Test samples are arrayed uniformly around the table and the hole in the center admits the aerator tube and assures repeatable vertical alignment. A groove around the periphery of the table allows repeatable alignment of the chamber top with the table. Microscope slides are placed between samples on the table so that once dusting has been performed, they can be removed and weighed to determine the weight of dust per unit area added to the samples. As additional dusting is done, additional slides are removed and weighed so that the amount of dust that accumulates with multiple dustings can be determined.

This work was done by Kathryn Miller Hurlbert of Johnson Space Center, and Larry C. Witte and D. Keith Hollingsworth of the University of Houston. Further information is contained in a TSP (see page 1). MSC-23944-1

MicroProbe Small Unmanned Aerial System

Goddard Space Flight Center, Greenbelt, Maryland

The MicroProbe unmanned aerial system (UAS) concept incorporates twin electric motors mounted on the vehicle wing, thus enabling an aerodynamically and environmentally clean nose area for atmospheric sensors. A payload bay is also incorporated in the fuselage to accommodate remote sensing instruments.

A key feature of this concept is lightweight construction combined with low flying speeds to minimize kinetic energy and associated hazards, as well as maximizing spatial resolution. This type of aerial platform is needed for Earth science research and environmental monitoring. There were no vehicles of this type known to exist previously.

This work was done by Geoffrey Bland and Ted Miles of Goddard Space Flight Center. GSC-16206-1