

Delta II 7326 - 10



Boeing's Delta II, one of the world's most successful expendable space launch vehicles, was an updated version of the Thor-Delta series that first flew for NASA in 1960. In the early 1980s, NASA halted procurement at Delta 183 after shifting all payloads to the Space Transportation System.

To create Delta II for the U.S. Air Force Medium Launch Vehicle (MLV) program after the 1986 Challenger accident, McDonnell Douglas had to restart Delta production. The new rocket's first stage was stretched 3.66 meters and its payload fairing was widened. The ultimate Delta II version, which did not appear until 1990, was boosted by more powerful solid rocket motors and a more powerful first stage motor. Delta 184, the first Delta II, launched GPS 14 on Valentine's Day, 1989.

The Delta II family used a four-digit system to generate its technical names:

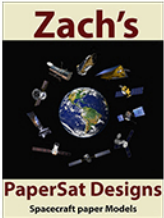
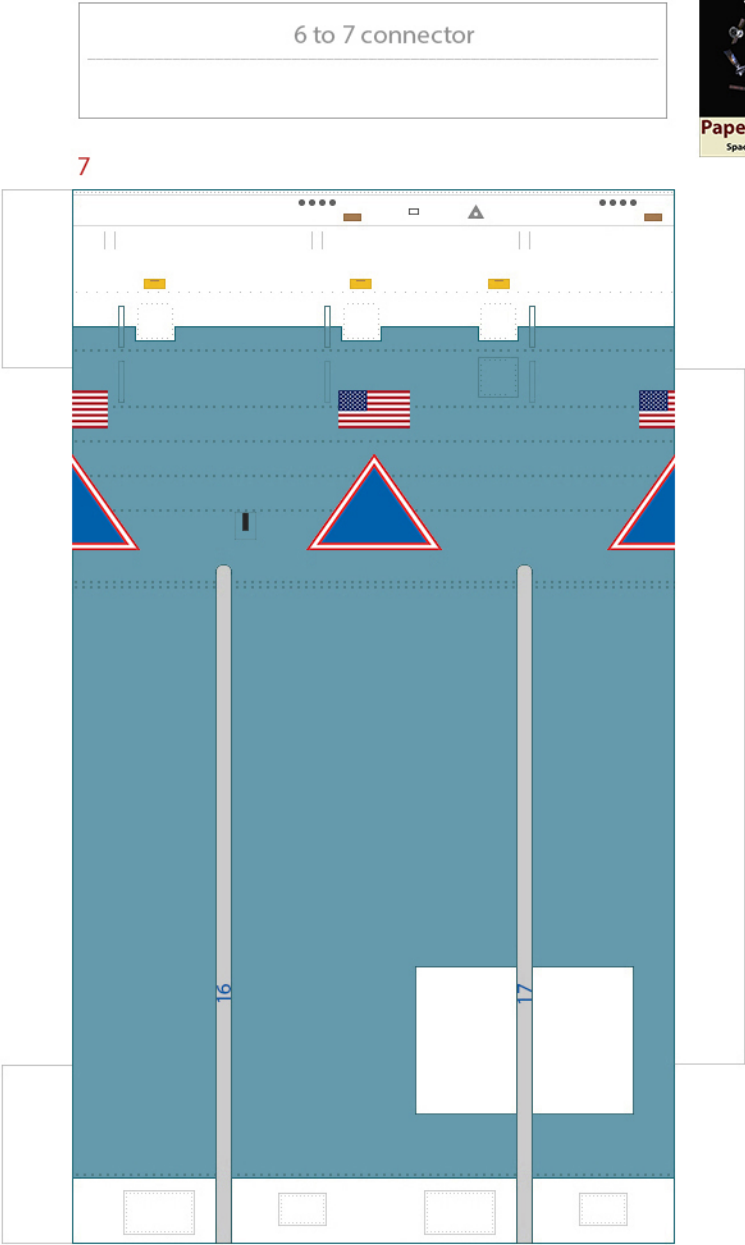
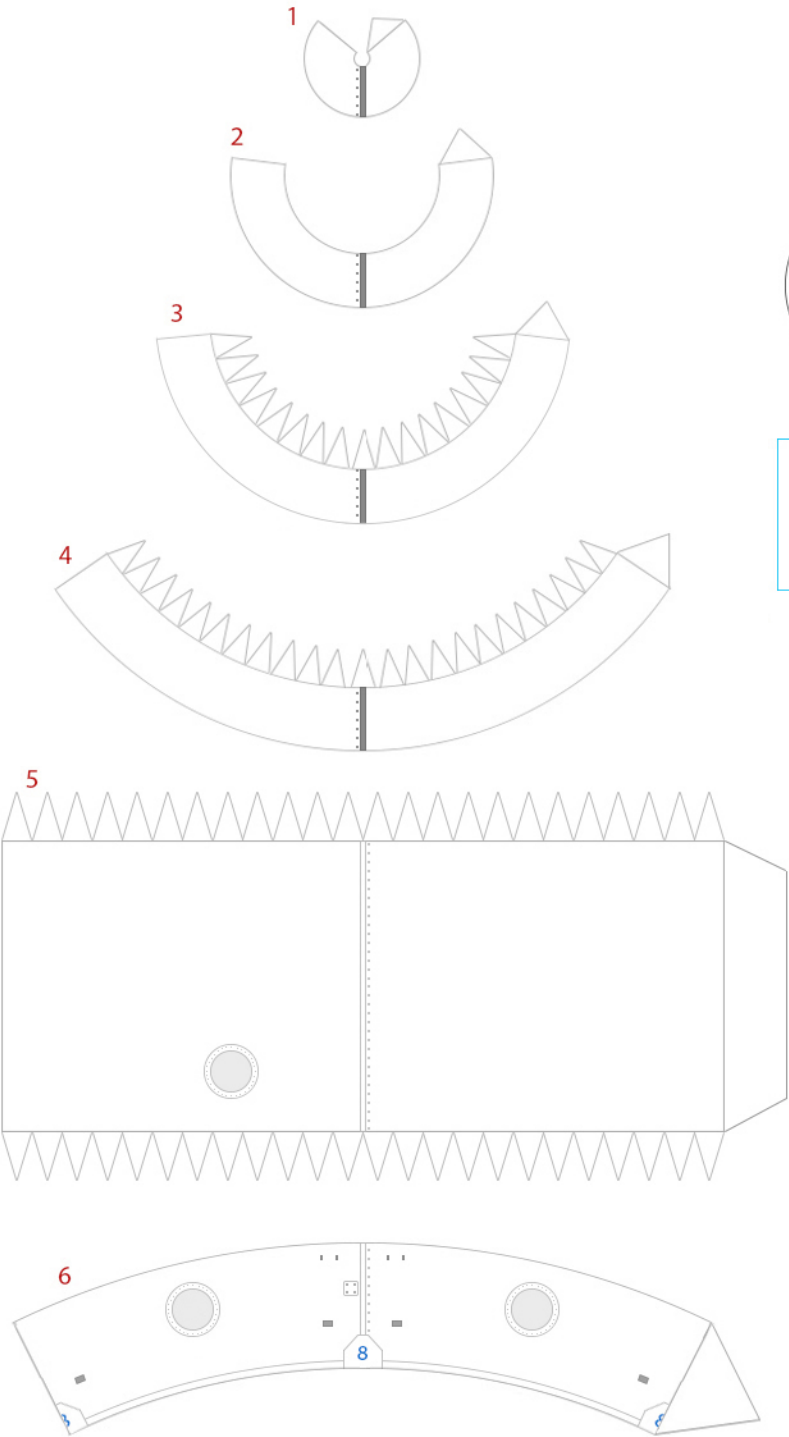
- ☒ The first digit was either 6 or 7, denoting the 6000- or 7000-series Delta.
- ☒ The second digit indicated the number of boosters. Most Delta II rockets flew with 9 boosters, but some flew with 3 or 4.
- ☒ The third digit was always 2, denoting a second stage with an Aerojet AJ10 engine. Only Deltas prior to the 6000-series used a different engine, the TR-201.
- ☒ The last digit denoted the third stage. 0 denoted no third stage, 5 indicated a Payload Assist Module (PAM) stage with Star 48B solid motor, and 6 indicated a Star 37FM motor.
- ☒ An H following the four digits denoted that the vehicle used the larger Delta III GEM 46 boosters. The Heavy variant could be launched only from Cape Canaveral (as Vandenberg's pad wasn't modified to handle the larger SRBs), and was retired with the closure of that launch site in 2011.
- ☒ Numbers and letters following those indicate the type of fairing. -9.5 means that the vehicle had a 9.5 ft (2.9 m) diameter fairing, -10 means an aluminum 10 ft (3.0 m) diameter fairing, -10C means a composite 10 ft (3.0 m) diameter fairing, and -10L indicates a lengthened 10 ft (3.0 m) diameter composite fairing. In some early Delta II flights, an 8-foot diameter fairing (from older Delta rockets) was flown, and those vehicles had a -8 designation

If 9 solid rocket boosters were used, only six were ignited at launch. After about a minute, once the first six were depleted, three air-start motors would ignite for another minute and the ground-start motors would separate. The air-start motors had nozzles optimized for high-altitude as they operated mostly in a near-vacuum during the flight.

If only 3 or 4 boosters were used, all were ignited on the ground and jettisoned at the same time.



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7 to 10 connector

