

# Canadian Involvement in the Cuban Missile Crisis Re-Considered<sup>1</sup>

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*L'année 2008 marque le quarante-sixième anniversaire de la crise cubaine de missiles. Cet incident a amené le monde au bord de la guerre nucléaire, a changé le cours des événements mondiaux et continue à nous fasciner. Il demeure à la vue publique à travers un flux continu d'analyses fraîches, de nouveaux comptes rendus venant des participants et de documents nouvellement déclassés par les gouvernements. Tout ceci provoque, de temps à autre, la question très raisonnable, "avons-nous appris quoi que ce soit de neuf?" Les opérations anti-sousmarins conduites par les forces maritimes américaines et canadiennes posent toujours quelques mystères et elles sont ainsi toujours intéressantes à réexaminer. Cet essai constitue une telle réflexion, en grande partie d'une perspective canadienne.*

For much of the past 45 years, the Cuban Missile Crisis has been a focal point of academic study in international relations, in crisis management, and in civil-military relations. Some aspects of how the crisis was handled politically and some of the related military actions still bother people, and so continued research holds the promise of something new about those events. Because many details remained classified until the Cold War ended, the initial level of analysis was necessarily shallow, but kept alive by a few excellent first-hand accounts, such as Robert Kennedy's *Thirteen Days*.<sup>2</sup> Yet without an adequate data base of facts there was no way of assessing the reliability of the accounts, especially those covering operations at sea where the absence of information was marked. And because so much information just was not available to the public, conspiracy theories and suspicions of cover-ups inevitability arose. However, the end of the Cold War and the subsequent collapse of the Soviet system in 1991 led to a series of

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<sup>1</sup> I would like to express my sincere thanks to colleagues who helped me with both the writing and the research and pushed me to write this essay; especially, Cathy Murphy of the Canadian Forces College Library who helped me locate documents from the US Archives, and Professor J.T. Jockel of St. Lawrence University, Dr. Richard Gimblett of Ottawa, and Professor Dan Middlemiss of Dalhousie University, all of whom read early versions of the manuscript and provided invaluable suggestions and comments. Any errors, omissions, or contentious statements remain entirely my responsibility.

<sup>2</sup> Robert F. Kennedy, *Thirteen Days: A memoir of the Cuban missile crisis* (New York: W.W. Norton & Company, 1969).

conferences between American, Cuban, and Russian participants. In turn, these gave rise to a flood of memoirs and fresh analyses. For the first time, people began to realize that the events of October and November 1962 really did bring the world to the brink of nuclear war. Since then, the analysis has continued, but with greater emphasis on details and the actions of individuals, often in a critical way.

In 1993, I entered that fray with an analysis of Canadian involvement in the crisis.<sup>3</sup> Rather than focus on political factors, as most previous analyses had done, I tried to look at the military involvement as well. But I was constrained by a lack of some key information, especially concerning Soviet submarine operations. For this reason, I was always slightly disappointed with my analysis; I was able to explain most Canadian military activities during the crisis, but the necessary context of Soviet submarine operations was missing and this left too many unanswered questions. Jan Drent's excellent article on the Soviet submarine operations provided much of the impetus for beginning this essay.<sup>4</sup> I also had some nagging doubts about the political handling of the situation in Ottawa, especially with respect to nuclear weapons, but that is another story for another day. Now, a dozen or so years later, new information is available and so it is time to re-visit my original analysis. In this, three areas concerning Canadian involvement in the crisis stand out as worthy of re-reconsideration:

- Concepts for dealing with unidentified submarines.
- The threat posed by the Soviet submarines and how it was countered.
- Command, control, and coordination of naval forces.

## **I. Dealing with Unidentified Submarines**

International law is clear in stating that warships (including submarines) may use the territorial waters of another state for the purposes of innocent passage and, in the case of submarines, that they be on the surface. That law is not clear, on the other hand, about foreign warships using the contiguous and other adjacent waters of a state. The 1982 *UN Convention of the Law of the Sea* (UNCLOS) addressed some of the lack of precision in the law but did not provide definitive statements or even guidance on the use of the high seas beyond the territorial waters for naval operations.<sup>5</sup> In 1962, the law was not clear on the use of ocean areas contiguous to territorial waters by foreign submarines in non-wartime situations, and this was a major concern for American and Canadian naval staffs.

The right to attack unidentified submarines lurking offshore had never been a problem in the Second World War when their purpose was unambiguous. However, for the first decade of the Cold War the presence of an unidentified submarine off-shore conducting surveillance from international waters presented no immediate threat; it

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<sup>3</sup> Commander Peter T. Haydon, RCN(Ret'd), *The 1962 Cuban Missile Crisis: Canadian Involvement Reconsidered* (Toronto: Canadian Institute of Strategic Studies, 1993).

<sup>4</sup> Jan Drent, "Confrontation in the Sargasso Sea: Soviet Submarines During the Cuban Missile Crisis," *The Northern Mariner* 13, no. 3 (July 2003): 1-19.

<sup>5</sup> Articles 19 and 20 of UNCLOS (82) are specific in providing the meaning of "innocent passage" and of the related requirements for submarines. Article 25 gives states the right to suspend innocent passage where exercises are being conducted.

merely remained a potential threat should the international situation deteriorate. The advent of strategic weapons, essentially nuclear weapons and missiles and their adaptation to submarine use, led to re-appraisal of the policies for dealing with unidentified submarines.

In August 1955, the chief of the Canadian Naval Staff, Vice-Admiral H.G. DeWolf, proposed a change in the rules of engagement, explaining the need to do so:

In view of the size of the Soviet submarine fleet and the large proportion of ocean patrol submarines comprising it, it must be considered probable that in the preliminary phase of a nuclear war Soviet submarines will be deployed to positions in Canadian coastal waters from which nuclear armed missiles can be launched against targets within their range to coincide with air attacks on other targets. To achieve simultaneous attacks by sea and air would necessitate the submarines being sailed some days previously in order to make the transit to their launching positions. It is conceivable, therefore, that the first indication of the enemy's war intentions may well be the detection by sound surveillance systems, ships or aircraft of a number of submarines approaching the coasts of Canada.<sup>6</sup>

The proposed change, which reflected the earlier shift in NATO strategy to acknowledge Soviet nuclear capabilities, and which was to be sent to the Cabinet Defence Committee, went on to state that the existing rules were inadequate in light of recent submarine developments. Recommendations for changes in the rules, however, did not include RCAF maritime patrol aircraft which had become key antisubmarine warfare (ASW) forces in the integrated concept of maritime defence.

Central to the new procedure was the initial interrogation of the submarine contact to establish its identity where possible, and when it could not be identified positively, and contact was only made acoustically (by any underwater detection system), then it would be deemed "hostile" only if a hostile act was committed. The meaning of "hostile" act on the part of a submarine was, or so it seemed at the time, fairly straight forward:

- diving without identifying itself;
- clearing away its gun armament on the approach of a ship or aircraft;
- preparing to fire a missile;
- attacking any ship or aircraft; or
- firing a missile.

Interestingly, "North American waters" were not defined or delineated. It seems an operational assumption was that the rules of engagement applied to unidentified submarines found within their theoretical maximum weapons range and to those contacts found closing to within such a distance from shore. The emphasis, it was stated, was on attempting to make early identification. In other words, resolving the ambiguity of an unidentified contact as early as possible was paramount, which made sense from both

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<sup>6</sup> Draft memorandum to the Cabinet Defence Committee, "Authority to attack unidentified submarines detected within or approaching Canadian territorial waters," (NSTS 18100-1) undated, attached to the minutes of the 456<sup>th</sup> Naval Board meeting, 31 August 1955, Directorate of History and Heritage, National Defence Headquarters, Ottawa (hereafter, DHH).

political and tactical perspectives.

The Naval Staff's strategic logic, however, was not supported completely by the officials of the Department of External Affairs who foresaw political rather than legal problems in the proposal particularly in that part of the definition of "hostile act" concerning non-identification. Here, they argued, it might be prudent to give the submarine the benefit of the doubt. Essentially, the view was that sinking a Soviet submarine outside territorial waters on the basis of non-identification paralleled questionable Soviet actions in shooting down unidentified aircraft outside the territorial airspace of their country. Moreover, External Affairs lawyers and the chairman of the Chiefs of Staff Committee, General Charles Foulkes, believed that the procedure and rules should be consistent with those used by the Americans. In terms of response within territorial waters, no doubts existed because an attack on an obviously hostile submarine was "self-defence." As the legal brief attached to the Department of External Affairs' memo to DND stated, "[s]ome writers of international law go even further and assert the existence of a much wider right than that of self-defence, namely the right of self-preservation which they claim is one of the fundamental rights of states and takes precedence over all others."<sup>7</sup>

Overall, the legal opinion concurred in the right of the state to take action against unidentified submarines, especially as similar concepts already existed for unidentified aircraft. The problem lay in the definition of a "hostile act," a matter that would remain a highly contentious issue for many years. In trying to change the rules for dealing with potentially hostile submarines close to Canadian waters, DeWolf and his staff had inadvertently opened a legal Pandora's box.

The next step was to work with the Americans in drawing up a set of coordinated bilateral rules for dealing with unidentified and hostile submarines in North American waters. This was done through the Military Cooperation Committee (MCC) of the Permanent Joint Board on Defense (PJBD), and in March 1958 draft instructions for "The coordination of Canada-United States ASW operations in defense of North America" were submitted to the Canadian Chiefs of Staff. Unfortunately, DeWolf's fairly uncomplicated criteria had been massaged into a broader policy statement that would require further amplification if it was to have any operational value. However, the statement clarified one potentially confusing issue by establishing that:

The maintenance of surveillance and control of the North American and North Pacific Oceans both before and during war requires the following to be accomplished:

- A) The acquisition, evaluation and exchange of information concerning the pattern of action by non-friendly submarines within the setting of the international situation as it may exist at any time.
- B) Prior to the outbreak of war, the detection, tracking, surfacing and identification

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<sup>7</sup> Jules Leger, under-secretary of state for External Affairs, to General Charles Foulkes, chairman Chiefs of Staff, "Authority to Attack Unidentified Submarines Detected within or Approaching Canadian Territorial Waters," 1 June 1956, Chiefs of Staff Committee minutes, DHH.

of non-friendly submarines in North American waters, and the prevention of hostile action by such submarines, or the destruction of a submarine which commits a hostile act.

C) After the outbreak of war, the detection and destruction of enemy submarines.<sup>8</sup>

The proposal continued in establishing the responsibilities for developing operational plans and procedures including a concept for avoiding mutual interference between Canadian and American submarines. After the usual discussion, the proposal was concurred in by the Chiefs of Staff who directed that interlocking national plans be drawn up.

This was done, and the Chiefs of Staff reviewed the new national plan on 28 August 1956. DeWolf and the chief of the Air Staff, Air Marshal C.R. Slemon, were concerned that the plan did not provide enough guidance but they accepted the necessity of such limitations in striking a balance between American and Canadian requirements. The Chiefs of Staff also debated, at length, the political implications of attacking missile-firing submarines when the location of the target was not known. Eventually, the decision on approving the plan was deferred pending further review by the Naval Staff.<sup>9</sup> The process became stalled.

In April 1959, the Naval Board reviewed a draft of the “Canada-United States Rules of Engagement for Defense Against Submarines” passed on from the Chiefs of Staff Committee.<sup>10</sup> Not surprisingly, there were reservations to the proposal; documents prepared under political constraints seldom meet all operational requirements. Also not surprisingly, one of the contentious areas was the definition of a “hostile submarine” which the draft rules had left to “competent shore authorities” to define rather than to the operational commanders who naturally wanted to keep the decision at the operational level to prevent valuable time being wasted. Also, there was concern that the precise criteria for deeming a submarine “hostile” needed to be spelled out very clearly because there could be no room for doubt. On top of this, the admirals rightly wanted a mechanism for requiring that a submarine identify itself. Revisions were made and the new set of rules were approved by the Canadian Chiefs of Staff on 28 January 1960, and forwarded to the minister of National Defence for approval before being sent back to the MCC for discussion in the bilateral arena.<sup>11</sup> The rules duly came back with further amendments, and the Chiefs of Staff yet again fiddled with the text. DeWolf, however, made one important point: irrespective of the existence of a set of bilateral rules of engagement, a need for a purely Canadian rules for Canadian situations still existed.

<sup>8</sup> “Proposed Instruction for the Coordination of Canada-United States ASW Operations in the Defense of North America,” 13 March 1958, under cover of a Joint Planning Staff memo CSC 1224-3 (JPC) to secretary Chiefs of Staff, 21 March 1958, DHH 73/1223, file 106.

<sup>9</sup> Minutes of the 624<sup>th</sup> meeting of the Chiefs of Staff Committee on 28 August 1958, DHH.

<sup>10</sup> Minutes of the 592<sup>nd</sup> meeting of the Naval Board, 8 April 1959, DHH. The audit trail is rather difficult to follow because the various files are not complete in themselves and so one is left to garner information from a series of files. Also, because this subject dealt with Canada-US relations much of the material has not yet been de-classified in Canada.

<sup>11</sup> Minutes of the 655<sup>th</sup> meeting of the Chiefs of Staff Committee on 28 January 1960, DHH.



*Fig. 1: A Soviet Foxtrot-class submarine; the four deployed to the Caribbean all had nuclear torpedoes. DND photo, courtesy Maritime Command Museum, Halifax.*

These were developed and eventually approved on 31 August 1961.<sup>12</sup> Those rules, it seems, remained in force for the next three years, which included the period of the Cuban Missile Crisis. A copy cannot be found now and so the key issue of how Canadian forces were to demand that a suspected non-friendly submarine identify itself remains unclear. However, the use of five small explosive charges in quick succession became the adopted practice to call a submarine to the surface within NATO and for Canada-US forces.<sup>13</sup> Getting submarines to identify themselves was an important issue during the Cuban Missile Crisis.

On 24 October 1962, the US State Department sent a telegram to the US Embassy in Moscow telling the Ambassador to inform the Soviet government that the US Navy would use a procedure to have unidentified submarine contacts come to the surface. The message stated that “Quarantine Forces will drop four or five harmless explosive sound signals which may be accompanied by the international code signal ‘IDKCA’ meaning ‘rise to the surface.’ This sonar signal is normally made on underwater communications equipment in the 8 KC frequency range. Submerged submarines, on hearing this signal, should surface on an easterly course. Signals and procedures employed are harmless.”<sup>14</sup>

The message was delivered but rejected by the Soviets.<sup>15</sup> As the various accounts written by the captains of the four “Foxtrots” of their confrontation with the US Navy attest, they were completely surprised by the use of sound signals and believed they were under attack. The Soviet government’s rejection of the advisory note on the surfacing procedures was dangerous if not reckless, especially as it left the submarine captains unsure of what to do under the circumstances which also led them to consider using their nuclear torpedoes in self-defence. A controversy still exists over whether the “Foxtrot” captains would have used their nuclear torpedoes in self-defence. According to Svetlana Savranskaya, one commanding officer believed he was being attacked by something more powerful than a grenade. Unable to reach his higher authority by radio, he discussed the situation with his political officer and second-in-command and wisely decided against using that weapon.<sup>16</sup> Even though the Americans used “scare” grenades to bring the “Foxtrots” to the surface and identify themselves there are no Soviet accounts of this procedure. Those submarines that came to the surface did so because of mechanical problems. It is distinctly possible that the commanding officers, at the urging of their

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12 Minutes of the 698<sup>th</sup> meeting of the Chiefs of Staff Committee on 31 August 1961, DHH.

13 This was standard procedure in the early 1960s and was used throughout NATO and for Canada-US ASW exercises. As the navigating officer of a submarine during that period and later in the same capacity in a Canadian destroyer, I know that the use of five scare charges was routine during exercises.

14 US Department of State to Moscow Embassy, telegram, serial 42-48, 24 October 1962, <http://nsarchive.chadwyck.com/nsa/documents>.

15 Excerpt from meeting of the Executive Committee (Excom) of the National Security Council, 10:00 AM - 11:15 AM, 24 October, 1962, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB75/asw-II-1.pdf>.

16 Svetlana V. Savranskaya, “New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis,” *Journal of Strategic Studies* 28, no. 2 (April 2005): 246.

political officers and the members of the Brigade staff who sailed aboard all four submarines, were more concerned over maintaining the secrecy of the operation than in placating the American ASW forces who had the upper hand. On return to Murmansk, the commanding officers and Brigade staff were interrogated and for a while there was concern that they would be severely punished for compromising the mission by surfacing to correct defects. This did not happen.<sup>17</sup>

In summary, it appears that the Soviet submarines were unaware of the standard NATO and Canada-US surfacing and identification procedures and they attempted to remain covert for as long as possible in accordance with their initial sailing orders.<sup>18</sup> That they misinterpreted the “scare” charges for depth charges and were thus forced to contemplate action for self-defence is troubling. However, the refusal of their government to accept the advance notification of that procedure is even more troubling. One is left to draw the conclusion that the Soviet political leaders were knowingly playing a dangerous game and that US and Canadian ASW forces attempted to identify the various Soviet submarines using legally-established procedures in a situation where those submarines could have been deemed “hostile.” The Soviet submarine captains were mere political pawns left to manage a very difficult situation without adequate orders or command and control systems. That the Soviet Navy stayed much closer to home for the next few years is probably the result of this dangerous and humiliating situation.

## **II. The Soviet Submarine Threat**

The problem with the submarines is that no one, save the Russians of course, knows exactly how many Soviet submarines eventually took part in Operation “Anadyr” or were already on patrol in North American waters in October and November 1962. Without knowing the exact numbers, one cannot determine the potential threat (as a function of both actual capabilities and Soviet intentions) posed by those submarines with any accuracy, but that does not mean that we cannot re-examine what we do know and see if the submarine threat can be assessed with greater accuracy.

There are two underlying problems in trying to throw more light on the Soviet submarine aspects of the crisis. First, the Russians have yet to open the Soviet Navy archives and so all we really have are a few first-hand accounts some of which could possibly have been produced for a western audience and embellished accordingly. Second, in the early 1960s Western intelligence estimates of Soviet submarine capability were generally poor. This was a systemic problem going back to the period immediately after the war when the West had seriously over-assessed the Soviet submarine capability in thinking that the Soviets would be very quick to exploit the technology acquired from Germany in 1945. In reality, it took the Soviets until the early 1950s to begin exploiting the technology available through the German type-XXI and type-XXIII submarines. This over-assessment almost certainly undermined the credibility of the naval intelligence

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<sup>17</sup> Savranskaya, “New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis,” 247-248.

<sup>18</sup> Savranskaya, “New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis,” 251.



community in political eyes.

By 1958, the various Soviet shipyards were in full production with a family of good, ocean-going diesel-electric submarines some of which could fire relatively short-range (about 350-500 nautical miles) missiles.<sup>19</sup> The first nuclear-powered submarine (SSN) was launched in 1958 and additional hulls followed fairly quickly, but it took the Soviets about five more years to exploit that technology fully.<sup>20</sup> The first Soviet SSN, K-3 *Leninsky Komsomol*, was commissioned in July 1958 and in June 1962 deployed under the ice to the North Pole. The Americans, in the USS *Nautilus*, had made a similar historic voyage almost four years before.

As shown in my original analysis, in 1962 the Canadian Joint Intelligence Committee estimated the total Soviet submarine strength to be 259 of all types with roughly half of them based in the Northern Fleet. By type, it was estimated that there were 118 diesel-electric patrol submarines, four nuclear-powered attack submarines, and 25 missile-firing submarines of which nine were nuclear-powered. Those numbers included many obsolete submarines as well as a number of small, coastal submarines, and the important difference between ballistic and cruise missile-firing submarines was not made.<sup>21</sup> Not having those numbers broken down by class or type, and thus by operational capability, makes it hard to calculate what the Soviets could have deployed into the western North Atlantic in October 1962.

To re-create the effective Soviet long-range submarine capability in the fall of 1962 we need to look elsewhere. Although the overall numbers of submarines given in *Jane's Fighting Ships* varied considerably from year to year through the 1960s they provide a reasonably consistent estimate by type. The total numbers of long-range submarines (all fleets) for 1962-63 were:

- 21 "Foxtrot"-class patrol submarines (known to the Soviets as Project 641);
- 26 "Zulu"-class patrol submarines (Project 611) and 7 "Zulu V"-class missile-firing submarines;
- 22 "Golf"-class diesel-electric missile submarines (Project 629);
- 4 "November"-class SSNs (Project 627); and
- 12 other nuclear-powered missile submarines ("Echo"- (SSGN) and "Hotel" (SSBN)-classes) most of which were still under construction.<sup>22</sup>

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<sup>19</sup> This was the first ballistic missile developed for the Soviet Navy, the SS-4 (Sark) missile used in the "Zulu V", "Golf", and "Hotel" classes of SSBN.

<sup>20</sup> See, for instance, Jan Breemer, *Soviet Submarines: Design, Development and Tactics* (Coulsdon, UK: Jane's Information Group, 1989).

<sup>21</sup> In intelligence, precedence is invariably given to numerical strength especially when presenting the threat as part of the military funding process.

<sup>22</sup> The first Hotel-class SSBN, K-19, was commissioned in April 1961 and suffered a reactor failure whilst at sea in July 1961 which caused the deaths of eight of the crew by radiation exposure. This accident almost certainly slowed down the SSN and SSBN program. The subsequent triumph, as the Soviets heralded it, of the *Leninsky Komsomol* making it safely to the North Pole was used as a way of showing that nuclear propulsion technology had been made safe. The records are hazy, but it seems that the Soviets progressed only with great caution after the K-19 accident and the North Pole voyage was used to reassure the people



*Fig 2: A Soviet Zulu-class submarine; at least two of this class were on patrol in North American waters before the start of the crisis. DND photo, courtesy Maritime Command Museum, Halifax.*

Measuring effective submarine strength is difficult and is usually only done for a specific moment in time rather than as a generalization. All we are interested in here are those submarines capable of crossing the Atlantic covertly in the Fall of 1962 which essentially means that they came from the Northern Fleet and were “Zulu” and “Foxtrot” patrol submarines.<sup>23</sup> A possibility exists that a “November”-class nuclear-powered submarine as well as some “Golf” and “Zulu V” missile-firing submarines deployed from Northern Fleet, but as far as we know today they were not part of the initial strategic deployment to Cuba under Operation “Anadyr.” Despite US Navy SOSUS analysis up to and including 27 October that there was no evidence of nuclear powered or missile firing submarines,<sup>24</sup> I am reluctant to completely discount their presence because there is no solid evidence from Western sources that they were not there.

Using both the *Jane’s* and the 1962 naval intelligence estimate figures and discounting the short-range and obsolete types as well as the nuclear-powered missile-firing submarines because their operational readiness is questionable and assuming that 60 percent of all submarines were operationally available in mid-1962 (when the planning was done), the numbers would be something like this:

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that their leaders had caught-up to the Americans in submarine technology.

<sup>23</sup> The “Whisky”- and “Romeo”-class submarines did not have the endurance to patrol North American waters freely as they would have had to refuel. The approximate distance from Soviet Northern Fleet bases to a hypothetical patrol station off Chesapeake Bay is 4,500 nautical miles and to Cuba is 5,500 nautical miles.

<sup>24</sup> See CINCLANT message O 272016Z “Summary of Soviet Submarine Activity in Western Atlantic,” in William Burr and Thomas S. Blanton, eds., *The Submarines of October: U.S. and Soviet Naval Encounters During the Cuban Missile Crisis*, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB75/index2.htm>.

	Total Strength (All Fleets)	Estimated Northern Fleet Strength	Available for operations (60%)
Patrol submarines	26 "Zulu"	15 "Zulu"	9 "Zulu"
	21 "Foxtrot"	14 "Foxtrot"	8 "Foxtrot"
	5 "November"	4 "November"	2 "November"
Missile-firing submarines	7 "Zulu V"	5 "Zulu V"	3 "Zulu V"
	22 "Golf"	15 "Golf"	9 "Golf"

There are always risks in this type of speculative analysis, but here it serves to show that the Soviets did not have an overwhelming submarine capability in 1962. Had they waited another two years to try to implement their Cuban strategy it might have been a very different situation.

### Soviet Submarine Operations in the Atlantic and Caribbean

We now know from Russian accounts of the crisis that Moscow started planning for the build-up of military forces in Cuba in July 1962 and that those forces would include more than just defence forces to hold off the anticipated American invasion and boost Cuba's defences; they would also provide a strategic deterrent force in the region.<sup>25</sup> In its original form, Operation "Anadyr" called for a large fleet of surface ships, mainly coming from the Baltic Fleet, and a composite squadron (*Eskadra*) of four "Foxtrot"-class submarines and a "division" of seven "Golf"-class missile-firing submarines, some support ships, and a floating dock. The plan was that the submarines would deploy covertly and rendezvous with the surface vessels in an area south of Bermuda (an area the Soviets referred to as the Sargasso Sea<sup>26</sup>) to conduct a fleet exercise openly; presumably as a "show of force" for the benefit of the Americans. After the exercise the ships would go to Cuba where the submarine squadron would be based at Mariel on the northern

<sup>25</sup> The summary of Soviet submarine activity is drawn from several sources including Burr and Blanton, *The Submarines of October*; Ryurik A. Ketov, "The Cuban Missile Crisis as Seen Through A Periscope," *Journal of Strategic Studies* 28, no. 2 (April 2005): 207-231 and Svetlana V. Savranskaya, "New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis," 233-259. Several other interpretations of these events are now available including Aleksandr Mozgovoi, *Kubinskaya Samba Kvarteta "Fokstrotov"* (Moscow, 2002), available from East View Publications (eastview@eastview.com); Gary E. Wier and Walter J. Boyne, *Rising Tide: The Untold Story of the Russian Submarines that Fought the Cold War* (New York: Basic Books, 2003); and the excellent analysis of both recent Russian and American writing by Jan Drent, "Confrontation in the Sargasso Sea: Soviet Submarines During the Cuban Missile Crisis," 1-19.

<sup>26</sup> The Sargasso Sea is defined as that part of the North Atlantic Ocean lying generally between the West Indies and the Azores between the latitudes of 20 and 35 degrees North. The part of the Sargasso Sea lying immediately around Bermuda later became a patrol area for the Soviet "Yankee"-class SSBNs (Project 667A) and thus an area of strategic concern for the Americans. On 6 October 1986, a "Yankee"-class submarine (K-219) caught fire in the Bermuda operating area after an explosion in one of the missile tubes and sank with the loss of four lives.

Cuban coast not far from Havana.<sup>27</sup> But the plan changed, and only the four “Foxtrot” patrol submarines sailed, as an independent “brigade.” Curiously, perhaps, the crews of the four “Foxtrots” did not know why the decision was made. As Captain Rurik Ketov explained, the revised mission was clouded in secrecy, “It is notable that the initial arrangements were for boats to undergo a passage openly on a designated route, but the final operational orders called for the movement to be covert in nature.”<sup>28</sup> This meant that the submarines deployed with a formation commander and his staff which included communications intercept specialists and linguists. Each submarine had 22 torpedoes one of which had a nuclear warhead.<sup>29</sup> The addition of the nuclear torpedoes added complications to an already complex operation. It had become a temporary deployment rather than the permanent one originally planned. We do not know why the plan was changed or why it suddenly became a covert operation. As Ketov commented, “As was typical, as the world political climate changed, so did the views in the highest echelons of the government and navy regarding the shape and mission of this submarine force.”<sup>30</sup>

The submarines sailed on 1 October under secret orders and with a series of sealed envelopes to open at specific times. The passage to Cuba, which was to be made over the following 30 days, was to be done covertly and part of the mission was to protect the Soviet merchant ships, especially the *Alexandrovsk* and the *Indigiraka* carrying nuclear warheads for the land-based missiles. The revised plan also made provision for one “November”-class SSN, also with a nuclear torpedo, to accompany the formation, but apparently this was cancelled at the last minute. In addition, a “Zulu”-class submarine (identified as B-75) already on station on North American waters, and carrying two nuclear torpedoes, described as “reconnoitring the American coast to the area south of Bermuda,” was assigned to the protection of the high-value transports.<sup>31</sup> The real surprise for the West in this information has been the presence of the nuclear torpedoes; at the time we had absolutely no idea that the Soviet submarines were carrying nuclear weapons.

Around 20 October the four “Foxtrots” arrived in an area some 300-400 miles south of Bermuda before starting the final leg of the trip through the Windward Passage and on to Mariel. There, they came into contact with the US Navy as it positioned ships to commence the quarantine of Cuba on 24 October. The weather was not good because Hurricane Ella has passed through that area four days before making ASW operations more difficult than usual. Meeting the US Navy in force was a surprise for the Soviets, but before long they were able to figure out what was going on. They could intercept not

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<sup>27</sup> M. Zakharov and V. Fokin, “Initial Plans for Soviet Navy Activities in Support of Operation Anadyr” (briefing note for the Defence Council and N.S. Khrushchev), 18 September, 1962, attachment to Burr and Blanton, *The Submarines of October*.

<sup>28</sup> Ketov, “The Cuban Missile Crisis as Seen Through a Periscope,” 218.

<sup>29</sup> M. Zakharov and V. Fokin, “Report to the CC CPSU Presidium: Report on the Progress of Operation Anadyr,” 25 September 1962; attachment to Burr and Blanton, *The Submarines of October*.

<sup>30</sup> Ketov, “The Cuban Missile Crisis as Seen Through a Periscope,” 218.

<sup>31</sup> Savranskaya, “New Sources on the Role of Soviet Submarines in the Cuban Missile Crisis,” 235-238.

only US Navy tactical signals traffic but also public radio broadcasts and thus learned of the imposition of the quarantine, essential information they did not get from their own headquarters. Moreover, Soviet Navy headquarters (in Moscow) later ordered a change in the deployment which held the submarines at sea rather than sailing to Cuba. This exposed them to the full force of US Navy ASW operations for the next two weeks during which three of the four “Foxtrots” were forced to the surface. Eventually, they left the area and got back to their home base in Polyarnyy at the end of December but not without further encounters with the US Navy as they made their way northward.<sup>32</sup> Operationally, it was a humiliating defeat for the Soviets; they were unable to conduct covert operations against the Americans and had great difficulty evading the ASW forces once they had made contact.<sup>33</sup> This was a major failure in a capability vital to their overall strategy. Afterwards, Captain Ketov drew some interesting observations as a result of the operation

First, all detections of submarines in these regions were made by ASW aircraft while the boats were either snorkeling at periscope depth, or holding communications sessions while operating under electric motors. Second, all detections of submarines occurred during daylight hours. Third, the submarines were detected visually with the support ASW airplanes or helicopters sent to the region from shore-based command points or surface ships. Finally, the submarines that were forced to come to the surface, submerged after having recharged their batteries and managed to break away from the US Navy's ASW aircraft and surface ships in pursuit, after which they were not detected anew.<sup>34</sup>

He also drew a telling conclusion: “it is essential to thoroughly develop methods of evading surface ships and ASW aircraft. The situation could not be allowed to deteriorate, as it did, to the point of hydro-acoustic contact with the enemy.” In other words, American and thus NATO concepts of ASW operations, especially the dependence on maritime aviation for initial detection and localization, were effective. However, all that was concluded in hindsight.

Unaware that they were at a distinct operational advantage, the Soviets had routinely stationed submarines along the Eastern Seaboard of the North America since the late 1950s, and these deployments had been monitored by American and Canadian forces over the years. As with the Soviet fishing fleets and the electronic intelligence-gathering vessels (ELINTs), the major concern was their use of American and Canadian territorial waters. Although the submarines generally stayed out of those waters, they occasionally came very close when they met up with the Soviet fishing fleet and the ELINTs to replenish and possibly use them as communications links. The fishing fleets invariably worked close to the outer limits of American and Canadian territorial waters because that was where the best catches were to be had. There is no reason to believe that any of the

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<sup>32</sup> This is a very short summary of Captain Ketov's account of the deployment in which he tells a tale of uncertainty, discomfort, apprehension, and occasionally fear as they tried to stay away from the US Navy under very difficult conditions.

<sup>33</sup> A 31 October report from sea stated that “Sub was evasive using decoys, depth changes, backing down. Sonar contact was never lost,” CTG 136.2 message O 310034 October 1962, attachment to Burr and Blanton, *The Submarines of October*.

<sup>34</sup> Ketov, “The Cuban Missile Crisis as Seen Through a Periscope,” 231.

Soviet submarines patrolling North American waters had any purpose other than intelligence gathering; the routine deployment of missile-firing submarines did not take place until five years after the Cuban crisis. This was mainly a function of evolving operational capability but also reflected the realities of “détente.” Because the Americans started to deploy their ballistic missile-firing submarines in the autumn of 1962, the Soviets felt it necessary to respond in kind but did not do so until after the Cuban crisis. One of the reasons for the American deployments was a simple reflection of the belief that the Soviets would try the Cuba gamble again despite the agreement reached after the 1962 crisis. They did, but that is also another story for some other time.



*Fig 3: HMCS Bonaventure had to return to Canadian waters at economical speed and so missed much of the search for the Soviet submarines. DND photo, courtesy Maritime Command Museum, Halifax.*

### **ASW Operations**

In 1962, ASW was barely out of its infancy. Western navies were just beginning to understand the more complex aspects of sound propagation through water and the effect on sound propagation of temperature layers in the ocean. The traditional Second World War sonar (or ASDIC as it was known) equipment only transmitted and received sound waves along the surface layer and the ships were virtually blind to submarines operating below the temperature layer. Research after the war proved that moving transducers (combined receiver and transmitter) below the layer vastly improved detection potential. Initially this was done using sonobuoys dropped and monitored from

aircraft, and which could be deployed above or deep below the surface layer. Both the initial detection of submarines and the localization of detected targets was usually done with passive sonobuoys, if possible to prevent the submarine becoming aware that it was being tracked. In 1962, sonobuoys were the main sensor used to search for, localize, and track underwater contacts and to attack designated hostile submarines.<sup>35</sup> SOSUS relied on strings of hydrophones (passive) laid in cables along the sea bed to detect noises generated by submarines and surface vessels. Although SOSUS had good detection ranges, directional accuracy was limited. As a result, maritime patrol aircraft would respond to SOSUS contacts and attempt to localize and identify contacts using sonobuoys. This procedure was relatively effective in 1962, infinitely more so than the ship-borne transducers which had short ranges and could not operate below the layer. Variable depth sonar transducers were eventually fitted to escorts which allowed them to conduct ASW over a much greater area but success in attacking an enemy submarine was a function of the range of the ASW weapons. In this, the helicopter became both a sensor and a stand-off ASW weapon.

To understand the ASW aspect of the Cuban Missile Crisis, we need to go back to September 1962 when the Soviet military build-up in Cuba started to cause political concern in the United States. Although Washington shared the intelligence with Ottawa, Canadian analysts often re-assessed American intelligence using additional input from the embassy in Havana. In September 1962 the Canadian Joint Intelligence Committee (JIC) examined the movement of weapons to Cuba,<sup>36</sup> but for some reason the situation did not become a Canadian political concern until the crisis became public on 22 October. In the United States, concern deepened by mid-October as intelligence and aerial surveillance made it clear that medium-range ballistic missile sites were being built in Cuba.<sup>37</sup> The US military quietly began planning for a blockade of Cuba (this would be downgraded to a pacific quarantine later) and for offensive operations against the island; the latter under the guise of an amphibious exercise. At the time, though, the full extent of the Soviet military deployment was unknown. In conjunction, maritime surveillance was stepped up, primarily to find the merchant ships carrying military equipment and personnel to the island, and also in case the Soviets attempted to deploy submarines into the Caribbean.<sup>38</sup>

In the fall of 1962 there may have been two or three Soviet submarines on patrol in North American and Caribbean waters, the "Zulu"-class submarine (B-75) diverted to

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<sup>35</sup> Sonobuoys provide both a deployable acoustical signal source and reception of underwater signals of interest. These received signals are transmitted to any monitoring unit(s) that then process the signal for analysis, classification of any target, and recording on magnetic tape media for replay and post event analysis. Source: <http://www.fas.org/man/dod-101/sys/ship/weaps/sonobuoys.htm> (8 June 2006).

<sup>36</sup> Canadian JIC 448(62), "Soviet Military Deliveries to Cuba (1962)," 25 September 1962, Library and Archives Canada (LAC), RG24, acc 83-84/167, box 276, file 1480-146/10, pt. 5.

<sup>37</sup> Historical Division, Joint Secretariat Joint Chiefs of Staff, "Chronology of JCS Decisions Concerning the Cuban Crisis," 21 December 1962, p. 3, <http://nsarchive.chadwyck.com/nsa/documents>.

<sup>38</sup> *CINCLANT Historical Account of Cuban Crisis - 1963*, p. 39; Curtis A. Utz, *Cordon of Steel: The U.S. Navy and the Cuban Missile Crisis* (Washington, Naval Historical Centre, 1993).

the “Foxtrot” formation protecting the merchant ships being one of them. The others present an analytical problem because the Russians have not yet said anything about them and so we have to rely on American and Canadian operational analysis records. Also, because of the Soviet propensity for compartmentalizing information, the captains of the four “Foxtrots” would not necessarily have known about other Soviet submarines in the North American theatre; the Brigade Commander might have known though. In all probability, the four “Foxtrots” would have been routed in such a way as to avoid mutual interference.



*Fig 4: An RCN destroyer in heavy seas; for much of the time the ships sought the Soviet submarines in rough seas. DND photo, courtesy Maritime Command Museum, Halifax.*

The problem was that North American bilateral surveillance systems were not able to provide complete coverage of the western Atlantic. The SOSUS system was still in its infancy and adequate libraries of acoustic signatures had yet to be built-up and the existing archives were not completely accurate.<sup>39</sup> Maritime aircraft conducted routine patrols of the seaward approaches to the continent and investigated possible submarine contacts gained by SOSUS as well as investigating the numerous sightings of submarine-like objects. Strategic ASW was still in a very formative stage and the full political implications of nuclear-armed Soviet submarines “lurking” off the North American

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<sup>39</sup> CTG 81.1 message “Appreciation of SOSUS activity in western Atlantic from 230001Z to 271300Z,” P 271645 October 1962, attachment to Burr and Blanton, *The Submarines of October*.



seaboard had not yet been fully appreciated, but as I will explain later, the first steps to upgrade the related rules of engagement were being taken. Without reliable intelligence on the intended movements of Soviet submarines, the American and Canadian military watched for changes in deployment and detection patterns. One or two submarines on patrol off-shore were expected but any change in that pattern or the appearance of additional submarines and/or Soviet fleet auxiliaries in mid-Atlantic was cause for immediate concern and quickly led to increased surveillance, usually by aircraft working directly with the SOSUS system.

The first indication of a higher-than-normal level of Soviet submarine activity in the North Atlantic came on 13 October when a submarine was sighted in the Caribbean. Suspicions were raised higher by the arrival in the western Atlantic of the Soviet Northern Fleet auxiliary oiler *Terek* later that week. Soviet submarines were known to rendezvous with the electronic intelligence-gathering trawlers and use oilers like the *Terek* to refuel and get other supplies during their North American patrols. Keeping tabs on all potential support vessels thus made sense. The problem was to find them because they often took shelter within the various fishing fleets using North American waters.

Finding the submarines and their support vessels was the responsibility of Vice-Admiral E.B. "Whitey" Taylor, US Navy, Commander US ASW Forces Atlantic, but he did not have enough ships and aircraft to cover both the area around Cuba as well as the Northwest Atlantic. Taylor and his naval aviation commander, Rear-Admiral Koch, flew to Halifax on October 17 to explain the severity of the situation and to seek Canadian assistance with surveillance in the Northwest Atlantic (which was the Canadian area of responsibility under bilateral defence plans). Rear-Admiral Ken Dyer, commander of the Canadian Atlantic Fleet, agreed to do this as it was within his terms of reference to increase surveillance at sea without political approval. It is almost certain that some of this had been discussed between Dyer's and Taylor's staffs by phone earlier that week because the tempo of RCAF ocean surveillance, which came under Dyer's operational control, had been increased the day before. What Dyer and Taylor agreed to was not unusual and under the bilateral defence plans Taylor was Dyer's superior under a naval command relationship similar to that within NORAD. I will come back to these and other command relationships later as they are important, and understanding them clears up a few entrenched myths.

Increased surveillance soon paid dividends. On 17 October, an RCAF Canadair Argus patrol aircraft gained contact with a possible Soviet submarine well to the West of the Azores, and contact was held sporadically for the next three days but without getting proof of identity. However, positive contact was gained on another submarine on the 22<sup>nd</sup> roughly 300 miles northwest of the Azores when *Terek* was found with a "Zulu"-class submarine alongside.<sup>40</sup> The hunt was then on and would continue for three more weeks. Meanwhile the four "Foxtrot"-class submarines in the area between the Windward

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<sup>40</sup> By plotting the various submarine contact positions and calculating speeds of advance, it is possible that the contact made by the RCAF on 17 October was the same submarine sighted alongside *Terek* on 22 October. It would make sense to order the submarine already on patrol in the WESTLANT area to rendezvous with the fleet oiler and replenish fuel and other stores prior to a potentially longer patrol at a higher operational tempo.

Passage and Bermuda were beginning to be hounded by the US Navy's ASW forces. Occasional contact was also made with the Soviet submarine operating in the Caribbean as it moved closer to Cuba. From recent Russian accounts this submarine could not have been any of the four "Foxtrots" as they were too far to the northeast, a fact confirmed by subsequent analysis. So, as the crisis unfurled, it seemed that there were possibly six or seven Soviet submarines in North American waters; one or two in the area north of Bermuda and five in the general Caribbean area. Trying to clarify the submarine situation in the area north of Bermuda is very much more difficult because of the total lack of Soviet information. Yet, it is a puzzle that needs to be solved because of the conflicting contact assessments.

While SOSUS conditions in the Caribbean were reported as being "good," nothing specific was said about the northern area, but from the various contact reports it would appear that the acoustic conditions were not as good as the area to the south. Conditions were made worse by the passage of Hurricane Ella just north of Bermuda and through the northeast seaboard waters (the WESTLANT area) during 20-22 October. A hurricane disturbs the entire ocean (or water column as it is known) often down to 500 feet, and thus makes ASW operations even more difficult, especially from ships which at that time did not have the versatile acoustic equipment now available. Irrespective of the weather conditions, greater reliance was usually placed on SOSUS and aerial surveillance using sonobuoys. Although we now have a pretty good understanding of ASW operations in the Caribbean as a result of American and Russian narratives, operations in the Canadian area need to be reconstructed to see if the data provides any new information.

### **Canadian ASW Operations**

A logical point of departure to re-look at Canadian ASW operations is the sighting of the "Zulu"-class submarine alongside the fleet auxiliary, *Terek*, on 22 October. Those who participated in the operations in the Canadian area agree that this was the start of the ASW side of the crisis. There are accounts of a second submarine sighting in the general area north of the Azores two days later, but they were never substantiated. It is far more likely that the "Zulu"-class sighted on 22 October returned to its patrol station off the northeastern seaboard after replenishing from *Terek*. If this was so, then the contact gained and held intermittently by RCAF Argus aircraft from 26 to 29 October was the same submarine – the speed of advance was a steady five knots which is realistic, but it cannot be given any classification higher than "possible" because it was never sighted, contact was only maintained acoustically. Contact was lost on the 29th at the same time as all the submarines, even those in the Caribbean went silent as the crisis reached its most dangerous point. However, contact was gained on another possible submarine late on 2 November as it tried to seek shelter in the Soviet fishing fleet working Georges Bank in the Gulf of Maine.<sup>41</sup> The location of this new contact was consistent with the projected speed of advance of the contact held earlier and, more significantly, it made absolute sense for a submarine to seek out the fishing fleet and replenish from the tanker *Atlantika* which was also there. Further, the ELINT vessel *Shkval*, which was suspected

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<sup>41</sup> Haydon, *The 1962 Cuban Missile Crisis: Canadian Involvement Reconsidered*, 166-68.

of supporting Soviet submarines, was in the same general area and had been moving around the areas being used by the Canadian Navy and RCAF for ASW operations. That some Soviet fishing vessels tried to drive off Canadian destroyers attempting to pin down the submarine seems to increase the level of probability. But that was not the only contact in the area. While this contact kept the Canadian maritime forces busy, a completely separate submarine contact was occupying the US Navy in an area about 250 nautical miles to the east of Cape Hatteras. This contact was in the same general area as the ELINT trawler *Shkval* which had been sighted on 29 October.

The RCAF was also involved in the US Navy's ASW barrier established between Newfoundland and the Azores on 27 October. Once the barrier was in place the US Navy had to ask Canada for help in providing air cover (in a "pouncer" role while also providing additional surveillance coverage) for the patrol area furthest from Newfoundland because the US Navy's Lockheed P2V Neptune patrol aircraft did not have the necessary endurance to maintain a useful patrol there whereas the RCAF Argus did. This support was provided from 29 October. Although the barrier's main purpose was to catch submarines in transit between their home bases and patrol areas, concern existed that a missile-firing "Zulu"-- or "Golf"--class might be in the area and might attempt to close to firing range (about 350 nautical miles).<sup>42</sup> The planned response in such situations was to arm the patrol aircraft with a nuclear depth bomb (NDB) to be used as a countermeasure of last resort if a submarine attempted to launch missiles. Little reliable information is available on the RCAF barrier task or on the possibility that RCAF Argus embarked NDBs, and so that remains one of the remaining mysteries of the Cuban Missile Crisis.

By the middle of the day on 27 October, American and Canadian naval staffs agreed that contact had been made on seven separate Soviet submarines: four in the area to the east of the Windward Passage (the four "Foxtrots"), one in the area to the south of Cuba, and two in the WESTLANT/Canadian area.<sup>43</sup> Contact had also been made with several other possible Soviet submarines, but these did not have the same degree of reliability. The situation was confusing and gave rise to considerable concern. For instance, on 30 October the commander of RCAF maritime air forces, Air Commodore Clements, informed the chief of the Air Staff that even though the view from Ottawa was that the crisis was practically over, the submarines had not left the area. In his own words, "there have been 5 positive, two highly probable, and 4 possible submarines in Western Atlantic in last week. No indication yet of any movement out of that area. Never since last war has such a situation existed."<sup>44</sup> The very different views of the situation reflect the weakness in the national operational command structure; Ottawa had no operational function. When Paul Hellyer became minister of National Defence in April 1963 he attempted to solve some of these problems but his reorganization and subsequent

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<sup>42</sup> The acoustic signatures of the "Zulu," "Foxtrot," and "Golf" classes were similar because of a common propulsion system.

<sup>43</sup> CTG 81.1 message 271645Z October 1962 and CINCLANT message 271645Z October 1962, both attachments to Burr and Blanton, *The Submarines of October*.

<sup>44</sup> CANAIRLANT to CANAIRHED, message DTG 301920, LAC, RG24, acc. 83-4/216, box 47, file S-003-114, pt. 3.

unification of the Canadian Forces did not do everything that was required; most of the problems were political rather than military.

## Summary

Although the assessments made in the fall of 1962, and which I believed when I did my first analysis, claimed that there were at least twelve Soviet submarines deployed into North American waters and the Caribbean during the crisis, it now seems that the estimate was high. Going back over the data, I find that over the period of the crisis submarine contacts fall into four distinct groups and areas

- First, in the area between Bermuda and the Windward Passage where the four “Foxtrots” were held before returning to their Northern Fleet base and were found by the US Navy. Three of the “Foxtrots” were actually sighted. There are reports of a fifth submarine in that area, but they were never confirmed by visual sighting. This could have been the “Zulu”-class submarine (B-75) detached from its patrol to support Operation “Anadyr”.
- Second, the area south of Cuba where contact was made with one submarine on several occasions, yet despite every indication that it was a Soviet submarine visual confirmation was never obtained.
- Third, the area to the south of Cape Hatteras where contact was made on several occasions with a submarine and where the ELINT trawler *Shkval* was also located. The role of *Shkval* is still puzzling; at the peak of the crisis she was near the submarine off the Cape Hatteras and immediately afterwards headed north to the area of the US Navy’s ASW barrier and also to the submarine held down on Georges Bank by the Canadian Navy. It might seem that *Shkval* and perhaps other ELINT trawlers had a more direct operational support role for the pre-deployed submarines and that, as the crisis turned into a debacle for the Soviet Navy after 29 October, the task of those vessels was to help the submarines extricate themselves from contact and get home.
- Fourth, the Canadian part of the WESTLANT area where fairly steady contact was maintained with a submarine from 26 October to 6 November when it was finally cornered amid the Soviet fishing fleet on Georges Bank. The evidence, albeit circumstantial, points to this being the same submarine sighted alongside *Terek* to the northeast of the Azores on 22 October. If this is correct, it could not have been B-75, which leads to the conclusion that there were at least two Soviet submarines on patrol in the Eastern Seaboard before the crisis began.

As I stated earlier, there were many more reports of contact with unidentified submarines, some little more than fleeting contact and others that were held for significant periods. At one stage, SOSUS claimed to have held no less than 26 different contacts; some were later proved to be US Navy submarines and others were confirmed to be either marine noise or fishing vessels. The 5 November report of the US Navy’s

Submarine Contact Evaluation Board,<sup>45</sup> which was very conservative in its evaluation, allowed that six “tentative positive” submarine contacts were made: the four “Foxtrots,” the submarine in the Caribbean, and the one found alongside *Terek*. One “tentative probable” contact was made with the submarine some 200-300 nautical miles south of Bermuda – likely the fifth submarine discussed by the Russians afterwards. After that, there were 16 “possible” contacts mainly based on single or short-term detections. The submarine held by the Canadian Navy off George’s Bank was not mentioned because it was primarily a report on US Navy ASW operations, but correlates with the “Zulu”-class found with *Terek*.

In retrospect, it does not appear that there were twelve Soviet submarines deployed in the northwest Atlantic and Caribbean during the crisis as we originally thought. The evidence seems to say that there were certainly six submarines and possibly a seventh. We will not know for certain until the Russians open the Soviet Navy archives.

With the clarity of hindsight, three points stand out about ASW operations conducted during the Cuban Missile Crisis. First, the implications of a greater number of Soviet submarines in North American waters were recognized early and an appropriate response made without delay; this action was well within the terms of reference of the respective commanders. Steps were taken quickly to resolve ambiguities, where possible, and sufficient units were moved into the key areas to provide both a deterrent presence and a credible attack force. Not only was this the role for which American and Canadian maritime forces had trained, but it was also a classic use of sea power in a crisis management situation. That the Americans and Canadian worked together so effectively is confirmation of the soundness of the bilateral maritime defence plans. Second, the Soviet submarine capability was not as fearsome as portrayed by the intelligence community; but this was not known until long after the crisis. More troubling now is the knowledge that they were equipped with nuclear weapons. Had this been known at the time, one has to wonder if ASW operations would have been conducted differently. This question cannot be answered easily; responses existed for missiles fired from submarines but there was a distinct difference between merely having those weapons on board and actually firing them. A torpedo presents a different and more difficult problem because the actual launch may not be easily observed and then there is no way of knowing exactly what type of warhead is fitted. The answer is that in all likelihood no change in established procedures would have been made: the requirement was for the submarines to identify themselves and to act in a non-threatening manner. Third, that the Soviets went home with their tails between their legs represented a crushing blow to their naval prestige and it would be five years before they ventured anywhere near Cuba again, and then only with great caution.

### III. Command of Maritime Forces

The Canadian military command and control structure in use during the Cuban Missile Crisis has been criticized on several occasions, especially the perception that the

<sup>45</sup> “Special Report of the CNO Submarine Contact Evaluation Board as of 5 November 1962,” Op-922Y4D/bb Ser. 004940P92 of 5 November 1962, attachment to Burr and Blanton, *The Submarines of October*.

Maritime Commander Atlantic, Rear-Admiral Dyer, exercised a degree of operational autonomy that exceeded his terms of reference. Suggestions have also been made that the way in which the Canadian military as a whole responded to the crisis constituted a serious breach in civil control of the military; this too is a story for another time. Alternatively, Dyer's actions in coming to the assistance of the US Navy in seeking out the Soviet submarines have been upheld as courageous.<sup>46</sup> Yet, doubt exists as to whether the 1962 crisis really was the RCN's finest hour of the Cold War as popular history frequently contends. These are important issues and to make sense of them we need to re-look at military command structures and the bilateral defence organization as they existed in the autumn of 1962. Here, two important facts stand out.

First, the crisis was just that, an international situation which deteriorated to crisis level but never to the point of becoming a war, and a formal emergency was never declared. Hence, wartime concepts of command and control were not instituted. NATO and Canadian national emergency procedures had been under review for several years and in September 1962 the first NATO-generated simulation exercise, FALLEX 62, was conducted. This proved that although much was right with the new procedures, a lot of work remained to be done. As explained in previous analyses, the government War Book was withdrawn in early October 1962 for revision.<sup>47</sup> As the means of coordinating and orchestrating the shift from a peacetime to a wartime condition, the War Book was really the heart of the national crisis response system. It provided authority for specific actions and provided guidance on how to put the country on a war footing. The problem was that it was based on a slowly deteriorating international situation precipitated by Soviet initiatives in Western Europe. It did not make provision for the type of rapid escalation of international tension triggered by the Cuban Missile Crisis; in fact, it is unlikely that the planning staffs even anticipated that such a situation could evolve. The key point is that with or without the War Book, the actual crisis was a unique situation and largely had to be handled in an *ad hoc* manner. As people came to realize, the key to success in such situations is the timely exchange of information among government departments and military commands, which was exactly what the War Book and the bilateral defence agreements were supposed to facilitate.

Second, contrary to conclusions drawn in some earlier analyses, the crisis was never managed under the NATO command and control systems; instead, a blend of Canada-United States bilateral and national procedures was used throughout. Canadian war plans developed over the previous three years were not invoked. For instance, established procedures such as those for the employment of Canadian forces in the event of a nuclear war approved by the Chiefs of Staff Committee on 17 March 1961 did not apply. Similarly, instructions for the *Planning and Control of Joint/Combined Operations of Canadian Forces in the Defence of North America*, which had a complete "Defence from Attack from the Sea" Annex did not apply because those instructions were predicated on NATO taking overall control of those operations. Likewise, the new *Terms*

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<sup>46</sup> Tony German, *The Sea is at Our Gates: The History of the Canadian Navy* (Toronto: McClelland & Stewart, 1999), 290.

<sup>47</sup> Haydon, *The 1962 Cuban Missile Crisis: Canadian Involvement Reconsidered*, 202 and 208.

of Reference – Maritime Commanders<sup>48</sup> were conditional on a NATO-driven situation. It could be said, fairly, that Canada had become focussed on NATO procedures at the political level to the exclusion of the bilateral contingency planning process other than for NORAD. For some reason, now of little consequence, the Canada-US naval planning process remained largely out of the public eye, unlike NORAD, and thus tended to be overlooked when, in reality, it was just as important as the parallel command structure created within NATO.

### ***The Bilateral Defence Organization***<sup>49</sup>

It has often been claimed that the bilateral maritime defence structure should have come under closer political oversight in the same way that NORAD became political. A counter-argument is that it was neither intended originally nor necessary for NORAD to become politicized. Rather, the bilateral contingency plans were just that: contingency plans intended to facilitate the flow of information about potentially threatening situations and, foremost, vehicles whereby the forces of Canada and the United States could exercise joint and combined procedures. Why such a significant difference in political and public perception existed between NORAD and its maritime equivalent has puzzled many people. There is no precise answer; one theory holds that whereas NORAD is concerned with territory and clearly established boundaries, the maritime situation involves only the less-contentious high seas outside territorial waters.

As those who have studied the origins of Canada-US defence plans understand, their birth was not easy because of the very different military-political cultures of the two countries. For instance, a potentially destructive impasse emerged in the early stages of planning and was not resolved until a carefully engineered joint public statement was made simultaneously in Washington and Ottawa on 12 February 1947.<sup>50</sup> At that time the process by which contingency plans would be developed in Canada was clarified. There would be a clear distinction between the Basic Security Plan (BSP) and its specific functional appendices on the one hand and the implementation of those plans on the other hand. The BSP was considered a war plan and as such only its actual implementation required political approval because the plan was drawn up without any commitment of forces or other assets. Subordinate plans and any subsequent revisions could therefore be “agreed” by the respective Chiefs of Staff organizations because those plans neither made nor implied actual force or financial commitments. This process was helped enormously by the development in September 1947 of logical contingency planning criteria by the Military Cooperation Committee (MCC) which then allowed planning to progress on a more even keel. In fact, the whole joint planning process gained a great deal more focus, and the politicians came to realize that it was not intended to remove their traditional and necessary right of exercising political control over the military affairs of the nation; rather, it would establish procedures for military coordination and improve readiness. As

<sup>48</sup> “Terms of Reference – Maritime Commanders,” CSC Paper No. 6(61), 20 October 1961, Chiefs of Staff Committee minutes, DHH.

<sup>49</sup> One of the constant problems in the analysis of Canadian Cold War naval history is that the evolution of the bilateral maritime defence plans has never been adequately explained.

<sup>50</sup> The full text is in House of Commons, *Debates*, 11 February 1947, 345-8.

the years progressed, the plans were updated with extensive provisions for information exchange, tactical coordination, and general interoperability. Apart from the NORAD Agreement needlessly becoming a political “hot potato,” the family of bilateral contingency plans would have remained under exclusive military management until such time as forces had to be committed to hostilities when political approval would be needed.

In the autumn of 1962, a comprehensive series of bilateral contingency plans existed and these had been carefully structured to be interoperable with national contingency and basic operations plans. So, when faced with an evolving operational problem in the western Atlantic that had nothing to do with NATO (because the Americans chose to treat the situation as a national threat) the question of how to integrate American and Canadian ASW surveillance operations did not become an issue. Unlike NORAD where a formally constituted bi-national command staff existed to handle emergencies, the bilateral naval organization, which was every bit as complex as that of NORAD but did not have the same history of political sensitivity, relied on liaison between the key headquarters: COMASWFORLANT in the United States and COMARLANT in Canada to deal with the Atlantic with a parallel structure on the Pacific through COMTHIRDFLT and COMMARPAC respectively. From a Canadian perspective, each maritime commander had a very clearly defined geographic area of responsibility with precise instructions on what he could and could not do in various situations in those areas.<sup>51</sup>

### **Canadian Naval Command Structure**

Maritime command relationships were clearly established in the *Queen's Regulations and Orders for the Royal Canadian Navy (1962)* (QRCN), which stated that a “Senior Officer in Chief Command means the officer appointed to chief command of an area or combination of ships and is responsible directly to the Chief of the Naval Staff.”<sup>52</sup> In turn, the chief of the Naval Staff (CNS) was directly responsible to the minister of National Defence. The chairman of the Chiefs of Staff Committee had no operational authority at that time and thus matters concerning the operational aspects of national maritime security were discussed exclusively between the minister and CNS. The responsibilities of a Senior Officer in Chief Command (i.e., a Fleet Commander) and his subordinate operational commanders, Senior Officers in Command, were likewise directed: “A Senior Officer in Command shall be appointed as such by the Chief of the Naval Staff and shall exercise command over all ships and naval establishments allocated to his command.”<sup>53</sup> A further article provided that: “[w]ithout the approval of Naval Headquarters, no ships shall, except in an emergency, be sent beyond the limits of the

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<sup>51</sup> On the Atlantic this area extended from the Canadian shoreline to 40 degrees of latitude south and 40 degrees of longitude west. This was a huge body of water. The corresponding area of American responsibility extended north to 40 degrees of north latitude but further out into the North Atlantic. These areas were integrated into national, bilateral, and NATO plans.

<sup>52</sup> QRCN, Article 1.02.

<sup>53</sup> QRCN, Article 3.21.



area within which the Senior Officer in Chief Command has jurisdiction.”<sup>54</sup>

Fleet Commanders were also their own Maritime Commanders which under the *RCN-RCAF Agreement* placed all maritime forces under a single operational commander but with administrative responsibility remaining a purely service matter. The point here is that until such time as a formal emergency, or national crisis, or a war was declared, Fleet Commanders, as Senior Officers in Chief Command, had extensive authority to conduct operations in the areas for which they were responsible. That operational command could be exercised under three separate structures: national, bilateral, and NATO, was potentially confusing at the political level of control where the subtleties of operational command and coordination were of less concern. Thus, for the military, it was important to establish the operational command criteria early in a developing situation.

During the Cuban Missile Crisis, both national and bilateral procedures were used by default because NATO was not part of the crisis management process. However, national control was maintained through the established chain of command: Dyer (as both a Fleet and a Maritime Commander) was accountable to the CNS, Vice-Admiral Rayner, who was in turn accountable to the minister, Douglas Harkness. The chairman of the Canadian Chiefs of Staff Committee was not part of the operational command structure at that time. Dyer’s task was complicated by the fact that he also had to coordinate operations with his US Navy counterparts to ensure maximum information flow and, as importantly, to avoid mutual interference where Canadian and American units were operating together or in close proximity.

This was not difficult; Canadian and US naval and maritime air forces exercised combined ASW procedures frequently. In many ways, the ships and aircraft of the two countries were more comfortable working with each other than with NATO warships, save for the Royal Navy which remained the Canadian “mother” service despite a marked trend to home-grown training and operational procedures. Today, one would say that the maritime forces of the United States and Canada had developed a high degree of interoperability, especially in antisubmarine operations. In fact, bilateral procedures were almost identical to Canadian national procedures other than for the command structure which ensured that Canadian ships remained under overall Canadian control. So, as far as the admirals were concerned, the Cuban Missile Crisis was merely another combined ASW exercise; a point made by the fact that the official records refer to the crisis as “CUBEX.” That little post-exercise analysis took place and that little was even said about the exercise afterwards is perhaps not as remarkable in hindsight as some believe. Operationally, it was just another incident involving Soviet submarines outside Canadian territorial waters. The crisis was largely political even though those submarines presented a potential threat. Yet, no formal alerts were issued; rather, operational readiness was

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<sup>54</sup> QRCN, Article 41.01. Elsewhere in QRCN, responsibilities for training, conducting exercises, and maintaining routine surveillance were assigned to Maritime Commanders. Operationally, this meant that the Maritime Commanders controlled both RCN and RCAF ships and maritime aircraft.

increased prudently as a contingency against the possible escalation of the incident. In all of this, Dyer acted prudently and completely within the established criteria for exercising operational command of RCN and RCAF units assigned to him.

## Conclusion

Was it the RCN's finest hour of the Cold War, as some claim? That is hard to answer. What is absolutely clear though is that in responding quickly to an uncertain but potentially threatening situation, the RCN and the RCAF performed well. They conducted complex ASW operations in conjunction with the US Navy as well as could be expected under difficult circumstances.<sup>55</sup> In hindsight, three things still stand out. One, we still don't know exactly how many submarines were on patrol in North American waters before the four "Foxtrots" sailed in early October. It would be interesting to know that number. Two, procedures for dealing with potentially hostile submarines found in North American waters were tactically sound but inherently difficult politically. It would be interesting to know how the politicians would have dealt with the RCN prosecution of the Soviet submarine found on Georges Bank had they been asked to approve those actions. Three, we can only speculate in what ways the Canada-US response to the Soviet submarines would have been different had we known about the nuclear torpedoes.



*Fig 5: HMS/M Alderney of the Royal Navy's Sixth Submarine Division in Halifax deployed early in the crisis to find the Soviet submarines. The submarine is shown here after a particularly rough trans-Atlantic crossing in January 1962. The author was the Navigating Officer of Alderney during the crisis. DND photo from the author's collection.*

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<sup>55</sup> The various logistic and other problems created by a sustainment system not structured for that type of operation can be found in "Chapter Nine: Joint ASW Operations" of my original analysis and from the messages exchanged between Halifax and Ottawa that are included in the book. Haydon, *The 1962 Cuban Missile Crisis: Canadian Involvement Reconsidered*.

Overall, the RCN and the RCAF Maritime Air Command were not found wanting when called upon to carry out the mission they had trained long and hard to master. If there is still criticism of Canadian command and control procedures, then we need to look at the political level. Those who remain sceptical or critical of the Canada-US response to the Soviet submarines should bear in mind that the procedures in place in late 1962 were very different to those of today. To assess the appropriateness, or even legality, of 1962 ASW procedures one needs to do so from the position of the 1962 concepts and not those of today.

It may not have been the RCN's finest hour, but how would one make such a judgement? The basis for comparison needs to be established carefully beforehand. Can one actually compare Second World War convoy duty, with gun actions off the coast of Korea, with operations in the high Arctic, with the Cuban Missile Crisis, or with more recent operations in the Persian Gulf and Arabian Sea? Of course not. They are all classic examples of the fact that modern navies are superbly versatile political instruments always ready to do the bidding of their political masters in any corner of the world at short notice. Armies and Air Forces cannot make that claim; navies are unique in this respect. In summary, what we can say is that in the fall of 1962 the RCN and the RCAF Maritime Air Group rose to a challenge and carried out the various tasks for which they had trained in an exemplary manner.

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