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INTENSITIES OF THE DISCRETE SOURCES IN CASSIOPEIA, CYGNUS AND TAURUS AT λ 3·2 CM.

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Measurements of the intensities of radio emission from the three most powerful discrete sources were carried out early in 1955 at the Gorky radio astronomical station 'Zimenky' (latitude 56° 9·5′). The arrangement used for these measurements is described elsewhere [1]. The main part of the aerial consists of a paraboloid, 4 metres in diameter, on an alt-azimuth mounting. The beam has an opening (between half-power points) equal to 32′. The effective area of the aerial was determined by comparison with the standard megaphone antenna for solar radio emission [2] and equals 10 m.^{2}. The efficiency of the aerial is determined according to the method of measurement of the proper radio emission of the aerial [3]. The reception device is of a modulation type. The fluctuation threshold of the sensitivity of the device for the used time constant of 20 sec. equals 0°6 C., which corresponds to a flux of non-polarized radiation of $1{\cdot}65 \times 10^{-24}$ w.m.$^{-2}$ (c./s.)$^{-1}$ reaching the aerial.

The results of these measurements are summarized in the table, where every number represents the mean of a number of measurements.

Source	Intensity in units of w.m.$^{-2}$ (c./s.)$^{-1}$ $\times 10^{-24}$
Cassiopeia A	4·6
Taurus A	6
Cygnus A	6·6

The random errors in the mean values do not exceed $\pm 5\%$. Systematic errors may be in the range of $\pm 20\%$.

REFERENCES

[1] Troitzky, V. S., Rakhlin, V. L., Bobrick, V. T. and Starodubtzev, A. M. *Publications of the 5th Cosmogonical Conference*, Moscow, 1956, p. 37.
[2] Zelinskaja, M. P. and Troitzky, V. S. *Ibid.* p. 99.
[3] Troitzky, V. S. *J. exp. theor. phys. U.S.S.R.*