



NAAPO (North American AstroPhysical Observatory)

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WORKING SESSION

AUGUST 16, 1986

at Big Ear

In attendance: Barnhart, Bolinger, Huck and Mikesell.

1. Mikesell reported that the paint job is complete except for a few touch-up spots. Some sections are rustier than others so there is an apparent unevenness which is not a serious defect. Coverage of the reflecting surface is essentially complete. He has also modified the setting markers at the top of the flat reflector. The positional information is posted by the telescope in the tilt control house.

All but one of the contractors bidding on the ground plane repair have contacted Mikesell. This means the bids should be in soon and work should be under way before long.

The security fence is now top priority at the observing site. Mikesell can use some help in stringing the fence. Barnhart will try to find some volunteers at Otterbein.

Weed control was attempted by the OSU grounds people. Nothing seems to be happening to the weeds as of this report. We will give them a few more days before calling the crew back with more poison.

The cart drive system is next in line after the security fence is up. The parts are all available. They just need assembly.

The Honda transaction is still hanging fire while George Foster executes another power of attorney to make the title transfer. Paper work seems to eat every project alive.

The air conditioner no longer runs continuously. This was accomplished by setting the humidistat at a higher level. The focus room humidity is running about 59% and the air conditioner cycles off about 25% of the time.

The antenna can be moved on demand from now on. We will have to work out a schedule of antenna moves in the next few days.

2. Bolinger reports: Much of the sidereal clock needs to be rebuilt. Apparently the ravages of age and high temperature have taken their toll. He has replaced a number of transistors and rebuilt the reference oscillator. He also found one of the circuit cards plugged in backwards! Strange people, these electrical engineers.

He found aluminum paint on the front of the horn covers. This will have to be carefully cleaned off.

The A-D convertor seems to be working as is the 50 channel receiver.

It will be necessary in the next few days to clean the coax connectors on the dewar.

3. Huck reports that the repair of the various instruments is progressing and that the

problems of interfacing to the 11/23 are being solved. The WWV antenna is falling down, so will have to be remounted before long. Barnhart will assist in this task within the next few weeks.

4. Barnhart reported on the departure of the interns. The principal task left from their assignments this summer is to complete the instrument housing and get it mounted on the horns. This is going to be a slow project, but should be done by 1 Sept.

A beginning to organize the "storeroom"/electronics shop was made by Barnhart during one of the painting sessions when he needed to avoid blowing paint. A clear path to the TV sets has been established without throwing anything out (except a broken fan belt and one mouse carcass). We will make a real push soon with the expert advice of those who know how to evaluate surplus items for salvage.

The process of priority setting went on for the remainder of the hour. A few new jobs are beginning to appear on the priority list.

The meeting adjourned at 12:05 PM.

DONATIONS NOTED

The North American AstroPhysical Observatory is a non-profit, tax-exempt scientific-educational organization incorporated in the State of Ohio February 14, 1984 to maintain and operate Big Ear for the purpose of conducting research, promoting knowledge and furthering education and to solicit and receive gifts to implement these objectives.

Deep appreciation is extended to the donors who, as of August 1986 are:

Our group has decided that, for privacy reasons, the amounts of the donations should not be shown here; only the names of the donors are shown below.

- H. J. Lewis, MD
- Malcolm Jones
- Anonymous
- Lester Noteman
- George Sinclair

- Lois Chope
- Roy Chope (deceased)

Donations should be made out (and sent) to:

The North American AstroPhysical Observatory

FIRE AT BIG EAR

On Monday 18 August the custodian in cleaning out the observatory waste baskets set fire to the trash pile, as he usually does, and left the premises, as he usually does. The dry grass around the trash pile caught fire and started to spread. Fortunately Gene Mikesell was on the ball and put it out.

During the dry season we have to be especially vigilant. There is considerable concern about the possibility of a fire starting off the site and spreading to the weed field around the telescope. Vandalism is another possible source of on-site fire. Regular mowing of the fields should be on the list of precautions.

NAAPO INFORMATION SHEETS

I am asking each affiliate to fill out a brief information sheet on your institution. In particular, I am interested in the people to contact and some of the things that we might be able to do for you. If you don't mind I would like for you to send these back before the fall term gets us all.

PEB

ON-AIR REPORT

As of Monday morning 18 August, Jim Bolinger reports that the telescope is on the air. Everything (except the chart recorder) seems to be working, including the newly repaired sidereal clock!

NOTED IN PASSING

Clark Lake Closing?

On April 26th funding ran out for Clark Lake Radio Observatory at Borrego Springs, California, a low-frequency facility operated by the University of Maryland. It won a temporary reprieve thanks to a two-month contract to make ionospheric observations for the U. S. Navy. But thereafter the installation was to be shut down and mothballed.

Clark Lake operates from 15 to 125 megahertz, providing sensitive two-dimensional imaging in a poorly studied range of frequencies. It is used to study the solar corona, pulsars, supernova remnants, and radio galaxies.

Clark Lake Observatory's director, William C. Erickson, recently told *Sky & Telescope*, "It would be a shame to close it. This is a unique facility that is just reaching its potential. It is perhaps 20 to 50 times more sensitive than any other in the world at this frequency."

Erickson still hopes to turn up the \$200,000 a year needed to provide a minimum operating budget for Clark Lake.

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SHARING OF DEPARTMENT SURPLUS ENCOURAGED

Dwight Beery mentioned last week that one advantage of a consortium arrangement is that it makes a fine medium for sharing the wealth. Part of this may make more efficient use of excess material or instruments among member institutions.

In order to facilitate such an exchange I am going to request that each affiliate institution take a look at some of the stocks we have in embarrassingly over-abundance. An example would be the few thousand capacitors I am storing as a result of a local manufacturing company's decision to modify one of its product designs. They donated several boxes of quality capacitors. I will be glad to list these (given time to inventory them) for exchange or donation. In the next several weeks we will begin a regular column in the newsletter for such an interchange.

COORDINATOR'S CORNER

It finally happened. The summer interns have left. It is depressingly quiet around here. I also find myself facing a couple of partially completed tasks which I need to clean up before classes start, or they won't get done before a new wave of interns comes along.

The experience of working with Eickhoff and Johnston this summer has been great. I have not seen salaried employees work as willingly and well at the jobs these men did. The work has been hard and the rewards not all that evident, but NAAPO has profited greatly and the experience has taught us much. There are still some knots to untie and we need to consider some options not tried this summer.

Along with production of my syllabus materials for the coming year I am starting to write proposals for support of the consortium. I did not submit these earlier because I felt the need to learn as much about what we were about as I could before I tried to spell it out for the foundations. Many of the problems are now before us and I feel ready to get on with the proposal writing.

Another project which is going to need some study and hard work is to develop a program of activities and tasks that interns may take back to their home institutions to work on. These can include routine data analysis or construction projects (or theoretical tasks) suitable for honors or special topics courses. In this area we can use and will welcome input from all our affiliate liaison faculty. A forthcoming quarterly meeting likely will be devoted to the task of formulating a body of suggestions for this purpose.

VISITORS WELCOME AT WORKING SESSIONS

Affiliate liaison faculty are invited (even encouraged) to attend all working sessions. These occur regularly the first and third Saturdays of each month in the conference room at Big Ear. The meetings start at 10 AM and we try our best to be done by noon. In addition to reviewing work in progress the time is spent in planning and development of program for the Observatory.

This invitation includes any guests you would like to bring along. We welcome deans, colleagues, students or family members. These sessions sometimes boil down to classic problem solving conferences. The more people to solve the puzzles,

the better.

We also are happy to see friends and associates of NAAPO at our working sessions. The meetings are informal and we welcome input from all quarters.

Those who would like to bring a class (!) just let us know so that we can accommodate the numbers. Big Ear makes a great field trip.

OBSERVATORY NEEDS

Go to your stock room. We need as soon as possible a few rolls of chart paper to fit a Varian strip-chart recorder. It presently has on it a part of a roll of Graphic Controls Corp. No. 414A paper.

If you have anywhere a supply of this paper, or if you find some at a surplus outlet, keep us in mind and send some along. We will have to buy some if we can't find any loose.

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