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# Rescue Vehicle Ready for Russia Mission

## Pentagon has not received request for assistance

(Washington D.C.): Washington, August 14 -- In response to the sinking of the Oscar II-class Russian nuclear-powered *Kursk*, the U.S Defense Department announced it would consider a call for assistance by the Russian government. The United States operates a Deep Submergence Rescue Vehicle (DSRV) called the *Mystic*.

Thomas Jandl, 2000.08.15 09:16

A Pentagon spokeswoman said Russia has made no request so far. In case Moscow were to ask for the *Mystic*, the State Department (Ministry of Foreign Affairs) would make the final determination.

During a press conference, the Pentagon explained that the *Mystic* could be airlifted from San Diego on the U.S. West Coast on short notice and deployed without delay.

The spokeswoman said that it was not clear whether the *Mystic* can mate with a Russian submarine. A rescue vehicle must make water-tight contact with the escape hatch on the submarine to allow the trapped crew to move from the sub into the DSRV.

Stan Zimmerman, a submarine expert and author of numerous books and articles on submarines, said that the depth of about 150 meters is at the outer limit from where the crew could be brought to the surface without a rescue vehicle, but with individual breathing devices. Compression chambers would be needed to receive the sailors upon their emergence from the depth. With one such chamber holding up to six people, a large number of chambers would have to be at hand if such a rescue was attempted.

The long hours of sunlight in the Arctic at this time of the year would help emergency evacuations, allowing helicopters to fly virtually around the clock.

Russia's Navy owns its own version of DSRV, the *India* class rescue sub built in the late 1970s. This submarine has a top-speed of 15 knots and would take some time to reach the scene.

**A major accident on board**

The cause of the accident is still unclear. Theories range from water intrusion into a torpedo chamber to reactor failure and a collision with another submarine or an underwater obstacle.

Zimmerman said that given the enormous amount of reserve buoyancy the Oscar-class has built into its design, nothing short a major accident could have forced the vessel down and kept it on the bottom. He said that if the reactors were still operational, the crew could blow the water from the ballast tanks and emerge on the sub's own power.

It is likely that the reactors were shut down manually or automatically in an emergency shut-down known as scrambling. In such a shut-down, control rods are driven into the reactor mechanically. The reactor cannot be restarted after such a procedure.

**What about the reactors?**

If the reactors were shut down in an emergency procedure, residual heat continues to reside in the reactor and if possible the pumps should continue to run to continue cooling the system. But Zimmerman said that no additional heat is being created beginning immediately after the shut-down.

If the reactor is shut down in a controlled fashion, on the other hand, the procedure takes several hours.

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