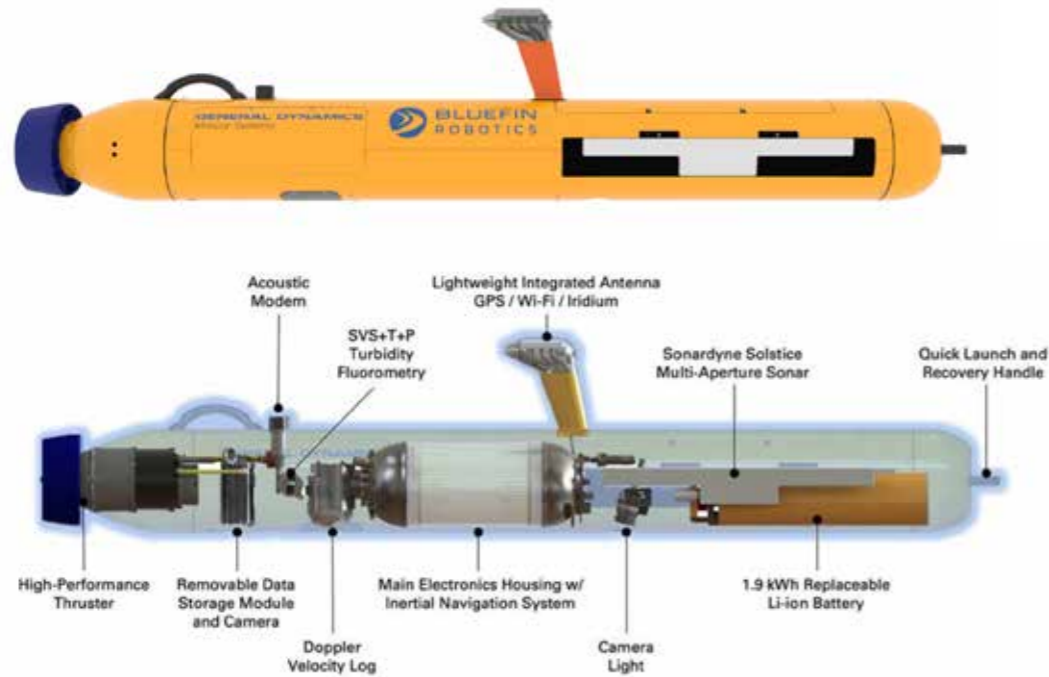


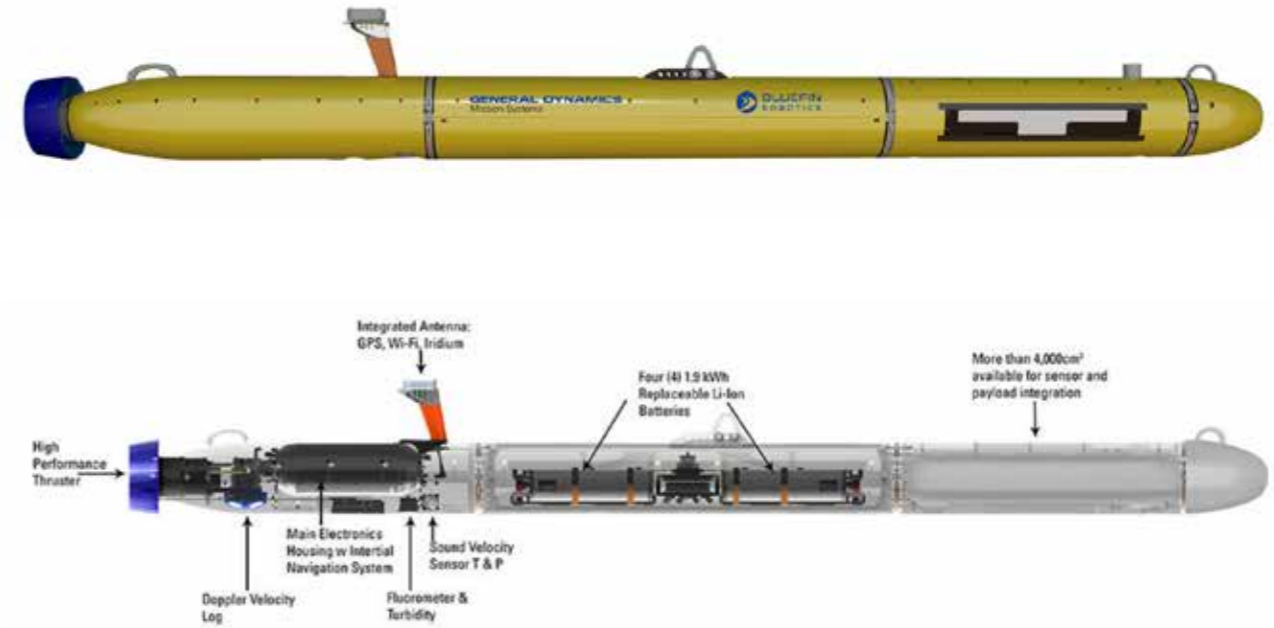
GENERAL DYNAMICS

BLUEFIN-9



| | | |
|--------------|--|--|
| H | 9.375" (23.8 cm) | ≤ 0.3% D.T. CEP 50 |
| H | 10.375" (26.4 cm) | GPS (1.0 m CEP 50) |
| L | 95.2" (241.8 cm) | Dedicated Inertial Navigation System |
| Weight | 155 lb. (70 kg) | Doppler Velocity Log |
| Buoyancy | fresh and salt water | Solstice 3000 Multi-aperture sonar |
| Lift Points | Nose and Aft carrying handles for two-man lift | Removable Data Storage Module (RDSM) w/ Camera |
| Depth Rating | 656' (200 m) | Turbidity and Fluorometer |
| Energy | 1.9 kWh rechargeable Li-Ion battery | Sound Velocity Sensor + Temperature + Pressure |
| Recharges | six hours | Antenna |
| Endurance | 8hr @ 3kt | Integrated GPS, Wi-Fi, and Iridium w/ visible strobe |
| Speed | 6 knots | Communications |
| Propulsion | Gimbaled, ducted thruster | Ethernet, Wi-Fi, Iridium, Acoustic Safety Systems |
| Navigation | Real-time accuracy | Ground Fault Detection, Leak Detection |

BLUEFIN-12



| | | |
|--------------|--|---|
| Diameter | 12.8" (32 cm) | Dedicated Inertial Navigation System |
| Length | 15.8' (4.83m) | Doppler Velocity Log |
| Weight | 550 lb (250 kg)-with integrated survey package | Sonardyne Solstice Multi-aperture sonar |
| Buoyancy | Buoyant in Fresh and Salt Water | Module (RDSM) w/ Camera |
| Lift Points | Nose, Mid-section, Aft Lift-Points | Turbidity and Fluorometer Sensor |
| Depth Rating | 656' (200 m) | Sound Velocity |
| Battery | Four (4) 1.9 kWh r rechargeable Li-Ion | |
| Endurance | 24 hr @ 3 kt 36 hr @ 2 kt 4 hr Transit; 20 hr | Antenna |
| Survey | | Integrated GPS, Wi-Fi, and Iridium w/ visible strobe |
| Speed | Up to 6 knots | Communications |
| Propulsion | Gimbaled, ducted thruster for propulsion and control | Ethernet, Wi-Fi, Iridium, Acoustic Safety Systems |
| Navigation | Real-time accuracy ≤ 0.1% D.T. CEP 50 GPS (1.0 m CEP) | Safety Systems |
| | | Ground Fault Detection, Leak Detection, Independently Powered Emergency Operations System |



BLUEFIN-21

| | | | | | |
|------------------------|--|------------|---|-------------------|--|
| Diameter | 21 in (53 cm) | | | | |
| Length | 16.2 ft (493 cm) | Propulsion | pressure-tolerant Gimballed, ducted thruster for propulsion and control | Communications | RF, Iridium and acoustic; Ethernet via shore power cable |
| Weight (Dry) | 1,650 lb (750 kg) | | | | |
| Buoyancy ~ positive | 16 lb (7.3 kg) net | | | | |
| Lift Points | 1 (located mid- vehicle) | Navigation | Real-time accuracy $\leq 0.1\%$ of D.T. CEP 50 INS, DVL, SVS and GPS USBL tracking with vehicle | Safety Systems | Fault and leak detection, dropweight, acoustic tracking transponder, strobe, RDF and Iridium |
| Depth Rating | 14,763 ft (4,500m) | | | | |
| Endurance | 25 hours @ 3 kts with standard payload | | | | |
| Speed | Up to 4.5 knots | | | | |
| Energy | 13.5 kWh | Antenna | position updates Integrated — GPS, RF, Iridium and strobe | Standard Payloads | EdgeTech 2200-M 120/410 kHz side scan sonar (option: EdgeTech 230/850 kHz) |
| Nine | 1.5 kWh battery packs Lithium-polymer, | | | | |