

Interoffice

National Radio Astronomy Observatory

Charlottesville, Virginia

To: W. Brundage and B. Vance

August 14, 1972

From: J. P. Greenhalgh

Subject: 300 ft. Pointing

The measurements we made in late January 1971, are reduced and plotted in the first three (3) attached plots. The BDF used to compute positions was .83. The peak radiometer output was used to define the measured position.

The last plot shows how the input parameters to the pointing routines can be derived from such measurements. The measurements there were made in February 1971. Positions were computed using a BDF of .84. The final inputs to the program are the following:

1. central BDF
2. critical distance
3. additional BDF

Insufficient information about gain and zero changes was kept to allow useful efficiency measurements.

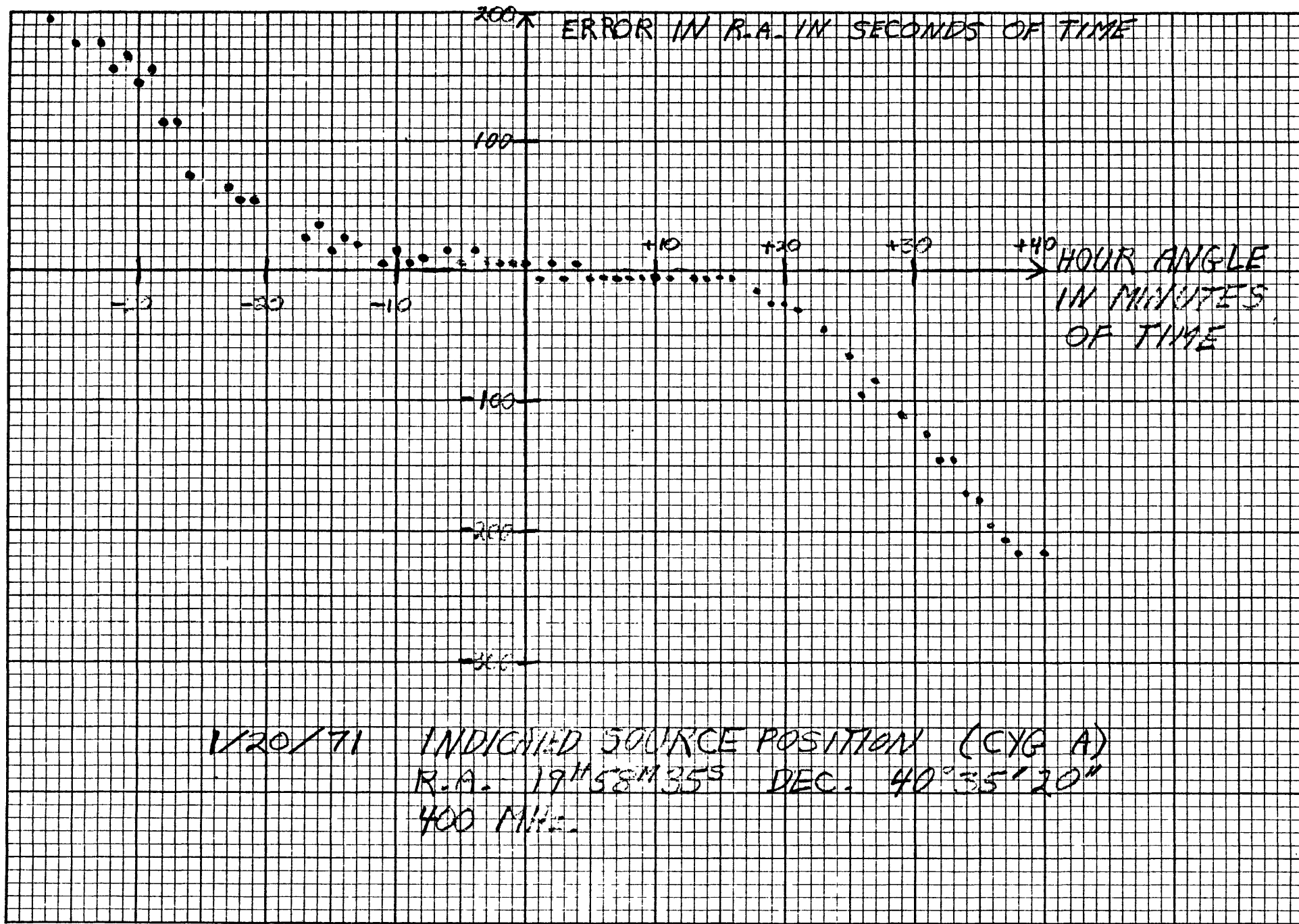
cc: B. Viers
 F. Crews
 G. Conant

JPG/j

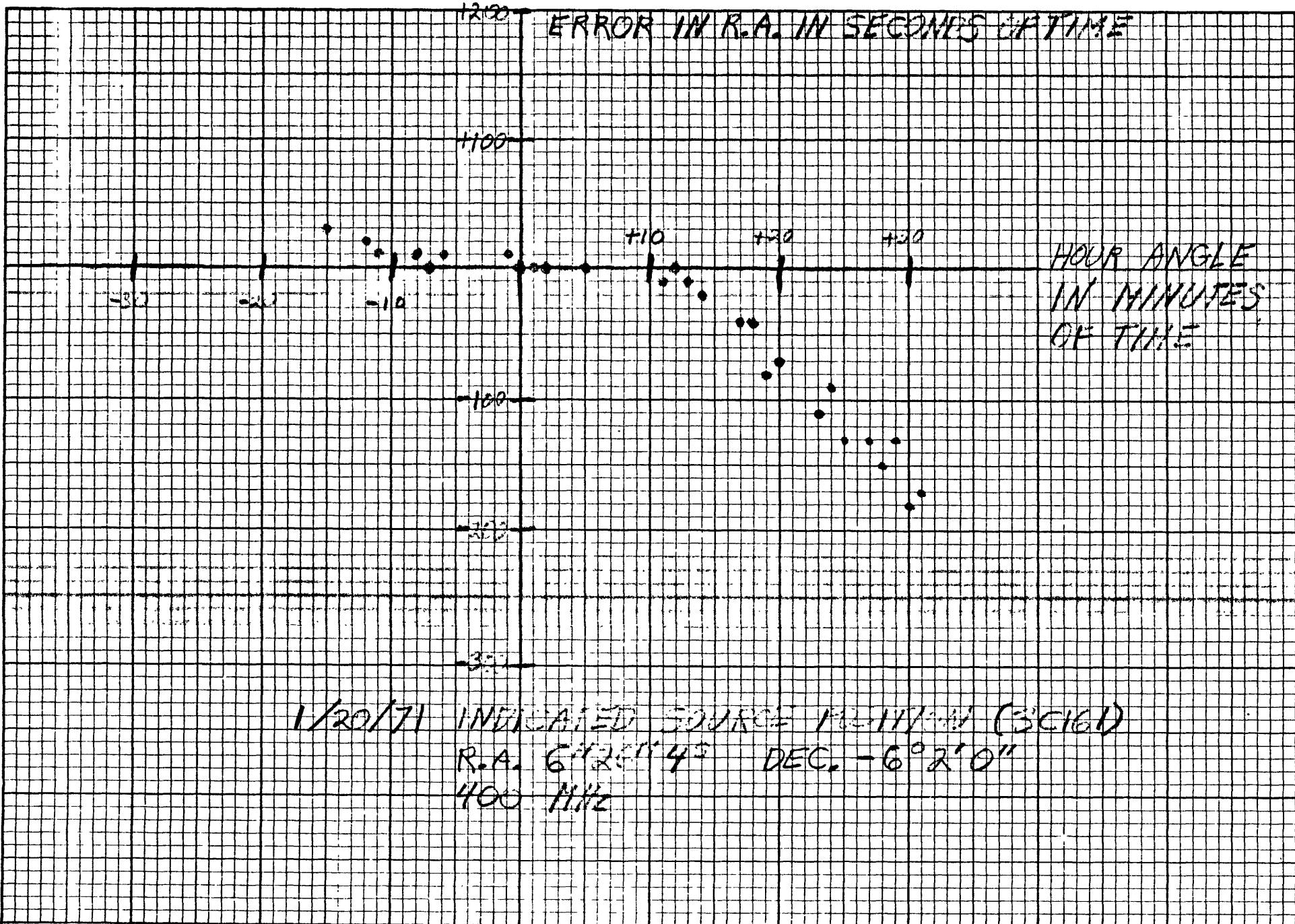
Rick Fisher
 R/A +6.5 +9.5 }
 16.5 +7.5 }
 25.5 +5 }
 50.0 -6.5 }

For Dec. Use 21cm dec.

"std" lo. freq. p.c.
 is higher by ~ 5" in this
 region. i.e. 10" or "std" ...

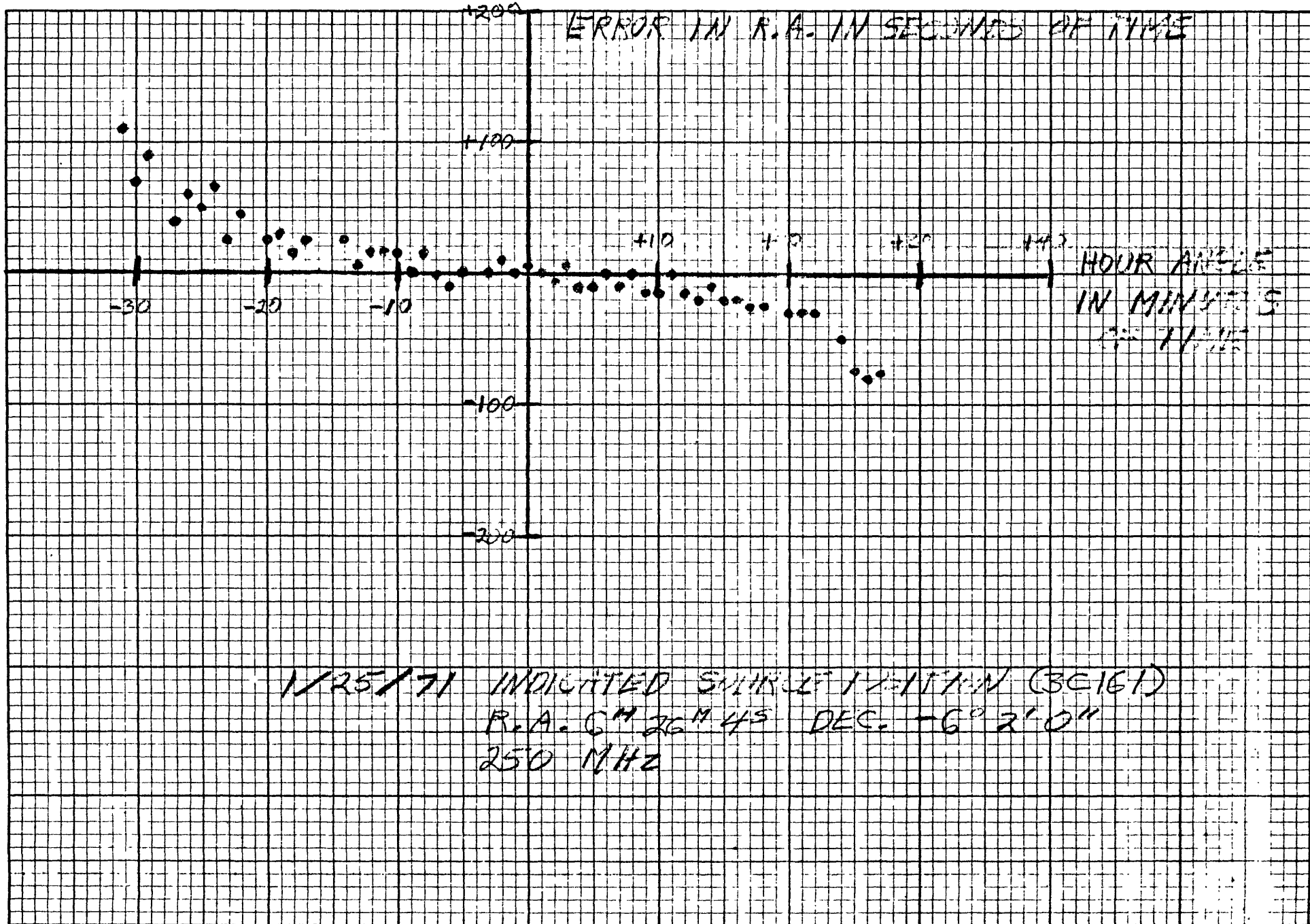


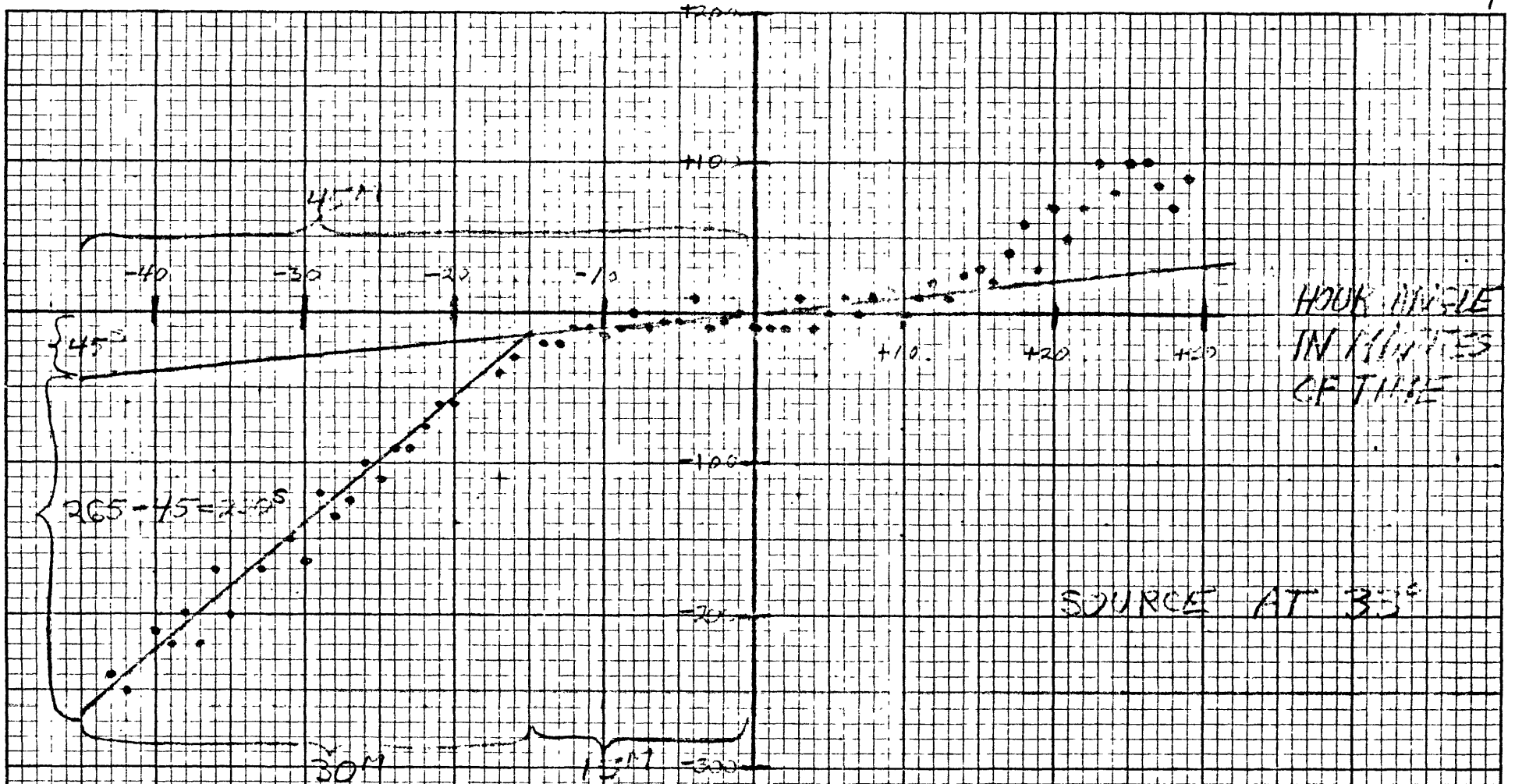
ERROR IN R.A. IN SECONDS OF TIME



HOUR ANGLE
IN MINUTES
OF TIME

1/20/71 INDICATED SOURCE POSITION (3C161)
R.A. 6^h20^m4^s DEC. -6°2'0"
400 MHz





1. CENTRAL EDF = $.84 \left(1 + \frac{45^5}{45.1}\right) = .854$

2. CRITICAL DISTANCE = $15M @ 35^\circ = 3.15^\circ$

3. ADDITIONAL EDF = $\frac{220^3}{30^3} = .12222$ (empirical function of 2^{15})
 $.12222 \times 32768 = 4004.905$
 (2¹⁵)