

OBSERVATIONS OF BACKGROUND CONFUSION  
AT 20CM AND 6CM

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At 20cm and 6cm in the D and C arrays, the observed amplitudes include contributions from the distribution of background radio sources. The observed confusion amplitudes are often much larger than those of the source of primary astronomical interest but the observer should not mistake them for interference or crosstalk. In this memorandum I report on observations of the typical distributions of confusion amplitudes at both frequencies, in both arrays.

The C-array observations were taken on 1984 June 10 and consisted of seven-minute observations of ten fields at 20cm and of ten different fields at 6cm, all fields were in the vicinity of 8 hours and 70 degrees. 3C48 and 0212+735 were used as calibrators.

The D-array observations, taken on 1984 August 10, followed the same pattern, except that the right ascensions were in the vicinity of 16 hours and the calibrators were 3C286 and 1803+784. Also one 20cm scan was lost because of a MODCOMP crash.

The results of these observations are presented in Figures 1 and 2, and lead to the following conclusions:

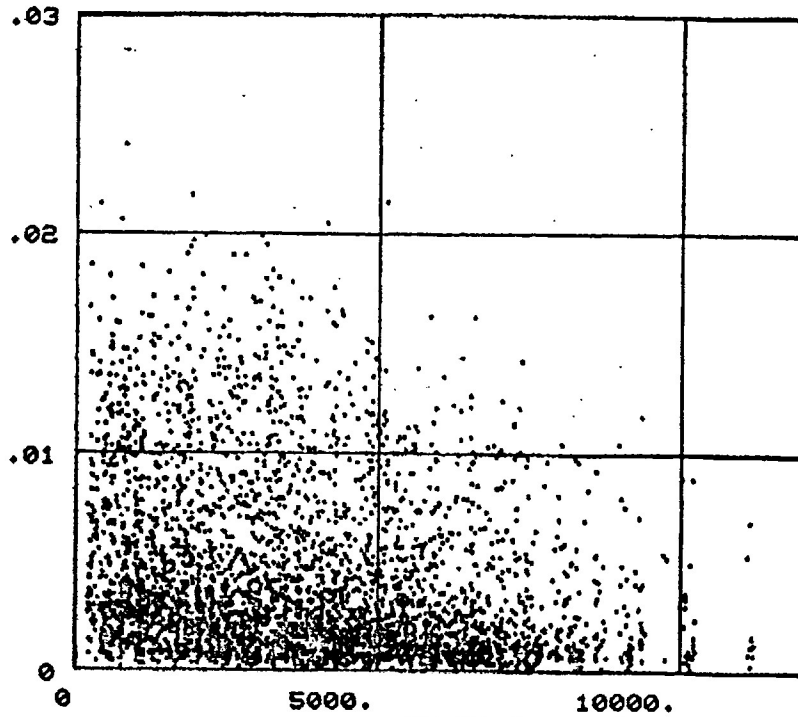
At 20cm in the D array, confusion amplitudes between 0.1 and 0.2 Jy occur frequently on all baselines. Also the probability of finding a stronger background source is significant, of order one percent.

At 20cm in the C array and at 6cm in the D array, confusion amplitudes are less than 30 mJy.

No significant confusion occurs in other arrays or at other frequencies (excluding 90cm which is not yet operational).

Amplitude

Visibility Data

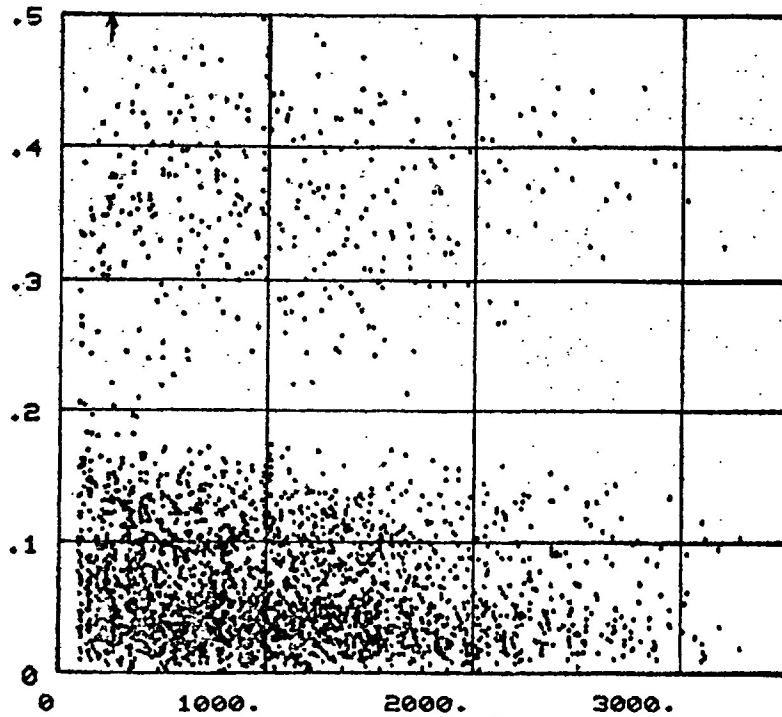


b. C array.

1JUN10E14, J  
 1' Amp BLANK:\* \* 20.0cm \*-\* I Cal:A  
 TAVE:Scan U BAve:N PFlg:0 Mode:

Amplitude

Visibility Data

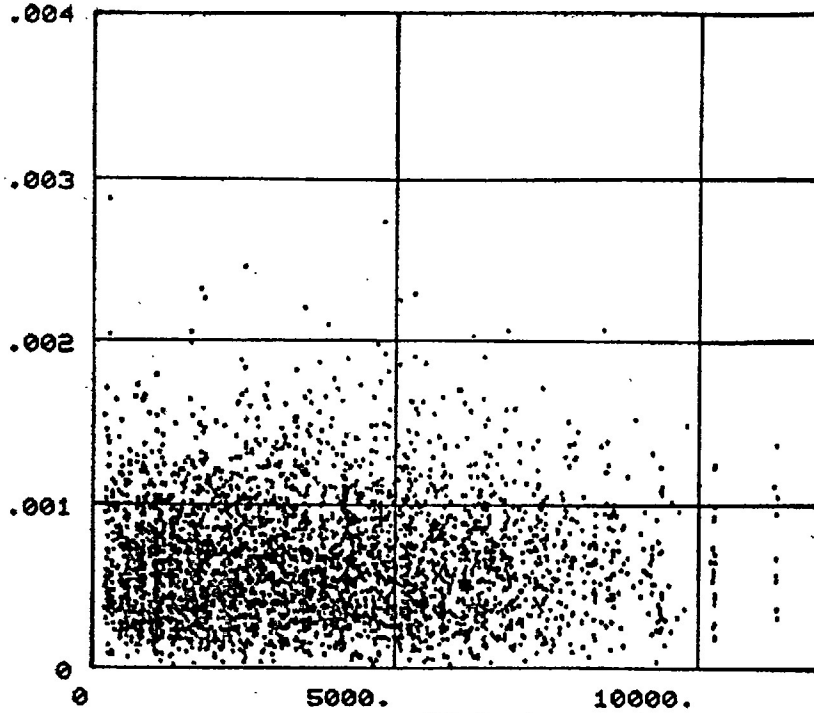


a. D array.

1AUG10E14, J  
 1' Amp BLANK:\* \* 20.0cm \*-\* I Cal:A  
 TAVE:Scan U BAve:N PFlg:0 Mode:

Figure 1. Distribution of confusion amplitudes at 20cm.

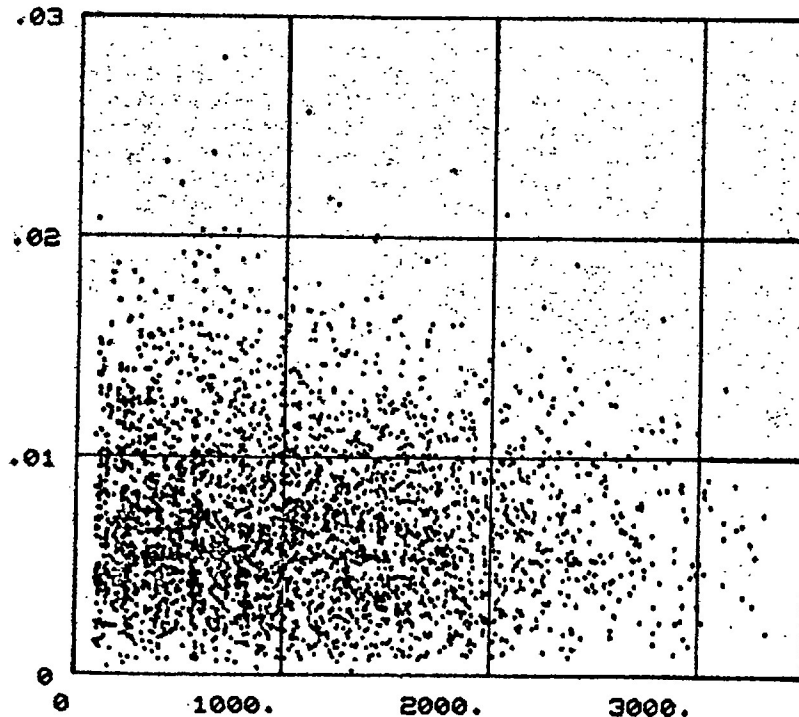
Amplitude



b. C array.

1JUN10E14,J  
 1 Amp BLANK:\* \* UV Distance (square root of UxU + VxV) Cal:A  
 TAVE:Scan U 6.0cm \*-\* I  
 BAVE:N PFlg:0 Mode:

Amplitude



a. D array.

1AUG10E14,J  
 1 Amp BLANK:\* \* UV Distance (square root of UxU + VxV) Cal:A  
 TAVE:Scan U 6.0cm \*-\* I  
 BAVE:N PFlg:0 Mode:

Figure 2. Distribution of confusion amplitudes at 6cm.

