Federal State Unitary Enterprise “State ATM Corporation

Branch “North East Air Navigation”

DARP-Like Procedure
In accordance with the decision made by COG 48/04 since 2013 in the Russian Federation there have been international volcanic ash exercises conducted on a regular basis in the Far eastern part of the ICAO EUR Region. The participants of the annual exercises are volcano observatories, volcanic ash advisory centers (VAACs), meteorological watch offices, national ATM and aeronautical information centers, airlines of Japan, China, Canada and the USA.

In April 2018 during the VOLKAM/18 Exercise Magadan ACC practised the reroute procedure using Controller-Pilot Data Link Communication. In accordance with the Exercise Directive the aircraft was changing its route within the Magadan FIR boundaries.
DARP-Like Procedure
CPDLC Utilization for Airborne Rerouting during VOLKAM/18

Rerouting request via CPDLC

UAL835

Rerouting Clearance via CPDLC

Magadan ACC

Airborne Flight Plan via AFTN (FPL)

Main ATM Center (Moscow)
Reroute Clearance

[Image of a cockpit display with a route clearance interface]
In August 2018 the Branch “North East Air Navigation” hosted the meeting of the Volcanic Ash Exercises Steering Group for the (far) eastern part of the EUR Region (EUR (EAST) VOLCEX/18. Taking into consideration the fact that the new equipment has been installed in Magadan ACC and the operational testing of the voiceless interaction between Magadan ACC and Anchorage ARTCC on AIDC protocol is being under way it was decided and introduced into the VOLKAM/19 Exercise Draft Directive to have a reroute trial with the usage of the CPDLC data link in the Anchorage FIR this time.

During the Exercise the reroute coordination between ATS units was supposed to be carried out on AIDC voiceless interaction protocol (between Anchorage ARTCC and Magadan ACC) and OLDI (between Magadan ACC and Khabarovsk ACC). The aim of this Exercise was to practise the coordination procedure between the involved Centers via AIDC under conditions close to reality using the current operational system.
During the Exercise an aircraft (UAL79) simulated DARP procedure in Anchorage FIR. The aircraft was supposed to enter Magadan FIR from Anchorage ARTCC Sector 10 via RUSOR to Kamchatka-1 Sector. ABI message was received via AIDC (RUSOR/2327F340)

As previously agreed LRM message was sent in reply not to bring any confusion to the real planning system. It is noteworthy that equipment installed in Magadan ACC was capable of giving correct response to the coordination request.

This interaction proved equipment of our Centers to be capable of carrying out coordination via AIDC protocol in case of non-standard situations including volcanic ash clouds avoidance.
The Branch “North East Air Navigation” has plans to complete the modification of the automated Alpha system software this year to automate DARP-like procedure using CPDLC. Approval tests are scheduled for August of 2019.

The airborne reroute request and relaying these structured requests to Main ATM Center will facilitate the route change coordination.
THANK YOU FOR YOUR ATTENTION!