

## March Meeting

Topic: "Postwar Canadian Lancasters"

Speaker: Richard Banigan

Reporter: Gord McNulty

CAHS Toronto Chapter President George Topple introduced Richard Banigan, a noted Canadian aviation artist and historian, of Penetanguishene. Richard is founding partner of Studio High Techniques, a computer graphics and desktop publishing firm. He previously spoke to the Chapter in December, 2006, on Canadian Mosquitoes in the Chinese Civil War (Flypast Volume 41, Number 5). Richard joined the RCAF out of Etobicoke Collegiate in 1960. He obtained his Wings at Gimli, Manitoba, in May 1962. He was sent for multi-engine training and ended up on Lancasters. Richard flew FM104 and FM213 at 107 Rescue Unit, Torbay, Newfoundland, then KB882, KB976, and KB839 with 408 Squadron, Rockcliffe. He finished on C-119 Flying Boxcars and Dakotas at Trenton.

Richard returned to school and graduated with a B.A. from York University in 1968. He worked in the public relations department at de Havilland Canada from 1967 to 1969, then received a fellowship to study at Stanford University in California for a couple of years. He started teaching at St. Clair College in Windsor in 1972. Richard then married and acquired an instant family of six in 1975. He continued teaching at Sheridan College in Oakville from 1979 and obtained his M.Ed. from OISE/UT in 1986. Richard started his own computer graphics and desktop publishing business in 1987. He co-founded the Toronto Aerospace Museum (now the CASM) in 1995 and is member #2. His father worked on Mosquitoes at de Havilland in World War II, and his grandfather was the office manager in 1931. Richard can be reached at 705-533-1495 or

Richard began on a fitting note with a brief video highlighting the unmistakable sound of the four Merlins on the famous Lancaster bomber. He then showed his remarkable collection of more than 200 slides of Lancasters that served with the RCAF in an impressive variety of roles after the Second World War. A total of 422 Lancaster Mark Xs were built by

Victory Aircraft Ltd. at Malton during the war. Fourteen were delivered in 1943, 179 in 1944 and 229 in 1945. Richard noted relatively few of the final batch of 229 made it overseas. Most of those that saw wartime action were in the KB series, starting with KB700, the *Ruhr Express*. Following VE Day the Lancaster Xs were returned to Canada, flown by their crews, and put into storage. Richard said that about 200 made it back to Canada, and about half of them were scrapped immediately. In 1946 the surviving aircraft began to be modified for peacetime duty with the RCAF and were reconditioned by Avro Canada at Malton. They continued to serve until 1965. Richard said that about 50 served with the postwar RCAF.

As Richard noted, the numerous variants of the Lancaster included: 10 AR – Reconnaissance; 10 BR --- Bomber Reconnaissance; 10 DC --- Drone Carrying; 10 MR/MP --- Maritime Reconnaissance/Maritime Patrol; 10N --- Navigation Trainer; 10O --- Avro Orenda engine test vehicle; 10P --- Photographic Reconnaissance; 10S --- Standard postwar bomber (mid upper turret removed); 10U --- Standard bomber --- unmodified. The Mark 10O was used by Avro Canada for testing the Orenda and did not serve with the RCAF. Postwar Lancasters, stripped of wartime camouflage, looked good in bare metal. They were finished with a variety of paint schemes and well-maintained. Some were highly polished. In the early postwar years, circa 1948, the maple leaf roundel was simply navy blue with a red maple leaf. But it wasn't very visible and was soon replaced with the traditional roundel. Lancasters were later finished with white paint on the upper fuselage along with the RCAF's red-and-white lightning bolt. Lancasters with search and rescue markings were especially striking with a broad, fluorescent-and-blue band on the fuselage and a prominent fluorescent "rescue" label.

Richard noted a Lancaster served as one of the Rockcliffe "Ice Wagon" aircraft after the war. The National Research Council at Rockcliffe flew aircraft in experiments with chemical drops into clouds to see if they could create rain. Its Lancaster boasted fancy "Rockcliffe Lankie" nose art but was otherwise pretty much a stock Lanc. The Mark 10P photo reconnaissance version was the first major

modification of the Lancaster after the war. It had extra windows and a huge trimetrogon camera, which could take horizon-to-horizon photographs, in the rear fuselage. Two large auxiliary fuel tanks were added in the bomb-bay. The trimetrogon was a key in completing the mapping of northern Canada in the late 1940s and early 1950s. Many islands, lakes, rivers and mountains were discovered on Lancaster photo reconnaissance operations.

Other modifications on the 10P included removal of the nose turret; a metalized nose; extra radio and ADF (automatic direction finder) equipment; and removal of the mid-upper and tail turrets. The tail turret was metalized and the survival gear was kept there. Another modification was the use of de-icer boots, installed on the leading edges of wings and control surfaces. The first squadron to use the 10P was 413 at Rockcliffe. Lancasters were a familiar sight over Ottawa for 20 years until they were retired. A 10P, from Goose Bay, once escorted a TCA North Star with two engines out. While the Lancaster delivered excellent service, a number of accidents occurred. One photo showed the crash of FM216 on takeoff in 1950 at Resolute Bay, in the Arctic. Richard noted the Lancasters were packed with so much gear that the RCAF decided there wasn't enough room for parachutes for all of the crew. "If you can't all have them, none of you are getting them," he recalled being told.

Photos showed Lancaster FM122 over Ellesmere Island, the northernmost Arctic island, and in other operations in the Far North. The northern tip of Ellesmere Island is only about 300 miles from the geographic pole, and well north of the magnetic pole. Navigation in the Far North was very problematic. There were few cities or towns, and in fact, few signs of anything that was recognizable. Lakes tended to disappear from year to year and the landscape was, in Richard's description, "a lot of white stuff" with everything frozen. Maps needed to be periodically updated as changes occurred with rivers, for example. Two large cabin heaters were added to help crews cope with extreme cold on Arctic duty. All of the radio equipment was doubled as well to act as a safeguard in case of failure. Engine changes often had to be done in blizzards, with temperatures of minus 30F or even minus 60F. In Richard's view, probably the worst thing about the



408 Squadron Lancaster 10

*Photo Via Richard Banigan*

Lancaster was that the engines were not that reliable. The reconditioned Merlin engines were subcontracted from Packard to the Maytag washing machine and appliance company in Des Moines, Iowa. "They were good for only 300 hours at most, so engine failures were commonplace," Richard noted.

The training at Rockcliffe emphasized three-point landings, not only because the runway at Rockcliffe was very short, but also because of short runways in the Arctic. At one time, as many as eight Lancasters served with 408 Squadron. By 1960, it could still put up five but by the time Richard was at Rockcliffe, in 1964 and 1965, the number had dwindled to three, mostly unserviceable. All of the 10Ps were gone. One 10P, FM 212, was withdrawn from service in 1962. It was purchased by the City of Windsor, sent by barge in 1964 from Dunnville, Ont. to Windsor, and eventually displayed on a pedestal at Jackson Park between 1965 and 2005. After years of deterioration, it is now being restored to taxiable condition by the Canadian Historical Aircraft Association at Windsor Airport. Richard showed a photo of FM212 on the barge as it passed below the Ambassador Bridge en route to a temporary home at Dieppe Gardens on Windsor's waterfront.

The Mark 10AR reconnaissance version was similar to the 10P but it featured a stretched nose and extra radar and radio equipment. The extended nose was two feet, two inches long. It provided space for another crewman, operating a Williamson SP3 stereoscopic camera for taking 3D strip photos. Extra seats were provided in the rear for electronic countermeasures radio operators, assigned on Arctic

duty to monitor Soviet radio frequencies during the Cold War as part of NORAD. They could communicate directly to Ottawa and even to Washington and London, all simultaneously. "The Lancaster was one of our spy planes," Richard noted.

In fact, in 1958, a Lancaster photographed a Russian Badger long-range medium jet bomber on a floating ice island in the Arctic. The Russians were taking off and landing regularly on what Canada considered to be Canadian territory. Richard said the Russians were trying to see, in event of war, if they could operate the Badger from the ice, bomb North America, and fly on to land in Cuba. "We caught them doing it, and believe it or not it was the old Lancaster that did it." Lancasters generally stayed outside Soviet territory though Richard noted the odd one went into Soviet airspace.

Richard noted the extended nose made the Lanc nose heavy, and it took a lot of muscle power to position the aircraft for a three-point landing. "After flying the Lanc for a while I went back to flying Expeditors and Dakotas and I was way overcontrolling," Richard noted. "I wasn't used to a normal airplane --- at least one that would almost land by itself --- any more. The Lancaster was a beast to land, especially the AR model."

A Lancaster took photos of the tragic crash of a TCA DC-8F on Nov. 29, 1963, which plunged into the ground near St. Therese, north of Montreal, with the loss of all 111 passengers and crew of seven. The jetliner went down four minutes out of Dorval en route to Toronto. The RCAF was assigned to photograph the entire flight path from takeoff to crash and also to do a radar run to see if anything had fallen off the aircraft. It was concluded that nothing had fallen off; the DC-8 went down completely intact and very little was left. In February, 1964, Richard was on his way to Cold Lake aboard a Lancaster that lost two engines. An oil seal broke on one engine, then an engine on the other side began to fluctuate. Upon arrival in Cold Lake, the crew was escorted by CF-104 Starfighters. It was later determined that one of the engines had swallowed a valve and probably would have exploded had it not been shut down immediately.

Lancaster "retirements" were held several times, especially as each model was withdrawn. The final

ceremony saying goodbye to the Lanc was held at Downsview in April, 1964, with FM104, KB839, KB882 and KB976 participating. The Lancs were put up for disposal by Crown Assets and several were cut up at Dunnville. FM104, of course, was placed on a pedestal along Lakeshore Drive near the CNE as a memorial display by the City of Toronto. After 34 years outside, the Toronto Aerospace Museum (now the CASM) took it apart in 1999 and trucked it to the museum here at Downsview, where good progress is being made on its restoration. KB839 is at the Military Aircraft Museum at Greenwood, NS. KB882 is on display, outside, in Edmunston, NB, and efforts are being made to preserve it.

Some Lancasters went into civilian service. KB976 was registered as CF-TQC, converted to a water bomber by Northwestern Flying Services in Alberta, later sold to the Strathallan Collection in 1975, and ferried to Scotland that May as G-BCOH. Pearson Airport was one of its destinations as it flew right across the Atlantic. DEW Line operator Don McVivar, owner of Dorval-based World Wide Airways, used a British-built Lancaster tanker, CF-GBA, to take fuel to Sept-Illes in Quebec. However, it crashed on landing and burned to the ground at Menihék. Spartan Air Services of Ottawa operated three Lancaster Xs for survey work, under contract to the RCAF. They were stock, ex-RAF Lancasters, modified for photographic work. In the one and only Lancaster 100, FM209, two 7,600-pound thrust Orenda engines replaced the outer Merlins. The 100 made a flypast at the CNE air show in 1950, with the Merlins feathered, to demonstrate the sound of the jet age. It was destroyed in a hangar fire at Malton in March, 1955.

The 10DC drone carrying model, KB851, had two Ryan Firebee drones, powered by 1,000-pound thrust jet engines, mounted on a rail under the wing, to simulate the performance of a jet fighter. They were used at Cold Lake as part of testing the Sparrow II missile, used on the CF-100 Mk.5M and slated as armament for the Avro Arrow, to evaluate whether the Sparrow II could knock down a Firebee.

The 10MR maritime reconnaissance model filled a need for a maritime patrol force to counter the post-war challenge of a large Soviet submarine fleet. Some of the Lancasters were converted for maritime



Avro Canada Lancaster 100 FM209 with Outboard Orenda Engines *Photo Via Richard Banigan*

work by de Havilland in the hangars at Downsview. Forty Lancaster 10MRs were on strength with 404 and 405 squadrons at Greenwood by 1952. A lot of electronic gear was crammed into the narrow fuselage. The 10MRs and 10MPs did all kinds of wide-ranging patrol work, supply and medevac drops, simulated torpedo drops, and more. One of the Lancaster 10MRs, KB944, was refurbished by the RCAF in 1964 and is now at the Canada Aviation Museum. FM136, meanwhile, served with 407 Sqdn. at Comox. It was a gate guardian at Calgary for many years, then went to the Aero Space Museum of Calgary in 1992. It is now slated for refurbishment as a static exhibit. The MP maritime patrol version had search radar that was a step up from the wartime radar.

Lancasters soldiered on in maritime patrol until



Lancaster FM 104 No. 107 Rescue Unit, Torbay, NFLD *Photo - DND*

they were replaced by the Lockheed P2V-7 Neptune starting in 1955. FM159 was purchased in 1960 by a trio of men from Nanton, Alberta, and is now on display at the Bomber Command Museum of

Canada at Nanton. The two starboard engines are operational. Lancasters were ideal for search and rescue, as they carried a big load of survival equipment and could reach a search area relatively quickly. With the auxiliary long-range fuel tanks, they could fly missions for up to 22 hours. FM104, which was in search and rescue markings when it was retired, served in maritime reconnaissance and participated in “Duck Butt” operations in the late 1950s when Sabres, CF-100s, Silver Stars and Expeditors were escorted over the North Atlantic to NATO bases in Europe.

FM213, meanwhile, served primarily in search and rescue and probably would have been scrapped if not for the intervention of the Royal Canadian



404 Squadron Greenwood Lancaster 10MR *Photo Via Richard Banigan*

Legion at Goderich. It was displayed atop a pylon at Goderich for years, acquired by the Canadian Warplane Heritage Museum in 1977, and then airlifted by Chinook helicopter to Mount Hope in 1979. Restored to flying condition, it took to the skies in 1988. As the Mynarski Memorial Lancaster, it has been the CWHM flagship ever since and is one of only two Lancasters in the world that are still flying. KB889, another search and rescue Lanc, was saved by a museum at Niagara Falls. When the museum failed, the Lanc was barged across Lake Ontario. It was then carted to Oshawa, where it sat for years, until it was acquired by warbird collector Doug Arnold in the U.K. It went to the Imperial War Museum in 1986 after Arnold’s death and is nicely displayed at Duxford today.

Richard answered a number of questions. In England, Avro Lancaster B Mk 7 NX611, “Just Jane,” owned by the Paxton brothers, does regular taxi runs at the Lincolnshire Aviation Heritage

Centre. There are reports that it may fly soon. Recalling the Lancaster's flying characteristics, Richard said it was very much a product of its time and was very heavy on the controls. He said it took quite a bit of muscle to move the aircraft through the sky and it flew "like a Mack truck with wings." In fact, Lanc pilots were careful not to get too close to each other in formation. The longer nose on the 10AR model made it very nose heavy and somewhat overweight. A prodigious load carrier during the war, the Lanc likewise carried lots of equipment in postwar service. Richard is constantly updating his fine collection of photos. After his presentation, Richard brought samples from his library of books and a few CDs for sale. Bob Winson expressed his thanks and presented our speaker with a gift on behalf on the Chapter. Richard's compelling and wide-ranging presentation covered a significant chapter in Canadian aviation history and was much appreciated by everyone.

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The Mynarski Memorial Lancaster is likely to see a lot of action at the CWHM Air Show, returning after a 10-year hiatus, on June 18 and 19. The show,



Speaker Richard Banigan *Photo - R. Winson*

which will feature strictly vintage aircraft, is planned as a "dry run" for a larger show in 2012 celebrating the 40<sup>th</sup> anniversary of the CWHM. Aircraft from as far as the Texas-based Commemorative Air Force and The Fighter Factory in Virginia are expected to attend this year. The Hamilton air show had been defunct since 2001, when it lost \$100,000 and could no longer afford skyrocketing insurance premiums in the wake of the 9/11 attacks. This year's lineup is expected to include a B-24 Liberator, Fairey Swordfish, B-17 Flying Fortress, Curtiss SB2C Helldiver, a Hurricane, a Spitfire and more. Google the CWHM website at [www.warplane.com](http://www.warplane.com) to find the air show link.

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#### Spotlight on a Member: John Brookfield

Born in Simcoe, Ontario in November, 1926, John, as a boy, enjoyed observing activities at an airfield just east of town that housed a Cub, either a J-2 or J-3. Nearly every day, he would see an airliner, either a DC-2 or DC-3, flying from Toronto to Cleveland. "If I could hear it, I would be out of the house like a flash," he recalled. While at high school in Simcoe, he joined the air force in 1944, enlisting the day after he was 17 and a half. John was promptly sent home. He was then called up in October of that year to report to the Manning Depot in Toronto, only to be released after six weeks when the air force cut back training. The six weeks of wartime service benefited his pension later in life.

John saw many different aircraft during that period. In addition to the BCATP types, he would see some unusual varieties including American aircraft such as Marauders, Airacobras and other aircraft usually flying east to west, south of town, often out of Buffalo. He continued to serve in the air cadets, where he won a flying scholarship in the first year the program was created. He had 12.5 hours on a Tiger Moth at what was then the Brant- Norfolk Aero Club. On Sundays, John would return to the flying club, spending the money he accumulated during the week to fly the Tiger Moth --- even if only for 15 minutes. In fact, after the aircraft were inspected and refuelled for the next day's flying, John would fly a circuit as part of putting the aircraft