WRAITH AUSV

CAPABILITY BRIEF

Persistent. Resilient. Affordable.

A 34-foot hybrid diesel-electric AUSV delivering days-to-weeks of autonomous maritime presence — built on a combat-proven hull with U.S.-manufactured propulsion.

THE PROBLEM

Maritime domain awareness demands continuous coverage, but manned platforms cost $50K–$200K/day. Existing unmanned systems either lack endurance for multi-day missions or sea-keeping for open-ocean operations. The 25–40 foot platform class is an endurance desert — no current solution delivers days-to-weeks of autonomous presence at this scale. Wraith fills this gap.

KEY SPECIFICATIONS

Parameter	Value
Length / Beam	34' x 10' (9m x 3m)
Hull	Tideman Marine HDPE — unsinkable, zero corrosion, field-repairable
Sprint Speed	35+ knots (twin OXE 300hp diesel outboards)
Loiter Speed	3–8 knots (dual electric water jets)
Diesel Endurance	48+ hours (Tideman validated)
Hybrid Endurance	Days to weeks on station (diesel-electric cycling)
Sea State	Sea State 5 operational
Payload	300+ kg modular mission bay
Power	48V DC split-bus, LiFePO4 batteries, dual-redundant BMS
Stabilization	Dometic DG3 gyro (48V native, 16.5 min spool-up)
C2	Sea Machines SM300 baseline; optional C4ISR upgrade available
Communications	5-mode contested: MANET > Troposcatter > LEO SATCOM > L-band > HF
Autonomy	UMAA 6.0, COLREGS-compliant, 5 autonomy levels, GPS-denied capable
Compute	NVIDIA Jetson Thor (1035 FP8 TFLOPS)
Interoperability	STANAG 4817, Link 16 / VMF

SDVOSB | Veteran-Owned | U.S. Supply Chain | OXE Marine Distributor

MISSION SET

Mission	Capability
Persistent ISR	7–14 day on-station surveillance with EO/IR, radar, AIS
Force Protection	Picket/screening for high-value units, harbor security
ASW	Towed passive sonar array (GeoSpectrum TRAPS-USV)
EW/SIGINT	Signals collection (CRFS RFeye Node, Sea State 5 rated)
C-UAS	Drone detection, tracking, and defeat
AUAV	Tethered drone (Elistair Orion 2, 50hr flight, 100m altitude)
Comms Relay	Mobile communications node extending tactical network

Six hot-swappable mission packs install in the standardized mission bay. Swap time < 2 hours. Standardized power, data, and structural interfaces.

WHY WRAITH

- **Endurance** — Hybrid diesel-electric delivers days-to-weeks on station. No comparably-sized platform matches this.
- **Survivability** — HDPE hull is unsinkable, corrosion-immune, and field-repairable. Split-bus power with dual-redundant everything.
- **Affordability** — Commercial hull and COTS propulsion deliver significant cost advantage over custom mil-spec AUSV platforms. $1.7K–$3K/day operating cost vs. $50K–$200K/day for manned vessels.
- **Interoperable** — STANAG 4817, Link 16, UMAA 6.0. Works with NATO and allied forces out of the box.
- **Proven Components** — Tideman hull + OXE 300 combination validated in the VENOM sUSV program for NAVSEA.
- **U.S. Supply Chain** — OXE manufactured in Georgia (Spartan X is distributor). Hull manufactured in Florida and Wisconsin.

ACQUISITION

Model	Description
GOCO	Government owns the platform; Spartan X provides operation, maintenance, and sustainment
COCO	Spartan X owns and operates — customer purchases maritime domain awareness as a service
SDVOSB Sole-Source	Up to $5M (services) / $8.5M (manufacturing)
MUSV Marketplace	Aligned with Navy's new unmanned maritime acquisition pathway

HULL FAMILY ROADMAP

Variant	Hull Size	Role
Wraith Scout	20 ft	Low-cost ISR, expendable screening, high-volume procurement
Wraith	34 ft	Multi-mission AUSV — the baseline platform
Wraith Strike	46 ft	Extended payload, ordnance-capable configurations

PROGRAM STATUS

- U.S. supply chain partnerships established — hull, propulsion, compute, communications
- System Description Rev J — complete
- Full documentation suite — SDD, BOM, ConOps, ICD, TEMP, Performance Specification
- Ready for prototype build

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