Officers First, Pilots Second

RCN Aviation and the Cold War

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I hope you all enjoyed this project as I did

The Cold War era stands out as one of the most important periods in the history of the Royal Canadian Navy. A time of remarkable highs and lows, this period saw both the rise of the RCN as a distinct and effective military force, unique from both its Royal Navy heritage and United States Navy influence, and its ultimate dismantlement and loss of direction during the unification crisis. Although fleeting, this time period is often seen as the Golden Age of the RCN, reborn from the distinguished remnants of the Battle of the Atlantic escort forces. Although the new RCN generally remained the small ship navy it had always been and still remains, the composition of the Cold War RCN was unique from all other incarnations in one respect: the important role of naval aviation and the light fleet carriers HMCS *Magnificent* and *Bonaventure.* Based principally on the oral history interviews of former naval pilots Cmdr. Albert Horner, Col. Geoffrey Craven and Col. Stanley Brygadyr, this paper will examine the role and value of naval aviation in Canada's Cold War fleet.

In order to understand the role of the various elements of naval aviation, we must first establish the strategic and operational direction of the RCN during these decades. This particularly relates to Canada's commitments to the North Atlantic Treaty Organisation. Due to the RCN's Second World War experience with escort duties, convoy protection, specifically against submarines, was seen as a natural role.[1] As submarine technology advanced, ultimately towards nuclear-powered submarines capable of thermonuclear strikes at North American cities from hundreds of miles away, tactical Anti-Submarine Warfare became a primary NATO concern, and the ultimate focus of the RCN.

[1] Marc Milner, *Canada's Navy: The First Century,* 2nd ed. (Toronto: University of Toronto Press, 2010), 170.

Tactical ASW quickly became the most important responsibility of RCN carrier operations. Indeed, the light fleet carriers of the *Majestic* class, to which both RCN carriers during this period belonged to, were initially designed for convoy protection roles.[2] Anti-submarine squadrons VS-880 and VS-881, flying various incarnations of the Grumman TBM Avenger and CS2F Tracker, would hone their search and destroy abilities to among the highest in the world. Along with helicopters, long range surveillance aircraft and the destroyer fleet, the ASW pilots and aircraft were an integral part of the RCN's ASW system.

This was not the only role performed by naval aviation however. Fighter squadrons VF-870 and VF-871, flying first Hawker Sea-Furies and later McDonnell F2H Banshees, provided critical air-to-air cover for the carrier task force, as well as contributing to North American Aerospace Defense Command (NORAD) operations. The history of the fighter squadrons demonstrates some of the financial and logistical challenges faced by naval aviation and the RCN more broadly during this period. With only one Second World War-era carrier available, hangar space was limited, and commanders often had to face difficult decisions regarding the ratios of helicopters, fighters and ASW aircraft embarked at any one time.[3]

The RCN overcame significant hurdles during this time period to become one of the foremost anti-submarine forces anywhere in the world. That they did this rests primarily on the tenacity and ability of the naval aviators.

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[2] Sean M. Maloney, "Parry and Thrust: Canadian Maritime Forces and the Defence of North America, 1954-62," *The Northern Mariner* 18 no. 1, (2008): 40.

[3] Retired Colonel Stanley Brygadyr, interviewed by the author, Victoria, B.C., March 18, 2013. 1:02:40.

The RCN came out of the Second World War as the third largest fleet in the world,[4] with considerable anti-submarine experience. However, the immediate post war period saw a dramatic cut-back in personnel, as the demobilization of reservists meant the navy shrank from a hundred-thousand to a mere ten-thousand personnel.[5] This reduction was reflected in fleet size, and naval planners had difficult decisions to make in regards to fleet identity. What emerged as a goal, to the approval of the Royal Navy-trained officers, were several small carrier task groups based on cruisers and light carriers,[6] partially in response to an increased interest in sovereignty protection.[7] However, planning would undergo a drastic revision with the escalation of the Cold War. Late Second World War U-boat types XXI and XXIII had proven far superior to all but the most modern of allied destroyers, and although the Germans fortunately had not possessed the resources to produce these submarines in adequate numbers, their plans had fallen into Soviet hands.[8] The RCN prepared to re-fight the battle of the Atlantic, with the defense of the lines of communication with Europe a priority.[9] This required a fleet overhaul, with newly designed frigates, such as the St Laurent class destroyers, leading the way. Naval aviation was upgraded, with American TBM Avenger anti-submarine aircraft replacing outdated British Firefly models.

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[4] S. Matthwin Davis, "The 'St. Laurent' Decision: Genesis of a Canadian Fleet," in *The RCN in Transition, 1910-198,* ed. W. A. B. Douglas (Vancouver: UBC Press, 1988), 188.
[5] Joel L. Sokolsky, "Canada and the Cold War at Sea," in *The RCN in Transition, 1910-198,* ed. W. A. B. Douglas (Vancouver: UBC Press, 1988), 211.
[6] Jan Drent, "'A Good, Workable Little Fleet': Canadian Naval Policy, 1945-1950," in *A Nation's Navy: In Quest of Canadian Naval Identity,* eds. Michael L Hadley, Rob Huebert and Fred W. Crickard (Montreal & Kingston: McGill-Queen's University Press, 1996), 209.
[7] Milner, *Canada's Navy,* 163.
[8] Peter T. Haydon, "Canadian Involvement in the Cuban Missile Crisis Reconsidered," *The Northern Mariner* 17 no. 2, (2008): 46.
[9] Sokolsky, "The Cold War at Sea," 213.

Important changes in RCN identity were also taking place during this period, as the navy, manned by a curious mixture of British-trained officers and thoroughly North American former reservists, underwent a change in influence from RN to USN equipment and tactics.[10] For Canada as well, this negotiation of political identity between the British and American spheres proved difficult, and it is perhaps for this reason that the nation, and especially the navy, so fully adopted its new position in NATO.[11]

The formation of NATO in 1949 was very important politically in Canada, as it presented a platform through which Canada could exert its sovereignty and retain a close relationship with both the United States and the United Kingdom without appearing subservient to either.[12] For the RCN, NATO membership allowed for participation in a vast naval alliance, and for full development of specialised roles within its framework. The greatest impetus for the rebuilding of the RCN was probably the Korean War, which saw the deployment of Canadian destroyers interspersed within NATO task forces.[13] As this war was seen by many as a diversion orchestrated by the recently-nuclear USSR prior to an assault on Europe,[14] mobilisation was escalated throughout NATO. The RCN found new direction in its NATO role, and embraced tactical ASW. For the RCN, this reflected a somewhat defensive posture, with the goal of keeping the sea lines of communication to Europe open, involving hunter-killer operations as well as convoy protection roles.[15] However, as the Soviet Union further developed its nuclear arsenal, NATO strategy shifted. NATO directive MC 48, delivered in 1954, anticipated a short

[10] Ibid., 211.
[11] Milner, *Canada's Navy,* 173.
[12] Ibid., 174.
[13] Sokolsky, "The Cold War at Sea," 214.
[14] Ibid.
[15] Maloney, "Parry and Thrust," 41.

nuclear exchange followed by a conventional war, once nuclear resources had been exhausted.[16] US emphasis was placed on the initial phase, with a focus on protecting strike resources such as Strategic Air Command while containing similar Soviet assets. To this end, the USN formed carrier-based task forces with the goal of nuclear attacks on Soviet construction and submarine bases.[17] Canada chose to remain committed to open-ocean ASW; however, instead of the former conventional focus, the RCN would now be involved with the damage limitation during the opening nuclear phase of the envisioned war.[18] Although objects such as convoy protection remained important, the RCN would focus on damage minimisation: this was most related to the newest and most potentially devastating Soviet threat, the submarine-launched ballistic missile.

The development of a Soviet SLBM platform was extremely important, as the USSR up to this point lacked an inter-continental ballistic missile capable of reaching the United States.[19] Although the range of early SLBM's was very limited, from two to five hundred miles,[20] this put most major American cities within striking distance of the sea. For this reason, there was in many ways little distinction between peace- and war-time ASW operations. As the threat evolved, Soviet submarines within fifteen hundred miles of North America could be preparing to use nuclear weapons at any time.[21] Monitoring these vessels therefore was of paramount importance, and was an ongoing process.

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[16] Ibid., 44.
[17] Sokolsky, "The Cold War at Sea," 210.
[18] Maloney, "Parry and Thrust," 44.
[19] Sokolsky, "The Cold War at Sea," 223.
[20] Maloney, "Parry and Thrust," 47.
[21] Ibid., 51.

With no clear laws governing where these vessels could and could not be, the RCN had to be prepared to locate and attack as many as possible at any given time, within Canada's Western Atlantic area of responsibility.[22] Several different approaches were developed to deal with this threat. As stated above, the USN advocated for strategic ASW operations, nuclear armed carrier strike forces designed to contain enemy submarines in their ports. For political and economic reasons, Canada chose not to follow this path, but maintained its tactical ASW role.[23] There were several dimensions to this. The passive Sound Surveillance System (SOSUS), installed in the Greenland-Iceland-U.K. (GIUK) gap was designed to identify passing Soviet submarines. However, it under-performed, and had difficulty detecting new nuclear-powered vessels.[24] These were much faster underwater than the conventional submarines against which ASW tactics had been developed, at twenty knots compared to five.[25] Furthermore, Soviet missile technology continued to advance, and by the early 1960s Soviet SSBNs had the ability to hit targets at ranges of fifteen hundred miles.[26] This massive increase in submarine capability over a single decade had serious implications for fleet tactics. Most importantly, it rendered many ASW vessels nearly obsolete. Active hull-mounted sonar in North Atlantic conditions had an average range of ten to thirty-five miles.[27] Furthermore, the most advanced Canadian destroyers of the St. Laurent class had a top speed of 27 knots, and the outdated Prestonians

[22] Sokolsky, "The Cold War at Sea," 217.
[23] Michael A. Hennessy, "Fleet Replacement and the Crisis of Identity," in *A Nation's Navy: In Quest of Canadian Naval Identity,* eds. Michael L Hadley, Rob Huebert and Fred W. Crickard (Montreal & Kingston: McGill-Queen's University Press, 1996), 147.
[24] Maloney, "Parry and Thrust," 52.
[25] Hennessey, "Fleet Replacement," 143.
[26] Maloney, "Parry and Thrust," 51.
[27] Hennessey, "Fleet Replacement," 143.

could only manage eighteen.[28] With this increasing gap between surface ASW vessels and nuclear-powered submarines, and without a significant submarine force of its own, naval aviation became the most important element in RCN ASW strategy.

By the mid 1960s, the RCN would be established as the premier ASW force in the world, thanks to the cooperation between surface elements, helicopters and fixed-wing aircraft.[29] As submarine technology developed, so too did the aircraft, pilots and tactics of VS-880 and VS-881 squadrons. The oral histories of former ASW airmen can help us understand the operational intricacies of this complex system, and fill in the gaps left by official documentation.

There were four steps in the anti-submarine process: search, detect, localise and attack, involving naval aircraft at every step.[30] The initial search was carried out primarily through long distance patrol, by carrier- or shore-based aircraft. Often, some indication of submarine location could be given by SOSUS, the NATO passive underwater sonar system; however much of the work was carried out through long hours of flying,[31] as well as search patterns on behalf of surface elements. Submarines could be detected at range in several ways. Radar was a common technique. Flying off of HMCS *Magnificent,* specific airborne distant early warning or so called 'guppy' Avengers were equipped with large radar relays which could detect submarines at twenty-five miles, and transmit radar images to friendly ships hundreds of miles away.[32] Passive sonar was also widely used, both through analyses of SOSUS results, as well as

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[28] Milner, *Canada's Navy,* 208.
[29] Retired Colonel Stanley Brygadyr, interviewed by the author, Victoria, B.C., March 18, 2013. 1:03:45.
[30] Ibid., 26:50.
[31] Maloney, "Parry and Thrust," 52.
[32] Leo Pettipas, *Canadian Naval Aviation, 1945-1968,* 2nd ed. (Winnipeg: Canadian Naval Air Group, Sea Fury Chapter, 1990), 66.

the use of sono-buoys—passive listening devices dropped and monitored by aircraft, or dunked on a tether by helicopters, which could detect the sound of submarine engines. However, for much of this period the most effective means of submarine detection remained human observation.[33] As they did not produce their own oxygen, conventional submarines often travelled on the surface in order to use their diesel engines, which propelled the vessel at a much greater speed than the sub-surface electric motor, as well as to charge the batteries necessary for extended periods below the surface.[34] The large plume of spray produced by the snorkel and conning tower of a submarine could be seen by a sharp-eyed observer from a great distance.[35] Nuclear powered submarines, however, had no need to surface. Their engines required no oxygen, and they could travel very quickly underwater. On the other hand, they were quite loud, and therefore more susceptible to passive listening sonar.[36]

After a submarine was detected, it had to be localised, and ultimately attacked. As by this point in the operation the submarine would likely be aware it was detected and would no longer be on the surface, this process had to be carried out through the use of specialised tactics and technology. Carrier-based aircraft were particularly important in this process. An effective intermediate-range detection system developed by RCN experimental squadron VX-10 was the so-called 'Jezebel' system.[37] Information from sono-buoys was relayed back to aircraft or operational command centres aboard the carrier to be analysed on spectrographs in order to

[33] Retired Colonel Geoffrey Craven, interviewed by the author, Victoria, B.C., March 14, 2013. 24:05.
[34] Retired Colonel Stanley Brygadyr, interviewed by the author, Victoria, B.C., March 18, 2013. 23:10.
[35] Craven, 24:41.
[36] Brygadyr, 25:10.
[37] Ibid., 26:05.

determine aspects such as class, size and propulsion systems of detected submarines.[38] An older and simpler technique was the 'Julie' system. This was something of an improvised sonar system used by fixed wing aircraft. A passive sono-buoy was dropped, and a small practice depth charge was detonated nearby. The sono-buoy would detect the 'ping' caused by the explosion reflecting off the hull of a submarine. With several sono-buoys and careful training, ASW aircrews could triangulate a submarine's location and direction.[39] While destroyers and helicopters, which operated in similar roles,[40] effectively used conventional sonar to achieve this same purpose, they lacked the advantage of speed that fixed-wing aircraft such as the CS2F Tracker had in the attack, especially when dealing with submarines which could achieve nearly the same speed as a Canadian destroyer. As a submarine was localised, aircraft moved into MAD (magnetic anomaly detection) tracking patterns.[41] Hull-mounted units could detect metallic objects several hundred metres below the surface. Flying very low to the water in large, clover leaf-shaped patterns, ASW aircraft could maintain contact with a submarine indefinitely.[42] Finally, an attack could be undertaken, generally with depth charges.

For the pilots, aircrews and sailors of the RCN, the Cold War was anything but cold.[43] While submarines were detected and tracked in large scale regular NATO exercises, this was only one aspect of ASW during this period. Aircrews also regularly located and monitored unidentified Soviet submarines. In fact, many submarines were stationed in the Western

[38] Al Horner recounts the story of his identification and successful attack on USS *Nautilus* in exercise using the Jezebel system. Retired Commander Albert Horner, interviewed by the author, Victoria B.C., March 13, 2013. 1:05:30.
[39] Brygadyr, 27:30.
[40] Horner, 43:30.
[41] Brygadyr, 27:55.
[42] Horner, 34:40.
[43] Ibid., 31:07.

North-Atlantic region for which Canada was responsible to NATO.[44] Often initially detected by SOSUS, the RCN, in cooperation with long-range RCAF patrol squadrons, would keep track of these submarines, particularly if they entered Canadian waters.[45] Retired commander Al Horner recalls reconnoitering an apparently damaged Soviet submarine attempting to hide in the fjords of Labrador to effect repairs.[46] Soviet submarines would often try to sneak through sonar relays by shadowing merchant vessels, or hiding amongst Russian fishing fleets. These fishermen posed an additional challenge, as they often appeared to sport much more advanced electronic equipment than they did fishing gear.[47] Soviet submarines occasionally also observed NATO exercises, as on several occasions ASW crews detected more than the 'correct' number of submarines in an exercise area.[48] Although ASW forces and their quarry were usually content to observe each other, aircrews would occasionally drop practice depth charges on Soviet submarines, as they would in fleet exercises.[49] Interestingly, this also became the accepted practice amongst NATO fleets for demanding an unidentified submarine in territorial waters surface and reveals itself, although this was almost never met with cooperation. During the Cuban missile crisis, a serious situation was narrowly avoided when a concerned Soviet commander considered self-defense to what he believed was some sort of attack.[50]

[44] Ibid., 1:39:28.
[45] Maloney, "Parry and Thrust," 48.
[46] Horner, 1:09:35.
[47] Ibid., 37:45.
[48] Ibid., 1:00:58.
[49] Ibid., 47:40.
[50] Haydon, "Cuban Missile Crisis Reconsidered," 45-46.

During the 1950s and 60s, the USSR did not possess a particularly powerful surface fleet,[51] but it did possess a state-of-the-art submarine force which could deliver ballistic nuclear missiles to large parts of the North American continent at ever-greater ranges. Tactical ASW was therefore an essential role during this troubled time. Although many have questioned Canada's ASW specialisation, the fact remains that the RCN was perhaps the most effective ASW force in the world, especially given its limited resources. In the words of retired Colonel Stanley Brygadyr, "there are a lot of submarines in the world...some nasty countries with submarines. You need an anti-submarine capability in the western world, and we might as well be the one that specialises in that."[52]

Although ASW remained an important role for naval aviation, it was not the only one. Until the disbanding of VF-870 in 1962, the RCN incorporated carrier-deployed fighter aircraft as well. This was principally in an air support role. HMCS *Magnificent,* although crowded, managed to embark elements of ASW, airborne early warning and fighter squadrons.[53] At the time, this fighter role was filled by the Hawker Sea Fury, a very capable model generally considered to represent a pinnacle in the development of piston-driven propeller aircraft.[54] Plans had been in place for a squadron to see service in the Korean War, flying off of British (and at one point Canadian) carrier HMS *Warrior*. However, the conclusion of that conflict precluded any wartime experience for the Sea Furies and their pilots.[55] The Sea Furies would be replaced by a jet aircraft, the F2H Banshee. Although Canada's original contract ordered

[51] Sokolsky, "The Cold War at Sea," 223.
[52] Brygadyr, 59:54.
[53] Craven, 26:08.
[54] Stuart E. Soward, *Hands to Flying Stations: A Recollective History of Canadian Naval Aviation,* vol. 2 (Victoria: Neptune Developments, 1984), 76.
[55] Kealy and Russell, *Canadian Naval Aviation*, 124.

new models, it was altered, and the RCN received used USN Korean War aircraft. These required extensive repairs and modernisations, and several fatal accidents resulted from their rough condition.[56] The Banshee, known colloquially as the 'Banjo',[57] was a large, somewhat underpowered aircraft. To a certain extent, these shortcomings were made up for by excellent cruising fuel economy and a Sidewinder guided missile capability, which the CF-100s and Sabres of the RCAF lacked at this time.[58]

The Banshees and VF-870 squadron—VF-871, the RCN's other fighter squadron, being folded in March, 1959 due to the scarcity of serviceable Banshees[59]—operated in a variety of roles. First and foremost, the Banshee provided air support for the fleet. The Banshee was a capable air-to-air fighter, and its pilots were very well trained. With eight to twelve Banshees embarked, VF-870 could maintain three hour combat air patrols providing air defence for the fleet for eighteen hours of the day.[60] However, there were several problems which often precluded their embarkation aboard *Bonaventure.* Most important in this was space. As stated above, *Magnificent* was just able to host both ASW and fighter squadrons, with neither at full strength. Aboard *Bonaventure*, a carrier of the same class as *Magnificent*, space was even more limited. The Banshee was very large for a fighter.[61] Furthermore, the Tracker, which filled the RCN's ASW role during this period, was one of the largest ASW airplanes in operation anywhere

[56] Soward, *Hands to Flying Stations,* 84.
[57] Allan J. Snowie, *The Bonnie, HMCS Bonaventure* (Erin, Ontario: Boston Mills Press, 1987), 71.
[58] Stuart Soward, "Canadian Naval Aviation, 1915-1969," in *RCN in Retrospect, 1910-1968,* ed. James Boutlilier (Vancouver, UBC Press, 1982), 278.
[59] Soward, *Hands to Flying Stations*, 172.
[60] Craven, 53:55.
[61] Ibid., 38:35.

at the time.[62] This crowding was compounded by the inclusion of a helicopter squadron. As the destroyer delivered helicopter was still in development until the late 1960s, HS (helicopter squadron)-50 or HS-51 was embarked on *Bonaventure* at most times, as helicopters filled an essential mid range role in ASW operations.[63] Due to the RCN's ASW commitments to NATO therefore, the Banshees spent relatively little time aboard *Bonaventure,* especially due to some unfortunate equipment failures and repairs during this time period.[64]

However, VF-870 and the Banshees were involved in several other shore based roles. The most important of these was VF-870's commitment to NORAD, being responsible to the St. Margaret's sector of North-Eastern Canada.[65] Equipped and trained with heat-seeking Sidewinder missiles, VF-870 was a formidable squadron, with one of the highest intercept rates in NORAD.[66] These operations were similar to ASW in that for the pilots of NORAD, the Cold War was not entirely cold. In addition to intercepting American B-47 and B-52 bomber flying the great circle route during exercises, NORAD pilots occasionally encountered Soviet aircraft "pushing the border."[67] Retired Colonel Geoff Craven recounts his experience intercepting a Soviet Bear-D, possibly affiliated with Khrushchev's 1960 visit to the United Nations. Having recently concluded Sidewinder trials against live aircraft in England, VF-870 was approaching one hundred per cent combat readiness. As the Bear loomed into view, Craven remembers

[62] Horner, 1:46:51.
[63] Brygadyr, 1:03:45.
[64] Geoffrey Craven, "Fighter Squadron 870," manuscript contribution to Carl Mills, *Banshees in the Royal Canadian Navy* (Willowdale, Ontario: Banshee Publication, 1991), 62.
[65] Ibid., 30.
[66] Soward, "Canadian Naval Aviation," 282.
[67] Horner, 1:40:33.

that “we were ready to do it...we had been training for this, and we were about as good as anybody got.”[68]

Another interesting and often overlooked role filled by the Banshee was that of close ground support for the Army. From both the shore and *Bonaventure,* VF-870 participated in yearly exercises with the Canadian Infantry Brigade at Camp Gagetown.[69] Using their 20mm cannons and 500 lb bombs, VF-870 provided a very effective air-to-ground support. Should a Canadian flotilla participate in a UN operation, this fighter cover could be very important while landing troops on a hostile shore.[70]

The failure to replace the Banshee after its retirement in 1962 reflects greater problems faced by naval aviation and the greater RCN during this time period, and was a significant loss to the fleet. In the early 1960s the Banshee was approaching obsolescence.[71] The Banshee had distinguished itself as an interceptor during the Korean War; however, the role of naval aviation was changing as versatile supersonic aircraft with anti-ship strike capabilities replaced the pure fighter with its limited roles.[72] With the passing of VF-870 and the Banshee came the end of fleet air defense. Surface-to-air missiles were under development, however early versions did not prove especially effective and were not available for some time.[73] Furthermore, these were point-defense weapons, and did not provide proactive support on a fleet level.[74] The Banshee was not replaced for two reasons. Most important were the limitations of HMCS *Bonaventure*,

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[68] Craven, 52:19.
[69] Snowie, *The Bonnie,* 133.
[70] Ibid.
[71] Pettipas, *Canadian Naval Aviation*, 146.
[72] Brygadyr, 101:25.
[73] Soward, *Hands to Flying Stations*, 270.
[74] Craven, 53:18.

which as a Second World War era carrier was not designed with high-performance jet aircraft in mind.[75] Trials were carried out aboard *Bonaventure* in the early 1960s in order to find a replacement aircraft; this became known as the 'Holy Grail' project. However, *Bonaventure's* limitations were severe: her narrow flight deck, low speed and excessive deck motion proved serious hurdles.[76] Finally, the Glassco report of 1962 recommended the elimination of the fighter element of naval aviation as a means to reduce costs.[77] Although this will not be fully discussed in this paper, it is telling that the failure to replace the Banshee due to the limitations of HMCS *Bonaventure* foreshadowed the failure to replace the carrier itself only seven years later.

In many ways, RCN naval aviation fell victim to the changing political climate of the 1960s. Military budget cuts under Diefenbaker and Pearson had created a climate of political competition within the armed forces, leading to a lack of cooperation and loss of public sympathy.[78] Furthermore, as the decade wore on the goals of the RCN came under question. After the Cuban missile crisis, the Cold War combatants showed signs of decreased aggression, and politicians began to question Canada's commitment to a strictly NATO role. Under the Liberal government of Pearson and then Trudeau, a greater emphasis was placed on a more balanced, sovereignty-oriented role for the armed forces, and less on international involvement.[79] While the ASW focus of the RCN came under government attack, especially

[75] Soward, *Hands to Flying Stations*, 61.
[76] Brygadyr, 1:05:12.
[77] Craven, 56:04.
[78] Richard Mayne, "Its Own Worst Enemy: Ship Advocacy in the RCN, 1962-1964," *Canadian Naval Review* 2, no.3 (fall, 2006): 26.
[79] Colin S. Gray, *Canadian Defence Priorities: A Question of Relevance,* (Toronto & Vancouver: Clarke, Irwin & co., 1972), 131.

after the white paper 'defense in the 1970s',[80] Canada still had NATO commitments to fill, which it did with decreasing ability.[81] Tied into the new nationalistic policy was the unification of the armed forces in 1968, which attempted to foster Canadian identity at the expense of that of the specific services.[82] It is not for this paper to fully examine these events. However, they must be acknowledged in order to bring the tale of RCN naval aviation to a conclusion.

Between the Second World War and armed forces unification, the Royal Canadian Navy experienced a golden age, as it transformed itself from a hodgepodge of reservists and officers trained in the old school of the Royal Navy into a distinct and proud service, with a strong identity and excellent capabilities. Front and centre in this organisation was naval aviation, and the light fleet carriers which served as the flagships of the RCN. With the cooperation and support of the rest of the fleet, naval pilots and aircraft spearheaded RCN operations. Although many would go on to have successful flying careers in the private world or the air force, the RCN's naval aviators truly were "naval officers first, pilots second."[83]

As the Cold War escalated through the 1950s, Canada whole-heartedly embraced its position in newly-created NATO, and became responsible for the defense of the North-West Atlantic against the biggest sea-borne threat of the period, Soviet submarines. While this began as a conventional convoy protection role, as submarine technology advanced with the

[80] Canada, Department of National Defense, *Defense in the 1970s* (Ottawa: Information Canada, 1971): 28, quoted in Sokolsky, "The Cold War at Sea," 225.
[81] Ibid., 226.
[82] Geoffrey Craven, "A Perspective of Canadian Military Unification," (MA thesis, U.S. Naval War College, 1978), 28.
[83] All three officers interviewed emphasised this point. For example, Horner, 29:27.

introduction of submarine-launched nuclear weapons this role became critical to the defense of North America.

Naval aviation was especially important for ASW operations, as only fixed-wing aircraft could provide the long range, high speed search and destroy capability essential for effective operation. Due to the remarkable level of RCN ASW success, it is easy to dismiss naval aviation as one dimensional. However, interviews with former RCN pilots demonstrate a more multifaceted role. Rather than hindering it, naval aviation added a dimension of flexibility to the RCN, with air-to-air, ground support and transportation capabilities.

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