

Baseband Converter Construction.

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The first 16 Baseband Converters (BBC's) were built at Haystack Observatory, and were supplied with the first four DAR's. The present locations of these 16 units are approximately as follows: 8 at Pie Town, 2 at Kitt Peak, 2 at Los Alamos, 2 at Fort Davis, and 2 at the AOC.

The 1989 construction set of BBC's (i.e. the set procured from 1989 funding) consists of 30 units, of which 16 are for the VLBA and 14 for the Green Bank/Navy contract. In March of this year the first 8 of the 1989 units were completed by Ed Childers and Bill Vrable at Green Bank, and checked out with help from Alan Rogers. Of these, 2 went to North Liberty, 2 to Charlottesville for use by the correlator group, and 4 to the G.B./Navy contract. A second batch consisting of 15 units was started at Green Bank, and the first two of these are now completed and will go to Brewster. Thus, at this time, 20 units remain to be completed in the 1989 procurement. The 13 of these currently being worked on at Green Bank should be completed by about mid-September. The other 7 will be made at Socorro by Jack Campbell's group, starting in mid-June, with completion, I estimate, sometime in October. Ten of these remaining 20 units will be for the G.B./Navy contract, 2 for the DAR that will be loaned to the Radioastron group in the Soviet Union, 2 for Owens Valley, and 6 should be available for increasing the number of channels at Kitt Peak.

The 1990 procurement, like the 1989 one, consists of 30 units, 14 for G.B./Navy contract and 16 for the VLBA. Construction in Green Bank should start about Sept. 1990. With two groups having construction experience at that time, the fastest rate of procurement will be obtained by bringing forward the 1991 procurement (30 units, all for the VLBA) for the Socorro group to start on beginning about October 1990. On the assumption the average rate of production of each group should be about one module every two weeks, I estimate that sometime near the end of 1991 both the 1990 and 1991 procurements should be complete. These will provide 14 modules for the G.B./Navy contract and 46 for the VLBA. Two of the VLBA units will be needed early in 1991 to bring the number for use in the Soviet Union up to 4, and 2 will be needed for the initial outfitting of each of the last three antennas. The remaining 38 units will be available for increasing the numbers of channels at existing antennas.

It is planned to obtain a further 16 BBC's for the VLBA in 1992. These will be constructed in Socorro, and will bring the total number for the VLBA up to 94. This number provides four each for 21 DAR's (2 for each antenna plus one for the AOC) and

10 spares.

Note that the rate of construction of BBC's is not yet well established, so the predictions above are to be regarded as goals rather than commitments.