

## NH90 HELICOPTER - 3rd PROTOTYPE IN FLIGHT

Aix-en-Provence, 30 November 1998

**The maiden flight of the third prototype of the NH90 (PT3) took place successfully on 27 November 1998 : the NH90 Programme, which represents a landmark programme for Europe's aircraft industry, has added a further important step forward.**

The trial started at 17.05 p.m., and during 30 minutes, the NH90 PT3 was flown by :

- the experimental test pilot : Philippe BOUTRY,
- the flight test engineer : Denis TRIVIER,
- the flight engineer : Jean-Claude RABANY.

The PT3, under Eurocopter responsibility, was assembled with modules and components contributed by Agusta, Eurocopter Deutschland, and Fokker, the other three industrial partners in the programme.

The PT3 is completely fitted with the basic Avionic Core System consisting of Fly-By-Wire controls with Automatic Flight Control, Navigation, Communication and Identification, Plant Management, full glass cockpit, and the basic aircraft systems such as Hydraulic, Environmental Control, Electrical, and Fuel. The PT3 is powered by two Turbomeca RTM322 engines.

The power plant system is of latest state-of-the-art technology : computerised control and monitoring systems based on the Full Authority Digital Electronic Control (FADEC).

All those systems installed on the PT3 are representative of the final serial configuration.

PT3 will be dedicated to the qualification of above said basic Core Avionic System and aircraft systems. In addition a specific lightning strike electronic magnetic interference test campaign will be performed.

The instrument panel lay-out complies with the common basic configuration featuring four 8x8 inch liquid crystal Multifunction Displays (TTH version), with the complete provision for the fifth one (NFH version).

As a first general equipment the PT3 will also be equipped with a rescue hoist.

NHI Industries, prime contractor for the quadrinational NH90 helicopter Programme (launched by France, Italy, Germany and The Netherlands), is pleased to say that the crew and the engineers, present at the flight trial, confirmed their overall satisfaction for the NH90 in flight behaviour.

This important step and the flight test results allow the stabilisation of the vehicle design and the consolidation of the achievements in all the NH90 development areas :

- The PT1 has been subject to installation of the General Electric-Alfa Romeo T700/T6E engines as the alternative motorization. With its 100<sup>th</sup> flight on 26 November in this configuration it has satisfactorily logged more than 84 flight hours to be added to 160 flight hours already totalized with Turbomeca RTM322 engines.
- The PT1 has also performed during last summer a Ship Trials campaign in Italy. Within 2 days, 62 deck landings were performed on the Le Courbet (La Fayette-class French frigate) under various speeds and attitudes, demonstrating the excellent manoeuvring capabilities of the NH90.
- The PT2 flying activity for Fly-By-Wire development has totalized more than 120 hours.
- Flight envelope has been opened up to 20.000 feet altitude, at speeds up to 190 kts, at extremes centre of gravity, at a max gross weight of 10.000 kgs, 12 deg slope landings, and rolling landings at speeds exceeding 50 knots.
- The general impression of the industry flight test crew, military pilots, and test engineers of the Four Nations, is that they are impressed by the NH90 excellent performance, handling qualities, and general behaviour.
- The Ground Test Vehicle (GTV) achieved a total of 424 running test hours, contributing to obtain the clearances for the flight of PT1, PT2, and PT3.
- PT4 and PT5 final assembly is well progressing as well as other ground test activities contributing to the mission systems development and qualification.
- For the naval version (NFH) of NH90 development work is concentrating on the evaluation of the Tactical Control System using the NH90 NFH Simulator, on the cabin lay-out optimisation, on the detailed definition of the Helo/Ship interface, on the main rotor blades and tail boom automatic folding system optimisation, and on the commissioning of the NFH Mission Integration Rig.
- For the tactical transport version (TTH) particular effort is dedicated to the evaluation of the Tactical Control System using the NH90 TTH Simulator, to the instrument panel and cabin lay-out optimisation, and to the completion and commissioning of TTH Mission Integration Rig.

---

*For further information, please contact:*

*Mr. Alain Gauthier*

*NHI Industries Commercial Director*

*Tel.: +33 (0) 4 42 95 97 02*

*Fax: +33 (0)4 42 95 97 49.*

*www.nhindustries.com*

