

**A HISTORY OF CANADIAN
NAVAL AVIATION
1918-1962**

by

J. D. F. KEALY

and

E. C. RUSSELL

The Naval Historical Section
Canadian Forces Headquarters
Department of National Defence
Ottawa 1965



Lieutenant Robert Hampton Gray, VC, DSC, RCNVR

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Preface

From the earliest days of powered flight Canadians have shown an aptitude for all aspects of aviation and this work is an attempt to present, albeit imperfectly, a little known but very important part of this priceless heritage, namely the birth and growth of Naval Aviation in Canada.

Although it is primarily an *official history* as opposed to the “I-was-there” type, the authors wish to stress, from the outset, that any opinions expressed are entirely their own and that the speculations as to the future flight course of Canadian Naval Aviation are based on their interpretation of trends up to the year 1962.

Considerable detail on the operational activities of ships and aircraft has been included and in this connection the policy adopted in respect to the highlighting of individuals’ names must be explained to forestall criticism that the *fish-heads* have been given star-billing at the expense of the aviators. Generally speaking the old rule that, “Captains and above have names otherwise there are only ships (or air squadrons),” has been followed. Exceptions have been made in the case of the early RCNAS personalities and those officers and men of the modern RCN, who have been officially decorated or commended. Regretfully, the many good stories concerning Canadians who flew with the Royal Navy’s air forces in both World Wars have had to be passed by as the main concern has been with the Royal Canadian Navy and the influence on it of naval aviation. For the latter reason the second chapter has been included as an acknowledgement of the importance of events that took

place away from the RCN but without which the other chapters would be meaningless.

To avoid confusing the reader local times have been used unless otherwise stated and as far as possible dates have been kept to a minimum consistent with retaining reference value; a brief chronology of the more important events in the history of Canadian Naval Aviation has been included as an appendix. Most of the material used has been taken from reports, memoranda, letters, messages etc., which are not available to the general public and have not, therefore, been listed in detail. *Reports of Proceedings* from ships, squadrons and establishments have been used extensively and where no other source is given it can be assumed that they are the source. Other file numbers, quoted in substantiation of statements made, have been shown in footnotes, the number of which has also been kept down.

Thanks are due to all those who have given helpful advice and criticism, particularly Lieutenant-Commander S. E. Soward, CD, RCN, whose expert assistance on technical matters and enthusiastic support at all times were in no small measure responsible for the successful completion of the project. Our appreciation also goes to our colleagues and the clerical staff of the Naval Historical Section.

Naval Historical Section,
Ottawa, Ontario.
1 July, 1965.

Introduction

THE FIRST CANADIAN NAVAL AIRMEN

A new era of unbounded possibilities dawned for mankind on 17 December, 1903, when Wilbur and Orville Wright's motor-driven aeroplane rose shakily into the air from a field at Kitty Hawk, North Carolina, and remained airborne for 59 seconds, reaching a maximum speed of 30 knots. This event started a chain reaction, slow at first, which, with increasing momentum in a short span of years, has revolutionized many fields of human endeavour.

The news of the advent of powered-flight was received without enthusiasm in naval circles. The mightiest fleet of the day, the Royal Navy, was engaged in an arms race with Germany, its first serious challenger in nearly one hundred years. The cry was for more men and more ships, particularly *Dreadnought* Class battleships; it is not therefore surprising that when the American inventors offered to sell the patents for their new-fangled inventions to the Admiralty in 1907 they were turned down. Yet, it is a fact that within two years both the Royal Navy and the United States Navy found that they had to take flying a good deal more seriously. In Canada, although pioneers such as the members of the famous Aerial Experiment Association at Baddeck, N.S., were in the forefront of world flight development, the country had no navy and the idea of operating planes with ships aroused little interest.*

By the outbreak of war on 4 August, 1914, a fledgling Royal Canadian Navy had come into existence and its two cruisers, HMC Ships *Rainbow* and *Niobe*, cleared

for action.** Some years were to pass before the navy started to organize an air arm but in the meantime the Royal Naval Air Service was quite willing to accept suitable volunteers from the Dominion. In the first year of the conflict officialdom did not make it easy for a prospective candidate to get into the service; he had either to pay his own passage or enlist in the Canadian Army and hope to transfer on arrival in England. However, difficulties did not deter the enthusiastic and, as the RNAS began to expand, its history became closely linked to Canada.

The need for pilots was urgent in 1915 so that the RNAS could meet its three main commitments: anti-submarine operations; the Dardanelles campaign; and the defence of the United Kingdom, for which non-rigid type airships, together with new fixed-wing planes, were rolling off the production lines. The Admiralty had been well satisfied with the calibre of the recruits coming from Canada and the source was tapped further, officially, in April 1915 when the Naval Service in Ottawa was asked if it would select a considerable number of men to undergo training for the naval air force.† One of the qualifications for a successful candidate (not necessary after December 1916), was that he should obtain at his own expense an Aero Club Certificate of proficiency for which \$375 would be refunded by the British authorities at a later date. McCurdy, who was now manager of Curtiss Aeroplanes and Motors Limited, Toronto, an offshoot of the parent company at Hammondsport, N.Y., had been campaigning since 1914 for a government-backed plant and flying school, and to assist in the new recruiting drive he at once started to train pilots

*Members of the Association were: the inventor, Dr. Alexander Graham Bell; two young engineers, Frederick W. (Casey) Baldwin and John A. D. McCurdy, two Americans, Glenn H. Curtiss and Lieutenant Thomas Selfridge, who was the official observer for the U.S. Government. The first controlled flight of an aeroplane by a British subject within the British Commonwealth was made by McCurdy in the *Silver Dart* above the frozen Bras d'Or Lakes on 23 February, 1909.

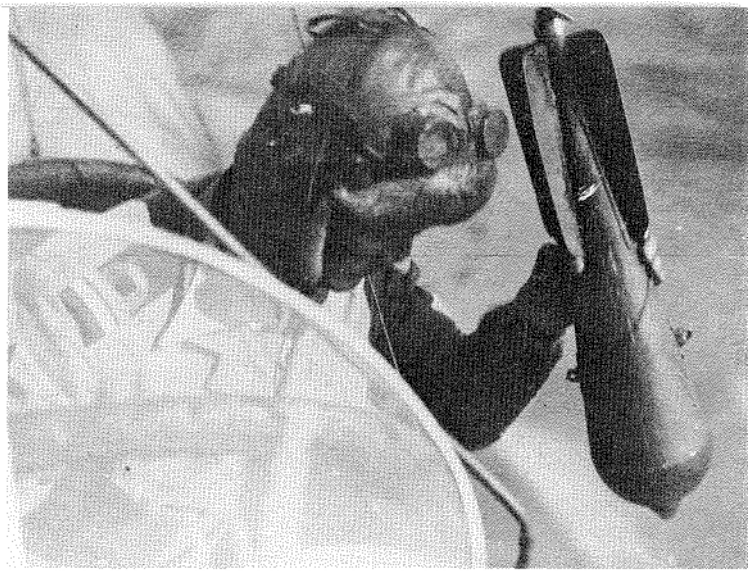
**The Naval Service Act was given Royal assent on 4 May, 1910.

†Canada Department of the Naval Service, *Report for the Fiscal Year ending 31 March, 1916*, Ottawa, King's Printer, 1916.

at Long Branch, Ontario. His firm was building two-seater, wheel-equipped Curtiss *J.N.3* trainers, some of which were turned over to the school together with flying boats brought up from the U.S., the latter for a training base established at Hanlan's Point on Toronto Island. By mid-July the first two pilots had completed the course and successfully passed the examination of the Aero Club of Canada, whose rules were the same as the Royal Aero Club of the United Kingdom, and at month's end ten pupils proceeded overseas to become members of either the RNAS or the Royal Flying Corps. Before the latter took over direct recruiting and training of Canadians in 1917, 129 candidates had graduated from the Curtiss Aviation School without fatalities or serious accidents. Many of them served with distinction in the Allied forces and one of their number, Flight Sub-Lieutenant A. S. Ince, had the honour of being the first Canadian in the RNAS to receive the Distinguished Service Cross for his good work as observer in a *Nieuport* two-seater plane which shot down a German aircraft off the Belgian coast in December 1915.

Brief mention must be made of another air training venture which, although it did not produce many men for the RNAS, illustrates the enthusiasm for participation in the air war that had developed amongst the youth of Canada. In the summer of 1915 a flying club was formed in Vancouver by a group of patriotic business men and training began on the Minoru Park racetrack, Lulu Island, with a single-seater plane purchased from the instructor. Later a larger field was acquired and given the name Terra Nova, and from here two pupils were passed out by Lieutenant-Colonel C. J. Burke, DSO, RFC, who had come over to interview volunteers for flying duties. The sole aircraft was converted into a hydroplane and moved for the winter months to the motor-boat works of Messrs. Hoffar of Burrard Inlet, where it was completely wrecked when one of the main floats struck a drifting log. The club, now very short of funds to operate, closed down and re-emerged as the British Columbia Aviation School, Limited, in which non-profit stock was offered for sale. A two-seater, military-type, Curtiss *Tractor* plane was built in Vancouver and hauled through the streets on a tag-day, which raised \$1,500 for the cause. The machine was moved to Pitt Meadows near Coquitlam, about 25 miles east of the city, where it operated until a crash in 1916 made the plane unserviceable and ended the story of the school. The determined efforts of those concerned in this training venture were not wasted as the club's 15 charter members all saw service in His Majesty's armed forces.*

*One, in particular, had an interesting career in the RNAS. Arthur H. Allardyce became a Flight-Lieutenant in October 1917, and saw considerable service on anti-submarine patrols in flying boats over the North Sea, later becoming one of the first instruc-



"Toss Bombing," First World War style.

Throughout 1916 accepted candidates were sent to England for training at RNAS instructional schools, their seniority as Probationary Flight Sub-Lieutenants being the date of departure from Canada, but in spite of this welcome flow of volunteers both RNAS and RFC were still short of aviators. In August the British Government proposed that its Canadian counterpart should set up a school of aviation and by the middle of October Canada had agreed to finance an aeroplane factory whose orders would be guaranteed by the Imperial Government.† The question of flight training, however, had been overtaken by events on the Western Front, where huge armies were locked in a bloody struggle on the Somme. The RFC was suffering heavy casualties and desperately needed more men and equipment as replacements and in preparation for a Spring offensive. Details were worked out at a meeting in London on 21 December to raise 20 training squadrons in the Dominion and on 22 January, 1917, the vanguard of an RFC recruiting and instructional team arrived in Toronto. Plans for the procurement of equipment and the construction of aerodromes were approved by the Canadian Government and in short order the Corps brought over from the United Kingdom a large establishment of the necessary personnel. Recruiting officers began operating from all major cities and, as a result, the number of RNAS candidates selected in Canada declined. A count after the war showed that a total of 635 had been entered by the Naval Service from the date of the Admiralty's initial request for airmen.††

Considering the size of the country's population in the Great War it is remarkable that there was such a high

tors at the Manston Flying School. He also did experimental work on deck landings, etc., towards the end of the war.

†Order-in-Council PC 2460 approved 13 October, 1916.

††"Occasional Paper No. 12." 9 October, 1919, NS 1017-31-2(1).

percentage of Canadians in the RNAS and to tell their story properly would require a full book length in itself. Many spent their wartime career with squadrons on the Western Front and amongst these may be mentioned the illustrious names of Breadner, Curtis (who had been a pupil at Long Branch), and Edwards, all of whom later rose to the highest ranks in the Royal Canadian Air Force. Another was the much-decorated Raymond Collishaw, a former officer of the Canadian Fishery Protection Service, who ultimately retired from the Royal Air Force as an air vice-marshal. Flyers were also employed in sorties against Zeppelin airships and on anti-submarine (A/S) patrols, one of the few German U-boats destroyed by air action being *UC 72*, sunk by a Canadian, Flight Sub-Lieutenant N. A. Magor, RNAS, in a Curtiss H. 12 *Large America* flying boat on 22 September, 1917. Victories in the war against Zeppelins included the destruction of *L.43* off Vlieland on 14 June, 1917, by Flight Sub-Lieutenant B. D. Hobbs, RNAS, and the shooting down of *L.53* by Lieutenant S. D. Culley, RAF, formerly of the RNAS, on 11 August, 1918.*

Probably the most famous of early Canadian maritime flyers was Robert Leckie, a graduate of the Curtiss Flying School, who flew many sorties from the Royal Naval Air Station at Great Yarmouth and received decorations for destroying *L.22* in 1917 and *L.70* in August 1918; after a distinguished career in the RAF Leckie transferred to the RCAF in 1940 and became its Chief of Air Staff four years later.

Mention has only been made of a few "aces," but from the foregoing it will be realized that by 1917-18 many Canadians were deeply involved in naval aviation and their exploits were known from coast to coast. Consequently when the RCN was ready to form its own air arm the achievements of their countrymen overseas in the RNAS were an inspiration to recruits for the new service.

*This was the last Zeppelin to be shot down in the war. At the time Culley was flying a Sopwith *Camel* land-plane, which he had flown off from the deck of a lighter towed astern of the destroyer, *HMS Redoubt*.

Flight-Commander Collishaw, Commanding Officer, and No. 203 Squadron RAF (formerly No. 3 Squadron RNAS). Many Canadians served with these squadrons.



THE ROYAL CANADIAN NAVAL AIR SERVICE OF 1918

Aviation as a component of sea power was considered of secondary importance in 1914 but under the fierce pressure of war it very soon began to improve technically and exert a profound influence on the whole concept of naval tactics. The RNAS by 1917 had grown to a large force of officers and men flying airships, landplanes, float-planes, and flying boats with a number of converted carriers in commission. Three important achievements which pointed up the potentialities of naval flying had been recorded by the force. These were a raid on Cuxhaven and Wilhelmshaven by sea-planes, transported in three former cross-channel steamers, HM Ships *Empress*, *Engadine*, and *Riviera* on Christmas Day 1914; the sinking of a supply ship by aerial torpedo during the Gallipoli campaign and, lastly, an enemy sighting report that was passed by one of *Engadine's* sea-planes on 31 May, 1916, as the British and German Fleets approached each other prior to the Battle of Jutland. As the war progressed the activities of a growing fleet of enemy submarines, which began to take a heavy toll of merchant ships, had caused alarm amongst the Allies. A declaration by the U.S. Government in May 1916 that it would sever diplomatic relations with Germany unless she modified her method of submarine warfare had the effect of slowing down the attack on shipping for some months but by 1 February, 1917, an unrestricted campaign was in full swing. The RNAS stepped up its A/S* patrolling activity but it soon became obvious that the whole system of the defence of merchantmen would require overhauling.

To Canada, at the western end of the life-line, the increasing tempo of the submarine war had great significance, particularly as the new construction U-boats were striking further out into the Atlantic and would soon try to extend their operations, on a large scale, to the coast of North America.** Defence measures would have to

*Anti-submarine.

**The cargo-carrying submarine, *Deutschland*, had already made two successful voyages to and from Norfolk, Virginia, in July-November 1916, and on 8 October, 1916, *U-53* had sunk five merchant ships off Nantucket Light Vessel, Rhode Island.

be increased and on 10 February the Interdepartmental Committee of the Militia and Naval departments had under discussion the question, referred to it by the Minister of the Naval Service, the Honourable J. D. Hazen, of organizing a Canadian naval air arm. The upshot of these deliberations was the decision "that an air service is necessary for the adequate defence of the Atlantic coast,"¹ two days later, at its next meeting the committee set a minimum requirement of two sea-plane stations, one at Halifax the other at Sydney.

Having reached a decision it was now necessary to get expert advice and a telegram was sent to the Admiralty giving details of the proposal together with a request for the services of a qualified officer to assist. In early March Wing-Commander J. W. Seddon, RNAS, accompanied by a Petty Officer Mechanic, sailed for Canada; a veteran flyer, he was well chosen, having commanded the first sea-plane station in England when it commissioned in December 1912. On arrival in Ottawa Seddon lost little time in putting his ideas for a Canadian service on paper and in a detailed memorandum submitted on 21 March to Vice-Admiral C. E. King-smill, RN (Retired), Director of the Naval Service, he suggested, for the two air stations, a force of 34 sea-planes operated by 300 men at an initial cost of approximately one and a half million dollars.

Four small Sopwith *Schneider* sea-planes were sent, with other equipment, over to Halifax by the Admiralty and whilst his report was being mulled over Seddon went to Toronto to see if the Imperial Munitions Board could fill the needs of the air service from its Canadian Aeroplanes Limited factory. The company, which had been formed as a result of PC 2460, already mentioned, was functioning in a part of the old Curtiss plant but was awaiting the completion of new buildings, covering about six acres, to which it was to move in April. Assured that the company's resources were adequate to meet the requirements, the wing-commander reported back to headquarters and then headed for the coast to inspect the terrain at Halifax and Sydney for air station sites.

Relations between the U.S. and Germany were at

breaking point at the end of March 1917, and American participation in the war, with all its implications for Canada, was inevitable.* The Canadian Privy Council met to discuss the expert's report on an air scheme for the defence of the East Coast and came to the conclusion that the financial cost was too high. In a telegram to the Prime Minister, Sir R. L. Borden, who was in London, the council also stated that its members were unanimously against establishing a CNAS as it would occupy skilled construction men badly needed on other works and as they considered the money could be better spent on increasing A/S surface patrols. Wing-Commander Seddon, no doubt invigorated by the spring winds blowing across McNab's Island, which he had surveyed as a possible base, was greeted with the news on his return to Ottawa and immediately sat down to compose another extensive memorandum in a last ditch attempt to get an air service approved. His new scheme was turned down on the grounds that it was primarily a training one, which would only give protection to shipping in the region of Sydney. His mission completed, Wing-Commander Seddon left Canada for the U.S. in mid-April and the official thanks of the Canadian Government were sent to the Admiralty for their prompt help in sending the British team, which had, by now, increased to three officers and two petty officers. The four crated *Schneiders* gathered dust in a Halifax warehouse until they were noticed by Admiral Kingsmill on an inspection tour in September. Disposal instructions were requested from the Admiralty, who in turn presented them as a gift to the United States Naval Reserve Flying Corps. The Americans took the planes to Florida where they gave yeoman service at flying schools.

While a Canadian naval air arm had been under consideration the Allies had suffered a grim month in the North Atlantic. A huge tonnage was sunk by enemy submarines until finally the old lesson, that the only way to protect large numbers of merchantmen is to organize them in convoys, was re-learned. This system was introduced in May 1917, with the RNAS providing escort wherever possible. A pattern of aerial reconnaissance known as the *Spider's Web* was also developed, the first submarine victim being *UC 36*, which was sunk by aircraft on 20 May.** The construction of U-boats continued to be given top priority by the Germans and in the autumn of 1917 a formidable class of 2,400-ton "sub-

*President Woodrow Wilson signed the U.S. formal declaration of a state of war with Germany on 6 April, 1917.

**With the North Hinder light-vessel in the North Sea as its centre the *Spider's Web* was octagonal in shape having eight radial arms thirty sea miles in length joined by three sets of circumferential lines at ten, twenty and thirty miles from the light-vessel. It allowed for the surveillance of 4000 square miles of water through which enemy submarines had to pass when leaving or returning to base.

mersible cruisers" began to commission. By January 1918, the Admiralty was writing to Ottawa giving a warning "that an attack by one of the new enemy submarine cruisers might be expected in Canadian waters any time after March".²

In the ensuing months various counter measures, including the formation of a mobile squadron of seaplane and airship carriers for A/S duties overseas, were considered by the RN and turned down. On 11 March a cable was sent to the Canadian Government again pointing out the danger and suggesting the establishment of an airship construction works and kite balloon factory, the manufacture of sea-planes and the opening up of air stations for patrol work. This was a pretty tall order for a country already fully extended on war production and the official reply was to the effect that sea-planes and kite balloons could not be manufactured in time for the approaching navigation season but that officers would be sent to the United States to seek assistance. For the long term, plans of suitable airships, kite balloons and sea-planes were requested from the Admiralty and enquiries were made with Canadian Aeroplanes Limited concerning the firm's capabilities for new construction. An experienced airship pilot, Flight-Commander J. Barron, RNAS, was already having consultations with U.S. naval authorities and he was now ordered to go to Ottawa with the drawings of *C Star* and *Zero* single engine airships. The Americans, meanwhile, had taken a hand by sending an officer up to Halifax to discuss the institution of an aerial patrol across the entrance to the Bay of Fundy.

Activity on both sides of the Atlantic was leading to the formation of a Canadian naval air service but aviation in the RN was about to suffer a set-back, the effects of which would linger on for nearly 20 years. As early as 1916 a bitter private war was being waged between the Admiralty and the War Office over the conflicting material demands of the RNAS and RFC. There was also great public outcry in the UK concerning the lack of home defence against Zeppelin raids. The British Government appointed a committee under the chairmanship of General Smuts, the South African statesman, to study the whole question of air command and its findings, published in 1917, recommended that the two services be amalgamated under a new Air Ministry. On 1 April, 1918, the RNAS, to the sorrow of its members, was taken from naval control and joined with the RFC to form the Royal Air Force.

Three weeks after the demise of the British naval air arm a very important preliminary round table conference* took place in Washington on 20 April between

*Another conference was held at Boston on 22 April, attended by Admiral Kingsmill, to co-ordinate patrol services generally, on the East Coast.

representatives of the RN, USN and RCN, Canadian interests being taken care of by Captain W. Hose, RCN, Captain of Patrols on the Atlantic coast and, in later years, Chief of the Naval Staff. At the meeting a comprehensive plan was drawn up whereby air stations would be established at Halifax, Sydney, Cape Race and Cape Sable and equipped with dirigibles, sea-planes and kite balloons; Halifax and Sydney were to receive top priority. The Americans were prepared to supply flying machines and kite balloons and lend pilots for the sea-planes until such time as Canadians, who would be trained in the U. S., were ready to take over.† It was also proposed to ask for two wounded RAF officers, unfit for flying duties, to be commanding officers of the two stations, and, to tie in with the air patrols, the United States Navy Department agreed to lend six submarine chasers, two torpedo-boats and a submarine.

On 3 May the Canadian Privy Council approved the measures worked out in Washington, and the Admiralty was informed accordingly, with a request that a reply be sent to an earlier message regarding the loan of an officer to organize a naval air arm. No doubt still chagrined by the loss of its air force the RN does not seem to have been very forthcoming about the scheme to set up a CNAS, and the first that the new Air Ministry heard of it was a request from the Admiralty for the appointment of Lieutenant-Colonel J. T. Cull, DSO, RAF, and two officers, to the Naval Service in Ottawa for special duty.†† Eventually, after the background details of the plan had been explained to the Secretary of State for Air, approval was given and the British party, which had been increased by two more officers, sailed on 15 June, 1918.

In Canada a board consisting of Captain Barron, RAF, now appointed permanently to Ottawa, and two officers, one RN the other USN, had made a preliminary selection of sites and after authority had been given by the Privy Council to establish two air stations at an estimated cost of \$2,189,600 the Department of Public Works was asked to carry out surveys and obtain lands. A scheme for recruitment had been drawn up at naval headquarters calling for about 500 officers and men to be added to the strength of the RCN for air duties; ordinary rates of pay were to prevail with the addition of a special air allowance. Officers would belong to the executive branch with the addition of "(A)" after their title

†The U.S. Navy agreed, later, to man the kite balloons and dirigibles as soon as the stations were ready until such time as Canadian personnel were available. Letter from C-in-C NA and WI to Director of the Naval Service, 15 May, 1918. NS 1034-3-4 (I).

††Formerly a Wing-Commander, RNAS, Cull was decorated for his part in the sinking of the German cruiser, *Konigsberg*, in the delta of the River Rufiji, German East Africa, on 11 July, 1915. At the time he was piloting an aircraft from which spotting reports were made to the bombarding monitors.

whilst the uniform of all hands would be that of the regular service with an eagle added to the cuff. The bases would each be equipped with three dirigibles, four kite balloons and six sea-planes.

The officers from England arrived in early July to find that in spite of a good start very little headway had actually been made in the setting up of an air defence scheme for the East Coast. The colonel after reporting to Admiral Kingsmill made a tour of the proposed sites at Halifax and Sydney. Land for a sea-plane kite balloon station at Baker Point, Eastern Passage, on the Dartmouth side and an airship station about three miles away he found satisfactory, but the locales chosen at Sydney were considered too inaccessible. Subsequently Kelly Beach,* on the western boundary of North Sydney was picked for a permanent sea-plane/kite balloon station with an airship site located on the opposite side of town.

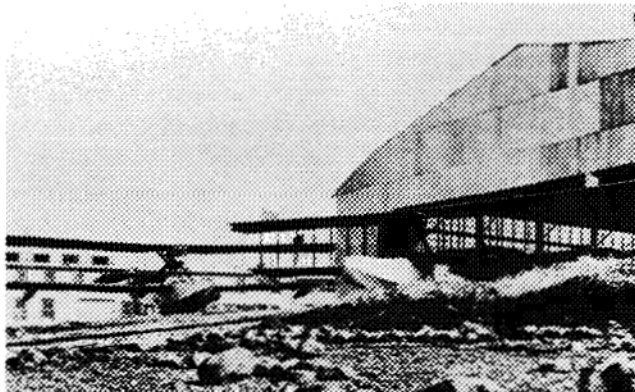
Surveying, acquisition of property and drawing up of plans was protracted and meanwhile Colonel Cull reopened negotiations with Washington for the provision of aerial patrols until the Canadian air arm was ready. After some reluctance, at first, owing to a vague financial arrangement and doubts as to whether it would be possible to get anything going that year, the Americans agreed to send up, at their own expense, all the necessary flying equipment if Canada would provide ground sites, stores and installations. The USN was prepared to let its men live in tents but asked for an assurance in writing that permanent buildings to its specifications would be completed by 15 October. This gave Colonel Cull good ammunition in the battle to get the construction programme under way, and as a result of his representations it was agreed to erect living quarters and mess halls by forced contract. Workmen first appeared at the Baker Point site early in August and at Kelly Beach about six weeks later but progress was slow, with acid recriminations flying between the Department of Public Works, who arranged the contracts, and the Naval Service.⁴

In early August 1918 detachments of USN airmen began to arrive by sea in Halifax and were issued with marquees and tents, which they erected at Baker Point. One of Colonel Cull's men, Major H. Stewart, RAF, was appointed to the station but, by arrangement with the Americans, he did not live on it but acted as a liaison between the U.S. Commanding Officer and the Canadian authorities. With the official hoisting of "Old Glory" on 19 August Lieutenant Richard E. Byrd, USN (Retired), who in post-war years became famous as an aviator and polar explorer, took command at Eastern Passage with the additional title of Officer-in-Charge, US Naval Air Force in Canada.**

*Also referred to as "Kelley's" or "Kelly's Beach"

**Byrd was given the rank of Acting Lieutenant-Commander

Four Curtiss *HS2* flying boats, fitted with a single Liberty engine (*HS2L*) were quickly assembled, and on 25 August two of them made their first flights over a startled Halifax. That this event caused quite a stir amongst the inhabitants may be gathered from a rather prim letter sent to the naval authorities by the senior military staff officer.



HS 2 Flying Boats at Baker Point, Dartmouth, N.S.

Considerable excitement has been reported to me arising out of the unexpected appearance of the air service machines yesterday. No information has reached us regarding the addition of this service to the garrison. This I would be glad to get as the fortress is equipped with anti-aircraft defences. Enquiries from the civil population make it apparent that some notification is expected by the public.⁵

The air force being ready for active service a policy conference was held on the 26th to decide on a plan of campaign and it was agreed that outward-bound fast convoys would be met off the harbour entrance and escorted 65 miles to sea while inward-bound convoys would be joined 80 miles out. Slower convoys (eight knots) would only have air cover for 50 miles outbound and 60 miles inbound. Of the four flying boats available, two would be operational for convoy duty, one for emergency A/S flights and one in reserve; a plane could remain airborne for four hours, cruising at 60 knots. Patrols started at once and in the first three weeks averaged about one flight per day.

As a considerable amount of fill, to be obtained by dredging, had to be dumped at Kelly Beach, the government leased a temporary site at Indian Beach on the Northwest Bar, North Sydney, where a wharf was available, and here U.S. airmen began to assemble flying boats in September. A Canadian, Captain J. W. Hobbs, RAF, took up his duties as liaison officer and the internal administration was taken care of by Lieutenant Donaghue, USN. By the week ending 21 September they

whilst holding this appointment.

were reporting that four machines were ready for convoy work and that a slipway and platform had been built on the beach.

Eastern Passage, and later North Sydney station, started to build up an impressive log of flying hours at tasks including convoy protection, spotting for harbour defence guns and coast surveillance for lurking U-boats. The first incident of interest occurred shortly after the start of patrolling. Two flying boats, with the CO in one, set out from Baker Point to investigate a suspected submarine and meet a convoy. Some miles at sea one plane got into difficulties with a burst propeller and had to be towed back by the destroyer, USS *De Long*, which was bringing up the rear in the role of plane guard. Continuing alone, Byrd's machine sighted what appeared to be a periscope in the right area and swooped downward to the attack. Unfortunately the object turned out to be a vertical floating spar. Excitement ran high on another occasion when there was an enemy submarine sighting report some six miles to seaward of Halifax harbour. Four planes were flown off and shortly afterwards began a search of the area. Nothing was seen but the affair gave the pilots added zest in their patrols. By the end of the war both stations were operating six flying boats, Dartmouth having logged approximately 184 hours and North Sydney 97 hours since 29 September.

There was a great spirit of rivalry between the officers of the two bases and they watched each other closely for any signs of a lapse in flying efficiency, appearance of personnel and so on, but for the unsung heroes on the ground things were tough. Gales blew down their tents and necessitated frequent lashing down of the planes, which required constant maintenance against the rigours of weather exposure.* Even worse than the weather was a severe Spanish influenza epidemic which raged across North America in 1918. The station at North Sydney was particularly hard hit and the airmen had to be moved to accommodation in the town; two of them died from the disease. One of these was Lieutenant R. S. Johnson, USN, a civil engineer by profession, who had been very useful as a consultant during building operations.

Arrangements to extend the range of air cover were considered and Major Stewart inspected sites at Canso and Cape Sable while Captain Hobbs visited Cape North. Colonel Cull then recommended that sub-stations be established at the two places first mentioned and the Magdalen Islands, with Cape North as a second choice

*U.S. temporary steel hangars measuring 110' x 120', with a 28' clearance, arrived in Canada in October 1918, and were erected one at each station. Kelly Beach and Baker Point also had a temporary kite balloon hangar apiece but the erection of these had not been completed by the time of the Armistice on 11 November.

to the latter. He also proposed that an air station be situated in Newfoundland to cover the re-routing of convoys through the Strait of Belle Isle. This was approved by Admiral Kingsmill with the added suggestion that the base should be a Canadian Government commitment. Prior to broaching this idea officially with the Newfoundland authorities Captain Hobbs was given a welcome break from the North Sydney quagmire to take two survey cruises in HMCS *Stadacona* along the coast-line adjoining the strait. None of these plans for expansion were put into execution because it became obvious that sub-stations would not be necessary.†

Although the sea-plane organization was set up rapidly, lack of equipment stopped the airship programme and no dirigibles were flown from the Canadian East Coast bases; building was not started on the chosen sites. Two kite balloons were sent up from USN stores and by the end of the war a patrol vessel, HMCS *Acadia*, had been fitted with special winches to operate them.†† From a captive balloon put up by the ship, Ensign W. H. Stromeyer, USNRFC, made a parachute descent during an inspection visit by the Admiral Superintendent at Halifax, Vice-Admiral W. O. Story, RN, in the second week of November.

With construction of accommodation under way the problem of organizing a Canadian naval air arm was tackled by Cull and his staff, a task which was not made easier by the fact that they were ex-naval officers coming under the General Officer Commanding the RAF in Canada, headquarters in Toronto, for discipline and the Director of the Naval Service in Ottawa for administration purposes. The air service to be formed was of more immediate concern to the Admiralty than to the British Air Ministry, who were inclined to give the scheme rather low priority. The U.S. authorities in Washington were also involved so that correspondence had to travel great distances. General indifference and dilatoriness combined to give the officers the feeling that they did not belong to anybody and were fighting a losing battle. It is a tribute to the initiative and patience of Colonel Cull that he managed to achieve as much as he did.

Off the East Coast of Canada in August 1918 events not only justified the Admiralty's warnings about submarines but indirectly helped those who were trying to form an air arm. The previous May, U-151 had laid mines at the entrance to Delaware and by August three German submarines were operating simultaneously off the North American littoral. Not content with sinking

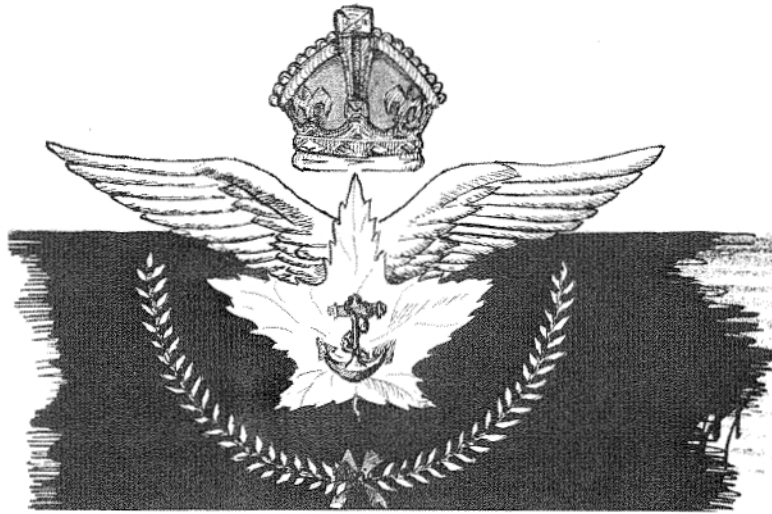
shipping themselves the enemy took a Halifax trawler, *Triumph*, in prize about 60 miles from Cranberry Island on the 20th of that month and, after suitable conversion, manned her to act as a decoy. It is not hard to imagine the consternation there must have been ashore a few days later on receipt of the news that a surface raider, wearing the German Ensign, had sunk six fishing vessels. The submarines continued their depredations until October when they were recalled, a total of 110,000 tons of shipping having been sunk between Cape Hatteras and Newfoundland by five boats since the beginning of the campaign in May.* During the period, both RCN and USN warships hunted the U-boats relentlessly but without success. However, the example of the invaluable help given by American aerial patrols in the later stages had the effect of stimulating interest in Canadian naval aviation.

Outline of a new force, to be known as the Royal Canadian Naval Air Service, was revealed by an Order-in-Council dated 5 September, 1918.⁶ The title itself had been selected after some difficulty as Cull felt that, in the future, land-planes would also be needed in the defence of Canada and therefore the air service should be called the Canadian Air Force. Approval for this was about to be sought when news was received that a CAF was to be formed overseas. Rates of pay for the RCNAS were those of the Canadian Expeditionary Force, cadets receiving a private's pay of \$1.10 a day on enlistment, rising to \$2.00 a day during ground training with an additional \$1.00 a day, later, as flying allowance; the latter was also to be granted to six RCN rating volunteers, who would be paid a flat rate of \$1.50 a day as airship coxswains. Uniform for officers, who were to use the old RNAS ranks up to Wing-Commander, was to be of dark blue serge, with a brown leather Sam Browne belt, their pilot wings being of RAF pattern with a green maple leaf and monogram *RCNAS* in the centre; to round it off the standard style cap would be worn with a distinctive badge consisting of a crown, bronze maple leaf, silver fowl anchor and silver wings. The dress for all ratings was to be that of "men not dressed as seamen" in the RCN and there would be a basic rank of "aircraftsman". For a start 80 cadets were to be sent to the U.S. for sea-plane training and another 12, together with the six rating coxswains, to the U.K. for airship instruction.

†In a letter dated 7 November, 1918, too late to affect the issue, the British Admiralty concurred with Cull's proposals but preferred Cape North to the Magdalen Islands as a sub-station.

††Another ship, HMCS *Cartier*, also had work done on her preparatory to receiving kite balloon winches. At Sydney HMCS *Lady Evelyn* was considered for use but not adapted.

*The fate of *Triumph* is unknown but it is presumed that she was scuttled by the Germans.



Proposed RCNAS Officer's Cap Badge, 1918.

Recruiting for the RCNAS through press advertisements started on 8 August, even before the service had been officially approved, and over 600 applications were received in short order. A selection committee accepted 25 volunteers in Toronto on 12-13 September and another 39 were chosen at Ottawa a week later.* The first batch of 20 cadets was scheduled to leave almost at once for Boston, where they were to be given a 17-week course of ground, preliminary and advanced flying training, but an influenza quarantine prevented their departure until 27 September. The second party departed for the U.S. on 9 October and a committee consisting of Major Stewart, Captain Barron, Lieutenant Cameron, CEF, and Sub-Lieutenant E. L. Janney, RNCVR, set up shop in Regina to make a selection from the western applicants. Owing to influenza this third contingent was held in Canada until the 31st and the choice of a fourth draft from the Maritimes had to be postponed indefinitely for the same reason. In early October 12 officers, followed shortly by six RCN petty officers, left for airship training in England. En route tragedy struck and the service suffered its first casualty with the death at sea of Flight Cadet W. V. Bedell, RCNAS, from acute broncho-pneumonia.

By the beginning of November 1918, the RCNAS was well established with high hopes of being a fully-fledged fighting force by the spring of 1919. Colonel Cull, with the title of Director of the Royal Canadian Naval Air Service, had his headquarters at 30 Rideau Street, Ottawa, from which office he controlled an ad-

*A total of 81 cadets were entered in the RCNAS during the period of its existence.



Proposed RCNAS Officer's Uniform, 1918.

ministrative staff of 12 officers, three RAF other ranks and civilian personnel. Major C. MacLaurin, DSC, RAF, a Canadian ex-RNAS pilot, had taken charge of recruiting, and it was hoped to start the training of skilled artificers in the U.S. at the end of December although none had been actually enrolled. As the end of the war became imminent all recruiting had to be stopped and no new construction work was undertaken at the two bases.

The Armistice was signed on 11 November and immediately the process of demobilization and return to peace-time conditions began. Convoys from Sydney were discontinued at once as the end of the St. Lawrence navigation season was approaching and the USN airmen packed all material for winter storage. A gale sweeping across the harbour on the 14th broke up the wooden slipway at Northwest Bar and the huts on the temporary site were also in danger of disappearing owing to the attentions of the local inhabitants; sales by tender were quickly organized to solve the problem. At Kelly Beach the Americans had a stock of aircraft bombs and ammunition, which caused some consternation. It was reported to Ottawa that the Mayor of Sydney "had the wind up" and was growling dire threats that he would personally throw the whole lot in the river. In a telegram to Lieutenant-Commander Byrd, the Director of the RCNAS pointed out that the latter course would save a considerable amount of trouble but that as the Americans had agreed to remove dangerous stores, they should do so to



Group of Flight Cadets, RCNAS, Ottawa, 1918.

“(courtesy Mr. J. M. Weir)”

avoid hostilities breaking out again. This was done and the USN personnel departed for the south leaving a small retard party to clear up the paper work.

Flying operations continued at Eastern Passage as convoys were still using Halifax harbour and a special squadron flying display was given for the benefit of Admiral Kingsmill on 21 November. The usefulness of air patrols was at an end and the suggestion was made that Baker Point be reduced to a status of care and maintenance with a few USN airmen in attendance until the RCNAS was ready to relieve them. Lieutenant-Commander Byrd journeyed to Washington for orders and on 11 December he wired his men to “begin packing up station, dismantle sea-planes and stow parts in store-houses.”⁷ A small amount of test flying was done the next week and shortly before Christmas a mass exodus of Americans began. The U.S. station closed down officially on 7 January, 1919, and a harassed RCNAS representative, Major H. Norrington, RAF, was left, single-handed, to bring some sort of order out of the chaos. By the 20th a caretaker party of naval ratings had been detailed by the Admiral Superintendent to clean up and return stores.

Three days after the Armistice Colonel Cull was ordered by the Minister of the Naval Service, the Honourable C. C. Ballantyne, to prepare a memorandum on the advantages of continuing the air service on its existing basis. Pros and cons were carefully weighed and on 5

December, 1918, orders were sent out to disband the RCNAS.⁸ An important factor in this decision was the imminent return to Canada of a large number of fully trained naval pilots from the RAF, who would provide a pool of highly experienced personnel if it was decided, later, to form an air force. General demobilization was ordered and most of the cadets were discharged on 14 December after their return from Boston. The last out were the airship cadets, minus one of their number, who was left behind in England to face a court-martial; they were paid off on arrival home in February 1919.

There now only remained the question of footing the bill and a Canadian team consisting of Deputy Minister G. J. Desbarats, Colonel Cull, and Major Norrington sat down in Washington with Josephus B. Daniels, U.S. Secretary of the Navy, to thresh out the details. In the final count 12 flying boats, 26 *Liberty* engines and four kite balloons were donated to the Canadian Government, who in turn purchased all American ground equipment. Total cost to Canada, including buildings, and land, was \$811,168 but she had received from the U.S. about \$600,000 worth of flying equipment free of charge. Complimentary messages were exchanged all round, and it was generally agreed that the first joint U.S.-Canadian venture in the field of naval aviation had been, highly successful.

The British members of the RCNAS including Colonel Cull returned to England and the Canadians were



LOG BOOK

OF THE

U. S. S. NAVAL AIR STATION, HALIFAX, NOVA SCOTIA.

Rate,

COMMANDED BY

Lieutenant Richard E. Byrd, U. S. Navy,

Attached to _____ Division,
_____ Squadron,
_____ Fleet,

Commencing AUGUST 19, 1918, 191

at U. S. NAVAL AIR STATION, HALIFAX, NOVA SCOTIA,

and ending JANUARY 7, 1919, 191

at U. S. NAVAL AIR STATION, HALIFAX, NOVA SCOTIA.

1917.

(This page to be sent to Bureau of Navigation monthly with log sheets.)

"(Courtesy United States Navy)"

Title Page of Log Book, U.S. Naval Air Station, Halifax, N.S., 1918-1919.

demobilized, but as the Naval Service was still interested in the possibilities of naval flying Major MacLaurin was retained at Ottawa. For the next year, although he ruled over a force that was defunct, the major signed his correspondence as Acting Director of the Royal Canadian Naval Air Service.

Construction work on the two air stations continued into February 1919, when the new buildings were accepted from the Department of Works. At Baker Point these consisted of a barracks for 100 men, a mess and recreation hall for 300 and a large stores building; the set-up at North Sydney was similar with the difference that the messing accommodation was for 400 men. Naval ratings were guarding both sites and 12 ex-RAF mechanics, with ex-Sergeant-Major A. Cole, RAF, as foreman, had been hired to service the air equipment that had been hastily abandoned by the Americans. Great efforts were made to tidy up Baker Point but it was a hard struggle as Major MacLaurin's April report shows:

The general appearance of the Halifax Base is anything but favourable. Scrap lumber and debris of all description left by the Contractors and Americans is strewn all over the property. The steel for the kite balloon shed is lying promiscuously about and is mostly covered with mud and water.⁹

In May 1919, two events occurred to enliven the monotony at Halifax. On the 8th, *NC 3*, one of three large

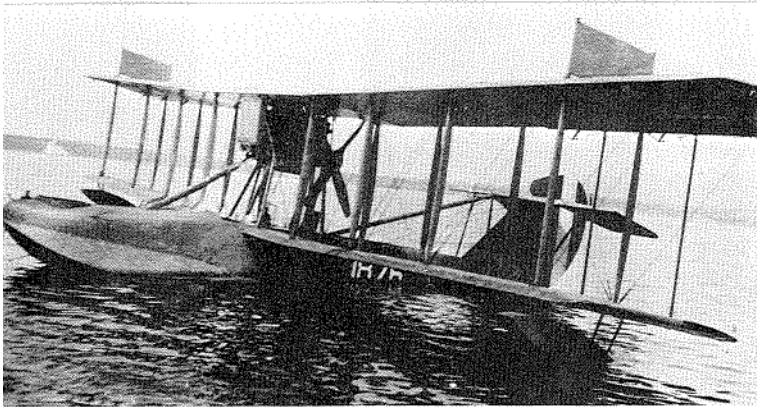
U.S. flying boats which were about to attempt a cross-Atlantic flight, landed near Baker Point. The next morning a boat approached the jetty with the station's former CO, Lieutenant-Commander Byrd, seated in the stern; his plane had several cracked propellers, and the base ship, which had arrived ahead, could produce spares but no hub plates. Mr. Cole rose to the occasion and *NC 3* proceeded on her way.* The next happening of, interest was the departure of two *HS2L* flying boats loaned to the St. Maurice Fire Protective Association for forest patrol in the St. Maurice Valley, P.Q. The company had hired a former RNAS pilot, who ferried the planes to their new base at Lac à la Tortue, a distance of 645 miles. A few preliminary flights from Grand'Mere on the lake were made that summer and in the 1920 season there was a busy programme of fire patrols. This was a pioneer effort and the forestry industry quickly recognized the importance of aircraft in surveying and controlling their vast areas.

The two stations in Nova Scotia quietly rusticated on a care and maintenance routine with periodical visits from Major MacLaurin, who inspected them and test flew the aircraft. On his August visit he gave aerial escort to the Italian battleship *Conte di Cavour* on the 16th and to HM Cruisers *Dragon* and *Dauntless* the next day as they steamed up harbour to Halifax. By November the naval personnel had all gone and their places had been taken by civilian watchmen. Flying gear had been put in a state of preservation against weather deterioration and the maintenance party released for duty in the dockyard, leaving a civilian storekeeper at each station. Major MacLaurin's tour of duty was almost over and an extension was sought to March 1920, but the Air Ministry refused on the grounds that he was now engaged solely in developing general aviation whilst on their strength. The major was accordingly demobilized from the RAF on 10 December, 1919, but remained in the country as a member of the newly-constituted Air Board.**

Interest was aroused again in Canadian naval aviation on 31 December, 1919, when Admiral of the Fleet, Viscount Jellicoe of Scapa, GCB, OM, GCVO, who was visiting Commonwealth countries in an advisory capacity, presented his recommendations for the peacetime RCN. The Admiral based his proposals on the assumption that, in the event of another war, the most likely enemy would be Japan and his dispositions were worked out accordingly. He stated that two squadrons, one of flying boats, the other torpedo carrying, should be sta-

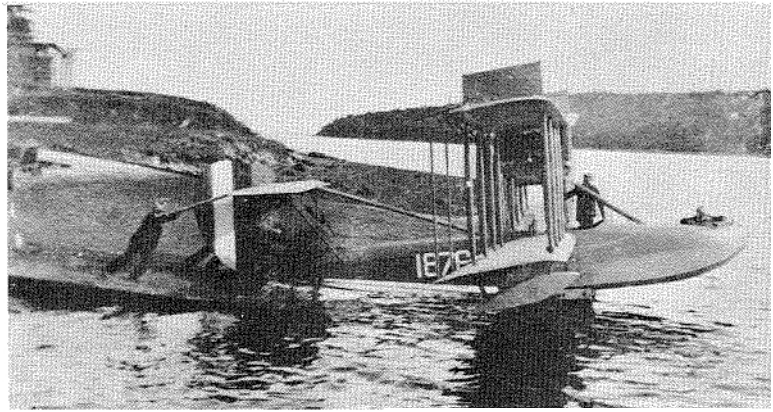
*Byrd had to leave *NC 3* at Trepassey Harbour, Newfoundland, prior to her transatlantic attempt. She subsequently had to ditch off the Azores but managed to enter Ponta Delgada. Only *NC 4* was successful in completing the crossing, which ended at Lisbon on 27 May, 1919.

**MacLaurin became air station superintendent at Vancouver and was killed in a flying accident in 1922.



“(Courtesy National Aviation Museum)”

HS 2 at anchor off Dartmouth Naval Air Station, 1919.



“(Courtesy National Aviation Museum)”

Launching HS 2 from boat ramp, Eastern Passage, 1919.

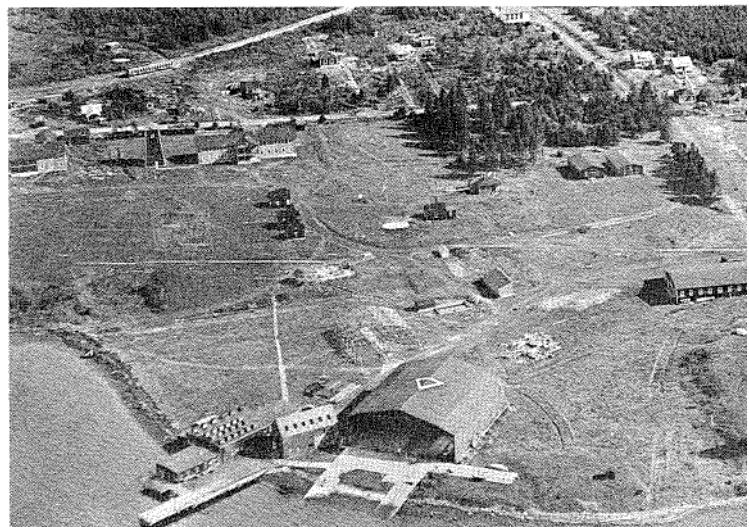
tioned on the west coast. Four fleet programmes, two of which included aircraft carriers, were also put forward for the Dominion Government to consider. However, it was not felt that permanent use should be made of the existing air bases at Halifax and North Sydney. These proposals, unfortunately, as far as they concerned a new and rejuvenated RCNAS, came to nought.

The Royal Canadian Naval Air Service had faded away and the bases soon passed out of naval control. All flying equipment was removed from Kelly Beach by the Air Board, also the hangar, which collapsed, killing one of the contractor's men, whilst being unrigged. The station was turned over to the Department of Works and remained dormant until reopened by the RCAF in the Second World War to provide air cover once again for convoys. Baker Point was transferred from the Naval Service to the Air Board on 12 July, 1920, and was in use for some years until it became a reserve station.¹⁰ A highlight of this period, from a naval point of view, was the Halifax combined service exercises of August 1921, for which the RCN, still basking in the early post-war glow of affluence, was able to field the quite respectable team of HMC Cruiser *Aurora*, two destroyers (HMC Ships *Patriot* and *Patrician*) and HMC Submarines *CH 14* and *CH 15*. The Air Board sent a party led by its Director of Flying, Wing-Commander Leckie, RAF, to Baker Point in an *F.3* flying boat, and patrols were flown from Eastern Passage for the duration of the exercise by two of the ex-U.S. planes. After this burst of excitement Dartmouth Air Station reverted to care and maintenance in the late 20's until reactivated by the RCAF in 1934 for the use of Number 5 Flying Boat Squadron.

Although the naval air arm of the First World War never got off the ground the Canadian Government of the day showed foresight and determination in going ahead with the scheme at all particularly as its leading adviser on matters naval, the British Admiralty, had been forced to relinquish control of its air service in line with current thoughts on centralization to promote effi-

ciency. At the end of 1918 the Cabinet still wanted to keep the RCNAS and the outlook was promising; officers, some of very high calibre, bases, material, and a supporting aircraft industry were all available.¹¹ Canada was in a position to be a leader in the development of naval aviation but the time was not ripe and, without money, the RCN had to pigeon-hole the idea for some 20 wasted years.

Aerial view of Baker Point Station, 1923.



REFERENCES

¹ Interdepartmental Committee Meeting (45th) 10 February, 1917. NS 1034-3-3 (1).

² Admiralty to Secretary of State for the Colonies. 3 January, 1918. NS 1034-3-4 (1).

³ Order-in-Council PC 1379, 5 June, 1918.

⁴ Correspondence on NS 63-5-1 (I) and NS 63-10-1.

⁵ Staff Officer Military Headquarters, Halifax to Flag Commander, HMC Dockyard, 26 August, 1918. NS ZZ 40-4-1 (I).

⁶ PC 2154. A detailed scale of pay, allowances, and pensions for the RCNAS was laid down, subsequently, by Order-in-Council, PC 2707, dated 6 November, 1918.

⁷ Telegram from Byrd to C.O., USN Air Station, Halifax. NS

ZZ 40-4-1 (I).

⁸ Order-in-Council PC 3009, 5 December, 1918.

⁹ Memorandum from Acting Director RCNAS to Deputy Minister 14-4-19. NS 63-5-1 (1).

¹⁰ Arrangements approved by Order-in-Council, PC 2478, of 9 October, 1920.

¹¹ On 5 December, 1918, the same day as the Order-in-Council was published disbanding the RCNAS, the Minister was writing to the Deputy Minister: "I wish it understood that the RCNAS is not abolished and the action that is now being taken is only until such time as the Government decides on the details and policy of a permanent Air Service." Letter Ballantyne to Desbarats. NS 63-9-1.

THE “BACK SEAT” YEARS

Flying in Canada between the wars expanded into many fields of activity, including Arctic exploration, aerial surveying, the inauguration of air mail routes and the development of a scheduled trans-continental passenger service.* Much of the pioneer work was done by the newly-constituted Royal Canadian Air Force, which during the first eight years of its existence was mainly employed as the government’s civil air company.† Later, having been freed from these responsibilities, the air force slowly but steadily expanded along military lines, one of its duties being to provide shore-based maritime aircraft for the protection of the country’s long coasts. Naval aviation, however, had been given no place in the scheme of Canadian national defence and was doomed to remain inactive.

A strong reaction to war had spread amongst the nations by 1922, particularly in those that had suffered most severely in the recent struggle. Being no exception to this trend the Canadian voter viewed any proposed expenditure on armaments with extreme disfavour, with the result that the Navy was hit by a policy of retrenchment. Economy measures included the paying off of *Aurora* and the submarines, reduction of personnel to 500 and closing the Royal Naval College of Canada. The Fleet was stabilized at two destroyers and four trawlers, three ships on each coast, and remained at that strength until 1931 when it was increased by the addition of two more destroyers. In depression years it was hard to hold on to even this small force, particularly in 1933 when the Treasury Board suggested that the Naval Service appropriation be cut by two million dollars to \$422,000.¹ Commodore Hose, Chief of the Naval Staff, managed to convince the Board of the importance of the navy to Canada and the alarming proposal was dropped, but it illustrates the precariousness of the times.

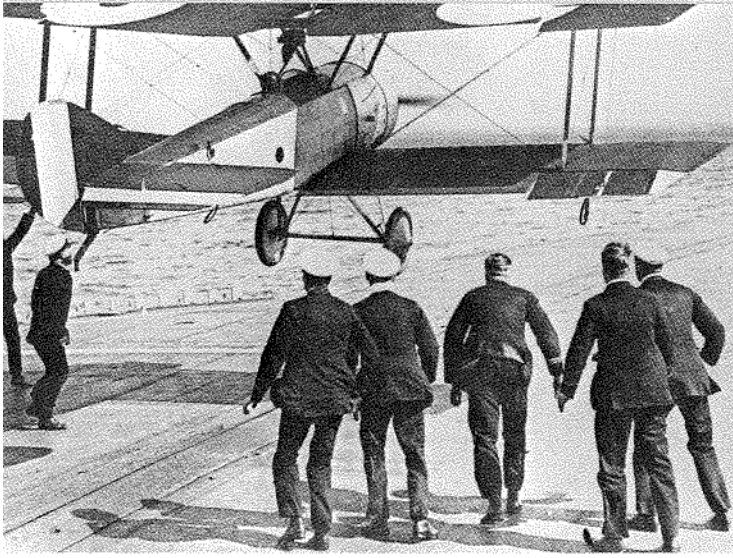
It was impossible for the RCN to man its own aircraft

*Trans-Canada Air Lines (TCA) was formed in 1937 by an Act of Parliament.

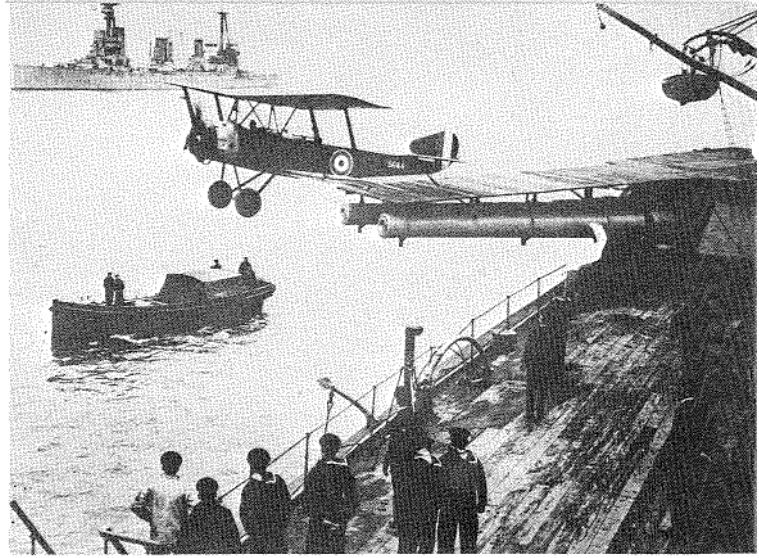
†The Royal Canadian Air Force officially came into being on 1 April, 1924.

during the period under review, but a certain amount of experience was gained in the technique of air/sea operations from exercises carried out by Canadian destroyers with British warships of the America and West Indies Squadron. Aircraft were used for the first time in 1930 when landings were made by the army on the West and East coasts. For the former, HM Cruiser *Dauntless* and HMC Destroyer *Vancouver* embarked an enthusiastic party of militiamen, which they put ashore in Maple Bay, Vancouver Island, while two RCAF Vickers *Vidette* sea-planes, controlled by *Dauntless*, flew overhead. Two officers, Lieutenant-Commanders G. B. F. Barnes, and A. M. Hope, RCN, were airborne as naval observers, and aircraft co-operation was rated “very good”. An assault on the beaches of Amet Sound, Nova Scotia, from HM Cruiser *Durban* and HMC Destroyer *Champlain*, ten days later, was not so successful; the air force crew of the single plane had no observer with them and, largely because of their inexperience, little was achieved. Manoeuvres of greater significance occurred in 1934 when the British Home Fleet, consisting of four battleships, *Nelson*, *Rodney*, *Malaya*, and *Valiant*, HM Aircraft Carrier *Furious* and two cruisers, with attendant destroyers, visited the Caribbean. Four Canadian destroyers, *Skeena*, *Champlain*, *Saguenay*, and *Vancouver*, joined forces for a programme of exercises in which the air squadrons from *Furious* played an important role. From 1935 onwards the purse strings of the RCAF were loosened sufficiently to permit a limited number of flying hours for inter-service exercises, which by 1939 had become quite frequent.

Contacts with the Royal Navy during the lean years after the demise of the RCNAS were to have a strong influence on future Canadian planning for a second naval air force. In addition to acquiring knowledge of tactics in combined operations the Navy had to rely on the larger fleet for the latest information on technical changes and, to a large extent, for individual personnel training; there was a continual rotation of officers and ratings on loan for courses or general duty. As a result of



First Carrier Deck Landing, HMS *Furious*, 1917 (note lower wing holding straps).



Sopwith 1½ *Strutter* flying off turret, HMAS *Australia*.

this close co-operation an invaluable store of firsthand knowledge was accumulated on Britain's approach to the problems of naval aviation.

In the period 1918-43 the Royal Navy's evolving air branch was subjected to many stresses and strains. For Canada the force's pioneering meant that she could ultimately take her place as an up-to-date naval air power without being penalized for a slow start. Certain RN developments are, therefore, of importance in studying this stage of Canada's naval air history.

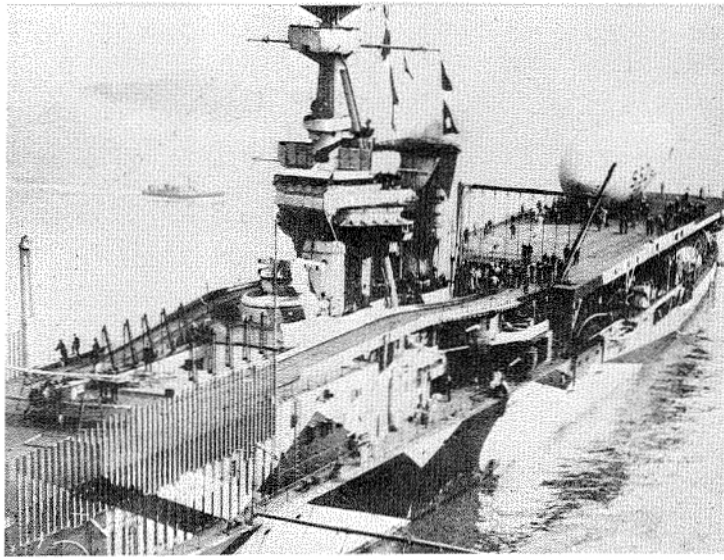
Having been taken over by the Air Ministry in 1918 and subsequently confined to the jogtrot routine of peacetime, the unfortunate British naval air arm became the victim of economy, international disarmament agreements, conflicting theories and controversy as to the respective responsibilities of the air force and the navy. Amalgamation soon had an adverse effect on technical development of aircraft, as former experienced RNAS officers drifted away on other service assignments (in line with current RAF thinking on "ubiquity") and new design fell into the hands of non-naval personnel. To make matters worse it took the Admiralty some considerable time to make up its collective mind as to whether money should be spent on planes to the detriment of guns and other well-tried weapons. As a result of these trying years the air arm was thrown into the Second World War in 1939 with an inadequate number of flying machines, ninety per cent of which were obsolete bi-planes.

The history of the ships from which the aircraft were flown presents a brighter picture and indicates how the Royal Canadian Navy benefited by the experiences and failures of others. Pioneers in the adaptation of the early sea-plane carriers, the British had led the world in the development of a deck landing ship, an RNAS officer being the first to touch down on a moving vessel. This important event in the evolution of naval aviation took

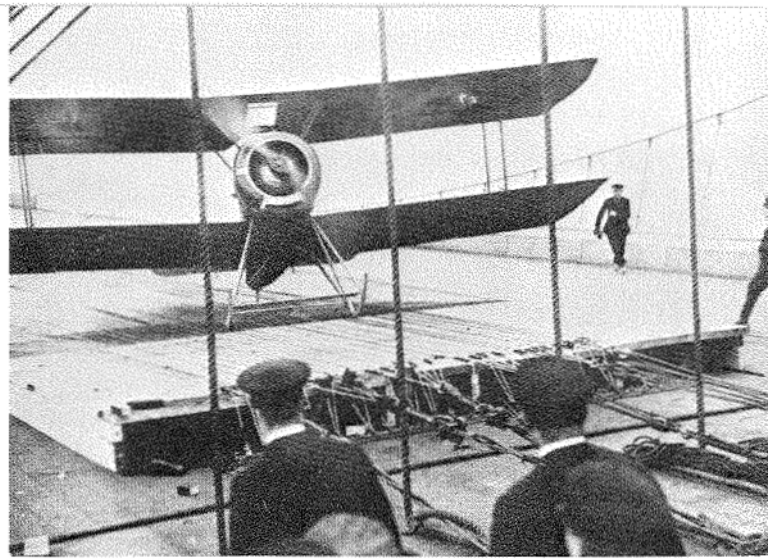
place on 3 August, 1917, when Squadron-Commander E. H. Dunning, DSC, RNAS, succeeded in skidding his Sopwith *Pup* on to a flight deck that had been fitted forward on the ex-battle-cruiser, *Furious*, in place of an 18-inch gun. Half-a-dozen officers rushed out and held on to the wings. Unfortunately, on Squadron Commander Dunning's third attempt, some days later, the manoeuvre of flying around the funnel and bridge on to the fore-castle proved too hazardous; a tire burst and the pilot was killed when the machine went over the side.

After Dunning's death a new flying-on deck of 280 x 70 feet was substituted for *Furious'* after main turret and various types of arresting gear were tried out. It was found that the air flow became broken up by the funnel and superstructure with the added hazard of smoke fumes to trouble the pilot; the carrier had to retire to dockyard for further re-designing. A more successful ship was the former Italian Lloyd Sabaudo liner SS *Conte Rosso*, which was renamed HMS *Argus* and completed with a 550 x 60-foot "flush deck" for flying purposes. Tests with a dummy island or bridge structure on the side of the flight deck were carried out and the idea incorporated in the next carrier. This vessel was commissioned in 1920 as HMS *Eagle*, having been originally laid down as a *Dreadnought* Class battleship for Chile under the name of *Almirante Cochrane*. By 1928 six effective carriers were flying the White Ensign; HMS *Hermes*, the first ship actually to be constructed for the specific function, and five conversions, *Furious*, *Eagle*, *Argus*, and HM Ships *Glorious* and *Courageous*. All were "island carriers" except *Argus* and *Furious*, which were "flush deck".* Owing to the tonnage limitations set by the naval disarmament treaties of Washington and London, 1922 and 1930 respectively, only one

**Furious* was given an "island" in 1939.



HMS *Furious*, 1918, with fighter and non-rigid airship embarked.



Sopwith *Pup* landing, HMS *Furious*, 1918.

more new carrier, HMS *Ark Royal*,† joined the Fleet in the next decade. The First World War sea-plane carriers, which recovered their aircraft from the water by derrick, had all been paid off with the exception of the first *Ark Royal*, but naval planners still envisaged a useful role for this type of ship in a balanced fleet.

The first attempt to re-introduce sea-plane tenders came in 1924 when the shipbuilding firm of J. Thornycroft submitted plans to the Admiralty for a fast carrier of the destroyer type. Although considered too small to be practical by the RN the design was taken up by the Australian Government, which decided to have a sea-plane carrier built along the lines suggested but modified to meet its particular needs. The result was a 5000-ton vessel named *Albatross*, which was completed at Sydney, New South Wales, towards the end of 1928. On the outbreak of hostilities she was bought by the Admiralty and subsequently her nine *Walrus*†† amphibians flew on many A/S patrols whilst HMS *Albatross* was based at Freetown, Sierra Leone.

Thornycroft's second submission to interest the RN in sea-plane carriers came in 1934 by which time an efficient catapult had been developed and over a quarter of the Fleet Air Arm (FAA) authorized aircraft strength was attached to cruisers and battleships fitted with launchers. The new proposal called for a 3000-ton high speed aircraft carrier designed to launch its seven sea-planes from one or two catapults on the forecastle and

†HMS *Ark Royal* a 1914-vintage sea-plane carrier was still in commission and had her name changed to HMS *Pegasus* in January 1935.

††Known universally as the "Shagbat" (or "Pusser's Duck") the *Walrus* enjoyed a great reputation in the FAA. It had a cruising speed of ninety-five miles per hour, which made the bi-plane's progress in flight dignified but slow, to the accompaniment of the unforgettable roar of the single *Pegasus* engine with its 18 open exhaust ports.

recover them by winch on a landing canvas towed aft. The concept of a small carrier aroused considerable interest in Canadian naval circles on this occasion and Commodore P. W. Nelles, RCN, the Chief of the Naval Staff, asked for blueprints to be sent to Ottawa. Nothing further came of the matter but it is an indication that in spite of its financial strait jacket the RCN was fully alive to the importance of air power over the sea.

To sum up the foregoing general remarks on aircraft carriers, it can be said that British naval designers had maintained their early lead so that at the outbreak of the Second World War the ships were more up to date than the aircraft which landed on their decks. In particular much thought had been given to the problems of armoured decks and gasoline stowage, which was arranged to give maximum protection against explosion or spread of fire. The Americans, on the other hand, packed more planes into their ships at the expense of these considerations and were to suffer serious losses from gasoline fires in action whilst heavier armoured British ships showed their superiority in ability to withstand the attentions of Japanese suicide planes.* The sound construction of the British carriers, unfortunately, was offset by the slow development of the aviation equipment with which they were supplied.

As an example, the USN had transverse arrester gear fitted in its first carrier, USS *Langley*, when she commissioned in 1922, nine years before the RN adopted the method. Similarly the use of crash barriers and the technique of controlled touch-downs, with the help of a deck landing control officer or "batsman,"† were standardized by the Americans some years before the British per-

*Known as *Kamikaze* (meaning "Divine Wind") aircraft, which attempted to crash on to their targets.

†The "Batsman," so named after the "bats" held in his hands, was stationed on the after end of the flight deck to indicate if an approaching plane was correctly positioned for touchdown.

fecting their arrangements in 1939.²

An examination of the early personnel structure in the British naval air arm provides the key to most of its troubles and tardy evolution. In the immediate post-war years the Air Ministry was too engrossed in general matters of policy in connection with the country's air commitments to pay much attention to its naval component. The result was not only the adverse effect on technical design work already mentioned but a deterioration in flying efficiency. Sea duty was not popular amongst RAF officers and the lack of interest became obvious in fleet exercises with aircraft which sank to a low standard owing to the pilots' poor knowledge of ship identification, and their lack of experience with problems of sea warfare. The Admiralty very soon started to make efforts to recover control of its aviation branch, and an early result was that the provision of observers and air gunners for aircraft became a navy commitment. By decision of the 1923 Balfour Committee, 70% of pilots were also to be drawn from the Senior Service although personnel would continue to carry out their initial flying training with the RAF. A small but significant move towards a return to naval control was made in April, 1924, with the adoption of a new title, "Fleet Air Arm of the RAF".

In spite of concessions the Royal Navy continued to play a subordinate role in the organization and development of naval aviation, both ashore and afloat. The operation of aircraft at sea was the responsibility of a ship's commanding officer but the embarked air units formed part of the RAF, the senior administrative and technical positions being held by air force officers. Although seamen pilots and observers were attached they were considered, first and foremost, as executive branch naval officers who were undergoing specialization training; their duties were limited to minor administration and actual flying. Many senior officers in the upper echelons, through no fault of their own, were not in sufficiently close contact with every aspect of operating an air arm to realize its true capabilities. The inadequacy of the system was generally recognized by 1937 and administrative control reverted to the Royal Navy. A desperate race began to build up shore bases and get recruits for the force, which was not only short of flying personnel but had no maintenance ratings whatsoever on its strength. Two years later, although there had been a great improvement, the FAA was still undermanned and ill-equipped to fight a modern war. Fortunately its adversary had neglected naval aviation to an even greater extent.

During the 20 years that the British naval air arm had been buffeted to and fro in the crosswinds of inter-service rivalry its USN counterpart had been flying a fairly steady course. An Act of Congress in 1921 created the Bureau of Aeronautics, which was "charged with matters pertaining to naval aeronautics as prescribed by

the Secretary of the Navy." With government encouragement, and untrammelled by outside influences, the branch was able to design aircraft and allied equipment for the naval service, which instilled in its men the idea that aviation held the key to the extension of maritime power. The high standard of training and material achieved in the U.S. naval air branch was to prove of great value in the forthcoming struggle with Japan, another nation which had quickly appreciated the power of planes flying with and from a fleet.

Technical and administrative lessons to be learnt from two different ways of running an air arm had been clearly spelt out for the RCN by the summer of 1939. The grim experience of the RN was a sobering example to even the most enthusiastic proponent of centralization, and it was obvious that if the navy was ever to have planes it must have full control. There now remained the question of whether separate naval aviation was justified for a country with a small population but relatively large maritime commitments. The grim reality of war conditions was soon to give the answer.

On 10 September, 1939, Canada declared war on Germany, whose troops had poured into Poland eight days previously. The regular navy, consisting of 11 ships of war in commission, manned from a total complement of 1819 officers and men, immediately mobilized its reserves; every effort had to be directed to the acquisition, construction and manning of ships to carry out the main task. This was defined by the Chiefs of Staff Committee as being the organization of auxiliary forces "to give protection to shipping against mine and submarine attacks in Canadian waters and at the same time to assist the British forces in keeping the sea communications clear of enemy vessels".³ Overseas, the RNFAA was quickly given the opportunity of testing the value of its peace-time exercises, which had been based on the thinking that naval aircraft would be used for eight major tasks, namely:

- (1) Reconnaissance to gain tactical advantage by sighting the enemy;
- (2) Slowing-up of a faster or unwilling enemy by air attack;
- (3) Protection of the Fleet against air attack (although anti-aircraft guns and ship manoeuvring were thought to be the best defence);
- (4) Protection of aircraft carriers;
- (5) General reconnaissance with a fleet at sea;
- (6) Smoke laying;
- (7) Help in the protection of the Fleet against submarine attack;
- (8) Attacking the escorts and ships of enemy convoys. Emphasis was on fleet work and reconnaissance but naval air remained at a disadvantage in the latter role as the RAF still controlled

land-based, long-range flying boats, which were organized under its Coastal Command.*

British naval aviation had its first encounter with the enemy on a large scale in the Norwegian campaign of April 1940, when the Germans invaded that country. Operations were out of range for home-based RAF fighters, and until air strips could be established ashore the main burden of air support fell upon the FAA. In general the planes were called upon to carry out tasks which had previously been considered as being outside the scope of their normal function, making it necessary for them to fly many sorties from carriers and from Hatston air station in the Orkney Islands to give support to the army. Duties included the provision of air cover for landings and embarkation, the neutralization of enemy air forces and the mounting of attacks on transport ashore and afloat. Faced with a hopeless situation the Allies had to withdraw their forces from Norway in June; naval aircraft then became involved, under the orders of Coastal Command, in a variety of operations on the Dutch, Belgian and French coasts during the relentless German advance to the shores of the English Channel. By July 1940 the land campaign in Europe had come to an end but certain units of the FAA remained with the RAF to assist in attacks on enemy shipping and targets in areas from which an invasion of the British Isles might be launched. It had been a disastrous phase in the history of the war but had had the salutary effect of clearing away many misconceptions concerning the use of naval planes. The experience was to affect technical development for years to come.

By the end of 1940 howling gales in the English Channel ruled out the possibility of any seaborne attack on England for that year, but in the Mediterranean, the Fleet Air Arm gained the first of three victories, which illustrated the importance of aircraft in orthodox fleet tactics. Italy had entered the war on 10 June, 1940, and in November a raid was planned on units of the Italian Fleet lying in Taranto harbour. Two striking forces of *Swordfish* aircraft were flown off from HMS *Illustrious*, who was screened by cruisers and destroyers in a position 180 miles from the target, and as a result of their night's effort two badly-damaged battleships, *Conte di Cavour* and *Caio Duilio* had to be beached; another battleship, *Littorio* and the cruiser *Trento* were extensively hit whilst smaller vessels were damaged and shore installations destroyed. The second engagement took place in the spring of 1941 when part of the Italian Fleet was tempted to put to sea with the object of attacking a supply convoy bound for Greece. A group of enemy cruisers were sighted by a flying boat on patrol from Malta

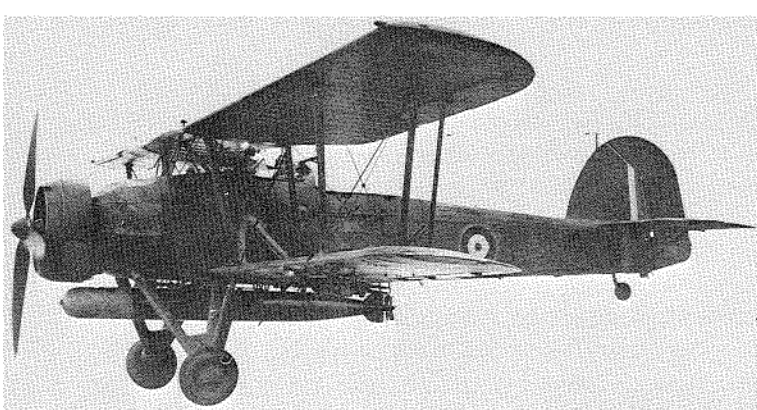
*The operational control of the RAF's Coastal Command was transferred to the Admiralty in April 1941, following a British Cabinet Committee decision in December 1940.

on 27 March, and that evening three British battleships, with HM Aircraft Carrier *Formidable*, sailed from Alexandria in support of their own cruisers, which were covering the convoy to the south of Crete. Later, torpedo-carrying *Albacore* planes from *Formidable* scored hits on the Italian battleship *Vittorio Veneto* and also damaged a cruiser.* The former managed to elude her pursuers but in a night action during which Admiral Sir A. B. Cunningham, GCB, DSO, handled the British battle squadron like a division of destroyers, three Italian cruisers, *Pola*, *Zara* and *Fiume*, were sent to the bottom.

In the third example of text-book air-fleet co-operation the FAA repeated, with an even more successful outcome, its role in the Battle of Matapan. On 21 May, 1941, the German battleship *Bismarck* and the cruiser *Prinz Eugen* were lying at Bergen, Norway, making final preparations for a commerce raid on the Atlantic trade routes. They were spotted by a reconnaissance aircraft, but owing to thick fog clamping down on the coast a striking force of RAF bombers failed to find the target. The next day was worse, with cloud down to 200 feet in the North Sea and air patrols unable to see anything. At this juncture the Commanding Officer, RNAS Hatston, on his own initiative, sent a single *Glenn Martin Maryland* aircraft, normally used for target towing, across to Bergen; this plane had as its captain and observer Commander G. A. Rotherham, RN, who in later years was destined to be the first officer to hold the appointment of Director of Naval Aviation in the RCN. Under heavy fire the *Maryland* made a skillful and determined reconnaissance of the fjord only to find that the heavy ships had sailed. Immediately on receipt of the momentous news the Commander-in-Chief Home Fleet made depositions to cover a break-out into the Atlantic and there followed the tense chase of *Bismarck*, who at one stage sank the mighty battle-cruiser HMS *Hood* with all but three of her complement. Naval aviation first took a hand when *Swordfish* from HMS *Victorious* made an unsuccessful attack on the battleship after which she managed to elude the shadowing cruisers. Some 31 hours later she was spotted by a *Catalina* of Coastal Command and planes from HMS *Ark Royal* launched 13 torpedoes, thereby sealing the battleship's fate; two hits were registered, one being a deadly blow at her steering gear, propellers and rudders. The hunting forces rapidly converged on the position of the crippled *Bismarck* and she was finally sunk in the forenoon of 27 May by gunfire and torpedoes from HM Ships *King George V*, *Rodney*, *Norfolk*, and *Dorsetshire*. †

*One of the *Albacore* squadrons from *Formidable* was No. 826, which became a Canadian squadron after the war.

†Amongst the ships, which took part in the various phases of the great hunt for *Bismarck* are listed HMC Destroyers *Saguenay*, *Assiniboine* and *Columbia* but they were not present at the final



Swordfish Torpedo Bomber as used in strikes against Bismarck.

The end of *Bismarck* had important lessons for both British and Germans. For the former it pointed up the vital necessity of having a carrier with the fleet; this was to be re-emphasised in December 1941, when Japanese planes caught the British heavy units, HM Ships *Prince of Wales* and *Repulse*, off the coast of Malaya and sank both. In the case of the Germans it was the last time they attempted to send a surface raider into the North Atlantic convoy lanes as it was realized that without effective air support such a sortie was bound to fail.

Whilst the various types of operations mentioned above were testing the men, equipment and tactics of the FAA, the defence of merchant shipping was absorbing a far greater proportion of the air effort than had been anticipated. That the Germans would send out surface raiders to cause the maximum of dislocation by hit-and-run raids had been expected by the Admiralty, and naval aircraft were used extensively for reconnaissance work during operations in connection with these sorties; the enemy warships and auxiliary cruisers, for their part, made use of sea-planes to search for prey or to give warning of hostile forces in the area. However, the ability of escorting warships to combat the submarine attack on shipping had been overestimated, and it was the role of aviation in the hard-fought battle against U-boats that probably influenced the RCN more than any other factor to form its own air branch.

Prior to the outbreak of hostilities it was the official British view that submarines would not be such a menace as in the 1914-18 conflict, and the employment of naval planes in the defence of ocean convoys was not seriously considered; the protection of shipping, in any case, was the responsibility of Coastal Command. In spite of this the heavy losses of independently routed merchantmen from submarine attack in the First World War had not been forgotten and steps were taken at once to organize ships into convoys, a process which was given impetus by the German sinking of the British liner *Athenia* shortly after war was declared.* Initially, aerial

sinking of the battleship.

*The first fast Halifax-United Kingdom convoy, HXF 1, sailed

protection for groups of ships was only provided in terminal areas and took the form of reconnaissance patrols, for which the Coastal Command had been prepared in peace-time; also bedevilled by conflicting theories the force had no personnel trained or aircraft specifically designed for anti-submarine duty. Even for the reconnaissance task RAF resources were extremely limited and to help out, hunting groups, consisting of an RN carrier and escorting destroyers, were formed. The latter had to remain within a relatively small area and U-boats were soon able to anticipate their movements with the inevitable result that one carrier, HMS *Courageous*, was sunk by torpedo on 17 September. This submarine counter-measure was abandoned at once but was to be revived later in the war with the formation of Convoy Support Groups.

With their swift land campaign in Europe finished the Germans had gained control of naval bases from northern Norway to the Bay of Biscay by September 1940 and were well placed to mount stronger attacks on Allied shipping. The RAF meanwhile had increased its A/S activities and the effectiveness of both Coastal Command and naval aircraft had been improved by arming them with depth-charges instead of 100-lb. bombs, which had been found to be useless. Single U-boat operations around the British Isles became unprofitable and the German Submarine Command was forced to deploy its boats further out into the Western Ocean, where pack tactics could be developed free from air harassment. On the Canadian side of the Atlantic an increasing number of warships were available for convoy escort duty and the RCAF was providing cover for convoys to the range limit of its aircraft, some of which were based at the former RCNAS Stations at Dartmouth and Kelly Beach, North Sydney. Naval aviation had also returned to the former with the establishment of a small RN Air Section at the air-field on 14 September, 1940, to service *Swordfish* and *Walrus* aircraft belonging to ships of the Third Battle Squadron and to other visiting RN ships.* This strategic reserve pool was administered by RA 3rd BS,† who flew his flag in a converted yacht, HMS *Seaborn*, berthed in the harbour of Halifax.

Towards the end of 1940 the passage of ocean convoys became more hazardous when they came within range of Focke-Wulf *Condor (FW 200)* aircraft, which the German Air Force had reluctantly loaned to give assistance to patrolling U-boats. An increase in shipping losses made it necessary to adopt retaliatory measures

on 19 September, 1939, escorted by HMC Destroyer *Fraser*.

*HM Ships *Revenge*, *Ramillies*, and *Royal Sovereign* were regularly based at Halifax together with armed merchant cruisers; other battleships were attached from time to time.

†Abbreviation for Rear-Admiral 3rd Battle Squadron; Officer holding appointment at this time being Rear-Admiral S. S. Bonham-Carter, CB, DSO.



Dartmouth Air Station, 1939.

and two projects were conceived to deal with the German planes. The first was the fitting-out of a special anti-aircraft "Q" Ship, HMS *Crispin*. Flying the Red Ensign, and to all intents and purposes a merchant ship, she was to straggle along astern of a convoy as tempting bait for a Focke-Wulf, which she hoped to destroy with her hidden AA guns. The other idea was to provide the veteran *Pegasus* with three *Fulmar* fighters, which she could catapult off when her convoy was shadowed or attacked by *FW 200*. Neither ship achieved any great success, *Crispin* being picked off by a U-boat's torpedo, but *Pegasus* was the forerunner of more efficient catapult ships. These were provided by equipping four ex-merchant ships, already earmarked for naval duty, as auxiliary fighter carriers. Before the latter had finished their conversion refit a new project, (one of the most important trade protection developments in the war at sea) had been proposed. The plan envisaged a two-stage programme for combating very long range (VLR) enemy aircraft, which gave every indication of extending their activities, by the provision of more fighter protection for convoys. As a short term policy a number of merchantmen would be rigged with a catapult and single aircraft whilst others, new construction, were being fitted with a simple flight deck and landing equipment.

A total of 35 cargo vessels were converted into Catapult Aircraft Ships (CAM) each equipped with a single short-range *Hurricane* fighter, which, once it had been shot off, had to ditch on completion of its mission. The planes were manned by the RAF except in the first CAM ship, SS *Michael E.*, whose air crew personnel belonged to the FAA. *Michael E.* sailed on her maiden voyage with Convoy OB 327* in May 1941, but was torpedoed and sunk on 2 June before getting her plane into action. Prior to the arrival of CAM ships in Canada the RCAF set up a servicing unit at Dartmouth air station and pro-

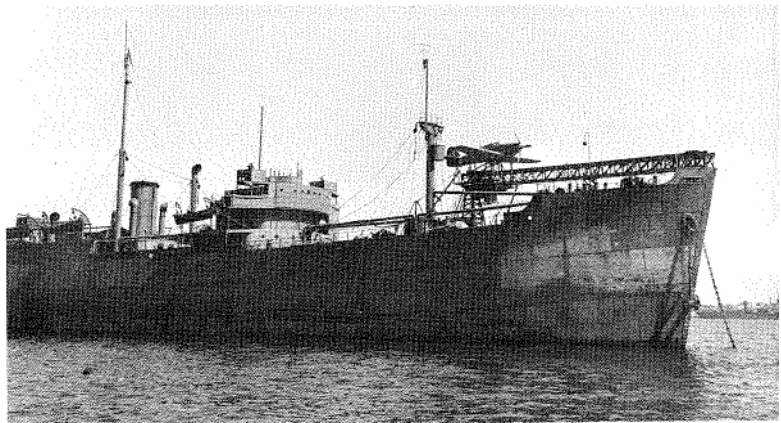
*Abbreviation for main outward-bound United Kingdom-America convoy.

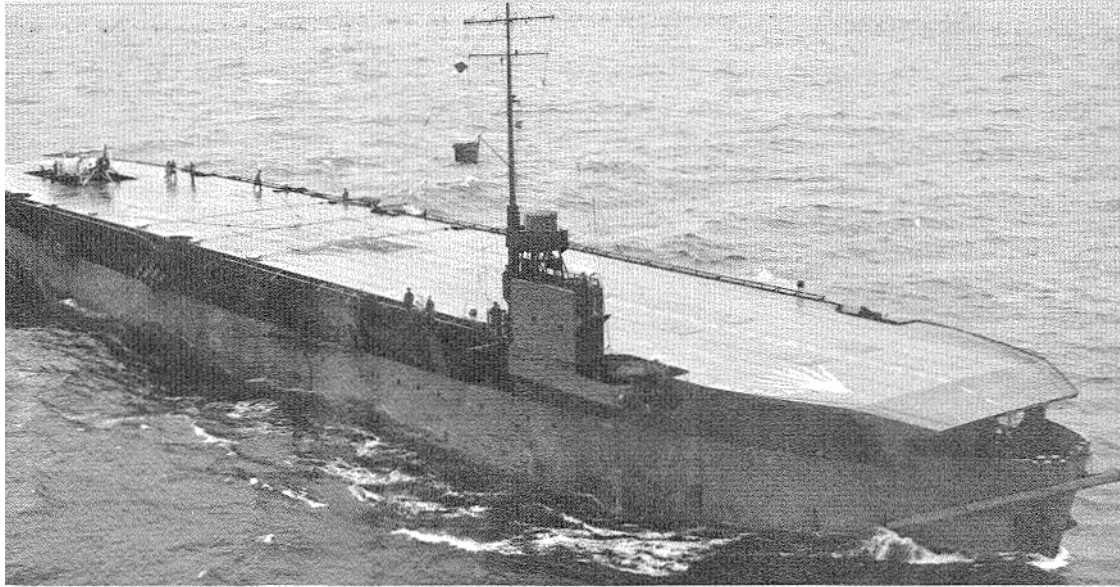
vided repair facilities until the catapult ships were taken off the North Atlantic run in August 1942. A year later, their naval usefulness at an end, all CAM ships were returned to the Ministry of War Transport to resume normal trading. During 26 months of service the *Hurricanes* from CAM ships only destroyed six aircraft but their mere presence in convoys was of incalculable value as a deterrent to the enemy and also as a morale booster for the hardpressed crews of the merchantmen.

A progression from CAM ships, the first vessel converted to have a flight deck, made its appearance about the time that the former were starting to be attached to convoys. As the original auxiliary carrier adapted for mercantile protection, she was the predecessor of both escort and merchant aircraft carriers (MAC ships) and her history is therefore given in some detail.

In March 1940, a 5,600-ton German vessel, *Hannover*, was intercepted in the Caribbean by HMS *Dunedin* and HMCS *Assiniboine*, and, although she had been set on fire, towed to Jamaica. Some months later the decision was made to convert the ship, now called *Empire Audacity*, into an experimental auxiliary carrier and she was taken in hand for the fitting of a 368 x 60-foot flight deck. On 17 June, 1941, the new warship was commissioned as HMS *Audacity*, her aircraft complement being six *Martlets* which had to be secured on deck when not on patrol as there was no hangar. Towards the end of the year she proved her worth in operations with convoys bound to and from Gibraltar. Convoy HG 76, for which *Audacity* on her fourth trip gave fighter protection, was heavily attacked by submarines. The *Martlets* shot down two shadowing *Focke-Wulfs* and by their reconnaissance work helped in the destruction of three U-boats. Seven days out from Gibraltar *Audacity* was hit by a torpedo, and 20 minutes later by another, causing her to sink almost at once. Though the ship's career was short, her performance demonstrated that herein lay a part of the remedy for the heavy losses of merchant

Sea Hurricane on launching ramp of CAM Ship.





First MAC Ship,
SS *Macalpine*,
Halifax, 1943.

ships. Top construction priority was given to the small carriers being built for the RN in Great Britain and the U.S.A.

Some months after the loss of *Audacity* the first of six ex-American merchant ships, converted for flying duties, joined the fleet as HMS *Archer* and by the end of 1942 the RN had six escort carriers in commission, one British and five U.S.-built. Unfortunately, none of these ships could be spared for the regular Atlantic convoy runs as they were required for the diversion of effort in connection with Operation *Torch*;^{*} in addition the majority of the carriers also required refits to modify them to British standards. The U.S. navy, whose country officially entered the war on 8 December, 1941, adopted a policy of fitting out auxiliary carriers and during the summer of 1942 commissioned four ex-tankers to be used for this work.

It was obvious that small trade-protection carriers were going to be useful ships for many tasks and the British Chiefs of Staff, in their long-range planning for 1943, came to the conclusion that there were not going to be enough for duty in the Atlantic as well as other operational requirements. As a result the conversion of 19 cargo vessels, grain or oil carriers, for use as merchant aircraft carriers was ordered.[†] The grain ships, fitted with a 400-foot flight deck, hangar and lift, would operate four *Swordfish* planes whilst the tankers with a 460-foot flight deck would have no hangar accommodation for their three *Swordfish*. The torpedo spotter reconnaissance type of aircraft was chosen for MAC ships in preference to fighters as their primary role would be to keep down submarines. Wearing the Red Ensign the first MAC ship, SS *Empire Macalpine*, sailed from the

United Kingdom with Convoy ONS9^{††} in May 1943. The little carriers became frequent visitors in Halifax, where maintenance of their planes was the responsibility of the RN Air Section at Dartmouth.

The grim struggle in the North Atlantic, where the main strength of the RCN was deployed, showed signs of coming to a crisis in the winter months of 1942-43. Beyond the range of shore-based aircraft, surface escorts found that they were unable adequately to protect their convoys from the attentions of enemy submarine packs with the result that shipping losses by U-boat action in November were the highest, in terms of gross tonnage, for the war. The need for VLR and carrier-borne aircraft to close the so-called "gap" became even more urgent in January, February and March 1943, as all available U-boat strength was concentrated to cut the main artery between North America and the United Kingdom. The percentage of ships sunk in convoy rose each month but in March there were signs and portents of better things to come for the Allies. Liberator aircraft, flying from Newfoundland and Ireland, began to give occasional coverage of the whole of the "gap" and USS *Bogue*, one of the long-awaited escort carriers, operated in support of two Atlantic convoys.

The beginning of the defeat of the U-boat in the Second World War can be dated from April 1943, and without doubt a goodly share of the credit for this must go to the aircraft, both land-based and carrier-based, which were now coming forward to support and escort the convoys for the whole length of their voyages. The combination of VLR aircraft, MAC ships, escort carriers and highly-trained support groups with improved radar and A/S equipment was too much for the opposition, and 41 submarines were sent to the bottom in May alone.

Recognition of the Royal Canadian Navy's important

^{*}Allied invasion of North Africa on 8 November, 1942.

[†]These types of ships were chosen as their cargo could be easily conveyed to its stowage.

^{††}Abbreviation for United Kingdom-North America Slow Convoy.

contribution to victory in the North Atlantic A/S campaign also came in the spring of 1943. The number of the service's personnel and ships had increased until a position had been reached where it was carrying out a high proportion of the convoy escort duty with very little share in strategic or operational control. To deal with this and other problems the Atlantic Convoy Conference opened in Washington in March with representatives of various Canadian, United States and British command authorities in attendance. One result of their deliberations was that Rear-Admiral L. W. Murray, CBE, RCN, was appointed Commander-in-Chief Canadian North-

West Atlantic on 30 April, 1943.⁴ That the key command with its heavy responsibility should be entrusted to a Canadian officer illustrated the new stature of the RCN.

The naval service had reached the stage where it could start planning to diversify and branch out from being a purely "small ship" force. As in the days of the RNAS, Canada was represented in every branch of the British fleet air arm and, with this nucleus of skilled man-power available, she found herself well placed to seriously contemplate operating her own naval aircraft in the exercise of seapower.

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¹ Tucker, *The Naval Service of Canada*, I, 342.

² Great Britain, Naval Staff Historical Section, *The Development of British Naval Aviation, 1919-1945*, I, 21. BR 1736 (53) (1).

³ G. N. Tucker, *The Naval Service of Canada*, Ottawa, King's Printer, 1952, II, 21-22.

⁴ The limits of the Canadian North-West Atlantic Command were defined by a line joining Cape Murchison to Baffin Land to: Position (A) 63° 15' N-64° 00' W, Position (B) 47° 00' N-47° 00' W, Position (C) 43° 00' N-49° 00' W, Position (D) 42° 00' N-65° 00' W, Position (E) 43° 00' N-67° 00' W, Position (F) International Boundary at West Quoddy Head. "Canadian Naval War Plan, 1944." (CNW-44), NS 1650-7 (1).

THE SECOND CANADIAN NAVAL AIR ARM

The Canadian Government by 1942 could no longer afford to ignore the long-term implications of the fact that naval air forces were essential for the successful conduct of war at sea. The moment was propitious for the Royal Canadian Navy to branch out, once more, into the field of aviation.

The British Admiralty devised a scheme in the third year of the war whereby Canadian officers could receive instruction as pilots or observers with the Royal Navy but remain members of the Royal Canadian Naval Volunteer Reserve. Ratings, also included in the plan, would be commissioned into the reserve on successful completion of the course. A signal sounding out Canadian opinion, before the proposals were made officially on a governmental level, was sent to the Chief of the Naval Staff, Vice-Admiral Nelles, on 23 December, 1942. Similar offers had been made in the past but the RCN had not been ready; this time the matter was given urgent consideration at Headquarters and one of the first results was a memorandum submitted by the Director of Operations Division, Acting Captain H. N. Lay, OBE, RCN, early in January 1943. The importance, with examples, of naval aviation to a balanced fleet was stressed in this paper and it was recommended that:

- (a) The Royal Navy's offer should be accepted;
- (b) Two senior officers should be exchanged with officers of similar rank in the Royal Navy to gain experience in carrier air operations;
- (c) Officers and ratings should be sent to the United Kingdom for service in escort carriers; and
- (d) Arrangements should be made to either build, convert or buy four escort aircraft carriers for use with the four mid-ocean escort groups, C-1, C-2, C-3 and C-4, which were providing convoy protection in the North Atlantic at that time, operating from St. John's Newfoundland, and Londonderry, Northern Ireland, as terminal ports.

Another communication, from the Director of Plans Division, Acting Captain H. G. DeWolf, RCN, to the Chief

of the Naval Staff also put strong emphasis on the role aircraft were playing in convoy defence and the necessity of having shipborne planes as well as landbased because, although the latter were beginning to close the "gap" in the North Atlantic, adverse weather conditions precluded their use for at least 50 per cent of the time.

After careful consideration of all factors involved the Admiralty was signalled on 2 March, 1943, that the RCN was prepared to lend personnel for training as pilots and observers with the Fleet Air Arm (FAA),¹ and in April the Directors of Plans and Operations wrote a joint memorandum² on the practical steps the navy could take in the development of an air policy. One of the sub-headings of their report mentioned helicopters, whose potentialities for convoy protection were now being realized; the Admiralty, having ordered 250 operational models, intended to have helicopter pilots trained in the United States towards the end of 1943 and ten Canadians were to be included in the course. Another matter currently receiving attention at Headquarters was the possibility of using airships of the non-rigid type for patrolling and as convoy escorts. The USN had been successfully operating blimps, as they were called, from its eastern seaboard and two officers Lieutenants J. G. Fraser and H. H. W. Shoup, RCNVR, were sent to take an airship pilot's course at the training base situated at Lakehurst, New Jersey. In the final paragraphs of the report the two Directors recommended that:

- (a) The training of personnel with the Royal Navy for the possible formation of a Canadian Naval Air Service be expedited;
- (b) That a naval air division be formed at Headquarters; and
- (c) That a senior officer should be sent to the United Kingdom and, if possible, to the United States as well, to study all aspects of Naval Air operations, including the gaining of experience at sea in a carrier.

The Naval Board concurred in these recommendations and Captain Lay was chosen to carry out the investigations. Having paid a short visit to Washington for talks and to arrange an itinerary for his forthcoming tour of air stations in the United States and United Kingdom, he left Ottawa again on 30 April, 1943, for a busy fact-finding tour.³

Captain Lay visited naval air stations in the United States from 1 to 15 May, including those at Jacksonville, Norfolk, Pensacola, New York and Lakehurst, giving in his subsequent report a detailed resumé of the pros and cons of Canadians being trained in the United States. He sailed from Halifax on 17 May in the liner *RMS Empress of Scotland*, arriving a week later in England. Interviews with senior officers at the Admiralty were followed by an extensive tour of British naval air stations and a voyage to sea in *HMS Archer* on 12 July. Aircraft from the carrier carried out an air co-operation exercise off Larne, Northern Ireland, in which *HMS Philante* and motor launches represented ships in convoy, the anti-submarine screen being provided by an escort group under training. An escort carrier had not participated in such exercises before and it was a good opportunity to see at first hand what would be required of similar Canadian ships. Transferring by air to *HMS Illustrious* in the Irish Sea, Captain Lay took passage to Scapa Flow in the fleet carrier, which flew off *Barracudas* and *Martlets* to search for and intercept *HMS London* representing the German battleship *Tirpitz* endeavouring to break out into the Atlantic between Scotland and Iceland.

When Captain Lay returned to London in early August, plans had progressed considerably. Official government acceptance of the Admiralty proposals in respect to pilots and observers was conveyed through the Under Secretary of State for External Affairs, and the Senior Canadian Naval Officer, London, was instructed to make the necessary arrangements with the Admiralty for the training of 55 air officers⁴ and an unspecified number of telegraphist air gunners and air maintenance artificers. Arrangements for lower deck personnel were decided upon at a meeting attended by RN and RCN officers, including Captain Lay, on 13 August. However, the actual sending of ratings to instructional schools was deferred pending a decision on the future of a Canadian naval air service as a whole. Proposals were also made to use the experience of Canadians with the Fleet Air Arm, both RCNVR and RNVR (A), the former to be given training for duty as air signal, gunnery, engineer and radio officers and the latter to be asked to transfer to the Canadian navy.

Air minded young men who had found their way in to the ranks of the RNVR (A) prior to the new plans for an RCN air arm had already added to the fine record of Canadians in the RNAS of the First World War period. Selection of potential naval flying personnel from the

Dominions began in New Zealand early in 1940 and during September of that year the Admiralty made the suggestion that Canadians might be recruited under a similar scheme. Candidates would either serve under RN pay and conditions of service or be enrolled in the RCNVR for service with the Fleet Air Arm. An official government request was made through the Department of External Affairs on 9 January, 1941, and, after discussion between naval and air force authorities, a reply was sent indicating that the second plan did not lend itself to existing conditions as there was no authorization for a fleet air arm within the RCN. A counter-proposal was made that officers should be obtained through the Joint Air Training Plan, under which personnel were being trained in Canada for the RCAF and RAF. This idea did not appeal to the Admiralty, who then started to enlist men to serve direct in the Fleet Air Arm, *HMS Seaborn* at Halifax being used as a recruiting centre. A standard form of letter, in which it was explained that the candidate would be joining the RNFAA, was drawn up by Naval Headquarters, Ottawa, to send to all applicants giving them full instructions. The letter was revised in December 1941, and volunteers were screened by the then Commanding Officer Atlantic Coast, Rear-Admiral Murray, until the job was taken over again by the British in January 1943 at their Halifax base, which was now known as *HMS Canada*. Canadians serving in the RNVR (A) by August 1943 numbered 19 officers and 29 ratings. Admiralty Fleet Order 4534/43, dated 30 September, called for volunteers from amongst the officers on the understanding that any accepted for transfer to the RCN would continue to serve in the Royal Navy until required for air duties in the Canadian service.

In addition to this source of trained personnel there were serving with the British Fleet a number⁵ of officers RCNVR, who had volunteered in the United Kingdom, for flying duty. Although relatively few they managed to have representatives in most of the actions in which the Fleet Air Arm, participated, and one of their number was awarded, posthumously, the RCN's only Victoria Cross of the Second World War.

Robert Hampton Gray of Nelson, British Columbia, joined the RCNVR as an ordinary seaman in July 1940, and two months later was sent to England. Soon afterwards he began a long course of air training, which included six months of flying instruction at No. 31 Service Flying Training School at Kingston, Ontario; Gray's seniority as a sub-lieutenant, RCNVR, dated from 31 December, 1940. His operational career began with an appointment to 757 Squadron at Winchester, England, after which he had a tour of duty at air stations in Kenya, broken by a spell aboard *HMS Illustrious*. Later the pilot joined *HMS Formidable* in August 1944, and on the 24th and 29th of that month led a section of fighters in attacks against heavy anti-aircraft positions surrounding

Alten Fjord, Norway, where the German battleship, *Tirpitz*, lay. Returning from the second raid with most of his rudder shot away and the plane badly damaged, he had to circle *Formidable* for forty-five minutes before making a successful landing. For these two actions Gray was mentioned in despatches: "For undaunted courage, skill and determination." The carrier was detached from the Home Fleet to the Pacific Fleet, and by the end of the year her aircraft were taking part in many strikes in the Far East.

The Japanese were receiving tremendous punishment in their homeland by the middle of July 1945. Gray led a flight of 1841 Squadron on an air-field strafing raid on the 18th and on the 24th and 28th was leader in the successful bombing of bases along the Japanese inland sea, a destroyer being sunk on the latter date.

Gray formed up his section of *Corsairs* over *Formidable* on 9 August, just one week before the war was to end, and shaped course for Onagawa Bay. In spite of the severe damage that had been inflicted on them, the enemy was still full of fight and a heavy barrage of AA fire from shore batteries and five warships met the planes. Peeling off from the section, the leader dived towards one of the destroyers and was soon surrounded by exploding shells. The *Corsair* burst into flames but held steadily to its course until within 50 yards of the target when Gray released his bombs. The warship was struck amidships and sank below the surface of the bay to follow its attacker to a watery grave. Nine days after Gray died the award of the Distinguished Service Cross was announced for his leadership in July, the citation reading: "For determination and address in air attacks on targets in Japan."

Deceptively youthful in appearance, Gray was nevertheless a master of his trade with five years of hard experience behind him. The recommendation by his Senior Officer, Vice-Admiral Sir P. L. Vian, KCB, KBE, DSO and two Bars, for the posthumous award of the Victoria Cross paid tribute to the man and the country that bore him:

I have in mind firstly his brilliant fighting spirit and inspired leadership; an unforgettable example of selfless and sustained devotion to duty without regard to safety of life and limb. The award of this highly prized and highly regarded recognition of valour may fittingly be conferred on a native of Canada, which Dominion has played so great a part in the training of our airmen.

The pieces of jigsaw that were being cut to produce a Canadian naval air arm were increasing in number by the end of August 1943 when Captain Lay released the comprehensive report on his findings.⁶ Included in his basic recommendations were that a naval air service be established as soon as possible modelled on the British Fleet Air Arm, with certain modifications, and that it should concern itself with carrier operations only, leav-

ing the RCAF to carry out coastal operations with shore-based aircraft. He also suggested that the new service should start by manning two escort carriers backed by the necessary maintenance facilities.

Meanwhile at the Quebec Conference in August 1943 expansion of the RCN had been under discussion as the Royal Navy was suffering from a man-power shortage and also the Canadian Naval Staff was determined not to finish the war with a small-ship navy only.* At a meeting of the Cabinet War Committee on 8 September it was agreed to assist the British by manning certain vessels.† The Chief of the Naval Staff who was present, eloquently pleaded the case for aircraft carriers but a decision was postponed until a more thorough study could be made.⁷ A combined RCN/RCAF Committee was appointed soon after and in October issued its report, which supported the naval view that the operation of carriers should be undertaken.⁸ The committee advised for the present against the opening of shore establishments for carrier-borne units, as RN facilities, generally, would be used with the RCAF available to provide assistance when necessary in Canada.

Royal Navy resources became even more strained and on 30 October the escort building programme was cut, to be followed in November by an urgent personal message from Admiral of the Fleet Sir A. B. Cunningham, the First Sea Lord, to CNS for man-power help.⁹ The Assistant Chief of the Naval Staff went at once to London to discuss the matter, and one of the new proposals, which he brought back with him from the Admiralty was that the RCN should take over two of the new American-built escort carriers now coming into service with the RN.¹⁰ The Cabinet was reluctant to become involved with these vessels for fear that Canada might lay herself open to the accusation that she was accepting "lend-lease" by "back-door" methods. However, the Naval Service decided to follow the Admiralty's lead in cutting back the escort programme and, with the consequent easing of its own manning situation, agreed to lend as many officers and ratings as possible to man one CVE, HMS *Nabob*, which had commissioned at Seattle, Washington, in September. This important command was given to Captain Lay and by the end of the year a considerable number of Canadian personnel had been detailed for the ship. In spite of this, on 5 January, 1944, the Cabinet reviewed the manning of CVE's and turned down the whole idea. A week later the Honourable A. L.

*Meeting between President Franklin D. Roosevelt, The Right Honourable Winston S. Churchill and The Right Honourable W. L. Mackenzie King.

†Canada would lend additional personnel to the RN for Combined Operations including crews for three flotillas of major landing craft, and also gradually man one or two cruisers and two fleet destroyers. Approval to transfer two flotillas of motor torpedo-boats had already been given.

Macdonald, Minister of National Defence for Naval Services, raised the matter again and it was finally agreed that the RCN should provide the ship's complement for *Nabob* and HMS *Puncher* whilst the RN contributed the aircraft and air personnel.

Nabob, pennants D.77, was typical of the quick-built escort carriers which were proving such a success as one of the answers to the U-boat menace. Like her sister ships she had a converted mercantile hull, planked flight deck and, down below, Westinghouse geared turbines driving a single screw to give a full speed of 18 knots. *Nabob* commissioned on 7 September, 1943, and, having completed with stores, was steamed up to Vancouver by a small RN crew for modifications to British requirements by the Burrard Drydock and Shipbuilding Company, Limited. Captain Lay arrived in October and two months later the first draft of Canadian ratings was sent to the carrier, to be followed by others in the New Year. At the start, the arrangements under which *Nabob* remained one of HM Ships but with a mixed company, predominantly RCN, proved unsatisfactory.* The victualling scale at RN rates was below that to which Canadians were accustomed and the fact that there were differing scales of pay in force on board was not conducive to harmony. In spite of these internal difficulties *Nabob* began a busy working-up programme in January 1944.¹¹ She berthed alongside on the 24th after successfully negotiating the narrow entrance to Esquimalt, a difficult harbour for such a large ship, made more so by the torpedo and anti-submarine defences. The carrier was exercising in the Strait of Georgia the following day when at 1526, about two hours before high water, she took ground in a light silt whilst travelling at a fair speed. The grounding occurred so gradually that nothing untoward was noticed on the bridge until it was realized that the ship had stopped. Luckily the weather was quiet with little sea or wind and thousands of tons of water and oil were pumped out during the next 48 hours to lighten *Nabob*. A number of naval vessels were soon on the scene, including another escort carrier, HMS *Ranee*, which with HMC Ships *Armentieres* and *Haro* tried unsuccessfully to tow off the stranded vessel. Canadian and American salvage tugs arrived and, on the fifth attempt from the initial grounding, the ship was refloated on 28 January.

Nabob was dry docked at North Vancouver but no damage had been sustained and she was able to sail for active service with the Fleet on 8 February, 1944. At San Francisco the Royal Navy's 852 Squadron of *Avengers* was embarked and off San Diego, the next port of call, flying trials kept all hands busy. Exercises completed, *Nabob* made transit of the Panama Canal with a frigate,

*Personnel in *Nabob* (squadron embarked) consisted of approximately 504 RCN, 327 RN, and nine RNZN.

HMCS *New Waterford*, and a week later berthed at Norfolk, Virginia. During the period in harbour the Commanding Officer took the opportunity of visiting his administrative authority, the British Admiralty Maintenance Representative, in Washington and also of going to Ottawa to impress on Headquarters the urgency of making certain changes. As a result of his efforts approval was given for Canadian scale of victualling to be instituted in the ship and for RN personnel, other than Fleet Air Arm, to be paid at RCN rates.¹² The proposal that *Nabob* should become one of HMC ships was also made at this time but not acted upon.

With a much more contented company on board *Nabob* embarked passengers and 45 *Mustang* fighters, which were secured on the flight deck, at New York for transportation to the United Kingdom. She was at sea again on 23 March, taking station in one of the columns of a transatlantic convoy (UT-10), whose 26 ships had a U.S. cruiser and a dozen destroyers as escort. After an uneventful passage *Nabob* called briefly in Liverpool to land her passengers and then made her way up to the Clyde, where all personnel and aircraft of the squadron left for the Royal Naval Air Station at Machrihanish. The carrier returned to Liverpool for a further refit, during which she was fitted with a high frequency direction finder, but in June recommenced her work-up trials, 852 Squadron having rejoined.

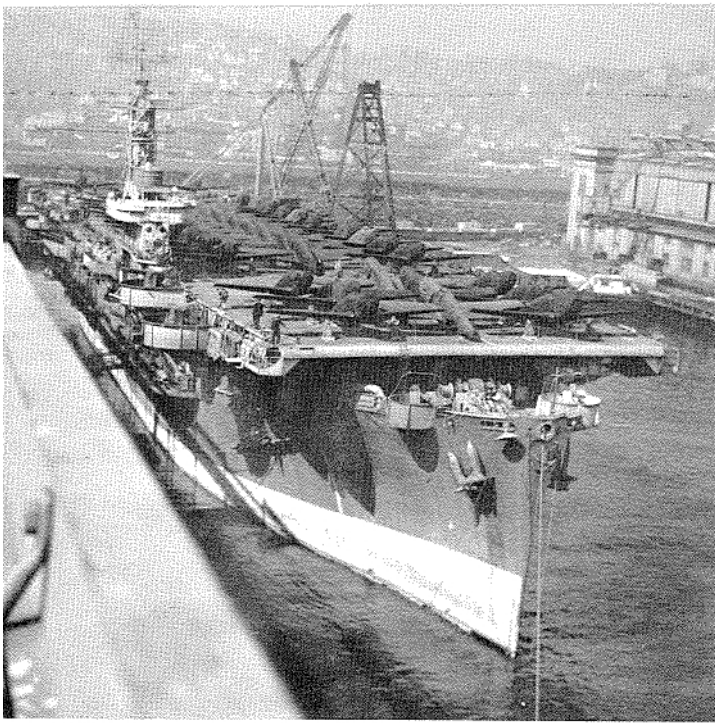
The current training programme ended at the Tail-of-the-Bank, off Greenock, and *Nabob*, in company with a sister ship, HMS *Trumpeter*, left the Scottish anchorage again on 31 July. On passing the boom gate at Scapa Flow both ships joined the Home Fleet and were placed under the administrative orders of the Rear-Admiral Commanding First Cruiser Squadron.* A week later the experience gained in many exercises was put to the test under operational conditions.

Enemy shipping was getting considerable natural protection by using the Norwegian "leads" or channels running between the coast and outlying islands. It was therefore decided to mine these waters so that vessels on passage would have to come out into the open sea, where they could be attacked by land-based fighters from the United Kingdom. Preparations and exercises occupied *Nabob*, with Force 4,† until 9 August, when the ships under the orders of CS-1 flying his flag in *Indefatigable* sailed for the Norwegian coast.

Two *Wildcats* were put up by *Nabob* the following forenoon as air cover for the fleet and after lunch the 12 *Avengers* of 852, carrying a mine apiece, were catapulted or flown off. In the air the squadron took depart-

*Rear-Admiral R. R. McGrigor, CB, DSO, (short title CS-1).

†HMS *Indefatigable*, fleet carrier; *Nabob* and *Trumpeter*; HM cruisers with eight destroyers, including HMC Ships *Algonquin* and *Sioux*.

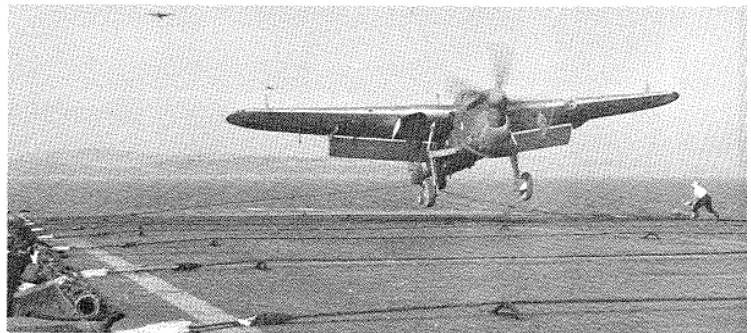
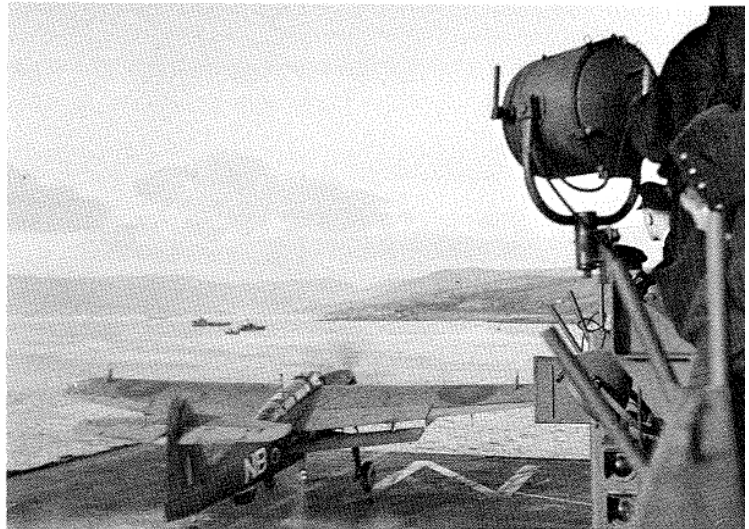


HMS Nabob ferrying Mustang Fighters, 1944.

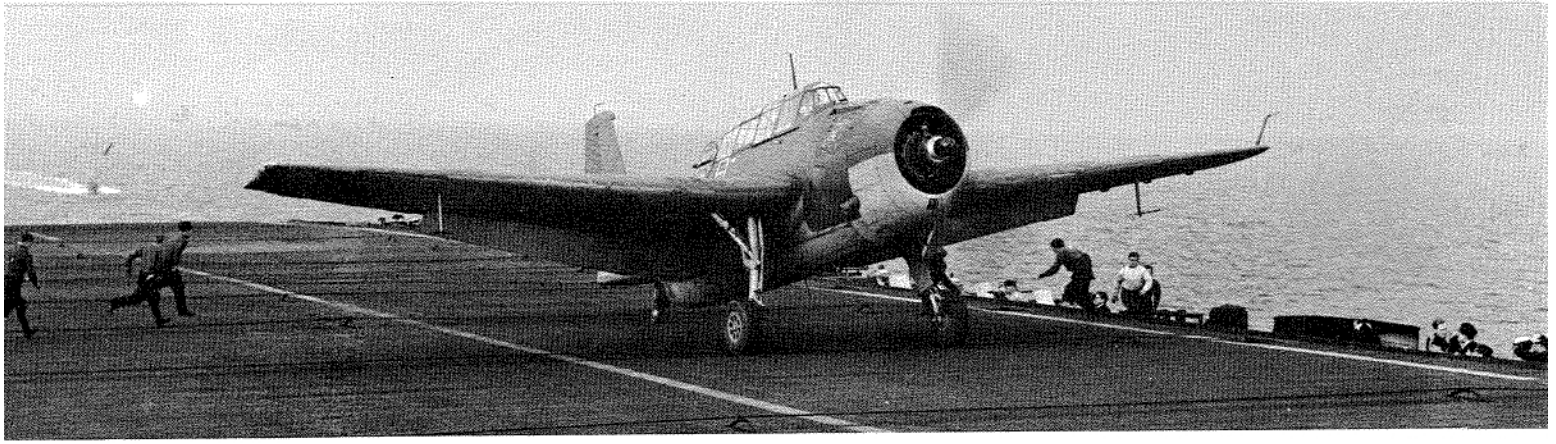
ture astern of *Trumpeter's* 846 Squadron; with *Seafires*, *Fireflies* and *Hellcats* provided by *Indefatigable* as fighter protection, the minelayers shaped course in the dull, grey afternoon towards Lepsorev Channel and Haarhamsfjord. Landfall was made on Stornholm Light, where the squadrons dispersed and began their run-up in sub-flights of three.

The attack took the Germans by surprise and it was successfully carried out without loss, all mines being laid. The strike arrived back over the ship as one of the escorting destroyers was attacking an A/S contact dead ahead of *Nabob*. Rudder was put hard over in an emergency turn and the planes had to continue circling until the carrier could resume the landing-on course. Once the aircraft had touched down they were fuelled, checked and re-armed; shortly afterwards the second strike of 12 *Avengers* was airborne and heading for the target area. This time the enemy was better prepared but the planes managed to sow their mines as ordered. The naval force withdrew towards home in the evening having lost an *Avenger* from *Trumpeter*, a *Firefly*, and three *Seafires*. Thus ended Operation *Offspring*, the largest Home Fleet carrier minelaying sortie of the war. Whilst the *Avengers* had laid 47 mines the fighters had destroyed a number of *Messerschmitt 110* planes on the ground, set barracks on fire at Gossen, and sunk the 90-ton German minesweeper *R-89*.

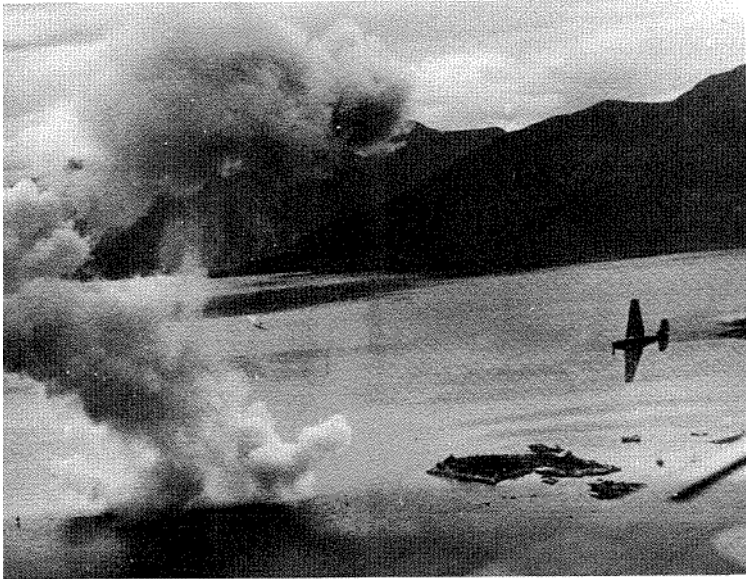
Barracuda taking off, HMS Nabob.



Barracuda landing, HMS Nabob.



Avenger landing aboard HMS Nabob.



Avenger strike in Norwegian waters, 1944.



Avenger minelaying sortie off Norway, HMS Nabob, 1944.

Avenger deck park, HMS Nabob.



Operation *Goodwood*, *Nabob*'s next sortie with the Home Fleet, was the largest with Fleet Air Arm (FAA) participation ever planned. The object was to immobilize the German battleship *Tirpitz*, which lay in Kaa Fjord, Norway. This ship, by her mere presence, constituted a potential threat to the Atlantic and North Russian convoy routes and forced the Allies to keep a heavy concentration of warships at Scapa Flow in case she put to sea. *Tirpitz* had been the target for a number of attacks on different occasions, one particularly successful aerial raid having been Operation *Tungsten*, which was carried out by naval *Barracuda* aircraft with fighter cover the previous April.* During the forthcoming operation there were to be diversionary fighter attacks on Hammerfest and Banak air-field, the whole to be synchronized with the passage of the United Kingdom-North Russia convoy, JW-59.¹³

Force 2 consisting of *Nabob*, *Trumpeter* and five frigates, HM Ships *Bickerton*, (Senior Officer), *Aylmer*, *Bligh*, *Kemphorne* and *Keats* of the Fifth Escort Squadron cleared the defences of Scapa Flow on 18 August. Force 1† was within visual signalling distance for the next few days and the ships reached the flying off position inside the Arctic Circle north of Tromsø on 20 August. Fourteen *Avengers* in *Nabob* were armed with mines in the afternoon but rough weather made it impossible to operate aircraft. The Fleet steamed to the westward, the larger ships fuelling the escorts during daylight hours before they all returned to the attack-launching position on the 22nd. Preparations were once more put in hand for the mining sortie against *Tirpitz* but a signal was received from the Admiral saying that the *Avenger* squadrons would not take part as cloud ceiling was still too low. This was a bitter blow particularly to 852 Squadron, which had worked very hard in getting ready for the attack. The bugle call for "Action Stations" was sounded aboard the ship at 1000 and later *Nabob* flew a protective patrol over the Fleet while two strikes from the large carriers heavily attacked *Tirpitz*.¹⁴ Withdrawal to the westward started again for Force 2, with HM Cruiser *Kent* in company, during the first dog-watch as *Nabob* was preparing to fuel some of the escorting frigates. At 1716 there was a heavy explosion on the starboard side aft and *Nabob* took a 7° list, her draught at the stern increasing to 38 feet and finally to 42 feet. The large between-deck hatches not being watertight, flood-

*Part of the fighter protection was provided by *Wildcats* of 881 Squadron, commanded by Lieutenant-Commander D. R. B. Cosh, RCNVR, from HMS *Pursuer*. Fighter and A/S protection for the Fleet during "Tungsten" was given by 842 Composite Squadron consisting of *Wildcats* and *Swordfish* from HMS *Fencer* and commanded by another Canadian, Lieutenant-Commander G. C. Edwards, RCNVR.

†HM Battleship *Duke of York*; HM Aircraft Carriers *Indefatigable*, *Formidable*, and *Furious*; three cruisers and six destroyers.

ing spread to the level of the galley deck, where, fortunately, several vents allowed air to escape and this prevented the hanger deck from bursting. Water also extended right to the engine-room bulkhead forward and to tanks in the very stern, the ship slowly coming on to an even keel because of the absence of fore-and-aft bulkheads in this class of vessel. As the hands had been closed up at "Action Stations" for most of the day, "Up Spirits" had only been piped just before the ship was torpedoed. Members of the supply staff, messmen and others were gathered outside the spirit room and it was amongst them that most of the casualties occurred. The officer overseeing the rum issue had a lucky escape, being carried up two decks by the flood of water after the explosion. Another fortunate man was a stoker, who was washed out of the shaft tunnel and landed unhurt on the quarter-deck. In the ship's galley, meantime, cooks were desperately trying to avoid the scalding steam from fractured pipes which was rapidly filling the compartment.

None of the escorts had been in asdic contact and it was presumed that *Nabob* had been hit by an electric torpedo fired at extreme range. The First Division of the escort group altered 140° to starboard together to search for the submarine on the starboard side of the carrier; at 1724 *Bickerton*, the senior officer's ship, was hit by a torpedo, the stern of the frigate being blown off and more than 40 men killed by the explosion. Ironically hands were working on *Bickerton*'s quarter-deck to stream CAT gear,* which would probably have saved her. To add to the confusion the ship's siren jammed on, bellowing continuously, and the tank of liquid used in making white smoke screens burst. White smoke was sucked in by the ventilating fans and circulated through the mess decks causing choking and acute discomfort. *Kemphorne* closed *Bickerton* to take off survivors whilst *Aylmer* and *Bligh* with HMS *Vigilant* carried out an A/S search around the stricken ships.

Aboard the immobile *Nabob* an engine-room temperature of 150° had made it necessary to shut down main engines and boilers; all electrical power having failed, ventilation fans had stopped. Boats and Carley rafts were put over the side and 214 men, of whom ten were wounded, were transferred to *Kemphorne*. Damage control parties shored the vital engine-room bulkhead while the engines, shaft and propeller were checked. As the latter were found in good order, electrical power was restored and steam raised. Flooding was under control by 1900 and *Nabob* slowly gathered way about 2140 to begin the long 1,100 mile passage home.† During the previous hour *Bickerton* had been sunk by

*Canadian Anti-Acoustic Torpedo gear. A noise-making device, which, towed astern, diverted an acoustic torpedo from "homing" on to the noise of a ship's propellers.

†Speed at first about six knots increasing to ten.

torpedo from *Vigilant* as under the circumstances it was not practicable to attempt a tow.

In the middle of the night a submarine was detected by HF/DF following close astern and by 0230 on 23 August, both asdic and radar bearings indicated that it was 3,600 yards on the starboard quarter. Course was altered to 200° to put the submarine astern and two *Avengers* were catapulted off. The aircraft managed to keep the enemy submerged for about three and a half hours as *Nabob* limped away to the westward and safety. Landing on the sloping deck for the two planes was a most hazardous operation; one managed it without mishap but the second one flew into the barrier completely wrecking two *Avengers*, which had to be jettisoned, and damaging four other aircraft. Luckily, no one was hurt. Another HF/DF bearing was received about 0945 but it gave a position well to the southward and was probably a "lost contact" signal. It was therefore considered that in spite of the heavy oil track being made by *Nabob*, the submarine had been successfully evaded.

Throughout 23 August, those remaining on board struggled on the canted, heaving decks to jettison or move forward all portable heavy gear, the while listening for the dread rending sound, which would announce the collapse of the shored engine-room bulkhead and a rush of water through the ship. The work of strengthening decks and bulkheads in the after part of the carrier with baulks of timber was also given top priority. In the afternoon an *Avenger* from *Trumpeter* passed overhead and an aerial A/S patrol was maintained until she and her escorts joined company at about 1930. Half-an-hour later a further 203 of *Nabob's* company were transferred to *Algonquin* in the motor boats belonging to the destroyer and *Keats*.

The next day, 24 August, found *Nabob* ploughing slowly along at ten knots, in worsening weather, with her escorts on the screen and *Trumpeter* zigzagging close astern. Wind force reached 43 knots but luckily the sea, although steep, was short. After a "blow" of eleven hours both wind and ocean moderated. *Algonquin* was detached at 0540 on the 26th to contact the relieving escort and transfer *Nabob's* personnel to HMS *Zest*. In the morning watch of 27 August, the carrier entered Scapa Flow and secured to a buoy. By the resourcefulness and energy of her company *Nabob* had been saved* and a glorious final chapter written to a commission, which had not started too happily.

So expertly had the shoring¹⁵ been carried out in *Nabob* that it was merely added to for her passage south in early September. More top weight had been removed

*In the words of CS-1, "Looking at her from a distance of seven miles I never expected her to survive." (Report to Commander-in-Chief, Home Fleet). Report of Torpedo Damage, No. 275/380. NHS 8000, NABOB.

including gun mountings, aircraft, and stores belonging to 852 Squadron, with the result that the ship's draught was reduced from 42 feet aft to 37 feet. The carrier was assisted through the boom gate by two tugs, who slipped when clear of Hoxa Gate; escorted by a destroyer and an ocean-going tug, she then shaped course for the Firth of Forth. In drydock at Rosyth the bodies of 14 of the 20 missing were recovered from the compartments previously flooded.¹⁶

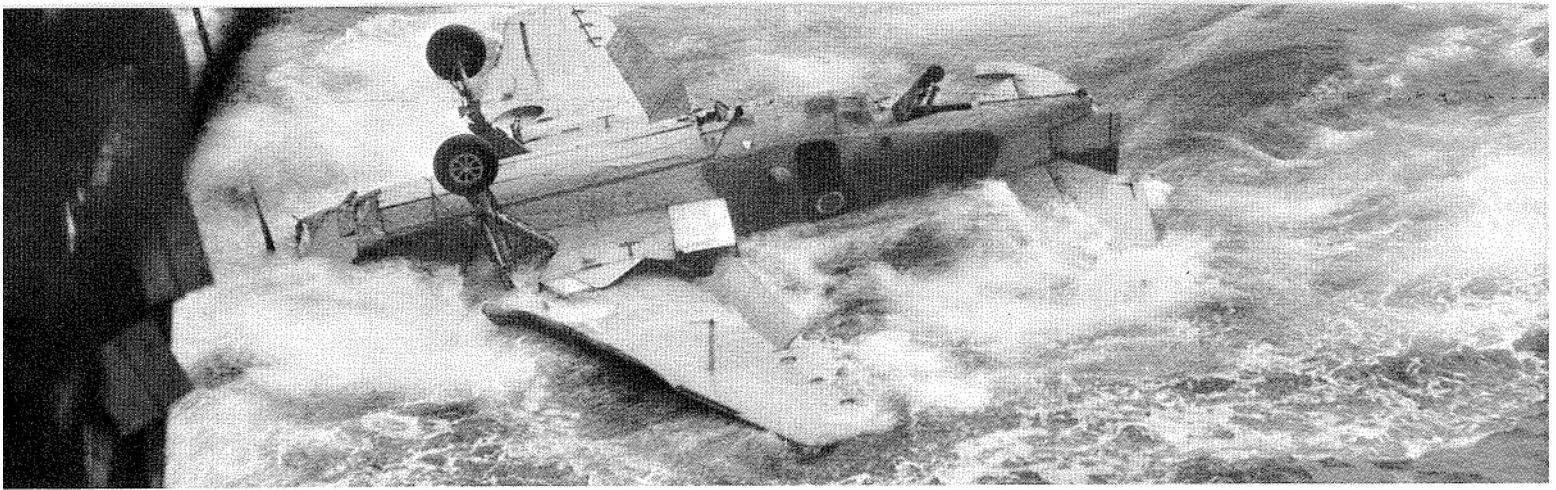
Nabob would most certainly have been repaired and put back into service, if sentiment had prevailed, but her damage was so extensive and British yards so overcrowded that the Admiralty decided to "cannibalize"† her. Until the end of the war she provided emergency spares for the other ships of her class. In March 1947 *Nabob* was sold to a Netherlands firm for scrap and on 21 September she arrived at Rotterdam, where the flight deck was stripped off and the damaged hull repaired. Sold to the Roland Linie Schiffart, Bremen, Germany, a subsidiary company to the North German Lloyd Line, she was completed as the dry cargo ship SS *Nabob*. The first voyage was to Montreal in 1952 for a cargo of grain. Latest information (1963) is that *Nabob* is sailing on the Australian run and is also the training ship of the North German Line, carrying 18 probationary officers on board.

Although HMS *Nabob*†† was only in commission for just over a year it can truly be said that there was never a dull moment. The majority of the Canadian officers and ratings who manned the carrier were accustomed to small ships only and had to adapt themselves to completely different living conditions and daily routine. In addition they had to learn a new aspect of their trade, namely the operation of aircraft. Bearing in mind that the ship was also a unit of the Royal Navy and the ramifications that were caused thereby, it is not surprising that there were many problems to be solved. In spite of many efforts to make her so, *Nabob* never did become one of HMC Ships but by her contribution to the RCN she is entitled to an honourable place amongst them.

With the paying-off of *Nabob* on 30 September, 1944, Canadian personnel were now only manning one escort carrier, *Puncher*, which had commissioned on 5 February, 1944.¹⁷ This ship was also built by the Seattle-Tacoma S.B. Corporation and although of the same class as *Nabob* had slightly smaller specifications. With a reduced complement on board, she was steamed to Vancouver, where Captain R.E.S. Bidwell, RCN, assumed

†Term used in connection with a ship uneconomical to repair, whose machinery, etc., was used, when required, for replacement in other vessels.

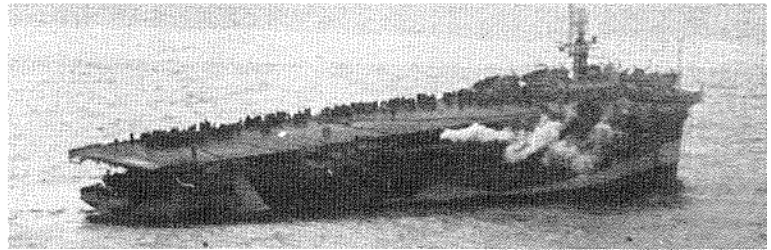
††German sources (1963) have confirmed that *Nabob* and *Bickerton* were torpedoed by *U-354*, which was later sunk by aircraft from HMS *Vindex*.



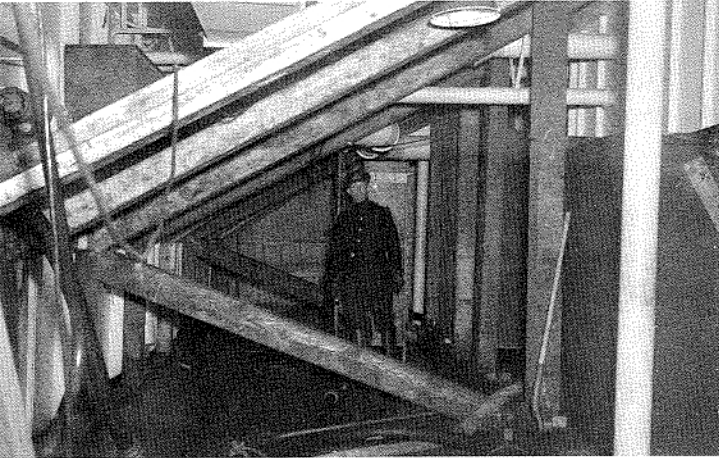
Damaged *Avenger* being ditched, HMS *Nabob*.



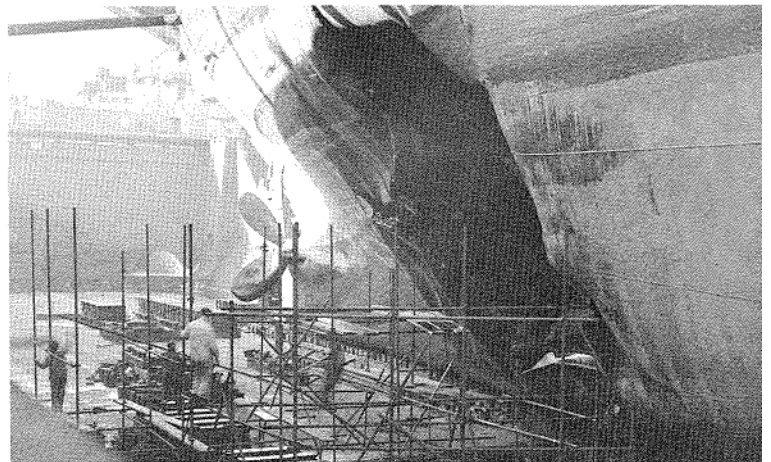
HMCS *Algonquin* takes off members of ship's company of *Nabob*.



HMS *Nabob* after being torpedoed, 22 August, 1944.



The Commanding Officer, Captain Lay, inspecting emergency shoring in *Nabob*.



Nabob in drydock at Rosyth, showing torpedo damage.

command on 10 April during her refit in Burrard's yard. *Puncher* moved to Esquimalt for dry docking in May and on 8 June, with HMC Frigate *Beacon Hill* in company, she cleared Duntze Head bound for the eastern seaboard of the United States. It had been hoped to obtain operational planes for the passage but, as this was

not possible, an old, unserviceable *Shark* biplane was obtained and used enthusiastically by the flight-deck party in handling drills. Calls were made at San Francisco and San Diego, where the fleet minesweeper, HMS *Foam*, joined the party. Keeping up a steady sixteen knots the three ships reached Balboa on 23 June and



HMS *Puncher*
off Vancouver, 1944.

passed through the Panama Canal to continue their voyage to New Orleans. Four harbour defence motor launches were secured on deck at the U.S. port and, after delivering them to New York, *Puncher* visited Portsmouth Navy Yard at Norfolk, Virginia, to be taken in hand for the installation of Bofors mountings. This work was completed in ten days and the ship returned to New York on 22 July, 1944.

Preparations in Italy were going ahead for the invasion of the south of France,* and 40 U.S. Army planes, including some of the latest night fighters, *P-61*'s known popularly as "Black Widows", were embarked for service in the Mediterranean. Convoy UGF-13 commenced to form up off Norfolk on 28 July and the carrier, which had been anchored in the Roads, took station in her column. This was a fast convoy of 16 ships, mostly tankers with high octane gasoline and troop transports carrying about 18,000 men, escorted by a cruiser, USS *Cincinnati*, with three destroyers and six destroyer escorts. The convoy commodore, in a tanker transport, USS *General Blyth*, kept the ships alert by continually exercising emergency turns, wheeling, making smoke screens, gunnery, etc. There was no enemy action en route and off the African coast, *Puncher* and another carrier, USS *Shamrock Bay*, were detached and escorted by four French chasseurs into Casablanca to off-load cargo. Four days were spent in harbour and the ship then put to sea again as Commodore of four merchant vessels joining GUS-48.† Having met the main convoy, the carrier turned over her charges for the slow voyage back to Norfolk.

Three days after securing alongside, both watches were busily employed in hoisting on board the aircraft and stores belonging to RNFAA 1845 Squadron. Its 18 *Corsairs* were struck down into the hangar while the flight deck was packed with a freight cargo of *Hellcats*,

Avengers, *Corsairs* and one *Helldiver*, all of which had to be securely lashed down. Twenty-one officers and 125 ratings came on board and *Puncher* steamed up to New York for more passengers, including 28 women and children. Convoy CU-38, escorted by Task Group 21, left on 4 September but the carrier was delayed to wait for some special ammunition and did not sail until the next day. Escorted by USS *Enright*, *Puncher* made best speed to overtake and in the forenoon of 9 September the long lines of ships were sighted ahead. Five days later, having reached a position bearing 260° and distance 45 miles from Bishop Rock, the convoy was split and *Puncher* became commodore of one section, consisting of 30 ships in five columns. In very poor visibility course was altered around Land's End and at about the same time three Canadian destroyers HMC Ships *Assiniboine*, *Chaudiere*, and *Qu'appelle* joined as advanced support force. On three separate occasions this group attacked asdic contacts ahead of the convoy, causing it to make emergency turns. Without further incident *Puncher* berthed at King George V dock, Glasgow, and immediately began off-loading.

After a short lay-over in Glasgow *Puncher* returned to New York in convoy. The same pattern was repeated, the cargo this time being 78 aircraft, and the carrier cleared harbour again on 6 October as a unit of CU-42. Her destination this time was Liverpool for disembarkation and by 22 October she was secured to a buoy at the Tail-of-the-Bank in the Clyde.

On completion of boiler cleaning *Puncher*, much to the relief of her ship's company, began to prepare for the role for which she had been built. There was intense interest on board when the catapult was tested with seven shots, using an *Avenger*, while *Barracuda* flew off and landed on 12 times. A busy period followed during which the carrier was modified to operate a torpedo-carrying squadron and stores were struck down. The great day, 26 November, 1944, arrived, and *Puncher* altered course into the wind in the Clyde to receive 12

*The landing, code name Operation *Dragoon* took place on 15 August, 1944.

†North Africa to United States Slow Convoy.

Barracuda aircraft of 821 Squadron. Out in the Irish Sea deck-landing practice was started the next day, the 27th, until a freshening wind in the afternoon cancelled further flights. *Puncher* was quietly entering Cumbrae Strait at 2020 when the alarming news was received from the engine-room that main engines had to be stopped owing to a gear failure.* The wind was now blowing a 40-knot fresh gale and, after a rather tense period, in which the carrier "sailed" gracefully towards the west shore of Great Cumbrae Island and preparations were made to bring the ship to anchor, the engines started to operate again at low power. Approaching the bay at Rothesay it was seen that all the billets were taken except the innermost one and *Puncher* had to anchor off Toward Point. On the morrow the ship flew off five aircraft to the air station at Machrihanish and entered harbour where two tugs were waiting to assist her to a buoy. This turned out to be a nerve-wracking manoeuvre as the picking-up rope to the buoy and the tow line of the foremost tug parted simultaneously. There followed an anxious 40 minutes during which *Puncher* was clawing around the harbour more or less out of control impeded by the second tug, which did not seem to understand any orders given to it. Finally the bridles were shackled on and the ship swung to her buoy for the next month whilst repairs were effected.

At one stage of the refit a floating crane was required and as none was available the carrier was moved to Gareloch for four days, returning to her buoy on 22 December. Spares for *Puncher's* engines were obtained from *Nabob*, lying derelict at Rosyth, and the ship was pronounced ready for sea trials on 28 December after a lot of very hard work had been done by the engine-room department. 821 Squadron was re-embarked and flying exercises resumed early in the New Year.

For most of January 1945 when weather permitted, exercising continued both day and night. The programme was briefly interrupted on the 15th when a signal was received that a sister carrier, HMS *Thane*, had been torpedoed or mined off the Clyde Light Vessel. Two aircraft from *Puncher* armed with depth-charges were the first on the scene and flew a defensive patrol over the stricken carrier for two hours. *Thane*, ten of whose men had been killed, was subsequently towed to Greenock by the frigate HMS *Loring*.

Puncher put to sea on 29 January for the last exercises of the series but heavy snow and fog forced her to return to Rothesay. Next day she was at the Tail of the Bank to receive a visit from the Honourable Angus L. Macdonald, Minister of National Defence for Naval Services, and Vice-Admiral G. C. Jones, CB, RCN, Chief of the Naval Staff. Being now ready for full opera-

*Damage to low pressure primary piston and first reduction wheel.

tional duty *Puncher* was ordered to join the Home Fleet. The first day of February 1945 found her shaping course up the Minches for the north of Scotland with two escorts, HMS *Towey* and HMCS *Iroquois*. A submarine was sighted carrying out a crash dive on the port beam by one of the carrier's air patrols but contact was not regained with the enemy. *Puncher* anchored in Scapa Flow and from 5 to 9 February was employed in training preparation for her first operation. On the 9th she proceeded into the Flow to receive 14 *Wildcats* of 881 Squadron¹⁸ and four *Barracudas* of 821 Squadron, which had flown from the Royal Naval Air Station at Hatston.

Force 1* for Operation *Selenium I* left Scapa on the night of 10 February to patrol within gun range of the enemy shipping route between Bud and Kvitholm, off the Norwegian coast, approaching from the north-west after dark on the next day.¹⁹ Force 2 made up of the cruiser, HMS *Devonshire*, Senior Officer, two escort carriers HMS *Premier* and *Puncher*, and four destroyers headed across the North Sea for Norway on 11 February; *Wildcats* from *Premier* and *Puncher* afforded the fighter cover for Force 1 in perfect weather during the early hours of daylight on the 12th. No enemy shipping was sighted and on completion of Operation *Selenium I*, Force 2 went on for *Selenium II*. This consisted of a minelaying sortie in Skatestrommen, abreast Skaten Lighthouse, by aircraft from *Premier* while *Puncher* provided fighter planes as top cover. *Premier's* participating aircraft consisted of seven minelaying *Avengers* and four close escort *Wildcats* of 856 Squadron. Five mines were correctly laid, one was dropped set to "safe" and the seventh had to be jettisoned by an *Avenger* returning unserviceable to the carrier. All planes of the strike got back safely but complete success for *Puncher* was marred by an accident as one of her fighters was coming into land with the sun shining in the pilot's eyes. Failing to obey the D.L.C.O.'s signal to "go up" the plane hit the "round down", or sloping after end of the flight deck, and broke off its tail wheel and hook. It bounced along the rolling and pitching deck before entering the barrier; in the process the machine-guns accidentally discharged and wounded five men on the flight deck. Both forces withdrew to the westward and steamed into Scapa Flow on the 13th.

Puncher's aircraft were catapulted or flown off while the carrier was at anchor but on 17 February she steamed out into the Flow to fly on *Barracudas* and *Wildcats* for another strike. This next operation in Norwegian waters was also divided into two parts, the first, code name *Shred*, being a minesweeping run through a suspected German mined area off Stavanger by six minesweepers of the 10th Minesweeping Flotilla. The ships sailed in

*HM Cruisers *Norfolk* and *Dido* and three destroyers.

the early hours of 21 February and were followed by a support force consisting of *Dido*, *Puncher*, *Premier* and three destroyers. Heavy seas were running off the enemy coast and it was a tricky feat of seamanship for the 10th Flotilla to stream their sweeping gear. The operation was successfully carried out although no mines bobbed to the surface. In the forenoon of the next day *Puncher* turned into the wind and nine *Barracudas** with an escort of eight *Wildcats* took off for the aerial mining strike, Operation *Groundsheet*. Eight more *Wildcats* from *Premier* flew as top cover and course was shaped for the mainland. Unfortunately landfall was made over Stavanger instead of Utsire and the fighter planes lost contact. Intense and accurate flak was encountered and two of the minelayers were shot down. The other seven laid their mines in Karmoy Channel whilst the fighters destroyed a *Dornier 24* flying boat at its moorings and shot up two silo-type buildings on the water-front at Stavanger. The force returned to its base on completion of the mission.

Puncher was riding at anchor in Scapa on 24 February when, in a light wind, she unexpectedly started to drag on to a baffle† near her; it was found later that the cable had parted at the anchor swivel (starboard). The port anchor was let go but owing to the proximity of the baffle she was unable to work engines. By midnight winds of gale force had blown the ship right across the obstruction but when the weather moderated on the 26th it was found that the propeller and rudder were undamaged. Continuous gales swept the Orkneys with out relief up to 10 March making boat communication with the shore difficult and a constant anchor watch a necessity. Operationally this was a quiet period as the Home Fleet was suffering from a shortage of destroyers to act as escorts for the larger ships.

Four escort carriers, *Puncher*, HM Ships *Searcher*, *Nairana* and *Queen*, two cruisers, HM Ships *Bellona*, and *Dido*, and an escort of seven destroyers sailed for a raid, Operation *Prefix*, in Norwegian waters on 24 March. Weather was still not very co-operative but in the morning of the 26th a strike from *Searcher* and *Queen* was flown off to attack shipping in Trondheim Leads and towards Kristiansand North. Nearer the coastline, which was approached at 300 feet, conditions were better and two ships proceeding up Tustna/Stablen Fjord were attacked. Whilst this was going on eight or ten *Messerschmitt* fighters were sighted and engaged by two flights of *Wildcats*, who shot down three and damaged two more. The *Avengers* were not so lucky. Finding no suitable targets they had to jettison their bombs and return to the fleet. Operation *Muscular*, a night strike by *Nairana*'s planes had to be cancelled because of the

weather, and no flying was possible on the next day for the same reason.

The last part, *Strike C*, of Operation *Prefix* was a raid on enemy shipping at Aalesund by fighters. Two vessels alongside a jetty were attacked and a wireless station at Vikeroy Island was "shot up". Less one *Barracuda*, which did not return from an A/S patrol, the carriers and their escorts returned to Scapa Flow.

A powerful force,* including *Puncher*, was next at sea on an abortive mission to attack the U-boat depot at Kilbotn, Norway. The ships crossed the Arctic Circle in squalls and mountainous seas on 7 April and the destroyers on the screen were hard pressed to keep up with the big warships, which were having their own problems in adjusting station on the next ahead. For five days the force steamed back and forth, the operation being first postponed and finally cancelled.²⁰

Back in the Orkneys *Puncher* flew off all her aircraft as her career with the Home Fleet was now drawing to a close. By way of farewell Admiral McGrigor, under whose orders she had operated, inspected the carrier and her company before taking the salute at a march past. A few days later *Puncher* was escorted by HM Destroyers *Savage* and *Scourge* to the Clyde for boiler cleaning; subsequently she entered dry dock near Glasgow and was there on 8 May, the official ending date of the war in Europe. Victory celebrations caused some delay and the ship was not undocked until 11 May to proceed down river for trials. On 15 May, 1945, *Puncher* was transferred to the administration of Flag Officer Carrier Training (FOCT) and a complimentary signal marking the occasion was received from Admiral McGrigor.²¹

The war was now over for the carrier as it had been decided that she would not be sent to the Far East, and from the middle of May to the second week in June she was employed, under the orders of FOCT, in giving landing exercises to 1790 and 1791 Squadrons. At the initial landing-on of 1790 the hook of the second *Firefly* broke on coming in contact with a deck arrester wire causing the plane to crash into the barriers, break through them and hurtle over the bows into the sea. A Fairmile launch, which was lying off the carrier's quarter as "crash boat", immediately sped to the scene and picked up the two-man crew but, unfortunately, the observer was found to be drowned. Apart from this mishap the training period was rewarding and the squadrons reached a high standard of efficiency.

Back at the Tail-of-the-Bank workmen welded a large number of double-decker bunks to the hangar deck and converted workshops into bathrooms in preparation for *Puncher*'s duties as a troopship. Naval personnel numbering 491, including 50 members of the Women's

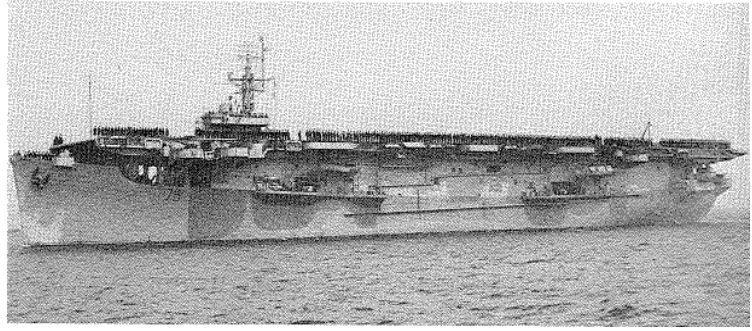
**Barracuda Mark III* with Rocket Assisted Take-off gear.

†Anti-submarine device, part of the defences of the base.

**Searcher*, *Queen*, *Trumpeter*, *Bellona*, HM Cruiser *Birmingham* and eight destroyers. Operation *Newmarket*.

Royal Canadian Naval Service, joined in the Clyde and the ship made a quick passage to Halifax, where she arrived in dense fog on 2 July, the first time in Canadian waters for over a year. During the 11 days alongside, the ship's company was reduced to a ferrying complement. An engine defect was discovered and the Admiralty authorities decided to have the carrier taken in hand at Portsmouth Dockyard, Virginia. Accordingly *Puncher* moved down to the U.S. base on 14 July and, after completing the repairs and embarking a load of aircraft, she was sailed to New York. Another trooping voyage started on 3 August and a week later, off the west coast of Ireland, *Puncher* picked up a message directing a frigate to proceed to the rescue of a Halifax bomber, which had ditched 130 miles to the north of the ship. Informing the Commander-in-Chief, Western Approaches, and the Admiralty of her actions, *Puncher* immediately increased to full speed to close the position. Reaching the area at 1800, it was found that the 5,300-ton SS *Jamaica Producer* had saved the six-man crew an hour previously, after the plane had sunk. As directed by the naval authorities, the survivors were transferred to the carrier and course was resumed for the Clyde.

In August 1945 *Puncher* was officially loaned to the Canadian Government as a troopship and from then until Christmas she made trips back and forth across the Atlantic, Halifax and the Clyde being her terminal ports.²² Stores and a draft for the new Canadian light fleet carrier, HMCS *Warrior*, building at Belfast, were brought over in October and on her last two westerly voyages *Puncher* encountered a good deal of bad weather. She had to heave-to on 14 November in a 55-knot wind, which increased to a whole gale from the west two days later. Plunging into the high seas *Puncher* suffered some



HMS *Puncher* entering harbour.

damage to the forward end of the flight deck and the structure beneath it from a few, exceptionally high, breaking waves. On the final return trip she passed through the centre of a depression, the "glass" registering 839 millibars, and was delayed 48 hours on her estimated time of arrival at Halifax.

The carrier steamed south to Norfolk early in the New Year and on 16 January, 1946, the White Ensign was lowered for the last time, the ship being transferred back to the United States Navy. Thus ended the fine career of HMS *Puncher* in the course of which she had seen action in enemy waters, steamed thousands of miles and brought back many Canadians from overseas.²³ A considerable amount of experience had now been accumulated by personnel in the operation of "Woolworth" escort carriers. The knowledge was to be of great value when the RCN launched out into its ambitious programme of fully manning more expensive models.

REFERENCES

¹ By despatch dated 10 April, 1943, and sent via the United Kingdom High Commissioner, the Admiralty stated that it would be pleased to train Canadian naval personnel in air matters and would use them to ease the RNFAA's manning problems until required by the RCN.

² DOD, D of P to VCNS, "Policy re Canadian Naval Air Service." NS 1700-913 (1).

³ Captain Lay's instructions were contained in a memorandum from the Honourable Angus L. Macdonald, KC, MP, Minister of National Defence for Naval Services, dated 29 April, 1943.

⁴ Thirty pilots and 25 observers; SCNO (London) to The Secretary of the Admiralty, 17 August, 1943. NS 53-17-1 (1).

⁵ By August 1943, numbers involved were:

Trained pilots	23
Observers	3
Pilots under training	3

DOD & D of P to VCNS, "Policy re Canadian Naval Air Service," 6 April, 1943. NS 1700-913, (1).

⁶ NS 1700-913 (1).

⁷ G. N. Tucker, *The Naval Service of Canada*, II, 92. War Committee of the Cabinet Minutes, 8 September, 1943, NS 8020-1 (2).

⁸ Terms of reference and recommendations, RCN MS 1084-1-3 in NS 1700-913 (1).

⁹ G. N. Tucker, *The Naval Service of Canada*, II, 92.

¹⁰ Report of Captain W. B. Creery, RCN, 12 December, 1943. NS MS 1017-10-22 (1).

¹¹ Information on HMS *Nabob* taken from "Reports of Proceedings," NS 1926-500-329 (1).

¹² Authorization was ultimately given for an arrangement by which RN air personnel would have their pay increased to bring them into line with equivalent RCN rates. PC 98/185 of 10 January, 1945. NS 2420-381-1, (1) and (2).

¹³ This convoy of 33 merchant ships sailed from Loch Ewe on 15 August and arrived safely at its destination without loss. Three U-boats were destroyed by the escorting warships and aircraft.

¹⁴ According to German reports there were no hits on *Tirpitz* in either of these two attacks (Phases I and II of Operation *Goodwood*). Phase III was on 24 August, and the Germans confirmed two hits on the battleship. Owing to alternate fog and gales it was not possible to carry out Phase IV until 29 August. Again, according to the Germans, there were no hits on *Tirpitz*.

¹⁵ *Nabob* was fortunate in having a Chief Shipwright (J. R. Ball, ON V-25218), who had previously been employed shoring up torpedoed ships in St. John's and was very experienced at this work.

¹⁶ Eleven RCN and ten RN ratings were killed or missing as a result of the explosion. The hole in the ship's side was found to be 50 feet by 40 feet.

¹⁷ Information on HMS *Puncher* taken from "Reports of Proceedings." NS 1926-500/413 (I).

¹⁸ 881 Squadron became an RCN unit in May 1951. As VS 881 it was combined with VS 880 to form a new VS 880 in July 1959.

¹⁹ Location of Bud, 62° 54' N, 06° 55' E; Kvitholm 63° 01' N, 07° 15' E.

²⁰ Kilbotn did not escape the attentions of the FAA. It was successfully raided by aircraft during the last Home Fleet operation of the war, code name *Judgement*, conducted between 1 and 5 May, 1945; the U-boat depot ship *Black Watch*, 5,035 tons, and *U-711* were sunk. Great Britain, Naval Staff, Historical Section, *The War at Sea*, January to September 1945, VI, 222-223.

²¹ "To *Vindex Trumpeter Searcher Nairana Puncher* from CS 1 on your departure from the home fleet I wish to express to you all my admiration of the fine work you have done. I have always known that whatever the circumstances I had only to call upon you and you would do the job and do it well. Good luck to you all. 141110B."

²² Admiralty message 191840Z of August 1945, and NSHQ message 221407Z of August 1945.

²³ West-bound passengers numbered 3,665 whilst 1,595 transients made the return trip to the United Kingdom. Included in the latter was Rear-Admiral Murray, who had recently relinquished the appointment of Commander-in-Chief Canadian North-West Atlantic and was shortly to retire from the Royal Canadian Navy.

FORMATION OF AIR SQUADRONS

Within two weeks of paying off *Puncher* the Royal Canadian Navy commissioned a new light fleet carrier, HMCS *Warrior*, in fulfilment of an idea originally suggested over two years previously. It will be remembered that the joint RCN-RCAF committee appointed after the Quebec Conference, 1943, had recommended in October of that year “that carriers be acquired and operated by the Navy.” The Naval Staff, after considering the question in relation to the RCN’s planned contribution to the war in the Pacific, then proposed “in principle” the acquisition of two light fleet carriers.¹ This was the first mention of the specific class of ship. The second occasion was at the Cabinet War Committee meeting of 12 January, 1944, when the Minister for the navy reported that none would be available to the RCN before January 1945 and consequently approval was given for the taking over of *Nabob* and *Puncher*.

Now that a policy of manning carriers had been embarked upon it was necessary to establish an appropriate authority at Headquarters and, on the recommendation of the Naval Staff,² the Naval Board approved on 31 March, 1944, the formation of an air section under a Director of Naval Air Division.³

The Admiralty was kept unofficially in the picture about the tenor of RCN planning during the ensuing months of 1944, and the first official indication to London that the Canadians were desirous of acquiring light fleet carriers came in the form of an aide memoire to CNMO,* dated 17 July. This stated that NSHQ envisaged the employment of “two escort aircraft carriers, subsequently to be exchanged for two light fleet carriers,” in the Pacific war, and that the Admiralty was to be so informed. The British naval authority made the next move by passing, through CNMO, two official messages dated 28 and 31 August indicating that the allocation of

two light fleet carriers was under consideration and that *Ocean* and *Warrior* had tentatively been ear-marked. *Nabob* was torpedoed in the third week of August and it became obvious that she would not become operational again. This event gave impetus to negotiations and in early September, NSHQ informed CNMO that it was desired to man *Vengeance* in place of *Nabob* and *Ocean* or *Warrior* in place of *Puncher*. CNMO in turn reported that the completion of *Vengeance* had been advanced to December 1944, making it impossible for the RCN to man her, and that an offer of *Ocean* and *Warrior*, completing in April and May 1945, would probably be made.

All now appeared to be plain sailing but unfortunately the negotiations ran into awkward shoals in October. Firstly, in view of developments in the Far East the Cabinet War Committee was able to revise its proposed naval contribution for that area to 13,000 men and a fleet that would include two light fleet carriers.⁴ This complicated matters for the Admiralty, who had been counting on the RCN to man about 30% of the escort requirements and also some repair ships, both to assist the RN man-power shortage. Secondly, the Canadian Government decided that Canada should not become involved in the Indian Ocean operations and that her participation would be limited to the Pacific theatre.⁵ The Admiralty wished to maintain flexibility in the use of carriers and therefore did not receive this idea with any enthusiasm.

Discussions continued and in November the Board of Admiralty approved the transfer and submitted the proposal to the British Cabinet. CNMO reported that Admiralty War Plans Division had definitely decided on *Ocean* and *Warrior*, whose completion dates were now July and September 1945, respectively. The RCN also had its manning problems and NSHQ had to reply that no carriers could be taken over before September thereby eliminating *Ocean*. As the year closed CNMO signalled that *Warrior* and *Magnificent*, completing in September and November 1945, were now being proposed.

The formal offer of the transfer came from the United Kingdom on 14 January, 1945, with the suggestion that

*Canadian Naval Mission Overseas in UK. On 15 May, 1944, the title Senior Canadian Naval Officer, London, had been abolished and CNMO established with Senior Canadian Flag Officer (Overseas) as its head. Vice-Admiral Nelles was SCFO (O) at this time.

the ships commission as HMC ships, there being no lend-lease complications. Other salient points were: the RN undertook to provide squadrons but requested the Canadian Government to accept responsibility for payment of all RN personnel in squadrons; the RCN was asked to retain the names of the carriers; ships would remain under RN operational control. In view of the Canadian Government's known policy it was stated that carriers would be employed in the Pacific but that "circumstances may require their service in the Indian Ocean". No mention was made of the possibility of permanent acquisition.

The question of where these ships were to be employed was naturally controversial and led to both sides making proposals and counter-proposals. At length the Cabinet War Committee agreed, on 14 February, 1945, to the transfer of the carriers "on the understanding that Canada would have the right to buy them at a later date if desired and on condition that their employment be restricted to the Pacific in accordance with previously decided Government policy." From the Admiralty's point of view this was rather disappointing and throughout March no progress was achieved except that, on the Canadian side, the decision was made to commence infiltration of personnel into RN light fleet carriers to gain experience. Things started to move again in April on the unofficial level with a request for confirmation that *Warrior* and *Magnificent* could be accepted.⁶ In reply London was advised in the affirmative with the proviso that negotiations should be completed at an early date. CNMO was pushing hard to this end but found it impossible to get a quick decision as Mr. Churchill had directed that the whole question should be considered with the transfer of ships to Australia, the latter deal being held up by financial complications. To expedite matters CNMO suggested a personal signal at a ministerial or higher level but was told by NSHQ that the Government's decision regarding volunteers for the Pacific War* precluded any official reopening of the carrier question by the Cabinet.

Finally the British Cabinet accepted the Canadian proposal (CNMO Signal of 23 April). The Canadian Minister for the navy reported the fact to the War Committee and CNMO then received orders to make official arrangements for the transfer of two light fleet carriers and a flotilla of fleet destroyers under the agreed terms.⁷ Negotiations had been somewhat complicated and protracted but, as the war in the Atlantic drew to a close, the RCN could look forward to a promising future with the prospect of commissioning and manning two modern

aircraft carriers.

Future Canadian air squadrons for the new ships began to take shape in the summer of 1945 from a foundation laid at a Naval Board meeting in June 1944. Approval had been given at that time for the instruction of a nucleus of personnel for squadrons, and NSHQ informed CNMO in London that "as an initial target" the RCN wished to have trained the complement of two fighter and two torpedo-bomber-reconnaissance squadrons and ship's air staff for two CVE's. In September 1944, the Board had under discussion a memorandum on the subject of an "RCN Carrier Task Force," for which the establishment of an air component in the navy was recommended. Commander J. S. Stead, RCN, who was then DNAD, had left for a visit to the United Kingdom and a decision on the paper was postponed until his return in October, but the Board expressed the opinion that any light fleet carriers acquired should be manned in a similar manner to the CVE's, i.e. remain HM ships. By October, negotiations for the carriers having reached a delicate stage, no definite ruling could be given on an air component and the subject had to remain "under review." Early in 1945 the Naval Board, in recommending the taking-over of light fleet carriers, suggested a new amendment to the terms, namely: that RN air squadrons into which Canadians had been infiltrated should, operational requirements permitting, be allocated to the two ships. The Canadian Government indicated its qualified acceptance of the carriers in February and at the same time CNMO was told to discuss the matter of squadrons with the British.

As soon as the policy in respect to *Warrior* and *Magnificent* had finally been settled in April and with the Canadian suggestion for the air component as a guide, the Admiralty started to form RN air squadrons for the ships with a mixed complement of RCN and RN personnel. Pilots and observers with Canadian commissions were drawn from those serving with the RNFAA, details of whose recruitment has already been given.* In addition there was another welcome source of supply, amongst ex-RCAF flyers⁸ who had transferred to the RNVR (A) in response to an Admiralty call for volunteers for service with the FAA in the Far East. Some of these airmen, who had been trained on *Seafires* and *Corsairs*, were particularly suitable for the "Canadianized" fighter units. Potential telegraphist air gunners for the new squadrons' *Barracudas* were on course but were not drafted as it was found that the RN had a surplus of these ratings and, in any case, the planes were being converted to two-seaters for possible service in the Pacific.

Personnel were beginning to qualify at RN establishments as the end result of a training plan which had been

*Mr. Mackenzie King had recently instructed that none but volunteer personnel would be sent to the Pacific theatre; this was interpreted to mean that all personnel would have to be canvassed regarding their willingness to serve there.

*See p. 22.

worked out between RCN and Admiralty representatives on 31 July, 1944, to provide maintenance ratings for carriers and squadrons.⁹ Following this meeting the first draft of air mechanic trainees recruited from amongst the seaman and stoker branches of the Canadian Navy had arrived in the United Kingdom; by January 1945, the total had reached 482.¹⁰ Concurrent with the training of lower grades, senior ratings had been sent over for specialization in their particular trade. These included engine-room artificers, electrical artificers, ordnance artificers, all of whom took long courses to convert to their equivalent air category. Men with a civilian background in aircraft were put under instruction to qualify as petty officer mechanics, specialized in either engines or air frames. To take charge of air maintenance parties, engineer officers had been appointed for six months to the Royal Naval Engineering College, Keyham, and others were being given a course in aeronautical engineering at the University of Toronto. The complicated radio maintenance required by a squadron of aircraft had been taken care of by the despatch of ratings of matriculation standard for training as air radio mechanics at HMS *Ariel*; as the eight-month course progressed they were split up for further specialization in various types of air radar. Finally, safety equipment trainees had been sent to the Royal Naval Air Station, Eastleigh, for instruction in the maintenance mysteries of parachutes, *Mae Wests*,* and dinghies. By May 1945 the month before the first joint squadron was activated, CNMO reported to Ottawa that air personnel of the RCN were spread throughout the British Isles at 12 different training schools.

One of the red-letter days in the history of the RCN air arm occurred on 15 June, 1945, when 803 Squadron, equipped with *Seafire* fighters, reformed at the Royal Naval Air Station, Arbroath, Scotland, for eventual service in a Canadian carrier. One of the original RNFAA squadrons, it had already a fine tradition built up during the war. An early success was during the Norwegian campaign when *Skua* aircraft of 800 and 803 Squadrons, flying to the limit of their endurance from the Orkney Islands, sank the German cruiser *Königsberg* in Bergen harbour on 10 April, 1940. The squadron next joined *Ark Royal* for operations at Dakar and Oran against the Vichy French. Having exchanged its aircraft for *Fulmars* the unit transferred to HMS *Formidable* and participated in the decisive battle against Italian warships off Cape Matapan in March 1941. Flying in the Battle of Crete and the Syrian campaign was followed by a tour of duty in the Western Desert in direct army support. In March 1942 803 Squadron made an epic flight from Egypt to Ceylon and in the defence of Colombo against Japanese raids on 5 April lost four aircraft and three pilots; four days later it made an unsuccessful attempt to prevent

*Inflatable life jackets.

Hermes from being sunk off the coast by aerial attack. Following service in East Africa the squadron was disbanded in 1944, one of its former members having been Lieutenant Robert Hampton Gray, VC, DSC, RCNVR.

Two weeks after 803 Squadron had started to workup, the first joint torpedo-bomber-reconnaissance squadron, number 825, was formed on 1 July at RNAS, Rattray, Scotland, with a complement of *Barracudas*. Here again there was a long squadron history beginning with the combination of two RAF Flights aboard *Eagle* in 1934. Early in the Second World War the unit provided air patrols during the evacuation of the British Army from Dunkirk. It next operated from HMS *Victorious* and took part in the chase of the German battleship, *Bismarck*, scoring the first torpedo hit on the ship. Shortly afterwards 825 was transferred to *Ark Royal* and lost all its planes but none of its personnel when that carrier was sunk off Gibraltar. Only six *Swordfish* were available when the squadron re-equipped in Southern England and these flew to the attack when word was received that the German heavy ships, *Scharnhorst*, *Gneisenau* and *Prinz Eugen* were escaping up the Channel from Brest in February 1942. All the planes were destroyed and only five of the 18 crew members survived, the Victoria Cross being awarded posthumously to the Commanding Officer, Lieutenant-Commander (A) E. Esmonde, DSO, RN. In December 1943 the squadron joined HMS *Vindex* to begin a long association during which time it flew many sorties against the enemy in Atlantic and Arctic waters; a highlight of this period was the passage of Convoys JW 59 and RA 59A to and from North Russia in August 1944. After two more operations in support of convoys, 825 Squadron was disbanded.

Another TBR unit, number 826, also equipped with *Barracudas*, was the next to be activated, on 15 August, 1945, at RNAS East Haven, Scotland. This squadron had originally commissioned in March 1940 to fly *Albacore* aircraft, which were making their debut in the fleet. After operating with Coastal Command, RAF, it became part of the air complement of *Formidable* and saw action in the Battle of Matapan. Later as the first *Albacore* squadron to do so, 826 joined in the fighting in the Western Desert. After exchanging its aircraft for *Barracudas* the unit afterwards served in *Indefatigable* and *Formidable* before being taken off strength.

The second *Seafire* squadron, number 883, destined for RCN service, reformed on 18 September. Its career had started in October 1941 at RNAS Yeovilton, where it had been equipped with *Sea Hurricanes*. In June 1940 the squadron joined *Avenger*, from whose deck in 1942 it flew patrols over North Russian convoys and provided fighter protection during the North African landings. Whilst on passage to the United Kingdom *Avenger* was torpedoed and blew up on 15 November, 1942, only 12 of her total complement being rescued from the water.

883 Squadron was disbanded and remained dormant until 1945.

As the commissioning date of the first light fleet carrier approached in January 1946 a high percentage of the officers and men in 803 and 825 Squadrons were Canadian in spite of problems arising from the release of a large number of reservists. The RCN had produced all air crew for 803 (chosen from 300 volunteers), all the pilots of 825 and 60% of maintenance ratings of both squadrons; observers were in short supply and none would be available to relieve their British counterparts in 825 until a batch graduated from course in the summer. The TBR unit had exchanged its *Barracudas* for *Fireflies Mark I* and the two squadrons were completing their "work-up" exercises to be ready for sea with *Warrior*. The position of 826 and 883 was not so far advanced as they were re-equipping with *Firefly Mark I* and *Sea fire XVII* respectively and had some months of shore training ahead of them. Eventually, owing to manpower troubles, these two squadrons did not complete their programme but were disbanded in February 1946, although, on paper, they remained RCN units.

In a letter to Ottawa dated 13 December, 1945, the Admiralty forwarded their proposals for the revised

terms of loan for two light fleet carriers and two *Crescent* Class destroyers. In respect to the four air squadrons it was suggested that if and when they were taken over by the navy and became RCN squadrons, Canada should purchase the aircraft, equipment and stores.¹¹ Before these matters were considered on a high level the Government made a decision of supreme importance to the RCN. On 19 December, 1945, the Cabinet "approved in principle the formation of the Naval Air Component as recommended on the understanding that it would be confined within the authorized total man-power of the Navy."¹² Planning at this time was guided by the probability that peace-time strength would be 10,000, of which the air component would be 11%.¹³ This meant that the flying branch would have approximately 1,100 officers and ratings to man one carrier, two TBR squadrons, two fighter squadrons, and one air station.

Following establishment of the navy's air branch the question of its name had to be settled and in May 1946 the title "Royal Canadian Naval Air Arm" was agreed upon.¹⁴ Almost a year later the use of the terms "Fleet Air Arm" and "Naval Air Arm" was discontinued and the generic term "Naval Aviation" was adopted to describe the whole organization within the Service.¹⁵

REFERENCES

¹ Information on decisions and correspondence taken from “Summary of Negotiations in Ottawa for the Acquisition of Light Fleet Carriers”, NS 8020-500/RML (1).

² *Ibid.*, Staff Minute 231-1 of 27 March.

³ *Ibid.*, Staff Minute 235-12 of April 1944, approved terms of reference for DNAD. The new Director, Lieutenant-Commander (P) J. S. Stead, RCN, had held the appointment of Staff Officer (Air) since September 1943.

⁴ G. N. Tucker, *The Naval Service of Canada*, II, 466.

⁵ Extract from Minutes of Cabinet meeting held on 6 September, 1944. NS 1655-1 (I). Conclusion reached by the Cabinet was to the effect that Canadian military forces “should participate, as a matter of preference, in the war against Japan in operational theatres of direct interest to Canada as a North American nation, for example on the North or Central Pacific, rather than on more remote areas such as South-East Asia, and that government policy with respect to employment of Canadian forces should be based on this principle.”

⁶ CNMO’s 061827Z April 1945.

⁷ CNMO’s Signal 241022 May reported officially that *Warrior* and *Magnificent* had been selected.

⁸ Total number of pilots transferred from the RCAF to the RNVN (A) in 1945 was 550, of whom 260 were officer pilots. Message from Naval Member Canadian Joint Staff (London) to

Naval Secretary, 6 June, 1958.

⁹ The Admiralty agreed to train 229 ratings in air maintenance categories. The number was subsequently increased to 529. War Diary, Canadian Naval Mission Overseas, Mission Memorandum 117. NHS 1700-219 (2).

¹⁰ Extra personnel were obtained for the air branch in December, 1944, when a considerable number of ratings of the engine-room artificer branch, which had an excess over complement, were discharged. An equal number of air personnel were entered and the total complement of the Navy thus remained unchanged. G. N. Tucker, *The Naval Service of Canada*, II, 478.

¹¹ In a further amendment to these terms the Admiralty agreed that on 24 January, 1946, (date of *Warrior*’s commissioning) her two squadrons, 803 and 825, should be known as RCN squadrons; also, 826 and 883 should be known as RCN squadrons when all RN personnel had been replaced or from the date of the commissioning of *Magnificent*, whichever should be the earlier. NS 8020-500/RML, (1).

¹² Extract from Minutes of Cabinet meeting held on 19 December, 1945. NS 8020-500/RRSM (1).

¹³ NS 1818-9 (3) and (4).

¹⁴ Naval Board Minute 176/7 of 3 May, 1946.

¹⁵ Extract from Minutes of Defence Council meeting held on 7 March, 1947. NS 1700-913 (4).

HMCS WARRIOR 1946-1948

At Belfast in Northern Ireland on 24 May, 1944, a large crowd of visitors and workmen had gathered in the ship-building yard of Harland and Wolff, to see a new light fleet carrier take to the water. On the launching platform stood Mrs. Richard Bevan, wife of the Flag Officer Northern Ireland, and at the appointed time, as she broke a bottle over the bows and repeated the time-honoured phrase, "I name this ship *Warrior* and may God bless all who sail in her," the carrier began to move down the slipway. To the accompaniment of cheers and the hooting of ships' sirens she floated out on the stream and was then taken by tugs to the fitting-out jetty.

The name *Warrior* already had a long record of action in naval warfare dating back to the eighteenth century when the first ship to be so called took part in the Battle of the Saints in 1782. From HM ships that had borne this name the new aircraft carrier, the first to be entirely manned by Canadians, had inherited a fine and colourful tradition.

In the last months of 1945 the number of key officers and men standing by *Warrior* steadily increased. Forty ratings were serving, temporarily, in HM Escort Carriers *Battler* and *Ravager* to gain experience, and a further 250 were attached to HMCS *Niobe*, the majority taking various courses. The complement of the ship had arrived in Belfast by 24 January, 1946, and at 1530 on that date *Warrior* was commissioned into the Royal Canadian Navy under the command of Captain F. L. Houghton, CBE, RCN, the appropriate ceremonial being observed. Work-up routine began the day following with general familiarization by personnel of all departments.

There was a brief period of rare sunshine on 21 February when *Warrior*, with band playing and hands fallen in on the flight deck, slipped her lines and sailed for the first time. At the beginning of March the carrier was back at Belfast, having completed trials and embarked reserve aircraft, consisting of 13 *Seafire XV* and 9 *Fireflies Mark I*, at Glasgow. She bade farewell to her builders and two days later anchored at Spithead. Here flying

trials were successfully carried out and on 14 March, all concerned being entirely satisfied with the ship, Captain Houghton signed the acceptance papers thus ending Harland and Wolff's liability. The carrier was next at sea for a couple of days so that 803 and 825 Squadrons could get some deck-landing practice whilst still based ashore at a naval air station. Personnel from 826 and 883 Squadrons, which had paid off, and about thirty tons of stores were embarked when the ship was secured alongside South Railway Jetty, Portsmouth, and on 23 March *Warrior* steamed into the wind off the Isle of Wight to receive both squadrons.

The first part of the voyage to Canada was made in fair weather but later *Warrior* had to heave to in winds of gale force to protect the 28 aircraft that were parked on the flight deck. HMC Ships *Micmac* and *Middlesex* made rendezvous with *Warrior* on 31 March and squadron aircraft of 803 and 825 flew off in two ranges for the Naval Air Section at the RCAF station at Dartmouth, Nova Scotia. In fine, sunny conditions, large crowds at various vantage points along the whole length of the harbour greeted the carrier as she entered the port of Halifax. Many ships were dressed over all and the continual sounding of their sirens made it a truly festive occasion. As soon as *Warrior* had berthed alongside, the official welcoming party consisting of Mr. W. C. McDonald, KC, MP, representing the Minister of National Defence, Rear-Admiral H. T. W. Grant, CBE, RCN, representing the Chief of the Naval Staff, Rear-Admiral C. R. H. Taylor, CBE, RCN, Commanding Officer Atlantic Coast and the Honourable Angus L. Macdonald, PC, KC, Premier of Nova Scotia, came on board.* In his words of welcome, Mr. McDonald, the Minister's representative, expressed the pride of Canada in the new addition to her Fleet.

Throughout April and May *Warrior* lay alongside in Halifax Dockyard whilst outstanding minor defects were

*Mr. Macdonald had been the war-time Minister of National Defence for Naval Services.



803 and 825 Squadrons ranged prior to flying off to Naval Air Section, Dartmouth, N.S., 31 March, 1946.



HMCS *Warrior* enters Halifax, 31 March, 1946.

taken in hand. Her two squadrons continued training at Dartmouth and were now officially part of the RCN.† This followed a submission concerning the Admiralty letter of 13 December, 1945, which was presented to the Cabinet on 16 February, 1946, and approved on 27 March.¹ It contained these recommendations:

Retention on loan of two light fleet aircraft carriers and two Crescent Class destroyers on terms agreed with the Admiralty; and the purchase of four naval air squadrons (including reserve aircraft, stores and equipment) at a cost not to exceed \$10,000,000.

However, aircraft² and stores for 803 and 825 Squadrons were included under the terms of the agreement (which ran to 1 March, 1946,) on the settlement of war claims between the Governments of Canada and the United Kingdom and therefore no actual money was paid for them.

In the month of July 1946 *Warrior* was fully occupied in carrying out exercises, both ship and flying, in the vicinity of Halifax and the Gulf of St. Lawrence. *Micmac* joined the carrier to act as plane guard for all flying operations. Squadron 825 returned to the ship and 803 Squadron one week later, but owing to fog there was very little flying done until the surface vessels moved to the St. Lawrence area. On the return trip to Halifax the Admiralty signalled that a supercharger clutch defect had been found in *Seafires* and advised that they should be temporarily suspended from carrier operations; serviceable planes of 803 were thereupon flown off to Dartmouth.

When fog permitted, *Warrior* managed to go to sea for short periods in early August. During this time the first major accident occurred when a *Firefly* was ditched and lost. *Micmac's* sea-boat was on the scene quickly

†Back dated to 24 January, 1946, *Warrior's* commissioning day.

and rescued both pilot and observer. On 20 August in half a gale of wind the carrier slipped from her berth and put to sea. The following day a message from Dartmouth indicated that a Dakota aircraft on passage had sighted a broken-down motor boat, which was believed to have been drifting helplessly for two days, with one person on board. At full speed *Warrior* closed the position and found the lighthouse keeper of West Point Light, Anticosti, in good condition but with a disabled engine in his boat. A harbour craft came out from Fox Point and, as the carrier shaped course for Quebec, the lighthouse keeper was towed away, in style, by this vessel.

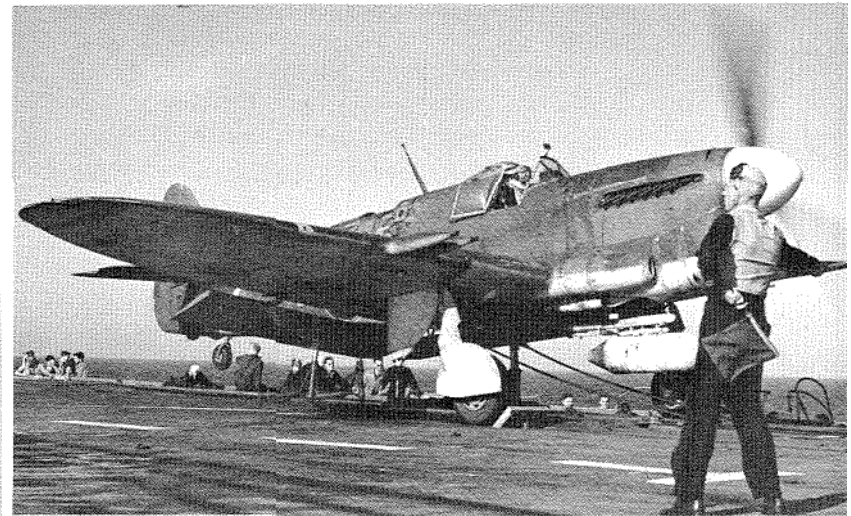
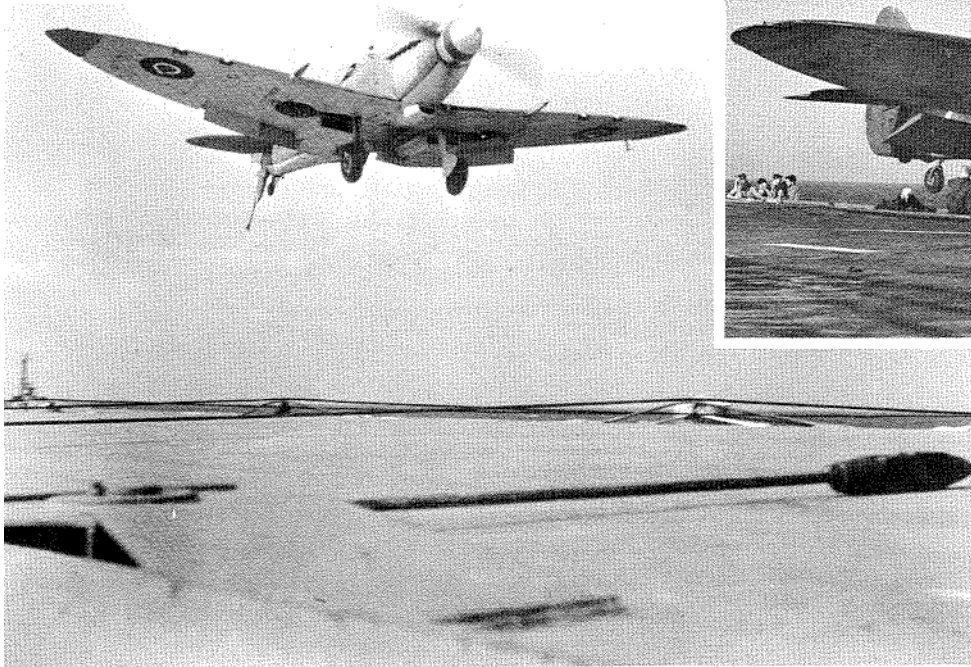
Two upper St. Lawrence pilots and one apprentice pilot were on the bridge when *Warrior* weighed at 0800 on 23 August for Montreal. At 1021 the rudder suddenly jammed to port and, although engine alterations were promptly rung down from the bridge to counteract this, the ship took the ground at Pointe St. Antoine on a mud bank with a falling tide. Tugs strained to get her off in the afternoon watch as the water began to flood and at 1545 *Warrior* floated clear. The steering motors and hull were thoroughly checked on return to Quebec and found in good order.³ Passage up the St. Lawrence was successfully negotiated the next day and the carrier berthed alongside Laurier Pier, Montreal, to become the largest warship ever to enter the port. After a five day visit *Warrior* returned down river and from 29 August to 2 September lay alongside at Quebec. When she sailed for Halifax hands manned the ship's side and a salute was given in honour of the Governor-General* who appeared on the battlements with Lady Alexander.

*Viscount Alexander of Tunis, DSO, MC, Legion of Honour.



Preparing to launch, HMCS *Warrior*.

Seafire over flight-deck, HMCS *Warrior*.



Catapult launching of *Firefly I*, HMCS *Warrior*.

Back at the home base, leave was given to the East Coast members of *Warrior's* company and in October trips were made to sea for the further training of 825 Squadron in flying techniques. Afterwards final preparations were made for the passage to Esquimalt, where it had been decided to send *Warrior* as she had not had the necessary alterations and additions made to adapt her for the Canadian winter in the eastern part of the country. Sailing on 4 November had to be cancelled in view of an adverse weather forecast and *Warrior* proceeded to an

anchorage in the harbour. HMCS *Nootka* took station on the carrier after she had weighed the next day and, as the ships headed seaward, they ran straight into a gale that lasted until 7 November and caused *Warrior* at times to roll to 30 degrees. Off Bermuda *Warrior* embarked some RN air maintenance ratings, who had been sent out from the United Kingdom on loan to the RCN, before continuing to Kingston, Jamaica, where she lay for three days. On the day of departure six *Fireflies* were catapulted off the flight deck whilst the carrier was weighing

and flew over the capital as a farewell gesture. Approaching the Panama Canal *Nootka* manned the side and cheered ship before heading back to Halifax, while *Warrior* continued to Colon. The transit proved rather a tricky business as there was only 8½ inches clearance on each side and one row of Carley Floats had to be unshipped. Six pilots were closed up in different positions, all in communication by a special telephone system, on which might be heard the man on the port bow making such remarks to his opposite number as “take her over about two inches” when endeavouring to fit the ship into a particularly narrow lock. The ship secured on Number 6 Jetty at Balboa in the evening twilight of 16 November.

Warrior now in company with the West Coast destroyer, HMCS *Crescent*, sailed four days later and, on 25 November, HMC Cruiser *Uganda* was met off Acapulco, Mexico. A National Salute to Mexico was fired by *Warrior* and all ships anchored in the outer harbour. This was only a preliminary visit to make arrangements for the forthcoming official one. The squadron proceeded to sea again on the same day for general exercises, including flying. On return a contingent of five officers and 95 men was flown to Mexico City. Captain Houghton also flew to the capital and assumed the duties of Honorary Naval Attaché. Miguel Alemán was installed as the new President of Mexico on Sunday, 1 December, and this event was celebrated as Inauguration Day throughout the country. After the ceremony in Mexico City there was a parade in which the Canadian blue jackets provided a striking contrast to the almost unbelievable variety of elaborate uniforms in which the other units were attired. At Acapulco the ships were dressed over all and entertainment was provided ashore in honour of the occasion.

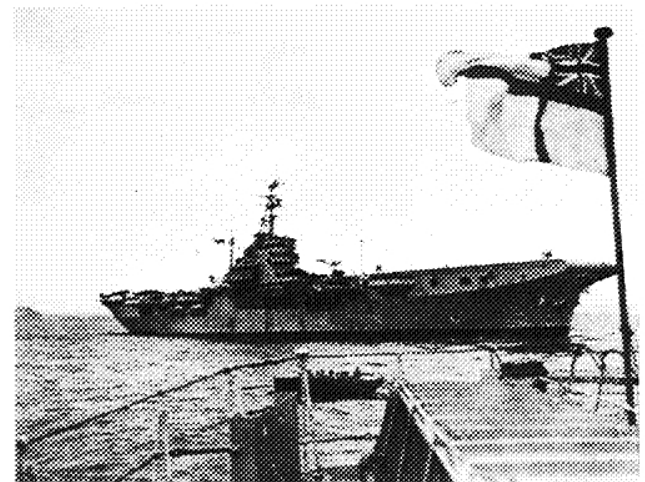
The squadron, somewhat exhausted after all these activities, left Mexico on 3 December, visited San Diego and then shaped course northward. The weather became steadily worse, culminating in a series of snow-storms in the Strait of Juan de Fuca thereby affording the Halifax members some satisfaction; at Swiftsure Light Vessel *Crescent*, who had sailed independently from San Diego, rejoined with HMC Frigate *Charlottetown*. Later, the weather having improved, 12 *Firefly* aircraft were flown off opposite Beacon Hill Park. The ships then formed line ahead to enter Esquimalt Harbour; the carrier, who was the last to enter, fired a salute to the Flag of the Commanding Officer Pacific Coast, Acting Rear-Admiral E. R. Mainguy, OBE, RCN.

Commodore H. G. DeWolf, CBE, DSO, DSC, RCN, assumed command* on 18 January, 1947, whilst *Warrior* was in dry dock for periodical overhaul and repairs

*Commodore DeWolf was also appointed as Senior Canadian Naval Officer Afloat (Short Title: SCNOA).



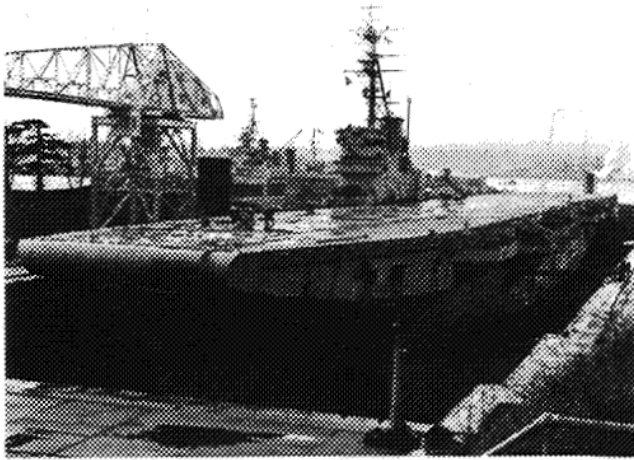
Firefly pecking the deck, HMCS *Warrior*.



HMCS *Warrior* from stern of HMC Frigate *Charlottetown*, off British Columbia coast, December 1946.

to her hull, which had been superficially damaged in the St. Lawrence grounding of 23 August. Aircraft continued their training from the RCAF station⁴ at Patricia Bay and on 31 January a *Firefly* was lost off Portland Island about four miles north-east of the flying field. Shortly after the plane had been seen in difficulties an explosion was heard in the direction she had gone, but snow-storms hampered the search and no trace was found of the crew of two. This sad event was a particularly hard blow as the pilot was Lieutenant-Commander O. W. Tattersall, DSC, RN, Commanding Officer of 825 Squadron, who had commissioned the unit and done much to help in its development along the right lines.

While *Warrior* was under refit at Esquimalt important decisions were being made in Ottawa as to her future. During the previous summer, when *Magnificent's* commissioning date had been set provisionally for July 1947 the ambitious plans made prior to the end of the war for the manning of two light fleet carriers had had to be revised owing to the manpower ceiling imposed on the



HMCS *Warrior* in dry dock, Esquimalt.

RCN. The navy could only contemplate manning one carrier at a time and the suggestion was therefore made to London that *Warrior* be returned in mid-1947 for laying-up in a British yard “pending modernization or possible replacement in 1948.”⁵ Also shorthanded and beset with difficulties over maintenance and berthing facilities, the Admiralty regretted that it could not undertake this commitment. As the year drew to a close Canadian naval authorities proposed that the ship should pay off in October 1947 and be placed in reserve at Esquimalt until such time as she could be manned for active service.⁶ *Warrior’s* fate was finally sealed early in 1947 when very substantial reductions were made in the armed forces estimates for the forthcoming fiscal year and the Minister of National Defence, the Honourable Brooke Claxton, was given permission by the Cabinet Defence Committee to discuss with United Kingdom authorities the question of returning her when *Magnificent* “was placed in operation with the RCN.”⁷ The main objection to *Warrior*, at this time, was that she had not been “articized” and was thus unsuitable for year-round duty in Canadian waters. With less money available for the Service her retention, even in reserve, could not be justified.

Having undocked *Warrior* continued the commission by steaming over to Vancouver, where she received a rousing welcome, for a week’s visit in early February 1947. The *Fireflies* returned to the ship later in the month and the carrier started on the long voyage to Halifax in company with *Uganda* and *Crescent*. This was a fruitful cruise in respect to exercising and the efficiency of all ships had been considerably raised by the time they reached Balboa on 9 March, after calling at San Pedro, California. *Warrior* bade farewell to the West Coast squadron and passed through the Panama Canal to Colon, where *Nootka* and *Micmac* were awaiting her.

The destroyers took up screening positions on the carrier and the three headed for the Greater Antilles and the island of Cuba. At 0800 on Saturday, 15 March *Warrior* fired a National Salute, which was replied to by *Forteza de la Tebana*, as she passed Morro Castle, Havana. Inside the harbour Commodore DeWolf’s Broad Pennant was saluted by the Cuban cruiser *Cuba* as the carrier returned the compliment gun for gun. After the echoes had died away *Warrior* moored ship in the middle of the port and the two destroyers berthed alongside Muelles Paulla Pier.

This peace-time visit of Canadian warships to Havana was the first since HMCS *Vancouver* had called at the Cuban capital in 1929. The Commodore, accompanied by the Commanding Officers of *Nootka* and *Micmac*, laid wreaths at the foot of two plaques which commemorated Pierre LeMoyne, Sieur d’Iberville,* and on 17 March did the same at a monument to Cuba’s national hero, José Martí. After a pleasant three-day stay the ships departed for Grassy Bay, Bermuda, where it was hoped to have a further training period. Strong winds and high seas made it necessary to cancel the programme and *Warrior* returned to Halifax on 27 March.

The two air squadrons, 803, which was now modified for carrier service, and 825 were formed into the 19th Carrier Air Group and until *Warrior* sailed again they were exercised in dummy deck landings from Dartmouth. The group was embarked in the carrier by lighter and, with *Nootka* in attendance, *Warrior* steamed south to Bermuda. On arrival off the island six aircraft of 825 Squadron were flown ashore to the U.S. Army Base at Kindley Field to provide radar tracking and height-finding targets for forthcoming fleet exercises. A salute to the Commander-in-Chief America and West Indies Station, Vice-Admiral Sir William Tennant, KCB, CBE, MVO, was fired by *Warrior* as she passed Spanish Point into Grassy Bay, where it was replied to by the cruiser HMS *Kenya*, lying at anchor with the other ships of the squadron.†

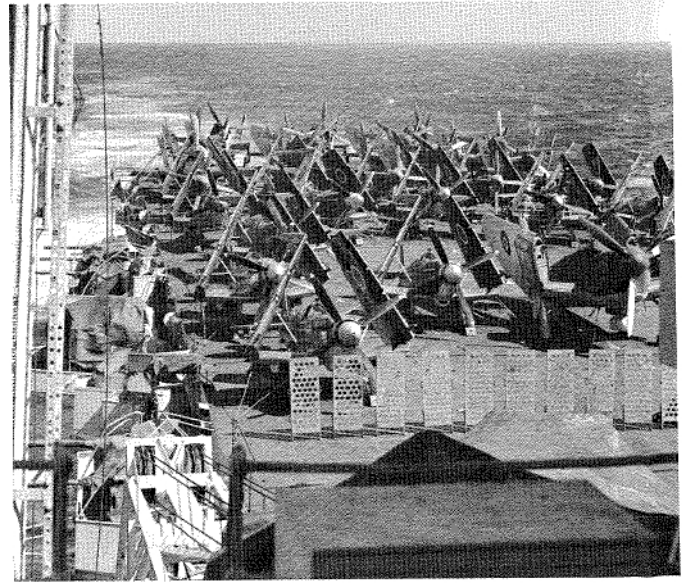
Operations with the British squadron were divided into three, weekly periods. The first was given over to harbour drills including exercises with the Canadian aircraft based at Kindley Field. The second period consisted of individual ship exercises at sea, with *Warrior* supplying aircraft requirements. For the period 5 to 8 May, the Commander-in-Chief went to sea in *Sheffield* and the programme included tactical manoeuvres, day and night, with all ships participating; for the first time since the formation of the air branch, planes made night

*Montreal-born explorer and officer of the Royal Navy of France, who died of yellow fever in Havana in 1706 aboard his ship *Le Juste*.

†In addition to *Kenya* the squadron consisted of HM Cruiser *Sheffield*, two sloops and a frigate.



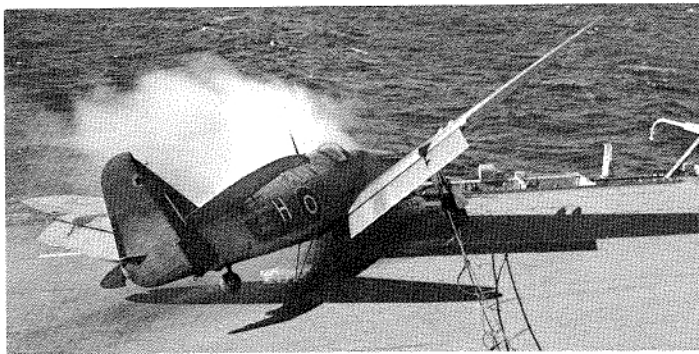
Range of *Fireflies*, HMCS *Warrior*.



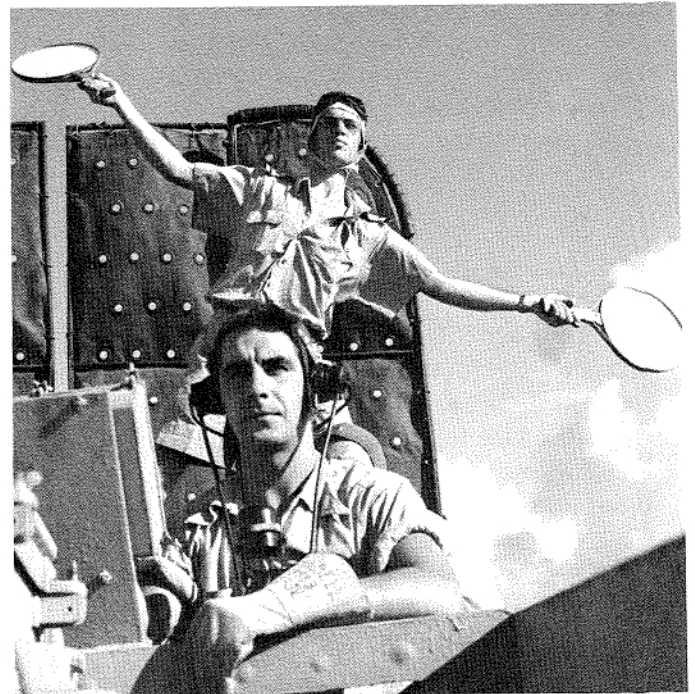
Full deck park on HMCS *Warrior*.



Firefly "wave-off", HMCS *Warrior*.



Barrier crash landing, HMCS *Warrior*.

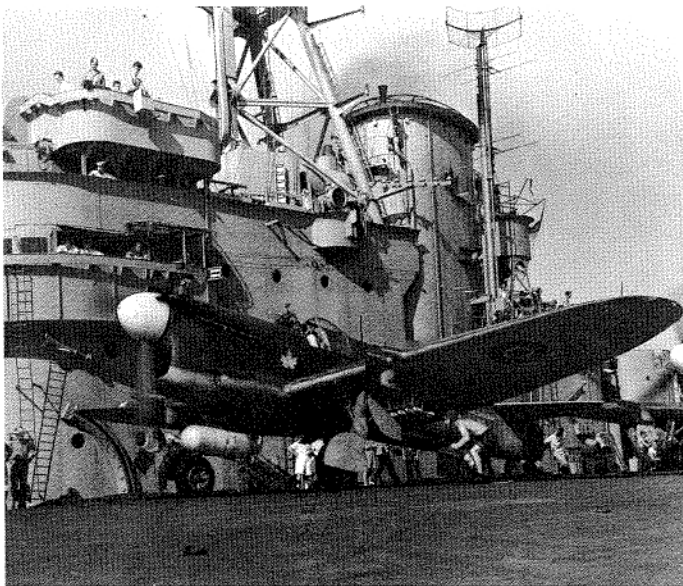


Deck Landing Control Officers, HMCS *Warrior*.

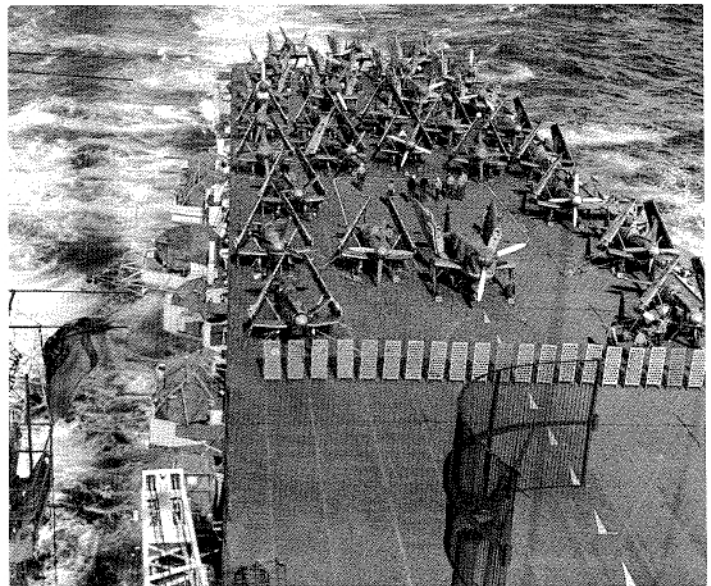
deck landings. Admiral Tennant embarked in the carrier and personally conducted one night's shadowing exercise from *Warrior's* operations room. Experience was gained in all these drills and on the lighter side plenty of sporting fixtures were arranged between ships' companies on shore. *Warrior* and *Nootka* returning to Halifax were joined by the destroyer, HMCS *Haida* and, on arrival off Chebucto Head, 11 *Fireflies* and one *Seafire* were flown off to the Dartmouth shore station.

Repairs to a main manoeuvring valve kept *Warrior*

alongside until the first week in June. After that she went on two short cruises along the east coast, returning to Halifax to give leave on the 24th. Preparations were made for a trooping trip to the United Kingdom and on 2 August merchant ships in harbour, the Dartmouth ferry, and even the gas works joined in giving *Warrior* a rousing send off. On board were 27 officers and 179 men of the 19th CAG going for course and re-equipment with *Firefly Mark IV's* and *Sea Fury* fighters. In addition to another large party of naval personnel going for service



Fireflies taxiing to the catapult, HMCS Warrior.



"Flying Secured", HMCS Warrior.

in the Royal Navy, reservists and civilian passengers, there were also embarked 25 sea cadets accompanied by their officers, and 32 boy scouts with three scout masters. The former were visiting Britain as guests of the Navy League, the latter en route to attend an International Jamboree in France. A smooth sea was enjoyed for the whole voyage and in pleasant sunshine the ship secured to a buoy off Greenock on 8 August. All passengers disembarked and the ship's company was given 60 hours leave in three watches before the carrier slipped and steamed down the Clyde for home. The sea cadets and boy scouts were back aboard and deck cargo now included two RN aircraft for cold weather trials at Namao, Alberta. *Warrior* arrived home on 28 August.

826 and 883 Squadrons had reformed at Dartmouth on 15 May, 1947, to become the 18th Carrier Air Group. Equipped with *Seafires* and *Fireflies*, formerly flown by the 19th CAG, they were ready for sea training by mid-November and a rendez-vous was made with *Warrior* off Halifax. Deck landing and pilot navigational exercises continued until the 21st, whenever weather permitted. On that day the ship completed her flying commitments for the Royal Canadian Navy, her aircraft returning to Eastern Passage. Until the end of the year hands were occupied in storing and provisioning and finally with the embarkation and stowing of some 3000 packing cases for *Magnificent*.^{*} All this work had been finished by 6 January, 1948, and the next day *Warrior* and *Haida* sailed for Bermuda, encountering north-westerly gales and a quartering sea on the way. The ships arrived off

^{*}*Magnificent's* completion date had finally been set for March, 1948, and the non-winterized *Warrior* was being sent to Bermuda to await the event.

the Narrows and *Warrior* secured to the Flagship buoy in Grassy Bay while *Haida* went alongside the Clock Tower Jetty. The carrier swung five weeks to her mooring, during which time progress was made in the work of cleaning in preparation for paying off. In leisure hours the football enthusiasts disported themselves on the Boaz Island playing field. On 6 February, the new *Tribal* Class destroyer, HMCS *Cayuga*, which was en route to the Pacific, called at the island and handed over a quantity of victualling stores from Halifax.

A naval and military draft was brought out to *Warrior* on 12 February and shortly afterwards she slipped from the buoy. A southerly route had been chosen and fine weather was experienced over most of the voyage. The high ground on Flores Island, Azores, was sighted four days out and on 20 February *Warrior* steamed into Belfast Lough to be welcomed by eight Sea Furies of 803 Squadron with a display of formation flying. As soon as the ship had secured, arrangements were made for the transfer of stores to *Magnificent*; the work was completed on the 27th, when an advance party of 76 men was drafted to the new carrier. On her last voyage as a Canadian warship *Warrior* passed through the Needles Passage on 1 March and came to anchor off Spithead, where aviation fuel was pumped out. An RN advance group joined and on St. Patrick's Day *Warrior* was moved into dry dock. The main draft for *Magnificent* consisting of five officers and 238 men left the ship and at 0800 on 23, March the Broad Pennant of Commodore DeWolf was struck. With the hoisting of the Colours of the Royal Navy, the carrier became HMS *Warrior* and was accepted by her new Commanding Officer, Commander R. Casement, OBE, RN.

The first Canadian carrier had had a short commis-

sion but the spirit of co-operation developed in her between the ship's company and the air personnel established the air branch on the right footing with the fleet. Feelings of superiority and jealousy on both sides, which are inevitable when the old order comes into contact with the new, were harnessed into a team spirit which is now an accepted fact. Captain Houghton had proposed the very suitable motto, "Haul Together", for the ship. This was a paraphrase of the famous exhortation of Sir Francis Drake: "I must have the gentleman to haul and draw with the mariner and the mariner with the gentleman." In the case of *Warrior* the motto referred to the seamen and the airmen.⁸

After reverting to the Royal Navy, *Warrior* served with the British Fleet and in 1956 was completely modernized, including the adoption of the angled flight deck

principle, the fitting of a steam catapult, improved radar and new communication systems. In 1957 she sailed as flagship of a Special Service Squadron and took a leading part in Britain's first full scale hydrogen bomb tests in the Pacific. On 4 November, 1958, the Republic of Argentina took possession of its first aircraft carrier, *Warrior*, and renamed her *Independencia*.

Whatever her fate the old *Warrior* will be remembered with pride and affection by the RCN, particularly those who served in the ship, on whose battle scroll were carved the honours:

The Saints 1782

Copenhagen 1801

Jutland 1916

REFERENCES

¹ "Extract from Minutes of Cabinet Meeting, 27 March, 1946." NS 8020-500/RRSM (1).

² *Ibid.* 18 fighter and 12 strike aircraft plus 18 reserve aircraft and five wastage aircraft together with an outfit of ship's air stores and air ammunition comprising four months' supply.

³ After exhaustive investigation, including a Board of Enquiry, it was decided that the most likely cause of failure was the temporary fouling of the pump control mechanism from some extraneous source such as portable equipment insecurely stowed within the steering compartment. "Collisions and Groundings—HMCS *Warrior*," NS 8180-312/1.

⁴ Shore facilities were available under the terms of "RCN-

RCAF Agreement Draft No. 7" of 9 March, 1946. NS 1550-12, (I).

⁵ "Excerpt from Minutes of 344th Naval Staff Meeting", 12 August, 1946. NS 8000-312/1 (2).

⁶ "Excerpt from Minutes of 354th Naval Staff Meeting" 25 November, 1946. NS 8000-312/1 (2).

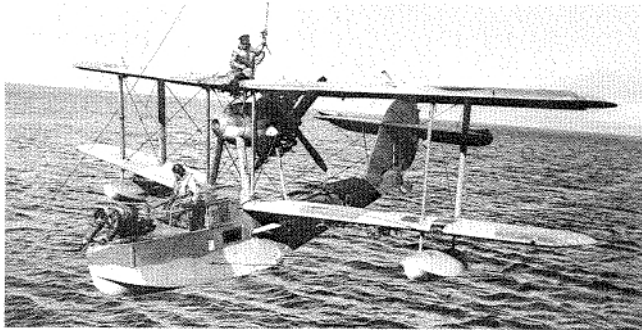
⁷ Extract from the 26th Meeting of the Cabinet Defence Committee, 14 January, 1947. Revised estimates and the question of aircraft carriers were also brought up at a Meeting of the Cabinet on the same date. NS 8000-RRSM 21 (1).

⁸ "Insignia, Badges and Flags," HMCS *Warrior*. NS 1460-312/1 (1).

SQUADRONS AND SHORE BASES 1945-1962

During the first light fleet carrier's stint of duty her squadrons were frequently accommodated, as mentioned in the previous chapter, at the Naval Air Section, Dartmouth, Nova Scotia. The Royal Canadian Navy had returned to its original air station site, Baker Point, after an absence of 25 years.

The proposal that the Service should make use of its old haunt was first made by DNAD¹ in May 1945 when the planning of air bases was given urgency by the allocation of *Warrior* and *Magnificent*. In September the Royal Navy's flying establishment at Dartmouth, HMS *Seaborn*, requested permission from its administrative authority to dispose of 22 *Swordfish* and 3 *Walrus* air-



Walrus amphibian as used at RCN Air Section, Dartmouth.

craft. These planes, whose fate would probably have been destruction locally or dumping at sea, were obviously of use to the RCN; arrangements were quickly made with the air force for storage space at Eastern Passage and the Admiralty's approval obtained for retention of the machines. At this time the RCAF also indicated that it would be prepared to consider sympathetically the whole question of shore facilities for naval aviation.

Negotiations started on a high level in October when the CNS, Vice-Admiral G. C. Jones, CB, RCN, and the

Chief of the Air Staff, Air Marshal R. Leckie, CB, DSO, DSC, DFC, RCAF, agreed that a joint committee should meet to examine common requirements. Commencing on 24 October a series of conferences took place and the upshot was that the RCN, in spite of the near-disastrous example of the pre-war RN Fleet Air Arm, made the fundamental mistake of venturing amongst the reefs of dual control. An agreement² was finally signed giving the RCAF the management of all RCN shore-based air activities including supporting services, such as air stores and major aircraft repairs and maintenance. In return the navy took up residence at Baker Point, where, after a brief honeymoon, the involved administrative and operational command setup soon produced a multitude of frustrations for all concerned.

The first RCN party to be drafted to Eastern Passage consisted of stores ratings, who began the mustering of air stores to be taken over from the British for use with the newly-acquired aircraft. Commander (A) H. J. Gibbs, RCNVR, the Commanding Officer of the Air Section (RCNAS), paid his respects to the RCAF Station Commander on 21 November and took charge of the total complement of three officers, six ratings, and six civilians. *Seaborn* was still in the process of paying-off* and one of the first jobs of the Canadians was to test inspect one of the *Swordfish* for cross-country flying duty with the section. Everyone pitched in to renovate buildings and a party of 44 RN air mechanics, who were drafted to the station awaiting passage to the United Kingdom, gave a welcome assistance in this work.

Staff increased in the first months of 1946 and towards the end of March completion of outstanding tasks was speeded up as the date of *Warrior's* arrival drew near. On the 31st the inhabitants of Halifax had the calm of their Sabbath morning shattered by the roar of planes as 803 and 825 Squadrons passed overhead. Shortly afterwards the *Seafires* and *Fireflies* began to follow one another in to land and the RCN Air Section became op-

*HMS *Seaborn* paid off on 28 January, 1946.



“Stringbag” (*Swordfish*) at RCN Air Section, Dartmouth.

erational. The next three months were busy ones, with a considerable amount of flying training being done from the station and on 25 May a maintenance unit was organized to ease the pressure on the RCAF. The beginning of station-based squadrons dates from this time when Fleet Requirement Unit 743 was formed with *Swordfish*, augmented later with *Harvard* trainers, for general purpose duty. Within a few weeks of its formation the unit had flown 80 sorties and also carried out photo reconnaissance trials with the ex-German submarine, *U-190*, which had been commissioned into the Canadian Fleet.*

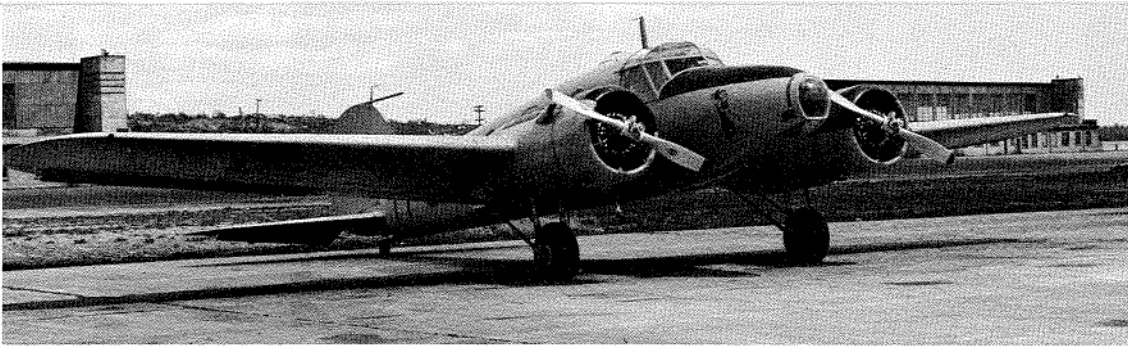
The two main squadrons returned to *Warrior* but a supercharger clutch defect, which made it unsafe to operate from the carrier, brought the *Seafires* of 803 Squadron back to Dartmouth at the end of the month. With the approval for the formation³ of an RCN air arm reserve an immediate demand arose for training aircraft as it was proposed to use *Harvards* for flying instruction at four Naval Divisions and allocate *Swordfish* to as many establishments as possible for ground crew instructional purposes. Some of the veteran *Swordfish* at Dartmouth were accordingly tuned up and ferried to 11 Naval Divisions across the country. These flights were by no means routine and a considerable amount of ingenuity was required by the pilots as the adventures of three of them illustrate. With the “encouraging” remarks of mess-mates ringing in their ears the pilots of the aircraft pointed them westward on 17 September, bound for HMC Ships *Unicorn* at Saskatoon, *Tecumseh* at Calgary and *Nonsuch* at Edmonton. The first stop was at Megantic, Quebec, followed by Montreal, Trenton, Toronto, North Bay, Kapuskasing, Armstrong, Kenora and Win-

**U-190* surrendered to HMC Ships *Victoriaville* and *Thorlock* (frigate and corvette respectively) on 12 May, 1945, and was escorted into Bay Bulls, Newfoundland.

nipeg. On the next leg one of the pilots discovered that he had a broken fuel line and had to take quick action by landing in a farmer’s field. Another plane returned to Winnipeg with the damaged line, had it repaired, and then rejoined so that the flight could be continued. Neepawa, Yorkton, Saskatoon, where one machine remained, and Medicine Hat were visited before the remaining two *Swordfish* circled Calgary. Here there was great excitement at the Naval Division as their new acquisition landed on the parade ground. The last of the trio completed the epic trip of 2,400 miles ten days after setting out and, as a grand finale, landed in the Edmonton Ball Park. Total flying time had been 39 hours and 35 minutes.

Five Canadian observers, who had been under training in England joined the section for 825 Squadron in September, as Commander A. E. Johnson, RCN (R), took over the duties of Commanding Officer. Another arrival was an RN party bound for the RCAF Winter Experimental Establishment at Namao, Alberta. By arrangement with the Admiralty a *Firefly* and two *Seafires* were turned over to this detachment and three RCN officers attached to it. The three planes departed for the west accompanied by an *Anson V*, belonging to FRU 743, with ground crews and spares embarked. A complete outfit of consumable and permanent air stores for 24 *Fireflies* and 36 *Seafires* had been procured from the RN and crates were now arriving from overseas in a steady stream; during October the escort carrier HMS *Queen* berthed in Halifax with seven *Fireflies* and two *Seafires*, including replacements for the planes being cold-weather tested at Namao. With the departure of 825 Squadron in *Warrior* to the West Coast, only 803 Squadron and FRU 743 operated from the base for the rest of the year.

Flying operations were somewhat hampered in January 1947 by the weather and the fact that 108 and 109 hangars had to be evacuated because of faulty heating systems. These were repaired and with the coming of spring routines were changed slightly so that necessary work could be done in renovating buildings and adjacent grounds. *Warrior* returned from sunnier climes and 803 and 825 Squadrons were formed into the 19th Carrier Air Group (CAG), which almost at once sailed away in the carrier for Bermuda. The air group disembarked at the end of the cruise on 14 May and the next day 826 and 883 Squadrons were once again activated to become the 18th CAG, occupying No. 2 hangar. All hands were fallen in for Sunday Divisions on 8 June when COAC presented wings to Surgeon Lieutenant-Commander E. G. L. Alford, RCN, who had been on a flying course with FRU 743 since January. This was quite an occasion, Commander Alford being the first pupil of the squadron and the first medical officer to qualify as a pilot with the RCN. The 18th CAG started its work-up



Avro Anson
on tarmac



Seafire doing
ADDL at
Darthmouth.



Firefly I
approaching
runway



Seafires at
their home base

using aircraft formerly flown by the 19th CAG shortly before Acting Captain H. S. Rayner, DSC and Bar, RCN, assumed command of the Section, and in the last week of June a guard of honour was drawn up to receive the Honourable Brooke Claxton, DCM, BCL, the Minister of National Defence, who, after inspecting it, made a tour of the buildings and saw a display of aerodrome dummy deck landings (ADDL) by *Seafires* and *Fireflies*. Two new sections were started at this time, namely the Carrier Borne Army Liaison Section under an army captain and the Operations Room and Ground Instructional Centre.

The first fatality out of RCNAS occurred on 17 July, 1947, when a *Firefly* crashed into the sea in the Musquodoboit area taking the pilot and observer to their deaths.

Through the autumn months flying routine continued at a brisk tempo and in the early days of October emphasis was placed on dive-bombing and rocket firing. On Trafalgar Day the 18th CAG was armed in preparation for Exercise *Scuppered* for which *U-190* had been towed to a position approximately 50 miles south-east of Halifax; here the submarine lay quietly in the Atlantic swell awaiting her fate in the general vicinity where she had torpedoed and sunk the minesweeper HMCS *Esquimalt* on 16 April, 1945. The planned sequence of events was to start with a rocket attack by *Fireflies*, followed by 4.7-inch gun-fire from *Haida* and *Nootka*; bombing of the target by *Seafires*, and finally an A/S mortar attack by HMCS *New Liskeard* as the boat sank. In reality the operation was over much more quickly than anticipated, as *U-190* started to settle slowly by the stern immediately after 826 Squadron had roared over her. *Nootka* managed to get off two 4-gun salvos before the submarine up-ended, paused momentarily and then slid for ever into the depths of the ocean. *New Liskeard* assisted her departure with mortars and *Nootka* followed with a pattern of depth-charges.

A Training Air Group (TAG) consisting of two flights, FRU 743 and the Operational Training Unit, had been formed and this group was on its own for ten days when the 18th CAG joined *Warrior* for a spell at sea during which 183 deck landings were carried out. On its return the CAG found that two more hangars had been taken over from the RCAF.

The initial full-scale course to be conducted by the RCN in naval operational flying started on 2 February, 1948, at the Operational Flying School to produce pilots for the squadrons of the 18th and 19th CAGs. The next highlight in the history of the section was the arrival of *Magnificent* in June with the 19th CAG re-equipped with *Sea Fury XI* and *Firefly IV's*. The group came ashore to Dartmouth, where accommodation also had to be found for the Royal Navy's 806 Squadron. The next month the RCN held a naval air display, the first of its

kind ever to be staged in Canada; a crowd of about 15,000 turned out to watch the show. 806 Squadron participated prior to leaving for the USN Air Station, Floyd Bennett Field and the International Air Exposition in New York on the occasion of the opening of Idlewild airport. Living conditions at the station improved as civilian contractors progressed work on the men's quarters and the first houses of a 100-house scheme. Another first was recorded in August when a flight of two *Sea Furies* was attached to 806 Squadron to take part in the air show at Toronto in connection with the Canadian National Exhibition; a third *Sea Fury* and a *Firefly* formed part of a static display. The section was further denuded of aircraft by the departure of the 19th CAG to *Magnificent* and the 18th CAG to the RCAF Joint Air School, Rivers, Manitoba, for specialized training.

By mid-summer 1948 matters at RCAF Station Dartmouth had reached the point where a decision as to the future of the establishment could no longer be postponed. Over the past two years various submissions had been made to Naval Headquarters to have the RCN/RCAF Agreement revised and brought into line with reality. Nothing was done in the early stages as the navy was not too happy with Dartmouth owing to the fact that, in addition to the air force machines, both Trans-Canada Airlines and Maritime Airways were using the runways. Other places were considered but in July 1947 the Naval Board agreed that Eastern Passage was the most suitable locale for naval purposes and recommended transition to full control be spread over a period of about two years.⁴ In October the RCAF Search and Rescue Squadron withdrew bag and baggage to Greenwood, N.S., and the navy found itself carrying out even more station functions which were, under the agreement, air force commitments. The following April 1948 another agreement was signed under which a Naval Air Stores Depot was established at Dartmouth but to all suggestions of relinquishing complete control the RCAF remained unresponsive. On the spot the RCN had actually become the main user of the station. Of the 14 hangars, it occupied 11 for the operation of 56 aircraft (when ashore) whilst the air force had two hangars for the two planes of a Composite Flight; approximate personnel strengths were 900 for the navy and 250 for the RCAF. As one report stated "the RCAF was peeling the potatoes while the RCN was doing the glamour job of flying." The problem of Dartmouth aerodrome came before the Cabinet Defence Committee in September 1948 and it was decided that the RCN should take over the air station.⁵

There was general jubilation at RCNAS when the glad news was received.⁶ In September, also, the 19th CAG arrived back from the carrier, disbanded and reformed while the 18th CAG on its return from Rivers, had 883 Squadron equipped with six *Sea Furies* in place

of eight *Seafires*. To facilitate maintenance work on similar aircraft a further re-grouping was carried out in November. The fighter squadrons became the 19th CAG and the A/S squadrons were organized to form the 18th CAG.

A main inter-service committee and various sub-committees were formed to sort out the problems in connection with the pending transfer of the station, and to complete the arrangements locally an RCN-RCAF board under the joint chairmanship of Commander J. Plomer, DSC, RCN, and Wing-Commander R. O. Shaw, RCAF, convened on 29 November. On 1 December, 1948, a great day for RCN aviation, the Service regained control of Dartmouth air station and commissioned it as HMCS *Shearwater*. Most of the RCAF personnel were withdrawn except those required for the small composite flight and for No. 102 Marine Squadron, whose high speed launches were still to be run by the air force. In addition some airmen remained to assist in the manning of the control tower until such time as the navy had sufficient controllers trained. Acting Captain A. B. F. Fraser-Harris, DSC and Bar, RCN, was now in command and his opening report gives the impression that in some respects things had not changed much at Baker Point since the old days of 1918-1920.⁷

The first months in commission were passed in some tension for unlike the usual maiden voyage of one of His Majesty's Canadian Ships, *Shearwater* left harbour in a considerable state of disrepair, leaking and undermanned, her decks unscrubbed and her rigging by no means ship-shape .

Added to these problems, the elements in the form of a snowstorm and gales lashed the good ship in no uncertain fashion. However, by dint of splicing, caulking and general application of "elbow grease," *Shearwater* was to become more "ship-shape and Bristol-fashion" as time passed.

Early in the commission there was a re-organization of air maintenance personnel and the TAG officially became a self-contained unit on par with the air groups. It was suffering from a shortage of suitable aircraft and to reduce training commitments at *Shearwater* it was arranged to send both the next Observers' and Operational Flying Courses to England. *Seafires* were withdrawn from service and the current Operational Flying School class completed its course on *Harvards*, eight of which were available to the TAG.

The tempo increased with better weather and both air groups operated from the station in May 1949, a total of 2,596 sorties being flown for an average of one landing or take off every 90 seconds. By this time 825 Squadron had been overseas in *Magnificent* and re-equipped with an improved *Firefly*, the *Mark V*. All 17 aircraft of the 19th CAG made an impressive sight as they formed up over the air-field to begin the flight to the RCAF school

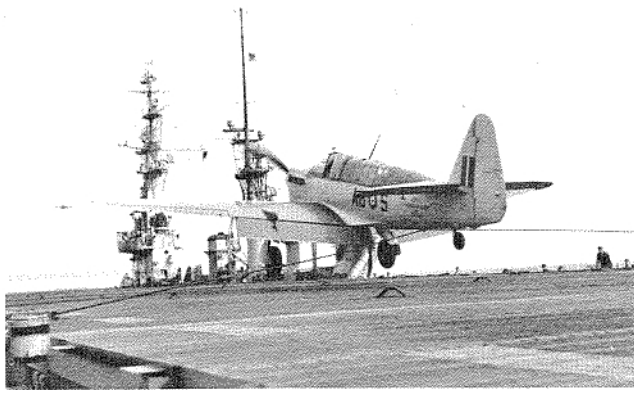
at Rivers. The *Fireflies* remained and took part in two series of exercises; one, with the TAG, in support of army manoeuvres on Citadel Hill, Halifax, with simulated strafing and low level attacks, the other in Anti-Submarine (A/S) drills with *Haida* and *Swansea*. Flying intensity dropped off when the 18th CAG left for a training period at USNAS, Quonset Point, Rhode Island. The training group, left on its own, was hampered by seasonal, coastal fog but managed to give flying instruction to 16 pilots, including seven reservists.

The Royal Navy's cruiser *Glasgow* entered harbour in early August to be followed 24 hours later by seven units of the U.S. Navy, including the heavy cruiser, USS *Newport News*, and two carriers, *Midway* and *Kearsarge*. This fleet contributed to the success of the RCN's Navy Week, which was held in conjunction with the Halifax bicentenary celebrations*. One highlight was a "Venetian Night," for which there was a show of decorated boats on the Northwest Arm, *Shearwater* being represented by a model of *Magnificent* assembled on the station. For this event the Governor of Massachusetts flew up from Boston and was received at the flying field by a guard paraded in his honour.

A specially-formed flight of ten *Seafires*, known as "Watson's Circus" in honour of its leader, had been busily training for the Canadian National Exhibition. Whilst doing their final rehearsal over Malton airport a mid-air collision claimed the lives of the CO and another pilot. The former, Lieutenant-Commander (P) C. G. Watson, RCN, was one of the more senior officers in the air arm and had commanded 826 Squadron prior to its disbandment in February 1946. In spite of this tragedy the flight continued on a modified scale with the display which was reported on very favourably during the CNE.

Down at Quonset Point the 18th CAG had been converting to USN deck-landing technique in line with a decision taken by both the RN and RCN to conform with the operating procedures employed in the larger U.S. Fleet. The British and Canadian method was to approach the flight-deck, having maintained uniform height in the landing circuit, at a steady rate of descent from about 400 feet; the Americans, after circling the carrier in a descending turn, came in for a powered-landing from 400 yards astern at a constant height of about 40 feet until signalled to "cut-engine" by the Deck Landing Control Officer just before reaching the after end of the flight-deck. The snag with this method was that landings were frequently made on the main undercarriage wheels, only, owing to the pilot's misjudgement of the difficult final touch-down. With their undercarriages not designed for such heavy treatment British aircraft suffered damage or were bounced back into the air so that they

*Halifax was founded by the Hon. Edward Cornwallis, who landed on 21 June, 1749.



Firefly landing trials aboard USS Saipan

missed the arrester wires. It was found that the Canadian air group's *Fireflies* suffered from this "hook bounce" when they went to the deck of the carrier USS *Saipan* in September and the pilots had to revert to British practice on their next cruise in *Magnificent*.

Both air groups returned to Dartmouth, the 19th without its *Sea Furies*, which remained at Rivers for testing. All hands were available to participate in a new venture—the first regatta to be held by Shearwater Sailing Club. Guests brought their own boats from Halifax clubs and after the races had been run off, it was found that *Shearwater* had won the Fraser-Harris Sailing Trophy for teams of whalers and service dinghies.

The advent of two U.S. Navy Patrol Squadrons partaking in an exercise with the USN Second Task Force enlivened the last months of 1949. *Shearwater* provided moorings for ten PB5M flying boats and the seaplane tender USS *Duxbury Bay* in Eastern Passage, while the aircrews of nine land-based *Neptune P2V* planes were housed and operated from the station. On the first anniversary of the commissioning date, Divisions and Prayers on the parade ground were followed by a march past for which FOAC, Rear-Admiral E. R. Mainguy, OBE, RCN, took the salute; in the evening a Birthday Cabaret Ball rounded off the day. The year 1949 had been a good one for Canadian naval aviation, with continued expansion. On the aircraft side many of the snags in both *Firefly* and *Sea Fury* had been ironed out, but experiences on the deck of *Saipan* showed that the *Firefly V* was not the ideal deck landing machine.

The air groups started their activities in January 1950 by combining forces to carry out "attacks" on the RCAF Station at Greenwood, and on *Shearwater*. A week later planes of the 18th CAG were embarked in the carrier for the annual spring cruise to the West Indies. At the station the stores and living accommodation situation improved as the year advanced and the usual busy training and maintenance programme continued. Amongst visit-

ing aircraft in the early months were two *Dakotas*, which brought the crews for the Argentine Naval transport *Bahia Aguirre*; this ship had been under construction at Halifax Shipyards Limited. The acquisition of 75 *Avenger* aircraft was announced in April to replace the *Fireflies* and during a visit by *Magnificent* to New York an advance group of personnel from 826 Squadron was sent to San Diego and Norfolk, Virginia, to form the nucleus of teams to bring back the planes. For A/S duties the old-reliable *Avengers** the first of which touched down at *Shearwater* soon afterwards, were to be considerably modified with the addition of more modern search and detection equipment by Fairey Aviation Company of Canada Limited at its Dartmouth plant.

On 9 May, 1950, 50 naval ratings, including ten from *Shearwater*, flew in three RCAF *Dakotas* to help in fighting the disastrous Red River flood in Manitoba. With the return of *Magnificent*, the 19th CAG and 825 Squadron came ashore while 826 Squadron continued to ferry *Avengers* from Quonset Point to Dartmouth. A series of exercises, for which the station provided target planes, was laid on for HM Ships *Glasgow* and *Snipe* during an informal visit to Halifax. The cruiser responded by sending its Royal Marine detachment and band over to the air station for Morning Divisions to give a display of small arms drill on the march. Every phase of activity at *Shearwater* was presented in the summer air show, which was held in perfect weather. A spectacular display was the destruction of a realistic-looking "submarine," which had been constructed by the Army aided by the Naval Ordnance Branch. *Sea Furies*, *Fireflies* and *Avengers*, the latter making their first public appearance with the RCN, fired cannon, rockets and depth-charges at the model. The weather broke after the show and the first hurricane of the year brought gusts of wind up to 78 miles per hour over Eastern Passage.

The last 11 *Avengers* arrived from Quonset Point and work continued on the conversion of a prototype to whose specifications, if successful, all the other planes would be adapted. In November the safe flying record was marred by an accident in which a *Firefly* became lost and finally ended its flight with a "wheels up" landing in a field near Yarmouth, Maine, after being homed to the coast by U.S. authorities. An RCN salvage team dragged the plane to the nearest highway and in due course it returned to Dartmouth in CNAV† *Eastore*.

A major reorganization of aircraft and personnel took place on 15 January, 1951, when the 18th CAG was changed to consist of 826 and 883 Squadrons. The other two units, 803 and 825 Squadrons, now formed a new 19th Support Air Group (SAG), which would normally

*Accepted by the USN in 1940, the torpedo bomber was put into operational service late in 1941.

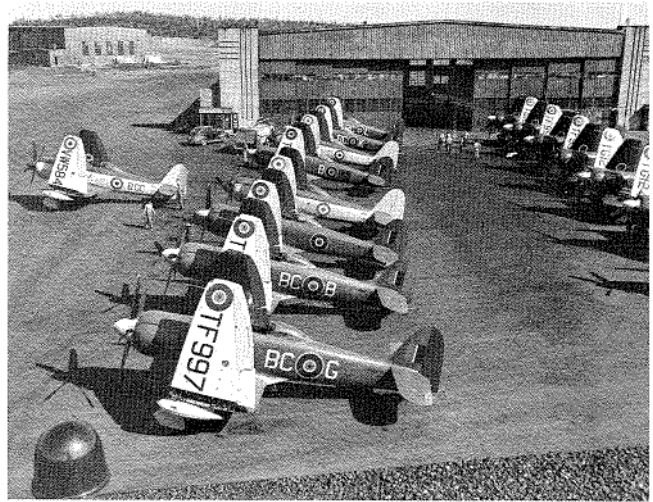
†Canadian Naval Auxiliary Vessel.

be based ashore at *Shearwater*. Following this arrangement a rocket and cannon display was put on by *Sea Furies* and *Fireflies* on the opening of the Chezzetcook Firing and Bombing Range prior to the departure of the 18th CAG to USNAS, Quonset Point, from which field it was to join *Magnificent*. At home, two prototype *Avengers* joined the 19th SAG, which started evaluation trials. The first fatal accident since 1949 occurred in March as the result of a forced landing by a fighter in Wright's Lake. The plane sank in about 30 feet of water but the pilot managed to get clear and was picked up by a local resident. As the RCAF helicopter that had been based at the station for rescue work was unserviceable, a *Seabee* amphibian belonging to Pulsifer Aircraft Ltd. flew to the scene of the crash. The float plane, after landing on the lake, unfortunately went up the wrong arm and the rest of the *Sea Fury* flight, which had been orbiting since the crash, dived low to guide it in the right direction. The watchers were horrified to see one fighter hit the ground amongst the trees just to the north of Wright's Mill, killing the pilot instantly. In subsequent salvage operations the *Sea Fury* in the lake was brought up with the assistance of naval divers and towed out of the bush.

Magnificent appeared off the coast and the 18th CAG was back on the station by 1 May, 1951, when all squadrons were renumbered. The idea behind this was to give Canadian identity to RCN air units within the Commonwealth numbering system and provide a logical means of identifying additional air groups and squadrons in the event of expansion. 803 and 825 Squadrons became 870 and 880⁸ respectively, and now formed the 31st SAG while 883 and 826 were renumbered to 871 and 881⁹ to form the 30th CAG. For the rest of the month the 31st SAG put in some sea time in the carrier and the 30th CAG carried out an intensive period of night flying in preparation for deck training.

A crying need at *Shearwater* was filled when three *Bell HTL 4*'s were delivered to the air station. On 1 September the helicopters were formed into No. 1 Helicopter Flight to begin training for the many roles in which they would be required to perform such as photography, land and sea rescues, co-operation in ships' torpedo firings etc. Another new responsibility was the Marine Section, from which the RCAF withdrew on 1 November; taken over by the navy were buildings (including "E" Block, which was to be used as a Naval Air Maintenance School), three high speed launches (HSLs) and miscellaneous small craft. The RCN became responsible for search/rescue duty, patrolling at the Cow Bay and Chezzetcook air firing ranges, and the local harbour ferry service at Eastern Passage. During the open navigation season one of the *HSL*'s would also be required for duty at the Chatham air firing range.

A dozen USN *Neptune* aircraft were based at *Shear-*



19th CAG at Dartmouth Air Station.

water in January 1952 for fleet drills, on completion of which 881 Squadron had a useful exercise in shadowing as 17 American surface warships and three submarines withdrew to seaward from the Nova Scotian coast. Later HM Submarine *Alcide* was made available for nine days and provided good practice for the two A/S squadrons, whilst the fighters had their turn in a strike against the departing Swedish cruiser *Gotland* and in night search and shadowing encounters with *Crescent*. The USN was back again in May to erect mooring masts in preparation for a visit by two blimps. The airships, which were accommodated at Dartmouth for a week, gave familiarization flights, including a display of deck landing on *Magnificent*. In the hot, mid-summer days bush fires began to break out in the Maritimes and the station's new acquisition, a Sikorsky *HO4S-2* helicopter, was flown to Chatham, N.B., to help in fighting a particularly bad one. At home the Queen's Colour of the East Coast Command was paraded for the first time of the commission when the Right Honourable Vincent Massey, CH, Governor General of Canada, was met by a Royal Guard as he arrived by RCAF aircraft. Having flown on to Charlottetown, His Excellency returned two days later and was taken by admiral's barge from the marine section's jetty out to *Quebec*, who was moored in the harbour.

An indication of the improvement in training facilities at *Shearwater* was the arrival of ten RN midshipmen in the fall of 1952 to form the first North Atlantic Treaty Organization air observers' course. To augment the instructional staff at the Observer School for the training of this and subsequent classes of young Allied airmen, three officers were appointed from the British navy.

Air squadrons of the RCN were brought in November 1952 into the U.S. system of numbering which took the form of a two-letter prefix before the squadron number.

The significance of the first letter (“V”) was “heavier-than-air” while the second was a guide to the function of the unit, i.e. VF for fighter, VS for search, VH for helicopter. Under the lettering arrangement the station squadron, FRU 743, became VU 32 (Utility) and the helicopters were organized into VH 21.

Captain D. L. Raymond, CD, RCN, relinquished command of *Shearwater* in January 1953 and pointed out in his farewell report that amenities for personnel were still far from satisfactory. Sixteen hundred officers and men were living “in a Station which is still a conglomeration of old temporary buildings and grounds, which have not been landscaped.”¹⁰ However, a new barrack block was taking shape and suggestions were under consideration to increase the recreation facilities.

The ten *Sea Furies* of the 30th CAG had an uneventful trip to Rivers in February but the *Avengers* had to deviate from the original flight plan to land at the Lakehead, where they remained for one night. At the Canadian Joint Air Training Centre the group was given a course, Exercise *Assiniboine*, in close air support. Before returning to the coast the planes gave a lot of valuable publicity to the air arm by putting on flying shows for the benefit of the Naval Divisions at Regina, Saskatoon, Calgary and Edmonton.

With their strength increased by the addition of two more *Sikorskys* the helicopters were kept busy on a variety of tasks, including the stocking, for the Department of Fisheries, of lakes that were inaccessible by road. An experimental air squadron, named VX 10, was formed during this period to test all new aircraft and equipment as it came into service with the navy. Although consistently bad weather curtailed general flying in April, three serious accidents took their toll in human life and machines. One was a mid-air collision between an *Avenger* and a *Harvard*, in which both were damaged but managed to land safely. The second, also a mid-air collision, resulted in two fatalities, the pilots of an *Avenger* and *Sea Fury* both being killed. There were no casualties when an *Avenger* on a long range night navigation exercise flew into a wooded hill-top and became a total loss.

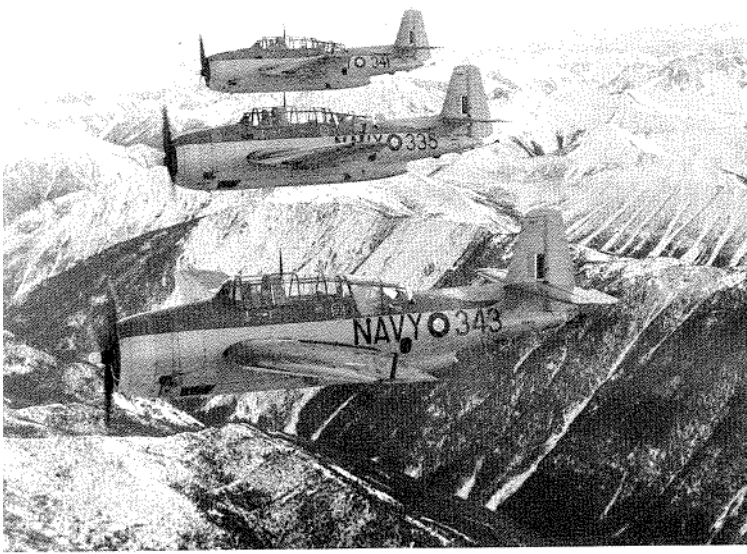
Aircraft of the 30th CAG were struck down into the hangar when *Magnificent* sailed to take part in the Coronation Review at Spithead, England. Also aboard was a British *Attacker* jet plane for whose safe delivery at Halifax Lieutenant A. J. Woods, RCN, was later to be awarded the Queen’s Commendation for valuable service in the air. The *Attacker* had been undergoing winter testing at Namao and on the trip back east the pilot experienced an engine “flame-out” at 30,000 feet. Unable to effect a relight he set up a glide for Kinross Airfield, Sault Ste. Marie some 60 miles distant, where a 2,000-foot ceiling was reported at the time. Lieutenant Woods made a successful “dead stick” landing and at the base the trouble, to all appearances, was remedied. Continu-

ing the flight, another engine failure occurred 60 miles from Uplands Airport, Ottawa, and Lieutenant Woods had to make a second long-glide landing. Apart from a few “sputterings” the last leg of the journey was completed without incident. The plane was equipped with an ejector-seat and could have been abandoned on either occasion of engine failure but Lieutenant Woods’ coolness and judgement to quote from the citation “saved a valuable aircraft from damage or destruction and reflects considerable credit on himself and his Service.”

The City of Halifax and the surrounding district were in the front line for a Civil Defence drill, Exercise *Teamwork*, which was staged in May 1953. *Lancasters* from the RCAF’s Maritime Command at Greenwood carried out a level bombing run over the town and were attacked by *Sea Furies* while *Avengers* simulated dive-bombing and strafing attacks on the dockyard area. Since 1950 the station had been banned to aircraft weighing more than 60,000 lbs. and heavy earth-moving equipment now moved in to lengthen and strengthen the main runway. The 31st Support Air Group packed its bags and moved to the RCAF Station at Scoudouc, N.B., to ease the strain at *Shearwater*. Also in June a helicopter of VH 21 made a spectacular rescue when a makeshift raft on which two small boys were playing drifted away out into Bedford Basin. Hovering over the reluctant voyagers, the pilot found it impracticable to lift them with his hoist so used the slip-stream to wash the raft into shore.

The summer of 1953 saw the completion of two buildings, the cornerstone of one, the new barrack block, being laid by Rear-Admiral Bidwell in perfect weather before a large gathering of residents and visitors. After the ceremonial, the youngest sailor on the station cut a tape at the entrance and declared the barracks ready for occupation. Two weeks later the Observer School building was also completed and at the formal opening wings were presented to the graduating officers of the first NATO Observer Course.

From its Scoudouc base the Support Air Group spent a busy time putting on flying displays at various places around the country. Daily shows were given at Toronto for the CNE between 1 and 12 September and after the finale at the Canadian National Air Show a detachment of four *Sea Furies*, with an *Avenger* in attendance, headed out to the west coast for a short visit. The Naval Air Facility, Scoudouc, was being disbanded and the rest of the group flew back to a new NAF at the RCAF Station, Summerside, P.E.I. The movement of ground personnel of the SAG to Summerside, where the air force provided facilities of a high standard, was completed early the next month. Returning to the NAF from Vancouver an *Avenger* of VS 880 overturned and caught fire during a precautionary landing at Kenora, Ontario. The pilot and one crewman did not survive.



881 Squadron Avengers over the Rockies.

The two air groups changed places in *Magnificent* and, after the 30th CAG had flown ashore, VF 871 was sent to Rivers for a concentrated “work-up” programme in offensive air support, as there was a possibility that the unit might be sent to operate from an RN carrier as part of Canada’s contribution to the United Nations force in Korea. A helicopter was detached to the NAF for search and rescue duty and it in turn had to be rescued from a spit of land off the coast where it had been skilfully brought down after a loss of power in flight. Heavy snowstorms kept the resources of the tractor section fully extended in keeping the new runways clear as the New Year started at *Shearwater*, and the flying programme of all squadrons suffered from the extremely poor weather and ground conditions. VU 32 lost an *Avenger*, which crashed two minutes after take-off, killing the pilot; prompt attention on the part of two pilots of a helicopter, airborne at the time, helped to save the observer’s mate. Weather continued to be bad in February 1954 when the big event was the movement of VS 881 to Bermuda for a five-week period of training with submarines and an escort squadron of surface ships. The move was made partly by sea and partly by air, the main contingent of *Avengers* making an overnight stop at Quonset on their flight south. A U.S. Coast Guard aircraft made rendezvous about 180 miles from the islands and escorted them to Kindley Field. At Dartmouth a major misfortune occurred on 1 February when at a minute or two to midnight the storage section of the new motor transport building collapsed. Fortunately the duty shift of civilian staff was just changing over and the only people in the building were in the locker room, which proved robust enough to withstand the collapse of the main roof on to it. It was also lucky that the bulk of station transport was in the part that remained standing.

The helicopter squadron was the object of favourable

comment in the local press for three rescues. For the first, a doctor was flown to attend two sick children in Terrence Bay, N.S., as roads were impassable. The next mission was to evacuate one of the crew of a sealer lying off the Magdalen Islands and, finally, three sick men were lifted from an American military transport, USS *General Hodges*, to be brought ashore for treatment. The *Avengers* at Kindley Field finished their anti-submarine exercises with the First Canadian Escort Squadron and were accompanied on their northward flight by a B.29 rescue plane. Evidently discouraged by the snow-covered Dartmouth countryside the big aircraft circled the field without landing before shaping course back to Bermuda. By the end of March 1954, VF 870 had returned its *Sea Furies* to store and paid off to prepare for re-equipment with jet fighters. The remaining squadron of the 31st SAG was now due for a spell of A/S training and it was staged to Quonset Point on the first leg of the voyage to Bermuda.

Poor weather en route and the fact that all planes had to be grounded at Calgary for suspected fuel contamination made for slow progress by VS 881 on a flight across Canada. Eventually arriving at Patricia Bay the *Avengers* conducted fly-pasts at major British Columbia cities in the six days available before the return to Eastern Passage. VS 880 left Bermuda on 6 May and when about 75 miles south of Yarmouth, N.S., one of the squadron dropped out of formation and was not seen again. A general air and surface search eventually produced evidence in the form of an immersion suit and an *Avenger* wheel that the machine had crashed into the sea.

Effective the second of May 1954 the TAG was disbanded and VU 32 became a separate unit, organizationally, with its own hangar. A new squadron, VT 40, consisting of the Instrument Flying School and the Operational Flying Training School made its debut and was divided into two distinct parts, the Advanced Training Flight (ATF) and the All-Weather Flying Flight (AWF). In June the air group system in the RCN was abolished and the administrative organizations, the 30th CAG and the 31st SAG, ceased to exist.

Shearwater was honoured by a June visit of the Honourable J. A. D. McCurdy, the veteran airman, who presented wings to No. 4 Observers’ Course. Other distinguished visitors received on the base included Their Royal Highnesses, the Duchess of Kent and Princess Alexandra, who were received by a guard of honour composed of Wrens. Before Christmas *Magnificent* returned to Halifax from a cruise to British Columbia and disembarked VF 871 and VS 881 whilst VS 880 did a month’s training at Bermuda. One of the home-based *Avengers* caught fire as it was carrying out landing practice and the pilot had to bale out from about 800 feet to bump down safely on the football field. The plane crashed into the water near the south jetty, which was

slightly damaged by fire from scattered gasoline.

A party of officers and men had been loaned to Air Anti-Submarine Squadron 26 of the U.S. Atlantic Fleet and while on board USS *Antietam* Petty Officer R. Spicer, RCN, saved an aircraft from serious damage, an act for which he was officially commended by the Chief of the Naval Staff. The Canadians were serving with the USN to gain experience on the operation and maintenance of the Grumman *S2F*, which had been chosen as the successor to the *Avenger*. One of these planes was being moved on the carrier's flight deck when, as the towing tractor drove on to the forward elevator, the mechanism failed and the lift descended to the hangar deck without warning. The tractor began to fall but P. O. Spicer, as plane captain, jammed on the *Grumman's* brakes and, although the tow bar bent at right angles, the aircraft stopped on the edge holding the tractor suspended in mid-air down the well. A second's delay would have resulted in heavy damage to the *Grumman* and possible serious injury to personnel.

New arrivals on the station in January 1955 were four *Silver Stars* or *T.33* jet trainer aircraft, which became known as the Jet Flight (JF) of VT 40. The task of the unit was laid down as being primarily "to evolve control, operational and instrument procedures." It also provided

refresher courses in jet flying for qualified pilots. Two months later four *Avengers* of VS 881 were organized into an Airborne Early Warning Flight (AEW). Fitted with powerful radar detection gear, each plane, known popularly as "Guppy", acted in a capacity similar to that of shore warning installations but with the added advantage of height and mobility. Once hostile surface forces or submarines had been reported the AEW *Avenger* would revert to strike direction and provide information to friendly forces.

The appearance of the station changed rapidly with the demolition of old buildings and, as the weather improved, the reconstruction activity on the motor transport garage increased. Superb flying conditions contributed to a visit by the Chief of the Naval Staff, Vice-Admiral E. R. Mainguy, OBE, CD, RCN, in May. Accompanied by FOAC, the Admiral inspected the hands at Divisions and then watched a fly-past of some 35 *Avengers*, *Harvards*, *Expeditors*, *Sea Furies*, *T.33's* and helicopters. A few days afterwards the new electrical building was officially declared open by another visitor to *Shearwater*, the Admiralty's Director of Electrical Engineering, Sir Hamish MacLaren, KBE, DFC and Bar. Detachment No. 3 of the helicopter squadron, which since April had been known as HU 21, was sent to pro-

Aerial view of HMCS *Shearwater* in the 1950's.





Squadron fly-past at Admiral's inspection.

vide search and rescue facilities for civilian aircraft spraying the New Brunswick forests against bud worm infestation. During this hazardous business commercial aircraft were involved in seven crashes and a mid-air collision, two pilots being rescued from dense bush by the naval *Piasecki* helicopter.

Naval Aviation made another important move forward on 4 July, 1955, when a second helicopter squadron, HS 50, was formed at Dartmouth to operate six Sikorsky *HO4S-3*'s in an anti-submarine role. The fitting of dunking sonar, a device lowered into the sea to detect the enemy, made it necessary for men of the seaman branch to take to the air in an official capacity for the first time; volunteers, formerly specialized in torpedo anti-submarine warfare, were transferred for duty as so-

nar operators. The institution of a new branch was offset by a decision, taken earlier in the year, to abolish an old one. With the changing manning requirements of modern aircraft the long-established Observer Branch had to be abolished.¹¹ Classes under instruction at the Observer School were permitted to finish, the last NATO Course, Number 9, receiving its wings in January 1956. A small Number 10 Observer Course, of RCN officers only, ended the series in the following September. Observer's Mates continued to receive training under that title but were eventually re-classified as naval aircrewmembers.

Operationally, the highlight for the summer of 1955 was the station's participation in *Rising Star* an exercise devised by the Army's Eastern Command. Representatives of all the different types of fixed-wing aircraft and helicopters took part in the round-the-clock operations providing tactical air support and flying over 100,000 miles.

As *Shearwater* approached her seventh anniversary of commissioning a number of notable events occurred. On 1 November VF 870 reformed and three weeks later the first of the squadron's twin-jet McDonnell *F2H3 Banshees* whistled in to a landing on the runway. Designed and built specifically for the USN and now brought up to date in the light of experience gained in the Korean war, *Banshees* continued to arrive for some months. The station next had to dig itself out from the worst November snowstorm in the recorded history of Nova Scotia. The 26th started with the Shearwater Flyers winning the Senior Canadian Football Championship of the Province and later in the day came the news of a daring rescue by HU 21 off the Cape Breton coast.

Out of control the Liberian freighter *Kismet II* had drifted on to the jagged rocks at the base of the 1,000-foot cliffs of Cape Lawrence on Cape Breton Island. A *Sikorsky* piloted by Lieutenant-Commanders J. H. Beman, CD, RCN, and F. R. Fink, RCN, dipped low over the stricken ship in attempts to rescue the crew but was

Aircraft marshalled for CNS inspection, 1955.



unable to do so owing to the strong winds and rough sea, which also prevented the launching of a small boat to go alongside. During an anxious night a truck loaded with rescue equipment, life-lines and breeches buoys arrived at the top of the cliff after an arduous trip behind a snow-plough. Conditions had improved slightly on the morrow but it was still an extremely hazardous manoeuvre to approach *Kismet II*. Signs were made to the men to clear a landing space aft; when obstructions such as the after binnacle, guardrails and so on, had been removed, the helicopter slipped in sideways and balanced with power on, whilst the first load of passengers scrambled aboard. Four trips were necessary to bring off the 21-man crew, the Captain's dog and the ship's cat. Both the pilots have since been awarded the George Medal and the other two members of the plane crew, Petty Officer L. P. Vipond, RCN, and Leading Seaman P. A. Smith, RCN, have received the Queen's Commendation for brave conduct.

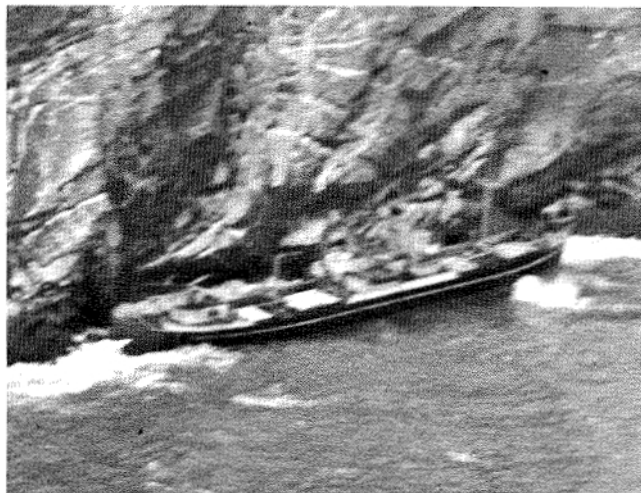
The *Kismet II* incident was actually the climax to an exceedingly busy 12 months for HU 21. The first incident in a long list of mercy errands had occurred in October 1954 when word was received that the lighthouse keeper on St. Paul's Island in the Cabot Strait had a fractured skull and badly wounded arm as the result of a dynamite explosion. Lieutenant W. E. James, RCN, with one crewman, flew a Piasecki HUP-3 to Sydney, where he picked up a doctor before continuing the flight in gale-force winds and poor visibility. After landing on the island in swirling snow the pilot had to keep the rotors going for the three-quarters of an hour that the doctor was attending the patient and bringing him to the machine. The return to Sydney was made without any trouble and the *Piasecki* finally arrived back at base after a mission lasting 8½ hours. Lieutenant James was

awarded the Most Excellent Order of the British Empire (Military Division) for his courageous action. The next rescue mission undertaken by a helicopter of HU 21 was the transporting of two little girls, who had been hurt in a sleighing accident, to Halifax General Hospital for emergency brain surgery. In March a *Sea Fury* stalled and crashed in thick bush a mile from the station. Within minutes a *Sikorsky* was on the scene and the co-pilot, Lieutenant D. A. Muncaster, RCN, was lowered to the plane, now burning fiercely. Braving the flames he managed to smash the perspex canopy after several attempts, and drag the fighter pilot to safety just before the fuel tanks exploded. At a Buckingham Palace investiture in March 1956 Lieutenant Muncaster was decorated with the George Medal.

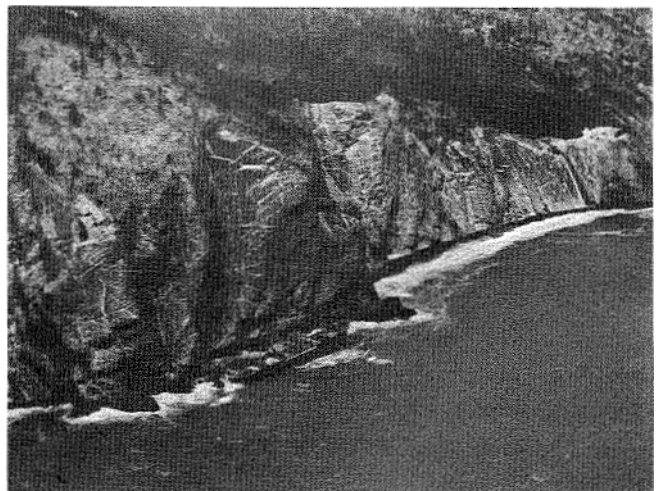
Two escaped convicts in the woods near Dartmouth gave aircraft of HU 21 the opportunity to do some police work but on this occasion they neither saw nor "got their men." Also in April, an *Avenger* from VS 881 ditched during an A/S exercise but the uninjured pilot was brought in by helicopter. Following a steam valve explosion aboard SS *California*, forty miles off Sambro Lightship, two seamen suffering from very severe burns were flown ashore. A large scale ground and air search was organized over a week-end in September to locate a 15-year old boy lost in the Spryfield area, but although he was eventually found it was too late to save his life. Two more helicopter missions involved lost hunters and a pair of hospital mercy flights, one to St. Paul Island, again, and the other to Sable Island rounded off a busy year during which it had been shown that the RCN had helicopter pilots second to none in skill and resourcefulness.

With the departure of *Magnificent* on her 1956 West Indian cruise there was an exodus of air squadrons from

SS *Kismet II* on the rocks with RCN helicopter aft rescuing crew



View of SS *Kismet II* wrecked on Cape Breton coast.



the station but within a few weeks their place had been taken by the main party of VS 880 from Summerside as the NAF was closing down. Another movement in May was the transfer of the RCN's reserve aircraft from the air station at Debert, N.S., where they had been stored since 1950, to Scoudouc, N.B. An elapsed time record from Vancouver to Halifax of five hours and 45 minutes was set by a *Silver Star*, flown by pilots of VF 871 in the course of a normal training flight, thereby beating the previous RCAF mark by 14 minutes; a fuelling stop-over of one hour and ten minutes at Lakehead Airport brought the over-all time to six hours and 55 minutes for the 2,900-mile journey.

Banshees were still being ferried from Quonset Point and, en route, one disappeared south-west of Yarmouth, N.S. An extensive sea and air search failed to turn up any clues as to its fate. In another crash, this time of a *Harvard* on the coast of New Brunswick, the crew was saved and a special ground party of eight was maintained by air for four days at the site. After usable parts had been removed the plane was destroyed as the complete isolation of the area made salvage impracticable.

Squadrons VS 881 and HS 50 returned from *Magnificent* and VF 871 from the Joint Air Training Centre, where it had been sent for a short armament course. Planes from the station participated in army manoeuvres¹² at Camp Gagetown and, in September, VF 870 made the annual naval pilgrimage to Toronto and the Canadian International Air Show. Before returning home the squadron visited St. Louis, U.S.A., at the invitation of the McDonnell Aircraft Corporation, manufacturers of the *Banshees*. The squadron was later represented by six fighters in Navy Day activities at Quebec City.

A ceremony of first-class importance for the RCN took place at the Downsview, Ontario, plant of De Havilland Aircraft of Canada Ltd. on 12 October, 1956. Before a distinguished audience, which included Vice-Admiral DeWolf, RCN, Chief of the Naval Staff, the first A/S aircraft to be built in Canada for the navy was formally accepted by the Honourable Ralph Campney, Minister of National Defence. The new plane, which was named the *Tracker*, code number CS2F, had been chosen after careful study and following exacting tests. Under licence from the Grumman Aircraft Engineering Corporation, De Havillands had incorporated minor airframe modifications and installed some equipment differing from the U.S. counterpart, to produce a successor to the Grumman *Avenger*. Among the advantages of the *Tracker* are its high manoeuvrability, the shortness of the required take-off run and low landing speed, all making it well suited for carrier duty. The first *Trackers* of the hundred-aircraft contract were ferried to Dartmouth by VX 10 and in the following year delivery averaged

two a month*.

In October 1956 the world was rudely shaken from its happy complacency by a chain of events which had started with an attack by Israel on Egypt and quickly involved both Britain and France. The seriousness of the situation was impressed upon those at the air station when RCAF Fairchild *Packet (C-119)* aircraft loaded with soldiers of the First Battalion Queen's Own Rifles began to touch down on the run-way. Between 13-15 November this unit, which had been ear-marked as Canada's contribution to the United Nations Expeditionary Force, was staged through *Shearwater* to Halifax to await marching orders for the Middle East.

While the United Nations General Assembly desperately tried to find some compromise solution to the crisis, Canada suffered a major mine disaster at Springhill, N.S., and the helicopters of HU 21 were once more to the fore, flying over 20.4 hours in the transportation of medical supplies and personnel to the stricken area. A hunter owed his life to another plane of the squadron when he became lost in the Kelly Lake district. Found lying under a tree in heavily-wooded bush the man would probably have died of exposure within a few hours.

The high speed launches inherited from the RCAF by air/sea rescue unit, which was now known as the Marine Section,¹³ had reached the end of their service usefulness. As replacements, two Bird Class patrol vessels HMC Ships *Cormorant* and *Mallard* were allocated as tenders to the air station. At the end of 1956 Nova Scotia was hit by a fierce storm of wind and rain and amongst the casualties was the entire covering of Main Stores Building 31 at *Shearwater*, which was ripped off.

Helicopters were frequently seconded for duty in the Arctic patrol vessel HMCS *Labrador*, and early in 1957 a Sikorsky and a Bell joined the ship for ice surveying in the Gulf of St. Lawrence. Another helicopter was used for reconnaissance from CGS *Baffin*† in support of CGS *Saurel*, an icebreaker which became trapped while attempting to reach Corner Brook, Newfoundland. The first ice surveys were flown when *Baffin* herself was in solid ice off the Newfoundland coast and unable to move. In the meantime a Canadian National Steamship ferry, *William Carson*, had reached *Saurel* and transferred much needed fresh water. High winds kept the ice under pressure and no leads for the ships could be found by the helicopter, which had to interrupt its patrol to land a casualty from *Baffin* at Corner Brook. On 6 February two members of a demolition team attached to the RCN detachment were flown 15 miles to *William Carson* and

*The first 43 planes of the contract were CS2F-1 and the remainder an improved version, the CS2F-2.

†A hydrographic vessel equipped for helicopter operations but her aircraft was under modification at this time.

Saurel for the detonation of 120 pounds of explosive in the ice; as the pressure eased *William Carson* freed *Saurel* and all ships, including *Baffin*, returned to Halifax.

The station's meteorological section was kept busy plotting ice conditions in the Gulf of St. Lawrence from the reports of aerial observers. Duplicates of the resultant charts were made for interested authorities while four were transmitted to *Labrador* by radio facsimile. As the result of a request from the Director of Naval Weather Service, a forecast of ice conditions for the period 3 to 10 April was made available on 20 March. This is believed to be the first operational "long range" sea-ice forecast that has ever been prepared by a Canadian agency.

Stores and the ground personnel of VF 870 were airlifted from *Shearwater* by three RCAF *North Stars* when the squadron departed for a one-month training period at USNAS Key West. It was followed by HS 50, which spent three months at the base exercising with HM Submarine *Amphion* and American and Canadian warships; during an A/S warfare demonstration for the benefit of members and aides of the U.S. Congress the first drop of a torpedo by an RCN helicopter was recorded. Another absentee from Dartmouth was HU 21's Detachment Number 3, which sailed for trials aboard *Buckingham*. When the frigate visited Hamilton, Bermuda, the ever-versatile helicopter performed in a search-light tattoo put on for the local populace.

Providing it is not a complete "lemon," every aircraft evokes great loyalty amongst those that have flown it and the RCN's former fighter was no exception to the rule. There were many who were sorry to see a *Sea Fury* roar down the runway on the last official flight with the navy of this type of machine. At Calgary the plane was delivered to Reserve Air Squadron VC 924 to be loaned to the Provincial Institute of Technology for instructional purposes.

Eastern Passage was at last blessed with good weather in May and an above average percentage of fly-

ing hours was logged, although two *Banshee* accidents spoilt an otherwise satisfactory period. One fighter struck the ground and exploded while the other broke up in mid-air, both pilots being killed. Expert in the unusual, HU 21 was called out on the 23rd to assist in the re-capture of two patients from the Nova Scotia Mental Hospital, who had been seen disappearing at high speed into the woods with a nurse as hostage. Two helicopters joined the hunt and a ground party caught up with the escapees before nightfall; the nurse was unharmed. A more gruesome flight was to the scene of an old air crash some 17 miles west of Harcourt, N.B., to recover the bodies of the victims. The wrecked aircraft, a *Tri-Pacer*, which had disappeared on 22 January, 1957, with three members of the Nova Scotia Government on board, had only recently been found.

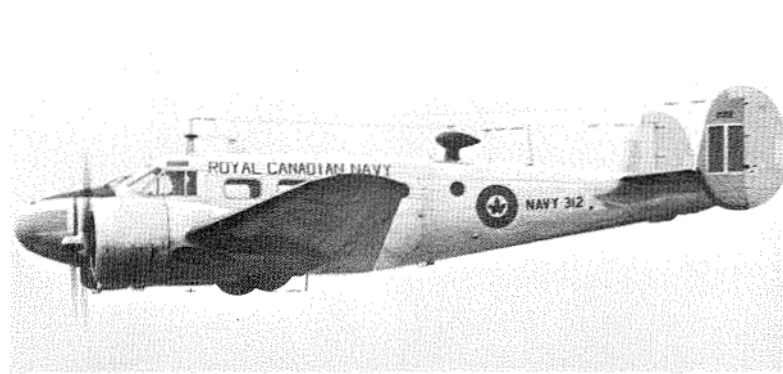
The Reserve Air Group consisting of five squadrons, VC 920, VC 921, VC 922, VC 923 and VC 924, manned by 50 officers, 60 men and ten wrens, began two weeks of flying training at *Shearwater* in August 1957. This was a very important event for Naval Aviation as it undoubtedly increased the operational efficiency of the reservists, who would be of vital importance to the force in time of war. As it was the first time that the units had been brought together it is a good point at which to digress, briefly, and review the history of their formation and activities.

After the Naval Board's decision of August 1946, approving in principle the training at Reserve Divisions of 3,000 officers and men in flying and ground crew duties, the future looked bright for an RCN (R) air arm.¹⁴ The reduction in naval estimates for 1947-48 forced the abandonment of these ambitious plans, but in 1949 the recruiting of 100 men each at *York* and *Star* for air maintenance duty was permitted. It was not until the end of 1952 that the "green light" was given to the raising of air squadrons, the first being VC 920, which was formed as a tender to *York* in May 1953.¹⁵ There was an enthusiastic response to the call for volunteers from former flyers, and in October of the same year four *Harvards* were

Harvard trainers of Reserve Squadrons.



Expeditor Trainers.



flown from their headquarters at Downsview Airport to the East Coast for the first regular training course. The next important date for VC 920, now equipped with *Avengers* as well as *Harvards*, was August 1955, when its nine pilots qualified in deck-landing aboard the *Magnificent*. The following summer the squadron had its first member win his wings as a result of training received with the unit. With an aircraft establishment of three *Expeditors* in the autumn of 1962, VC 920 was still going strong in the unspectacular but essential role of training air reservists.

The second reserve squadron, VC 921, was formed as tender to HMCS *Cataraqui*, the Naval Division at Kingston, Ontario, on 30 September, 1953. Operating *Harvards* and an *Expeditor*, this unit soon began to log many hours of flying. It was the first winner (1954-55) of the Naval Reserve Safe Flying Award,* having clocked 1,092 accident-free flying hours during the year. VC 921 was eventually paid off on 3 March, 1959, as the result of a decision to reduce the aviation complement of the RCN (R).

The prospects for reserve naval aviation were very good when VC 922 was formed as tender to HMCS *Malahat* at Victoria, B.C., on 1 December, 1953; the previous month approval¹⁶ had been given to the establishing of three additional squadrons (including VC 922), bringing the total up to five with the possibility of ten more being formed later¹⁷ when mobilization requirements had been reviewed. VC 922 was the successor to a Cadet Flying Unit (CFU 1), comprising two *Harvards*, which had been flown from *Shearwater* to Patricia Bay Airport near Sidney, B.C., in the summer of 1952 to provide air familiarization for cadets from the Canadian Services College, Royal Roads, and from Western University Naval Training Divisions.† The former Commanding Officer of CFU 1 assumed command of VC 922 and a busy programme of qualifying and re-qualifying pilots began. By 1957 *Avengers* of the local regular squadron, VU 33, were being used on week-ends by the RCN (R) flyers, who also during that year logged approximately 1,356 hours in their own aircraft, two *Harvards* and an *Expeditor*. VC 922 has been the proud winner of the Naval Reserve Flying Trophy on three occasions.

After its formation on 1 May, 1954, VC 923, which made its headquarters at the Ancienne Lorette Airport, Quebec, as tender to HMCS *Montcalm*, received an allocation of *Harvards*. The first four officers to be trained

*The award, in the form of a shield, had been presented by Commodore K. F. Adams, CD, RCN, Commanding Officer Naval Reserve Divisions, to be competed for annually.

†Apart from this temporary arrangement, UNTD cadets who wished to specialize as pilots received their early flying training with the RCAF. Volunteers for observer duty were sent on course to *Shearwater* until that branch was abolished in 1955.

by this squadron were presented with their wings in 1955. The last of the reserve squadrons to be formed was VC 924. Established on 1 June, 1954, it was quartered in part of the Calgary Flying Club's hangar and had HMCS *Tecumseh* as its administrative authority. Flying training was carried out in *Harvards* and with these machines the squadron won the Naval Reserve Flying Award for 1955. Both VC 923 and VC 924 became redundant under the re-organization arrangements for reserve aviation and were paid off on 3 and 4 March, 1959, respectively.

With the departure of the Reserve Air Group at the end of August 1957, *Shearwater* reverted to its usual routine. A total of 1,384 sorties had been flown during the month, unfortunately marred by a collision between a *Banshee* from VF 870, piloted by a USN officer, and an *Avenger* from VC 921. One plane was just taking off as the other came into land; both airmen were killed instantly and the aircraft demolished.

The RCN air station was called upon at short notice to provide planes in October for an operation called *Limelight*, the object of which was to search specific over-the-water areas off the north-east coast of Newfoundland; seven *Avengers* of VU 32 and five helicopters from HS 50 were dispatched to Gander airfield with a minimum of logistic support.

An ice forecasting service, known as the Sea Ice Central, was officially established at *Shearwater* in February 1958. Operated by the Royal Canadian Navy on behalf of the Department of Transport, the service was part of a mutual arrangement between Canada and the United States to provide information for the benefit of commercial and government shipping. Areas covered by the RCN forecasts and bulletins, which were based on reports from an extensive system of surface and aerial observers, included the Gulf of St. Lawrence, Hudson Bay, Hudson Strait and the Northern coast of continental Canada. During the summer months only, three field forecast stations, manned two at a time, were scheduled to be set up at Churchill, Cambridge Bay and Frobisher Bay. The *Shearwater* unit would provide basic ice information to these stations, which were to be equipped with radio facsimile recorders. In 1959 the Department of Transport took over the ice forecasting service from the RCN.

Halifax and Dartmouth became the focal point for great activity half way through the *Maple Royal* series of exercises, when the combined British and Canadian fleets steamed into harbour for a brief lay-over. *Shearwater's* new jetty to take large ships had recently been completed and for four days the carrier HMS *Bulwark* was secured alongside it. During this spell one of the worst offshore gales for some years did its best to break her lines, but the fact that *Bulwark* had no difficulty in riding out the storm was an encouraging sign for all future users of the berth.

Now fully equipped with *Trackers*, VS 880 had its work-up interrupted briefly when the unit joined others in an impressive fly-past in honour of M. Paul Henri Spaak, the Secretary General of NATO. Two months later the squadron left for Florida, where it spent a four-week period exercising with U.S. submarines.

The station's new runway was available for daylight landings by early September but, although the regular lighting system had not been completed, it was used at night by the Bristol *Britannia* aircraft in which Princess Margaret flew back to England after a visit to British Columbia's centennial celebrations.*

Aviation's role, past and present, in the country's development was given special prominence in 1959, the Golden Anniversary of powered flight in Canada. The country-wide celebrations started on 23 February at Baddeck, N.S., where a replica of the *Silver Dart* re-enacted McCurdy's famous flight before a large crowd which included the aviator and relatives of the late Doctor Alexander Graham Bell. Three helicopters of HU 21 were on hand to transport some of the distinguished spectators from Sydney Airport to the scene of operations on Bras d'Or Lakes. Later in the year the squadron detached another *Sikorsky* for duty in connection with the official opening of the St. Lawrence Seaway and the Great Lakes voyage of the Royal Yacht *Britannia*.†

Following squadron re-organization VF 870 became the only aircraft fighter unit in the RCN and in mid-summer the *Banshees* gave a demonstration of air power for some 5,000 interested onlookers at Camp Gagetown. Eight aircraft participated, each carrying two 500-lb. general purpose bombs, four 3" high explosive rockets and 400 rounds of 20 mm. ammunition. At home, the station was host on two occasions, in June and July, to the American seaplane tender USS *Albemarle*, whose half-dozen Martin *P5M Marlin* flying boats secured to moorings off the jetty when not engaged in exercises.

The visit to Canada of Her Majesty the Queen and Prince Philip ended in August 1959, and on the evening of the first day of the month the Royal Party was taken by barge from Halifax dockyard over to the air station; shortly afterwards a *Comet IV* airliner of British Overseas Airways Corporation took off for the flight across the Atlantic. To mark the occasion Her Majesty's landing place on Shearwater Jetty has been officially named "Queen's Steps."

A serious air-field accident occurred on 20 August when a *Tracker* of VS 880 was seen from the Control Tower to stall at about 150' from the ground and go into

an uncontrolled slow roll before landing, right side up, in a revetment adjacent to the tower. Able Seaman A. K. Maclean and J. P. G. Bouchard, RCN, who were the first to reach the spot, made strenuous efforts to release the unconscious pilot as the flames began to lick around them. Unable to unlock the overhead hatch the two men held the airman clear of the port side window while it was being smashed in by the crash crew. Shortly afterwards the *Tracker* was evacuated, seconds before it was completely destroyed by fire. Bouchard and Maclean were both invested with the George Medal by the Right Honourable G. P. Vanier, Governor-General of Canada, when the latter was visiting Halifax in July 1960. The citations, which appeared in the *Canada Gazette* of 26 March 1960, state that the awards were for displaying "Considerable courage, coolness and initiative."¹⁸

RCN helicopter pilots were called out to perform a number of non-routine missions in the last few months of 1959; these included the flying of a soldier, critically injured in a car crash, from Pugwash to HMCS *Stadacona*; co-operating with the RCMP in the search for two escapees from the N.S. Hospital; the picking-up of an injured American captain from his trawler, *Lady of Fatima*, at sea and, finally, the rescue of two duck hunters who were marooned on Ram Island for four days by gale force winds.

As soon as Christmas was over at *Shearwater* the air squadrons began preparations for another busy 12 months of training. Six *Sikorskys* of HS 50 and one *Bell* of HU 21 departed in HMCS *Cape Scott* in search of better flying weather in Bermuda and operated from the U.S. naval base on the islands until March 1960. The fighters of VF 870 then headed south for five weeks at Key West, Florida. These and other aircraft on detached duty were all back at Dartmouth by May as the station spruced up for the RCN's Fiftieth Anniversary.¹⁹ As part of "Navy Day" activities 49 aircraft of various types staged a flypast in formation on two separate occasions. Vice-Admiral DeWolf, who was visiting Halifax in connection with the anniversary celebrations, inspected the hands at Ceremonial Divisions and presented the Wilkinson Trophy to the Commanding Officer of VF 870.* Also present were Mr. and Mrs. Leslie Mowat, parents of the late SubLieutenant G. G. Mowat, RCN, who had been killed in one of *Bonaventure's Trackers* the previous December. Mr. Mowat personally presented, for the first time, the "Gordon Mowat Memorial Trophy," which he had given to *Shearwater* to be awarded annu-

*Crown Colony of British Columbia was created in August 1858.

†The St. Lawrence Seaway was formally dedicated by Queen Elizabeth II and President Dwight C. Eisenhower on 26 June, 1959.

*Given annually to the squadron contributing the most to flying progress during the year, this trophy was accepted as a gift by the RCN in 1957 from Lieutenant-Commander (A) L. D. Wilkinson, RNVR, former Commanding Officer of the RCN's first fighter squadron (803 Squadron). The trophy is surmounted by a replica of the Vickers *Supermarine Sea fire Mark XV*.

ally to the sub-lieutenant “judged to have advanced his flying knowledge the greatest amount over the past year.”²⁰

An era ended at the station on 10 June, 1960, when the last *Avenger* to fly for the RCN touched down on the runway. The old “Turkeys” were now being turned over to Crown Assets Disposal Corporation, their active career at an end.

The equipment complexities and expense of the modern aeroplane make it increasingly difficult to provide facilities for keeping a part-time reservist flyer up to operational standard. These considerations had made it necessary to pay off all RCN (R) air squadrons except VC 920 and VC 922. It was somewhat different from former times when a mere dozen reserve pilots²¹ from the two surviving units arrived at *Shearwater* for two weeks’ training in the summer. From August onwards ten Dutch sailors were taking courses in preparation for the handing over of 17 *Trackers* to the Royal Netherlands Navy under Mutual Aid arrangements. The ceremony formally transferring the first five planes took place on 5 December and three days later the group left for Curaçao Dutch West Indies, its air crews being captained by RCN personnel for the four-day flight.

Thirty-two inches of snow fell in January 1961, clogging the flying schedule, but two *T.33*’s of VU 32 managed to escape to Bermuda, where they were used for exercises in a flight support role. At Dartmouth the gloom of winter was deepened when the popular station paper, *Navalaire*, had to cease publication owing to mounting costs of production.

Always a trap lying in wait for the unwary, the Thrum Cap Shoal at the mouth of Halifax Harbour claimed another victim, the U.S. fishing vessel, *Ocean Wave*, which ran aground; one of HU 21’s *Sikorskys* recovered the five man crew and brought them to safety. Later, extensive use had to be made of the squadron’s helicopters after the fatal crash of a *Banshee* near St. Margaret’s Bay in an inaccessible area, while two helicopters of HS 50 were used to help in another crisis, the fighting of the worst forest fires in the history of Newfoundland. During the latter arduous period one machine became a total wreck after crashing but its crew were unhurt.

Having visited Montreal the Dutch aircraft carrier *Karel Doorman* secured alongside Shearwater Jetty. Before she sailed again the last batch of *Trackers* (seven planes) was turned over to the Royal Netherlands Navy’s No. 4 Air Squadron. With the increase of high industrial buildings in the vicinity of the RCN air station it became necessary to find a more suitable locale for FCLP’s which required aircraft to fly at a low altitude whilst in the circuit. Arrangements were made with the Canadian Army, the main user of Camp Debert, N.S., and from September onwards VS 880 commenced to use the runways at the former RCAF station for landing ex-

ercises.

Although its duty is the operation of aircraft the air branch is well able to hold its own in matters requiring parade ground “spit and polish”. In October *Shearwater* was called upon to provide the ceremonial party, consisting of bearers, an armed detachment and band, when the Flag Officer Atlantic Coast, Rear-Admiral K. L. Dyer, DSC, CD, RCN, presented a Mace on behalf of the navy, to the neighbouring City of Dartmouth.²² The next day a 17-gun salute was fired by the station’s 12-pounders as the British First Lord of the Admiralty arrived by air and a Guard of Honour was drawn up on the tarmac to receive him. Lord Carrington, who was paying a three-day visit to naval establishments in the Halifax area, later made a brief tour of *Shearwater*.

The first item in the 1962 list of HU 21 “good deeds” occurred shortly after New Year’s Day. SS *Suerte*, a Lebanese freighter, grounded off Halifax harbour and as the weather was rapidly deteriorating helicopters hastily air-lifted the 28 seamen on board to *Shearwater*. During the early months of the year VF 870’s *Banshees* were frequently away from their home base for training and exercises at USNAS, Cecil Field, Florida, the Canadian Joint Training Centre, Rivers, and at Sydney, N.S. The A/S aircraft of VS 880’s shore unit meanwhile were busily employed at the Naval Air Facility (NAF) at Debert, carrying out both day and night Mirror Carrier Landing Practice (MCLP).

Halfway through 1962 the home base of the RCN’s air arm at Dartmouth could look back on almost 17 years of progress and many changes. The rather battered *Swordfish* and *Walrus* aircraft have been replaced by two fixed-wing, front-line squadrons, an experimental, a utility, and two helicopter squadrons. All are equipped with modern planes and all have developed their own personality and reputation. The only fighter unit now in commission is VF 870, its sister squadron, VF 871, having been combined with it in line with a tactical regrouping to provide increased flexibility of air operations; when VF 871 paid off on 16 March, 1959, it had been in commission for eight years during which period the Safe Flying Trophy had been awarded to the squadron twice for its good record in the air.* After some “teething troubles” the *Banshees* have established themselves as supreme in their class. Their fighting efficiency has been appreciably increased with the fitting of the aircraft with *Sidewinder* making them the first fighters in Canada to be equipped with an air-to-air guided missile, which finds its target by homing on to the heat emitted by an enemy aircraft.† Named after a type of rattlesnake,

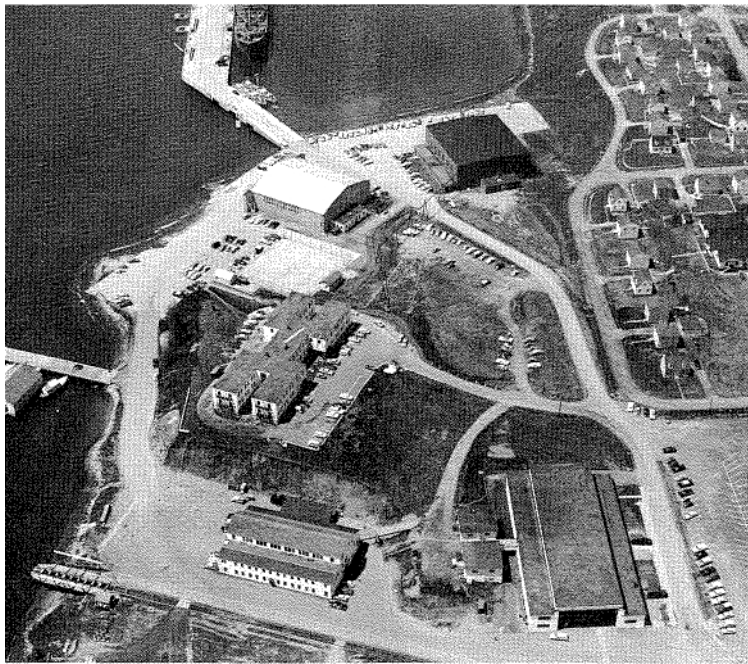
*Originally presented by officers of the Supply Branch, the trophy is competed for annually by all active squadrons, the first award being for the year 1952.

†Weapon is nine feet in length and has a range of two miles.

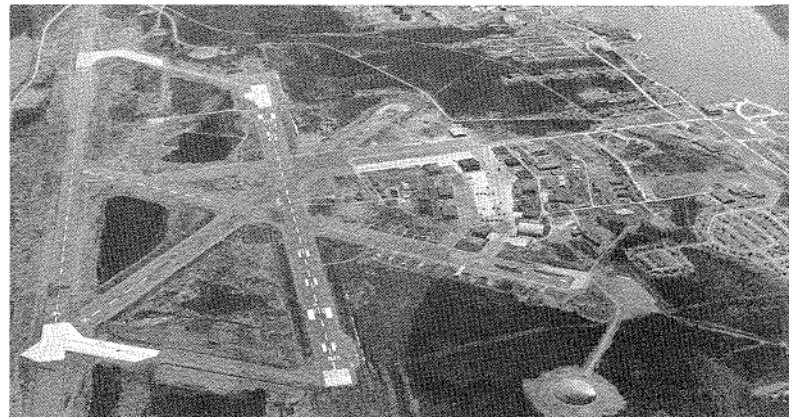
which has a peculiar sideways motion, *Sidewinder* is basically a defensive weapon designed for destroying high performance fighters and bombers from sea level to altitudes over 50,000 feet. It enables the defenders to knock down the fastest aircraft even when miles away. The high level of efficiency attained by VF 870 was acknowledged when it was presented with the Wilkinson Trophy for 1959.

Equipped with *Trackers* embodying the latest concept of an A/S aircraft capable of destroying submarines on or below the surface of the sea, VS 880 is a first-class squadron in every, sense of the word. For its good safety record in peacetime VS 880 was awarded the Safe Flying Trophy for 1952 and 1954. On 7 July, 1959, when VS 881 ceased to exist, its personnel and aircraft joined VS 880 to make the latter the largest air unit in the RCN to date. There was some reluctance, at first, to this merger but since then the union has turned out to be a "perfect marriage". By the date of the third anniversary, aircraft of the new VS 880 had landed on the carrier more than 10,000 times and it had become one of the best anti-submarine squadrons in the NATO defence forces. For the wartime exploits of the squadron VS 880 is entitled to display five battle honours:

Its speed is two and a half times the speed of sound and the war-head is of the blast fragmentation type.



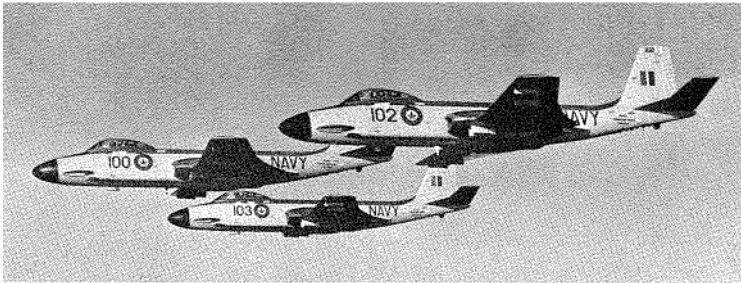
Shearwater Jetty, Eastern Passage, N.S.



HMCS *Shearwater*, Dartmouth, 1961.



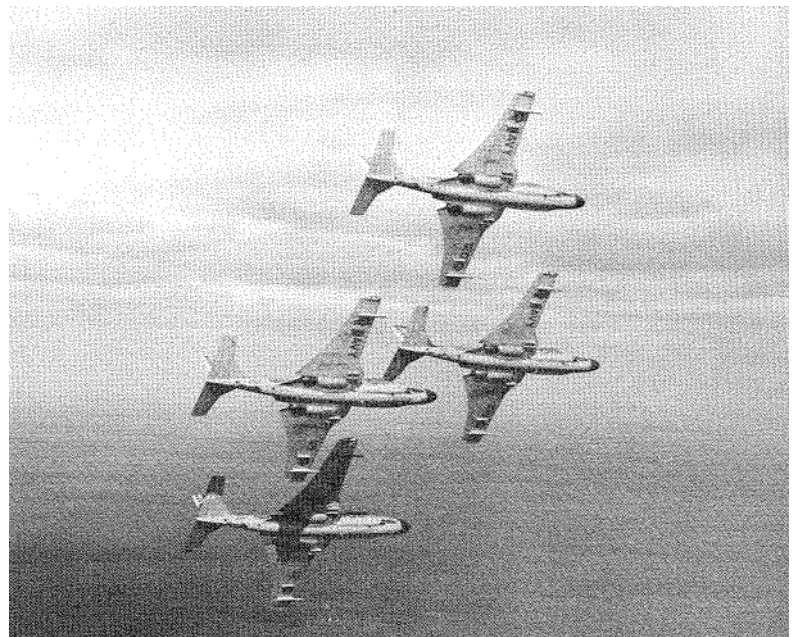
Sidewinder armed *Banshees*.



Cruising *Banshees*.



Tracker of VS 880 on patrol.



Grey Ghosts of VF 870.

<i>Diego Suarez</i>	1942
<i>North Africa</i>	1942
<i>Salerno</i>	1943
<i>Norway</i>	1944
<i>Japan</i>	1945

The experimental squadron, VX 10, since its formation in March 1953 has occupied a very important position in the station's organization. No plane is accepted for service by the RCN until it has been tested and passed by this unit. In addition to this important work VX 10 is involved in the various trials connected with the complicated and diversified equipment found in the modern aircraft. As an example, the Commanding Officer reported on one occasion that his 13 officers and 52 men were working on 80 projects and operating 15 aircraft of varying types and standards of modification. The first transatlantic flight of the RCN air arm was made by two *Banshees* and two *Trackers* of VX 10 in March 1957. Departure was taken from the RCAF Station, St. Hubert, P.Q., and the contingent finally arrived at RNAS, Ford, in the south of England to be available for the initial flight trials in *Bonaventure*. Primarily for the work of the deck-landing detachment aboard the carrier, VX 10 became the first winner of the Wilkinson Trophy. The high standard of flying achieved by the squadron has also won it the Safe Flying Trophy for the years 1957 and 1958.

The main role of VU 32 between 1954-59 was to provide aircraft for Observer School exercises, various fleet requirements, and for pilot proficiency flying. During the same period the All-Weather Flight of VT 40 was the navy's instrument flying school, where concentrated instruction and practice was given in aerial navigation, the airborne part of the course being conducted in Beechcraft *Expeditors*. The squadron's Advanced Training Flight prepared flyers for duty in the front-line anti-submarine squadrons and provided refresher courses for pilots in non-flying appointments; at various times in its career the unit operated *Harvards*, *Avengers*, *Sea Furies* and, after the formation of the Jet Flight in 1955, *Silver Star* trainers.

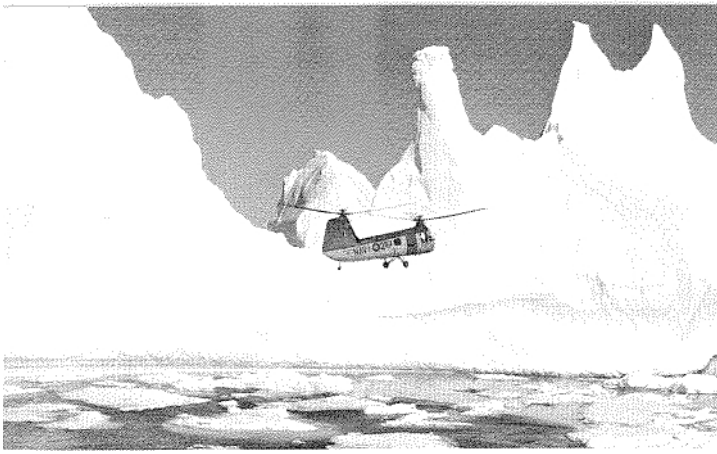
VT 40 ceased to exist as a separate entity on 4 May, 1959, and was amalgamated with VU 32, which took over the training function after it had been re-organized into three flights. The Utility Flight, comprising *Trackers* and *Avengers*, became responsible for Observer's Mate training, fleet piston engine requirements and air transport; the Piston Flight, flying *Expeditors*, assumed control of proficiency flying, piston, fixed-wing training and piston engine instrument instruction while the Jet Flight took over jet fleet requirements, jet proficiency and instrument training. Another section, the Advanced Training Flight, was formed in 1960 to give naval flying instruction to new pilots who had completed their initial



Navy T 33 "Silver Stars" over Halifax Dockyard.

training with the RCAF.²³ In 1962, VU 32 merged the Piston Flight with the Advanced Training Flight and was carrying out all functions with *Trackers* and *T.33's*, having disposed of its *Avengers* and *Expeditors* two years previously.

The "work-horse" of the naval air service, HU 21 has frequently been mentioned in this history for the variety of duties it has been called upon to carry out. Every year since its formation the squadron has added to its laurels with the number of rescue and other missions of every description that have been successfully completed. Most of these have occurred when helicopters have been operating from *Shearwater* or the carriers, but mention has not been made before of a rescue by a *Piasecki* when forming part of a squadron detachment serving in HMCS *Labrador*. Helicopters were of inestimable value to this ship in hydrographic and oceanographic survey work, ice reporting etc. on her famous cruises to northern waters. On 26 July when *Labrador* was in Frobisher Bay during the 1957 voyage of exploration, a *Bell* crashed near the top of a 2,400-foot mountain, the crew of two crawling out unhurt. Air turbulence made a helicopter landing very dangerous except in ideal flying weather; which was not prevailing at the time. In attempting to render assistance a second *Bell* also had to make a forced descent to join the crew of the first in a rather unpleasant locale. The detachment's third machine, a *Piasecki*, was under repair aboard the ship. It was quickly reassembled but as the wind had increased the helicopter could only make drops of essential supplies from 500 feet during that day. On the morrow, conditions were calmer but a dense fog began to roll in from seaward. In spite of this the *Piasecki*, piloted by Lieutenant D. A. Oliphant, RCN, succeeded in rescuing the four survivors on a second run over the mountain. *Labrador* sailed but returned on 5 August to land a salvage party, which, after various fruitless attempts, managed to get to the top and retrieve as much moveable gear as possible; the main fuselage, etc. had to be abandoned.²⁴ The skill of the *Piasecki* pilot on this occasion demon-



Piasecki helicopter operating from HMCS Labrador in Far North.

strates, once again, the high standard, which naval flyers have achieved in the “whiny birds.”

The second helicopter squadron, HS 50, with headquarters at *Shearwater*, has given the RCN a strong punch in its powerful anti-submarine arm. Most of the unit’s time is taken up with sea exercises, training and demonstrations but in the autumn of 1956 the helicopters were temporarily stripped of their sonar gear and prepared for transport duties in the northland. With a complement of about 50 officers and men, the squadron operated out of Knob Lake helping the RCAF in the lift of personnel and material from marshalling points to actual sites in the Labrador section of the Mid-Canada Line.* From September to mid-November a large tonnage of supplies was moved in an area where the use of neither fixed-wing aircraft nor supply trains was feasible. The squadron was eventually relieved by a detachment of HU 21, which continued with the RCAF until the end of the year. The efforts of HS 50 were praised by Air Marshal C. Roy Slemon, CB, CBE, RCAF, Chief of the Air Staff, in a message to the Flag Officer Atlantic Coast:

*Radar Warning Line along the 55th Parallel of Latitude and extending for 3,000 miles across Northern Canada.

The readiness of the RCN to assist in this vital project coupled with the keen spirit and resourcefulness displayed by all RCN personnel is an outstanding example of inter-service co-operation. Although much work still remains to be done, HS 50, in lifting more than 850 tons of urgently required material, made a most significant contribution to the task.

Good work on more mundane duty earned HS 50 the awards of the Wilkinson Trophy in 1958 and the Safe Flying Trophy in 1959.

In reviewing the RCN’s air squadrons it remains to mention but one other, which, although not now based at *Shearwater*, was originally a West Coast Detachment of VS 880, sent to Patricia Bay, Sydney, B.C., in January 1954 to participate in torpedo-running trials. A few months later approval was given for the formation of a Utility Squadron “to be based permanently on the West Coast and placed at the disposal of the Flag Officer Pacific Coast.”²⁵ Agreement²⁶ was reached with the RCAF for joint use of accommodation and facilities on the west side of the Patricia Bay air-field and on 1 November, 1954, a new squadron, VU 33, was formed, using the two *Avengers* of 880’s detachment as a nucleus. In March of the following year Fairey Aviation Company of Canada Ltd. set up a repair organization at Patricia Bay for naval aircraft. Also located at the airport, on the east side, are the hangars used by VC 922 and the Victoria Flying Club.²⁷ To the latter are sent selected cadets from the officers’ training establishment, HMCS *Venture*, to gain their Department of Transport, private flying licences prior to specializing in service aviation.

The aircraft of VU 33, which by 1962 consisted of *Trackers*, *Piasecki* helicopters, and *T.33* jet trainers, play a very important role in the Pacific Command. In a normal month’s work they fly many and varied sorties including exercises with ships and establishments, target towing, photography, search and rescue, inter-service co-operation and general maintenance flying. That the small squadron meets all its tasks with capable efficiency is illustrated by the fact that 10,000 flying hours

HS-50 helicopters supplying Mid-Canada Line, 1956.





Free cruising *Sea Furies*.



Launching *Sea Fury* Squadron.

without a single accident in the year brought it the coveted Safe Flying Trophy for 1956.

The appearance of the air arm's station at Dartmouth has changed out of all recognition since 1945, old buildings have been torn down and new ones built. Amongst the additions may be listed new hangars, an electrical building, officers' quarters, gymnasium, a barrack block, swimming pool, two new churches, a gate house, a new reservoir, aviation store building and the Robert Hampton Gray Memorial School.* Housed in the station buildings are the various units of the Executive Department; the Air Operations Department; the Fleet School (Air), which is *Shearwater's* training department; the Air Maintenance Organization (Consisting of the Air Maintenance Depot and the Air Engineering Department), an amalgamation of all aircraft repair and station facilities; and the Supply Department, including the Aviation Supply Depot, which comes under the same departmental head as other supply functions on the station.

At *Shearwater* the RCN has both an operational and flying training base; also an establishment for flight test and evaluation. New runways have been built and existing ones improved to receive naval, RCAF, and visiting aircraft, all of which are brought in for landing by a new

*Named in memory of Lieutenant R. H. Gray, VC, DSC, RCNVR. The ship's bell of HMS *Formidable*, Gray's last ship, is now at the school.

Control Tower fitted with the most modern radar and other equipment; one of the regular users of the air-field has been Trans-Canada Air Lines from the early days until September 1960, when the company moved its operations to a new civilian airport opened at Kelly Lake about 25 miles from Halifax.²⁸ A big help to pilots has been the installation of the Strobeacon Landing Aid, an electronic flash approach system; the beacon flashes a 30-million-candle-power beam, which lasts for only 1-5000th of a second. There is thus no danger of the man at the aircraft controls being blinded as he makes his final approach under conditions of mist, rain, fog or snow, which formerly would have made landing extremely hazardous. The complete flashing approach system, as installed at *Shearwater*, is the first of its kind in Canada.

The rescue facilities, which are on a 24-hour alert at *Shearwater*, have been successful in saving many lives, both service and civilian. The recovery of the pilot of a United States Air Force *F.100* aircraft provides a good example of the system's efficiency. At 2110 on 21 July, 1958, the approach control operator at Eastern Passage heard an unknown plane give a faint distress call, "May-day". This was reported to the Duty Direction Officer, who detected a distress radar signal coming from a location some 20 miles to seaward of Yarmouth, N.S. However, although the DDO could "hear" the aircraft and see it on his screen, he was unable to raise the pilot by voice. The Direction Officer immediately called the RCAF Pine Tree Station, Beaverbank,* by direct line telephone and suggested that the latter should get into contact and tell the pilot not to bail out until over the land. The next move in the fast-developing drama was made by the Pine Tree Station, which got through to the airman and, on the suggestion of *Shearwater*, passed a heading of the Yarmouth field for an emergency landing. Weather at Yarmouth was checked by the RCN air station and found to be zero zero, the same as at Dartmouth. A meteorological summary was passed to the *F. 100* by Beaverbank, which also told him that he was now well inland. At 2121 the pilot of the doomed plane opened his canopy and ejected. *Shearwater*, in touch by radio with a second *F.100*, acting as "wing man" to the first, told this aircraft that the position of bail out was 86 miles from the naval base bearing 254 degrees. The information was then transmitted by Beaverbank to the RCAF Station, Greenwood, and the Rescue Co-ordination Centre, Halifax. The "wing man" landed safely at Greenwood on vector from Beaverbank, and early the next morning the pilot, who had had to bail out was recovered, unhurt, in exactly the area of the woods pinpointed by the plotters.

Personnel at *Shearwater* work hard on a variety of

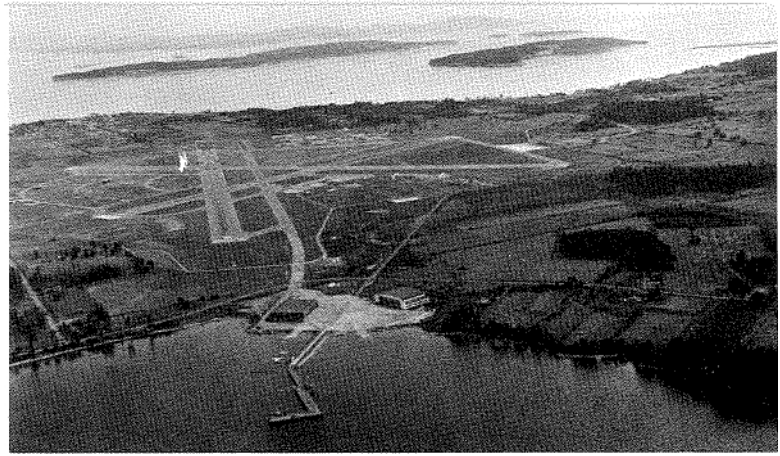
*One of a chain of radar warning stations north of and following, roughly, the 49th parallel of latitude.

tasks and in off-duty periods they play just as hard. In different seasons soccer, rugby, hockey, basketball, volleyball, water polo, curling and cricket teams meet in competition with opponents from near and far. No history of the air station would be complete without mention of the famous "Shearwater Flyers" football team, which was affiliated to the Canadian Rugby Union in 1955. In November 1957 the "Flyers" won the Nova Scotia Football League finals, the Eastern Canadian championship and then captured the national crown in the form of the Perry E. Robinson Memorial Trophy, a handsome piece of silverware awarded to the winner of the Intermediate East West Championship. In the arts, the "Shearwater Players" won the Calvert Trophy in the Nova Scotia Regional Drama Festival on a number of occasions but have not been active in recent years. The Sailing Club is now an old established institution and in September 1958 the Shearwater Flying Club was incorporated. A pride and joy to the members of this organization is a vintage *Tiger Moth*, which is kept in first-class order by the enthusiastic amateur flyers.

At work or play one of the most popular institutions at *Shearwater* is the ship's band, which figures very prominently in the day to day life on the station. One of the most notable of the many functions at which the 33-piece unit has performed took place during the Royal Visit of 1957 when Her Majesty inspected members of the British Legion at the Seventh Regiment Armouries in New York. The year 1959, when it travelled over 4,000 miles, playing at 103 public and service engagements, was a particularly busy one for the band. At home in September it put on an impressive musical march display when *Shearwater* was host to the public for the first time in nine years and later the same evening displayed its versatility by providing a 17-piece orchestra for a big dance in one of the hangars.

Following a Royal Navy precedent adopted by the Royal Canadian Navy, the air station at Dartmouth bears the name of a water bird. The shearwater, known for grace of flight as it skims over the waves, spends the greater part of its life on the ocean rarely resorting to land except in the breeding season.

The name was first used for a warship, a ten-gun brig, in 1808. By the end of the nineteenth century there had been two more *Shearwaters* in the Queen's Service, both being used for surveying work at various times in their careers. The next in line was a 980-ton sloop, which commissioned on Trafalgar Day, 1901. This vessel was destined to have a long association with Canada and the RCN and it is for her that the air station is named. *Shearwater*, fourth of name, arrived at Esquimalt in April 1902 and for the next 12 years served on the Pacific Station. On the outbreak of war in 1914 she paid off and her company of RN ratings was sent to bolster



RCN Air Facility, Patricia Bay, B.C.

the crew of HMCS *Niobe* at Halifax. The sloop was then commissioned on 8 September as one of HMC Ships and used as a base ship for the two Canadian submarines, *CC-1* and *CC-2*, finally sailing with them for Halifax in June 1917.²⁹ This passage was made via the Panama Canal and the three warships became the first of those flying the White Ensign to use the water-way which had been opened for ocean traffic in August 1914. After a period of duty as a training ship for the navy *Shearwater* was sold out of the Service in 1922 to the Western Shipping Company Ltd. and was last heard of as a wreck near Panama in 1934.

After removal of the old sloop *Shearwater* from the active list the name was used once more by the Royal Navy prior to the commissioning of the establishment at Eastern Passage. A 580-ton *Guillemot* Class corvette, originally designated as a patrol vessel, joined the British Fleet in September 1939. This *Shearwater* served throughout the Second World War, 1939-45, on convoy and escort duties which involved her in several engagements with German E-boats off the east coast of England; placed in the Reserve Fleet in 1945 she was scrapped two years later. To the Royal Canadian Naval Air Station the corvette has bequeathed a battle honour:

North Sea 1940-45

The latest *Shearwater* already has had a crowded history in a short span of years as the mainstay of the air arm. From a personnel strength of less than two dozen operating from a few old borrowed buildings, it has grown into a large well-organized base covering an area over one and a half miles in diameter with a complement of approximately 2,800 sailors and 700 civilians. Although the story of a shore station cannot be spectacular, nevertheless those who serve there can know that each, by his contribution, is forging the weapon that must be kept ready for use in battle. All combine together to make possible the realization of the apt motto of the ship, *Supra Mare Volamus* or, in its anglicized form, *We Fly over the Sea*.

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- ¹ Commander (A) J. H. Arbick, OBE, RCNVR.
- ² Draft No. 7, dated 9 March, 1946, "Agreement governing the relationship between the Royal Canadian Air Force and the Royal Canadian Navy and the use of the Royal Canadian Air Force facilities by the Royal Canadian Navy." NS 1550-12 (1).
- ³ Naval Board Minute 190-1, 14 August, 1946. NS 1700-219-908 (1).
- ⁴ Naval Board Minutes, 7 July, 1947. NS 1700-223/224, (2).
- ⁵ Cabinet Defence Committee Minutes, 14 September, 1948. NS 1700-223/224 (2).
- ⁶ HQ Message 162138 September 1948. CANGEN 107.
- ⁷ "Reports of Proceedings". HMCS *Shearwater*. December 1948 NS 1920-223/224 (1).
- ⁸ Squadron 880 was first commissioned into the RN in January 1941, equipped with *Hurricanes*.
- ⁹ Squadron 881 first formed, with *Wildcat* aircraft, in June 1941. It was disbanded in September 1945.
- ¹⁰ "Organization & Administration RCN Air Station, Dartmouth, N.S." NS 1700-223/24 (6).
- ¹¹ CANGEN 117/55.
- ¹² Exercises *Argus I*, *Argus II*, *Matrix*, and *Morning Star*. A total of 301 sorties in 509.5 flying hours was contributed by naval aircraft.
- ¹³ SECTEMP No. 27/56.
- ¹⁴ Naval Board Minute 190-1, 14 August, 1946. NS 1700-219-908 (1). The figure of 3,000 was to be allocated to the Air Reserve out of an approved total Reserve complement of 18,000.
- ¹⁵ Minutes of the 547th Naval Staff Meeting of 15 November, 1952. Approval had previously been given in principle by Naval Board Minute 190-1 of 14-8-46. NS 1700-219-908 (3).
- ¹⁶ Naval Board Minute 392-2 of 4 November, 1953. NS 1700-219-908 (3).
- ¹⁷ *Loc. cit.*, Planning envisaged a final composition of 11 A/S squadrons, 2 fighter squadrons, and 2 helicopter A/S squadrons.
- ¹⁸ Petty Officer John Neil Paddon, RCN, was commended by the Chief of the Naval Staff for his part in the rescue.
- ¹⁹ Royal Assent was given to the Naval Service Act on 4 May, 1910.
- ²⁰ The first winner of the trophy was Sub-Lieutenant P. A. Hamilton, RCN.
- ²¹ RCN (R) aircrew of each reserve squadron had been established at eleven pilots with an aircraft establishment of 3 Expeditors apiece. Naval Board Minute 620-2 of 10 May, 1960. NS 1700-219-906 (5).
- ²² Dartmouth had been incorporated as a city on 1 January, 1961.
- ²³ Prior to 1959, RCN pilots, except those earmarked for helicopter duty, who were trained by the RCAF, were sent for an intensive eighteen-month course at various naval air stations in the U.S. This training is now given by the RCAF.
- ²⁴ Based on account in "A Short History of HMCS *Labrador*" prepared in the Naval Historical Section.
- ²⁵ Naval Staff Minute 572-3 of 23 March, 1954. NS 9650-238 (1).
- ²⁶ *Ibid.*, Naval Board Minute 537-2 of 31 July, 1957, approves the taking-over by the RCN of certain land, buildings and facilities at Patricia Bay formerly loaned by the RCAF.
- ²⁷ Since 1958 Patricia Bay has been known as Victoria International Airport.
- ²⁸ Halifax International Airport was opened officially on 16 September, 1960.
- ²⁹ A shore establishment, HMCS *Shearwater II*, was commissioned at Esquimalt on 12 October, 1914.

HMCS MAGNIFICENT 1948-1957

After the Cabinet's decision* of January 1947 to return *Warrior* and keep only one borrowed light fleet carrier in commission, future hopes of the air arm became centred on *Magnificent*, which had also been built by Harland and Wolff of Belfast, Northern Ireland. This vessel was launched on 16 November, 1944, by Lady Hyacinth Needham, daughter of the Earl of Kilmorey, Hereditary Vice-Admiral of Ireland, Province of Ulster. Key Canadian naval personnel came to the shipyard during 1947 and the large party, already mentioned, from *Warrior* crossed over the Irish Sea from England in March 1948. On arrival they found the new ship lying alongside in Musgrave Channel with dockyard workmen putting on a final spurt to complete her by the date of commissioning. This ceremony took place on 7 April and Commodore DeWolf, who had recently left *Warrior* at Portsmouth, assumed command. With the hoisting of her Colours HMCS *Magnificent* joined His Majesty's Canadian Fleet.

Unlike her predecessor, the new *Majestic* Class carrier was prepared for cold weather service and had incorporated into her various Canadian specifications, particularly in respect to messing arrangements. Given the appropriate ship's motto, *We Stand on Guard*, *Magnificent* had inherited two battle honours from former British men-of-war, which bore the name:

The Saints 1782.

Dardanelles 1915.

Magnificent put to sea for the first time on 15 April, 1948, and successfully completed acceptance trials of the main machinery. She then steamed down to Portsmouth for the rest of her trials and in May began the work for which she had been built. Aviation fuel was embarked at Spithead and the next day aircraft from the Royal Naval Air Station Ford made rendezvous off the Isle of Wight for flying tests. These were entirely successful and were enlivened by a visit from the editor of

the magazine *Aeroplane*, who landed on the flight deck in his small *Auster* aircraft during the proceedings. Returning to Portsmouth, embarkation of ship's stores and ammunition occupied all hands until the middle of the month when course was shaped for Belfast. The airport wharf at Sydenham was a scene of great activity after the ship had secured, as the planes of the 19th Carrier Air Group and those of 806 Squadron, Royal Navy, had to be hoisted on board.¹ The head of British naval aviation, the Fifth Sea Lord,² visited *Magnificent* on May 24 and the following day she began the westward voyage to Canada.



Homeward bound HMCS *Magnificent* leaves Belfast.

In respect to weather the "Glorious First of June" did not live up to its name, low cloud and rain over the Dartmouth air station permitted only two aircraft to be flown off. With the remainder still on board, *Magnificent* berthed for the first time in her career, alongside in Halifax. All the packed air stores that had been brought from the UK for the naval service were cleared from the hangar and work began to prepare the space for flying operations. A short shake-down cruise for the benefit of the ship's company was made to St. Ann's Bay, Cape

*See page 45.

Breton, drills exercises and a regatta being carried out. The carrier began flying operations with the 19th CAG in August and a busy ten days ensued, during which time there were 171 deck landings. *Haida*, acting as plane guard, had to take action on two occasions when aircraft ditched, but no air crew were lost. After this cruise had ended the Broad Pennant of Commodore DeWolf was struck and Commodore G. R. Miles, OBE, RCN, became the new Commanding Officer of *Magnificent*.

Haida and *Nootka* took station on the carrier, once clear of Halifax, on 2 September, and although there had been severe gales on the coast the quiet weather in their wake made it possible for the 19th CAG to get in three days of flying. One particularly useful exercise was a full-scale reconnaissance of the Magdalen Islands followed by strikes in which all available aircraft participated. The day following there were joint manoeuvres with the RCAF and later naval aircraft had to be grounded as a consequence of suspected contamination of the aviation fuel on board. The ships entered Hudson Strait and *Magnificent* came to anchor amidst the bleak, rugged surroundings of Wakeham Bay with the destroyers berthed on her. This settlement situated in the northern part of the Province of Quebec had a population of a priest and about 80 Eskimoes; it had formerly been the site of a Hudson's Bay trading post, now closed. Having completed with fuel and provisions the two escorts moved to designated anchorage positions while the carrier sailed for Halifax. The weather, which had been very foggy, improved as *Magnificent* drew south and further exercises were carried out with the RCAF before the 19th CAG flew off to Dartmouth. Ground crews disembarked and all unserviceable planes were landed at the home port prior to the carrier being placed in dry dock at Saint John, New Brunswick.

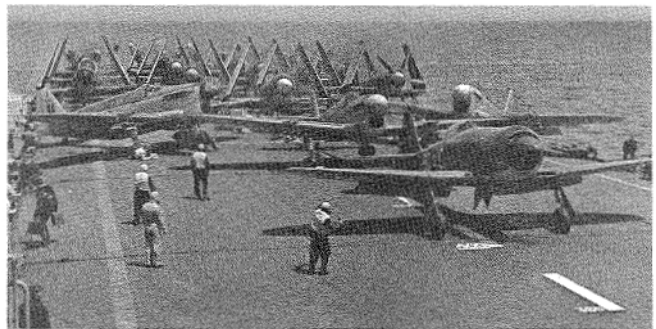
Training exercises with ships of the Royal Navy stationed on the America and West Indies Station were featured on a number of occasions in the history of *Magnificent*, the first being held in 1949. Manoeuvres with British and Canadian warships, the latter from the Pacific command, occupied the carrier in March and April of a year which was also to see her make a ferrying trip to the UK, suffer a grounding and join in the successful search for an American aircraft.

After transporting *Firefly Mark IV* planes and collecting *Firefly Mark V* and *Sea Furies*, *Magnificent* headed back across the Atlantic. Most of the way gales pounded the ship causing damage forward in spite of the fact that she altered course at one time to avoid the centre of a depression. The lashing on one of the spare *Tribal* Class destroyer propellers that were secured on the flight deck for transportation came adrift and, although speed was immediately reduced and the ship's head brought into the wind, the propeller slid gracefully over the side be-

fore any other action could be taken. *Magnificent*, somewhat shaken up, berthed in Halifax on 25 February, 1949.

Alongside there was a hectic period of one week, landing ferried aircraft, making good all damage affecting sea-going and fighting efficiency and preparing for a cruise to the West Indies. A new 18th CAG had been formed in November consisting of 828 and 826 Squadrons, flying *Firefly Marks I* and *V*, and this unit was aboard when the carrier shaped course to the southward accompanied by *Haida* and *Nootka*. Two days out deck landing training (DLT) commenced north-west of Bermuda in a freshening south-easterly wind with occasional rain squalls. After a full session of flying, activities were terminated by a barrier crash and *Magnificent* anchored in Five Fathom Hole. Task Group 215.8 had to weigh in the evening to gain sea-room as a gale warning had been received; in the process *Haida* lost her starboard anchor and five shackles of cable. From weather reports it became obvious that the Bermuda area would be unsuitable for flying during the next few days and *Magnificent*, with *Nootka* (*Haida* having been detached to search for her anchor) set out for the Caicos Passage. Off Kingston, Jamaica, flying resumed in co-operation with the authorities at Vernam Field on the Island. A *Firefly I* and a *Sea Fury IV* crashed into the sea when attempting to land on, but *Nootka* was quickly on the scene to recover both pilots. Using HMS *Jamaica*, on passage from the Canal Zone to Kingston, as a target, *Sea Furies* made a successful and realistic search and strike. Fighters located the cruiser at 210 miles and, after refuelling, a strike of nine planes attacked at 162 miles from the carrier.

A National Salute was fired by *Magnificent* for Task Group 215.8, which had by now been rejoined by *Haida*, as the ships passed the breakwater at Colon. Here Task Group 215.9, comprising HMC Ships *Ontario*, *Athabaskan* and *Antigonish*, which had transitted the Panama Canal the previous day, was in harbour and the whole squadron became known as Task Force 215 under the command of Commodore Miles. Having held a conference to discuss the forthcoming cruise the force steamed



Launching *Sea Furies* and *Fireflies*.

into the Caribbean to rendezvous with the America and West Indies Squadron.³ Search aircraft located these ships and carried out a good attack, the while sending back accurate reports of "enemy" movements. On completion of the encounter exercises,⁴ C-in-C A and WI assumed overall command and the Fleet proceeded to St. John, Antigua, for a two-day lay-over: weather conditions had precluded search for HM Submarine *Tudor* which joined the force later in the island anchorage.

Task Force 73 deployed for further day and night exercises enroute to Guantanamo, Cuba. Aircraft from *Magnificent* next took part in a convoy drill during 30-31 March, in which the carrier was part of *Blue Force* under the orders of the Senior Canadian Naval Officer Afloat (SCNOA). The combined fleet then dispersed but the Canadian ships remained together until the next day. The first of April 1949 saw the accession of Newfoundland as the tenth Province of Canada and the force was dressed overall to mark the occasion. Commodore Miles embarked, in turn, in *Antigonish*, *Athabaskan*, and *Ontario*, returning to *Magnificent* in the afternoon; Task Group 215.9 was detached for the Panama Canal. Task Group 215.8 kept up its flying schedule and, after a visit to Bermuda, all serviceable planes took off from the carrier's pitching deck on 7 April for Halifax, 225 miles away. *Magnificent* with her attendant destroyers berthed in HMC Dockyard 24 hours later.

There was the prospect of a busy summer of flying training for *Magnificent* and, commencing with operations in the local area during May, everything went according to plan until the last dog-watch of 4 June. *Magnificent* was approaching the entrance to the harbour of Port Mouton where at 1937, local time, she took the ground on the tip of White Point as she was passing through the channel between the Point and White Point Rock. Luckily sea and swell were slight and four hours later, with the assistance of the destroyers, she floated off and made her way slowly back towards Halifax. In the early hours of the 5th *Nootka* was detached to return to Port Mouton for the recovery of cable and wire. *Magnificent* and *Haida* berthed at Halifax shortly after noon and strenuous efforts immediately began to prepare the ship for docking at the earliest possible date. Accompanied by the tug *Riverton*, *Magnificent* departed 14 June and entered stern first the dry dock at Saint John, N.B. four days later, having been held up by fog.

The current refit kept *Magnificent* in dry dock until the middle of October. Shortly after this, wearing the Broad Pennant of Commodore K. F. Adams, RCN, her new Commanding Officer, the carrier entered Halifax to prepare once again for her accustomed role. During her sojourn at Saint John an alternative Deck Landing Control Officer's position had been fitted for use with U.S. Navy landing technique, although without the necessary instruments, as instructions had been received that the

18th CAG would use British deck landing drill during the Autumn cruise.

Early on 17 November *Magnificent*, with *Haida* and *Swansea* stationed on her, was steaming into the wind off the Nova Scotia coast as *Fireflies Mark I* and *V* started their DLT. This good work was interrupted by a signal directing *Magnificent* to carry out an air search for a missing U.S. *B-29* aircraft. Bad weather made operating conditions difficult but various areas were covered by planes and *Swansea* was despatched to a position where a flare had been observed. The frigate was having trouble with her starboard main circulating pump and from 1242 on the 17th she was ordered to act independently. A search flight of eight aircraft was landing on after a fruitless period in the air on 19 November when a *B-17* plane was seen orbiting on the carrier's port beam at a distance of 14 miles. Owing to a shortage of fuel *Magnificent's Fireflies* had to continue to land but as soon as the last one had touched down, *Haida* was detached to investigate. Within an hour the destroyer was picking up survivors from three rafts and later the carrier's Medical Officer was transferred by motor cutter to attend the airmen. *Magnificent* and *Haida* made best speed to Bermuda: *Swansea* by this time was out of the search, being hove to in foul weather. She was subsequently detached to Halifax.

After a brief pause at Bermuda to land survivors Task Group 211.1 continued on to Guantanamo where landfall was made on 24 November. This was only a short stay and three days later the ships were secured alongside in San Juan, Porto Rico. Always a popular port of call the capital lived up to its reputation on this occasion and as a farewell gesture naval aircraft flew over the city when *Magnificent* left harbour; permission for this flight had been given by the local air traffic control. Five *Fireflies Mark V* and one *Mark I* were flown off to HMCS *Shearwater* on the same day, 6 December, that the task group arrived back at Halifax. The remainder of the 18th CAG was landed by lighter and the rest of the year was given over to cleaning ship, with time off to enjoy the festive season.

On Friday, 13 January, 1950, the 18th CAG aircraft were hoisted on board and the year's activities started with a cruise to Bermuda. The *Fireflies* were flown off to Kindley Airfield when Task Group 215.1, consisting of the carrier and *Micmac*, was some 43 miles distant. Exercising from the island continued until the last day of the month when *Magnificent* turned into wind and at full speed of 24 knots in the light breeze blowing, was able to land on the nine aircraft from the shore field before she shaped course for Halifax. The 18th CAG returned to the air station for 11 days and again met Task Group 215.1 off Halifax on 13 February. The spring cruise was a long one and right from the start the maximum amount of flying was the order of the day, including DLT, cloud

flying, aerobatics, interceptions NAVEX,* contact scouting exercises etc. A *Firefly* crashed in the sea off the starboard bow during one forenoon and, although *Micmac* was quickly on the spot to pick up the observer, there was no sign of the pilot. The group navigated the river to Charleston, South Carolina, for a visit and when it left 14 aircraft of the 18th CAG were airborne in a fly-past over the city. At sea insufficient wind for flying curtailed the programme and speed was increased to enter the Mona Passage and reach the area of the North-East Trades. Fourteen aircraft were flown off to carry out a photographic reconnaissance of two small islands, Piedra del Fraile and Alta Vela, off the south coast of Santo Domingo and the next day the ships came to anchor in Guantanamo Bay. From here they moved to Havana where there was a considerable amount of ceremonial.

Magnificent sailed from Cuba and, after another call to Guantanamo, was in the Windward Channel on 16 March conducting an aerial search for Task Force 21⁵ at the commencement of *Caribex 50*, for which exercise the Canadian ships had become Task Group 22.1. Flying at 50 feet the aircraft, without being detected, located the force and a strike of seven *Fireflies* successfully attacked out of the sun at 800 feet in spite of the attentions of a strong defensive Combat Air Patrol (CAP). In the initial stages the latter was confused by false vector reports, which were passed by the Direction Officer in *Magnificent* to cause delay in the control of the defence. Meanwhile Task Group 22.1, having been detected by *Phantom* aircraft, was engaged by a main strike consisting of about 20 *Bearcats* and 30 *Skyraiders* followed by sixteen more *Bearcats*. The dive-bombing of the *Skyraiders* was very well timed and presented a difficult AA target for the ships' gunners. The two forces combined and were manoeuvred to arrive in a position south-south-west distant 75 miles from Guantanamo Bay, where a combined dawn strike was made on the airfield. Whilst this was in progress a USN CAP was controlled by *Magnificent* and an RCN CAP was controlled by *Missouri* and *Worcester* to intercept aircraft coming in to attack their respective task groups. The fleet dispersed and TG 22.1 steamed towards a position north of the Caicos Passage to rendezvous with TG 22.2, HM Ships *Glasgow*† and *Snipe*.

Stationing signals were passed in the forenoon of 20 March and the Canadian ships joined TG 22.2, which had four U.S. destroyers and four U.S. destroyer minesweepers of TG 22.3 with it, to form TG 22 for another phase of the joint exercises, a simulated overseas movement of carrier forces. The first striking force, TF 21,

*Navigation Exercise.

†Wearing the flag of Vice-Admiral R. V. Symonds-Taylor, CB, DSC.

second striking force, TF 22, and a logistic support force, TF 23, endeavoured to make a safe passage over a distance of 600 miles due north. Support was provided by a "Hunter-Killer" force, TF 24, and air reconnaissance units, TG 29.2, against strong opposition by submarines, TF 25, and land-based aircraft, TG 29.3. On completion the RN and RCN ships parted company from the U.S. destroyers and were exercised by C-in-C, A and WI until 31 March, the period being broken by a four-day lay-over in Guantanamo. *Glasgow* controlled an air defence exercise (ADX) on the last of the month and the Canadian aircraft then formed up for a fly-past and farewell salute to the Flag of the British Admiral.

Magnificent and *Micmac* made use of their passage north to clean and paint ship in preparation for a visit to New York. South-west of Nantucket Light Vessel *Swansea* joined the group and transferred stores and a band to *Magnificent* while the ships were at anchor in Gravesend Bay. With a total of seven tugs to counteract the strong northerly wind the carrier was finally secured on the north side of Pier 26. The spell in harbour ended 12 April and TG 215.1 arrived off Sambro Light Vessel on the 14th. The *Fireflies* flew off to RCNAS, Dartmouth, and the ships were welcomed home after an absence of over two months.

In this third year of her commission *Magnificent* became flagship for a squadron that sailed on a "diplomatic cruise" of particular significance to the country. The object was a neighbourly visit to some of the countries of the North Atlantic Treaty Organization in order to consolidate ties of friendship and let them see something of Canada's navy. Preceded by *Micmac* and *Huron* she cleared Halifax on 22 August, 1950, for this voyage. Two squadrons, 803 and 883 forming the 19th CAG, and Squadron 825, were launched as the ships approached the Irish coast and proceeded to land at RNAS, Eglinton. *Magnificent* secured to a buoy off Moville while the destroyers went on up to Londonderry; later the group operated with aircraft from Eglinton, Royal Air Force planes and a number of HM Ships in a few days of sea/air exercises.

Rear-Admiral E. R. Mainguy, OBE, RCN, assumed command of the Canadian Special Service Squadron on 19 September and his Flag was hoisted in *Magnificent* at 0800. With its planes once more embarked the squadron proceeded via the Minches and Pentland Firth to Rosyth. The air group flew strikes against HMAS *Sydney* in the Moray Firth and was airborne again on the next leg of the cruise, three days later, searching for a ketch stolen from Gothenburg. A National Salute to the Kingdom of Norway and a Royal Salute to His Majesty King Haakon was fired by the carrier on entering Oslo. The Norwegians proved to be very hospitable and a busy round of official and private entertainment kept all hands thoroughly busy. The general feeling of the Canadians con-



HMCS *Magnificent* visits New York, 1950.



“Beat up” by *Firefly* V of 825 Squadron.
HMC Ships *Magnificent* and *Micmac*.



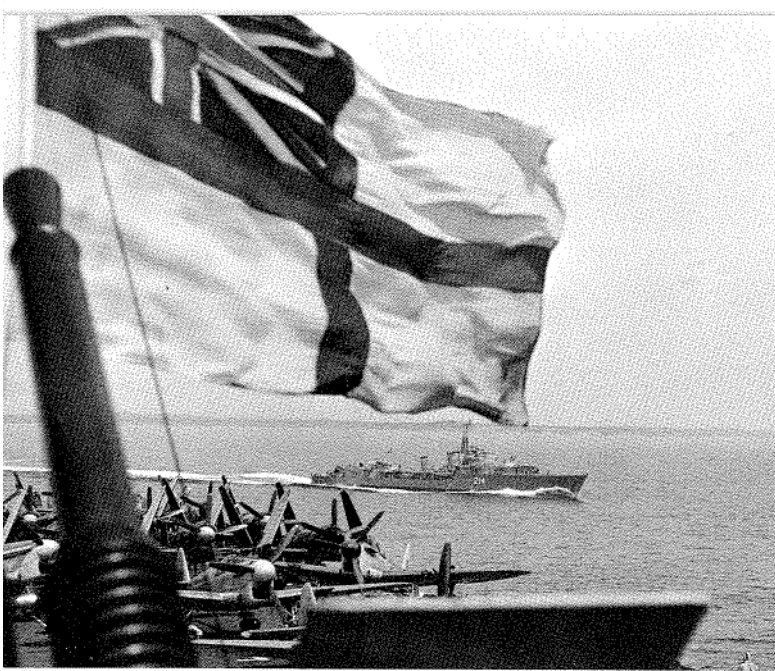
“Into the sponson”—*Firefly* V 825 Squadron.

cerning Oslo was well summed up by a Norwegian Commodore, speaking to Admiral Mainguy just before the ships sailed, when he said, “You may have bigger and better receptions, elsewhere, but you will never have a warmer welcome.”

Huron and *Micmac* joined *Magnificent* outside Dana Light and the squadron headed down Oslo Fjord on 2 October. The next port of call was Gothenburg, Sweden, where the carrier secured between head and stern buoys. *Magnificent* had the honour of being the longest ship ever to enter the Swedish port and an interesting hour was spent in turning in the narrow harbour when it came time to sail for Copenhagen. For many the visit to the Danish capital was all too short and the carrier was soon “bucking” strong winds as she passed out of the Baltic

into the North Sea. The destroyers were detached to Amsterdam and *Magnificent* entered the Maas River at the Hook of Holland, subsequently securing between buoys at Rotterdam. On the following day, a considerable traffic of self-propelled barges was passing the carrier as she lay in mid-channel; one of these was having great difficulty in making headway against an estimated three knot stream. Another barge, *Shell 25*,⁶ having more power, attempted to pass to starboard close to *Magnificent*'s port side. Caught by the strong stream the vessel struck the ship's side just forward of the accommodation ladder; her stern then swung towards the carrier and in so doing, crushed the captain's barge and motor-boat, which were lying at the lower boom. Apart from this mishap the visit was successful and came to an end on 16 October.

Six *Sea Furies* and four *Fireflies* were launched and headed for the Royal Naval Air Station, Lee-on-Solent, in the afternoon watch of 17 October, as *Magnificent* approached Portsmouth. Here Admiral Mainguy, who had been on a visit to Antwerp with the destroyers, shifted his Flag back to the carrier. The ship crossed the English Channel and secured alongside in Cherbourg, where the destroyers which had come direct from Antwerp were already lying. It had been hoped to re-embark aircraft but owing to weather conditions they had to be diverted to Querqueville and flew back to *Magnificent* as she left France four days later with her escorts. Off Cherbourg breakwater *Huron* was detached to lay a wreath in the area where HMCS *Athabaskan* was sunk in



HMC Ships *Magnificent* and *Micmac* “coming about.”

the Second World War.* *Micmac* had to return to harbour with spares for a plane unable to rejoin and on 29 October the latter touched down on the flight-deck; *Huron* made rendezvous at 0950. *Magnificent*, having spent the night on the “tramlines” off Cherbourg, was quite pleased to set course for the Iberian peninsula.

In the morning watch of 1 November the squadron was amongst the picturesque fishing fleet off the mouth of the River Tagus. Soon afterwards it followed the river up to Lisbon and the carrier came to anchor off Caxis, but later berthed astern of the destroyers at Alcantara. On 4 November the Canadian ships departed from the Portuguese capital and on the morning of the 6th entered Gibraltar Bay. *Magnificent* berthed at South Mole astern of HM Ships *Vengeance* and *Vanguard* in the presence of the majority of the Home Fleet. Aircraft from the Canadian carrier played an important part in Exercise *Maple Leaf* when the whole fleet put to sea on 9 November. After fuelling from RFA *Black Ranger* in heavy weather the squadron bade farewell to the British Home Fleet on the Day of Remembrance 1950, and started on the voyage to the Western Hemisphere. Course led the ships near the Azores Islands and a man on compassionate leave was landed in a *Firefly* for onward passage to Canada. The island of Bermuda was raised and the squadron was soon anchored in the familiar Five Fathom Hole. Augmented by HMC Frigates *Swansea* and *La Hulloise*, Task Group 215.1 left the Atlantic island and on passage home was “attacked” by *Avenger* aircraft, which had recently been acquired by the navy, of 826

*HMCS *Athabaskan*, first of name was torpedoed and sunk in an action with German destroyers off the Brittany coast on 29 April, 1944.

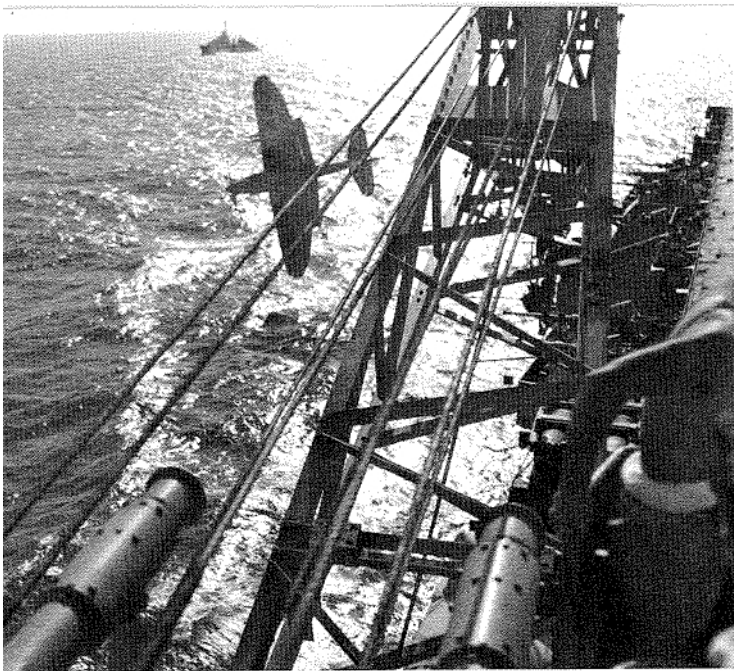


Firefly crash parking up forward.

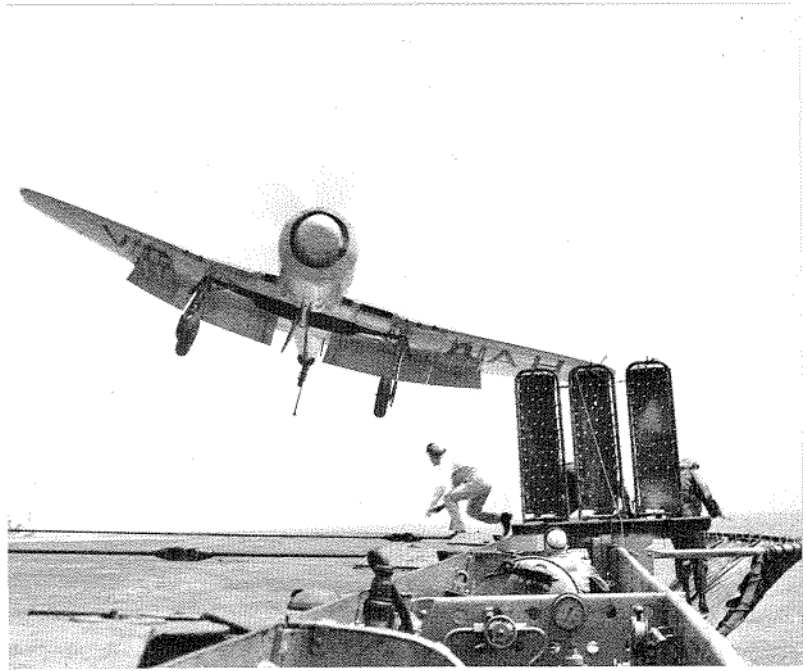
Squadron based at the air station, Dartmouth. This sustained search was of record duration for the RCN, the pilots flying over fourteen hours out of a twentyfour-hour period, and was part of the joint RCN-RCAF exercise, Exercise *Homecoming*. *Magnificent's* contribution to the latter was to fly off all her serviceable aircraft at 1200 on 25 November for *Shearwater*, where they successfully “beat up” the station. Shortly after the planes had left the weather deteriorated and the group reduced speed to eight knots thereby delaying arrival by 24 hours. Ships entered Halifax harbour on 27 November, 1950, thus completing a cruise of great value and importance.

Aviation gasoline was pumped out of *Magnificent* and she was moved into the dry dock at St. John in December. Work during the refit included the fitting of a four-bladed propeller to replace the three-bladed one on the starboard shaft. This modification was an effort to reduce vibration experienced at speeds used during the operation of aircraft and, after the docking, it was found that a distinct improvement had been effected.

Magnificent was undocked and welcomed in the New Year 1951 as she lay quietly at her berth in Halifax. In far distant Korea, 14 hours before, a horde of screaming Chinese had swept across the snow-covered paddy fields in the first offensive of a year that was to see bloody land battles waged between the opposing forces. At sea in the theatre, Canadian destroyers covered themselves with honour and glory, their exploits being followed enviously by those on board the carrier. But although *Magnificent* was destined to steam many thousands of miles including cruises to Mediterranean, European and Caribbean waters in the course of 1951, she was not sent to join the United Nations Forces in what was being so



Firefly torque stalling astern of Magnificent.



"Near Miss." Sea Fury being waved off.

delicately described as "armed intervention."

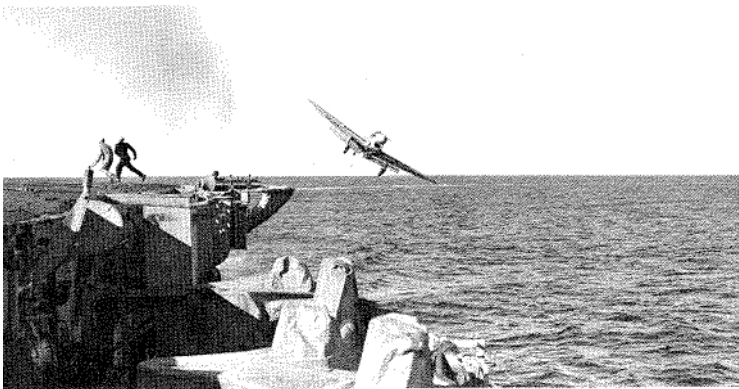
Task Group 215.1* reformed and sailed on 6 February for Quonset Point for the first cruise of the year. It had been intended to sail the previous day, but the discovery of sabotage in the form of sand and filings in the lubrication pumps and main gear-box of the carrier caused a delay in the programme. At the U.S. base the 18th CAG, which had flown from Dartmouth, was hoisted on board before sailing. In the Bermudian area the aircraft flew to Kindley Field and for the rest of the month were based there, exercising from the carrier as requisite. The last day of February was a costly one for *Magnificent* as a pilot was killed and three planes lost.

*Between 5 February and 9 March, 1951, *Crescent* replaced *Micmac* as plane guard for *Magnificent*.

At 1312 a *Sea Fury* stalled into the sea, the pilot miraculously extricating himself. Just over two hours later another *Sea Fury* stalled on take-off, turned over on its back and fell into the sea. The pilot was lost. Finally at 1615 an *Avenger*, coming in to land, had a power failure just short of the "round-down," stalled and ditched off the starboard quarter. The pilot, having climbed out, walked along the wing, then returned for his dinghy, walked out again, launched the dinghy and calmly climbed in; a most encouraging demonstration for other pilots and observers of the comparative lack of danger involved in ditching an *Avenger* aircraft.

Magnificent returned to Halifax for ten days in March and was back in Bermuda waters on the 23rd for another flying session. Task Group 215.1 was on passage to Trinidad early in April when the carrier detected by radar, and subsequently sighted, a small diesel passenger ship, *Gilbert Jr.* of 500 tons port of registry Ciudad

Firefly ditching astern of Magnificent.



"Straight in." Sea Fury of 871 crashing alongside.



Trujillo, Santo Domingo. This vessel, which was carrying a crew of 12, 16 passengers and two horses had been drifting for two days without fuel; there was no one on board capable of operating her wireless set. *Micmac* took the derelict in tow and made towards Willemstad, Curaçao. Off this port the *Gilbert Jr.* was turned over to a tug and the group resumed course for its destination. On 6 April *Magnificent*, with *Micmac*, entered Boca de Navios and the carrier later secured at King's Wharf, Port of Spain, Trinidad, being the largest ship ever to do this. The sunny weather proved ideal for flying and a full programme was possible between Trinidad and Barbados, the next island visited, and on passage to Boston. Twenty-two aircraft of the CAG were ranged on 27 April and flew off to *Shearwater* as the group approached Canada.

The 30th CAG continued with refresher carrier landing practice from *Magnificent* on short cruises in May and June and, after a spell at RCN Air Station, rejoined her in early August for a Mediterranean cruise. Sufficient wind permitted operation of the *Sea Furies* on the voyage and flying was only marred by the ditching of one fighter, which was exercising in formation about 20 miles from the carrier. An *Avenger* was vectored over the scene where it dropped a dinghy. After being in the water for about 45 minutes the pilot was picked up by *Micmac* which was in company with *Magnificent*.

Firebrand aircraft of the Royal Navy's 827 Squadron from the air-field at Hal Far swooped in on a dummy low level torpedo attack as *Magnificent* closed the island of Malta, but not before they had been intercepted by *Sea Furies*. From 24 August to 11 September a busy training schedule was carried out off the George Cross Island, the ship anchoring at night in Marsaxlokk Bay. Submarines, HM Ships *Tabard* and *Teredo*, were available on two days for the anti-submarine planes; exercises included sonobuoy laying and ship-air homings. The *Sea Furies* co-operated in army manoeuvres and fighter direction interception exercises with *Vampires* from the RAF Station at Takali. Poliomyelitis had broken out in *Magnificent* and she was placed in quarantine for this period.

The formality of granting pratique was completed by the Port Medical Authority a few minutes after *Magnificent* entered Grand Harbour, Malta, and shortly afterwards the pipe "Liberty-men to clean" was obeyed with alacrity. A further spell of exercising followed the stay in harbour and the Canadian group finally departed for Naples on 24 September. This passage featured a submarine hunt by the *Avengers* working with the frigate, HMS *Loch Lomond*, and using HM Submarine *Mermaid* as target. *Magnificent* and *Micmac* approached the Italian port in perfect Mediterranean weather, which enhanced the views of the Isle of Capri to starboard, island of Ischia to port and Mount Vesuvius ahead. After a

brisk social week the group cleared the land, the airmen having a last glimpse of Naples and Rome in a farewell fly-past, and sailed to Saint Raphaël. Twenty-four hours out, HMS *Ocean* and her attendant destroyer joined and the squadron anchored off the French town, where a number of NATO ships* were in adjacent berths. Exercise *Symphonie Deux* commenced on 4 October and various phases of it were conducted during the next two weeks. About 35 ships, including *Magnificent*, were assembled in Salins d'Hayeres in the evening of the 11th for a raid on the anchorage by midget submarines. However, as the attack was made by only two submarines the exercise was not particularly spectacular. The finale of *Symphonie Deux* was a general discussion held aboard HMS *Forth* in Golfe Juan, where about 40 warships were lying. A heavy swell, which made small boat traffic hazardous, was running in the open roadstead and the visiting Flag Officers had to cast dignity to the winds in order to keep dry as they scrambled up the depot ship's gangway. *Magnificent* and *Micmac* sailed for home on 14 October, by which time it was blowing a full gale.

Steaming up Gibraltar Bay the carrier was passed on opposite course by the Italian Naval Training Ship *Amerigo Vespucci*,† which ran up a jib-sail and let fly while firing a salute to the Broad Pennant. The remainder of the voyage was uneventful, the ships arriving at Halifax on 24 October.

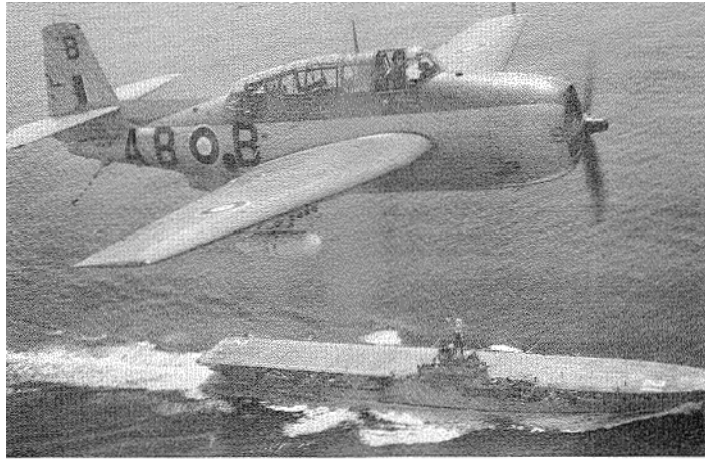
The Broad Pennant of Commodore Adams was struck at sunset on 29 October, 1951, and Captain K. L. Dyer, DSC, CD, RCN, assumed command. That evening the officers and men of 410 Squadron, RCAF, were embarked for passage to Glasgow. *Magnificent* collected 48 *Sabre* jets at Norfolk, Virginia, lashed them on deck and then shaped course across the Atlantic. Progressively rougher seas produced a marked roll making it necessary to heave to on two occasions to re-secure aircraft. Landfall was made on the Fastnet Rock and, after a day in the Irish Sea, the carrier anchored at the Tail-of-the-Bank before moving up the Clyde to the King George V Dock, where the *Sabres* were off-loaded. Their place was taken by *Sea Furies* and the carrier cast off bound for Canada. On the way over an urgent signal was received from SS *Columbia*, which was taking the 27th Army Brigade to Europe, that she had a soldier, seriously ill, whom she wished to transfer to a ship bound for Halifax or St. John's. After the carrier had closed to three cables on the trooper's windward side, *Magnificent's* boat collected the patient and course was then resumed for Halifax. In the home port, gasoline tanks were emptied and ammunition landed prior to the carrier being shifted to number 7 Pier for a long refit by Halifax Shipyards Ltd.

*The French Cruiser, FS *Georges Leygues*; two French destroyers; HM Cruiser *Liverpool* which arrived at 1230.

†Three-masted, square-rigged, sailing vessel, 3,543 tons.



“Splash Landing” by *Avenger*.



“Hook down.” *Avenger* prepares to land on HMCS *Magnificent*

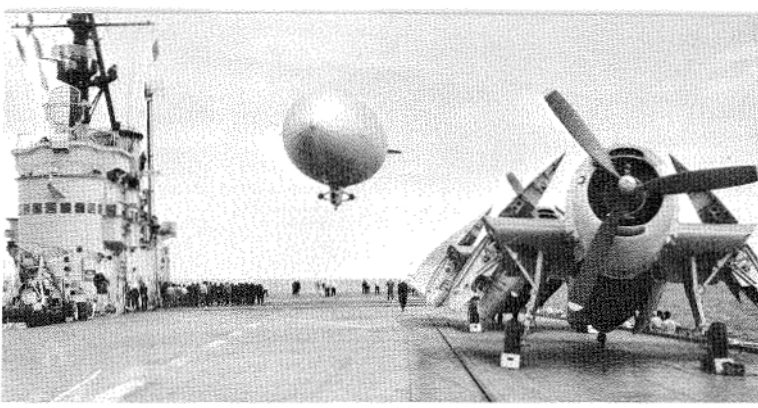


“On Patrol.” *Avengers* of 826 Squadron over *Magnificent*.

Magnificent undocked on 12 April, 1952, and after a bustling 12 days during which 158 tons of stores were embarked, she pulled away from the jetty once more under her own power. On the first day at sea a memorial service was conducted in the area where two *Avengers* from *Shearwater* had collided and crashed a week previously, a party of 60, including relatives were on board for the ceremony. Later, various tests were carried out to bring *Magnificent* back to operational efficiency and by the end of the month 881 Squadron had re-qualified in carrier landing practice. A post-refit shake-down cruise in May had a novel beginning when the *Avenger* aircraft that were ranged on the flight deck were used to pull the ship off the jetty and turn her in the harbour. This method was efficient but somewhat noisy. At sea, with the cruiser HMCS *Quebec* acting as a rather self-conscious plane guard, the carrier had one of the USN blimps, which were visiting *Shearwater*, land on her after lift as a demonstration of the manoeuvrability of these craft. Every type of ship drill and evolution was exercised on the cruise, which took the ships into Bermudian waters while the air group again became familiar with the deck and carrier landing procedure. This voyage ended on 17 May but two days later *Magnificent* was at sea again in company with *Quebec*, *Crescent* and *La*

Hulloise for a programme of ship and air exercises staged for the benefit of the Canadian Industrial Preparedness Association, which was holding a convention in Halifax. For this martial display the CAG attacked a target towed by *La Hulloise* with rockets, 20-mm guns and depth-charges. It then combined with the Support Air Group from the shore to carry out a strike against the ships, followed by a fly-past as a finale.

The aircraft of 30th CAG were ferried out to *Magnificent* at her anchorage on 2 June, and she sailed on a four-months' cruise with *Haida* to European waters. In the approaches to the English Channel aircraft flew off to RNAS, Culdrose to swing compasses while the carrier entered Plymouth for a few hours. In the evening she began night flying in the Channel but had to detach *Haida* at midnight for Plymouth with a defective steering motor. The following day, having met HMS *Indomitable* and her plane guard, HM Destroyer *Corunna*, the Canadian carrier was visited by Rear-Admiral Caspar John, CB,⁷ who witnessed flying operations. The Admiral departed by air in the afternoon and *Magnificent* was detached to rendezvous with *Haida* for night exercises prior to her return to Plymouth on the 14th. On 17 June Exercise *Castinets* began and *Magnificent* with her new plane guard, HMS *Contest*, formed part of the carrier



USN Blimp lands on HMCS *Magnificent*.

support group, which was divided into two forces, Task Force 48 and Task Force 49.⁸ The first two phases were convoy support exercises for which *Magnificent* flew night anti-submarine and afternoon fighter sorties. For Phase III, aircraft went on the offensive against submarines transiting a given area. When *Castinets* officially ended on 25 June the score for *Magnificent's* planes was two submarine sightings, six disappearing radar contacts and five enemy "shot down." After this valuable exercise, which gave everyone a taste of operating under well-simulated war conditions and enabled the air group to break their previous record of flying hours for one month,⁹ *Magnificent* proceeded to Portsmouth.

The Canadian carrier embarked aviation gasoline at Spithead on Dominion Day and with the destroyer HMS *Savage* as escort, she sailed for Malta. At the island three days were spent in striking down a large quantity of miscellaneous stores including three tractors for the Red Cross in Greece. HMS *Daring* took over as plane guard and on 14 July aircraft of the 30th CAG were airborne to meet the Mediterranean Fleet as *Magnificent* steamed eastward. Whilst this exercise was in progress the wind dropped completely and four *Sea Furies* had to be diverted to Araxos air-field in Greece and thence to Ellenikon near Athens. A salute of 17 guns to the Flag of the Commander-in-Chief¹⁰ was fired on joining the Fleet and in the first dog-watch the heavy ships moored in formation at Navarin.¹¹ The next two days were given over to a fleet regatta. Although her crews had had no practice, it was decided that *Magnificent* should participate and in most cases her entry finished about the middle of the "field." After the last race was over Admiral Mountbatten presented cups to the winners before *Euryalus* and *Gambia* weighed anchor for home. The two cruisers, each flying a long paying-off pennant, were then cheered as they passed down the line of ships and started on the voyage to the United Kingdom. In the anchorage general drills were carried out and as a grand finale all hands had to abandon ship, except for those actually on watch. Refresher flying took place after leaving Navarin on 18 July and the next morning the fleet was in Phaleron Bay, near Athens. As soon as boats

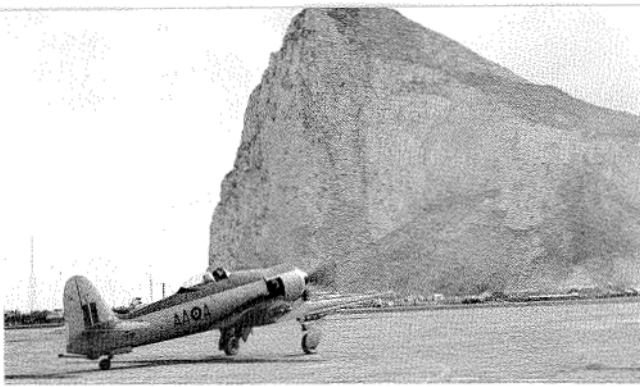
were lowered a busy round of calls and return calls began, followed by official luncheons, cocktail parties and dinners. The finale of this activity for *Magnificent* was a reception in the evening of the 22nd after which she sailed with HM Destroyer *Chivalrous*. The *Sea Furies* from Ellenikon hovered over the carrier on 23 July waiting for the signal to land. Two touched down on the flight deck but one of the other two developed hydraulic trouble in the air and had to be escorted back to the shore base. An *Avenger* was flown off to Ellenikon with maintenance personnel to repair the *Sea Fury* and the three planes were instructed to fly to Istanbul.

On completion of flying *Magnificent* and her escort joined up with *Glory*, *Cleopatra* and *Chevron*, en route for the Sea of Marmara. Passage of the Dardanelles, for which the warships were in loose formation, took about three hours and was made in daylight. This made it interesting for the ship's company as they could see the various landmarks including the Naval War Memorial on Cape Helles, which was clearly visible. On entering the Sea of Marmara the force was closed up again for the night and in the early morning of 25 July the minarets of Istanbul were sighted. A National Salute was fired by *Glory* and replied to by Selimiye Barracks.

An enjoyable visit to the Turkish city was cut short by a crisis in Egypt,¹² orders for the immediate sailing of the British ships being received in the middle of a ball at the British Embassy. It was decided that the dance should continue to the end, and, after consultation between the Canadian and British Ambassadors, orders were given that *Magnificent* should sail in the early morning, shortly after the British ships. The "last waltz" was played about 0200 and there then ensued a hectic four and a half hours, libertymen and shore patrol being embarked, boats hoisted, ship unmoored, etc. *Glory* and her squadron weighed for previously arranged stations and it was daylight when the Canadian carrier left the roads at Istanbul bound for Malta. Four U.S. destroyers,¹³ returning home from Korea, sailed from the port after her, gradually overhauling and passing in the strait. That evening a signal diverted *Magnificent* to Tobruk,

Avengers of VS 881 being used to pull HMCS *Magnificent* off the jetty.





Sea Fury at the "Rock."

where she arrived on 28 July. Here the carrier provided fuel for five ships and then departed for Malta. In the approaches to the island the air group was flown off to Hal Far air station, which was already looking after the two *Sea Furies* and one *Avenger*, which had arrived the previous day from Istanbul via Italy. The group rejoined the ship at Marsaxlokk Bay on 11 August for a heavy week of carrier training, with HM ships *Loch More*, *Loch Craggie*, and HM Pakistan Ship *Tughril* taking it in turn to be plane guard.

Magnificent finally bade farewell to Grand Harbour, Malta, on 18 August and, after two more days and night of flying with *Chevron* in attendance, she made the westward passage to Gibraltar via the Strait of Messina and thence past the island of Stromboli.¹⁴ *Crescent* joined the carrier as she was leaving the Mediterranean and remained in company as far as the Irish Sea. On the afternoon of 28 August seven aircraft were flown off to Sydenham, Belfast and *Magnificent* was shepherded to the airport wharf by four tugs.

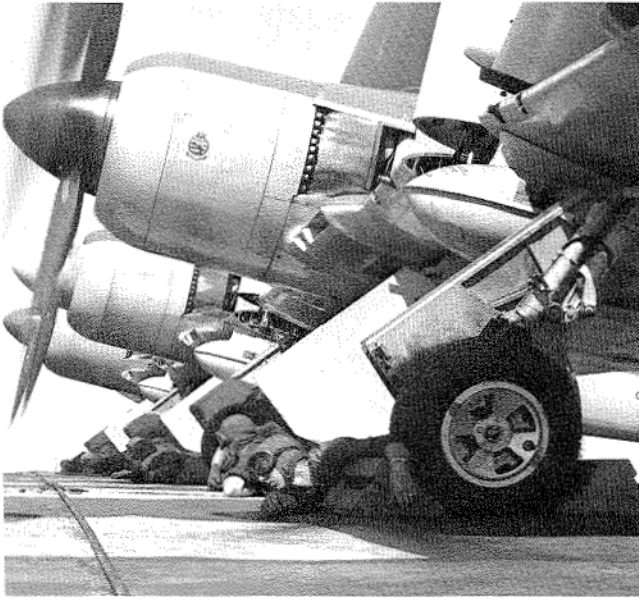
The CAG returned in early September and there followed a month of intensive flying in various exercises, rising to a crescendo for large-scale NATO manoeuvres. The first series was conducted in the Londonderry Exercise Area, participating ships including *Magnificent* and her attendant *Crispin* with HM Ships *Relentless*, *Tenacious* and *Loch Veyatie*; opposition came from HM Submarine *Thule* and the Portuguese submarine *Nepituno*. After a week-end in Bangor Bay more convoy drills were held with British and Portuguese warships, this period being marred by the loss of a *Sea Fury* on the first day, 8 September. The pilot was recovered by the Portuguese frigate *Diogo Gomes*, none the worse for wear after about 25 minutes in the water. The incident was a good testimonial to the service immersion suits as the pilot had not used his dinghy and the sea temperature was 56° Fahrenheit. The group anchored in formation in Laggan Bay, Isle of Islay, on 10 September and a meeting was held to review recent exercises. The carrier afterwards made a quiet passage through the Minches and Pentland Firth to Rosyth.

Exercise *Mainbrace*,* in which 160 ships took part, was the largest and most ambitious naval exercise since the signing of the North Atlantic Treaty¹⁵ on 4 April, 1949, and was conceived to reassure the Scandinavian signatories (Norway and Denmark) that their countries could be defended in the event of war. At the start of operations the following fictitious situation pertained; "enemy" armies from the east had overrun the plains of Western Germany and were pouring into Denmark. The forces of Supreme Allied Commander Europe† were holding along the Kiel Canal but the "enemy" having invaded northern Norway, was threatening to send an amphibious landing force around the North Cape. In the course of the 13-day manoeuvres friendly carrier planes struck at Bodö in northern Norway to drive the invaders back and the fleet then turned south to attack near the Kiel Canal while U.S. Marines were landed in Denmark. Two unscheduled events occurred, one due to the bad weather which prevailed for most of the period. Whilst taking on fuel from the British carrier HMS *Eagle*, the Dutch destroyer *Van Galen* came into collision with her but neither ship suffered casualties nor major damage. In the second incident two cargo vessels from Iron Curtain countries "gate-crashed" the party off the Danish coast.

For the first part of the exercise *Magnificent* joined a carrier support group, which sailed from the Firth of Forth on 15 September, 1952, to cover a convoy on passage from Methil to Bergen and return.¹⁶ The plan of operations called for *Magnificent* and *Theseus* sharing the daylight searches, with the former flying patrols during the first period after dark and *Mindoro* flying night anti-submarine patrols. The weather became increasingly unpleasant as the convoy drew near the Norwegian coast and cloud base was down to about 1,000 feet one morning when *Mindoro* "scrambled" two fighters to intercept "enemy" aircraft. One of them failed to report soon after taking off and although a long search was made only the tail wheel of the plane was found floating in the sea. Conditions improved for the Bergen-Methil convoy and the Canadian *Avengers* sighted three submarines, one definite "kill" being claimed. Convoy and support group entered the Firth of Forth to end phase one of the exercise. Two days later *Magnificent* was at sea again with the carrier group operating within 25 miles of and supporting an amphibious group which had a reinforced battalion of U.S. marines on board for the assault in northern Denmark. The weather deteriorated on 21 September as the group steamed to get in position for the landing next morning. The carrier support group meanwhile remained off the entrance to the Skagerrak to provide air patrols, but by afternoon a moderate gale

*Large scale Allied military manoeuvres in Europe were conducted at the same time as the exercise.

†Short Title SACEUR; General Matthew B. Ridgway, USA.



Furies warming up for launching

grounded all planes. Owing to unacceptable surf conditions on the morrow the landing place had to be changed and the marines finally drove ashore on to the sheltered beach at Skagen, Denmark. This landing and subsequent re-embarkation was covered by air craft patrols.

The finale of the exercise was a general replenishment, and *Magnificent* then proceeded to the Firth of Clyde under the temporary command of her Executive Officer, while Captain Dyer, who had transferred to HMS *Swiftsure*, attended the critique of *Mainbrace* on board *Eagle* in Oslo harbour.¹⁷ Although the exercises had been generally successful and the show of strength

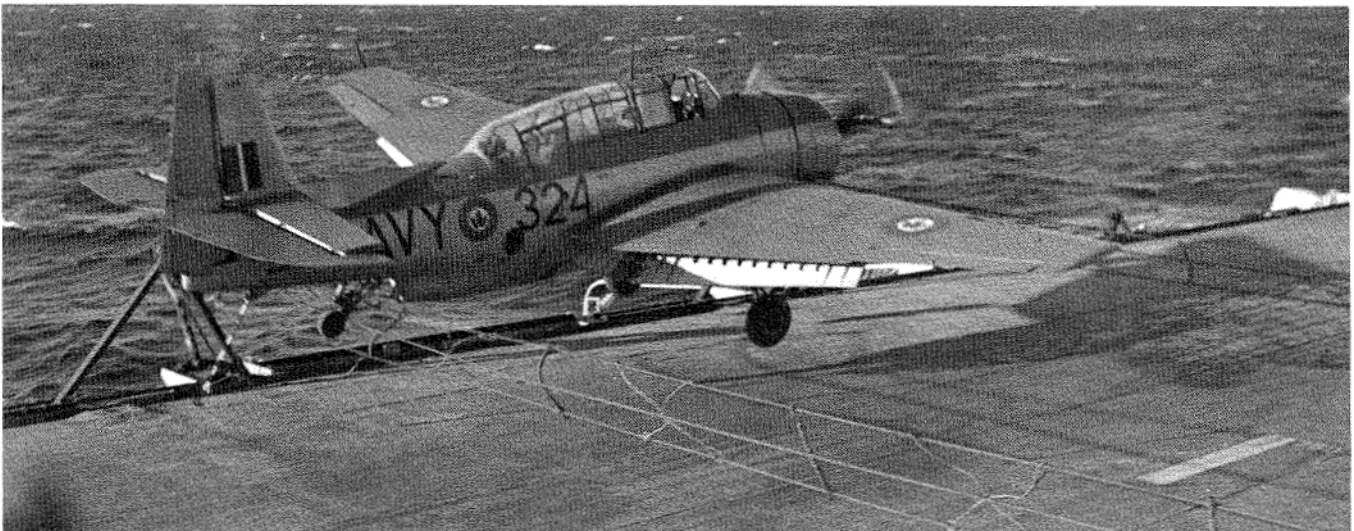
encouraging, it was pointed out by Admiral Lynde D. McCormack, USN, Supreme Allied Commander Atlantic (SACLANT), in his final remarks that the concentration of forces had left the remainder of his area of responsibility rather bare. Nevertheless, it had shown that NATO's northernmost partners could count on strong backing in a crisis.

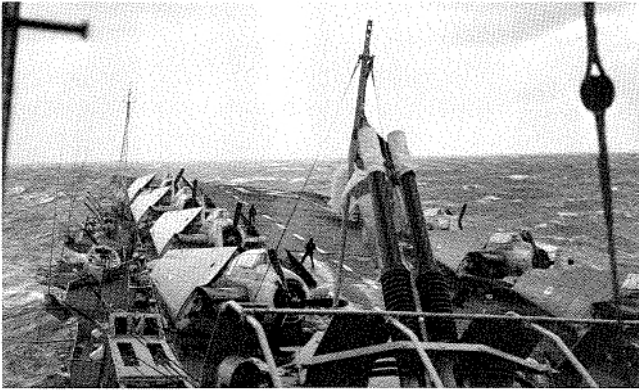
With her Commanding Officer back on board, *Magnificent* provisioned in the Clyde and at midnight on 1 October made a rendezvous with the remainder of TG 155.3¹⁸ and the northern convoy, ONF 27, of which she formed a part. An anti-raider Support Group* was in the vicinity to assist the convoy which was, for the purposes of Exercise *Emigrant*, en route from Londonderry to New York and liable to be attacked by raiders and submarines. Early in the game one of the *Avengers* ranging ahead detected the raider, USS *Wisconsin*, closing at 30 knots. In a flurry of activity surface attack units were sent to intercept and two strikes of 80 aircraft were ranged from *Wasp* and *Wright*. The exercise continued until 8 October when *Magnificent* and *Quebec* (the latter had been one of the raiders) were detached for Halifax where the carrier secured on 9 October before a large gathering of friends and relatives after an absence of four months and seven days.

The Honourable Ralph Campney, Minister of National Defence, the Defence Research Board and visiting Foreign Attachés joined *Magnificent* on 17 October, and wearing the Flag of Rear-Admiral R. E. S. Bidwell,

*Two carriers, USS *Wasp* and *Wright*, with nine U.S. destroyers.

“Over the fence.” *Avenger* barrier landing.





Rough weather during Exercise Mainbrace.

CBE, CD, RCN, Flag Officer Atlantic Coast, the ship spent a day in the local Halifax area. These dignitaries were treated to an intensive programme of exercises, which included participation by *La Hullose*, HM Submarine *Artemis* and aircraft. The Minister and FOAC disembarked by helicopter at 1615 and *Magnificent* returned to HMC Dockyard. She carried out one more cruise to complete the year's schedule of flying exercises, visiting Hampton Roads and then joining forces with *Sheffield* in an area north of Bermuda for combined manoeuvres. At the end of the voyage *Magnificent* and *La Hullose* returned to Halifax and the carrier commenced boiler cleaning in preparation for a long refit at Jetty 9, Halifax Shipyards Ltd. She was moved to the refitting berth by tugs on 12 January, 1953.

Ships of the Canadian Coronation Squadron* were busy painting and polishing at the end of April 1953 in preparation for the forthcoming Fleet Review at Spithead. For the carrier this work had to be combined with DLT for VS 881 and a general post-refit work-up. Commodore H. S. Rayner, DSC and Bar, CD, RCN, had relieved Captain Dyer and, with the Carrier Air Group on board, the ship joined the squadron for the voyage to England in early May. Foggy conditions precluded flying until the third day out. Arriving in United Kingdom waters the Canadian squadron dispersed and the period prior to the review was used by *Magnificent* to exercise her *Sea Furies* and *Avengers* in the English Channel with the co-operation of HM Submarine *Acheron*. Relaxation was provided by a visit to Torquay and, after all serviceable planes had flown to RNAS, Lee-on-Solent, the carrier berthed at Portsmouth on 29 May. Coronation Day, 2 June, was observed by those remaining in the ship with church services. Ashore, a large number of the carrier's company had seats or obtained vantage points

**Quebec*, wearing the Flag of Rear-Admiral R. E. S. Bidwell, CBE, CD, RCN; *Ontario*, *Sioux*, *Swansea*, *La Hullose* with *Magnificent*.

along the procession route in London.

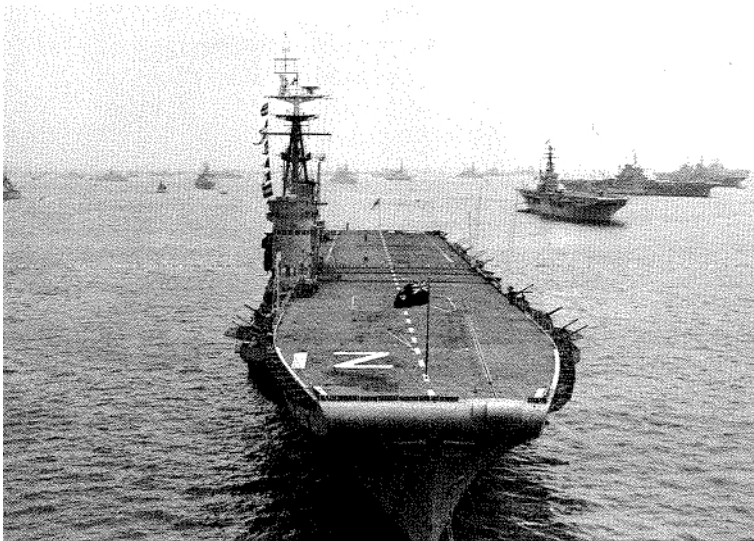
On 8 June *Magnificent* was lying in St. Helen's Roads and early next morning she made rendezvous with an assembly group consisting of *Quebec*, *Ontario*, HMAS *Sydney*, HM Ships *Perseus* and *Adamant* ten miles south of the Isle of Wight before proceeding through the Needles Passage to moor in the review anchorage at Spithead. Army and RCAF contingents, with official guests, were ferried out to *Magnificent* on 15 June and as the wind and state of the tide caused the ship to lie at a slight angle to the review lines everyone had a good opportunity to see HM the Queen as she passed down the starboard side in the Royal Yacht *Surprise*.¹⁹ South of the carrier the cadets of the Italian Training Ship *Amerigo Vespucci* manned yards in salute to port, a picturesque reminder of other fleet reviews held off Portsmouth in bygone days. The highlight for the Carrier Air Group was the participation by eight *Sea Furies* and eight *Avengers* in the impressive fly-past after the ship inspection. In the evening the Fleet was illuminated and there was a general firework display to round off a memorable day. Two days after these events the carrier unmoored and with *Quebec*, *Sioux*, *Sydney*, *La Hullose* and *Swansea* shaped course for Halifax, the CAG rejoining when under way. On account of thick weather the two carriers and *Sioux* were detached to take a more southerly course on 20 June in the hope of finding better conditions. The squadron reformed four days later and the CAG flew to *Shearwater* before the Coronation Cruise ended alongside in the home port at 1530 on 25 June.

The annual docking was once again due and *Magnificent* spent two weeks for this purpose at Saint John in July. Fog had settled over Halifax when she was ready to sail for the next cruise in August and the CAG had to be brought to her by lighter. It cleared on the 17th and the carrier slipped but shortly afterwards was forced to return to harbour with an unserviceable turbo-generator. Another false start was made the following day and it was not until 21 August that *Magnificent* finally got away, accompanied by *Quebec*. A training cruise was made to Provincetown, Massachusetts, and Quonset Point, Rhode Island, and the end of the month found both ships operating under the orders of Commander Carrier Division 14, south of Rhode Island.* The Canadian ships entered New York on 4 September but by the 9th the carrier was back with TG 81.4 while *Quebec* returned to Halifax. For this phase *Magnificent* assumed tactical control of the group as Admiral Erdmann had remained at Quonset Point with his flagship, which had developed a boiler defect. On completion of the exercise

*Rear Admiral W. L. Erdmann, USN, with Task Group 81.4 consisting of the aircraft carrier USS *Gilbert Islands* with nine destroyers and two submarines.

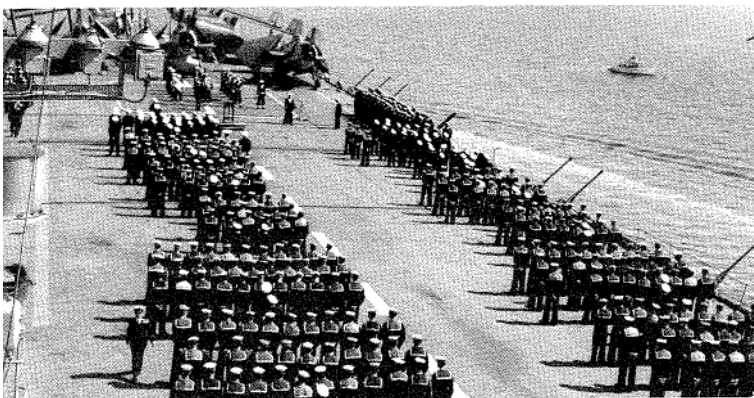


En route to Coronation Review, 1953.



“Carrier Row”, Coronation Review, 1953.

Sunday Divisions at Provincetown, Massachusetts.



the Canadian carrier detached for Norfolk where she lay for four days, her Commanding Officer attending a conference before another large-scale exercise.

Billed as “History’s Greatest Maritime Manoeuvres,” Exercise *Mariner* was one of the most important events in the career of *Magnificent*. Over a 19-day period 300 ships, 1,000 aircraft† and half a million men from nine NATO countries²⁰ took part in co-ordinated operations, which ranged over large sea areas of the North Atlantic, North Sea and English Channel; RCN ships participating were *Magnificent*, *Quebec*, *Algonquin*, *Swansea* and *La Hulloise*. The object was to test the efficiency of the participating navies and give them experience in working together under simulated war conditions. Canadian warships were part of “Blue Force,” representing NATO powers, which were opposed by “Orange Force” consisting mainly of submarines, land-based bombers and surface raiders. Manoeuvres were arranged so that the two forces were in contact as much as possible.

Mariner began for the carrier on 16 September when she sailed as Commander Task Group 203.6 to provide anti-submarine and air defence for ten logistic ships forming an Iceland convoy of the “Blue Force.”²¹ *Avengers* of 881 and *Sea Furies* of 871 flew an almost round-the-clock schedule to prevent “enemy” submarines and long range shore-based aircraft from attacking. The “enemy” cruiser, USS *Worcester*, harassed the convoy until driven away by three of the screening destroyers. Later six *Avengers* made a twilight rocket strike on the cruiser. The following day, 21 September, a *Sea Fury* while on the final leg of its landing circuit had an engine failure and was forced to ditch. In 32 seconds the carrier’s *Sikorsky* helicopter had retrieved the pilot, unhurt, this being the first time such a rescue had been effected by the RCN.

The first phase ended off Cape Race and the convoy became a logistic support group. After the supply vessels had replenished the escorts, all ships, including *Magnificent*, integrated with a fast carrier force headed by USS *Bennington*. En route to Iceland on the afternoon of 23 September, eight Canadian *Avengers* and approximately 34 aircraft from the USN carriers were launched at 1330 and placed under the control of USS *Wasp* for a strike. Three-quarters of an hour later fog, light at first but rapidly thickening, rolled over the ocean and a recall for the planes was issued at 1420. Ten managed to land before the cloud settled to a low ceiling. Repeated attempts were made to guide the rest in by radar but the pilots could not get low enough to see the decks. They could be heard, frequently, by the anxious listeners in the fog-enveloped ships as engines were opened up to run from the sea after unsuccessful attempts at landing. The Tacti-

†Canadian contribution included three RCAF Maritime squadrons of Lancasters and naval aircraft.

cal Commander of the Task Force, Rear Admiral Hugh Goodwin, USN, ordered normal formation to be abandoned and, to eliminate the hazard of masts and high structures, the battleship, USS *Iowa*, and accompanying cruisers dropped astern of the carriers, who were manoeuvred into line abreast. At 1629, when the planes had an estimated fuel time of two hours, it became obvious from reports of aircraft, out-lying ships and fleet meteorological officers, that there was no chance of reaching any open area before every plane would be out of fuel. Faint hope was revived when a signal came from the "Blue Force" submarine, USS *Redfin*, 110 miles to the west, with the information that ceiling in its immediate vicinity was one hundred feet with visibility of two miles. The carriers could not reach the spot in time but the aircraft would be able to make it before dark and the decision was therefore made to head for *Redfin*'s position so that the pilots might ditch in a group in the immediate vicinity of the submarine if necessary.

The fog ahead began to thin just before sunset and the ceiling to lift perceptibly. Planes were turned back towards the carriers and one by one dropped down through the white blanket to whichever deck was convenient. Never had the first touch of the flight deck felt so reassuring to the ship's *Avengers*, plus one *Skyraider* from *Bennington*, which landed on *Magnificent* before 1828, the time all planes were reported safe. It was indeed miraculous that an isolated patch of warm water had opened the fog at exactly the critical moment to permit the aircraft to land on friendly decks instead of in the cold North Atlantic. The visiting American pilot was handsomely entertained in the wardroom that evening and returned to *Bennington* the next day.

Having survived the perils of fog the fleet was struck by severe south-westerly gales later in the week and the carrier's aircraft had to be securely lashed down to prevent movement on the heaving decks. *Magnificent* and her group were luckier than most as their course coincided with the advance of the "eye" of the storm but there was plenty of broken crockery, spilled food, etc., as witness to the strength of the storm. The Royal Navy squadron consisting of the battleship HMS *Vanguard*, the carrier HMS *Eagle*, the cruiser HMS *Sheffield*, and six destroyers joined at this stage. These ships formed part of a combined striking force, which ploughed through mountainous seas towards Denmark Strait whilst *Magnificent* with the support group and logistic ships continued to Reykjavik. Having driven off "enemy" attempts at interference and escorted their charges safely to port the Canadian carrier and her destroyers formed a "hunter-killer" group to harass the opposing submarines. There was a considerable amount of action and green flares were sighted several times indicating that torpedoes had been fired in the vicinity. An *Avenger* on one occasion spotted the periscope wake of a subma-

rine and directed USS *Rich*, which was tracking with her underwater equipment, over the target.

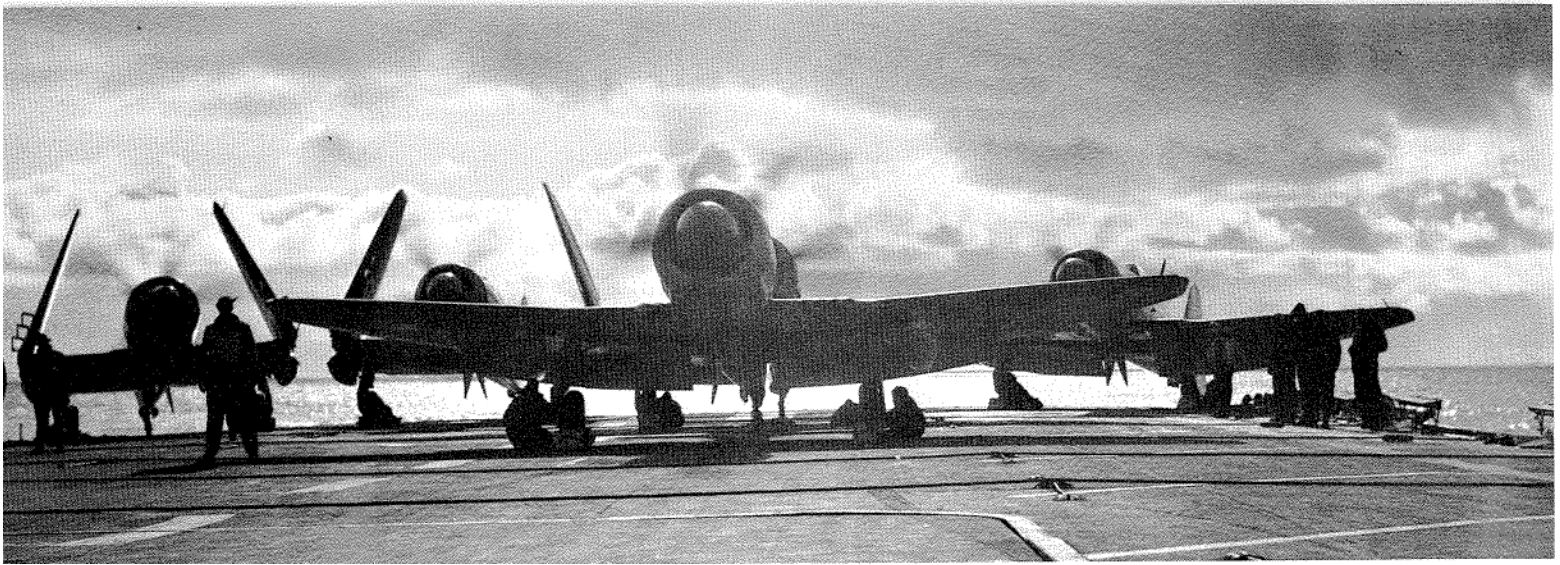
Up in the bleak Denmark Strait *Vanguard* prevented the cruiser, HMS *Swiftsure*, from slipping through to harass "Blue" shipping, but "Orange" submarines pressed home several good attacks on large units of the fleet. An unfortunate mishap occurred at this time when *Swiftsure* and the destroyer HMS *Diamond* collided in the dark; 32 men were injured but none seriously. Both ships withdrew from the fray.

An unusually fine day on 30 September permitted the replenishment of major "Blue" warships from the logistics group, which had put to sea from Iceland. *Magnificent* and her screen provided air and surface anti-submarine protection while this drill was in progress.

For the final session of *Mariner*, the "Blue" Fleet, an impressive array of ships, steamed towards the British Isles to launch air strikes against bases in the United Kingdom. "Orange" Fleet aircraft attacked with theoretical bombs, including an atomic type, just before dawn on 1 and 2 October but stormy seas prevented the carriers from flying off fighters in retaliation. The British elements left for the Clyde while the remainder continued southward. When the exercise was completed at 1100 on Sunday, 4 October, *Magnificent* was 180 miles west-south-west of Land's End, Cornwall and after detaching the USN destroyers the ship steamed up the Irish Sea to Bangor Bay and thence to Belfast.

Anti-submarine exercises were conducted in an area north and west of Inishtrahull for which *Magnificent* was joined by *Algonquin*, *Swansea* and *La Hulloise* to form Task Group 37.2. On completion *Magnificent* visited Portsmouth and then Glasgow, where she collected nine *Sea Furies* and one *Avenger*. There was considerable congestion on the flight deck due to the large park of aircraft and no further flying was carried out for the remainder of the month.²² A series of gales hit the ship on the way home, where she arrived on 2 November having flown ashore the 30th CAG to *Shearwater*.

The annual Support Air Group sea-training programme occupied *Magnificent* in early December 1953. *Algonquin* met her off the coast but had to return to harbour with an engine defect having been relieved by *Haida* as plane guard. At this time Commodore Rayner was flown ashore by helicopter to attend the presentation of an analysis of Exercise *Mariner* in Norfolk, Virginia, and command of *Magnificent* was delegated to her Executive Officer. The next day, 2 December, a severe storm prevented any flying and heavy seas caused damage to the bows, a motor cutter, and one of the diesel tanks. HMCS *Prestonian* took over as rescue ship on 3 December and course was shaped southward to find better weather. After a good period of deck landing, the air group disembarked to the RCAF Station, Summerside, where a Naval Air Facility had been established, and the



Dawn launch of *Furies* during Exercise *Mariner*.



South of Iceland in Exercise *Mariner*.

carrier reverted to extended notice for steam at Halifax on 9 December.

During January and February 1954, *Magnificent* lay alongside undergoing general repairs by the ship's company and dockyard. On 1 March she sailed for England and on the 9th began a long electronic and general refit at Portsmouth.²³ By the time this period ended in May a total of 683 officers and men had attended courses at RN training establishments. Amongst events of general interest in which personnel from *Magnificent* had participated was the unveiling of an extension to the Naval War Memorial on Plymouth Hoe by Her Royal Highness Princess Margaret on 20 May. The memorial commemorates officers and men of the Royal Navy, Commonwealth and Colonial Navies from the Plymouth Command, who were lost at sea during the Battle of the Atlantic and who have no known grave. To take part in this ceremony, which was attended by Commodore Rayner, *Magnificent* sent an unarmed party of 50 men with an officer in charge.

Having carried out radar and radio trials off the Isle of Wight in conjunction with aircraft provided by the Royal

Naval Air Station, Ford, *Magnificent* proceeded to Belfast where a quantity of stores destined for Canada was struck down and the ship continued to Halifax, arriving on 11 June.

The flying programme for the year began in July 1954 with VS 881 and VF 871 doing their carrier qualifications. Afterwards VS 881 went to the deck in night training and on 24 July both squadrons participated in a Navy Day fly-past while *Magnificent* had a static display of aircraft for visitors on her flight deck. *Algonquin* acted as rescue ship in the next session of night flying when the pilots of VS 880 re-qualified. July was rounded off by a joint armament strike by VS 881 and VF 871 on a smoke float target; total deck landings for the month were 541. Before returning to Halifax, *Magnificent* joined *Algonquin* and U.S. Submarine *Ray* to form Task Group 301.1 and to carry out day and night anti-submarine exercises in the Gulf Stream area.*

After three days in port *Magnificent* and *Algonquin*

*HMCS *Prestonian* relieved *Algonquin*, who returned to harbour with defective radar.

rendezvoused with HMC Ships *Toronto* and *Prestonian* in an operational area off Long Island, New York, where two U.S. submarines were used as targets for anti-submarine drills. *Magnificent* parted company on 12 August and, after a short stay at Quonset Point, joined Task Group 81.4.* During the second phase of these manoeuvres, which was broken by another visit to Quonset Point, an *Avenger* had to make an emergency landing on the U.S. carrier *Antietam*, the Canadian ship's arrester wires being inoperative. This was the first landing carried out by an RCN plane on an angled deck. A 13-gun personal salute was fired to the Flag of Rear Admiral Fitzhugh Lee on 26 August as *Magnificent* detached for Halifax with *Algonquin*, *Toronto* and *Prestonian* taking station on her.

In September 1954 a week of welcome relaxation in Halifax was only the lull before the storm as the next ten days the carrier was thoroughly embroiled in the annual NATO exercise, code name *New Broom II*. Primarily one of convoy support the operation kept VS 881 airborne for long hours on numerous patrols. After *New Broom II* *Magnificent* topped up with fuel oil, aviation gasoline and provisions at her home base and with *Quebec* as plane guard she shaped course southward. Air squadrons progressed their combat readiness training and on 26 September an *Avenger* flew an ordinary seaman to San Juan, Porto Rico, to make an air-line connection so that he might attend his father's funeral in Toronto. Flying was secured the next day to permit the removal of sponsons and W/T whip aerials for the Panama Canal transit. *Quebec* detached for Colon for logistics and *Magnificent* began the canal passage, which took just over nine hours. It was reported that all locks were successfully negotiated without casualties except for the First Lieutenant's fingernails, which were chewed to the quick as the paint work on both sides passed within a few inches of the lock walls.

The frigate HMCS *Stettler* from Esquimalt took station on the carrier and flying drills continued between Balboa and San Diego. Two days out two *Avengers* were flown to San Jose, Costa Rica, to land a rating suffering from acute appendicitis, but unfavourable local weather forced the planes to return with the patient. Another "mercy" flight, as the carrier approached the U.S. coast, was more successful; two *Avengers* landed a man, who had been granted compassionate leave at the USN Air Station, San Diego. After *Magnificent* had berthed at the air station pier a programme of entertainment was arranged for all hands including visits to television and radio shows. The ship's band with a volunteer guard from several branches of the Service impressed the local

*Carrier Division 14 was now commanded by Rear Admiral Fitzhugh Lee, USN, flying his Flag in the aircraft carrier USS *Antietam*.



Resuming course after recovering aircraft.

inhabitants by performing the ceremony of Beating Retreat at the head of the pier on Harbour Drive, one of the main thoroughfares of San Diego.

The group continued up the coast in thick fog and secured in San Francisco remaining there until 22 October. Canada was also represented in the harbour by HMC Arctic Patrol Vessel *Labrador*, which had recently made an historic voyage from east to west through the North-West Passage. On the last leg of their cruise *Magnificent* and *Stettler* received close escort by *Lancaster* aircraft from the RCAF Station, Comox, B.C. Approaching Vancouver Island eight *Avengers* and six *Sea Furies* flew over HMC Dockyard, HMCS *Naden*, and the city of Victoria before landing at the airport, Patricia Bay. In the early morning of Monday, 25 October, the group was off Esquimalt harbour. The Queen's Harbour Master and press representatives boarded from the pilot boat and *Magnificent* secured at the RCN's west coast base to receive an enthusiastic welcome, both official and unofficial.

The two squadrons were overhead to land on as the carrier, with 162 cadets from HMCS *Venture* embarked to watch flying, drew clear of Esquimalt bound for Vancouver. The carrier, with *Crusader* on her quarter, altered into the light wind which permitted VS 881 only to embark; the fighters were ordered to land at Sea Island Airport. At Vancouver *Magnificent* was a great attraction, over 6,300 being shown over her when the ship was open to visitors. The Minister of National Defence arrived by helicopter as *Magnificent*, with *Crusader* and *New Glasgow* manoeuvred for flying operations off Vancouver on 5 November. After 14 aircraft of VS 881 and VF 871 had performed a strike, they landed on and the ship group proceeded to English Bay. Mr. Campney

left by helicopter and *Magnificent* later returned to Esquimalt.

When *Magnificent* finally steamed out of Esquimalt she had HMC Frigates *New Glasgow* and *Stettler* in company, the whole forming Task Group 301.1. Three minesweepers, HMC Ships *Comox*, *Fortune* and *James Bay* swept ahead along the Strait of Juan de Fuca, detaching off Cape Flattery. *Stettler* returned to Esquimalt the next day while the other ships continued to Long Beach. Owing to a defective condenser, which necessitated *New Glasgow* remaining in harbour, the carrier's helicopter was used as plane guard on the leg to Balboa but day flying only was conducted, including anti-submarine exercises with the U.S. Submarine *Carbonero*. *Magnificent* made a quick trip through the Panama Canal joining *Quebec* in Colon. The two sailed again on 27 November and in Bermudian waters the helicopter was sent to Kindley Field for the Flag Officer Atlantic Coast and a portion of his staff. The Admiral flew his flag in the carrier between 2 and 4 December for the purpose of carrying out the annual operational inspection; off Halifax he disembarked by helicopter and the air squadrons were flown ashore to *Shearwater*. The carrier was once again due for her annual refit after a year during which she had steamed 33,755 miles, and the work began at Pier 7, Halifax Shipyards, on 15 December.

Sea-going cruises for 1955 did not start until April but this enforced inactivity was well compensated by the busy schedule of the next nine months. A total of 34,260 miles was steamed in 138 days on three major exercises, *Fogbank*, *New Broom IV* and *Sea Enterprise*, and on visits to ten countries. For the last exercises mentioned the ship logged the greatest distance, 7,596 miles for any single voyage since commissioning in 1948. Naval Aviation was equally busy, 4,000 air hours being flown for 1,975 deck landings; seven aircrew personnel from ditched planes owed their lives during the year to the rescue helicopter. In the important business of public relations *Magnificent* at Halifax was host to 400 members of the Junior Board of Trade during June and later, whilst in New York, took part with RCN and USN units in "United States and Canada Naval Week."

This busy year opened with full-power trials on 31 March and in the middle of April the carrier stood off the harbour approaches waiting for an improvement in the weather to complete embarkation of all aircraft. Low visibility prevailed and the planes had to be hoisted in by derrick prior to sailing for the West Indies. *Magnificent*, *Haida* and *Micmac* secured in San Juan, *Avengers* and *Sea Furies* having been flown off to Isla Grande airport to permit maintenance of flying efficiency while the ship was in harbour. They rejoined on 29 April off Porto Rico and the group began exercises with the U.S. Submarine *Argonaut* in Bermudian waters. After a week-end in



Fury barrier crash.

Grassy Bay the ships cleared Bermuda on 9 May for the ten-day passage to the United Kingdom, a feature of which was the high proportion of westerly winds making it necessary to steam at high speed in the opposite direction to the mean line of advance when operating aircraft. This combined with the normal demands for fuel replenishment of the *Tribal* Class destroyers, and the length of the voyage, made it necessary to initiate special fuel conservation arrangements. The latter were relaxed towards the end of the passage and the group arrived with a good margin of fuel. *Magnificent* lay at Portsmouth for some days and amongst official calls made by the Commanding Officer was a visit to the Naval Member Canadian Joint Staff (London), this trip being made by helicopter, which landed at the South Bank heliport in London. With members of the National Defence College on board, the carrier returned to Canada at the end of May. Fog interfered with flying on the latter part of this voyage, rather spoiling a convoy exercise* with frigates of the First Canadian Escort Squadron, which rendezvoused with the group. Planes of VF 871, VS 880, and VS 881 were ranged and launched for the flight to *Shearwater* before all ships secured alongside in Halifax on 7 June.

There were many interested spectators on 8 August, 1955, when aircraft of VC 920, the Reserve Squadron from HMCS *York*, Toronto, and the first to be embarked for carrier training, came in on the final approach for touch-down. During the next few days all the nine reserve pilots qualified in deck landing and, as an informal tribute, were presented with a large brass star with wings inscribed "To the Amateurs – VC 920 from the Pros – HMCS *Magnificent*."

Commodore E. P. Tisdall, CD, RCN, took up his ap-

*Given the code name, perhaps too appropriately, *Fogbank*.

pointment as Senior Canadian Officer Afloat (Atlantic) (SCOA(A)) and his Broad Pennant was hoisted in the carrier on 15 August before a cruise to New York. Two days out from Halifax *Magnificent* and *Micmac* met with *Quebec*, *Huron*, *Haida*, and HMCS *Crusader* and the force later berthed at New York. Some 35 USN ships entered harbour on 19 August making the total number of warships present a post-war high. A "United States and Canada Naval Week" was declared and the carrier was open to visitors over the week-end; comparatively few guests came on board, probably owing to the very hot weather prevailing.

The Canadian group was back at its home port on 27 August. Commodore Tisdall remained in the ship and, with the hangar crowded with planes of VF 871, VS 880 and VS 881, the carrier sailed as flagship of Task Force 301 on 4 September for exercises which were to keep her at sea continuously for the next 24 days.* For the first period, Exercise *New Broom IV*, weather and sea conditions were excellent and flying continued from dawn to dusk. The operation was one of convoy protection and the *Sea Furies* had considerable success in detecting surfaced and schnorkelling submarines.²⁴ There was one serious accident on the 13th when a fighter failed to develop full power for take-off and descended into the sea just off the starboard bow of the ship. The aircraft remained afloat on its back for some seconds giving the pilot time to extricate himself and be hoisted into the helicopter.

All ships of the force topped up with fuel from USS *Nantahala* and then steamed eastward to a rendezvous for the next phase, Exercise *Sea Enterprise*. In position 51° 37' N 34° 42' W *Prestonian*, *Toronto* and *Lauzon* detached to join TG 219.3.²⁵ The weather went from bad to worse making it impossible to give oil to the escorts and by 17 September the fuel consumption of one destroyer was causing anxiety. An alteration to the southward proved of no avail as the storm stopped moving and began to spread out, increasing in intensity. Course was altered to the east again and the escorts were sent in to Londonderry for fuel on the 20th. *Magnificent* made her way, unescorted, through the Minches and contacted the Underway Replenishment Group† in heavy fog. The carrier fuelled from RFA *Olna* and the following day, after some delay caused by equipment difficulties, embarked fresh provisions from RFA *Retainer*. The thick fog slowed down the replenishment exercise and it was not until the evening of 22 September that TG 219.3 whose screen had by now been augmented temporarily by the Canadian destroyers, started to move towards the

operational area.

Exercise *Sea Enterprise* was a maritime tactical drill, which had for its strategic setting a war between "Blue," representing NATO powers, and "Orange." For this purpose "Blue" held the United Kingdom, Shetlands, Faeroes and Iceland whilst "Orange" was considered to control Norway north of 61°N. The main "Blue" carrier striking force, TG 219.1, conducted air strikes for a period of two days against land targets in the Trondelag area of central Norway and then carried out refuelling operations with the Underway Replenishment Group. Opposition was provided by aircraft and submarines and in the replenishment period an "Orange" surface force representing two "enemy" cruisers entered the exercise area. *Magnificent* and her four destroyers formed TG 219.2 and worked in a support role as a "Hunter-Killer" group. For the carrier the exercise proved to be an endurance test for, dogged by bad weather, she was only able to operate aircraft on two afternoons for a total of 18 hours flying time. There was no contact by the group with "enemy" submarines although HM Submarine *Taciturn* sighted *Algonquin* at 1758 on 24 September. Two minutes later *Magnificent* came into view but the submarine completed her attack on the first target. *Algonquin* was considered to have been sunk but the carrier escaped unscathed as *Taciturn* had not time to reload. In spite of the lack of action *Sea Enterprise* gave the Canadian ships good experience in seamanship and it reproduced faithfully the authentic sea-warfare atmosphere of uncertainty, constant threat of attack and unpleasant climatic conditions.

The manoeuvres having secured at midnight on 27 September, the force entered Trondheim Fjord, Norway, where warships of NATO nations were lying, and *Magnificent* came to anchor in 42 fathoms off the City of Trondheim. A critique of *Sea Enterprise* followed and, after a week in the rather exposed anchorage, the Canadian carrier shortened in and weighed for Plymouth. In the fjord *Huron*, *Micmac*, *Haida*, *Algonquin*, *Prestonian*, *Toronto* and *Lauzon* took station in a circular formation around *Magnificent*. Shortly afterwards the First Canadian Escort Squadron parted company and Task Force 301 continued down the Norwegian coast.

Magnificent passed the breakwater and steamed up Plymouth Sound to HM Dockyard, Devonport where she secured astern of the battleship HMS *Vanguard*. Here a considerable amount of maintenance work was done including the water washing, externally, of four boilers. Gale force winds caused cancellation of departure on the 19th but the next day the force left its berths. The three destroyers were detached to Amsterdam and *Magnificent*, for the second time in her career, secured to buoys in Rotterdam to receive a cordial welcome.

Flying started again after leaving the Dutch port on 28 October and power failure caused an *Avenger* to fall

*HMC Ships *Magnificent*, *Algonquin*, *Haida*, *Huron*, *Micmac*, *Prestonian*, *Toronto* and *Lauzon*.

†The Underway Replenishment Group comprised TG 219.3 and three RFA's, *Olna*, *Wave Sovereign* and *Retainer*.

into the sea close ahead of the ship; fortunately all the occupants were rescued by helicopter. *Magnificent* hove to on the 29th in the vicinity where the destroyer HMCS *Athabaskan* was sunk during the Second World War and, following a short service, a wreath was cast on the water by Commodore Tisdall.

A few hours were spent in Gibraltar and a full day's flying was conducted off the Spanish coast including, as the cruise continued, a shadowing and interception exercise with the *Shackleton* aircraft of 224 Squadron, RAF, based on the Rock. In calm, clear weather, luckily, the carrier made a turn of 180° in confined waters with the assistance of two inadequate tugs before berthing in Valencia, Spain. This visit generally was rather disappointing as communication between the carrier's billet was difficult, and the town, in spite of its size, had little to offer libertymen. The Broad Pennant of SCOA(A) was transferred to *Micmac* and on leaving Spain the force split, *Micmac* and *Haida* proceeding in company while *Huron* remained as rescue destroyer to the carrier.

Shortly before arrival at Genoa, USS *Lake Champlain* with her escort of destroyers and accompanying supply ship, all belonging to the U.S. Sixth Fleet, was encountered also on her way to the Italian port. At 0715 on 11 November a pilot was embarked and *Magnificent* berthed alongside Andrea Dorea Pier with the destroyers secured across the end of the same jetty with a "Mediterranean moor."* Three days later the carrier had to move to an anchorage outside the harbour as the pier was required for the transatlantic liner, *Cristoforo Colombo*, which regularly berthed there. The Canadian ships cleared for Marseilles on 15 November, the Broad Pennant now being worn in *Huron*; the latter proceeded with *Micmac* leaving *Haida* with *Magnificent*. A strong northeasterly wind with low ceiling and poor visibility in rain made for bad flying conditions until the carrier passed through the Strait of Bonifacio, between Corsica and Sardinia, after which the weather improved. The whole force rendezvoused in the approaches to Marseilles. Here, as at Genoa, the Canadian Ambassador to the country came down from the capital and remained in the city. On both occasions the effect was to add to the dignity and importance of the visit.

Prior to sailing on 22 November, the Broad Pennant was shifted to *Haida*, whose turn it was for inspection. In Gibraltar Commodore Tisdall rejoined *Magnificent* and the whole force started for home on the 27th. Once out into the Strait between Europe and Africa the full strength of an easterly gale was felt; this moderated slowly and flying operations, with emphasis on armament and strike exercises, were carried out. Whilst the

*Method of securing stern to a jetty with anchors out forward. Particularly suitable in the Mediterranean, where many localities experience little or no appreciable tide.

destroyers fuelled in Ponta Delgada, Azores, for the greater part of one day *Magnificent* continued with flying drills to the southward of San Miguel Island. At dusk the destroyers left harbour and by 1730 the squadron had formed up for the last leg of the voyage. The flight deck and hangar were scenes of great activity on 6 December as the planes of VF 871, VS 880, VS 881 and the rescue helicopter were ranged for the flight to *Shearwater*. *Magnificent* fired a personal salute of 13 guns to FOAC as she entered harbour.

The movement of *Magnificent*, which had been undergoing a self-refit since December, to sea with *Haida* on 27 February, 1956, heralded the commencement of Operation *Spring Tide*, the object of which was to work-up two task groups, one from the Atlantic command the other from the Pacific in anti-submarine warfare. Prior to sailing, VS 881, HS 50, a detachment of HU 21 and No. 1 Drone Target Unit²⁶ had joined the carrier and, for the first phase, she conducted exercises en route to Bermuda. Following Carrier Qualifications (Carquals) for VS 881 the ships anchored in Five Fathom Hole for a short time on 2 March. At sea again the next day, *Magnificent* was joined by the First Canadian Escort Squadron* and HM Submarine *Alderney* for more manoeuvres, the routine for which being that the ships exercised by day and made their southing during the dark hours. For the first time the Drone Unit launched targets from the deck of the carrier, primarily to test the efficacy of the ship's anti-aircraft fire.

Alongside at the U.S. Naval Base at Chaguaramas Bay, Trinidad, hands were kept busy painting ship until 13 March. On that day the carrier and her four destroyers were joined by *Alderney* and HM Submarine *Ambush* for more drills at sea prior to *Haida*, *Algonquin* and *Ambush* parting company for Kingstown, St. Vincent. There was an uncomfortable swell in the anchorage at Bridgetown, Barbados, where *Magnificent* arrived on 16 March, making boatwork almost impossible with the result that there had to be a hurried alteration in transport arrangements for SCOA(A)'s official call on the Governor of Barbados. Commodore Tisdall was transported by helicopter to the local airport some 12 miles out of town. Here the only vehicle available was a 1935 Plymouth automobile with defective steering, but in spite of this the call was paid almost on schedule; the return journey was made more sedately in the gubernatorial Armstrong Siddeley. The Governor returned the compliment the next day, also travelling from shore by the ship's helicopter.

Departure from Barbados was made on 20 March and the units from St. Vincent rejoined at midday for the next phase of the operations, nicknamed Exercise *Big Hello*. The force, now known as "Blueland," prepared to

*HMC Ships *Algonquin*, *Micmac* and *Iroquois*. Short title Cancortron one.

engage an enemy force, "Orangeland," represented by Canadian ships from the West Coast, who had started a "war" on the night of 20/21 March when they struck at key targets in the Panama Canal Zone. From intelligence reports it was learned that the "enemy," short of fuel, was making his way northward to rendezvous with a tanker south of Porto Rico. Early in the exercise *Magnificent* received a "Mayday" distress signal from the Commanding Officer of VS 881, whose aircraft had had a power failure and was about to be ditched. All ships joined in the search and there was general relief when it was learnt that *Micmac* had saved the crew unhurt. After fuelling the destroyers *Magnificent* detached and landed five *Avengers* of VS 881 to the U.S. airfield, Roosevelt Roads, Porto Rico, for practice flying ashore. At this time three planes belonging to the Air Early Warning Flight carried out a maximum radius search for "Orangeland" force* but without success. During the first search sortie of the next day an AEW aircraft located the "enemy" at 140 miles distance. *Magnificent* was only able to launch one air strike and after recovering it she withdrew to the eastward leaving the destroyers to shadow. The latter intercepted and destroyed the "enemy" after dark.

Throughout 24 March the ships took it in turns to fuel from USS *Elokomin* south of Porto Rico. *Magnificent*, having flown off VS 881 to the air-field, anchored in Roosevelt Roads to land squadron personnel and stores in a tank landing craft (LCT) provided by the USN. She then continued to South West Roads, St. Thomas, U.S. Virgin Islands. VS 881 remained at the U.S. air station for two weeks of flying training including bombardment spotting and rocket practice at Culebra Island.

By Colours on Sunday 25 March in addition to the carrier there were assembled in the roads *Quebec*, five destroyers and three frigates. A fleet work-up programme started on Monday, West Coast ships being given priority in helicopter control and anti-submarine drills. *Magnificent* spent 28 March alongside Fernandez Juncos wharf in San Juan and at the week-end, accompanied by *Iroquois*, *New Glasgow* and *Ste. Therese* secured at the West India Company Wharf at Charlotte Amalie, St. Thomas. This was the Easter holiday and the little town of 12,000 inhabitants was somewhat swamped by the influx of libertymen. Charlotte Amalie, which was named after the consort of King Christian V of Denmark, is very picturesque, spreading from the water's edge up to three spurs, known as "fore-top," "main-top," and "mizzen-top," to old-time sailors. For hardy climbers there was an excellent view to be had from the mountain at the back of the town; to the east St. John and the British Virgin Islands, to the west Culebra

*HMC Destroyers *Crescent* and *Cayuga*; HMC Frigates *New Glasgow*, *Jonquiere*, *Ste. Therese*; HMC Cruiser *Quebec*.

Island and to the south St. Croix.

After a pleasant period of relaxation *Magnificent* slipped her lines on 2 April, turned in the narrow harbour and headed to sea for more manoeuvres. Emphasis was put on helicopter exercises with *Astute* and training in helicopter control for the West Coast ships. Aircraft of VS 881 finally returned from Roosevelt Roads and as the ship lay at anchor in South West Roads on the 7th Canadian Naval Auxiliary Vessel (CNAV) *Porte Dauphine* came alongside with the squadron's maintenance personnel and stores. This Canadian fleet sailed together for the last time on 9 April, escorts forming a circular screen on the main body, which consisted of *Magnificent*, *Quebec*, and *Crusader*. *Astute* attempted to penetrate the screen and the force then split up for its different destinations. The carrier approached Port-au-Prince, Haiti, on 12 April with *Huron*, *Haida*, *Micmac* and *Astute*. During this period in port the President of the Republic of Haiti, General Paul E. Magloire, was received on board *Magnificent*.

A 21-gun salute to the Republic of Cuba was fired by the carrier on 19 April in the entrance to Havana harbour and answered by Cabana Fortress. RMS* *Mauretania* was lying across the desired line of approach and it required a considerable amount of manoeuvring before *Magnificent* was moored in the restricted berthing area. Early in the stay a guard and band was landed for the customary wreath-laying ceremony at the national monument to José Martí and SCOA(A) called on the President of the Republic, His Excellency Major General Fulgencio Batista Zaldivar who seemed well-disposed towards Canada and Canadians generally. This presidential goodwill permeated down to the lesser officials and set the pattern for cordial relations during the visit.

Flying and ship's drills between periods in harbour emphasized combined anti-submarine exercises and prepared the force for the NATO operation, *New Broom V*. This opened on 1 May with *Magnificent*, fresh from three days alongside at Norfolk, Virginia, and her five destroyers providing close support to a convoy bound from Norfolk to Gibraltar. Two RN and two U.S. destroyers screened the convoy whilst the U.S. carrier, USS *Tarawa*, and six destroyers acted as a "Hunter-Killer" group in distant support. Air cover, apart from that available in the carriers, was given by four USN blimps with RCAF and USN *Neptune* aircraft. At one stage a submarine was reported 30 miles away on the starboard bow of the convoy and a strike of two helicopters was at once despatched. However, the enemy was undetected and managed to get within 4,000 yards of *Magnificent*, who, in compliance with the rules of the game, was thereby put out of action for four hours. At 0700 on 3 May "peace" was declared for eight hours so

*Short Title for Royal Mail Ship.



“Whirlybird” fly past of HS 50.

that the convoy ships could regroup and take station for the return passage, for which there were to be two convoys, one medium and the other fast. *New Broom V* ended two days later off Norfolk. Having transferred SCOA(A) and part of his staff to *Micmac*, *Magnificent* detached and headed towards Halifax as the other ships entered Norfolk for the exercise critique. Despite a chill wind and temperatures in the low thirties, a large crowd of relatives turned out to greet the sun-tanned homecomers when the carrier secured at Halifax on 7 May. The sea period recently completed, was of importance to the RCN as it was the first time that helicopters had worked with the fleet. Their effectiveness and versatility was an important addition to the ships and provided a tremendous stride forward in anti-submarine potential.

The Broad Pennant of SCOA(A) was transferred to *Haida*, and *Magnificent* with *Huron* crossed the Atlantic to Portsmouth. With the Commandant, directing staff and students of the National Defence College embarked, she returned again in early June. The homeward trip was marked by fair weather permitting surface and flying drills, including the testing of *Huron* in helicopter control. A rendezvous was made with *Astute* in order to put on a comprehensive anti-submarine warfare demonstration for the benefit of the National Defence College personnel. Fog precluded *Avenger* participation but helicopters were employed and *Astute* gave a solo display of diving, etc.; the thick weather finally cleared as the carrier was off Macnab Island entering harbour. After this trip *Magnificent* made short cruises only in the vicinity of Halifax for the balance of June, the Broad Pennant being shifted back to her.

Reserve air squadron VC 920 joined *Magnificent*, which was now commanded by Captain A. B. F. Fraser-Harris, DSC and Bar, CD, RCN, in August on her next cruise and made 101 deck landings with but one accident. The carrier returned to Halifax and on 20 August

put to sea again to receive VS 881 and HS 50 prior to beginning ten days of training in a submarine area to the southward.

The last NATO exercise for *Magnificent* was the sixth of the *New Broom* series for the starting point of which she steamed with the First Canadian Escort Squadron and *St. Laurent* on 8 September. The threat on the 9th of an approaching storm from the south-west and deteriorating weather caused the first phase to be cancelled, the force making off to the south-east while the USN ships steered to the westward. *Magnificent* suffered some damage to boats and *Algonquin*, with *Haida* as escort, had to be detached to Halifax with a seriously damaged topmast. Phase Two opened with the convoy tracking to the west and the Carrier Support Group, including *Magnificent*, some 20 to 25 miles to the south busily flying helicopters and planes to search for “enemy” submarines. An *Avenger* reported a disappearing radar contact and a sonobuoy barrier was laid between it and the convoy. A further contact subsequently classified the echo as non-submarine. Through the night of the 14th the group swept to the northward across the wake of the convoy to confuse any shadowing submarine. Two *Avengers* were launched shortly after dawn to check the weather, which was found to be unsuitable for general flying and, at 0900, *New Broom VI* secured.

During the carrier’s next spell in harbour the Broad Pennant of Commodore Tisdall was struck and *Magnificent* reverted to the status of a private ship under the direct orders of Flag Officer Atlantic Coast. The end of *Magnificent’s* association with the air arm was at hand but she had one more three-week training period commencing 25 September when VS 880 was flown on from *Shearwater*. A two-day operational visit was paid to Boston followed by five days flying and surface exercises in which *Magnificent*, *St. Laurent*, *Assiniboine*, HM Submarine *Alliance* and VS 880 participated. Pro-

ceedings were enlivened when one of the aircraft generated a strange submerged contact one morning and, after *Alliance* had safely surfaced, all units concentrated on the mysterious interloper. Contact was lost but a routine search and investigation by ships and aircraft was not discontinued until late afternoon.

The last plane airborne was recovered after lunch on 10 October, 1956, and there was much gaiety on the flight deck as appropriate ceremonies were held. However, an undertone of sadness was also there as this marked the end of the scheduled flying aboard the old "Maggie," who had served naval aviation so long and so faithfully.

Off Halifax all VS 880 aircraft were launched to *Shearwater* and the carrier secured alongside Jetty 3, bows south. Within a few days complement was sharply reduced with the departure of the air facility and destoring commenced in preparation for the sailing of the ship to England in accordance with arrangements agreed upon with the Royal Navy over the previous five years.

Following Privy Council approval, the Admiralty had been informed in October 1951 that Canada would pay for substantial alterations to *Magnificent*, including the strengthening of her deck to take heavier aircraft and the fitting of new equipment such as improved lifts, arrestor gear and safety barriers.²⁷ It was not anticipated that the modernization refit would take place for two or three years but, after being taken in hand, *Magnificent* would then be non-operational for at least another two years. To meet this situation the Admiralty, in the course of preliminary negotiations, presented Naval Headquarters with three alternatives:

- (a) Borrow a Carrier temporarily during the period of refit, or
- (b) Exchange the *Magnificent* for a modernized Light Fleet Carrier, or
- (c) Purchase one of the partly built Light Fleet Carriers on which construction was stopped in the UK in 1945 and then complete and modernize it.²⁸

During a visit to London in November 1951, Mr. Brooke Claxton, the Minister of National Defence, discussed the matter with British officials and the following April the Cabinet Defence Committee came to the conclusion that it would be best for Canada to acquire her own aircraft carrier to replace *Magnificent*.²⁹

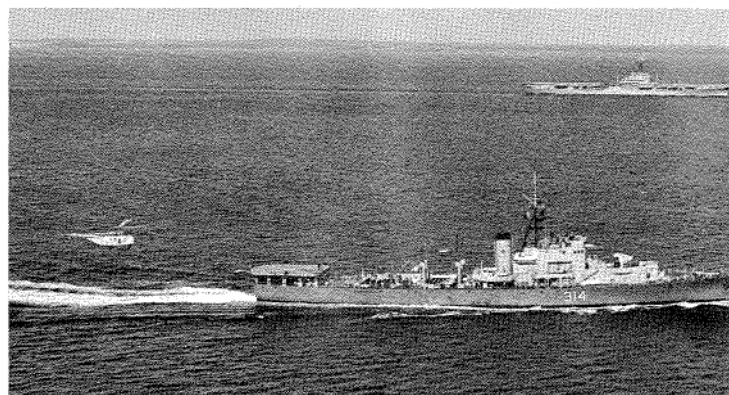
During succeeding years the possibility of keeping *Magnificent*, in addition to the new vessel, as a helicopter carrier and training ship was closely studied but a ministerial decision finally ruled out the idea.³⁰ As her career with the RCN was drawing to a close the retention of *Magnificent* was suggested in a letter from Sir Anthony Eden, the British Prime Minister, to the Right Honourable Louis St. Laurent, Prime Minister of Can-

ada.³¹ The Canadian Naval Board was prepared to recommend the placing of the ship in de-humidified reserve but the government decided in September 1956 that she should go back to the Royal Navy.

Magnificent left her berth in Halifax on 29 October, 1956 and was joined by the *Prestonian* Class frigate,



Sikorsky Helicopter landing on special platform HMCS *Buckingham*.



Sikorsky landing approach to HMCS *Buckingham*.

HMCS *Buckingham*, off Chebucto Head for mid-ocean helicopter trials on the frigate which had been specially fitted with a platform aft to receive a *Sikorsky* of HU 21's Detachment 3. These trials, which were to have a great future significance for the RCN, were part of a series being conducted over a period of three months under the sponsorship of Commander Operational Evaluation (COMOPVAL). After three days of exercising in company, *Buckingham*, with the helicopter embarked, returned home. *Magnificent* landed stores for her successor HMCS *Bonaventure* in Belfast and on 7 November she was lying at the Tail-of-the-Bank, Greenock, awaiting a favourable tide for Glasgow where 50 *Sabre* jet aircraft were to be collected for the RCAF. A bombshell fell at about 2000 in the form of a signal ordering

the ship to return to Halifax at best speed as she was required to act as a troop-ship and headquarters vessel in connection with the United Nations action in the Middle East.³²

An immediate recall was sent out to all hands on shore and by the morning watch of the following day *Magnificent* was at sea with the prospect of encountering gales which were reported as “covering the Atlantic from the Davis Strait across to Europe.” On passage, a continual stream of messages poured in and the ship’s company had a busy time carrying out the instructions in them as a major start was made in getting the carrier ready for her new role. In spite of strong winds and a large swell *Magnificent* made good time and five days and eleven hours after leaving Scotland she berthed in the evening of 13 November. A horde of dockyard workmen and naval personnel immediately came on board and began to prepare her for Operation *Rapid Step*. Guns, ammunition, ready-use lockers, etc., were removed and the equipment and fittings required for 500 extra men were brought on board.* “A” hangar was converted into a dormitory with double-decker bunks; additional washplaces and sanitary facilities were installed and the sonobuoy flat became a sick-bay annex. While this work was in progress “B” hangar was being rapidly filled with army stores of all descriptions.

Magnificent was next moved to Pier 9B to embark army ammunition and 203 vehicles. In the middle watch on Sunday, 18 November, the last of the trucks was hoisted on to the flight deck and at 0800 the ship returned to Pier 4 to take on 14 heavy vehicles. Except for the embarkation of the 950 officers and men of the First Battalion Queen’s Own Rifles of Canada,† Operation *Rapid Step* had now been completed. Everyone on board *Magnificent* was keyed up and ready to go, but it was not to be. Orders were received to revert, from 1530, to eight hours’ notice for steam and two days later the operation was placed at 24 hours warning.

For the rest of November and the first 11 days of December *Magnificent* lay in a state of suspended animation while the United Nations pondered over the requirements of its newly formed Emergency Force. Although nothing was officially announced it was strongly suspected that Colonel Abdel Nasser, President of Egypt, objected to the Queen’s Own because in name and appearance they were too much like the “Soldiers of the Queen,” a number of whom had not been too friendly towards him in recent days and were still “dug in” 22 miles south of Port Said on the Canal road.³³

Eventually it was decided that Canada’s military con-

*Ship’s Company was to be reduced to 600 men.

†Chosen by the Government to be the major component of the Canadian contribution to the United Nations force for the Middle East.



Port Said bound.

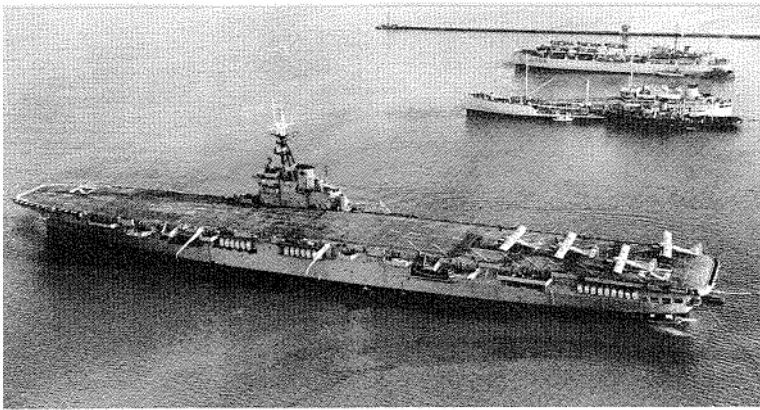
tribution to UNEF would consist of “housekeeping troops”, and the Queen’s Own beat an honourable retreat back to Calgary.³⁴ Once again *Magnificent* became a bee hive of activity, ammunition and vehicles being off-loaded and Operation *Rapid Step* II‡ swinging into action. Further reorganization internally, was also necessary as the ship would be used for transport duties only and not as a headquarters’ vessel as originally intended.

The carrier with 406 army personnel³⁵ and supplies³⁶ for UNEF slipped her lines on 29 December to the accompaniment of a rendition of “Auld Lang Syne” given fortissimo by three bands, HMCS *Stadacona*, the Royal Canadian Artillery and the pipes and drums of the Royal Highland Regiment of Canada (Black Watch). Terceira in the Azores was raised at daybreak on 4 January, 1957, and a mail drop made by helicopter.*

This procedure was repeated at Gibraltar and two days later *Magnificent* met with the oiler, USS *Mississinewa*, and a supply ship, USS *Hyades*, both belonging to the U.S. Sixth Fleet. The three ships steamed in line abreast for five hours at 12 knots whilst the carrier received oil and water from the tanker and also provisions, which were passed via that vessel from *Hyades*. *Magnificent* was ahead of schedule and it was decided to anchor for a few hours in Marsaxlokk Bay, Malta, so that she might have her usual “tiddly” appearance re-

‡Reloading of stores, vehicles and equipment for the new army contingent.

*The air arm was represented by a *Sikorsky* of Detachment Number 1, HU 21, during this period.



HMCS *Magnificent* secured to buoys at Port Said, Egypt.

stored with a coat of paint. However, a message was received from General Burns on the night of 8 January requesting that the ship arrive at Port Said as soon as possible. Speed was increased to 17 knots and contact with Malta limited to a helicopter flight with the mail and an able seaman whose parents lived on the island. The next night *Magnificent* was hit by a short but severe Mediterranean storm, which badly smashed a motor cutter and gave the passengers something of a shake-up.

Everyone was curious to see Port Said, which had recently been so much in the news, and all “goofing”³⁷ stations were taken as the ship steamed past the breakwaters into the wreck-cluttered harbour and moored with two anchors forward and lines to two buoys astern. *Magnificent* immediately became the target for visitors both official and unofficial. Amongst the former were His Excellency the Canadian Ambassador to Egypt, Mr. E. H. Norman, and General Burns, while the latter included tradesmen and peddlers, who attempted to come on board with the mob of excited stevedores hired by a local contractor to unload *Magnificent*.³⁸ Disembarkation began with the vehicles on the flight deck on Saturday, 12 January, and by 0230 on Wednesday all the trucks and the stores in “B” hangar had been removed. Shifting, below decks, was done by ship’s company working parties assisted by Swedish and Finnish soldiers of UNEF* and the native workmen were employed on the flight deck and in the lighters, owing to their propensity for looting.† For this purpose, it was reported, they usually worked in threes; the first man on passing a carton would slash it open with a knife; the second, following closely, would fold back the opening and select the article to be stolen; the last man would carry out the actual “hoist”, stowing the swag beneath his large night-shirt-like garment.³⁹ During the operations the helicop-

*Finnish, Swedish and Indian troops of UNEF provided a security guard during unloading operations.

†One enterprising stevedore on the flight deck threw a large can of paint down to his friend in a small boat. Hurling past the occupant, the tin passed through the bottom of the boat, which very quickly became flooded. Eventually help came and the angry boatman was last seen, under tow, shaking his fist at *Magnificent*.

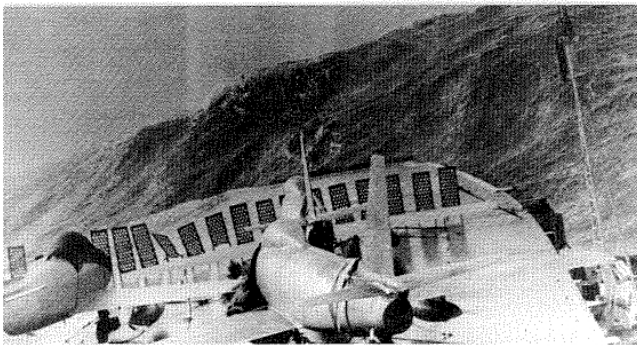
ter, with the UN emblem painted on its side, proved invaluable for a variety of jobs. One small example was when a power unit had to be moved from the after to the forward section of the ship when both the flight deck and the hangar were blocked with stores and equipment. The unit was hoisted on to the after lift and then taken forward by helicopter to its designated spot.

On Monday, 14 January, the *Sikorsky* picked up General Burns at El Ballah and flew him on an inspection flight over the Canal. The next day, with Captain Fraser-Harris as a passenger, the helicopter piloted by Lieutenant-Commander W. H. Frayn, RCN, took up the General again and made its way to El Arish in the Gaza Strip, which had only that morning been evacuated by the Israelis and was awaiting the arrival of an occupying UN force of Yugoslav troops. An hysterically happy mob of Arabs pounced upon the aircraft as it landed, endangering themselves and the helicopter. Captain Fraser-Harris, the first to climb out, was literally overwhelmed and had great difficulty in extricating himself from these unwelcome embraces so that the machine could be flown to a quieter spot. Thanks to the competent handling of the helicopter no one was decapitated and General Burns, having carried out the formalities required of the occasion, was flown back from the town to El Ballah. The helicopter made several other trips to and from the United Nations bases and the Commanding Officer was taken to call on the Canadian Ambassador in Cairo.

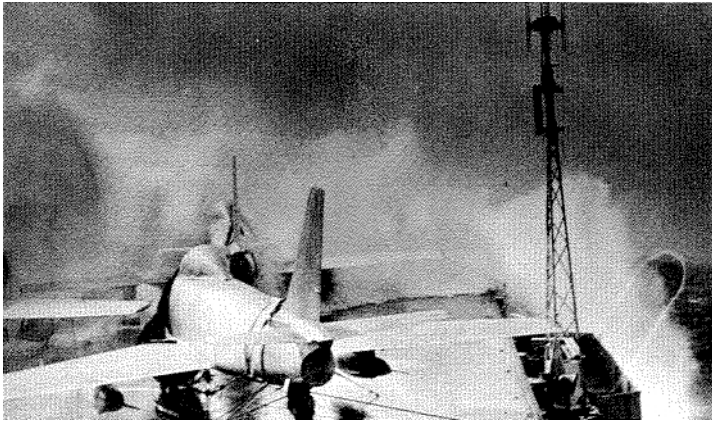
Twenty days had been allocated for unloading but *Magnificent* was actually cleared of her UN stores⁴⁰ in eight, after which an extensive cleaning and painting programme was necessary to make her shipshape again. Libertymen, 120 in each party, were landed on 16, 17 and 19 January for organized trips to Cairo and the Pyramids as guests of the Egyptian Government. Limited leave (0900-1300) was also given in Port Said on the 18th and 19th. Those going on shore and boats’ crews in addition to their usual naval uniform wore UN flashes,

Tricky landing by helicopter in the Middle East.





HMCS *Magnificent* “ships them green” in the Atlantic.



Spray-covered *Sabres*.

arm bands and the bright blue beret of UNEF.

Having fulfilled all her obligations⁴¹ to the UN force, *Magnificent* sailed for Naples on 20 January, 1957, and as soon as she was within helicopter range a suspected appendicitis case was flown off to the Italian port. The visit was strictly a rest and recuperation for the men of *Magnificent* and the ship's sports officer had been sent on ahead from Egypt to make the necessary arrangements. As a result of his efforts there were two all-day trips to Rome with audiences being granted by His Holiness Pope Pius XII on both occasions; an all-day excursion to Pompeii and Mount Vesuvius; three half-day trips to Pompeii and a performance on board by an outstanding variety troupe. Combined with the undoubted charms of Naples itself this varied programme served to satisfy all tastes.

The lay-over ended on 27 January and two days later at dusk the carrier passed through the Strait of Gibraltar. Throughout 1 February *Magnificent* steamed up a turbulent Irish Sea and on the 2nd entered the Firth of Clyde. This time no world-shaking signal was received and 59 *Sabre* jet aircraft* were hoisted on board at King George V dock, Shieldhall, Glasgow. A party of officers and men left for *Bonaventure* and on the return trip down the

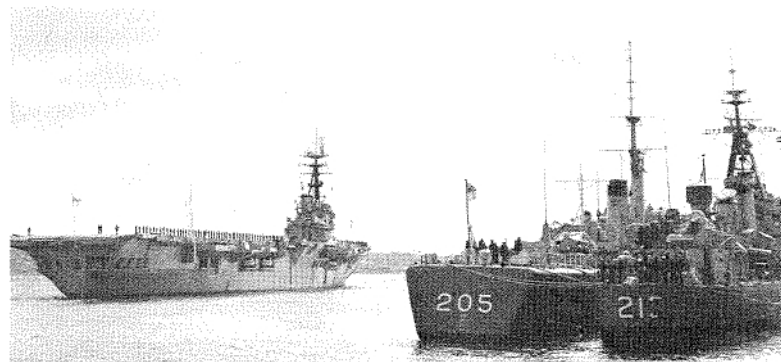
*These aircraft had been replaced by more modern aircraft in the RCAF squadrons in Europe and were now destined for auxiliary squadrons in Canada.

Clyde, *Magnificent* was given a farewell salute by “Angel,” the faithful helicopter, which had given such yeoman service in the preceding weeks and was now going to *Bonaventure*.

Severe storm conditions caused the carrier to heave to on three consecutive nights during the ocean passage and it was feared at one stage that some of the *Sabres* might break loose from their moorings. By Thursday, 14 February, with a following wind and sea, the carrier was making good an average of 22 knots and a firm estimated time of arrival (ETA) signal was made to Halifax. In the approaches Rear-Admiral Bidwell and Mayor Leonard E. Kitz came on board by helicopter to welcome the ship and in the words of her Commanding Officer “it was with the Admiral's flag flying from the peak and with the city's Chief Magistrate as an honoured guest that *Magnificent* entered her home port for the last time.” The end of a successful enterprise was marred by an unfortunate mishap as *Magnificent* was about to berth. The naval tug, *Glendyne*, which was in attendance, capsized and two of her company lost their lives.

The month of March was spent in further destoring and on 10 April *Magnificent* sailed for the last time from Halifax.⁴² Casting off from a jetty crowded with cheering people she exchanged salutes with many ships of the fleet as she made her way down harbour. At the entrance the carrier fired her saluting guns in answer to the army cannon, which could be heard booming out from Citadel Hill, and then shaped course, in bright sunshine, south-eastward to clear the ice off Newfoundland. A few days out the carrier answered a call for medical assistance from a German merchant ship. A suspected appendicitis case was transferred by jackstay and later successfully operated on in the sickbay. Another seaman in a Greek vessel was reported seriously ill but the call for help was cancelled as *Magnificent* was closing the ship's position owing to improvement in the condition of the patient. Without further incident the carrier berthed at Plymouth and work began to prepare her for paying-off. *Magnifi-*

“Farewell Maggie.”
HMC Ships *St. Laurent* and *Nootka* alongside.



cent reverted to the Royal Navy on 14 June, 1957, the main draft of personnel going up to Belfast to join *Bonaventure*, which had commissioned in January, for passage home; she subsequently joined the RN Reserve Fleet and was still lying at Plymouth in the summer of 1962.

From the day that she first made landfall on the coast of Nova Scotia in 1948, "Maggie," as the largest unit in the RCN, always had "star billing" in the press so that as the years passed, her exploits were watched with interest

by the public from coast to coast. Whether ceremonial occasions, "showing the flag," or large scale manoeuvres, *Magnificent* was always there. Looking back, a lot of her story does not appear very exciting but it is the stuff which a fleet must have to maintain efficiency, namely ceaseless exercising. However, like a real trouper, *Magnificent* had kept her most spectacular performance as a grand finale to a long career during which she had provided excellent facilities for the RCN air arm in the period of its greatest expansion.

REFERENCES

¹ A *Vampire* jet fighter, *Sea Hornets* and *Sea Furies* going to North America to give aerial displays.

² Vice-Admiral Sir Philip L. Vian, KCB, KBE, DSO and two Bars.

³ HM Cruisers *Jamaica* and *Glasgow* and three frigates. The squadron was still under the command of Admiral Sir W. G. Tennant.

⁴ During this period there was an "incident" aboard *Magnificent* involving 32 ratings of the Aircraft Handling Party, who refused to fall in at 0745 on 20 March. Having been addressed by the Commanding Officer on the messdeck, they later all obeyed the pipe "Flying Stations" at 0900. No disciplinary action was taken.

⁵ U.S. Ships *Philippine Sea*, *Missouri*, *Wright*, *Salem*, *Des Moines*, *Worcester* and 16 destroyers.

⁶ 786 tons. The owners, Shell Nederland N.V., subsequently paid the equivalent in sterling of approximately \$12,586.54 to the Government of Canada.

⁷ Flag Officer, Heavy Squadron (Home Fleet) and Flag Officer Commanding Second Aircraft Carrier Squadron.

⁸ TG 48 consisted of *Indomitable*, *Magnificent*, two destroyers and eight imaginary destroyers as close screen. Four destroyers made up to TG 49.

⁹ 1,032 hours were flown, 663 by *Avengers* and 369 by *Sea Furies*.

¹⁰ Acting Admiral The Earl Mountbatten of Burma, KG, PC, GCSI, GCIE, GCVO, KCB, DSO, LLD, DCL, DSc.

¹¹ Ships in harbour included *Magnificent*, *Daring*, one submarine depot ship, three cruisers, three destroyers, seven frigates, five minesweepers, two landing craft tank and HMS *Surprise*, the C-in-C's despatch vessel.

¹² Military coup d'état on 23 July set up a government headed by General Mohammed Naguib. King Farouk abdicated.

¹³ U.S. Ships *Laffey*, *Lowry*, *James C. Owens*, and *Douglas H. Fox*.

¹⁴ That the Canadian carrier's sojourn with the Mediterranean Fleet was of mutual benefit is evidenced by the following message received from the Commander-in-Chief: "I am sorry you are leaving us today as you have played such a full and valuable role with the Mediterranean Fleet. On behalf of everybody in the Fleet I send you and your ship's company our best wishes for the future."

¹⁵ Original signatories were Belgium, Canada, Denmark, France, Italy, Iceland, Luxemburg, the Netherlands, Norway, Portugal, the United Kingdom and the United States. Greece and Turkey joined in October 1951. Federal German Republic subsequently joined in 1954.

¹⁶ Two aircraft carriers HMS *Theseus* and USS *Mindoro*; a cruiser, HMNZS *Bellona* and eight U.S. Destroyers.

¹⁷ King Haakon and Crown Prince Olaf of Norway and more than 250 other high ranking Allied officers were at the conference.

¹⁸ Six USN ships; ONE 27 consisted of two USN ships.

¹⁹ A modified Loch-Bay Type frigate used normally as a despatch vessel by the Commander-in-Chief Mediterranean.

²⁰ Canada, the United States, the United Kingdom, France, Denmark, Norway, Netherlands, Belgium and Portugal. While Exercise *Mariner* was in progress, big Allied manoeuvres, code name *Weld Fast*, were held in the Mediterranean. More than 100,000 troops, ships, aircraft and submarines of five NATO nations, (United Kingdom, United States, Greece, Turkey and Italy) participated.

²¹ TG 203.6 consisted of *Magnificent*, and U.S. Destroyers *New*, *Rich*, *Holder* and *The Sullivans*.

²² In addition the 54-foot Bermudian yawl, *Pickle*, a gift from the Admiralty, had been embarked at Portsmouth for transportation to Canada. Since her arrival in Halifax CNAV *Pickle* has been employed as a sail-training vessel in the Atlantic Command (maintained by HMCS *Shearwater* 1955-60) and has taken part in a number of ocean races including the Newport-Bermuda Race in 1962.

²³ On the voyage over, cargo included 14 *Fireflies*, ex-RCN, for Ethiopia.

²⁴ Schnorkel. A device used by a submerged submarine to obtain fresh air for the boat's company and her diesel engines.

²⁵ For the period of *Sea Enterprise* this group consisted of the Canadian frigates with HM Norwegian Destroyers, *Oslo* and *Stavanger*, and HM Norwegian Frigates, *Haugesund*, and *Tromsø*. *Prestonian* became Task Group Commander until 26 September.

²⁶ Formed at *Shearwater* on 1 March, 1955, with a complement of one officer and ten men, this mobile unit provided radio-controlled drones for anti-aircraft training in ships of the Atlantic Command.

²⁷ PC 4596, 1 October, 1951. NS 8020-500/RRSM (2).

²⁸ Letter CNS to Secretary, C of S Committee, 15 November, 1951. NS 8020-500/RRSM (2).

²⁹ Minutes of 85th Meeting of the Cabinet Defence Committee, 23 April, 1952. NS 8000-CVL 22 (1).

³⁰ Correspondence on NS 8000-RRSM (2).

³¹ Correspondence on NS 1700-147/1 (1).

³² On 29 October Israel had invaded Egypt and quickly conquered the Sinai Peninsula. Fearing for the safety of the Suez Canal Britain and France sent an ultimatum to Egypt and Israel on the 30th demanding that both countries withdraw their armed forces to a distance of ten miles from the Canal. On rejection of the ultimatum by Egypt, Britain and France, after carrying out air bombardment, which started on 31 October, of Egyptian airfields, occupied Port Said and Port Fuad on 5 and 6 November. Early on 4 November the General Assembly of the United Nations approved a Canadian resolution concerning the formation of an international UN force to "secure and supervise the cessation of hostilities." Approval was given on the next day to another resolution in favour of establishing a UN command and naming a Canadian, Major-General E. L. M. Burns, DSO, OBE, MC, CD, on an emergency basis, in command of the force.

³³ At a Press Conference in Ottawa on 5 January, 1957, Abdel Khalk Hassouna, Secretary-General of the Arab League confirmed this rumour. However, the preparation of the Queen's Own for possible overseas service had been undertaken on an emergency basis before Major-General Burns had been consulted as to his requirements for a balanced expeditionary force. See statement by the Honourable Ralph Campney, Minister of National Defence, *Armed Forces News*, Ottawa, 8 November, 1956, and speech made by the Honourable Lester Pearson, Minister of External Affairs, on 27 November, 1956. Canada, *House of Commons Debates*, Official Reports 4th (Special Session), 4-5 Elizabeth II, 26 November, 1956, to 8 January, 1957 pp. 51-65.

³⁴ A close comradeship was established between the battalion and the ship during its sojourn in Halifax. Soldiers worked on

board *Magnificent*, stood picquet duty and visited at the weekends. Buttons of the type worn on naval mess jackets were presented to QOR officers by Captain Fraser-Harris as a reminder of this friendly liaison.

³⁵ Members of the Royal Canadian Corps of Signals, Royal Canadian Electrical and Mechanical Engineers, Royal Canadian Army Service Corps, and a headquarters' detachment.

³⁶ One hundred tons of supplies, 233 vehicles weighing approximately 800 tons, and four RCAF *Otter* aircraft.

³⁷ The first recorded use of this term in the RCN was aboard HMCS *Labrador* on her cruise to Arctic waters in 1954. It was the practice of the ship's company to rush on deck whenever an unusual spectacle was to be seen. To provide ample warning the pipe "Hands to Goofing Stations" was made so that polar bears or walrus and huge icebergs, etc., would not be missed by the enthusiastic.

³⁸ Arrangements were made later for the Egyptian police to station a man at the ship's ladder and to maintain a 24-hour patrol around the carrier.

³⁹ Reports of Proceedings, HMCS *Magnificent*, January 1957, NSC 1926-RRSM 21 (5).

⁴⁰ Owing to adverse wind conditions the four *Otter* aircraft were not flown off until Saturday, 19 January. To the RCAF goes the honour of making the last fixed-wing flight from *Magnificent* whilst she was being operated by the RCN.

⁴¹ Amongst the messages of appreciation received by the ship was one from General Burns which read, in part: "I take the present opportunity of thanking you and all the crew of the *Magnificent* for the big contribution you made to UNEF. I think that apart from the actual "hardware" and personnel that you brought along, you gave the force a big lift in morale and that extended to all members of the Force, not only the Canadians in it."

⁴² Vice-Admiral DeWolf, Chief of the Naval Staff, ended his message of farewell to HMCS *Magnificent* with the words: "I speak for the Navy when I say 'Well done, Maggie'."

HMCS BONAVENTURE

The completion of HMCS *Bonaventure*, the first aircraft carrier owned outright by the country, was an occasion of great rejoicing. With the addition of the new vessel Canadian naval aviation had definitely come of age.

As described in the previous chapter the Cabinet in April 1952 had authorized the acquisition and modernization of an aircraft carrier, to replace *Magnificent*. At that time the most suitable ship appeared to be the modified *Majestic* Class light fleet carrier, HMS *Powerful*, which, after being laid down by Harland and Wolff in November 1943 and launched in February 1946, had lain uncompleted at Belfast since May 1946 when work had been stopped on her. During negotiations with the Royal Navy the Honourable Mr. Brooke Claxton, then Minister of National Defence, proposed that the United Kingdom should be asked to spend the purchase money, 21 million dollars, on Canadian cheese.¹ Owing to an acute shortage of gold and dollar reserves the British regretfully had to put the lid on this savoury suggestion.² The agreement to buy *Powerful* finally made on 29 November, 1952, was back-dated to 12 July, the parties being the Minister of Defence Production in Canada and “The Commissioners for executing the office of Lord High Admiral of the United Kingdom and Ireland (hereinafter called the Admiralty).”³ The latter placed a contract with the builders for completion of the ship and within two weeks the banging of hammers once more reverberated around *Powerful*. A team under an officer with the title Principal Royal Canadian Naval Technical Representative (PRCNTR) was sent to Northern Ireland and during the construction programme worked closely with the firm and Admiralty representatives. Shortly before Christmas 1952 a press release from Naval Headquarters in Ottawa revealed that *Powerful* was to be re-named *Bonaventure*.

The name of the carrier is taken from a small island off the Gaspé peninsula in the Gulf of St. Lawrence known as Bonaventure Island.⁴ It is rich in history and legend, one of the latter being that it was named by the

French explorer, Jacques Cartier, who was anchored in the lee on 14 July, 1534, the day of the Feast of St. Bonaventure. Another authority has stated that Sieur de Champlain, whilst on a voyage of exploration up the Gaspé coast in 1603, gave the island its name.⁵ However, the most likely origin is that the place was known from even earlier times by fishermen from Brittany and Portugal as “Ile de Bonne Aventure” for the good luck that attended them there.

Another legend, as old as the known history of Gaspé, concerns an enormous ogress called “Gougou,” who lived in a cave on Bonaventure. Being of great height she could wade over to the mainland without getting her knees wet and it was her habit to gather up there a handful of unfortunate Indians, which she put in her pocket to be enjoyed later as a bedtime snack. Black and red stains on the rocky cliffs still show where “Gougou” puts her cloak out to dry.

Amongst mere mortals who have visited Bonaventure Island may be mentioned Sir William Phipps (or Phips), who set up the English flag there for a time in the late seventeenth century, and the Janvins, privateers from the Channel Islands who used the island as a refitting base when not preying upon French shipping. No history would be complete without including another privateer of great courage and ability, Captain Jean Paul Duval, who made the island his headquarters in early colonial days and whose descendants still live on or near it.

Today Bonaventure Island, which in appearance represents a giant whale its “head” rising up to 400 feet at the northern end and tapering until level with the sea at the “tail” or southern end, is a government-protected bird sanctuary for thousands of gannets, gulls and other sea-birds. In view of the function of the ship and as a compliment to the great French-speaking early explorer-seamen, the name Bonaventure is very suitable for a Canadian aircraft carrier.

In respect to illustrious forbears *Bonaventure* is also well endowed. There have been ships bearing the name

in the Royal Navy since about 1475 in the reign of Edward IV and they have piled up an impressive record of battle honours:

<i>Lowestoft 1665</i>	<i>Four Days' Battle 1666</i>
<i>Orfordness 1666</i>	<i>Sole Bay 1672</i>
<i>Schooneveld 1673</i>	<i>Texel 1673</i>
<i>Barfleur 1692</i>	<i>Malta Convoys 1941.</i>

The actions between 1665 and 1692 were fought by one ship, a fourth-rate of thirty-eight guns, built in 1649 and finally sunk as a breakwater in 1748 after an illustrious career spanning six reigns and the commonwealth interregnum.

The last battle honour commemorates the activities of a *Dido* Class cruiser, which had a short but adventurous life in the Second World War. On Christmas Day 1940 *Bonaventure* and the cruiser, HMS *Berwick*, whilst escorting a convoy bound for the Middle East, fought a brief action with the 10,000-ton German cruiser *Admiral Hipper*. The next day she sank the German merchant vessel, SS *Baden*. Later, as one of the escorts of a convoy in the Mediterranean, *Bonaventure* helped to repulse heavy air and surface attacks, during which an Italian destroyer blew up. The cruiser's luck ran out on 31 March, 1941, when she was torpedoed and sunk by an Italian submarine when in company with a Greece-Alexandria convoy. Within two years of her sinking a new HMS *Bonaventure* had joined the British fleet. This was a submarine depot ship, which from the date of commissioning in early 1943 was stationed in the Clyde area as a base for "X" craft (midget submarines). Submarines based on *Bonaventure* were used to attack the *Tirpitz*, lying in Kaa Fjord, Norway, in September 1943. After the war *Bonaventure* was sold to commercial interests and is still plying the ocean under the name of *Clan Davidson*.

On 17 January, 1957, following traditional religious services, the ship's company and over 900 guests were assembled in the hangar of the latest *Bonaventure* for the solemn commissioning ceremony. Commodore J. V. Brock, DSO, DSC, CD, RCN, the Naval Member Canadian Joint Staff [NMCJS (London)] introduced the Honourable Ralph Campney, Minister of National Defence, who then made a speech outlining Canada's interest in acquiring the warship. In the next part of the ceremony, after an introduction by Vice-Admiral DeWolf, the Chief of the Naval Staff, Mrs. Campney named the ship. The Minister's wife immediately afterwards unveiled a scroll of the carrier's battle honours and Captain H. V. W. Groos, CD, RCN, the Commanding Officer, having read his personal appointment, commissioned *Bonaventure*.

Belonging to the modified *Majestic* Class, with a strengthened flight deck to take jet aircraft, the new light fleet carrier has many Canadian ideas incorporated to

make her one of the most modern ships of her type afloat; electrical and electronic equipment valued at over \$3,000,000, including two million dollars-worth of fire control and radar units, was ordered from firms in Canada. Her steam turbines, which give a full speed of nearly 25 knots, turn twin shafts fitted with three and four-bladed propellers. Although the arrangement is unusual it gives a significant reduction in vibration at high speeds. At the time of her commissioning, main armament consisted of four 3"/50 twin mountings and the ship carried *Trackers*, *Banshees*, and *Sikorsky* helicopters, which allowed her to act in both anti-submarine warfare and fighter-operational roles.

During the building of *Bonaventure* the Royal Canadian Navy was able to take advantage of a major British break-through in the technique of operating aircraft; this consisted of three major improvements in design and equipment, namely the angled-deck, steam catapult and mirror-landing aid, all of which have been adopted by the United States Navy.

Ever since the first landing of a *Sea Vampire* on the deck of HMS *Ocean* in December 1945, experts were faced with the problem of how to compensate for the high landing speed of jet aircraft. It was found that flight deck barriers had to be moved further forward owing to their inability to stop such planes after the long "pull-out"* of the deck arrester wire. A re-location of barriers drastically reduced the space available for deck parking. In the summer of 1951 a solution to angle the landing area on carriers was proposed and trials carried out with an angled deck painted on the flight decks of HM Ships *Illustrious* and *Triumph* proved the feasibility of the scheme. Advantages include elimination of the barrier, a much longer landing area, a good deck park, simplification of deck landing and improvement of morale. The fully angled deck also makes it easier to operate aircraft in rough weather and reduces wastage due to landing accidents, which have shown a significant decrease in number since the introduction of the new method.⁶

The steam catapult fitted in *Bonaventure* is of a type

*"Pull-out" refers to the distance that the deck arrester wire is extended after an aircraft has engaged it on landing.

Vertical view showing angled-deck, HMCS *Bonaventure*.



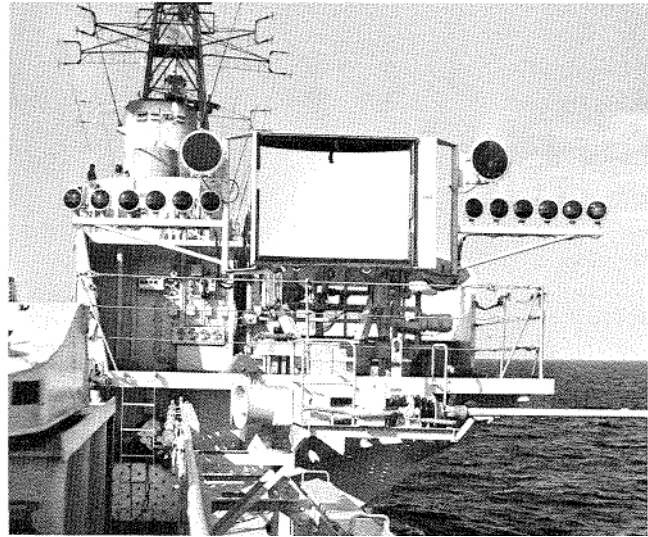
invented by Commander (E) C. C. Mitchell, RNVR, of Brown Brothers, Ltd., Edinburgh, to provide the answer to the lack of plane acceleration when taking off. The original hydro-pneumatic purchase type of catapult had from its early days tended to branch out into a greater mass of mechanism as increased performance was required of it. With the advent of jets, the catapult had reached a practical limit unless its machinery was to become so large that it would be difficult to fit into a ship. The steam catapult⁷ gives greatly increased power for despatching jets at any foreseeable take-off speed and reduces the necessity for a carrier to steam for lengthy periods into the wind to fly off its aircraft. In certain conditions a ship can boost off its planes when stationary, this factor, combined with the others, thus making the invention one of great use in naval air tactics.

The Mirror Landing Sight as used in *Bonaventure* was the third of the inventions to simplify plane carrier drills. The sight was evolved in conjunction with a device called "Audio" which gives audible information on the plane's air speed. On his final approach the pilot keeps light reflected from a gyro stabilized mirror on the flight deck in a horizontal line with fixed datum lights to left and right of it. To obviate the necessity of looking down at instruments, "Audio" gives off sound signals from which the pilot can tell whether he is coming in too fast or slow. It is no longer necessary to cut engine to land the aircraft on to the deck; the pilot now flies straight down at a shallow angle into the arrester wires with engine power on. The technique does away with the necessity of having to have a Landing Signals Officer (LSO) to guide each plane down to the deck but the older method of control is still useful when mechanical aids fail or prove inadequate.⁸

Another innovation aboard *Bonaventure*, developed by Canadian naval engineers, is the aviation fuelling equipment, which ensures that only pure, properly constituted fuel is available for her aircraft. Three main requirements had to be met:

- (1) The transformation of two standard fuels (kerosene and high octane gasoline) into the special ized mixture necessary for turbine-driven aircraft.
- (2) The need to ensure that all contaminants, particularly water, were removed from fuel.
- (3) The need for both under-wing and over-wing fuelling in the least possible time as speed is essential in carrier operations.

Built by a Canadian engineering company the lay-out consists of two sets of fuel blending apparatus and 14 two-outlet fuelling stations, each complete with fuel filter, water separators, power operated hose reels and special tank filling nozzles. The blending arrangement is the first to be installed in a major war vessel and is thus an important industrial achievement.⁹ To accommodate the



Mirror-landing aid, HMCS *Bonaventure*.

two different kinds of fuel required by turbine and piston-engined aircraft, the aviation fuel capacity of *Bonaventure* was increased over that originally planned for her class.

Finally, on the subject of the carrier's equipment, mention may be made of her closed circuit television system, which relays direct visual information of ships and aircraft in the vicinity to key points in the ship. One feature of this arrangement is that in the briefing room the brightness of the monitor has been specially filtered so that night vision of the airmen will not be adversely affected. To meet all the heavy demands for electrical power the ship has a plant capable of generating 3,200 kilowatts of direct current and 300 kilowatts of alternating current power.

Trials began for *Bonaventure* and her multitude of fittings and accessories after the pomp and ceremony of commissioning were over and on 21 January, 1957, having completed a series of "runs" at full power over the Arran measured mile in the Firth of Clyde, the Commodore Superintendent Contract Built Ships, Commodore W. P. Carne, RN, accepted her on behalf of the Admiralty, whose technical officers had been responsible for overseeing the work of construction. Captain (L) J. Deane, CD, RCN, then accepted her from the British for the Chief of Naval Technical Services and Captain Groos signed for *Bonaventure* to become part of Her Majesty's Canadian Fleet.¹⁰

The carrier was at sea for more trials nearly every day until the end of the month, when she returned to the Royal Naval Aircraft Yard, Sydenham, Belfast. Here she remained until early in March, while installation of aircraft-operating equipment was completed and dead-load testing of the steam catapult carried out. On 4 March

Bonaventure moved to Bangor Bay for heeling trials and thence to Plymouth to load stores and ammunition. Next, tests of the aviation fuel system, etc., were conducted from Portland and on 31 March the ship was secured to a buoy in Fareham Creek, Portsmouth.

Bonaventure steamed into a foggy English Channel to begin flying trials on 2 April. In spite of mist patches giving visibility of less than one and a half miles and a light wind of six to ten miles per hour, the carrier found some open spaces between shipping to receive two *Sea Hawk* fighters, two *Trackers*, two *Gannet* anti-submarine aircraft and two *Avengers* for flying trials. Two *Banshees* based at RNAS Ford made several passes over the deck in preparation for landing on the next day. The ship anchored in Sandown Bay, Isle of Wight, on completion and, owing to the thick weather, was unable to resume trials until 5 April. Just before midday a *Banshee* landed on the flight deck and in the afternoon the first catapult launches of the fighter were conducted. After a highly successful day of flying, during which *Bonaventure* showed that she would be able to fulfil all her carrier functions, the ship returned to Sandown Bay.

Flying trials, sonar equipment tests and gunnery exercises in the Channel were finally completed on 12 April and the following day *Bonaventure* cleared the breakwater at Portland bound for Belfast. She berthed at the familiar jetty at the aircraft yard and prepared for another spell alongside for final adjustments to the steam catapult and aviation fuel system. Work at her building shipyard was completed by 26 May when the carrier slipped for Portsmouth. As she entered the English Channel in a rough sea *Bonaventure* closed RFA *Wave Master*, south of the Wolf Rock for a fivehour replenishment exercise under way. The tanker's hose was disconnected and speed increased to rendezvous with the frigate, HMS *Tumult*, off Portland for another replenishment drill.

More tests occupied the carrier off the south of England until 8 June and she then returned to Belfast to complete with stores and personnel for passage to Canada; included in the deck cargo was an experimental hydrofoil craft, *Bras D'Or*, which had been built in the United Kingdom for the Defence Research Board of Canada. In the first dog-watch of Wednesday, 19 June, 1957, *Bonaventure* steamed down Belfast Lough having exchanged many messages of good will, official and unofficial, with the large number of friends the ship had made during the lengthy stay at her birthplace. First Canadian contacts were made on 26 June when RCAF *Nep-tune* aircraft carried out a homing exercise on the carrier to be followed by the arrival of an RCN *Tracker*, which made an air drop of important documents. The first meeting between the pride of the RCN and her home base had been planned as a gala occasion but, unfortunately, Halifax turned shy and enveloped itself in a thick fog. A boat loaded with representatives of the press and

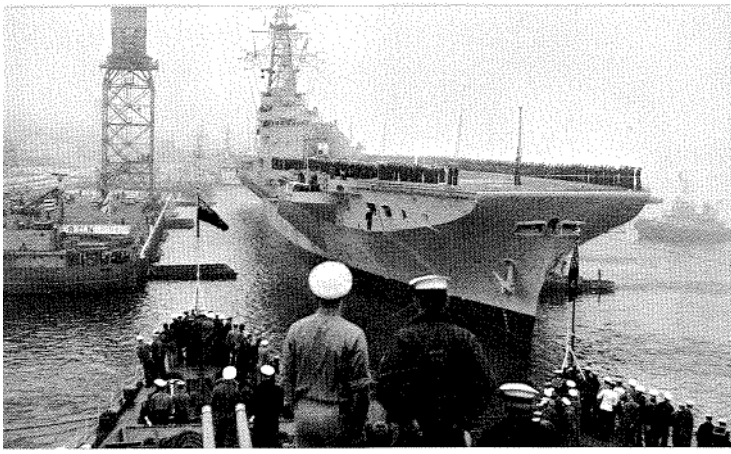


HMCS *Bonaventure* homeward bound.

radio was guided by radar to join the ship off the light vessel and later in the forenoon the Honourable Alistair Fraser, MC, KC, Lieutenant-Governor of Nova Scotia, Rear-Admiral Bidwell (FOAC), and Mr. Leonard A. Kitz, Mayor of Halifax,* were embarked from a small craft, also brought in by radar. Groping her way towards the jetty *Bonaventure* was momentarily in sight of the ships in port, who raised a fog-splitting clamour on whistles and sirens. A large crowd was on hand, and after a draft of 325 men out of *Magnificent* had come ashore, more than 2,000 people rushed on board to greet the company.

Bonaventure lay immobile at Halifax until the middle of September while work was completed on a new senior officers' bridge on the flight deck. Following a ten-day work-up cruise which started on 16 September to St. Margaret's Bay, St. Ann's Bay and Gabarus Bay in Cape Breton Island and Chedabucto Bay, *Bonaventure* sailed on her first flying-training session with HMCS *Sioux* as plane-guard. Two months previously ten pilots flying *Trackers* had qualified in angled-deck, mirror-aided landings in USS *Wasp* off the New England coast and they now had the opportunity of using their own landing platform.¹¹ The Carquals of VF 870's *Banshees* and VS 880's *Trackers* were watched for two hours on 1 October by the Minister of National Defence, the Honourable G. R. Parkes, VC, DSO, MC, MP, who, with the Chief of the Naval Staff and FOAC, arrived and later departed by helicopter. Drills were interrupted on the next day by the report that a *Banshee* was missing on a flight from the ship to *Shearwater* some 35 miles away. A concentrated search was conducted by naval and air force planes with all available vessels co-operating but nothing was found. Carquals continued in the Halifax approaches for a few more days before the carrier transported HS 50, helicopter squadron, to the U.S. Naval

*His Worship later presented a mural to be hung in the men's cafeteria.

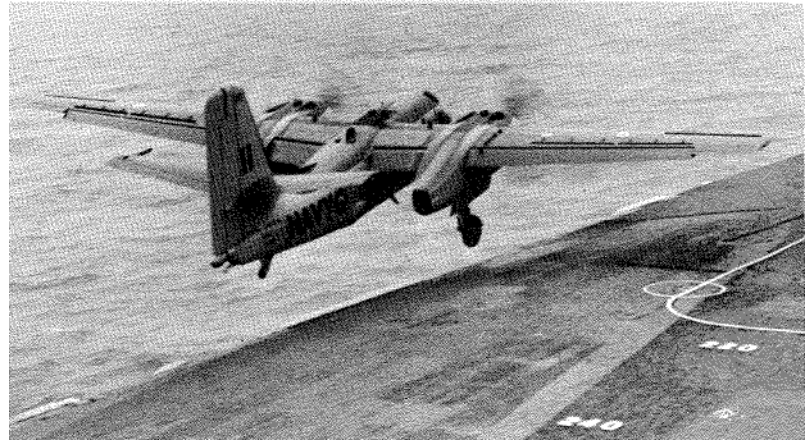


First time alongside in Halifax, HMCS *Bonaventure*.

Base at Argentia, Newfoundland. Both day and night landings were then exercised, *Sioux* acting as plane-guard until 17 October, interrupted only by a short call into Halifax for fuel.

Received by a guard and band on 18 October, Commodore J. V. Brock, DSO, DSC, CD, RCN, embarked in *Bonaventure* as Senior Canadian Officer Afloat (Atlantic) [SCOA(A)] and the carrier, accompanied by HMCS *Ottawa*, began a transatlantic voyage five days later. En route to Belfast every opportunity was taken to keep the aircrews of VS 881 and VF 870 in training but a long westerly swell produced a badly pitching deck as a result of which a *Tracker* was lost over the side but the crew was rescued. An S 58 *Sikorsky* helicopter was launched and serviced from a platform on *Ottawa's* deck for evaluation tests, *Bonaventure* providing aircraft fuel as necessary. In the quieter water of the North Channel eight *Trackers*, four *Banshees* and one helicopter were launched to fly to Sydenham. *Bonaventure* secured alongside the familiar jetty and did not go to sea again until 4 November. Flying proceeded all that day with an interesting interlude in the afternoon when three minute Army *Auster* reconnaissance aircraft landed on the flight deck to become "carrier qualified". The ship anchored in Red Bay but had to weigh again in the first dog watch when an unpredicted north-east gale started to blow,

Securing *Banshee* for catapulting.



Tracker aircraft—"Touch and Go".

leaving *Bonaventure* off a lee shore.

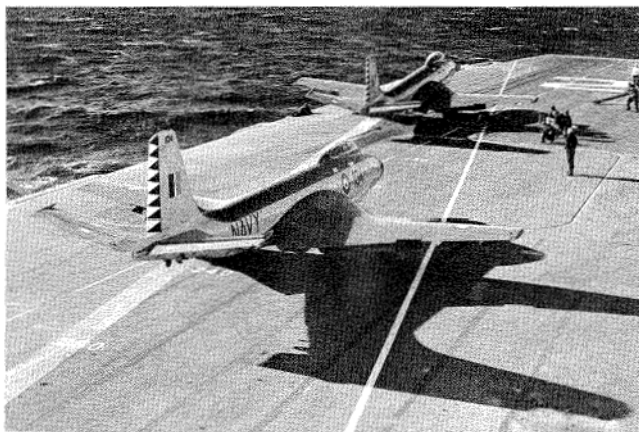
A special anti-submarine exercise involving the defence of a convoy represented by RFA *Wave Monarch* and defended by *Bonaventure*, *Ottawa*, HM Ships *Whitby*, *Hardy* and *Scarborough* started in the Londonderry area on 11 November. Bad weather fouled up the proceedings for aircraft with the result that the attacking submarines had the edge on the defenders before the exercise ended at 2100 on the 12th. Poor conditions persisted after the carrier had rendezvoused with the First and Third Canadian Escort Squadrons. The ships fuelled from RFA *Wave Prince* in the lee of San Miguel Island, Azores, and thence shaped course to the westward on 21 November. After a trip, which had afforded little opportunity to operate aircraft, *Bonaventure* with the Third Canadian Escort Squadron in company, the First having detached to Argentia for fuel, arrived off Sambro Light Vessel and proceeded up harbour.

Boisterous wind conditions in Halifax harbour deferred the start of Exercise *Beaverdam* some 24 hours until 6 December, 1957. Off the entrance ten *Trackers* of VS 881 and five helicopters of HS 50 landed on while the destroyers *St. Laurent*, *Ottawa*, *Haida* and *Micmac* took station on the carrier, the whole forming TG 301.0. Low ceiling and visibility cut down considerably the rate of flying intensity so that there was never any close contact with the opposing submarines. The exercise ended off Chebucto Head in the evening of 12 December as the destroyers were detached for home. *Bonaventure* stood on and off from the land until the morrow when all aircraft flew off to *Shearwater* and the carrier also entered harbour.

Captain Groos relinquished command of *Bonaventure* to Captain W. M. Landymore, OBE, CD, RCN, on 17 January, 1958. A major storing period was necessary for the long spring cruise which started on 20 January with the carrier sailing from Halifax wearing the Broad Pennant of Commodore Brock. Ten *Tracker* aircraft from VS 881, six helicopters of HS 50, and one helicopter from Squadron HU 21 joined from *Shearwater* and, with *Sioux* as plane-guard, *Bonaventure* steamed for the Ber-

mudian area. Speed was worked up on the 22nd for full-power trials and the flight deck was constantly in use both day and night so that pilots could get their landing qualification. On the cruise, for the first time in the history of the RCN, flying and fuelling operations were carried out simultaneously when the carrier provided oil for *Sioux*, *Nootka*, *Algonquin* and *Micmac* using both the abeam and astern methods for the first ship and abeam fuelling, only, for the others. The First Canadian Escort Squadron parted company but, with the Third, rejoined off Porto Rico. Near San Juan all ships, including *Bonaventure*, took oil from USS *Chukawan* and then anchored for the night in Sir Francis Drake Channel. For the next three days the Canadian Fleet and aircraft worked with HM Submarines *Alcide* and *Alliance* on a variety of anti-submarine drills in the general vicinity of the Virgin Islands. After another spell at anchor in Sir Francis Drake Channel the A/S routine was resumed with a carrier defence exercise, which was in preparation for Exercise *Aswex I-58*. For this, three units (a convoy, the carrier USS *Leyte*, and *Bonaventure*) each with their own screen were formed; the exercise was four transits of a large area by the convoy, during which it was to be attacked by three U.S. submarines, including the nuclear-powered *Seawolf*. Both the *Trackers* and helicopters gave a very good account of themselves, and the excellent water conditions permitted sonobuoy barrier tactics to be used with considerable success.

Bonaventure secured alongside in Mayport, Florida, on 15 February and exchanged HS 50 for VF 871 Squadron which had flown down from *Shearwater*. *Nootka* was now in attendance and the two ships sailed for Charleston on 21 February. Day Carquals for the *Banshees* were completed without incident but an arrester wire failure later made it necessary to suspend all flying. The carrier returned to Mayport for repairs and on 25 February was awaiting the first four aircraft of VF 871 when a message was received that one *Banshee* had crashed into the sea some time after take-off, the pilot



Launching *Banshees* from HMCS *Bonaventure*.

being killed.

Another tragedy occurred on 4 March, after the delayed visit to Charleston. A *Banshee* made a normal deck landing but appeared to suffer a brake failure which caused it to topple over the port side of the flight deck. The air sea rescue helicopter was on the spot within seconds but it was too late to save the pilot's life.

Prior to arriving at Bermuda, HMS *Bulwark* was met and the two carriers exercised cross-operating, *Bonaventure* recovering and catapulting *Sea Venoms* and *Sea Hawks* while *Bulwark* recovered and launched *Trackers*.¹² The ships joined the British Home Fleet¹³ in Grassy Bay and the combined fleets commenced Exercise *Maple Royal I*, a co-ordinated programme giving practice in many aspects of sea warfare. Whilst the operation which was controlled by the Royal Navy progressed, the First Lord of the Admiralty, the Earl of Selkirk, and the Commander-in-Chief, Home Fleet, Admiral Sir William W. Davis, KCB, DSO and Bar, visited the Canadian carrier at different times. Manoeuvres ended on 14 March and the Fleet entered Halifax.¹⁴

At the commencement of *Maple Royal II* on 18 March the sea breezes off Chebucto Head quickly dispersed any fumes lingering after the lively social programme which had been organized in Halifax to welcome the Royal Navy ships. For this next period the fleets were under the tactical command of the Fleet Commander, Commodore Brock, and the Flag of FOAC, Rear-Admiral H. F. Pullen, OBE, CD, RCN, was worn in *St. Laurent* as the latter was on board the carrier to witness the exercises. The cross-operating technique developed between *Bonaventure* and *Bulwark* proved an asset when a *Tracker* landing at night on the former dipped its port wheel over the deck edge. Previously, during *Maple Royal I*, *Bonaventure*'s large mobile crane had got out of control and edged its way over the side, the driver jumping clear, so that the process of retrieving the plane had to be attempted by jacking and the use of a fork-lift machine. Two other *Trackers* which were awaiting recovery touched down on *Bulwark* as an emergency landing deck thus relieving anxiety and necessity for speed aboard *Bonaventure*. Canadian warships sailed past the Royal Navy Fleet on 22 March in an impressive farewell and *Bonaventure*, now wearing the Flag of Rear-Admiral Pullen, steered for a further two days of exercising in the Grand Banks area.

Maple Royal I and *II*, which were the largest peacetime naval air manoeuvres staged by the two navies, had been an exacting and valuable climax to the carrier's working-up routine. The fact that a Canadian officer was in control of the second phase demonstrates the growth in size and stature of the Royal Canadian Navy in the last 20 years.*

*In the second paragraph of his farewell general message



HMCS *Bonaventure* gathering way.

The month of April 1958 was not very successful in respect to exercising; *Bonaventure* sailed for the Grand Banks on the 17th but although she did not return to Halifax until 25 April only a few hours of flying were possible. A convoy protection exercise, *New Broom VIII*, requiring a passage from the Halifax approaches to the Gulf of St. Lawrence and return, got started on 1 May. For the next four days with the exception of about eight hours *Bonaventure* maintained two aircraft from VS 881 in the air continuously by day and night, and two helicopters of HS 50 from dawn to dusk. By pre-arrangement the ship was “sunk” on the morning of 6 May and was detached to proceed to Halifax, where she secured at midnight. A week of boiler cleaning, de-fuelling, and de-ammunitioning followed and on the 13th *Bonaventure* sailed for Saint John, N.B., looking rather like a mobile parking lot as 150 cars belonging to the ship’s company were secured on her flight deck for the trip. The carrier docked at Saint John on 15 May and remained in dockyard hands until August.¹⁵

Fourteen weeks of breathing dockyard dust ended on 20 August when *Bonaventure*, having successfully completed trials during the previous week, headed for the open sea. At Halifax there was a busy period getting the ship ready for operations and on 2 September she berthed for the first time at the new Shearwater jetty. This was a distinct improvement for *Bonaventure* whose function requires her to maintain close liaison with the

Commodore Brock aptly summed up the achievement of *Maple Royal*. “Mark Twain once remarked that although he had lived in a time of terrible troubles and known many dreadful things, none of them had actually happened to him. For some years past there have been fears expressed in many quarters that our two navies had drawn too far apart to work together, but we have now all seen that these doleful predictions were quite clearly untrue.”

air station.

Flying training started on 8 September, *Trackers* and *Banshees* of various squadrons being put through their paces. By 1 October *Bonaventure* was back at *Shearwater* and on that day the Broad Pennant of SCOA (A) Commodore M. A. Medland, CD, RCN, was hoisted. A week later four destroyers, *St. Laurent*, *Ottawa*, *Huron* and *Haida* took station on the carrier, which had VS 881 and HS 50 embarked, as she headed out into the Atlantic bound for the Mediterranean.

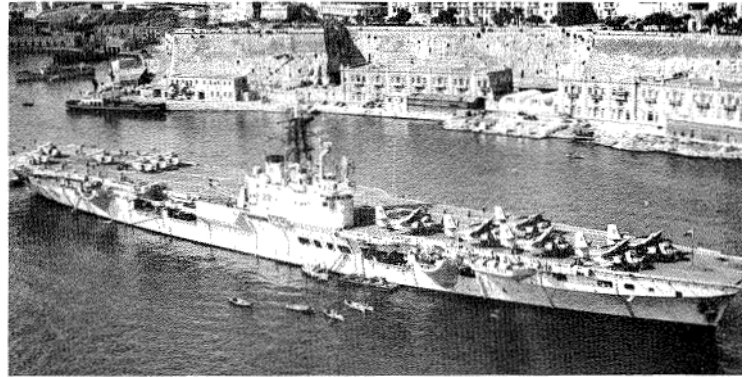
Hurricane “Janice” howled down on to the squadron forcing it to heave to for a few hours but no damage was done although winds were still gusting up to 60 miles per hour when *Bonaventure* entered the Straits of Gibraltar. Off the Rock the Queen’s Harbour Master ordered the ships to an anchorage, where a tanker supplied them with fuel. The voyage continued to Malta in the middle watch of 22 October and by the 24th the carrier, with her escorts, lay in Grand Harbour awaiting the commencement of Exercise *Medaswex 26* on 27 October. For these manoeuvres British, Canadian and Italian warships worked together for four days. Weather conditions were not of the best but *Bonaventure*’s planes were airborne for a creditable number of hours and were successful in hunting “enemy” submarines.

After a further brief visit to Malta the Canadian task group made an uneventful night passage through the Straits of Messina to Naples. *Bonaventure* shackled on to buoys close to the sea-wall on the morning of 3 November. The sunlit Italian port with its beautiful surrounding scenery had all its old charm and the local naval authorities were very hospitable. However, for the libertyman in search of entertainment and souvenirs the high prices charged made Naples an expensive “run ashore.”

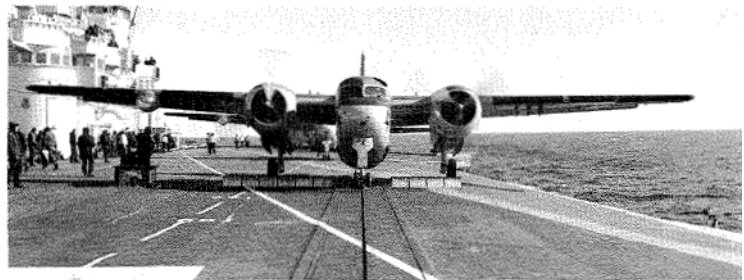
The two-day trip to Toulon began on 8 November and on the 9th a rendezvous was made with HMS *Sheffield*, which was wearing the Flag of Flag Officer Flotillas Mediterranean. Italian authorities refused permission for the flying of fixed-wing aircraft in the vicinity of their coast but it was possible to conduct an A/S exercise using helicopters. Toulon was reached on 10 November and 48 hours later *Bonaventure* was at sea for Exercise *Medaswex 27*. Unfortunately early in the proceedings there was a recurrence of *Tracker* hook failure, which had been troublesome previously; also about this time it was discovered that the flight deck arrester gear required a major overhaul. All fixed-wing flying was therefore suspended and *Bonaventure* withdrew from the exercise two days early in order to enter Gibraltar. Six *Trackers* were launched to the RAF Station, North Front, Gibraltar, and *Bonaventure* anchored off the Rock on 16 November to await a berth alongside.

It was now obvious that there could be no using of the flight deck by *Tracker* aircraft until after the ship's visit to Portsmouth, the next port of call. The planes at North Front were flown, via Lisbon and Bordeaux, to the USAF Station, Shepherds Grove, Suffolk, England. Although her participation would be considerably less than that originally planned *Bonaventure* sailed with her task group and units of the Royal Navy, Portuguese, German and French navies for Exercise *Sharp Squall* on 24 November.¹⁶ The same day five more *Trackers* were launched to make their way to Shepherds Grove. The Bay of Biscay was calm making it possible to carry out some good A/S drills, the submarines coming off second best to the surface ships, which were aided by the excellent operating conditions. Off the entrance to the Solent the group was augmented by *St. Croix*, and as the ships sailed hard by Southsea promenade *Bonaventure* discharged her six-pounder guns in salute to the Flag of the Commander-in-Chief, Portsmouth.

Bonaventure sailed for home on 6 December and off Portland Bill altered course to receive her *Tracker* aircraft, which had been flown down to the RAF Station, St. Mawgans, Cornwall the day previous. In the area of the Azores on 9 December an ambitious flying programme started. That afternoon a signal was received through the NATO organization asking the carrier to provide fuel for the destroyer USS *Thomas J. Gary*. A rendezvous was arranged and in due course the destroyer hove in sight; as she approached, an ill-coordinated "band" of about eight pieces struck up with a lively but quite unrecognizable tune. Amidst cheers and laughter on board *Bonaventure*, a large sign reading "Sonny's Service Station – Open all night – U.S. Credit Cards accepted," was unfurled and lighted on the carrier's side. Whilst this was going on it was observed that *Gary* was not wearing an ensign and *Bonaventure's* signalman asked her to what NATO country she belonged. The



HMCS *Bonaventure* in Grand Harbour, Valetta, Malta.



"On the Rails," *Tracker* ready for catapulting.

destroyer's response was to run up "Old Glory" to the accompaniment of more cheers from the carrier. On completion of fuelling *Gary* cast off and as she faded into the darkness the pipe "Hands muster on the fantail mop up fuel oil" sounded across the water.

The exercise programme for the passage continued at a high pitch until 15 December when *Bonaventure* secured to the air station jetty. Christmas and New Year festivities and leave were the order of the day until early in January 1959.¹⁷ From the 15th to the 29th VS 880 were qualified in day deck landings in a period during which *Bonaventure*, with *Haida*, put to sea for five days and then transported HS 50 to Bermuda, and returned.

"Fortunately the month had only twenty-eight days." The latter remark by her Commanding Officer summed up the general feeling in *Bonaventure* concerning February 1959. It was a succession of nagging troubles, which started when the carrier sailed for carquals on the 2nd. The Atlantic ocean was at its worst and this combined with extremely cold weather caused burst pipe joints, damage to fittings, etc. *Bonaventure* returned to harbour on 5 February but the following day put to sea again. Heavy snow and gales once more descended on the ship and the flying programme had to be drastically reduced. By Sunday, 8 February, the weather outlook in the immediate vicinity was depressing and the course was shaped for the Bermuda area. Within 48 hours every-

thing was right for flying but the “gremlins” were still at work. A *Tracker* coming in on a normal landing, picked up two wires, of which one parted and the other disengaged. Fortunately the plane happened to be pointing straight down the axial deck and, with brakes full on travelled the length, coming to rest after its nose wheel had passed over the forward end of the flight deck. The carrier anchored that night off St. David’s Head, Bermuda, to unravel the tangle of wires.

Bonaventure shortened in and weighed for another flying session on 11 February. On the first recovery the nose wheel of the aircraft was tripped by an arrester wire, which then parted. The plane shuddered to rest amidst flying wire and broken bits of propeller blading. Here again fate was kind in that no one was injured although the catwalks were crowded with spectators watching to see how the repaired wires would work. The carrier anchored and although attempts were made to re-rig the arrester system, insufficient serviceable wire could be salvaged; the ship departed for Halifax, having detached *Haida* to remain off Bermuda. *Bonaventure* arrived off Halifax on a Saturday afternoon but as the weather was calm she was able to land her own party and berth unaided alongside Shearwater jetty. Thus ended a month, as far as sea time was concerned, during which the ship had suffered from a variety of mishaps, the climax for the weary participants being an uptake explosion when a boiler was being flashed up in the later stages of the period.

The carrier was back in Bermudian waters on 7 March to collect HS 50, which had been training at the U.S. Naval Base on the island. She lay in Grassy Bay and then moved to the vicinity of Sable Island to participate in Exercise *Beaverdam III*. On both that day and the next snow flurries and freezing temperatures made flight deck operations hazardous. A shuttle service was organized with *Shearwater*, and the air station was used when the deck was unsafe. By this arrangement most of the scheduled air patrols demanded by the exercise were carried out.

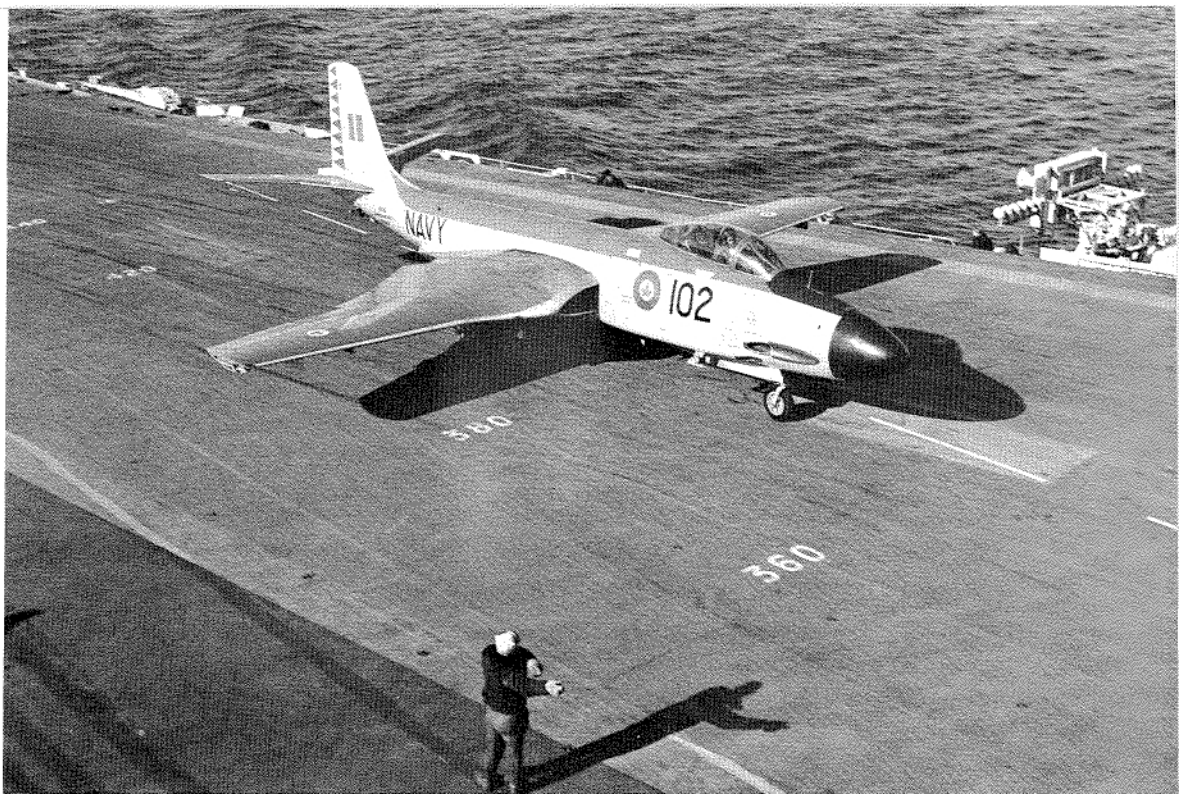
On completion of *Beaverdam III* *Bonaventure* returned to Halifax until 25 March when she slipped, wearing the Broad Pennant of SCOA (A), bound for Norfolk, Virginia. Ships in company, and forming Task Group 301.0 for the passage, were *Algonquin*, *St. Croix*, *Restigouche*, *Athabaskan* and *Nootka*. The group berthed in Norfolk Navy Yard for two days prior to leaving for a NATO exercise, *New Broom IX*. This operation was divided into three phases and during the first a *Tracker* crashed into the sea whilst the carrier was making a recovery of aircraft. The duty planeguard, USS *Rowe*, immediately closed the spot but none of the crew of four escaped from the plane.

The tenth anniversary of the North Atlantic Treaty Organization was celebrated at Norfolk after *New Broom*

IX ended on 4 April. Early on the agenda was an official luncheon given by the Supreme Allied Commander Atlantic, Admiral Jerauld Wright, USN, for His Excellency J. M. A. H. Luns.¹⁸ On 6 April all ships were represented in a parade ceremony, followed by a cocktail party for 500 guests aboard *Bonaventure*; the same evening SACLANT gave an Anniversary Ball. *Bonaventure*, with *Athabaskan*, *Restigouche* and *St. Croix*, cleared harbour for home on completion of the festivities. Off New York the group joined *Algonquin*, wearing the Flag of FOAC, and *Nootka*. *Bonaventure* arrived at Halifax on 10 April, berthing on *Shearwater*’s jetty. Two more days, the 15th and 16th, were spent at sea carrying out a flying programme for the benefit of the RCAF Staff College. The Minister of National Defence and high ranking air force and navy officers witnessed the drills of the second day, disembarking by helicopter on 17 April. The remainder of the month was spent in making preparations for the forthcoming training voyage.

The Spring Cruise, 1959, started on 4 May. *Bonaventure* made a quiet trip to Bermuda and from the 7th lay alongside in the dockyard painting ship. Looking very “tiddly” the carrier was ready to sail on the tide on 16 May but wind conditions were unfavourable for movement out of the yard. On the morrow, Sunday, the weather was quiet and *Bonaventure* was joined by *Lanark* and *Swansea* as she departed for San Juan, Porto Rico. Whilst in the Porto Rican harbour no fewer than six submarines were in company and arrangements were made for A/S exercises with three boats of the British Sixth Submarine Flotilla when *Bonaventure* left on 26 May. *Lanark* and *Swansea* had been detached to Halifax and HMCS *Fort Erie*, which had joined in *San Juan*, took over as plane-guard. About 500 miles east of New York the carrier steamed to meet HM Submarine *Ambush*. As arranged the rendezvous took place the following morning for the commencement of five days of exercising. One hundred and twelve submarine hours were available but owing to marginal weather less than half could be utilized. *Bonaventure* broke off the exercises on 7 June and entered New York harbour, without *Fort Erie*, which was despatched to Halifax. During the visit the carrier lay at the United States Line pier, number 86, quite close to Manhattan.

New York State was celebrating the 350th Anniversary of the arrival in that area of Henry Hudson in his ship, *Half Moon*, and the steaming into harbour of the U.S. Second Fleet marked the commencement of official celebrations.¹⁹ The latter event was witnessed from the Battery, Manhattan Island, by a number of celebrities including Mr. R. M. Nixon, Vice-President of the United States, and SACLANT. The next day, 12 June, there was a parade through the streets of New York, a detachment from *Bonaventure* bringing up the rear of the armed forces section.



*Banshee taxis
after landing*

**Dusk recovery in the
North Atlantic**



The ship's company was given free entry to several theatres, dances, the ball games and boxing matches, all of which helped to make the stay an enjoyable one.

Bonaventure sailed and groped her way in heavy fog from the Ambrose Light to Sambro Light, off Halifax. In the early morning of 15 June, after anchoring, HS 50, together with 170 officers and men required for ceremonies in connection with the forthcoming Royal Visit to Canada, were landed. *Bonaventure* then steamed out to Sea/Air Rescue Station Number 5,²⁰ *Crusader* being in company from the 16th. The carrier was in station by 18 June and at 1325 the Royal Flight, which was tracked by radar, passed overhead. *Bonaventure*, and her escort, immediately lifted patrol and returned to Halifax, where she secured at Jetty 4 to commence a long maintenance refit.

The carrier was completely "shut-down" during July 1959 with only 100 officers and men remaining on board; the others were either on long leave or in the Royal Guards and Battalion. Almost a third of the ship's company took part in the ceremonial on the Garrison Grounds in connection with the presentation of her Colour to the RCN, Atlantic Command, by HM the Queen. A thick fog, interspersed with short, heavy showers, lay over Halifax on the forenoon of 1 August but by 1400 the skies had cleared and the sun shone during the impressive ceremony.

All hands had rejoined *Bonaventure* by early September and it was back to a sea-going routine on the 12th. The carrier now had a new Commanding Officer, Captain J. C. O'Brien, CD, RCN, and he was on the bridge with Captain Landymore when she steamed seaward with *Crusader*. The turn-over was completed by noon and the following day Captain Landymore was flown ashore to HMCS *Shelburne*. The object of the short cruise was to test the arrester gear with 100 *Banshee* landings and this was successfully accomplished by 14 September; an inspection of the gear in harbour showed nothing untoward. On local cruises flying training started in earnest on 17 September for *Banshees* and *Trackers* and continued into the second week of October. *Bonaventure* lay at Halifax after 11 October preparing for a transatlantic voyage.

A speed of advance of 21.5 knots was maintained by *Bonaventure* after she had left Halifax on 4 November, 1959. For the first few hours at sea HMCS *Terra Nova* was in attendance as plane guard but was detached that evening. Helped by an almost continuous westerly gale a fast passage was made and in the vicinity of Rathlin Island the ship replenished with furnace fuel oil from RFA *Wave Ruler* on the 9th. *Algonquin*, *Athabaskan*, *Iroquois*, and *Sioux* took station on the carrier and the Canadian group sailed up the Firth of Clyde to the fleet anchorage in the picturesque harbour of Lamlash, Isle of Arran, where it became part of a task force under the

command of Flag Officer Flotillas (Home).

Lamlash was the assembly port for a NATO fleet of approximately 25 ships, which were preparing to take part in Exercise *Sharp Squall IV*, phase one of which started on 11 November with representative units from the navies of Canada, Denmark, The Netherlands, Norway and Britain participating. On the programme were a replenishment at sea and two advanced anti-submarine exercises. The weather, generally, was good with the exception of Friday the 13th when a 55-knot southeasterly gale forced all ships to run for adjacent anchorages. In the early part of *Sharp Squall IV* *Bonaventure* lost a *Banshee* off the bows as it was taking off; *Athabaskan* rescued the pilot and he was returned to the carrier by whaler one hour later.

There was a break in the exercises on 16 November and the carrier paid an operational visit to the RN Aircraft Yard, Belfast, where VF 870 was off-loaded prior to flying to the RN Air Station, Yeovilton, Somerset, for shore-based training.* *Bonaventure* returned to the fray on the 19th and for the second "blow" of *Sharp Squall* again had *Athabaskan* as her plane-guard. Units of the French fleet participated in this phase, which comprised a variety of advanced tactical exercises. Manoeuvres ended at one minute to midnight on 23 November and *Bonaventure* made towards Portsmouth with her escorts. Ships were required to enter harbour at widely separated intervals and were therefore split into three groups, the carrier, by herself, forming the second. Boisterous winds were whipping up "white caps" on the Solent when *Bonaventure* came to anchor but the following day the weather had moderated sufficiently for her to enter harbour. A 17-gun salute was fired to the Commander-in-Chief Home Fleet²¹ and the shore authorities replied with an 11-gun salute to Commodore J. Plomer, OBE, DSC and Bar, CD, RCN, who had relieved Commodore Medland as SCOA (A) in October. The carrier berthed on Pitch House Jetty and later moved to Middle Slip Jetty to progress catapult dead-load trials.

As usual Portsmouth proved to be a friendly, popular port of call, catering to most tastes. The Canadians gave a Christmas party for orphans ranging in age from three to 15. This was an unqualified success thoroughly enjoyed by both hosts and guests, for whom a big thrill was the arrival of Santa Claus by helicopter on the flight deck. Musical entertainment was provided by the "Bonaventure Drifters," a sextet of talented musicians, whose specialty is country-style music. The group also gave a performance at the NAAFI²² auditorium before an audience, which was so appreciative that they were induced to give a second show. Another visitor to *Bonaventure* during the visit was Mrs. S. W. Tracey,

*This was necessary because of catapult unserviceability in *Bonaventure* at this time.

daughter of an officer who served in HMS *Bonaventure* between 1901 and 1903. This lady presented a battle honours plaque (which had been carried in her father's ship) to Captain O'Brien for retention by the carrier as a continuing link with former warships of the name.

Banshees of VF 870 from Yeovilton and three *Trackers* of VS 880, which had been deployed to the RAF Station, Thorney Island, were recovered at 1630 on 3 December as *Bonaventure* sailed for home, accompanied by *Algonquin*, *Iroquois*, *Sioux* and *Athabaskan*. Commodore Plomer and two of his staff officers were transferred from *Algonquin* by helicopter and the carrier steadied on a course for Ushant at 18 knots; later, speed had to be reduced during the dog-watches as the smaller ships started to "bump." At 2200 *Bonaventure* further eased speed to flush lubricating oil while the destroyers detached on a course for the French coast. The carrier was ten miles off Ushant at first light on 4 December when a message was received that a member of the ship's company was required at home in Canada for compassionate reasons. Contact was made with the French naval authorities at Brest and, the carrier having got into the lee of one of the inshore islands, a helicopter took off to land the man at Guipavas air-field. The opportunity was also taken to transfer the remainder of the Commodore's staff from *Algonquin* to *Bonaventure*. The destroyer was then detached to join the others with orders to proceed to the Azores at best speed.

Early on Saturday morning, 5 December, *Bonaventure* was making good headway, alone, across the Bay of Biscay. In the Gulf Stream to the east of Nova Scotia a small storm was developing but, although it was expected to move rapidly across the Atlantic at 50 knots, curve north-eastwards and pass up the west coast of Ireland, it seemed that *Bonaventure* would be southwest of Cape Finisterre out of harm's way. In actual fact the storm path became easterly and at one time the ship was only 50 to 60 miles from the centre.

By 0800 on 6 December the carrier was hove to beset by gigantic waves and winds of hurricane force.²³ Generally *Bonaventure* rode it out very well but an occasional wave out of phase was dangerous as it swept down the starboard side and across the flight deck normally some 39 feet above the waterline. At one point the Damage Control Department had to take prompt action when the forward lift opened and the hangars began to fill up with free-surface water which might have threatened the stability of the ship. Hands were also kept busy baling out water which poured into the forward messes. *Bonaventure* was battered by the storm for another 24 hours before she could resume course. During that time the port mirror had been badly twisted; the window on the starboard side of the compass platform had been stove in; a big wave crashing in to the starboard mirror sponson had torn the welded seams open and buckled

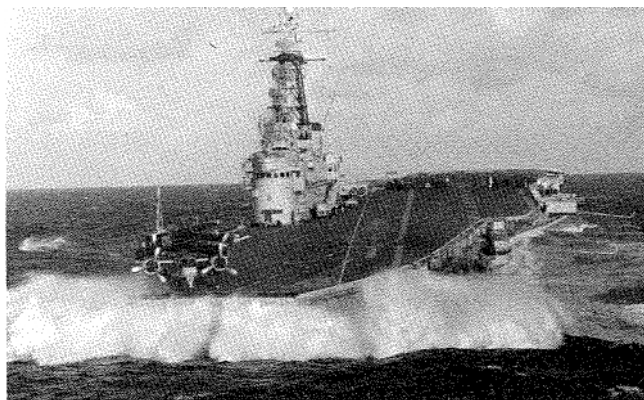
the steel bracket supports.

The centre of the storm was moving northward into the Bristol Channel as the carrier increased speed in the forenoon of 7 December to run south-westward from the heavy-weather area. Ships were in distress in the Straits of Dover and as far north as the Pentland Firth, while radio reports indicated that a number of crack liners, including RMS *Queen Elizabeth* and SS *United States*, were hove to. Conditions continued to improve during the night but another storm from the Grand Banks made things uncomfortable for a few hours on the 8th. After this, wind and sea slowly settled down and flying, on a limited scale, was recommenced on 10 December. Two days later, having closed the rendezvous position of HM Submarine *Alderney*, the first detail of two *Trackers* was launched at 0715. One plane crashed on take-off and no trace could be found of the crew. *Bonaventure* picked up the aircraft dinghies by grapnel and sadly left the area.

Algonquin, *Iroquois*, *Sioux* and *Athabaskan*, all of which had suffered damage of some kind during the big storm, were met and at 0930 on 13 December the carrier stood off the entrance to Halifax. Evidently the weather was determined to keep the pressure up to the bitter end and winds gusting up to gale force delayed berthing until 1300 whilst friends and relatives waited in the pouring rain. On Monday morning dockyard officials carried out a preliminary survey of the storm damage and it was decided that *Bonaventure* should undergo repairs at Saint John. She was sailed to the New Brunswick port on 10 January, 1960, and remained there, in the hands of the Saint John Drydock Company, until March.

Repairs were completed on time but *Bonaventure's* adverse weather "cloud" again settled over her and sailing was delayed for 48 hours by strong winds. She finally departed from Saint John on the morning tide of 14 March. In Halifax there was a hectic week of storing and trials before the carrier, with *Trackers* on board, sailed for Bermuda. Excellent weather off the island enabled considerable progress to be made in carquals and by the

"Bows under." "*Bonnie*" in a heavy swell.



end of the month VS 880 had made 236 arrested landings. For this cruise *La Hullose* acted as plane-guard until 24 March and was replaced the next day by *Athabaskan*. The programme went ahead uneventfully and the carrier returned to Shearwater jetty to replenish. Twelve *Trackers* of VS 880 were hoisted on board by crane and five helicopters of HS 50 flew on for the last period of squadron work-ups, for which *Bonaventure* slipped at 1000 on 13 April. In the early hours of the 14th *Shearwater* asked the carrier to try and obtain direction-finder bearings on an overdue *Tracker*. Although she was able to “read” the aircraft there was insufficient time to get bearings before the contact faded. However, the ditching position was obtained by intercepting a message between two shore authorities and *Bonaventure* increased speed to close the area, some 800 miles to the southwest. Maximum revolutions were rung on at 0130 but two hours later news was received that the crew had been found by the U.S. Coastguard. On successful completion of the carrier-qualifying period *Bonaventure* secured to Jetty 4, HMC Dockyard, Halifax.²⁴ A Canadian Broadcasting Corporation television crew, which had been aboard for the last ten days obtaining film and recordings for a special RCN anniversary programme, left the ship at this time.

Bonaventure singled up and slipped for Exercise *Shortstop* on 2 May, 1960. Zero hour was on the 4th and by the end of the manoeuvres on 17 May, *Trackers* of VS 880 had flown 104 sorties in 453 hours and the helicopters of HS 50 had flown 83 sorties in 123.7 hours. Halfway through *Shortstop* the rescue helicopter was called upon to pick up a sick seaman from the former USS *Hoggatt Bay*,²⁵ which was under tow by a Dutch tug; the patient was subsequently landed at Halifax. Refuelling from the carrier was exercised on a number of occasions, *Nootka* receiving oil four times, *Halda* three times, and *Iroquois* twice during the month. *Bonaventure*, herself, refuelled twice from USS *Calooshatchee*. On completion of Exercise *Shortstop* there was a lay-over of two days at Shearwater jetty.

The year 1960 was a very important milestone in the history of the RCN, it being the Fiftieth Anniversary of the formation of the Service. On 19 May 48 ships, including *Bonaventure*, took part in a sail past, 29 warships manning and cheering ship for the Chief of the Naval Staff. Fifty naval aircraft roared overhead in salute and, after passing the reviewing stand in the dockyard, a *Tracker* of VS 880 was launched from the carrier’s catapult. *Bonaventure* berthed on Jetty 4 and the following day the Fleet held its regatta in Bedford Basin; Navy Day was celebrated on 21 May and 4538 visitors toured the ship. Ashore, on the Monday a large crowd witnessed the Trooping of the Queen’s Colour in honour of Her Majesty’s birthday. Amongst visiting warships in Halifax for the festivities were two RN frigates, HM

Ships *Troubridge* and *Ulster*, and the Spanish training ship *Juan Sebastian de Elcano*; *Bonaventure* acted as host ship for the last mentioned.²⁶

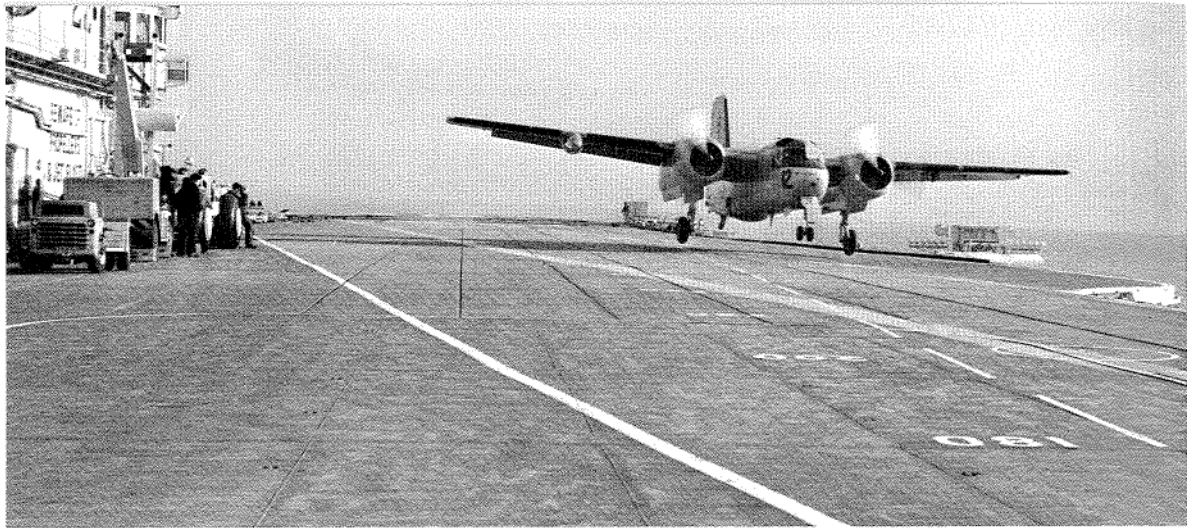
It was back to the training routine on 26 May when *Bonaventure*, with *Nootka*, started flying drills for *Trackers* and helicopters en route to Philadelphia, Pennsylvania. On 1 June a 21-gun National Salute fired in honour of the United States was followed by a salute, replied to gun for gun, to the Flag of the Commandant Fourth Naval District, as the ship approached the U.S. Navy Yard. The carrier and her escort returned down the Delaware River on the 7th for more anti-submarine manoeuvres in the Halifax-Bermuda exercise area, where she was joined by HM Submarine *Auriga*, *St. Croix* and *Kootenay*. The current programme ended at Halifax on 11 June.

The weather was kind to *Bonaventure* in the latter part of June and early July. Two successful training cruises were made, one to Bermuda and the other locally, fighters, A/S aircraft and helicopters all being put through their paces. Back at Shearwater jetty on 15 July the Broad Pennant was shifted to HMCS *Cape Scott* and *Bonaventure* shaped course on the next day for Ingonish, N.S.

The carrier was lying at anchor in South Bay off Ingonish Beach on 17 July awaiting the arrival of Their Excellencies the Governor-General and Madame Georges P. Vanier from the Province of Nova Scotia’s Keltic Lodge. A Royal Salute was fired and as His Excellency disembarked from the helicopter he was greeted by a guard and band, with the ship’s company at ceremonial divisions. The ship weighed anchor and during a sunny afternoon the Governor General was given a flying demonstration by the embarked squadrons. From early on 18 July until the evening of 19 July the vice-regal party visited Charlottetown, P.E.I., whilst *Bonaventure* waited in Hillsborough Bay. She was under way again



Battened down for heavy seas.



“Off the angle.”
A *Tracer*
becomes airborne.

on the 20th in thick fog, which lasted until the ship was off the entrance to St. John’s, Newfoundland. Prior to leaving by helicopter for Torbay Airport with Madame Vanier the Governor General spoke to the company at divisions and put the seal on a popular visit when he “ordered ‘Splice the Main Brace’ and granted an amnesty to all men under punishment.”

Having recovered her helicopters *Bonaventure* reentered the fog off the coast for the return trip. Full power trials were conducted and, approaching Nova Scotia, the fixed-wing aircraft were launched to *Shearwater*. A salute was fired to the Flag of Rear-Admiral Pullen, who was shortly retiring as FOAC, and in the last dog-watch of 22 July *Bonaventure* secured at Jetty 4 to end the sea-going activities of a month during which she had steamed almost 3,500 miles. The annual refit period was now imminent and the usual preparations were completed by the end of July. The carrier was taken in hand by the Saint John Shipbuilding and Drydock Company, N.B., and leave and courses occupied all hands until late October 1960. An *Expeditor* (C-45) aircraft, allocated for the duration of the refit, was an invaluable asset; some 3½ tons of freight and over 400 passengers were moved by the plane, which was also useful in assisting the ship’s aviators to maintain their proficiency.

Bonaventure was back at Halifax and ready for sea by 14 November. Between that date and the 28th the carrier, with *Cayuga* attendant upon her, gave flying training to VS 880 Detachment One and VF 870. For most nights *Bonaventure* anchored in St. Margaret’s Bay and in the forenoon of 23 November she conducted heeling trials there. Flying stations were secured on completion of the current exercises and the carrier made fast to the north jetty, South Boston Naval Annex. After official calls had been made and returned Captain O’Brien participated in an arboreal ceremony on 30 November. *Bonaventure* had on board two maple trees from Kent-

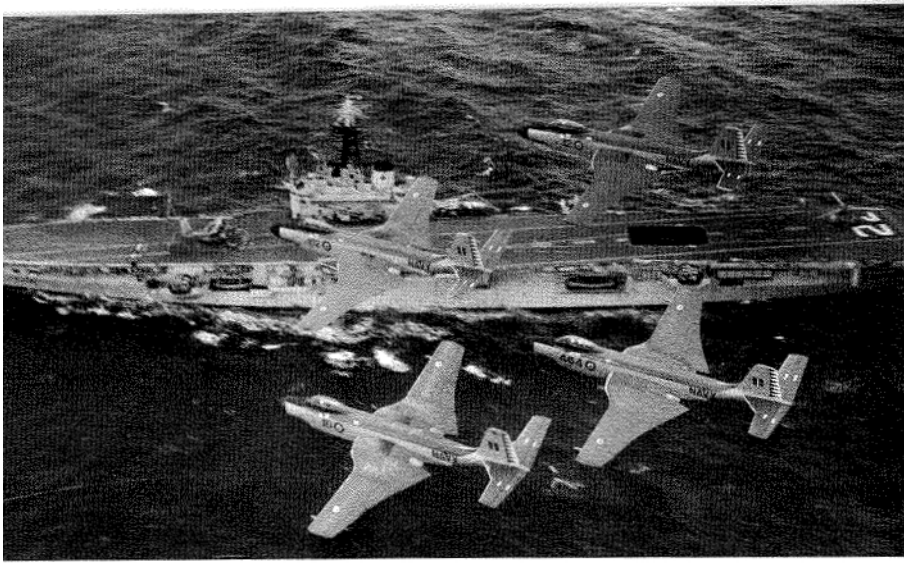
ville, Nova Scotia, which were a present from the Canadian Government to replace trees destroyed near the admiral’s quarters by a hurricane in the previous fall. Rear Admiral C. F. Espe, USN, and the Canadian Consul-General, the Honourable S. D. Hemsley, broke ground in front of the residence and the maples were duly planted to the accompaniment of suitable music provided by the Boston naval base band.

Bonaventure and *Cayuga* put to sea on 5 December and flying was resumed, VF 870 taking part in a ground support exercise at Camp Gagetown, New Brunswick, between the 6th and 9th. The Chief of the Naval Staff, Vice-Admiral H. S. Rayner, DSC, CD, RCN, and Commodore of the Barracks, Commodore Medland, were airlifted by helicopter from *Shelburne* and *Bonaventure* steamed towards a rendezvous with Task Force 301.* Admiral Rayner transferred to *Cape Scott* and thence to *Crescent* to witness manoeuvres by the force; at 1700 on 15 December he was flown by *Tracer* to the RCAF Station at Greenwood, Nova Scotia. The Task Force entered Halifax on 16 December. Commodore Medland left by helicopter for HMC Dockyard and *Bonaventure*

*HMC Ships *Cape Scott*, *Haida*, *Sioux*, *Micmac*, *Crescent*, *Nookta*, *Inch Arran*, *Outremont* and *Victoriaville*.



Banshee fighter takes off.



VF 870 *Banshee* flypast.

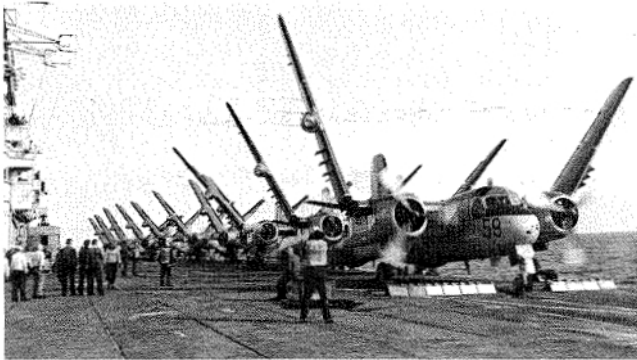


Tracker breaking formation.

made fast to Jetty 4. On 19 December, 1960, the carrier was again wearing the Broad Pennant of SCOA (A) as Commodore Plomer had returned from *Cape Scott*.

The Command and Operations Teams from the Carrier attended the Joint Maritime Warfare School in Halifax between 18-24 January, 1961, for briefings and tactical games in preparation for a forthcoming NATO anti-submarine symposium. In the evening of the 24th *Bonaventure* steamed away from her base with members of the Permanent Joint Board of Defence on board and, having flown them off a few days later to the American Air Force base at Bermuda by helicopter, she began exercising off the islands.

VS 880 "spread" of *Trackers*.



Battling heavy seas on passage *Bonaventure* arrived, on 10 February, at the entrance to Norfolk, Virginia, where she fired a National Salute to the United States followed by a personal salute to Admiral R. L. Dennison, USN, the Commander-in-Chief Atlantic Fleet. Rear-Admiral K.L. Dyer, DSC, CD, RCN, who had now become FOAC, joined the ship two days later and with 34 members of the annual NATO ASW Symposium

accommodated on board she sailed again on 13 February in company with *Columbia*, *Chaudiere*, *Kootenay*, *Terra Nova* and *Restigouche* for Exercise *Tout Droit*. By 2000 on the 14th the exercise was over and the carrier landed all her passengers at Norfolk prior to returning to Bermudian waters. For the next six weeks *Bonaventure* spent her time exercising with the brief interruption of a six-day visit to Porto Rico. Arriving home on 28 March she had to remain at sea overnight owing to high winds but finally secured at HMC Dockyard the next afternoon.

On 5 April *Banshees*, *Trackers* and helicopters flying from *Bonaventure's* deck put on an extensive demonstration for the benefit of the Minister of National Defence, the Honourable D. L. Harkness, who had flown out from *Shearwater*. On completion the Minister was returned to the air station and *Bonaventure* secured at Shearwater Jetty to prepare for another NATO exercise, code name *New Broom X*. These manoeuvres and two local cruises, carried out for the purpose of giving aerial displays for the members of the Army Staff College, occupied the ship until the end of the month when she was given a rest to carry out self-maintenance alongside.

The Broad Pennant was shifted to *Cape Scott* and, with her squadrons struck down, *Bonaventure* put to sea on 23 May with *Algonquin*. *Sioux* replaced the latter as plane-guard the following day and flying training continued in spite of rough seas; this phase ended alongside the Naval Air Station at Quonset Point, R.I. During the spell in harbour the RCN joined in local festivities when *Bonaventure* landed two parties of 50 men each to take part in Kingston Decoration Day and other ceremonies at Woonsocket, R.I. It was back to the flying routine for the carrier on 1 June in a session, which lasted until the 6th when she and *Sioux* secured at Brooklyn Army Terminal, New York.

Dozing pigeons and starlings, not to mention the local inhabitants in the immediate vicinity, had a rude shock on 10 June as the sounds of *Bonaventure* firing a 21-gun salute to mark the birthday of HRH Prince Philip reverberated from the surrounding buildings. Apart from these pyrotechnics the visit was a quiet one and the ships sailed within 48 hours for extensive operations with Task Force 83.3, consisting of a carrier and five destroyers under the command of Rear Admiral G. Koch, USN. The Canadian group was augmented by *Athabaskan* and the whole party exercised its skill and ingenuity to trap the two USN submarines provided as targets. For one day *Bonaventure* took over the duties of directing ship, Rear Admiral Koch having transferred by helicopter from his flagship, *Essex*. Their share of the exercise completed, *Bonaventure* and *Athabaskan* detached and by 26 June had returned to Halifax.

For the month of July 1961 the carrier was once again involved in large-scale NATO manoeuvres for which her planes flew frequent missions. During one sortie a *Sikorsky* belonging to HS 50 crashed ahead of the ship but its crew was saved by USS *Voorhis*, one of the two escorting destroyers. In the forenoon of the 12th ten NATO newsmen arrived by *Tracker* aircraft from USS *Independence* and were later addressed by Rear Admiral Bryan, USN, who came on board by high line from USS *Neosho* while *Bonaventure* was refuelling from the tanker; on completion of a short news conference the Admiral was flown over to USS *John Paul Jones*. A post-mortem was subsequently held at Norfolk to examine the lessons learnt in Exercise *Riptide II*.

Two thousand visitors toured *Bonaventure* on Navy Day at Halifax, where she lay from the end of July until the third week of September. Wearing the Broad Pennant of a new SCOA(A), Commodore M. G. Stirling, CD, RCN, and with a new Commanding Officer, Captain F. C. Frewer, CD, RCN, *Bonaventure* next departed with VS 880 Detachment One, HS 50, and HU 21 Detachment One on board for exercises, which were to take her into far northern waters. Course was set via the Strait of Belle Isle for the training areas off the coast of Labrador and flying operations started on the 25th in compliance with the orders for Exercise *Jaswex 3/61*. On completion *Restigouche*, *St. Croix*, and *Haida* were sent in to refuel in Hamilton Inlet, where they were joined by *Bonaventure* early on 1 October. A few hours later the latter weighed anchor and stood off the land to launch four *Trackers*, which flew to Goose Bay airport. The aircraft were overhead again at 1900 and, having recovered them, *Bonaventure* shaped course in a northerly direction with her attendant destroyer escorts in company.

Exercise *Traplina*, which started in the evening of 2 October, had as its main objective the detection of the "enemy" submarine, HMS *Aurochs*, by the opposing

surface and air forces. The exercise area abounded with icebergs and growlers, which required bridge watchkeepers to be constantly on the alert, particularly at night; the presence of large masses of ice also made it difficult for searching aircraft as they had to spend a large part of their time investigating false contacts. *Bonaventure's* rescue and utility helicopter (known as "Pedro", the little burro) was kept particularly busy transferring personnel and material between ships. Eight landings were made by the *Sikorsky* on the platforms of destroyer escorts, 20 on board *Neosho*, and 130, most of which were in the course of planeguard duties, on the carrier's flight deck.

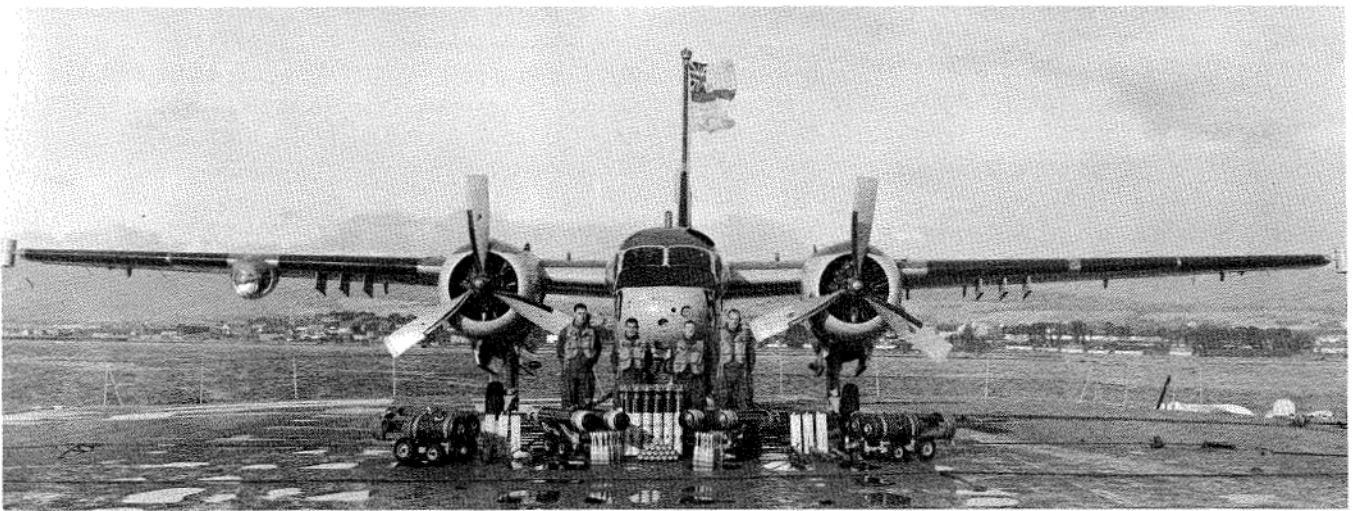
During the first day no contact was made with the lurking submarine and on 3 October *Restigouche*, *St. Croix*, and *Haida*, were sent to patrol between Resolution and Button Islands at the entrance to Hudson Strait. The "enemy" remained undetected by this group until the 7th when he was caught trying to leave Ungava Bay and brought to successful action. *Bonaventure*, meanwhile, with *Algonquin* and *Huron*, had passed through Gray Strait into Ungava Bay to conduct flying operations. *Traplina* ended at 2100 on 8 October and the squadron took station for the homeward trip. On the way, parties of officers and men were exchanged between *Neosho* and *Bonaventure*, that from the former staying aboard the carrier for 24 hours during which a Thanksgiving Dinner was shared with the hosts whilst the Canadian sailors remained in the tanker for the last 24 hours at sea before arrival at Halifax.

At her home port *Bonaventure* was given ten days of respite after her recent 5,200-mile voyage before resuming her flying training programme off the Nova Scotian coast. The first period was marked by the return of VF 870's *Banshees* to her decks for pilot re-qualification. The fourteenth of November 1961 found *Bonaventure* and *Columbia* steaming away from the Bermuda area towards Charleston when at 1130 the 9000th arrested landing since commissioning was made by Lieutenant K. Miller, USN, in a CS2F aircraft. *St. Croix* and *Restigouche* hove into sight and exercises started in the operational area with the USN submarine *Trout*. The last named proved to be a worthy adversary and the exercises had been of considerable benefit by the time they ended. *Bonaventure* headed into Charleston, South Carolina, where she secured at Pier Kilo. On the Sunday Fleet Divisions were held in the naval base, the carrier's contribution being 100 officers and 600 men. After a pleasant week during which the local inhabitants did their utmost to make the visit of the Canadians a memorable one, *Bonaventure*, *Columbia*, *Restigouche* and *Iroquois* sailed down river. Off Quonset Point she parted from her escorts and made her way to the familiar air station jetty. This three-day rest period was the prelude to the autumn A/S exercises after which *Bonaventure*



“Out of the Chocks.” HS 50 taking off.

Tracker and crew with war load, HMCS Bonaventure.



berthed in Halifax. In a final survey of activities in 1961 it was found that the count for arrested landings by fixed-wing aircraft during the past year had reached the grand total of 2,920.

In the course of her career the carrier has been host to many and varied visitors, the first party in 1962 being from the National Defence College. Later in January *Bonaventure* was hauled by tugs to Shearwater Jetty for the embarkation of 12 *Trackers* belonging to VS 880 prior to sailing for exercises. During the next few weeks the ship’s fixed-wing planes, and helicopters which had flown on as she headed seaward, made frequent sorties

on patrol and interception missions. The high pressure of training for the air component was kept up even when *Bonaventure* visited San Juan, Porto Rico, in mid-February, VS 880 and HS 50 being sent to continue flying operations from Isla Grande Airport. At the beginning of March the squadrons returned on board as the carrier headed back to Bermuda, where she lay in Grassy Bay on the 5th. *Algonquin*, *Huron* and *Haida* weighed with her the next day and the Canadian ships left for the Newport operations area and exercises with U.S. Task Group 83.4.

Three frigates of the Seventh Canadian Escort Group,

Victoriaville, Outremont and Lanark, which had been with *Bonaventure* in San Juan, were on their way home from Bermuda in the middle of March, conducting a convoy exercise en route. Contact was made with this group and from the 14th *Bonaventure* gave long range air support. Internal defects made it necessary for *Haida* to speed on to Halifax alone but the other two destroyer escorts and *Bonaventure* integrated with the "convoy." Later the carrier detached for full power trials and finally steamed into her home port on 16 March. Since leaving Porto Rico seven Argentinian naval aviators had been the guests of the wardroom in order that they might gain experience of air/sea operations, and in connection with this liaison their country's naval attaché to Canada, Rear-Admiral E. G. M. Grunwaldt, Argentine Navy, was received on board by FOAC some days after *Bonaventure's* return. Having toured the ship the party, which included most of the visiting flyers, was dined by SCOA(A).

Air and sea units of the Atlantic Command were deployed in early April 1962 for exercises off the coast of Nova Scotia. *Bonaventure* operated her *Trackers* and *Sikorskys* with both CNS and FOAC as spectators until the 10th when the two Senior Officers transferred to *Crescent* by jackstay during the refuelling of the destroyer escort. By 19 April the carrier had finished her sea time for the month and also passed the 10,000 mark for arrested landings.

In the early months of summer *Bonaventure* continued her flying training schedule locally and on exercise cruises, which were interrupted by lay-overs in Norfolk and Bermuda. On 16 June she was leaving Halifax with aircraft of VS 880, HS 50, and one from VX 10 embarked to rendez-vous with ships of the Fifth Canadian Escort Squadron. A modified bent-line, consisting of *Bonaventure, Terra Nova, Kootenay* and *Gatineau*, was formed around *Chaudiere* and at 1115, after three *Trackers* from *Shearwater*, had roared overhead in farewell salute, the warships stopped engines while the ashes of the late Surgeon-Commodore A. McCallum, OBE, VRD, RCN, were committed to the deep. At the end of the service *Chaudiere* returned to harbour with the mourners while the other ships continued to southern waters.

The *Jaswex 62* programme of exercises was conducted off Bermuda for most of June and was in progress on the 26th when the RCN's yacht *Pickle*, which had just competed in the Newport-Bermuda Race, sailed through the area bound for Halifax. In the forenoon watch of 28 June, having detached *Kootenay, Restigouche*, and *Gatineau* to carry on with *Jaswex*,

Bonaventure shaped course northward with *St. Croix* although her aircraft continued to supply air support as long as possible. Commodore Stirling was flown ashore to *Shearwater* and the ship returned to the familiar surroundings of the city of Halifax.

Wearing the Broad Pennant of SCOA(A) *Bonaventure* was off again to sea on 3 July. Six destroyer escorts joined with her for A/S exercises, which included a 24-hour sustained search for an "enemy" submarine, HMS *Alderney*. By 6 July the manoeuvres were over and eight *Trackers* were launched to fly to Quebec Airport, where they were to be based during *Bonaventure's* stay in the city; the fixed-wing planes were followed by a helicopter carrying Commodore Stirling to make his official calls on local dignitaries. Alongside at Wolfe's Cove Jetty the carrier quickly became the centre of attraction for residents and tourists. On Saturday SCOA(A) met 250 military and civilian guests at a flight-deck reception, which was followed by a stirring performance of the Sunset Ceremony by a contingent from HMCS *Cornwallis* on the jetty. A similar display was given the following night in the Citadel with Commodore P. Earl, CBE, CD, RCNR, taking the salute. *Bonaventure* eventually pulled away from the quay after a successful visit during which some 16,000 people took advantage of the "open ship" periods whilst many thousands more had viewed the carrier from the shore.

Now due for a refit *Bonaventure* returned to Halifax and commenced the disembarkation of her ammunition, a task, which was completed in the creditable time of just under ten hours. The Broad Pennant of SCOA(A) was shifted from her and on 23 July she steamed to Lauzon, P.Q. On arrival *Bonaventure* and a Swedish freighter were placed in Champlain Dock and pumping commenced to empty the drydock of water. With her reduced Ship's Company accommodated in *Cape Scott* at the entrance to the dock the Royal Canadian Navy's largest and most important unit was turned over to the tender mercies of dockyard workmen.

At the time of writing *Bonaventure* has been in commission over five and a half years, with the prospect of many more to come. Canada being deeply committed to the North Atlantic Treaty Organization for the defence of the Free World, the carrier will, no doubt, in the future, as in the past, be frequently working with the warships of her allies. Her historic French motto, "Non Por Nos Toz Seus" meaning, in English, "Not for us alone," is appropriate to the situation in which the nations find themselves in the present age when mutual co-operation and assistance are imperative if mankind is to survive.

REFERENCES

¹ Final bill, excluding provision of certain North American equipment, for *Powerful* came to approximately 31 million dollars. NS 8000-CVL 22.

² *Ibid.* Letter from United Kingdom High Commissioner to Under Secretary for External Affairs.

³ *Ibid.* Copy of Agreement.

⁴ Displayed in a prominent position in the wardroom mess of HMCS *Bonaventure* is a three-dimensional map of the island reproduced, personally, and presented to the ship by Mr. E. D. Baldock, Chief Cartographer, Maps Compilation & Reproduction, Department of Mines & Technical Surveys, Ottawa.

⁵ Blodwen Davies, *Gaspé, Land of History and Romance*, Toronto, 1949.

⁶ The optimum angle has to be considered for each class of aircraft carrier.

⁷ The principle is a slotted cylinder having no rams or hydraulic purchases. Aircraft is connected to a hook directly attached to a piston driven along the cylinder by high pressure steam from the ship's main boilers. A sealing device is used to keep the slotted cylinder steam tight.

⁸ The efficiency of the "Batsman" or LSO, at night, had been greatly increased in the RCN in 1954 by an invention of Lieutenant-Commander S. E. Seward, CD, RCN. Lengths of one and a half inch lucite rods were attached to service coveralls and to specially designed paddle-shaped bats. When light from small bulbs was shone along the rods, the resulting neon-line illumination was visible to a plane more than 1,000 feet away.

⁹ Tests have shown that the equipment will extract 100% of water and 99.99999% of dust from contaminated aviation fuel. The remaining .00001% is considered acceptable.

¹⁰ At the commissioning ceremony the White Ensign and Canadian Blue Ensign were hoisted but, the day after, *Bonaventure* reverted to wearing the British Red Ensign as she was still under the control of her builders. As soon as she had been accepted the White Ensign was once again worn.

¹¹ During the trials Lieutenant A. P. Lavigne, RCN, made the 33,000th landing on *Wasp* since she had recommissioned in 1951.

¹² *Banshees* made only "touch and go" landings on *Bulwark* as her catapult had not been tested with a static load equal to this aircraft.

¹³ HM Submarine Depot Ship *Maidstone*; HM Cruiser *Ceylon*; six destroyers; two frigates; two submarines; two RFA's; HM Aircraft Carrier *Bulwark*.

¹⁴ Canadian ships taking part in the *Maple Royal Exercises* were: *Bonaventure*, *St. Laurent*, *Ottawa*, *Assiniboine*, *Saguenay*, *Algonquin*, *Haida*, *Micmac*, *Nootka*, *Sioux*, *Outremont*, *La Hul-loise*, *Swansea*. HM Submarines *Alcide* and *Amphion* of Sixth Submarine Squadron, based at Halifax, also worked with the Canadian Fleet.

¹⁵ During the refit a "village under canvas" was set up at Oak Point on the Saint John River for families of the ship's company. The army made available tents, floor boards, camp beds, mattresses, chairs and tables whilst a number of other friends and authorities collaborated in various ways to make the project a success. A party of six (under the direction of the ship's army liaison officer) known as the "Bonaventure Construction Company," started work in mid-May and the first campers arrived in

June. When the village was finally dismantled it was agreed that the camp had been a great success and had provided an inexpensive and rewarding holiday for both parents and children.

¹⁶ Without *Huron* which had been in collision with the French destroyer *Maille-Breze* during Exercise *Medaswex 27* and was now in dry dock at Toulon.

¹⁷ At the end of 1958 *Bonaventure* had received four silver trophies, which had been brought to Canada by the First Sea Lord, the Earl Mountbatten of Burma, KG, PC, GCB, GCSI, GCIE, GCVO, DSO, LLD, DCL, D.Sc. These trophies, which included a rose-bowl, a sugar dredger, a twin-handled tankard and a glass and silver cigar lighter, were originally presented before the First World War, 1914-18, to HMS *Bonaventure*, the fifth of name. The silver will remain in the care of the RCN as long as there is a *Bonaventure* in commission with the Canadian Fleet.

¹⁸ Minister of Foreign Affairs of the Netherlands, President of the NATO Council and permanent representative to the Council.

¹⁹ Henry Hudson, English navigator and explorer, undertook to find a passage to China either by the north-east or north-west route, for the Dutch East India Company. He sailed from the Texel on 6 April, 1609, and was in the Barents Sea the following month. Owing to the fact that some of his men were disheartened and mutinous Hudson agreed to an alternative plan and shaped course for Virginia to seek the passage in about 40 degrees north latitude. An accident off Newfoundland on 5 June made it necessary for *Half Moon* to put into the Kennebec River. On 3 September Hudson entered the bay of New York and went 150 miles up the river that now bears his name to approximately the position of the present city of Albany. Having decided that his course was not leading to the south seas or China he returned down river. *Encyclopaedia Britannica*, Toronto, Encyclopaedia Britannica Inc., 1955.

²⁰ 50° 15' N, 43° 30' W. Ships of the Royal Navy were stationed several hundred miles apart from the British coast to a position in mid-ocean. From this point to the coast of Newfoundland Canadian warships were responsible, the area being covered by *Bonaventure*, *Crusader*, and HMC Frigates *Lanark* and *Cap de la Madeleine*.

²¹ Admiral Sir W. Davis, KCB, DSO and Bar (C-in-C, Allied Forces, Eastern Atlantic).

²² Short title for "Navy Army and Air Force Institutes."

²³ Duration of Force 12 (64-71 knots): 1000/6th-1500/6th; Highest wind speed (average): 68 knots at 1000/6th; Maximum wave height, estimated: 65 feet.

²⁴ On this cruise "Bonnie" had clocked up the 100,000th mile steamed since commissioning. Also a *Tracker* made the 5000th arrested landing on the carrier. Immediately following the latter event, at a mock ceremony on the flight deck, Captain O'Brien bestowed appropriate "honours" on the plane's crew.

²⁵ Ex-Escort Helicopter Aircraft Carrier (CVHE); 10,400 tons full load, built in 1943 as an Escort Aircraft Carrier.

²⁶ A four-masted topsail schooner of 3,420 tons (at three-quarters load). Vessel is named after Juan Sebastian del Cano, first circumnavigator of the world (1519-1526), who succeeded to the command of the expedition led by Magellan after the latter was killed in the Philippines.

“AIRCRAFT VERSUS SUBMARINE”

Previous chapters have shown how in the past 20 years, Canada's naval air arm has grown from a small nucleus of dedicated enthusiasts to a well-organized force one tenth of the whole navy, which itself has more than doubled in size since 1950.¹ Having looked at the day-to-day story of each carrier as she has held the key position in the Fleet, it is now proposed to review the role of Naval Aviation in the concept of national defence, examine the challenges to which it has had to respond and discuss the trend of possible future developments.

Conceived in the Second World War as an anti-submarine force, naval air had scarcely begun to take shape when other considerations started to exert an influence on future planning. First and foremost, the defeat of the enemy's U-boat campaign in the North Atlantic and the successful invasion of Europe in 1944 indicated that the composition of the Canadian fleet would have to be changed for its redeployment to the Far East. In that vast theatre, carrier task forces were required to operate aircraft against the Japanese fleet or to strike crippling blows at the enemy's far-flung empire. This new tactical situation also complemented the Canadian navy's desire to prepare for post-war diversification with the result that the acquisition of light fleet carriers was approved.

With the surrender of Japan in August 1945 the RCN in common with all Western Allied Military forces rapidly demobilized. Fortunately, planning and training for a new fleet air arm had gone too far for it to be obliterated as in 1918 but the struggle for survival was a tough one. Many of the skilled air personnel, so painstakingly assembled, retired happily to “Civvy Street” and those remaining had to reorganize with the prospect of financial wherewithal being greatly reduced; the abandonment at this time of plans to man a second light fleet carrier was to have an adverse effect on the full development of air potential in future years. The great weakness of the young air branch was the dearth of senior officers with any direct experience in naval aviation to

set it off on the right course.* In the years immediately after the war Captains Lay and Bidwell, who had commanded *Nabob* and *Puncher* respectively, took it in turns to head the flying organization until they were required for other responsible appointments. To follow these experienced officers the RCN had to get outside help. Starting in 1946 a succession of air experts, seconded from the Royal Navy and the United States Navy, served in Ottawa, the first being Captain Rotherham, RN, who held the appointments of Deputy DNAD, then DNAD and finally Director of Naval Aviation in the period June 1946 to January 1949.† In April 1949 Commodore Lay completed his tour of duty as Assistant Chief of Naval Staff (Plans) (Air) to be followed by the first of four senior Captains, RN, who have held the post of Assistant Chief of Naval Staff (Air) with the rank of Commodore Second Class whilst holding appointment.

From the foregoing it will be seen that, at first, Naval Aviation, undermanned and equipped with obsolete aircraft, could only play a minor role in a fleet, which was also suffering from the post-war “let-down” as it tried to spread its inadequate resources to meet all commitments.² By 1948 the international climate had changed and with the coining of the phrases “Iron Curtain” and “Cold War” the western nations began to realize that they could no longer afford to let their defences sag in the face of provocation and aggression. The result was the formation of the North Atlantic Treaty Organization, to whose naval command Canada agreed to contribute anti-submarine forces, as it was in this aspect of sea warfare that her navy was most experienced.³ From this time onwards can be dated the emergence of naval aviation as an increasingly important element in a growing fleet.

The rebuilding of international defence organizations had scarcely begun when fighting broke out in Korea

*In April 1948 aviation was given direct representation on the Naval Board, an important step that had been urged by Captain Lay in his various reports on the air arm. For details on Headquarters organization see Appendix A.

†See page 15.

and United Nations military forces had to be sent to the Far East; three Canadian destroyers, *Cayuga*, *Sioux* and *Athabaskan* had arrived in the theatre within five weeks of the start of hostilities. The question of vital importance to the UN naval command was whether the Communists were going to use submarines, but as the months passed it became obvious that enemy naval participation, apart from inshore minelaying, was negligible. The aircraft flying from UN carriers were therefore used for the most part in army ground support, and bombing and strafing raids. For this reason proposals made in both 1951 and 1952 that *Magnificent*⁴ should be sent to Korea were not followed up as the air arm was considered to be equipped as an anti-submarine force so that logistical and training considerations militated against participation.

With *Magnificent* definitely ruled out, the chances of the air arm getting into the fight were remote. However, in May 1953 following an official Admiralty request, the Cabinet Defence Committee approved the loan of twelve *Sea Fury* fighters, with 14 pilots, for service aboard HMS *Warrior* in Korean waters.⁵ Special training for VF 871* began, but on 27 July, 1953, an Armistice came into effect and the squadron was not required.

The Canadian fleet air arm as a whole was denied the opportunity of combat experience in Korea but two of its officers saw service in the campaign. Lieutenant-Commander D. H. P. Ryan, RCN, was appointed the navy's official observer with orders to report on all matters affecting the employment of the UN naval forces, with particular reference to aviation; he subsequently served in two carriers, HMS *Theseus* and USS *Philippine Sea*, and with the Tactical Air Control Party attached to the U.S. 5th Cavalry before rendering comprehensive reports on the function of naval aircraft in the fighting.⁶ The second Canadian naval airman to get to Korea, Lieutenant (P) J. J. MacBrien, RCN, happened to be on an exchange appointment with the United States Navy when his squadron, number 781 equipped with *Panther* jets, embarked in USS *Oriskany*.⁷ The carrier became part of Task Force 77 off the Korean coast in November 1952, and during the next six months Lieutenant MacBrien flew 66 sorties, approximately 50 of these being ground attack strikes against billeting areas, industrial centres, rail installations and power plants. In December he took part in the biggest carrier strike of the war to that date, the planes attacking four large North Korean rail junctions.† For his activities on one of these raids MacBrien became the first RCN officer to be awarded the United States decoration, the Distinguished Flying Cross. His DFC citation reads:

“For extraordinary achievement while flying a jet

*See page 57.

†One place, Hysinjin, was almost completely destroyed.

fighter on a combat mission over Communist-held North Korea on 1 February, 1953, Lieutenant MacBrien led a flight of jet aircraft against an enemy supply storage area near the town of Pukchong on the vital east coast supply route.”

The mission was accomplished despite marginal flying weather and heavy anti-aircraft fire “with courageous leadership and outstanding demonstration of pilot skill.”

While the bloody land struggle surged up and down the Korean peninsula, giving advantage first to one side and then the other, and UN naval forces maintained their largely uneventful blockade, the nations of the North Atlantic Treaty Organization slowly flexed their muscles. From the RCN's point of view, a significant event was the appointment of an American admiral as Supreme Allied Commander Atlantic (SACLANT) on 30 June, 1952, with headquarters at Norfolk, Virginia. In the NATO chain of naval command, the Flag Officer Atlantic Coast became Commander Canadian Atlantic Sub-Area (COMCANLANT) in a joint command, the other half of which was headed by his RCAF equivalent with the title of Air Commander Canadian Atlantic Sub-Area (COMAIRCANLANT). At this time the two services reached an important agreement on the coordination of their efforts.⁸ A joint operations headquarters was to be set up at Halifax and Esquimalt and it was agreed that “in maritime operations the predominant partner will usually (but not invariably) be the Naval Commander concerned.”⁹

In the autumn of 1952 NATO staged its first large-scale joint manoeuvres, and inevitably many weaknesses in the channels of communication were revealed. As the object of the exercise was to show some of the European members that in the event of invasion the Alliance could come to their assistance with carrier-borne air strikes and amphibious landings, the anti-submarine aspect did not feature very prominently. In spite of this, RCN pilots were able to further test the effectiveness of the *Avenger*, an old but modernized aircraft, which was being used as a stop-gap until the new ideas on anti-submarine warfare could be incorporated in a more modern machine.¹⁰ The *Sea Fury* was still carried in *Magnificent* for fleet protection and strike duty but all propeller-driven fighters had been outdated by the experience of American carriers flying jets off Korea. Naval planning still visualized the fighter as a necessary weapon in the fleet's armament and the *Banshee F2H3* jet aircraft had, accordingly, been chosen to succeed the *Sea Fury*.

After the return of its destroyers from the Far East the Canadian navy bent its efforts further to the forging of a capable anti-submarine weapon; when it is remembered that NATO was confronted by the largest potentially hostile submarine fleet the world has ever seen, this was probably Canada's most important contribution to the military forces of the organization. By the mid 1950's

numerous co-ordinated anti-submarine manoeuvres had taken place, the standards of both exercises and equipment improving steadily each year, but the whole problem was becoming more complex.

The German U-boat of the Second World War, although it wreaked havoc in its day, was neither an efficient surface vessel nor a good submersible. Once Allied aircraft were capable of providing long-range patrols over the whole distance of a convoy's route the submarine was forced to spend more of its time below the surface and this necessity accelerated the development of the Snorkel or Snort as it is known today. Compelled to change his habits the submariner soon found that the new situation was in some ways very advantageous. Not only was his hydrophone listening range extended as the submarine went deep but he was able to utilize water temperature layers to confuse the hunting ship's sonar. New boats were therefore designed to go deeper and faster, another advantage of deep operating being that the maximum quiet speed could be increased. A submarine moving at its safe, quiet speed became difficult to find and if detected could use its vastly improved maximum speed to avoid pre-set explosives, which were now required to be effective at a far greater depth than heretofore. When dealing with a conventional submarine, anti-submarine forces still had the chance of catching their quarry when it raised its periscope for a celestial navigation check¹¹ or broke surface with her snort every eight hours or so to get air. However, the shape of things to come was revealed when the world's first atomic-powered submarine, USS *Nautilus*, made a submerged crossing of the North Pole in August 1958; shortly afterwards her sister-ship, USS *Seawolf*, beat the record by remaining submerged for 60 days in the Atlantic on a cruise of 15,700 miles. With the prospect of having to search for submarines capable of diving to 700 feet and proceeding at over 20 knots under the water, the task of the hunters had become considerably harder.

In spite of the advantages, that had accrued to the underwater "enemy" over the years, the picture by the date of *Bonaventure's* commissioning was not one of unrelieved gloom. The carrier's anti-submarine capability was concentrated firstly in her fixed-wing aircraft. For the detection of a boat snorting, or with raised W/T mast, the *Tracker* was fitted with a long-range radar set while for the submerged submarine the plane could drop a sonobuoy. The latter is a small, floating listening station, which "reports" back by radio the kind of sound signal its hydrophone is hearing below the surface; a whole area can thus be covered by the laying of a barrier of sonobuoys. Another device, which projects from the tail of the aircraft, is the sensitive Magnetic Anomaly Detector (MAD) that indicates a disturbance in the earth's field as it passes, over a submarine. Having located its target the *Tracker* can bring its formidable ar-

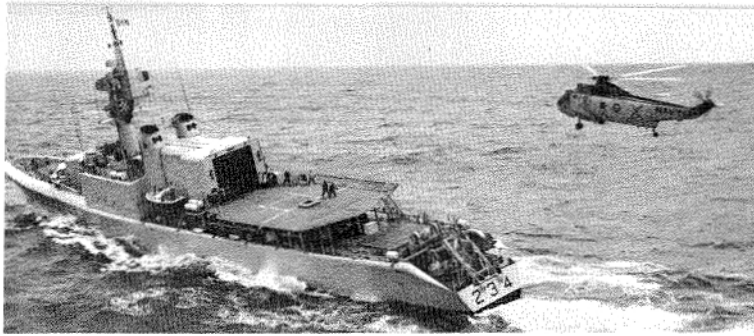
mament of rockets, homing torpedoes and depth-bombs into action.

The adaptation of the helicopter for use in the anti-submarine role has helped to reduce the favourable odds enjoyed by the submarine, as the work of HS 50 in *Bonaventure* has proved. Fitted with dunking sonar, which is lowered by a long cable to the desired depth in the ocean, the *Sikorsky HO4S-3's* have the great advantage of being able to hover above a suspected area. Having pinpointed a submarine, a helicopter is able to use its speed advantage during the attack whilst calling for assistance, if required, from surface ships or other aircraft.

In the second year of *Bonaventure's* active life the Canadian anti-submarine defences were greatly strengthened when in May 1958 the RCAF put the *CL 28*, or *Argus*, four-engined, long-range maritime reconnaissance aircraft into service. A modification of the basic *Bristol Britannia* design, the 33 new planes were able to carry the most up-to-date anti-submarine weapons and equipment, including 21 radio and radar installations, MAD, sonobuoys and a device for air navigation and tactical air control (ANTAC). The *Argus*, heavily armed with large bombs, missiles and homing torpedoes and with a maximum endurance of 24 hours at reconnaissance speed, was a powerful addition to the anti-submarine forces.

A year after the *Argus* aircraft had joined Maritime Air Command on the East Coast, another long step forward was taken in the co-ordination of Canadian anti-submarine resources. This was the establishment on 1 July, 1959, of Maritime Headquarters Atlantic under the command of FOAC (title: Maritime Commander)¹² with the chief of RCAF Maritime Command as his deputy; a similar organization headed by FOPC has been set up on the West Coast. This logical development from the RCAF/RCN agreement of 1952 means that the Air Force's *P2V-7 Neptunes* and *Argus* aircraft and the Navy's *Trackers*, *Sikorskys* and sub-hunting escorts work as a combined team from a centralized plot under one overall head.

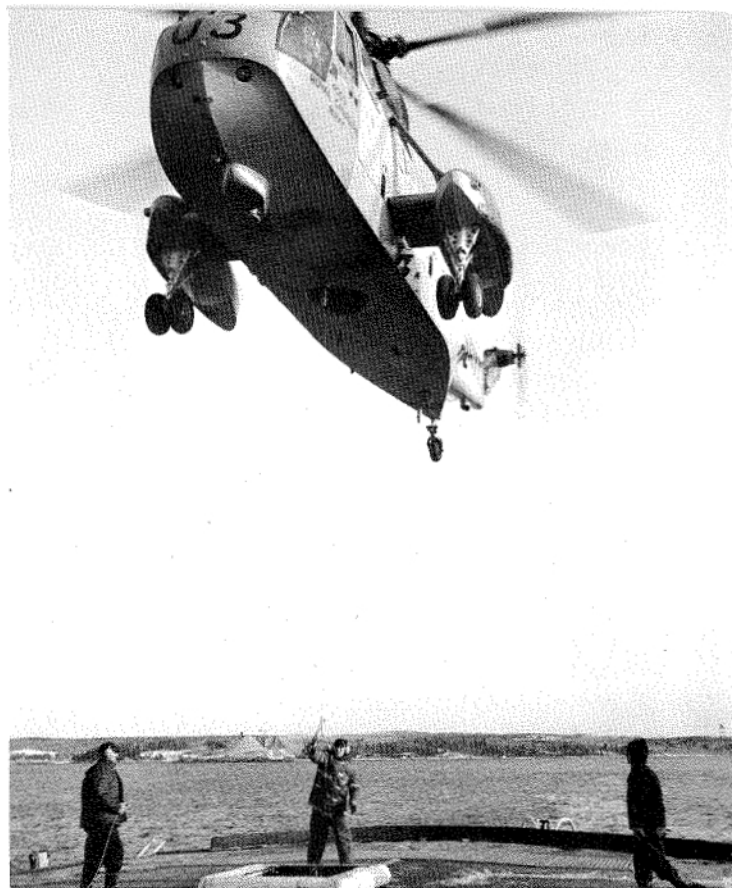
Previous mention has been made of small-ship helicopter landing trials conducted from platforms specially fitted to HMC Ships *Buckingham* and *Ottawa*; in this connection it is interesting to note that in 1943 the suggestion was made that some of the Canadian frigates under construction should be completed as anti-submarine helicopter carriers.¹³ By 1962 trials conducted in the 50's had been evaluated and the decision taken to fit the seven *St. Laurent* Class destroyer escorts with a landing platform and a hangar.¹⁴ In addition each ship will have new Canadian equipment, Variable Depth Sonar (VDS), which will enable her to lower sonar gear through thermal layers, thereby depriving the submarine of one of its new-found advantages. A press release from Ottawa, dated November 1962 gives the information that



HMCS *Assiniboine* – The “New Look”.



Sea King helicopter “dunking.”



Sikorsky *Sea King* being down to DDE.

the RCN is negotiating for twin-engined, turbine-powered *Sikorsky HSS-2* helicopters to replace the *HO4S-3*'s for service in the carrier and the destroyer escorts.¹⁵

Apart from these planned improvements to its anti-submarine capability the navy has of recent years been steadily working to better its existing detection equipment. With more than a hundred modifications from the original aircraft incorporated, a new version of the *Tracker (CS2F-2)* is in service with VS 880. Some of the more important changes include a new radar system, improved MAD, and the fitting of Anti-Submarine Warfare Tactical Navigation System (ASWTNS). The aircraft is now able to make use of a technique known as Explosive Echo Ranging (EER or “Julie”) to flush out a “silent” enemy. Small charges are dropped with sonobuoys and if the sound of the resulting explosion bounces off a submarine it will be transmitted to the aircraft through the sonobuoy’s radio equipment.

From a review of the changes in Canadian equipment over the years it can be seen that the main concentration has been on submarine detection and some of the best brains of the Defence Research Board are continuously striving to find the answers to this knotty problem. As knowledge of the environment in which the submarine moves is of vital importance, the oceanographic work of

various government agencies (coordinated by the Joint Committee on Oceanography) is particularly effective in solving the mysteries of the deep.

Although great advances have been made in technology, the tactical problems which confront the RCN in its anti-submarine role within NATO remain, for the most part, unchanged. Firstly, the protection of sea communication in the Atlantic still has to be given top priority, and from a historical study of the pros and cons it would seem that the age-old method of sailing merchantmen in protected convoys, the larger the better, may still be the best method of giving them cover from enemy attacks. With the “vital area” around a convoy now considered to be a circle of at least 125 miles radius from its centre the escorting forces have to be an integrated combination of aircraft, surface ships and submarines. *Bonaventure*'s resources are well-suited to this task but the announced paying-off of VF 870 in September 1962 and the retirement at that time of the *Banshees* due to old-age, will leave her without adequate defence against air strikes. As *Bonaventure*'s size does not permit her to accommodate most of the modern versions of manned interceptor bomber, the question of a replacement is difficult, but experiments, if successful, with vertical take-off and landing aircraft (VTOL) may enable her again to operate

fighters from her deck.* Alternatively a helicopter-carrying headquarters ship might be developed for duty with a convoy or as anti-aircraft guard for the fleet. Armed with medium and long-range missiles this vessel would be able to ward off interference from the air and generally co-ordinate the defence facilities for the area through which she is steaming.

The RCN's second major task, which, of course, is closely integrated with the first, is to intercept hostile submarines approaching to launch intermediate range ballistic missiles (IRBM-1500 nautical miles) against NATO forces or continental North America. Until such time as an unmanned reporting barrier can be perfected, patrolling submarines and long-range maritime aircraft must carry the major share of this burden. Brought up to date, the flying boat may yet make a come-back as a very useful member of the team. With the ability to alight on the water and remain listening in one small area while conserving fuel, it has had its usefulness further improved in recent years by the invention of hydro-ski. This device, a non-buoyant hydroplane suspended below the flying-boat, will keep it waterborne at a speed of at least 20 knots and permit the machine to operate in seas with waves up to eight feet.¹⁶

In the 1960's the third Canadian naval obligation to NATO is that the RCN can, as occasion should demand, quickly concentrate part of its strength in a Hunter-Killer force to search for and hunt a submarine to destruction. In this, as in all other aspects of anti-submarine tactics, combined team-work is essential. It can well be argued that, having progressed so far in the integration of resources, the Navy should consider relieving the RCAF of the heavy burden of manning Maritime Air to ensure complete interchangeability of personnel and dovetailing of services.

Looking ahead it seems probable that by the end of the century atomic-powered merchant ships, capable of submerging, will be protected by warships of the same kind, all travelling at high speed in the depths of the ocean. The United States Navy plans to have, by 1968, a total of 86 nuclear-powered submarines in commission; these will eventually become the capital ships of her fleet. To date, the most efficient instrument to detect one of the new fast submarines has been found to be another of its own kind.† Inevitably Canada will have to first

*If VTOL aircraft are to be used at sea their present lack of range has to be overcome. This is caused by the necessity of having to reduce fuel weight to compensate for the heavier, more powerful engine, (required for vertical take-off) as compared to the lighter engine fitted in a non-VTOL aircraft of the same weight. If the engine weight is increased the speed of fuel consumption increases to further aggravate the range problem.

†Once problems of radio communication between aircraft or surface vessel and a submerged submarine have been overcome, the latter will be able to act in the role of a highly efficient under

acquire her own conventional submarines and ultimately move on to the atomic-powered version. The matter is given urgency now that submarines can remain beneath the polar ice for long periods and thus operate off her long northern coast-line. It is in these waters, mainly neglected in the past, that future sea battles may be fought.

Emphasis on submarines in no way detracts from the importance of maintaining air and surface anti-submarine units; experiments with hovercraft and 70-80 knot, hydrofoil-equipped vessels give a clue as to the shape future water-borne subchasers will take. In view of the current trend the question of the vulnerability of a very large, expensive aircraft carrier has to be seriously considered although statistics show that the type is more efficient and economical than a number of its smaller counterparts. However, as the nation's financial resources have not permitted her to play in the "big league" of countries armed for global war, this is not a Canadian problem. For the RCN a more modest carrier, capable of operating helicopters and VTOL aircraft, should still be a fleet requirement for many years to come. Such a vessel can also be useful for another naval responsibility, namely, support of land-force operations, which tends to be obscured by the pre-occupation with anti-submarine problems. By her reaction to the Suez Crisis Canada has demonstrated that she is a staunch supporter of United Nations police-force intervention and she will doubtless be called upon to provide troops for other "brush fires." The part played by *Magnificent* in the events of December 1956-January 1957, shows that a second carrier, which could be used on such occasions without weakening the country's defences, would be a useful addition. Such a ship could be usually stationed on the Pacific Coast, where Canadian-U.S. maritime defence forces have as important a task to carry out as those on the eastern seaboard.

Unrestricted movement of goods across the ocean lanes remains today for Canada, one of the leading trading nations of the world, as vital as it has at any time in her history. Starting in the First World War the greatest threat to this freedom of the seas has been the submarine with the result that the main thread running through the story of Canadian Naval Aviation has been the striving for technical advantage in a ceaseless air/sea contest, in which first one side and then the other has gained the upper hand. To cloud the issue there has been, and still remains, the overriding consideration of the state of the economy and what funds the country is prepared to allot for its defence.

Naval Aviation will be called upon to adapt and meet changing situations but the lessons of the past still hold good, one of the most important being that the Service

water detection and reporting unit.

should retain control of its flying section. Whatever new weapons or techniques are evolved the air arm of the Royal Canadian Navy is able to meet the challenge with

a highly-trained team of men, both “flying birds” and “penguins,” whose enthusiasm and skill is second to none in the world.

REFERENCES

¹ The authorized complement of the RCN in February 1950 was 9,600 officers and men. By 1962 complement had risen to 21,720.

² Expenditure on the Naval Services dropped from approximately \$242 million for the year 1945-46 to some \$43 million for the year 1947-48. Canada, *Report of the Department of National Defence*, 1953, Ottawa, Queen's Printer, 1953.

³ The Minister of National Defence, Mr. Brooke Claxton, stated in the House of Commons on 9 June, 1950, “our role in naval operations is definitely known by all Canadians and certainly recognized by the House of Commons. It is anti-submarine work, largely in the waters across the North Atlantic and coastal protection on both coasts, something which I have stated since 1947 and which I do not think anyone has ever disagreed with.” Canada, *House of Commons Debates, Official Report 2nd Session, 21st Parliament*, IV, 3437

⁴ NS 1650-40 (3) and (5).

⁵ *Ibid.*

⁶ “General Intelligence-Korea.” NS 1480-146/187 Sub. 2.

⁷ Two other officers, Lieutenant R. Heath, RCN, and Lieutenant W. J. Walton, RCN, served with the USN Squadron VC 3 in Formosa but saw no action.

⁸ “RCN-RCAF Agreement for the Co-ordination of Maritime Operations.” NS 1550-12 (3).

⁹ *Ibid.*

¹⁰ *Avengers* remained in front-line service with the United States Navy until June 1954 and with the Royal Navy first-line squadrons until 1955.

¹¹ The development of the Ship Inertial Navigation System (SINS), which permits a submarine to navigate accurately by dead reckoning when submerged makes even this unnecessary.

¹² Under the NATO organization the former COMAIRCANLANT has become Deputy COMCANLANT.

¹³ Memorandum from SO (Fuel), Operations Division to DOD, 23 January, 1943. NS 1700-913 (1).

¹⁴ Two *Mackenzie* Class destroyer escorts under construction will also be equipped with helicopter-handling facilities.

¹⁵ Fitted with the latest anti-submarine gear the *Sea King's* gross weight will be in the region of 17,000 lbs. On an officially sanctioned trial the remarkable speed of 210.65 miles per hour has been attained by the helicopter.

¹⁶ Statistics show that 90% of the year the Atlantic is below this; even in the worst months, January and February, the height is only exceeded on an average of two days out of seven.

APPENDIX A

SENIOR OFFICERS FOR NAVAL AVIATION

<i>Officers</i>	<i>From</i>	<i>To</i>
I. ASSISTANT CHIEF OF NAVAL STAFF (PLANS) (AIR)		
Commodore H. N. Lay, OBE, RCN, (Act.)	April 1948	December 1948
Commodore H. N. Lay, OBE, RCN	January 1949	April 1949
II. ASSISTANT CHIEF OF NAVAL STAFF (AIR)		
Commodore 2nd Class C. N. Lentaigne, DSO, RN	April 1949	March 1951
Commodore 2nd Class C. L. Keighly-Peach, DSO, OBE, RN ¹	March 1951	June 1953
Commodore 2nd Class W. L. M. Brown, DSO, OBE, DSC, RN ²	June 1953	June 1955
Commodore 2nd Class H. P. Sears, RN	June 1955	September 1957
III. ASSISTANT CHIEF OF THE NAVAL STAFF (AIR & WARFARE)		
Commodore A. H. G. Storrs, DSC and Bar, CD, RCN	September 1957	July 1958
Commodore J. V. Brock, DSO, DSC, CD, RCN	July 1958	April 1961
Commodore R. P. Welland, DSC, and Bar, CD, RCN	April 1961	October 1962
Commodore A. B. F. Fraser-Harris, DSC and Bar, CD, RCN	October 1962	July 1964

¹Commodore Keighly-Peach also held the appointment of “Chief of Naval Aviation” from September 1951 to June 1953.

²Commodore Brown also held the appointment of “Chief of Naval Aviation” between June 1953 and March 1955.

Explanatory Note

Although a Directorate of Naval Air Division was established at Naval Headquarters in April 1944, there was no direct staff representation on the Naval Board for the flying component of the RCN until 1948. At first DNAD was responsible to ACNS (also not a member of the Naval Board) but from April 1946 he was invited to be present at Naval Board meetings when air matters were up for discussion. Two years later, in April 1948, approval was given to the establishment of two new Naval Board members, ACNS (Plans) and ACNS (Air), but owing to the lack of a senior specialist the former carried out both duties.

The 1949-50 expenditure for the Naval Services almost doubled from the previous year’s \$45 million to \$73 million. Early in 1949 it had been decided that the existing arrangement of one man being joint ACNS (Plans) (Air) was unsatisfactory and the incumbent

DNA was made ACNS (Air), member of the Naval Board; a successor to DNA was obtained on loan from the RN.

A further re-organization of the air section occurred in September 1951, when the position of DNA lapsed and ACNS (Air) was given the additional title of Chief of Naval Aviation with a Deputy CNA and an Assistant CNA to help him. The arrangement of a CNA and two Deputies lasted until March 1955, when it was abolished and DNA re-instituted. ACNS (Air) remained a member of the Naval Board and in 1957 this office and that of ACNS (Warfare) were combined on a trial basis. On 1 January, 1960, ACNS (Air & Warfare) ceased to be a member of the Naval Board and became directly responsible to the Vice Chief of the Naval Staff for naval aviation.

APPENDIX B

DIRECTORS OF NAVAL AIR DIVISION, DIRECTORS OF NAVAL AVIATION AND DIRECTORS OF NAVAL AIRCRAFT REQUIREMENTS

<i>Officers</i>	<i>From</i>	<i>To</i>
I. DIRECTORS OF NAVAL AIR DIVISION		
Commander (P) J. S. Stead, RCN, (Temp.) (Act.)	April 1944	April 1945
Commander (A) J. H. Arbick, OBE, RCNVR, (Temp.)	May 1945	February 1946
Captain R. E. S. Bidwell, CBE, RCN	February 1946	December 1946
Captain G. A. Rotherham, DSO, OBE, RN, (Act.)	January 1947	May 1948
II. DIRECTORS OF NAVAL AVIATION		
Captain G. A. Rotherham, DSO, OBE, RN, (Act.)	May 1948	January 1949
Captain C. N. Lentaigne, DSO, RN	January 1949	April 1949
Captain H. C. Rolfe, RN	September 1949	October 1951
Captain A. B. F. Fraser-Harris, DSC and Bar, CD, RCN	March 1955	October 1955
Captain G. C. Edwards, CD, RCN, (Act.)	October 1955	June 1956
Captain G. C. Edwards, CD, RCN	June 1956	August 1957
Commander V. J. Wilgress, CD, RCN	September 1957	July 1958
Commander J. B. Fotheringham, CD, RCN	July 1958	June 1960
Captain G. C. Edwards, CD, RCN	June 1960	August 1960
III. DIRECTORS OF NAVAL AIRCRAFT REQUIREMENTS		
Captain G. C. Edwards, CD, RCN	August 1960	May 1961
Captain V. J. Wilgress, CD, RCN	May 1961	December 1963
Captain J. B. Fotheringham, CD, RCN	January 1964	July 1964

APPENDIX C

COMMANDING OFFICERS OF AIRCRAFT CARRIERS AND AIR STATION

<i>Officers</i>	<i>From</i>	<i>To</i>
HMS NABOB		
Captain H. N. Lay, OBE, RCN, (Act.)	October 1943	September 1944
HMS PUNCHER		
Captain R. E. S. Bidwell, RCN	April 1944	January 1946
HMCS WARRIOR		
Captain F. L. Houghton, CBE, RCN	January 1946	January 1947
Commodore H. G. DeWolf, CBE, DSO, DSC, RCN	January 1947	March 1948
HMCS MAGNIFICENT		
Commodore H. G. DeWolf, CBE, DSO, DSC, RCN	April 1948	August 1948
Commodore G. R. Miles, OBE, RCN	August 1948	June 1949
Commander A. G. Boulton, DSC, RCN	June 1949	September 1949
Commodore K. F. Adams, RCN	September 1949	October 1951
Captain K. L. Dyer, DSC, CD, RCN	October 1951	March 1953
Commodore H. S. Rayner, DSC and Bar, CD, RCN	March 1953	January 1955
Captain A. H. G. Storrs, DSC and Bar, CD, RCN	January 1955	August 1956
Captain A. B. F. Fraser-Harris, DSC and Bar, CD, RCN	August 1956	June 1957
HMCS BONAVENTURE		
Captain H. V. W. Groos, CD, RCN	January 1957	January 1958
Captain W. M. Landymore, OBE, CD, RCN	January 1958	September 1959
Captain J. C. O'Brien, CD, RCN	September 1959	August 1961
Captain F. C. Frewer, CD, RCN	August 1961	August 1963
Captain R. W. Timbrell, DSC, CD, RCN	August 1963	
ROYAL CANADIAN NAVAL AIR SECTION DAR OUTH		
Commander (P) H. J. Gibbs, RCNVR, (Temp.)	November 1945	December 1945
Commander (P) H. J. Gibbs, RCN (R), (Temp.)	January 1946	September 1946
Commander A. E. Johnson, RCN (R), (Temp.)	September 1946	June 1947
Captain H. S. Rayner, DSC & Bar, RCN, (Act.)	June 1947	June 1948
Commander (P) A. B. F. Fraser-Harris, DSC, RCN	July 1948	November 1948

*Officers**From**To*

HMCS SHEARWATER

Captain A. B. F. Fraser-Harris, DSC and Bar, RCN, (Act.)	December 1948	August 1949
Captain E. W. Finch-Noyes, CD, RCN	August 1949	June 1951
Captain D. L. Raymond, CD, RCN	June 1951	February 1953
Captain A. H. G. Storrs, DSC and Bar, CD, RCN	February 1953	January 1955
Captain D. G. King, DSC, CD, RCN	January 1955	July 1957
Commander R. W. Timbrell, DSC, CD, RCN	July 1957	September 1957
Captain R. P. Welland, DSC and Bar, CD, RCN	September 1957	July 1960
Captain T. C. Pullen, CD, RCN	July 1960	October 1962
Captain G. C. Edwards, CD, RCN	October 1962	October 1964
Captain D. H. P. Ryan, CD, RCN	October 1964	

APPENDIX D

COMMANDING OFFICERS OF AIR GROUPS

<i>Officers</i>	<i>From</i>	<i>To</i>
18th CARRIER AIR GROUP		
Lieutenant-Commander (P) W. H. Bradley, RCN, (Act.)	July 1947	November 1948
Lieutenant-Commander, (O) R. I. W. Goddard, DSC, RCN, (Act.)	December 1948	April 1950
Lieutenant-Commander (P) R. E. Bartlett, RCN	April 1950	May 1951
30TH CARRIER AIR GROUP		
Lieutenant-Commander (P) R. E. Bartlett, RCN	May 1951	March 1952
Lieutenant-Commander (P) R. A. B. Creery, RCN	March 1952	March 1953
Lieutenant-Commander (P) J. W. Roberts, CD, RCN	May 1953	April 1954
Lieutenant-Commander (O) M. H. E. Page, RCN	April 1954	June 1954
19TH CARRIER AIR GROUP		
Lieutenant-Commander (P) H. J. Hunter, RCN, (Act.)	July 1947	September 1949
Lieutenant-Commander (P) V. J. Wilgress, RCN, (Act.)	September 1949	January 1951
Lieutenant-Commander (P) N. Cogdon, RCN, (Act.)	January 1951	May 1951
31ST SUPPORT AIR GROUP		
Lieutenant-Commander (P) N. Cogdon, RCN	May 1951	March 1952
Lieutenant-Commander (P) J. B. Fotheringham, RCN	March 1952	April 1953
Lieutenant-Commander (P) D. W. Knox, CD, RCN	April 1953	June 1954
No. 1 TRAINING AIR GROUP		
Lieutenant-Commander A. B. F. Fraser-Harris, DSC and Bar, RCN	May 1947	July 1948
Lieutenant-Commander (P) R. A. Monks, RCN	July 1948	November 1948
Lieutenant-Commander (P) L. R. Tivy, RN	April 1949	June 1951
Lieutenant-Commander (P) J. G. Wright, DFC, RCN	June 1951	August 1953
Lieutenant-Commander (P) J. P. Whitby, RCN	August 1953	May 1954

APPENDIX E

COMMANDING OFFICERS OF AIR SQUADRONS

<i>Officers</i>	<i>From</i>	<i>To</i>
803 SQUADRON		
Lieutenant-Commander (P) A. J. Tanner, RCN, (Act.)	January 1946	May 1946
Lieutenant-Commander (P) C. G. Watson, RCN, (Act.)	May 1946	May 1947
Lieutenant-Commander (P) H. J. G. Bird, RCN, (Act.)	May 1947	August 1948
Lieutenant (P) J. P. Whitby, RCN	August 1948	September 1948
Lieutenant-Commander (P) V. J. Wilgress, RCN, (Act.)	September 1948	May 1949
Lieutenant-Commander (P) N. Cogdon, RCN, (Act.)	May 1949	December 1950
Lieutenant (P) D. D. Peacocke, RCN	December 1950	May 1951
870 SQUADRON		
Lieutenant (P) D. D. Peacocke, RCN	May 1951	November 1952
VF 870		
Lieutenant (P) D. D. Peacocke, RCN	November 1952	February 1953
Lieutenant-Commander (P) D. M. Macleod, RCN	February 1953	April 1954
Lieutenant-Commander (P) R. H. Falls, CD, RCN	November 1955	December 1957
Lieutenant-Commander (P) W. J. Walton, CD, RCN	January 1958	April 1960
Lieutenant-Commander (P) K. S. Nicolson, CD, RCN	April 1960	September 1962
883 SQUADRON		
Lieutenant-Commander (P) R. A. Monks, RCN, (Act.)	May 1947	January 1948
Lieutenant-Commander (P) J. B. Fotheringham, RCN, (Act.)	January 1948	November 1948
Lieutenant-Commander (P) R. A. B. Creery, RCN, (Act.)	December 1948	April 1950
Lieutenant (P) W. D. Munro, RCN	April 1950	April 1951
871 SQUADRON		
Lieutenant (P) W. D. Munro, RCN	May 1951	November 1951
Lieutenant-Commander (P) D. H. P. Ryan, RCN	November 1951	July 1952
Lieutenant (P) R. Heath, RCN	July 1952	November 1952
VF 871		
Lieutenant (P) R. Heath, RCN	November 1952	March 1953
Lieutenant (P) M. Wasteneys, RCN	March 1953	March 1954
Lieutenant-Commander (P) J. W. Logan, RCN	March 1954	January 1956
Lieutenant-Commander (P) R. A. Laidler, CD, RCN	January 1956	July 1957
Lieutenant-Commander (P) J. J. Harvie, CD, RCN	July 1957	March 1959

<i>Officers</i>	<i>From</i>	<i>To</i>
825 SQUADRON		
Lieutenant-Commander (P) O. W. Tattersall, DSC, RN, (Act.)	January 1946	January 1947
Lieutenant-Commander (P) R. E. Bartlett, RCN, (Act.)	February 1947	August 1948
Lieutenant (P) D. D. Peacocke, RCN	August 1948	September 1948
Lieutenant-Commander (O) J. A. Stokes, RCN, (Act.)	December 1948	April 1950
Lieutenant-Commander (P) D. W. Knox, RCN, (Act.)	April 1950	May 1951
880 SQUADRON		
Lieutenant-Commander (P) D. W. Knox, RCN, (Act.)	May 1951	November 1951
Lieutenant (P) E. M. Davis, RCN	November 1951	November 1952
VS 880		
Lieutenant-Commander (P) E. M. Davis, RCN	November 1952	March 1954
Lieutenant-Commander (P) F. G. Townsend, RCN	March 1954	January 1956
Lieutenant-Commander (O) J. Lewry, CD, RCN	January 1956	September 1957
Commander (P) H. D. Buchanan, CD, RCN, (Act.)	September 1957	February 1960
Commander W. J. Walton, CD, RCN	February 1960	August 1961
Commander D. M. Macleod, CD, RCN	August 1961	June 1963
Commander R. C. MacLean, CD, RCN	June 1963	
826 SQUADRON		
Lieutenant-Commander (P) J. B. Fotheringham, RCN, (Act.)	May 1947	January 1948
Lieutenant-Commander (O) R. I. W. Goddard, DSC, RCN, (Act.)	January 1948	November 1948
Lieutenant-Commander (P) J. W. Roberts, RCN, (Act.)	December 1948	April 1950
Lieutenant-Commander (P) J. N. Donaldson, RCN, (Act.)	April 1950	May 1951
881 SQUADRON		
Lieutenant-Commander (P) J. N. Donaldson, RCN	May 1951	October 1951
Lieutenant-Commander (P) W. H. L. Atkinson, DSC, RCN	October 1951	November 1952
VS 881		
Lieutenant-Commander (P) W. H. I. Atkinson, DSC, RCN	November 1952	August 1953
Lieutenant-Commander (O) M. H. E. Page, RCN	August 1953	August 1954
Lieutenant-Commander (P) R. W. J. Cocks, RCN	August 1954	May 1955
Lieutenant-Commander (P) N. J. Geary, RCN	May 1955	June 1956
Lieutenant-Commander (P) V. M. Langman, DSC, RCN	June 1956	November 1956
Lieutenant-Commander (P) H. J. G. Bird, CD, RCN	November 1956	April 1959
Commander (P) W. H. Fearon, CD, RCN	April 1959	July 1959

<i>Officers</i>	<i>From</i>	<i>To</i>
743 FLEET RECONNAISSANCE UNIT		
Lieutenant (P) J. N. Donaldson, RCN	September 1946	August 1947
Lieutenant-Commander (P) W. E. Widdows, RCN, (Act.)	August 1947	May 1948
Lieutenant-Commander (P) C. G. Smith, RCN, (Act.)	November 1948	June 1949
Lieutenant (P) R. J. Watson, RCN	May 1952	January 1953
Lieutenant-Commander (P) R. J. Watson, RCN, (Act.)	January 1953	February 1954
VU 32		
Lieutenant-Commander (P) V. J. Murphy, RCN	February 1954	July 1954
Lieutenant-Commander (P) B. L. Hayter, CD, RCN	July 1954	October 1954
Lieutenant-Commander (P) V. M. Langman, DSC, RCN	October 1954	March 1955
Lieutenant-Commander (P) J. R. Burns, RCN	March 1955	February 1957
Lieutenant-Commander (P) A. T. Bice, CD, RCN	February 1957	April 1959
Lieutenant-Commander (P) G. D. Westwood, CD, RCN	April 1959	August 1961
Lieutenant-Commander S. R. Linquist, CD, RCN	August 1961	August 1963
Lieutenant-Commander R. H. Williamson, CD, RCN	August 1963	
VT 40		
Lieutenant-Commander (P) J. P. Whitby, RCN	May 1954	October 1954
Lieutenant-Commander (P) R. A. Lyons, RCN	October 1954	February 1956
Lieutenant-Commander (P) C. G. Patton, RCN	February 1956	September 1957
Lieutenant-Commander (P) D. H. McNicol, CD, RCN	September 1957	May 1959
VX 10		
Lieutenant-Commander (P) W. H. Fearon, RCN	March 1953	September 1954
Lieutenant-Commander (P) (O) R. O. DeNevers, DFC, CD, RCN	September 1954	November 1956
Lieutenant-Commander (P) J. C. Sloan, CD, RCN	November 1956	April 1959
Lieutenant-Commander (P) B. W. Mead, CD, RCN	April 1959	July 1962
Lieutenant-Commander S. M. Rowell	July 1962	
NUMBER 1 HELICOPTER FLIGHT		
Lieutenant-Commander (P) J. D. Lowe, CD, RCN	September 1951	May 1953
VH 21		
Lieutenant-Commander (P) J. D. Lowe, CD, RCN	May 1953	August 1953
Lieutenant-Commander (P) (O) J. H. Beeman, RCN	August 1953	April 1955
HU 21		
Lieutenant-Commander (P) (O) J. H. Beeman, GM, CD, RCN	April 1955	January 1956
Lieutenant-Commander (P) R. V. Bays, CD, RCN	January 1956	November 1956
Lieutenant-Commander (P) H. R. Welsh, CD, RCN	November 1956	June 1958
Lieutenant-Commander (P) W. H. Frayn, CD, RCN	June 1958	January 1961
Lieutenant-Commander W. E. James, MBE, CD, RCN	January 1961	August 1962
Lieutenant-Commander R. T. Murray, CD, RCN	August 1962	July 1964
Lieutenant-Commander D. A. Muncaster, GM, CD, RCN	July 1964	

<i>Officers</i>	<i>From</i>	<i>To</i>
HS 50		
Lieutenant-Commander (P) G. H. Marlow, CD, RCN	July 1955	September 1957
Lieutenant-Commander (P) F. R. Fink, GM, CD, RCN	September 1957	July 1960
Lieutenant-Commander K. L. Gibbs, CD, RCN	July 1960	January 1962
Lieutenant-Commander E. A. Fallen, CD, RCN	January 1962	September 1964
Commander J. D. Lowe, CD, RCN	September 1964	
VU 33		
Lieutenant-Commander (P) D. J. Fisher, CD, RCN	November 1954	August 1956
Lieutenant-Commander (P) R. A. Shimmin, CD, RCN	August 1956	August 1958
Lieutenant-Commander (P) A. J. Woods, CD, RCN	August 1958	July 1961
Lieutenant-Commander S. E. Soward, CD, RCN	July 1961	July 1963
Lieutenant-Commander A. A. Schellinck, CD, RCN	July 1963	

APPENDIX F

SPECIFICATIONS OF AIRCRAFT CARRIERS

HM SHIPS *Nabob* and *Puncher*

Smiter Class Escort Carriers

	<i>Nabob D.77</i>	<i>Puncher D.79</i>
Displacement	15,390 tons	14,170 tons
Overall Length	495' 8"	492' 00"
Breadth at flight-deck	107' 2"	102' 00"
Breadth at water-line	69' 6"	69' 6"
Draught	25' 5"	24' 8"
Armament	Two 5" thirty-eight calibre dual purpose guns with Bofors and Oerlikons for anti-aircraft defence.	
Aircraft	20	
Propulsion	Geared turbines; single screw; full speed 18 knots.	

HMCS *Warrior*

Improved *Colossus* Class Light Fleet Carrier

Displacement	18,000 tons full load
Length on water-line	682'
Length on flight-deck	700'
Beam (water-line)	80'
Draught	23'
Breadth of flight-deck	112' 2"
Armament	Six quadruple two-pounder pompoms and 19 Bofors guns for anti-aircraft defence.
Aircraft	34
Propulsion	Parsons geared turbines; twin-screw; full speed 25 knots.

HMCS *Magnificent* RML 21

Majestic Class Light Fleet Carrier

Displacement	18,000 tons full load
Length overall	694' 3"
Beam on water-line	80'
Draught	23'
Breadth of flight-deck	112' 5"
Armament	Thirty Bofors guns for anti-aircraft defence.
Aircraft	34
Propulsion	Parsons geared turbines; twin-screw; full speed 25 knots.

HMCS *Bonaventure* CVL 22

Modified *Majestic* Class Small A.S.W. Aircraft Carrier

Displacement	20,000 tons full load
Length overall	720'
Beam on water-line	80'
Draught	25'
Breadth of flight-deck	112' 5"
Armament	Four 3"/50 twin mountings.
Aircraft	34
Propulsion	Parsons geared turbines; twin-screws, three and four bladed; full speed 25.5 knots.

APPENDIX G

DETAILS OF RCN AIRCRAFT 1946-1962

Fairey Swordfish

Description	Carrier-based torpedo-spotter-reconnaissance aircraft. Crew of 3 for reconnaissance or 2 for torpedo strikes. Metal structure, fabric covered. The <i>Swordfish IV</i> , as used in Canada, had an enclosed cockpit.
Engine	One 690-HP Bristol <i>Pegasus III M 3</i> or 750-HP <i>Pegasus XXX</i> .
Performance	Maximum speed 139 m.p.h. Cruising 104-129 m.p.h. Range 546 miles with normal fuel and one 1,610-lb. torpedo. Maximum range for reconnaissance with no bomb-load and extra fuel, 1,030 miles. Service ceiling 10,700 feet.
Armament	One Vickers gun forward and one Vickers "K" gun or one Lewis aft. One 18-inch torpedo or one 1,500 mine or 1,500 lb. weight of bombs.

Supermarine Walrus

Description	Spotter-reconnaissance amphibian for carrier-borne or catapult duties. Crew of three. Metal hull and composite wood and metal wings, fabric covered.
Engine	One 775-h.p. Bristol <i>Pegasus II</i> .
Performance	Maximum speed, 135 m.p.h. Cruising 95 m.p.h. Range 600 miles. Service ceiling, 18,500 ft.
Armament	One Vickers gun in bows, two amidships. Light bombs below wings.

Supermarine Seafire XV

Description	Single-seat carrier-borne fighter, fighter-bomber or tactical reconnaissance aircraft. All-metal stressed-skin construction.
Engine	One 1,850 h.p. Rolls-Royce <i>Griffon</i> .
Performance	Maximum speed, 383 m.p.h. at 13,500 ft. Cruising 255 m.p.h. Range 430 miles (normal) or 640 miles (with auxiliary tank). Service ceiling 35,500 feet.
Armament	Two 20 mm guns and four 0.303 guns.

Fairey Firefly F.R.1

Description	Two-seat carrier-borne fighter reconnaissance aircraft. All-metal stressed skin construction.
Engine	One 1,990 h.p. <i>Griffon</i> .
Performance	Maximum speed, 316 m.p.h. Range 1,300 miles. Service ceiling 28,000 feet.
Armament	Four fixed 20 mm guns in wings. Provision for eight 60 lb. rocket-projectiles or two 1,000 lb. bombs below the wings.

Fairey Firefly IV

Description	As for <i>Fairey Firefly F.R.1</i> with following changes:—wings clipped; beard radiator replaced by coolant radiators extending from leading edges of center section; four-bladed airscrew in place of earlier three-bladed type.
Engine	One 2,250 h.p. Rolls-Royce <i>Griffon 74</i> .
Performance	Maximum speed, 386 m.p.h. Range, 1,300 miles. Service ceiling 28,400 feet.
Armament	As for <i>Fairey Firefly F.R.1</i> .

Fairey Firefly V. (A/S)

Description	Two-seat carrier-borne anti-submarine reconnaissance and strike aircraft. All-metal stressed-skin construction.
Engine	As for the <i>Fairey Firefly IV</i> .
Performance	As for <i>Fairey Firefly IV</i> .
Armament	Four fixed 20 mm guns in wings. Provision for sixteen 60 lb. rocket projectiles or two 1,000 lb. bombs below the wings.

Hawker Sea Fury F.B.XI

Description	Single-seat carrier-borne fighter bomber. All-metal stressed-skin construction.
Engine	One 2,550 h.p. Bristol <i>Centaurus 18</i> .
Performance	Maximum speed, 460 m.p.h. Range, 700 miles at 30,000 feet or 1,040 miles with two 90-gallon drop-tanks.

Armament Four fixed 20 mm guns in wings and provision for 12 60 lb. rocket-projectiles or two 1,000 lb. bombs below the wings.

Avro Anson V

Description Twin-engined monoplane.
 Engine Two 450-h.p. Pratt & Whitney *Wasp Junior*.
 Performance Maximum speed, 188 m.p.h. Range, 790 miles. Service ceiling, 19,000 feet.

Grumman Avenger A.S.3

Description Three-seat carrier-borne or shore-based anti-submarine strike aircraft.
 Engine All-metal stressed-skin construction. One 1,750 h.p. Wright *Cyclone*.
 Performance Maximum speed, 261 m.p.h. Range, 1,130 miles. Service ceiling, 22,600 feet.
 Armament Four depth-charges and one homing weapon. Sixteen sonobuoys for submarine detection.

McDonnell Banshee F2H3

Description Single-seat jet-propelled fighter. Cantilever low-wing monoplane. Aluminum-alloy structure.
 Engine Two Westinghouse *J-34-WE 34* turbo-jets.
 Performance Maximum speed, approximately 600 m.p.h. Range (with tip tanks), 2,250 miles. Ceiling 56,000 feet.
 Armament Four 20 mm cannon and *Sidewinder* air-to-air homing missile.

Beechcraft Expeditor (C.45)

Description Twin-engined light transport. Low-wing cantilever monoplane. All-metal structure. (Used as navigation and multi-engine pilot trainer.)
 Engine Two 450 h.p. Pratt & Whitney *Wasp Junior* radial air-cooled.
 Performance Maximum speed, 230 m.p.h. Range (with nose tank), 1,500 miles. Service ceiling, 20,500 feet.
 Accommodation Pilot's compartment in nose, seating two side-by-side, with dual controls. Passenger cabin seating five to seven passengers.

North American Harvard ("T-6")

Description Two-seat Primary and Advanced Trainer. Low-wing cantilever monoplane. All-metal structure with aluminum-alloy spars.

Engine One 550 h.p. Pratt & Whitney radial air-cooled.
 Performance Maximum speed 205 m.p.h. Range 750 miles. Service ceiling, 21,500 feet.

Lockheed T.33 or Silver Star

Description Two-seat jet Trainer.
 Engine One Rolls-Royce *Nene*.
 Performance Maximum speed, 600 m.p.h. Service ceiling, 47,500 feet.
 Armament Two .50" machine-guns.

Grumman Tracker CS2F

Description Carrier-based anti-submarine search and attack aircraft. High-wing monoplane with a crew of four.
 Engine Two 1,525 h.p. *Wright R-1820-82* built by Canadian Pratt & Whitney.
 Performance Maximum speed, 280 m.p.h. Range 1,350 miles. Service ceiling, 22,000 feet.
 Armament Homing torpedoes, depth-bombs and rockets.

Bell HTL

Description Two-seat General Utility Helicopter.
 Engine One vertically-mounted 178 h.p. *Franklin* six-cylinder fan cooled.
 Performance Maximum speed, 92 m.p.h. Range 212 miles. Service ceiling 11,500 feet.
 Accommodation Side-by-side seating in convertible open or covered compartment.

Sikorsky S-55 (HO4S-3)

Description Twelve-seat Utility or Anti-submarine Helicopter.
 Engine One 700 h.p. *Wright R 1300*.
 Performance Maximum speed, 112 m.p.h. Range, 360 miles. Service ceiling, 10,600 feet.
 Accommodation Pilot's compartment seats two side-by side. Cabin located below main lift ing rotor seats from seven to ten stretchers, which can be loaded by hydraulic power-operated hoist while aircraft is hovering.
 Armament Homing torpedo or depth-bombs.

Piasecki, or Vertol, Hup-3

Description Medical evacuation and light cargo helicopter.
 Engine One 550 h.p. Continental *R-975-46*.
 Performance Maximum speed, 105 m.p.h. Range 340 miles. Service ceiling 10,000 feet.
 Accommodation Crew of two and four passengers or three stretcher cases.

APPENDIX H

CHRONOLOGY OF MAIN EVENTS IN CANADIAN NAVAL AVIATION HISTORY 1915-1962

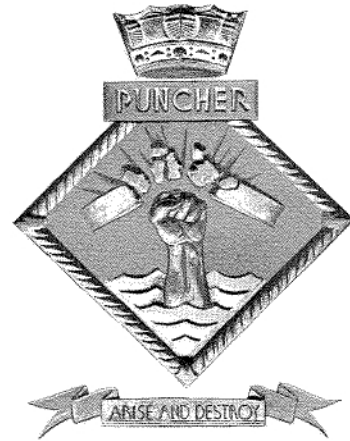
April 1915	Naval Service of Canada starts recruiting for the Royal Naval Air Service	19 December, 1945	Cabinet approves the formation of an Air Component within the Royal Canadian Navy
5 June, 1918	Authorization given for the construction of two Naval Air Stations	24 January, 1946	HMCS <i>Warrior</i> commissions. First two Air Squadrons officially become part of the Royal Canadian Navy. Two others disband but remain RCN on paper.
5 September, 1918	Royal Canadian Naval Air Service established by Order-in-Council		
5 December, 1918	Royal Canadian Naval Air Service disbanded		
April 1943	Captain H. N. Lay, OBE, RCN, appointed to study and report on all aspects of United Kingdom and United States naval air operations	Summer 1947	Disbanded Air Squadrons reform. Air Group system introduced.
		23 March, 1948	HMCS <i>Warrior</i> pays off and returns to Royal Navy
		7 April, 1948	HMCS <i>Magnificent</i> commissions. Authorization given to the establishment of an Assistant Chief of Naval Staff (Air)
August 1943	Report by Captain Lay		
5 September, 1943	HMS <i>Nabob</i> , escort carrier, commissions	1 December, 1948	Dartmouth Air Station taken over by the Royal Canadian Navy and commissioned as HMCS <i>Shearwater</i>
12 January, 1944	Cabinet approves manning of HM Ships <i>Nabob</i> and <i>Puncher</i> with Canadian ship's companies		
		23 April, 1952	Cabinet approves purchase of a British Light Fleet Carrier
5 February, 1944	HMS <i>Puncher</i> , escort carrier, commissions		
1 April, 1944	Directorate of Naval Air Division established at Naval Headquarters, Ottawa	Summer 1952	First large-scale North Atlantic Treaty Organization exercises
		15 June, 1953	Fly-past during Coronation Review
		4 July, 1955	Anti-Submarine Helicopter Squadron forms at HMCS <i>Shearwater</i>
22 August, 1944	HMS <i>Nabob</i> torpedoed	1 November, 1955	First jet-equipped Squadron forms at HMCS <i>Shearwater</i>
30 September, 1944	HMS <i>Nabob</i> pays off		
14 February, 1945	Cabinet approves acquisition, on loan, of two British Light Fleet Carriers	17 January, 1957	HMCS <i>Bonaventure</i> commissions
		14 June, 1957	HMCS <i>Magnificent</i> pays off and returns to Royal Navy
Summer 1945	Four "Canadianized" air squadrons formed by the Royal Naval Fleet Air Arm	1 July, 1959	Joint RCN-RCAF Maritime Commands established on East and West Coasts
1 December, 1945	Royal Canadian Naval Air Section established at RCAF Air Station, Dartmouth, N.S.	May 1960	Royal Canadian Navy's Fiftieth Anniversary Fly-past.

APPENDIX I

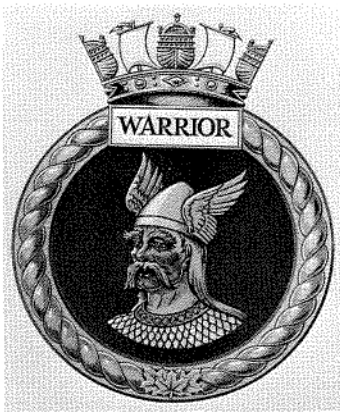
SHIP AND SQUADRON BADGES



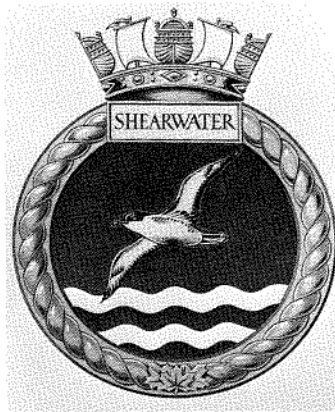
Badge of HMS *Nabob*.



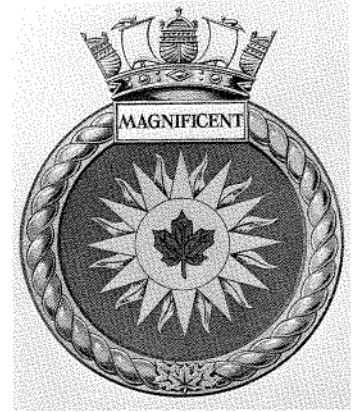
Badge of HMS *Puncher*.



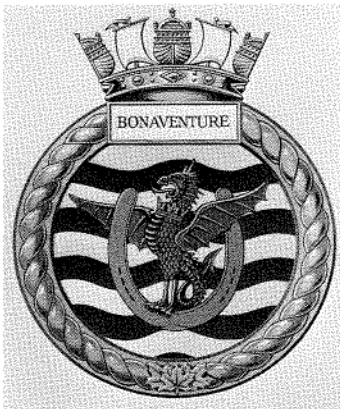
Badge of HMCS *Warrior*.



Badge of HMCS *Shearwater*.



Badge of HMCS *Magnificent*.



Badge of HMCS *Bonaventure*.



Badge of Squadron 803.



Badge of Squadron 825.



Badge of Squadron 826.



Badge of VF 870.



Badge of VF 871.



Badge of VS 881.



Badge of VS 880.



Badge of VU 32.



Badge of VT 40.



Badge of HU 21.



Badge of HS 50.



Badge of VX 10.



Badge of VU 33.



Badge of VC 922.

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APPENDIX K

ABBREVIATIONS

ADDL	Aerodrome Dummy Deck Landing	GCVO	Knight Grand Cross of the Royal Victorian Order
ADT	Attack Dummy Torpedo		
ADX	Air Defence Exercise	GM	George Medal
AEW	Airborne Early Warning	GUS	North Africa-United States Slow Convoy
ALT	Attack Light Torpedo		
ANTAC	Air Navigation and Tactical Air Control	HF/DF	High Frequency Direction Finding
		HG	Gibraltar-United Kingdom convoy
A/S	Anti-submarine	HMAS	His/Her Majesty's Australian Ship
ASWTNS	Anti-submarine Warfare Tactical Navigation System	HMCS	His/Her Majesty's Canadian Ship
		HMS	His/Her Majesty's Ship
BOAC	British Overseas Airways Corporation	HS	Helicopter Strike Squadron
CANCORTRON	Canadian Escort Squadron	HU	Helicopter Utility Squadron
CAP	Combat Air Patrol	HXF	Halifax-United Kingdom convoy
CAT	Canadian Anti-Acoustic Torpedo	IRBM	Intermediate Range Ballistic Missile
CARQUAL	Carrier Qualification	JW	United Kingdom-North Russia Convoy
CD	Canadian Forces Decoration		
CEF	Canadian Expeditionary Force	KBE	Knight Commander of the Order of the British Empire
CFU	Cadet Flying Unit		
CJAT	Canadian Joint Air Training	KCB	Knight Commander of the Bath
CNAV	Canadian Naval Auxiliary Vessel	KG	Knight of the Garter
CNMO	Canadian Naval Mission Overseas	LSO	Landing Signals Officer
CNS	Chief of the Naval Staff	MAC	Merchant Aircraft Carrier
COAL	Commanding Officer Atlantic Coast	MBE	Order of the British Empire (Military Division)
COMAIRCANLANT	Air Commander Canadian Atlantic Sub-Area	NAAFI	Navy Army and Air Force Institutes
		NAF	Naval Air Facility
COMCANLANT	Commander Canadian Atlantic Sub-Area	NATO	North Atlantic Treaty Organization
		NAVEX	Navigation Exercise
COMOPVAL	Commander Operational Evaluation	NSHQ	Naval Service Headquarters
CU	Caribbean-United Kingdom Convoy	OB	United Kingdom-America Convoy
CVE	Carrier Vessel Escort	OBE	Officer of the Order of the British Empire
DDO	Duty Direction Officer		
DLT	Deck Landing Training	ONF	United Kingdom-North America Convoy
DNAD	Director Naval Air Division	ONS	United Kingdom-North America Slow Convoy
DSC	Distinguished Service Cross		
DSO	Distinguished Service Order	QOR	Queen's Own Rifles of Canada
EER	Explosive Echo Ranging	QP	North Russia-United Kingdom Convoy
EFTS	Elementary Flying Training School		
ERA	Engine Room Artificer	RA	North Russia-United Kingdom Convoy
FAA	Fleet Air Arm		
FCLP	Field Carrier Landing Practice	RAF	Royal Air Force
FOAC	Flag Officer Atlantic Coast	RATO	Rocket Assisted Take-Off
FOCT	Flag Officer Carrier Training	RCAF	Royal Canadian Air Force
FOPC	Flag Officer Pacific Coast	RCN	Royal Canadian Navy
FRU	Fleet Requirements Unit	RCNAS	Royal Canadian Naval Air Service
GCIE	Knight Grand Commander Order of the Indian Empire	RCNAS	Royal Canadian Naval Air Section
GCSI	Knight Grand Commander of the Star of India	RCNAS	Royal Canadian Naval Air Station

RCNVR	Royal Canadian Naval Volunteer Reserve	UGF	United States-Gibraltar Fast Convoy
RFA	Royal Fleet Auxiliary	UN	United Nations
RFC	Royal Flying Corps	UNEF	United Nations Emergency Force
RMS	Royal Mail Steamship	U.S.A.	United States of America
RN	Royal Navy	USA	United States Army
RNAS	Royal Naval Air Service	USN	United States Navy
RNC of C	Royal Naval College of Canada	USNAS	United States Naval Air Station
RNCVR	Royal Naval Canadian Volunteer Reserve	USNRFC	United States Naval Flying Corps
RNEC	Royal Naval Engineering College	USS	United States Ship
RNVR	Royal Naval Volunteer Reserve	USSR	Union of Soviet Socialist Republics
RNVR (A)	Royal Naval Volunteer Reserve (Air)	UT	United States-United Kingdom (Military Convoy)
SACLANT	Supreme Allied Commander Atlantic	VC	Heavier-than-air Composite Air Squadron
SACEUR	Supreme Allied Commander Europe	VDS	Variable Depth Sonar
SAG	Support Air Group	VE	Victory in Europe
SCFO (O)	Senior Canadian Flag Officer (Overseas)	VF	Heavier-than-air Fighter Air Squadron
SCNOA	Senior Canadian Naval Officer Afloat	VH	Heavier-than-air Helicopter Air Squadron
SCOA (A)	Senior Canadian Officer Afloat (Atlantic)	VS	Heavier-than-air Search Air Squadron
SFTS	Service Flying Training School	VT	Heavier-than-air Training Air Squadron
SINS	Ship Inertial Navigation System	VTOL	Vertical Take-off and Landing
TAG	Training Air Group	VU	Heavier-than-air Utility Air Squadron
TAG	Telegraphist Air Gunner	VX	Heavier-than-air Experimental Air Squadron
TCA	Trans-Canada Airlines	WEE	Winter Experimental Establishment
TF	Task Force	W/T	Wireless Telegraphy.
TG	Task Group		
TSR	Torpedo Spotter Reconnaissance		

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