This year marks the 100th Anniversary of the sinking of the 
Titanic, April 15, 1912. See the feature article, “Marconi, Early Wireless, and the Titanic”, by Cam Trowbridge, on page 6.
WARCI, Inc.
The Wisconsin Antique Radio Club, Inc. exists to preserve the knowledge of radio, television, and other related disciplines. We have a special interest in the history of radio in Wisconsin, Wisconsin radio companies, radio stations, etc. Our members' interests include radio, television, audio, and antique phonographs.

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Treasurer – Terry Hanney

Secretary - Ralph Larsen

Board - Bob Paquette, Dennis Schrank, Dale Boyce

WARCI News Editor – Greg Hunolt

WARCI Website – Nick Tillich
webmaster@warci.org

WARCI Information

WARCI is incorporated in the State of Wisconsin.

Annual membership dues are $15 for each calendar year, January – December. (Allowance is now made for new members joining in July or September.)

Seller’s fee at Swap Meets is $7.00 for members, $10 for non-members.

Swap Meets are (usually) held at The Terminal, 5917 S. Howell Avenue, Milwaukee WI (near airport).

The next swap meet date is Sunday, January 22, 2012, at the New Berlin VFW Post. Swap meet times are 8:00AM – 12:00 Noon. Doors open at 7:00AM for set-up. See page 3 for location and directions.

WARCI News

This newsletter is the official publication of the Wisconsin Antique Radio Club, Inc. It is published four times per year, in January, May, July and September. The WARCI News is free to all club members.

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Articles or material for the newsletter are most welcome and should be sent to Greg Hunolt, ghunolt@excel.net or N5412 State Hwy 57, Plymouth WI 53073. Include your name, address, phone, and email. PC format (e.g. MS Word) by email is preferred. JPEG for images is preferred. Please contact Greg Hunolt for assistance.

Classified ads up to ¼ page are free to WARCI members

The cut-off date for all newsletter material is about the fifteenth of the month preceding publication of the next newsletter (e.g. April 15, 2012, for the May, 2012 issue).

WARCI Website

www.warci.org

The WARCI website features information about WARCI activities, Wisconsin radio, articles, etc. Contributions are most welcome! Contact our webmaster Nick Tillich, at webmaster@warci.org. Thank you, Nick, for your great work.

Voluntary Member Directory

There is a new feature on the website that lets you create a listing for yourself in a club member list. You can describe your interests in radio, etc., and provide contact information. This capability put in place by NARC has provided some good contacts for WARCI members who are also NARC members and have listed themselves on the NARC site. We encourage you to list yourself on our site - it is purely voluntary.
**WARCI Headlines**

**September 18 Meet**
The highlight of the September 18 meet was WARCI’s first regular auction - see the next page for details. We had a good turnout at the meet, and we gained five new members. The 50-50 Raffle was successful. Once again, we enjoyed the excellent pizza cooked and served by Joe Halser and his staff at the Terminal.

**Membership Update**
Last year, 2011, we had 44 active, paid members. We start this year with 50 active members, adding six new members who joined for 2012 last year. We need to have the 44 who were members in 2011 renew for 2012 - *this means you!*

**Meeting Dates for 2012**
Our meeting dates will be on Sunday mornings:
- January 22, 2012 at the VFW Post in New Berlin;
- March 25, May 6, July 22 and September 23 at our usual excellent location, the Terminal on Howell Avenue near the Airport.

**January 22 Meet & Directions**
The January meet will be held at the New Berlin VFW Post 5716, 17980 West Beloit Road. Thanks to Bill Engaas for finding a venue for our meet.

We will have our annual Business Meeting with election of club officers for 2012, and a 50-50 Raffle.

**Directions:**
Coming from the north, take I-43 south and follow it west as I-43 south & I-894 west.
Coming from the south, take I-94 north, then take I-894 west & I-43 south.

Once on I-894 & I-43, follow it west, then follow I-43 south when I-894 branches off to the north.

Take I-43 south to the exit for S Moorland Road (County Highway O) and exit going north.

After a short distance, turn left onto West Beloit Rd., and follow it past Calhoun Rd.

The VFW will be on the right (north) side of the road. When you get to it, turn right and stay to the right to the east side of the building...lower level. Enter the second door on the right.

If you come to West National Avenue, you’ve gone a bit too far!

We will miss Joe Halser’s excellent pizza, but we will have coffee available.

**Business Meeting Topics:**
1 - Election of Officers for 2012. We have a slate of candidates who are running for office:
   - President - Greg Hunolt
   - Vice President / Publicity Director - Ralph Larsen
   - Treasurer - Bill Engaas
   - Secretary - OPEN
   - Board Members - Dale Boyce, Terry Hanney, Dennis Schrank, OPEN

2 - Auction at September 2012 Meet;
3 - Possible Fall social event - club brunch or luncheon;
4 - Ideas for club T-shirts, etc., to boost a sense of club identity;
5 - Possibility of having a meet outside of the Milwaukee area, e.g. Madison or Appleton.

Jim Menning has made us a very interesting map showing where our members live.
WARCI Auction Results, September 18, 2011

WARCI held its first regular auction at our September 18 meet, held at the Terminal. This was a ‘proof-of-concept’ event that turned out to be quite successful for a first try.

To help attract potential bidders to the meet, we advertised a number of items that would be in the auction in our September newsletter. They were all there, and we received comments from folks who were pleased to see the advance notices and that the advertised items were actually there - establishing our credibility.

We had 10 persons consign a total of 30 lots to the auction (generating $150 in lot fees for WARCI). We had 14 additional persons purchase bidder’s cards as buyers only (generating another $14 for WARCI).

We also had 8 donation lots (we did not have a separate Donation Auction).

Of the 30 regular lots, 15 (or 50%) sold for a total of $1,315, all of which went to the consigners. Of those 30 lots, 22 had a reserve, and 10 of those sold, including 4 that sold below the reserve price (with the consent of the consigner per our auction procedure).

Of the 8 donation lots, 6 (or 75%) sold for a total of $65 for WARCI.

This first WARCI auction was quite small compared to the mature auctions run by ARCI, NARC, MARC, etc., but it was a very good beginning for us.

The auction went well, especially for a first try. We do need to improve a few things, such as our check-out procedure. We are very much open to suggestions from WARCI members.

The WARCI board agreed to recommend to the membership at the January business meeting that they vote to proceed with an auction at the September, 2012 meet.

Thanks go to all who made our first auction a success - Dale Boyce, Bill Engaas, Jim Menning, Terry Hanney, and Ralph Larsen, and to Joe Halser for accommodating the auction at the Terminal.

Discovery World of Milwaukee – “Tesla Lives!” Show

Filling the stage with 20 million volts of roaring, crackling, sizzling electricity, a continuing live theater show *TESLA LIVES!* delivers an energetic and sometimes humorous glimpse into how our modern world was designed by the godfather of the 21st century, Nikola Tesla. Through Discovery World’s latest theater production, audiences will meet the genius who invented the modern world and find the genius within themselves. See [www.teslalives.com](http://www.teslalives.com)

Renew Your WARCI Membership for 2012!

WARCI membership runs January to December, so it is now time for you to renew for 2012!

Please complete the Membership Renewal form that you received with the January issue of WARCI News and bring it to the January meet or mail it, with $15, to Bill Engaas, 18265 W. Thornapple Lane, New Berlin, WI, 53146.

**WARCI Needs You!**

If you would like to become more active in WARCI, please step up! Organizations like WARCI depend upon volunteers for their success. Areas where you can help include:

Public relations.

Providing radio services such as repair / restoration.

Contribute newsletter articles or information from which an article can be written.

Contribute items for the WARCI website – such as photos of your Wisconsin-made radios to add to our gallery.

Give us your ideas on how we can make WARCI better for you!
Editor’s Note:

The WARCI News is your newsletter.

Your comments and suggestions for the newsletter are most welcome.

Your contributions of articles or other material are urgently needed. Your help is needed to make the WARCI News a success and to ensure that it covers the full scope of the interests of WARCI members.

If you’re not seeing articles on topics you are interested in, write one.

You may submit complete articles, but information from which an article can be developed is also welcome.

Don’t agonize over format, etc., as I will have to adapt your submission to the newsletter anyhow. Simple text is best. PC format (e.g. MS Word, separate jpeg by email) is preferred, but hardcopy text and photos are accepted.

In this issue we feature an article by Cam Trowbridge on Marconi and the Titanic as we begin the 100 year anniversary of the sinking of the Titanic. Cam is the author of a new biography of Marconi that I am very happy to recommend.

We will also report on the results of WARCI’s first auction, held at the September, 2011 meet.

We’ve gotten requests for restoration articles, and until you start writing them I will try to find good ones to carry.

We will also cover tube audio and television and other member interests - but we need your contributions of articles or information for articles.

On page 15 you’ll see an ad for the Chicgoland Antique Radio Show, August 11 and 12, 2012, at the Lake County Fairgrounds, Grayslake IL, a little south of the WI-IL border. We are cooperating with Tim Zurko in advertising the show - see the note beside the ad for more information.

Thank you, and all the best for the New Year,

- Greg Hunolt, Editor, WARCI News

WARCI Welcomes!

WARCI welcomes new members, thank you!

Harry Blesy, Willowbrook IL
Charles Brimley, Milwaukee WI
Dave and Julia Bart, Skokie IL
Tom Carlson, Pewaukee WI
Jeff Pennoyer, Mundelejn IL

Bob Paquette’s Microphone Museum

WARCI member Bob Paquette’s Microphone Museum features his collection of well over 1,000 different makes and models of microphones as well as related pieces of equipment. The emphasis is on historically important microphones made between 1876 and 1950, and early radios, telephones, and many other communications devices, including an assortment of military gear.

You can see more photos and find out more about Bob’s book “History and Evolution of the Microphone” at his website, [http://www.sssmilwaukee.com/Microphone%20Museum.html](http://www.sssmilwaukee.com/Microphone%20Museum.html)

Bob always enjoys visitors and will be happy to give a guided tour to individuals or groups. You can call Bob at Select Sound (414) 645-1672 to arrange for your visit. Just ask for Bob Senior. The museum is located on the second floor of Select Sound, 107 E. National Avenue in Milwaukee. Enjoy your visit and allow yourself plenty of time.
Marconi, Early Wireless, and the Titanic
©Cam Trowbridge

Our thanks to Cam Trowbridge for this article. Cam was born and grew up near Chicago and after Yale and Harvard Law School he was a partner in the Chicago law firm of Isham, Lincoln & Beale. He joined Norton Simon, Inc., an early conglomerate whose companies included Avis and Canada Dry, in Los Angeles and moved with the company to New York, eventually becoming Senior Vice President, General Counsel and Secretary. He currently has his own search firm, finding jobs for lawyers in Europe and the United States. Cam first became hooked on Marconi while reading about Marconi working 7/24 in the attic of the family home where his grandfather had raised silk worms, trying to replicate Hertz’s experiment, sending electricity through the air without wires. As Cam read more, he realized that Marconi’s business story, taking his company from an attic, “high tech” start up all the way to a world wide monopoly, against international and governmental competition, had never been covered adequately, nor had his revolutionary development of short waves. Hence Cam’s new Marconi biography!

Guglielmo Marconi, and Beatrice, his beautiful, younger wife, were invited, by the White Star Line, in January, 1912, to be its guests aboard the maiden voyage of the Line’s luxurious, gigantic new passenger ship, the Titanic. Marconi had been world famous ever since he was the first to send a wireless signal across the North Atlantic Ocean, eleven years earlier, from Poldhu, in Cornwall, England, to St. John’s, Newfoundland. Beatrice was a direct descendant of Brian Boru, the only king to control all of Ireland, nine hundred years earlier.

The couple accepted the invitation with delight and anticipation. The voyage would be a non-stop, week long, party.

The fact that the couple’s presence would enhance the prestige of any social gathering was not the only reason that the White Star Line had invited the Marconis on board. Marconi was one of many innovator/inventor/scientists working on the development of the latest advance in oceanic telecommunication. No one, however, could make wireless work as well as Marconi could.

On the top deck of the Titanic, the boat deck, where sixteen lifeboats swung on davits and four life rafts were secured on top of the officers’ quarters, twenty yards aft of the bridge on the port side, near the elegant companionway to the first class Grand Salon, was tucked the wireless shack, containing the very latest, state-of-the-art, Marconi transmitting and receiving wireless. The transmitter had an exceptionally strong, rotary spark. It was generated by a five kilowatt alternator and had a greater range than any other ship at sea, except a sister ship to the Titanic, the Olympic, launched in 1910. The Titanic wireless’s daytime range was 250 miles and its night time range up to 2,000 miles. The White Star Line had been bought by J.P. Morgan. He intended to build three huge ships, Olympic, Titanic and a third remaining to be built, with which to dominate the competition.

Titanic’s wireless receiver contained a magnetic detector, a.k.a. the ‘maggie’, a device invented by Marconi to increase the sensitivity of the receiver. The transmitter was run by the Titanic’s lighting system, but in an emergency could be operated by a battery. Two Marconi employees, Jack Phillips and Harold Bride, would operate the equipment. Two, rather than one, operators were required because the first class passengers were expected to want to send so many messages.

In 1894, at age twenty, Marconi was the first to discover the grounded antenna. He received his first patent in 1896. He invented the magnetic detector, or ‘maggie’, in 1902. In 1900, he had solved the problem of interference when two or more transmissions were directed to the same receiver. He invented the directional antenna in 1905.

But, actually, Marconi was a later starter in the field. In the United States, Mahlon Loomis, in 1866, sent wireless signals between two Blue Ridge mountains in Virginia. Thomas Edison had experimented with wireless in 1875.

In England three men led the field before Marconi’s entry. William Preece, Chief Engineer of the General Post Office, was signaling from the mainland to offshore islands. Royal Navy Captain Henry Jackson sought to communicate with torpedo boats returning to the fleet in dark or fog. Professor Oliver Lodge became Marconi’s most rancorous critic.

Close on Marconi’s heels, two formidable rivals in America fought Marconi bitterly. Lee de Forest founded United Wireless, far and away the largest...
United States wireless company. It dwarfed all U.S. competitors, including Marconi’s American company, American Marconi. Nikola Tesla developed alternating current in Europe and in the United States experimented with sending electric power as well as electromagnetic wave messages through the air. On learning that Marconi, after deriding a Tesla concept as unworkable, had incorporated the concept into one of Marconi’s own instruments, Tesla exploded. Tesla said that he would inaugurate a world communication enterprise “to pulverize the vermin (Marconi) as a pachyderm (an elephant, hippopotamus, or rhinoceros) would crush a toad.”

Professor Adolphus Slaby, however, co-founder of Telefunken, Marconi’s principal European competitor, acknowledged that Marconi, in terms of Marconi’s insights into wireless and his ability to make it work, had no peer. Slaby said “Marconi had made a discovery. He was working with means the entire meaning of which no one before him had recognized. … All of this was known before. True; all this had been known to me also and yet I was never able to exceed 100 meters.”

Marconi was torn between his unquenchable ambition to send signals over longer and longer distances and the need to build revenue generating shore stations along the North Atlantic coasts to communicate with commercial freight vessels and passenger liners.

In 1898, Marconi installed a wireless in the lighthouse on Ratlin Island near Ballycastle, on the north coast of Ireland for ships transiting the northern route from the Atlantic to England. On Christmas Day that year, he installed wireless between the South Foreland lighthouse near Dover, England, and the East Goodwin lightship anchored offshore in the treacherous, shifting, English Channel sands near the mouth of the Thames River.

In 1903, Marconi crossed the Atlantic on the Luciana from England to the United States, receiving (but not sending), wireless messages throughout the voyage, first from his high power station at Poldhu, Cornwall, England, and then from his high power station at Glace Bay, Nova Scotia, Canada.

In 1904, a station for communication with ships at the southwestern tip of Newfoundland at Cape Race was installed.

Marconi’s ship to shore business grew:

<table>
<thead>
<tr>
<th>Year</th>
<th>Steamers</th>
<th>Words Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1905</td>
<td>80</td>
<td>643,000</td>
</tr>
<tr>
<td>1906</td>
<td>92</td>
<td>1,354,000</td>
</tr>
</tbody>
</table>

By 1910, when Beatrice gave birth to a son, Giulio, and wished to tell Marconi coming home across the Atlantic, she addressed a Marconigram to her husband very simply: To Marconi, North Atlantic. Marconi operators by wireless relayed the message across the Atlantic, from ship to ship, until they located the liner carrying Marconi.

Wireless installed on ships at sea helped rescue vessels and save lives. Marconi’s very first installation on the East Goodwin Lightship was called into service as the lightship itself was rammed by the R. F. Matthews in 1899. A decade later, the Republic rammed and sank the Florida near the Nantucket Lightship below Cape Cod, Massachusetts. The Marconi operator called “CQD”. Nearby steamers rushed to the scene and saved 761 lives. In that year alone, American Marconi recorded nineteen instances where saviors were summoned to crippled ships by wireless. In 1910, a dirigible balloon, “America”, was helplessly drifting out over the Atlantic Ocean. A Marconi signal reached the Trent which rescued the crew from the airship. In 1911, a fire broke out in the forward hold of the Queen off of Bolinas, California, above San Francisco. Ships answering her wireless distress calls saved eighty-seven passengers and crew.

United Wireless was expanding rapidly in the United States. United Wireless sacrificed profitability for growth, building shore stations and equipping ships with transmitters and receivers at costs exceeding the revenue it contracted to receive from the installations. It financed its unprofitable investments with cash raised through a constant stream of public offerings of its stock. To demonstrate the usefulness of wireless, De Forest (before he lost control of his company to its promoter, Abraham White) would arrive on Wall Street in an open vehicle noisily showering about sparks from his wireless, pretending to receive and retransmit stock quotes out to the waiting world. American Marconi Company, eager to stop United Wireless, filed a lawsuit claiming that United Wireless infringed American Marconi patents. At the same time, the United States Justice Department began to investigate United Wireless’s stock sales and what
became of the proceeds from the sales.

The White Star’s three mammoth passenger lines were being built in Belfast, Ireland. The first, Olympic, after her sea trials, embarked on her maiden voyage under Captain Edward Smith, one of the White Star’s most experienced captains. In 1911, Titanic launched and underwent sea trials. Her maiden voyage was scheduled to depart from Southampton in early April, 1912.

John “Jack” Phillips, who would celebrate his twenty-fifth birthday the day after Titanic left Southampton on her maiden voyage, signed on as the senior wireless operator on the Titanic. He could tap out thirty-nine words a minute. He was a veteran of many Atlantic crossings. He accepted the recommendation of his colleague, Harold Cottam, to take on, as junior Titanic wireless operator, Harold Sydney Bride. At age twenty-two, three years younger than Phillips, Bride’s best speed was twenty-six words per minute. Cottam signed on as the sole wireless operator on the Carpathia which was going to cross the Atlantic from New York to Rijeka, Croatia, about the same time as the Titanic was going in the opposite direction.

At the beginning of March, 1912, United Wireless was brought its knees. A U.S grand jury indicted de Forest, his lawyer, and two United Wireless salesmen, charging that they had misused the United States mails to defraud the United Wireless stockholders and misappropriated funds received from its stock sales. At the same time, American Marconi won its suit against United Wireless. The court ruled that United Wireless wireless equipment infringed Marconi patents. The indictment chilled the interest of investors in United Wireless. The patent infringement raised the question of whether United Wireless could reconfigure its equipment to avoid infringing on Marconi patents. If not, with what equipment could United Wireless continue to operate? Because United Wireless had entered into so many money-losing contracts, it needed cash flow from its stock sales to stay afloat. Investors, however, refused to buy more stock. United Wireless had no choice but to declare bankruptcy.

Marconi’s British company, that owned a majority of American Marconi’s stock, jumped at the chance to buy American Marconi’s largest competitor, the dominant company in the American market. United Wireless had seventy shore stations on the Atlantic, Gulf, and Pacific coasts of the United States and the Great Lakes, compared to American Marconi’s six. British Marconi directed American Marconi to sell seven hundred thousand of its shares at $10.00 a share and use the money to buy United Wireless’s assets.

Marconi with British Marconi’s Managing Director crossed the Atlantic to New York to supervise the arrangements that American Marconi was making to call a special meeting of its stockholders to authorize the sale. Satisfied with American Marconi’s plans, Marconi returned to England by the end of March.

The date set for the American Marconi stockholder meeting was Thursday, April 18, 1912. That allowed Marconi adequate time to return to New York on the Titanic’s maiden voyage, well enough in advance of April 18 that he could review the last minute preparations for the meeting.

The date of Titanic’s sailing, however, had been delayed. The Olympic under Captain Edward Smith had been accidentally rammed by the British Navy cruiser, the Hawke, which had been built with a ram designed to sink ships with watertight compartments. The Olympic survived the encounter, to Captain Smith’s amazement. The Hawke was a total loss. The Olympic had to return for repairs to the Belfast shipyard where she had been built and where the Titanic was undergoing final preparations for her maiden voyage. Attention was diverted from the Titanic to the Olympic, postponing the Titanic’s sailing date.

Titanic’s new sailing date from Southampton to New York was delayed to April 10. That meant the ship would not arrive in New York until April 17, only one day before the April 18 date of the American Marconi stockholder meeting. Marconi fretted that that did not allow him to arrive in New York in sufficient time before the meeting. And what if, for some reason, the Titanic was late. Beatrice no doubt assured her husband that on such an important, initial voyage the captain would not allow the Titanic to be delayed.

For Marconi, the success of the American Marconi shareholder meeting was too important to the future of his companies to take any chances on the outcome of the meeting. The scheduled arrival of the Titanic was too late. Instead, he booked passage on the Lusitania, leaving Southampton on April 7 and scheduled to arrive in New York on Monday, April 15.

Beatrice, however, insisted on going on the Titanic without him. She was not going to miss this event, the outstanding social occasion of the year. There would be aboard social figures, artists, French and Americans. Marconi was highly jealous of male attentions paid to his young looking, twenty seven year old, attractive, flirtatious wife, eleven years his junior. Only months...
earlier, he had summarily fired the young man who came to the Marconi Victorian mansion, Eaglehurst, on the Southampton waterway, to tutor Beatrice in French. But Beatrice was adamant. Marconi understood. The guest list glittered.

On Tuesday, April 9, Beatrice was very excited. She was packing to go the next day the very short distance from their home, Eaglehurst, on the Southampton Waterway, to Southampton where she would board the Titanic as the guest of the White Star line.

In the afternoon, the couple’s son, Guilo, felt feverish. Beatrice consulted with the family nanny. Neither mother nor Nanny could tell whether the fever was something fleeting, or precursor of something more serious. Only five years earlier, Beatrice and Marconi had lost their first child, a daughter, Lucia, to a sudden, high fever. Beatrice dared not be so far away from Guilo for so long. Bitterly disappointed, she decided she could not board the Titanic.

The next day, Wednesday, April 10, Beatrice stood in Eaglehurst’s folly, at the water’s edge on the Southampton Waterway, tightly holding the hand of her daughter, Degna, and fighting back the tears threatening to flood her face. Beatrice and Degna waved bon voyage to the Titanic as it slid down the waterway past them. The passengers at the rail waved gaily back.

Titanic’s Marconi wireless shack was on the port side of the boat deck, the top deck, twenty yards aft of the bridge and close by the first class entrance to the boat deck. Titanic was equipped with the very latest of Marconi shipboard wireless equipment. Its transmitter could send messages in the day time two hundred fifty miles from the ship, and at night two thousand miles, farther than any other ship transmitter could send.

Above is a photograph of the radio room of the Titanic’s sister ship, the Olympic. I know of no photograph of the radio room of the Titanic, but the Olympic supposedly had the same configuration of Marconi equipment as the Titanic. Note the Magnetic Detector (similar to the Model 101R) mounted on the wall below the coil assembly, and the Model 103R Multiple Tuner on the bench-top below the detector, and the Model 1051R Marconi Valve Receiver on the bench to the left of the Multiple Tuner. (See pages 13 and 14 for more on the Marconi equipment.) The photograph was kindly provided by Brian Belanger, Executive Director and Curator of the National Capital Radio and Television Museum, Bowie MD; our thanks to Brian and the museum.
signals. *Titanic* carried two wireless operators because the first class passengers were expected to send too many Marconigrams for one operator to handle. Messages would be relayed from ship to ship until received by a ship close enough to land to be relayed to a shore station which in turn would deliver the messages to the telegraph system. The senior operator was twenty-five year old John Phillips who could transmit thirty-nine words per minute. The junior operator was twenty-two year old Harold Bride who could tap the telegraph key at a rate of twenty-six words per minute.

On Sunday, April 14, the *Titanic* approached the Grand Banks off Newfoundland. It was a fertile fishing ground because the mixture of water temperatures, as the warm Gulf Stream, moving northeast, brushed past the cold Labrador Current, flowing south, stimulated spectacular plankton blooms for fish to feed on. The Labrador Current was filled with icebergs, many more than normal because it had been a relatively warm winter causing many more icebergs than normal to calve off glaciers. The area was also filled with freighters and passenger ships carrying travelers in the spring season between the European and North American continents.

Phillips and Bride were furiously at work. The transmitter had failed earlier in the day. They knew that during the time it was out of operation, the backlog of Marconigrams to be sent would pile up. They had already sent 250 passenger messages. Once they restored the service, they would be far behind. In the afternoon, after seven intense hours, they located the problem, a burnt out relay. They decided that Phillips should attack the backed up stack of passenger messages while Bride got some sleep.

At 10:20 PM, Phillips received a message from the *Californian*, probably at the time fifteen miles distant from the *Titanic*. *Titanic* was steaming ahead at twenty -two knots to keep its schedule. The *Californian*, however, advised *Titanic* that the *Californian* had come to a stop because it was surrounded by ice. It was, in fact, in the midst of an extraordinary, enormous, south flowing ice pack twelve miles wide and seventy miles long. Phillips did not take the message forward to the bridge. He knew the bridge was already aware that there was ice in the area. “Shut up,” Phillips answered the *Californian*, “I am working Cape Race and you are jamming me.” Cape Race, on the southeast coast of Newfoundland, was from *Titanic*’s current position, at night time, within reach of *Titanic*’s transmitter. Cape Race could send the passenger Marconigrams to the Nova Scotia mainland for retransmission by telegraph to their respective destinations.

At 11:40 pm, lookout Frederick Fleets, in the crow’s nest half way up the *Titanic*’s mast, peered into the dark, moonless night. Binoculars, deemed unnecessary, had not been issued to the lookouts. The water was calm and the stars bright. Suddenly, Fleet noticed the stars on the horizon, directly ahead, disappearing. The silhouette of an iceberg was looming up between *Titanic* and the horizon. Fleets rang the warning bell. The bridge responded: what did you see? Fleet answered: iceberg dead ahead. The bridge swung the bow to port and ordered reversed engines: full speed astern. *Titanic* swung her starboard side across the face of the iceberg. Below the surface, ice sliced an opening under the waterline in the *Titanic*’s first six, out of sixteen, water tight compartments.

Bride awoke. Something was wrong. It was too quiet. He did not feel the always present engine vibration. Phillips said he thought *Titanic* had thrown a propeller. They might have to return to Belfast for repairs.

At 12:05 am, Monday morning, April 15, twenty-five minutes after the iceberg slashed *Titanic*, veteran Captain Edward Smith stepped momentarily into the wireless cabin. He informed the two wireless operators that *Titanic* had struck an iceberg.

At 12:08, Captain Smith returned to the wireless shack. He ordered the operators to send the call for assistance.

At 12:15, thirty-five minutes after impact, CQD, the regulation international call for help, was on the air. The following exchanges occurred:

From the Frankfort, a North German LLoyd steamer, at 12:18 150 miles and ten hours away: Okay. I must consult my captain. Stand by.

From *Carpathia*, a Cunard liner bound from New York to Croatia, fifty-eight miles or four hours away, whose sole wireless operator, Harold Cottam, had recommended to Phillips that Phillips hire Bride, and who had been on the *Carpathia* bridge: Does the *Titanic* know that there are some private messages awaiting for her from Cape Race?

*Titanic* to *Carpathia* at 12:25: We need assistance. The *Titanic* has struck a berg. This is a CQD Old Man. Come at once.

From *Carpathia*: What is your position?

*Titanic* to *Carpathia*: Position 41.46N 50.14 W.
From Carpathia: We are fifty-eight miles away. We can be at your side in about four hours. Should I tell my captain.

From the Frankfort: Should I tell my captain.

Titanic to Frankfort: You fool. We’re busy here. Stand by.

From Carpathia: Should I tell my captain?  
Titanic to Carpathia: Yes. At once.

From Frankfort: The Frankfort wishes to know what is the matter. We are ten hours away.

Titanic to Frankfort: You are jamming my equipment, fool. Stand by and keep out.

From Carpathia: The captain of the Carpathia is putting about and coming hard.

At 12:40, Captain Smith returned to the wireless shack to receive a firsthand account of the response to the Titanic distress calls.

From the Titanic’s sister ship, the Olympic, 500 miles away: What is the matter.

Titanic to Olympia: We have struck an iceberg and need assistance.

Other ships in the area that tried to reach the Titanic included the Canadian Pacific Mt. Temple, the Allen liner Virginia, and the Russian tramp Burma.

Crew members aboard the Californian, ten miles and one hour away, saw the Titanic and its distress flares. Its sole wireless operator, however, after sixteen hours on duty had turned off his equipment and gone to sleep. The Californian and Titanic each tried to raise each other with Morse lamps flashing signals, but neither made out the other’s signals. The Californian misread the configuration of the Titanic’s lights as it sank as being those of a ship moving away from the Californian and disappearing over the horizon. When the Californian captain thought it safe, he resumed his course away from Titanic’s grave.

Had there been no wireless, the Titanic might have disappeared, all hands lost and its fate unknown.

Thomas Andrews, Managing Director of Harland & Wolff, the firm that built Titanic, was on board. After he and Captain Smith inspected the ship, Andrews told Captain Smith that the Titanic would sink in about two and a half hours. Titanic carried sixteen lifeboats and four life rafts with a capacity to hold 1,178 people. There were 2,207 people on board.

At 2:05, Captain Smith entered the wireless shack for the last time and told Phillips and Bride to abandon ship. Titanic was sinking, bow first. The water had almost reached the top deck and the wireless shack. The wireless was still working. The two operators said they would stay as long as they could transmit distress calls. Since the first call, they had sent out thirty to thirty-five messages, one heard as far away as Italy.

At 2:10, Phillips picked up two faint Vs from the Virginia and sent his last transmission. A crew member, a coal stoker, entered the wireless shack and tried to wrest the life vest off Phillips back while Phillips worked the transmitter. Bride bludgeoned the crew member to death. Phillips and Bride abandoned the wireless shack and separated.

At 2:15, the ocean washed over the bridge as the ship sank, bow first. The bridge dipped under the water. Salt water gurgled up the companionway from the first class Grand Salon near the wireless shack. A wave washed two life rafts off the roof of the officers’ cabins immediately aft of the bridge. The next wave flipped one of the rafts upside down on top of Bride and washed Bride and the raft overboard. Bride struggled out from under the upside down raft and climbed aboard it.

At 2:18, Titanic’s lights went out.

At 2:20, the ship went down. Phillips climbed aboard a life raft filled with thirty-two people. There was water in the raft. Weak from being in the thirty-one degree water, he was pushed down onto the bottom of the raft and drowned.

At 4:10 Carpathia spotted flares from Titanic lifeboats and shortly thereafter located the first boat, approximately four and a half hours after the iceberg sliced through Titanic’s forward, watertight compartments, and two hours after Titanic sank.

By 9:00 am, Carpathia had picked up 712 survivors. 1,595 had perished.

Bride, once on board the Carpathia and after receiving treatment for his severe frostbite, relieved an exhausted Cottam in the Carpathia wireless shack. For the next three and a half days, as Carpathia returned to New York, Bride and Cottam transmitted an unending stream of messages.

Lusitania docked that Monday morning in New York. Marconi learned at once that his Cape Race wireless station had received a message indicating a possible catastrophe at sea. There was total confusion as to what had happened. Part of the uncertainty was caused by the sketchy reports that Carpathia relayed.
to Olympic for retransmission to Cape Race and on to New York. Amateurs flooded the air with inquiries to ships in the Atlantic. Hams repeated what they intercepted, sometimes accurately and sometimes not. In no time, so many broadcasters filled the airways that almost no wireless communication could be understood.

Complaints that wireless inadequately or inaccurately provided news of the sinking filled the newspapers. Marconi was accused of blocking out other wireless companies in order to profit by issuing exclusive news. Marconi flared out at the charges: “Good gracious, hasn’t the wireless done enough in this instance to free it from complaints. It is you journalists who are responsible for the confused and unreliable rumors about the Titanic, not the wireless.”

Thursday, April 18, American Marconi shareholders approved the sale of seven hundred thousand American Marconi shares and the acquisition of United Wireless. That evening, Carpathia docked in New York with the Titanic survivors. Marconi pushed his way through the dockside crammed with relatives and curiosity seekers eager to see the survivors. He worked his way on board Carpathia to the wireless cabin to thank and welcome Bride and stayed with Bride until Bride was taken by stretcher to a hospital to treat his frostbite.

On Friday, April 19, trading began in the new American Marconi shares. Titanic survivors marched en bloc to Holland House, Marconi’s hotel, to express their appreciation to the wireless device, and its inventor, so instrumental in their rescue.

Marconi, already the dominant wireless carrier in Europe, had, by the acquisition of United Wireless, become the world’s dominant wireless company.

De Forest, acquitted of his indictment by the grand jury, soured by Marconi’s attacks on his patents, and bitter over Marconi’s dominance in wireless, attacked Marconi: “Only by this forced receivership and sale was the American Marconi Company enabled to survive commercially. But by this strategic move and dominating stratagem the latter company acquired overnight almost a total monopoly of wireless telegraphy in the United States, a thing which they never could have accomplished by dint of their incomplete and sadly shattered patent position, or by virtue of any superiority of their system or methods. At the time of the receiver’s sale, United owned over 600 ship-to-shore installations, six times those of the Marconi company.”

As a result of the sinking of the Titanic, the United States Government strengthened its regulation of wireless communication.

The Radio Act of 1912 mandated that seagoing vessels, carrying fifty or more passengers and sailing between ports two hundred miles or more apart, and freighters with a crew of fifty or more, had to have the capability to receive and monitor, twenty-four hours a day, signals on two distress wavelengths: 300 meters and 600 meters. This, in effect, required all such ships to be equipped with wireless and to carry two operators so that one could always be on duty.

To try to prevent future clogging of the airwaves, the Radio Act of 1912 required that all radio stations be licensed by the federal government. Specific wavelengths were assigned to specific uses, including commercial and military uses. Amateur radio operators were not allowed to operate on wave lengths longer than 200 meters (1.5 MHz). Such short wave lengths were not thought to be capable of wireless transmission. The restriction was intended to eliminate hams from the wireless world. [30]
Marconi Equipment aboard the *Olympic* (see page 9 above) and believed to have been aboard the *Titanic*.

(Photos and text taken from Marconi Wireless Telegraph Co., Ltd. Catalog)

This Detector is suitable for all cases where absolute certainty of communication is desirable and where no one specially skilled in adjustments is obtainable. Where Detectors of great sensitiveness, such as crystals, are used, and the skilled operators are relieved during certain hours by less skilled assistants or boys, a Magnetic Detector should always be installed.

The Instrument consists of a band of insulated iron wires moving [driven by clockwork that “runs noiselessly for 90 minutes without rewinding”] through duplicate sets of coils in front of a system of permanent magnets. There are no adjustments on this Detector for the operator to make.

This Tuner is specially constructed for use with the Magnetic Detector. This tuner is suitable for use on Ship or Shore Stations, particularly where sharp tuning is wanted, and the normal tuning given by the aerial circuit due to high earth resistance, etc., is not very good. The wave range is sufficiently great to take in all wavelengths in practical use in connection with ship working.
Marconi Equipment aboard the *Olympic* (see page 9 above) and believed to have been aboard the *Titanic*, continued.

This Tuner ... is fitted with the Fleming oscillation valve, the third or detector circuit being adapted for this purpose. The receiver is complete in itself except for the accumulators [batteries] and telephones. This receiver is next in order of robustness to the magnetic detector and is considerably more sensitive. A little more knowledge of adjustment is required than with the magnetic detector and tuner. It is suitable for all cases where the magnetic detector is used if the operators are sufficiently expert at adjustments, and also if there are arrangements available for charging accumulators.

**Marconi on the Money!**
WARCI Radio Services

We now have a list of WARCI members who would be willing to provide repair / restoration services, advice or research for folks who contact WARCI looking for help. If you would like to be added to the list, please let me or one of the Board members know.

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Telephone</th>
<th>Service Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwight Church</td>
<td>(none)</td>
<td>414-545-6972</td>
<td>Radio repair – electronics only.</td>
</tr>
<tr>
<td>Bill Engaas</td>
<td><a href="mailto:craftyradio@earthlink.net">craftyradio@earthlink.net</a></td>
<td>262-786-8183</td>
<td>Speaker Repair.</td>
</tr>
<tr>
<td>Ralph Larsen</td>
<td><a href="mailto:radioralph@hotmail.com">radioralph@hotmail.com</a></td>
<td>414-278-7981</td>
<td>Repair, including Television.</td>
</tr>
<tr>
<td>Mike Lewis</td>
<td><a href="mailto:deepheart@att.net">deepheart@att.net</a></td>
<td>608-835-7193</td>
<td>Repair, restoration, training.</td>
</tr>
<tr>
<td>Dave Milke</td>
<td><a href="mailto:wb9egz@gmail.com">wb9egz@gmail.com</a></td>
<td>608-838-9661</td>
<td>Parts, tubes, and free advice.</td>
</tr>
<tr>
<td>Greg Hunolt</td>
<td><a href="mailto:ghunolt@excel.net">ghunolt@excel.net</a></td>
<td>920-893-0422</td>
<td>Research, especially on 1920’s radios.</td>
</tr>
</tbody>
</table>

Chicagoland Antique Radio Show and WARCI

The two day show is indoors in a really nice expo hall with plenty of free electricity. We’ll run an ad in the May and July newsletters, it is on our website now, and we’ll have flyers with forms at the meets coming up. In exchange for our support, Tim Zurko has kindly offered to make six tables available to WARCI without charge to give the club a presence at the event. Tim is also extending to WARCI members a buy one, get one free offer for tables.

The new expo building at Grayslake is big, but the radio show is a show within the Grayslake Antique Market that will be sectioned off with pipe & drape. There will be a limited number of spaces available for the radio show, and Tim recommends that you sign up as early as possible because spaces could sell out. You can mail in a deposit with the sign-up flyer to hold a spot. Be sure to note on the form that you are a WARCI member. If you have questions, please contact Tim Zurko at TRZurko@Bemis.com.
News from the Neighboring Clubs

MARC
Michigan Antique Radio Club
www.michiganantiqueradio.org

At the October 2011 meet, MARC officers for 2012 were elected, all continuing from 2011: Olin Shuler, President; Jim Novak, Vice President; Keith Schreiter, Secretary/Membership, Rudy Hecker, Treasurer.

Next Events:

January 28, 2012 - Winter Meet, Farmington Hills, MI
April 14, 2012 - Spring Meet, Midland, MI
July 12-14, 2012 - EXTRAVAGANZA, Lansing MI

Visit the MARC website for details.

ARCI
Antique Radio Club of Illinois
www.antique-radios.org

At the October 2011 meet, ARCI officers for 2012 were elected, all continuing from 2011: Olin Shuler, President; Jim Novak, Vice President; Keith Schreiter, Secretary/Membership, Rudy Hecker, Treasurer.

Next Events (see ARCI website):

February 5, 2012 - 7:00AM - 9:30AM
Outdoor swap meet.
9:00 Officer’s Meeting.
American Legion Hall, Carol Stream IL

April 15, 2012 - 7:00AM - 11:00AM
Outdoor Swap Meet.
9:30 AM Inside Business Meeting
American Legion Hall, Carol Stream IL

NARC
Northland Antique Radio Club
www.northlandantiqueradioclub.com

The Northland Antique Radio Club’s annual Radio Workshop will be on February 12, 2012, and is once again hosted by club president, Steve Raymer, at the The Museum of Broadcasting, located at 3515 Raleigh Avenue, St. Louis Park, Minnesota 55416. This is a favorite event for many NARC members and is always very enjoyable.

See the NARC Website for more information.

Some Hamfests!

March 18, 2012 - Hamfest 2012, Tri-County Amateur Radio Club, Jefferson County Fairgrounds. Email for info: hamfest@w9mqb.org.

July 7, 2012 - Swapfest ‘12’, South Milwaukee Amateur Radio Club, Inc. American Legion Post 434, Oak Creek WI. Email for info: wb9tik@sbcglobal.net or on web: www.qsl.net/WA9TXE.


Scenes from the Sept 18, 2011 Swap Meet

Harry Blesy on a fine September morning.

Jim Menning and Pete Nauseda talking audio.

Losing his head over an item of Patrick’s

The general scene at the flea market.

Some items up for bid in the first WARCI auction.

Well, I don’t think that radio-phono is quite complete.
HELP NEEDED: Would like to contact owners of 1920’s battery sets, literature, and equipment made by Globe Electric Company of Milwaukee, WI, to survey existing model types and variations for development of a company history. All responses will be kept confidential. Thanks.
Glenn Trischan, P.O. Box 240022, Milwaukee, WI 53224. E-mail: gnets142@att.net

WANTED: Any set made in Plymouth, WI, by the Plymouth Radio and Phonograph Co.
Greg Hunolt, N5412 State Hwy 57, Plymouth, WI 53073, Email ghunolt@excel.net or 920-893-0422.

SERVICE: Michael Lewis – Radio Repair / Restoration and Training. You can hire me to restore your antique radio, but why not hire me to teach you to do it yourself? I’ve been teaching people how to electronically restore antique radios for over 30 years. I’ve assembled an incredible supply of parts, literature, and test equipment over more than 40 years. With two long-term students already, I’ve recently retired from my day job to devote full time to my antique radio restoration business. Whether you need just one session for some help on a “tough dog” or want to learn over the long term how to restore radios, I’m available through the end of 2010 at an introductory rate of $15/hour, and able to make available to you the facilities described below.

At your command: test equipment including digital and analog multi-meters, high and low voltage bench power supplies, AF and RF generators, and much more. Also a large stock of parts including 50,000 vacuum tubes, and a comprehensive technical library spanning the 1920’s-1980’s, including the Riders and Gernsback manuals, and Sams Photofacts, and various factory manuals.

Michael Lewis, 6070 County Road D, Oregon, WI 53575, Phone: 608-835-7193, Email: deepheart@att.net

WANTED: DeForest Plug-In Butterfly Coils – Terry Hanney, 414-545-6425

Remember that classified ads up to about ¼ page are free to WARCI members.

The cut-off date for all newsletter material is about the 15th of the month preceding publication of the next newsletter (e.g. December 15, 2011 for the January, 2012 issue). Send ads by email or letter to Greg Hunolt, WARCI News, at ghunolt@excel.net or N5412 State Hwy 57, Plymouth WI, 53073.

It Pays to Advertise!
This winter I was fortunate to pick up two treasures because their former owners found me via the WARCI website.

The first (on the left) is a “Badger” phonograph made in Plymouth, WI, in 1919 by the Plymouth Phonograph Company (later renamed the Plymouth Radio and Phonograph Company).

The second (on the right) is a Yar True-Tone speaker, made by the Super-Ball Antenna Company of Green Bay and sold by Yahr-Lange, Inc., of Milwaukee.

Let us know what luck you’ve had!
- Greg Hunolt