



NEWS RELEASE

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Fact Sheet: MV Swift Rescue and Deep Search and Rescue Six

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The submarine support vessel, MV Swift Rescue, was launched by the Republic of Singapore Navy (RSN) in November 2008. The RSN is the first in the Southeast Asian region to acquire Submarine Escape and Rescue (SMER) capabilities with the equipping of the MV Swift Rescue and the submersible rescue vessel, Deep Search and Rescue Six (DSAR 6). The MV Swift Rescue and DSAR allow for the rapid and effective evacuation of personnel from distressed submarines.

MV Swift Rescue features a wide range of capabilities to carry out SMER operations. The vessel comprises a helipad for the emergency evacuation of casualties, a Launch and Recovery system used to lower and raise the DSAR 6 the water, a medical centre equipped with an 8-bed High Dependency Ward and 10-bed Sick Bay, as well as a recompression chamber. The chamber has a capacity of 40 personnel and utilises a Deck Transfer Lock to prevent changes in the atmospheric pressure of the rescued submariners when they are transferred from the DSAR 6 to the recompression chamber.

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Singapore Navy Deep sea rescue

The evacuation of trapped submariners calls for swift and effective Submarine Escape and Rescue operations. The Singapore Navy shows how this can be done with its integrated rescue system, MV *Swift Rescue*, and its submersible craft, Deep Search and Rescue 6 (DSAR 6).

1 LAUNCH

MV *Swift Rescue* learns of a submarine in distress and an underwater rescue is determined to be required. Upon reaching the site of the distressed submarine, the DSAR 6 can be launched within 15 minutes. Depending on the depth at which the submarine is at, help can arrive within 30 minutes from launch.

2 MATING



While the crew of the distressed submarine provides information on the condition of the vessel and her crew, the DSAR 6 begins the mating process. The interior of the DSAR 6 is first pressurised to match the submarine's internal pressure. It then aligns its bottom hatch to the escape hatch of the submarine. The trapped submariners are then transferred via the connected hatches into the DSAR 6. Up to 17 trapped submariners can be rescued at a time.

3 RECOVERY

Once all the submariners are moved to the DSAR 6, it returns to the surface and is hoisted back onto MV *Swift Rescue*. The submariners are then transferred straight from the DSAR 6 to a recompression chamber. A constant atmospheric pressure is maintained up till the chamber as a sudden change could cause decompression sickness or even result in fatalities due to conditions related to decompression sickness.

4 TREATMENT



A critical component of such operations is the administration of immediate and specialised medical treatment. The Navy's medical personnel, trained especially in the field of hyperbaric medicine, will be on hand to assess the well-being of the rescued submariners, before providing recompression therapy where necessary. Helo evacuation will be considered for severe casualties who require urgent surgery or other hospital-based treatment.

MV *Swift Rescue* Specifications

Length	85m
Width	18m
Tonnage	4,300 tonnes
Maximum speed	12 knots
Endurance	Up to 28 days continuous operation at sea
Capacity	27 crew

DSAR 6 Specifications

Length	9.6m
Width	3.2m
Height	2.8m
Weight	About 25 tonnes
Operating depth	500m
Maximum speed	3 knots

Endurance	Up to 15 hours without charging
Maximum capacity	17 rescued personnel and 3 crew

Related Resources:

- Singapore Hosts Regional Submarine Rescue Exercise (MINDEF_20100818001_1.pdf)

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