

Next Generation Launch System

A New American Launch System for National Security

FACT SHEET



Overview

Orbital ATK is fully committed to developing a new family of intermediate-and large-class space launch vehicles capable of launching national security, science and commercial payloads. This new launch system expands the range of Orbital ATK's current, flight-proven fleet of space launch vehicles, from small-class Pegasus and Minotaur to medium-class Antares rockets, by adding the capability to launch intermediate and heavy payloads.

The robust architecture of Orbital ATK's new launch system covers all phases of design, production and launch operations. Common subsystems with Orbital ATK's other programs enable synergies that reduce technical risk and provide cost savings to customers. In addition, commonality results in greater stability for the company and therefore for customers when launch rates fluctuate.

Together, Orbital ATK and the Air Force are investing more than \$200 million in the new launch system between 2015 and 2017. Milestones accomplished to date include successful Critical Design Reviews of the first and second stages, complete refurbishment of the rocket motor production facility, production and installation of tooling, manufacture of the first development hardware, and establishment of an agreement with NASA to utilize the launch facilities at Kennedy Space Center.

The next phase of the program is expected to commence when the Air Force awards Launch Services Agreements. The team plans to move from the design phase to manufacturing in 2019, with the first certification test flight in 2021.

FACTS AT A GLANCE

- Capable of launching 5,500 – 8,500 kg geosynchronous transfer orbit (GTO) and 5,250 – 7,000 kg geostationary equatorial orbit (GEO) with launch capability from both east and west coast launch facilities
- Utilizes systems common with other Orbital ATK rockets, resulting in lower technical risk and cost savings to customers
- Leverages mature, flight-proven technologies used on Orbital ATK's 100+ successful space launch missions
- 12-foot-diameter solid rocket motors draw on the company's Space Shuttle and Space Launch System booster experience
- First and second stages successfully passed Critical Design Reviews

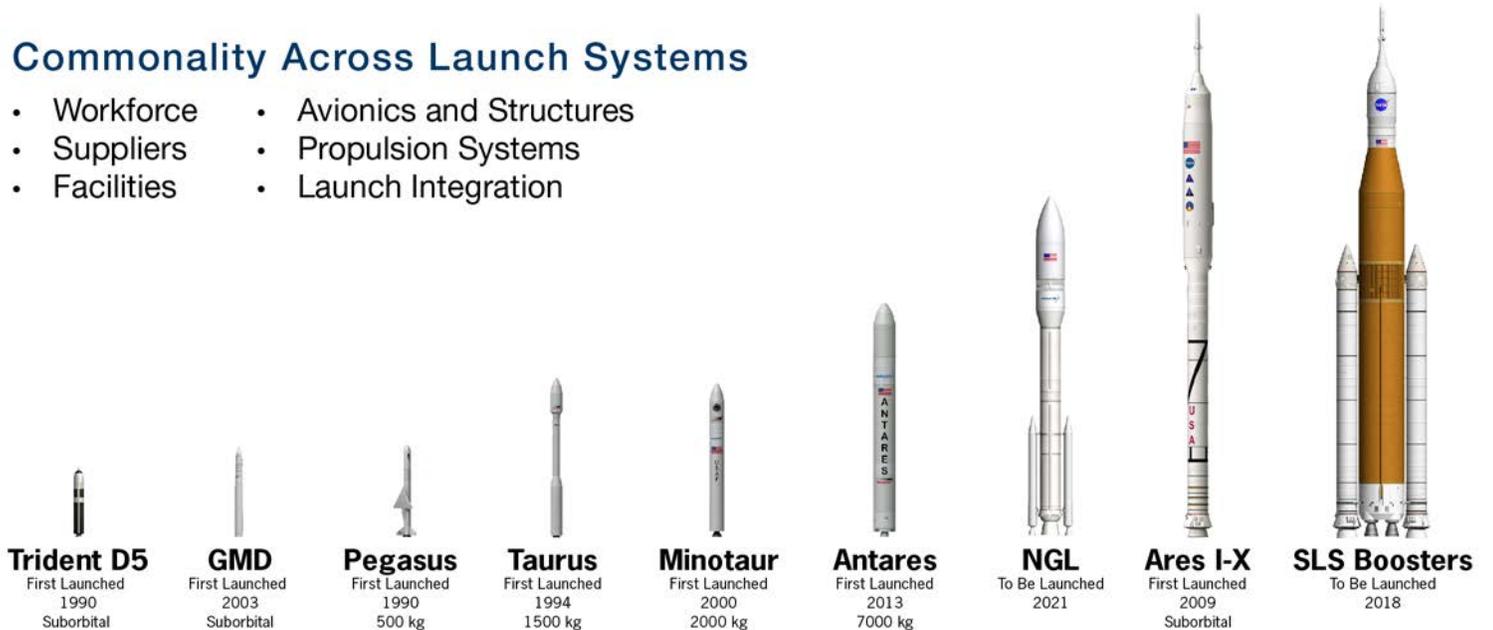
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Vehicle Configuration	500 Series	500XL Series
Payload Fairing	5 x 15m	5 x 15m or 5 x 20m
Payload Capacity	5,500 - 8,500 kg (GTO)	5,250 - 7,000 kg (GEO)
Stage 3	Cryogenic	Cryogenic
Stage 2	CASTOR [®] 300	CASTOR [®] 300
Stage 1	CASTOR 600	CASTOR 1200

Commonality Across Launch Systems

- Workforce
- Suppliers
- Facilities
- Avionics and Structures
- Propulsion Systems
- Launch Integration



Trident D5

First Launched
1990
Suborbital

GMD

First Launched
2003
Suborbital

Pegasus

First Launched
1990
500 kg

Taurus

First Launched
1994
1500 kg

Minotaur

First Launched
2000
2000 kg

Antares

First Launched
2013
7000 kg

NGL

To Be Launched
2021

Ares I-X

First Launched
2009
Suborbital

SLS Boosters

To Be Launched
2018

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