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"There Must Be No Holes in Our Sweeping": The 31st Canadian Minesweeping Flotilla on D-Day

Michael Whitby

Of the weapons the German navy could use against the invasion, Allied naval planners feared mines the most. In March 1944, for instance, Admiral Sir Bertram Ramsay, the naval commander for Operation Neptune, confided to his diary "There is no doubt that the mine is the greatest obstacle to success."¹ If unswept, these sinister underwater weapons could not only sink many ships and landing craft but seriously upset the intricate timing of the assault. In the largest minesweeping operation ever undertaken, 247 minesweepers were deployed to sweep ten approach lanes across the English Channel, clear the disembarkation and fire support sectors of the assault area and then sweep the final paths to the beaches. The British and Americans lacked the resources to mount this massive operation by themselves, and among the vessels contributed by other countries were sixteen Bangor-class minesweepers of the Royal Canadian Navy.

Minesweeping had been a serious concern to the RCN since the First World War when German U-cruisers laid mines off the Halifax approaches. During the interwar years the navy routinely practised sweeping, and the only warships built in Canada during this period were four Fundy-class minesweepers. The role was not lost sight of when war came again as nearly all vessels ordered during the early emergency expansion had at least some minesweeping capability. Yet, apart from one brief scare in 1943, these vessels, including fifty-four Bangor-class

minesweepers, were utilized as convoy escorts, thus their minesweeping equipment, and their crews' ability to use it, grew rusty. Consequently, in early 1944 when the RCN agreed to provide sixteen Bangors to Neptune for minesweeping, only one of them had any experience at that duty.²

The skill that had to be mastered in time for the invasion was quite complex. In simple terms, the type of minesweeping practised by the RCN Bangors involved cutting the cables of moored mines with a long serrated line or "sweep" streamed over the stern. The equipment most often used was the Oropesa sweep which consisted of a blimp-shaped "float" to mark and support its end; a number of "kites" and "otters" attached from lines along its length to keep it at the required depth; and "cutters" positioned near the end of the sweep to either explode mines or force them to the surface where they could be destroyed by gunfire. Powerful steam winches and davits on the minesweeper's stern helped deploy and recover the complex equipment, which, depending on conditions and the task being carried out, could extend up to 800 metres astern.³ Even in the most gentle seas, sweeping was a challenging operation that required endless drill to perfect.

The Canadians received their training upon arrival in England. Although he expected the Canadians to require some familiarization, Commander F.M.S. Temple, RN, the British officer responsible for their instruction, was somewhat taken aback at the job that

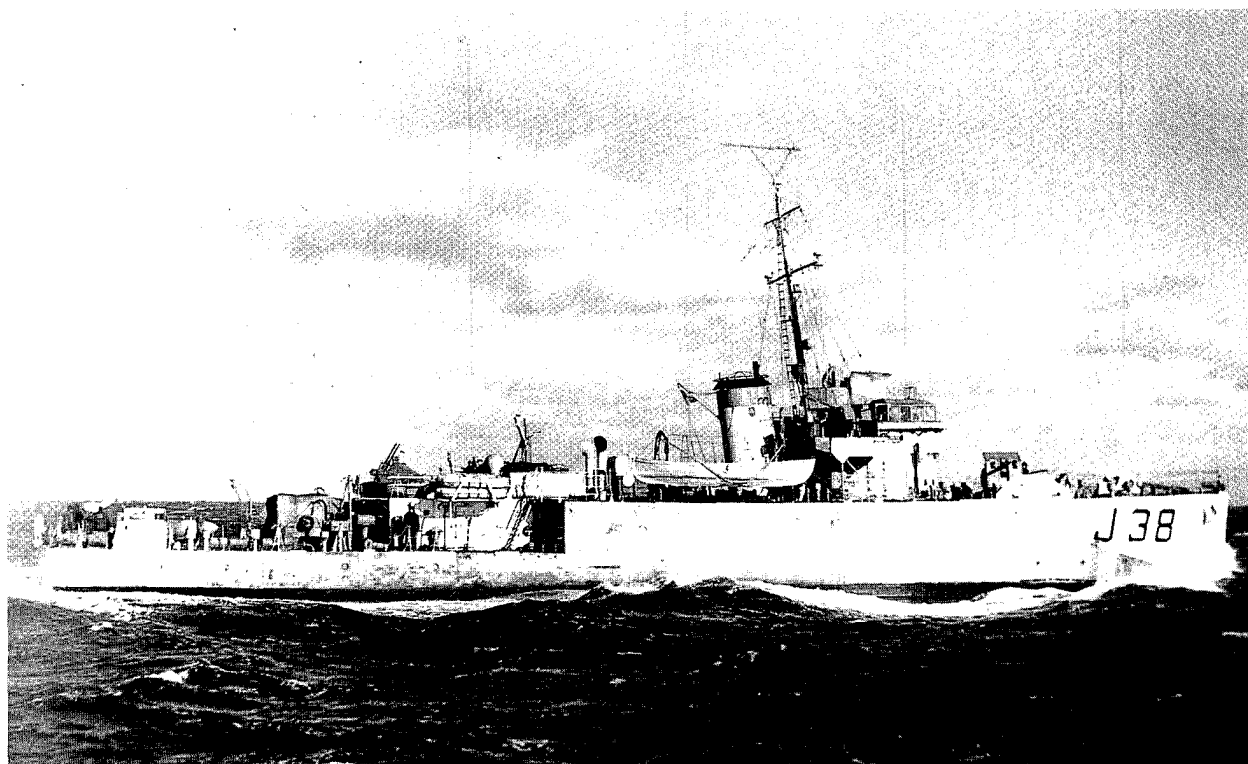
confronted him. The Canadians, he observed, "were not minesweeping minded as they had been employed solely on escort work. Some were also under the impression that minesweeping was child's play."⁴ Temple's attitude appears to have been typical of officers within the minesweeping fraternity who thought that those outside did not give the specialty its due.⁵ For his part, the Canadians' senior officer, Commander A.H.G. Storrs, RCNR, recalls the British "sucking their teeth wondering if these Canadians are really up to it."⁶ They were, but only after work-ups that stretched from mid-March to late May 1944. During this time the various components of sweeping were practised relentlessly, and the Bangors' equipment was brought up to scratch. The training culminated in a number of major exercises including the six-day Operation "Gantry" in which the Canadians, despite poor visibility and some equipment failures, successfully located and swept a large field of 150 dummy mines.⁷ Temple now considered them "efficient, keen and competent."⁸

Besides the training programme, much of the credit for this increased state of efficiency must go to Commander Storrs. A superb leader and seaman, Storrs received his early naval training in the RN during the mid-1920s but had spent most of the interwar years in the merchant service where he eventually earned his foreign master's certificate. He joined the Canadian naval reserve early in the war, and after commanding a number of vessels had been appointed senior officer of the minesweepers when they headed overseas.⁹ Because sweeping formations closely adhered to the movements of the lead ship, Storrs' ability and experience were to be key factors in the Canadians' success.

In the midst of their preparations, the Canadians suffered two setbacks. They had looked forward to leading the soldiers of the 3rd Canadian Division into Juno Beach, but in what Storrs described as a "great disappointment," they were assigned to the

HMCS Caraqueet

(CFPU PMR 93-401)



American landings, perhaps because planners "thought that probably we'd manage better with the Americans than the Brits."¹⁰ They had also hoped to form the sixteen ships into two complete RCN flotillas but, instead, were split up. Ten Bangors were assigned to the 31st Canadian Minesweeping Flotilla under Storrs while the remainder were dispersed among three British flotillas. The one thing that remained in common was that they were all attached to the Western Task Force so would be leading the way into the American beaches Utah and Omaha.

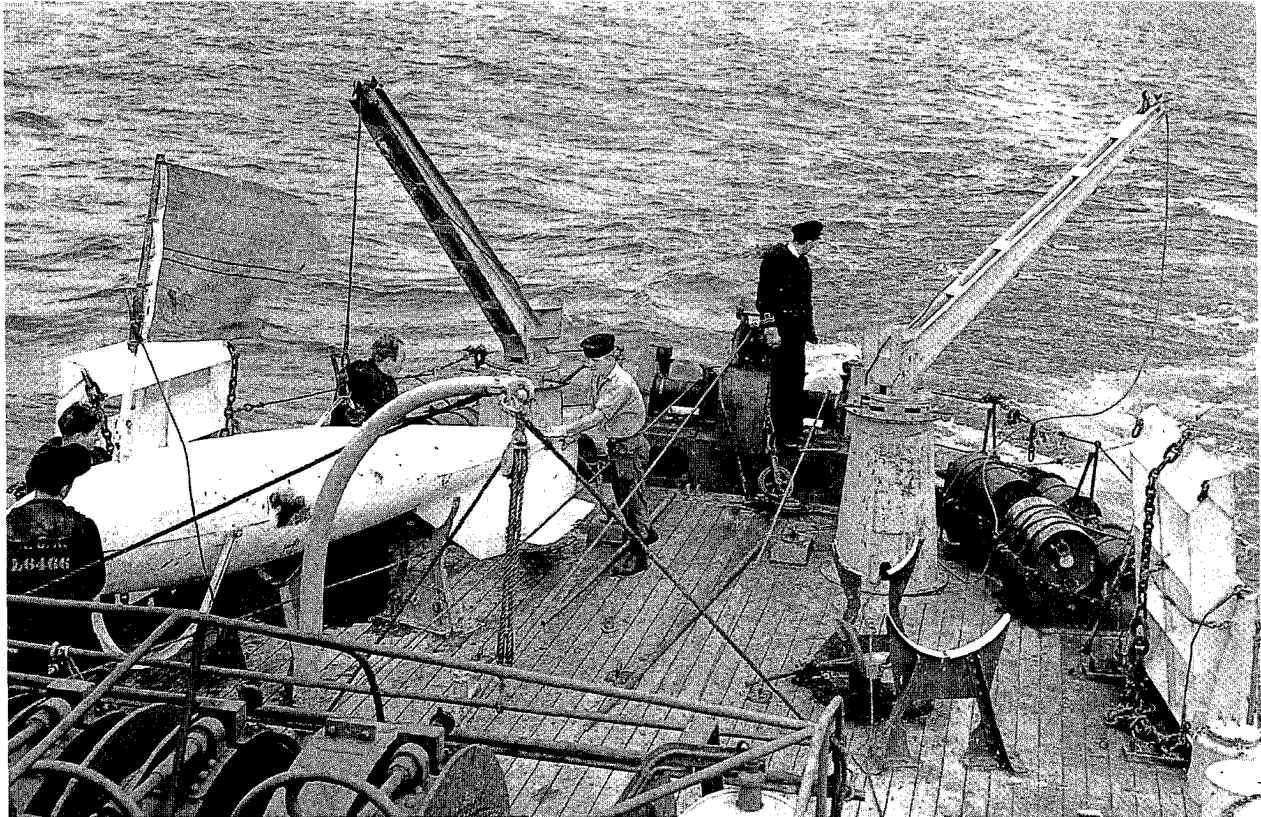
The 31st's responsibility was to sweep Approach Channel 3 into Omaha Beach. After poor weather postponed Neptune for twenty-four hours, the flotilla weighed anchor at Portland in the early hours of 5 June and headed east up the Channel towards Z-Buoy — the junction area for the assault convoys south of Portsmouth which became famous as "Picadilly Circus" — the starting point of their 130-kilometre sweep towards the Normandy coast. Getting to Z-Buoy took most of the day, and it was not until evening that the flotilla and its attendant vessels formed up to clear and mark their path to the beaches.¹¹



The sweepers advanced in a formation — specifically, "G port" — that was not unlike that used by snowplows clearing an airport runway. Two Fairmile "B" motor launches led sweeping ahead of the leading Bangor, Commander Storrs' HMCS *Caraquet*. Astern came the Bangors *Fort William*, *Wasaga* and *Cowichan* in echelon to port with their sweeps overlapping, then *Minas*, *Malapeque*, *Blairmore*, and *Milltown* ready to replace any ships that fell out due to breakdowns or enemy action. In the midst of this formation, HMCS *Bayfield* and another vessel laid dimly-lit dan buoys to mark the swept channel. The ships advanced at 7.5 knots and cleared a lane just over a thousand metres wide. Because it was critical that the formation remain intact so that no mines would be missed, vessels were under strict orders to hold their course even if heavily engaged and, for fear of alerting the enemy, mines that rose to the surface were not to be exploded unless they directly imperilled other ships.¹² According to one officer in HMCS *Georgian*, "we were to hold our course, no matter what was ahead — there must be no holes in our sweeping as ships loaded with troops would be following on us, and would be depending on us."¹³

The operation required precise navigation and superb seamanship. For navigation, sonic buoys and QH (the naval version of GEE) worked to a limited degree but, according to Storrs, it was the new radio aid QM, later known as DECCA, that "enabled the minesweepers to establish the swept channels to the essential degree of accuracy."¹⁴ But even with this, demanding sea conditions created problems. Quite apart from the poor weather, powerful tidal currents ran across the heading of the formation and, to make matters worse, that night the tidal stream was much stronger than anticipated due to the fresh westerly breeze that had been blowing for two days.¹⁵ With what one captain in the flotilla considered "a great deal of skill and knowledge of the tides,"¹⁶ Storrs calculated the offsets in course required to

Commander A.H.G. Storrs. For his role in Operation Neptune, he was awarded the Distinguished Service Cross and the American Legion of Merit.
(CFPU L-4932)



The sweep deck of a Bangor-class minesweeper. An Oropesa float complete with marker flag is visible to the left with a kite behind it. A portion of the powerful steam winch can be seen at the bottom. The right-hand davit has just deployed the other float.
(NAC PA 180532)

counteract the current and decided the correct direction of the sweeps so that they lay with the tidal current. Complicating matters, the swept channel was not perfectly straight but followed a series of gentle doglegs, each requiring minor course changes. Further, when the tidal current reversed itself in the middle of the passage, the entire formation had to recover sweeps, reverse course, head up their swept channel, reverse course again, re-deploy their sweeps to starboard and resume where they had left off. Except for one dan-buoy being cut, this difficult, time-consuming manoeuvring was completed without incident. It was a remarkable display of shiphandling.

Sailors' messes in the forward part of the Bangors were sealed to prevent casualties if a mine exploded therefore off-duty personnel

spent the passage on the upper deck. Gathered around the funnels for warmth, they expected the night to erupt momentarily with gun flashes and tracer fire. Steaming at the head of the assault flotillas, the minesweepers were the most vulnerable vessels in the invasion armada, and Neptune planners thought they would be detected by the enemy, and suffer heavily for it, predicting thirty to fifty percent casualties among the lead flotillas. Yet the night remained quiet; no mines exploded and the only outward sign of enemy activity visible from on deck was the anti-aircraft barrage put up over Normandy in response to Allied bombing. Amazingly, to the west of the 31st, the British 14th Flotilla, which included the Canadian Bangors *Guysborough*, *Kenora*, *Vegreville* and *Georgian*, swept close enough to the French coast to distinguish individual houses but were still not detected.¹⁷

Twenty minutes past midnight on 6 June, the 31st Flotilla reached the terminal point of the assault channel about fifteen kilometres off the French coast. They then began the tedious work of clearing the transport area from where soldiers would disembark from their assault ships and sweeping the channel that warships would follow to their bombardment positions. These tasks entailed steaming parallel to the shoreline, close under enemy guns. At one vulnerable moment, when making a turn about two kilometres offshore, the moon emerged from behind the clouds to expose the Bangors in its pale glow but after thirty excruciating seconds the moon retreated behind cover; the defences remained mute.

That assignment finished, the Bangors returned towards the transport area to begin their final task. As they steamed slowly north, Lieutenant J.C. Marston, RCNR, captain of HMCS *Blairmore* recalled,

... the dark of the night began to give way to twilight [and] one could begin to appreciate the immensity of the operation. As light increased more and more dark shapes began to make distinctive forms, and what had appeared to be just a few ships in close proximity now became a whole panorama of sea power stretching as far as the eye [could see] to seaward.¹⁸

Amid this awesome sight, the 31st formed into line abreast and turned south. Sweeping to the ten-fathom line off Omaha beach, they cleared the way for the assault craft about to head for shore. Only at this time did German shells begin to plunge into the sea nearby.

While recovering her sweeps — *Caraquet* and *Fort William* had to release theirs when they became entangled in wrecks — *Blairmore* found herself close under the guns of the bombardment force. "Forty minutes before H-hour," Marston remembered,

... the big guns of [the US battleship] *Arkansas* spoke for the first time, and right on schedule. We were in a position a few hundred yards from her and in her line of fire. The resultant blast, concussion, and general commotion shivered one's

timbers more than a little, and the sweeping party on the quarter deck were prodded into such a frenzy of work and efficiency, that we were soon all clear to get the hell out of it, which we did by drawing off seaward, there to mosey around keeping clear of the vast numbers of ships all seemingly being drawn into the maw of the invasion beaches.¹⁹

Scores of landing craft surged by the Bangors. Some sought directions — "Which way to Dog Red?"; others simply wanted information — "What's it like in there?" The flotilla continued their role as spectators to the historic events unfolding around them — one sailor in *Caraquet* wrote in his diary "what a show; everything from soup to nuts floating around!"²⁰ — until shortly after mid-day when they received orders to complete sweeping the Omaha fire support channels. The heavy congestion in the assault area made this slow going and it took until 2300 to complete. Their job done the flotilla anchored off Omaha.

The D-Day minesweeping was a tremendous success. Despite the dire predictions of Allied naval commanders, losses during the assault were insignificant amounting to just one minesweeper, one destroyer and a few landing craft sunk. Losses over the following weeks mounted when the Germans began laying the virtually unsweepable "oyster" pressure mine but they came too late; the Allies were safely ashore and were able to build-up their strength and resources. The Bangors remained an important component in this process by maintaining the cleared passages off the beachhead and across the Channel. Indeed, of the 261 mines swept in the Western Task Force area between D-Day and 3 July, over one hundred — it is difficult ascertain the exact figure — were swept by the Canadians. Given this accomplishment, it is fitting that the last word should go to the commander of the Western Task Force under whose orders the RCN sweepers sailed. In his final report on Neptune, Rear Admiral Alan Kirk concluded, "It can be said without fear of contradiction that minesweeping was the keystone of the arch in this operation."²¹

NOTES

1. Ramsay Diary, 24 March 1944. Quoted in Corelli Barnett, *Engage the Enemy More Closely*, (New York, 1991), p.776.
2. For history of RCN minesweeping see Michael Hadley and Roger Sarty, *Tin-Pots and Pirate Ships* (Montreal, 1991), Roger Hadley, *U-boats Against Canada*, (Montreal, 1985), and Gilbert N. Tucker, *The Naval Service of Canada*, I and II, (Ottawa, 1952). For information about the vessels themselves see, Ken Macpherson, *Minesweepers of the Royal Canadian Navy, 1938-1945*, (St. Catharines, 1990).
3. The best technical description is in the Admiralty's *Manual of Minesweeping*, 1929. Public Record Office (PRO) ADM 186/466. Among published sources see Peter Elliot, *Allied Minesweeping in World War II*, (Annapolis, 1979), pp.16, 25.
4. Commander Fleet Minesweeping Office, Devonport to Captain M/S Plymouth, 22 April 1944. DG Hist, NHS 31st Canadian Minesweeping Flotilla 8000-440/31
5. See Admiralty, *Technical Staff Monograph on British Minesweeping*, 1939-1945, 36. PRO ADM 189/130
6. DG Hist interview with Rear Admiral A.H.G. Storrs, p.39. DG Hist, Biog S
7. Minesweeping Diary of the Western Task Force, Section "A", p.2. PRO ADM 199/1553
8. Commander Fleet Minesweeping Office, Devonport to Captain M/S Plymouth, 22 April 1944. DG Hist, NHS 31st Canadian Minesweeping Flotilla 8000-440/31
9. Rear Admiral A.H.G. Storrs biographical file. DG Hist, Biog S
10. DG Hist interview with Rear Admiral A.H.G. Storrs, p.43. DG Hist Biog S
11. Unless specified otherwise, information on operational movements of the 31st Flotilla is derived from HMCS *Caraquet*, Report of Proceedings, June 1944. National Archives of Canada (NAC) RG 24, Vol 11740, CS162-15-3; or Canada Naval Mission Overseas (CNMO), *Narrative B, The RCN's Part in the Invasion*, DG Hist, 84/230
12. For Neptune minesweeping orders see, Allied Naval Commander-in-Chief, Expeditionary Force, "Operation Neptune: Naval Operation Orders," ON-6 "Instructions for Minesweeping," 10 April 1944. DG Hist, NHS 1650 Operation Neptune. "Operation Neptune - 31st Flotilla Orders." DG Hist, NHS NSS11250-9 Vol. I
13. W.G. Morrow memoirs, pp.43-45. DG Hist, 86/167
14. Commander A.H.G. Storrs memo to Captain (D) Halifax, "Remarks on Minesweeping Sections of "The Royal Canadian Navy's Part in the Invasion"" 30 November 1945, p.2. DG Hist, Narrative "B," enclosures
15. *Ibid*, p.1.
16. Marston ms, "HMCS *Blairmore* with the 31st Canadian Minesweeping Flotilla," p.6.
17. Admiralty; Tactical and Staff Duties Division, "Minesweeping in Operation Neptune," in *Guard Book For Fighting Experience*, July 1945, p.12. DG Hist, 91/79. Edwards, *Operation Neptune*, (London 1946), 127
18. Marston ms, "HMCS *Blairmore* with the 31st Canadian Minesweeping Flotilla," p.7.
19. Marston ms, "HMCS *Blairmore* with the 31st Canadian Minesweeping Flotilla," p.8.
20. Albert J. Sherrell diary, 6 June 1944. DG Hist, 74/404
21. Report by Naval Commander, Western Task Force, 25 July 1944, 6. DG Hist, 83/105 Vol III. For totals of mines swept see S.E. Morison, *History of United States Naval Operations in World War II*, Vol 11, *The Invasion of France and Germany*, (New York 1957), p.173. Canadian Naval Mission Overseas, memo, "The RCN's Part in the Invasion," 9 January 1945. DG Hist, 84/230. Totals in the RCN narrative substantiate that the Canadians swept in excess of a hundred mines, but because the Reports of Proceedings for the period are incomplete, it is impossible to ascertain the exact figure.

Michael Whitby is an historian at the Director General History, NDHQ. He is co-author with Bill McAndrew and Don Graves of the forthcoming *Normandy 1944: The Canadian Summer*, and would like to recognize their contribution to this work, as well as that of Vince Rigby who completed preliminary research.