



# Minutes of the first Bi-annual HELCATS project Meeting

5-6 November 2014

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The first bi-annual HELCATS project meeting and technical review was held on 5-6 November 2014 in the Meridian Room at the Royal Observatory of Belgium, Brussels. The meeting was attended by representatives of all of the HELCATS beneficiaries and by the REA Project Officer, as listed below. The meeting was chaired by the Project Coordinator.

## Attendees:

Richard Harrison (Project Coordinator)	[STFC]
Jackie Davies (Scientific & Technical Manager)	[STFC]
Chris Perry	[STFC]
Jason Byrne	[STFC]
David Barnes	[STFC]
Sabri Mekaoui (Project Officer; <i>attended first day</i> )	[REA/EU]
Luciano Rodriguez	[ROB]
David Berghmans	[ROB]
Veronique Delouille	[ROB]
Marilena Mierla	[ROB]
Jasmina Magdalenic	[ROB]
Andy Devos	[ROB]
Adam Pluta	[UGOE]
Laura Volpes	[UGOE]
Nicolas Mrotzek	[UGOE]
Illya Plotnikov	[UPS]
Alexey Isavnin	[UH]
Peter Boakes	[UNIGRAZ]
Jonathan Eastwood	[IMPERIAL]
Peter Gallagher	[TCD]
Pietro Zucca	[TCD]
Eoin Carley	[TCD]

Apologies received from Volker Bothmer (UGOE), Alexis Rouillard (UPS), Emilia Kilpua (UH), Mario Bisi (STFC) and Christian Möstl (UNIGRAZ).

The following paragraphs provide a brief summary of the presentations and discussion. The presentations have been lodged on the HELCATS website ([www.helcats-fp7.eu](http://www.helcats-fp7.eu)).

## AGENDA

### WP: Work Package

#### November 5<sup>th</sup>

[Chair: R. Harrison]

13:30-13:45	Welcome and introduction	Luciano Rodriguez
13:45-14:00	HELCATS general status/update (including WP1)	Richard Harrison
14:00-14:15	EU Perspective	Sabri Mekaoui
14:15-14:30	WP2 Update (overview and manual CME identification)	Jackie Davies
14:30-14:45	WP2 Update (automatic CME identification)	Luciano Rodriguez
14:45-15:00	WP3 Update (overview and forward modelling)	Adam Pluta
15:00-15:15	WP3 Update (geometrical modelling)	Jackie Davies
15:15-15:30	WP3 Update (inverse modelling)	Peter Gallagher
16:00-16:10	WP4 Update (overview)	Peter Boakes
16:10-16:30	WP4 Update (coronal comparison)	Laura Volpes
16:30-16:45	WP4 Update (in-situ comparison)	Alexey Isavnin
16:45-17:00	WP5 Update (overview)	Illya Plotnikov
17:00-17:15	WP6 Update (overview)	Illya Plotnikov
17:15-17:30	WP7 Update (overview, type II plus IPS)	Jonathan Eastwood

#### November 6<sup>th</sup>

[Chair: R. Harrison]

09:00-09:15	WP8 Update (overview and dissemination)	Chris Perry
09:15-10:30	Summary/discussion of actions, technical issues from previous day Actions for the production of the six monthly report	Richard Harrison
11:00-12:30	Open discussion on Standardisation, format & content of catalogues	Chaired by Chris Perry

12:30 – End of meeting

## NOTES

The presentations are provided on the HELCATS website and are not repeated here. In these notes, we bring out additional points of discussion from the meeting.

After the initial welcome and introduction from Luciano Rodriguez, Richard Harrison suggested that the aims of the meeting were threefold, (i) an opportunity for the Steering Committee to assess the state of the project, (ii) to identify and discuss any specific items or actions that the Steering Committee needs to attend to (noting that this is a technical review), and (iii) to prepare for the six monthly report to the Commission. It was noted that since the kick-off meeting, we had provided two formal deliverables, namely the launch of the HELCATS website (deliverable D1.1) and the minutes of the Kick-off Meeting (deliverable D1.2). We had also held monthly Steering Committee teleconferences and submitted a three-monthly report.

The actions were reviewed and are updated below. The action list was instigated at the kick-off meeting, and is revisited and updated at each monthly teleconference.

It was noted that the next deliverable is the six monthly progress report (deliverable D1.3). Inputs are requested for that report, in a similar style and length to those produced for the three-month report.

The next major up-coming event is the Bi-annual project meeting/technical review, combined with the Annual open Workshop, to be held in Göttingen on May 19-22, 2015. One action noted is to define the structure of that meeting and to advertise the meeting to the community (see action list). The current draft structure is as follows:

- 19<sup>th</sup> May 2015 (Tuesday) - HELCATS annual meeting/time for associated splinters
- 20<sup>th</sup> May 2015 - Workshop day 1
- 21<sup>st</sup> May 2015 - Workshop day 2 incl. a session on heliospheric turbulence
- 22<sup>nd</sup> May 2015 - Wrap up at lunchtime

People were also reminded of the meeting schedule for the entire project, namely:

Month 12 (May 2015)	Bi-annual project meeting/ workshop, plus Technical review – plus Annual open workshop UGOE
Month 18 (Oct 2015)	Bi-annual project meeting/ workshop, plus technical review UH
Month 24 (May 2016)	Bi-annual project meeting/ workshop, plus technical review – plus annual open workshop UPS
Month 30 (Oct 2016)	Bi-annual project meeting/ workshop, plus technical review TCD
Month 36 (May 2017)	Bi-annual project meeting/ workshop, plus technical review – plus annual open workshop IMPERIAL

The meeting progressed with presentations from each WP in turn (see presentations on website). Issues that received particular attention included the following:

- Attendees were exposed to the initial manual CME and CIR(?) catalogues for the first time, and this generated much discussion about what parameters to include and the format of the catalogues (see later);
- The CACTus method for automated CME detection, which is well established for coronagraph data, is being investigated by the ROB team for application to HI data, and Luciano Rodriguez reported some success in this;
- A particular issue that arose in several presentations and discussions, starting from the presentation by Peter Gallagher, was that of associations. How do we decide on the ‘rules’ for temporal and spatial windows for use in projected and back-projected data? When talking about an associated event or active region, for example, what rules should we apply (both temporally and spatially) to make that claim? This is an issue that has been around since the early coronagraph days and we could consider producing a set of rules that we can adopt and even advertise as a standard for the future. This is not an easy task but has been an emotive issue over the years; it needs to be done in a way that removes any bias e.g. avoiding assumptions that flare and CME onsets coincide in space and time, but acknowledging that they could still be associated. It was suggested that this could be a topic for the Annual Open Meeting. It was agreed that to kick this off, Jackie should put the initial

HI CME list on the HELCATS wiki (which has been done) for consideration of back-projections and associations, and Peter Gallagher, with Christian Möstl and Volker Bothmer should draft a suggested scheme for us all to consider. This could form the basis of an Annual Open Meeting discussion.

- Chris Perry outlined a range of issues related to standardisation and format. This included comments on design, formats, naming convention, coordinate systems, metadata, version control and quality assurance. There was some discussion on errors, i.e. the assessment of errors in the models, and what should be tabulated in the catalogues. The general feeling was that this area is not something to design by committee and that Chris' plans should be considered by all and adopted. This discussion resulted in an action on Chris to distribute 'final' document for comment and subsequent adoption.
- The Annual Open Meeting was discussed, and suggestions were made that can be considered by Volker Bothmer and the Steering Committee as we firm up plans for that meeting. Suggested ideas for the Open Meeting included:
  - Overview of project, including status of WPs, for the community.
  - What will come out of HELCATS? Significance for forecasting? Products available? What next?
  - Debate/discussion on associations (see above).
  - Potential keynote speakers outside the project: Craig DeForest, Mark Gibbs, Dusan Odstrčil, Noé Lugaz.
  - Action on Volker, with Richard and Jackie, to coordinate announcements.
- The sixth month report is to be produced in the same format, style and length as the threemonthly report. The action is on the WP leads to provide reports (see action list).

**ACTIONS (6 November 2014):** [*\*Numbers are carried through from previous action lists*]

No.	Action	Actionee	Date for completion/ comment
26	Teleconferences as planned for first Wednesday of each month will now be with revised start time of 09:30 (UK time).	Jane Porter	17 November 2014
30	Annual Open Meeting pre-announcement – Volker to produce draft, coordinate with Richard and Jackie, and submit to SC for comment before issue.	Volker Bothmer	24 November 2014

32	WP leads are asked to provide reports in the same style as the 3-month report for the 6-month report. Template is on WIKI. NB 6 month report is a deliverable.	WP leads	30 November 2014
32a	Send 6-month report to Sabri	Richard Harrison	1 December 2014
33	Updated HI Event 2007-2013 to be placed on WIKI for general access.	Jackie Davies	24 November 2014
34	Speakers at the ROB meeting to provide talks to Richard and Jackie for inclusion on the Wiki	WP leads	24 November 2014
35	Define the detailed outline of the May meetings including the suggested items from the ROB meeting minutes	Volker Bothmer	1 December 2014
36	Draft a suggested set of guidelines/rules for association, including temporal/spatial windows for projected and back-projected data (on Sun and at 1 AU). Submit to SC.	Peter Gallagher, with Christian Möstl & Volker Bothmer	1 January 2015
37	Draft the definitive statement on standardisation, format, naming, coordinate systems, metadata, version control, QA etc... for the project. Submit to the SC for endorsement.	Chris Perry	15 December 2014