Inventions and Inventiveness at RCAF Station Torbay: The Bedspring Bomb Rack

By Darrell Hillier
2020-12-27
http://crossroadsoftheworld.ca/

During the Second World War, RCAF Station Torbay (present-day St. John's International Airport) was home to several bomber reconnaissance squadrons, two fighter squadrons, a coastal artillery cooperation detachment, and an air-sea rescue flight. To accommodate the "urgent demand for fighter protection for the St. John's area," Canada sent newly formed 125 (Fighter) Squadron to Torbay in June 1942, under the command of Squadron Leader Robert W. Norris, a seasoned Battle of Britain fighter pilot. The squadron's role at Torbay was two-fold: to provide local air protection using its Canadian-made Hawker Hurricane fighters, and to prepare its pilots for possible overseas operations.

125 Squadron personnel pose in front of a Hawker Hurricane at RCAF Station Torbay, October 1942. Seated center is Squadron Leader Robert W. Norris. Library and Archives Canada.

The regimen at Torbay saw squadron pilots carry out patrols and reconnaissance missions. A readiness section with two Hurricanes warmed and ready from dawn until dark could be off the ground in two minutes or less. Pilot training was a steady diet of low-level formation flying, practice scrambles, mock attacks, dive-bombing and air-to-ground firing, circuits and landings, instrument and high altitude tests, aerobatics, and classroom lectures.

During 125's tenure at Torbay, U-boat attacks in September and November 1942 on ore carriers at nearby Bell Island, site of a major iron ore mining operation, got Squadron Leader Norris into thinking of a scheme to use his Hurricanes to locate enemy submarines and counter further attacks. Equipping Torbay's anti-submarine reconnaissance bombers with depth charges and getting them airborne could take thirty minutes or more. On the other hand, 125's readiness section could be airborne in minutes. Norris proposed that when radio direction-finding signals established the location of a U-boat, the readiness section could scramble in the usual method, climbing to 1,500 feet, "as this is the best altitude for sighting objects on the water." Should a U-boat be sighted, the section could then dive in the vicinity to attract the navy or RCAF bombers or use its machine guns to scare the enemy away from shipping or inflict damage. "We may be able to penetrate the sub's outer shell and leave an oil trace" for the bombers to track. Norris went on to suggest that until such time that his Hurricanes were equipped with bombs they could at least hinder enemy activity "with our speed of contact and manoeuvrability." The first scramble to investigate a sub sighting in accordance with Norris's scheme came on 1 February 1943.

The squadron's primary intent under this scheme, initially at least, was to harass or deter U-boat activity or locate them for the bomber reconnaissance aircraft. Still, the Hurricane pilots were anxious to do more. "There was always a feeling among our people," recalled squadron pilot and Newfoundland-born Lamont Parsons, "that we should be in a position to do something effective if we should come across a U-boat; something more effective than damage from eight .303 machine guns." The pilots discussed the matter with their armament officer, Flight Sergeant A.S. Goodwin, who, "being very sympathetic to our predicament," came up with a creative solution. Using angle iron and springs from bed bunks and spare electrical arming mechanisms supplied by a bomber squadron, Goodwin devised racks that enabled the Hurricanes to carry and release bombs or depth charges under each wing. "The electrical system was no problem as it was already being used on the [bomber reconnaissance] squadrons" at Torbay, explained Parsons. The rest involved a series of experiments using the angle iron and steel scrounged from double-decker bunks in the barracks.

By March 1943, Goodwin's "bedspring bomb rack" was ready for flight-testing on Hurricane 5490. Norris took the aircraft aloft three times on 10 March, once to test the carriers and fairings, then carrying two 100-lb. bombs, and finally with two 250-lb. bombs. The following day, Flying Officer Parsons and squadron mate Flight Lieutenant Harry Pattinson took turns flying 5490, fitted with two 250-lb. bombs. "Both pilots were well pleased with the aircraft's performance," recorded the squadron diary. Several days later, Parsons again took aloft a bomb-laden Hurricane 5490, this time on an uneventful dusk patrol to Cape Race. Late in March, Norris took to the air in 5490 for the first bomb-dropping test, with inventor Flight Sergeant Goodwin and others from the squadron observing from nearby aircraft. The results proved satisfactory.

Squadron Hurricanes bombed-up and sporting bedspring bomb racks.

Word of the device soon spread and generated interest at the command level. In April 1943, under the watchful eyes of senior officers flown in from Canada, among them the assistant air staff officer (Fighter) and Battle of Britain veteran Wing Commander Hartland de M. Molson, Flying Officer Parsons put Goodwin's invention through its paces. Nearly sixty year later he vividly recalled the event:

> There were one or two Hudson bombers orbiting the area just off Cape St. Francis with the observers on board. There were several small pieces of ice in the area and picking one of these I went in low and released the bomb load. Everything worked like clockwork. The bombs exploded and the ice pan was hit. What someone had forgotten to tell me was that the bombs were set to explode at contact. Had I known I think I would not have gone in so low. The explosion just about blew the Hurricane out of the air and gave the pilot one of the greatest frights of the whole war.
>
> Many people wanted to claim the credit for this bit of engineering but the Flight Sgt. [Goodwin] was the one responsible for the success of this project. It is of interest to note that when the engineering section of Eastern Air Command decided to go ahead with the design and installation of the bomb racks and sent to the Sydney Steel Mills to have them recommend a steel to be used on the racks, they were informed that they could not improve on the steel used in the manufacture of the barrack bunk beds.

Four weeks after Parsons's eventful test of the "bedspring bomb rack," he was posted to No. 1 "Y" Depot in Halifax, Nova Scotia, for reposting to the Royal Air Force overseas. One of the original members of 125 Squadron, "he was very keen to go overseas and was one of the best liked officers on this Station," praised the squadron diary. The squadron would thereafter continue using Goodwin's invention, making no less than eight more flights in depth charge-equipped Hurricanes before transferring from Torbay to Sydney, Nova Scotia, in June 1943. The operations record suggests that Torbay's armament section also installed bomb racks on Hurricanes 5493, 5482 and 5485. Although no U-boats were attacked using the device, Goodwin's ingenuity gave those on the squadron the confidence that, given the opportunity, they could be as effective as any bomber reconnaissance aircraft.

Bibliography

No. 125 (F) Squadron, Operations Record Book Daily Diary, Library and Archives Canada, Ottawa
Lamont Parsons, email message to author, 25 August 2001
Lamont Parsons, email message to author, 2 September 2001
Lamont Parsons, personal interview, 27 August 2001
Lamont Parsons, personal interview, 28 January 2002