

TITANIC

THE ARTIFACT EXHIBITION

1912

100TH
ANNIVERSARY

2012



JOHN PHILLIPS (L) AND HAROLD BRIDE (R).



ONLY KNOWN PHOTO OF TITANIC'S RADIO ROOM.

Operators and Equipment

The operators pictured here are the *Titanic's* senior wireless operator John "Jack" Phillips, age 25 (left), and the junior operator, Harold Bride, age 21 (right).

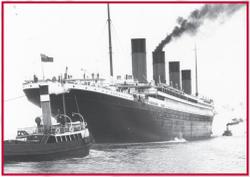
The radio transmitter was a "rotary spark" type, and the radio operators used a telegraph key to transmit messages. The receiver was either a "crystal" or a "magnetic" detector, both commonly used during the early 1900s.

The replica Spark Gap Transmitter and Crystal Receiver on display here were built by the USS Midway Museum Radio Room Volunteer Team of Lou de Beer, Buck Hathaway, John Movius, Don Johnson, Ed Coltrin and Mike Peron.

The *Titanic's* radio required two separate rooms, one for the receiver, and one for the transmitter, to keep the loud buzzing of the transmitter from interfering with the receiver.

Watch Hours

The two *Titanic* radio operators arranged watches by personal agreement: Phillips, the chief, took the 8 PM–2 AM watch, whilst Bride was on duty 2 AM–8 AM. There were no fixed watch hours during the day; the men relieved each other to suit mutual convenience, however a continuous radio watch was maintained.



The Disaster

On April 15, 1912 at 12:15 AM, the *Titanic's* wireless operators were instructed by the Captain to begin sending "CQD MGY" (Calling all stations, distress; MGY was the call sign of *Titanic*) followed by the position of the *Titanic*.

At first, Phillips and Bride joked about being the first to use the "new signal for distress," SOS. However, Phillips primarily stuck to the still-dominant CQD for the majority of the signals, continuing until his equipment began to fail. As he did this, Bride began to gather up some items he thought that the two would need for their own escape. Bride survived the sinking, Phillips did not.

RADIO CALLSIGNS

Radio callsigns for the ships' and shore stations engaged in *Titanic's* distress calls are listed below. In 1912, ships were issued three-letter callsigns.

WIRELESS SHORE STATIONS:

Cape Race Newfoundland: **MCE**
 Sable Island Nova Scotia: **MSD**
 Sea Gate New York: **MSE**
 Sagaponack New York: **MSK**
 Siasconset Massachusetts (Cape Cod): **MSC**
 Cape Sable Nova Scotia: **MSB**

VESSELS (with the captain's name listed where known):

Asian Capt. Wood: **MKL**
Baltic: **MBC**
Californian Capt. S. Lord: **MWL**
Caronia Capt. Barr: **MSF**
Carpathia Capt. A.H. Rostron: **MPA**
Cincinnati: **DDC**
Frankfurt: **DFT**
La Touraine Capt. Coussin: **MLT**
Titanic Capt. E.J. Smith: **MGY**
Mount Temple: **MLQ**
Olympic Capt. Haddock: **MKC**
Prinz Friedrich Wilhelm: **DKF**
Virginian Capt. Gambell: **MGN**



RADIO ROOM ABOARD OLYMPIC, ONE OF TITANIC'S SISTER SHIPS.



TYPICAL RADIO ROOM OF A WIRELESS SHORE STATION.

Distress Radio Traffic

“CQD” is a general call to all vessels indicating the vessel is in distress and requires immediate assistance.

At the time of *Titanic*'s sinking, the Marconi Wireless Company's “CQD” was still in common use, although it had been officially replaced by the well known “SOS” (which does NOT mean “Save Our Souls”). SOS was chosen specifically to be easily and instantly recognizable in Morse.

Such was the dominance of Marconi over the infant marine radio industry that many ships still used CQD, rather than the official international distress signal SOS.

This can be seen in *Titanic*'s initial and final distress calls: senior radio operator Jack Phillips stuck to the company CQD signal to the end.

TIMELINE OF DISTRESSED MESSAGES

APRIL 15, 1912 GMT	MESSAGES
12:15 AM	<i>Titanic</i> sends, “CQD DE (this is) MGY,” six times with position 41.44 N. 50.24 W. <i>La Provence</i> and <i>Frankfurt</i> receive <i>Titanic</i> 's first distress signals. <i>Titanic</i> sends position to <i>Frankfurt</i> . <i>Frankfurt</i> says “OK: stand by”
12:15 AM	<i>Mount Temple</i> heard <i>Titanic</i> sending CQD. Says “require assistance. Gives position. Cannot hear me (sic). Advise my Captain (sic) his position at 41.46 N. 50.24 W.”
12:15 AM	Cape Race hears <i>Titanic</i> giving position on CQD 41.44 N. 50.24 W.
12:18 AM	<i>Ypiranga</i> hears CQD from <i>Titanic</i> . <i>Titanic</i> gives CQD here (sic). Position 41.44 N. 50.24 W. Require assistance (calls about 10 times).
12:25 AM	<i>Carpathia</i> calls <i>Titanic</i> and says “do you know that Cape Cod is sending a batch of messages for you?” <i>Titanic</i> says “Come at once. We have struck a berg. It's a CQD OM (it's a distress situation old man) Position 41.46 N. 50.14 W.” <i>Carpathia</i> says “Shall I tell my Captain? Do you require assistance?” <i>Titanic</i> says “yes, come quick”
12:25 AM	Cape Race hears <i>Titanic</i> give corrected position 41.46 N. 50.14 W. Calling him, no answer. <i>Titanic</i> 's 4 th Officer Boxhall had just provided a corrected position to the radio room.
12:25 AM	<i>Titanic</i> says, “CQD, Here [is my] corrected position 41.46 N. 50.14 W. Require immediate assistance. We have collision with iceberg. Sinking. Can hear nothing for noise of steam.” Engineers were releasing excess steam pressure from boilers to minimize risk of explosion. <i>Titanic</i> sends this message about 15 to 20 times to <i>Ypiranga</i> .
12:26 AM	<i>Prinz Friedrich Wilhelm</i> calls <i>Titanic</i> and gives position 39.47 N. 50.10 W. <i>Titanic</i> says, “Are you coming to our [aid]? We have collision with iceberg. Sinking. Please tell Captain to come.” <i>Prinz Friedrich Wilhelm</i> says, “O.K. will tell.”
12:27 AM	<i>Titanic</i> sends, “I require assistance immediately. Struck by iceberg in 41.46 N. 50.14 W.”
12:30 AM	<i>Caronia</i> sent CQ message (message addressed to all ships) to <i>Baltic</i> and CQD (i.e. a distress relay message), “ <i>Titanic</i> struck iceberg, require immediate assistance.”
12:30 AM	<i>Mount Temple</i> hears <i>Titanic</i> still calling CQD, “Our (sic) Captain reverses ship. We are about 50 miles off.”
12:34 AM	<i>Mount Temple</i> hears <i>Frankfurt</i> give <i>Titanic</i> his position, 39.47 N. 52.10 W. <i>Titanic</i> says to <i>Frankfurt</i> , “Are you coming to our assistance?” <i>Frankfurt</i> says, “What is the matter with you?” <i>Titanic</i> says, “We have struck an iceberg and sinking. Please tell Captain to come.” <i>Frankfurt</i> replies, “O.K. Will tell the bridge right away.” <i>Titanic</i> says, “O.K., yes, quick.”
12:45 AM	<i>Titanic</i> calls <i>Olympic</i> , <i>Titanic</i> 's sister ship who was 500 miles away en route to England, and sends SOS. This was the first use of SOS in a major maritime disaster. Bride jokingly suggested to Phillips that it may be his last chance to use the new distress call.
12:50 AM	<i>Titanic</i> calls CQD and says, “I require immediate assistance. Position 41.46 N. 50.14 W.” This message was received by <i>Celtic</i> .
12:53 AM	<i>Caronia</i> signals to <i>Baltic</i> with SOS, “ <i>Titanic</i> CQD in 41.46 N. 40.14 W. Wants immediate assistance.”
1 AM	<i>Titanic</i> gives distress signal and <i>Cincinnati</i> replies, “ <i>Titanic</i> 's position is 41.46 N. 50.14 W. Assistance from <i>Cincinnati</i> not necessary as <i>Olympic</i> shortly afterwards answers distress call.
1 AM	<i>Titanic</i> replies to <i>Olympic</i> and gives his position as 41.46 N. 50.14 W., and says, “We have struck an iceberg.”
1:02 AM	<i>Titanic</i> calls <i>Asian</i> and says, “Want immediate assistance.” <i>Asian</i> answers at once and receives <i>Titanic</i> 's position as 41.46 N. 50.14 W., which he immediately takes to the bridge. Captain instructs operator to have <i>Titanic</i> 's position repeated.
1:02 AM	<i>Virginian</i> calls <i>Titanic</i> but gets no response. Cape Race tells <i>Virginian</i> to report to his Captain the <i>Titanic</i> has struck iceberg and requires immediate assistance.
1:10 AM	<i>Titanic</i> signals to <i>Olympic</i> , “We are in collision with berg. Sinking head down. 41.46 N. 50.14 W. Come soon as possible.”
1:10 AM	<i>Titanic</i> signals to <i>Olympic</i> , Captain says, “Get your boats ready. What is your position?”
1:15 AM	<i>Baltic</i> to <i>Caronia</i> , “Please tell <i>Titanic</i> we are making towards her.”
1:20 AM	<i>Virginian</i> hears Cape Race inform <i>Titanic</i> , “We are going to his assistance. Our position 170 miles N. of <i>Titanic</i> .”
1:25 AM	<i>Caronia</i> tells <i>Titanic</i> , “ <i>Baltic</i> coming to your assistance.”
1:25 AM	<i>Titanic</i> sends position to <i>Olympic</i> 40.52 N. 61.18 W and asks, “Are you steering southerly to meet us?”
1:27 AM	<i>Titanic</i> says to <i>Olympic</i> , “We are putting the women off in the boats.”
1:30 AM	<i>Titanic</i> tells <i>Olympic</i> , “We are putting passengers off in small boats. Women and children in boats, can not last much longer.”
1:35 AM	<i>Baltic</i> hears <i>Titanic</i> say, “Engine room getting flooded.” Captain Smith had just visited the <i>Titanic</i> 's radio room and advised this to Phillips and Bride.
1:35 AM	<i>Mount Temple</i> hears <i>Frankfurt</i> ask, “Are there any boats around you already?” No reply.
1:37 AM	<i>Baltic</i> tells <i>Titanic</i> , “We are rushing to you.”
1:40 AM	<i>Olympic</i> to <i>Titanic</i> , “Am lighting up all possible boilers as fast as [we] can.”
1:40 AM	Cape Race says to <i>Virginian</i> , “Please tell your Captain this: The <i>Olympic</i> is making all speed for <i>Titanic</i> , but his position is 40.32 N. 61.18 W. You are much nearer to <i>Titanic</i> . The <i>Titanic</i> is already putting women off in the boats, and he says the weather there is calm and clear. The <i>Olympic</i> is the only ship we have heard say ‘going to the assistance of <i>Titanic</i> .’ The others must be a long way from <i>Titanic</i> .”
1:45 AM	Last signals heard from <i>Titanic</i> by <i>Carpathia</i> , “Come as quickly as possible old man: the engine-room is filling up to the boilers.”
1:45 AM	<i>Mount Temple</i> hears <i>Frankfurt</i> calling <i>Titanic</i> . No reply.
1:47 AM	<i>Caronia</i> hears <i>Titanic</i> although signals are unreadable.
1:47 AM	<i>Virginian</i> hears <i>Titanic</i> calling very faintly, his power being greatly reduced.
1:48 AM	<i>Asian</i> heard <i>Titanic</i> call SOS. <i>Asian</i> answers <i>Titanic</i> but receives no answer. <i>Frankfurt</i> calls <i>Titanic</i> and says, “What is the matter with you?”
1:50 AM	<i>Titanic</i> says to <i>Frankfurt</i> , “You fool, stdbi and keep out.” <i>Caronia</i> hears <i>Frankfurt</i> working to <i>Titanic</i> . <i>Frankfurt</i> is about 172 miles from <i>Titanic</i> at the time the first SOS was sent.
1:55 AM	Cape Race says to <i>Virginian</i> , “We have not heard <i>Titanic</i> for about half an hour. His power may be gone.” During this period Phillips and Bride are struggling with a stoker who entered the wireless room and tried to steal Phillips' life jacket. Bride holds the stoker, while Phillips punches him. The stoker is (presumably) knocked unconscious.
2:05 AM	At 2:05 AM the Captain visits the wireless room for the last time and says, “Men, you have done your full duty. You can do no more. Abandon your cabin. Now it's every man for himself.” Phillips looks up for a second, and then bends over the equipment once more. Captain Smith tries again, “You look out for yourselves. I release you.” A pause, then he adds softly, “That's the way of it at this kind of time...every man for himself.” He then leaves the wireless room. Phillips continues sending.
2:10 AM	<i>Virginian</i> hears two v's signaled faintly in spark similar to <i>Titanic</i> 's. Most likely Phillips was transmitting a test signal whilst Bride adjusted the main transmitter motor-generator field regulators to compensate for the dying power supply from the engine room.
2:17 AM	<i>Virginian</i> hears <i>Titanic</i> call CQ (call to all ships), but is unable to read him. <i>Titanic</i> 's signals end very abruptly as if power is suddenly switched off. His spark is rather blurred or ragged. Phillips had actually intended to send “CQD DE MGY,” however at this point there is a loss of all power to the radio room. Water can be heard flooding the wheelhouse. Phillips says to Bride, “Come on, let's clear out.” Bride climbs to the roof of the officer's quarters and assists with launching collapsible lifeboat B. Phillips disappears.
2:20 AM	<i>Olympic</i> signals to <i>Virginian</i> and asks if she has heard anything from <i>Titanic</i> . <i>Virginian</i> responds saying, “No. Keeping strict watch, but hear nothing more from <i>Titanic</i> . No reply from him.” 2:20 AM is the official time <i>Titanic</i> foundered.