Observations of Young Low-Mass Stars in Dense Cores

Grant NAG2-374

Semiannual Status Report No. 1
For the period 1 October 1985 through 31 March 1986

Principal Investigator
Dr. Philip C. Myers

February 1987

Prepared for
National Aeronautics and Space Administration
Ames Research Center
Moffett Field, CA 94035

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

The Smithsonian Astrophysical Observatory
is a member of the
Harvard-Smithsonian Center for Astrophysics

The NASA Technical Officer for this grant is Dr. L. C. Haughney, Medium Altitude Missions Branch, 211-12, Ames Research Center, Moffett Field CA, 94035.

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In this period our first maps were made during two flights of the KAO in January 1986. One of these shows extended emission at 100 and 160 μm from the dense core B35 containing the *IRAS* point source 05417+0907. The 160 μm emission has approximately the same extent as the NH_3 (1,1) line emission at 1.3 cm, indicating close correspondence between the warm dust and the dense gas. The 160 μm map shows a previously unknown secondary maximum about 90 arcsec north of the *IRAS* source.

Plans were made for more detailed analysis of these and other maps. SAO personnel participating were P. Myers and R. Levreault.