integrated flux densities from the H II region complexes at the eastern and western ends of the bar are found to be 3.4 mJy and 3.7 mJy, respectively, comparable to the total nuclear flux density of 3.4 mJy. In the absence of observations at a second frequency, we can only speculate on the source of this emission, but we expect that any nonthermal component will dominate the continuum emission at 1.38 GHz (Condon 1992). Thus, the concentrated emission originating near the ends of the bar and the inner ring minor axis is presumably associated more with supernovae (and/or focusing of the magnetic field lines because of the

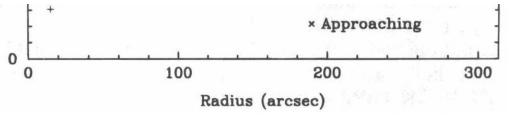

FIG. 8.—H I rotational velocities derived from the velocity field, assuming circular motion in rings inclined at 33°, with rotation center, systemic velocity, and position angle held fixed at the values given in the text. The points are plotted at 1 beamwidth intervals, based on separate fits to the receding (i.e., mostly the southern) half, the approaching (northern) half, and to the entire disk. The formal fitting errors are usually much less than the differences between these three fits.

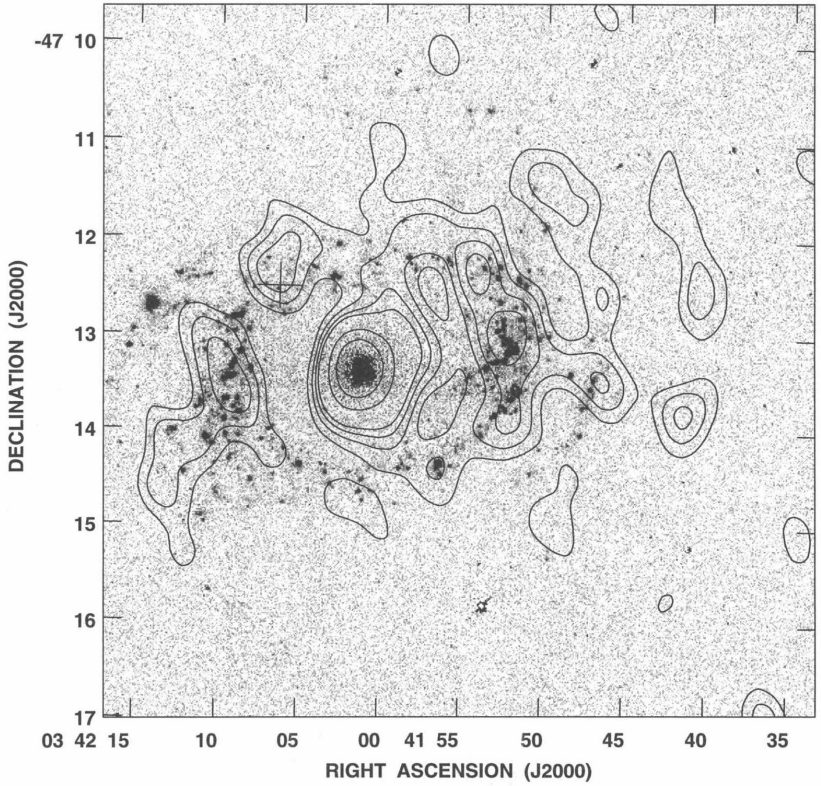

FIG. 9.—Contours of 1.38 GHz continuum flux density overlain on a 1200 s continuum-subtracted Hα image obtained by D. Crocker and G. Purcell with the CTIO 1.5 m telescope. The radio continuum contours are at levels of 0.4, 0.6, 0.8, 1.0, 2.0, and 3.0 mJy beam $^{-1}$. The cross 1′ northeast of the nucleus marks the approximate optical position of the Type II supernova SN 1985P discovered by R. Evans.