

The Hybrid Navy: Getting It to Sea and Keeping It There

Maintenance and Sustainment in the Age of Maritime Autonomy

The UK is moving, deliberately and visibly, towards a Hybrid Navy in which crewed warships, aircraft and submarines are complemented by uncrewed and autonomous systems. The 2025 Strategic Defence Review placed technological superiority, integrated force design and persistent global engagement at the centre of national strategy. It emphasises the requirement for digital warfare, resilience, adaptable forces and warfighting readiness in response to an increasingly contested and volatile security environment. Recent announcements have shown that this is no longer just ambition, we are already trialling and deploying a widening range of autonomous systems and have explicitly described this direction as a move towards a Hybrid Navy.

This means the Royal Navy is increasingly capable of getting autonomy to sea. However, this is not the only challenge, the complementary question is whether the Royal Navy can **sustain** autonomous capability at sea, on task and operationally useful over time.

The central question posed by Expleo is therefore simple:

“How can the Royal Navy effectively support and sustain a large and diverse Hybrid Navy?”

Current thinking often assumes that uncrewed systems will generate advantage through independence comprising of longer endurance, lower manpower demand and reduced risk to life. Those assumptions are true, but maritime systems do not cease to require support because they are autonomous. They still consume energy, discharge payloads, degrade mechanically, and require calibration, update, patching, and re-configuration. The uncrewed system still requires handling and launch, and their recovery and repair still create operational friction. In maritime conditions, where corrosion, sea state, fouling, communications disruption and dispersed operating geometry are normal rather than exceptional, those **sustainment** demands accumulate quickly.

If that reality is not addressed, the result will be a force that is impressive in demonstration but unsustainable in operation. Assets will deploy but not persist. Fleet commanders will have access to autonomous mass on paper but not in practice. Availability will fall, logistic demand will rise, minor defects will become mission failures, and the apparent efficiency of uncrewed systems will be offset by hidden **sustainment** penalties. In that scenario, the Hybrid Navy risks becoming a concept that can be shown at sea but not reliably kept there.

Expleo therefore proposes an evolution in emphasis that builds on existing advances in autonomy and platform capability: extending focus from deployment to endurance, from autonomy as a platform attribute to **sustainment** as an integrated operational system, and from a recovery-based support model to a more forward, distributed and deliberately hybrid approach to **sustainment**.

A key part of that model is a crewed Common Support Vessel (CSV), a mobile **sustainment** node designed to support heterogeneous autonomous fleets in theatre. The CSV would not replace autonomy; it would enable military credibility. It would provide refuelling and recharging, maintenance and repair, software and mission-system updates, launch and recovery support, spares handling, data exploitation and technical intervention close to the point of need. In doing so, it would bridge the gap between the Royal Navy's growing ability to deploy autonomous systems and the operational impact of using exquisite platforms to keep them persistently available under operational conditions.

This is not an argument against the strategic direction, rather an argument for enabling and **sustaining** a Hybrid Navy. The transition will be judged not by how many autonomous systems can be trialled, procured or launched, but by whether it can be **sustained** as part of a fighting fleet. If the Royal Navy wants a Hybrid Navy that delivers maximum operational advantage, then maintenance and **sustainment** must move from the margins of the debate to its centre.

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