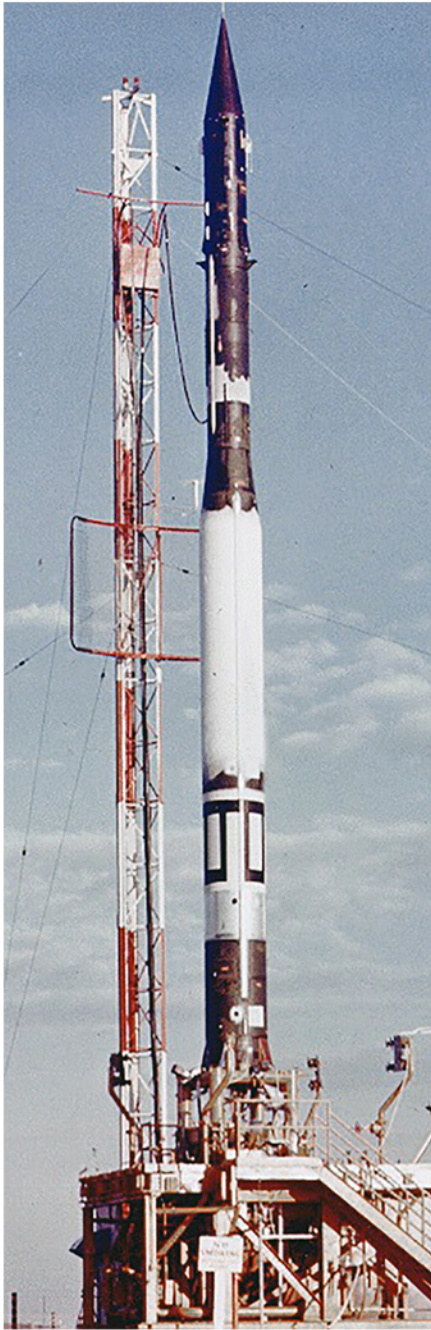


Vanguard 1 TV-4 launcher



The Vanguard Rocket was intended as the first launch vehicle the United States would use to place a satellite into orbit. In 1955, the USA announced plans to put a scientific satellite into orbit for the International Geophysical Year (IGY) in 1957 - 1958.

After several failed attempts, on March 17, 1958, TV-4 finally and successfully launched a satellite into orbit. By this time, Sputnik was orbiting the planet and the U.S Army had successfully launched the Explorer I satellite into orbit on a Jupiter C rocket.

A total of 11 Vandaguards were produced. Only three would successfully launch satellites into orbit.

The total height of the vehicle with the satellite fairing was about 21.9 meters (72 feet). The payload capacity was 11.3 kg (25 lbs.) to a 555 km (345 mi.) Earth orbit. A nominal launch would have the first stage firing for 144 seconds, bringing the rocket to an altitude of 58 km (36 mi), followed by the second stage burn of 120 seconds to 480 km (300 mi), whereupon the third stage would bring the satellite to orbit. This was the same launch vehicle configuration, with minor modifications, as used for Vanguard TV-3 and all succeeding Vanguard flights up to and including Vanguard SLV-6.

Vanguard 1 TV-4 launcher

