



AW609 TILTROTOR SUCCESSFULLY COMPLETES FIRST SHIP TRIAL CAMPAIGN

News / Manufacturer



AW609 tiltrotor programme set another major industry capability milestone after its first successful ship trial, which was recently conducted with the support of the Italian Navy. From 3-12 April, the AW609 AC4 aircraft, fully representative of the final production configuration, performed demonstration trials relocating from Leonardo's facility based in Cascina Costa to Maristaer Grottaglie Naval Base. The tiltrotor, with test pilots and flight test engineers from Leonardo (supported by Italian Navy personnel for the embarked operations), took off from the base inbound from the Italian aircraft carrier (ITS CAVOUR - Navy Fleet Flagship), 20 nm offshore, showing its effective approach, stable deck landing, and touchdown capabilities.

Lorenzo Mariani, Co-General Manager of Leonardo, commented: "Fast rotorcraft technologies continue to be core to our forward-looking capability development and value-proposition in the vertical lift domain, which has been extensively demonstrated by the progress on the AW609 tiltrotor programme. The recent ship trials in Italy with the strong support of the Italian Navy, within the framework of the working group also joined by the Italian Army and Guardia di Finanza, represent an important step towards the development of government applications as we reinforce

our position to lead tiltrotor-based initiatives internationally and to meet future emerging requirements.”

Gian Piero Cutillo, Managing Director of Leonardo Helicopters, stated: “The success of these trials set a major capability demonstration milestone to show the unique advantages of tiltrotors, and particularly that of the AW609, through a combination of high performance and versatility, which remains unmatched in the vertical flight sector. This experience provides an important opportunity to appreciate benefits that can truly revolutionise a range of missions or even open new operational possibilities. We thank all of our partners in this demonstration and for the studies undertaken, we look forward to moving to the next stages of evaluation.”

During the demonstration, the AW609 provided a unique opportunity to further strengthen the awareness of the outstanding advantages of Leonardo’s tiltrotor in a dedicated maritime environment. This testifies how the world’s first tiltrotor set to achieve a civil certification meets demanding operational and safety standards. Therefore it is ideally positioned to meet a range of government and public service needs, in Italy and globally.

Integral to the demonstration phase, was an initial test campaign developed and executed in a full synthetic environment leveraging the AW609 development/engineering simulator, which is located in Cascina Costa. Digital twin applications delivered a preliminary assessment of the activities and manoeuvres, which were later performed in operation to the benefit of capability development, time reduction, safety, and sustainability. Deck landing and take-off procedures were performed in over 15 different conditions (including wind conditions), featuring straight-in and lateral approach, vertical landing, vertical take-off, and lateral exit.

The demonstration trials are the latest step taken under the activities carried out by a joint working group established in 2022 including Leonardo, the Italian Navy, the Italian Army, and Guardia di Finanza. The working group is intended to evaluate the potential of tiltrotor technologies as complementary capabilities to the assets already in use among government services, providing a fast long range capability with vertical take-off and landing and fast cruise, above the weather thanks to the AW609’s unique pressurized cabin and high altitude performance. The assessment performed by the working group would help to define the benefits for logistic transport (vertical take-off/landing, long range, fast point-to-point connection with above-the-weather cruise) and, later in the future, maritime surveillance (vertical take-off/landing, fast transfer to patrolling area and larger area coverage).

Following the first ship trials campaign, Leonardo will start a detailed evaluation and analysis of the collected data. These would allow possible follow-on trials to better refine approaches as well as drive further platform enhancements to operate in the naval/embarked environment.

The AW609 excels at providing fast point-to-point transportation at long ranges, allowing timely access to remote locations, hosting up to nine passengers in the comfort of a pressurized cabin and it is therefore designed to transform a variety of missions, including public services and government roles. The programme development has logged, to date, in excess of 1,900 flight hours in Italy and USA.

It leverages unique industrial and technological capabilities and skills making Leonardo a leading player in the rapidly emerging fast rotorcraft domain, where tiltrotor architectures are proving more and more to be the best solution to meet future operational needs.

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