

You cannot defend what you cannot see

by John Mustin, *President, Saildrone, and retired Vice Admiral, U.S. Navy*

Flanked by NATO allies and partners, the Baltic Sea is one of the world’s most strategically important waterways. It is a vital corridor for commerce, a flash point of great-power competition, and home to the undersea pipelines & cables that power Europe’s energy and digital economies. I served nearly three and a half decades in the U.S. Navy – including experiences planning BALTOPS as Deputy Commander of U.S. 2nd Fleet and later as Commander of Expeditionary Strike Group 2 – during which I witnessed firsthand that a free and stable Baltic is essential to European security. I also observed during military planning sessions that the region was exposed. Its narrow geography, proximity to adversaries, and dependence on critical infrastructure make it acutely vulnerable to disruption.

Today, traditional approaches – periodic patrols and episodic surveillance – no longer deter or defeat the threats facing our NATO partners. Securing the Baltic now demands capabilities that are persistent, adaptive, and intelligent. That belief, shaped by decades at sea and sharpened by today’s evolving threat environment, is what brought me to Saildrone. Persistent and autonomous systems like ours are no longer optional; they are foundational to credible maritime defense. In a region defined by proximity, speed, and complexity, we provide the continuous presence and real-time intelligence needed to close critical gaps. Without it, Europe’s security architecture will remain incomplete.

Spotless awareness + real-time intel + persistent visibility

The Baltic is a dense, contested waterway: a crossroads of constant commercial traffic, unconventional threats, and adversaries eager to exploit any lapse in awareness. Traditional patrols inevitably

leave gaps – and in those gaps, risk grows. That’s why maritime domain awareness is the foundation of security in the region. Baltic nations must maintain a persistent, comprehensive picture of what’s happening on, above, and below the surface. As one regional policymaker put it, “awareness is deterrence,” and that awareness is not a luxury; it is the first layer of defense.

Persistent, autonomous, and real-time awareness closes the blind spots that manned fleets cannot. Operating continuously 24/7/365 with mission-tailored sensor packages, Saildrone’s vehicles patrol without crews or refueling, powered by wind and solar energy. Deployed in coordinated fleets, they blanket approaches, sea lanes, and choke points, extending the reach of coast guards & navies and multiplying the impact of limited assets. The result is wide-area maritime surveillance, sustained for months on end, turning the Baltic from a patchwork of uncertainty into a domain that can be monitored, understood, and defended around the clock.

But awareness is only the first step. To stay ahead of sophisticated threats, commanders must turn raw data into actionable intelligence; intel that anticipates rather than reacts, revealing hostile behavior, tracking targets across domains, and informing decisions in real time. Adversaries in the region are using irregular tactics: Russian artificial general intelligence operations are expanding, commercial vessels are being weaponized for jamming & spoofing, and the electromagnetic spectrum is being manipulated to hide intent.

To counter that, data collected from our advanced electro-optical, radar, AIS, and acoustic sensors is processed on the edge by potent artificial intelligence algorithms and machine learning models, detecting and prioritizing threats as they emerge. This enables Saildrone to expose hidden, multi-domain activity – including undersea risks – and provide decision-makers with timely, meaningful intel that stays ahead of evolving threats.

Even with persistent awareness and



Photo: Saildrone

OPERATING COST ANALYSIS

Including: crew compensation, fuel burned underway
Excluding: acquisition, maintenance, training, sustainment
Assuming: 20 nm surface (navigational) radar range

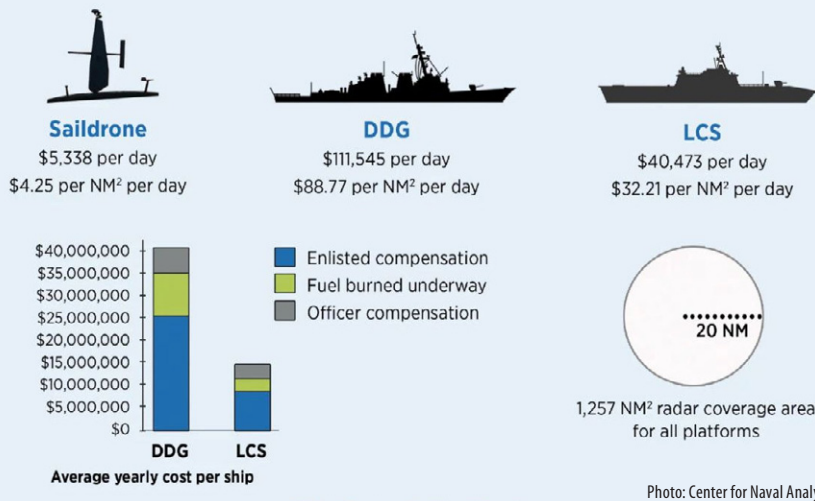


Photo: Center for Naval Analyses

real-time intelligence, though, the mission is incomplete without securing the most vulnerable part of the maritime battle space: the seabed. Europe’s prosperity and its deterrence credibility depend on critical infrastructure beneath the Baltic’s surface, where pipelines and fiber-optic cables serve as the silent arteries of its economy. Their disruption can devastate energy markets, sever communications, and fracture alliances, as seen with the Nord Stream sabotage and repeated cable interruptions. Yet these networks remain difficult to monitor, while a growing ‘shadow fleet’ manipulates AIS transponders to evade detection. These unseen lifelines need visibility; persistent visibility. Simply put, you cannot defend what you cannot see! Our vehicles patrol critical nodes continuously for months, conduct undersea surveys, detect suspicious activity, and deliver early warning before damage is done.

Farther, longer, and for less

The nature of maritime warfare is changing, and traditional fleets – built for high-end conflict – were never designed for continuous surveillance, infrastructure defense, or gray-zone deterrence. Nations now recognize that the future is hybrid: crewed ships, un-crewed platforms, and advanced sensors working together.

With over a decade of operational experience and 60,000+ cumulative days at

sea, we’ve proven our ability to go farther, last longer, and deliver the intelligence advantage needed to defend sovereignty and secure vital infrastructure. And with a variety of business models available to support our customers, Saildrone delivers this capability at a fraction of the cost of crewed assets. Rear Admiral Carlos Sardiello, Commander of the U.S. Navy’s 4th Fleet, shared an important Center of Naval Analysis study in his September 2025 U.S. Naval Institute article, [Develop the Hybrid Fleet in Southcom](#), concluding Saildrone’s cost per nautical mile of surveillance is less than 5% of that of a guided missile destroyer. By providing an unmatched range, precision, endurance, and affordability, we multiply the effectiveness of allied fleets, freeing crewed ships for high-end missions only humans can perform while delivering the persistent surveillance and domain awareness modern deterrence demands.

Baltic (at & under) sea power

Persistent, autonomous intelligence-surveillance-reconnaissance is no longer optional – it’s the backbone of modern maritime defense. Without it, the Baltic will remain a tapestry of exploitable gaps. With it, the region can be monitored, defended, and secured. By augmenting existing fleets and surveillance networks, our platforms provide actionable intelligence where and when it matters most: helping to defend sovereignty, secure commerce, and protect the infrastructure underwriting European strength.

In an era of heightened tension and gray-zone threats, Baltic nations need partners who can deliver intelligence dominance at sea. Our company’s rugged, wind- and solar-powered un-crewed surface vehicles have already sailed over two million nautical miles, from the North Sea to the Southern Ocean, proving their endurance and resilience in the harshest conditions. Now, we are ready to scale that proven capability and deliver the persistent maritime advantage the region’s security demands. ■



A former U.S. Navy Vice Admiral and C-suite technology entrepreneur, **John Mustin** brings to Saildrone over three decades of experience at the intersection of national security, emerging technology, team development, and enterprise growth. A frequent speaker, published author, early-stage start-up investor, and advisory board member, he has led large, global enterprises and managed multi-billion-dollar budgets. With a BSc in Systems Engineering from the United States Naval Academy, a Master’s in Operations Research from the Naval Postgraduate School, and an MBA from Babson College, he is an advocate for military & veteran causes, and speaks & writes regularly on national security topics & post-military service hiring practices.