D.4 Titan Launch and Performance History

The Titan family of launch vehicles was established in 1955, when the Air Force awarded the Martin Company a contract to build a heavy-duty space system. Titan I was the nation's first two-stage ICBM and the first to be silo-based. It proved many structural and propulsion techniques that were later incorporated into Titan II. The Titan II was a heavy-duty missile using storable propellants that became a man-rated space booster for NASA's Gemini program. Today the Titan II is returning as a space-launch vehicle with the old ICBMs converted to deliver payloads to orbit. Titan III was the outgrowth of propulsion technology developed in both Titan II and Minuteman ballistic-missile programs.

Today's Titan vehicles (II, III, and IV) are derived from the earlier Titans. In 1984, the DOD called for a space-launch system that would complement the Space Shuttle to ensure access to space for certain national-security payloads. The Titan IV program began as a short-term program for ten launches from Cape Canaveral Air Station. However, after the Challenger accident in 1986, the program has grown to 41 vehicles. With the off-loading of DOD payloads from Shuttle, Titan IV has become DOD's main access to space for many of its heavy payloads. Design of the Titan II Space Launch Vehicle (SLV) began at the same time as that for Titan IV. Titan II SLV was developed from refurbished Titan II ICBMs incorporating technology and hardware from the Titan III program.