



Space Weather Services for Aviation: Current status of developments under the guidance of the International Civil Aviation Organisation

Larisa Trichtchenko

Natural Resources Canada, Canadian Space Weather Forecast Centre, Ottawa, Canada (larisa.trichtchenko@canada.ca)

Space weather events impact a number of technologies which are widely utilised in the modern society. Several of these technologies are used in aviation, with its modern trend to routinely utilise GNSS navigation (known for its sensitivity to the ionospheric conditions) and expanding geographic coverage, for example, including high latitudes areas, where the HF communication is strongly affected by space weather conditions. Some airlines and national organisations have already noted the need to have information on space weather conditions and use the space weather services provided by the members of International Space Environment Service (ISES).

The International Civil Aviation Organization (ICAO) is a UN specialized agency, established in 1944, consists of 192 Member States and industry groups. The ICAO works on international civil aviation Standards and Recommended Practices (SARPs) and policies in support of a safe, efficient, secure, sustainable and environmentally responsible civil aviation. In recent years, ICAO has been considering the need for Space weather services for international aviation.

This presentation describes the steps and related documentation made by ICAO (i.e. SARPs, Manual for Aviation users, etc.) as well as current operational status of the Space Weather services for international aviation and expected future developments. As an expert member of the ICAO working group on service development, the presenter will make a special emphasis on the identification of the science-related questions which would support improvement of the Space Weather services for the aviation industry.