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# SHIPYARDS IN WAR

The expansion of the war into a global conflict at the end of 1941, coupled with the 1942 operational crisis in the Atlantic, changed everything for the Royal Canadian Navy. Until then Canada's naval war had two clear purposes. The immediate one was to help the British with convoy escort operations in the North Atlantic using war-built auxiliary vessels, pre-war River-class destroyers and the ex-United States Navy destroyers. The RCN's long-term goal, however, was to use the war to acquire the key elements of a proper navy: fleet-class destroyers and cruisers.

As the war spiralled out of control, new operational tasks fell to the RCN. By the summer of 1942 the escort

A frigate under construction at the Canadian Vickers Limited shipyard in Montreal, 1942.

fleet roamed from the Caribbean to the United Kingdom with much of the crucial transatlantic convoy route under Canadian escort. The tension between what the RCN wanted to be and what the war obliged it to do complicated fleet planning in 1941-42. So too did Canada's industrial strategy and its economic situation within the grand alliance. Untangling that mess took much of 1941 and early 1942. As a consequence, the RCN's escort fleet development slipped a generation behind that of the

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RN and it never recovered during the war.

Mackenzie King's government intended to use the war to industrialize Canada, focusing Canadian efforts on manufacturing rather than the armed forces, and keeping the country's export and import economy in balance. Financial and material aid to Great Britain through Mutual Aid, the Canadian equivalent of Lend-Lease, was not profitable, while reliance on the U.S. for some key commodities and components for Canadian war production left Canada with a balance of payments deficit to the Americans. By 1942, Allied war production was pooled to help ease this complex international relationship, so Canadian industry and production was slaved to Anglo-American priorities. Catering to the needs of the Canadian navy was therefore not a government priority.

The Canadian system of government contracting was also cumbersome and unresponsive to the rapidly changing requirements of the war at sea. The Department of Munitions and Supply (DMS) handled all contracts, including warship construction. Unlike the U.K., where Admiralty engineering staff worked in dockyards to adapt ships under construction for changing wartime needs, RCN engineers dealt with dockyards indirectly through DMS. Even minor changes, such as the addition of breakwaters on the foc'sles of the first corvette program required supplemental contracts overseen by DMS. It was this system, in part, that prevented the RCN from making modifications to the first batch of corvettes while they were still in the builders' hands. So the system of contracting for warships in Canada reflected administrative imperatives—not the exigencies of the war.

Nor did the RCN have priority access to Canadian yards for either maintenance or construction. These were part of the government's economic and industrial plans. The major repair facilities on the east coast, for example, were reserved through agreement with the British Ministry of War Transport (MWT) for repair of merchant ships: typically those requiring longer and more complex repairs than the British were willing to do at home. Large construction slips were also allocated to the British through the MWT for merchant ship construction, or for the British Admiralty Technical Mission (BATM), based in Washington, for British warships.

The building of frigates in Canada well illustrates the RCN's problem. News of the new war emergency escort known as the "twin-screw corvette," designed to replace the original corvette in the ocean escort role, arrived in

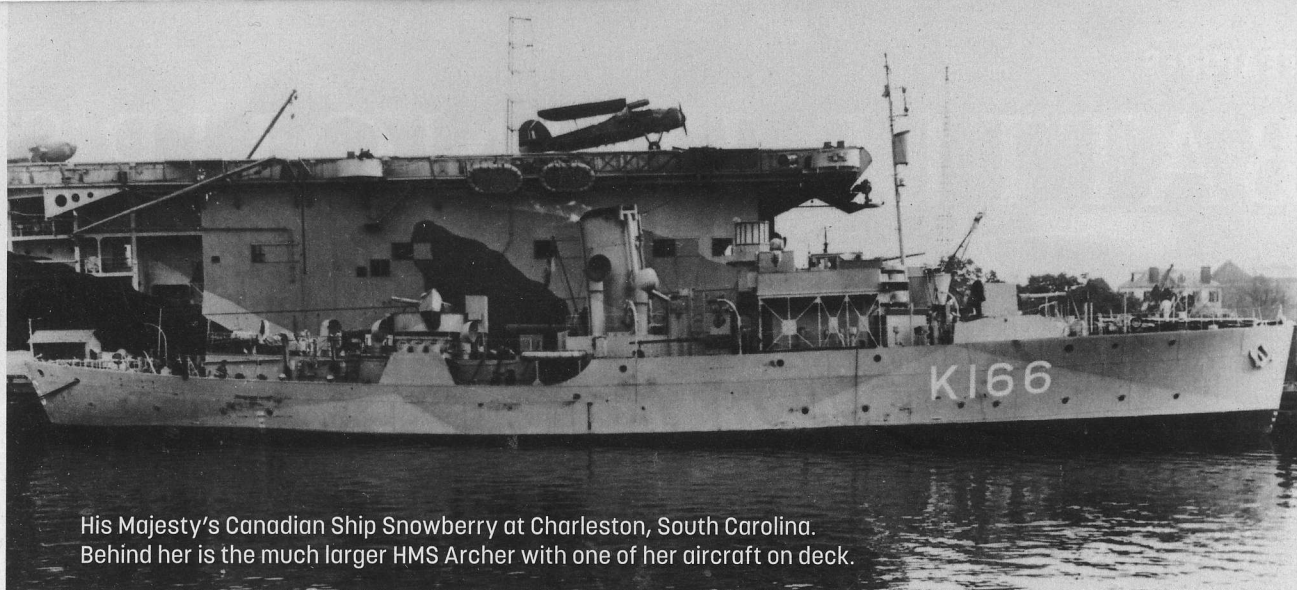


Nearly completed, a freshly painted frigate idles her engines, September 1943.

early 1940. A hundred feet longer and therefore able to ride more easily on the typical North Atlantic swell, they were driven by two corvette propulsion plants to a maximum of 19 knots. By early 1941, the British had shifted their escort building program over to the twin-screw corvette, eventually discarding its planned minesweeping gear and replacing that with addition fuel storage, which gave the new design a range of 7,200 nautical miles or roughly 14,000 kilometres.

In April 1941 the RCN began exploring the possibility of building what Vice-Admiral Percy Nelles, Chief of the Canadian Naval Staff, dubbed "Frigates"—a term quickly adopted by the British. RCN interest in the frigate was heightened a month later when the Admiralty asked Canada to establish the Newfoundland Escort Force and start escorting convoys in the broad reaches of the North Atlantic. That month the Naval Staff determined it would order no more corvettes: all future war-built escorts would be frigates, but getting them proved much harder than anyone could have imagined.

By mid-1941, Canadian naval construction was at a crossroads. The original corvette programs of 1939-41 were nearing completion—81 vessels in all—as were the Bangor-class minesweeper programs. Nothing new was ordered that year while the navy tried to figure out how to build frigates because in 1941 all the Canadian yards were either unsuitable or taken up. The bustling slips of the Great Lakes, where the bulk of the corvette and Bangor programs were completing, were inaccessible for a ship as long as a frigate because the locks on the existing seaway were too short. The ideal location for building this new class of escort was along the lower St. Lawrence, the west coast or perhaps even Saint John, N.B. But these larger slips, with ready access to the sea, were committed to merchant ship construction contracted through the British MWT or, ironically



His Majesty's Canadian Ship Snowberry at Charleston, South Carolina. Behind her is the much larger HMS Archer with one of her aircraft on deck.

enough, through the BATM to build frigates for the RN.

Merchant ship construction in Canada had priority over all RCN construction. Meanwhile, contracts for RN frigates—10 by the end of 1941—could not be set aside, nor could yards be simply reassigned to the RCN. While Canadian builders needed British expertise in constructing their initial frigates, the government needed the money more. The frigates ordered by the BATM in Quebec yards, for example, were purchased by War Supplies Limited, a Canadian Crown Corporation, and then sold to the U.S. government for cash. The Americans passed eight of the Canadian-built frigates over to the British under Lend-Lease and kept two others in order to assess the British design. As a result, the first frigates seen on the east coast of Canada—in the spring of 1943—were USS Natchez and Ashville: ordered by the British, built in Canada, and commissioned into the U.S. Navy. They became the prototype of the USN's 77-ship City-class frigates. The best the RCN could do in 1941 was to authorize construction of 20 frigates, when and where space could be found.

So at the moment when the Japanese attack on Pearl Harbor turned a European war into a global one, the building of escorts for the RN had a higher priority in Canada than ships for the RCN itself. It is not clear that in late 1941 the RCN was too put out by this. The escort fleet was a transitory component of the wartime navy and, until the war changed dramatically in 1942, the navy had no long-term plans for augmenting, maintaining or modernizing it. The only concession to long-term support of the escort fleet on the east coast in 1941 was the letting of contracts to build nine marine haul-outs on the east coast, ranging in capacity from 200 to 3,000 tons. None of these were ready before late 1942. Admiral H.G. DeWolf, who at the time was Director of Plans at NSHQ, recalled many years later that the navy had no long-term plans for its growing fleet of escort vessels. In 1941 they expected the war to last perhaps two more years at most. When that happened, the corvettes and Bangors would be discarded.

Consequently, when the shifting pattern of the war confirmed for the RCN its commitment to the small-ship, anti-submarine escort role, it was materially and

mentally unprepared. It did understand perfectly well that its fleet of small ships was unsuited for the kind of war it now fought. And it knew that a British program of modernizing their corvettes to make them better oceanic escort was already well underway. This included five of the nine surviving British-owned corvettes of the first Canadian building program operating in RCN service. By December 1941, Canadian ships Arrowhead, Bittersweet, Eyebright, Mayflower and Snowberry were undergoing partial modernization in Charleston, S.C. Improvements included extending the foc'sle, rebuilding the bridge to carry heavy secondary armament and fitting the new type 271 10-cm radar. These ships emerged in early 1942 as the best equipped corvettes in the RCN.

The expansion of the war after December 1941, therefore, left the RCN on the horns of a dilemma: modernize the escort fleet or concentrate on building new ships. This was no easy choice, and as it weighed its options in early 1942, three considerations were paramount. First, Canada lacked the infrastructure (and access to modern equipment like the type 271 radar) to quickly modernize the 70 corvettes in service. Second, even assuming that the British provided the equipment (and for most of 1942 the RCN was unsure just what equipment it ought to acquire) and that space was available in places like Charleston, the government would not allow the work to be done in American yards because it would adversely affect Canada's balance of payments. Finally, and perhaps most importantly, in early 1942 the ships were too busy to be recalled in large numbers and it was not clear they were inadequate for the tasks assigned.

What is clear is that in early 1942 the RCN did not want any more corvettes. Even Macdonald, the Naval Minister, objected to the continued construction of obsolete ships. Frigates were the way forward. In the end, 33 frigates were ordered in the 1942-43 program, 13 from B.C. yards and the rest from yards along the lower St. Lawrence—it helped that no more frigates were ordered for the RN from Canadian yards. Far better, the Naval Staff finally concluded, to keep the old ships steaming and build new ones designed for the new tasks.

Unfortunately, it would not be that simple.

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