



# FUKUOKA FUEL ANALYSIS

ARTHUR DENYS- DISPATCH ROUTE PLANNER

ETHAN MANCHESTER- SENIOR MANAGER OF FLIGHT OPERATIONS

PAZA  RJJJ  RCAA

DESTINATION  
HKG

777F  
Annual Winds  
90,718KG of cargo

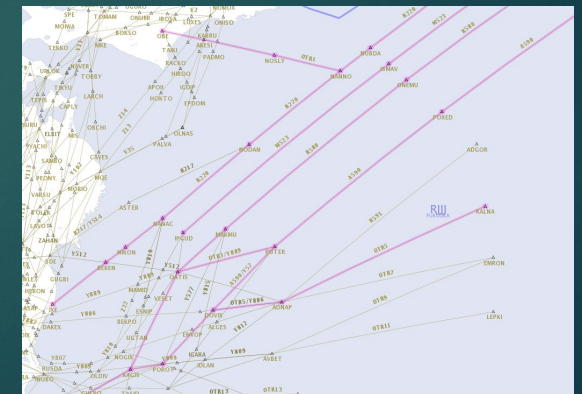
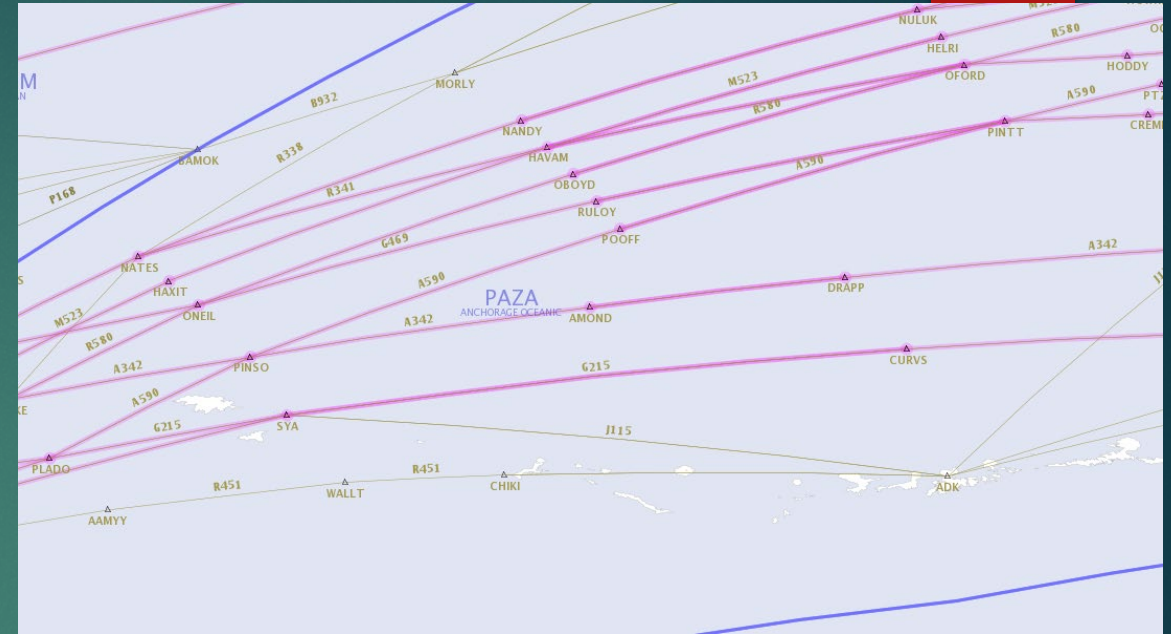


# TRANSITION ROUTES

► Request additional OTR routes including connections between NOPAC routes. Similar build to the transition routes in PAZA.

► Benefits include

- Easier transition and more choices from the NOPAC to Pacific Preferred Routes
- More routing choices through Central Japan avoiding Tokyo airspace





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- The map displays the Khabarovsk Krai region, with the city of Khabarovsk (UHKK) prominently marked. The region is characterized by a dense network of roads, including major routes like R220, M523, and A590. Numerous smaller settlements and administrative centers are labeled, such as Nizhny Kholmsky, Nizhny Khatanga, and Nizhny Khatanga. The map also shows the coastline of the Sea of Japan and the surrounding landmasses. A red line with arrows indicates a specific route or boundary across the region.

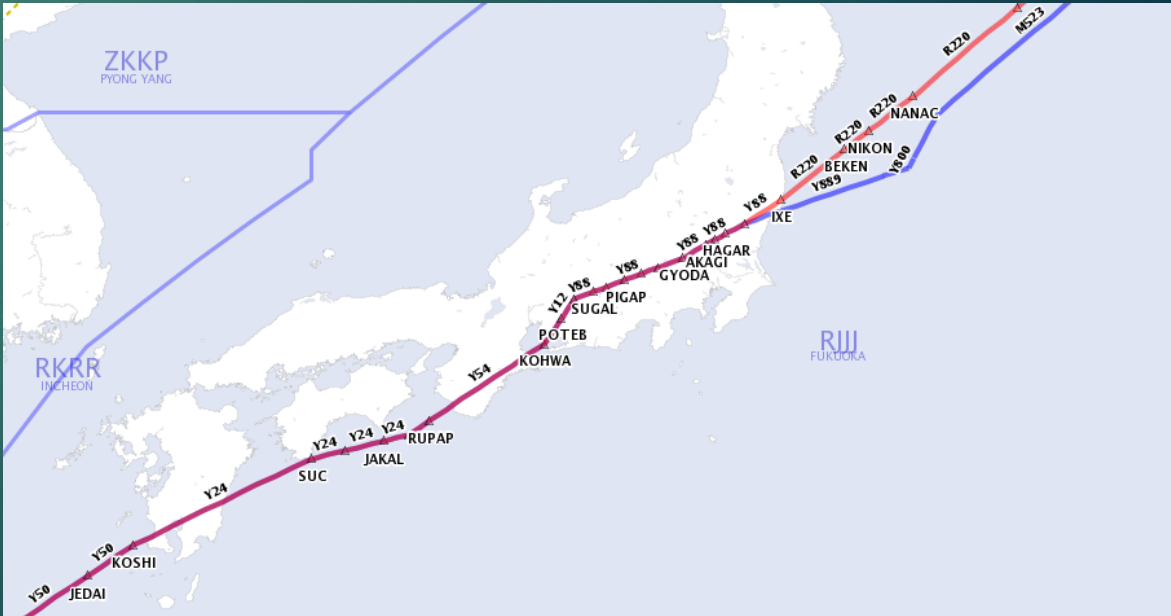
# R220 PREFERRED ROUTE

# M523 PREFERRED ROUTE

NANAC R220 IXE Y88 NAKTU Y12 KOHWA Y54 TURFY Y24 KOSHI Y50 IGMON A1 BULAN

IPGUD Y800 MUBTO Y889 DAIGO Y88 NAKTU Y12 KOHWA Y54 TURFY Y24 KOSHI Y50 IGMON A1 BULAN

Route	Time	Fuel	Differences
R220 Preferred	02:55	25,220KG	
M523 Preferred	02:58	25,560KG	2 mins 703KG





# NUBDA DCT BULAN

NUBDA (NEW OTR) ESLUK Y112 OMGOL Y111 MQE Y124 GTC V30 KMC Y382 WAKIT Y282 POPPY Y34 SUKMO Y50 HKC A1 BULAN

Route	Time	Fuel	Differences
R220 Preferred	03:37	30,663KG	5 mins 590KG
DCT Route	03:32	30,073KG	
Proposed Route	03:33	30,119KG	1 min 46KG



RCAA  RJJJ  PAZA

DESTINATIONS  
PANC, KORD, KCVG, KJFK

777F  
Annual Winds  
90,718KG of cargo



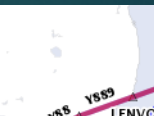
## R580 PREFERRED ROUTES

- | Route | Time  | Fuel     | Differences  |
|-------|-------|----------|--------------|
| 1.)   | 03.56 | 33,475KG |              |
| 2.)   | 03.54 | 33,203KG |              |
| 3.)   | 03.55 | 33,339KG |              |
| 4.)   | 03.59 | 33,883KG | 5 mins 680KG |
| 5.)   | 03.54 | 33,203KG |              |
| 6.)   | 03.55 | 33,339KG | 1 min 136KG  |





389 OAT





RKRR  RJJJ  PAZA  
(LANAT TO NOPAC)  
RKSI TO  
PANC KORD KCVG KJFK

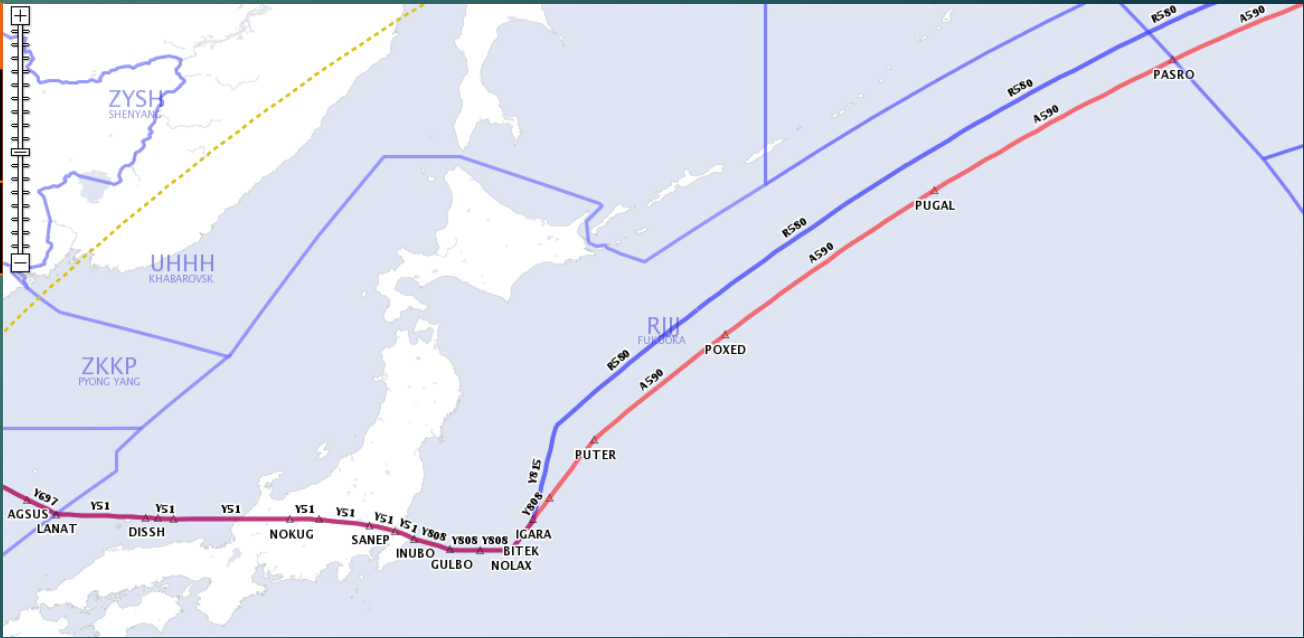
777F  
Annual Winds  
90,718KG of cargo



# LANAT TO NOPAC PREFERRED ROUTES

- 1.) LANAT Y51 INUBO Y808 PUTER A590 PASRO
- 2.) LANAT Y51 INUBO Y808 IGARA Y815 MAKMU R580 OMOTO

Route	Time	Fuel	Differences
1.)	02.59	24,948KG	
2.)	03.04	25,492KG	5 Mins 456KG



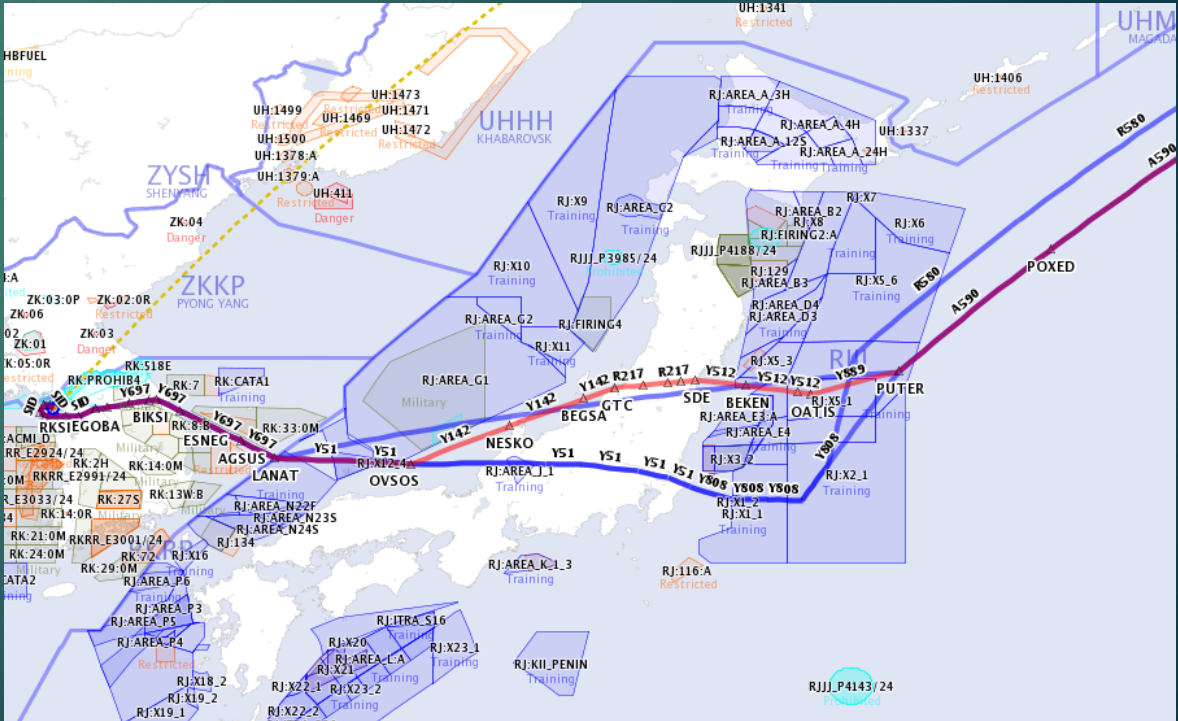
LANAT Y51 INUBO Y808 PUTER A590 PASRO

LANAT Y51 INUBO Y808 IGARA Y815 MAKMU R580 OMOTO

# LANAT DCT PUTER A590 PASRO

LANAT Y51 SAMON Y142 GTC R217 SDE Y512 OATIS Y889 PUTER PASRO

Route	Time	Fuel	Differences
Preferred PASRO	02.59	24,948KG	13 mins 1,770KG
Preferred OMOTO	03.04	25,492KG	18 mins 2,314KG
DCT PUTER A590 PASRO	02.46	23,178KG	
Preferred OATIS	02.49	23,496KG	3 Mins 318KG



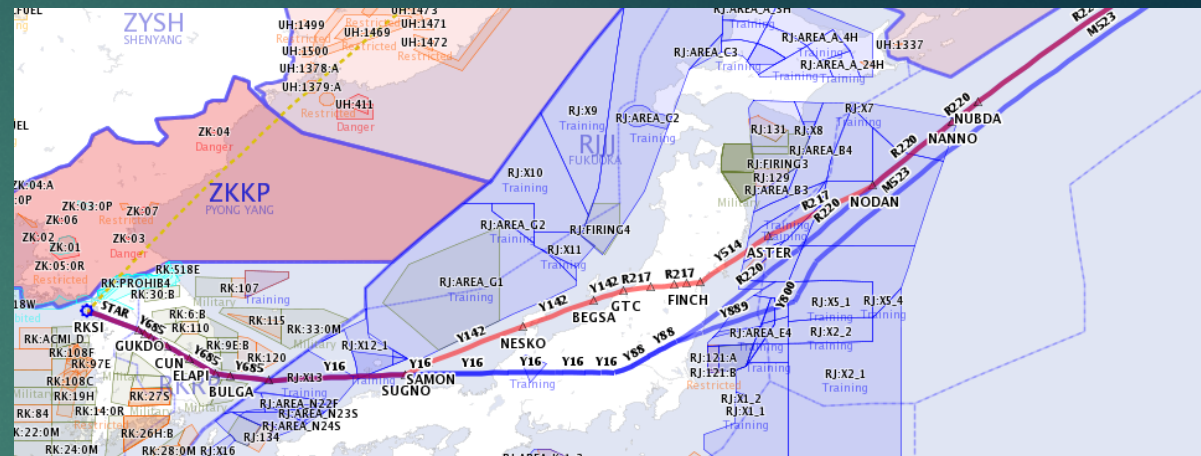


PAZA FIR TO RKRR

# PAZA to RKSI

(PANC-RKSI, straight flight plan, 150,000bs payload, N776CK)

- ▶ R220 PREFERRED ROUTE
- ▶ M523 PREFERRED ROUTE
- ▶ R220 ALTERNATE PREFERRED ROUTE
- ▶ NODAN R220 IXE Y88 TEPEX Y16 SAPRA
- ▶ IPGUD Y800 MUBTO Y889 DAIGO Y88 TEPEX Y16 SAPRA
- ▶ NODAN R217 ASTER Y514 SDE R217 GTC Y142 SAMON Y14 SUGNO Y16 SAPRA



Route	Time	Fuel	Differences
R220 Alternate	2:34	18,506kg	
R220 Preferred	2:37	20,003kg	3 mins, 1497kg
M523 Routing	2:43	22,500kg	9 mins, 3994kg



# Potential Savings Route VIA L512

- ▶ Using L512 through Japan

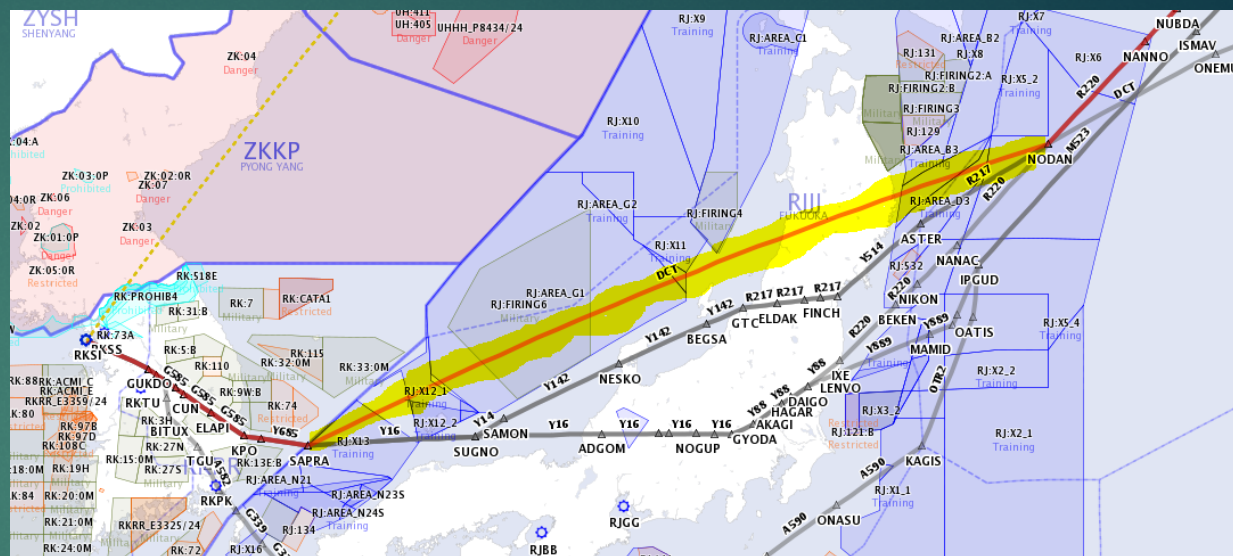


- ▶ NODAN R217 ASTER Y514 SDE R217 GTC L512 TENAS Y437 KAE  
Y697 KARBU KARBU1A RKSJ

Route	Time/Fuel	Difference
Most efficient Pref rte	2+34, 18,506KG	
L512 route	2+31, 18,007KG	3 mins, 499kg

# Alternate Options from NODAN to SAPRA

- ▶ NODAN DCT GTC
- ▶ NODAN DCT SAPRA
- ▶ RJJJ NODAN Preferred Routing
- ▶ L512 reducing closure periods



ROUTE	TIME	FUEL	DIFFERENCE
NODAN DCT GTC	1:49	15,467kg	
NODAN DCT SAPRA	1:47	15,059kg	
R220 Preferred	1:53	15,149kg	6 mins, 90kg



# Alternate Options

- ▶ ISMAV DCT NODAN or similar points to use M523 for traffic congestion but crossover to R220

