Alfvén surface R_A, the toroidal field begins to dominate and it decreases less quickly, i.e. $b\phi \propto r^{-1}$.

Hα AND [S II] DIRECT IMAGES OF HERBIG-HARO OBJECTS 1 AND 2 WITH THE MEPSICRON DETECTOR

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Using the Mepsicron detection system, we obtained images of the region around Herbig-Haro objects 1 and 2. These images were taken with interference filters centred on Hα, on the red continuum (6648 A) and on the [S II] line at 6731 A.

We found two conical nebulosities connecting the central radio continuum source to HH1 and HH2. The emission lines (Hα and [S II]) are produced *in situ*, probably being excited by a shock wave created by the stellar wind emerging from the central source. Continuum emission is probably produced by reflected light from the same source. Some 10 arcsec to the NE of the central source we detected a small nebulosity with strong sulphur emission. Similarly, two emission knots were found ∿ 20 arcsec W of this source.

The sulphur to hydrogen ratio indicates that this nebulosity, as well as the two knots, are collisionally ionized. We did not detect optical emission from the central radio continuum source. This implies a limiting visual magnitude of 21.5 for the object.

THE STRUCTURE OF THE HH39 REGION

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HH39 is the group of Herbig-Haro (HH) objects associated with the young semi-stellar object R Monocerotis (R Mon) and the variable reflection nebula NGC 2261. An R CCD frame and a B prime focus plate of the region show a filament connecting NGC 2261 with HH39, confirming the association between R Mon and the HH objects. This filament is probably composed of emission material. The southern knot in HH39 has brightened

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