Kristiansand, Norway, 26.May 2026

ESNA Unveils Revolutionary Surface Effect Ship (SES) Technology for UK-Norwegian Joint Commando Craft (JCC) Program

Drawing on 40 years of Surface Effect Ship (SES) expertise, ESNA proposes a 22 m craft designed for littoral commando operations in harsh arctic conditions.

"*We have designed a vessel that stands out with a maximum speed of 67 knots*," says Naval Architect and Co-founder of ESNA, Trygve Halvorsen Espeland. *"The vessel further offers a comfortable air-cushioned service speed of 35-45 knots, and has unique beach landing capabilities utilizing the air cushion and an integrated bow ramp."*

The vessel is fully prepared for future warfighting, integrating features such as drones, embedded sensors, low signatures, high load carrying capacity, and rapid all-weather response capabilities, whether manned or fully unmanned.

The craft operates with a crew of 3 and offers a load carrying capacity of up to 14 tons, accommodating vehicles, drones, missile systems, and remote controlled weapons systems. It can deploy up to 24 fully equipped troops to remote beaches at speeds ranging from 45 to 67 knots, depending on loading and weather conditions. Advanced situation awareness and communications systems are also integrated.

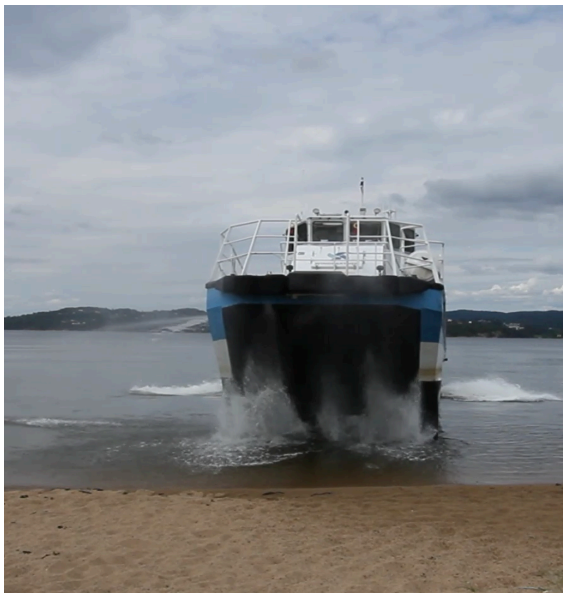
The active air cushioned motion damping system ensures troops arrive ready for action and well-rested. Personnel and mobility assets—including all-terrain vehicles and snowmobiles—exit the vessel via a large bow ramp. The air cushion provides unique beaching performance by lifting the vessel off the beach upon departure, allowing for very shallow beach landings.

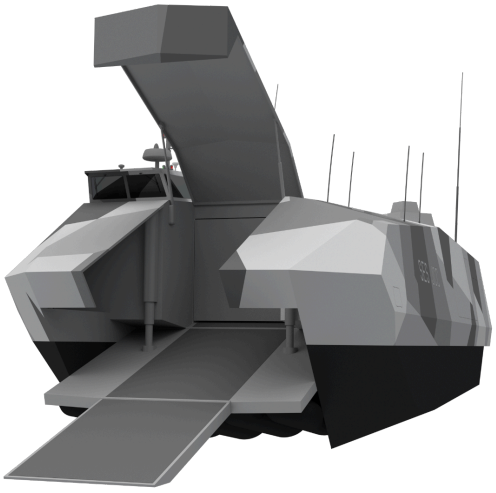
ESNA has demonstrated the beach landing capabilities of an SES with the daughter craft *Sea Puffin 1*. Full video of this is available on https://www.youtube.com/watch?v=GRztGkPz-PU

ESNA has presented this concept to UK/Norwegian special forces and will release the design for a broader public during an Industry Day hosted by the UK/Norwegian Navies in Bergen on May 27th.

Key Advantages of the ESNA SES JCC Concept:

- **Extremely Low Resistance:** Achieves max speeds up to 67 knots in calm water.
- **Superior Seakeeping:** Provides excellent air cushioned performance in waves and a low seasickness incidence ratio.
- **Beaching:** The air cushion provides unique outstanding beaching performance, by lifting the bow onto and off beach/sea bottom.
- **Reduced Signatures:** Features reduced radar, thermal, visual, acoustic, underwater noise, and magnetic signatures.
- **Logistics & Deck Space:** Offers high load carrying capacity and a large deck space with drive-through capability.
- **Safety & Comfort:** Includes active ride motion damping and reduced impact from high speed slamming loads. Delivers personnel mission ready with reduced fatigue from vessel transit.
- **Compliance:** Compliant to nearly all Annex A *Shall* and *Should* requirements (ref: JCC RFI).
- **Common platform**: The SES JCC platform meets all the JCC roles (“vessel type A, B and C”, as defined by the JCC RFI).
- **Operational Heritage:** SES vessels have been in operation for the Royal Norwegian Navy (RNoN) since 1992. ESNA has developed commercial SES from 2015, with new technologies that offer substantial operational improvements.





Left: Sea Puffin 1 Beaching test - lifting off for return
Right: JCC deployed bow ramp

ESNA SES JCC main characteristics

Length:	21.5 m
Beam:	7.5 m
Draught:	0.5 m on cushion
Service speed:	35-45 knots
Maximum speed:	67 knots
Range at 0.5m Hs:	> 600 nm at service speed
Propulsion:	2 x Water jet
Payload:	14 tons, multiple mission load configurations
Cargo transfer:	Bow and stern ramp, roll on/off and drive-through capabilities

JCC - Joint Commando Craft

The purpose of the JCC Project is to upgrade the Norwegian Coastal Ranger Commando's (Kystjegerkommandoen) current vessel and provide the UK Commando Force with a new surface maneuver capability. This capability is focused on enhancing performance in speed, endurance, survivability, and sea-keeping abilities. The vessel will enable special forces to project a force over extended distances, operating in all environments from the open sea to very shallow waters, and will provide additional payload options. Ultimately, this will improve the ability to achieve improved situational awareness, target acquisition, and the deployment/landing of personnel and mobility assets along rugged coastlines and during offshore operations.

The JCC acquisition will follow a customized project model for a joint UK/Norwegian procurement, with leadership provided by the Norwegian Defence Materiel Agency under the bilateral defense pact, the Lunna House Agreement. The majority of the vessels will be built by Norwegian shipbuilders.

ESNA - Espeland and Skomedal Naval Architects

ESNA is an independent Norwegian ship design office specializing in high-speed Surface Effect Ships (SES). The proposed JCC design leverages ESNA's proven SES experience and know-how, offering outstanding performance and clear advantages over conventional monohulls, multihulls, and various variants of such concepts.

ESNA has international collaborations with Aircat Vessels and Eureka Naval Craft, which are all ESNA vessel designs. ESNA's naval defence and coast guard designs, including the SES JCC, are offered internationally under the Eureka brand.

Attached illustrations:

1. SES JCC fleet
2. SES JCC projected view starboard
3. SES JCC projected view port
4. SES JCC bow ramp open starboard side
5. SES CIC - ESNA proposal for the previous UK CIC project
6. SES beach landing demonstration with Sea Puffin 1

Relevant video material:

- Sea Puffin 1 beach landing demo: https://www.youtube.com/watch?v=GRztGkPz-PU