FIRST SATELLITE NAVIGATION PROCEDURES FOR HELICOPTERS - ENAV AND LEONARDO

News / Manufacturer

ENAV and Leonardo have tested and validated the PBN (Performance Based Navigation) procedure for the Foggia – Tremiti S. Domino Island route in the Apulia region (Southern Italy). This was carried out with an AW169 helicopter operated by Alidaunia, a company providing transport services to and from the Tremiti Islands, as well as emergency medical service missions which support the relevant local community.

PBN procedures, carried out through advanced satellite navigation and aircraft avionics, significantly contribute to air space optimisation delivering greater flight operation safety thanks to greater navigation, approach and landing precision and accuracy, a key enabler particularly in certain weather conditions. PBN is combined or replaces the more traditional land-based radio navigation systems.

Moreover, PBN procedures ensure a reduction in polluting emissions and noise through dedicated routes and lower fuel consumption. Passenger transport, emergency medical service and rescue, disaster relief operations, surveillance and fire-fighting are among the main applications that can benefit from this technology, in all-weather conditions, day and night. Its adoption and implementation significantly enhance flight safety, environment protection, public service flexibility, responsiveness and effectiveness, and air transport efficiency.

The Foggia - Tremiti S. Domino Island route is the first in a network that is being developed locally to support the helicopter operations of the regional heliport network called Rete Eliportuale Puglia.

The successfully validated procedures, using a latest generation Leonardo AW169 helicopter, are the result of a collaboration between Alidaunia and EGSA (European Global Navigation Satellite Systems Agency) in the framework of the PHAR project (PBN for Hems in the Apulia Region).

The procedures will be characterised by high precision linked to the use of special navigation requirements that will allow safe flight even at low altitude, reducing polluting emissions and noise, integrating helicopter and aircraft operations, with an optimized use of airspace.

ENAV, the Italian air navigation service provider, has been at the forefront of PBN procedures design for both fixed- and rotary-wing aircraft for years. Leonardo, a leading company in the field of aerospace, defence and security producing latest generation helicopters equipped with state-of-the-art avionics and advanced satellite navigation capabilities, such as the AW169, is one of the few manufacturers in the world today able to codify and produce PBN navigation databases.

Alidaunia, always at the forefront in the development and implementation of new technologies, draws important operational benefits in the development of PBN routes ensuring significant advantages in terms of H24 operation and in marginal weather conditions.

The demonstration activity in Apulia is the first one carried out since the signing of the Letter of Intent between ENAV and Leonardo announced in October 2020, aimed at offering helicopter operators, in Italy and abroad, products and services in the advanced instrument navigation field, whilst also contributing to modernise the relevant infrastructures. These capabilities, provided through the collaboration between two major players in the aeronautical field, now make possible the development and use of procedures in accordance with the modern requirements of the Performance Based Navigation to support the different phases of flights, increasing safety and operational effectiveness.

31 MARCH 2021

ARTICLE LINK:
https://50skyshades.com/index.php/news/manufacturer/first-satellite-navigation-procedures-for-helicopters-enav-and-leonardo