



The Swedish National Seismic Network service (SNSN) has reported that it had detected two underwater explosions on 26th September. These occurred near to where two leaks were later discovered in Swedish territorial waters of the Baltic Sea. The two explosions were detected near to or at the seabed. SNSN has since said it was investigating whether the second explosion was in fact made up of two explosions only a mere 8 seconds apart from each other. This would mean there were in fact 3 explosions in Swedish waters.

Germany's security services have concluded that each pipe was damaged by a blast with the explosive yield equivalent to 500kg of TNT. Norway's Institute of Seismology also detected blasts with an equivalent explosive yield of 700kg of TNT. So on the assumption of quo bono, how might Russia have sabotaged Nordstream, asks Mr Gey?

Russian warships were spotted in Danish Waters in June near the pipeline. Equally, it is thought that large Russian submarines could be detected were they to operate in the relatively shallow waters of the Baltic sea. However, Bryan Clark, a former US-Navy strategic planner and research fellow at the Hudson Institute stated that western underwater surveillance in the Baltic and North Sea was partly inconsistent and therefore Russia's bespoke submarines could evade detection and conduct pipeline sabotage. While a German academic and military analyst Julian Pawlak of Helmut Schmidt University maintained, given the relatively shallow water of the Baltic, that activity is easily identified, he also conceded that Russia had the capability to secretly deploy divers from submarines or unmanned submersibles to conduct sabotage.

Whilst difficult to deploy covertly in shallow waters, it is not impossible therefore that Russia could have used such assets covertly in an act of sabotage. Conversely, Russia's modern special-purpose (spy) submarine - Project 09862 Belgorod - is also assessed to be deployed in the White Sea, not the Baltic. The Russian Navy has the world's largest fleet of spy submarines. In principle, these could damage underwater pipes, however this would require the deployment of a large "mother-ship" submarine, bringing with it potential for western detection.

NATO also stepped up its air-maritime surveillance in the days leading up to the Nordstream attack according to OSINT monitoring.

Russia is also known to have developed modern unmanned submersibles that could be used in an underwater sabotage operation. But this would require a large host ship on the surface to operate these assets. GUGI - "Main Directorate of Deep Sea Research" operates within the Russian navy. GUGI, also known as unit 45707, has vessels suited to discreetly accessing the seabed.

GUGI have developed a number of specially purposed ships dubbed "spy ships". These vessels act as host ships and have deployable assets such as unmanned submersibles or divers. GUGI's ship - the Yantar - is a carrier for mini-submarines and submersibles. The Yantar and other GUGI special purpose ships operate as intelligence gathering vessels. GUGI's most recent addition to its clandestine fleet - Evgeny Gorigledzhan, Project 02670 - is assessed to now be operating at sea.

As a Directorate, the GUGI is formed from other units that fall directly within Russia's Ministry of Defence - the 10th Department of hydronauts and the 15th Central Research Laboratory.

GUGI reports directly to the Ministry of Defence, casting doubt on its role of just gather intelligence, rather than acting on it too. GUGI's bespoke capabilities make it both unique in purpose and discrete in capability; it also has an apparent political license to conduct clandestine operations.

An open-source analyst has suggested that the location of the Nordstream leak near Danish island of Bornholmin was estimated to be only 70m in depth. It is therefore diveable.

A Swedish commissioned security study of the Nordstream network also concluded that the undersea pipe could easily be compromised by one lone explosive device laid by a diver. Both Russia's Military Intelligence Unit - the GRU - and those of the FSB's Special Forces (Spetsgruppya) from Alpha Group and Vypmel are known to have specialist "frogmen" diver units.

Outside of Russia's Spetsgruppa trained divers, Russia also has a specialist diving unit known as 420th Naval Reconnaissance Spetsnaz (omrpSpN, frogmen). Whilst these are not to be confused with elite special forces, they have specialist diving capabilities.

Russia media has also showcased "frogmen" capabilities during naval exercises that worked in conjunction with the use of unmanned submersibles. These exercises also included counter-sabotage operations.

It has also since been speculated that bespoke machinery used to clean Nordstream pipelines could have been surreptitiously adapted and repurposed with explosives, and subsequently sent through pipes from Russia to blow up Nordstream 1 and 2 from the inside out. Or in a similar vein, it was speculated devices dubbed "pigs" could be sent down the pipe and detonated.

The Times Newspaper said an undisclosed UK defence source alleged it was likely to be that an unmanned submarine had placed explosives on Nordstream's underwater pipes, and this had been done "some time before the blasts."

It remains unclear if the alleged culprit - Russia - conducted this operation, but its forces and agencies are evidently capable using a variety of means.

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