

Working meeting report

Name of the meeting: **Space Weather information for aviation**

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Introduction

A working meeting on “Space Weather information for aviation” was held on Tuesday 15 November from 17:00 to 18:30 in the Leopold room.

It was organized by M. Latocha (SL), P. Beck (SL), N. Crosby (BIRA-IASB), E. De Donder (BIRA-IASB) and chaired by M. Latocha (SL).

The number of participants was 45.

Objective of the meeting

- Overview presentation of space weather products relevant to aviation and available in the SSA Space Weather Service Network.
- To know what information the aviation community needs and in which format.

Presentations

- Radiation Expert Service Centre products & tools at ESA Space Weather Portal relevant for aviation (N. Crosby, BIRA-IASB).
- Updated Products of Ionospheric Expert Service Centre at ESA Space Weather Portal and User Test Campaign (C. Scotto, INGV).
- Pilot's requests and needs (T. Eberbach, VC)
- Eurocontrol space weather activities (E. Robert, Eurocontrol)
- Improving Space Weather Communication: The D-Index for Aviation (M. Meier, DLR)

Selected discussion highlights

- Efforts are needed to translate scientific information/products into tailored products fitting the user's need.
- People in the aviation community should also be trained to understand space weather and to recognize the impacts on their operational services.
- Space weather information for pilots should be easy to interpret and quickly to read in an appropriate format. A good example format is the SIGMET for meteorological data.
- If a relevant information is delivered in an appropriate time, pilots can take decisions to deviate from planned flight plan (e.g. changing route, delay flight). One has also to take into account the influence by economic factors.
- Pilots asks also for radiation on-board monitors or radiation warning systems.

- It was suggested establishing a global database for observed aviation irregularities for further comparison with space weather effects.
- A space weather radiation-index for aviation should be based on dose rates rather than on measured fluxes of particles observed outside the magnetosphere.

Main conclusion of the meeting

The interest of the aviation sector in space weather is significantly growing and more interaction is needed between the scientific space weather community and the aviation community to clearly define the requirements for a space weather service. Dialogues should be organized on an international level including the meteorological sector. It is planned that during the next European Space Weather Week this topic is continued. A further thematic workshop regarding this topic is intended to be organized in 2017.