



## Canadians on Radar Background

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Northwest Europe, from the Murmansk Run to Australia, from Burma to Britain and "neutral" Turkey, these Canadian radar specialists provided over one third of the RAF's expertise in this critical, war-winning area. In all, over six thousand RCAF radar specialists were sent to serve with the Commonwealth and other Allied Air Forces.

## William 'Bill' Harper Barrie and Elizabeth 'Betty' Williams Barrie nee Buchanan

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Elizabeth "Betty" Williams (Buchanan) Barrie

Woman's Royal Naval Service 1944-1946 87476

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### Enlisting 1940

In November, 1940, at the age of 22 years, I joined the RCAF as an LAC ( Leading Aircraftsman) WEM(R) and reported to the Manning Depot in Toronto. My qualifications consisted of a Certificate as a Second Class Commercial Radio Operator, obtained at the Marconi Radio School, Toronto, in 1939.

In January, 1941, I sailed from Halifax on the RMS Nerissa and disembarked at Glasgow five days later. It was a violent trip, with huge waves threatening to carry away the deck cargo as well as threatening to capsize the 5000 ton ship.

### Britain

My first posting in Britain was to the RAF Station at Sumburgh in Shetland. This was a fighter-bomber base covering the sea routes from the North Sea into the North Atlantic. The Luftwaffe from Norway bombed us frequently and air raid warnings were a daily occurrence. My work consisted of monitoring an invasion-warning radio channel and using an encryption machine in the Enigma System. In April, 1941, I was posted to RAF Radio School at Yatesbury in Wiltshire to study heavy radar of the CH and CHL types as used in Britain for early warning of German air attacks. In July I was transferred to RAF Radio School Prestwick, in Scotland, to study airborne radar of the AI, ASV, and

IFF types as used on night fighters and coastal patrol aircraft. At the end of the course I was retained at the school as an instructor. During 1941 and 1942 the school was moved to Cranwell in Lincolnshire then back to Prestwick.

### Southeast Asia

In July, 1942, I was posted back to Canada but declined in favour of a posting to RAF #212 Flying Boat Squadron located at Korangi Creek near Karachi, India.(now Pakistan). I was in charge of the Special Equipment (Radar) Section being formed to install, maintain and operate the



airborne radar for two squadrons of Catalina flying boats. These aircraft patrolled vast areas of the Indian Ocean, the Arabian Sea and the Persian Gulf, escorting convoys and searching for Japanese and German submarines.

In June of 1944, I was posted to #5 Base Signals Depot at Calcutta to design and construct radar beacons for use in guiding supply aircraft in Burma and for navigation over the hump to China.

Back to Canada

In January, 1945, I was posted to Canada via the UK, travelling by ship through the Suez Canal and the Mediterranean. From the UK I returned to Canada on the USS Monticello via Boston. In September, I registered for the four year course in Radio Physics at the University of Western Ontario in London, graduating in 1949 with a BSc. in Honours Radio Physics. There were 17 graduates, about 10% of the students starting in 1945. It was a period of intense study and intense competition.

### The Romantic Side

Backing up in time to 1941 and my posting to the RAF Radio School at Prestwick, it was there that I met Elizabeth Buchanan, a Scottish girl who was later to become my wife. During my years in Indiawe kept up a correspondence which eventually led to our being engaged to be married. She was serving in the Royal Navy as a WREN (Womens Royal Naval Service) at Gosport, and in 1946 travelled to Canada on the Queen Elizabeth to New York, then by train to Hamilton, Ontario. We were married at Galt in December, 1946.



### Working Career

Graduating in 1949, I was employed by Northern Electric as a



Development Engineer at their Electronics Division in Belleville, Ontario. It was a paradise of electronic products and I found myself developing high quality audio amplifiers, communication systems and military radar. In 1952, I became part of a “Cold War” project with MIT and Bell Laboratories, the design of an Arctic Radar System to detect trans-polar Soviet aircraft advancing on North America. This work took place during a year in Alaska and the north Yukon which resulted in the establishment of the Distant Early Warning (DEW) Line.

1957, I designed and installed a sound system for the Senate Chamber intended to permit hard-of-hearing senators to participate more fully in the work of that body. The first use of the system was by the Queen at the opening of Parliament in 1957.

1957, I was moved to Montreal to set up a semiconductor laboratory and in 1961 took this laboratory to Ottawa as part of the new Northern Electric Research and Development Division of which I was a charter member. From that point on I was involved in a radar project to find a way to combat mortar fire which was such a severe problem during the Korean War.

My design group then produced satellite communication ground stations for the new satellite systems and later turned to space hardware for communication satellites. Teaming up with Hughes Aircraft, we manufactured radio sets for Intelsat IV, then Canada’s Anik.

### Spar Aerospace

Taking early retirement from Northern Electric (now Northern Telecom), I joined Spar Aerospace and continued in space work including the RMS (Canadarm) System. During this time I was on Executive Interchange with the Communications Research Centre at Shirley’s Bay as Deputy Director General, Space.

### Retirement

Retiring in 1981, I occupied myself with family and community affairs and with the hobby of amateur radio and computers. A summer cottage at White Lake provides a recreation site for family and friends with

swimming, boating, gardening and a den with a computer and the Internet to keep in touch with the world.

As part of the Canadian Radar Research Project with a number of good friends, all veteran radar people, I contributed to a number of RCAF WWII history books and to the radar reunions and other research needed to record the untold stories of over 6000 Canadians whose secret wartime work would otherwise have gone unrecognized. The latest project in this series is on display at Canada's War Museum, with 27 display panels depicting significant events involving Canadian radar personnel who were decorated for their exploits.

William H. Barrie

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