

MLV

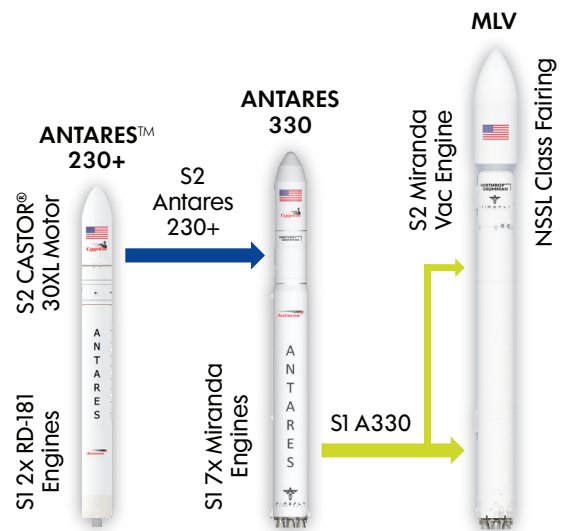


MEDIUM LAUNCH VEHICLE

Firefly Aerospace and Northrop Grumman are co-developing a new medium launch vehicle (MLV) that combines the best flight-proven technologies, systems, and mission experience from both companies.

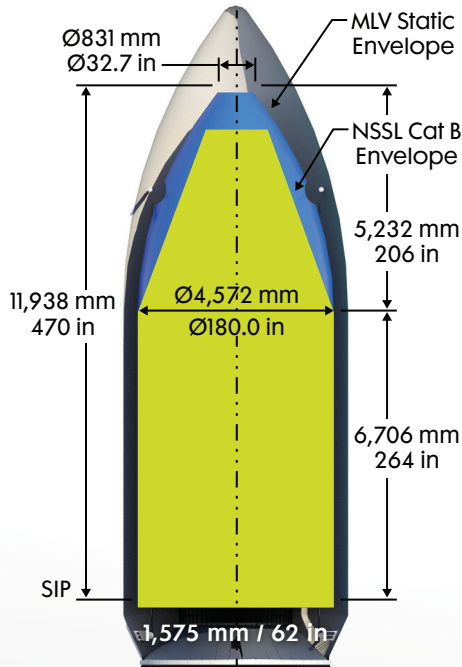
KEY BENEFITS

- ✓ Fills a void in the underserved medium-lift market.
- ✓ Supports commercial, civil, national security, and international launch markets.
- ✓ Delivers to customers' preferred orbits with competitive pricing.
- ✓ Lower cost and increased performance.
- ✓ Provides greater launch schedule availability from Wallops Island.



MLV is an evolutionary successor to the Antares launch vehicle, offering a significant leap in power, performance, and payload capacity.

BUILT ON SUCCESS OF ANTARES AND ALPHA



PAYLOAD ACCOMMODATIONS

FAIRING DIAMETER	5.4 m outer diameter
ENVELOPE DIAMETER	4,572 mm / 180 in
ENVELOPE HEIGHT	11,938 mm / 470 in
INTERFACES	Up to 4,000 mm / 157 in
STANDARD	1,575 mm, 2,624 mm

MLV offers a 5-meter class payload fairing that can be customized based on customer needs.

PAYLOAD PERFORMANCE

LEO, 200 KM	16,300 kg
GTO	3,200 kg
TLI	2,300 kg

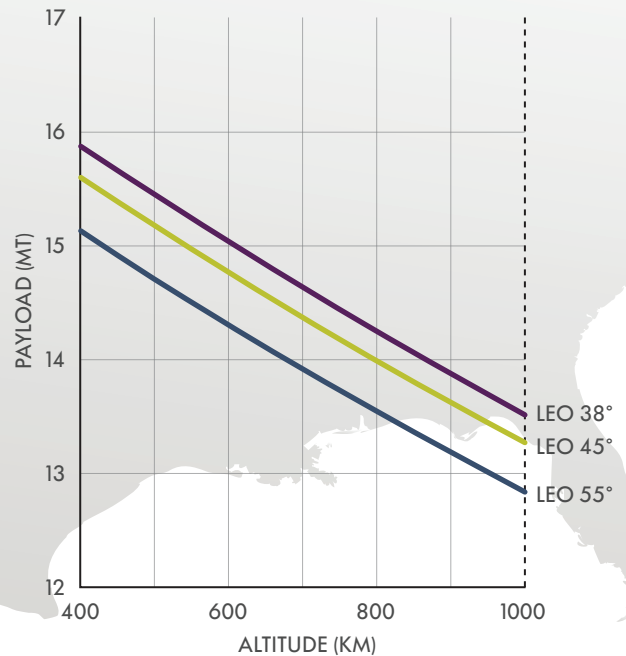
ARCHITECTURE

VEHICLE LENGTH	55.7 m / 182.7 ft
VEHICLE STAGES	2

PROPULSION

PROPELLANT	Liquid Oxygen / RP-1
PROPELLANT FEED	Turbopump
STAGE 1 ENGINES	7x Miranda
STAGE 1 THRUST	7,161 kN / 1,610,000 lbf vac.
STAGE 2 ENGINE	1x Miranda Vacuum
STAGE 2 THRUST	890 kN / 200,000 lbf

WALLOPS LAUNCH PERFORMANCE



POINTS OF CONTACT

Northrop Grumman	Firefly Aerospace
Nicole Jordan	Eric Salwan
425-306-6499	216-533-1301
nicole.jordanmartinez@ngc.com	launch@fireflyspace.com

