

Minutes of the 5th Hinode Monthly Meeting March 28-29, 2007

The 5th Hinode Monthly Meeting was chaired by Watanabe and held on March 29, 2007 at 9:00 AM (JST). The Agenda was published on the JAXA website and was accepted.

1. Instrument Status

- i) SOT (Tarbell) Current status of SOT is basically unchanged. They are preparing for the software restart on Monday and Tuesday (April 2-3). They will not require telemetry for six hours Monday and will have reduced requirements on Tuesday. Culhane stated that EIS did not need additional telemetry (TM) on these days as their planning was within their standard allocation. Berger commented that they had committed to supporting SUMER JOP 22 (Davina Innes; AR studies at the limb) by providing limb images. There was a technical discussion between the members of the Lockheed team (Hoffman, Shine and Tarbell) about what observations were possible when. To summarize this discussion it appears possible for SOT to observe using the current software on Monday except perhaps during station passes and the only real downtime is on Tuesday between 0400 and 1100 hrs UT. Golub asked whether XRT could make use of extra TM. DeLuca said they were planning to make a series of synoptic observations through aluminum, carbon and thin beryllium but this was within their normal allocation. Because the Sun was so quiet there was little incentive to make rapid cadence observations. Finally Tarbell noted that after the software updates there would be a period (week of April 2nd) when they would be combining engineering tests with observing periods.
- ii) XRT: DeLuca reported that XRT was operating nominally with the filter wheel in the AlPoly position.
- iii) EIS: Harrah reported that the testing at MSSL of the control systems sensitivity to the SAA had gone well. They were in the process of writing a report recommending removing the restriction. Obtaining the necessary concurrences should take less than two weeks.
- iv) Spacecraft: Shimizu reported that uploading the memory patch for the AOCS had gone extremely well and that all restrictions on the pointing system were removed. For instance there were no longer any time restrictions on polar region pointing observations.
Watanabe was in the process of developing new pages for the monthly plans to improve their structure and content. They are available at: http://www.isas.jaxa.jp/home/solar/hinode_op/hop_list.php

2. Proposals and Campaigns

Watanabe stated that the SUMER campaign HOP3 (HOP-Hinode Operation Plan) was the most important activity for April. Culhane summarized the HOP by saying that in all probability this will be SUMER's last effort. The wavelength

coverage is complementary to EIS. Werner Curdt would be at GSFC to coordinate the campaign and would be supported by Luca Teriaca who is in charge of the SUMER campaign logistics. Watanabe then suggested that the meeting proceed by discussing each of the HOPs in numerical order.

HOP7: Joint observations with SOHO/UVCS/CDS. The observations are timed for the Ulysses quadrature on May 19th. The request is for 4 hrs per day for 5 days with EIS pointed at the limb. The quadrature observations require an AR crossing the west limb where EIS would be pointed in order to observe the region between the base of the UVCS field of view and the limb. In the event there is not an AR crossing the campaign would be reduced to two days and would focus on quiescent coronal structures.

HOP8: Stereoscopic observation of coronal structures (Plunkett). There was little comment on this HOP. Berger stated that chromospheric magnetograms had been requested from SOT. He was not sure that these could be provided.

HOP4a: THEMIS: Magnetic filament topology (Schmieder). Golub reported that the extensive communications between Brigitte and the team had cleared up all the open questions and the dates (4/23-30) settled and the observation program established. Culhane reported that EIS would be ready to support the campaign.

HOP4b: THEMIS: Evolution of Electric Currents in ARs (Aulanier) Golub felt that this HOP was poorly defined and he had e-mailed Aulanier requesting additional information.

HOP9: Prominence campaign with the DST (Engvold) Berger stated that the scientific objective is the study of filament footpoint dynamics but there was considerable confusion about the actual dates. Watanabe assigned Berger an AI to resolve the dates. (Response: The dates are April 10th to the 14th from 14—16 hrs UT.) Conflict with the SUMER campaign was raised. Culhane responded that he thought not. SUMER was scheduled on the 4 – 6th for on disk quiet sun and on the 7 – 8th to polar coronal hole studies. (Editors Note: Because of the confusion of the dates this conclusion might not be true). Berger said that Engvold was aware of the conflict and had been told that SOT might not be able to support his observations 100% of the time. As part of this discussion Berger raised the question of whether target/program selection would be made in response to solar conditions or whether we were committed to a structured schedule. Culhane responded that the current plan for the first two days was to follow the AR that was west of disk center. They would then come back on disk for Wednesday through Friday and then go to a polar coronal hole for plume observations. This is to be followed by a study of velocity fields and waves in coronal hole plasma on Saturday and Sunday.

Shimizu asked “What is the daily duration of the SUMER campaign. Is it for a full 24 hrs each day? Culhane responded that there are some gaps on each day for sun-centered pointing for XRT but other than this most days are almost fully booked. The EIS Chief Observer will provide this information at the weekly planning meeting. David Brooks will hold this position for the first week and Culhane has or will send him all the necessary information. Tarbell stated that SOT needed the approximate times and pointing locations a day and a half in advance and precise coordinates ~12 hrs in advance at the daily planning meeting.

Watanabe thought that the first week should be well defined by now and that slight changes could still be made for the subsequent weeks. These changes should be negotiated between the Hinode POC (Culhane) and the SUMER POC (Curdt) and presented at the appropriate weekly meeting.

Culhane asked whether the polar plume campaigns were still restricted to five hours because of pointing considerations. Shimizu reiterated his earlier comment that as a result of the successful upload of the pointing patch there were no longer any pointing restrictions.

HOP10: Joint observations with the NAOJ Norikura Observatory for studies of non-thermal line broadening. The observations are scheduled mid-June to mid-July, which is a rather long way off, so Watanabe suggested detailed discussions were postponed until a later time.

In response to a question Culhane said that he would e-mail the current version of the detailed observing plan for SUMER (see attachment #2 to the e-mail cover letter).

Other ground based observations using THEMIS during this period are being proposed by Sami Solanki.

Berger will notify Engvold that even though his observations are in conflict with the SUMER campaign they are of interest to the Hinode team and that SOT will attempt to schedule two hours per day of joint observations. Culhane apologized for the late changes to the week 1 plan for SUMER but this was necessary to take advantage of the presence of an AR near the west limb. Berger will be observing with the spectrometer at the Swedish Solar Telescope at La Palma from April 9th to the 17th. He will be supporting the SOHO/SUMER campaigns when possible but will also be targeting filaments and if an off limb prominence should occur during this period he and SOT may request a 2-hr observation for a several day period. He will also attempt to coordinate his observations with the DST.

DeLuca requested that Berger contact the XRTCO and suggest what observations XRT might provide for SOT prominence studies. Watanabe requested that this study be placed on the Monthly Calendar. Berger agreed and also noted that Lockheed also had created an SOT long range observation calendar that is available at:

<http://sot.lmsal.com/operations>

Culhane asked whether the XRT synoptic observations would continue during this period. DeLuca said they would at four times a day for a period of approximately 10 minutes and that the exact times could be coordinated with the other observations to minimize conflicts. Tarbell stated that they might like to extend these periods if they needed sun-centered observations during the testing of the new NFI software. They would present these requests at the daily meetings to work them into the schedule.

Watanabe reminded the attendees that the J-side had a science meeting that conflicted with the weekly meeting and most of the Japanese scientists would not be able to attend. Tarbell was aware of the conflict and will represent SOT at the weekly meeting and will be available to discuss the outcome of this meeting.

This concluded the discussions. The next meeting will be held on April 26 at NAOJ prior to the start of the Thursday session of the Kosugi Memorial Symposium at approximately 8:30 AM JST. Watanabe will circulate the exact time as soon as it is finalized. Culhane and Golub will not be at Mitaka and will call in.

John Davis, March 29, 2007

Attendees: Shibasaki, Watanabe, Sekii, Davis, Shimizu, Sakao, Cobb, Doschek, Mariska, Tarbell, Berger, Hoffman, Shine, DeLuca, Golub, Webber Harra, Culhane and others.