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# Tactics, Training, Technology

## The RCN's Summer of Success, July-September 1942

Robert C. Fisher

During the summer of 1942 the Royal Canadian Navy (RCN) destroyed five German U-boats in the space of six weeks. It was a remarkable feat for a small, inexperienced navy. Canadian warships had sunk only two enemy submarines during the first three years of the war, and had not sunk one in ten months. The surprising success of the summer of 1942 was not sustained: after the fifth sinking the RCN did not sink another U-boat for four months. Thus, the summer U-boat kills were an unusual phenomenon which has been remarked upon by Canadian naval historians. Historians have not, however, offered an explanation for the summer successes or studied them in detail. This is generally because the actions took place as part of larger convoy battles which have captured the attention of historians and dissuaded study of the U-boat sinkings in relation to one another.<sup>1</sup>

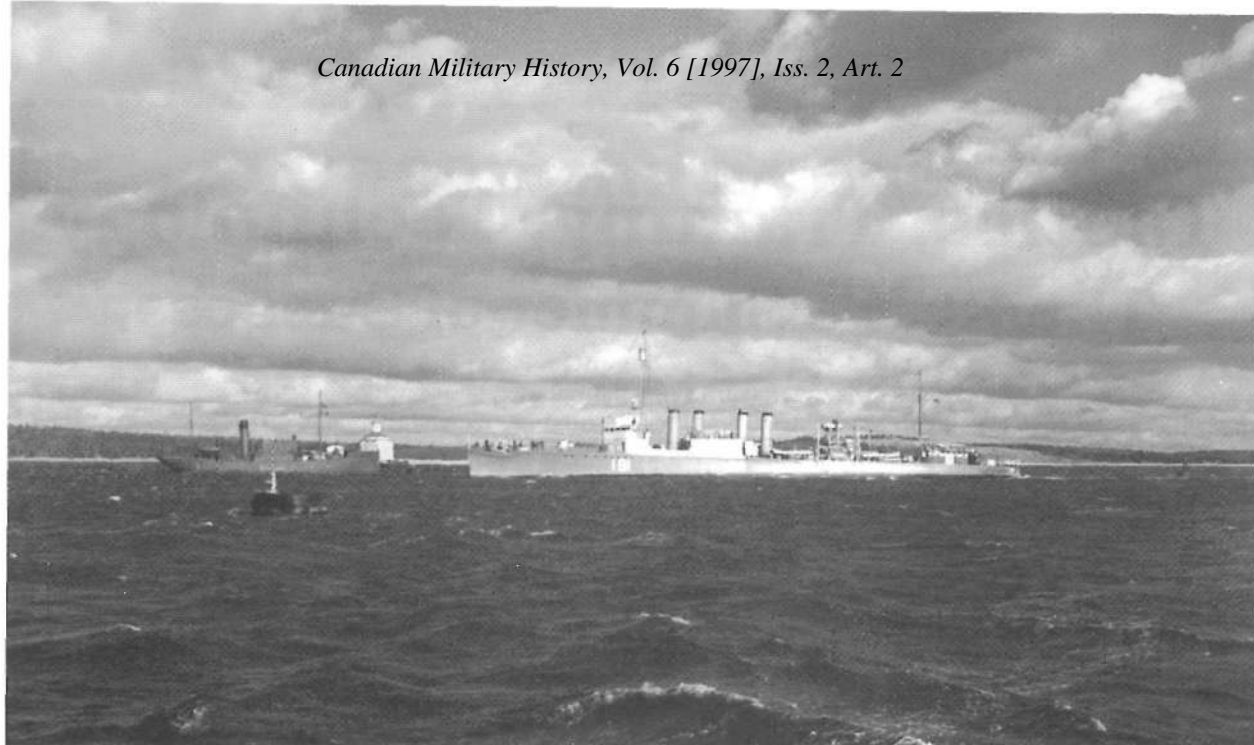
There is, however, good reason for studying the kills in isolation from the larger convoy battles around them because, as Marc Milner has demonstrated, the thrust of RCN training had been the destruction of U-boats and not the defence of convoys. The United States Navy also emphasized offensive anti-submarine warfare in contrast to the Royal Navy (RN), to which the "safe and timely arrival of the convoy" was paramount. Commander J.D. Prentice, RCN, was the architect of this approach in the Canadian Navy and had led the drive for operational training at Halifax and St. John's since the spring of 1941. Prentice drilled escorts in "the basics of co-operation and teamwork" but the "emphasis was on effective anti-submarine warfare" rather than the protection of convoys. Though many of Prentice's initiatives were short-lived due to a scarcity of resources and

operational necessities, his most ambitious effort to train escorts began in April 1942 and 15 or 16 escorts passed through this training program shortly before the Germans resumed wolf pack operations against transatlantic convoys in July 1942.<sup>2</sup> Studying the sinkings separately from the convoy battles allows comparisons to be made and conclusions to be drawn about the proficiency of the RCN at its chosen task.

Reviewed individually, each kill was made under a unique combination of circumstances revealing the state of the art of anti-submarine warfare among the elite escorts of the RCN. Collectively, the sinkings shed light on a period of transition between the traditional submarine warfare of 1941 and the advanced technological warfare of 1943. They demonstrate that, at this stage of the Battle of the Atlantic, capable leadership could still overcome deficiencies of equipment and weaponry through the application of training, tactics, and experience.

### The Sinking of *U-90*

The RCN sank its third enemy submarine on 24 July 1942 during the wolf pack attack on convoy ON 113. The German attack signalled the return of the U-boats to the North Atlantic convoy routes after a prolonged absence. It was the first battle of a campaign that would last until the decisive defeat of the wolf packs in May 1943. The convoy, westbound from Great Britain to North America, was screened by the mid-ocean escort group C2, whose Senior Officer was Commander Thomas Taylor, RN, captain of the British town-class destroyer *Burnham*. The "C" designation in C2 meant that the group was



(NAC PA 104469)

*HMCS St. Croix (ex-USS McCook), a Canadian town-class destroyer, was acquired by the Royal Canadian Navy in the "Bases for Destroyers" Deal. St. Croix's Captain, Lieutenant-Commander A.H. Dobson, had a reputation for making quick, accurate depth charge attacks on German U-Boats.*

mostly Canadian. It also included *St. Croix*, a Canadian town-class destroyer, and three RCN corvettes, HMC Ships *Brandon*, *Dauphin*, and *Drumheller*. The British corvette *Polyanthus* rounded out the group. Lieutenant-Commander A.H. Dobson, RCNR, captain of *St. Croix*, scored the first Allied success of the new campaign. Dobson was a reserve officer from the merchant marine who had been in command of *St. Croix* since January 1942. He was the first reservist commanding officer to score a kill for the RCN.<sup>3</sup>

German U-Boat Command had deployed the nine submarines of Group *Wolf* in a patrol line on the main convoy routes at the outer limits of Allied air cover from Great Britain and Iceland. The pack sighted ON 113 on 23 July and by the afternoon of 24 July six U-boats had made contact with the convoy, assisted by the dark smoke issuing from the merchant ships and maximum visibility.<sup>4</sup> Allied shore-based High Frequency/Direction Finding (HF/DF) gave warning of the wolf pack's presence. Stationed ahead of the convoy, *St. Croix's* masthead lookout sighted two U-boats on the surface at 1735Z: one was 5 miles distant on the port bow while the second was farther away on the starboard bow. Dobson informed Taylor of the sightings while increasing speed to 28 knots to chase the closest submarine.

The quarry was *U-90*, a medium type VIIC U-boat, the mainstay of the U-boat fleet. *Kapitänleutnant* Hans-Jürgen Oldörp commanded the submarine which was making its first war cruise. HMS *Burnham* pursued the other U-boat at high speed but the distant enemy escaped easily. Sufficient daylight was left for *St. Croix* to overtake the closer sub. Dobson refused to open fire with the destroyer's guns in an effort to keep *U-90* on the surface until the range had fallen. He wanted to get as close as possible before the enemy dived in order to improve the odds of the eventual asdic search. Oldörp obliged at first by trying to outrun the destroyer but then finally crash dived when the gap had closed to 6,000 yards. *St. Croix's* Canadian-made SW2C radar had obtained "no pip whatever" from the U-boat at this range even in the calmest of seas; good evidence of the basic ineffectiveness of metric radar except at very short range.<sup>5</sup>

For sound gear the destroyer was equipped with type 141 asdic, a modification of the American sonar found on most of the town-class destroyers. Asdic conditions were good. Dobson proceeded to the diving position and after searching along the U-boat's last known course for 1,500 yards was rewarded with an asdic echo at an extreme range of 2,400 yards. *St. Croix* classified it as a submarine contact at 1856Z and ran in to attack. The contact was lost at 700 yards, revealing that *U-90* had gone very

deep. The depth-charge crew changed to a deep setting during the run-in and fired a pattern of six depth charges that produced no visible results. Dobson circled back and re-established contact. This time the echo, showing no movement, was lost at 500 yards and six depth charges set to 150 and 350 feet were dropped. After the explosions "small pieces of splintered wood, bubbles of air and" oil rose to the surface in the destroyer's wake. Dobson opened up the range to 2,200 yards, regained contact and closed to attack. During the approach run the target showed no movement and "was held until close in" until it was finally lost at 100 yards. *St. Croix* fired a pattern of six depth charges set shallow to 100 feet at 1922Z. The third and final depth charge attack brought scattered debris and "numerous pieces of human flesh" up to the surface, marking the destruction of *U-90*. The destroyer collected the grim evidence of the kill as proof for the Admiralty's sceptical U-boat Assessment Committee.<sup>6</sup>

It appears that the first two depth charge attacks were accurate and severely damaged the U-boat. The damage sustained by *U-90* must have prevented it from holding its depth. The sub rose towards the surface where it was a sitting duck for the final shallow-setting attack. *St. Croix's* success was equal parts luck and skill. Dobson's plan to keep the U-boat surfaced while the range closed worked to perfection and he correctly guessed the probable course underwater. Optimum asdic conditions enabled the destroyer to pick up the target at the extreme range of 2,400 yards. The accuracy of all three attacks showed the skill of the A/S team led by Lieutenant L.N. Earl, RCNVR, the A/S Control Officer, and Petty Officer M.E. Biggs, RCN, the Higher Submarine Detector (HSD). The depth charge crew's ability to adjust the depth settings smoothly during the approach runs demonstrated that it had also attained a high level of efficiency. All in all, the successful attack reflected highly on the ability of Dobson and his crew. Later, in September 1942, Dobson and *St. Croix* displayed similar skill in the art of detecting and attacking submerged U-boats, severely damaging two U-boats operating against ON 127 (forcing them to return to port) and causing moderate damage in a third attack. What was remarkable was that in the case of all three attacks, the initial pattern of depth charges

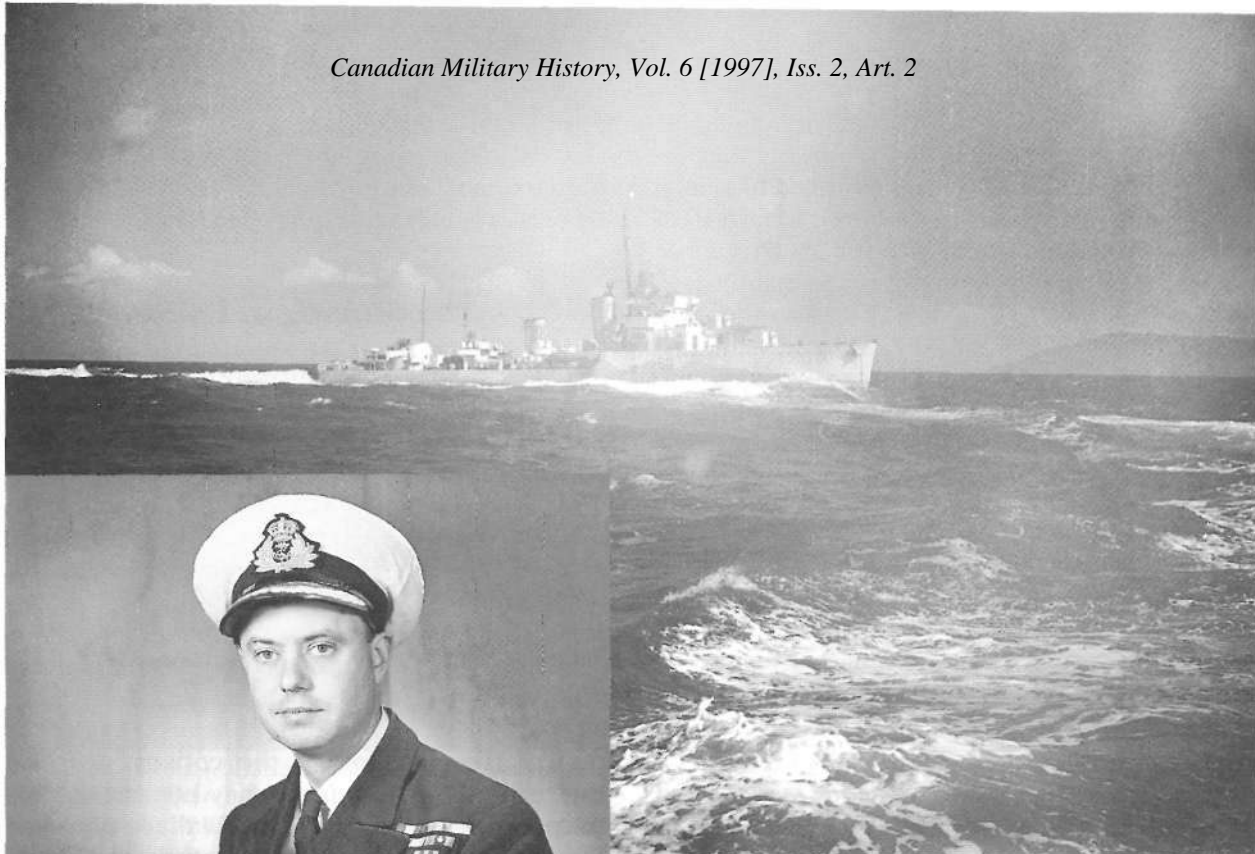
inflicted most of the damage. This was, in effect, Dobson's trademark; quick, accurate strikes.<sup>7</sup>

### The Sinking of *U-588*

After waiting ten months for its third kill, the ARCND had to wait just seven days to score its next kill, which also came while escorting a fast westbound convoy. The mid-ocean escort of ON 115, escort group C3, was all Canadian, including two destroyers, *Saguenay* and *Skeena*, and four corvettes, *Sackville*, *Wetaskiwin*, *Galt*, and *Louisburg*. Commander D.C. Wallace, RCNR, captain of *Saguenay*, was in command of the group. During the night of 30/31 July, three submarines of Group *Pirat* shadowed ON 115 and were trying to home the rest of the pack on to the convoy. C3 had intercepted medium frequency homing signals from a U-boat and as a result Wallace deployed *Skeena* seven miles out on the starboard beam. The destroyer's obsolescent British type 286M metric radar was unlikely to detect the shadower but the warship's presence could still make shadowing difficult.<sup>8</sup>

No attacks developed during the night but in the first light of dawn *Skeena's* lookouts glimpsed a U-boat on the surface six miles distant. The destroyer had discovered either *U-511* or *U-588*, surprising both submarines in the morning twilight. Lieutenant-Commander K.L. Dyer, RCN, gave chase but his prey submerged after five minutes. *Kapitänleutnant* Friedrich Steinhoff, captain of *U-511*, reported that he was chased by a destroyer at 0628Z and that another sub "had also submerged," only 700 metres away. The two U-boats crash dived about the same time so it is not clear which one had been sighted. Until now, historians have been unaware of the presence of the second submarine, believing that *U-588* was the sole target of the attacks. *Skeena's* sweep had also "forced off the contact-keeper, *U-210*, which sped away on the surface."<sup>9</sup>

Dyer had a clear idea of what to do. He had developed his own diamond-shaped search plan for a single escort hunting a submerged foe, and now he put the scheme into practice. It involved dropping single depth charges at the farthest "positions the enemy could reach in the hopes of containing him in the area" so that a deliberate



(NAC PA 198509)



(NAC PA 198508)

HMCS Skeena (*above*), a river-class destroyer, was ably commanded by Lieutenant-Commander K.L. Dyer (*left*), here shown in the rank of captain.

lost contact, although a non-sub echo may in fact have been the real thing.<sup>10</sup>

The target, *U-511*, had gone very deep after the initial attack. Steinhoff mistakenly blamed radar for "the sudden appearance of the destroyer" but refrained from releasing asdic decoys "because of the other U-boat." Unselfishly, he did not want to risk putting the destroyer on to *U-588* or to keep the hunter above in the vicinity any longer than necessary. *Skeena's* depth charge barrage was "well-aimed, but higher than the boat" according to Steinhoff. It had not caused any damage to *U-511* which, however, took "on a great deal of water" as a result of the great depth it had reached. Steinhoff used "every means available to pump ship during the depth charging series, without considering the possibility of being heard." Whatever the noise, the destroyer did not regain contact.<sup>11</sup>

Commander D.C. Wallace had in the meantime ordered HMCS *Wetaskiwin* to join the destroyer in the hunt; both escorts were commanded by professional RCN officers and Milner has observed that it was probably for this reason that Wallace chose the corvette. Lieutenant-Commander G.S. Windeyer, RCN,

search could then be made. Asdic conditions were fair and the sea was smooth. However the destroyer's type 124 asdic was not working well at ranges beyond 1,000 yards. *Skeena* arrived at the position where the U-boat had dived and had dropped single charges at two corners of the diamond-shaped search zone when at 0705Z a definite submarine contact was obtained at 900 yards. Dyer counter-attacked with a pattern of ten depth charges set to 100 and 235 feet. Diesel oil could be smelled as the destroyer circled back and regained contact. The echo was lost at 300 yards and the following depth charge attack was "slightly early." *Skeena* re-established contact at 0732Z but the target had now gone "very deep" and the third depth charge pattern, set to 350 and 550 feet, failed to produce results. Dyer then



(NAC PA 198510)

The victors over U-588 are received by senior RCN commanders. Left to right: Rear Admiral L.W. Murray, Commanding Officer (CO), Atlantic Coast; Lieutenant Commander O.S. Windeyer, CO of HMCS *Wetaskiwin*; Vice Admiral P.W. Neues, Chief of the Naval Staff; and Lieutenant Commander K.L. Dyer, CO of HMCS *Skeena*.

had co-operated with Dyer during a counter-attack southwest of Rockall three weeks earlier and since then they had discussed the best means of handling a deep U-boat. Thus, they were thoroughly acquainted with each other and with the tactics to be adopted, a familiarity which would prove lethal to the enemy. *Wetaskiwin* had the obsolescent pre-war type 123A asdic but had received valuable training with Prentice's group in late May, including exercises with a tame submarine in Conception Bay. It had also had the benefit of training on the Mobile Anti-submarine Unit in St. John's and would put this practice to good use in the hunt. The corvette arrived about 0800Z and Windeyer, although senior, ordered Dyer to direct the search because of his better equipped ship and knowledge of the U-boat's last known position. However, it was *U-588*, lurking nearby, and not *U-511* that became the target of the next attack.<sup>12</sup>

*U-588* was a type VIIC U-boat, commanded by *Kapitänleutnant* Viktor Vogel. Vogel was experienced and successful, having torpedoed seven merchant ships of 33,000 tons during his three previous war cruises. But he had yet to score on this, his fourth and final patrol.<sup>13</sup> At 0830Z, forty minutes after *Skeena's* last echo,

*Wetaskiwin* made asdic contact with *U-588*, but the echo was not marking on the paper of the range recorder. Lieutenant R.K. Lester, RCNVR, the A/S Control Officer, obtained the "trace by opening the recorder box & marking it with pencil," a trick learned at the Mobile Anti-Submarine Training Unit. The contact was lost before an attack could be carried out. Windeyer regained contact 15 minutes later and fired a pattern of ten depth charges without result. *Skeena* joined and in the interim Leading Seaman A.E. McConney, RCNVR, the corvette's HSD, ran below to make some adjustments "in order to get a better trace." *Wetaskiwin* re-established contact and directed the destroyer on to the target, which Dyer attacked at 0912Z with a pattern of ten depth charges set to 350 and 550 feet. Next it was the corvette's turn, but after its attack at 0931Z the echo was lost and the two warships separated to cover more water in their search.<sup>14</sup>

Windeyer admitted that "a partial breakdown in the smooth co-ordination of his A/S team contributed to "considerable uncertainty" over the position of the U-boat. He was retracing his steps when a lookout sighted oil "coming up in blobs" to the surface. The last pattern of depth

charges had apparently damaged *U-588*. *Wetaskiwin* recovered the contact at 1010Z at 1,800 yards, and ran in *to* attack with a pattern set to 500 feet. No further evidence of damage was found but oil continued to appear on the surface and the contact was regained. Windeyer felt that the "plot now suggested that there was not enough throw-off in our attacks" and decided to experiment by making the attacks by plot "after losing contact on the run in." The two following attacks did not produce more definite results but *Skeena* rejoined to assist the corvette.<sup>15</sup>

*Wetaskiwin* directed the destroyer into position at 1117Z for the final attack. During the approach run Dyer changed the depth setting from 350 to 550 feet, and reduced the size of the pattern to five depth charges because he had only 19 left. Just as the corvette's flag dipped, *Skeena*, its own plot also having showed that it had reached the firing point, dropped an elongated pattern of five depth charges. Windeyer considered the attack to be "dead on" and maintained the echo, which "now showed no movement," for three minutes afterwards until "two distinct underwater explosions, thirty seconds apart" heralded the destruction of *U-588*. Oil, floating debris, and human remains soon rose to the surface and were collected as proof of the kill. Steinhoff, nearby in *U-511*, had counted 104 depth charges over six hours but his boat escaped with only slight damage and flooding caused by the "great depths" to which it had been forced.<sup>16</sup>

The successful captains learned from their experience. Windeyer stressed that the victory was achieved "due to a happy co-operation between two ships which have been accustomed to working together." In particular, he emphasized that the captain, A/S Control Officer, and HSD, "must pay more attention to" the doppler which gave "a plain indication of the target's evasive turns." Dyer, in addition to describing his diamond search scheme, argued that searching for a submerged U-boat was "largely a matter of luck unless" the escort had type 271 radar to provide an accurate range and bearing of where the enemy had dived. Dyer complained that "with the present condition of A/S equipment, very little idea of the submarine's movements can be estimated with the deep diving tactics" employed by U-boats. Sub-Lieutenant

E.M. Chadwick, RCN, the A/S Control Officer, elaborated on the destroyer's asdic problems, claiming that in all of the "attacks contact was not gained at anything much over 1,000 yards, and there was never a trace of any use." Finally, Dyer echoed Windeyer on the importance of close coordination, "it was only due to the happy combination of two ships in the group who had exercised together, that the attacks were successful."<sup>17</sup>

The success against *U-588* was the result of teamwork and training. The high standard of training of the two A/S teams was readily apparent by their ability to overcome technical shortcomings. *Skeena's* asdic was not picking up the echo at ranges greater than 1,000 yards; a severe handicap considering the depth of the U-boat ensured the echo was lost at 600-700 yards, leaving a very small window of opportunity for the HSD, Petty Officer A.A. Butchart, RCN. *Wetaskiwin's* plot was not tracing clearly but the A/S team's training helped it to improvise a solution. The use of the corvette's asdic to hold contact while guiding the destroyer in for the depth charge attack made the kill possible. The large amount of time they could devote to the search, allowed by Wallace because it was early in the day and they had several hours *to* rejoin before nightfall, was also an important factor. In this, their freedom from the constraints of convoy defence foreshadowed the deployment of hunter-killer groups.<sup>18</sup>

### The Sinking of *U-210*

The third RCN U-boat kill within two weeks occurred on 6 August with SC 94, a slow convoy bound for Britain. The mid-ocean escort, CI, included three British corvettes, three Canadian corvettes, and the Canadian destroyer *Assiniboine*. Group *Steinbrink*, a wolf pack of 11 U-boats, had intercepted SC 94 on 5 August and torpedoed one merchant ship. During the following day enemy submarines shadowed the convoy but the escort held them at bay. HMCS *Assiniboine* and HMS *Dianthus* attacked and damaged *U-595* in the morning, forcing it to drop out of the battle to make repairs.<sup>19</sup>

Returning from this attack, lookouts aboard the destroyer sighted the conning tower of a U-boat at 1712Z, six miles distant. It was *U-454*,

not *U-210*, as is often stated. Patches of fog caused visibility to vary between 200 yards and eight miles. *Assiniboine* gave chase at 22 knots but after ten minutes the U-boat crash dived under cover of the fog. Guessing correctly that *U-454* had submerged, Lieutenant Commander John H. Stubbs, RCN, hunted with the destroyer's asdic but failed to make contact. *U-454* escaped below the surface, reporting only that a warship had passed overhead without attacking.<sup>20</sup>

The escorts had again shaped course to rejoin the convoy when *Assiniboine's* type 286P radar obtained a contact at 1836Z, and a few minutes later lookouts sighted *U-210*. Stubbs opened fire but the U-boat increased speed and eluded the warship in the fog. *U-210* was a type VIIC boat making its first war patrol. The captain, *Kapitänleutnant* Rudolf Lemcke, "an experienced destroyer officer," had recently been transferred to U-boats to take command of *U-210*. His training in surface warships may explain his reluctance to submerge. Stubbs obtained another radar contact at 1850Z at a range of 1,200 yards. *Assiniboine* closed at full speed and after one minute sighted *U-210* on the surface.<sup>21</sup> Dr. Gilbert Tucker, the Naval Historian, witnessed the action and later recalled that the U-boat "suddenly appeared out of the mist...some fifty yards away and about to cross our bow."<sup>22</sup>

Stubbs prepared to ram but Lemcke took evading action while manoeuvring within the destroyer's turning circle. Stubbs went "full astern on the inside engine" to prevent *U-210* from gaining an attacking position. In tandem with the tight manoeuvring, the guns erupted at close range in a fierce duel. *Assiniboine's* 4.7-inch guns could not depress to fire but its 0.5-inch machine-guns swept *U-210's* deck, preventing its 88-mm gun from being manned. The U-boat responded with its 20-mm flak gun and riddled the bridge with hits. Shells hit gasoline tanks on deck which ignited a fire that raged across *Assiniboine's* forecastle and bridge.<sup>23</sup> Chief Petty Officer Max L. Bernays, RCNR, ordered the crew out of the threatened wheelhouse while Lieutenant R.L. Hennessy's damage control party fought the blaze. With flames engulfing his only exit, Bernays remained inside and performed the jobs of three men,

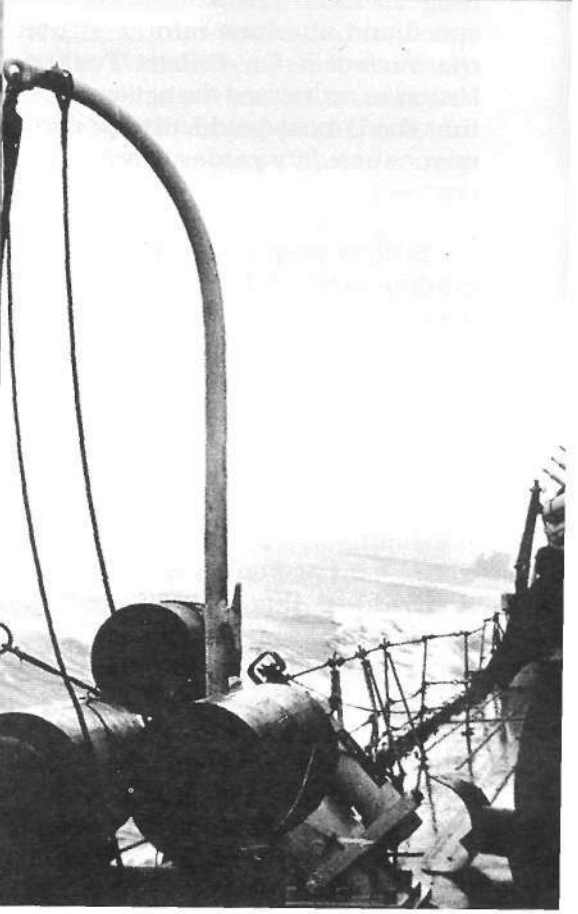
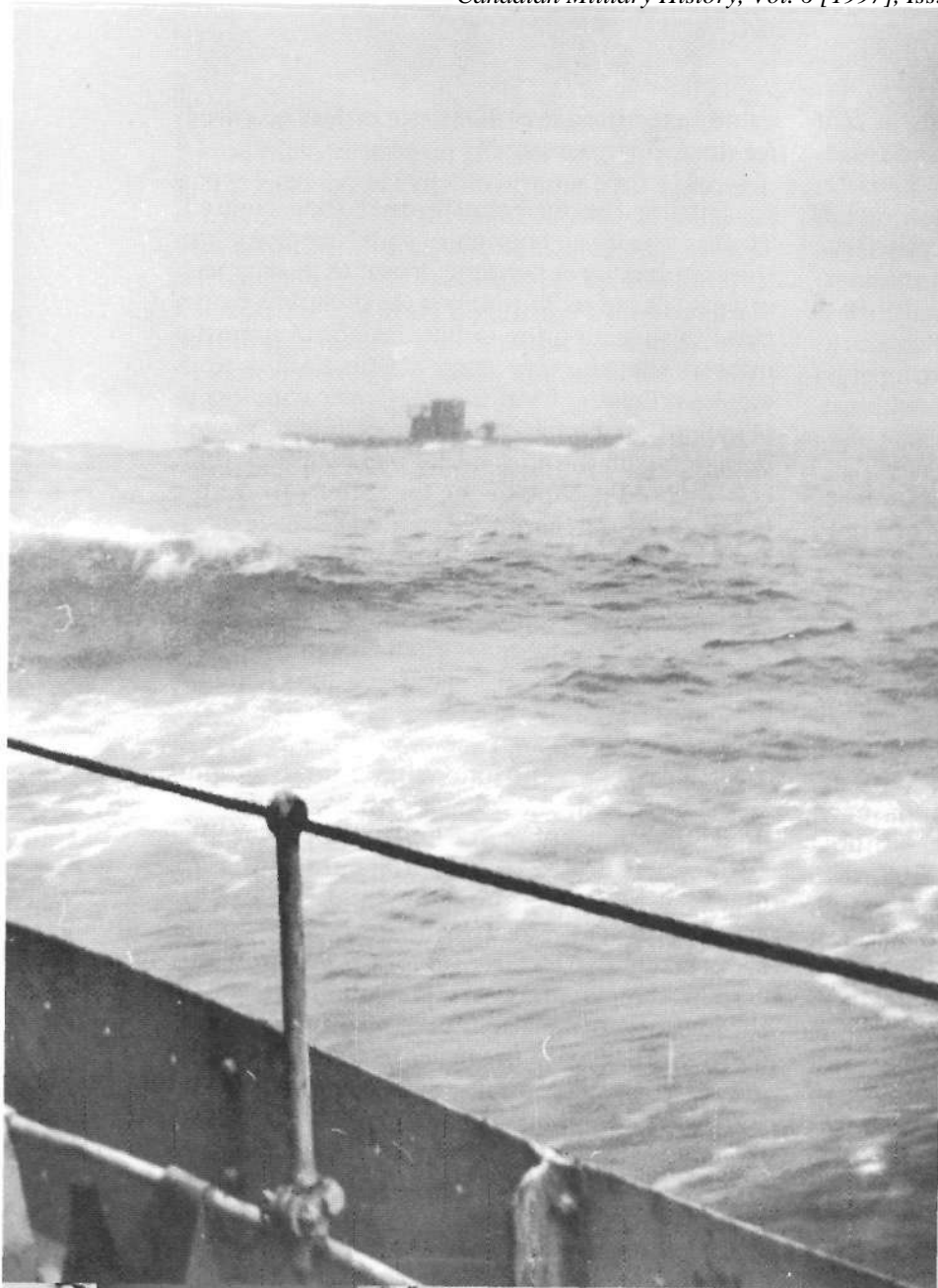
calmly executing over 100 helm orders required for the frantic pursuit.<sup>24</sup>

During the 30 minute duel that ensued Stubbs was close enough to watch Lemcke "on the conning tower bending down" to pass wheel orders. Three or four times *Assiniboine* came close to ramming the submarine but narrowly missed the slippery target. The flames and smoke billowing from the destroyer convinced Lemcke that he had inflicted serious damage. Remaining on the surface, he was confident that *U-210* could escape in the fog. Shells from the U-boat's 20-mm cannon disabled *Assiniboine's* most forward 4.7-inch gun, killing one and wounding three of the gun crew. Finally however, the destroyer's 0.5-inch machine-guns silenced the flak gun. The after 4.7-inch gun then scored a direct hit on the conning tower, killing Lemcke and all of the bridge crew.<sup>25</sup>

The issue was no longer in doubt. *Leutnant* Heinz Sorber, the Engineer Officer, made one final attempt to submerge and escape below the surface. While *U-210* held a steady course to dive, *Assiniboine* rammed it just "abaft the conning tower." The U-boat descended to 18 metres but the electric motors failed and the screws were damaged. Water flooded into *U-210* through the diesel air-intake and its ruptured stern. Sorber "gave the order to blow tanks and abandon ship." After the submarine surfaced, Stubbs rammed again "well abaft the conning tower and fired a shallow pattern of depth charges." Another 4.7-inch shell hit the U-boat's bow. The crew scuttled *U-210* and abandoned ship before it sank.<sup>26</sup> *Assiniboine* and HMS *Dianthus* rescued 38 survivors.<sup>27</sup>

The destroyer's success was not achieved without cost: 13 wounded and one killed. In addition, *Assiniboine* sustained considerable damage, including flooding below the water line. Stubbs had to detach and return to St. John's because of the scars.<sup>28</sup> The destruction of *U-210* in a surface action fought in patches of fog spoke highly of the professionalism of Stubbs and the level of training attained by his crew. According to Petty Officer CG. Vander Hagen, RCN, Stubbs was "cool under fire" and "never flinched." Tucker praised his concentration, judgment, and disregard for personal safety.<sup>29</sup> The Chief of the Naval Staff and the Naval Minister formally recommended Chief Petty Officer Bernays for the





**Opposite:**

**Top left, top right and bottom, right:** Dramatic photos taken during the running battle between HMCS Assiniboine and U-210 on 6 August 1942.

(Photos by G.E. Salter, NAC PA 37443, 37444, & 144289)

**Bottom left:** Rear Admiral L.W. Murray aboard HMCS Assiniboine following the sinking of U-210. Left to right: Unknown; Captain R.E.S. Bidwell, Chief of Staff to Murray; Unknown; Lieutenant Commander J.H. Stubbs, CO of Assiniboine; Murray, St. John's NFLD, 10 August 1942.

(NAC PA 131802)

Victoria Cross. However, British authorities felt that it did not warrant this highest of awards and he had to settle for the rare Conspicuous Gallantry Medal.<sup>30</sup> Modern sensors and weapons played a marginal role in this classic duel which pitted traditional naval skills such as seamanship and gunnery in close quarters combat. The primitive nature of the radar and asdic types carried by RCN escorts ensured that eyesight was still the primary sensor. The era of dependence on visual contact was coming to a close, however, and *U-210* was the first RCN U-boat kill in which radar had made the initial detection.

## The Sinking of *U-94*

The sinking of *U-94* by HMCS *Oakville* and a US Navy Catalina aircraft was the only one of the RCN's summer successes not to take place on the North Atlantic convoy routes. Earlier in the spring, Naval Service Headquarters had assigned six corvettes to escort Canadian oil tankers to and from the Caribbean Sea. The escort of the Trinidad-Key West convoy TAW 15 consisted of three RCN corvettes, *Oakville*, *Halifax*, and *Snowberry*, a Dutch minelayer, and five American warships, the destroyer *Lea* and four small patrol craft and submarine chasers. Commander J.F. Walsh, USN, the captain of USS *Lea*, commanded this mixed escort. TAW 15 had an uneventful voyage until 27 August when it approached the Windward Passage, a focal point where two U-boats lay in wait.<sup>31</sup>

Despite heavy air patrols, *U-94* escaped detection and sighted the convoy's mastheads in the afternoon. The enemy sub shadowed from a distance and waited for nightfall to close to attack. *U-94* was a veteran type VIIB U-boat, on its tenth war cruise, commanded by Oberleutnant Otto Ites who, although only 24

years of age, was an experienced and successful U-boat ace. Since taking command of *U-94*, he had torpedoed 14 ships of almost 80,000 tons, mostly from North Atlantic convoys and had received the Knight's Cross in April.<sup>32</sup>

Darkness fell but the night was moonlit and bright. Walsh had positioned the escorts about 5,000 yards from the convoy. Visibility was four miles up moon and two miles down moon, with a moderate sea running. HMC Ships *Snowberry* and *Oakville* screened the port bow and quarter, with a sub chaser stationed in between them. *U-94* crept toward the convoy's port side on the surface, unseen by the escorts. *Snowberry's* type 286M radar had broken down while *Oakville's* SW2C radar revealed no trace of the intruder.<sup>33</sup> Ites was preparing to fire at a ship when a lookout sighted an aircraft, and instead ordered a crash dive. It was a Catalina flying boat from US Navy Patrol Squadron 92 based at Guantanamo Bay, Cuba. Pilot Lieutenant Gordon R. Fiss, USN, had sighted *U-94* in the moonlight at 0258Z and dropped four 650-pound depth bombs on its swirl. The explosions shook the U-boat when it was between 10 and 20 metres beneath the surface. Unknown to the German crew the bow hydroplanes had been damaged, forcing the sub back to the surface. Fiss circled back to drop a flare over the U-boat's position.<sup>34</sup>

*Oakville's* crew heard three explosions and observed a column of water one mile ahead. The corvette altered course and increased speed to 15 knots. Lieutenant-Commander Clarence A. King, RCNR, was an experienced submarine hunter who had served in the Royal Naval Reserve as captain of a Q-ship during the First World War. He had been credited with a possible U-boat kill and received the Distinguished Service Cross. Despite his age, 56, he assumed command of *Oakville* in May 1942 and quickly earned a reputation as an outstanding officer. His superiors described him as "an efficient and popular commanding officer" with "the right offensive spirit."<sup>35</sup>

*Oakville* closed at full speed and fired a pattern of five depth charges, set to 100 feet, on the flare without having made asdic contact. King altered course 30° to starboard to hunt with asdic in good conditions. The HSD immediately obtained a firm asdic contact, 10° on the starboard bow at a range of 600 yards, moving

# MEN of VALOR

## They fight for you



Two-man boarding party from the Canadian corvette 'Oakville' subdues crew of German sub in Caribbean

(CFPU PMR 88 319)

A patriotic poster in Hubert Rogers' "Men of Valor" series depicting the actions of Sub-Lieutenant H.E.T. Lawrence and Stoker Petty Officer A. Powell in boarding U-94.

to the left. Less than one minute later, the U-boat surfaced about 100 yards ahead on the starboard bow, heading left. *Oakville* fired two white rockets to announce the enemy's presence while altering course to ram, but *U-94* passed under its bow, narrowly grazing the corvette's port side.<sup>36</sup> The submarine accelerated but could not exceed 12 knots. Ites "thought that the screws had been damaged" by the impact but other crew members later thought it had damaged the coupling between the diesels and the electric motors. Either way, *U-94* could not make emergency speed to outrun the corvette on the surface.<sup>37</sup>

King opened up the range between *Oakville* and the U-boat to bring the four-inch gun into play, and gain speed to ram again. The four-inch opened fire and quickly scored a hit on the conning tower. German gunners tried to man their weapons but the corvette's Oerlikon, Lewis gun, and 0.5-inch machine guns swept the deck

"making it impossible for the submarine to man any gun throughout the action." Another four-inch shell shattered the sub's 88-mm deck gun and *Oakville* rammed again, but struck another glancing blow. The corvette, too close for its guns to bear, fired a depth charge which exploded directly below *L7-94*.<sup>38</sup>

King prepared to ram again but Ites had decided, apparently after the second ramming, to give up the fight and gave the order to abandon ship.<sup>39</sup> *Oakville* rammed the submarine a third time at 0345Z abaft the conning tower. In a fine display of ship-handling, King pulled close along side of *U-94* and ordered "away boarding party." Sub-Lieutenant H.E.T. Lawrence, RCNVR, and Stoker Petty Officer Arthur Powell, RCNR, leapt from the corvette to the forward deck of the submarine.<sup>40</sup> They scrambled to the conning tower, which they found "riddled with bullet holes," but were too late to save the submarine. After looking below, Lawrence ordered everyone overboard. A few minutes later, *U-94* sank by the stern.<sup>41</sup> Sea boats from *Oakville* and USS *Lea* recovered the two boarders and rescued 26 Germans. The corvette's asdic dome and oscillator had been crushed, and water flooded the asdic compartment and after boiler room. Despite these injuries, *Oakville* made Guantanamo under its own power.<sup>42</sup>

Once again, asdic and radar played only a secondary role in the destruction of the U-boat. The Catalina made initial contact by eyesight in the moonlight. *Oakville's* SW2C radar did not pick up *U-94* one mile away in a moderate sea and swell. Its basic type 123A asdic did make contact in good asdic conditions but was not called upon to hold it for very long. Like *U-210*, the surface battle that followed was old-fashioned, calling for a high degree of seamanship and gunnery, and ramming brought it to a successful conclusion. *Oakville's* crew was nothing if not well trained. King drilled his crew relentlessly at action stations, boarding party, man overboard, abandon ship, and other exercises. The Deck Log shows that boarding party drills had been practised as recently as 31 July and 19-20 August 1942.<sup>43</sup> His First Lieutenant, Kenneth B. Culley, RCNVR, later remembered that "it was a bit much" at times but admitted that King's commitment to training paid off.<sup>44</sup>

## The Sinking of U-756

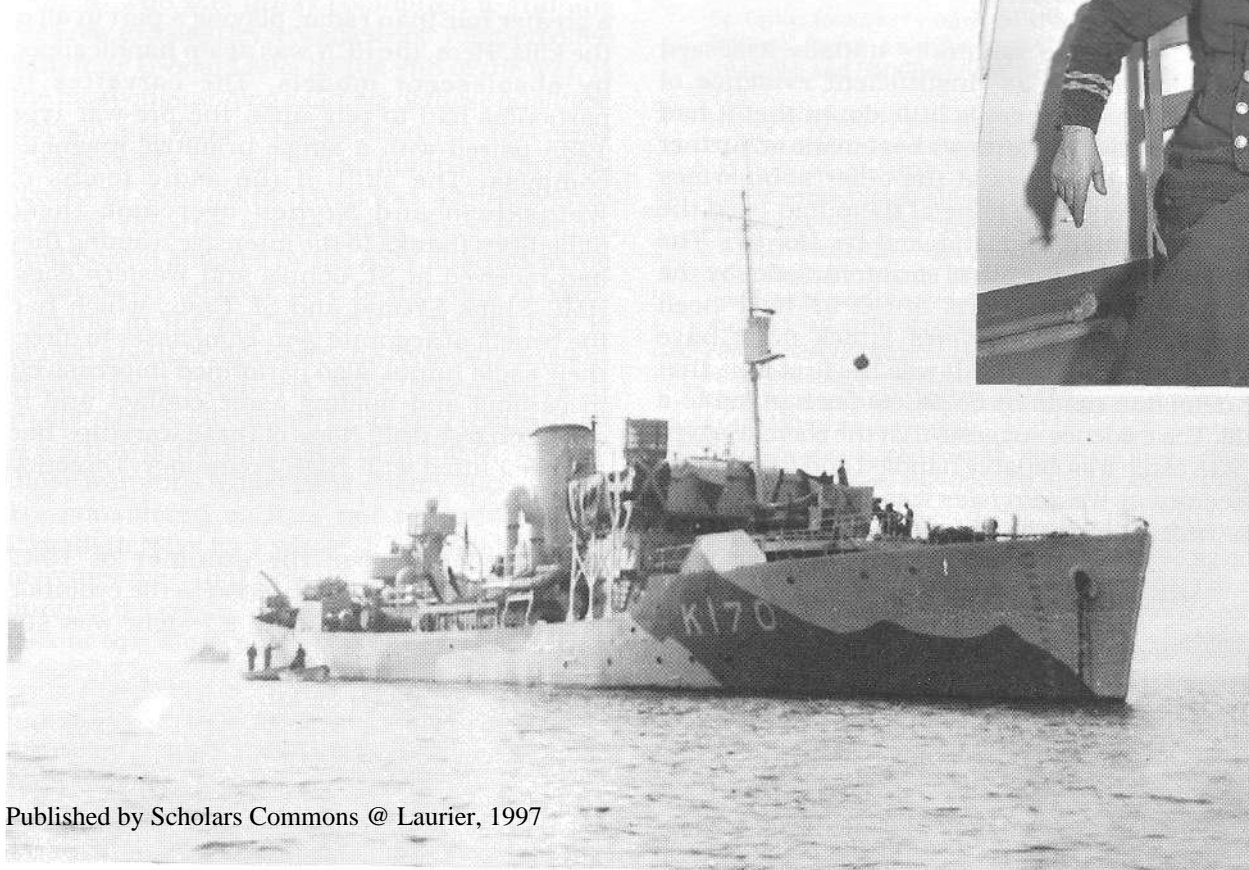
The last of the RCN's string of summer successes occurred on 1 September with the slow eastbound convoy SC 97. The certain destruction of U-756 was not apparent at the time, and it was not until over 40 years later that HMCS *Morden* received credit for the kill. The mid-ocean escort was C2, the same group that had escorted ON 113, now without *St. Croix* but with *Morden* and HMS *Broadway* for a strength of two destroyers and five corvettes. Two US Coast Guard Cutters joined mid-passage from Iceland. Group *Vorwärts*, a wolf pack of nine U-boats, intercepted SC 97 during the morning of 31 August and torpedoed two merchant ships. Two submarines maintained contact after sunset. *Kapitänleutnant* Horst Höltring, captain of U-604, trailed the last ship in the middle column while reloading after a failed attack. In addition, U-756 shadowed the starboard side of SC 97. *Kapitänleutnant* Klaus Harney radioed U-Boat Command at 2215Z that the convoy consisted of about twenty merchant ships and eight escorts, and steamed a northeasterly course at 7 knots. U-756 was never heard from again.<sup>45</sup>

Dark, unbroken clouds covered the sky except for a small patch of bright, starry sky on the northern horizon. Towards midnight the moon rose on the clear horizon, increasing visibility to 10 miles and silhouetting the merchant ships to the darker, starboard side.<sup>46</sup> The wind was force 3 from the north and the sea was moderate with a long, low swell. HMCS *Morden* "was on the port leg of a zig-zag two miles astern of SC 97" at 0050Z when its SW2C radar picked up a contact 1,500 yards on the starboard quarter. Lieutenant John J. Hodgkinson, RCNR, captain of *Morden*, altered course to investigate.<sup>47</sup> Hodgkinson was an experienced merchant seaman, described as a "Hard-Bitten" type who was "very popular" with his crew. Under his command, the corvette had received intensive anti-submarine training at HMS *Western Isles* in Tobermory, Scotland in February 1942. HMCS *Morden* received passing grades and Commodore G.O. Stephenson, RN, remarked that she "has the makings of a first-class ship. She is lucky in having a Commanding Officer and First Lieutenant who realize that they have got to keep on with the working-up."<sup>48</sup>

The attack by HMCS *Morden* (below), captained by Lieutenant J.J. Hodgkinson (right), on U-756 was originally assessed with "insufficient evidence of damage." Today, there is little doubt that *Morden* destroyed U-756.



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Hodgkinson sighted *U-756* on the surface at close range, "steaming in the direction of the Convoy." He increased speed, as the *Oerlikon* opened up, and manoeuvred to ram, but Harney foiled the attempt by crash diving at 0115Z. *Morden* dropped two depth charges set to 50 feet by eye on the swirl. Hodgkinson thought it was "difficult to imagine that the U-boat could have avoided being hit by the depth charges." The corvette made asdic contact afterwards and at 0128Z ran in for a second attack. *Morden* lost the contact at 300 yards and fired a pattern of five depth charges set to 150 feet. Hodgkinson opened out the range and re-established contact with *U-756*. The contact was lost at 300 yards again and *Morden* fired a pattern of ten depth charges set to 150 and 300 feet. In the darkness the crew sighted no debris, oil, or other evidence of damage on the surface to mark the destruction of *U-756*.<sup>49</sup>

Below the surface, the other sub, *U-604*, had gone deep to 150 metres where Höltring had heard asdic sounds and released a *Bold* submarine decoy. He heard the last depth charge attack, further off and of no concern.<sup>50</sup> During a brief search the corvette failed to regain contact. In the meantime, Commander Thomas Taylor, RN, the Senior Officer in HMS *Burnham*, had ordered Operation Raspberry "in case other U-boats were present" and instructed *Morden* to return immediately in view of the submarine activity.<sup>51</sup>

Although the Admiralty initially assessed *Morden's* attack as "insufficient evidence of damage," today there is little doubt that it had destroyed *U-756*. Harney's boat made no further signals and the logs of the other submarines present reveal that none of them had been the U-boat sighted and attacked by *Morden*. The targets of all of the other counterattacks by the surface and air escorts of SC 97 have been identified. Thus, *Morden's* attack must have accounted for *U-756*.<sup>52</sup> It was the first time that a detection made by SW2C radar had led to a kill. The evidence suggests that the corvette's type 123A asdic was capably handled and the training received at *Western Isles* was put to good effect in the heat of the battle.

## Conclusion

The RCN's summer successes show the complex interplay of equipment, tactics, and training required to sink a U-boat at this stage of the Battle of the Atlantic. At first glance there are no patterns apparent in the five kills: each kill was made under a unique combination of circumstances. They were made both at night and by day, by both destroyers and corvettes, and by both professional and reserve escort captains. The victims included both inexperienced and veteran U-boat commanders. The means of detection included visual, asdic, and radar while the means of destruction included ramming, gunnery, and depth charges.

The role played by the anti-submarine equipment that transformed ASW during the Second World War was not yet dominant during the summer of 1942. Radar made the initial detection in two of the five kills but really did little more than to tell the escort that a U-boat was out there. The primitive metric radars carried by *Morden* and *Assiniboine* - S W2C and type 286P - required calm seas to detect a U-boat and did not provide reliable information as to range and bearing. Centimetric radar, such as type 271 and subsequent models, with its superior discrimination of objects on the surface and accurate ranges and bearings, and improvements such as Plan Position Indicators were still in the future for the RCN. Asdic played a greater role than radar, playing a part in all of the kills. Here, the RCN was again handicapped by obsolescent models. The corvettes in particular had to rely upon the pre-war type 123A paired with a single primitive magnetic compass. The skill of the asdic teams of *Wetaskiwin* and *Morden* overcame these difficulties thanks to the intensive training they had received at *St. John's* and *Western Isles*. HMC Ships *Skeena* and *St. Croix*, which had the benefit of accurate gyro-compasses to direct their asdic hunts, also performed impressively in gaining and holding asdic contact and in depth-charge drill. None of these warships had yet been fitted with High Frequency/Direction Finding.

To some degree the summer of 1942 represents a transitional period in the evolution of anti-submarine warfare. Eyesight was still

more important than radar detection and escort captains still resorted to ramming to dispatch two of the five U-boats. Indeed, these two actions deteriorated into surface gunnery duels between warship and submarine where high-speed ship-handling was crucial to success. In that way, and with ramming and boarding attempts, they resembled traditional naval actions of the past. In contrast, by late 1943 radar and HF/DF would pinpoint the locations of U-boats prior to or in place of visual detection. Counter-attacks would be directed by more advanced asdic types and carried out with depth charges and, increasingly, ahead-thrown weapons. Ramming, with its resultant damage to the attacker, would be frowned upon. Barrages were more likely to be delivered by the closely coordinated teams of escorts foreshadowed by the success of *Skeena* and *Wetaskiwin*.<sup>53</sup> This higher degree of sophistication in the art of anti-submarine warfare was still on the horizon in the summer of 1942 when sensors were primitive and ramming was considered an effective means of sinking a U-boat.

If there was one common thread in the RCN's successes, it was the ability of the commanding officers to overcome the deficiencies in equipment through a combination of tactics, training, and experience. The evidence, where available, suggests that each of the commanding officers, whether reserve or professional, involved in these kills was a capable escort captain who was firmly committed to training his crew to a high level of efficiency. King, credited with four U-boats kills by the end of the war, is the most outstanding example of these qualities. Dobson and Windeyer both destroyed two enemy U-boats while Stubbs had an impressive fighting record in destroyers. Dyer was an innovative tactical theorist whose ideas were carefully studied and adopted by the ASW analysts in the Royal Navy; he later rose to the rank of Vice-Admiral in the postwar RCN. Though less is known about Hodgkinson, he received excellent grades from the Royal Navy taskmasters at *Western Isles*. Of course, by its very nature, this is a study of the elite escorts of the RCN. Only those warships which sank enemy submarines are considered so it is not reflective of the Canadian Navy as a whole. It is also important to remember that this is a study of U-boat hunting not convoy defence, the escort's primary task at this stage of the war at sea. Still, it was

too often the bottom strata of RCN escorts which, in the eyes of Canada's allies, created an unfavourable impression of the service out of all proportion to their actual numbers.

## Notes

The author would like to thank Dr. Roger Sarty and Dr. Marc Milner for their assistance in the preparation of this article.

1. See for example the best-known works: Joseph Schull, *Far Distant Ships: An Official Account of Canadian Naval Operations in World War II* (Ottawa: King's Printer, 1950); Marc Milner, *North Atlantic Run: The Royal Canadian Navy and the Battle for the Convoys* (Toronto: University of Toronto Press, 1984); and Tony German, *The Sea is at Our Gates: The History of the Canadian Navy* (Toronto: McClelland & Stewart, 1990). Milner provides the most detailed analysis but is primarily a study of convoy and escort policy and operations. My published articles and unpublished historical narratives for the Department of National Defence have also taken a "convoy-centric" approach.
2. Marc Milner, *North Atlantic Run*, pp.100-104.
3. Robert C. Fisher, "Return of the Wolf Packs: the Battle for ON 113, 23-31 July 1942, *The American Neptune*, No.56, vol. 1 (Winter 1996), pp.45-62.
4. *Befehlshaber der U-boote* (BdU) War Diary, 24 July 1942, Directorate of History and Heritage, National Defence Headquarters (DHH), 79/446, Vol.6; and *U-552, Kriegstagebuch* (KTB), 24 July 1942, DHH, 83/665.
5. HMS *Burnham*, Report of Attacks on ON 113, 29 July 1942, Public Record Office (PRO), Great Britain, ADM 237/87; and HMCS St. *Croix*, Report of Proceedings, ON 113, 27 July 1942, DHH, 89/34, Vol.17, ON 113.
6. HMCS St. *Croix*, Report of Proceedings, ON 113; HMCS St. *Croix*, Report of Attack on U-boat, 24 July 1942, National Archives of Canada (NAC), RG 24, Vol. 11465, 1942 file; and HMS *Burnham*, Report of Attacks on ON 113.
7. HMCS St. *Croix*, Report of Proceedings, ON 127, DHH, 81/520/8280, Box 6, ON 127; *U-411* and 17-659, KTBs, 10-15 September 1942.
8. BdU War Diary, 29-30 July and 2 August 1942; and HMCS *Saguenay*, Report of Proceedings, ON 115, 3 August 1942, DHH, 81/520/8280, Box 5, ON 115.
9. BdU War Diary, 30 July 1942; 17-511, KTB, 31 July 1942; and HMCS *Skeena*, Report of Proceedings, ON 115, 3 August 1942, DHH, 81/520/8280, Box 5, ON 115.
10. HMCS *Skeena*, Report of Proceedings, ON 115; and HMCS *Skeena*, Report of Attack on U-boat, 31 July 1942, DHH, 81/520/8280, Box 5, ON 115.
11. U-511, KTB, 31 July 1942.
12. HMCS *Saguenay* and *Skeena*, Reports of Proceedings, ON 115; and Marc Milner, *North Atlantic Run*, pp.101, 133.
13. Jürgen Rohwer, *Axis Submarine Successes, 1939-1945* (Annapolis, MD: Naval Institute Press, 1983), pp.82-98.
14. HMCS *Wetaskiwin*, Report of Proceedings, ON 115, 9 August 1942, and Report of Attack on U-boat, 31 July



- 1942, DHH, 81/520/8280, Box 5, ON 115; and HMCS *Skeena*, Report of Proceedings, ON 115.
15. HMCS *Wetaskiwin*, Report of Proceedings, ON 115.
  16. HMCS *Skeena* and *Wetaskiwin*, Reports of Proceedings, ON 115; and *U-511*, KTB, 31 July 1942. Allied reports show that at least 93 depth charges were dropped.
  17. HMCS *Wetaskiwin*, Report of Proceedings, ON 115; HMCS *Skeena*, Report of Proceedings, ON 115, and Report of Attack on U-boat, 31 July 1942.
  18. Captain R.W. Ravenhill, RN, at Liverpool, commented that Dyer's diamond search plan for a single escort hunting a submerged U-boat was "of interest in view of our exertions to issue a search scheme for these circumstances"; Western Approaches Minute Sheet, DHH, 88/1, Vol. 10, ON 131.
  19. HMCS *Assiniboine*, Report of Proceedings, SC 94, 10 August 1942, NAC, RG 24, Vol.11020, COAC 7-2-1, vol 4; and BdU War Diary, 6 August 1942.
  20. HMCS *Assiniboine*, Report of Proceedings, SC 94; Great Britain, Admiralty, Anti-Submarine Warfare Division, *Monthly Anti-Submarine Report* (August 1942), p.29; and U-454, KTB, 6 August 1942.
  21. United States, Navy Department, Division of Naval Intelligence, *PostMortems on Enemy Submarines: U-210* (Serial No 4), pp.2 and 12, DHH, 79/479; and HMCS *Assiniboine*, Report of Proceedings, SC 94.
  22. Gilbert Tucker, "Short Range was Feature of Sea Battle," DHH, Permanent Reference File, HMCS *Assiniboine*.
  23. HMCS *Assiniboine*, Report of Proceedings, SC 94; and Interviews with Vice Admiral R.L. Hennessy and Chief Petty Officer CG. Vander Hagen, DHH, BIOG files.
  24. Joseph Schull, *Far Distant Ships* (Ottawa: King's Printer, 1952), pp. 135-6.
  25. HMCS *Assiniboine*, Report of Proceedings, SC 94; *Post Mortem of U-210*, pp.18-19; and Interviews with Vice-Admiral R.L. Hennessy and Chief Petty Officer CG. Vander Hagen, DHH, BIOG files.
  26. *PostMortem*, U-210, pp.18-19; and HMCS *Assiniboine*, Report of Proceedings, SC 94. *U-210* sank at 1914Z.
  27. HMS *Dianthus*, Report of Proceedings, SC 94, PRO, ADM 1/12271.
  28. HMCS *Assiniboine*, Report of Proceedings, SC 94.
  29. Interviews with Vice-Admiral R.L. Hennessy and Chief Petty Officer CG. Vander Hagen, DHH, BIOG files; and Gilbert Tucker, "Short Range was Feature of Sea Battle," DHH, Permanent Reference File, HMCS *Assiniboine*.
  30. Recommendations for Awards, HMCS *Assiniboine*, August 1942, NSS 1012-8-27, NAC, RG 24, D1, Vol. 3815.
  31. HMCS *Halifax*, Report of Proceedings. TAW 15, 16 January 1943, DHH, Sydney File 48-2-2, Vol.9; and USS *Lea*, Submarine Attack on TAW 15, NAC, RG 24, Vol.6902, NSS 8910-331/71.
  32. United States, Navy Department, Division of Naval Intelligence, *PostMortems on Enemy Submarines: U-94* (Serial No 5), pp.2-3, DHH, 79/479; and Jürgen Rohwer, *Axis Submarine Successes*, pp.58-102.
  33. *Post Mortem of U-94*, p.15; USS *Lea*, Submarine Attack on TAW 15; and HMCS *Oakville*, Report of Proceedings, TAW 15, 29 August 1942, NAC, RG 24, Vol.6902, NSS 8910-331/71.
  34. *Post Mortem of U-94*, pp. 15-16; and HMCS *Oakville*, Report of Proceedings, TAW 15.
  35. Captain Clarence A. King, RCNR, DHH, BIOG file.
  36. HMCS *Oakville*, Report of Proceedings, TAW 15; and HMCS *Oakville*, Report of Attack on U-boat, 28 August 1942, NAC, RG 24, Vol. 11465, 1942 file.
  37. *Post Mortem of U-94*, pp.16-17; and HMCS *Oakville*, Report of Proceedings, TAW 15.
  38. HMCS *Oakville*, Report of Proceedings, TAW 15; and Hal Lawrence, *A Bloody War: One Man's Memories of the Canadian Navy, 1939-1945* (Toronto: Macmillan, 1979), pp.98-99.
  39. *Post Mortem of U-94*, pp. 15-17.
  40. HMCS *Oakville*, Report of Proceedings, TAW 15; HMCS *Oakville*, Deck Log, July-August 1942, NAC, RG 24, Vol.7703; and Hal Lawrence, *A Bloody War*, pp.99-100.
  41. Sub-Lieutenant H.E.T. Lawrence, RCNVR, Report of Boarding *U-94*, 29 August 1942, NAC, RG 24, Vol.6902, NSS 8910-331/71.
  42. HMCS *Oakville*, Report of Proceedings, TAW 15; and USS *Lea*, Submarine Attack on TAW 15.
  43. HMCS *Oakville*, Deck Log, July-August 1942.
  44. Interview with Kenneth R. Culley, July 1994. More memories of King's training regimen are found in Mac Johnston, *Corvettes Canada: Convoy Veterans of WWII Tell their True Stories* (Toronto: McGraw-Hill Ryerson, 1994), p.270.
  45. *U-604*, KTB, 1 September 1942; and *U-756*, KTB, 1 September 1942.
  46. *U-604*, KTB, 31 August-1 September 1942.
  47. HMCS *Morden*, Report of Attack on U-boat, 1 September 1942, NAC, RG 24, Vol.6895, NSS 8910-14, vol 1; and R.M. Coppock, "Loss of *U-756*," DHH, 90/437.
  48. HMS *Western Isles*, Report of Working Up -HMCS *Morden*, 1 March 1942, NAC, RG 24, Vol.11569, file 27-C-41.
  49. Great Britain, Admiralty, U-Boat Assessment Committee, *Precis of Attack by HMCS Morden*, 1 September 1942, NAC, RG 24, Vol.6895, NSS 8910-14, vol 1; HMCS *Morden*, Report of Attack on U-boat, 1 September 1942; R.M. Coppock, "Loss of *U-756*," and HMCS *Morden*, Deck Log, NAC, RG 24, Vol.7535.
  50. *U-604*, KTB, 1 September 1942.
  51. Great Britain, Admiralty, U-Boat Assessment Committee, *Precis of Attack by HMCS Morden*, 1 September 1942; and HMS *Burnham*, Report of Proceedings, SC 97, NAC, RG 24, Vol. 11505, file 220-PR/BM.
  52. R.M. Coppock, "Loss of *U-756*"; and Great Britain, Admiralty, U-Boat Assessment Committee, *Precis of Attack by HMCS Morden*, 1 September 1942.
  53. The highly-advanced anti-submarine warfare of 1943-1945 is described in Marc Milner, *The U-Boat Hunters: the Royal Canadian Navy and the Offensive against Germany's Submarines* (Toronto: University of Toronto Press, 1994); and Doug McLean, *The Last Cruel Winter: RCN Support Groups and the U-boat Schmorkel Offensive* (Master's thesis, Royal Military College, 1992).

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