

# **Development of an enhanced Daily Ionospheric Forecasting Service**

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HF sky-wave communicators use propagation prediction programs to plan their frequency usage months in advance. The basis of these predictions programmes are median models of the ionosphere, however the ionosphere can deviate substantially under adverse solar and geomagnetic activity. Under the ESA Space Weather Service Development Activity, a pilot project has been established to extend and enhance the current Daily Ionospheric Forecasting Service (DIFS), provided by BAE SYSTEMS ATC, to support HF sky-wave users with information about the likely effects on communications a few hours ahead and on a day-to-day basis.

In addition, a satellite communications disturbance warning service will be established to provide advice to SATCOM users of adverse propagation conditions and in particular scintillation effects on a global basis.

This paper will describe progress on the SDA DIFS activity in gathering the user requirements, an analysis of the space weather data requirements and the development of the service to date.