ESPA AT A GLANCE

REVOLUTIONIZING THE WAY TO SPACE

THE ESPA FAMILY

Standard ESPA



24in tall
6 Ports - 15in Diameter
257kg per Port

ESPA Heavy



24in tall
6 Ports - 15in Diameter
450kg per Port

ESPA Grande



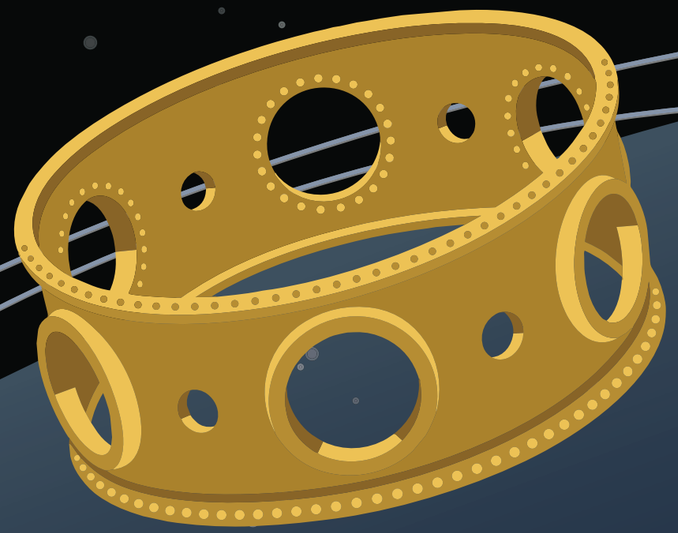
42in tall
4 Ports - 24in Diameter
700kg per Port

CORE BENEFITS

- Cost Savings
- Rideshare Enabler
- Proven Heritage

50+
ESPAs Delivered

200+
Spacecraft Supported

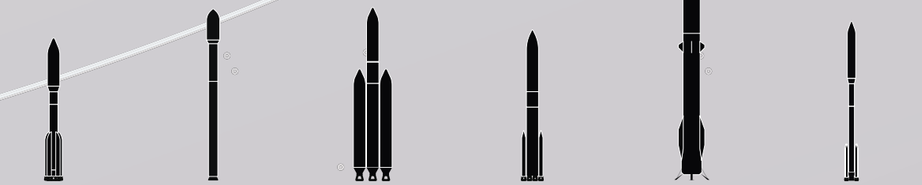


LUNAR
LCROSS

EARTH
LEO | MEO | GEO
STP-1
DSX
EAGLE
Orbcomm OG2
SSO-A
ESPAStar™

MARS
ESCAPADE

LAUNCH-VEHICLE COMPATIBILITY



Atlas V	Falcon 9	Delta Iv	Vulcan	New Glenn	OmegA
ULA	SpaceX	ULA	ULA	Blue Origin	Northrup Grumman

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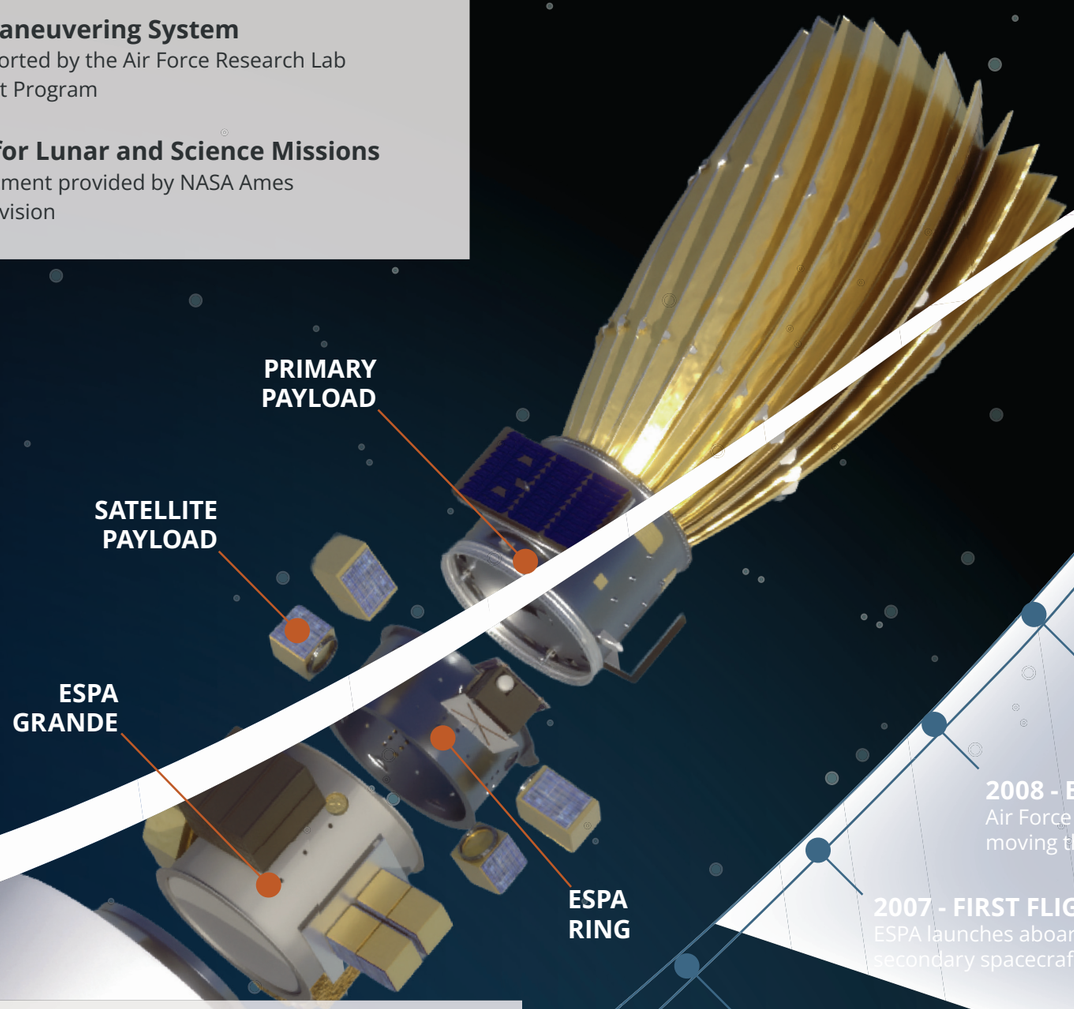
HOW **ESPA** WORKS AND WHERE IT'S FIRED

REVOLUTIONIZING THE WAY TO SPACE

DEVELOPMENT/CAPABILITIES

ESPA Orbital Maneuvering System
Development supported by the Air Force Research Lab and DoD Space Test Program

ESPA Variants for Lunar and Science Missions
Sponsored development provided by NASA Ames Small Spacecraft Division



MISSIONS ENABLED

COMMERCIAL · DEFENSE · SCIENCE · CONSTELLATIONS

2026 - BUILDING ON 25 YEARS
ESPA's proven architecture continues to evolve as Moog advances adaptable payload integration for future exploration and defense missions.

2021–2023 - SPACE FORCE SERVICE
Three LDPE missions expand ESPA's role in geosynchronous orbit, advancing space awareness, weather, laser communications, and nuclear-detection capabilities.

2018 - PROPULSIVE ESPA
EAGLE performs more than 500 experiments, transforming ESPA from a passive adapter into a maneuverable, operationally relevant spacecraft platform.

2014–2015 - SCALABLE ARCHITECTURE
Stacked ESPA Grande rings deploy 17 ORBCOMM satellites, demonstrating scalable constellation launch and supporting Falcon 9's first booster landing.

2009 - LUNAR DISCOVERY
The ESPA-based LCROSS spacecraft helps confirm water near the Moon's south pole, expanding ESPA's role into landmark space science.

2008 - ESPA STANDARD SERVICE
Air Force policy establishes ESPA as a low-cost, reliable launch service, moving the technology from experimental to standard capability.

2007 - FIRST FLIGHT
ESPA launches aboard Atlas V on STP-1 and successfully deploying four secondary spacecraft and validating the modern U.S. rideshare model.

2002 - FLIGHT QUALIFIED
ESPA qualifies for Atlas V and Delta IV, proving six small satellites can safely rideshare without compromising the primary mission.

2001 - THE ESPA RING IS BORN
January 18: The final ESPA Ring design passes Critical Design Review, establishing a multi-port architecture that becomes a global small satellite rideshare standard.

2004-2021 ESPAsat TAKES SHAPE
DSX used ESPA as its spacecraft bus [illegible] radiation environment in Medium [illegible] establishing a model for [illegible]

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