



SPACE TECHNOLOGY LABORATORIES, INC.

PUBLIC RELATIONS • ORCHARD 0-1311 • EXT. 2001-2-3
5730 ARBOR VITAE STREET, LOS ANGELES 45, CALIFORNIA

FOR IMMEDIATE RELEASE

SATELLITE COMPARISON

Explorer VI presently traveling an elliptical path around the earth, is in effect a complex electronic extension of the brains and senses of man placed in orbit to further investigate the environment of space.

Instrumented by its designer, Space Technology Laboratories, Inc., Los Angeles, to conduct a series of sophisticated experiments concurrently, the satellite is expected to provide the most valuable and comprehensive space data collected to date.

Because experiments in such important areas as radiation, magnetic fields and propagation are being conducted simultaneously, the interactions of these phenomena and their effects on one another can be recorded and studied for the first time.

The wide elliptical orbit of the satellite makes it possible to study the vast and important region of space in the immediate proximity of earth.

In addition, the plane of the orbit will slowly tilt upwards toward the equator during the year-long life of the satellite. This 90 degree sweeping effect will eventually place the satellite near an equatorial plane. It is this area that is most interesting to space scientists.

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Pioneer I, the first space probe project under the technical direction of STL for the National Aeronautics and Space Administration indicated that radiation bands and the magnetic fields of the earth are strongest along the equatorial plane, weakening toward the poles. Further investigation of this discovery is vital to such projects as man in space.

Following is a comparison between Explorer VI and the earth satellites that preceded it:

EXPLORER VI

Launched - Aug. 7, 1959
Weight - 142 lbs.
Shape - Sphere,
 diameter 29"

VANGUARD II

Launched - Feb. 17, 1959
Weight - 22 lbs.
Shape - Ball - 20"
Lifetime - century
Apogee - 2,064 miles
Perigee - 347 miles

DISCOVERER I

Launched - Feb. 28, 1959
Weight - 1300 lbs.
Shape - Bullet
 19.25 ft. high
Lifetime - Feb. 28 -
 March 5, '59
Apogee - 605 miles
Perigee - 99 miles

DISCOVERER II

Launched - Apr. 13, 1959
Weight - 1600 lbs.
Shape - Bullet
 19 ft. high
Lifetime - April 13 -
 April 26, '59
Apogee - 220 miles
Perigee - 142 miles

SPUTNIK I *

Launched - Oct. 4, 1957
Weight - 184 lbs.
Shape - Sphere,
 diameter 22.8"
Lifetime - 2 months
Apogee - 560 miles
Perigee - 145 miles

SPUTNIK II *

Launched - Nov. 3, 1957
Weight - 1120 lbs.
Shape - Cylinder,
 70 ft. long
Lifetime - 6 months
Apogee - 1056 miles
Perigee - 150 miles

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* Unofficial

SPUTNIK III *

Launched - May 15, 1958
Weight - 2919 lbs.
Shape - Cone
 11'8" long,
 diameter 5'8"
Lifetime - 6 mo.(est)
Apogee - 1168 miles
Perigee - 150 miles

EXPLORER I

Launched - Jan. 31, 1958
Weight - 30.8 lbs.
Shape - Cylinder
 80 in. long
 diameter 6"
Lifetime - 2-5 years (est)
Apogee - 1600 miles
Perigee - 220 miles

EXPLORER III

Launched - March 26, 1958
Weight - 31 lbs.
Shape - Cylinder
 80 in. long
 diameter 6"
Lifetime - 4-6 months
Apogee - 1735 miles
Perigee - 125 miles

EXPLORER IV

Launched - July 26, 1958
Weight - 38.43 lbs.
Shape - Cylinder
 80 in. long
 diameter 6"
Lifetime - 4 years
Apogee - 1700 miles
Perigee - 180 miles

VANGUARD I

Launched - March 17, 1958
Weight - 3.25 lbs.
Shape - Sphere
 diameter 6.4"
Lifetime - Up to 200 years
Apogee - 2513 miles
Perigee - 407 miles

PROJECT SCORE

Launched - Dec. 18, 1959
Weight - 165 lbs.
Shape - Cylinder
 88 ft. long
 diameter 10 ft.
Lifetime - 34 days
Apogee - 925 miles
Perigee - 110 miles

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