North America Route Program



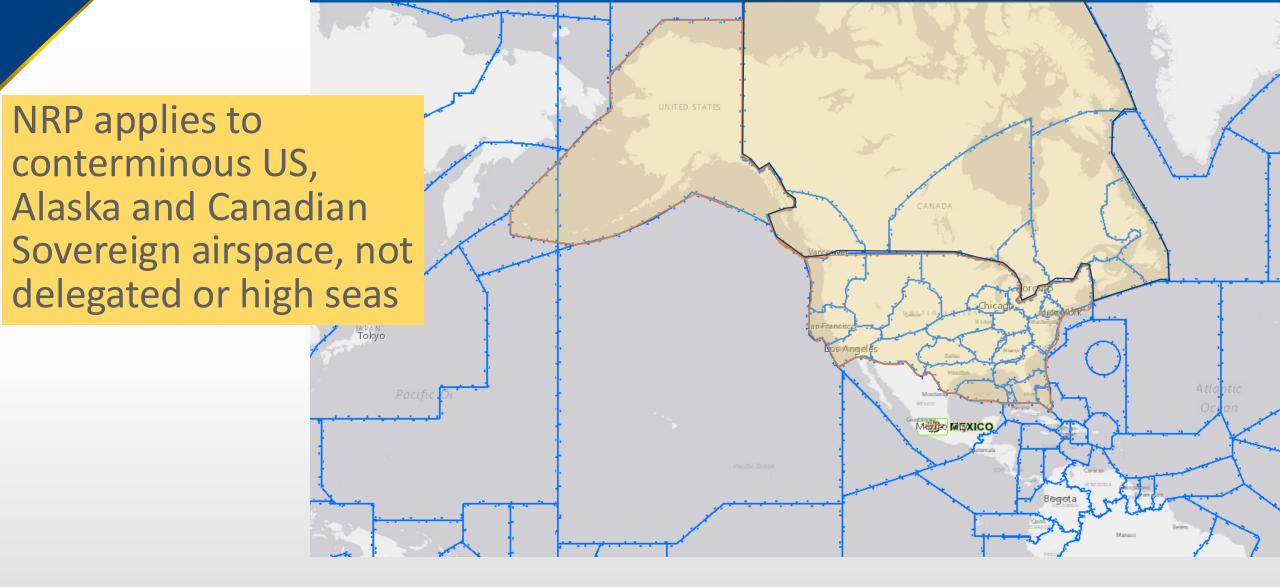




Free Route Airspace (FRA) and the North America Route Program (NRP)

- NRP is the implementation of FRA in the United States and Canada
- NRP has existed for over 25 years







Current Implementation (last updated 2008)

Airspace users can file optimized routes with the following rules

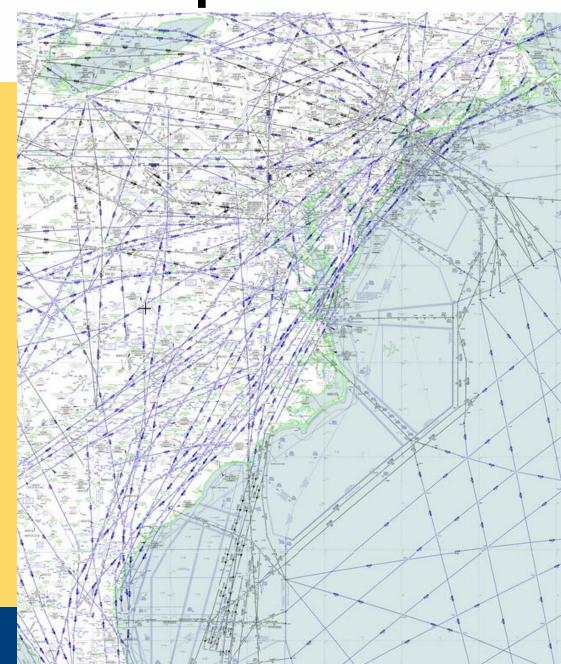
- For the first 200 NM and last 200 NM, the flight will use published ATS routes and/or procedures (SID/STAR)
- FL290 and above
- One fix/waypoint in each ACC
- Fix/waypoint within 30NM of either side of the USA/Canadian border
- "NRP" is included in the Remarks section of the flight plan



Competing ICAO Long Term Aspirational

Goals - FRA vs PBN

- PBN airways have been implemented along the east coast of the USA
- Some of these airways have 6 mile lateral spacing
- Designed for high volume operations
- Some airways are directional with heavy climbing/descending traffic
- PBN structure designed to segregate grouping of city pairs
- FRA operations create safety problems in this environment



Adjustments to FRA/NRP in progress

- Disallow FRA east of the 85th
 Longitudinal line, working with
 Canada on the boundary of FRA
 airspace in their airspace
- Update the definition of a waypoint
- Update automation requirements for distances between waypoints to reflect current capabilities

