

Your naval
partner



SKJOLD

Improving Norway's naval capacity

STRENGTH at sea

DCNS

From shallow to blue-water operations

To respond to Norway's naval ambitions, DCNS designed the Skjold-class weapon system suite, for a new concept of surface effect Fast Patrol Boats (FPBs) combining the Norwegian naval tradition of operating small, fast and manoeuvrable warships with heavy weapon load in a demanding environment and modern technology. Already a historical partner of DCNS, the Norwegian Navy chose a consortium of three key players to provide the 6 new Skjold-class FPBs.

Protecting Norway's critical economic interests is the first reason why the Royal Norwegian Navy ordered a brand new fleet of 6 Skjold class FPBs back in 2003. In addition to performing traditional anti-invasion operations along Norway's 83,000 kilometres of coastline, the vessels are to be capable of playing a key part within NATO's international operations, for which purpose they are equipped with state-of-the-art defence and communication systems.

This evolution in the missions of the Skjold-class is the result of a long history of partnership between DCNS and Norway. At the outset an option to the Hauk contract, the building of the Skjold is now a programme of its own, drawing on the success of the Hauk craft which underwent successful modernisation in 2003 (read page 4).

To carry out its ambitions, the Royal Norwegian Navy chose a consortium

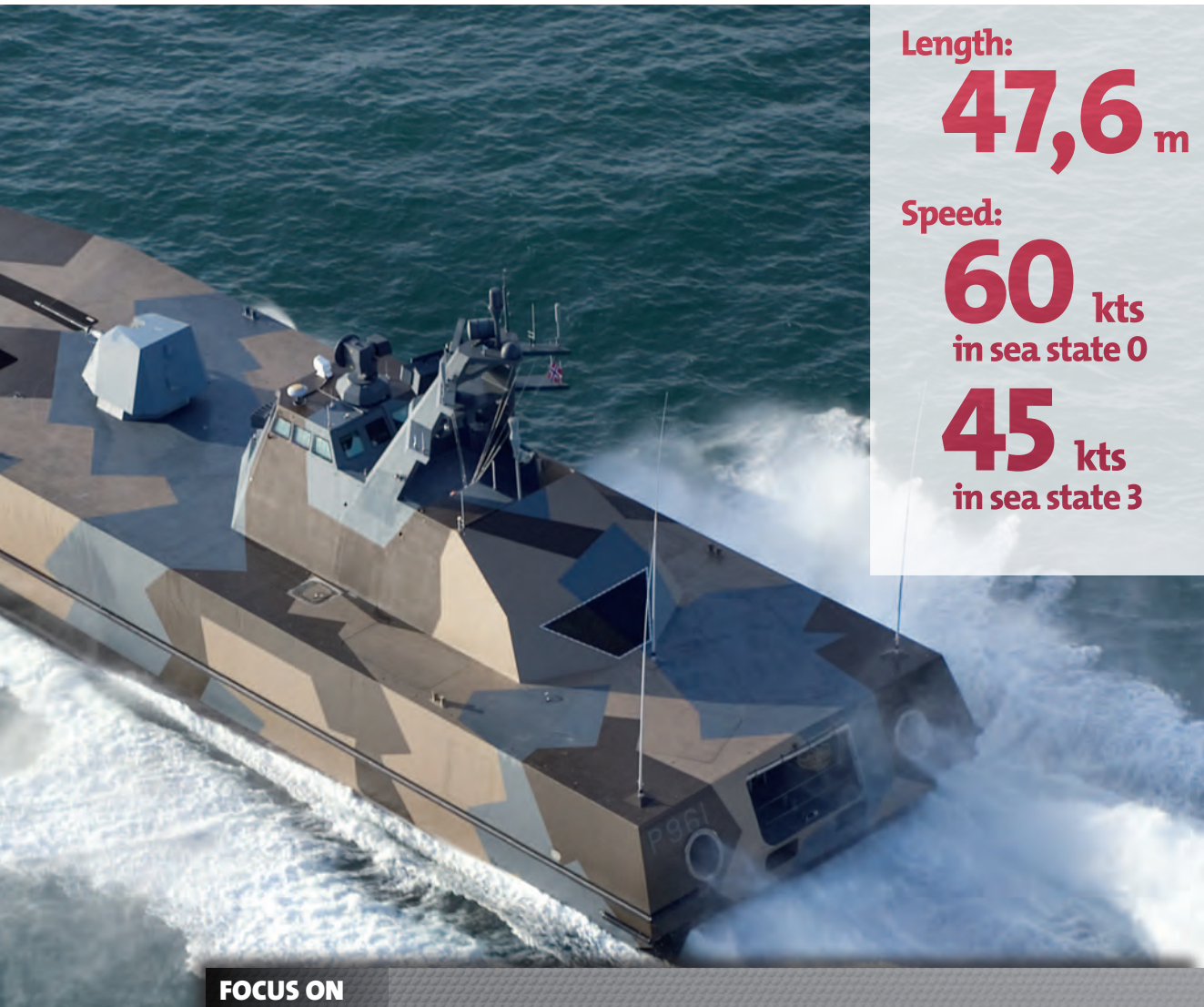
of three major players acting under the supervision of the Norwegian Department of Logistics and Organisation (NDLO). The Skjold prime consortium unites DCNS – both design authority and integrator of the combat system - the Norwegian defence and space company KDA (Kongsberg

Defence & Aerospace) – also in partnership on the ship's Combat Management System (CMS) - and Umoe Mandal for the platform. In order to make this organisation successful, responsibilities, operating modes, methodologies and schedules were elaborated and shared by the three stakeholders of the consortium, with all decisions being made collegially. Workflows were implemented to coordinate the parallel development of the CMS and the platform, and all documentation was made available on-line.

With Skjold, agility is combined with enhanced combat power, allowing a

wider than ever range of operations, both in peace or crisis times. Skjold demonstrates an unequalled ability to act fast and undetected and remain stable in the most demanding environments. Equipped and armed to the standards of a light frigate or corvette (up to 8 naval strike missiles), the boat features enhanced defence capabilities thanks to its CMS. In addition to being fully redundant, the CMS operates tactical links 11 and 16, allowing full NATO interoperability and meeting one of the Norwegian Navy's most demanding requirements.





Length:

47,6 m

Speed:

60 kts
in sea state 0

45 kts
in sea state 3

FOCUS ON



An independent qualification

Given the specific responsibilities of the three partners of the Skjold prime consortium, the capacity of DCNS to qualify the combat system independently is one of the key reasons why the combat system development is being conducted within schedule. The qualification of most of the combat system was carried out successfully at one of the Group's shore integration facilities based in Toulon, France - a critical step before the CMS qualifications at sea.

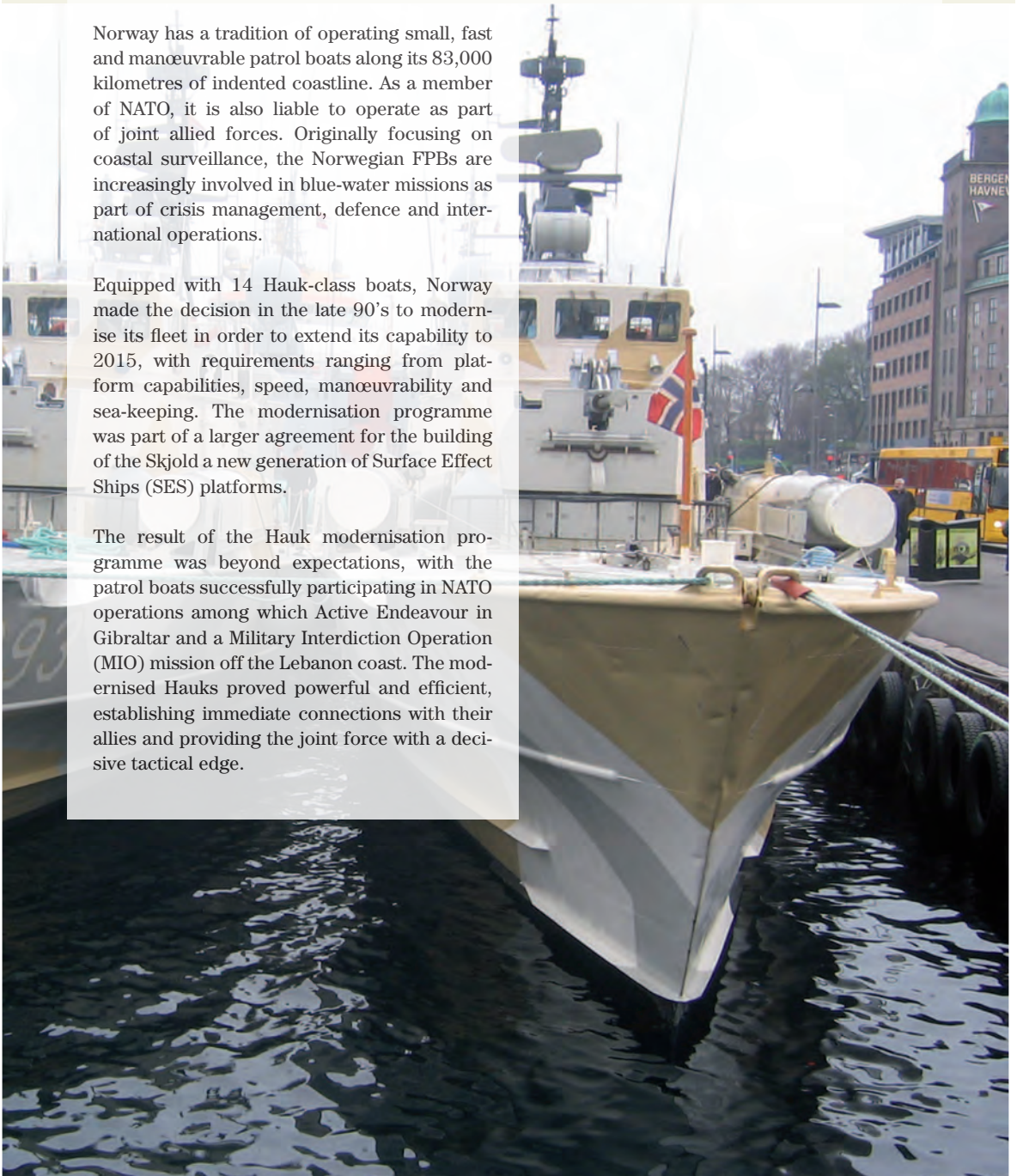
Building on the success of the Hauk

DELIVERIES OF THE ORIGINAL HAUK CLASS STARTED IN THE 80'S. ORIGINALLY DESIGNED FOR ANTI-INVASION OPERATIONS TAKING PLACE MAINLY ALONGSIDE NORWAY'S COASTLINE, THE HAUKS ENDED UP PLAYING A KEY ROLE AS PART OF NATO'S OPERATIONS THANKS TO A SUCCESSFUL MODERNISATION PROGRAMME.

Norway has a tradition of operating small, fast and manoeuvrable patrol boats along its 83,000 kilometres of indented coastline. As a member of NATO, it is also liable to operate as part of joint allied forces. Originally focusing on coastal surveillance, the Norwegian FPBs are increasingly involved in blue-water missions as part of crisis management, defence and international operations.

Equipped with 14 Hauk-class boats, Norway made the decision in the late 90's to modernise its fleet in order to extend its capability to 2015, with requirements ranging from platform capabilities, speed, manoeuvrability and sea-keeping. The modernisation programme was part of a larger agreement for the building of the Skjold a new generation of Surface Effect Ships (SES) platforms.

The result of the Hauk modernisation programme was beyond expectations, with the patrol boats successfully participating in NATO operations among which Active Endeavour in Gibraltar and a Military Interdiction Operation (MIO) mission off the Lebanon coast. The modernised Hauks proved powerful and efficient, establishing immediate connections with their allies and providing the joint force with a decisive tactical edge.





Such ambition was carried out through two programmes conducted nearly simultaneously: the modernisation of the Hawk and the design and building of the Skjold. This allowed for the combination of expertise as well as project management and technological skills.

A long history of partnership

Norway launched the Hawk programme to replace its aging Storm in 1987. By the turn of the century, time came for the Hawk to be modernised. On top of making Norway's investment and fleet sustainable, this was an opportunity to develop a brand new generation of state-of-the-art platforms featuring superior capabilities: the Skjold was born.

The modernisation of the Hawk provided Norway with wider opportunities as a NATO ally whilst the building of a new generation of SES featuring superior communication and defence power would further consolidate its role as a key naval player.

In addition to extremely demanding technical specifications, Norway required that the Hawk be modernised locally. Another requirement was for KDA (Kongsberg Defence & Aerospace) to be involved in the integration of both CMS and key equipment. Norway's international tender resulted in the Skjold prime consortium being in charge of the Skjold programme, with DCNS acting as the design authority and integrator of the combat system. Currently under development, the Skjold programme allows all three stakeholders of the Skjold prime consortium to operate in an optimised environment, providing on-line access to extensive documentation. First-of-class Storm was delivered in the third quarter 2010.

For DCNS and the Norwegian Navy, this means building on the success of an historical partnership which originated as early as the 1980s.



STRENGTH at sea

DCNS is Europe's key global player providing high-value-added naval defence systems. The Group offers the world's navies a turnkey approach to warships, including all related equipment and services. As prime contractor, designer, builder, and integrator, the Group masters the overall value chain and life-cycle of naval systems, from initial design to full operational maintenance.

An international player

DCNS' capacity for innovation allows it to respond to the complex challenges of navies around the world by proposing cost-efficient integrated solutions, which are both interoperable (air/naval/land) and applicable to inter-allied operations.

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