Eureka crew (from left): Stoen, Hatfield, Twombly, Trinko, Courtney, Tyrer and Dean. All but Twombly and Hatfield were in the first landing party on April 7, 1947.

70th Anniversary of Amateur Radio at Eureka
Part I: The Original Station VE8MA

Pierre Fogal, VE3KTB, John Gilbert, VE3CXL and Alexey Tikhomirov, VE1RUS

In 2015, Alexey "Alex" Tikhomirov, VE1RUS, a research scientist at Dalhousie University in Halifax, was asked by the Halifax Amateur Radio Club (HARC) to give a presentation about his Amateur Radio operations as VY0/ at Eureka, Nunavut on Ellesmere Island. Alex became curious about the history of Amateur Radio in Eureka and found photos and memories on the web of John Gilbert's VE8OW operation at Eureka from 1956-58. Pierre Fogal, VE3KTB, (KC0IGY), has operated at Eureka as /VY0 since 2014.

The 70th anniversary of the establishment of the original Amateur station at Eureka, VE8MA, is being celebrated this year, 2017. Alex corresponded with Pierre and John and it was decided to collaborate on a two-part article to recognize the 70th anniversary of VE8MA. John, who had written about his experiences operating as VE8OW and as an operator at VE8MA and VE8MB, from 1956-58 (see "Way Up North" in the May 1979 issue of The Canadian Amateur), researched Amateur Radio at Eureka in the early years. His story, the first part presented here, starts in 1947 and covers the first two years of operation at Eureka.

Due to the nature of his work Alex visits Eureka several times a year and has operated HF regularly from there using the call sign VY0/VE1RUS. Pierre, who manages the Polar Environment Atmospheric Research Laboratory (PEARL), has been in and out of Eureka since the fall of 1994 making some five trips per year, resulting in around three months onsite per year. He has operated at Eureka as VE3KTB/VY0 since the Spring of 2014.

In recognition of the 70th anniversary, Alex and Pierre have been granted a licence for a new club station at Eureka, VY0ERC. The story of this station will be covered in Part 2 in the next TCA.

Photos, unless otherwise marked, are from a collection of photos donated by individuals who served at Eureka. The collection has been deeded to the Nunavut Archives.

On April 7, 1947, a ski-wheel equipped C-47, followed by a C-54, landed on the ice of Slidre Fiord, Ellesmere Island, to establish the first joint Canada-US Weather station at Eureka, Nunavut. In the following years four other stations were established in the Queen Elizabeth Islands:

Resolute Bay VE8MB: August 31, 1947

Isachsen VE8MD: April 3, 1948

Mould Bay VE8MC: April 11, 1948

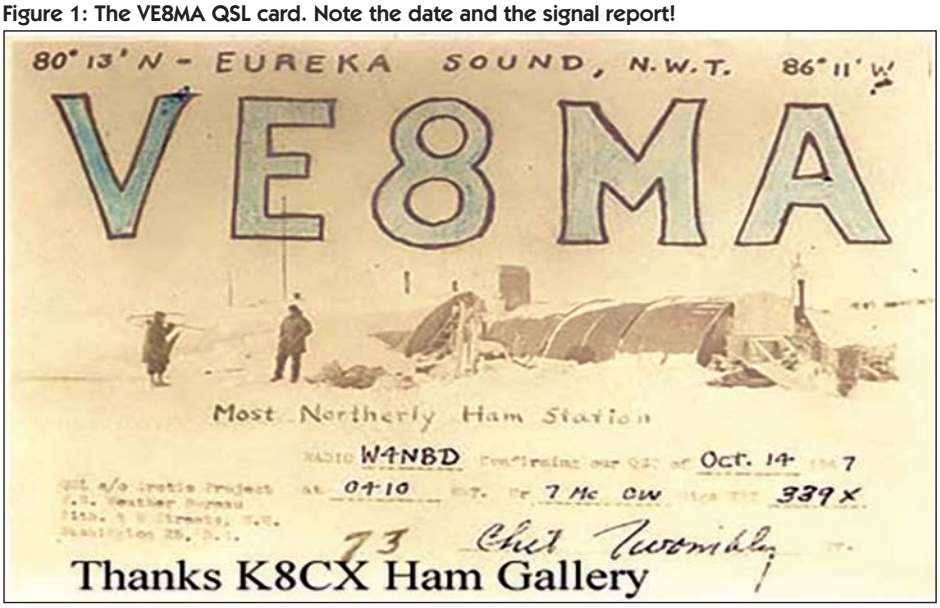
Alert VE8ML: April 20, 1950

Amateur Radio played a unique role in the history of these furthest north stations starting with the first Amateur station, VE8MA at Eureka. When the aircraft departed on April 7, six people – three Canadians and three Americans – were left to set up and operate the weather station. Of the "Eureka six", two held Amateur Radio licences: Murray Dean, VE8PW (1918-2004) and John Trinko, W9MGH (1920-2012).

The first six months, spring through early fall 1947, were spent erecting the station buildings and building the airstrip. The supply ship which arrived on August 9 brought more station supplies and materials for the construction activity that lasted to the end of the fall airlift in November. Airlifts in the spring and fall became a pattern at the stations in future years. One more Amateur – Chet Twombly, W1PLD (1918-1997) – had arrived on the USS *Edisto* in August and was part of the overwintering 1947-48 crew of eight.

Setting up the furthest north station in the Americas was a challenge. The Dark Period at Eureka runs from October 20 to February 20 and Eureka is often the coldest spot on the Canadian weather map. Even when an airstrip had been built, operation in the cold and dark was difficult. Runway lights – toilet paper soaked in fuel oil in coffee cans – took time to prepare and were unreliable.

Figure 1: The VE8MA QSL card. Note the date and the signal report!



Initial plans to provide regular mail service throughout the winter months were found to be impracticable. Para-drops partially filled the gap but they too had their logistical problems. Amateur Radio, VE8MA, filled the gap. Described by Murray Dean as "a blanket Amateur licence granted for all personnel and their private messages", Amateur Radio was encouraged by the authorities but no dedicated equipment was provided.

From the beginning priority was given to radio communications in support of the weather observing mission of the station using "war surplus" equipment. This was barely adequate for operational purposes but sadly inadequate for Amateur Radio. Key clicks and frequency drift were a problem.

John Trinko attempted to use the equipment on the 75 metre Amateur band, but the only stations within range were OX3BC at Pituffik (Thule), a small joint Danish/American station established in 1946, and Arctic Bay VE8NA on Baffin Island. Ham radio communication with Mould Bay and Isachsen (VE8MD and VE8MC) was not established until late April 1948.

Note: *The main Joint Arctic Weather Station (JAWS) station was intended to be installed at Winter Harbour in July-August 1947 but severe ice conditions and a disastrous accident resulted in the plans for Winter Harbour being abandoned. The new station was established at Resolute Bay in July 1947.*

Early efforts by John Trinko to adapt one of the AN/VRC-1 sets for use on the Amateur bands were unsuccessful. Trinko described the transmitter as "Official radio equipment, an outmoded BC-191, 12-volt power". It was subject to key clicks, fading (QSB) and frequency drift. A W5 (US station) reported an S9 unreadable signal.

Chet Twombly, brought renewed enthusiasm to the efforts to establish an Amateur station, but the pressing priorities of building the station and the airstrip did not allow Chet to get on the air until October. His first effort was with the same AN/VRC-1 units used earlier by Trinko, with similar results as this QSL shows (see Figure 1 on page 14).

Note: *Chet became US Executive Officer in the spring of 1948. He remained at Eureka until April 1949.*

On the last outgoing mail in the 1947 fall airlift, Chet sent out a personal order for the purchase of a Millen exciter – a 50 watt unit popular with Radio Amateurs. It was hoped that the Millen would arrive on the first flight in the 1948 spring airlift. It did not arrive but some spare parts for the exciter did arrive. Using these spares, plus radio parts already at the station, Chet built the 5 watt transmitter shown in Figure 2 which he described as "a couple 6L6s, doubling up from 40, with about 5 watts input".

He put up a doublet antenna and then a double zepp antenna, and using a spare Hammarlund BC-779 Super-Pro receiver VE8MA was on the air! On March 9, 1948, the first contact was made with that 5 watt homebrew rig and the first five personal messages sent out from Eureka. Thereafter, regular contact was made with W1BIH and W2QHH.

The Millen exciter (shown above and in Figure 3) arrived not long after Chet had built the 5-watter. It became the station's Amateur transmitter, along with the Hammarlund, BC-779 Super-Pro receiver, for most of the year.

Figure 2: The 5 watt transmitter built by Chet Twombly from spare parts.

Figure 3: Chet Twombly, 1948. Note the Millen Exciter on the top right.

Figure 4: Chet Twombly, November 21, 1948. "You can just see the new transmitter in the corner…" (Murray Dean)

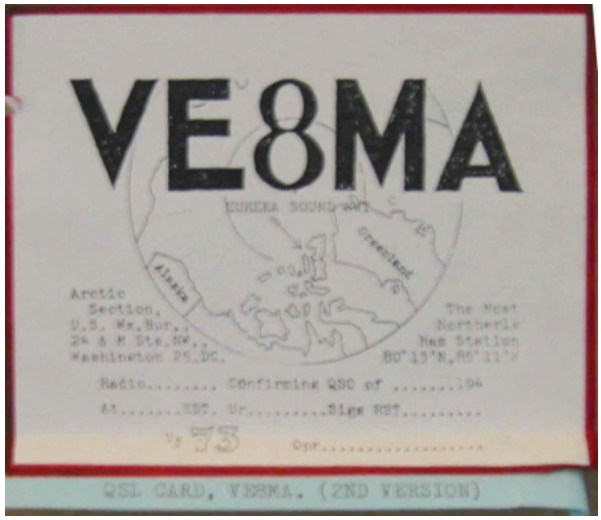
Figure 5: Eureka crew mid-1948. Standing: Larry Nielsen, Don Hatfield, Ray Roszek and Murray Dean. Seated: Jim Morton, Eric Walker, Chet Twombly and Gabe LeBlanc.

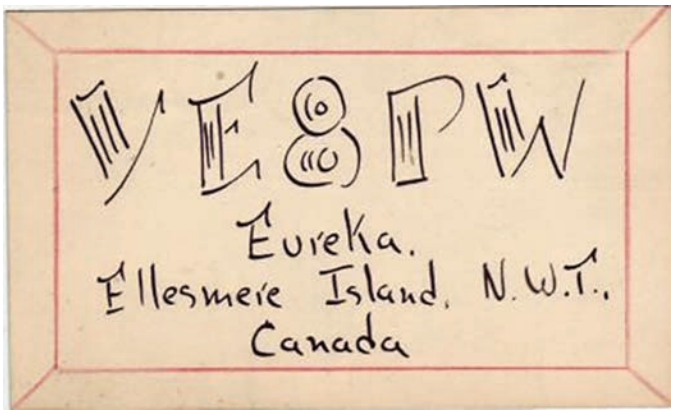
Murray Dean, VE8PW

Regular Amateur operation from VE8MA began officially on March 29, 1948.

Lawrence "Larry" Nielsen, W2SWC (later W2ZS; 1922-2009), arrived in August 1948, replacing John Trinko. Larry brought a Hallicrafters HT-17 transmitter (25 watt, CW covering 80-10 metres; tube line-up 6V6, 5Y3 and 807).

A Meissner Signal Shifter VFO was used with the Hallicrafters. At this point VE8MA had a choice of two transmitters, both low-powered.





Above: VE8MA QSL; Below: VE8PW QSL 1948

Late in November 1948, Chet Twombly built a homebrew transmitter with a pair of 807s, push-pull, using parts from around the station supplemented by parts sent up from the south by John Trinko.

During 1948 the main operators at VE8MA were Murray Dean, Chet Twombly, Eric Walker, John Trinko and Larry Nielsen. Murray also operated under his own call sign, VE8PW.

Note: *Eric Walker had replaced Robert Tyrer late in December 1947. It is not known if either Walker or Tyrer were Amateurs. As commercial operators they would have been accorded all Amateur Radio privileges. Walker remained at Eureka until October 1949. John Trinko left on the spring airlift but kept in touch with the station from Chicago.*

Murray Dean became Officer-in-Charge when Jud Courtney left in the spring of 1948 and remained at Eureka until April 1949. Chet Twombly also left in April, 1949 while Eric Walker remained until October 1949.

Going into the winter of 1948-49 (the dark period) Amateur Radio was well established, but a tragic fire on Christmas Day 1948 destroyed crucial station buildings, equipment, batteries and generators.

The story of this tragic event is beyond the scope of this article but there was an Amateur Radio connection. On December 28, 1948, three days after the fire, the station Journal recorded: "The small 300 watt AC generator is sufficient to drive Nielsen's small Amateur transmitter and we are able to keep our schedule tonight".

Then, on January 12, 1949, there was a report of another disastrous fire and from January 23-24 there was a radio blackout. J. Glen Dyer, later head of US Arctic Operations, had been the radio operator with Admiral Richard E. Byrd's Antarctic expedition. He is thought to have taught Byrd Morse code when the latter embarked on his "Alone" trip.

Dyer, an excellent "c.w." operator, kept in touch with the station. He easily read a high speed Morse exchange between John at Eureka and Jim Jung, VE8PB, at Mould Bay in 1956. Through him they were able to confirm that their mail had been received and got first hand news of the airlift.

Figure 6: The Amateur configuration at VE8MA in May 1956.

Figure 7: The Amateur configuration at VE8MA in 1958.

A Postscript

By fall 1949, Amateur Radio had become the established means of handling personal communications from the station.

Norm Simon, VE8OE (later VE3DWQ) became the third Officer-in-Charge in October 1949. He used a Collins ART-13 on 20 metres. By then personal traffic was mainly handled through VE1FQ, W9NZZ and W2QHH.

The two professional radio operators at the station with Norm were Denny Prendergast and Bob Pearson, W4TAM. Bob had previously operated from OX3GE in Greenland.

John Melvin, who replaced Norm in October 1951, brought along his own transmitter and receiver. The transmitter was a single 813 with a pair of 807 modulators. The receiver was a National 57B. When John departed in the fall of 1952 he left his gear at the station.

John Melvin remembered this from his Amateur Radio days at Eureka: “We used to drive the tubes pretty hard and we were always on the verge of going off the air in the 1951-52 period. We had a wonderful ham, W2LXP, in Albany, New York, who supplied us with tubes when needed. He used to take the tubes to Westover AFB, they would fly them to Thule, and they dropped them at Eureka.”

Around 1953 all of the JAWS stations were equipped with top-flight Collins gear – a 75A4 Transmitter and a 51J3 Receiver – although it was not until 1957 that a multiband beam antenna was provided.

When John Gilbert, VE3CXL, arrived at Eureka in May 1956, the Amateur configuration at VE8MA was set up as shown in Figure 6 above. The station layout was a copy of the station built at Isachsen in the winter of 1955-56 by Mitch Powell, VE3OT.

John’s project over the winter of 1957-58 was to build a Heathkit DX-100 (see Figure 7). It became the backup for the station. It was far too heavy to carry south and was left on the station where it temporarily replaced the Collins transmitter, which was out for repairs in the summer of 1958.

Amateur Radio continued for many years with Amateur antennas being a feature of the Eureka skyline. Gradually communications service to the Arctic improved and activity reverted to regular Amateur use. Antennas no longer graced the skyline – until 2014 when Pierre and Alex revitalized Amateur Radio at Eureka.

Stay tuned for more in Part 2 in the next TCA.

Pierre was first licensed in 2000, rather later in life than many Amateurs, while living in Colorado. He still holds the Extra class licence KC0IGY. He returned to Canada in late 2004 but it would be 10 years before there was time to pass the Canadian exam to become VE3KTB. His interests include chasing DX, contesting and just about anything else. Science and Amateur Radio have always gone hand-in-hand for him, allowing him to activate NA-008, NA-043 and operate from KC4AAA.

John Gilbert, VE3CXL, was licensed in 1954 as VE3BOH. He operated as VE8OW from 1956-58. He held the call FP0GNS (St. Pierre and Miquelon) and has operated from Amateur stations of the International Telecommunication Union in Geneva, Switzerland and Kyoto, Japan. He is a member of Chapter 70 of the Quarter Century Wireless Association (QCWA).

Alexey Tikhomirov got his passion in Amateur Radio at RW9HWR and RW9HZZ (currently UI9I) club stations in 1993. He was licensed in 1997 as RA9HAI. Since 2012 he has been certified in Canada as VE1RUS. He is a trustee of the Eureka Amateur Radio Club’s call sign VY0ERC and holds a Station Manager’s position in the Halifax Amateur Radio Club.