

Submarine Intrusions in Swedish Waters

Past and Present

by Nils-Ove Jansson

Resumé

Under 1980-talet uppträdde sovjetiska konventionella och strategiska ubåtar på svenskt vatten. I våra marina basområden och ända in i Stockholm opererade miniubåtar, dykarfarkoster och spetsnazdykare. Syftet var att förinta svenska sjöstridskrafter och tillförda Natoförband med utplacerade atomminor. Samtidigt skulle våra flygbaser bekämpas med kärnvapenbestyckade medeldistansrobotar grupperade i Baltikum. Sovjetunionen trodde att Nato planerade ett avväpnande kärnvapenanfall och förberedde därför Operation RYAN som motanfall. Sverige drogs in då man inte litade på svensk neutralitet. Under president Putin upprepas mönstret. Nya ubåtsintrång i kombination med anflygningar av kryssningsrobotbestyckade bombplan mot Sverige kan vara förberedelser för Operation RYAN 2.0.

AT THE BEGINNING of October 1982 a foreign submarine was sighted in the middle of the Swedish naval base of Hårsfjärden southeast of Stockholm. A submarine hunt began, and during a period of three weeks, the Swedish naval forces obtained several sightings and technical indications of submarines. Depth charges and mines were used against the intruder. After the operation ceased, tracks from a seabed-crawling midget submarine were discovered on the sea floor of the base and in areas outside. The events were so alarming that a parliamentary commission, The Submarine Defence Commission, was given the task of accounting and evaluating the submarine violations in Swedish waters and also of assessing the Swedish Antisubmarine Warfare (ASW) capacity.

On April 26, 1983, the Commission made their conclusions public and stated that they had fully confirmed foreign submarines in the Hårsfjärden area in early October 1982. The conclusion stated that during this period up to six submarines, three of which were of an unknown type of midget submarine,

had operated in the Stockholm archipelago. One large and one midget submarine operated in the central part of the Stockholm archipelago. There were indications that the midget submarine penetrated all the way into the harbour of Stockholm. The other submarines operated in the southern area.

In their final conclusion, the Commission wrote that based on reports, the foreign submarine operation could have covered an even larger geographical area. The Commission also emphasized military objectives as a probable motive for the intrusions.

In the morning on the same day as the Commission presented their statement, a woman was walking with her dog along the beach of Lilla Värtan, a small bay on the outskirts of the city of Stockholm. Suddenly she heard and saw bubbles coming out of the water followed by a dark whale-like object approximately six metres long. After a few seconds the object moved forward and sank under the surface leaving no traces. The woman walked home directly and called the military authorities. The next day naval

divers from a mine clearance unit found an imprint in the shape of a hull on the seabed of the bay. They measured it carefully and made a drawing, which was filed in the military archives. At the time, no identification could be made of the imprint.

Ten years later, the Swedish Military Intelligence Service, MUST, identified a Soviet submersible Triton 2 belonging to the Naval Spetsnaz Brigade based in Primorsk, just north of Baltijsk in the Kaliningrad Oblast. The measurements and the configuration of the Triton 2 hull were identical to the imprint discovered in the harbour of Stockholm in 1983. Triton 2 had two pilots and could carry four Spetsnaz divers together with their sabotage equipment. The Triton 2's operating distance was about 130 kilometres, which meant it had to be supported by a large submarine or a special surface ship to be able to penetrate all the way into Stockholm. From its position in Lilla Värtan, a sabotage unit could move in wooded terrain all the way to the Swedish Military Headquarters, MSB, at Lidingövägen 24, a distance of a mile and a half.

This presentation is built on my book *Impossible Submarine (www.omoflig-ubat.se)*, which was published in November 2014. The purpose is to confirm that submarine intrusions in Swedish waters have taken place, and to reveal the intruder and his objectives. Over the years, more than 2,500 visual sightings have been made. Two hundred sightings have been made by divers. The 1995 Submarine Commission found that there had been 11 confirmed technical indications classified as "Submarine"; but conclusions of the visual reports were not drawn because of disagreement of their validity within the Commission. With so little data it was impossible for the Commission to see any pattern or goal for the intrusions. Later, the chairman of the Commission stated

that if they had taken into consideration the best visual observations, the numbers of confirmed intrusions would have been much greater. The 2001 Submarine Investigation came to the surprising conclusion that Soviet submarines had not violated Swedish waters. If any violation had occurred it may have been NATO submarines!

In my book I have used all available and valid information and examples are given in this presentation.

Intruding Submarines

A new behaviour of an intruding submarine was seen outside the island of Utö southeast of Stockholm in September 1980. Previously, foreign submarines have left Swedish waters when detected and warned. Among opponents of the Navy, these submarines were called Budget Submarines, because some of the incidents tended to happen when the defence budget was being discussed. On September 18, a navy tugboat sighted a submarine breaking the surface straight ahead of their ship. The captain and his crew identified the submarine as a Whiskey Class submarine by its characteristic air mast at the end of the sail. At the time, the Soviet Baltic Fleet had over 50 Whiskey submarines in its Order of Battle. Poland had four.

An ASW-helicopter was sent out and made sonar contact. The submarine set course from Swedish territorial waters after a warning charge. Five days later, a Swedish submarine and an ASW-helicopter made another submarine contact in the same area. The area was now kept under surveillance, which resulted in more helicopter contacts and warnings. Finally, the destroyer Halland was deployed and fired an ASW-rocket close to the submarine. The incident ended on October 6. Afterwards, the Chief of the Swedish Navy formed a special submarine analysis group

to investigate the tactical performance of the intruder and own forces.

In the evening of October 27, 1981, the Soviet submarine U-137, also called Whiskey on the Rocks, went aground in Gåsefjärden, a restricted military area east of Karlskrona. The submarine was detected the next morning by a fisherman. The incident was the beginning of a military buildup in and outside the area of Swedish and Soviet forces. After long political and diplomatic activities, the U-137 was released on November 6. The captain and the Soviet Navy insisted that the submarine going aground was an accident caused by a breakdown of navigational equipment on board. Sweden believed that the incident was an intentional intrusion, as the navigational equipment was checked and found working. Years later, several sources have claimed that the submarine was on its way to pick up Spetsnaz divers that had disembarked two days earlier from another submarine. Their mission was connected to Operation RYAN, described below.

On May 10, 1983, an officer and seven conscripts from a coast artillery detachment observed a submarine sail south of the island of Mälsten outside the town of Nynäshamn south of Stockholm. The submarine held an easterly course, and the sail disappeared under the surface after a minute. The officer ordered everyone to make a drawing of what they had seen without looking at each other. He also made one himself. Out of the eight combined drawings, a Whiskey submarine could be identified. A mile south of the island was a shallow area with a depth of around 20 metres, which might have caused the submarine to break the surface, as it left Swedish territory at high speed.

Starting in the Autumn of 1976, seven Soviet strategic submarines of Golf II Class redeployed from the Northern Fleet to the Baltic Fleet. One submarine was scrapped, but

the others started going on 60-day patrols. Soon, visual sightings along the Swedish coast in the Gulf of Bothnia showed that some submarines operated there. The motive for their deployment was to extend the range of their SSN-5 missiles with an 800 kiloton nuclear warhead against strategic targets in the northern part of Scandinavia, such as NATO airfields, US Marine depots and U.S. Carrier forces operating in sheltered Norwegian fjords. In 1986, Sweden arrayed a SOSUS-system in the entrance to the Gulf of Bothnia to threaten detection of transiting submarines. The areas of operation changed to the central part of the Baltic, and by 1990 the last Golf-II submarine in the Baltic fleet was decommissioned.

Submersibles

Just outside the Swedish naval base in Karlskrona, a man fishing collided with a submersible on September 29, 1984. The fisherman was thrown overboard by the impact. He held one hand on his boat and one hand on the other craft. He then managed to climb aboard his boat and went ashore to report. The object was 2-3 metres long and dark grey with a glass bulb on top, under which he could discern a person. The police distrusted the man's story, because the fisherman had a bad reputation and his story sounded too fantastic. The report came to the Submarine Analysis Group, and they reacted to the man's story when he said that "the surface of the object felt like the skin of an orange" when he held his hand on it. Intelligence reports described divers' submersibles made of GRP and of submarines covered with sonar-reducing coating and GRP. The final deduction after a close examination was that the fisherman had collided with a Triton I, also based at the Spetsnaz brigade in Primorsk.

On August 11, 1990, four people in two motorboats were going to tie up at a rocky beach on an island in the middle of the Stockholm archipelago. The boats were parallel and very close to landing when a shiny spool-shaped object moved out from land between their boats causing swirls and bubbles. A man that had built model airplanes as a boy said that the object looked like the cockpit of an F-4 Wildcat, a carrier-based aircraft during World War II. Comparison of the cockpit on Triton I and F-4 showed that they were almost identical. Not far from the site was a large munitions depot belonging to the Swedish Navy.

Foreign Divers

An inspector observed three divers at a controlled minefield in the northern seaway to Stockholm on September 27, 1983. He had landed with his boat on the south side of the island of Lerskär east of Kapellskär and walked over to the station on the north side. There he saw one diver sitting on the beach and two farther out in the water. They were holding a black and white line between them. The inspector thought they were mine divers from the coast artillery regiment responsible for the mine-field. However, when he came closer they disappeared into the water without leaving any traces. There was no other boat in the vicinity. A very thorough investigation followed where detailed pictures were drawn of the divers' equipment and suit. The investigators drew the conclusion that they were foreign military divers scouting the minefield. After the breakdown of the Soviet Union, the Swedish Intelligence Service purchased a Spetsnaz diving suit and breather. Compared with the drawings, the suits were identical.

In the seaway to the city of Norrköping, a person in a small boat saw a strange fig-

ure in the water on September 22, 1987. He came closer and saw a diver sitting in the water moving forwards. The observer was so close that he could see the suit wrinkle in the neck when diver turned his head. Then the diver slowly sank under the water surface and disappeared. It happened outside the lighthouse of Nävekvärn where another controlled minefield was deployed. The Spetsnaz brigade in Kaliningrad has both chariots and towers for the transit of divers in their inventory.

Bottom Tracks

As mentioned before, parallel tracks from a seabed-crawling midget submarine were discovered after the Hårsfjärden-incident in 1982. The aging of the tracks showed that they were made during the second part of September or the first part of October. The same type of tracks was found in Danziger Gatt, a strait guarded by a controllable minefield and an acoustic surveillance system. The tracks led up to different objects on the sea floor as if the vehicle had inspected what was installed on the bottom. Several tracks also led towards a long strait imprint, with the same measurements as the keel of the U-137.

In 1987, parallel tracks with the same measurements were found in Kappelhamnsviken on the island of Gotland. The year before, a new magnetic cable system had been installed on the sea floor to detect submarines. The new system did not work when tested the following spring. Side-scanning sonars and divers detected numerous tracks as if a vehicle had been rally-driving on the seabed. The Swedish Commander-in Chief ordered an extensive investigation of the area. For comparison a cable-controlled tracked vehicle was rented from the Swedish company Hägglunds AB. By increasing the weight on

the vehicle the same depth of the imprint could be generated as that of the unknown submersible and the vehicle was easy to move along the sea floor and also tear cables apart. A couple of years later, a Soviet military 13.4-metre submersible was identified with exactly the same measurement of its twin keels as of the tracks in Hårsfjärden, Mälsten and Gotland.

Active Sonar Contacts

In May 1984, reports came in from the northern part of the Stockholm archipelago. An ASW training force with patrol boats, mine-sweepers and helicopters operated in the area. A minesweeper received an echo-contact with a side-scanning sonar, but the contact did not lead to any attack. The echo on the print was later analysed by experts and measured to 28.8 metres. The object was free from the seabed, and swirls from a propeller could be noticed. The object was classified as a mini submarine but as its speed was unknown the length measurement was not exact.

At Hävringe lighthouse outside Oxelösund, an ASW force attacked a submarine contact in June 1988. A minehunter guided two patrol boats which fired 2x36 grenades and dropped 4x8 depth charges against the contact. The sonar contact was lost after the massive explosions, but a large air bubble could be seen north east of the attack position indicating that the target managed to evade the attack. The sonar contact was registered and analysed afterwards. All experts involved came to the conclusion that the object was a 30-metre mini submarine with a low sail forward on the hull.

Several visual sightings during the years confirm the size and configuration. In 1992, the last active sonar contact of the 30-metre submarine was registered. Thus, there was proof of a 30-metre mini submarine oper-

ating in Swedish waters between 1984 and 1992.

Passive sonar Contacts

After 1984 Swedish submarines and sonar buoys registered a special type of passive sonar contact. The sonar contact was never classified as a submarine, although experts tried to confirm its origin, with ideas such as a waterjet or hydromagnetic propulsion system. Field tests made in 1999 by the Swedish Fishing Agency in cooperation with many others state authorities, confirmed that the noise came from moving schools of herring.

During the Spring of 1992, a new sonar buoy was used for silent surveillance of certain areas in the archipelago. The new equipment was much more sensitive than the earlier buoys, and because they were not tested and trained on enough before being put in operational use, mistakes were made. The equipment registered minks swimming from the islands in the archipelago. When swimming, the forward legs of the mink can cause cavitation, exactly the same cavitation as from a small propeller blade. Visual and radar surveillance of the surface did not detect the small animals moving between the islands at night until two years later. At that time, these reported sonar contacts were reclassified to non-submarine ones.

NATO Submarines

Claims have been made that NATO submarines are responsible for the intrusions in Swedish waters. There is no substantial evidence of this. West German submarines had been operating close to Swedish territory during the Cold War in order to avoid the Warsaw Pact's ASW-forces. On two occasions, submarines surfaced just outside the

border when they were detected by Swedish ASW-helicopters. In one case south of Skåne the West German Navy sent the Swedish embassy in Bonn an apology that one of their submarines had accidentally been inside Swedish territory. Sweden had not noticed the submarine. Thus, the staff at the Swedish military HQ had the opinion that West German submarines were under strict orders to surface when they were warned by sonar transmissions and being close to Swedish waters. After 1983, Sweden changed the Rules of Engagement, ROEs, to use weapons without warning against submarines. The West German procedures also stipulate that submarines' log-books and navigational journals are checked after completed missions, which explains the apology.

In February 1982, a report came from south of Utö, which the Naval Command East classified as being top secret. This was done because a nationality, West German, was mentioned in the report but critics later believed it was to conceal an intrusion by a NATO country. A civilian defence employee saw a surfaced submarine when using his binoculars on a misty day. The submarine was at a distance of about 5 kilometres. He described the sail as straight in front and on top but rounded aft. He thought he saw a person standing on the forward deck. A picture was drawn that looked like a West German submarine type 206, which was mentioned in the text. When the observer moved with his car to a better viewpoint, the submarine had disappeared. A closer look at the observer's description showed that the submarine was most likely a Whiskey-class submarine. The configuration of the sail and the sonar dome in front on a Whiskey submarine seen from astern made it more probable than a West German type 206. All in all, the observation was given a low classification because of the bad visibility, the long distance, the fact that

the sub was not seen coming up or diving and the observer's own uncertainties when reporting the incident.

Soviet Naval Spetsnaz

The Soviet Spetsnaz organization was built up during the 1950s by GRU (The Soviet military intelligence organization). The main objective was to detect and destroy enemy nuclear weapons together with their command and communication systems. Secondary missions were reconnaissance, sabotage and liquidation. Subsequently, missions were also equipped to deploy nuclear charges in enemy territory, which could be detonated by coded long-wave radio transmissions. At the end of the Cold War the Spetsnaz force consisted of over 25,000 men and women.

The 561. Naval Spetsnaz Brigade in the Baltic Fleet was organized in 1954. The brigade's operating area consisted of the coast of the European continent, but for more than 20 years the brigade had missions along the east coast of the United States due to miserable training conditions for naval Spetsnaz in the Soviet Northern fleet. The brigade had three diver battalions, a parachute battalion, a mini submarine battalion and a support unit. They were backed up by illegal agents living in the target areas.

The brigade is stationed in Parusnoye 10 miles north of Baltijsk in the Kaliningrad Oblast. Training and storage facilities have been built around an old German mansion. In a huge pond divers can train embarking and disembarking through torpedo tubes, ride diver's auxiliaries and train parachute landing in water. The nuclear charges were stored in a secluded well-guarded area within the compound.

The mini submarine battalion was based a few miles south in Primorsk by the bay. The facility was used for maintaining, storing

and shipping submersibles out by land on trailers or to ships at a pier. The area was surrounded by a high fence with a guarded gate and a watch tower. The bay provided excellent conditions for training with the submersibles Sirena, Triton 1 and 2. Ship activities at the base could be observed on different occasions, such as tuna fish trawlers or Muna-class special intelligence ships. Some of the Muna-class ships had underwater torpedo tubes installed through which the Sirena and divers could disembark unseen from the surface. Triton 2 could be loaded and unloaded from the cargo hold by a crane.

After World War II, mini submarines were brought to Leningrad as war-booty from Germany, Italy and Japan. A special underwater salvage team, together with different technical institutes started testing the foreign material. Later, mini submarines of their own were developed, such as 30-metre and 16-20-metre hulls as well as smaller seabed-crawling submersibles. This special unit is also under the command of the GRU.

Motives

During the Cold War the technical development slowly changed the balance of terror in favour of the western world. Land-based missiles grew more vulnerable due to higher accuracy and MIRVs. Thus, the second-strike capability was based on ballistic submarines hiding in the oceans. However, soon advanced ASW-systems, especially low-frequency analysis, gave the West an upper hand. American and British attack submarines could shadow Soviet ballistic submarines from the time they left their bases until they returned from patrols.

The Soviet Union first became aware of the threatening situation when they could read the communication to U.S. submarines by buying the signal codes from the Walker family

spy ring. The new offensive U.S. Maritime Strategy, which aimed at attacking Soviet naval bases in case of war instead of escorting convoys running the gauntlet over the Atlantic in combination with larger NATO exercises and psychological operations aimed at the Warsaw-pact members, increased the threat even further. Finally, President Reagan announced the Strategic Defense Initiative, SDI, and termination of the SALT II agreement. The Soviet leaders believed that NATO was going to disarm the Soviet Union by a preemptive nuclear strike, an attack they could not retaliate against.

A counter-action called Operation Raketno YAdernoye Napadenie (RYAN: a preemptive nuclear strike) was proposed by Yuri Andropov, Head of the KGB. Secretary-General Leonid Brezhnev confirmed Operation RYAN in May 1981. The counter-action operation consisted of two parts, one intelligence phase and one assault phase. By acquiring massive information from the NATO countries and feeding it into computers, they estimated they could detect an incoming NATO attack and thus preempt it with their own massive nuclear strike. Soviet armies stationed in East Germany would at the same time invade Western Europe.

Sweden would be involved in the assault phase, AntiRYAN, as our neutrality could not be trusted. First, a safe air corridor over Sweden to Norway and the Atlantic was needed. All Swedish main airbases would be bombarded by nuclear intermediate range missiles deployed in the Baltic republics prior to airplanes dispersing. Active and passive jamming would also be used to protect the passage of the Soviet bomber planes. To support the invasion of Western Europe and to transport "follow-on forces" the seaways in the Baltic had to be secured. Thus, the excellent basing areas in the Swedish archipelagos must be denied to Swedish and

NATO naval forces, best said by the Finnish Commander-in-Chief, Admiral Klenberg, in a speech in the Paasikivi Association in 1984: "It must be of the utmost importance that the Swedish coast stay neutral" and "Every estimate or even speculation that the Baltic west coast could be used by hostile forces would lead to deep concern in the Soviet General staff". As a matter of fact the Stavka (Soviet General Staff) had already planned to neutralize Sweden by laying atomic mines in the archipelago and targeting military airbases with nuclear missiles.

The Past

By comparing reports of underwater activities of higher classification during the 1980s with the Soviet operations, the Golf-patrols and preparations for AntiRYAN during the same time, one will get a 100-per cent match. Before these two activities started, the reports of higher classification were less than ten per year, which can be explained by operations of conventional submarines. During the 1980s, the average number of reports rose to more than 40 annually. The geographical locations of these reports are also consistent with the new pattern of operations inside the archipelago and up along the northern coast of Sweden. After the breakup of the Soviet Union, reports of intrusions ceased.

A conclusion drawn of the submarine intrusions in the past show that they were connected to the strategic situation between the superpowers. The Soviet Union's fear of attack and disarmament by NATO directed their operational response. Larger NATO exercises were met by a high readiness to counter the presumed threat. For example, during the NATO exercise Able Archer in 1983, a full-scale nuclear war was only hours away according to several Russian sources. In Sweden, the targets were the political and

military leadership, naval bases and other important installations. The means were coordinated operations with conventional submarines, mini submarines, submersibles, Spetsnaz divers and illegal agents. The underwater activities were to reconnoitre places for deploying atomic mines and nuclear charges and to prepare for sabotage and liquidation.

The Present

During recent years, submarine intrusions in Swedish waters have occurred again. The lack of first-hand information makes it hard to single out Russia as the intruder, but based on information from open sources the pattern is almost the same as they were during operation AntiRYAN; in other words, deep penetrations, mini submarines, submersibles and divers are being seen and reported again. The objectives seem to be naval bases, large ports and NATO naval forces exercising in Swedish waters. Put together with Russian bomber runs armed with cruise missiles aimed at Swedish air bases and other strategic installations, the objective this time seems to be a preparation for an operation AntiRYAN 2.0.

In official statements from Russian spokesmen and ambassadors as well as President Putin himself, Sweden (and Finland) is warned against becoming a member of NATO. The increased Russian military activity in the Baltic region underlines those statements, including submarine intrusions.

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