NH-90 DECKLANDING SKILLS PRACTICED AT DUTCH SHIP IN COOPERATION WITH DUTCH NAVY AND AIRFORCE

BELGIUM ACQUIRES NH-90 DECKLANDING SKILLS

The Belgian helicopterpilot Kenneth 'Birdie' returned to Den Helder surroundings while flying above the sea an approaching a ship just a short distance out of this harbour. He had perched on the nearby Den Helder Dutch Naval Air station 'De Kooy', for several years as an exchange pilot from Belgium. However, that's been a while since today he lands on the Dutch Naval ship the 'Zr.Ms. Zeeland' in the context of deck-landing qualifications.

AMONG FRIENDS

Yes, truly one can say that Belgian and Dutch military personnel are friends and neighbor's at the same time, no matter if it concerns Airforce, Navy or Army. Today a new Belgian NH-90 NFH is flown by Kenneth who is sitting in the right (!) seat. Left next to him sits a Dutch instructor of the DHC (Dutch Helicopter Command) from Gilze Rijen AFB. It goes exactly as planned. Kenneth learned to fly with the NH-90 flying at the DHC 860 Squadron. Belgium itself now has four NH-90 NFH naval variants operational, and the step up to fly at sea and land on ships will be their new challenge and art of flying to acquire in the coming period. Belgium has experience with deck landings but with the smaller, Alouette III. Flying the Belgian NH-90 called the 'Cayman' surely is a different thing because the NH-90 is much larger than the Alouette III. Because of this decks on Belgian frigates had to be utilized to receive the NH-90. The Dutch ships are already familiar with the NH-90 for quite some years. When Kenneth said his moment was there to learn the next phase of performing landings on ships he was welcome at the DHC which deploys the Dutch NH-90's, but only when he indeed would bring his own helicopter with him, and so it happened.

This particular week, organized by the Dutch military was allocated for multiple 'Qualifications', not only for pilots but also deck crews and was named 'High Qualified Week' (HQW). DHC participates in these 'HQW's , which are organized some 6 or 7 times a year. The participation of DHC comprises helicopters, crew and instructors. De The Royal Netherlands Navy, also called Koninklijke Marine collaborates with a ship and its personnel . As for the sailing world it's already a common practice with exchange of personnel between the two countries, but for the naval aviation it means a brand new experience and so completely unique that a Dutch instructor in a Belgian NH-90 is part of the crew.

Kenneth by the way, graduated fully qualified during his examination and received thereby his "owlet." It's a small orange badge representing an owl which can only be worn by a qualified deck landing pilot. Nowadays in the world of changing conditions and rising dangers of all kinds, there is more and more the need for uniformity of procedures and possibilities for exchange of personnel. Belgium and The Netherlands signed agreements for the use of gear and operational techniques, and Kenneth foresees that more and more pilots of different nations can go together inside in the future. Belgium has learned a lot from the Dutch DHC pilots and crews of the Netherlands who first had to learn to handle and deal with the teething problems of the NH-90, which thus resulted that the Belgians are less affected by these problems.

SHIP AND HELICOPTER ARE TO BE ONE

Flying with the NH-90 was initially 'getting used to' but after that it could be called 'only excellent'. It's a big machine that you need to learn just cope, as Kenneth says. He is not just alone here today, because opportunities are fully used. This means that also deck-qualifications took place for the Dutch and Belgian crews. The ship the pilots had to land and take-off the whole day concerned the 'Zr.Ms. Zeeland' a so called Ocean Patrol Vessel (OPV) which is widely used for individual tasks such as anti-piracy, anti-drug and border control activities and so today for helicopter qualification. The ship came from the yard in 2012 after a thorough maintenance and update, and now has many automated systems which can be operated with a relatively small crew. The Central Command Officer (CCO) and Helicopter Directing (HDO) are crucial functions in the process. The latter does all external communications with an incoming

helicopter. And so we also saw Kenneth approaching and entering the Zr.Ms. Zealand under various angles. First fly perpendicular to the deck of approaching from behind, and then from the port side.
It is important that ship and helicopter are one, they must be able to rely on each other. It is like you feel the ship from the helicopter and to the people on the ship it is the same feeling to the helicopters landing on the ship's deck. A landing takes about 2-3 minutes and directions are given by the Flight Deck Officer (FDO). Is everything within the wind limits? What is the slope of the ship, doesn't it fluctuate too much? You can imagine a ship's deck going up-and-down on the waves relatively rough, is not always an easy catch to land such a large helicopter.

But sometimes it's a little 'cat & mouse game' though very serious played. The FDO gives instructions, but he also just fysical feels the movements of a ship and can recognize the exact coming moment when the ship acts relatively quit on the waves and that moment is used to give the signal: 'down-down' where the pilot reacts immediately, and puts his helicopter on deck. Before this moment the FDO leads the pilots and at the same time and has already lead them to a spot on deck exactly above a round 'grid'. This is a kind of fuse-plate where on the moment the NH-90 hits the deck some kind of a small harpoon clip is shot into it which makes the helicopter 'one' with the ship and is thus free from blowing away by wind, or shifting off the deck. Then the FDO leads the 'blokkenpaai' and the 'lessingpaai' featuring the helicopter of blocks front- and rear the wheels to extra secure the position of the helicopter and sometimes canvas straps are used if the helicopter will remain parked on deck for a longer time.

EYES AND EARS FOR THE SHIP

The NH-90 is a major expansion of 'awareness' to the ship. Earlier days for instance the Orion aircraft of former Naval Air Station 'Valkenburg' guarded the North Sea concerning Anti Submarine Warfare (ASW) and maritime patrol (MPA) on ships. But caused by cost reduction these aircraft are no longer in Dutch service for already quite some years thereby loosing the capability to oversee large sea surfaces. However the NH-90 gained back some of this capability. Look at it this way, where the ship's radar has a range of 50 km (because of the curvature of the horizon) the awareness of the ship will be extended with the NH-90 hanging on a certain height to 350 km! This thanks to a state-of-the-art sensor package that allows the helicopter looking at height on the earth curvature and this directly in contact with the ship. So the observations of the helicopter can be seen real-time via the bridge data link connection.

The officers on the bridge are seeing 'live' on the screens what the helicopters sensors are seeing. Belgians operate with a crew of five, including the leading pilot in the right (!) seat, the co-pilot left, a sensor operator, a diver and a cab operator, the latter also operates the winch. Reason why the first pilot flies in the right seat is because of the left-turning rotor-blades, which requires the tail-rotor to generate a countermovement, and landing a NFH-type of helicopter from the portside of a ship gives him the required view and vision to land properly, which he couldn't do the with the same accuracy doing it from the left seat. In future there will only be more cooperation with Belgium and the same goes for Germany. Commander Toebast explains that every cooperation leads to more and better understanding between the several units, individuals and countries that will lead to more possibilities and expertise, shown on the bridge as well by the participating observer sent by Germany to the Zr.Ms. Zeeland. In this way, an increasing cooperation and integration is created of staff from different countries that can be used universally in different corners of the world.

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