RADIO FLARE ON η GEMINI STAR

P.M.HEROUNI, V.S.OSKANIAN
Radiophysical Measurment Institute
Armenian Academy of Sciences, USSR

The first at the world Radio-Optical Telescope ROT-32/54/2,6 was mounted on the southern slope of Mount Aragats in Armenia at 1700 m above sea level. The Large Antenna of ROT with the unmovable hemisperical main mirror of 54 m in diameter and movable small correcting mirror is the extremely accurate and shortwave (down to 1 mm). Using aperture is 32m. The diameter of the Optical Telescope is 2.6 m. General view of ROT is shown in Fig.1.

During the very first test of the Antenna in summer 1985 at the 20 cm range an unexpected result was obtained. On June 23 at 9.23 UT a powerful radio flare was first registered on η Gemini [1]. This is a tripple system (two red giants of spectral class M3III and a G0IV star) classified as an irregular variable [2].

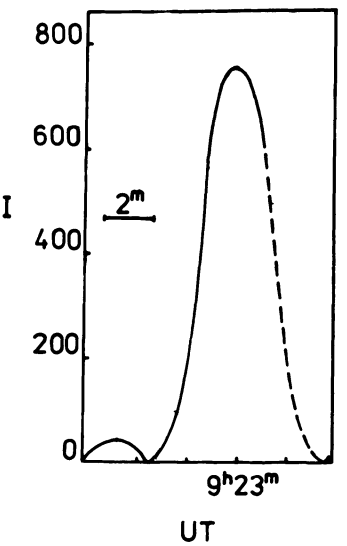

Figure 2.

The flare was registered, at the frequency 1.5 GHz with bandwidth 14 MHz, sensitivity 0.2 K at the time constant 1sec

Its duration exceeded 12 min, but was not longer than one hour. The flux density from the flare was about 800 units and the power density of about 3×10^{-14} W per Hz.

The flare was detected while observing the radio-source 3C157 (a supernova remant) placed nearly the same direction, with a difference of about 2.2 min in time.

In Fig.2 the registered curve the η Gem flare is shown.

L. V. Mirzoyan et al. (eds.), Flare Stars in Star Clusters, Associations and the Solar Vicinity, 145–146.

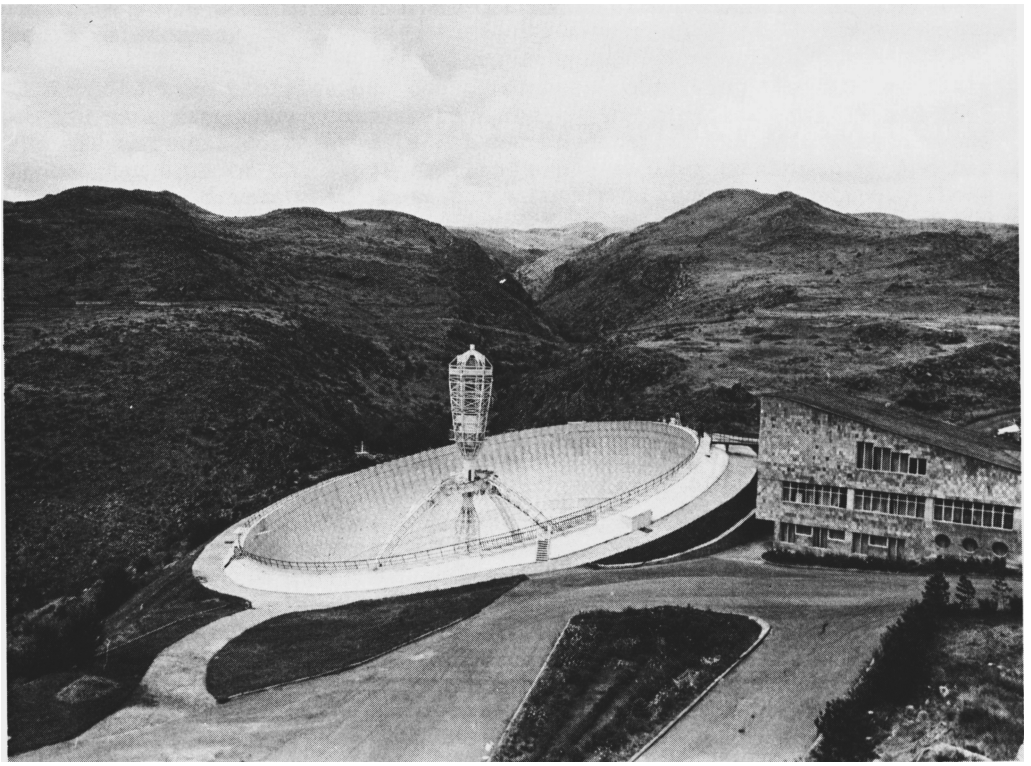

Figure 1. General view of ROT.

REFERENSES

1. Herouni,P.M.(1986)'Radiooptical Telescope ROT-32/54/2,6', XVIII All-Union Conference of Radioastronomy, Proc.1, Irkutsk, pp. 5-7.
2. Kholopov,P.N. et.al.(1985)'General Catalogue of Variable Stars',Vol.2, Nauka, Moscow.

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