

Minutes of the 12th Hinode Monthly Meeting October 24-25, 2007

The 12th Hinode Monthly Meeting was chaired by Prof. Watanabe and held on October 25, 2007 at 7:00 AM (JST). The Agenda circulated by Prof. Watanabe and was accepted.

1. Instrument and Spacecraft Status

- i) SOT: Tarbell reported that SOT was nominal except for the usual restrictions on the tunable filter and were observing in all lines, although they were not changing lines frequently just a few times a day.
- ii) XRT: Is still carrying a couple of concerns they are looking at the problem of changes in sensitivity over time due to contamination and were having discussions on whether to have regular bake outs or whether to hold off and accept the loss of sensitivity in the thin filters (Al mesh and AlPoly). They have made progress on the analysis programs for cleaning up the effects of the contamination spots. A flat field and a second order correction to the flat field have been developed and should have movies available for distribution among the members of the XRT team this week. They also are engaged in remote operations and Lorraine Lundquist has shifted her work hours to conform to the Japanese schedule. She is constructing all of the observing programs remotely from SAO. Paolo Regis (sp. ?) from ETH, who is a post doc at SAO, is currently at ISAS and has undergone CO training.
- iii) EIS: Watanabe noted Louise Harra's e-mail on the current status of EIS (Attachment I) and Culhane added that operations were normal and they were ready for the EUNIS calibration flight. Regarding the SUMER campaign, 10 new studies had been prepared and two additional studies were in process. He also mentioned the EIS science meeting to be held at George Mason University where the main topics for discussion are instituting remote operations, planning software and if and when the refocusing of the grating might occur.
- iv) Shimizu reported that spacecraft operations were nominal. Mariska asked about the status of the de-jitter software to help correct XRT images for the spacecraft motions. Shimizu stated he had prepared the program but had not yet entered it into the SSW. Mariska asked when this might happen and Shimizu replied that he had asked Narukage to implement the program and was waiting for him to find time. DeLuca reminded Mariska that Narukage would be at the EIS science meeting and suggested that he talked to him directly.

2. Campaign Review for October

Watanabe led the discussion and asked Tarbell to report on HOP 14 (Canary Islands Campaign). Tarbell reported that this was very successful and they had

done a variety of observations and for at least some of the time there was good seeing in the Canary Islands. He next addressed HOP 28 (Quiet Sun Fine Scale Structures – Tsiropula) and said that this was a balancing act with the observing time during the Canary Island’s window split with the Oslo Group (Carlsson). Compromises had to be made and SOT had attempted to meet both observers’ requirements. He thought that seeing had not been good but this was not unexpected at this time of the year. Harra reported that the campaign EIS – Norikura campaign (HOP 36) was very successful that Norikura had several excellent data sets that they could compare with EIS observations of Fe X, Fe XIII and Fe XIV. The data would be used to compare with line width calculations. Berger stated that irradiance measurement program (HOP 36) went very well. There was a slight problem in that they intended to take 1 x 1 summed images but actually took 2 x 2 images on the E-W scans. The scans worked well and the timing was good. The problem will be resolved for next months scans so that they can be compared with the synoptic images. Berger said that HOP 50 (Spicule Observations – Carlsson) was restricted, because of poor seeing, to single images and couldn’t make the hour long movies that they had intended. However there was still time as the HOP runs through November 2.

Watanabe then raised the subject of whether core teams needed to submit programs that were collaborations with ground based observatories to the SSC monthly meeting to obtain a HOP number so as to avoid the problems experienced by Carlsson scheduling SOT observations. In this case because a proposal had not been submitted Carlsson’s observations were identified as a “Remark” and were consequently overlooked by the Chief Observers. After extended discussion the Monthly Meeting accepted the SSC's recommendation that: Core programs that are coordinated with ground based, or time critical space, observations should be submitted to the SSCs for the assignment of a HOP # to minimize conflicts and oversights in the weekly and daily planning meetings. These HOPs should be identified as core team programs in the monthly listings to distinguish them from Guest Observer programs and should have to only to submit requests one to two months in advance.

3. November Observing HOPs

The first two weeks of November will be dominated by the second SUMER campaign. Watanabe has separated Davina Innes’ proposals into three, HOPs 27, 48 and 49. During the discussions at ISAS with the campaign PIs it was noted that HOP 51 corresponds to HOP 12.

There was also a new request from the STEREO team that was received after the last SSCs meeting. Watanabe has designated this as HOP 52 and it is for the latter half of November.

Culhane noted that HOPs 39 and 46 as submitted needed more detail. This has been provided and they are now complete. As an aside Culhane remark that he thought that the ISAS meeting between Curdt and Luca Teriaca had been very successful.

Davis raised the question of priorities if the EUNIS rocket was not able to be launched on the days proposed. Culhane responded that the launch schedule had been revised and was now set for November 6th at 1802 UT. The back-up date was now November 13th. November 13th is a very full day for the SUMER campaign and would require adjustments to the observing sequences. However since there is a delay of one week this would allow time for this reorganization. Culhane then discussed HOP 52. The request is for a group of observations of 3-hour duration coordinated with a high bandwidth telemetry allocation to the STEREO SECCHI instrument. Although it has come in late it is also time critical but fortunately it is after the SUMER campaign when the Hinode schedule is not overbooked. The request is for no more than 3 hours per day and no more than two sets of observations per week. Their requirement could be met by assigning a 3-hour observation period on consecutive days in weeks 47 and 48. The objectives are detection of wave modes in loops and if there is no activity the stereo structure of small EUV brightenings. Tarbell asked whether the timing was set by the DSN schedule or whether it was negotiable. Culhane said that SECCHI would suggest a time but they are reasonably flexible except that the period from 0000-0400 UT is excluded. The proposal was accepted and Culhane was asked to establish the times and days with Plunkett and Walsh with whom he had been in contact.

Returning to the SUMER campaign Watanabe noted that at least in the second week the SUMER campaign had exceeded the 12 hour limit per day for guest observers although on no day did the requests exceed 18 hrs. Culhane countered by noting that several of the observations included participation by core team members e.g. Kamio, Sterling, and Williams.

Following a conversation between Watanabe and Shimizu in Japanese, it was agreed that if there were no serious conflicts at the Daily Meeting the Chief Observers would be instructed to follow the proposed schedule of SUMER observations.

Culhane then said that he had a request from Sterling that is related to the Reardon spicule observations (HOP 43) were scheduled for November 6th when the EUNIS flight was scheduled for late October. Sterling has talked to Davina Innes about scheduling the Reardon study (HOP 43) on November 4th and moving Doyle (HOP 4) that currently runs from 13:00 to 19:00 UT be shifted to the last six hours of the day (18:00 to 24:00 UT) and give Stirling/Reardon a three hour observation between 15:00 and 18:00 UT. Watanabe recapped the new plan for November 4. First there is HOP 40 (Kamio) from 0700 to 1300 followed by Stirling/Reardon and Doyle for a total of 15 hours for the SUMER campaign rather than 12 hours. Williams pointed out that this was not actually a request for additional time but just for a rescheduling due to the EUNIS launch.

Williams also mentioned that when Luca Teriaca and Werner Curdt had visited ISAS they had discussed the possibility of "spontaneous collaborations". For instance when, during the SUMER collaboration, the Hinode team was running core observations they would notify the SUMER POC of the targets so that the SUMER team could participate if they wanted to. Williams also said that he had

contacted Davina because some of the detailed observation sequences were still missing and these needed to be updated before the campaign started. Culhane said that the EIS team had received this information earlier and he thought they were in pretty good shape.

Tarbell asked the question, how many of these studies required active regions and what is the plan for dealing with ARs that do not fit the schedule? Williams replied that if this happened early in the campaign they had discussed moving some of the programs forward. Of course this requires good coordination with the SUMER team and Curdt had been given the action to determine which programs would benefit from the presence of ARs. If the reverse happens, no ARs when an AR program is scheduled, the SUMER team would either provide a back-up program or no program would be run. Tarbell asked how many HOPs actually needed ARs. The answer appeared to be only three, HOPs 47, 48 and 49. It was thought that this should be manageable.

Watanabe summarized the sense of the meeting that the SUMER campaign was accepted as proposed and in the latter half of November we would implement the STEREO campaign (HOP52).

Shimizu thought that there might be a conflict with the SUMER campaign between 16:00 to 20:00 UT with observations coordinated with SOLIS. Williams thought that this was an observation that would fit in if possible for coordination with XRT. Williams didn't think that there was any real conflict on any day. DeLuca didn't think that this was a problem but he would alert the SOLIS team to that the Hinode team might not be able to collaborate during this two week period. Finally Tarbell requested that a time be fixed for the irradiance scans in the latter half of the month which appeared quite open. The scans occupy two days, 12 hrs on one day and 8 hrs on the second but don't have to be contiguous and can be broken up into four hour segments although the planners like to do it all at once for convenience. Watanabe agreed to add them to the plan for the week following the SUMER campaign.

The 13th monthly meeting will be held on November 29 at 7:00 A.M. JST and at various times on November 28 in the US and UK.

John Davis, November 1, 2007

Attendees: Shibasaki, Watanabe, Shimizu, Sekii, Hara, Mariska, Tarbell, Berger, DeLuca, Golub, Mariska, Culhane, Williams, Davis, Cobb and others.

Appendix I: EIS Report Submitted by Prof. Louise Harra.

EUNIS calibration - preparations have been made for this over the past weeks and a dry run of observations have been made and tested on both quiet Sun and AR. These are at a high data rate.

SUMER campaign - new studies have been prepared for this - another 10 studies have gone into the database.

Eclipse season - during the longest periods of eclipse it was necessary to increase the heater power. Since the end of eclipse season there is a gradual increase in temp but no need to adjust the heater power.

There are a number of functionalities that have not been implemented yet (the triggers, automatic exposure control etc.) The automatic exposure control will be tested in the next month or so, and then we will work through the rest of the list.

As many of you know we are having an EIS science meeting in DC next week where we will get the opportunity to discuss XRT/EIS issues as well.