

All critical component technologies are at TRL 5/6

BHL™ Composite Cryotanks

- Ultra-low mass cryogenic propellant storage
- Validated 75% mass savings



- 5th generation technology
- Full-scale prototypes fabricated and tested
- Structural load-bearing
- Demonstrated leak-tight after repeated cryo-thermal pressure cycles at high strain



SSE™ Rocket Engine

- Low-cost LOX/LCH4 rocket engine
- High efficiency injector design
- Innovative configuration resolves combustion instability risks and accelerates development

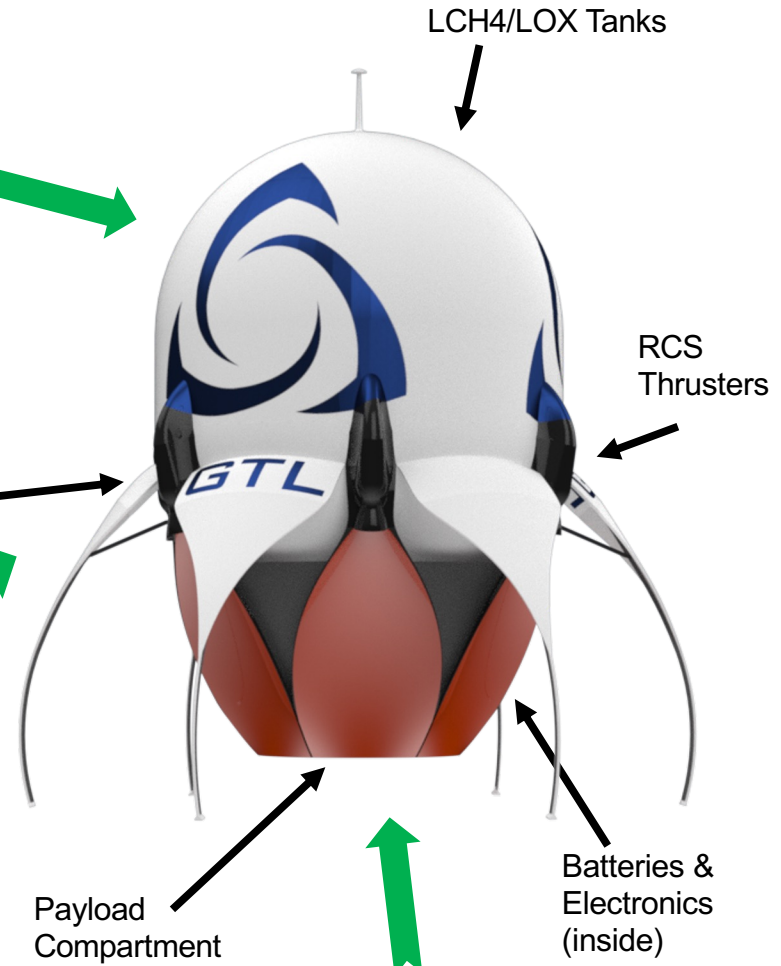


- 10 times cost reduction compared to turbopump engines
- Prototype engine fabricated and tested



Nautilus SUV

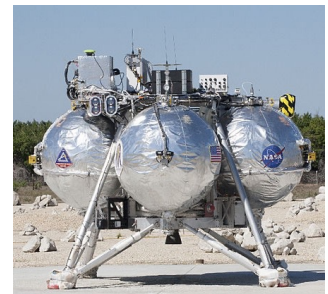
- Nautilus 10 (10' dia)
 - 250 kg to LEO
- Nautilus 38 (38' dia)
 - 10,000 kg to LEO
- Nautilus 60 (60' dia)
 - 23,000 kg to LEO



NASA/EXOS Morpheus

Flight Proven Components:

- RCS Thrusters
- Valves
- C&DH
- GNC
- Power
- FSS



The Nautilus™ Space Utility Vehicle (SUV) is a high-performance **fully reusable SSTO space vehicle** capable of delivering cargo/payloads to orbit and operating in space including operating as a spacecraft and space junk removal. Nautilus achieves its performance advantage through a suite of breakthrough technologies that have achieved TRL 5/6+ from a decade of research that included support from DARPA, MDA, NASA and the Air Force. Nautilus achieves its cost advantage by leveraging the performance advantage to reduce parts count, simplify the system design and streamline launch operations.

GTL is currently building a suborbital rocket to demonstrate these technologies in a NASA Phase II STTR effort