

NATIONAL RADIO ASTRONOMY OBSERVATORY  
Charlottesville, Virginia

January 18, 1988

To: Electronics Group  
From: P. B. Sebring  
Subject: VLBA Electronics Meeting, January 12, 1988

Present: (CV): Thompson (moderator), Morris, Crady, Wireman,  
Schlecht, Sebring. (GB): Norrod, Srikanth, Beale,  
Simon. (SOC): Stetten. (VLA): Napier, Brundage, C.  
Walker, Bagri, Oty.

Review of Construction Progress and Plan

Dick Thompson conducted a fairly detailed review of Electronics construction, including Front Ends, Feeds, and Converters by frequency, as well as Synthesizers, Interface Modules, Power Supplies and Racks. He enumerated what has been built to date, what has been planned for this year, plus brief mentions of where some items might be deferred if the budget dictates. Dick is now preparing a separate memorandum detailing all of the above, which will take account of restraints imposed by the 1988 funding.

Electronics System #4 is in final test, and should be shipped to the VLA during the week of January 18, or the week thereafter. When it arrives, System #1 will be returned to Charlottesville for retrofitting with certain revised modules, e.g., Round-Trip Phase module.

Navstar Receivers

The first Navstar receiver procured for the VLBA arrived at the VLA last week, and is being set up for test by Larry Beno. We hope for data concerning its operation within a month.

There was considerable discussion of the question whether a timing receiver is indeed required at each and every VLBA station. Barry Clark's input was missing, unfortunately. There was no conclusion, and Peter suggested the matter be discussed at the next\* Coordination Meeting. (This writer finds it interesting that, while some geodesy principals are urging that each station should have the \$60k two-frequency model that calibrates the ionosphere, we find the need for any at all being questioned!)

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\*NOTE-As I write this, the "next" Coordination Meeting has just been concluded, with no time for the above item.

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### Drawing/Documentation Index

Jack Campbell acknowledged receipt of the initial version of this Index, said nothing has been done in the way of corrections or additions, and promised that something would be done.

### Cryogenics

Rudy not present. Bill Brundage reports refrigerators are getting more reliable due to Rudy's improved coupling arrangement and the replacement of carbon bearings with Envex. The scotch yoke mod that was tried did not help, and is not being installed in further units.

### S/X Dichroic

Srikanth needs to spend another \$1K to finish the first unit for the field. The test prototype shows losses of 0.1 - 0.25 db which is deemed satisfactory. Sri doubts the field unit can be ready for the March 1 Phase 2 Outfitting at Pie Town.

### Miscellaneous

Campbell reports a shipment of bins for Haystack will go out Jan 13. They should arrive in two weeks. Haystack should call if desperate.

It was suggested that module testers should be provided for many of the modules in the electronic systems. Others felt that the racks themselves are the best test frames.

Peter Napier indicated that a Sowerball radar on Puerto Rico may be a potential problem at St. Croix.