

**CPWG/30**

**UNITED Airlines Report**

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# UAL Status

- Capacity and Demand 2021
  - International long haul passenger routes basically predicted to be flat and low through IATA winter season due to prolonged restrictions. Reduced freight operations. Short and medium leisure/vacation routes have recovered to pre-COVID levels and some cases exceeding the 2019 capacity.
  - Expanded in Europe for Summer 2021 travel season.
  - 4-5 daily flights to Asia mostly utilizing NOPAC routes expected to remain the same.
  - 3-4 daily flights to India utilizing polar routes.
- Fleet transformation 2021
  - Primarily the B787-8/9/10 and B777-200/300ER flying the long-haul routes.
  - Removed 24 Boeing 777 aircraft powered by Pratt & Whitney 4000 series engines from our schedule UFN.
  - There are 22 B777-200ERs that are equipped with General Electric GE90 engines.

# India – US West Coast

## Great Circle ~~Exploratory~~ Routes

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# UAL India Ops

- EWR/ORD/SFO-DEL and EWR-BOM
- High focus on SFO to India viability, eliminating a stop in Europe or Middle east.
- SFO-BLR-SFO expected Dec 2021 (subject to COVID19 impacts)
- Considered as ultra long-haul routes where aircraft performance capabilities are challenged daily.



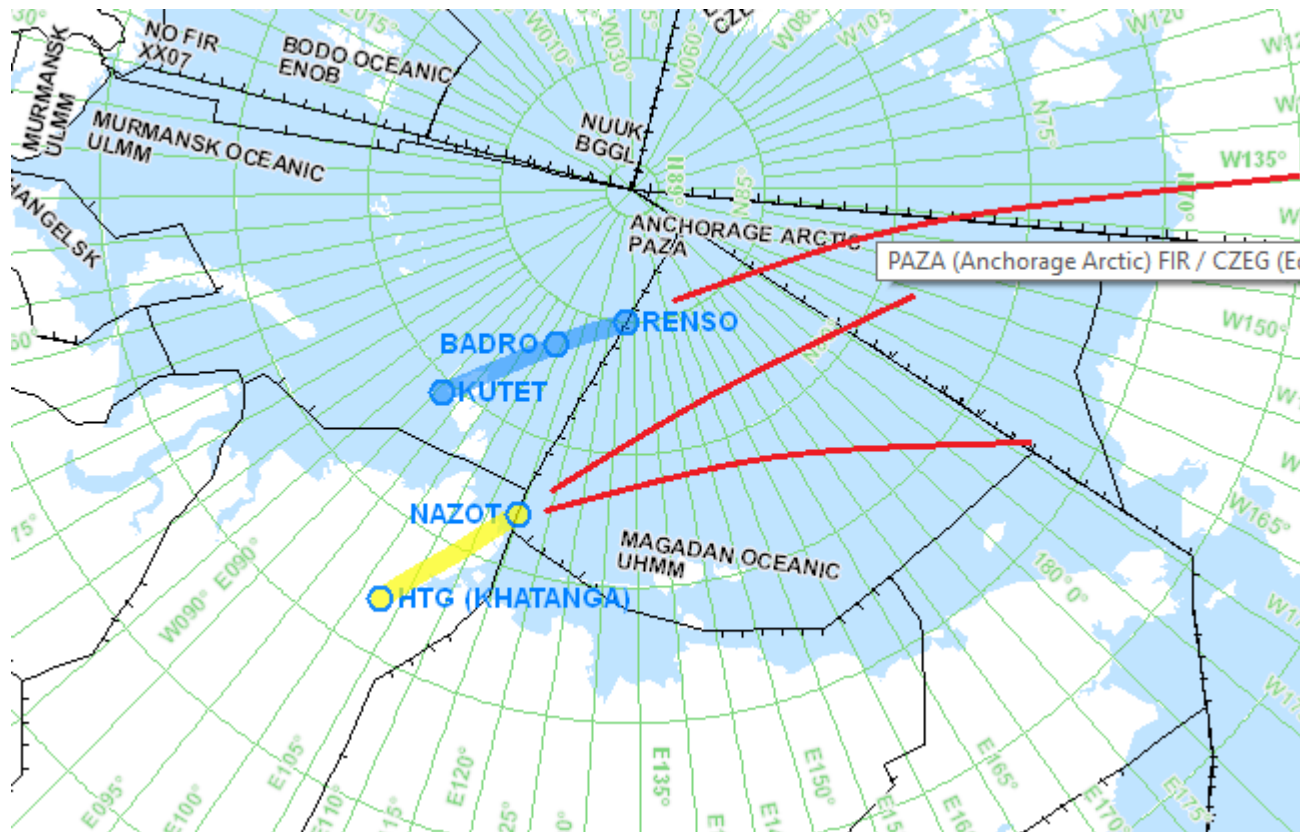
## New Possibilities Now a Reality in One Year

- Increase the value of Magadan UPR (the oceanic portion) for India flights in a non-traditional manner via the “great circle”
- Allow occasional transit against normal flow of traffic (North America-North Asia) at the outset, varies seasonally.
- Coordination began at CPWG in 2019, many routes implemented in 12AUG 2021.
- Joint effort of all surrounding ANSP is necessary to obtain result.



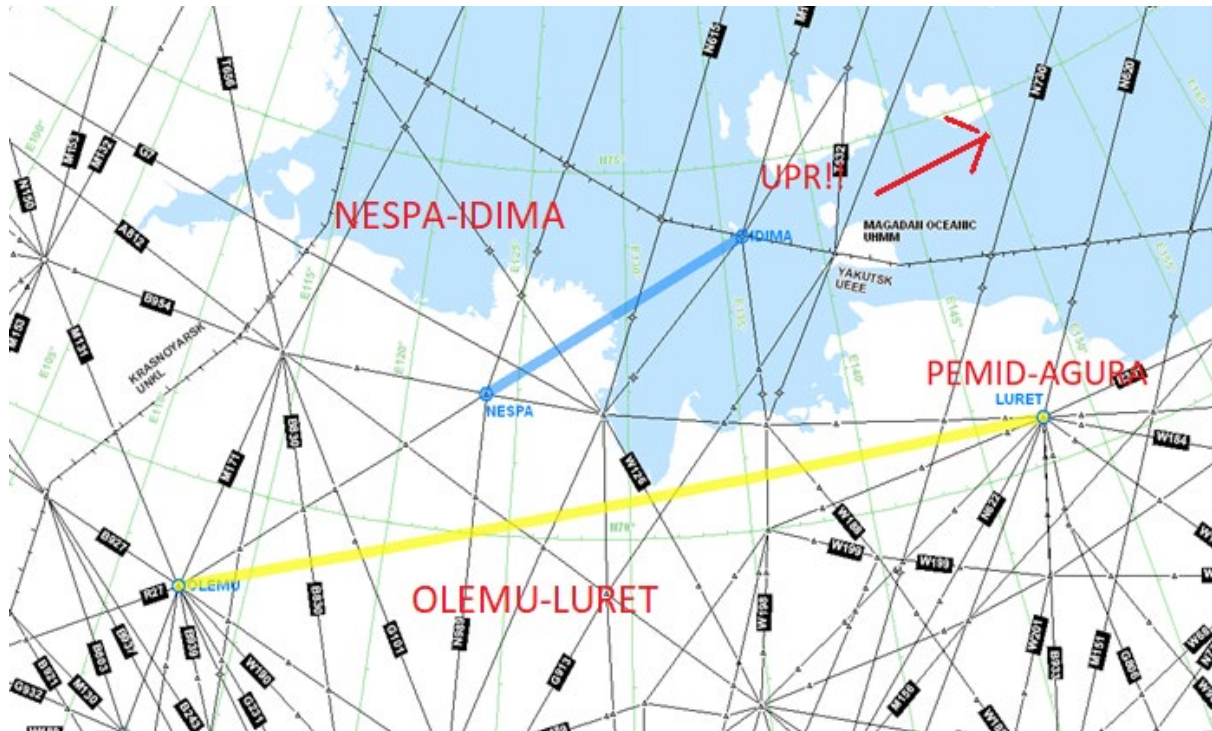
# Introduction of New Connections

- New entry/exit for Magadan UPR at RENSO into Murmansk ACC.
- New entry/exit for Magadan UPR at NAZOT into Krasnoyarsk ACC.

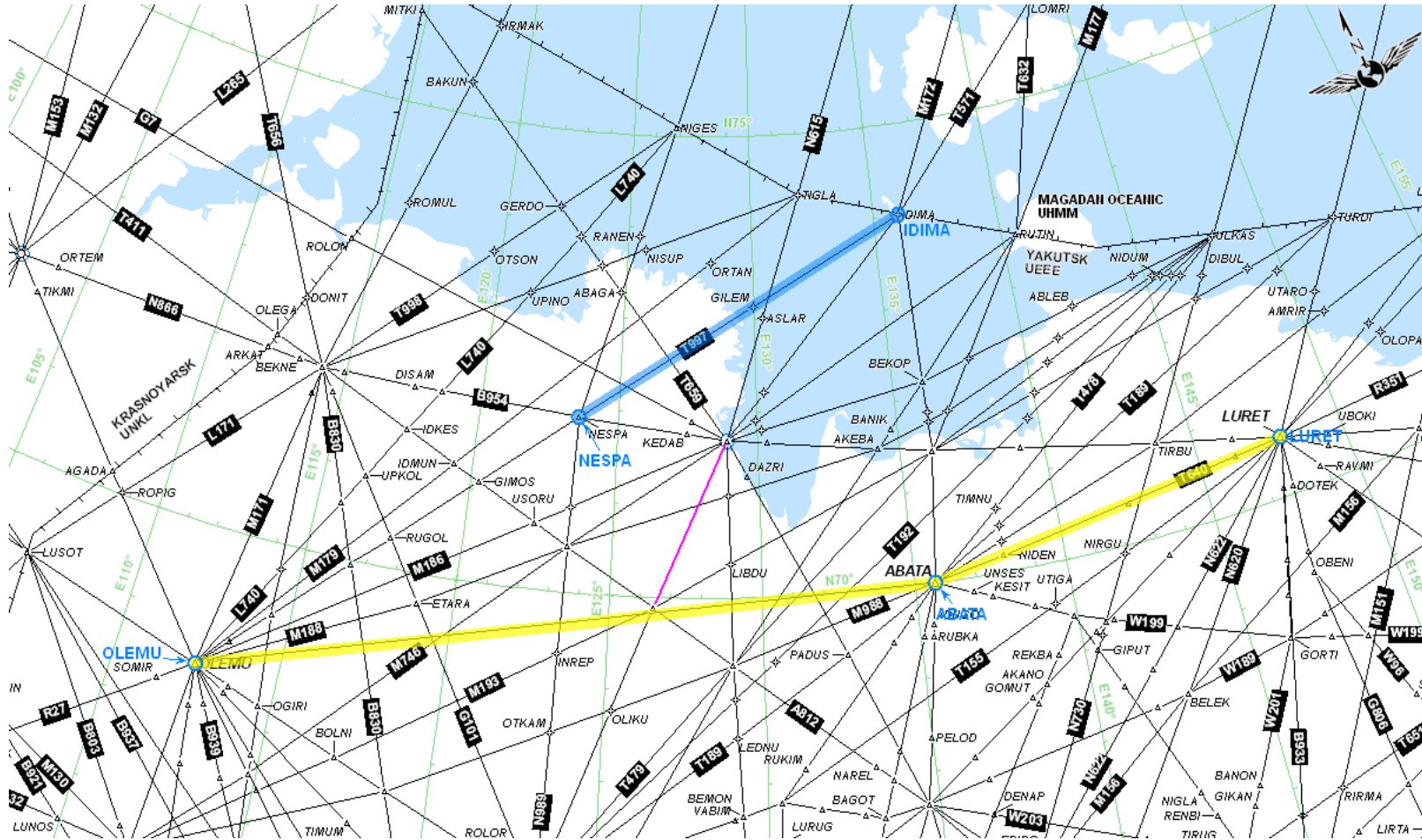


# Yakutsk-Magadan Connectivity

- In Yakutsk, the airways are designed to flow traffic to/from China, but not to/from India. Consideration of limited DCT segment or airway establishment/realignment.
- OLEMU-XXXXX-LURET– 33NM/4 MINS/1200LBS savings
- NESPA-IDIMA – 37NM/5 MINS/1500LBS savings

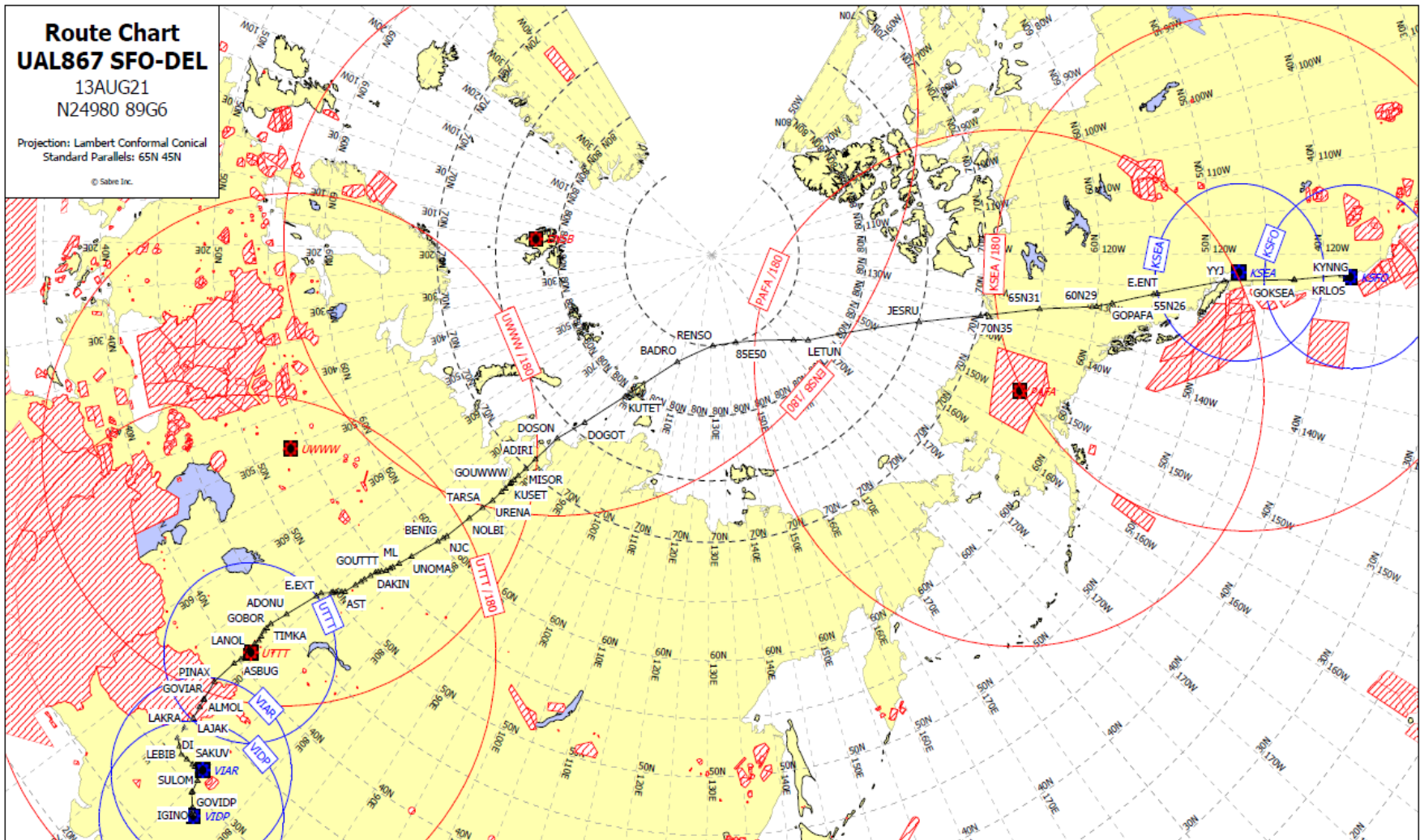


# Yakutsk-Magadan Connectivity Since 12AUG

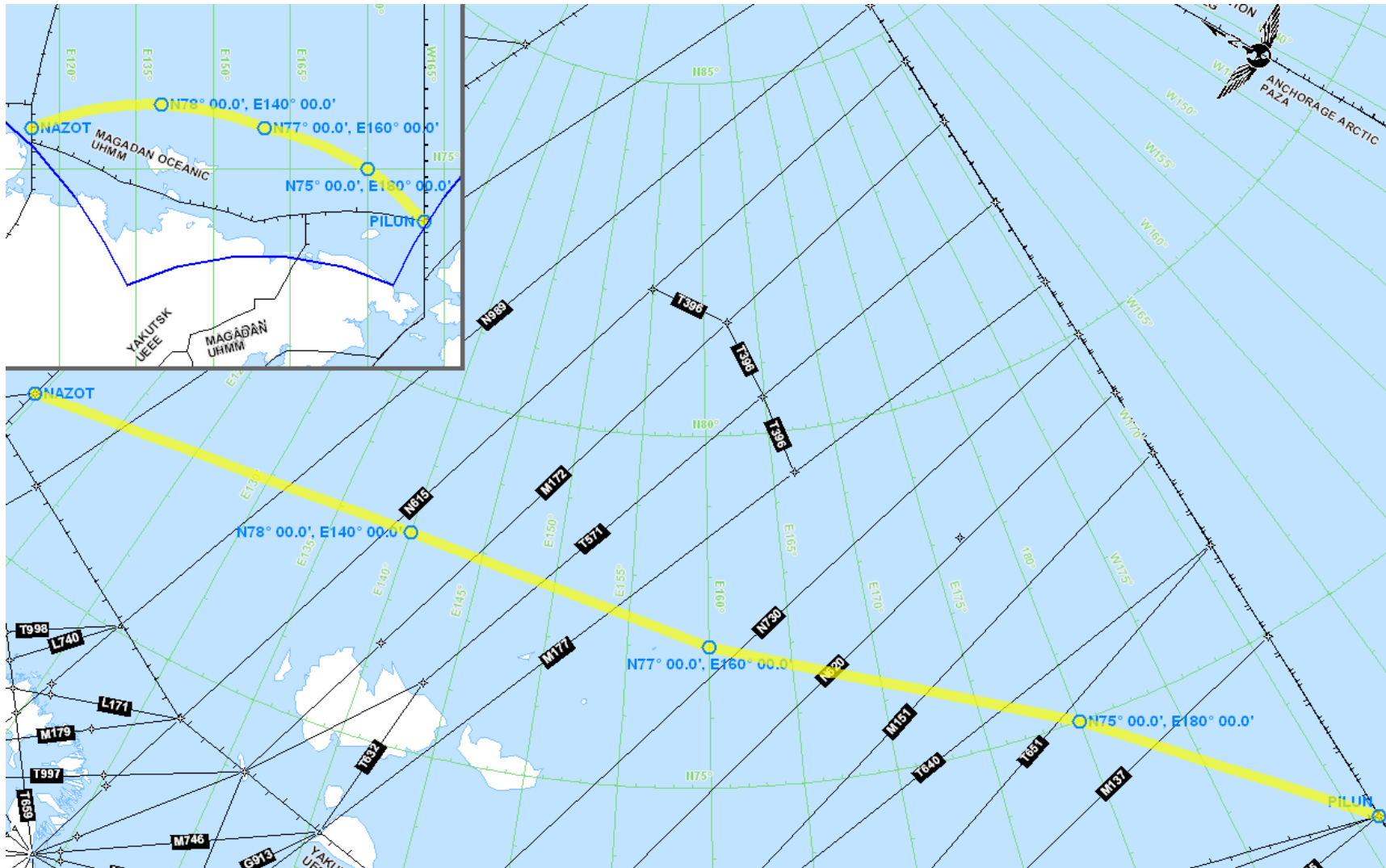




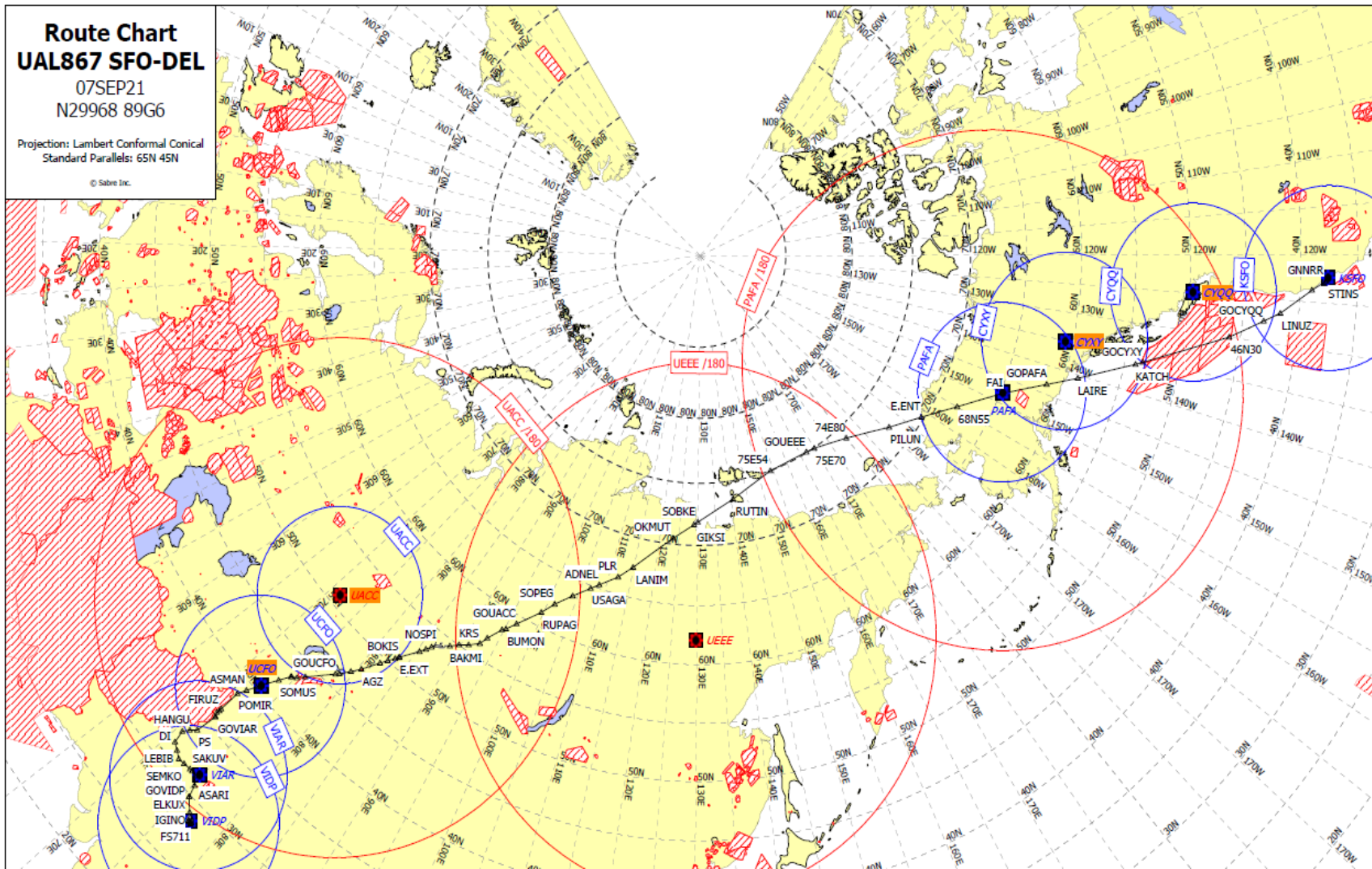
# UAL867 DOF/210813 VIA RENSO



# UAL867 DOF/210903 PILUN-NAZOT



# UAL867 DOF/210907

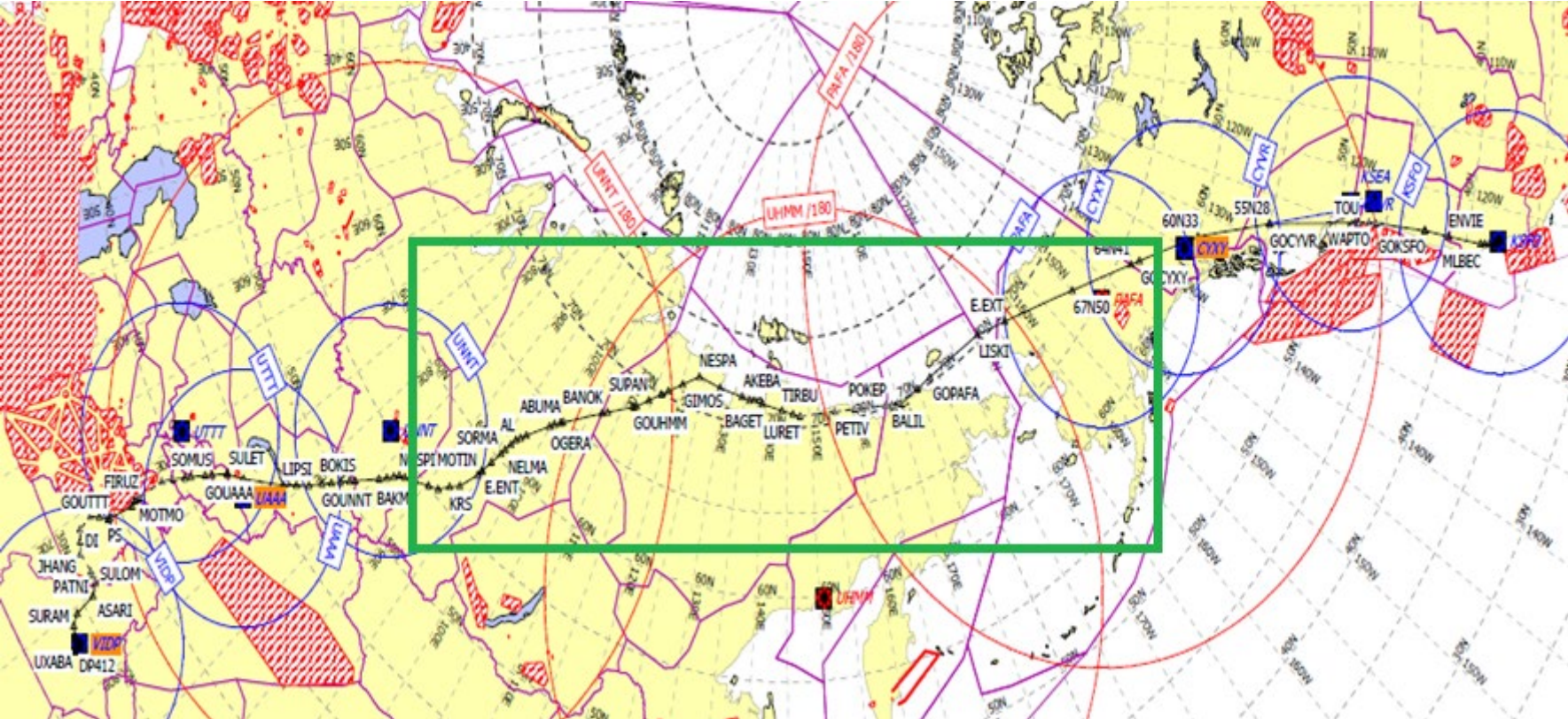


# Savings Snapshot

KSFO-VIDP UAL867 DOF/210903									
UHMM UPR VIA NAZOT PILUN			14:41						
		NIKIN	14:54						
		SALET	14:55						
		ORVIT	14:56						
		AMATI	14:58						
UHMM UPR VIA RENSO LETUN			15:01						
Murmansk - AWY	DEVID		15:04	<-----	Fastest before UHMM UPR with NAZOT connectivity				
	ABERI		15:11						
	MAGUN		15:16						
	RITAK		15:25						
	NIRUT		15:24						
	AGATA		15:25						
	ADEMA		15:26						
DEVID/PILUN-NAZOT comparison									
Old trip time/new trip time			15:04/14:41 – 23 minutes						
Old trip fuel/new trip fuel (83275/81418KG)			183590/179498 LBS						
Old fuel on board/new fuel on board			204862/200658 LBS (92923/91016KG)						
Fuel savings/Reduce CO2 emissions			4092LBS/12685LBS (1856/ 5753KG)						
Mileage Reduction (116NM)									

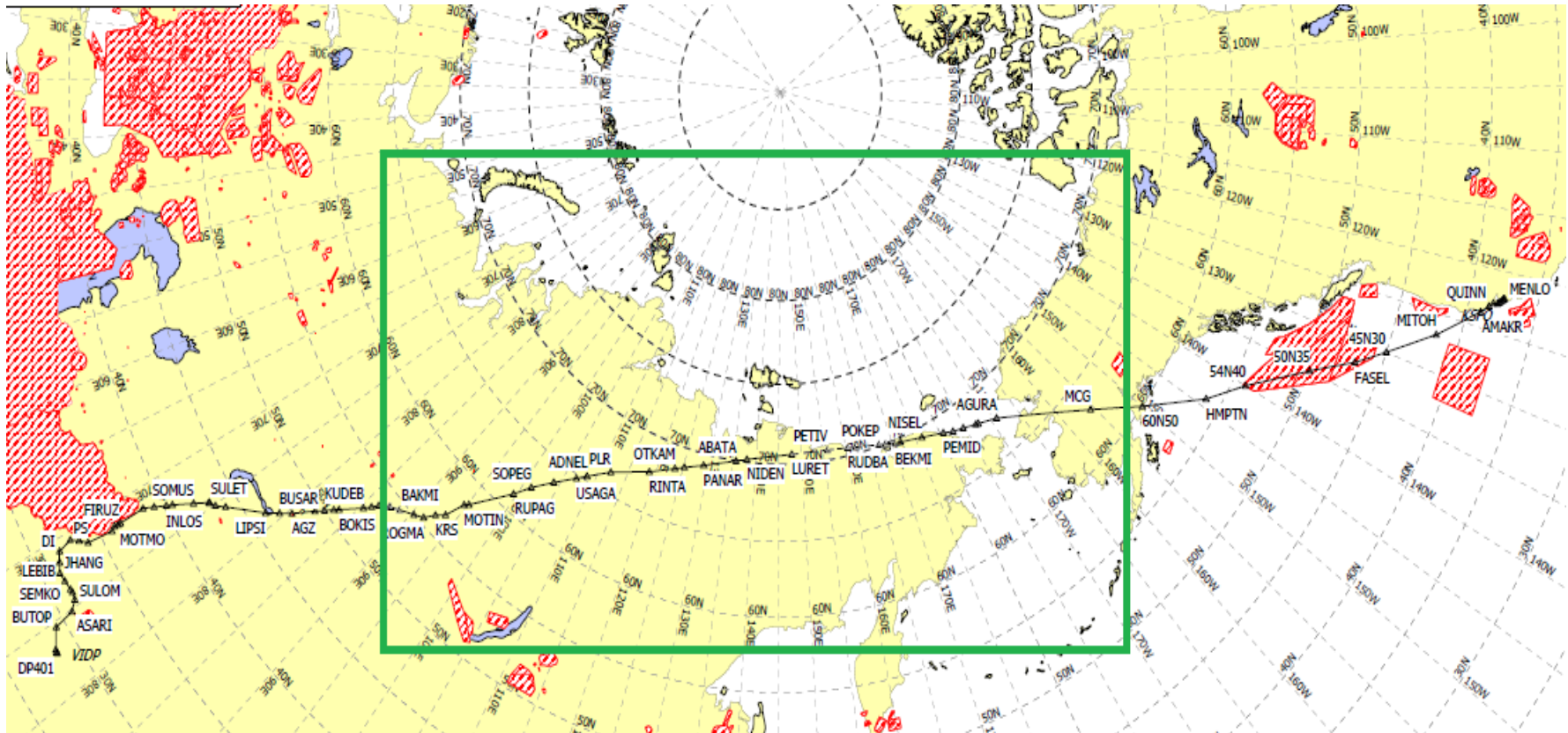
# DEL-SFO Continental Airspace Optimization

- NOV 2019 Route



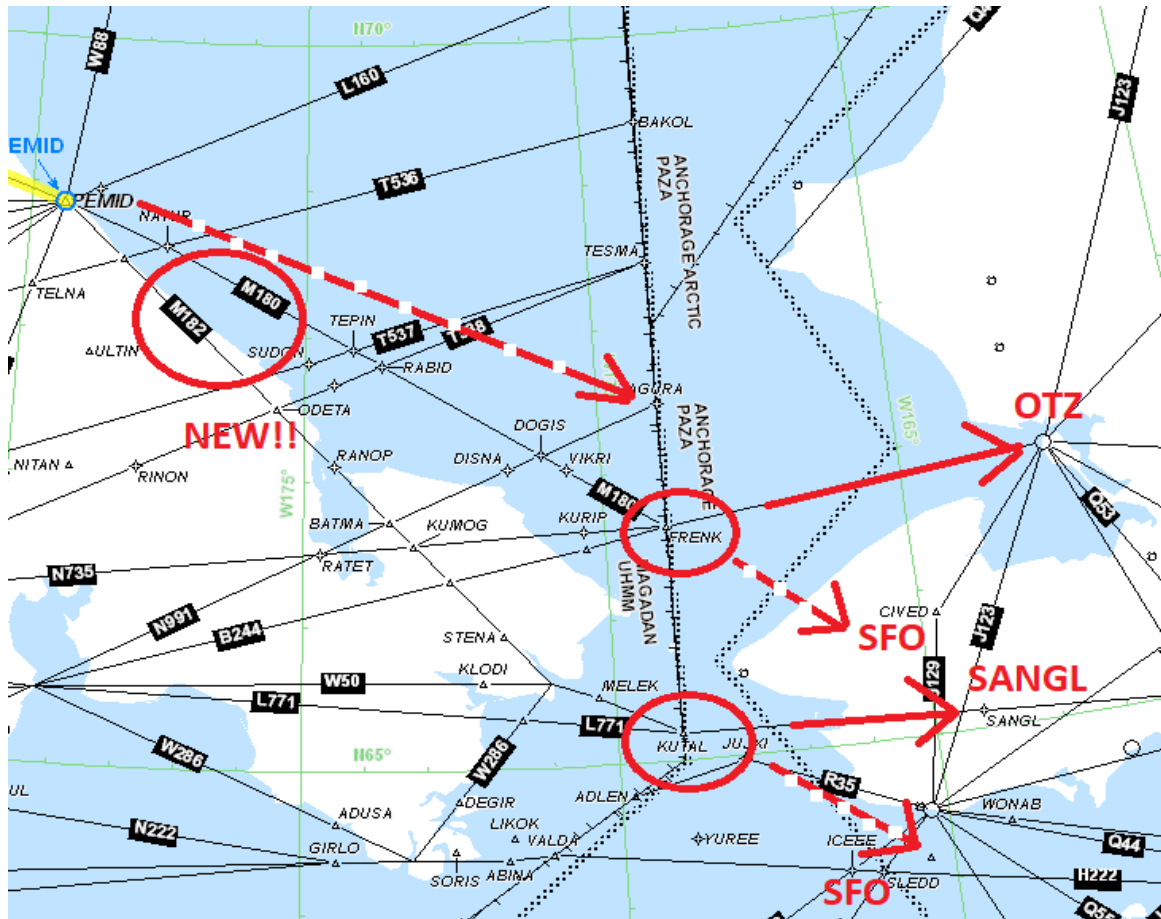
# DEL-SFO Continental Airspace Optimization

- AUG 2021 Route



# UHMM-PAZA Connectivity

- AGURA is the sweet spot for transit (PEMID DCT AGURA JUL 2020)



# Operational Benefits/Future

- Efficiency depending on en-route winds
- CO2 Emission reductions
- Payload maximization/on-time performance
- Ability to effectively avoid weather (including solar effects)
- ETOPS considerations
- Able to operate in areas with better communications capabilities
- Continuation of review as traffic load increase
- Some additional improvements sought for eastbound traffic.



*The End*

*Thank  
you!*

