Minutes of Teleconference on ALMA ATF & OSF Holography Planning

Thursday, January 11th 2007, 16:30 UTC.

Minutes by DTE, last changed 2007-01-18

Participants: Emerson, Glendenning, Mangum, Murowinski, Perfetto, Ridgeway, Shepherd, Sramek, Wootten

All future meetings will use the same call-in details:
From USA: 866-814-1347
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Participant Passcode: 3155752
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Minutes of our last (2006-12-21) meeting are at:

http://www.tuc.nrao.edu/~demerson/osfholo/mins2006-12-21_1.pdf

AGENDA.

I. Status Report

II. Schedule

III. Action Items, old and new

I. Status at the ATF

Darrel reported on results in the past week from the ATF.
The current effort is to try to understand the lower-level ripples present at the edge of the dish.

One remaining software issue is the inability to observe and analyse a large (~4-hour) map. This is not urgent, as most maps are ~1-hour observations, but Brian agreed that this problem needs to be fixed.

Darrel remarked that of holography maps made only a fraction of them are considered to be "good". This may be a function of wind strength and wind direction combined with tower oscillation, but is not completely understood

II Schedule

Much of the discussion was on whether or when to put the holography system onto the AEC antenna. Dick mentioned one possibility of putting holography onto the AEC antenna the same day it was removed from the Vertex antenna, but this did not receive much support. Brian commented that carrying out holography on the AEC antenna might allay some fears about the holography system, but that does not necessarily make it a priority to do so. Jeff pointed out that no ripples of any kind had been seen in the previous (2005 and earlier) AEC measurements.

Jeff remarked that at least 2 weeks would be required to set up, test and measure an antenna after reinstalling holography.

Rick mentioned that the holography system is needed in Chile by May 1, which implies a deadline for shipping of March 15 2007. Although one reason to measure the AEC antenna is to help with understanding of changes in the Vertex antenna, Stefano also wants to see some AEC holographic measurements.

The current plan is to use the 2nd holography system on the AEC antenna this summer. The first system will be put back on to the Vertex antenna late February, before shipping, and as a final check asked for by Vertex. Rick commented that holography on the AEC antenna did not necessarily imply a 2-week hit to the schedule, because problems solved then would have to be fixed some time anyway.

The schedule may become something like:
Reinstall hardware on Vertex 1 March.
User test 1 week.
AIV acceptance deadline early-mid March.
Shipping 15 March

Holography on the AEC would conflict with astronomical interferometry, due to start next week.

[Note added after meeting; because of delays in preparing the interferometric hardware, the holography system has been left on the Vertex antenna for one more week (Jan16), enabling some further holographic testing.]

Reasons to perform AEC holography:

Jeff Zivick would like to see the results.
Stefano would like to see the results.
Jeff and Darrel would like to see it, as a help to understanding Vertex problems.

Dick commented that the AEC measurements could be made next week, or in late February. The 2nd holography system would be ready by March, although the receiver may not be available until the end of March. Also, note that holography is very weather dependent.

Rick said: we will **not** move the holography system to the AEC antenna immediately. Other AEC issues need to be sorted out first. The **final decision** would be taken at Dick's PSI meeting at the end of January, deciding on the options of doing AEC holography (1) before the final Vertex test or (2) using the second holography system in May.

Antonio and Darrel will decide on whether the current holography system will be shipped to CV, or whether necessary maintenance can be performed in Socorro.

Jeff asked about indefinite access to old (i.e. today's) archived day. Brian agreed to take an AI to see what is required to support this.

Brian will put the JIRA problem reports that must be fixed into a pseudo-release "antenna1-acceptance", which should be checked at some point.

III Action Items

1. Antonio hoped to have a summary of the holography DSP..
Still needed. Antonio will provide the remaining hardware user manuals and a template of the Users' Manual. *This is still pending.*

Details of the DSP algorithms need to be disseminated. *Still pending: promised the week of 2006-11-20.*

Continuing AI: ICD update on temperature monitors, no later than one month before shipment of receiver #2. Some minor items from Ralph to be corrected in the next ICD issue. *Still pending.*

2. Feeds. We do need duplicate sets of holography feeds, to the current design – this was discussed in our meeting of 2006-09-07: see the minutes of that meeting at .
http://www.tuc.nrao.edu/~demerson/osfholo/mins2006-09-07_1a.pdf
*Pending, but **long-term feed redesign** agreed previously to be of low priority.* Duplicate feed sets (a total of 9 feeds) to the existing design of ***very high priority***. Delivery expected Jan 2007, to be followed by 1 month of testing. Antonio said that he expected

delivery of *tested and measured feeds* by the end of February 2007 has now slipped. He is finding out from the vendor what the new dates are.

3. There is list of hardware issues that Darrel has forwarded to Antonio for attention.

4. Antonio and Darrel will decide on whether or not the holography receiver is to be shipped back to CV for maintenance.

5. Brian will make a pronouncement on policy and plans for continued, indefinite access to today's archived data.

6. **Next Meeting**
This will take place face-to-face, with remote call-ins, during Dick's PSI workshop of Jan 24-25.