

Figure from Neutral Hydrogen in the Ringed Barred Galaxies NGC 1433 and NGC 6300
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comparison, the dash-dotted line is a spectrum from a single pointing with the Parkes 64 m antenna, which has not been corrected for beam dilution.

the optical ring diameter of 59" (B87; CSRG). The small peak at 145" most likely reflects the southern H I spur mentioned in the previous paragraph, although this spike is smaller than our beamwidth, and the ring inclination is changing rapidly in this region. From there, the H I column density slowly ramps down to our flux cutoff just past the H I tail, with no other candidates for a secondary peak that could indicate a subtle outer ring or pseudoring. Finally, we

data set, and Figure 16 shows a close-up of the inner 6' × 4' of NGC 6300, with H I column densities and isovelocity contours from this data set. Although the bending of the isovelocity contours in the inner 1' is consistent with the pattern of the optical isovelocity contours in Figure 12 of B87, these kinks do not extend much beyond the bar region, or across the ring itself. Thus, at the limited resolution of our H I data, the bar-driven gas inflow usually invoked to account for these noncircular motions appears to be confined within the bar region itself, although it is worth noting

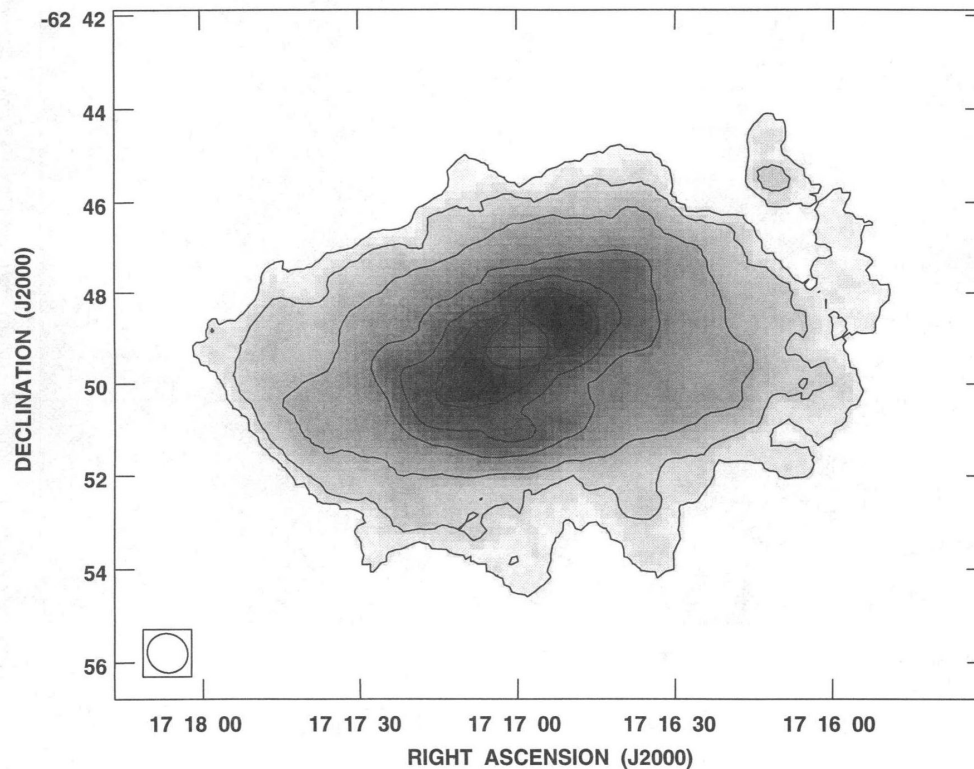


FIG. 12.—Gray-scale and contours of H I column density in NGC 6300, with natural weighting applied to the uv data. Contours represent (projected) column densities of 0.1, 0.5, 1.4, 3.7, 5.5, 7.3, and $9.2 \times 10^{20} \text{ cm}^{-2}$. The FWHM of the synthesized beam is shown by the ellipse in the bottom left corner. The cross marks the position of the dynamical center.