657 in segment VAS - DOKBA – XXXX - EDMAR Argentina: Agrees. Bolivia: Agrees. Brazil: Does not accept realignment, but agrees to extend route. Publication proposed in April, effective June. Paraguay: Agrees.
	Coordinate at SAMIG/21	ACTION: EXTEND UM657 SOUTHEAST OF VAS VOR - DOKBA – XXXX - EDMAR BRAZIL: CALCULATE COORDINATES CURITIBA/RESISTENCIA TO POINT XXXXX FOR AGREEMENT BY ARGENTINA. PAR-ARG-BRA: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER

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4-49 (UA 304)



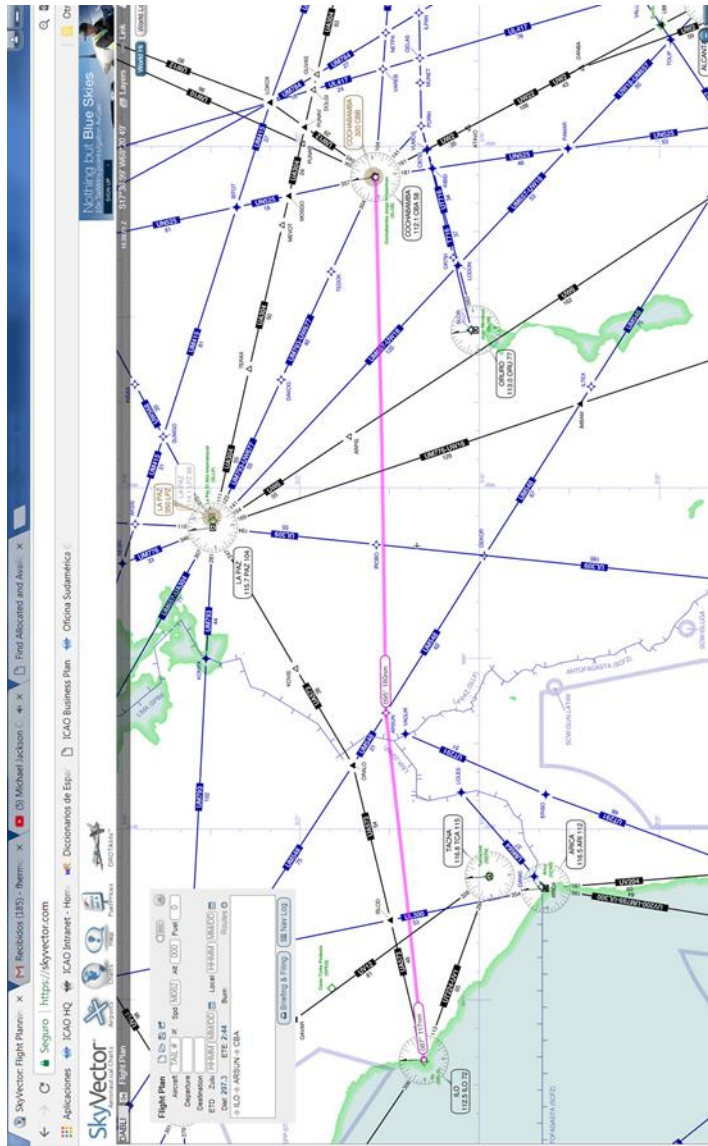
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<i>States</i>	<i>Description</i>	<i>Results</i>
Bolivia Peru	Delete route UA304 segment LIMA (LIM) – VIRU VIRU (VIR) – CAMPO GRANDE (GRD).	Bolivia accepts the proposal and will create a domestic route. Peru accepts the proposal. Segment ANDAHUAYLAS (AND) – JULIACA (JUL) will be covered by domestic route. ACTION: DELETE ROUTE UA304 SEGMENT LIMA (LIM) – VIRU VIRU (VIR) – CAMPO GRANDE (GRD). PER: CREATES DOMESTIC ROUTE. BOL: CREATES DOMESTIC ROUTE.
		PER - BOL: AIP PUBLICATION TBD

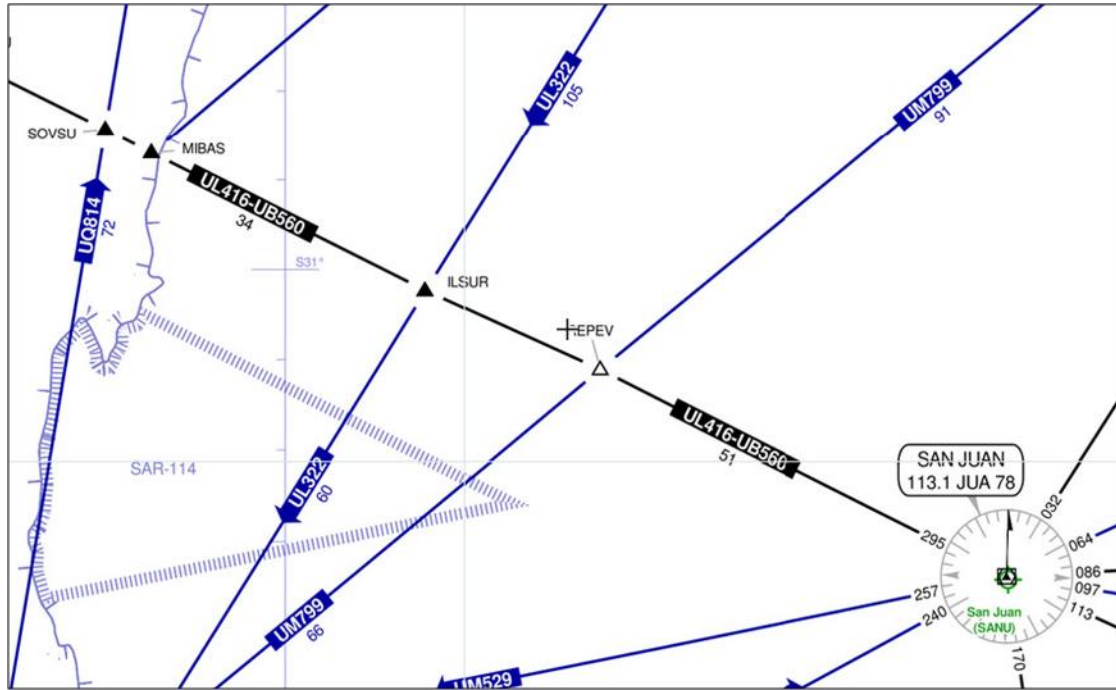
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4-53 (UA573 – NEW RNAV on STAND BY)



States	Description	Results
Bolivia Peru	Delete route UA573 segment ILO (ILO) – ORALO – LA PAZ (PAZ). Create RNAV route segment ILO (ILO) – ARSUN – COCHABAMBA (CBB).	Bolivia proposes ILO – ARSUN – IROBO – TEREP – COCHABAMBA (CBB). Chile accepts the proposal. Peru accepts the proposal. ACTION: CREATE RNAV ROUTE SEGMENT ILO (ILO) – ARSUN – COCHABAMBA (CBB). DELETE ROUTE UA573 ILO – ORALO – LAPAZ
		PER - BOL: STAND BY --- TO BE DEFINED IF IT MOVES ON TO VERSION 5.

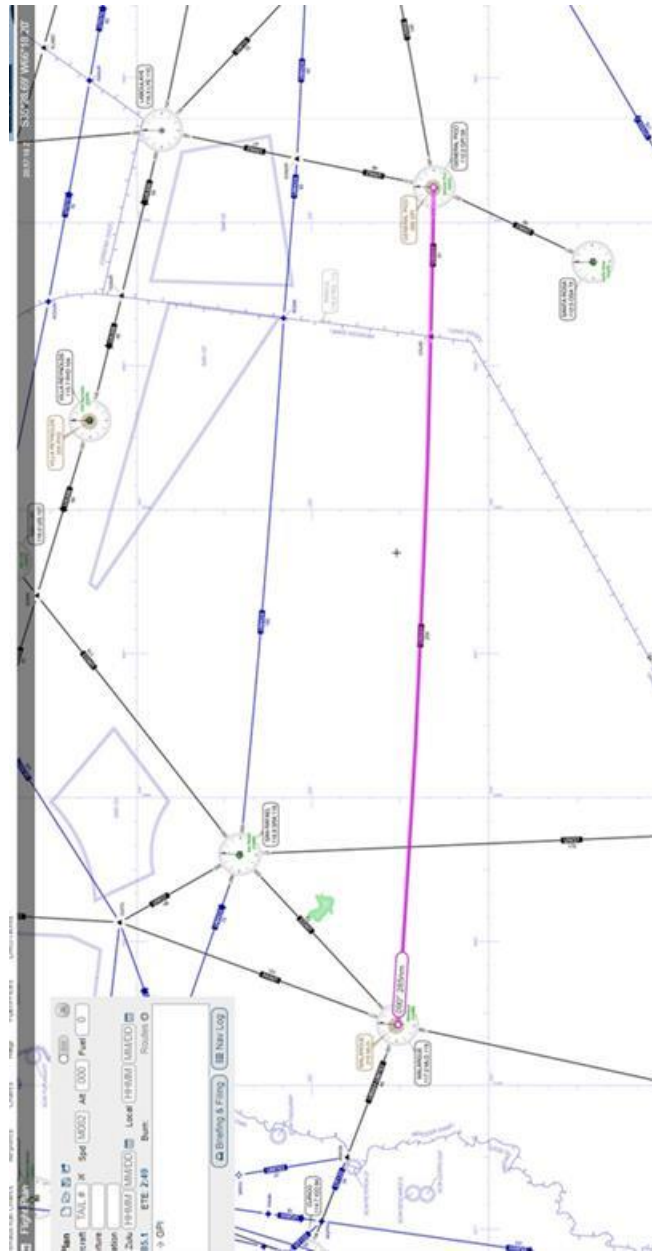
4-55 (UB650)



States	Description	Results
Argentina Chile	Delete UB560.	Argentina: Agrees. Chile: Accepts the proposal of Argentina and requests to maintain B560.
		<p>ACTION: ARG: DELETE UB560. NOTE.- NO CHANGES IN (LOWER) B560 ARG: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER</p>

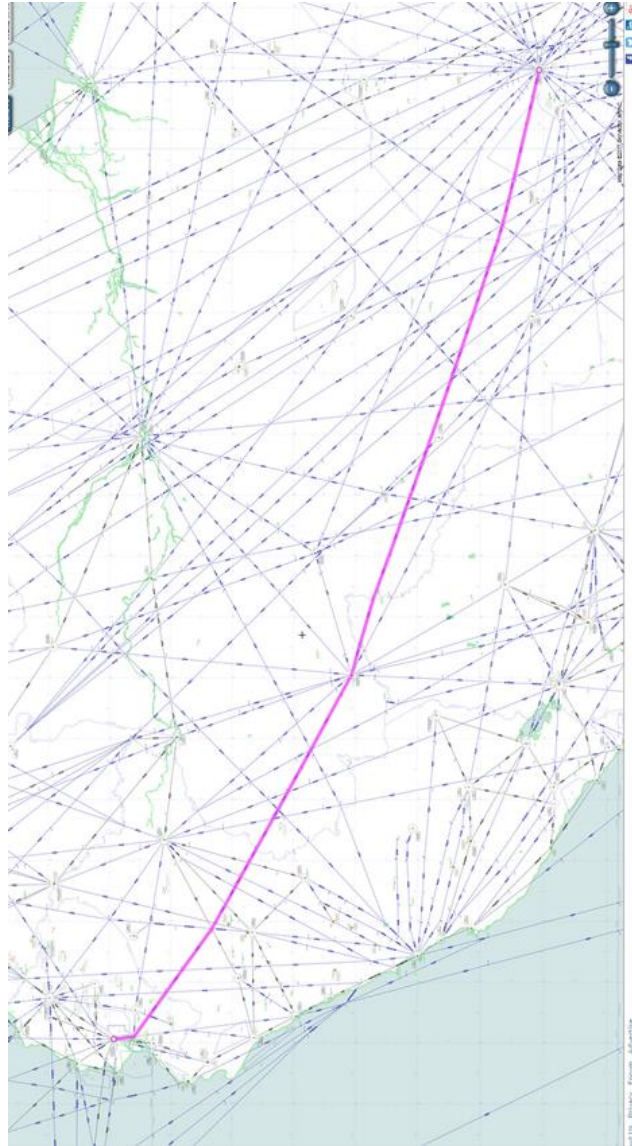
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4-61 (UM 783->)



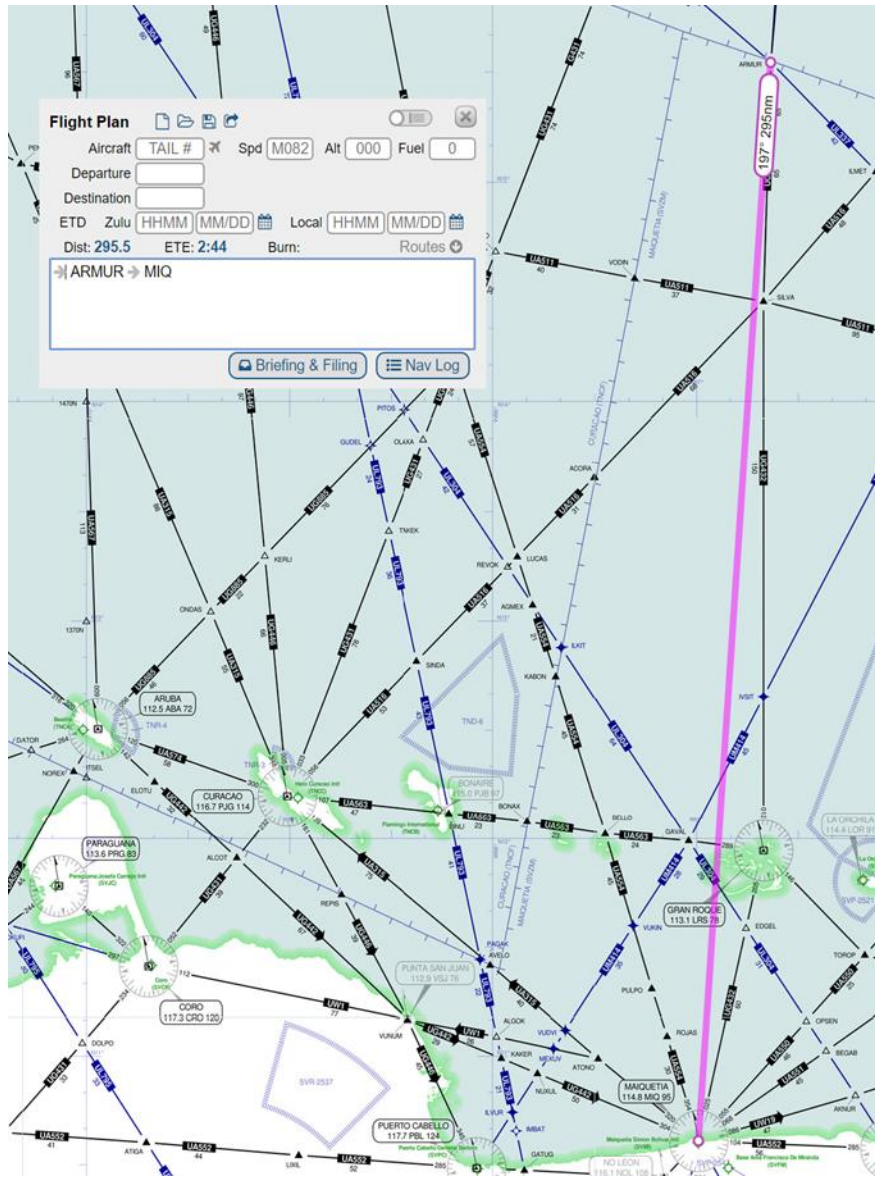
States	Description	Results
Argentina Chile	Delete UB684. Extend UM783.	Argentina: Agrees to extend UM783 but not to delete UB684. Chile: Accepts the proposal of Argentina.
		<p>ACTION:</p> <p>Note: MAINTAIN UB684, NO CHANGES. ARG: EXTEND UM 783 MLG VOR – GPI VOR.</p> <p>ARG: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER</p>

4-62 (UM530)



<i>States</i>	<i>Description</i>	<i>Results</i>
Ecuador Peru Brazil Bolivia	Delete route UM530 segment GUAYAQUIL (GYV) – BRAZILIA (BSI). Brazil will create domestic route RIO BRANCO (RCO) – BRAZILIA (BSI).	Ecuador accepts the proposal. Peru accepts the proposal. Brazil accepts the proposal. Bolivia also involved. Accepts the proposal.
		ACTION: DELETED BETWEEN GYV – BSI, WHICH INVOLVES BOLIVIA IN SEGMENT DADEK – BUVKI BOLIVIA AGREES. BRAZIL AGREES, CONFIRMED DELETION IN FULL. ECU-PER-BOL -BRA: AIP PUBLICATION TBD

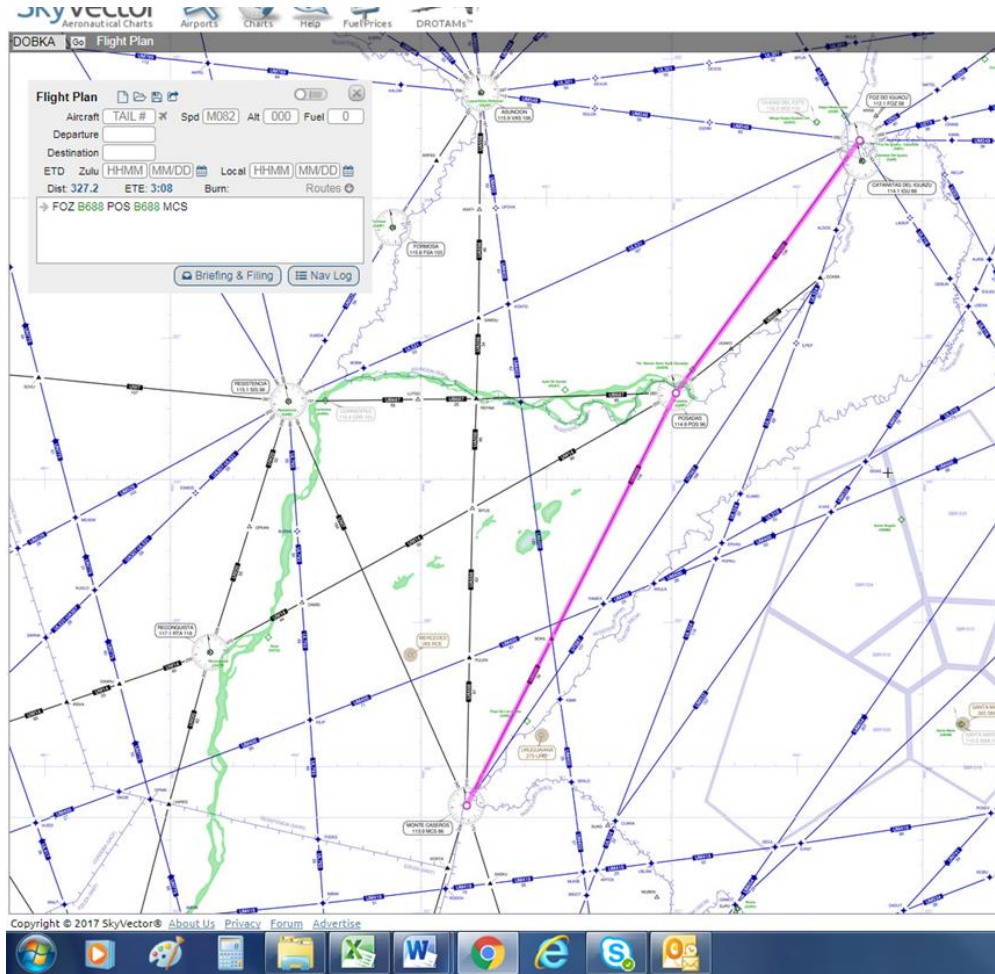
4-73 (UG432 – NEW UN 779)



States	Description	Results
Venezuela	Delete UG432 from ARMUR to MAIQUETIA. Add new RNAV route segment MAIQUETIA (MIQ) – ARMUR.	Venezuela accepts the proposal. ACTION: DELETE UG432 FROM ARMUR TO MAIQUETIA. NO CHANGES TO LOWER G432. CREATE NEW DOMESTIC RNAV ROUTE UTXXX MAIQUETIA (MIQ) – ARMUR. MAY CONTINUE TO THE NORTH, SAN JUAN FIR – TAKE PROPOSAL TO MEXICO, III PNB.
	DISCUSS AT MEX III PBN	COORDINATE / DEFINE

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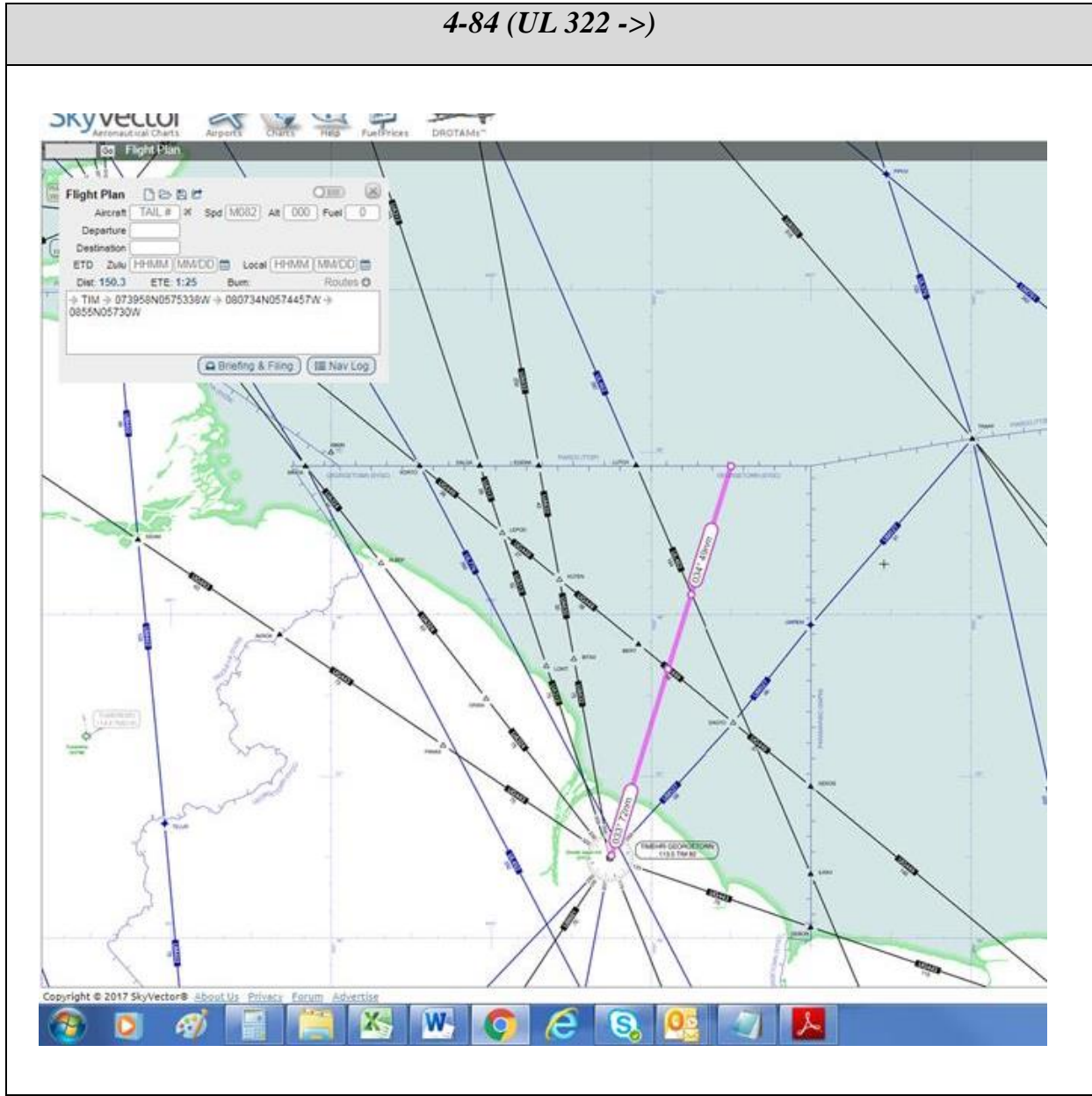
4-83 (NEW UN 785)



States	Description	Results
Argentina Brazil Paraguay	<p>Eliminar UB688</p> <p>RO: Proposal to delete UB688, but there is an optional initiative.</p>	<p>Argentina: Rejects proposal due to conventional flights. Brazil: Accepts the proposal. Paraguay: Rejects proposal because the route is currently being used and proposes the creation of a new RNAV route UMXXX along the same path. Proposes publication in April, effective June.</p> <p><u>ACTION:</u></p> <p>NOTE: MAINTAIN UB 688</p> <p>ARG-BRA-PAR: CREATE NEW REGIONAL RNAV UN785, FOZ – POS – MCS, WITH THE SAME PATH AND POINTS AS UB688</p> <p>ARG-BRA-PAR: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER</p>

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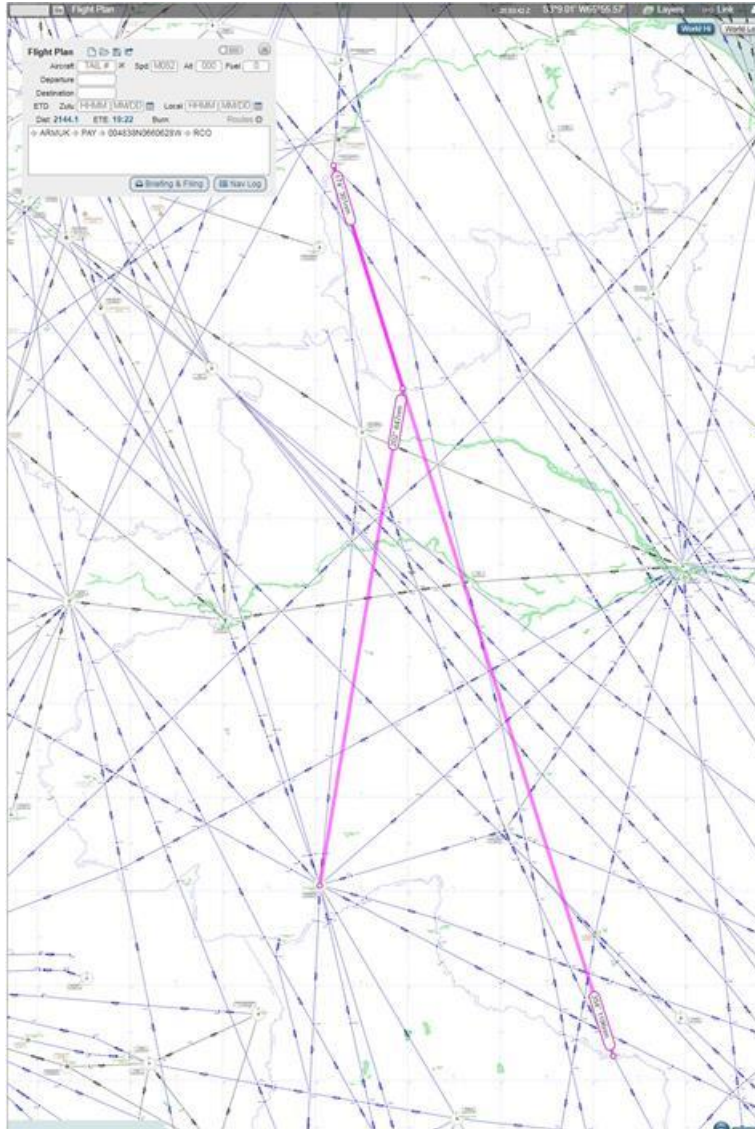
4-84 (UL 322 ->)



States	Description	Results
Guyana	<p>Realign route UL322 from TIMEHRI GEORGETOWN (TIM) to ASIMO.</p> <p>IS A KLM INPUT</p>	<p>Bolivia rejects proposal upon analysis of the Atlantic Group. Extension of route UL322 accepted as coordinated between KLM and Guyana for segment TIMEHRI GEORGETOWN (TIM) and point 0855N 05730W on the northern boundary of the Georgetown FIR.</p> <p>ACTION: EXTEND ROUTE UL322, SEGMENT TIM - PADUN FIR BNDRY – GEORGETOWN / PIARCO = 085500N 0573000W COORDINATION WITH PIARCO REQUIRED. TAKE TO MEXICO III PBN AIP PUBLICATION TBD</p>
	<p>TO BE DISCUSSED IN MEXICO III PBN</p>	

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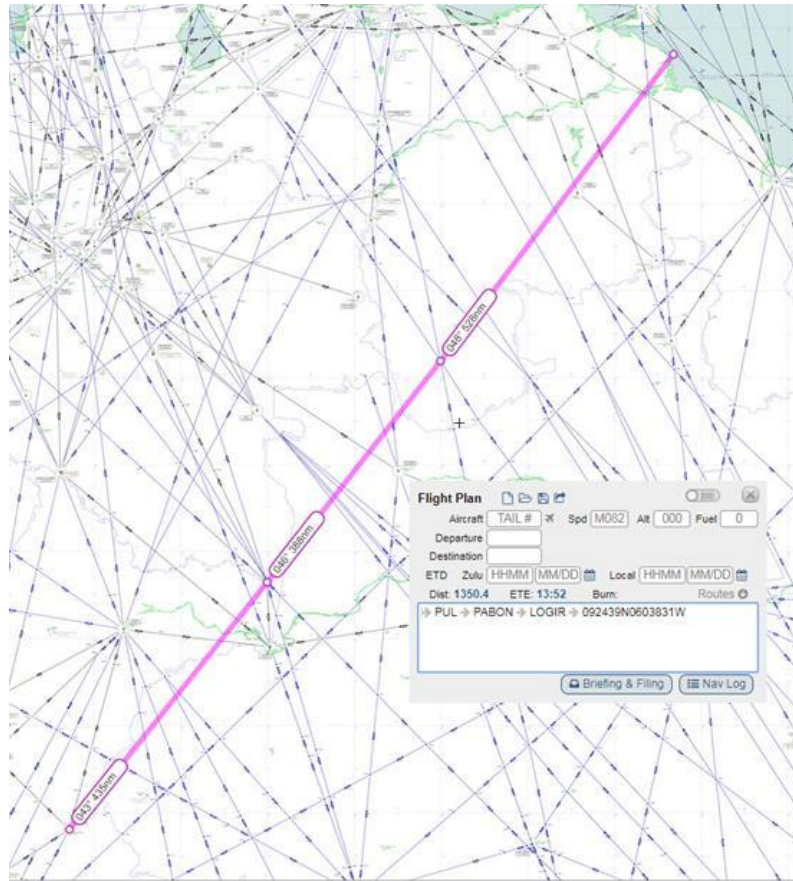
4-85 (<- UL206 -> + <-UL309 ->)



States	Description	Results
Venezuela Brazil + Colombia	Realign route UL216 SAN FERNANDO DE APURE to FOZ	<p>New proposal to realign UL216 from ARMUK to PAY VOR. So as not to lose connectivity, UL309 is realigned from RCO VOR to new Amazónico FIR - Maiquetía FIR boundary on UL216. Brazil agrees. Venezuela agrees.</p> <p>ACTION: BRA-VEN: REALIGN UL216 FROM ARMUK - XXXXXX - PAY VOR BRAZIL: REALIGN UL309 FROM RCO VOR TO XXXXXX. BRAZIL: CALCULATE XXXXXX FIR POINT FOR AGREEMENT WITH VENEZUELA. COLOMBIA: AGREES TO PUBLISH DELETION IN ITS FIR.</p>
	DISCUSS AT SAMIG 21	VEN -BRA- COL: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER

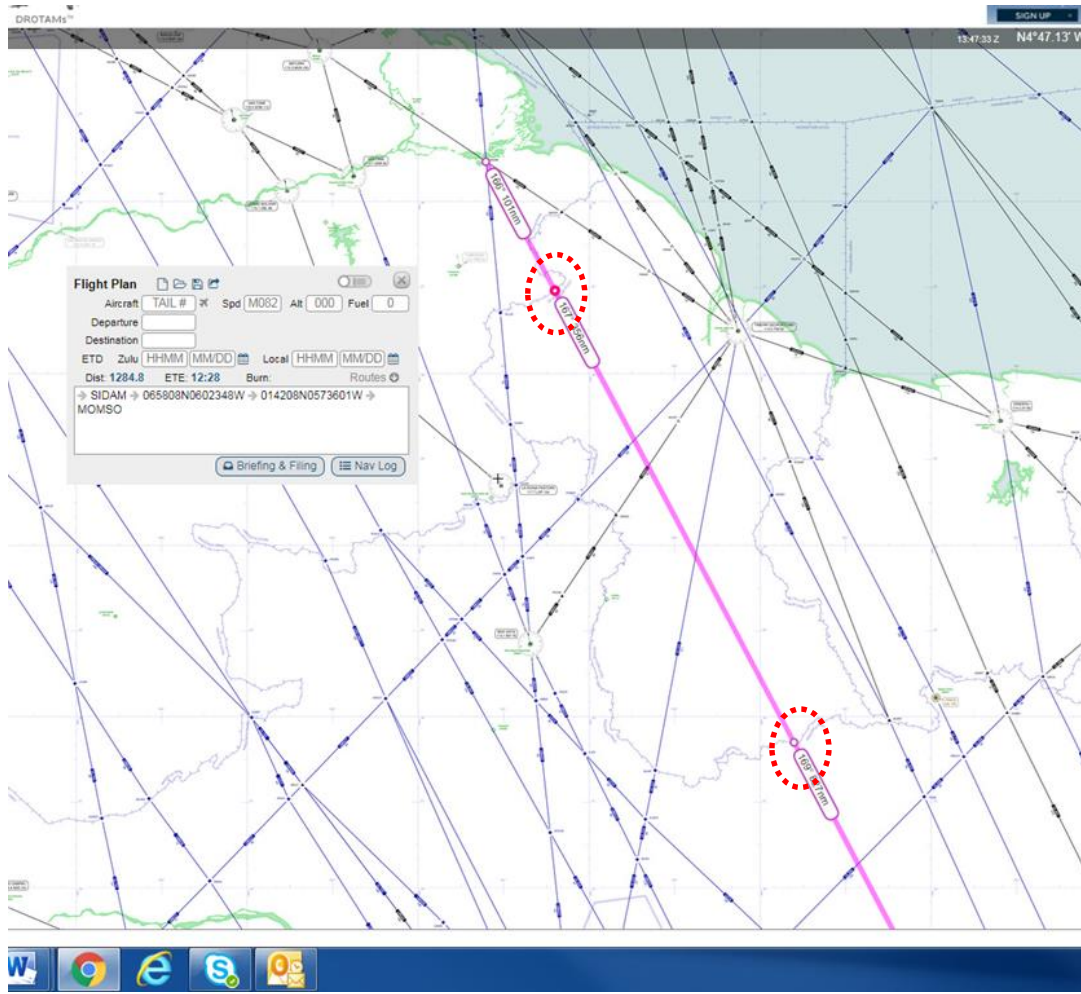
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4-88 (UX XXX)



States	Description	Results
<p>Venezuela Brazil Colombia Peru</p> <p>INPUT of KLM</p>	<p>Add RNAV route segment CANAIMA (CMA) – LETICIA (LET) - LIMA (LIM).</p> <p>The original proposal is modified. In coordination with KLM/Air France, the following points are agreed: PUL - PABON - LOGIR - WPT 092439N 0603831W (MAIQUETIA FIR/PIARCO FIR). Venezuela accepts the proposal. Brazil accepts the proposal. Pending coordination with Colombia and PIARCO.</p>	<p>Original proposal modified. In coordination with KLM/Air France, the following points are agreed: PUL - PABON - LOGIR - WPT 092439N 0603831W (MAIQUETIA FIR / PIARCO FIR).</p> <ul style="list-style-type: none"> • Venezuela accepts the proposal. • Brazil accepts the proposal. • COLOMBIA accepts the proposal. • Pending coordination with PIARCO. Take to III PBN – Mexico. • Pending opinion of PIARCO / Trinidad & Tobago. <p>ACTION STILL ONGOING: VENEZUELA and BRAZIL: define FIR boundary points north of SGC VOR. PERU – COLOMBIA - BRAZIL: agree on the use of PABON (north of Leticia) as boundary in LOAs. Verify, move or change REMEX and AROTI, due to crossings. Attention to ATS delegation. Take to Mexico III PBN for opinion of PIARCO/ Trinidad & Tobago.</p>
	<p>DISCUSS AT MX III PBN</p>	

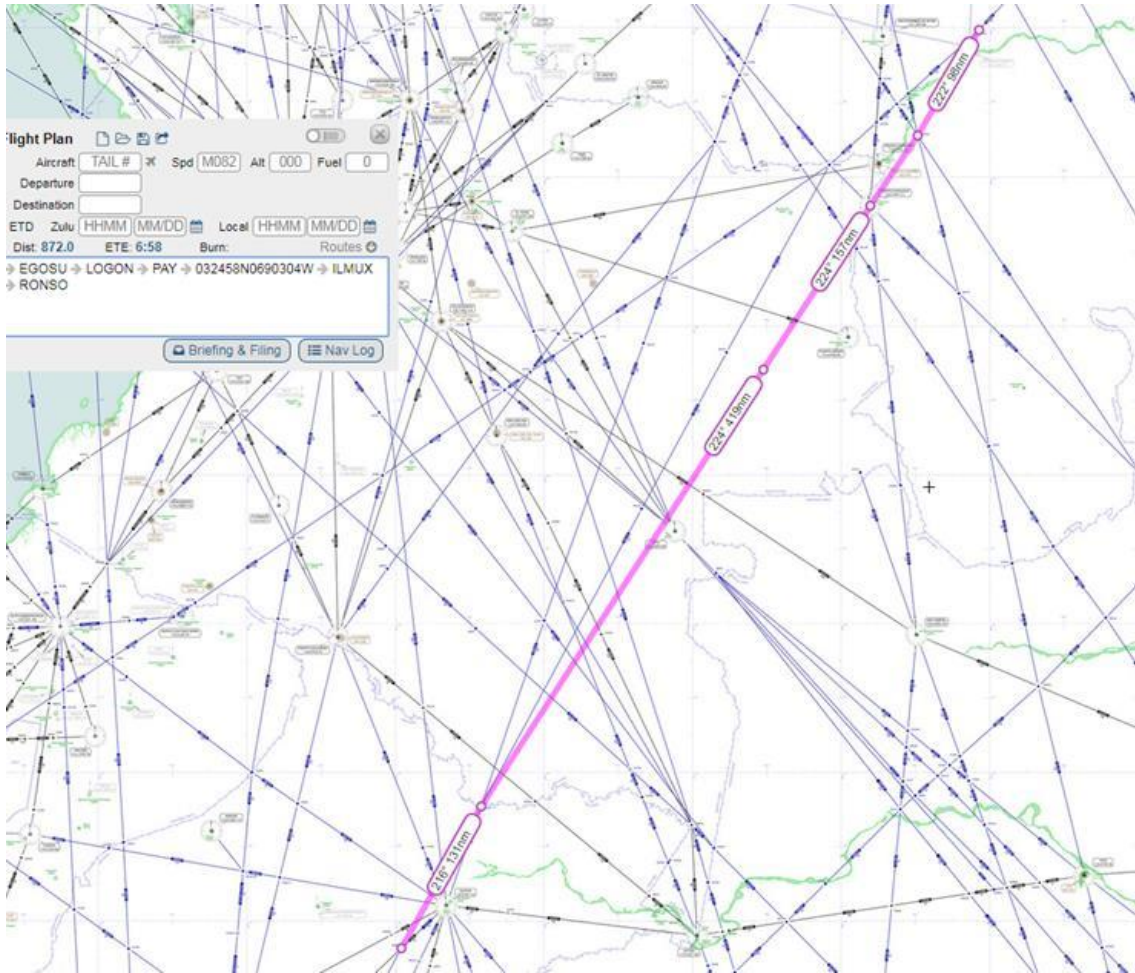
4-92 (NEW UP 535)



States	Description	Results
Venezuela Guyana Brazil	New UXXX route SIDAM – MOMSO, involves Maiquetia, Georgetown, Amazonica FIRs.	<ul style="list-style-type: none"> • Venezuela: accepts the initiative, which starts at SIDAM in the Maiquetia FIR. • Guyana: Agrees. • Brazil: Agrees. <p>ACTION: NEW ROUTE UP 535 SIDAM – MOMSO</p> <p>SAM RO:</p> <ul style="list-style-type: none"> • PANIV (065822.28 N / 0602410.60 W) BNDRY – VEN /GUY VENEZUELA: Accepts point. GUYANA: • SUMVA (014148.58N / 0573559.45 W) FIR BNDRY – GUY /BRA GUYANA: BRAZIL: <p>VEN-GUY-BRA: AIP PUBLICATION TBD</p>

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4-94 (NEW UP 776)

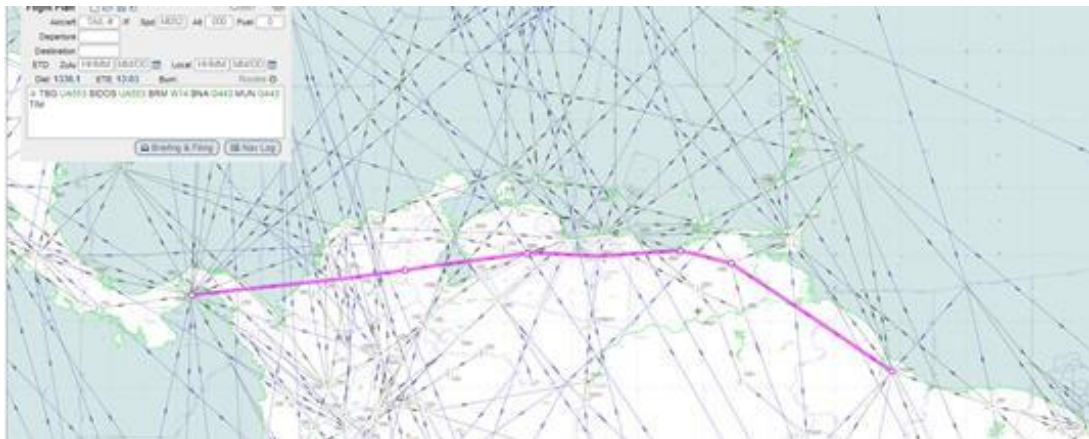


States	Description	Results
<p>Colombia Peru Venezuela</p> <p>INPUT of KLM</p>	<p>Establish RNAV route segment EGO SU - PUERTO AYACUCHO - ILMUX - RONSO LODIN - ILROL. Delete route UQ118 (BOGOTÁ FIR). >>>>>>>></p> <p>Venezuela accepts the proposal. Pending coordination with Colombia. Peru accepts ILMUX RONSO UT311 in the LIMA FIR.</p>	<p>Colombia: PROPOSAL: NEW RNAV ROUTE EGO SU – PAY – XXXXX near MAVKI (approx. 032458N 0690304W) - ILMUX – RONSO – LODIN – ILROL - DELETE UQ118 AMAYA – MAVKI – ILMUX - COLOMBIA AGREES – FILING OF DIRECT FLIGHT PLAN PAY – ILMUX INITIALLY APPROVED</p> <p>ACTION: VEN: Confirm ? COLOMBIA: agrees. Define LAT/LON lateral point XXXXX east of MAVKI. COLOMBIA: Delete UQ 118. PERU: agrees. Uses existing points from ILMUX –RONSO.</p> <p>Tentative: AIP PUBLICATION 16 AUGUST EFFECTIVE 11 OCTOBER</p>

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ROUTE UP549 TIM - TBG

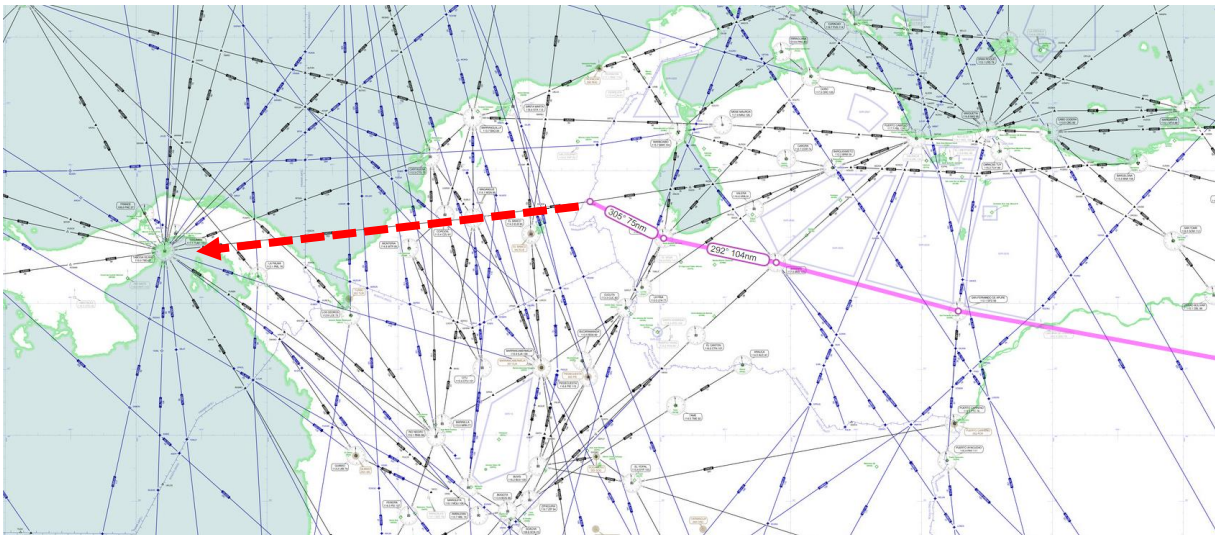
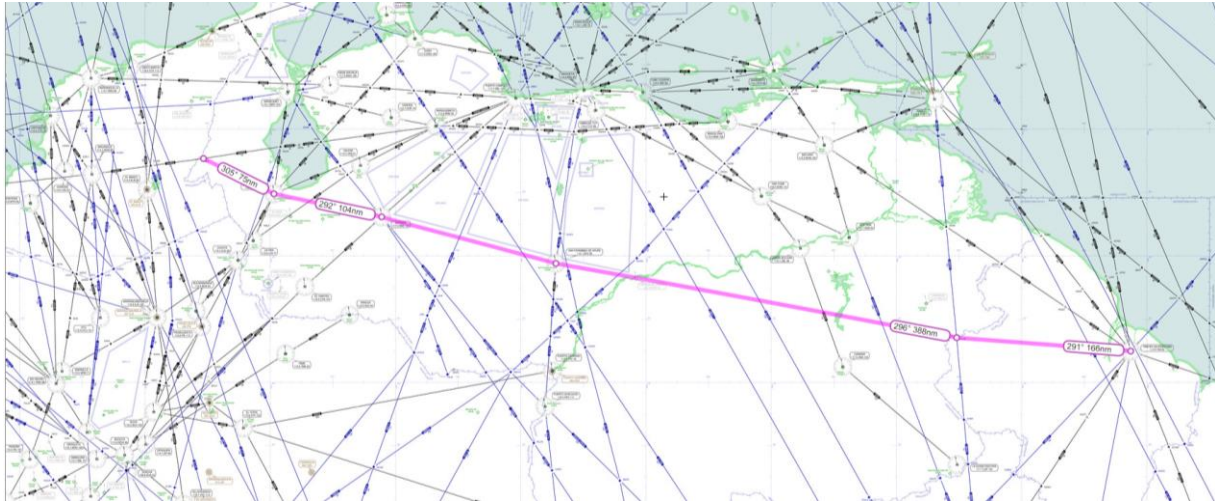
DATA



COPA 254/255 MPTO – SYCJ year 2017 = 350 OPS.

VIA ROUTES UA553 -UW14- UA443 FLIGHT DISTANCE. 1330 NM.

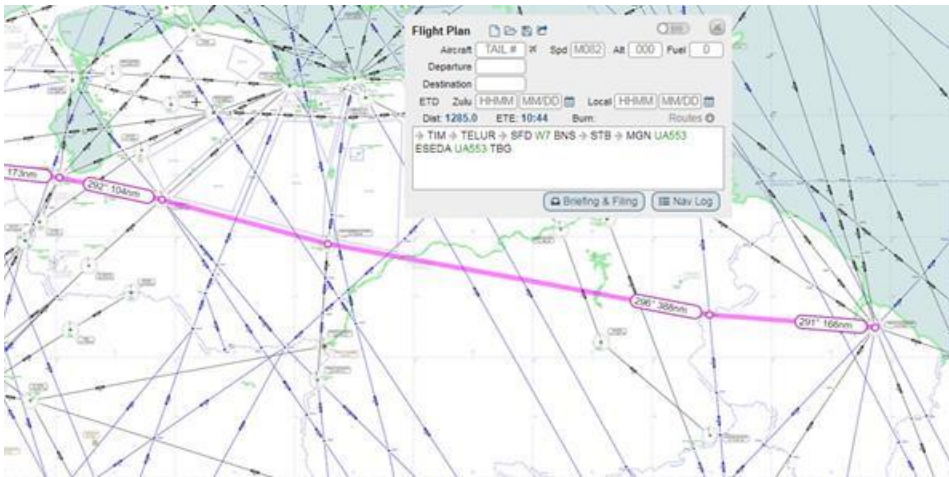
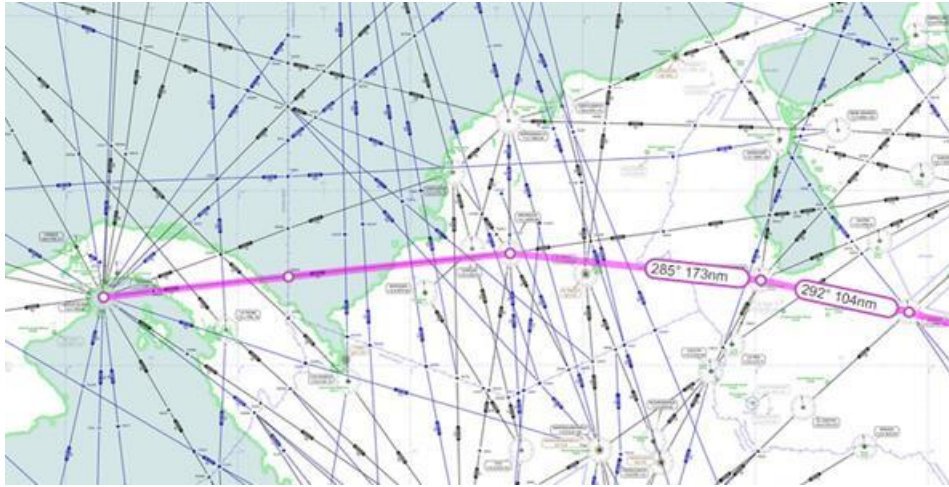
4-95 (new UP 549)



<i>States</i>	<i>Description</i>	<i>Results</i>
Venezuela Guyana + Colombia	Establishes RNAV route UXNNN between Georgetown and Panama City TIM VOR- TELUR –SFD- BNS –STB - SIDOS (BNDRY BARANQUILLA- MAIQUETIA) to intercept route UA553. No changes for Panama. FLIGHT DISTANCE: 1293 NM, SAVES 37 NM	<ul style="list-style-type: none"> • Venezuela: Will study initiative regarding airspace and path. • Guyana: Agrees. • Colombia: Agrees. <p>ACTION: NEW ROUTE UP 549 – TIM VOR – TELUR – SAN FERNANDO SFD VOR – BARINAS BNS – STA BARBARA STB – SIDOS entry via UA553 - ESEDA</p> <p>COLOMBIA: AGREES VENEZUELA: AGREES – but confirms. GUYANA: AGREES</p> <p>VEN-GUY: AIP PUBLICATION TBD</p>

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4-95 (optional proposal of COLOMBIA)



<i>States</i>	<i>Description</i>	<i>Results</i>
Venezuela Guyana Colombia + Panama		<p>NOTE: Colombia proposes to improve from STB to MGN VOR on route UA553 to 100 NM west of SIDOS.</p> <p>BUT this option affects or complicates proposal 4-21</p>
