



PRediction Of Geospace Radiation Environment and Solar wind parameterS 637302

1st Project Meeting
June 5-6, 2015

Lund, Sweden

Minutes

Attendees

Robertus von Fay-Siebenburgen (Coordinator, Sheffield), Simon Walker (Project Manager, Sheffield), Tony Arber (Warwick), Michael Balikhin (Sheffield), Natalia Ganushkina (FMI), Juri Katkalov (IRF), Vladimir Krasnoselskikh (LPC2E, via Skype), Didier Mourenas (Stakeholder), Vitalii Shastun (LPC2E), Yuri Shprits (Skoltech/UCLA via Skype), Magus Wik (IRF), Peter Wintoft (IRF), Vitaliy Yatsenko (SRI).



Agenda

The agenda, as previously circulated, was adopted.

Meeting Summary

June 4th

The meeting began with participants introducing themselves.

Overall project status, management issues - Simon Walker

In mid-February, Paola Chiarini left her post as our Project Officer. Our newly appointed REA Project Officer is Andrej Rozkov.

Three reports, as outlined in the Project schedule, were submitted via the EC Participant Portal. Copies are available via the Project web site. There are 3 more pending delivery within the next 2 months, and a further 4 due before the end of the year.

Our new Project Officer, Andrej Rozkov, had had a telecom with the Project Manager and Chair of the Scientific Steering Committee. He indicated that he would like to have similar telecons every 6 months. The main topic of the telecom was the current status of the work packages. It was noted that the 3 deliverables due had been submitted. No risks to the current project schedule were identified. His preference for our Review Meeting was sometime in the second or third week of January 2016.

The current schedule for telecons between the work package leaders is half yearly, such that there is a Project Meeting or telecom every 3 months. It was decided at the meeting that more frequent telecons (typically every 2 months) would improve communications between the beneficiaries. These telecons would be carried out via Skype.

The Project web site (<http://ssg.group.shef.ac.uk/progress/html/>) has been created as part of the dissemination activities. It was suggested to add meeting notes within the 'project only' section. Links should also be included to the IRF page for WP3 activities and the IMPTAM electron flux model at FMI.



The web site should also contain a list of papers and presentations by the beneficiaries that acknowledge EC funding. Could all participants let Simon have details of PROGRESS related papers and presentations.

The next Project Meeting should also incorporate a meeting of the Stakeholder Advisory Board. This topic was discussed further under AOB.

Review of Actions

AI-KO-1	SW add a list of conferences to web site
	List of conferences is available on web site
AI-KO-2	SW add list of deliverables to web site
	Time ordered list of deliverables available on web site

Status WP2 - Tony Arber

Development of SWIFT is proceeding as expected. A local repository for the code has been set up using GitLab and this can also be used to maintain the associated documentation. Current versions of modules for viscosity and the two temperature model are undergoing testing. A number of potential difficulties that may arise later during the project have been identified, investigated and mitigating actions defined, even though the associated tasks are scheduled well in the future. A number of open questions relating to the SWIFT boundary conditions are currently being investigated.

Status WP3 - Peter Wintoft

Magnus Wik (IRF) now has a permanent post at IRF and so a replacement is being sought.

The contents of Deliverable 3.1 were reviewed. It is envisaged to use it as the basis for a review paper in future.

Task/Deliverable 3.2 is progressing well. The sources of data for the models for geomagnetic activity have been defined and a database, accessible by the Project beneficiaries, will be created and constantly prated as new dat become available. Data sources include WDC-Kyoto/NGDC for the geomagnetic indices, ACE (GSFC) and OMNIWEB for solar wind parameters.

A website (password protected) providing access to the draft reports has been created at



IRF. A link should be added from the main Project web site.

Action: AI-PM1-1 SW add link

Vitaliy Yatsenko provided a short presentation on their NARMAX modelling techniques and conversion of models to bilinear models to create a 'Guaranteed NARMAX model with multi criteria optimisation. Results are shown for the application of such models to risk analysis. Local Lyapunov exponents are used to determine prediction limits. A combination of the Lyapunov/NARMAX approach may be capable of yielding 8-10 hour ahead predictions of Dst.

Status WP4 - Vitalii Shastun/Michael Balikhin

The contents of Deliverable 4.1 were presented and discussed.

Vitalii Shastun provided an update of the provision of the data sets required for subsequent tasks. Example data sets were passed on to Sheffield so that their suitability could be further assessed.

Status WP5 - Natalia Ganushkina

Two new RAs have been appointed by FMI to work on PROGRESS.

Current activities focus on improvements to the IMPTAM model for low energy electron fluxes and in particular on models for the density and temperature.

Two papers are in preparation. One corresponds to Deliverable 5.1 and is expected to be delivered on schedule. The second has resulted from scientific output from the WP.

No risks have been identified.

A website for IMPTAM has been created at FMI. A link to it should be added from the main Project web site.

Action: AI-PM1-2 SW add link



Status WP6 - Natalia Ganushkina/Yuri Shprits via Skype

Output from the IMPTAM model is available online at FMI. Current work involves the expansion of the range of electron energies covered to include lower values. Sources of data are being investigated for comparison - electron fluxes are required rather than fluxes measured by individual telescopes.

The provision of the diffusion coefficients used by VERB is being improved. It will incorporate the new models defined by PROGRESS WP4 when they become available. Data assimilation based on GOES and Van Allen Probe measurements are being incorporated within VERB.

AOB

PostDoc travel fund

Participants were reminded that there is (limited) funding to allow researchers to visit other beneficiary and collaborator institutes.

Publications and Deliverables

Currently, deliverables are only accessible through the 'Project Only' section of the web site. Most are written for public dissemination and so will be moved accordingly in the near future. However, if the contents of a public deliverable are in the process of being written up for journal publication the deliverable should be kept private until the paper is submitted.

Action: AI-PM1-3 SW to talk to AR about publications in Participant Portal
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European Space Weather Week 12

Natalia Ganushkina and Peter Wintoft are organising sessions at ESWW12. Since most of the Project beneficiaries will also be attending it was proposed to have an informal Project Meeting there.



Meeting records

It was agreed that meeting records including presentations should be added to the Project web site.

Action: AI-PM1-4 SW Add project only meeting pages to web site

Next meeting

It was decided that the next Project Meeting, which will incorporate a meeting of the Stakeholder Advisory Board, should be combined with the Project Review Meeting next January. Thus we should approach our Project Officer suggesting the Review Meeting take place on January 11-12th followed by a Project Meeting/Stakeholder advisory Board on 13th. The venues suggested were Brussels or Sheffield.

Action: AI-PM1-5 SW to inform AR regarding joint meeting and proposed timetable.