Sparks at sea

A Century of Signals
Serving Safety and Commerce
in the American Merchant Marine

The Loneliness of the Sea

For thousands of years ships were islolated when out of sight of land. Those on board had no news from shore and their families knew nothing of their travels.

Many a ship was "lost at sea" taking its passengers and crew to an unkown fate.

In 1888, physicist Heinrich Hertz found that electro-magnetic (radio) waves could travel through "empty" space.

Guillermo Marconi experimented sending radio waves over land for increasing distances.

Then he applied wireless technology to end the isolation of ships at sea.

2

Radio Goes to Sea

In July 1897, at age 24, Marconi used a crude receiver on a tugboat to hear signals from a radio transmitter in Spezia, Italy, 8 miles away.

In July 1898, he sent 700 Morse code reports from the Steamer FLYING HUNTRESS about a yacht race off Dublin, Ireland.
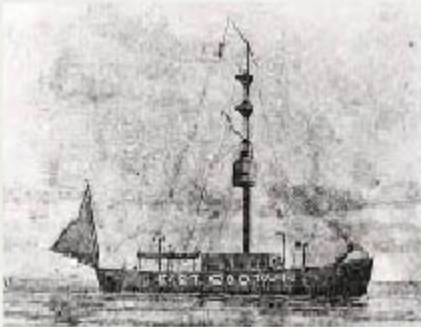
In December 1898, he installed a wireless station on the East Goodwin Lightship off the coast of England.

On April 28, 1899, the Lightship sent a signal for help after it had been rammed by S.S. R.F. Matthews, and was in danger of sinking.

This was the first distress signal from a ship at sea.

3

Sparks Over the Water

In September 1899, Marconi arrived in New York and installed the first radio station on an American ship, the SS Ponce. Within the next few years, hundreds of ships had Marconi installations.
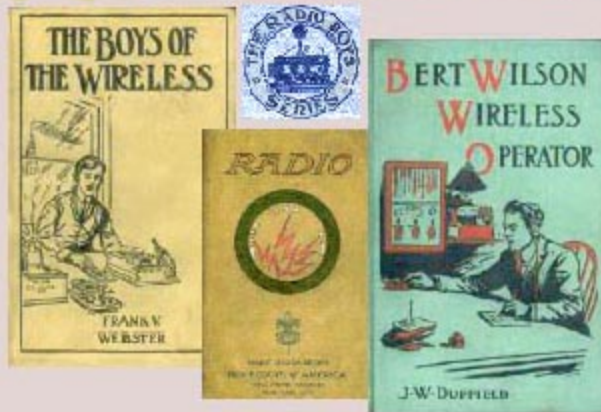
A small cabin was usually built on deck to house the wireless. It became known as the "radio shack."

The spark-gap transmitter filled the radio shack with lightning streaks and loud crashes. Soon, the operator was being called "Sparks."

The code and the hand key were adapted from the land telegraph system.

4

The Radio Boys Ship Out

Radio became a passion for many boys who built wireless sets to exchange Morse code messages. They learned the art of radiotelegraphy in the Boy Scouts and in radio clubs.

Self-taught and school-trained operators found their skills in demand on ships. Marconi established radio schools in England and America. Public and private schools in most port cities ran radio classes.

Marconi also contracted with ship owners to supply equipment and operators. Often, the "Marconi Man" was the youngest member of the ship's crew.

5

HEROES OF THE KEY

In January 1909, hundreds of people were saved in the sinking of the Steamship Republic when wireless distress messages summoned help.

The wireless operator, Jack Binns, became an international hero and celebrity. He was given a Broadway tickertape parade. Because of this publicity, radio training schools recruited thousands of young men and a few women.

When the HMS TITANIC sank in 1912, all the ships involved in the incident had radio and many lives were saved. However, a nearby ship whose operator was not on duty, was unaware of the emergency. This led to new standards.

Jack Phillips, one of two operators on the TITANIC, went down with the ship. His assistant survived hours in the icy water.

6

War 1914 - 1918

During World War I, radio was essential to the coordination and safety of ships at sea. Because of this, radio shacks and antennas became prime targets of enemy gunners.

Radio operators won new respect and acceptance by crews who appreciated the security and connectedness they represented.

Heroic operators upheld a tradition of dedication by remaining at their posts, signalling for help, until the sea swallowed them.

7

Time Marches on
(The Picket Line)

In the war, and until the 1940s, ship radiomen learned their skills as amateurs (hams) or in commercial radio schools, mostly run by radio equipment companies which controlled the jobs.

When economic times turned bad, conditions on board ships grew intolerable and labor unions were formed.

The American Radio Telegraphists' Association was caught up in the violent unrest of the waterfront.

By 1938, the union was split into two rivals: The American Radio Association, CIO, and the Radio Officers Union a branch of the Commercial Telegraphers Union, AFL.

In subsequent years, unions worked to improve conditions and had the major responsibility of assigning radio operators to ships.

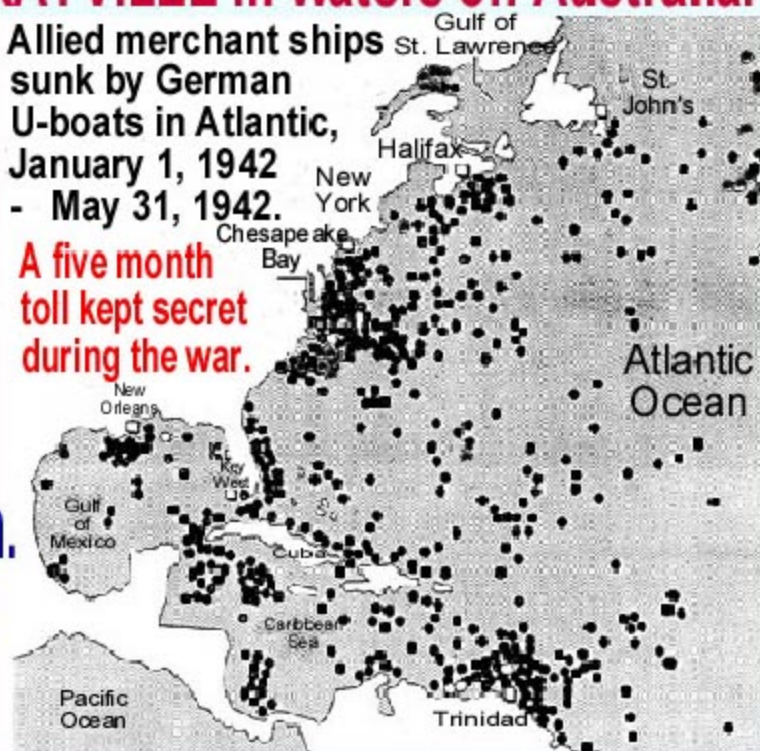The operators were now recognized as "RADIO OFFICERS."

8

The Tides of War

On November 9, 1940, the war in Europe reached out to claim its first American ship when a German mine sank the freighter CITY OF RAYVILLE in waters off Australia.

Even before Pearl Harbor American ships were being lost. By the end of the war, the United States had lost 1554 ships sunk and many more were damaged in action. An estimated 9497 merchant mariners were killed.

Allied merchant ships sunk by German U-boats in Atlantic, January 1, 1942 - May 31, 1942.

A five month toll kept secret during the war.

Gulf of St. Lawrence

St. John's

Halifax

New York

Chesapeake Bay

New Orleans

Key West

Gulf of Mexico

Cuba

Caribbean Sea

Pacific Ocean

Atlantic Ocean

Trinidad

9

We Did It !

To replace combat losses and assure that troops and supplies would be shipped as needed, the United States built ships at a record rate.

More than 5000 ships were constructed by civilians, many trained on the job.

To find radio operators for these ships was a challenge that normal recruiting could not meet.

Government radio training schools were set up. This was our cue to take our place in history.

10

We Volunteered

The United States Maritime Service was established to train crews for the ships of the Merchant Marine.

The USMS recruited in 37 cities. We signed up.

We learned seamanship at USMS training stations at
Sheepshead Bay, Brooklyn, New York
Catalina Island, California
St. Petersburg, Florida

Two Islands in Two Harbors

The first radio training by the Maritime Service began in 1940 on Gallups Island, in Boston Harbor. Many students were Civiliian Conservation Corps (CCC) men who volunteered for the year long course.

In 1938, the U.S. Maritime Service began upgrade training for seamen on Hoffman Island in New York Harbor. In 1944, Hoffman Island was made a radio training station to meet the growing demand for radio operators. Most students were graduates of Maritime Service training stations, like Sheepshead.

12

Gallups Island

Settled by Captain John Gallop in 1630's.
Mrs Newcomb built an inn there in 1833.

Became Civil War campground, WWI POW camp, immigration quarantine station.

Between 1941 and 1945, more than 4000 radio operators were trained on the island. They took part in the major sea actions of the war, including the Normandy invasion. By unofficial tally, 172 died in action during the war.

In 1943, some students were prepared for the rigorous Gallups program at the former Kahn estate on Long Island.

13

Hoffman Island

Staten Island — Brooklyn — Fort Wadsworth — Lower New York Bay — Hoffman Island — Miller Field — Swinburne Island

Near Ambrose Channel in Lower New York Bay, the island was created with landfill and, from 1872, served for 50 years as a quarantine hospital for sick immigrants and their familes.

Here, we wore the uniform of our country and prepared ourselves for duty on ships that served as vital lifelines to the battle fronts.

In 1944/45 more than a thousand radio operators trained here and sailed aboard merchant ships.

14

We trained for war at sea

Our island base (like our uniforms) followed naval tradition.
We marched from duty to duty and lived under military discipline.

We trained to:
  Understand radio theory and the operations of a ship radio station
  Receive and send Morse code (We practiced until we were proficient)
  Stand watch and perform shipboard duties
  Copy Morse code on a typewriter
  Pass FCC theory and code tests

We also trained to:
  Record and decode secret messages
  Signal in convoy using many systems
  Monitor radio frequencies for emergency signals
  Fire a deck gun at U-Boats and enemy aircraft
  Escape from an exploding tanker and swim in burning oil
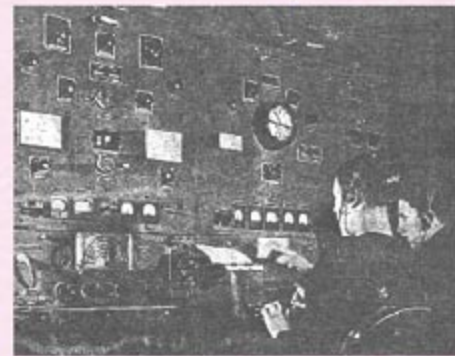
We earned the bit of gold braid on our warrant officer uniforms.

We sailed dangerous seas to distant lands of war

We went to sea on Liberty ships and tankers, on rusty tramp steamers and expendable ships built in just a few weeks by Rosie the Riveter.

We kept watch in a thousand radio rooms, alert for distress signals and danger warnings. We sailed on ships that carried the men and materials that defeated Hitler. Our ships landed men on the assault beaches of Africa, Europe, and the Pacific. Many of us were poised for the invasion of Japan when the war ended.

Some of the ports we sailed to.

After victory was achieved and radio silence was lifted, our radio rooms were filled with the pig squeels and chicken squawks of Morse code.

16

... and when the war was won

We brought the troops home and carried the goods to rebuild war-torn Europe and Asia.

Some of us continued at sea for many years.
Most of us built our lives ashore.

Although we served in the war zones, and the Merchant Marine had a higher casualty rate than the Army or Navy, we were not recognized as war veterans until 1988, when a federal judge ruled that we deserved veteran status and Congress agreed.

It is ironic that the uniformed men of the U.S. Maritime Service, who trained us, and a hundred thousand others, for duty at sea, were never given recognition they surely earned as war veterans.

17

The End of the Story ?

By 1950, radiotelephone had begun to displace some functions the Radio Officer used Morse code to perform. By 1980, much ship-to-shore communication, as well as positioning and navigation, was handled by satellites. In 1989, some tankers were sailing without Radio Officers. In 1998, radiotelegraphy was no longer requred on ships.

The structures on Gallups Island are crumbling to ruin. The buildings on Hoffman Island have been demolished. The parks that control the islands have banned the public.

We veteran Radio Officers have formed organizations and meet every year to share stories and symptoms. We memorialize the increasing number of "Silent Keys" But for those of us who remain, the sea still runs in our veins and the code still echoes in our ears.

18

Notes on "Sparks at Sea"

This exhibit is meant to honor the veteran members of the following organizations:
The Hoffman Island Radio Association
The Gallups Island Radio Association
The American Merchant Marine Veterans
The Veteran Wireless Operators Association

The exhibit was inspired and supported by the members and officers of the Hoffman Island Radio Association. They feel that the public should know more about the history of the United States Merchant Marine in war and peace.

The exhibit was created by Dr. Miles D. MacMahon, who graduated from Hoffman Island and sailed as a radio officer on Liberty ships and tankers. Although ineligible for GI benefits, he earned three college degrees and became a physics professor and college dean. He is retired in New Jersey.

For information about this exhibit, contact:

Miles D. MacMahon
Phone: (908) 273-8280
Internet: mdmacmahon@aol.com

0