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HYDROGEN CYANIDE IN THE BIPOLAR SOURCE CEP A

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The Cep A molecular cloud has been mapped in the 87 GHz continuum and in the $J = 1-0$ transition of HCN with a combination of single antenna and interferometer observations. The resolution is $19'' \times 14''$ (about 0.06 pc at the distance of Cep A) and 0.8 km/sec in velocity.

We have detected a 115 mJy continuum source which we identify with the source of the extended bipolar molecular outflow. In the HCN line, we find a quiescent cloud located about $20''$ east of the continuum source. This cloud has a mass of about $100 M_{\odot}$. It shows no evidence for either bipolar outflow (unlike CO) or for rotation (unlike NH_3). We argue that this cloud has deflected the blue-shifted lobe seen in CO emission and reduced the momentum of the flow in that lobe. A full account of this paper appeared in *Astron. Astrophys.* 153, 139, 1985.