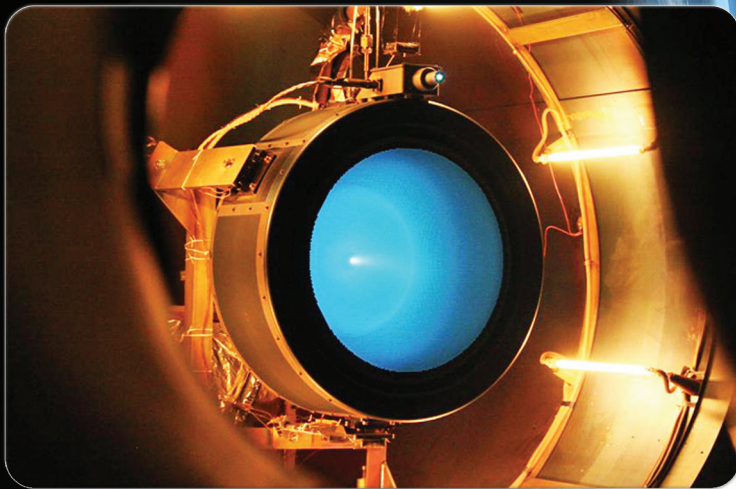


Advanced NEXT

High Thrust Configuration of NASA's Evolutionary Xenon Thruster



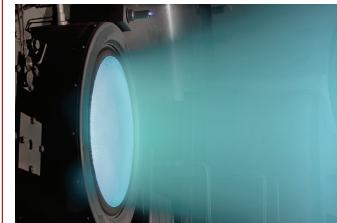
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The Advanced NEXT thruster, currently in development with NASA and the U.S. Space Force, is a high-thrust variant of NASA's Evolutionary Xenon Thruster – Commercial (NEXT-C). The Advanced NEXT system, including a power processing unit in development with our partner ZIN Technologies, will operate at over 7.6 kW input power with a thrust of 327 mN at 2900 s specific impulse. The increased thrust will enable a new range of capability for faster orbit transfers in near-Earth and cis-lunar operations, while maintaining high total impulse for high delta-V missions and high specific impulse to conserve propellant mass.

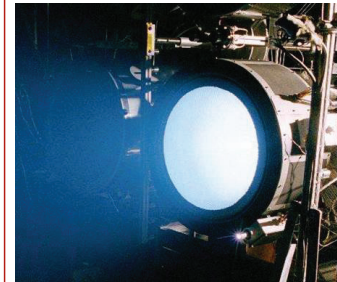
System Performance

Input Voltage Range	95 V – 105 V
Total Impulse	> 29.4 MN-s (target)
System Efficiency	Up to 0.63 at 7.9 kW input power
Mass	< 50 kg (not including XFC)
Life Capability	> 15 yrs



Ion Thruster

Propellant	Xenon
Mass	< 14 kg
Envelope	700 mm (diam) X 480 mm (height)
Low Power Performance	73 mN, 2840 s (1.94 kW input to PPU)
High Isp Performance	299 mN, 3370 s (7.87 kW input to PPU)
High Thrust Performance	327 mN, 2900 s (7.66 kW input to PPU)
Thruster Efficiency	Up to 0.67 at 7.9 kW input power



Power Processing Unit

Mass	< 36 kg
Envelope	410 mm X 510 mm X 140 mm
Efficiency	> 93.5% (at 7.9 kW input power)
Command Interface	RS-485
Input Power	1.9 kW – 7.9 kW
Features	Flexible, individual power supply commands, monitoring and automated fault protection, continuous throttling over wide range

