

22 GHz MAP OF THE CARINA REGION

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We present a map of the Carina region obtained at the Itapetinga Observatory, at the frequency of 22 GHz with 4.'1 resolution. The map presents features similar to the maps available at lower frequencies. However, new structures can be seen in a more careful analysis of the map. They also show up clearly in a spectral index map, constructed with the 5 GHz map of Gardner et al. (Astron. and Astrophys. 7, 349; 1970) which has the same angular resolution as the 22 GHz data. The first thing to be noticed is the presence of a non thermal source, that coincides with the feature observed by Jones (Australian J.Phys. 26,545, 1973) at 30 MHz. This source was thought to coincide with the star η Carina, because of the poor resolution of the 30 MHz map. The X-ray source 1E 1045.5 - 5918 is localized in the vicinity of the non-thermal source; its luminosity is too low to be attributed to a supernova remnant. There is no optical or infrared counterpart to this source. Another interesting feature of non-thermal origin lies north of Car II. It shows low intensity at 22 GHz and at 408 MHz (Shaver and Goss, Austr. J. Phys, Astrophys.Suppl. 14, 133, 1970), and it is stronger at 5 GHz. This feature is similar to the extragalactic source G287.7 - 1.3 found by Shaver and Goss at the south of Carina, which can be seen also in our map of spectral indices.

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