

May 22, 1992  
To: Bob Hall, Dave Hogg  
From: F.J. Lockman  
Subject: Rsi Building

The following two lists were put together with the help of Rick Fisher. The first is a general list of facilities or objects which might be located in the RSi building at the time that the GBT becomes operational. We put down everything that we thought likely, but you will need to contact other groups, like electronics or plant maintenance, to determine their exact needs if any. Item V in the list, the maser, might best be located somewhere else than the RSi building. We included it because its location needs to be determined, and will be important for the electronics group to know.

The second list gives some specific needs for the Operator/Observer area and the Backend Equipment Room. These are the locations that will be most critical during observing.

More input is needed, for example, from telescope operators, before the specifications can be made more detailed.

#### TO BE LOCATED IN THE RSi BUILDING?

- \*I. Operator/Observer active observing area.
- \*II. Backends, etc.
- \*III. Monitor and Control Equipment.
- \*IV. Active Surface/Pointing equipment or room.
- \*V. Maser
- VI. Observer's office.
- VII. Supervisor's/Administration area - Operator's office.
- \*VIII. Electronics workshop / office area.
- IX. Mechanical Area.
- X. Mechanics' Workshop.
- XI. Unheated storage area (for feeds, etc.)
- XII. Heated storage area.
- XIII. UPS / Line conditioning.
- \*XIV. Cable Area.
- XV. Canteen / kitchen.
- XVI. Toilet
- XVII. Tourist/special visitors facilities.
- XVIII. Safety / security equipment.

\*) RFI shielding probably required.

## I. OPERATOR'S / OBSERVER'S AREA

- About 300 square feet is needed for people, desks, work stations and other small pieces of equipment (chart recorders).
- A false floor is probably not necessary.
- The area needs to be quiet. There should be noise suppression on disk drives and so on. No extraneous equipment should be in room.
- RFI shielding is needed.
- There need to be one or more large windows facing the telescope.
- The room needs to be furnished with tables, chairs and desks, and should have good quality heating and air conditioning.
- Power to the room needs conditioning and possibly a UPS.
- There needs to be extensive telescope monitoring facilities including TV cameras and microphones.

## II. BACKEND EQUIPMENT ROOM

- It should be adjacent to and accessible from the Operator/Observer area, but in a separate enclosure with windows into the control area.
- It should have RFI shielding.
- It should occupy at least 900 square feet and have a raised floor.
- The room needs power conditioning and would benefit from a UPS.
- It will require significant air conditioning.
- The area should be designed to reduce and control the equipment noise, but in a way that does not cause problems with dust.
- The area should have a large outside door for moving in equipment, but should be out of most traffic flows.