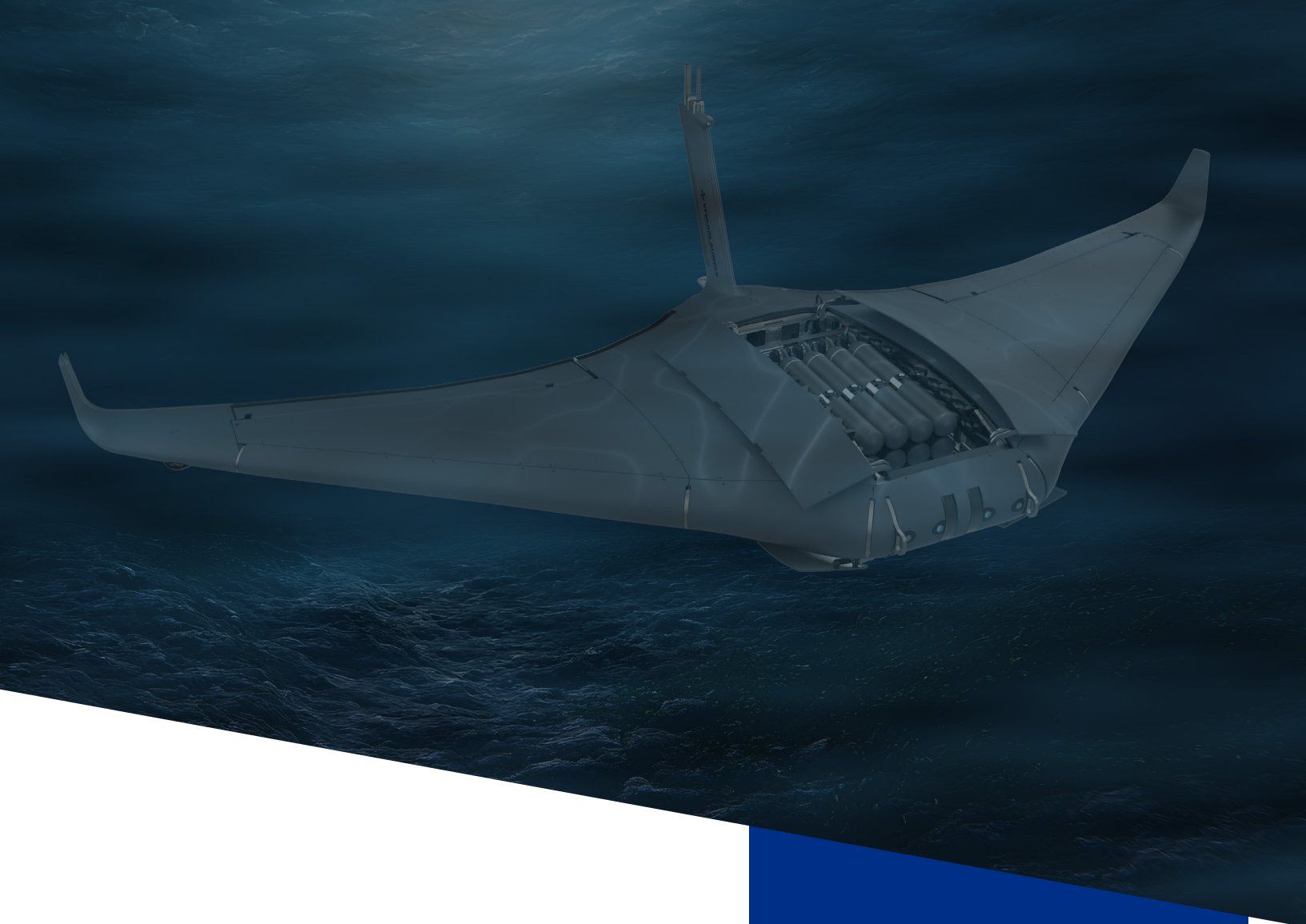




RANGER / GRay UUVs

UNMATCHED STEALTH, RANGE, AND PAYLOAD CAPACITY

General Atomics Electromagnetic Systems (GA-EMS) unmanned underwater vehicles (UUVs) deliver scalable, long-range, low-observable capability optimized for covert operations in contested maritime environments. Leveraging a blended-wing architecture, the platforms achieve long-duration endurance while maximizing internal payload volume.

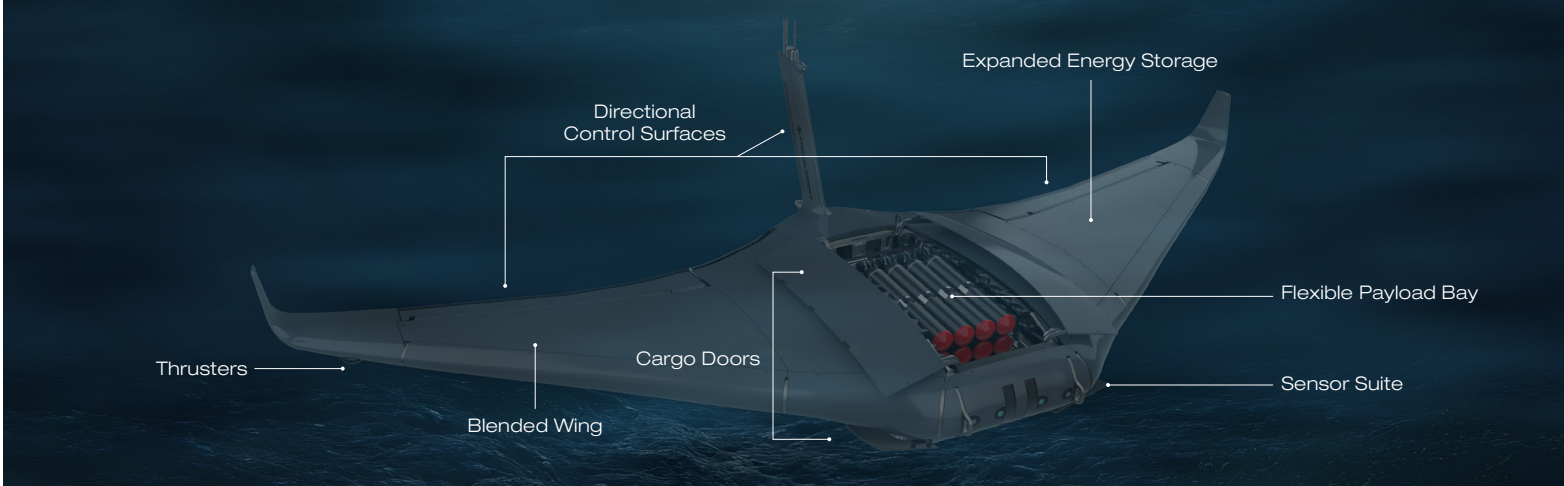
A modular, open-architecture design enables rapid integration of mission payloads, autonomy software, and customer-defined capabilities as operational requirements evolve.

The compact **GA-Ray (GRay)** and larger **RANGER** platforms scale in size, endurance, and payload capacity to support a broad range of intelligence, surveillance, reconnaissance, strike, and underwater warfare missions.

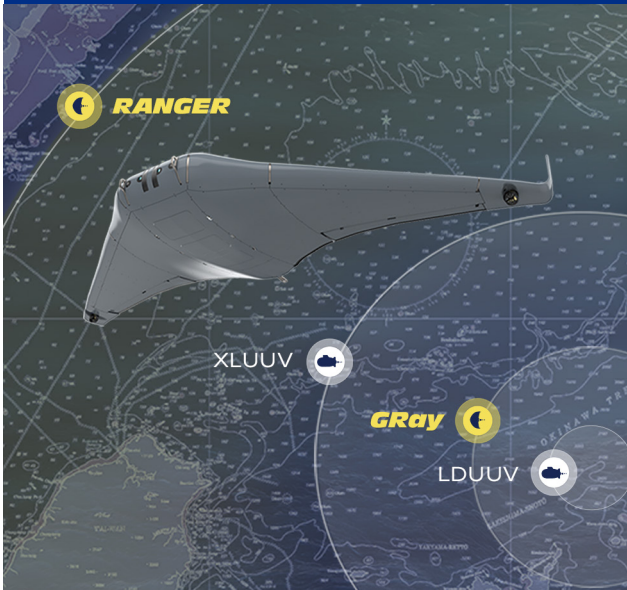
Low-observable operations in
Anti-Access / Area Denied (A2 / AD)
environments

Strategic reach with unmatched
long-range endurance

Scalable, mission-tailorable
payload capacity



**RANGER and GRay
are GLIDE-BASED
RECONNAISSANCE and
EFFECTS SYSTEMS**



**RANGER and GRay PROVIDE
PERSISTENT PRESENCE
ACROSS VAST MARITIME
AREAS**

KEY BENEFITS

GA-EMS UUVs deliver a force-multiplying underwater capability that fills critical gaps across the UUV portfolio. By extending mission reach, endurance, and payload flexibility, they support distributed underwater operations and Navy Hedge Force objectives while reducing reliance on attack submarines (SSNs).

Low-Observable Operations in A2/AD Environments

- Near-silent propulsion and low acoustic signature
- No mast, snorkel, or routine surface exposure, reducing detection vectors
- Utilizes Inertial Navigation System (INS), Doppler Velocity Log (DVL), optical communications, and emerging quantum-enabled sensors for precise navigation
- Operationally effective in GPS-denied environments

Strategic Reach and Endurance

- Tens of thousands of nautical miles of endurance, depending on configuration
- Blended-wing architecture maximizes hydrodynamic efficiency and energy utilization
- Ultra-low-power glider physics enable long-range operations with minimal logistics

Scalable, Mission-Tailorable Payload Capacity

- Supports Intelligence, Surveillance, and Reconnaissance (ISR) payloads, acoustic and quantum sensors, mine deployment and strike packages
- Enables rapid integration of mission-specific payloads and technologies
- RANGER provides maximum endurance and payload capacity, while GRay offers a compact solution for missions requiring reduced size and volume

	RANGER	GA-RAY = GRay
Category	XLUUV	LDUUV
Size	100-135 ft	22 ft
Endurance	Multi-Year	Weeks-Months
Capacity	Extra Large	Medium-Large



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