

**CPWG/29**

# UNITED Airlines Report

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# UAL Status

- Capacity and Demand 2021
  - 1<sup>st</sup> QTR 2021 capacity still down 50% compared to 1<sup>st</sup> QTR 2019 (pre-COVID) but optimistic for some recovery in 2021.
  - International long haul passenger routes basically flat and low through early 2021 due to prolonged restrictions. Selected city pairs possibly to resume mid to late summer only if improved demand and operating environment exist.
  - Short and medium leisure/vacation routes are moderately improving.
- Fleet transformation 2021
  - Primarily the B787-8/9/10 and B777-300ER flying the long haul routes.
  - Removed 24 Boeing 777 aircraft powered by Pratt & Whitney 4000 series engines from our schedule UFN. Working with regulators at the NTSB and FAA to determine any additional steps that are needed to ensure these aircraft meet our rigorous safety standards and can return to service. Safety remains our highest priority.
  - 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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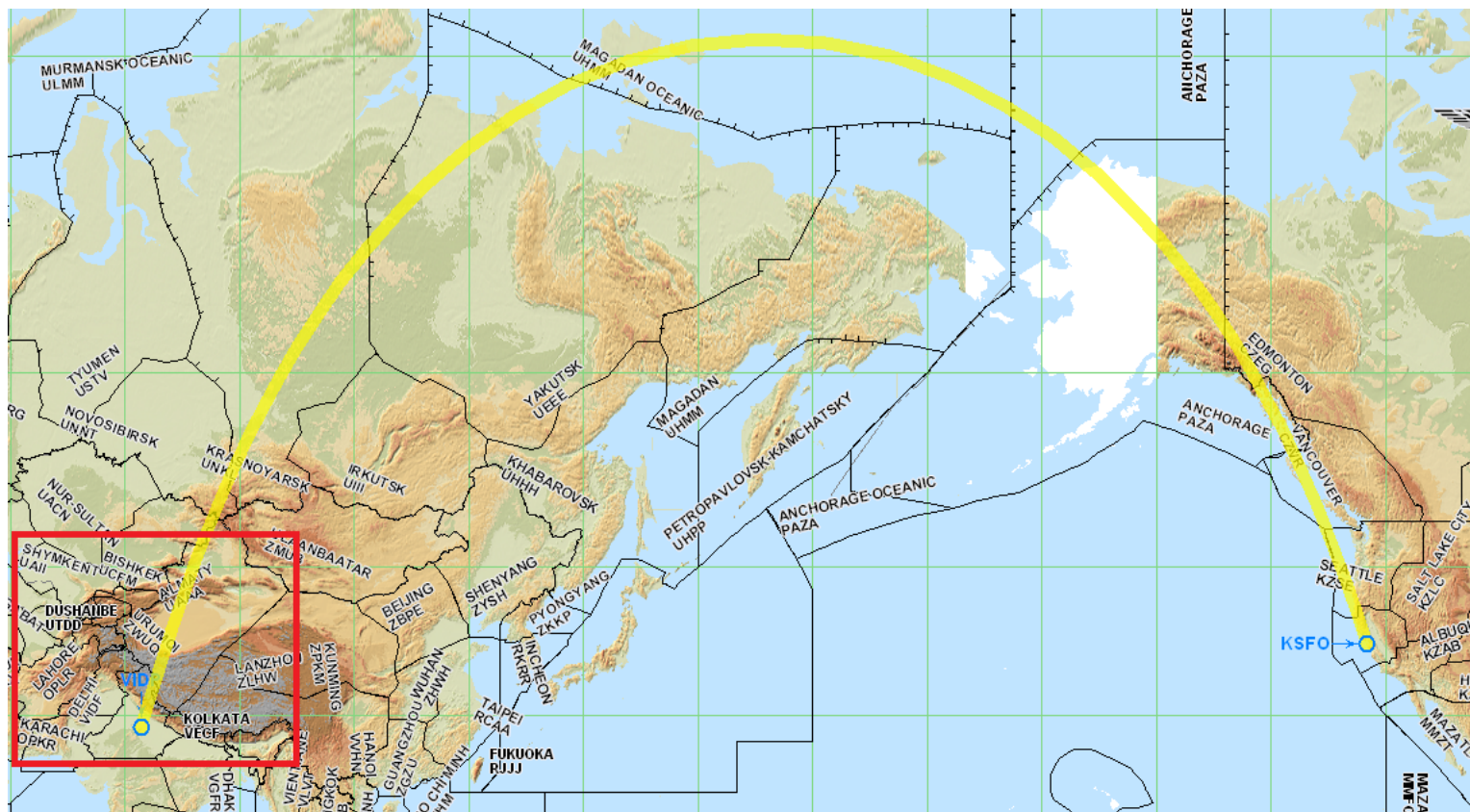
# Capturing a Growing Demand

- Growing India-US west coast market, a small number of emerging non-stop operations, eliminating a stop in Europe or Middle east.
- United's current city pairs are KSFO-VIDP-KSFO (since 2018), a new route KSFO-VOBL-KSFO expected may 2021 (subject to COVID19 impacts)
- Considered as ultra long haul routes where aircraft performance capabilities are challenged daily.
- B787-9 is used on the routes.



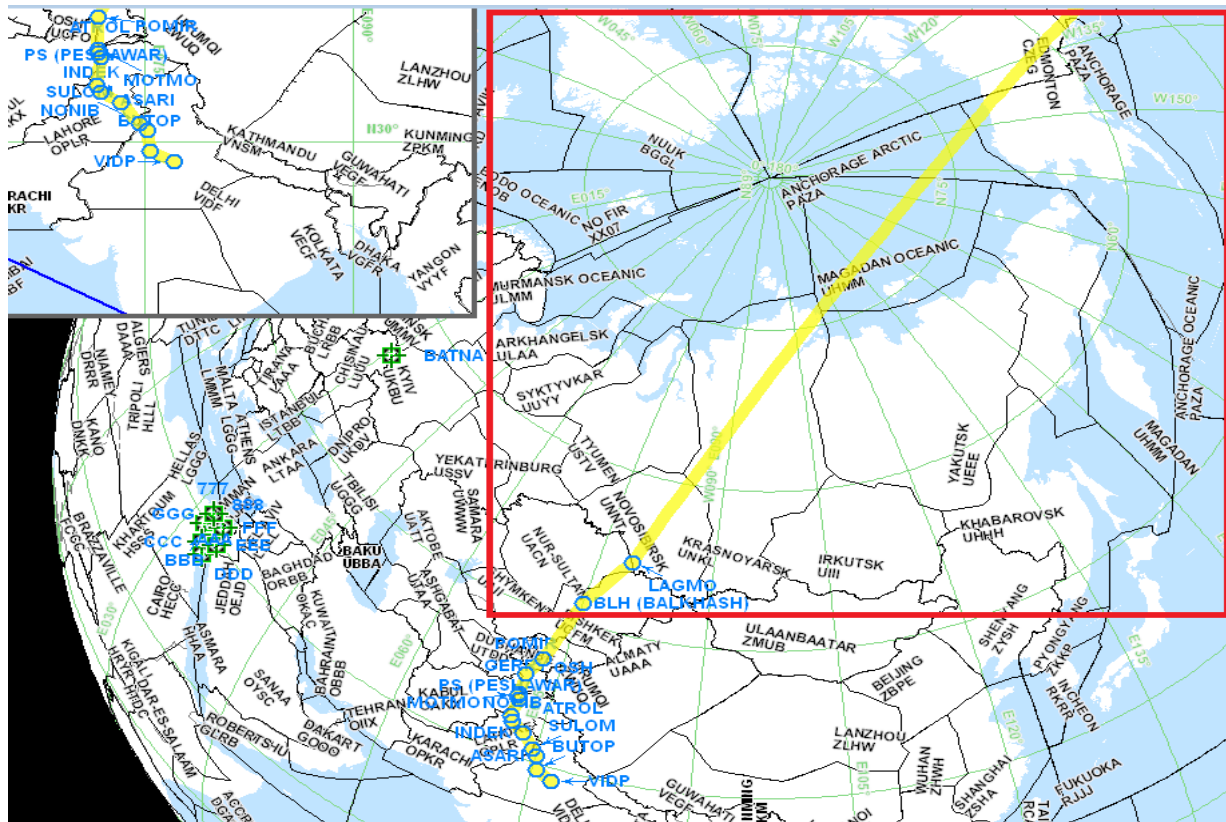
# Great Circle Route = Minimum Distance

- The ability to plan a minimum distance route between India and West Coast US has yet to develop. Some constraint may be unavoidable due to extremely high terrain over the Himalayas and certain areas with limited air traffic services.



## Great Circle Route = Minimum Distance

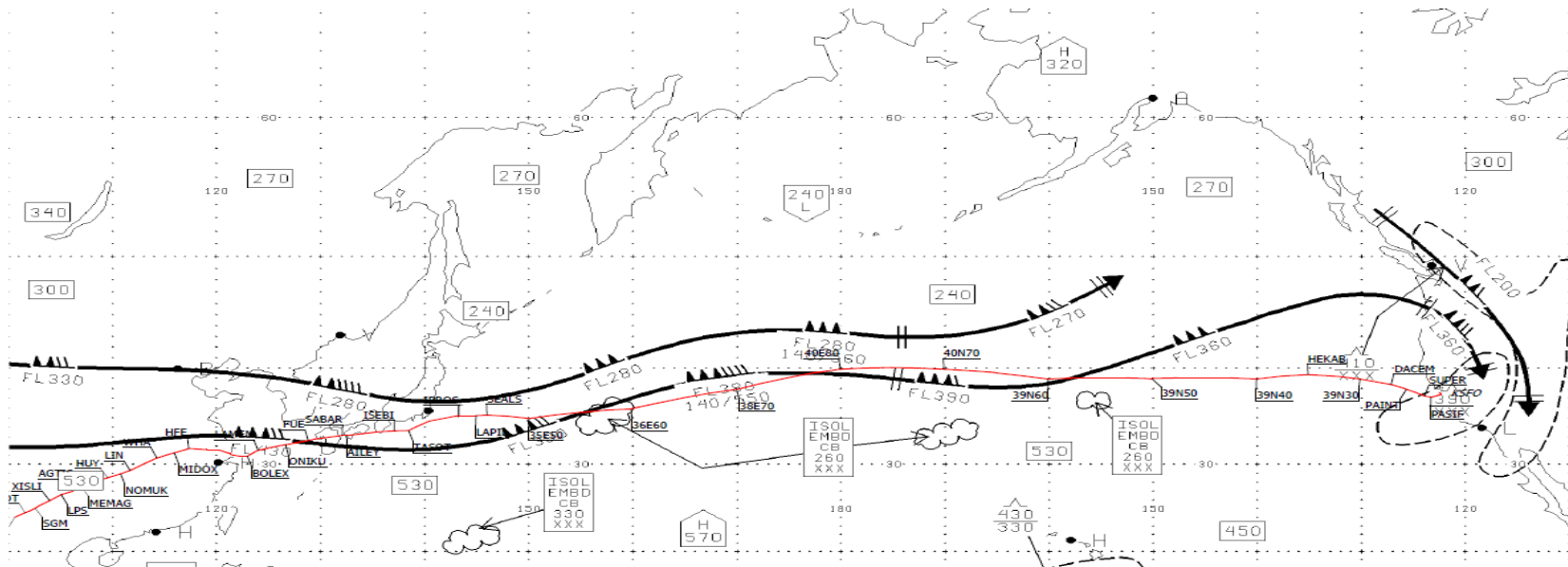
- Current route structures in Mid-Asia support entry into Russia via LAGMO/ELSUT/BOKIS in Novosibirsk ACC (UNNT)
- Desire for optimization within continental Russia (Krasnoyarsk and Yakutsk) Magadan Oceanic and Anchorage FIR's.



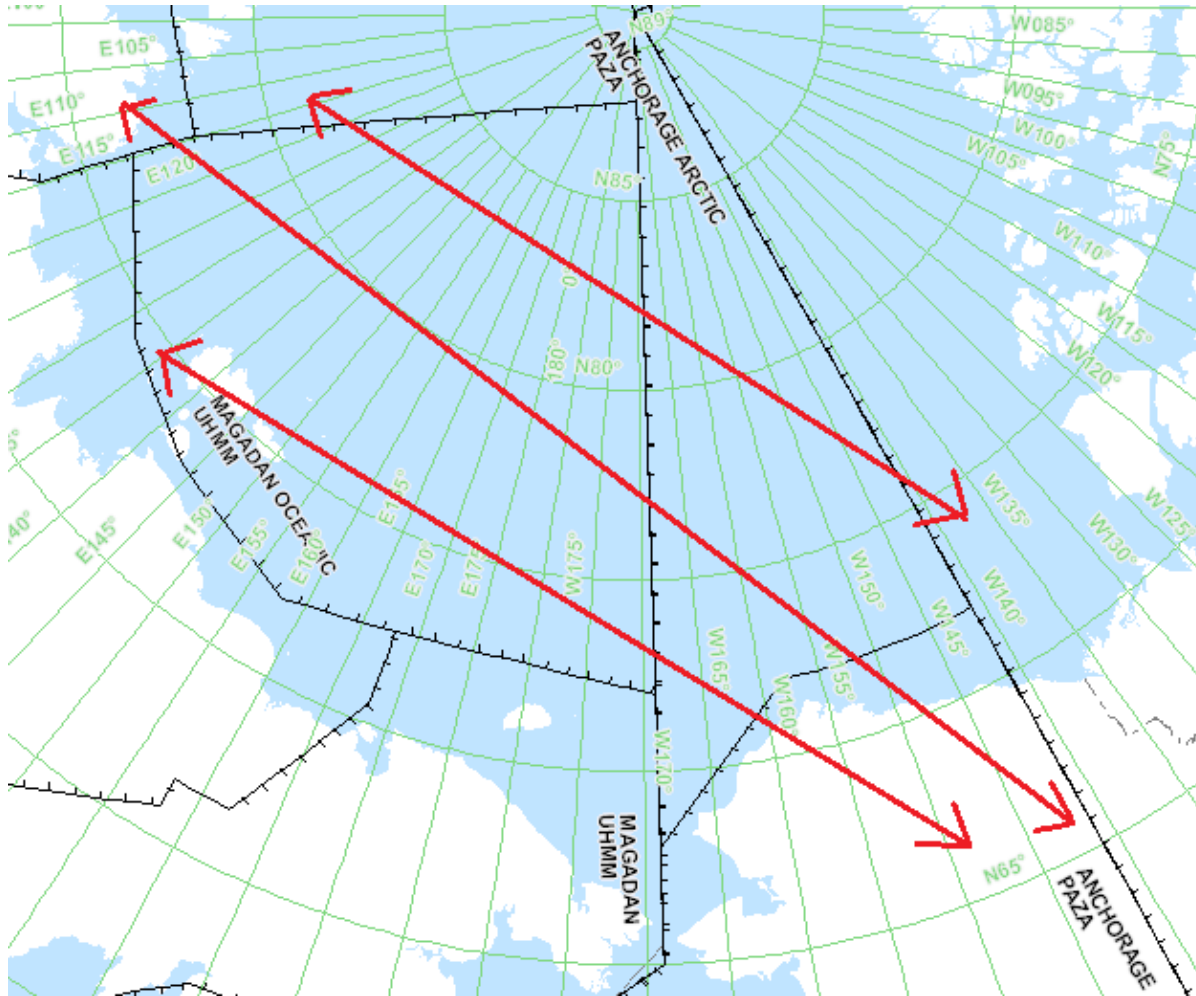


## India – US West Coast – Seasonal Trend

- In the winter months, it takes a full advantage of nature with Jetstream position favoring a route through southern China.
- It could be 1000NM in extra miles, but the tailwind component often produces a minimum “time” route.
- In summer months, it subsides and moves northward increasing the need for an optimized great circle route.
- Route selection is subject to other operational goals (and turbulence)



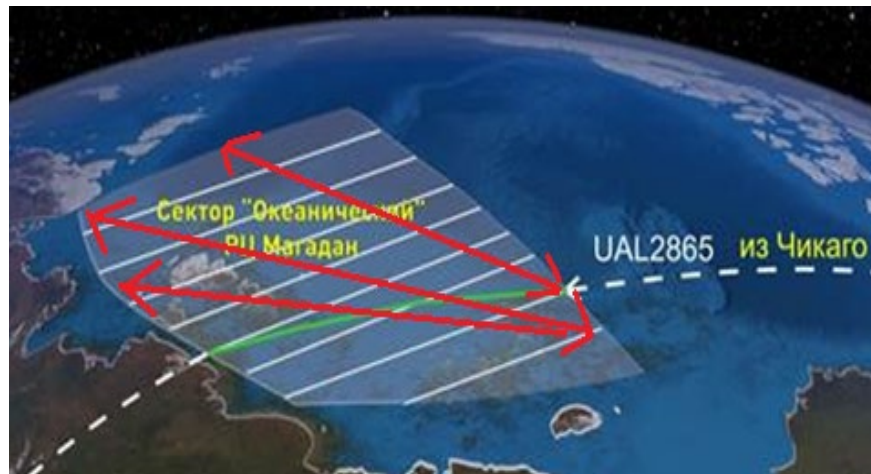
# The next step : Magadan UPR New Possibilities





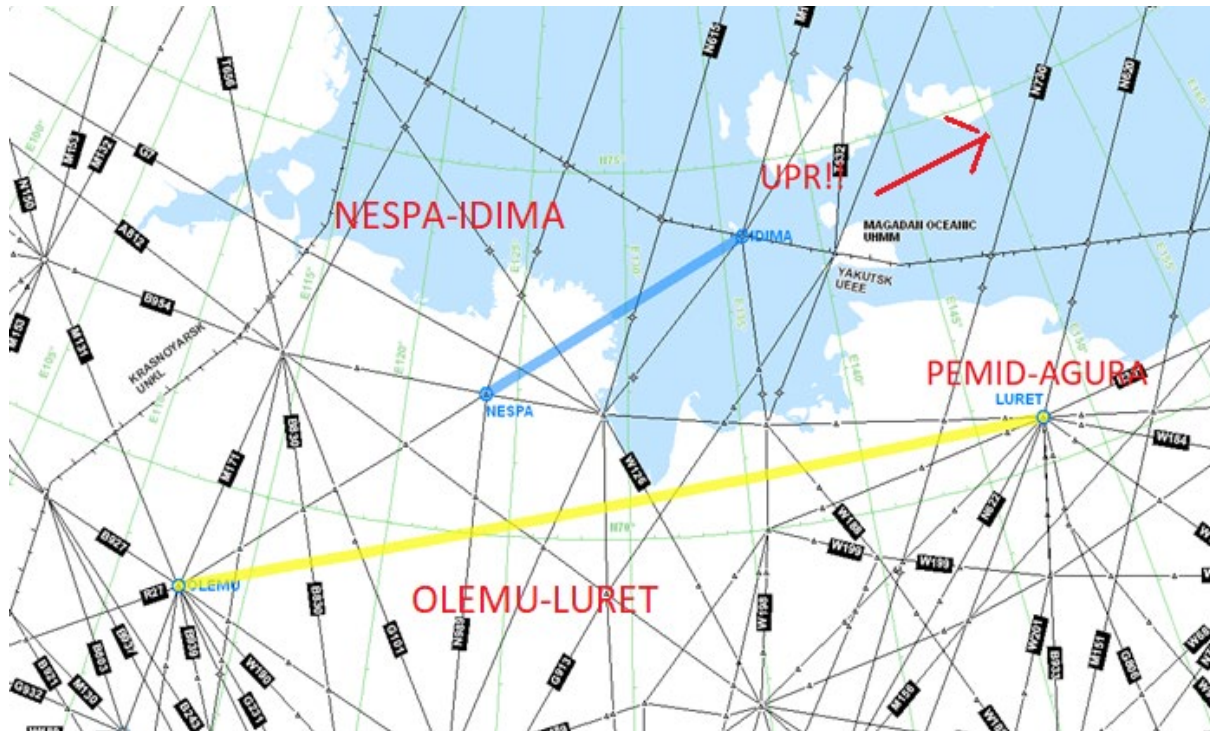
## New Possibilities

- Discuss new exploratory ideas to increase the utilization of Magadan UPR (the oceanic portion) for India flights in a non-traditional manner.
- If implemented, expect an occasional transit against normal flow of traffic (North America-North Asia) at the outset.
- Depending on the outcome, may be considered for bi-directional use (West US West Coast -> India)
- Open to all possibilities. Even small steps over time could still make a meaningful difference.
- Joint effort of all surrounding ANSP is necessary to obtain result.



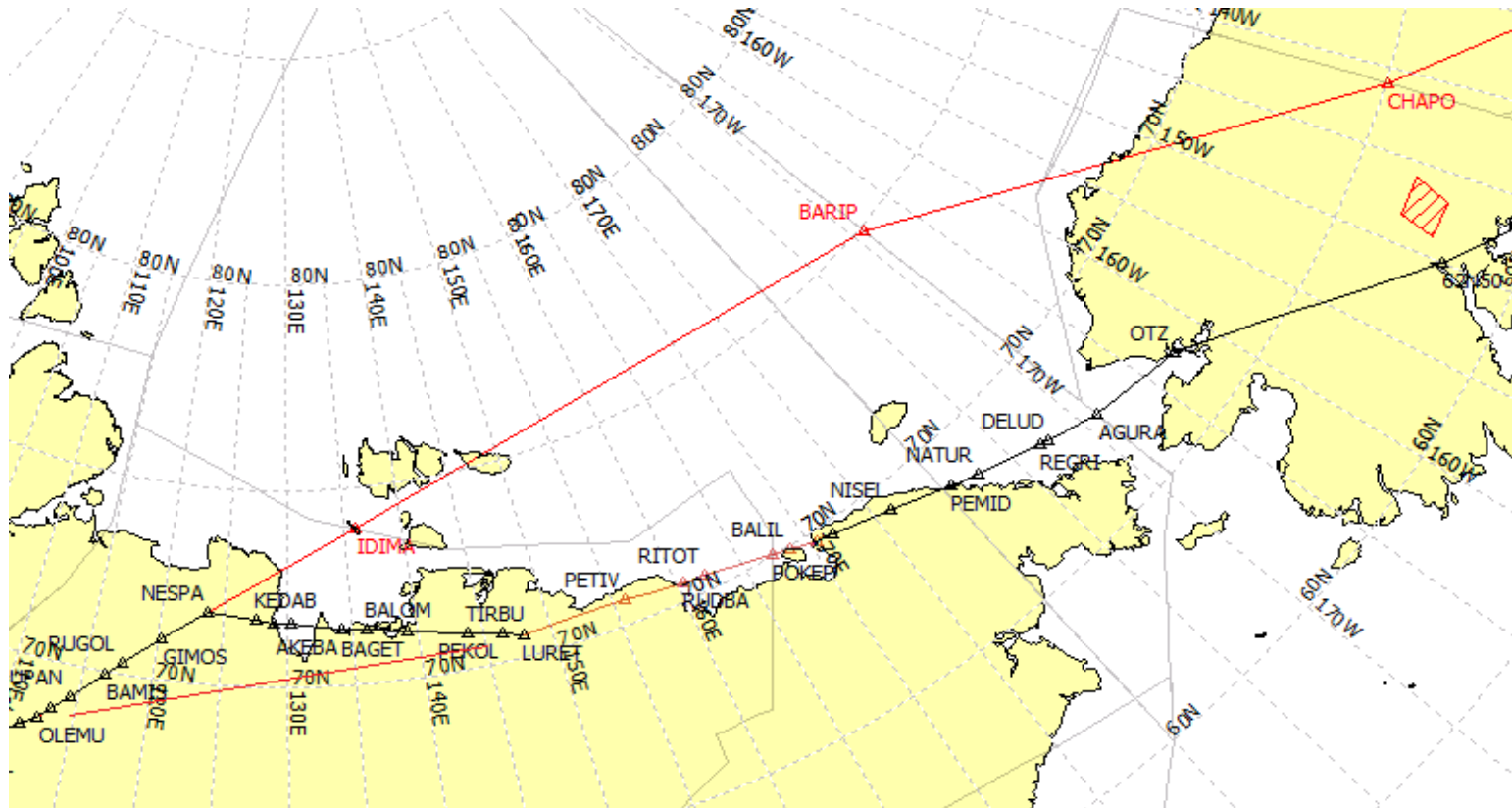
# Yakutsk-Magadan Connectivity

- 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-LURET– 33NM/4 MINS/1200LBS savings
- NESPA-IDIMA – 37NM/5 MINS/1500LBS savings



# NESPA-IDEMA-BARIP Example

- 76NM/13 MINS/3000LBS savings

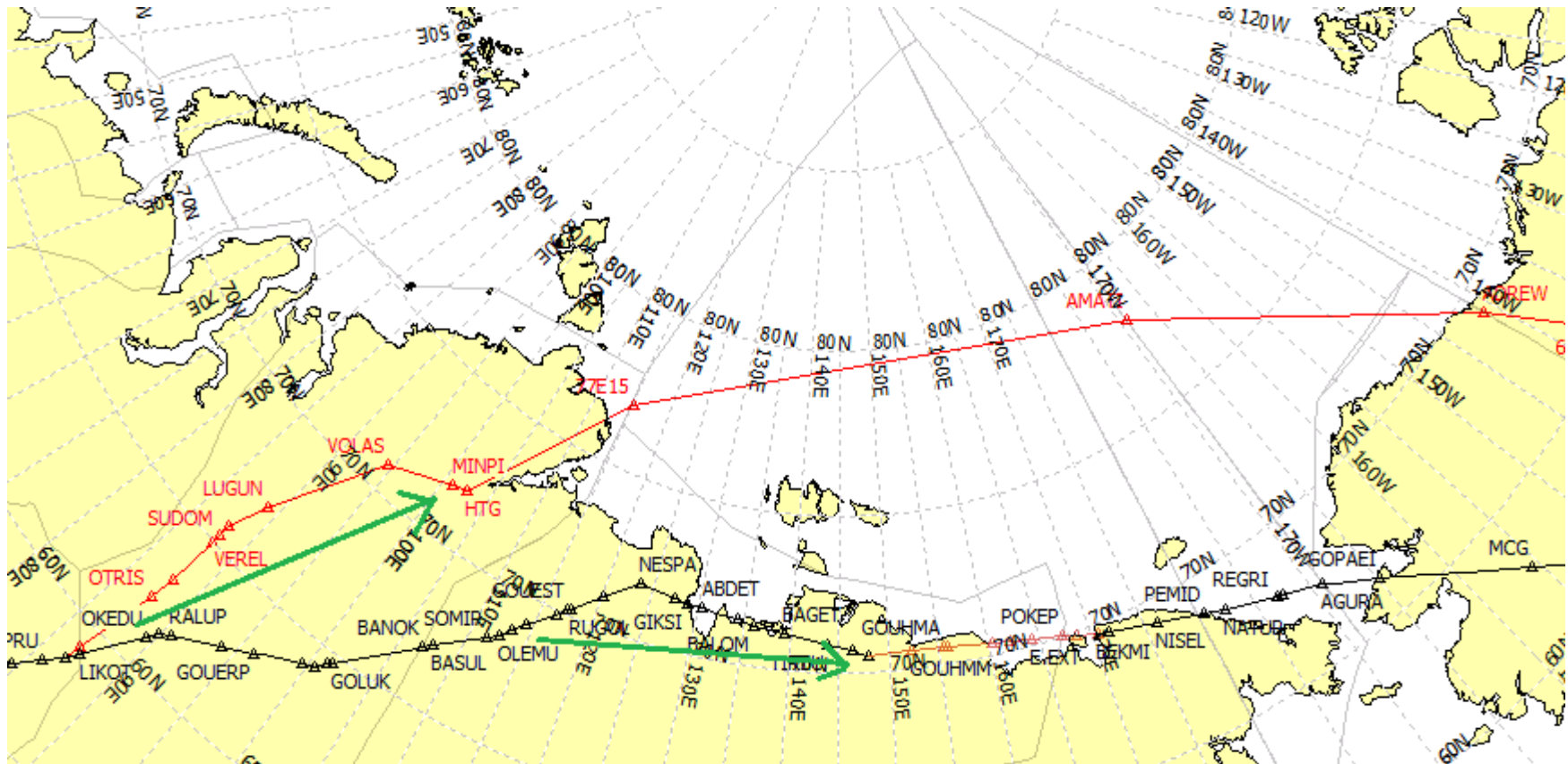


- Exploration of new entry/exit for Magadan UPR at 77N via HTS (Katanga).
- Desire for connectivity improvements between ELSUT/LAGMO/BOKIS and HTG within Novosibirsk ACC and Krasnoyarsk ACC.



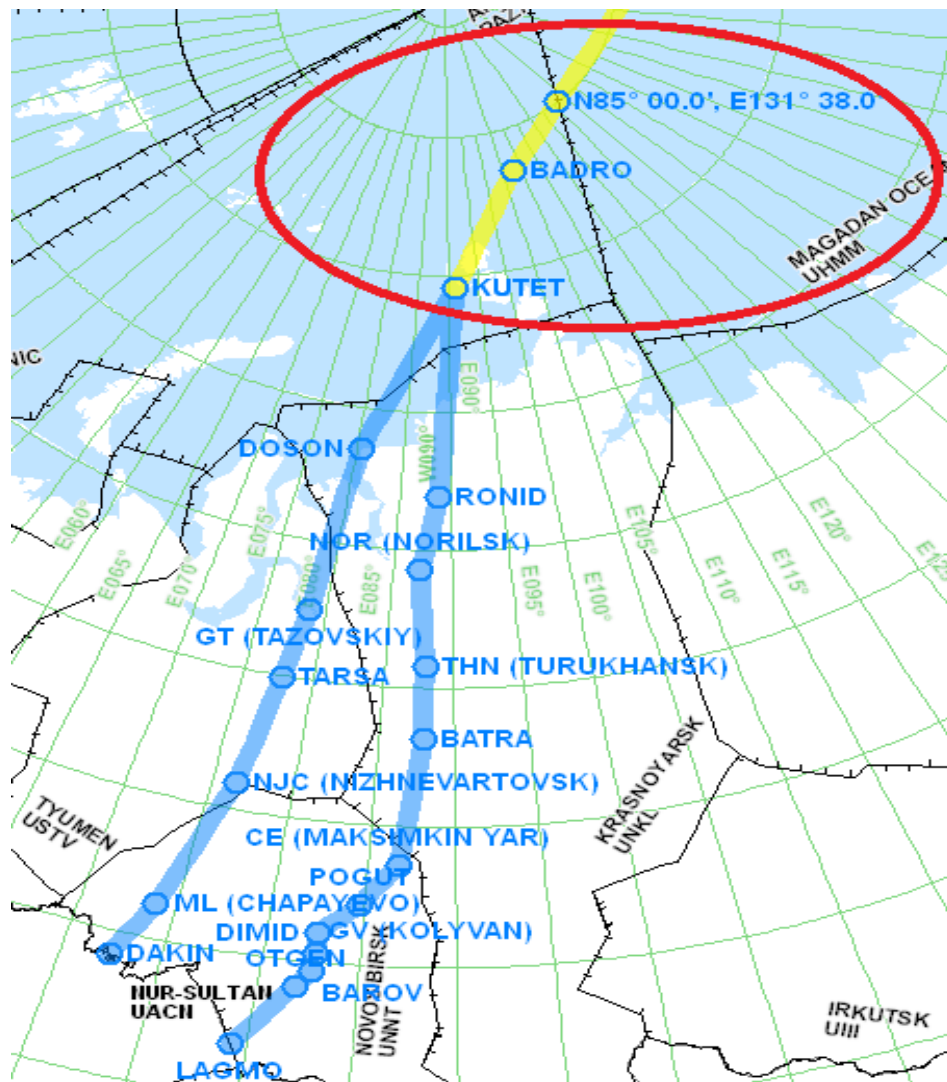


# HTG-AMATI-ADREW Approximately 100NM less



# Magadan/Murmansk Connectivity

- Is it possible?
- Exploration of new entry/exit for Magadan UPR at 85N along the UHMM/ULMM boundary via KUTET-BADRO.
- In continental airspace, DAKMO-KUTET via Tyumen and LAGMO-KUTET via Krasnoyarsk connectivity currently exist.



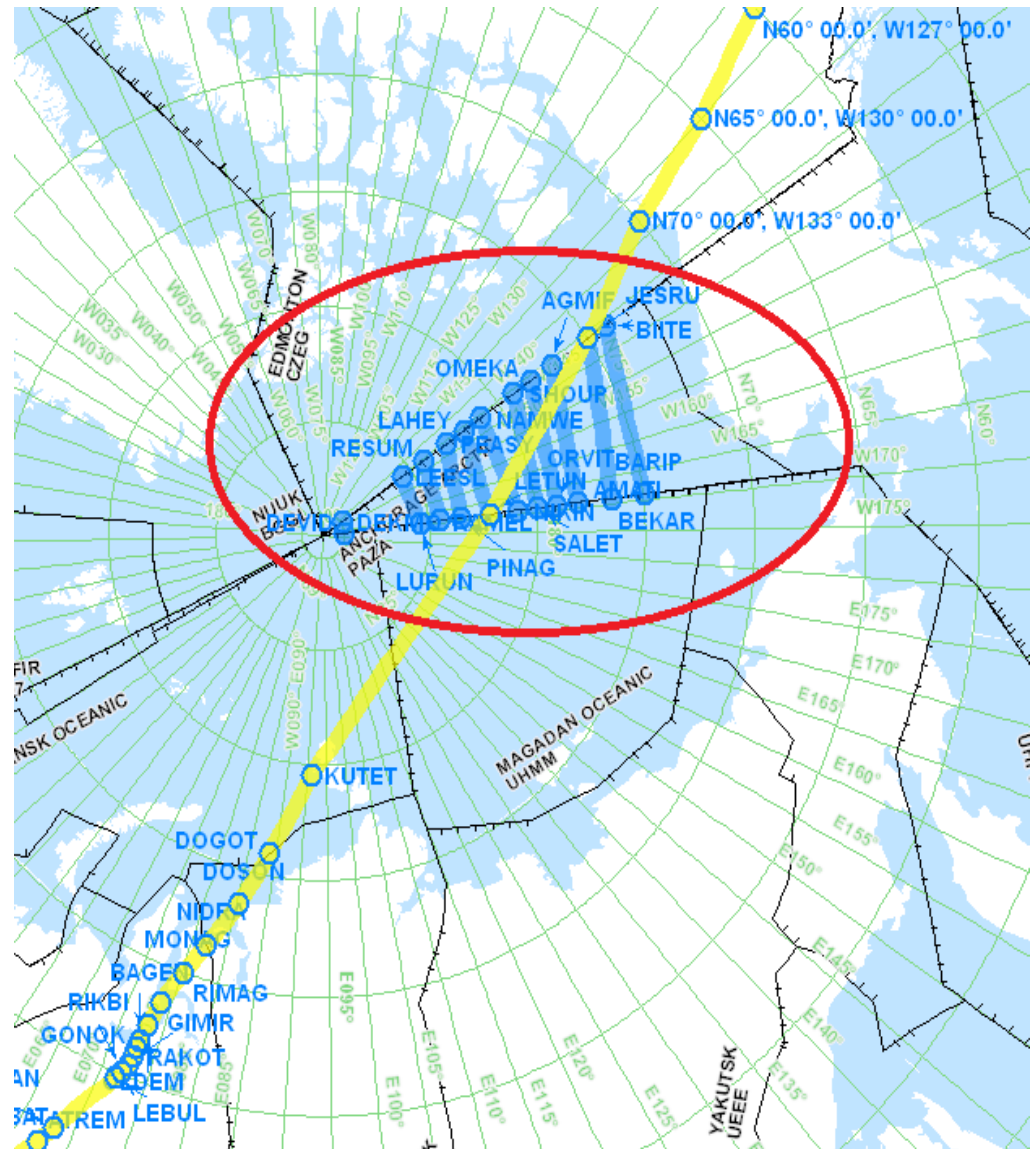


- KUTET-LETUN-JESRU = a 20 minute savings
  - 16:28 versus 16:48 via DEVID



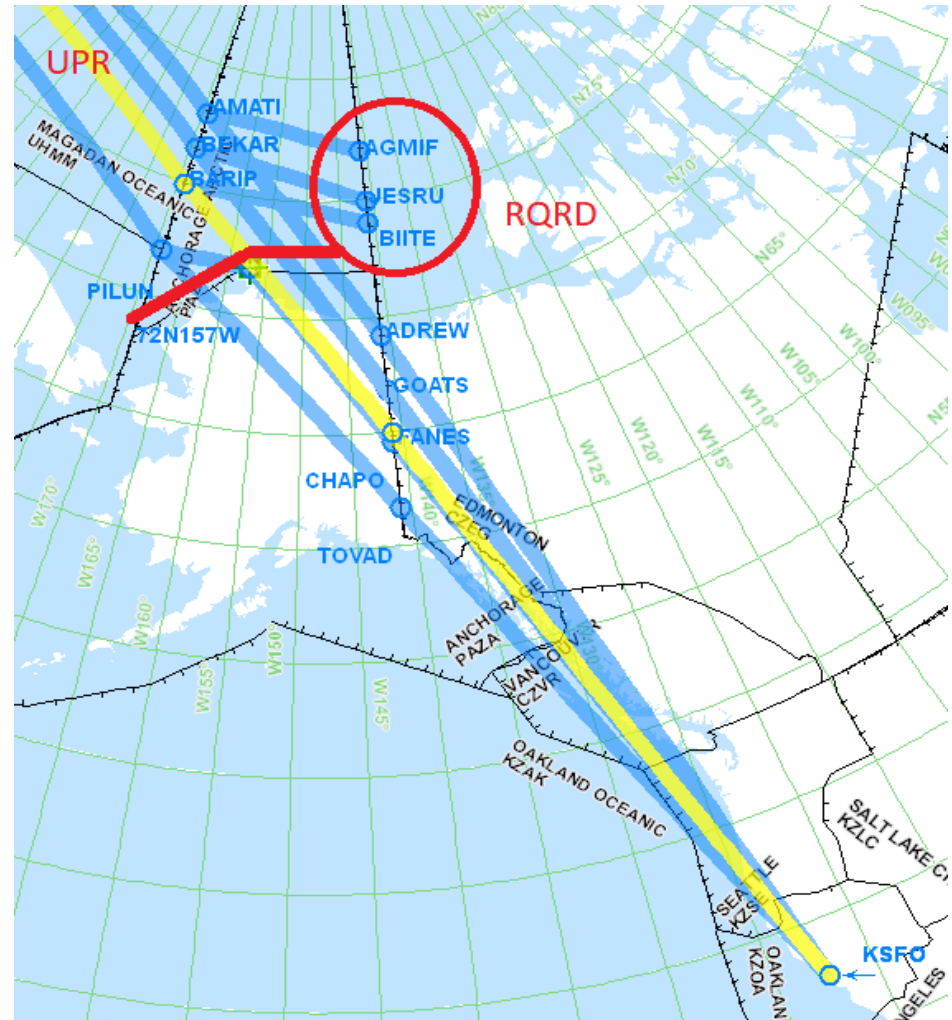
# PAZA/CZEG Challenges

- Review of the current flight planning restrictions with the planned introduction of more waypoints along the PAZA/UHMM FIR boundary.
- 141W paired requirements eliminated for flights entering PAZA from CZEG south of LAHEY and north of BIITE.
- All 141W paired requirements still remain for flights entering PAZA from UHMM.



# PAZA 72N LINE Challenges

- United will continue to demonstrate usability of flexible route planning via 141W requirements through possible trials and simulations with Anchorage and Edmonton.
- Look forward to continuous close coordination between State ATM, the FAA and Nav Canada for safe and smooth transit of flights in the arctic region.



*The End*

*Thank  
you!*

