Proteus, the Royal Navy's unmanned helicopter takes off. Italy advances with Leonardo

Published on 09/12/2025

The Royal Navy is on the verge of the maiden flight of its first full-size unmanned helicopter. It's called **Proteus**, developed by **Leonardo** in Yeovil, and has just successfully completed ground tests: engines running, rotors moving, and systems fully operational.

Proteus is not just a simple drone: it has the dimensions of a traditional helicopter but flies without a pilot on board, guided by an operator who assigns the mission and controls its parameters within strict safety limits. Designed to operate from ships and coastal bases, it serves as a **technology demonstrator** for a future “hybrid” naval aviation, where manned and unmanned aircraft will work together.

The primary reference mission is **anti-submarine warfare**: Proteus will be able to deploy sonobuoys, scan large areas of the sea, analyze submarine acoustic signals, and send data in real-time to the command, freeing manned helicopters from the longer and more repetitive

phases of the hunt.

Proteus, the Royal Navy's unmanned helicopter takes off. Italy advances with Leonardo

The Italian role: AWHero and SW-4 Solo, the “younger siblings” of Proteus

Behind Proteus is the technology of **Leonardo**, a group with strong Italian industrial roots, which has been investing in unmanned helicopters for years. Before the British demonstrator, the same company developed two key platforms: **AWHero** and **SW-4 Solo**.

AWHero is a drone-helicopter weighing about 200 kg, already certified in Italy, designed for **maritime and coastal surveillance**: it can carry radar, electro-optical sensors, and communication equipment, and take off automatically from ships even in rough seas. It is the natural candidate to equip the new units of the **Marina Militare**, which has launched a program to equip itself with embarked drones.

The **SW-4 Solo**, on the other hand, is an “optionally piloted” helicopter: it can fly both with and without a pilot. It has functioned as a true **flying laboratory**, experimenting with procedures, software, and integration in Italian and European skies. Many of the solutions tested on these platforms have been incorporated into the advanced architectures of Proteus.

Proteus, the Royal Navy's unmanned helicopter takes off. Italy advances with Leonardo

Towards a hybrid naval air wing, also for the Italian Navy

Proteus not only marks a step forward for London but indicates a **global trend**: shifting some of the longer, riskier, or more exhausting missions to unmanned platforms, while keeping piloted helicopters for the most delicate phases and final engagement.

Italy, with the **Marina Militare** and the national industry, is moving in a similar direction. The programs on AWHero, the experience on SW-4 Solo, and participation in European unmanned projects already place the country in a prominent position today. There is not yet an “Italian Proteus” in the same weight class, but the skills to develop it—from airframes to autonomy algorithms—are already on the table.

In the future, the natural evolution will be the creation of a true **“hybrid air wing”** also on Italian ships: traditional helicopters, naval drones, and, tomorrow, perhaps a larger unmanned helicopter, a direct heir to the technologies that today make Proteus fly in the skies of the United Kingdom.

News link: https://www.royalnavy.mod.uk/news/2025/december/02/20251202-proteus-ground-running