"IRIS"* SOUNDING ROCKET

**"IRIS" is a registered trademark of Atlantic Research Corporation, Alexandria, Virginia.*

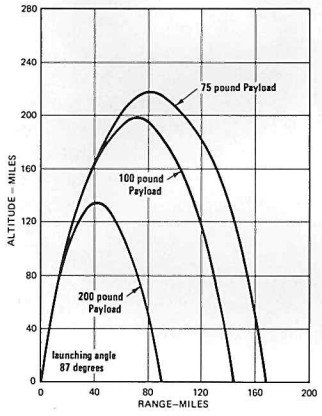
INTRODUCTION

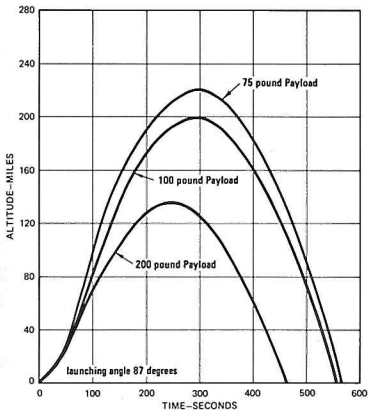
The actual "IRIS" rocket is a single stage, solid propellant fin stabilizing sounding rocket measuring 12.75 inches in diameter and stands 19 feet 11 inches tall. It is designed to carry experimental scientific payloads to altitudes as high as 240 miles. The payloads often include telemetry equipment which transmits valuable information back to Earth for study. Typical uses for "IRIS" include:

ATMOSPHERIC COMPOSITION STUDIES
MICROMETEORITE INVESTIGATIONS
IONIZATION & NUCLEAR RADIATION MEASUREMENTS
MAGNETIC FIELD DETERMINATION
AEROMEDICAL EXPERIMENTS
HIGH ALTITUDE PHOTOGRAPHIC TELEVISION
STUDY RE-ENTRY PROBLEMS
TESTING COMMUNICATIONS SYSTEMS
COMPONENT TESTING
SOLAR AND AURORAL RADIATION
COSMIC RAY STUDIES

The "IRIS" was designed and developed by the Atlantic Research Corporation for NASA and the Naval Research Laboratories. It was first launched from Wallops Station, Virginia on October 18, 1960 at which time it carried a 125 pound payload to 140 miles altitude.

The "IRIS" is launched from a 160 foot high, four rail tower at Wallops Station, Virginia, and from three rail towers at Elgin Air Force Base, White Sands Proving Grounds, and Fort Churchill, Canada. Both three and four finned versions of IRIS have been flown.





	Payload Weight, pounds		
	75	100	200
Maximum acceleration, g	15	15	15
*Launch Velocity, ft/sec	300	300	300
Maximum velocity, ft/sec	7,675	7,256	5,873
**Peak altitude, feet	1,150,000	1,050,000	730,000
miles	230	210	146
Time to peak altitude, seconds	302	288	237
Maximum nose cone skin temperature, °F	600	700	800
***Maximum horizontal range, feet	1,800,000	1,650,000	1,110,000
miles	360	330	222

*Launched from 160 foot tower.
**Vertical launch.
***80 degree launch.

