

ICAO FIRST WORKSHOP ON INTERFACE BETWEEN TMA_s AND VERSION 03 OF SAM ROUTE NETWORK

KLM Royal Dutch Airlines

Route Requests

Optimization
of NE-SW Flow
to the Andes
Region

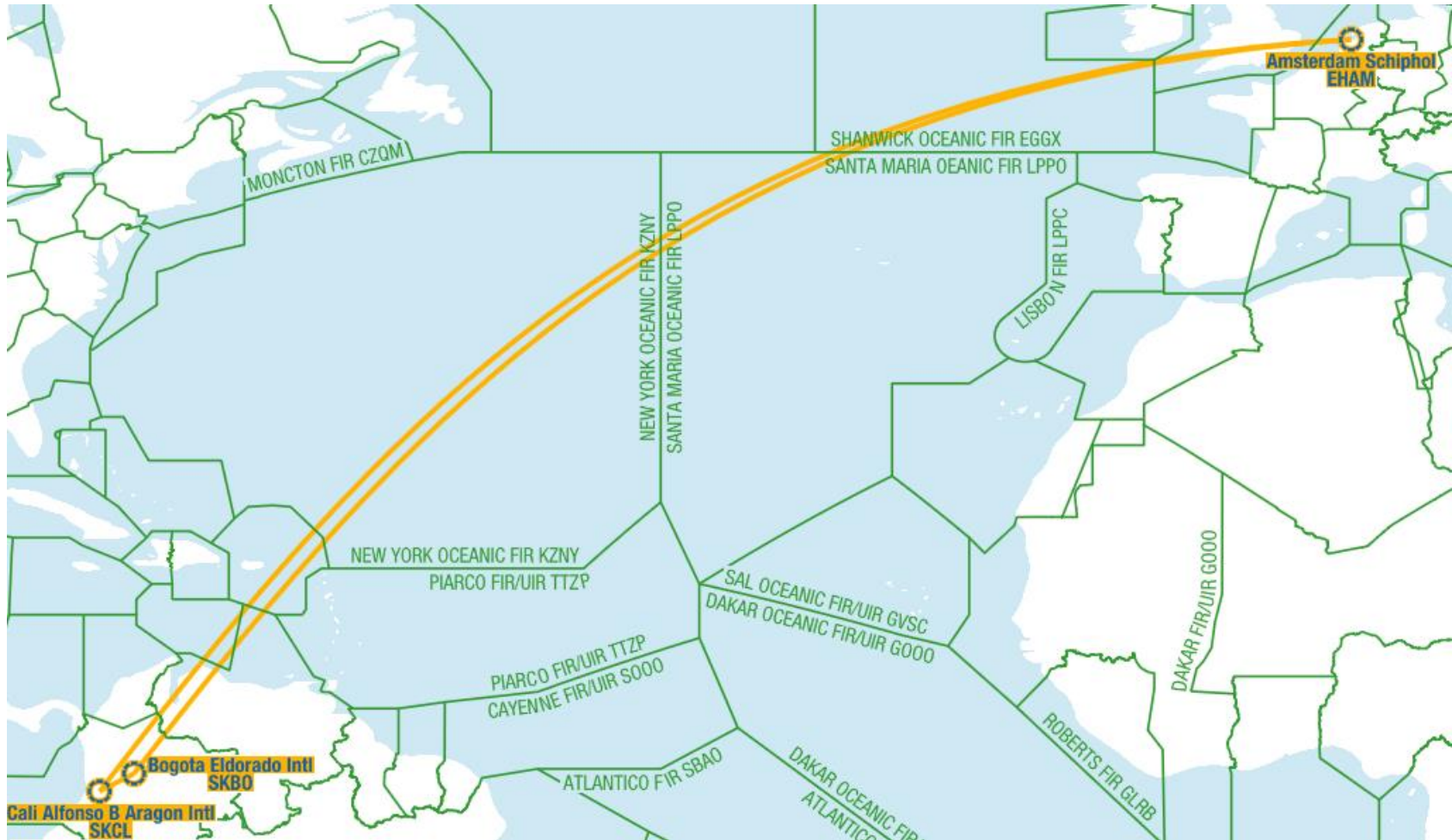
Ruben Jonker

Lima, Perú
16-20 March
2015



Starting 28 March 2015

Amsterdam-Bogota-Cali-Amsterdam



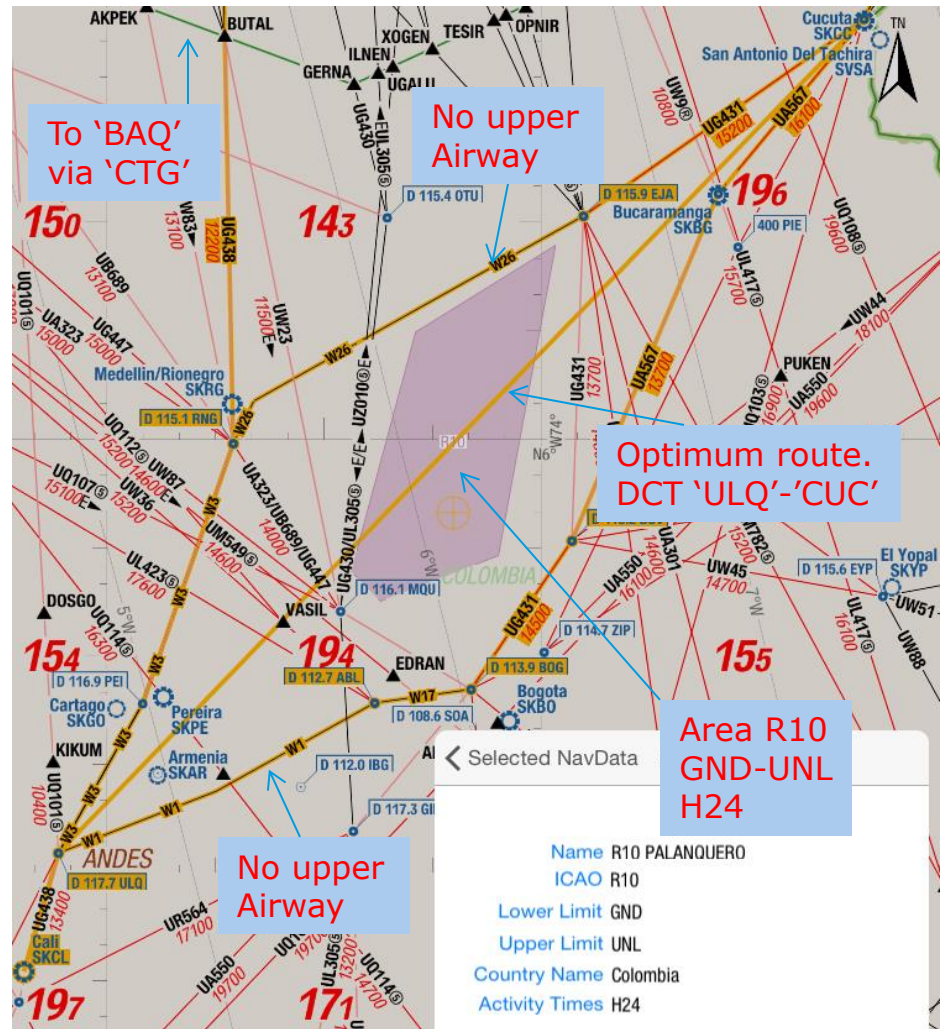
SKCL-EHAM

Performance Limited, Lower Airways, Restricted Area.

- Depart SKCL via TULUA (ULQ) SIDs
- North Departure via 'CTG' and 'BAQ'
- Northeast DEP via 'CUC'

Constraints:

- Area R10 in the middle of Optimized Route
- Lack of Upper Airways between 'RNG'-'EJA' and 'ULQ'-'BOG'.
- Route to 'BAQ' via 'CTG'.

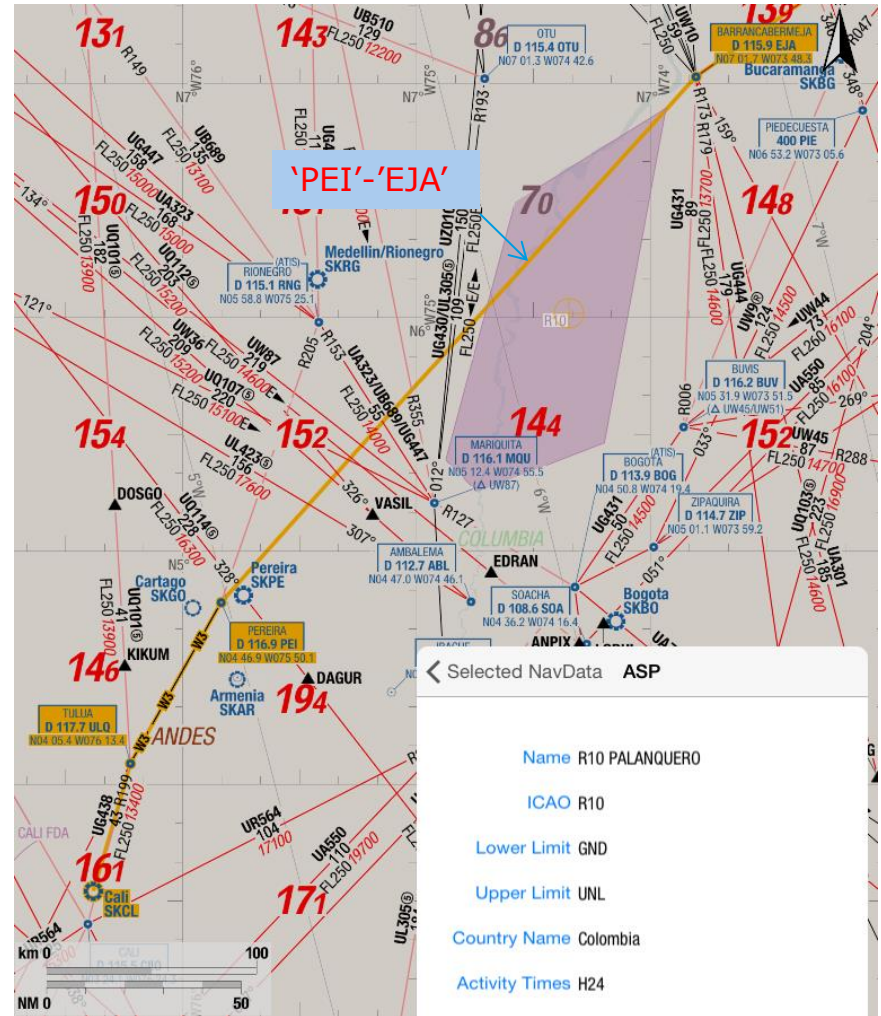


SKCL-EHAM

1. KLM request - Routing through/around R10

A. Through R10:
Conditional Route, open during certain hours (evening/night, weekend). Between 'PEI'-'EJA' at an Upper FL.

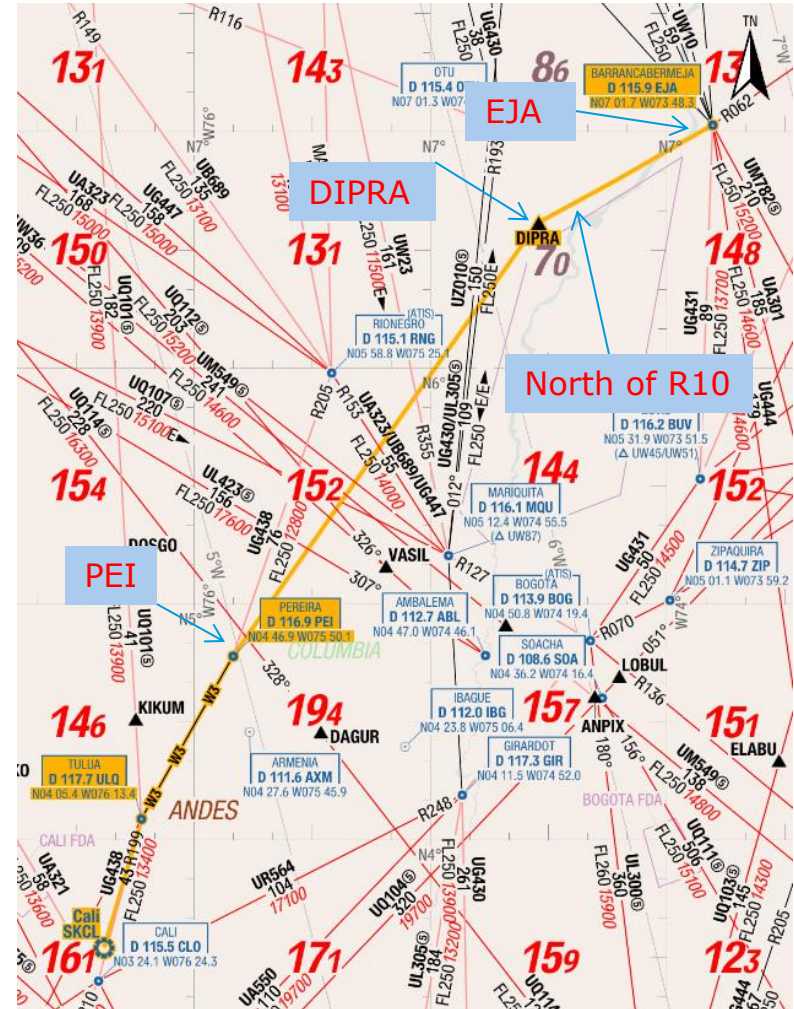
Note:
KL0745 SKCL-EHAM departs 20:35LT (3x per week, Tu/Th/Sa)



SKCL-EHAM

1. KLM request - Routing through/around R10

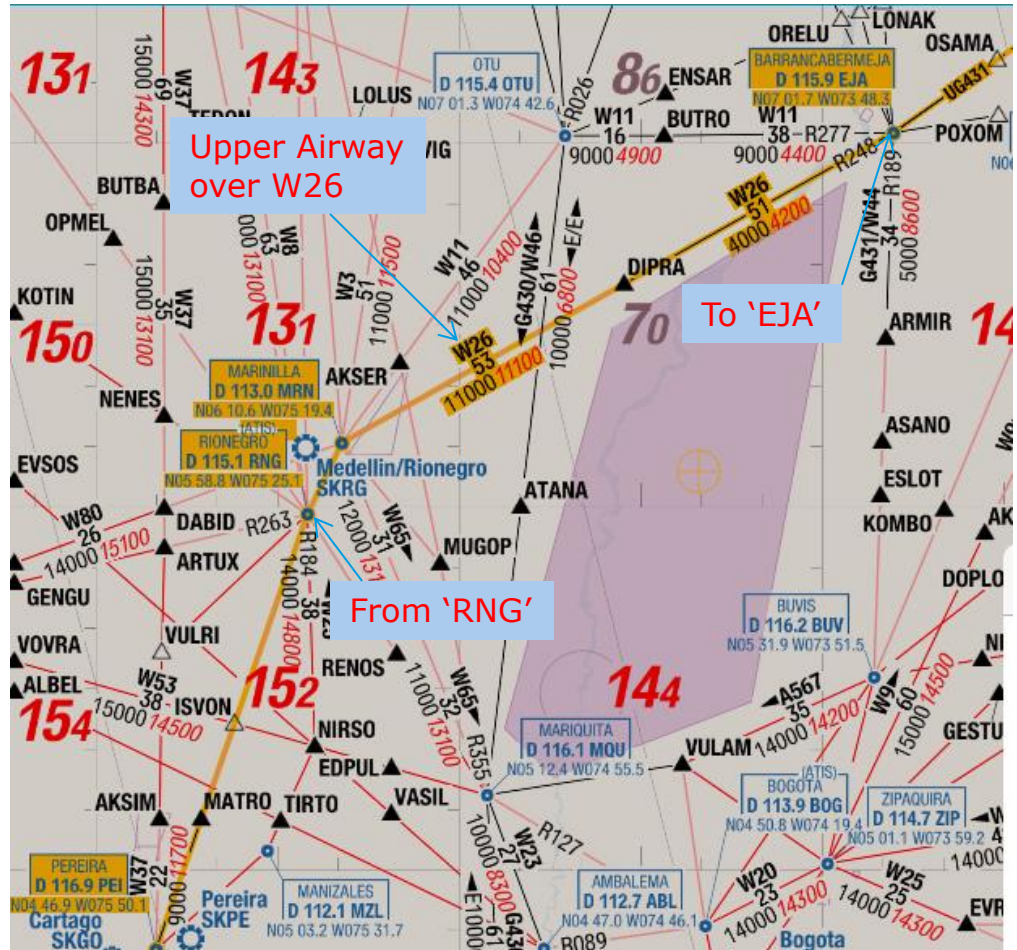
B. Around R10 (North): New Route 'PEI'-DIPRA- 'EJA' at an Upper FL



SKCL-EHAM

1. KLM request - Routing through/around R10

C. Around R10 (North):
Upper Route over
existing Lower
Airway W26 between
'RNG'-'EJA'.
(e.g. UW26)

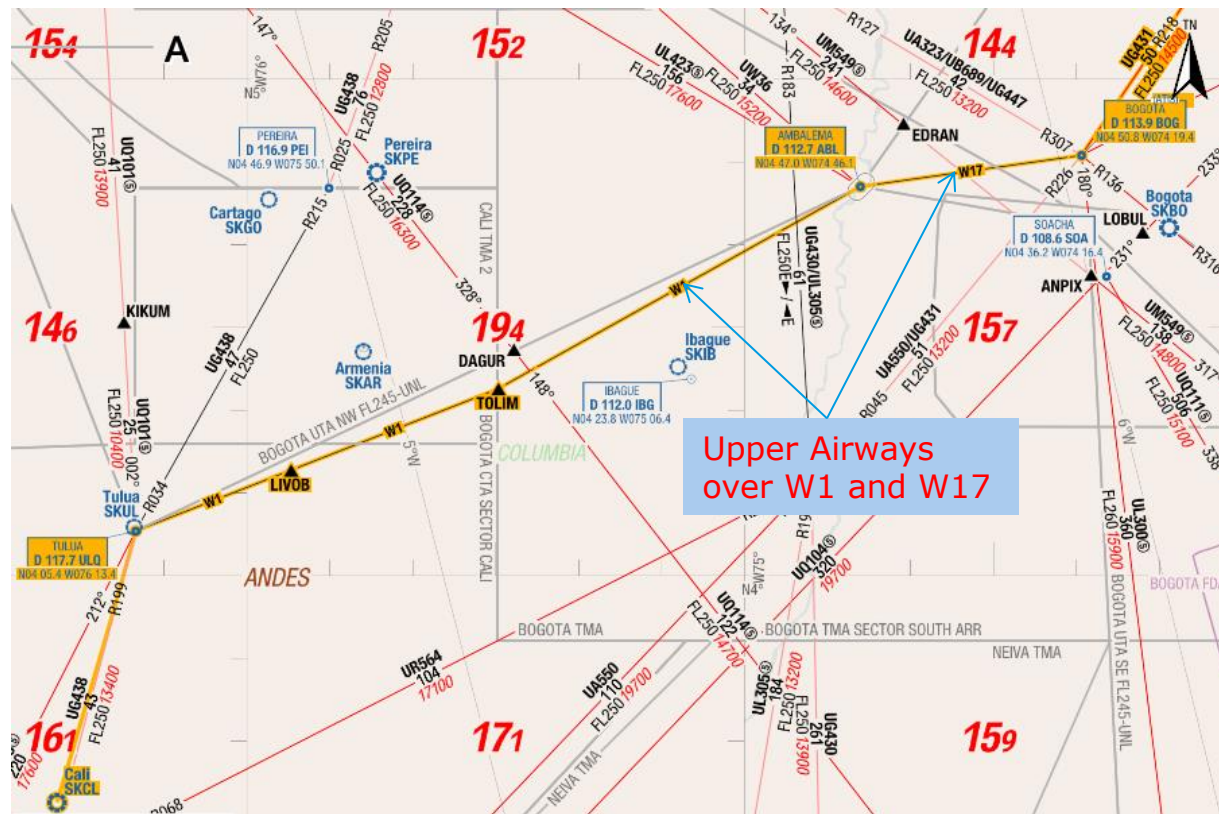


SKCL-EHAM

1. KLM request - Routing through/around R10

D. Around R10 (South):

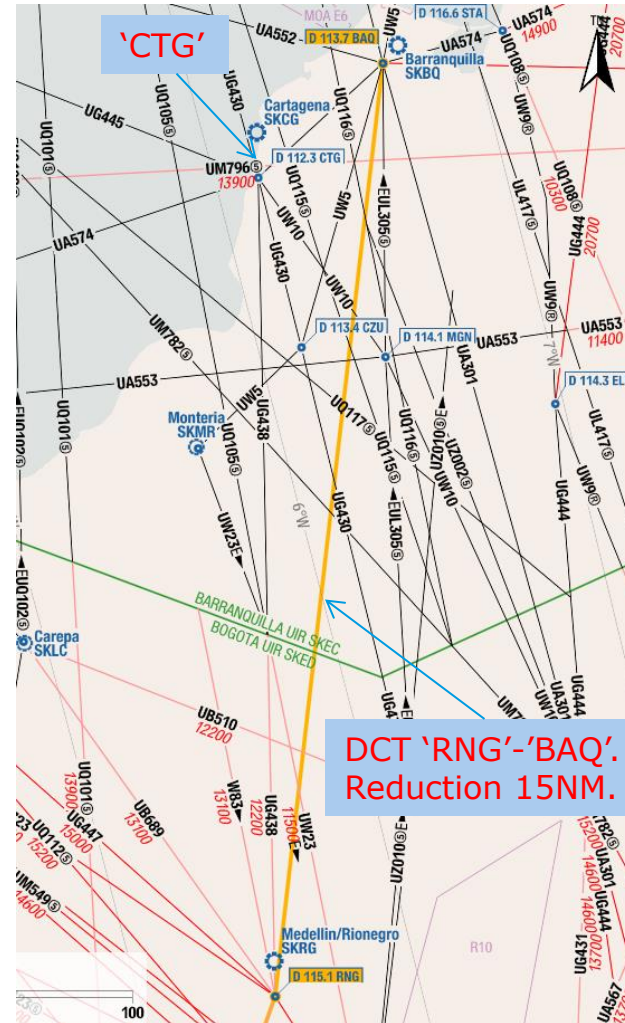
Upper Route over existing Lower Airways W1 and W17 between 'ULQ'-'ABL' and 'ABL'-'BOG' (e.g. UW1, UW17)



SKCL-EHAM, SEGU-EHAM, EHAM-SEQM

2. KLM request – Direct route between 'RNG' and 'BAQ'

To optimize a North Departure from SKCL, KLM requests a DCT segment between VOR/DMEs 'RNG' and 'BAQ'. Direct route saves 15NM compared to route via 'CTG'.



Cali, Quito, Guayaquil Routes



SEGU-EHAM, EHAM-SEQM

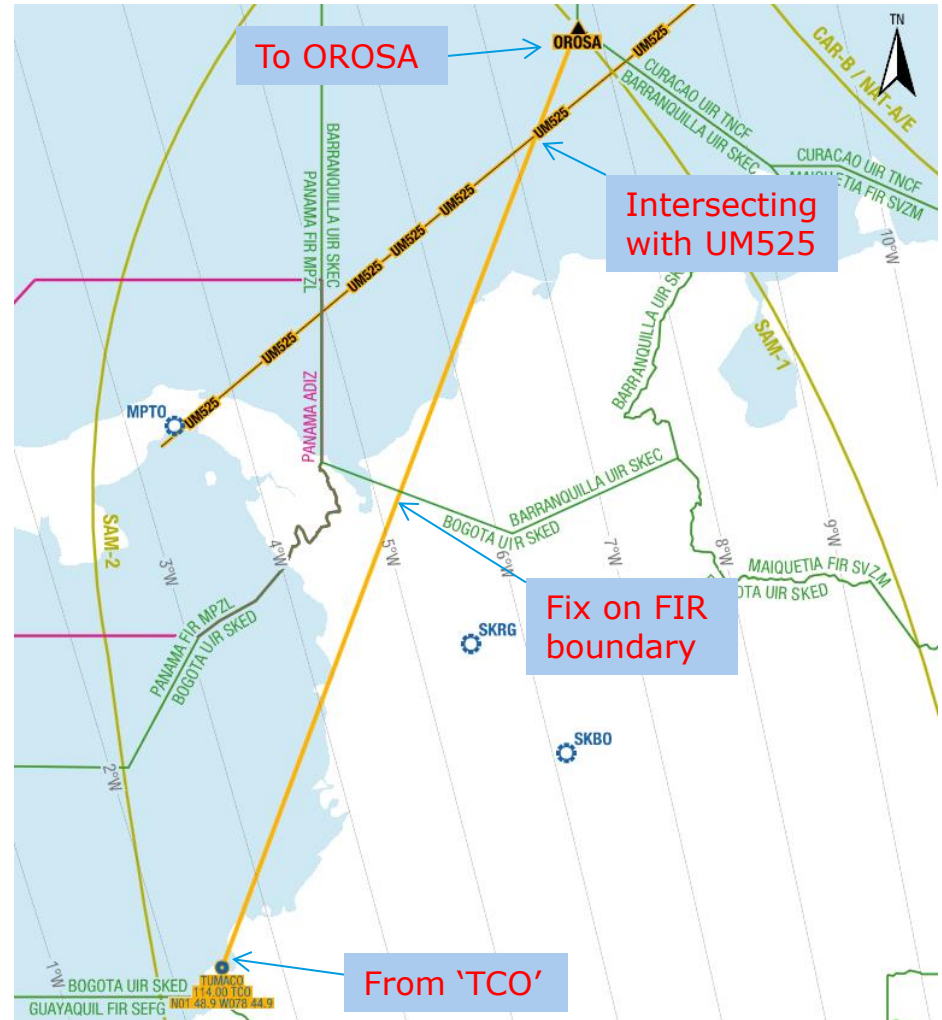
4. KLM request – Direct routes from Ecuador to North Colombia

Crews SEGU-EHAM frequently report that they receive DCT clearances from 'TCO' to ANRON/OROSA/'BAQ'

KLM would like to see a route developed similar to these DCTs. Suggested routing (two-way):

- 'TCO'-OROSA.

With FIR boundary fix, and intersection with UM525.



Cali, Quito, Guayaquil Routes

5. KLM request – Route via Guajira Peninsula (via 'RHC').



SKCL-EHAM & SEGU-EHAM, EHAM-SEQM

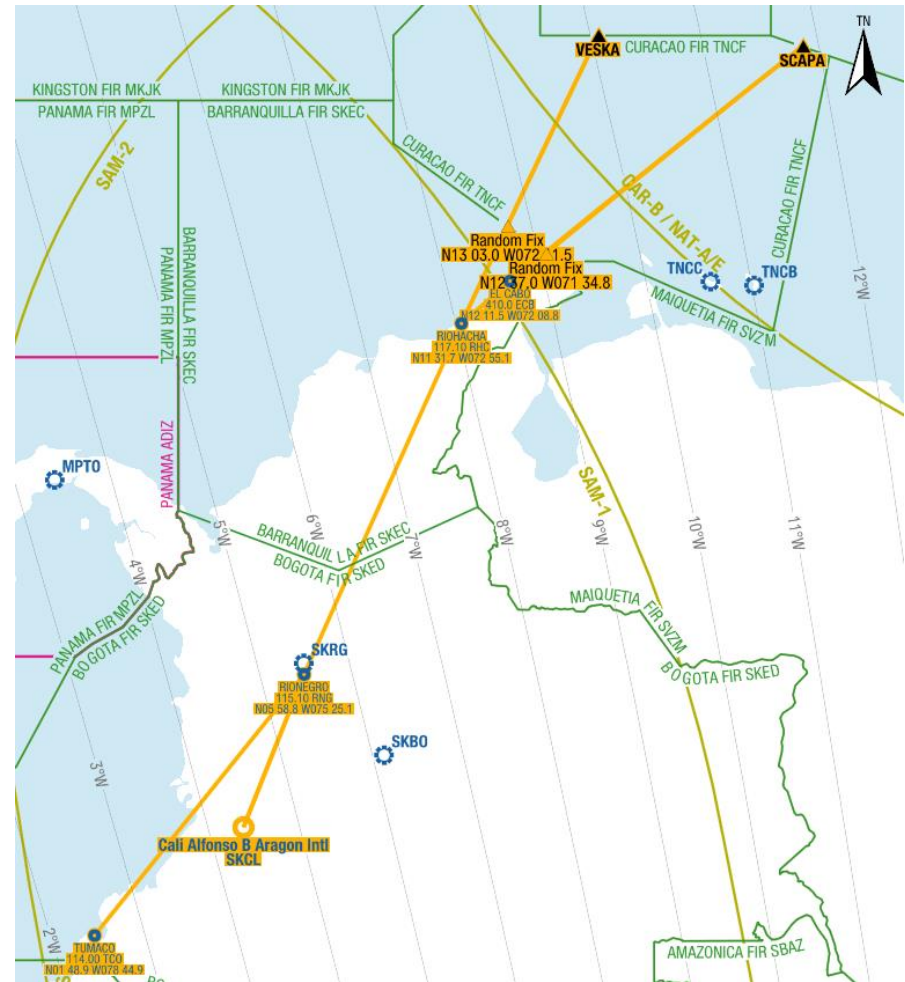
5. KLM request – Route via Guajira Peninsula (via 'RHC').

KLM would like to see routes developed to enter/exit the Barranquilla UIR near the Guajira Peninsula. Suggested routing via VOR/DME 'RHC' Riohacha, alternatively via NDB El Cabo ECB. From there to/from the Curaçao UIR.

Suggested routings (two-way):

- 'RHC'-'RNG'-'TCO'
 - 'RHC'-N13 03.0 W072 11.5*-VESKA
 - 'RHC'-N12 37.0 W071 34.8*-SCAPA
- (* approximate position)

Requires joined effort with Curaçao UIR.



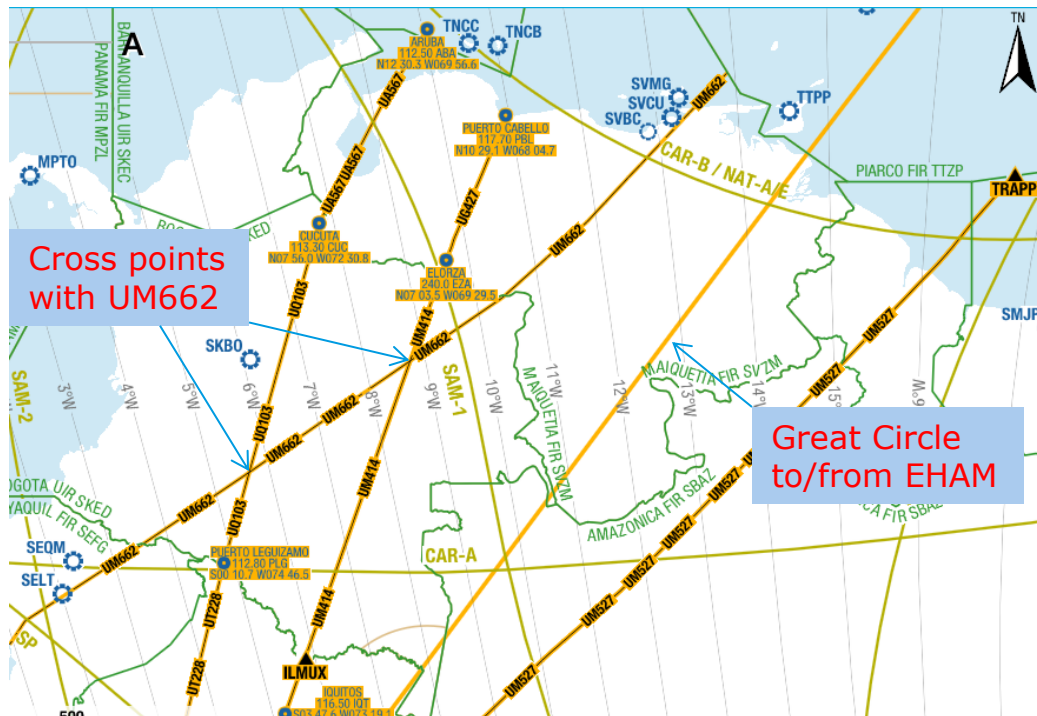
EHAM-SPIM-EHAM

6. KLM request – Airway Intersections, Shorter Routes

The routes closest to the great circle are via:

- UM527 (east)
- UV9-UM414-UG427 (west)
- And more west lies UT228-UQ103-UA567

The western routes cross with UM662

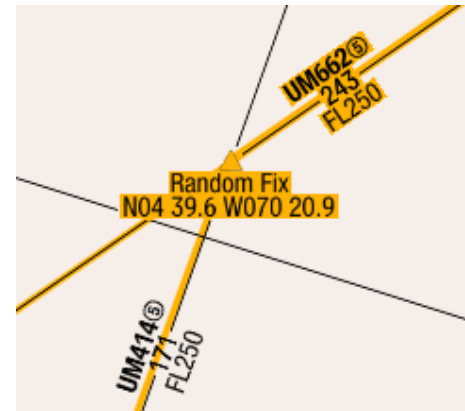
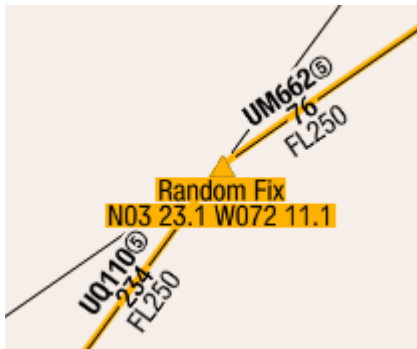


EHAM-SPIM-EHAM

6. KLM request – Airway Intersections, Shorter Routes

KLM requests the establishment of new reporting points at the intersection of these airways:

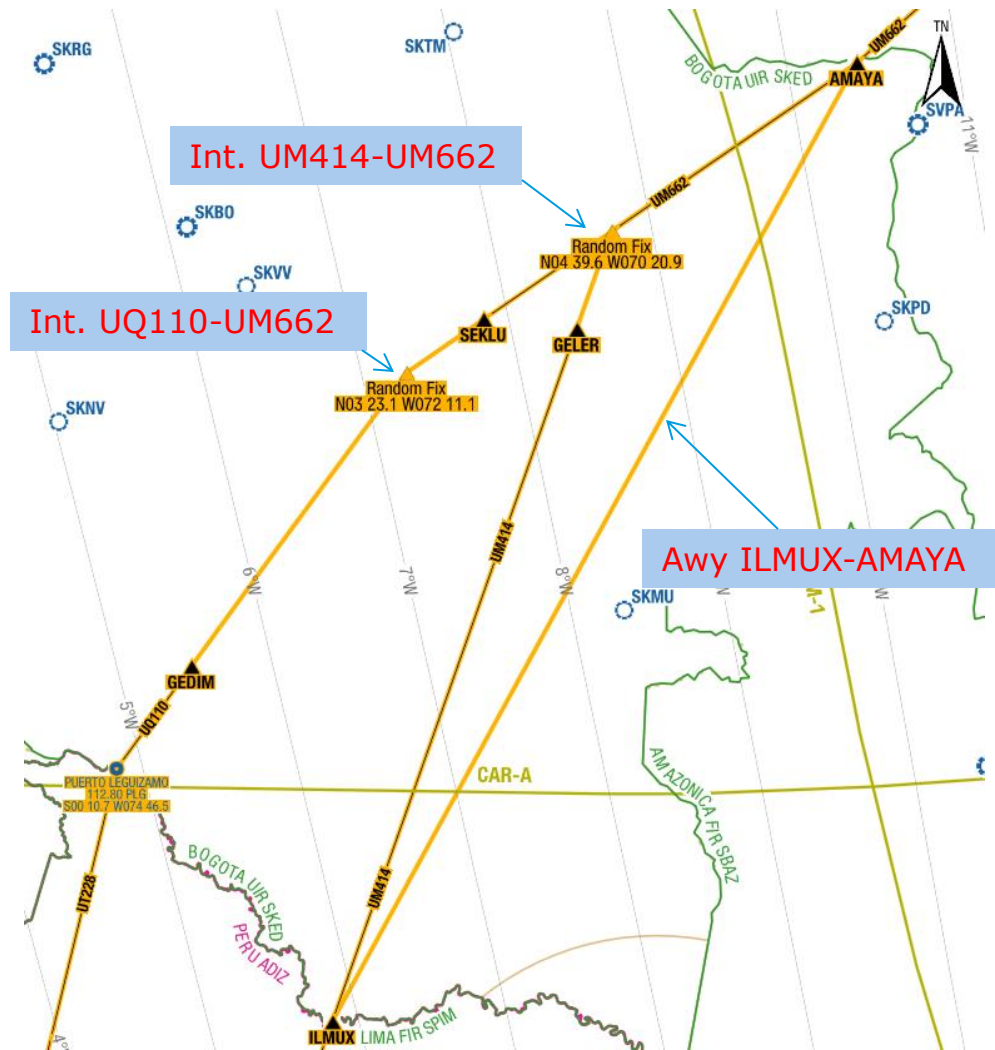
- UQ110 and UM662
- Approx posn: N03 23.1 W072 11.1
- UM414 and UM662
- Approx posn: N04 39.6 W070 20.9



EHAM-SPIM-EHAM

7. KLM request – Airway Intersections, Shorter Routes

In addition to these airway intersections, KLM would like to request a route from ILMUX to AMAYA (two-way). Reducing distance 23NM.

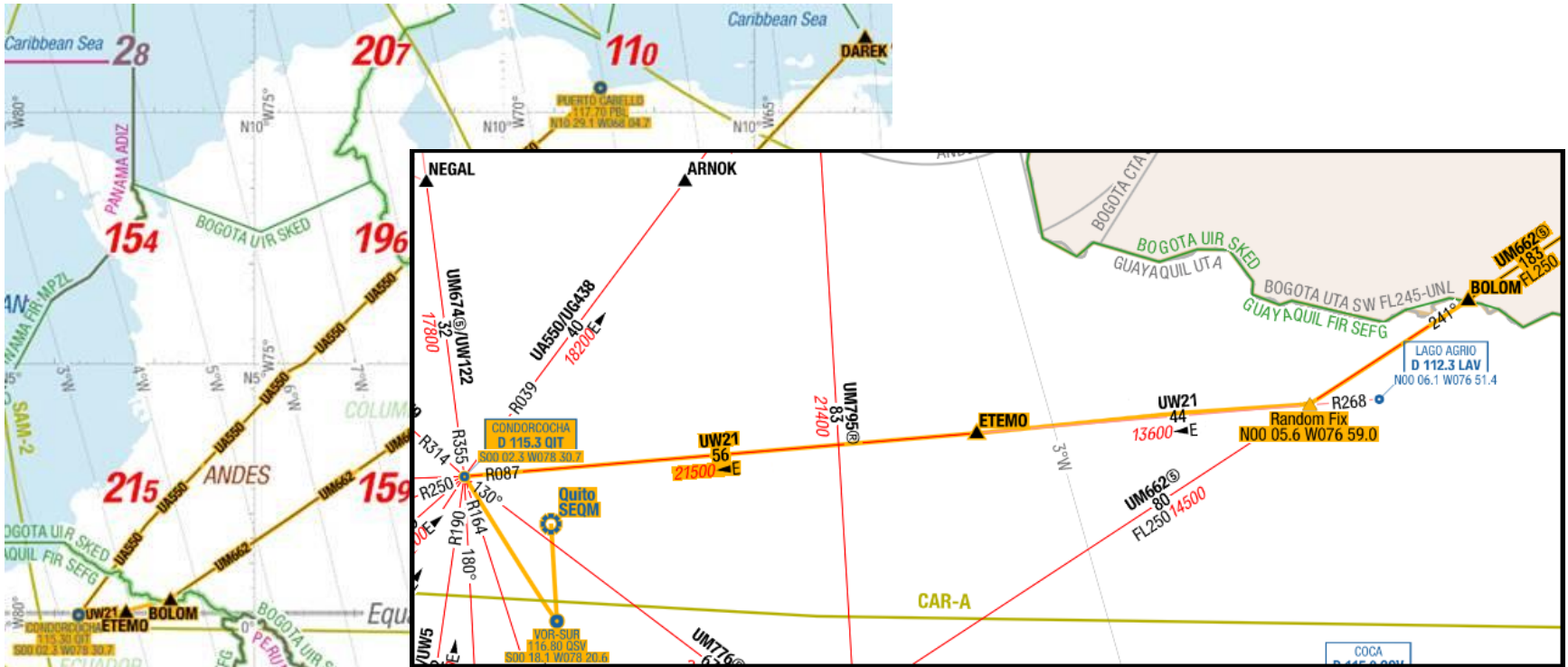


EHAM-SEQM

8. KLM request – Connection to SEQM from UM662

KLM often uses airway UA550 to SEQM. More East lies airway UM662 from DAREK to SEGU, but without connection to SEQM.

KLM requests the establishment of a new reporting point at the intersection of airways UM662 and UW21, to allow a transfer from UM662 to UW21. Approximate position N00 05.6 W076 59.0.



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END

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