METEOROID DETECTION SATELLITE
LAUNCHED BY NASA FROM WALLOPS

A satellite designed to gather information on the hazards spacecraft encounter from minute particles in space was launched at 7:02 a.m. EST on November 6 from Wallops Station by NASA.

The project is under the direction of NASA’s Office of Advanced Research and Technology with project management by Langley Research Center. Goddard Space Flight Center is also participating.

Explorer XXIII, launched in a southeasterly direction from Wallops Island, was boosted into orbit by a four-stage solid propellant Scout vehicle. The satellite’s orbital elements are as follows: apogee, 614 statute miles; perigee, 286 statute miles; inclination to equator, 52 degrees; orbital period, 99 minutes.

Explorer XXIII is a cylinder 24 inches in diameter and 92 inches long. Weight in orbit is about 295 pounds.

The satellite is expected to have a useful lifetime of one year. Its primary purpose is to provide spacecraft designers with accurate knowledge of the penetration capabilities of meteoroids and the resistance of various materials to penetration. Meteoroids are tiny particles composed of iron, silicates and other substances which move at very high speeds in space. They may strike a satellite at velocities ranging from seven to forty-five miles per second, or even faster.

Also carried on board the Scout during launch was an experiment to measure air loads on the structure of the vehicle during its ascent through the atmosphere between 25,000 and 40,000 feet.

Charles E. Manion was the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch tracking operations. Robert T. Duffy was the Launch Director for Wallops, responsible for conducting the countdown operations.