

D.S. Heeschen

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ASSOCIATED UNIVERSITIES, INC.
10 Columbus Circle
New York 19, New York

NRAO STAFF MEETING
October 14, 1958

October 22, 1958

1. Those attending the meeting were: L.V. Berkner, L.R. Burchill, F.J. Callender, F.D. Drake, R.M. Emberson, J.W. Findlay, E.E. Halik and D.S. Heeschen. The agenda for the meeting is attached and was followed in approximately the order given, with the exception that the draft letter to Dr. Waterman concerning FY 1960 budgets was discussed first in order that a revised draft could be prepared for consideration by the Advisory Committee the following day.
2. Concerning personnel, Dr. Heeschen reported that he and Dr. Findlay had interviewed approximately forty applicants for the two telescope operator positions and that two men had been hired. Dr. Findlay is still looking for an electronic technician. With reference to the Visiting Staff, Grote Reber had indicated that he would arrive at Green Bank on October 16, and Hein Hvatum was expected to arrive in New York the following Monday, and presumably would be at Green Bank before October 24.
3. Dr. Emberson brought up the matter of accident insurance which is, of course, an individual responsibility beyond the group insurance carried by AUI. After some discussion, it was left to the individual staff members as to whether or not they would take out accident policies. Mr. Callender will bring to the attention of all employees at Green Bank that such accident policy protection may be procured (at a rate of \$1.60 per \$1000 for 24-hour coverage), and is purely an individual option.
4. Dr. Berkner reported that he plans to leave for the Antarctic on November 1 for approximately six weeks. Dr. Findlay was leaving on October 18 for approximately four weeks in Europe. The plans for the meetings on October 15, 16, and 17 were reviewed and appeared to be adequate.
5. Dr. Findlay reported that he and Sidney Smith are now measuring the position of the clips on the 85-foot telescope structure that will hold the reflector panels in place. Measurements are also being made on the deflection of the feed support for various positions of the telescope. He expects that preliminary testing of the instrument may start in about one month. It is anticipated

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that the control wiring, the receiver, and rf wiring will go in on schedule.

6. The 140-foot telescope program was reviewed. The work by E.W. Bliss at Canton appears to be progressing satisfactorily. Darin and Armstrong have not made an impressive showing at Green Bank; first, because of their failure to recognize the transportation difficulties of the very large crane, and, second, because of their failure to order the aggregate such as was specified one year ago in the telescope specifications.
7. The status of the proposals on the drive and control system were reviewed. After discussion, Dr. Berkner indicated that Cutler-Hammer, AIL should come in as detailed and firm a proposal as the other companies had submitted before we commit ourselves to them. Meanwhile, we should explore the proposal from Electric Boat.
8. Mr. Callender reported on the progress of the E.G. Parrott Company on the Works Area. This construction is on schedule and no extras have been involved. Dr. Drake reported that the interferometer was in operation, and during the tour of the site, exhibited tracings that were of particular interest in their determination of what their adverse interference by automobile ignition systems would have on the site.
9. Dr. Findlay reported that Mr. Greenwood was mechanically balancing the 12-foot telescope and that some additional work might be necessary on the electric motors for the drive.
10. Mr. Callender reported that he was negotiating with Darin & Armstrong concerning the Laboratory and Residence Hall for the excavation of a full basement and placement of extra ducts through the floors. This was straightforward, but the bonding together of the structural steel and curtain walls was causing some difficulty because it was not clear how the curtain walls could be bonded without destroying the protective surface.
11. Mr. Callender reported that IBA had invited bids on the water and sewerage system. Dr. Emberson had not seen the final plans and specifications, but the earlier plans had indicated that the pipes were to be Transite rather than metal. Also, it appeared that the sewerage disposal plant was too close both to the cemetery and the Little Big Horn, and could advantageously be moved westward several hundred yards. Mr. Callender said that he would look into these matters. He also reported on the status of conversations with the Monongahela Power Company on the electric power for the Observatory. Dr. Berkner expressed grave concern on any plan that included overhead lines for over 4000 volts in the neighborhood of the Observatory. He also pointed out that experimental tests this winter with the 85-foot telescope and existing receivers would not be conclusive because more sensitive receivers would be available at the Observatory in the near future. Dr. Findlay expressed his concern that

delays in agreement in principle with the power company would prevent the timely installation of the new power line. It was agreed that Dr. Emberson and Mr. Callender would continue conversations with the power company with the above two situations in mind.

12. Mr. Callender reported that the new telephone company had plans for modernization of their system, and he understood that a new dial central office building would be constructed at Arbovale rather than at Cass. The telephone company had expressed an interest in providing our on-site communications.
13. Drs. Drake and Heeschen reported on the test with the Ewen Knight and AIL Laboratory Receivers. The latter appears to be somewhat sensitive to temperature changes. The contract with the Control Equipment Corporation was reviewed with particular reference to the change order for automatic recording of time and receiver output, and the revised proposal from Farrand on the inductosyns. In view of the wording of our bid invitation, and the proposal from Control Equipment, it appears that NRAO should proceed with the above work as extras. Dr. Drake reported that he needed a small computer for the precision position program, and a rental order had been placed with IBM for their No. 610 computer.
14. Mr. Callender reported on the exhibit that had been sent to the Forest Festival at Elkins the previous week.
15. Dr. Berkner asked Dr. Findlay and Dr. Heeschen to prepare a proposal for the NAS Space Science Committee on the measurement of total power at relatively long wavelengths by means of a simple antenna attached to a satellite.
16. Dr. Berkner asked that personnel budgets for the next two years be prepared for discussion at the December staff meeting.

Attachment:
Agenda for Meeting

AGENDA

NRAO Staff Meeting
Tuesday, October 14, 1958
Green Bank, West Virginia

1. Personnel
 - 1.1 Permanent Staff
 - 1.2 Visiting Staff
 - 1.3 Insurance
 - 1.4 Miscellaneous - travel plans, etc.
2. Budgets and Finances
 - 2.1 Capital Budget for FY 1960
 - 2.2 Operating Budget for FY 1960
 - 2.3 Preparation of Financial Plan
 - 2.4 Status of FY 1959 Operating and Capital funds
3. Plans for October 15 - 16 - 17
 - 3.1 Visiting Committee
 - 3.2 Dedication
 - 3.3 Trustees - Executive Committee and Board
 - 3.4 General transportation, housing and meals
4. On-site Construction in Progress or Recently Completed
 - 4.1 85-foot Telescope
 - 4.2 140-foot Telescope
 - 4.3 Works Area
 - 4.4 Interferometer
 - 4.5 12-foot Telescope
 - 4.6 Little Big Horn
 - 4.7 Laboratory and Residence Hall
 - 4.7.1 Exterior finishing
 - 4.7.2 Extra work - bonding; full basement
5. Plans for Additional Work
 - 5.1 Water and sewer systems
 - 5.2 Electric power
 - 5.3 Communications
6. Major Equipment Contracts or Programs
 - 6.1 Receivers - JWF memo; AIL receiver; E-K receiver
 - 6.2 85-foot telescope precision data system
 - 6.3 Computer
7. Site
 - 7.1 Survey
 - 7.2 Buildings and maintenance
 - 7.3 Equipment
8. Scientific and Public Relations Activities
 - 8.1 Research plans of permanent staff
 - 8.2 Research plans of visitors
 - 8.3 Publications
 - 8.4 Exhibits; Museum