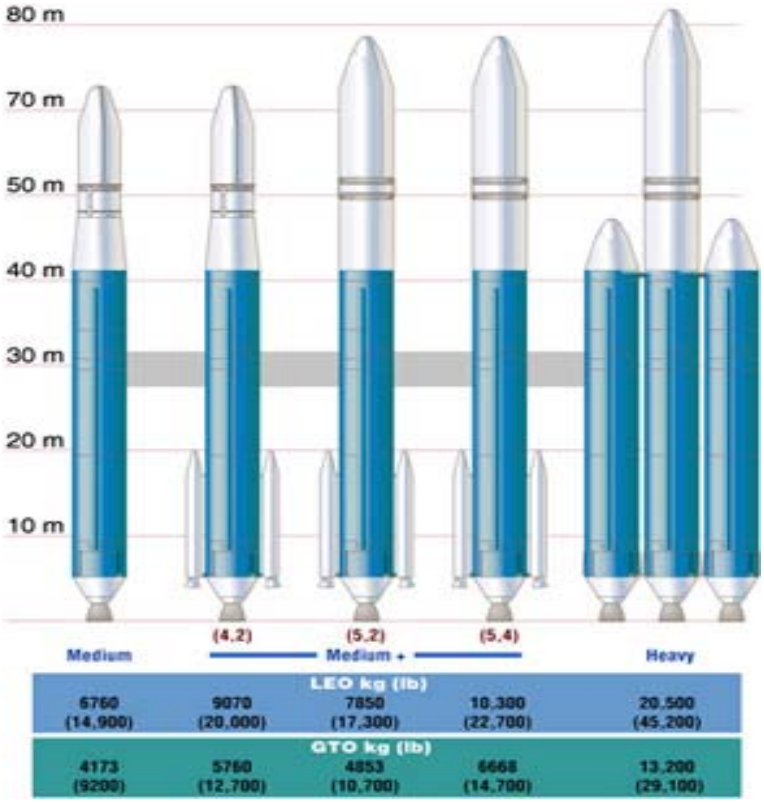
The Delta IV



The Delta IV was developed under the US Air Force Evolved Expendable Launch Vehicle (*EELV)* contract. The Delta IV launch vehicle uses a new, liquid oxygen / hydrogen "common core" booster powered by single RS-68 engine.

There are several variants of the Delta IV launch vehicle. The Delta IV M (medium), which will replace the Delta II, combines the common core booster with the current Delta II second stage and 3-meter fairing. The larger Delta IVM+ (4,2), which combines the common core and two solid strap-on Alliant graphite epoxy motors (*GEMs)* with a modified Delta III liquid oxygen / hydrogen second stage and 4-meter fairing, is capable of placing 11,000 lb into a geosynchronous transfer orbit (GTO) orbit. The Delta IVM+ (5,2), which combines the common core and two solid strap-on GEMs with a large Delta III-type LOX / LH2 second stage and a new 5-meter fairing, can place 9,600 lb into a GTO orbit. The Delta IVM+ (5,4), which combines the common core and four GEM strap-ons with a large Delta III-type LOX / LH2 second stage and a new 5-meter fairing, can place 13,500 lb into a GTO orbit. Finally, the Delta IV heavy combines three common core boosters with a large Delta III-type LOX / LH2 second stage and a new 5-meter fairing to place 27,400 lb into a GTO orbit. Together, the Delta IV variants are capable of replacing the Delta II and Delta III as well as the heavy Titan IV. In essence, Boeing hopes to use the Delta IV family to address the bulk of the existing and future commercial and government launch market.