

WOMEN AND WAR

Women with Secrets

Facts:

- 7,122 Canadian women, WRENS, served in 39 occupations with the Royal Canadian Navy (RCN) in WWII, a significant number in emerging communications technologies
- Two female RCN Officers received Orders of the British Empire for exemplary command while Officers-in-Charge of remote radio transmission stations.
- Canadian females as WREN decoders aided the war effort by using their weapons of choice – their minds.

Before the Readings:

- World War II started in 1939. Women entered the RCN in 1942. Why a three year gap?
- What societal forces, both male and female in origin, kept women mainly out of the workforce before WWII? What forces returned them mainly back into their homes after WWII?
- Egyptian hieroglyphics, Aztec codices and the Code of Hammurabi are examples of communications that had to be decoded. What do you imagine decoders worked on during WWII?

Reading 1: Loran Technology and the Women in Charge

Before the USA entered WWII, National Defence Research established a Microwave Committee to examine a pulsed hyperbolic radio navigation system operating in the low end of the VHF spectrum, at about 30 MHz. With the help of the Massachusetts Institute of Technology (MIT), the Loran-A system evolved. Pulse time difference was its operating principle.

As Loran-A stations were built on the eastern seaboard, Frances Mills a 32 year-old school Manitoba teacher, signed up for the WRENS. Frances specialized in Loran-A in Ottawa after basic training in Galt, Ontario. At that time, the Loran technology was considered so secret that for almost a year, she and two other women worked behind a curtain. They received electronic signals which they forwarded to MIT to help research on sound waves and radar beams.

After three months of advanced Loran training at MIT, Lieutenant Mills was made Officer-in-Charge of the Whitehead Loran Station on Deming Island, Nova Scotia. Mills had 25 WRENS working eight-hour shifts around the clock to monitor radio signals from the sea. Their responsibility – keep the signals synchronized.

The Canadian Loran stations were a critical link in the North Atlantic Loran system. After the war, Lieutenant Mills recalled an incident when the radio frequencies were scrambled. As this was a sign that an enemy submarine might be nearby, Mills pondered destroying the equipment as she'd been ordered to prevent the technology from falling into enemy hands. She waited four anxious hours in the Loran hut on a lonely tip of land off Nova Scotia's shore where German u-boats prowled, before she was able to give the WRENS armed only with a revolver, the all clear.

Lieutenant Mills who served at Whitehead until 1945, was made a Member of the Order of the British Empire.

Canada Gazette, June 15, 1946

"For exemplary devotion to duty under difficult conditions. As Officer-in-Charge of the isolated Loran station at Whitehead, Nova Scotia, Lieutenant Mills was responsible for the operation and maintenance of highly technical equipment and the administration of a station where the maintenance of morale was of great importance. Her constant cheerfulness throughout her appointment at Whitehead won the admiration of those serving with her."

Winnipeg Morse Code Operator Irene Carter became the Chief Petty Officer at Coverdale Station, in Moncton, New Brunswick, where she was in charge of 200 WREN operators. Two dozen or so WRENS wearing headphones manned seven Marconi CSR5 receivers on each watch in the operations room. There was a teletype room and a workshop for wireless technicians. The WRENS used Z Intelligence – which included Radio Finger Printing, whereby specific transmitters on enemy ships were catalogued by their distinct characteristics. TINA, a method used to recognize radio operators by their Morse code habits was another Z Intelligence technique.

There were WRENS continuously on duty on Coverdale's High Frequency Direction Finding equipment in the HF/DF shack. Their faces lit by the eerie green glow of the cathode-ray tubes they fastidiously scanned the sine waves. When the HF/DF WRENS were given the frequency of German U-boats, they took bearings which were sent to Whitehall in the UK where Map Plotters took over. By 1944 it was common to receive a report back that "traffic" reported on a specific watch had put a German sub out of commission.

Miss Carter recalled in later years that the Coverdale WRENS listened to naval engagements on the North Atlantic. After D-Day they followed the Allies' progress in France from the German High Command messages they intercepted. Coverdale was so attuned to the broadcasts from U-boats and German warships that they heard the announcement of Hitler's death before the authorities in Ottawa. The greatest thrill for Miss Carter came when she heard the general orders to German submarines and surface craft to surrender.

Chief Petty Officer Irene Carter received the British Empire Medal

Lieutenant Mary Armstrong who was Officer-in-Charge of the isolated Loran Station at Bacarro, Nova Scotia, received the Member of the Order of the British Empire Medal for her exemplary service.

After the Reading:

- What eventually replaced the Loran technology in military surveillance? Did women play a large part in the operations of these new technologies?
- What are the significant or surprising points about the WRENS' accomplishments in the above reading?
- In finding out about these women during WWII what new things did you learn about Canada?

Reading 2 Adapted from "Land of Hope and Glory", Legion Magazine May/June 2006

Jessica Swail, HMCS Protector Naval Base, Point Edward, Cape Breton Island May 7, 1945

We had freed men to go to sea and we laboured conscientiously in the jobs we had assumed. We bought Victory Bonds with money saved from our meagre pay which was about \$1 a day. We had endured the blackouts and observed the admonition: "Loose lips sink ships." We had forged friendships more intense than any we had previously known, for the war had faced us with our own mortality. We had seen ships leave the harbour never to return.

In November 1944, His Majesty's Canadian Ship Shawinigan had gone down with all hands in the Cabot Strait outside Sydney Harbour, victim of a close-marauding U-boat. Nights before her sinking we had danced with her crew. We dreaded the impending separations and aborted friendships, but we also wanted an end to the mounting casualties.

And so it was with mixed feelings and distracted chatter that we gobbled our veal and pudding, half tuned in to the bland background music and blather on the radio.

Suddenly we became aware that the music had stopped. No sound issued from the radio, just some intermittent static. Our chatter stopped as well. We looked at each other expectantly, shifted our eyes to the ledge above the mess hall door. The silence seemed endless.

And then a loud voice erupted from the radio. "We interrupt this program to bring you a special news bulletin."

We sat still and silent, staring with wide eyes up at the radio. I felt I dare not breathe for fear I might miss the announcement.

At last it came.

The voice informed us that senior representatives of Hitler's defeated forces had surrendered. The war in Europe was over.

We sat mute. Lumps formed in every throat. I turned to the WREN beside me. She sat in disbelief, staring at the table. A hush hung over the mess hall. And then, one WREN stood with tears in her eyes and began quietly to sing *Land of Hope and Glory*. Soon, a second WREN stood to join her. Then another and another until the whole mess hall—full of WRENS with tears streaming down their faces—stood together singing of hope and glory.

It was a scene so stirring it is etched indelibly in my memory. At the sound of that song my heart will forever skip a beat. We were as one, we WRENS in that mess hall – in a moment of pure transcendence.

No memory can ever compete with the one poignant moment when that mess hall full of WRENS—faces wet with tears and hearts swelling with relief and joy—stood together to sing *Land of Hope and Glory*.

After the Reading

- Men might have stood to sing as in the article above, but, they would most likely not have had tears streaming down their faces because men and women express solidarity and comradeship in different yet equally meaningful ways. How do men and women develop differences in how they express themselves?
- The article above has echoes of scenes in movies. Describe some other movies where there are emotional scenes of coming together?
- 50,000 Canadian women served in uniform during WWII. If Frances Mills, Irene Carter and Jessica Swail are examples of these women, what does that say about women's contributions to the Canadian war effort?

Extensions:

- Find the whole article "Land of Hope and Glory" at www.legionmagazine.com/features/memoirspilgrimages/06-05-asp#pagetop to read for Reading and Remembrance 2007. What further details are there about WRENS in WWII?
- Using the internet, libraries and personal interviews, put together first hand accounts/memoirs of women who served in uniform during WWII.