

Peery

**VLBA CC Memo No. 46**

NATIONAL RADIO ASTRONOMY OBSERVATORY

2/22/85  
A.M.P.

Charlottesville, Virginia

1985 February 15

To: Coordinating Committee  
From: Paul Sebring  
Subject: Notes from CC Meeting, 1985 February 15

Participants

NRAO-CV Hvatum (Chmn), Benson, Burns, Cotton, D'Addario, Porter, Romney, Sebring, Thompson

-GB Kellermann, Peery

-SOC Horne

-VLA Bignell, Clark, Napier

Caltech Ewing

Haystack Rogers

1. Action List, update of 1985 Feb 14.

1.1. ADC Design Concept Discussion. In view of delays imposed by the budget, Buck suggests a new date six months further on. Hein established 1 Sep 85.

1.2. Spec details correlator output. Benson expects to complete on schedule, 1 Mar 85.

1.3. Propose Software Standards. Those responsible felt they should have a proposal ready by the due date, 1 Mar.

1.4. Evaluate antenna polarization performance. Date for this was extended from 1 Feb. to 1 Mar. at the CC meeting of 1 Feb. However, Peter feels this analysis may not be ready by the new date.

1.5. Choose microcomputer development systems. Clark says this is a \$50K (or more) item, and wonders where in the overall budget it is provided for - it should be either in the Correlator or the Data Recording area.

Rogers said Haystack had \$25K in their plan, which they have now spent for a system they are no longer sure is best. He feels they can stay with it, but will have to spend some more money in adapting it to this use.

Marty says Caltech included no money in their budget for such use. They plan another approach involving cross-compilers and logic analyzers.

Hein asked those responsible (Rogers, Ewing & Clark) to sort out this situation and prepare a clear statement on it in the next week or two.

1.6. Calculate interference tolerances. Dick said he can have the work done by the 1 Mar date, but not the writeup.

1.7. 2-16 GHz Synth. breadboard tests. At Dick's request, the due date for this was slipped to 1 Apr.

1.8. Write computer standards. Barry said this is essentially the same as Item 1.3, "Propose Software Standards", and should be done by the 1 Mar. date. Larry thought this item also included hardware choices. Barry would prefer not to combine hardware and software standards. (Is there a dangling hardware item, then? Weren't the computer choices settled some time ago. - Ed.) Hein deleted this item from the List.

1.9. Propose DPS-Correlator Interface spec. Alan Rogers said he is working on this. Hein said that Marty should be collaborating on this, and added his name on the List.

1.10. Cryogenic Platform installation. No date was included on the List for this. Horne supplied a date of 1 Jan 87.

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Dates were assigned to all but two of the new List items resulting from the Socorro meeting, as follows:

Decide op interface implementation	1 Apr 85	Clark
Decide on use of AT Chip	1 Mar 85	Ewing
Decide pulsar support modes	?	?
Decide corr megaflops for calibration	1 Apr 85	Ewing
Where should phase cal detectors go?	1 May 85	D'Addario
How should tot. pwr./gain cal be done?	1 May 85	D'Addario
Electronics packaging standards	1 May 85	Thompson
Decide various Station locations	?	Walker

There were discussions of some of these items, and of some earlier items as well:

1.11. Decide use of AT Chip. Ewing estimates 6 weeks or less for an answer on this. 1 Mar. date established.

1.12. Decide Corr Mflops for calibration. Some confusion over meaning, semantics. Computing power? Although a date of 1 Apr was established for this, Marty felt it wouldn't be done by then. He'd like Romney and Benson there to help.

1.13. Phase cal detector and TP/gain cal decisions. Larry will work on these. Alan R. would like answer in two months. 1 May established.

1.14. Electronics packaging standards. Dick Thompson will work with Dave Weber on this. Sebring suggested that a digital type participate also. Alan R. said that Jim Levine has some ideas that should be considered.

Larry felt that, although extreme rigidity in applying such standards is inappropriate, fabricators should follow them unless some other approach is demonstrably preferable.

1.15. Decide Station Locations. Craig proposed there be a separate Action Item for each Station. Cam Wade and Ken Kellermann will collaborate with him on these items.

1.16. Decide Pulsar Support Modes. Ken and Larry will work on this and will bring in someone with experience in pulsar observing. Alan R. said that Haystack has some experience in processing pulsar data that should be useful. He also volunteered his pulsar observing experience, in case no one with more extensive experience is available.

1.17. Contract with NMIMT. Bill Porter thinks 1 Mar. is too soon for this contract, in view of the funding-imposed delay of the ADC. Hein changed the date to 1 Sep. Burns said we should keep in mind space and other requirements for the possible future installation of a supercomputer at the ADC.

## 2. Other Business.

2.1. In response to Peter's question as to when schedules might be available, Hein replied it would be about two weeks after NSF stops manipulating our funding. However, Sebring should be able to have a schedule for Pie Town within about three weeks.

2.2. Peter feels that a date should be established for a proposal to the NSF for land at Los Alamos. Hein pointed out that NSF will not consider any construction-related items prior to 1 April. An action item with this date and Buck Peery's name was established. Peter feels that DOE and Los Alamos should be informed sooner, in writing, of what we need, so they can be considering the matter.

2.3. Hein reported that Rep. Boland's committee meets the end of this month, and that Senate budget hearings will be some time in April.

2.4. Jon R. inquired about Marty's Socorro report. Marty said he plans to handle this by commenting on Romney's report and returning same shortly. Larry said he wanted it "finalized today", whereupon Marty and Jon agreed to discuss Marty's comments by phone.

NOTE: Hein revised the Action List immediately following this meeting. A copy is appended.

19-Feb-85

KEY: + New Item  
\* Complete

Action Item	Orig date	Due date	By
Spec details corr output	01-Jan-85	01-Mar-85	Benson
Propose software standards	11-Jan-85	01-Mar-85	Clk/Ewg/Rgs/Wk
Eval ant polarization performance	01-Feb-85	01-Mar-85	Napier
+Decide on use of AT chip	01-Mar-85	01-Mar-85	Ewing
Choose microcomputer devel systems	01-Mar-85	01-Mar-85	Rogers/Ewg/Clk
Calculate interference tolerances	01-Mar-85	01-Mar-85	Thompson
MC Standard Interface Spec.	22-Jun-84	07-Mar-85	Clark
RFI Ft Davis Start	15-Feb-85	07-Mar-85	Napier
Spec M/C/Corr lang. & OS	01-Aug-84	15-Mar-85	Clark/Ewing
Servo/MC interface	15-Jan-85	15-Mar-85	Horne
RFI Ft Davis Complete	29-Mar-85	29-Mar-85	Napier
2-16 GHz bbrd tests complete	01-Mar-85	01-Apr-85	Thompson
+Decide corr Mflops for calibration	01-Apr-85	01-Apr-85	Ewing
+Decide op interface implementation	01-Apr-85	01-Apr-85	Clark
+Los Alamos land proposal	01-Apr-85	01-Apr-85	Buck
RFI Iowa (2 sites) Start	26-Apr-85	26-Apr-85	Napier
Spec Mon database & Corr interface	01-Jan-85	01-May-85	Romney
+Where do phase cal detectors go?	01-May-85	01-May-85	D'Addario
+Electronics packaging standards	01-May-85	01-May-85	Thompson
+How should TP/gain cal be done?	01-May-85	01-May-85	D'Addario
Select Hawaii site	01-May-85	01-May-85	Buck
RFI Iowa (2 sites) Complete	28-May-85	28-May-85	Napier
+Propose DPS-Cor interface spec	01-Jul-85	01-Jul-85	Rogers/Ewing
AOC design concept discussion	15-Jul-84	01-Sep-85	Buck
Contract NMIMT	15-Jan-85	01-Sep-85	Porter
AOC Design Concept Complete	01-Jun-85	01-Dec-85	Buck
Antenna test controller	15-Mar-85	15-Mar-86	Clark
Feed Cone Delivery	15-May-86	15-May-86	Horne
Antenna Power Available (P.T.)	01-Jul-86	01-Jul-86	Peery
Start Assembly Antenna 1	15-Oct-85	15-Aug-86	Horne
Focusing Feed Mount Delivrd (P.T.)	15-Sep-86	15-Sep-86	Horne
Focusing Fd Mt Ctrl Wiring (P.T.)	15-Oct-86	15-Oct-86	Horne
Cmd Source-Servo (ACTU, Comp.) (P.T.)	15-Oct-86	15-Oct-86	Horne
Focusing Fd Mt Inst (RSi) (P.T.)	01-Nov-86	01-Nov-86	Horne
Suppt Tube, Subrefl Inst (RSi) (P.T.)	01-Nov-86	01-Nov-86	Horne
Feed Cone Inst (RSi) (P.T.)	15-Nov-86	15-Nov-86	Horne
Antenna 1 Acceptance	15-Feb-86	01-Dec-86	Horne
Cryogenic Platform Inst (P.T.)	01-Jan-87	01-Jan-87	Horne
Cables Inst-Focusing Fd Mt (P.T.)	10-Jan-87	10-Jan-87	Horne
Elec Junction Boxes Inst (P.T.)	15-Jan-87	15-Jan-87	Horne
Cryogenics&Piping Inst (P.T.)	30-Jan-87	30-Jan-87	Horne
Pltfrms&Strwys Inst-Vertx Rm (P.T.)	30-Jan-87	30-Jan-87	Horne
VLBA Dedication	10-Oct-90	10-Oct-90	

Items from Socorro meeting without dates:

Decide pulsar support modes	?
Decide various station locations	Walker