

## THE HIGH-VELOCITY CLOUDS: GALACTIC OR INTERGALACTIC?

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Nature and origin of the high-velocity clouds (HVCs) remain enigmatic after thirty years (Wakker & van Woerden 1997, *ARA&A*, **35**, 217), owing to lack of distance information. Hypotheses range from supernova shells at 100 pc to intergalactic clouds at 1 Mpc. On statistical grounds, Blitz et al. (1996, *BAAS*, **28**, 1349) claim that the HVCs are “remnants of Local Group formation, best explained as members of the Local Group of galaxies”. Reliable distances must come from the presence or absence of absorption at the HVC’s velocity in spectra of stars at different distances. For Complex A, MgII absorption is seen in *HST* spectra of the Seyfert galaxy Mrk 106, but not in the star PG0859+593 at 4 kpc (Wakker et al. 1996, *ApJ*, **473**, 834). La Palma spectra of the RR Lyr star AD UMa at 11 kpc distance show CaII absorption by Complex A at both K and H, which is lacking at 4 kpc. These absorptions are not confused with stellar metal lines. Our distance bracket  $4 < d < 11$  kpc places Complex A in the Galactic Halo, at  $2.5 < z < 7.5$  kpc above the plane; a distance similar to Local Group galaxies is excluded. The HI mass implied lies between 0.15 and 1.2 times  $10^6 M_{\odot}$ . Our result precludes local origins for this HVC. It allows an origin in a Galactic Fountain, or in interaction of infalling intergalactic material (from the Magellanic System or the Local Group) with the Galactic Halo.