

NATIONAL RADIO ASTRONOMY OBSERVATORY  
Charlottesville, Virginia

1985 April 15

To: Coordinating Committee  
From: P. Sebring  
Subj.: Notes on CC Meeting, 1985 April 12

Participants

NRAOCV -Balister, Benson, Cotton, Romney, Thompson, Hvatum,  
D'Addario, Burns, Porter  
NRAOGB -Kellermann, Peery  
NRAOVLA -Napier, Walker  
NRAOSOC -Horne  
Caltech -Pearson  
Haystack -Rogers

1. Action List

1.1. RFI Ft. Davis. Complete. Report on the way.

1.2. Eval Ant Pol'n Perform. Peter reports JPL keeps promising to "get to this next week", but no reportable progress. Since they're doing it for free, we can exert little pressure. Shall we offer to pay? New date, Apr 19.

1.3. Pie Town Schedule. In response to our letter of Feb 14, Universal Antennas has advanced the development of the typical antenna foundation design from June 10 and is now working on the job. However, they need the results of our soil analysis before they can finish. This work has been delayed somewhat, since the Bureau of Land Management wants to certify that our construction work will not destroy areas of archeological interest. Our Time Line schedule has been updated to reflect these developments, and shows a welcome increase in slack time for the construction jobs.

Some new items will be added to the Action List from the schedule and from the latest change orders to our subcontracts.

1.4. Decide Corr Mflops for Calibr. Marty not in meeting. Pearson comments that the forthcoming Architectural Design Report addresses this. We'll evaluate when we see the report. Hein asked Larry to discuss the matter with Marty to ensure mutual

understanding, since there seems to have been some question as to what this item really means. New date, Apr 19.

1.5. RFI Iowa start. Peter says Jim Oty goes there Apr 16. He will take a quick look in the vicinity of the tentatively chosen site at the North Liberty Radio Observatory. If there is no obvious problem, he will proceed with the entire RFI survey. If there is a problem, the choice of a backup site will take some study, since the country is flat and one site is much like another. Discuss again next week.

1.6. Archeological survey, PT site. See 1.3. This was done yesterday, but BLM wants 2-3 weeks to "certify" the results, whatever that means, before we can do the soils studies.

1.7. Servo/MC Interface. Bill Horne sent to Larry the name of Mr. White as a contact at Electrospace Systems, the servo vendor. He added today that a Mr. Bobby Schroeder (sp?) is the responsible engineer at ESI. Larry will assume responsibility in Bill's stead for working with Barry and ESI on this interface.

1.8. Decide on use of AT Chip. Pearson says nothing new on this. The forthcoming architectural design report says "no" on this. No response as yet to the telex sent to CSIRO requesting availability and price if we specified an operating clock rate of 16-18 MHz. Peter will call them next Thursday, if we don't hear by then, to see if they plan a formal reply by our requested date of May 15.

Rogers said Jim Levine is interested in the possibility of using this chip in a new spectral-line correlator at Haystack, since the VLA chip is no longer available. Users there who work at 22 and 43 GHz are apparently demanding increased bandwidth and other features not provided by the present 1000-channel unit. Perhaps some cost-sharing could be arranged for a trip to Australia to investigate this chip further.

1.9. Los Alamos land proposal. Buck says stake has been driven. All on schedule.

1.10. Decide F.E. to M/C Scheme. Dick says this is settled except for one or two people who must be persuaded.

1.11. M/C Std. Interface Spec. Some progress between Larry and Barry. Need one more week. New date, Apr 19.

1.12. Decide Op Interface Implementation. Clark not present to discuss this. Someone opined that further progress will probably await the next computer coordination meeting.

2. "How NSF Turns". Hein reviewed recent optimistic statements from Sen. Domenici's office and from the House Authorizations

Committee. He feels that our actual funding will represent some compromise with which we can live, though it may not be what we would like.

3. What do we do between now and then? We plan for \$9M in '85, and \$11.5M in '86, in accord with the formal budget (22b) we submitted. However, we should back this up with a plan that has only \$9M for '86, since that amount seems more likely. This represents a difference between committing 3 antennas in '86 vs 2, plus other basic differences in the plan. Porter points out that we have some small amount of money now that can cover urgently needed but small items.

4. Informing the Europeans. A letter received by Dr. Vanden Bout says the Europeans want to be involved in standardization of items relating to their being compatible with the VLBA. Kellermann proposes there be a meeting with them this fall, perhaps contiguous with the next Design Review Meeting.

5. Horne reports he has a number of preliminary general configuration drawings from the antenna contractor, and that copies are being furnished to Lee King, in case anyone else here wishes to see them.

15-Apr-85

KEY: + New Item  
\* Complete

Action Item	Orig date	Due date	By
Servo/MC interface	15-Jan-85	15-Apr-85	D'Addario
+Corr. Architectural Design Report	12-Apr-85	15-Apr-85	Ewing
+Cost Est-DAS/DPS Prototype & Prod	15-Apr-85	15-Apr-85	Rogers
MC Standard Interface Spec.	22-Jun-84	19-Apr-85	Clark
Eval ant polarization performance	01-Feb-85	19-Apr-85	Napier
Decide on use of AT chip	01-Mar-85	19-Apr-85	Ewing
Pie Town Schedule	15-Mar-85	19-Apr-85	Sebring
Los Alamos land proposal	01-Apr-85	19-Apr-85	Buck
Decide op interface implementation	01-Apr-85	19-Apr-85	Clark
Decide corr Mflops for calibration	01-Apr-85	19-Apr-85	Ewing
Archeology survey - Pie Town	12-Apr-85	19-Apr-85	Peery
Where is Iowa site?	12-Apr-85	19-Apr-85	Peery
RFI Iowa (2 sites) Start	26-Apr-85	26-Apr-85	Napier
Decision on F.E. M/C scheme	12-Apr-85	30-Apr-85	Thompson
Spec Mon database & Corr interface	01-Jan-85	01-May-85	Romney
2-16 GHz bbrd tests complete	01-Mar-85	01-May-85	Thompson
Decide pulsar gate implementation	01-May-85	01-May-85	Rogers/Ewing
How should TP/gain cal be done?	01-May-85	01-May-85	D'Addario
Electronics packaging standards	01-May-85	01-May-85	Thompson
Select Hawaii site	01-May-85	01-May-85	Buck
Where do phase cal detectors go?	01-May-85	01-May-85	D'Addario
+Report on DAS/DPS Design Phase	15-May-85	15-May-85	Rogers
RFI Iowa (2 sites) Complete	28-May-85	28-May-85	Napier
+Cost Est. Phase B, Caltech Contract	26-Jun-85	26-Jun-85	Ewing
+Typical Foundation Design (RSi)	28-Jun-85	28-Jun-85	Horne
Propose DPS-Cor interface spec	01-Jul-85	01-Jul-85	Rogers/Ewing
+Corr Overall Hardware Block Dgms	10-Jul-85	10-Jul-85	Ewing
+Est Cost - Correlator Phase C	24-Jul-85	24-Jul-85	Ewing
+2 VLSI Chips & Test Data	21-Aug-85	21-Aug-85	Ewing
+P.T. Construction Drawings (A/E)	23-Aug-85	23-Aug-85	Buck
+Corr Cct Design & Board Layouts	28-Aug-85	28-Aug-85	Ewing
+Correlator Software Block Diagrams	28-Aug-85	28-Aug-85	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
+Tested DAS/DPS Prototype Delivery	15-May-86	15-May-86	Rogers
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
Cmd Source-Servo(ACTU, Comp.) (P.T.)	15-Oct-86	15-Oct-86	Horne
Focusing Fd Mt Ctrl Wiring (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
Pltfms&Strwys Inst-Vertx Rm (P.T.)	30-Jan-87	30-Jan-87	Horne
VLBA Dedication	10-Oct-90	10-Oct-90	

