

**Report on the Splinter Meeting of Topical Group “Spacecraft Aircraft and Launcher Environments” (SALE) held during Space Weather Week in Liege on 18 November 2014 in Room Mosane (from 17.30-1900)**

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(Chair/spokesperson for SALE)

This year our Splinter Meeting concentrated on three themes, namely: an account of space weather at the Rosetta Spacecraft en route to and at comet 67P Churyumov-Gerasimenko (67P/C-G); the energetic particle environment at the Curiosity Rover on Mars; and the effect of space weather on the launch and commissioning of a flagship ESA mission.

**Space Weather at the Rosetta Spacecraft**

SMcKLawlor has been working with Dr. B. Jackson of UCL San Diego to provide modelling of the arrival of solar disturbances at the Rosetta spacecraft during its cruise phase to comet 67P/Churyumov-Gerasimenko and while escorting the comet during its orbit around the Sun. Further, she communicated these results to relevant orbiter PIs who provided data for validating the modelling. Against this background she was successful in lobbying the organizers of Space Weather Week (2014) to support the travel/subsistence of Dr. Jackson to sww so that he could present this work at SALE. Dr. Jackson was joined at SALE (at his own request) by Dr. Dusan Odstrcil (the “father” of the ENLIL model) who presented complementary results - overall to a very large audience.

It is noted that this material is now being prepared as an invited paper for a special issue "*Active Cometary Atmospheres*" for the journal *Earth, Moon and Planets* (EMP).

**Energetic Particle Radiation at the Mars Curiosity Rover**

SALE Co-Chair Dr. Guenther Reitz presented an update on measurements of solar energetic particle radiation (SEPs) made by the RAD/MSL instrument on the Martian surface (Gale Crater). This work is relevant to the validation of models of the radiation hazard posed in space to human missions beyond low Earth Orbit (in BLEO), a topic which is of special interest to SALE members.

**The effect of space weather on the launch and commissioning of a flagship ESA mission**

SALE Co-Chair Dr. Federico Di Marco presented an account of GAIA Launch and Commissioning with special emphasis on the impact of space weather on these activities. It is difficult to obtain information concerning launcher environments and this talk provided unique insight into related problems.