19. A POSSIBLE SUPERNOVA REMNANT OBSERVED IN 21-CM EMISSION

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In the course of one of the investigations listed in Paper 29, we have studied a disturbance in the observed neutral-hydrogen distribution in the galactic plane. The figures derived for this feature show excellent agreement with those quoted by Kahn and Woltjer (Paper 16) as the expected result of a supernova explosion. The results of a preliminary discussion are given in the following table.

$l^{\text{II}}, b^{\text{II}}$	$61^{\circ}6, - 0^{\circ}6$
distance	5 kpc
radius	125 pc
mass of neutral hydrogen	$2 \times 10^4 M_{\odot}$
expansion velocity	8 km/sec
kinetic energy	2×10^{49} erg
age	5×10^6 years

The hydrogen mass derived from this preliminary investigation is subject to an uncertainty of at least a factor two.

There is no known radio-continuum source or optical object associated with this disturbance; therefore any identification of it as the result of a supernova explosion must remain highly speculative.