

Dear AFRAA and FRA PMT

We appreciate your effort and great work, looking forward to have a little contribution.

I would like to request the study of Egyptair UPR for CAI/HECA – KIH/FZAA.

We have a fast request (Route 3 below with 1 intermediate point), and a standby request (route 4 below with 4 intermediate points). The third request (route 6 below) is our best profit of FRA project. It could be adjusted according your feedback, according to the accepted distance of DCT, same case of the other two proposals.

CAI/FIH routes
HECA..CVO.M720.DITAR.R778.TONBA then

1-2023 Route:

TONBA.UR778.DINTA.UA403.FL.UM731.EDGUM.UM731.USKAV.UA410.LUSKA.UM998.A
MLOD.UV30.GUSAR..FZAA

2-Current Route:

TONBA..FL.UM731.EDGUM.UM731.USKAV.UA410.LUSKA.UM998.AMLOD.UV30.GUSAR..
FZAA

3-Requested Route:

TONBA..1819N01850E..GAMUS..GAKEN..EDGUM.UM731.USKAV.UA410.LUSKA.UM998..
AMLOD.UV30.GUSAR..FZAA

4-Standby requested Route:

TONBA..2039N01937E..1819N01850E..1721N01837E..1444N01752E..OLEVO
..GAKEN..EDGUM.UM731.USKAV.UA410.LUSKA.UM998.AMLOD.UV30.GUSAR..FZAA
(Just to have all direct distances less than 200 nm)

5-100% FRA over N'djamena FIR: (Negligible difference from route 4)

TONBA..EDGUM.UM731.USKAV.UA410.LUSKA.UM998.AMLOD.UV30.GUSAR..FZAA

6-100% FRA over N'djamena & Brazaville FIR's (Next Request):

TONBA..GUSAR..FZAA



Per 1 Flight Leg		
Saving	Route 2 Current # Old	Route 3 - Fast Request # Current
Time	10 min	6 min
Distance	68 nm	36 nm
Fuel	436 Kg	246 Kg
CO ₂	1,377 Kg	777 Kg
Ops Cost	507 \$	277 \$
Per Year – 2 Weekly Flights		
Saving	Route 2 Current # Old	Route 3 - Fast Request # Current
Time	17 hours	10.4 hours
Distance	7,000 nm	3,700 nm
Fuel	45 Ton	25 Ton
CO ₂	143 Ton	80 Ton
Ops Cost	53,000 \$	29,000 \$

- Direct Distances:

Current Route

TONBA DCT FL = 632 nm

Requested Route:

TONBA DCT 1819N01850E = 205 nm

1819N01850E DCT GAMUS = 243 nm

GAMUS DCT GAKEN = 224 nm

GAKEN DCT EDGUM = 131 nm

- Regarding the limit of 200 nm for DCT, published by some countries, it is a very old value. It is mentioned as a “normal, but not a mandatory nor always applied note”, in ICAO Doc 4444 for ATS flight plan brief (Not a standard separate rule) and before 1997 (with old ATM & aircraft capabilities)

Flights outside designated ATS routes

INSERT points normally not more than 30 minutes flying time or 370 km (200 NM) apart, including each point at which a change of speed or level, a change of track, or a change of flight rules is planned.

(2) Significant point (2 to 11 characters)

The coded designator (2 to 5 characters) assigned to the point (e.g. LN, MAY, HADDY), or,

7/11/96

This value has not been changed/revised till now:

Flights outside designated ATS routes

INSERT points normally not more than 30 minutes flying time or 370 km (200 NM) apart, including each point at which a change of speed or level, a change of track, or a change of flight rules is planned.

OR, when required by appropriate ATS authority(ies),

DEFINE the track of flights operating predominantly in an east-west direction between 70°N and 70°S by reference to significant points formed by the intersections of half or whole degrees of latitude with meridians spaced at

* When so prescribed by the appropriate ATS authorities.

10/11/16

Many modern jet have Mach 0.78 or more. This means that 30 minutes flying time is 223 nm at FL390 or 228 nm at FL320 (ISA/No wind). For M 0.82, it equals 240 nm at FL390 and 245 nm at FL320.

In addition to the higher TAS in the hot AFI region.

Several countries state clearly that there is no limit at all (in EU: France, UK, Poland, Croatia,...; in AFI: Morocco, Ghana, Mauritius,...).

EGYPTAIR AIRLINES
FLIGHT OPERATIONS
IOCC
NAVIGATION DEPARTMENT



After your precious feedback and comments, we will propose expected intermediate waypoints for the better proposal / best profit FRA:

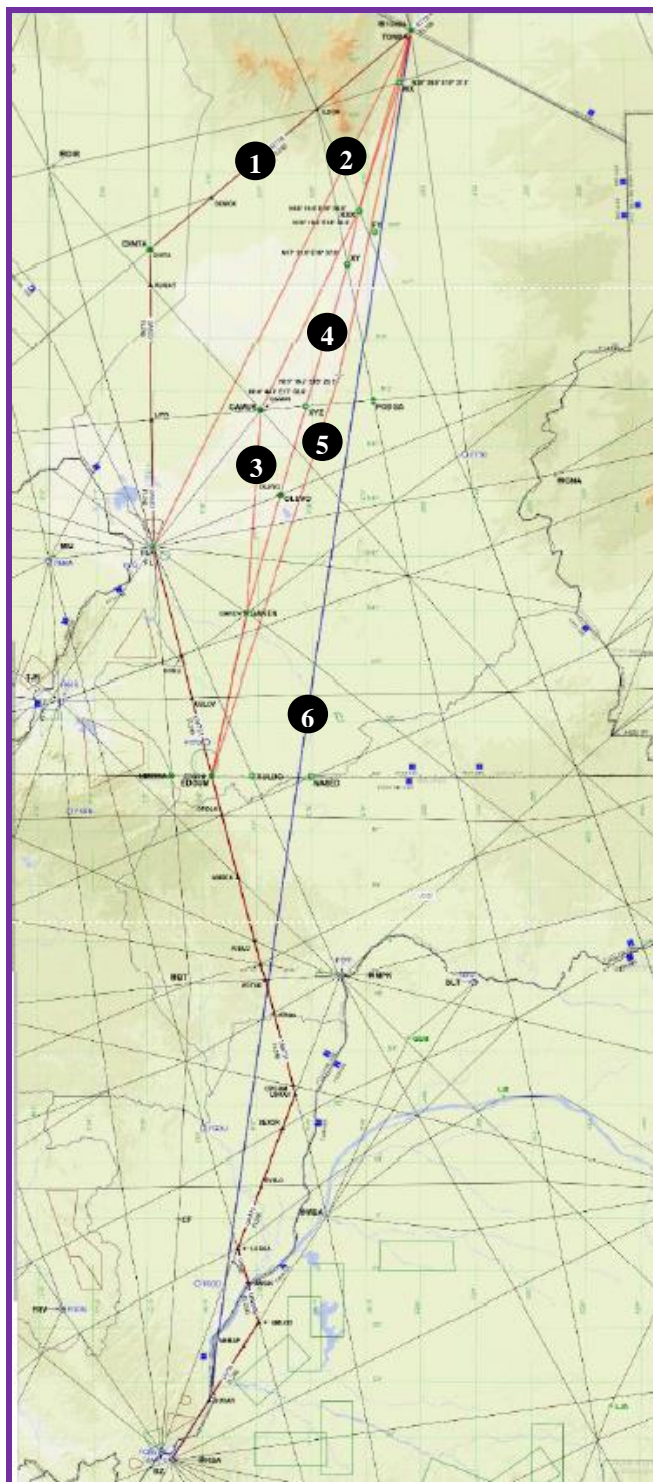
Route 6 TONBA (Intermediate waypoints) DCT GARUS

Compared to the current route, It will save, per each 1 flight leg:

16 min - 100 nm - 600 Kg fuel - 2 Ton CO₂ - 740 \$

i.e. per year (2 weekly flights):

28 hours – 10,400 nm – 62,000 Kg fuel - 208 Ton CO₂ - 77,000 \$



Best Regards. Flight Dispatcher / Haytham Zaky – Navigation Dep. Manager – IOCC - EGYPTAIR