

Flying Torpedoes: Air Force, Part 43

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A Handley Page Hampden on a practice torpedo run off Vancouver Island, February 1943.

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Military aircraft applications evolved quickly from 1910 onwards, including development of torpedo bombers as an anti-shipping weapon. Italy, Britain and Germany all deployed such aircraft during the First World War, but the initial problem was marrying a large, cumbersome weapon to an under-powered airplane.

The most conspicuous, but limited, successes were registered by Italy against Austro-Hungarian shipping in the Adriatic and by Britain against Turkish shipping in the Sea of Marmara. Results showed that the torpedo bomber offered promise, and so development of aircraft and torpedoes continued with Japan and the United States joining the process.

Second World War naval aviation most forcefully demonstrated the enhanced power of the torpedo bomber. On the night of Nov. 11-12, 1940, 23 British Swordfish biplanes crippled the Italian Fleet at its Taranto anchorage, and in March the following year Albacore torpedo bombers harried Italian warships during the Battle of Cape Matapan (off southern Greece). But the most famous British torpedo-bomber strike occurred May 26, 1941, when a Swordfish from His Majesty's Ship *Ark Royal* disabled the steering of the German battleship *Bismarck*, enabling British warships to catch, engage and sink the enemy behemoth.

Emulating the attack on the Taranto anchorage, the Japanese employed torpedo bombers with devastating effect at Pearl Harbor on Dec. 7, 1941. Land-based Japanese aircraft, using bombs and torpedoes, sank His Majesty's ships *Prince of Wales* and *Repulse* on Dec. 10, 1941—the first instance of unaided aircraft dispatching major warships at sea. Nevertheless, the torpedo bomber was most often employed against merchant shipping, whether it was German aircraft attacking British convoys off Norway or British aircraft interdicting Axis shipping in the Mediterranean.

The peacetime Royal Canadian Air Force paid sporadic attention to torpedo bombing. In 1921, Wing Commander Robert Leckie wrote that for a small country like Canada, the torpedo bomber could be “a formidable, yet inexpensive weapon to use against a possible enemy equipped with heavy fighting ships.” However, there was no further mention of such aircraft in Canadian files until June 1934 when information was sought on the latest British aircraft.

When Canada eventually embarked on a rearmament program, it followed British advice in acquiring the Blackburn Shark for defence against warships. The Shark was a rugged, all-metal biplane, and decades later was the subject of an excellent book—*The Blackburn Shark*—by Carl Vincent.

The RCAF acquired 26 Sharks between October 1936 and April 1940. Nine were built by the parent company in Britain while 17 were constructed under licence by the Vancouver-based Canadian subsidiary of Boeing Aircraft. The Shark was pleasant to fly, but when on floats it exhibited temperamental alighting characteristics; six aircraft were written off in water-landing accidents. The aircraft was sturdy enough for crews to survive crashes, but they sank like bricks once the floats buckled.



Ground crew load a torpedo into an aircraft at Patricia Bay, B.C.

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The first Sharks were delivered to Trenton, Ont., where they were flown with either wheels or floats. The unit initially operating them was No. 6 (Torpedo-Bomber) Squadron, which had been formed specifically for the new aircraft and whose commanding officer, Squadron Leader Clive Trecarten, had just returned from a torpedo-bomber course in England. In the autumn of 1938, the squadron moved to Jericho Beach, Vancouver, where training intensified using

dummy torpedoes. But even these aids had to be dropped carefully because if they entered the water too steeply they could stick to the bottom, necessitating costly dredging and recovery.

Upon the outbreak of war in September 1939, No. 6 Sqdn. became a bomber reconnaissance squadron. Live and practice torpedoes were stored, and the Sharks were armed with 250-pound anti-submarine bombs. The aircraft were also operated by two Western Air Command bomber reconnaissance squadrons, Nos. 4 and 7, waiting at such bases as Ucluelet and Alliford Bay for enemies that never came. Various crashes reduced the stock, and 10 members of the RCAF were killed in Sharks.

Transfers to target towing duties commenced early in 1942, but No. 7 Bomber Reconnaissance Sqdn. operated the venerable biplanes until September 1943. The last service use of Sharks was in May and June 1944 when five were issued to aircraft carriers working up in the Esquimalt, B.C., and Tacoma, Wash., areas. These included the Canadian-manned HMS Puncher. Fit only for taxiing, the Sharks nevertheless gave deck crews practice in marshalling and handling aircraft until the ships received operational aircraft. The fate of these machines is unknown, but Vincent speculated they were unceremoniously dumped at sea once the carriers had sailed with their modern aircraft.

Torpedo aircraft returned to Canada in a roundabout way. In July and August 1941 a Royal Air Force school, No. 32 Operational Training Unit (OTU), was transferred from England to less crowded skies at Patricia Bay (Victoria, B.C.). This was a torpedo-bombing unit, and although it initially had to make do with Anson aircraft for basic flying, it got into its stride in October 1941 with the arrival of the battle-tested Bristol Beaufort torpedo bombers. Thereafter, No. 32 OTU proceeded to train Australian, British, Canadian and New Zealand crews.

British personnel enjoyed the west coast for its beauty and because it was not the Prairies, which were equated with bitter cold. Nevertheless, hills around Patricia Bay and the absence of radio homing facilities made it necessary to limit night navigational training to good weather.

On Dec. 8, 1941, the school was on a wartime footing with blackouts that lasted for a week. That month instructors and half-trained students flew 32 reconnaissance patrols, chiefly around the southern Strait of Juan de Fuca. A typical sortie occurred on Dec. 23, captained by Flight Lieutenant James A. Piddington, a Canadian member of the RAF. With three crewmen he was airborne for three hours, 31 minutes and reported numerous tugs and small merchantmen.

On May 30, 1942, No. 32 OTU was ordered to form a strike force. Six Beauforts were loaded up—two with torpedoes and four with bombs—but thousands of kilometres to the west the Battle of Midway was determining that no enemy fleet would ever get within range of the Pacific coast. On June 20, during the unit's only "scramble" on report of an enemy vessel, Piddington crashed on takeoff, blocking the runway and preventing further sorties. There were no injuries, and Piddington would go on to command No. 429 Sqdn. (RCAF) overseas, and earn a Distinguished Flying Cross. He was killed in action on July 28, 1943.

Only 15 Beauforts had been shipped from England, arriving by ship at Halifax and Montreal where they were assembled and flown to the west coast. Such a small pool of aircraft could not cover wastage, and although school personnel spoke hopefully of another 45 that would be sent out in February 1942, none materialized. The Beauforts on hand proved troublesome. Tail wheel assemblies shimmied and fractured, and on at least three occasions the Taurus engines suffered crankshaft failures. Two of these incidents resulted in crashes that killed five crewmen.

In June 1942, No. 32 OTU began receiving Handley Page Hampdens. Designed as heavy bombers, the Hampdens had pioneered the role of aerial mine laying. Their fuselage shape, which earned the name Flying Suitcase, proved adaptable to the carriage of torpedoes, and the type was pressed into that role as it was phased out of Bomber Command.

Most of the Hampdens used at Patricia Bay had been built at Montreal and Malton, Ont. When Canadian production ceased in late 1942, spare part shortages became acute. To relieve the situation, 20 machines were dispatched from Britain to Canada. One crashed some 100 miles south of Greenland, although the crew was saved.

Torpedo-bomber training was intense and complex. The Beauforts at least had dual controls; the Hampdens had provision for a single pilot only. Moreover, the cockpit was such that pilots could be taken off the course if they were judged too short or too tall for the space. The course curriculum covered numerous subjects, including tactics, ship and aircraft recognition, Aldis lamp signals and meteorology. Flying involved plenty of low-level, wave-hopping exercises. At least one Hampden was severely damaged by bird strikes; two came home with propellers bent from brushing the sea and six crashed during low-level exercises. Five additional aircraft crashed without explanation or disappeared; the sea-skimming training may have been responsible for some of those.

In addition to aerial drills, pilots used Link Trainers (early flight simulators) while navigators worked in something called a Grope Trainer which recreated their work stations in a classroom. Notwithstanding a few bawdy references, the name was an acronym for Ground Operations Exercises.

The example of Pilot Officer Louis Murphy is typical. He had been trained as a pilot in Canada, earning his wings in November 1942. Following a course at No. 31 General Reconnaissance School at Charlottetown, he was posted to No. 32 OTU. He first demonstrated his general flying ability on Airspeed Oxfords (10 hours) before going on to Hampdens (75 hours). He also logged 13 hours in the Link Trainer. Murphy fired 200 rounds on the school gunnery range and 400 rounds air-to-ground. On four occasions he practiced low-level bombing. He also carried out eight exercises in which he dropped a dummy torpedo, 30 more exercises described simply as "aiming practice" and 30 mock attacks with a camera recording the results. Film was studied to assess whether the attack had been at the proper altitude, angle and range. The various drills involved stationary and moving targets, the latter over a range of airspeeds.

Curiously, graduation from No. 32 OTU did not translate automatically into a torpedo-bombing assignment overseas. More than one student, having trained on Beauforts or Hampdens, found himself flying Halifax bombers in Britain. Conversely, some “washed out” personnel nevertheless made it into overseas torpedo-bomber units. On Jan. 21, 1942, the diary of No. 32 OTU reported that Sergeant Hubert Knight Barber (RCAF) had been taken off the course. “Experience has shown that this Sergeant Pilot is inconsistent and erratic in his handling of Beaufort aircraft, and is not suited for this type of aircraft.” Posted overseas and commissioned, Barber was killed in North Africa on April 10, 1943—flying a Beaufort.

By late 1943, torpedo bombing was fading as an operational method; dive bombing and rocket attacks were the new dominant anti-ship tactics. In December the unit began receiving Dakota and Beechcraft machines in anticipation of it becoming a transport training school. The torpedo-bomber courses were allowed to finish, but Hampden flying ceased on Jan. 10, 1944. The surviving Hampdens—49 in all—were later flown to Sea Island (Vancouver) for scrapping. In recent years, the Canadian Museum of Flight at Langley, B.C., has restored a Hampden from remains found at three crash sites.



The Link Trainer at Alliford Bay, B.C.

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Following the conversion of No. 6 Sqdn. from torpedo bomber to bomber reconnaissance duties in late 1939, the RCAF had no dedicated torpedo-bomber unit until October 1942, when No. 149 Torpedo-Bomber Sqdn. was formed at Patricia Bay. Although three such units had been envisaged for the west coast, this was the only one that took shape. The squadron was equipped with Beauforts previously used—and hated—by No. 32 OTU. They were best

described as “hangar queens” because the engines required frequent overhauls and on at least two occasions the entire fleet was grounded for inspections. Actual torpedo-bomber training, including lectures and Grope Trainer exercises, was carried out at No. 32 OTU which shared the airfield with No. 149 Sqdn.

Given the Beaufort's low serviceability rate, No. 149's crews trained as much on Bolingbroke bombers, which had no torpedo-carrying capacity as on the Beauforts. It was not until Feb. 9, 1943, that the squadron could muster three serviceable Beauforts for a formation exercise. As of Feb. 23, the unit had only seven pilots qualified on the type. Flying with full crews—pilots, navigators and gunners—had to wait until March 1943.

The term “torpedo-bomber squadron” proved to be a misnomer, for once No. 149 began realistic training; the Beauforts were loaded with bombs for high- and low-level exercises. It would appear that no pilot on No. 149 Sqdn. ever dropped a torpedo except as a student at No. 32 OTU. The unit began to receive Lockheed Ventura patrol bombers in June 1943; when they moved to Annette Island, Alaska, in August 1943, they left their Beauforts behind. They became tools for fire drills or were otherwise scrapped.

It was in the summer of 1943 that the RCAF began training in a new type of torpedo bomber. This, however, was an acoustic anti-submarine weapon variously dubbed “Proctor,” “Z” or a “600-pound depth charge” for security purposes, and as such lies outside the scope of this article.