

NOTES FROM COORDINATING COMMITTEE MEETINGS
NOVEMBER 1984

NATIONAL RADIO ASTRONOMY OBSERVATORY
Charlottesville, Virginia

1984 November 8

TO: Coordinating Committee
FROM: P. Sebring
SUBJECT: Notes from Coordinating Committee, 1984 Nov 2

Addressees are invited to let Paul know about errors in these notes.

Participants

NRAO-CV	H. Hvatum, moderator L. D'Addario M. Balister J. Benson B. Cotton R. Burns J. Romney R. Thompson P. Sebring
NRAO-GB	K. Kellermann B. Peery
NRAO-VLA	C. Bignell B. Clark
NRAO-SOC	W. Horne
Caltech	M. Ewing D. Fort A. Readhead
Haystack	A. Rogers

1. Action List, 84 Oct. 24 update

1.1. Specify IF Signal Processing. Larry D. reports this item nearly complete. Next week?

1.2. Final Monitor and Control Documentation. Barry C. said this item is still incomplete.

1.3. Specify M/C & Correlator Language and Operating System. Barry C. asks that date for this be delayed to end of year.

1.4. Order Software Development System. Barry C. is placing an order for Motorola 68010-based development system. Feels "bureaucratic delays" will place order date no earlier than about Dec. 7. Hein said delays within NRAO will be minimized.

Larry D. asks whether Correlator should be getting the same thing. Commonality wherever possible!

2. Antenna Contract Status.

Hein reports decision to select Radiation Systems, Inc. (RSi) to build the VLBA antennas. Contract nearly ready for signature. Top managers of RSi visited earlier today to resolve a few remaining questions concerning final draft. Hein also reported revision to the specs for the antenna surface to state more directly the overall tolerance we expect from selecting the 0.005" RMS panel option.

3. Preps. for Correlator and Data Acquisition Review.

This meeting is scheduled for three hours, 1500-1800 EST, Nov. 09. The correlator is allocated two hours, and data acquisition one hour. M. Ewing (who said he thinks two hours is too much time) is responsible for the correlator presentation, while A. Rogers will honsho the Data Acquisition part.

Conflict with NSF's Astronomy Advisory Committee meeting will preclude Hein's attendance as well as Jim Moran's. Attempts to reschedule merely brought out other conflicts, as one might expect. Larry D. was asked to chair the meeting in Hein's stead. The meeting will be recorded also.

Alan R. reported they are a week behind in preparation but will be ready. They are using a computer-aided system in preparing viewgraphs.

4. Action List Additions.

4.1 A/E Contract. Barry asks that the date for the A/E contract be accurately revised, if possible. W. Porter was not present to comment on this because of pressure to finalize the Antenna contract. (Note: The bid from the A/E selectee came in this afternoon.)

4.2 Site Control Building Concept. Goal date for sending our design concept to the A/E contractor should be set. Larry D. feels Nov. 9 is too soon. Buck's memo, "Site Control Building", dated 84 Oct 26, shows a design different than some had expected. Larry thinks the building has become too big (in line with his earlier point that one extra sq. ft. at each site costs 10 sq. ft. in

the AOC). November 16 was suggested as the date to finalize the building sketch, plus another possible week for consideration before the sketch goes to the A/E.

5. Project Book Update.

People were reminded of the proposed Dec. 1 date for this action. Larry, who is coordinating this activity, reviewed the author list section by section. Bill Cotton replaces Bob Burns on the Post-Processing section.

6. Overall Project Schedule.

Paul S. has developed a PERT net for the antennas and associated site construction work, which Hein has converted into a Gantt chart on his computer. These are based upon best estimates currently available from RSi and from Buck. Although revisions can be expected over the next few weeks as RSi and Stevens, Mallory, Pearl & Campbell (pew), the A/E, get into their jobs, no far-reaching changes are expected.

7. Electronic Mail.

I cannot venture to report this "spirited" discussion, except to say that it was recommended that a high priority be placed upon getting this system to work properly, with all locations tied in. Bob Burns was commissioned to look into possible alternatives and report in 2-4 weeks.

c41108/PBS

NATIONAL RADIO ASTRONOMY OBSERVATORY
Charlottesville, Virginia

1984 December 3

To: Coordinating Committee

From: P. Sebring

Subject: Notes from Coordinating Committee, 1984 Nov 30

Addressees are invited to let Paul know about errors in these notes.

Participants

NRAO-CV	H. Hvatum, moderator L. D'Addario M. Balister J. Benson B. Cotton R. Burns S. Griffin W. Porter J. Romney R. Thompson C. Walker P. Sebring
NRAO-GB	B. Peery
NRAO-VLA	P. Napier C. Bignell B. Clark
NRAO-SOC	W. Horne
Caltech	M. Ewing
Haystack	J. Webber J. Salah

1. Action List, 84 Nov 6 update

1.1. Antenna Contract. Hein reports that NSF is about to approve it. Anticipates no holdup.

1.2. Spec. IF Signal Processing. Larry has completed his memo on this, which he says constitutes a preliminary specification.

1.3. RFI 345 kV Power Line. Peter reports that our attempts to assess this have failed and that we will rely on determinations made by a consultant.

1.4. RFI Kitt Peak (Tucson). Peter reports measurements at Kitt Peak are in progress now.

1.5. Antenna Profile. Peter reports this item is complete. However, the polarization performance needs to be evaluated. Peter suggests a new action item, "Evaluate Polarization Performance," targeted for a 85 Feb 1 completion date.

1.6. A/E Contract. Pre-negotiation discussions scheduled last week were deferred because Buck Peery had an accident en route from Green Bank for the meeting. Bill Porter expects to meet with Buck early next week, and that negotiations at the selectee's (Stevens, Mallory, Pearl and Campbell, Albuquerque) premises will take place later in December.

1.7. Final M.C. Documentation. Barry Clark expects to complete this by Dec 7.

1.8. Order Software Development System. Barry says this order went through easily. He expects delivery by Dec 14.

1.9. Decide Front-ends, 23 and 43 GHz. Dick reports that the decision on SIS vs Masers vs FETs will have been made by the target date, Dec 31.

1.10. 2-16 GHz Synthesizer Breadboard. The synthesizer breadboard will also be ready by Dec 31.

2. VLBA Project Book Status (Larry D.)

2.1. Larry states that his LO section did not require updating.

2.2. Bill Cotton has produced a revised Post Processing section.

2.3. Craig W. has updated the Configuration section.

2.4. Problem of restructuring the entire plan for producing Station Electronics, such as subreflectors, feeds, front ends, IFs, etc., to be consistent with recent budget revisions has precluded work on the Electronics section update. Dick T. will undertake same ASAP.

2.5. Buck Peery's update on buildings, etc. has gone to Carolyn, except for sketches which will be sent shortly.

2.6. Bill Horne's revised Antennas section will be coming next week. Drawings will be a bit later - when final design outline drawing is available. Bill asked if the older material should be discarded. Larry responded yes, but said history of the revisions should be retained.

2.7. Larry reports receiving updated Correlator material from Marty Ewing.

2.8. Larry has also received Data Recording/Data Playback material from Alan Rogers. Alan is in Kwajalein until Dec 10. John Webber said, however, that they are revising some of the material due to recent design discussions. Some remaining design approach differences between their group and NRAO need to be resolved soon or, quite apart from finalizing the Project Book writeup, the schedule for producing a prototype subsystem will have to slip. They would like to resolve these matters by Dec 31.

Hein affirmed the importance of this and wants a subgroup of the principal technical people to meet at Haystack or here to reach a consensus. Marty asked to be present.

Due to personal schedules, such a meeting proved impossible before the first week in January. The meeting was so scheduled, and at Charlottesville. The issues to be resolved should be defined at the regular Data Recording meeting, December 12.

2.9. It was decided not to formally print the updated Project Book at this time. It should remain in the computer to be updated whenever any section author feels revisions are in order. Anyone having a need can get a printout for himself. It was emphasized that the Book is an internal document for the use of NRAO people and is not intended as a report to the sponsor.

3. Workshop in Green Bank, Jan or Feb 1985

Hein proposes this as a comprehensive Project review down to the bolts and nuts level. A tentative schedule for the first week in February was proposed. Marty suggested Socorro as an alternative location, citing probable difficult travel conditions to Green Bank. Hein will issue a bulletin on this meeting.

*

*

*

The items below were not on the agenda.

4. Hein said the 1985 calendar of meetings is complete and will be sent out for comment.

5. Station Control Building (should have been on Action List
- see CC Notes dated 84 Nov 8)

A plethora of questions and comments followed the mention of this building. Size? Need for a separate antenna mechanics' area? How close to the antenna? North or south side? Below grade so antenna can see over it? How much tape will be stored? Is a tape storage area needed and, if so, should it be a fire resistant vault. Should the hydrogen maser be on an isolated pad? Most of these issues must be resolved outside the CC meeting.

Larry volunteered to provide more quantitative data on how seriously the length of IF cables affects phase stability. If the effect is serious, we may need to sink the building to bring it nearer the antenna.

It seems definite that only a 1 month supply of tape need be stored. This is 1 rack (30 to 60 reels, depending on final density achieved). There is space in the control room. Buck will see if any regulation prescribes a fire vault for tape. If not, most feel tape does not need to be stored separately. Buck will provide extra cost of isolated pad for maser.

6. Peter said two site RFI reports are complete. He will schedule a meeting to accept or reject these sites.

7. Budget

Hein is distributing data on the most recent budget allocations. Each group was asked to feed back to him two scenarios: (1) Total fund allocations for each year to remain as shown - how would the moneys be spent? (2) How could the total Project amounts for each area be reallocated among the years 1986-1989, for most economical and efficient completion of the Project?