

NATIONAL RADIO ASTRONOMY OBSERVATORY
Green Bank, West Virginia

MEMORANDUM

January 28, 1982

To: VLBA Working Group
From: R. Lacasse
Subj: Recommended General and Digital Test Equipment 1982

A variety of test equipment is required at the array elements and at the operations center to maintain and service the electronic equipment. VLBA Memo 48 specifies some general purpose equipment some specific to the needs of the RF and IF electronics. This memo adds to the list of general purpose equipment and also specifies equipment specific to the needs of the digital electronics. Costs are in 1982.0 dollars. Details are shown in Tables 1 and 2.

RJL/cjd

Enclosures

- Table 1: Recommended General and Digital Test Equipment for Each Array Element.
- Table 2: Recommended General and Digital Test Equipment for the Array Operations Center.

TABLE 1

Recommended General and Digital Test Equipment for Each Array Element.
This supplements VLBA Memo 48.

| Item | Comments | Cost |
|------------------------|--|----------|
| Chart Recorder | 2 pen; thermal writing HP 7130A Option 54 or equivalent... | \$ 2,680 |
| Volt-Amp-Ohm Meters .. | Portable; one analog, one digital | 400 |
| Current Probe | Hand-held 10A/V or 100A/V F.W. Bell, CG 100A or equivalent .. | 330 |
| RS 232 Bus Analyzer .. | IDS Model 60 or equivalent | 240 |
| Function Generator ... | ≤ 5 MHz; sine; square, etc. HP 3310B or equivalent | 1,075 |
| Logic Analyzer | Tek 308 or equivalent | 3,950 |
| Power Supplies | 0-60 V, 10A (quantity 2) | 1,750 |
| | 0-60 V, 50A (quantity 2) | 3,000 |
| Miscellaneous Tools .. | | 1,000 |
| Total | | \$15,225 |

TABLE 2

Recommended General and Digital Test Equipment for the
 Array Operations Center.
 This supplements VLBA Memo 48.

| Item | Comments | Cost |
|------------------------|---|-----------------|
| Oscilloscope | 500 MHz BW, with accessories Tek 7904 or equivalent | \$19,333 |
| Oscilloscope | 250 MHz BW, with accessories Tek 475A or equivalent | 5,245 |
| Volt-Ohm Meters | Digital and Analog (quantity 3) ... | 600 |
| Pulse Generator | 250 MHz, variable PW, delays, etc., HP 8082A or equivalent | 4,725 |
| Function Generator ... | General purpose HP 3310B or equivalent | 1,075 |
| Dumb Terminal | RS-232 | 700 |
| Logic Analyzer | Paratronics 540 or equivalent | 9,000 |
| Counter Timer | 0-100 MHz; time; time interval HP 5328A or equivalent | 1,725 |
| Power Supplies | 0-60 V, 10A (quantity 2) | 1,750 |
| | 0-60 V, 50A (quantity 2) | 3,100 |
| Solder Station | | 400 |
| Chart Recorder | 2 pen; thermal writing HP 7130A Option 54 or equivalent ... | 2,680 |
| UHF Oscillator | 10-500 MHz | 2,950 |
| Miscellaneous Tools .. | | 1,500 |
| Total | | \$54,783 |