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New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis

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ABSTRACT Drawing on evidence collected from eyewitness interviews, new Russian secondary sources, as well as recently declassified documents from both sides, the author significantly widens the academic understanding of the maritime dimension of this gravest crisis of the Cold War. Most significant is her conclusion that Soviet commanders were led by complex and challenging tactical circumstances, including unreliable communications and malfunctioning equipment, which might have prompted them to contemplate a resort to tactical nuclear weapons on more than one occasion. Almost as disturbing is the revelation that US forces were not aware of this particular threat. This research reveals how a chain of inadvertent developments at sea could have precipitated global nuclear war, underlining the extreme danger of the crisis.

KEY WORDS: International Crisis, nuclear weapons, decision-making, Soviet Foreign Policy, Cold War

The most extensively studied crisis of the twentieth century – the Cuban missile crisis – continues to present scholars with new puzzles and revelations. The naval aspect of the crisis, particularly the story of how the actual deployment of the Soviet forces to Cuba was implemented, has until recently remained one of its least researched subjects. There have been some noteworthy exceptions, such as the detailed account presented in the book Operation ANADYR by Anatoly Gribkov and William Smith. However, the deployment of Soviet submarines to Cuba deserves special attention from scholars of the Cuban missile crisis (CMC) and Cold War crises in general.
The story of the Soviet submarine deployment and its pursuit by the US Anti-Submarine Warfare (ASW) forces in a nutshell contains several elements that figured prominently in the analyses of international crises and decision-making in foreign policy. Those elements are the limited nature of information on which actors have to rely in making their decisions under pressure quickly, perceptions of the opponent’s actions as more threatening and coordinated than one’s own, reliability of the chain of command and the impact on decision-makers of the presence of nuclear weapons and possible implications of their actions for an escalation of a nuclear conflict.2

This paper will draw on available evidence from Russian and American sources, to give an overview of the submarine operations during the CMC and to try to provide answers to the following questions.

First, what was the mission of the Soviet submarines? US intelligence had suspected that it might have been protection of the Soviet transport ships or an effort to establish a Soviet naval base in one of the Cuban ports. We have learned from the revelations of the Soviet submarine veterans, and from documents declassified in Russia, that unbeknown to the Americans, the Soviet submarines had been fitted with nuclear-tipped torpedoes.3 Once the presence of this additional nuclear element of the CMC became established, a logical question arose: what were the orders on the use of those nuclear-tipped torpedoes? The debate over whether local Soviet ground commanders had been given discretionary authority to use tactical nuclear weapons in the event of a US invasion of Cuba originated with Anatoly Gribkov’s controversial statement to that effect in the tripartite Havana Conference on the Cuban missile crisis in 1992. There is now a debate over the circumstances under which the submarine commanders could have used their own tactical nuclear weapons and, most importantly, whether the torpedoes could have been used without authorization from Moscow in conditions where contact with the center was impossible.

Finally, another vital question – one that has broad implications for the study of crises in international relations – is whether the presence of nuclear weapons on the submarines increased the danger of US–Soviet nuclear conflict. If submarine commanders could have used these torpedoes at their own discretion, one could argue that such an option added a major aspect of unpredictability to the crisis. Moreover, the nuclear torpedoes could arguably have contributed to the level of danger indirectly, through the possibility of accidental, or unintentional, inadvertent use.4 The fact that the US Navy was
unaware of the presence of nuclear torpedoes on the submarines might well have made their ASW actions less cautious than they otherwise could have been.

This study must begin with the disclaimer that on the Russian side, most documents on this subject remain classified in military and naval archives. Very important Soviet documentary sources from the Presidential Archive of the Russian Federation (including the appendices to this chapter) became available to scholars as a result of the late General Dmitry Volkogonov’s donation of his personal archive materials to the US Library of Congress, and as a result of a special declassification undertaken by the Russian Presidential Archive in April 2002. The author has relied on these sources and on memoirs, secondary publications, personal interviews and the minutes of a 40th Anniversary Conference on the CMC, held in Havana in 2002. On the US side, this study draws on the documents obtained from US naval archives by William Burr of the National Security Archive, and the electronic briefing book prepared by Thomas Blanton and William Burr.

The Neverending Story

Until recently, it was not widely known that the Soviet submarines that went to Cuba were equipped with one nuclear-tipped torpedo each. A series of revelations in Russia – prompted in part by the success of the oral history project started by James Blight at Harvard, and continued at Brown University – brought the submariners’ story into the fore. Although the story was broken in the Russian press by Alexander Mozgovoi and the Russian submarine captains in 1995, the US scholarly community and public became aware of it only in the fall of 2002, as a result of a tripartite conference on the 40th anniversary of the CMC. Another significant contribution was Peter Huchthausen’s book October Fury, which for the first time brought together the recollections of American and Russian participants in the confrontation on the high seas. The account of the Soviet submarines’ voyage and the efforts of US ASW forces’ efforts to discover them and force them to the surface became front-page news. The question on everybody’s mind was: how much closer to the brink of nuclear apocalypse did this newly-discovered element of the Soviet nuclear arsenal bring us all?

Initial Planning

At the end of summer 1962, when Che Guevara and Emilio Aragones came to Moscow to renegotiate Cuba’s mutual security agreement with
the Soviet Union, Minister of Defense Rodion Malinovsky told them: ‘There will be no big reaction from the U.S. side. And if there is a problem, we will send the Baltic Fleet’. Indeed, this was exactly what the Soviet Navy intended to do.

The initial plan for the deployment of the Soviet troops to Cuba was presented to the Presidium of the Communist Party of the Soviet Union (CPSU) Central Committee, in a memorandum signed by Malinovsky and Chief of General Staff Mikhail Zakharov on 24 May 1962. The document presumed creation of a new fleet group, which would be based in Cuban ports. In other words, the Soviet government envisioned creating a new naval base on Cuba with a substantial Soviet presence.

Upon completion of the concentration of Soviet troops planned for Cuba, or in case of necessity, to send to Cuba on a friendly visit, tentatively in September:

A squadron of surface ships of the Navy under the command of Vice Admiral G. S. Abashvili (deputy commander of the Red Banner Baltic Fleet) comprising:

- two cruisers, [Sverdlov-class (project 68A)] *Mikhail Kutuzov* (Black Sea Fleet) and [Sverdlov-class (project 68A)] *Sverdlov* (Red Banner Baltic Fleet);
- two missile destroyers of the [Krupny-class] Project 57-bis class, the *Boikii* and *Gnevny* (Black Sea Fleet);
- two destroyers of the [Kotlin-class] Project 76 class, the *Skromnyi* and *Svedushchii* (Northern Fleet);
- Along with the squadron to send one refueling tanker. On the ships to send one full combat set of standard ammunition (including one combat set of [P-1] KSSch missiles [SS-N-1 Scrubber] – 24 missiles) and standard equipment. Sailing time of the ships 15 days.

A squadron of submarines, comprising:

- 18th Division of missile submarines of the [Golf I-class] Project 629 class (7 submarines each with 3 R-13 [SS-N-4 SARK] missiles with range of 540 km.);
- a brigade of torpedo submarines of [Foxtrot-class] Project 641 class (four submarines with torpedo armament);
- two submarine tenders.

Sailing time for submarines, 20–22 days.
If necessary, the squadrons can be sent separately. Time for preparation to depart, after 1 July, is 10 days.

Upon arrival of the squadrons in Cuba, they would be incorporated into the Group of Soviet Forces.  

On 18 September a detailed memorandum on Soviet Navy activities in support of Operation ‘Anadyr’ was sent personally to Premier Nikita Khrushchev signed by Chief of General Staff Marshal Matvei Zakharov and Admiral Vitalii Fokin (see Appendix 1).

In the section dealing with submarines, the document specified:

Per the Anadyr operation we are sending to Cuba: 7 [Golf I-class] Project 629 missile submarines of the Northern Fleet, 4 [Foxtrot-class] Project 641 torpedo submarines of the Northern Fleet, two submarine tenders and other auxiliary vessels’. They would ‘constitute a squadron of submarines composed of a division of missile submarines and a brigade of torpedo submarines. . . . [T]he passage of the detachment will be done in full combat readiness . . . submarines will be required to leave October 7.  

Arrival in Cuba was scheduled for 9 November; the passage was expected to take up to 32 days.

Actual Deployment

However, one week after the above document was presented to Khrushchev, the plans for naval deployment were substantially downgraded (see Appendix 2). Rather than send the initially planned large group of surface ships and submarines, the Soviet government instead decided to send only the 69th torpedo submarine brigade with the mission ‘to strengthen the defense of the island of Cuba’. The brigade consisted of four diesel-electric Foxtrot-class submarines, armed with 22 torpedoes each, one of which had a nuclear warhead – totaling 88 torpedoes, among them four with nuclear warheads. The range of the torpedoes was 19 km.

In this revised plan, two other submarines were designated to accompany the transport ships carrying nuclear missiles: ‘In order to protect the transport Alexandrovsk on passage to Cuba [send] a [November-class] Project 627 torpedo-armed nuclear[-powered] submarine, armed with [XM] torpedoes, of which one has special ammunition, fully armed’.  

The submarine was supposed to travel directly underneath the transport ship out of considerations of secrecy, but was ultimately not dispatched.
Instead, another submarine, B-75, was sent to accompany the transport Indigirka:

Regarding the transport Indigirka which is delivering special ammunition [XM] its escort by the transport Berdyansk and its observation by other ships traveling to Cuba, send the [Zulu-class Project 611 diesel electric submarine B-75, which is presently reconnoitering the American coast, to the area south of Bermuda.]

The submarine B-75 had 22 torpedoes with a range of 11 km, two of which had nuclear warheads. According to the captain, Nikolai Nantenkov, this was the first case in his experience when the ammunition included nuclear warheads.

The boat had left port in the second half of September, and was able to get to the destination undetected by closely following the three-mile boundary of US territorial waters. After its arrival at its destination – the Navetrenny Straits (Russian name), through which the Soviet ships were supposed to approach Cuba, the submarine stayed in the vicinity of the Soviet transports area, and was quickly recalled when the quarantine was announced. On 22 October the B-75 was detected by NATO antisubmarine forces while refueling near the Azores. It returned to Murmansk around 10 November.

Another submarine, the Zulu-class B-88, was dispatched on the mission in the Pacific. On 28 October, it left its base at the Kamchatka peninsula with orders to sail to Pearl Harbor and attack that US base if the crisis in Cuba had escalated into a US–Soviet war. Commanded by Captain Konstantin Kireev, the B-88 arrived near Pearl Harbor on 10 November and patrolled the area until 14 November, when it received orders to return to base. The orders were rescinded that same day, a sign that Moscow believed that the crisis was not over. Ultimately, the B-88 returned to Kamchatka only in December.

After the announcement of the quarantine, the 69th submarine brigade, which was on its way to the port of Mariel, received unexpected instructions from Moscow to reverse its direction, and to patrol positions in the Saragasso Sea. The brigade consisted of four Foxtrot submarines: B-4 (commanded by Captain Ryurik Ketov, who contributed an account of his experience to this same volume), B-36 (commanded by Captain Alexei Dubivko), B-59 (commanded by Captain Valentin Savitskii) and B-130 (commanded by Captain Nikolai Shumkov). Commander of the Brigade Vitalii Agafonov traveled on board the B-4, and Chief of Staff Vasilii Arkhipov traveled on the B-59.
Equipment and Orders to the Captains

In the Soviet Navy in 1962, nuclear-tipped torpedoes were not a standard weapon for a diesel-electric submarine. The four Foxtrot submarines sent to Cuba were among the first – if not the very first – in their class to carry nuclear torpedoes as part of their ammunition. One of these boats, B-130, took part in naval exercises in October 1961, in which Captain Shumkov was for the first time given orders to test a nuclear torpedo launch from a submerged position. The tests were successful, and the boat’s commander became one of very few submarine captains, who had experience in using this type of weapon.

We can only speculate why the Soviet government decided to equip the Foxtrot diesel submarines with nuclear torpedoes. Most likely, this decision was made some time after the significant reduction in the number of naval forces to be sent to Cuba. The Soviet Navy at the time did not have a sufficient number of nuclear missile submarines ready to be sent on this assignment, and consequently a decision was made to equip the Foxtrots with the warheads. The initial deployment plan of 24 May only listed ‘torpedo equipment’ (see quote above). According to the four captains, the orders to take nuclear warheads were a complete surprise for them. (See Ryurik Ketov’s personal account of the preparations for the mission in this volume.)

The ‘special weapons’, as they were called, were loaded on the boats approximately a week before departure in an atmosphere of strict secrecy. Each nuclear torpedo had a special officer assigned to it, who stayed with it throughout the journey, and even slept next to it. He was in charge of maintaining the torpedo, and had one set of keys, which were necessary to load it. He was also the one responsible for assembling the torpedo for combat use if such an order had been received from Moscow.

It might even have been, as several authors have pointed out, that Khrushchev himself was not fully aware that the submarines en route to Cuba were diesel rather than nuclear-powered. According to Alexander Mozgovoi, ‘Nikita Sergeevich, as well as many non-naval generals and marshals at the helm of the Armed Forces naively believed that they possessed a whole fleet of nuclear missile boats’.

Another puzzle regarding the Cuban submarine mission concerns the manner in which the nuclear torpedoes would have been used. According to the commanders, no specific instructions were given about the use of the nuclear torpedoes. The boats were ordered to cross the ocean and arrive in one of the Soviet-friendly countries, which the
captains assumed would be Cuba. However, on the day before their departure, the First Deputy Head of the USSR Navy, Admiral Vitalii A. Fokin and Chief of Staff of the Northern Fleet Vice-Admiral A.I. Rassokha spoke to the crews of the four submarines, and briefed them on their mission and the use of weapons.

The only instructions concerning nuclear weapons that the captains remember receiving were given in that briefing. As Nikolai Shumkov recalls, he heard Admiral Fokin say ‘if they slap you on the left cheek, do not let them slap you on the right one’.18

Ryurik Ketov remembers more specific instructions:

The only person who talked to us about those weapons was Vice-Admiral Rassokha. He said, ‘Write down when you should use these. . . . In three cases. First, if you get a hole under the water. A hole in your hull.19 This is the first case. Second, a hole above the water. If you have to come to the surface, and they shoot at you, and you get a hole in your hull. And the third case – when Moscow orders you to use these weapons’. These were our instructions. And then he added, ‘I suggest to you, commanders, that you use the nuclear weapons first, and then you will figure out what to do after that.’20

The captains received packets with secret orders, which they could only open at sea, and a set of maps for all regions of the world ocean. When the packets were opened, the orders read that the boats were to go to Cuba and dock at Mariel. The weapons on the boats were to be in a state of full combat readiness. Conventional weapons could be used on the orders of the Commander- in- Chief of the USSR Naval Forces, and the nuclear weapons could be used only on special orders from the Defense Minister.21 This clearly seemed to contradict the instructions recalled by Ketov. However, since the above information is based on Alexander Mozgovoi’s account, which also relies on secondary sources, the exact instructions on the use of the nuclear torpedoes are not available at the present time both versions of the instructions cited above are credible but not confirmed in documentary sources. Most people would agree that Ketov’s version is more controversial, although none of the surviving veterans has challenged it yet.

‘My Head is Bursting from the Stuffy Air’

The submarines dispatched to Cuba were part of the USSR Northern Fleet. These boats and their crews were not ready for the tropical waters – the equipment was not sufficiently tested for high water
salinity and tropical temperatures. The secrecy of the mission made the conditions of transit even more challenging because the crewmen were unable to ventilate the boat sufficiently during short trips to the surface, which were necessary to charge the accumulator batteries. The orders to move at a speed of 9–10 nautical miles and to abide by the secrecy regulations were beyond the capabilities of the diesel submarines. Therefore, the captains had to use all their skill to make it possible to catch up during the nighttime, and when there was no observation in order to get to the target position in the scheduled time.

While a more detailed personal account of the difficult passage to Cuba can be found in Ryurik Ketov’s piece in this volume, the only available contemporary Russian document from the submarine trip itself has been found in the writings of the Assistant to Captain Dubivko on B-59, Captain Third Rank Anatoly Andreeev. The latter kept a journal in the form of a letter to his wife, in which he quite vividly described the conditions on the submarine in the last four days before the boat had to surface:

For the last four days, they didn’t even let us come up to the periscope depth. [Meaning that they were not able to receive any communications from Moscow or information from radio intercepts – S.S.] My head is bursting from the stuffy air. . . . Today three sailors fainted from overheating again. . . . We are sailing with a risk of dropping down to six thousand meters. This is how much we have under [our boat]. The regeneration of air works poorly, the carbon dioxide content in rising, and the electric power reserves are dropping. Those who are free from their shifts, are sitting immobile, staring at one spot. . . . Temperature in the sections is above 50. In the diesel – 61 degrees.22

In these conditions, the crewmen were supposed to carry out their normal functions, operate the boat and periodically surface for communication sessions with Moscow.

On board each boat was a special radio intercept team, which was in charge of communications with Moscow and conducted interception and decoding of US radio transmissions. The head of such a ‘special unit’ on the B-59, Vadim Orlov, recalled that initially his men were greeted with suspicion and even open hostility by the captain and the crew because they were perceived as outsiders or KGB representatives. Additionally, they had to load substantial quantities of equipment on the boat, which already was packed to the limit with provisions and ammunition for a long trip.23 The communication sessions with Moscow were reliable, but
– as noted by Ketov in his account – both intercept and communication sessions could only be executed at periscope depth or on the surface, which was especially dangerous in the face of US ASW operations.

The worst fear of a submarine captain, according to the testimony of all four captains, was to be discovered and brought to the surface by an enemy ship. Not only was a discovery seen as utter humiliation, but even more importantly, it was a violation of their orders, which could bring severe consequences upon their return to the Soviet Union. The situation was made worse by the fact that Moscow did not inform the captains about the developing situation, only giving them a general outline of the crisis and mostly reports on harvesting in the Soviet Union.24

Real information had to be gathered from open US radio broadcasts (from which they found out that the Soviet Union deployed nuclear missiles in Cuba). According to Dubivko, this is how the captain and the crew learned that ‘President Kennedy announced a blockade of the island of Cuba, and warned his people about a possibility of a thermonuclear conflict with the Soviet Union on the all-American radio; the Americans are preparing a powerful landing on Cuba; our missiles with nuclear warheads and service personnel are already in Cuba; special camps are being prepared on the Florida peninsula for Russian prisoners of war’.25

It is important to note that although the US ASW forces were following strict orders on engagement with Russian submarines, did not use any weapons other than practice depth charges (PDC) to signal the Soviet submarines to come to the surface, and did not intentionally use any provocative tactics, the perception of the situation by the Soviet captains was shaped primarily by the limited and skewed information they received, and by their anticipation of a military conflict with the US, possibly even a nuclear exchange.26 In interviews and in memoirs, all the Soviet captains recalled their state of extreme tension and confusion in a situation where the war above could have begun any time while they were trying to evade their pursuers in the submerged position, with no communication with the outside world.

The captains also anticipated that in the situation where the nuclear exchange either became inevitable or had already begun, Moscow would want them to use their special weapons first, as they were instructed before departure. According to Dubivko, ‘The success of being the first to use our weapons depended on the timely reception of the signal to start combat operations. And judging by the situation described above, we were expecting such a signal from one hour to the next’.27
'We Will Die, But We Will Sink Them All...'

Of the four submarines that secretly left for Cuba at the beginning of October, the US Navy detected and closely tracked three: the B-36 (Dubivko), identified as C-26 (20), the B-59 (Savitsky), identified as the C-19, and the B-130 (Shumkov) identified as C-18. Only the B-4 submarine commanded by Ryurik Ketov (tentatively identified as C-21) with Brigade Commander Captain Agafonov on board was not detected. All the Soviet commanders strongly disagree with the term 'forced to surface', commonly used in the US to describe how the Soviet submarines were discovered. They insist that their submarines had to come to the surface not because they were forced, but because of failing equipment or the need to charge the batteries.

With respect to malfunctioning equipment, the B-130 was the least lucky of the four. Out of its four diesel engines, three stopped functioning by the time the boat was ordered to take position in the Sargasso Sea. The captain radioed Moscow several times to receive permission to come to the surface to try to repair the engines. On 25 October orders came to rise to periscope depth for a continuous communications session. No additional information was supplied, and the commander was expecting the worst. ‘I had a feeling that combat actions were about to begin. And the radio space became completely dead’.28

In anticipation of impending hostilities, the actions of the US ASW forces were perceived as threatening by Shumkov’s crew. He recalls that US ships were acting as if they were preparing to ram his boat, and present it later as an accident. Constant explosions of depth charges created an atmosphere in which Shumkov was wondering whether the situation fitted the scenario described by Rassokha, ‘if they slap you on the right cheek ...’.29 According to Shumkov, one of the depth charges landed a direct hit on the hull, and its explosion damaged the depth steering wheel. At the same time, he received a report from Compartment 6 of the submarine, reporting that they experienced a leak (which was later repaired). For a moment, the commander actually thought that his boat was under a US attack.

In his book, October Fury, Peter Huchthausen describes an episode when Shumkov telephoned the security officer guarding the ‘special’ torpedo, and instructed him to flood the torpedo tube without orders from Moscow. According to Huchthausen, Shumkov did not intend to fire the torpedo, but wanted to create an impression that he was ready to do so, just in case the security officer had to report it later in Moscow.30 In my interview with him,
Captain Shumkov emphasized that he never had the intention of using his weapons without orders from Moscow, and did not repeat the above account of the telephone call, but mentioned that there could have been conditions under which such a development might have been possible.

On 30 October, Shumkov’s boat, having completely exhausted its battery power, had to surface in front of the US destroyer Blandy (DD 943). This is how the US ASW forces described the surfacing: ‘Sub was evasive using decoys, depth changes, backing down’ but ‘sonar contact was never lost’. After the surfacing, the submarine stated its number as ‘945’ and stated that it needed no assistance. Immediately after coming to the surface, the crew of B-130 began trying to repair their diesel engines, but soon discovered that they could be repaired only in port. A special tugboat, Pamir, was dispatched to transport the B-130 back to Murmansk.

Captain Anatoly Dubivko’s submarine, B-36, was the first boat to enter the Caicos Straits, when they received the transmission from Moscow to reverse course and take position in the Sargasso Sea. No explanations for the reversal were given. The position of the B-36 was determined to be in the vicinity of B-130.

B-36 was pursued by USS Charles Cecil (DDR-835). In his recollections, Dubivko explains various tricks he had to employ to evade the US forces and at the same time to be able to surface to charge batteries and to be available for communications sessions from Moscow, which were not always reliable. The US ships, aware of the fact that the Soviet submarine would have to come to the surface, were sitting in water with engines turned off and no lights, in the hope that the Soviet submarine would not notice them while surfacing. No doubt it might have been a dangerous tactic. In one such attempt to surface, Dubivko was convinced that his boat was attacked by a real torpedo from Charles Cecil. This is how he described this encounter in his memoirs:

There were no lights in the direction of the noise. It meant that the enemy turned them off on purpose. We urgently submerged and the acoustic specialist reported: ‘The noise has split into two, one source of noise is moving quickly in the direction of the stern’. When the submarine submerged to the depths of 25 to 30 meters, the noise, which was moving in the direction of the stern, has disappeared.

The second source of noise, at the depth of our submergence of 35 to 40 meters, rolled over the deck-cabin and passed above us. Its GAS [hydro-acoustic station – S.S.] began to work in active mode.
Our entire crew could hear the thunder of the working engines of the anti-submarine ship passing above us. They all were sending reports to the central headquarters of the submarine. This is where our misconception regarding the location of ‘B-130’ submarine played a trick on us. Because the main headquarters of the Navy always issued the positions close to ours for that submarine, and in our view, at that point it was supposed to be on the side where it could be discovered, I concluded that the first noise which passed toward the stern was precisely from submarine ‘B-130’, and that the anti-submarine ship was tracking her. This is exactly what I wrote in the diary of the combat tour.  

Dubivko at that moment did not realize that the B-130 had already come to the surface and been discovered by the US forces. Upon learning that, he became convinced that the source of the first noise must have been a torpedo. After returning to Murmansk, he asked the experts analyzing the data from the boat recorders whether such a noise was consistent with a torpedo that had barely missed his submarine. The answer was positive, but could not be confirmed.

Dubivko’s submarine was brought to the surface on 31 October 1962. After charging its accumulators, the captain executed a maneuver, which allowed him to confuse the pursuers by directing his acoustic signal on the same frequency as that employed by the pursuing ships, and to quickly submerge with a change of course. The boat was not spotted again by the US ASW forces and was able to return to Murmansk, despite its failing equipment.

Arguably the most tense encounter between the Soviet and US navies occurred when the group consisting of the carrier Randolph (CV-15) and destroyers Bache (DD-470), Beale (DD-471), Cony (DD-508), Eaton (DD-510) and Murray (DD-576) were pursuing and forcing to the surface the Soviet submarine commanded by Captain Second Rank Vitali Savitsky with the 69th brigade chief of staff Captain Vasili Arkhipov on board. The effort to surface the B-59 was made just hours after the U-2 spy plane was shot down over Cuba, as President Kennedy was intensifying his threats to invade Cuba, and as the Soviet KGB and diplomatic sources in Cuba were reporting on an imminent and unavoidable invasion.

The following sequence of events emerges from the laconic notations in the deck logs of the destroyers:

4:59 pm. The Beale attempts to signal a Soviet submarine B-59 using practice depth charges and sonar.
5:29 pm. Cony signals B-59 by dropping five hand grenades.
8:50 pm. Beale, Cony and others force B-59 to surface – its batteries running low. It is surrounded by U.S. ships and illuminated with bright light. One of the destroyers has a band playing jazz. Savitsky understands that they were not in a state of war. Sub heads east on the surface, Cony, Beale, and Lowry circling around. October 29 – B-59 submerges without warning and escapes the ASW forces.\(^\text{34}\)

The same events looked very different from a submerged submarine unable to charge its batteries and unable to get a communication session with Moscow for over two days to find out whether the hostilities had already begun. The record of developments on the B-59 is based on the recollections of Vadim Orlov, head of the special radio intercept team on the submarine. According to Orlov, the conditions on the boat had been steadily deteriorating to the point where ‘people were dropping like dominoes’ and the temperature in the coldest section reached 45 degrees Celsius. The situation was especially tense because the crew was aware of the developments in the Cuban missile crisis from the radio intercept, but in the two days before 27 October was unable to come to periscope depth to use the antenna. The last news they had from the world above them led them to anticipate that hostilities between the US and the Soviet Union could begin at any moment, or had even already begun. In this atmosphere the explosions of the PDCs were interpreted as a possible attack on the submarine and prompted an emotional outburst from Captain Savitski.

This is how Vadim Orlov described this episode:

The Americans hit us with something stronger than the grenades – apparently with a practice depth bomb. We thought – that’s it – the end. After this attack, the totally exhausted Savitsky, who in addition to everything was not able to establish connection with the General Staff, got furious. He summoned the officer who was assigned to the nuclear torpedo, and ordered him to assemble it to battle readiness. ‘Maybe the war has already started up there, while we are doing summersaults here’ – screamed agitated Valentin Grigorievich, justifying his order. ‘We’re gonna blast them now! We will die, but we will sink them all – we will not become the shame of the fleet’. But we did not fire the nuclear torpedo – Savitsky was able to rein in his wrath. After consulting with Second Captain Vasily Alexandrovich Arkhipov and his deputy political officer Ivan Semenovich Maslennikov, he made the decision to come to the surface.\(^\text{35}\)
In an interview, Orlov emphasized the crucial role played by the brigade chief of staff Vasili Arkhipov in talking Captain Savitski out of any rash actions.\textsuperscript{36} This story of a near-use of a nuclear torpedo by a Soviet submarine commander remains very controversial in Russia. Unfortunately, both Savitsky and Arkhipov are deceased and cannot confirm or deny it. However, Vasilii Arkhipov’s widow recently went on record, saying that her husband mentioned the story of how they almost fired a nuclear torpedo at an American destroyer during the Cuban missile crisis.\textsuperscript{37}

Importantly, however, it appears that no action was taken during those emotional minutes, other than the commander’s outburst described above. The captain guarding the torpedo did not receive the orders to flood it or otherwise manipulate the weapon to prepare it for possible use. The danger of the situation was precisely in the fact that the commander was acting under acute time pressure and with limited information, under tremendous stress, and that he had a physical capability to launch the torpedo without orders from Moscow (a situation, which eerily resembles the situation on the ground in Cuba at the Soviet anti-aircraft battery, which shot down the American U-2).\textsuperscript{38}

At the conference on the 40th anniversary of the Cuban missile crisis in Havana in October 2002, Vadim Orlov recounted his story in detail but emphasized that the utmost danger came not from an intentional launch of a nuclear torpedo, which even in the tense atmosphere of the last days before the surfacing remained very unlikely, but from malfunctioning equipment or an accident, which could have happened even under less trying conditions.

The last submarine of the 69th brigade, the B-4 under the command of Ryurik Ketov, was the luckiest of the four. It was the only one of the submarines not discovered and brought to the surface by the US ASW forces, even though it was detected and had Julie and Jezebel sonobuoys dropped on it.\textsuperscript{39}

When the Soviet submarines returned to Murmansk, the commanders were subjected to a series of interrogations by the Soviet Navy command, and later by the Collegium of the USSR Ministry of Defense in Moscow. The perception of the authorities was that the captains failed in their mission and violated their orders. The initial expectation was that the captains of the ‘Cuban’ submarines would be punished for their inability to keep their mission secret and for allowing the US Navy to force them to the surface. However, according to the captains’ recollections, the discussion at the Collegium revealed that the senior leadership was not aware of the fact that the submarines ultimately sent to Cuba were not nuclear-powered missile submarines as was initially planned, but rather the
slower and older diesel-electric submarines, which were not equipped for extended patrolling in the tropics. At the present time, documents reflecting the analysis of the submarines’ mission by the Soviet military authorities remain classified, and therefore the only insight available is from the testimony of the participants, which does provide ample grounds to conclude that the top Soviet military leadership was under the impression that the missile submarines sent to Cuba were Golf–class (project 629), as it was initially intended in the decision of 24 May. In addition, at least some officers in the Soviet military command thought that it would have been better if the submarines used their weapons rather than allow the US forces to force them to the surface.

The first debriefing of the captains took place on the day after they returned to port. It was held by the Commission of the Main Navy Headquarters. The commission was headed by Rear Admiral P.K. Ivanov, head of the Department of Combat Preparedness. According to Dubivko, ‘the work of the Commission on analyzing the actions of the submarines in extraordinary conditions, according to the established at that time practice, was aimed exclusively at uncovering violations of orders, documents, or instructions by the commander or by the personnel’. The commanders were especially criticized for violating the conditions of secrecy by surfacing.

All the captains described the subsequent session of the Defense Ministry Collegium in Moscow as especially acrimonious. Each of them and Chief of Staff Vasili Arkhipov were asked to present oral reports to the Defense Minister. However, Defense Minister Marshal Rodion A. Malinovsky was ill, and Marshal Grechko received their reports at the Collegium of the Defense Ministry. Dubivko recalls the following:

During the break, Marshal Bagramyan approached me and suggested that I should give special attention to the issues of communications. I did that. Marshal [Andrei] Grechko refused to listen to my report on the problems and difficulties of the trip. He was unable to understand why a submarine would have to charge its battery every night, and why it would have to be in the RDP [snorkeling] or stationary mode to do that. The only thing he understood was that we violated the secrecy requirements, were discovered by Americans, and that for some time we stayed in close contact with them.

Alexander Mozgovoi presents a detailed account of that Collegium meeting in his book, based on his interviews with the participants. He
quotes several officers as saying that the captains should have used their weapons against the US ships. He also cites an episode when Marshal Grechko, upon learning that it was the diesel submarines that went to Cuba, removed his glasses and hit them against the table in fury, breaking them into small pieces, and abruptly leaving the room after that.44

US Efforts to Locate the Soviet Submarines and Bring Them to the Surface

On the US side, the EXCOMM was aware that the Soviet Union might have sent its submarines to Cuba as part of the deployment. At first, the US decision-makers were not sure if those were nuclear-powered submarines, nor if they carried missiles. However, once the submarines were identified as Foxtrots, it was assumed that they carried no nuclear weapons, since nuclear-tipped torpedoes were not part of normal ammunition for that type of submarine.

President Kennedy was briefed on the intelligence that the Soviet submarines were on their way to the Caribbean on 23 October. Attorney General Robert Kennedy was especially concerned about the boats and the possibility that one of them would have to be stopped if it tried to cross the quarantine line. He ordered a maximum ASW effort to track and surface the submarines, but at the same time emphasized that maximum caution must be exercised.

For his part, Defense Secretary Robert MacNamara was anxious about signaling the Soviet submarines to come to the surface. He wanted to make sure the submarines understood the signals as they were intended to be, and not as a provocation or even worse, an attack. On 24 October he instructed the navy commanders to develop a special system of signaling, which he immediately approved. These signals were transmitted to the Soviet government through the US Embassy in Moscow on 25 October in the form of a Notice to Mariners, under the title ‘Submarine Surfacing and Identification Procedures’. According to the notice, the quarantine forces would drop four or five harmless explosive sound devices accompanied by an international code signal ‘rise to surface’. Upon receiving this signal, the submarine should come to the surface on an easterly course. The notice contained an assurance that all signaling devices were harmless.

The EXCOMM transcripts reveal how much attention was given to the proper signaling of the submarines, and that the policymakers realized the dangers of a possible attack on a submarine if it refused to surface or interfered with the quarantine. On 24 October, the EXCOMM discussed the threat that the submarines presented and
the procedures to avoid an incident. The transcript shows that Kennedy personally was very concerned about what the chain of events could lead to. He asked MacNamara what would happen if the submarine did not surface:

If he doesn’t surface or if he takes some action – takes some action to assist the merchant ship, are we just going to attack him anyway? At what point are we going to attack him?

I think we ought to wait on that today. We don’t want to have the first thing we attack as a Soviet submarine.45

MacNamara described the signaling procedures to the president. Alexis Johnson noted, however, that although the identification procedures were sent to Moscow, the US did not receive an acknowledgment of the receipt. The moments when MacNamara described how the submarines would be signaled by the practice depth charges, according to Robert Kennedy, ‘were the time of greatest worry for the President. His hand went up to his face and covered his mouth and he closed his fist. His eyes were tense, almost gray, and we just stared at each other across the table’.46

MacNamara concluded the discussion of the submarine threat with his scenario of dealing with the Soviet submarines:

What the plan is, Dean [Rusk – S.S.], is to send antisubmarine helicopters out to harass the submarine. And they have weapons and devices that can damage the submarine. And the plan, therefore, is to put pressure on the submarine, move it out of the area by that pressure, by the pressure of potential destruction, and then make the intercept. But this is only a plan and there are many, many uncertainties.47

It would be appropriate to ask if the Soviet captains actually received the signaling instructions. In their books, both Joseph Bouchard and Peter Huchthausen assume that the commanders must have known about the signaling procedures and were familiar with the way PDCs sounded. However, Bouchard notes that:

Submerged Soviet submarines essentially ignored the sonar and explosive charge signals. There were no reported instances of a Soviet submarine immediately surfacing upon hearing the signals. Soviet submarines surfaced because they needed to replenish air and batteries, or because they had some kind of mechanical problem.48
According to the recollections of the Soviet captains, they were not aware of the signaling procedures transmitted on 24 October. Moreover, in each case, the explosions of PDCs were perceived not as a signal but as a hostile action. Each of the commanders and Vadim Orlov remarked in their recollections about how the hull amplified the sound and how the boat shook with each explosion. Each captain attributed at least some damage to his submarine from those explosions, and Dubivko even claimed that he was attacked by an actual torpedo. Had they known that the PDCs were simply signaling devices, it is unlikely that the captains would have associated them with the possibility that the war had already started above the water while they were sitting under it without communications with Moscow. As was discussed above, another concern of the Soviet submarine commanders was that a US ship might try to ram them and present it as an accident.

One has to ask a counter-factual question: what would have happened if the Soviet captains by intention or accident used their nuclear torpedoes? We have grounds to believe that the US would most likely have made a nuclear counter-response. Recent evidence indicates that US ships had nuclear depth charges on board, while non-nuclear components for more depth charges were stored at Guantanamo Bay, Cuba. Even such limited initial nuclear exchange, especially if it had taken place in the tense circumstance of the evening of 27 October could have potentially led to an escalation of conflict, especially aggravated by the effect of shock due to the fact that the US command was unaware of the presence of nuclear torpedoes on the Soviet submarines.

Conclusions

Analyzing all the available evidence from the Russian and US archives, as well as the eyewitness accounts, one has to state from the outset that at this time, all the conclusions that can be drawn will be of a preliminary character. Even with the recent revelations about the journey of the Soviet submarines equipped with nuclear torpedoes, most of the evidence, which would allow one to speak more confidently about the submarine story, remains classified in the Russian archives. What we now know is only the tip of the iceberg that is slowly beginning to emerge.

However, we now know that the submarines were sent to Cuba as part of an overall deployment of forces of Operation ‘Anadyr’ with the mission to establish a Soviet naval base at Mariel, Cuba. The initial plans of extensive Soviet naval deployment were scrapped in
late September partly for considerations of secrecy, but also (it is especially relevant to the submarine deployment) because the ships that were part of the initial planning were not ready to be deployed (missile submarines). The submarines were equipped with nuclear torpedoes as part of a general plan of creating a nuclear base on Cuba, but were not issued battle orders because their mission was to serve as the spearhead of the future naval base, and therefore they had to arrive and dock at Mariel. Another submarine, B-75, which also carried nuclear torpedoes, was assigned a different task – to escort and protect the Soviet transport ship Alexandrovsk, also carrying ‘special’ equipment. This submarine had more specific battle orders on the use of its weapons, if the transport were boarded or attacked.

However, for all the submarines – the Foxtrots of the 69th brigade, and the B-75 Zulu, the orders on using nuclear-tipped torpedoes were the same – they could only be used by order from Moscow. Although physically the captains could arm and launch the nuclear-tipped torpedo, the procedure of the actual launching was quite complex and required three keys to be initiated. According to all available evidence, no nuclear torpedo was actually assembled to battle readiness, although the tense situation on B-59 resulted in a probable effort to arm the torpedo.

The most important conclusion from this study, which will probably be supported by further archival evidence, is that the presence of nuclear weapons on the Soviet submarines has increased the danger of the Cuban missile crisis by another degree. The fact that the presence of the nuclear torpedoes remained secret greatly raised the probability of an incident, as the US Navy carried out its efforts to force the exhausted Soviet commanders to bring their malfunctioning ships to the surface, or in MacNamara’s words, to ‘harass’ the submarines. To the captains of the ‘harassed’ submarines, who were unaware of the signaling procedures, the situation above might have looked as if the war had already started, which might have moved them to ‘use or lose’ their most prized weapons. On the other hand, if a launch occurred, whether intentionally or accidentally, and the US ships were hit with an unexpected nuclear torpedo, the probability that the US Navy would perceive the launch as intentional would have been very high and might have prompted the US side to use the nuclear depth charges available to them, thus starting a chain of inadvertent developments, which could have led to catastrophic consequences.
Notes


4 Dangers of inadvertent use of weapons and of unintentional escalation due to human mistake are discussed at length in James Blight, The Shattered Crystal Ball: Fear and Learning in the Cuban Missile Crisis (Savage, MD: Rowman & Littlefield 1990).


7 This conference was held in Havana and organized jointly by the Cuban government and the National Security Archive with its partners from Brown University.

8 Peter Huchthausen, October Fury (New York: John Wiley 2002).


13 Ibid.

14 Mozgovoi (note 3) p.100.

15 Ibid.

16 Ibid. p.103.

17 Ibid. p.62.
18 Interview with Shumkov, 18 Sept. 2002, Moscow.
19 Meaning, if they were attacked and hit under the water.
20 Transcript of selections from Russian documentary program How It Happened (VID, 30 Jan. 2001) ORT (Russian Television Channel 1) with four submarine commanders who participated in Operation ‘Anadyr’.
21 Mozgovoi (note 3) p.71.
23 Interview with Orlov, 17 Sept. 2002, Moscow.
24 Cherkashin (note 22) p.114.
26 Orlov interview (note 23).
28 Interview with Shumkov, 18 Sept. 2002, Moscow.
29 Cherkashin (note 22) p.153.
30 Huchthausen, October Fury (note 8) p.209.
33 Interview with Dubivko, 25 July 2002.
35 Mozgovoi (note 3) pp.92–3.
36 Interview with Orlov (note 23).
37 Sobesednik: Obscherossiiskaya Yezhednevnaya Gazeta, No. 10 (1012), 17–23 March 2004, Moscow.
38 For detailed Soviet Generals’ testimony on how the U-2 was shot down see James Blight, Bruce Allyn and David Welch, Cuba on the Brink: Castro, the Missile Crisis, and the Soviet Collapse (New York: Rowman & Littlefield) pp.113–14.
39 See Mozgovoi (note 3) p.98; CINCLANTcable to JCS, 1 Nov. 1962, available at <http://www.gwu.edu/~nsarchive/NSAEBB/NSAEBB75>.
40 Dubivko, ‘In the Depth of the Sargasso Sea’ (note 32) p.323.
41 All the Russian accounts used in this study point to a statement to that effect made during the meeting of the Defense Ministry Collegium in Moscow.
42 Dubivko, ‘In the Depth of the Sargasso Sea’ (note 32) p.321.
43 Ibid.
Appendix 1

Initial Plans for Soviet Navy Activities in Support of Operation Anadyr
18 September 1962

[to the] Defense Council
to N. S. Khrushchev personally

We report the plan for the passage of naval ships per the “Anadyr’’ operation.

I.
Per the “Anadyr’’ operation we are sending to Cuba:

- seven Project 629 missile submarines of the Northern Fleet;
- four Project 641 torpedo submarines of the Northern Fleet;
- two Project 68-bis cruisers: “Mikhail Kutuzov” of the Black Sea Fleet and “Sverdlov” of the Red Banner Baltic Fleet;
- two Project 57-bis missile ships of the Black Sea Fleet;
- two Project 56 destroyers of the Northern Fleet;
- two submarine tenders and other auxiliary vessels.

Organizationally the submarines and surface ships are being thrown together into a detachment of combat ships, including:

- a squadron of submarines composed of a division of missile submarines and a brigade of torpedo submarines;
- a squadron of surface ships made up of cruisers, missile ships, and destroyers;
- a division of auxiliary vessels.
It is intended to also include in the detachment: transport with special cargo which will make the passage together with the submarine squadron.

Command of the detachment of combat ships is entrusted to Vice Admiral V. M. Lobov, the First Deputy Commander of the Northern Fleet.

During the passage the commander of the detachment and his staff will be on the cruiser “M. Kutuzov”.

II.

The passage of the detachment of naval ships to Cuba will be done in full combat readiness. The time for the passage will be up to 32 days, of which 2–3 will be for conducting an exercise.

In view of the ships’ time of arrival in Cuba, 9 November, submarines will be required to leave their bases on 7 October, auxiliary vessels 9–12 October, and surface ships 19–21 October.

It is planned for the passage of the detachment of combat ships to be carried out in three stages:

1st stage – the crossing of submarines and surface ships to the area of the exercises to the south of Bermuda;
2nd stage – holding exercises of submarines and surface ships at sea;
3rd stage – movement of the detachment of combat ships from the exercise area to the island of Cuba.

In the first stage of the crossing the formations of submarines and surface ships are to proceed separately, in groups.

The squadron of submarines with tenders and the transport with the special cargo will leave from Kola Gulf on 7 October and proceed to the exercise area through the passage between Iceland and the Faeroe Islands.

For concealment the submarines will submerged by day but surfaced at night with an average daily speed of 7–8 [nautical] miles an hour.

The cruiser Sverdlov will leave Baltiysk on 20 October for the North Sea where it will be joined by the destroyers which will leave the Kola Gulf on 19 October.

These vessels will then pass through the English Channel toward the Azores where they will join the cruiser M. Kutuzov and the missile ships which will leave Sevastopol’ on 20 October.

From the Azores the entire squadron of surface ships shall proceed to the exercise area with a speed of 16 miles an hour.

Auxiliary ships will leave [their] bases in two groups: the rescue vessels and military transport from Kola Gulf on 12 October and the
water [supply] boats and military transport from Sevastopol’ on 9 October.

Both groups shall make the passage independently with a speed of 8–10 miles and hour along the same routes as the surface ships, but without visiting the exercise area.

[apparently some text missing] their departure for the sea will be done by the Main Staff of the Navy. When they put to sea the commander of the detachment of combat ships and his staff will take command of the entire detachment.

The commander of the detachment shall personally receive instructions and all orders about the route of the passage, the organization of the exercise, the possibility of using weapons, and information about the situation.

Having arrived in Cuba the entire detachment will become part of the Group of Forces under the command of Cde. Pliyev.

[signature] [M.] Zakharov

[signature] [V.] Fokin

18 September 1962

[Notation in a different hand: “Reported to the Minister of Defense in the presence of the Chief of the General Staff and the Chief of the Main Operations Directorate 27–9 [[illegible signature]]]

[Source: Volkogonov Collection, Library of Congress, Manuscript Division, Reel 17, Container 26, Translated by Gary Goldberg for the Cold War International History Project and the National Security Archive]
Appendix 2
Report on the Progress of Operation Anadyr
25 September, 1962

[The above is crossed out and a stamp below reads:
“‘Top Secret’ classification removed
Certificate, Incoming № 11959s 1986” followed by an illegible signature]

[Translator’s note: the left margin of the document is missing due to a reproduction error; the one or two words missing in each sentence are indicated by “XM”]

[to the] CC CPSU Presidium

We report:

1. The “Anadyr” measures are being done according to the approved plan. As of 25.9.62 114 ships have been sent; [XM] ships have arrived in Cuba and 35 ships remain to be sent.

   The plan to transport troops has been accelerated the loading shall be done by [XM] October and the arrival will conclude by 3–5 November.

   Already 30,390 men are in Cuba with [their] corresponding equipment.

   The R-12 missile regiments will finish [their] buildup in Cuba by 25 October.

   The R-14 missile regiments will load in the period 2-20 October and will finish [their] buildup in Cuba by 5 November.

2. In view of the fact that at the present time sending surface ships of the Fleet with the men would attract the attention of the entire world and get [XM] not in the favor of the Soviet Union it seems necessary not to send the surface ships to Cuba for now.

3. The [perhaps 1 digit missing] 69th Torpedo Submarine Brigade shall be sent to strengthen the defense of the island of Cuba, consisting of four diesel electric Project 641 submarines, each of which has 22 torpedoes, totaling [8]8, of which 4 [have] nuclear warheads. Their range is 19 km.
4. To transport 68 units of special ammunition from [XM] R-14 24 and 44 for the FKR-1 [missiles], assign the transport [Aleksandrov]sk, with loading at Severomorsk. The transport’s speed shall be 13-14 [miles] an hour. The transport Aleksandrovsk is to be armed with two [XM] 37mm automatic weapons.

The transport Aleksandrovsk shall be sent on 7 October with arrival in Cuba 20–25 October.

To escort the transport in the sea crossing designate a second ship which will apparently be going.

In order to protect the transport Aleksandrovsk on the passage to Cuba send a Project 627-a nuclear torpedo submarine armed with [XM] torpedoes, of which one has special ammunition, fully-armed [vokonchatel’no snaryazhennom] vide]. The torpedo’s range is 19–21 km.

Out of considerations of secrecy the nuclear submarine shall travel to Cuba directly [XM] transport in the most [XM] sectors.

5. Regarding the transport Indigirka which is delivering special ammunition [XM] its escort by the transport Berdyansk and its observation by other ships travelling to Cuba, send the Project 611 diesel electric submarine B-75, which is presently reconnoitering the American coast, to the area south of Bermuda.

The submarine B-75 has 22 torpedoes with a range of 11 km. The submarine will be in the region of the transport’s travel.

Please approve [this].

M. Zakharov
V. Fokin

25 September 1962

[Notation in a different hand: “Reported to the Minister of Defense in the presence of the Chief of the General Staff and the Chief of the Main Operations Directorate 279 [illegible signature]]

[Source: Volkogonov Collection, Library of Congress, Manuscript Division, Reel 17, Container 26, Translated by Gary Goldberg for the Cold War International History Project and the National Security Archive]