The ATS routes development within Magadan ACC.
Utilization of SLOP, ADS-C CDP.
UPR in Magadan ACC “Oceanic” Sector
Magadan ACC International ATS Routes Structure:

Air routes - 41
RNAV routes - 33

The longitudinal separation minima of 100 km (using ADS-C and CPDLC) along the RNAV routes (RNAV10) is applied in the Magadan ACC Oceanic sector.
For the purpose of the further development of regional navigation and longitudinal separation reduction in January 2019 the Branch prepared the Draft Amendment to the ATS Routes Catalogue to transfer RNAV10 route network of the Magadan ACC “Oceanic” sector into RNP4. This RNP4 regional navigation routes introduction will make minimum longitudinal separation of 60 km possible. These changes are planned to be made this year.
To avoid volcanic ash clouds during the volcanic activity as well as to provide flexible airspace utilization to avoid the state flights area over Kamchatka Peninsula “North East Air Navigation” branch made Draft Amendments to the ATS Routes Catalogue to establish four new regional routes and to establish new airways segments available for international flights. The new ATS routes are planned to be introduced this year.
The Strategic Lateral Offset Procedure (SLOP) is approved along the ATS routes in the Arctic oceanic sectors and the high seas of the Pacific Ocean. The Strategic Lateral Offset shall be established to the right of the centerline relative to the direction of flight in incremental distance of 0.1 NM but up to 3.7 km (2 NM) maximum.

The strategic lateral offset (SLOP) is approved along the marked RNAV routes within the Magadan ACC boundaries. The information is published in the AIP of the Russian Federation ENR 3.1.3.

In April of the current year the “North East Air Navigation” branch presented to the FSUE “State ATM Corporation” proposals on SLOP utilization along RNAV routes over the continent.
The feasibility of using the ADS-C in the oceanic airspace allows applying the advanced separation procedures, which enable aircraft to maintain the best possible flight level. The ADS-C CDP is based on the existing aircraft ADS-C equipment and ATS unit technological capacity and allows using the optimal vertical flight profiles for the bigger number of flights therefore enhancing the airspace capacity and efficiency.

At present ADS-C CDP is not applicable in the Russian Federation.

“North East Air Navigation” branch is planning to find a way to implement this procedure in Magadan ACC airspace in near future. The list of necessary arrangements including automated system “Alfa” special software enhancement is being determined.
In 2018 the service of 12,178 flights was provided.

Daily average of 30 flights
The Branch “North East Air Navigation” is planning to implement a pilot project on user preferred routes (UPR) implementation in the “Oceanic” sector of Magadan ACC.

Implementation of this project will enable operators to perform UPR flights, which will decrease the operational costs including the fuel expense, reduce the flight time and decrease the emissions into the environment. The airspace will become more attractive.
The United Airlines (the USA) offered one of the possible ways to implement UPR within the “Oceanic” sector of Magadan ACC. An opportunity to apply “Direct to” procedure from fixed entry point on the Magadan FIR boundary to 2-3 FIR exit points has been considered.

One of given examples is “Direct to” procedure at AMATI-IDIMA segment for Chicago - Hong Kong flight. Flight time is reduced by 5 minutes. On the average fuel economy is up to 750 kg, which will allow decreasing CO₂ emissions by 2400 kg per one flight.
The FRA implementation with the “Direct to” procedure in the oceanic airspace can also be interesting for airlines performing flights from India to the western coast of North America (San Francisco, Vancouver and other cities).

The FRA implementation in the oceanic airspace will increase cost effectiveness of the flights, will have positive effect on the environment; and introduction of new procedures and technologies will attract new airspace users.

The “North East Air Navigation” branch is ready to consider proposals from other airlines, which will be taken into account while designing the renewed airspace structure of the “Oceanic” sector in Magadan ACC.
THANK YOU FOR YOUR ATTENTION!