

CHRONOLOGY OF EVENTS WITH REFERENCES AND NOTES

Revised: 07 July 2018

This chronology reflects the order of events pertaining to the maiden voyage of *Titanic*. It is the most comprehensive and extensively referenced chronology of *Titanic*'s maiden voyage ever assembled, and first appeared in: Samuel Halpern, et al., *Report Into the Loss of the SS Titanic – A Centennial Reappraisal*, The History Press, 2011. It is primarily based upon evidence that comes from survivor accounts as given in sworn testimony, affidavits, letters, and other credible sources. The sources for the events included in this chronology are listed alongside each set grouped under a specified time. There is also a set of notes that explain how certain event times were derived, or offer additional pertinent information. In some cases, reference is made to specific articles and other publications where more details and in-depth explanations can be found. For most of the wireless messages shown, reliance was heavily placed on primary sources such as wireless logs or wireless station office forms that are available, rather than using some previously compiled list.

In all cases, we have tried to insure the relative accuracy of event sequences. However, the accuracy of event times themselves cannot be guaranteed. The reader must understand that actual clock times were only known for a relatively few events where someone took the time off of a clock or a watch. Even for the times associated with wireless messages, where messages were recorded using a standard time reference such as New York time or Greenwich Mean Time (GMT), we find variances in the reported times put down by different operators describing the same communication. Some of this may have been caused by small inaccuracies in the clocks being used. In many cases, a time given was simply rounded to the nearest 5 minute interval. For example, if an event took place at precisely 11:43, you may find some people saying that it happened at 11:40 while others may say it happened at 11:45. And we find that this was true for times put down in many of the wireless logs where time was taken off of a nearby clock. In many situations, we have people guessing as to the time some event took place, or how long it was since the collision or some other event happened. And here we can only rely on what they said, or try and correlate their time estimate with the time of some other event or what others had to say.

The other difficulty arises comes from the fact that ships at sea did not carry the same time. They each carried what is called Apparent Time Ship (ATS) which was based on the ship's noontime longitude, or expected noontime longitude, for a given day. It was rare indeed for two ships to have been keeping the exact same time unless they happened to have crossed the same meridian when the sun reached its highest point in the sky. In this chronology, we use mean time for the 75th meridian of west longitude, **New York Time (NYT)**, as the standard time reference (written as date and time using 24-hour notation) for all events because most of the wireless messages presented in evidence were recorded for ships that were west of 40°W, and the times put down in their wireless logs, called a *procès-verbal*, were recorded in NYT. **To get to GMT, the reader simply has to add 5 hours.**

We also show time (using AM/PM notation) as it would have appeared on *Titanic*'s two Magneta master clocks that were kept in the ship's chart room.. This was referred to in the IMM Co. rule book as '**Bridge time**' and was the time that was kept in the wheelhouse, down in the engine room, and in other spaces where clocks that ran off of one of the ship's master clocks were kept. (*Titanic* carried a total of 48 of these slave clocks.) It was the time that determined when ship's bells were struck. For the most part, these slave clocks, which were also located in passenger spaces such as the main staircases, lounges, reception rooms, libraries, and other public areas, would show exactly the same time as the master clocks in the chartroom except during the period of time when a master clock was put back on a westbound voyage. The reason for this is that the slave clocks were unidirectional, they could only go ahead, not backward. They therefore would show the time that was on the master clock when it was put back, and would not advance again until the master clock came back to that time again. After that,

the slave clocks would advance in step with the master clock once again. These clock alterations were made on a westbound voyage in two separate steps every night, one just before midnight during the First Watch (8pm to midnight), and the other within the first half-hour of the Middle Watch (midnight to 4am).

The level of detail presented in this chronology varies. The greatest level of detail begins with the start of April 14th on board ship and is continued through the morning hours of April 15. Additional references can be found in the list of notes provided at the end of this chronology.

In the interest of saving space, several abbreviations are used throughout this chronology, such as: AB=Able-Bodied Seaman, ATS=Apparent Time Ship, BR=Boiler Room, C/E=Chief Engineer, 2/E=Second Engineer, etc., C/O=Chief Officer, 1/O=First Officer, etc., DR=Dead Reckoning, ETA=Expected Time of Arrival, MSG=Master Service Gram, OOW=Officer of the Watch, PV=*Procès-Verbal*, QM=Quartermaster, TR=Time Rush, WSL=White Star Line, WTB=Watertight Bulkhead, WTD=Watertight Door, etc. We also list the three-letter wireless call signs of the individual wireless stations, both ship and shore, that were involved.

Date & Time (NYT)	<i>Titanic</i> Bridge Time	Event(s)	References	N
10 Apr NY 03:30	8:30 AM	Wednesday, April 10, 1912, 8:30am GMT – Deck crew mustered on the boat deck for a Board of Trade inspection. Shortly after, two boats were manned and lowered on the starboard side aft, each with an officer, a QM, and 6 ABs. 5/O Lowe was in charge of No. 11, and 6/O Moody was in charge of No. 13. This was the only boat drill conducted on <i>Titanic</i> .	Lowe, AI p. 376; Scarrott, BI 503-505; Pitman, AI p. 263.	1
10 Apr NY 07:15	12:15 PM	<i>Titanic</i> departs Southampton’s Ocean Dock berth 44 to start her Maiden Voyage. She had 5,892 tons of coal on board, and 206,800 gallons of fresh water in 7 tanks. Her first port of call was Cherbourg, but she was delayed because of a near mishap involving the steamer <i>New York</i> after she left the pier. Once under control, <i>Titanic</i> proceeded down Southampton water to the Solent, and then to the Nab light vessel where she dropped off the pilot and took departure for the cross-channel voyage to Cherbourg.	Pitman, AI p. 261; BI App. Reports by BOT Officers; <i>New York Times</i> , “Titanic in Peril Upon Leaving Port,” Apr 11.	2
10 Apr NY 13:30	6:30 PM	<i>Titanic</i> arrives Cherbourg about 20 minutes before sunset. The 66 nautical mile trip across the English Channel, from the Nab light vessel to the entrance to Cherbourg harbor, was made at 68 rpm on her reciprocating engines; about 20.2 knots.	Eaton & Hass, <i>Titanic Triumph & Tragedy</i> , p. 93; Ismay, AI p. 3; www.titanicology.com/Titanica/SpeedandRevolutions.htm	
10 Apr NY 15:10	8:10 PM	After taking on passengers and mails via the White Star Line steam tenders <i>Nomadic</i> and <i>Traffic</i> , <i>Titanic</i> departs Cherbourg for the overnight trip to Queenstown, her second port of call. Trip to Queenstown was made at 70 rpm on her reciprocating engines; about 20.7 knots.	Eaton & Hass, <i>Titanic Triumph & Tragedy</i> , p. 94; Ismay, AI p. 3; www.titanicology.com/Titanica/SpeedandRevolutions.htm	
10 Apr NY 19:00	12:00 AM 11:48 PM	Master clocks set back by 12 minutes from GMT.	www.titanicology.com/WatchTablesFile.htm	

10 Apr NY 19:12	12:00 AM	8-bells. Midnight. Start of Thursday, April 11th on board <i>Titanic</i>.	www.titanicology.com/WatchTablesFile.htm	
10 Apr NY 19:25	12:13 AM	Master clocks set back by 13 minutes. Ship now on Dublin Mean Time (DMT) which was 25 minutes behind GMT in 1912.	www.titanicology.com/WatchTablesFile.htm	3
	12:00 AM			
11 Apr NY 06:55	11:30 AM	Time approximate. <i>Titanic</i> anchors 2 miles off Roche's Point outside Queenstown harbor to take on more passengers and mails. She was serviced by two WSL tenders, <i>Ireland</i> and <i>America</i> .	Behe, <i>On Board RMS Titanic</i> , letter by Margaretha Frolicher-Stehli (10am Apr 11), p. 99, and letter by Edwina Troutt (Apr 11), p. 109; Eaton & Hass, <i>Titanic Triumph & Tragedy</i> , p. 102; Ismay, AI p. 3.	
11 Apr NY 08:55	1:30 PM	<i>Titanic</i> weighs her starboard anchor and turns a quarter circle and departs to the southward toward the Daunt's Rock light vessel (situated 4 ¾ miles due south of Roche's Point Light) to drop off the pilot and begin her maiden transatlantic crossing.	Beesley, <i>The Loss of the SS Titanic</i> , Ch. 2; Eaton & Hass, <i>Titanic Triumph & Tragedy</i> , p. 101; British Islands Pilot Vol 3, 1917.	
11 Apr NY 09:20	1:55 PM	2:20pm GMT. <i>Titanic</i> takes departure off Daunt's Rock lightship located at 51° 43'N, 8° 16'W outside Queenstown harbor. "All ahead full" is ordered, and the ship works up to 70 rpm on her reciprocating engines, 20.7 knots through the water, with 20 of her 24 double-ended boilers connected up. Her heading was about S45°W True to make a point south of the Old Head of Kinsale.	Halpern, "Keeping Track of a Maiden Voyage"; www.titanicology.com/WorkingThemUp.htm www.titanicology.com/Titanica/SpeedandRevolutions.htm	4
11 Apr NY 10:01	2:36 PM	Alter-course point near 51° 33' N, 8° 32' W; about 3 miles off the Old Head of Kinsale. Course altered to about S76°W True for Fastnet light.	Halpern, "Keeping Track of a Maiden Voyage"	5
11 Apr NY 12:00	4:35 PM	Off Fastnet Light located at 51° 23' N, 9° 36' W. Course altered to about S80°W True. Proceeding Great Circle route to Corner at 42° N, 47° W.	Halpern, "Keeping Track of a Maiden Voyage."	6
11 Apr NY 19:25	12:00 AM	Master clocks set back 29 minutes from DMT.	www.titanicology.com/WatchTablesFile.htm	7
	11:31 PM			
11 Apr NY 19:54	12:00 AM	8-bells. Midnight. Start of Friday, April 12th on board <i>Titanic</i>.	www.titanicology.com/WatchTablesFile.htm	
11 Apr NY 20:24	12:30 AM	Master clocks set back 30 minutes. Ship now keeping ATS for April 12.	www.titanicology.com/WatchTablesFile.htm	8
	12:00 AM			
12 Apr NY 04:24	8:00 AM	Time estimated. Ship running at 72 rpm on reciprocating engines making 21.2 knots through the water. Additional boiler lighted in Boiler Room No. 2.	www.titanicology.com/WorkingThemUp.htm	
12 Apr NY 08:24	12:00 PM	Local Apparent Noon, Apr 12, 1912 – Approx. location 50° 06' N, 20° 43' W. First day's run posted at 484 miles. Average speed for first day's run over 23h 4m was 20.98 knots. Proceeding on Great Circle route to the Corner carrying about 72-73 rpm on her reciprocating engines.	Halpern, "Keeping Track of a Maiden Voyage"; www.titanicology.com/WorkingThemUp.htm	
12 Apr NY 14:00	5:36 PM	7:00pm GMT. <i>Titanic</i> 's position 49° 45' N, 23° 38' W. Course heading about S69°W True.	See 2:45pm NYT message to <i>La Touraine</i> .	

12 Apr NY 14:10	5:46 PM	Wireless message from <i>La Touraine</i> (MLT) to <i>Titanic</i> (MGY): “To Capt. ‘Titanic.’ My position 7 p.m. GMT lat. 49.28 long. 26.28 W. dense fog since this night crossed thick ice-field lat. 44.58 long. 50.40 ‘Paris’ saw another ice-field and two icebergs lat. 45.20 long. 45.09 ‘Paris’ saw a derelict lat. 40.56 long. 68.38 ‘Paris’ please give me your position best regards and bon voyage. Caussin”	Turnbull, BI 16056-16061.	
12 Apr NY 14:45	6:21 PM	Wireless message sent from <i>Titanic</i> (MGY) to <i>La Touraine</i> (MLT): “To Capt. ‘La Touraine,’ Thanks for your message and information my position. 7 p.m. GMT Lat. 49.45; long. 23.38. W. Greenwich; had fine weather; compliments. - Smith”	Turnbull, BI 16065.	
12 Apr NY 15:24	7:00 PM	Time approximate. Additional boiler connected up in Boiler Room No. 2. Ship now running with 21 double-ended boilers on line.	www.titanicology.com/WorkingThemUp.htm	
12 Apr NY 20:24	12:00 AM 11:36 PM	Master clocks set back 24 minutes.	www.titanicology.com/WatchTablesFile.htm	
12 Apr NY 20:48	12:00 AM	8-bells. Midnight. Start of Saturday, April 13th on board ship.	www.titanicology.com/WatchTablesFile.htm	
12 Apr NY 21:13	12:25 AM 12:00 AM	Master clocks set back 25 minutes. Ship now keeping ATS for April 13.	www.titanicology.com/WatchTablesFile.htm	
13 Apr NY 09:13	12:00 PM	Local Apparent Noon, Apr 13, 1912 – Approx. location 47° 22’ N, 33° 10’ W. Second day’s run posted at 519 miles. Average speed over 24h 49m was 20.91 knots. Second day’s run described by 2nd Class Purser Reginald Barker as somewhat of a disappointment. <i>Titanic</i> proceeding on Great Circle route to the Corner. Heading changed to about S62°W True. Engineers call for 75 revolutions. Ship now running about 22.0 to 22.2 knots through the water.	Halpern, "Keeping Track of a Maiden Voyage"; Beesley, <i>The Loss of the SS Titanic</i> ; www.titanicology.com/WorkingThemUp.htm	
13 Apr NY 10:43	1:30 PM	First class passenger Elisabeth Lines stops for coffee in the 1st class reception room. Soon Bruce Ismay along with Capt. Smith arrive and sit down nearby to talk about the day’s run. Mrs. Lines overhears Ismay tell Smith “We will beat the <i>Olympic</i> and get into New York on Tuesday.”	Chirnside and Halpern, “Speed and More Speed.”	
13 Apr NY 17:13	8:00 PM	Senior Marconi Operator Jack Phillips takes the first of a 6 hour night watch in the Marconi office. Junior Marconi Operator Harold Bride goes off duty to get some sleep.	Bride, BI 16333.	
13 Apr NY 20:13	11:00 PM	<i>Titanic</i> ’s wireless transmitter starts to give trouble as a short develops in the secondary winding of a transformer. Bride called out of bed to help Phillips troubleshoot and repair the set.	Bride, BI 16790-16791; Letter from Bride to W.R. Cross of Marconi Co. Apr 27, 1912.	9
13 Apr NY 21:13	12:00 AM 11:38 PM	Master clocks set back 22 minutes.	www.titanicology.com/WatchTablesFile.htm	10

13 Apr NY 21:35	12:00 AM	8- bells. Midnight. Start of Sunday, April 14th on board <i>Titanic</i>. – Middle Watch begins: 4/O Boxhall and 6/O Moody replace 3/O Pitman and 5/O Lowe. QMs Robert Hichens, Alfred Olliver and George Rowe replace QMs Arthur Bright, Walter Wynn, and Walter Perkis. Lookouts Alfred Evans and George Hogg replace lookouts Frederick Fleet and Reginald Lee. Senior 2nd Engineer William Farquharson and Senior Assistant 2nd Engineer Bertie Wilson take up watch in the engine and boiler rooms replacing Junior 2nd Engineer John Hesketh and Junior Assistant 2nd Engineer Jonathan Shepherd.	Halpern, "Mystery of Time - Part 1"; www.titanicology.com/WatchTablesFile.htm	
	12:23 AM			
13 Apr NY 21:58	12:00 AM	Master clocks set back 23 minutes. Ship now keeping ATS for April 14.	www.titanicology.com/WatchTablesFile.htm	
13 Apr NY 22:28	12:30 AM	1-bell.	www.titanicology.com/WatchTablesFile.htm	
13 Apr NY 22:58	1:00 AM	2-bells.	www.titanicology.com/WatchTablesFile.htm	
13 Apr NY 23:28	1:30 AM	3-bells.	www.titanicology.com/WatchTablesFile.htm	
13 Apr NY 23:36	1:38 AM	<i>Titanic</i> is now close to passing 40°W longitude near 45°N latitude. All wireless messages beyond this point would be logged in NY mean time in accordance with Marconi company practice, but <i>Titanic</i> 's transmitter is still under repair.	Halpern, "Mystery of Time - Part 1"; Bride: BI 16334; Halpern, "Keeping Track of a Maiden Voyage" (track chart)	11
13 Apr NY 23:58	2:00 AM	4-bells – C/O Henry Wilde replaces 1/O William Murdoch as Officer of the Watch (OOW). Lookouts Archie Jewell and George Symons replace lookouts Evans and Hogg. Normal time for Jack Phillips to go off duty, but because of repairs to the secondary winding of the transformer, Phillips stays on working with Bride.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 00:28	2:30 AM	5-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 00:58	3:00 AM	6-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 01:28	3:30 AM	7-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 01:58	4:00 AM	8-bells - Middle Watch ends, Morning Watch begins: 3/O Herbert Pitman and 5/O Harold Lowe replace 4/O Joseph Boxhall and 6/O James Moody. QMs Bright, Wynn, and Perkis replace QMs Hichens, Olliver, and Rowe. Lookouts Frederick Fleet and Reginald Lee replace lookouts Archie Jewell and George Symons. Junior 2nd Engineer Norman Harrison along with Junior Assistant 2nd Engineer Herbert Harvey take up watch in the engine and boiler rooms replacing Farquharson and Wilson.	Halpern, "Mystery of Time - Part 1"; www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 02:28	4:30 AM	1-bell.	www.titanicology.com/WatchTablesFile.htm	

14 Apr NY 02:58	5:00 AM	2-bells. Repair of the transformer in <i>Titanic</i> 's wireless transmitter completed by Phillips and Bride. All wireless messages will now be logged in NY mean time (NYT) instead of GMT.	Bride, BI 16790-16791; Letter from Bride to W.R. Cross of Marconi Co. Apr 27, 1912; www.titanicology.com/WatchTablesFile.htm	12
14 Apr NY 03:28	5:30 AM	3-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 03:58	6:00 AM	4-bells. 2/O Charles Lightoller replaces C/O Wilde as OOW. Lookouts Evans and Hogg replace lookouts Frederick Fleet and Reginald Lee. Ballast and fresh water tanks sounded by carpenter in accordance with IMM rules.	Halpern, "Mystery of Time - Part 1"; www.titanicology.com/WatchTablesFile.htm ; IMM Co. Rule 26.	
14 Apr NY 04:28	6:30 AM	5-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 04:58	7:00 AM	6-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 05:18	7:20 AM	7-bells. Oncoming Forenoon Watch takes breakfast.	www.titanicology.com/WatchTablesFile.htm	13
14 Apr NY 05:58	8:00 AM	8-bells - Morning Watch ends, Forenoon Watch begins: 4/O Boxhall and 6/O Moody replace 3/O Pitman and 5/O Lowe. QMs Hichens, Olliver and Rowe replace QMs Bright, Wynn, and Perkis. Lookouts Jewell and Symons replace lookouts Evans and Hogg. Junior 2nd Engineer John Hesketh along with Junior Assistant 2nd Engineer Jonathan Shepherd take up watch in the engine and boiler rooms replacing Harrison and Harvey. Three remaining double-ended boilers lit up in BR No. 2. Breakfast begins for passengers. Bars are opened.	Halpern, "Mystery of Time - Part 1"; Barrett, BI 2224 & BI 2232; www.titanicology.com/WatchTablesFile.htm ; WSL Information for Passengers.	
14 Apr NY 06:28	8:30 AM	1-bell.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 06:58	9:00 AM	2-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 07:10	9:12 AM	<i>Caronia</i> (MRA) sends message to <i>Titanic</i> (MGY): "Captain, 'Titanic.' West-bound steamers report bergs, growlers, and field ice in 42 degrees N., from 49 to 51 W. April 12. Compliments. Barr."	Turnbull, BI 16097-16099.	
14 Apr NY 07:28	9:30 AM	3-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 07:50	9:52 AM	9:40am <i>Californian</i> ATS. ETA at the corner. Capt. Lord changes heading to N60°W by compass. <i>Californian</i> 's actual position at this time is approximately 42° 05' N, 47° 00' W.	www.titanicology.com/Californian/Navigational Inconsistencies.pdf	
14 Apr NY 07:58	10:00 AM	4-bells - 1/O William Murdoch replaces 2/O Charles Lightoller as OOW. Lookouts Fleet and Lee replace lookouts Jewell and Symons. Breakfast time ends for passengers.	Halpern, "Mystery of Time - Part 1"; www.titanicology.com/WatchTablesFile.htm ; WSL Information for Passengers.	
14 Apr NY 08:05	10:07 AM	9:55am <i>Californian</i> ATS. Ship's heading changed to N59°W by compass.	www.titanicology.com/Californian/Navigational Inconsistencies.pdf	
14 Apr NY 08:26	10:28 AM	<i>Titanic</i> (MGY) sends message to <i>Caronia</i> (MRA): "Thanks for message and information. Have had variable weather throughout – Smith."	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	14
14 Apr NY 08:28	10:30 AM	5-bells. Divine Service conducted in 1st class saloon.	www.titanicology.com/WatchTablesFile.htm ; WSL Information for Passengers.	

14 Apr NY 08:58	11:00 AM	6-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 09:18	11:20 AM	7-bells. Oncoming Afternoon Watch takes their midday meal.	www.titanicology.com/WatchTablesFile.htm	15
14 Apr NY 09:45	11:47 AM	Message received from Capt. Krol of SS <i>Noordam</i> (MHA) to <i>Titanic</i> (MGY) by way of <i>Caronia</i> (MRA), "Captain SS <i>Titanic</i> . Congratulations on new command. Had moderate westerly winds, fair weather, no fog. Much ice reported in lat. 42° 24' to 42° 45' [N] and long. 49° 50' to 50° 20' [W]. Compliments. Krol."	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	16
14 Apr NY 09:58	12:00 PM	Local Apparent Noon Apr 14, 1912 – Estimated noon position 43° 02' N, 44° 31' W. Third day's run 546 miles. Average speed for 3rd day's run over 24h 45m was 22.06 knots. Revolutions kept at 75-76 rpm on reciprocating engines. Course changed to S85°W on steering compass. Course to the corner S 60° 33.6' W True. ETA at Corner set by Capt. Smith for 5:50pm. 8-bells - Forenoon Watch ends, Afternoon Watch begins: 3/O Pitman and 5/O Lowe replace 4/O Boxhall and 6/O Moody. QMs Bright, Wynn, and Perkis replace QMs Hichens, Olliver, and Rowe. Lookouts Evans and Hogg replace lookouts Fleet and Lee. Senior 2/E William Farquharson along with Senior Assistant 2/E Bertie Wilson take up watch in the engine and boiler rooms replacing Hesketh and Shepherd.	Halpern: "Keeping Track of a Maiden Voyage"; www.titanicology.com/WorkingThemUp.htm ; Halpern: "Mystery of Time - Part 1"; Halpern: "It's A CQD OM"	
14 Apr NY 10:10	12:12 PM	12:00 <i>Californian</i> ATS. Her noon position recorded in her logbook showed 42° 05' N, 47° 25' W. Lord changes heading to N61°W by compass to head down for 42° N, 51° W to avoid reported ice. Based on a sustained speed of almost 11 knots all morning and afternoon, her true noontime longitude may really have been 47° 34'W, or 25 miles west of the corner longitude.	Lord, AI p.715, BI 6782 & 7115; Stewart, BI 8712-8714; Lord's 1959 affidavit; www.titanicology.com/Californian/Navigational_Inconsistencies.pdf .	17
14 Apr NY 10:14	12:16 PM	12:00pm <i>Mount Temple</i> ATS. Her reported noon position is 41° 38' N, 48° 20' W. Ship heading down to 41° 15' N, 50° 00' W to avoid ice. She is averaging almost 11 knots.	Capt. Moore, AI p.783; PV <i>Mount Temple</i> .	
14 Apr NY 10:28	12:30 PM	1-bell. 2/O Lightoller takes over as OOW temporarily allowing 1/O Murdoch to take lunch.	Lightoller, BI 13449.	
14 Apr NY 10:29	12:31 PM	Captain Smith acknowledges receipt of ice warning from Capt. Krol of <i>Noordam</i> (MHA): "Captain <i>Noordam</i> . Many thanks. Had moderate variable weather throughout. Compliments. Smith." Message receive by <i>Caronia</i> (MRA) and forwarded to <i>Noordam</i> .	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	
14 Apr NY 10:43	12:45 PM	Capt. Smith shows <i>Caronia</i> ice message to 2/O Lightoller	Lightoller, BI 13466.	
14 Apr NY 10:58	1:00 PM	2-bells. 1/O Murdoch returns from lunch and assumes the OOW position. Luncheon for passengers begins.	Lightoller, BI 13449; WSL Information for Passengers.	
14 Apr NY 11:28	1:30 PM	3-bells.	www.titanicology.com/WatchTablesFile.htm	

14 Apr NY 11:47	1:49 PM	Message received from <i>Amerika</i> (DDR) to <i>Titanic</i> (MGY), "To the steamer 'Titanic' M.S.G. via Cape Race to the Hydrographic Office, Washington. D S 'Amerika' passed two large icebergs 41 deg. 27 min. N., 50 deg. 8 min. W., on the 14th April.- Knuth."	Turnbull, BI 16124-16130.	
14 Apr NY 11:52	1:54 PM	<i>Baltic</i> (MBC) sends message to <i>Titanic</i> (MGY): "Captain Smith, 'Titanic.' Have had moderate variable winds and clear fine weather since leaving. Greek steamer 'Athenai' reports passing icebergs and large quantities of field ice today in lat. 41° 51' N., long. 49° 52' W. Last night we spoke German oil-tank steamer 'Deutschland,' Stettin to Philadelphia, not under control, short of coal, lat. 40° 42' N. long. 55° 11' W. Wishes to be reported to New York and other steamers. Wish you and 'Titanic' all success. - Commander." Capt. Smith would later give this message to Bruce Ismay, who in turn, would show it to several passengers before Capt. Smith asked for it back.	Turnbull, BI 16176; Chirnside and Halpern, "Speed and More Speed."	
14 Apr NY 11:58	2:00 PM	4-bells. C/O Wilde replaces 1/O Murdoch as OOW. Lookouts Jewell and Symons replace lookouts Evans and Hogg.	Halpern, "Mystery of Time - Part 1"	
14 Apr NY 12:28	2:30 PM	5-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 12:55	2:57 PM	<i>Titanic</i> (MGY) sends message to <i>Baltic</i> (MBC): "Thanks for your message and good wishes; had fine weather since leaving. - Smith."	Turnbull, BI 16178.	
14 Apr NY 12:58	3:00 PM	6-bells. Fireman John Thompson sees 2/E Farquharson chalk up 77 revolutions. If accurate, <i>Titanic</i> would be making about 22.3 knots through the water at this time.	Interview articles written in <i>New Haven Evening Register</i> , April 22, 1912, and the <i>New York American</i> , April 22, 1912.	
14 Apr NY 13:28	3:30 PM	7-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 13:58	4:00 PM	8-bells – Afternoon Watch ends, First Dog Watch begins: 4/O Boxhall and 6/O Moody replace 3/O Pitman and 5/O Lowe. QMs Hichens, Olliver and Rowe replace QMs Bright, Wynn, and Perkis. QM Rowe takes the wheel. Lookouts Fleet and Lee replace lookouts Jewell and Symons. Junior 2/E Norman Harrison along with Junior Assistant 2/E Herbert Harvey take up watch in the engine and boiler rooms replacing Farquharson and Wilson.	Halpern, "Mystery of Time - Part 1"	
14 Apr NY 14:28	4:30 PM	1-bell.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 14:58	5:00 PM	2-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 15:28	5:30 PM	3-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 15:48	5:50 PM	<i>Titanic's</i> course altered from S85°W to N71°W by steering compass intending to make 265° True to the Nantucket Shoals light vessel. QM Rowe at the helm. <i>Titanic</i> would have been about 3 miles past the corner point if she continued at a speed-made-good of about 22.1 knots.	Halpern, "It's a CQD OM."	18

14 Apr NY 15:58	6:00 PM	4-bells – First Dog Watch ends, Second Dog Watch begins: 3/O Pitman and 5/O Lowe replace 4/O Boxhall and 6/O Moody. QMs Bright, Wynn, and Perkis replace QMs Hichens, Olliver, and Rowe. QM Bright takes the wheel from Rowe. Lookouts Evans and Hogg replace lookouts Fleet and Lee. 2/O Lightoller replaces C/O Wilde as OOW. Ballast and fresh water tanks sounded by carpenter. Bruce Ismay shows the ice warning from <i>Baltic</i> , given to him earlier by Capt. Smith, to Mrs. Emily Ryerson who was with Mrs. Marian Thayer sitting near the companionway on A deck.	Halpern, "Mystery of Time - Part 1"; IMM Co. Rule 24; Chirnside and Halpern, "Speed and More Speed."	
14 Apr NY 16:28	6:30 PM	1-bell.	www.titanicology.com/WatchTablesFile.htm	19
14 Apr NY 16:40	6:42 PM	6:30pm <i>Californian</i> ATS. Ship's DR position at 42° 03' N, 49° 09' W. Three large icebergs sighted 5 miles to their south.	See entry for 5:35pm NYT.	
14 Apr NY 16:58	7:00 PM	2-bells. 1/O Murdoch takes over as OOW temporarily allowing 2/O Lightoller to have some dinner. The double-ended boilers that were lit in the morning in BR 2 are now put on line, but firemen told to ease down firing. Dinner for passengers begins.	Lightoller, BI 13587; Deposition of Alfred Shiers 1915 Limitation of Liability Hearings; WSL Information for Passengers.	20
14 Apr NY 17:10	7:12 PM	<i>Carpathia</i> (MPA) exchanges TRs with <i>Titanic</i> (MGY) and receives one passenger message from <i>Titanic</i> .	PV <i>Carpathia</i> ; Cottam, BI 17067.	21
14 Apr NY 17:13	7:15 PM	1/O Murdoch tells lamp-trimmer Samuel Hemming: "Hemming, when you go forward see the fore-scuttle hatch closed, as we are in the vicinity of ice, and there is a glow coming from that, and I want everything dark before the bridge."	Hemming, BI 17705.	
14 Apr NY 17:20	7:22 PM	<i>Titanic</i> (MGY) and <i>Californian</i> (MWL) exchange contact information. From the <i>procès-verbal</i> of the <i>Californian</i> : "5.20 p.m. New York time, exchanged TRs M.G.Y. nil."	Turnbull, BI 16192.	
14 Apr NY 17:26	7:28 PM	7:12pm <i>Mount Temple</i> ATS. Capt. Moore changes his ship's course to 281° True for Cape Sable. Her DR location at this time is 41° 15' N, 50° 00' W.	Capt. Moore, AI p.783.	
14 Apr NY 17:28	7:30 PM	3-bells. 2/O Lightoller returns from dinner and 1/O Murdoch tells him the temperature dropped another 4 degrees. Lightoller goes out on bridge wing to take a set of star sights assisted by 3/O Pitman who will take the time of each site.	Lightoller, BI 13578; Pitman, AI pp. 272-273.	
14 Apr NY 17:30	7:32 PM	Signals exchanged between <i>Carpathia</i> (MPA) and <i>Titanic</i> (MGY).	Cottam, BI 17067.	
14 Apr NY 17:35	7:37 PM	<i>Titanic</i> (MGY) intercepts MSG message from <i>Californian</i> (MWL) to <i>Antillian</i> (MJL): "To Captain 'Antillian,' 6.30 p.m. apparent time, ship; lat. 42° 3' N., long. 49° 9' W. Three large bergs five miles to southward of us. Regards. Lord"	Turnbull, BI 16197.	
14 Apr NY 17:38	7:40 PM	Star sights completed. 3/O Pitman begins the sight reduction process.	Pitman, AI pp. 272-273.	

14 Apr NY 17:58	8:00 PM	8-bells – Second Dog Watch ends, First Watch begins: 4/O Boxhall and 6/O Moody replace 3/O Pitman and 5/O Lowe. Lookouts Jewell and Symons replace lookouts Evans and Hogg up in the nest. QM Rowe goes onto the after-bridge. QM Olliver takes the helm while QM Hichens takes the standby QM position. Junior 2/E John Hesketh along with Junior Assistant 2/E Jonathan Shepherd take up watch in the engine and boiler rooms replacing Harrison and Harvey. Upon seeing Boxhall enter the chart room, Pitman handed him the set of sights and said, “Here is a bunch of sights for you, old man. Go ahead.” Ship's position for 8:00pm (worked up by 5/O Lowe) entered in the Night Orders book.	Halpern, "Mystery of Time - Part 1"; www.titanicology.com/WatchTablesFile.htm; Pitman, AI p. 275; Lowe, AI p. 383; IMM Co. Rule 114.	22
14 Apr NY 18:28	8:30 PM	1-bell.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 18:53	8:55 PM	Capt. Smith comes onto the bridge and starts a conversation with 2/O Lightoller concerning weather and seeing conditions.	Lightoller, BI 13615.	
14 Apr NY 18:58	9:00 PM	2-bells.	www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 19:23	9:25 PM	Capt. Smith to 2/O Lightoller: “If it becomes at all doubtful let me know at once; I will be just inside.” Capt. Smith leaves the bridge to go inside to his quarters.	Lightoller, BI 13635-13636.	23
14 Apr NY 19:28	9:30 PM	3-bells. 2/O Lightoller tells 6/O Moody to ring up the crow's-nest and tell the lookouts to keep a sharp look out for ice, particularly small ice and growlers. QM Hichens told to find the carpenter and tell him to look after the fresh water as it might freeze.	Lightoller, BI 13658 & BI 13671; Poingdestre, BI 2812-2815; www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 19:30	9:32 PM	<i>Titanic</i> (MGY) to Cape Race (MCE) from <i>Amerika</i> (DDR), "Hydrographic Office, Washington. <i>Amerika</i> passed two large icebergs in 41.27N, 50.8W on the 14th of April. Knuth."	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	
14 Apr NY 19:43	9:45 PM	QM Hichens calls upon 1/O Murdoch informing him it is "one bell" (a quarter to 10) and he is due on deck in 15 minutes.	Hichens, AI p. 450.	24
14 Apr NY 19:50	9:52 PM	Wireless message transmitted from <i>Mesaba</i> (MMV) to <i>Titanic</i> (MGY) and all east-bound ships. “Ice report in latitude 42 N. to 41° 25’ N., longitude 49 W. to longitude 50° 30’ W. Saw much heavy pack ice, and great number large icebergs. Also field ice. Weather good, clear.”	Solicitor-General, BI 15735.	
14 Apr NY 19:58	10:00 PM	4-bells. 1/O Murdoch replaces 2/O Lightoller as OOW. Lookouts Fleet and Lee replace lookouts Jewell and Symons up in the nest. QM Hichens takes the wheel replacing QM Olliver having just taken the log reading by phone from QM Rowe on the afterbridge. Olliver takes the QM standby position. Ship traveled 45 nautical miles through the water since 8 PM, averaging 22.5 knots. Passenger Henry Stengel notices “the engines were running faster than at any other time during the trip.”	Halpern, "Mystery of Time - Part 1"; Hichens, BI 965; Stengel, AI p. 971; www.titanicology.com/WatchTablesFile.htm	
14 Apr NY 20:28	10:30 PM	5-bells.	www.titanicology.com/WatchTablesFile.htm	

14 Apr NY 20:31	10:33 PM	10:21pm <i>Californian</i> ATS. Ship forced to stop because of a field of pack ice directly in her path. Derived DR position was 42° 02' N, 50° 07' W, 17 miles from where <i>Titanic's</i> SOS position was later given.	Lord, BI 6702-6704 and AI p.717;	
14 Apr NY 20:58	11:00 PM	6-bells. Lights in the Saloons are extinguished.	www.titanicology.com/WatchTablesFile.htm; WSL Information for Passengers.	
14 Apr NY 21:05	11:07 PM	Wireless operator Evans on <i>Californian</i> sends wireless message to <i>Titanic</i> : "MGY this is MWL. We are stopped and surrounded by ice." Phillips on <i>Titanic</i> was busy working Cape Race (MCE) at the time, and told Evans to "Keep out" [DDD].	Evans, BI 8990.	
14 Apr NY 21:13	11:15 PM	Passenger Lawrence Beesley climbs into his top berth to read and where he "noticed particularly the increased vibration of the ship."	Beesley, <i>The Loss of the SS Titanic</i> .	
14 Apr NY 21:28	11:30 PM	7-bells. Lights in the Lounges are extinguished. Passenger Edith Rosenbaum, in the Reading & Writing room on A deck, is told "Lights out, it is 11:30" by a steward. She takes two books and walks ahead to her cabin A-11 forward, turns on the light and prepares to turn in.	www.titanicology.com/WatchTablesFile.htm; WSL Information for Passengers; Edith Russell's 1934 account.	25
14 Apr NY 21:37	11:39 PM	QM Hichens: "All went along very well until [about] 20 minutes to 12, when three gongs came from the lookout, and immediately afterwards a report on the telephone, 'Iceberg right ahead.'...He [Mr. Murdoch] rushed to the engines. I heard the telegraph bell ring; also give the order 'Hard-astarboard.'" Upon hearing the lookout bells, QM Olliver leaves the compass platform for the bridge. Barrett in BR 6 hears the boiler room telegraph bell ring and sees the red light come on the illuminated telegraph indicating "STOP" just moments before the collision. He and 2/E Hesketh call out to "shut the dampers." Ship's head starts to swing over to port as the tiller is now hard over to starboard.	Hichens, AI p.450; Fleet, BI 17280-17281; Olliver, AI p. 526; Barrett, BI 1860-1866.	26
14 Apr NY 2138	11:40 PM	Collision with iceberg. Location approximately 41° 45.5' N, 49° 55' W; Boxhall abreast captain's quarters walking toward bridge. QM Olliver steps onto bridge and sees 1/O Murdoch at the WTD switch. He also sees the peak of the iceberg pass the bridge and hears Murdoch call "Hard-aport." 4/O Boxhall steps onto bridge in time to see Murdoch still about the WTD switch. Leading Fireman Barrett sees water pouring in 2 feet above the stokehold plates in BR 6, No. 10 stokehold, and jumps through the WTD into BR 5 with 2/E Hesketh just seconds before it closed. He then notices water coming into the empty starboard side forward bunker of BR 5. Coal falls all around trimmer George Cavell in the aft bunker of BR 4, and immediately he starts to dig himself out. QM Rowe reads the taffrail log out on the poop. It shows the ship traveled 260 nautical miles through the water since noon, averaging 22.29 knots.	Halpern, "Collision Point"; Boxhall, AI p.228; QM Olliver, AI p.526-537; Boxhall, AI p.229-231; Barrett, BI 1868 & 1917; Cavell, BI 4201-4203; Rowe, AI p. 523.	27

14 Apr NY 21:39	11:41 PM	Capt. Smith comes through the wheelhouse onto the bridge and asks Murdoch "What have we struck?" Murdoch replies, "An iceberg, Sir." Smith tells him to close the WTDs. Murdoch said "they are already closed, Sir." Boxhall, Murdoch, and Smith step out briefly onto the starboard bridge wing to look for the iceberg as the ship's head is now swinging to starboard with the tiller hard over to port.	Boxhall, AI p.229-231; Hichens, AI p.450; Olliver, AI p.531.
14 Apr NY 21:40	11:42 PM	4/O Boxhall drops down to inspect forward passenger spaces. 2/O Lightoller notices that the ship's engines have stopped and decides to go out from his cabin to investigate. Beesley notices engines have stopped and decides to go up the 2nd class staircase to the boat deck to investigate. Greaser Thomas Ranger notices changeover valves in turbine room had come up indicating the turbine engine had stopped. AB Scarrott sees iceberg off starboard quarter as ship's stern is pulling away as ship is seen turning to port. Trimmer Dillon down in the engine room notices that the ship's engines had stopped and then soon started to reverse. Lamp Trimmer Hemming hears hissing sound as air escapes from forepeak tank. On <i>Californian</i> , 3/O Groves drops down to talk to Capt. Lord about an approaching "passenger steamer coming up on us" from abaft their starboard beam.	Boxhall, BI 15573; Lightoller, BI 13743, AI p.60; Beesley, <i>The Loss of the SS Titanic</i> ; Ranger, BI 4002; Scarrott, BI 355-356; Dillon, BI 3716-3729; Hemming, BI 17716; Groves, BI 8169-8172.
14 Apr NY 21:41	11:43 PM	After seeing Capt. Smith put the engine telegraphs to "stop" and then what appeared to be "half speed ahead," standby QM Olliver was told to go down and find the carpenter and tell him "to go and take the draft of the water." Trimmer Dillon sees the ship's engines start to go ahead slowly. Henry Stengel notices that the ship's engines appear to be moving again, but was not sure why.	QM Olliver, AI p.526-537; Dillon, BI 3716-3729; Stengel, AI p. 975.
14 Apr NY 21:43	11:45 PM	Fireman Shiers, having seen the iceberg disappearing into the night off the starboard quarter, now notices the ship still moving but not by much. Sees ice on the well deck. Lightoller sees 1/O Murdoch looking out on port bridge wing, and notices that <i>Titanic</i> was moving only 4-6 knots through the water. He then crosses to starboard side where he sees Capt. Smith looking out on the starboard bridge wing. Hemming discovers peak tank flooding fast from air hissing out of vent pipe, but soon finds out that the forepeak above the tank was dry. Boatswain's Mate Haines: "Just as I got there the chief officer, Mr. Wilde, had gotten there, and the lamp trimmer was there, Mr. Hemming. We said the forepeak tank was filling; the air was coming out and the water was coming in." Many of the crew see ice on the forward well deck after coming up from below including Leading Fireman Hendrickson, who like Shiers, said he got a glimpse of the iceberg. Lightoller meets Pitman after returning to his cabin.	Shiers, BI 4532-4547; Lightoller, BI 13753-13761 and AI. p.60; Hemming, BI 17716 & 17724; Haines, AI p.655-657; Poingdestre, BI 2799-2804 & BI 2821-2825; Hendrickson, BI 4842-4851.

14 Apr NY 21:44	11:46 PM	Engines put on "Stop" for the last time after ship moved further away from the iceberg which had disappeared off the starboard quarter. Ismay finds Smith on bridge, asks him what happened, and is told that the ship struck ice and may be damaged seriously.	Dillon, BI 3716-3729; Ismay, BI 18505-18514.	
14 Apr NY 21:45	11:47 PM	<i>Virginian</i> (MGN) standing by as "Cape Race (MCE) working continuously with <i>Titanic</i> (MGY)." Last signal exchanged between <i>Carpathia</i> (MPA) and <i>Titanic</i> (MGY) prior to distress message going out. Phillips did not know what happened to <i>Titanic</i> at this point in time other than some mishap took place. Bride was to later tell Senator Smith "that he [Phillips] thought she had got damaged in some way and that he expected that we should have to go back to Harland & Wolff's." Hendrickson decides the collision was nothing serious and goes back down to his quarters to turn in again. 2/E Hesketh tells everyone to return to their stations, and Leading Fireman Barrett and Assistant 2/E Shepherd climb up the escape to go back to BR 6.	PV <i>Virginian</i> ; Cottam, BI 17067; Bride, AI p.145; Hendrickson, BI 4852-4853; Barrett, BI 1926 & 1935-1937.	29
14 Apr NY 21:48	11:50 PM	AB Buley hears water entering Hold 1 and sees tarp ballooning over hatch. Boatswain's Mate Haines sees tarp ballooning over hatch in Hold 1, and goes to inform C/O Wilde. Leading Fireman Hendrickson told about water coming in at bottom of firemen's tunnel after returning to his quarters on G deck, sees water coming in from starboard side looking down from G deck, and decides to go to the engine room to tell the engineers. Barrett sees water about 8 ft over the stokehold plates in BR 6, and returns to BR 5 with Shepherd. AB Poingdestre returns to the mess room where the carpenter tells him that there is 7 ft of water in Hold 1. Hichens notices an initial 5° list to starboard. 4/O Boxhall returns from his inspection forward, reports no damage seen, ordered to find the carpenter to sound the ship forward, and meets the carpenter coming up the ladder from A deck on his way down. After carpenter reported to Capt. Smith that Holds 1, 2 and 3, were flooding, Smith decides to go below to find C/E Bell and/or meet up with Thomas Andrews. Andrews is seen coming through 1st class saloon, then down pantry stairs to E deck, and turn aft toward engine room by Saloon Watchman James Johnston.	Buley, AI p.607; Haines, AI p.657; Barrett, BI 1926 & 1935-1937; Hendrickson, BI 4853-4856, 4865-4870; Poingdestre, BI 2821-2825; Hichens, AI p.451; Boxhall, BI 15576-15583; Johnston, BI 3367- 3372.	

14 Apr NY 21:50	11:52 PM	Call comes in from engine room to send all the stokers up. Stokers coming out onto E deck seen by Olliver as he was heading down to the engine room with a note for C/E Bell. Harvey in BR 5 tells Barrett to stay behind. Suddenly the lights go out in the stokeholds. Barrett is told get lamps for BR 5. Trimmer Cavell comes out of the bunker in the aft part of BR 4 just as the lights go out. 4/O Boxhall sees water within 2 ft of G deck by mail room. Capt. Smith seen coming down working staircase onto E deck and going toward engine room. This was soon after Andrews was seen going in that direction. <i>Californian's</i> 3/O Groves notices steamer appeared to be stopped and most of her deck lights appeared to be shut out. Time noted at 11:40pm <i>Californian</i> ATS by the striking of "one bell" to inform the watch below that they were due on deck in 20 minutes.	Barrett, BI 1957-1961, 1970-1993; Olliver, AI p. 534; Cavell, BI 4215-4218; Boxhall, BI 15374-15379; Mackay, BI 10696; Johnston, BI 3367- 3372; Groves, BI 8217; Stone, BI 7823.	30
14 Apr NY 21:53	11:55 PM	Leading Fireman Threlfall woken up by a shout from someone. He has to wade through water in passage from his quarters on G deck to get to spiral staircase to go up to mess deck. Saw water flowing down staircase into stokehold tunnel. Lookout Symons hears "all hands standby, as you may be wanted at any moment" called by boatswain. Then goes and sees water coming onto G deck around coamings of hatch in Hold 1. Hendrickson, on his way to the engine room, meets Hesketh coming along on E deck and is told to get lamps to bring down into the stokeholds. Cavell is told to get lamps to bring down to BR 4. James Johnston, after following Andrews from the engine room to the mail room, sees flooding in baggage room down on G deck looking from F deck landing near squash court steps in Hold 3. Assistant 2nd Steward Wheat sees water coming onto G deck in Hold 3 just after meeting with James Johnston.	Threlfall, Bridgewater Mercury, May 1912; Symons, BI 11354-11356, BI 11402-11413, 11418; Hendrickson, BI 4896-4902; Cavell, BI 4240-4243; James Johnston, BI 3395-3397; Wheat, BI 10901-10918.	31
14 Apr NY 21:55	11:57 PM	<i>Carpathia</i> (MPA) signals <i>Mount Temple</i> (MLQ) "Good Night." Makes note that his signals were very weak. This was at the time that Cottam was preparing to turn in. Capt. Smith seen going back up the working staircase by Saloon Steward Mackay. Olliver delivers Bell's response to C/O Wilde and then told to find the boatswain and tell him to get the boats ready for lowering.	PV <i>Mount Temple</i> ; PV <i>Carpathia</i> ; Mackay, BI 10697; Olliver, AI p. 535-536.	32
14 Apr NY 21:58	12:00 AM	Clocks not put back because of the accident. Evans and Hogg go up and replace Fleet and Lee in the nest believing it was time to go on watch. Boxhall returns from mailroom and informs Capt. Smith of flooding seen there. Smith said nothing to him and went off the bridge. Boxhall told (by Wilde?) to call out the off duty officers. "All hands up and about the boats" ordered by the boatswain in the forecastle. Olliver told by Moody to get muster list for the boats. Joseph Wheat starts closing WTDs on F deck at WTB-F.	Pitman, AI p.294; Hogg, AI p. 577-578; Boxhall, BI 15584-15588 & BI 15378-15385; Lightoller, BI 13785; Symons, BI 11418; Olliver, AI p. 536; Wheat, BI 10937.	33

14 Apr NY 22:00	12:02 AM	Lights come back on in stokeholds. Barrett returned to BR 5 and noticed the water gauges were low. Told to get some men down to draw fires. Hendrickson returns with lamps, attempts to go down into BR 6 first but finds the water too high there. He then goes down into BR 5 and told to put his lamps up by the boiler gauges and start drawing fires. 2/E Harvey tells Hendrickson to get more men down. Norman Chambers saw three "officers" inspect flooding in mail room and 1st-class baggage room. Water was seen within 2 ft of F deck there at this time but appeared not to be rising much according to a remark overheard from one of those officers.	Barrett: BI 2007-2014; Hendrickson, BI 4903-4911; Chambers, AI p.1042; Pitman, BI 14949-14967.	34
14 Apr NY 22:03	12:05 AM	Returning from calling upon the off duty officers, Boxhall went right along the line of boats on the port side and saw the men on deck (from his watch) already starting with the work. He goes to uncover boats on port side. Pitman, already dressed, comes on deck, notices that boats on port side were being uncovered, notices that steam was blowing off from the boilers, and goes aft and finds Moody who told him about ice in the forward well deck. Pitman then goes forward to investigate. Captain Smith seen going toward mailroom with Chief Purser McElroy and a mail clerk. Hendrickson goes forward to get more men and sees tarp over Hatch 1 ballooning up, and heads back to engine room to report. Beesley notices an officer (Moody?) starting to uncover boat No. 16 as he starts to go down 2nd class staircase from the boat deck for the second time.	Boxhall, BI 15384-15385; Pitman, BI 14949-14955; Robinson, BI 13277-13283; Hendrickson, BI 4912-4929; Beesley, <i>The Loss of the SS Titanic</i> .	
14 Apr NY 22:06	12:08 AM	Pitman sees the ice in well deck and goes to investigate for structural damage under the forecandle head. He sees a group of firemen come up with their belongings, and sees water coming in from under and around hatch in Hold 1 down on G deck.	Pitman, BI 14957-14967.	35
14 Apr NY 22:08	12:10 AM	Pitman returns to boat deck and sees boats being uncovered on the starboard side. Dillon and others ordered to open all the WTDs going forward from the engine room all the way into BR 4. Annie Robinson sees water within six steps of coming onto E deck (4 ft below) by stairs going down to the mailroom. She said this was just after seeing Smith and Andrews come back from the mail room. She overheard Andrews tell Smith, "Well, three have gone already, Captain," a reference to three watertight compartments (Holds 1, 2 and 3). Smith separates from Andrews to go back up to the bridge.	Pitman, BI 14968-14969; Dillon, BI 3913 & 3916-3917; Robinson, BI 13277-13283; Bullock, <i>Thomas Andrews Shipbuilder</i> .	36
14 Apr NY 22:10	12:12 AM	QM Hichens hears Capt. Smith given order to swing out the boats and have passengers be called up with lifebelts on. Ismay hears Capt. Smith giving some order about getting the boats out.	Hichens, BI 1041-1043; Ismay, AI p. 3.	37

14 Apr NY 22:13	12:15 AM	Capt. Smith gives notice to the two Marconi operators that they may need to send a CQD but not to send it until he tells them to. Wheat said this was about the time that stewards were ordered to rouse passengers and get them on deck with lifebelts. Chief Baker Joughin sends 13 men up with 4 loaves of bread each to put into the boats.	Bride's exclusive NY Times interview; Wheat, BI 13229; Joughin, BI 5924.	
14 Apr NY 22:20	12:22 AM	Thomas Andrews is seen by William Sloper and Anna Warren running up the staircase 3 steps at a time toward the bridge. He tells Capt. Smith that the ship cannot be saved and has only 1 to 1.5 hours left.	See Section 7.	38
14 Apr NY 22:23	12:25 AM	After escaping from 3 ft of water on E deck after the collapse of a wooden bulkhead separating the crew's quarters from 3rd class space, AB Poingdestre goes back up to the boat deck in time to hear Capt. Smith order the boats be loaded with women and children. Smith then goes to the Marconi room and tells Phillips to send a call for assistance after giving him the ship's position.	Poingdestre, BI 2842-2858; See Section 7.	39
14 Apr NY 22:25	12:27 AM	First CQD transmitted by Phillips with distress coordinates 41° 44'N, 50° 24'W. This call was received by <i>La Provence</i> (MLP), <i>Mount Temple</i> (MLQ), and the land station at Cape Race (MCE). <i>Frankfurt</i> (DFT) also picked up a signal from <i>Titanic</i> , but may have thought it was a routine TR exchange through all the atmospherics. It seems that Phillips may have heard <i>Frankfurt's</i> call sign [DFT] despite the noise of steam blowing off. Boxhall comes on bridge to see a light that was reported off <i>Titanic's</i> port bow. He asks Capt. Smith if it is serious and Smith tells him that Thomas Andrews thinks she has from 1 to 1.5 hours left. Boxhall asks Smith if distress message was sent, and Smith suggests that he check the position after Boxhall told him that the ship was ahead of her DR. Andrews tells Stewardess Annie Robinson to put her lifebelt on so passengers will see.	List of wireless messages in BI Report; Log of messages at Cape Race; Capt. Moore, AI p.759; PV <i>Frankfurt</i> ; Boxhall, BI 15610; Halpern, "It's a CQD OM"; Robinson, BI 13305.	40
14 Apr NY 22:28	12:30 AM	<i>Ypiranga</i> (DYA) hears CQD call from <i>Titanic</i> (MGY): "CQD here, position 41.44N, 50.24W. We require assistance."	PV <i>Ypiranga</i> ; List of wireless messages in BI Report.	
14 Apr NY 22:31	12:33 AM	<i>Caronia</i> (MRA) picks up distress call from <i>Titanic</i> (MGY) saying "I require assistance immediately..."	PV <i>Caronia</i> .	
14 Apr NY 22:33	12:35 AM	Boxhall shows Smith his CQD coordinates and told to take it to the wireless cabin.	Boxhall, BI 15391.	
14 Apr NY 22:34	12:36 AM	<i>Titanic</i> (MGY) communicates with <i>Asian</i> (MKL). Boxhall leaves "corrected" position with Phillips who was busy at the transmitting key.	PV <i>Ypiranga</i> ; Boxhall, AI p. 233.	
14 Apr NY 22:35	12:37 AM	CQD from <i>Titanic</i> (MGY) received by <i>Carpathia</i> (MPA): "Come at once. We have struck a berg. It's a CQD OM. Position 41° 46'N, 50° 14'W." Cape Race (MCE) hears corrected position 41° 46'N, 50° 14'W transmitted from <i>Titanic</i> . <i>Baltic</i> (MBC) hears about <i>Titanic</i> via <i>Caronia</i> (MRS). <i>Birma</i> (SBA) hears <i>Titanic</i> calling for assistance.	List of wireless messages in BI Report; Marconi Co. letter to Wreck Commission, May 01, 1912.; PV <i>Mount Temple</i> ; Halpern, "The Enigmatic Excursion of the SS <i>Birma</i> ."	

14 Apr NY 22:36	12:38 AM	<i>Ypiranga</i> (DYA) hears CQD from <i>Titanic</i> (MGY) with corrected position: "MGY sends CQD, here is corrected position 41.46N, 50.14W. Require immediate assistance. We have collision with iceberg. Sinking. Can hear nothing for noise of steam."	PV <i>Ypiranga</i> .	
14 Apr NY 22:38	12:40 AM	First lifeboat launched, No. 7, starboard side forward. Lookout Hogg put in charge.	Lifeboat launch time table.	
14 Apr NY 22:40	12:42 AM	<i>Mount Temple</i> (MLQ) hears <i>Titanic</i> (MGY) calling CQD. Capt. Moore turns his ship for the corrected distress position. <i>Mount Temple</i> at DR location 41° 25' N, 51° 14' W, or 49.5 nautical miles heading 065° True for the Boxhall CQD position. <i>Mount Temple</i> ship's time was 12:26am ATS. <i>Frankfurt</i> (DFT) communicates with <i>Titanic</i> . Receives <i>Titanic's</i> position and was asked to tell her captain "to come to our help, we are on ice." <i>Frankfurt</i> acknowledges with "OK, stdbi." Bride is sent to tell Capt. Smith that <i>Frankfurt</i> responded to their call. He finds Smith on the boat deck overseeing the loading and lowering of the boats. Smith tells Bride to find out <i>Frankfurt's</i> position.	PV <i>Mount Temple</i> ; Capt. Moore, AI p.759; Durrant, BI 9436-9437; PV <i>Frankfurt</i> ; Bride, AI p. 147.	
14 Apr NY 22:41	12:43 AM	Boat No. 5 launched. 3/O Pitman put in charge.	Lifeboat launch time table; Pitman, AI p. 289.	
14 Apr NY 22:43	12:45 AM	Assistant 2nd Steward Wheat sees water flowing down 1st class stairs from E deck down to F deck by Turkish baths. He estimated the time as "about a quarter or ten minutes to 1." Greaser Scott and others ordered to open all the WTDs aft of the engine room. The engineers wanted to get to a portable suction pipe to bring forward.	Wheat, BI 10956-10972; Scott, BI 5600-5604.	41
14 Apr NY 22:45	12:47 AM	12:35 <i>Californian</i> ATS, 2/O Stone goes to speaking tube to answer a call from Capt. Lord who asked about the position of the stopped steamer off their starboard beam. First distress socket signal sent up by 4/O Boxhall on <i>Titanic</i> . <i>Baltic</i> (MBC) calling <i>Titanic</i> (MGY), but gets no response.	Stone's signed statement to Capt. Lord Apr 18, 1912; Wormstedt, Fitch, Behe, "Lifeboat Launch Sequence Re-Examined" 2010; Halpern, "Rockets, Lifeboats, and Time Changes"; PV <i>Baltic</i> .	
14 Apr NY 22:46	12:48 AM	<i>Frankfurt</i> (DFT) calls <i>Titanic</i> (MGY) and gives his position for 12am at 39.47N, 52.10W. <i>Titanic</i> asks "Are you coming to our assistance?" <i>Frankfurt</i> asks: "What is the matter with you?" <i>Titanic</i> replies: "We have struck iceberg and sinking; please tell captain to come." "OK; will tell the bridge right away." "OK; yes; quick." 4/O Boxhall answers a call on a phone in the wheelhouse from QM Rowe out on the afterbridge. Rowe reports that he sees a boat in the water, and Boxhall tells Rowe to bring extra distress socket signals to the bridge. Both Rowe and QM Bright go down to the QM locker to get them.	PV <i>Mount Temple</i> ; PV <i>Ypiranga</i> ; Wormstedt, Fitch, Behe, "Lifeboat Launch Sequence Re-Examined" 2010.	42

14 Apr NY 22:47	12:49 AM	<i>Carpathia</i> (MPA) gives position to <i>Titanic</i> (MGY) after Cottam heard <i>Titanic</i> finish communicating with <i>Frankfurt</i> . Bride was sent to tell Capt. Smith that <i>Carpathia</i> was coming. He found him in the wheelhouse, and Smith followed Bride back to the Marconi cabin.	Cottam, BI 17068, 17115, 17125-17134; Bride, AI p. 148-149.	43
14 Apr NY 22:48	12:50 AM	Steward Ray sees water on E deck up to 2nd funnel casing by the main 1st class stairway port & starboard sides. This was after going down to his quarters on E deck to get an overcoat having first witnessed Boat No. 7 lowered to the sea.	Ray, AI p. 803-804.	44
14 Apr NY 22:50	12:52 AM	<i>Olympic</i> (MKC) hears <i>Titanic</i> (MGY) signaling some ship about striking an iceberg. They are not sure it is the <i>Titanic</i> who has struck an iceberg because of interference by atmospherics and many stations working.	PV <i>Olympic</i> .	
14 Apr NY 22:51	12:53 AM	<i>Carpathia</i> (MPA) calls <i>Titanic</i> (MGY) to confirm both positions. <i>Titanic</i> replied, "All right." This was followed by a call from <i>Frankfurt</i> (DFT) to <i>Titanic</i> according to Cottam on <i>Carpathia</i> .	Cottam, AI p. 104-105.	45
15 Apr NY 22:52	12:54 AM	<i>Olympic</i> (MKC) tries calling <i>Titanic</i> (MGY).	PV <i>Ypiranga</i> .	46
14 Apr NY 22:53	12:55 AM	Boat No. 3 launched. AB Moore put in charge. Cottam on <i>Carpathia</i> was overhearing messages and said that he contacted <i>Titanic</i> to tell them that <i>Olympic</i> was calling them. <i>Titanic</i> told him that "he could not read him because of the rush of air and the escape of steam." This was but minutes after his position confirmation message.	Lifeboat launch time table; Cottam, AI p.105-106.	47
14 Apr NY 22:55	12:57 AM	12:45am <i>Californian</i> ATS, 2/O Stone sees the first of 8 white rockets burst over steamer on his starboard beam. <i>Mount Temple</i> hears "MGY calling SOS." <i>Celtic</i> (MLC) overhears <i>Titanic</i> telling <i>Olympic</i> "I require immediate assistance."	Signed statement by 2/O Stone to Capt. Lord, April 18; PV <i>Mount Temple</i> ; Marconi Co. letter to Wreck Commission, May 01, 1912.	
14 Apr NY 22:57	12:59 AM	<i>Mount Temple</i> hears <i>Titanic</i> (MGY) calling <i>Olympic</i> (MKC).	PV <i>Mount Temple</i> .	
14 Apr NY 22:58	1:00 AM	Boat No. 8 launched on port side forward. AB Jones put in charge. <i>Caronia</i> (MRA) gives <i>Baltic</i> (MBC) additional information about <i>Titanic</i> .	Lifeboat launch time table; Marconi Co. letter to Wreck Commission, May 01, 1912.	
14 Apr NY 22:59	1:01 AM	<i>Mount Temple</i> (MLQ) hears <i>Titanic</i> (MGY) working <i>Caronia</i> (MRA).	PV <i>Mount Temple</i> .	
14 Apr NY 23:00	1:02 AM	<i>Mount Temple</i> (MLQ) hears <i>Titanic</i> (MGY) calling <i>Virginian</i> (MGN).	PV <i>Mount Temple</i> .	
14 Apr NY 23:02	1:04 AM	<i>Ypiranga</i> (DYA) hears <i>Titanic</i> (MGY) calling SOS-CQD and giving out his position. <i>Olympic</i> hears <i>Titanic</i> sending out signals of distress and tries to answer.	PV <i>Ypiranga</i> ; PV <i>Olympic</i> .	48
14 Apr NY 23:03	1:05 AM	Boat No. 1 launched. Lookout Symons in charge. Portable suction pipe seen carried through the engine room by four men coming from last shaft-tunnel compartment aft and taken to BR 4 forward.	Lifeboat launch time table; Scott, BI 5601.	49
14 Apr NY 23:05	1:07 AM	<i>Cincinnati</i> (DDC) calls <i>Titanic</i> (MGY) and gives position 37.36N, 54.44W.	PV <i>Ypiranga</i> ; PV <i>Frankfurt</i> .	50

14 Apr NY 23:08	1:10 AM	Boat No. 6 launched. QM Hichens in charge. Barrett sees rush of water in BR 5 in pass between boilers. Goes up the escape and sees water on E deck coming from forward at location of escape from BR 5.	Lifeboat launch time table; Barrett, BI 2348-2349.	
14 Apr NY 23:10	1:12 AM	<i>Titanic</i> (MGY) gives <i>Olympic</i> (MKC) his position, 41.46 N, 50.14 W, and says, "We have struck an iceberg." Information reported to <i>Olympic's</i> bridge immediately. <i>Olympic's</i> distance from <i>Titanic's</i> distress position is 505 miles. <i>Titanic's</i> CQD overheard by <i>Virginian</i> (MGN). <i>Baltic</i> (MBC) also hears <i>Titanic</i> but faintly and notes that jamming is very bad.	PV <i>Olympic</i> ; PV <i>Virginian</i> ; PV <i>Baltic</i> .	
14 Apr NY 23:12	1:14 AM	<i>Titanic</i> (MGY) calls <i>Asian</i> (MKL) and says "Want immediate assistance." <i>Virginian</i> (MGN) calls <i>Titanic</i> but gets no response. Cape Race (MCE) calls <i>Virginian</i> (MGN) and asks to report to captain that <i>Titanic</i> struck iceberg and requires immediate assistance.	List of wireless messages in BI Report; PV <i>Virginian</i> .	
14 Apr NY 23:14	1:16 AM	<i>Olympic</i> (MKC) calls <i>Titanic</i> (MGY).	PV <i>Ypiranga</i> .	
14 Apr NY 23:15	1:17 AM	<i>Frankfurt</i> (DFT) signals <i>Titanic</i> (MGY): "I want to take your course." Lookout Symons sees water up to 2nd row of ports under <i>Titanic's</i> name at the bow. Trimmer Cavell comes up the escape from BR 4 after seeing water coming over the stokehold plates there.	PV <i>Frankfurt</i> ; PV <i>Ypiranga</i> ; Symons, BI 11490; Cavell, BI 4248-4265.	51
14 Apr NY 23:18	1:20 AM	Boat No. 16 launched. Master-at-Arms Bailey in charge. Trimmer Dillon is told to get a lifebelt and go up on deck after coming into the engine room minutes after he saw water coming up over the stokehold plates BR 4. Greaser Scott also told to go on deck with a lifebelt at this time. Leading Fireman Threlfall, pulling fires in one of the stokeholds, hears 2/E Hesketh say "We've done all we can men, Get out now." This was the time that most of the remaining firemen, trimmers, and greasers were ordered out of the stokeholds and engine rooms, and to get lifebelts on and go up on deck.	Lifeboat launch time table; Dillon, BI 3816-3827, 3913; Scott, BI 5838-5839; Threlfall, <i>The Bridgewater Mercury</i> , May 1912.	52
14 Apr NY 23:20	1:22 AM	<i>Titanic</i> (MGY) tells <i>Olympic</i> (MKC): "Captain says get your boats ready. Going down fast at the head. What is your position?"	PV <i>Olympic</i> ; PV <i>Mount Temple</i> ; PV <i>Ypiranga</i> ; PV <i>Caronia</i> .	53
14 Apr NY 23:23	1:25 AM	Boat No. 14 launched. 5/O Lowe takes charge. Trimmer Cavell goes back down to BR 4 thinking that it may be all right after finding nobody in the alley on E deck. There was nobody left in BR 4, so he then goes up to the boat deck and sees two boats No. 13 & 15 on starboard side aft.	Lifeboat launch time table; Cavell, BI 4282-4294.	54
14 Apr NY 23:24	1:26 AM	<i>Baltic</i> (MBC) to <i>Titanic</i> (MGY): "We are making for you, keep in touch with us." <i>Olympic's</i> position is 40° 52'N, 61° 18'W.	PV <i>Caronia</i> ; PV <i>Olympic</i> .	55
14 Apr NY 23:26	1:28 AM	<i>Frankfurt</i> (DFT) heard working <i>Titanic</i> (MGY). <i>Frankfurt</i> says, "Our captain will go for your course." <i>Titanic</i> replies "OK, tks, tks."	PV <i>Ypiranga</i> ; PV <i>Mount Temple</i> .	56

14 Apr NY 23:28	1:30 AM	Boat No. 12 on port side launched with AB Poingdestre in charge. Boat No. 9 starboard side launched with Boatswain's Mate Haines in charge. <i>Titanic</i> (MGY) calling <i>Baltic</i> (MBC).	Lifeboat launch time table; PV <i>Mount Temple</i> ; PV <i>Ypiranga</i> .	57
14 Apr NY 23:30	1:32 AM	<i>Virginian</i> (MGN) sends MSG to Cape Race (MCE) to inform <i>Titanic</i> (MGY) that they are going to her assistance. <i>Virginian</i> 's position was 170 miles North of <i>Titanic</i> 's CQD position.	PV <i>Virginian</i> .	
14 Apr NY 23:33	1:35 AM	Boat No. 11 launched from A deck starboard side aft with AB Humphreys in charge. Portable suction pipe connected up to bilge system in BR 4 by this time.	Lifeboat launch time table; Wilding: BI 20682-20686.	58
14 Apr NY 23:34	1:36 AM	<i>Olympic</i> (MKC) to <i>Titanic</i> (MGY): "Commander, <i>Titanic</i> , 4.24 a.m. G.M.T. 40.52 N., 61.18 W. Are you steering southerly to meet us? Haddock."	PV <i>Olympic</i> ; PV <i>Ypiranga</i> ; PV <i>Mount Temple</i> ; PV <i>Frankfurt</i> .	59
14 Apr NY 23:35	1:37 AM	Land station at Cape Race (MCE) no longer hears any messages from <i>Titanic</i> (MGY).	PV <i>Virginian</i>	
14 Apr NY 23:37	1:39 AM	<i>Titanic</i> (MGY) tells <i>Olympic</i> (MKC): "We are putting the women off in small boats."	PV <i>Ypiranga</i> ; PV <i>Mount Temple</i> ; PV <i>Baltic</i> ; PV <i>Virginian</i> .	60
14 Apr NY 23:38	1:40 AM	Boat No. 13 launched from A deck. Leading Fireman Barrett takes charge. AB Evans notes that ship had list to port about 10° based on 2.5' gap between lifeboat 10 and side of rail on boat deck at this time.	Lifeboat launch time table; Evans: AI p.677.	
14 Apr NY 23:39	1:41 AM	Boat No. 15 launched from A deck. Fireman Dymond takes charge. This boat was seen to be coming down within 1 minute of Boat No. 13, and nearly lands on top of No. 13 as the latter was swept aft by the discharge from the starboard side condenser pump.	Lifeboat launch time table.	
14 Apr NY 23:40	1:42 AM	<i>Titanic</i> (MGY) tells <i>Olympic</i> (MKC): "Tell captain we are putting the passengers off in small boats."	PV <i>Olympic</i> ; PV <i>Ypiranga</i> ; PV <i>Birma</i> .	61
14 Apr NY 23:41	1:43 AM	<i>Titanic</i> (MGY) sends CQD and says: "Engine room getting flooded."	PV <i>Mount Temple</i> .	
14 Apr NY 23:43	1:45 AM	Boat No. 2 launched. 4/O Boxhall put in charge. <i>Olympic</i> (MKC) asks <i>Titanic</i> (MGY) what weather he has had. <i>Titanic</i> says, "clear and calm." Barrett in boat No. 13 notices forecastle head not yet under water. Assistant Steward Walter Nichols in boat 15 notices that <i>Titanic</i> 's propellers were half out of the water.	Lifeboat launch time table; PV <i>Mount Temple</i> ; Barrett, BI 2140-2142; Nichols, <i>NY Times</i> article Apr 22.	62
14 Apr NY 23:44	1:46 AM	<i>Baltic</i> (MBC) calling <i>Titanic</i> (MGY).	PV <i>Ypiranga</i> .	
14 Apr NY 23:45	1:47 AM	<i>Baltic</i> heard message transmitted by Bride, "Engine room getting flooded," as Philips was outside and saw the well deck awash and the ship having a very noticeable list to port. <i>Frankfurt</i> (DFT) asks <i>Titanic</i> : "Are there any boats around you already?" No reply from <i>Titanic</i> .	PV <i>Baltic</i> ; Bride, BI 16540-16553; PV <i>Mount Temple</i> .	

14 Apr NY 23:47	1:49 AM	<i>Baltic</i> (MBC) tells <i>Titanic</i> (MGY): “We are rushing to you.” <i>Baltic</i> says she is 243 miles east. <i>Olympic</i> sends MSG to <i>Titanic</i> , “Commander, <i>Titanic</i> . Am lighting up all possible boilers as fast as can, Haddock.” Acknowledged by <i>Titanic</i> . Last signals from <i>Titanic</i> heard by <i>Mount Temple</i> (MLQ).	PV <i>Ypiranga</i> ; PV <i>Baltic</i> ; PV <i>Olympic</i> ; PV <i>Mount Temple</i> .	63
14 Apr NY 23:48	1:50 AM	Last distress socket signal fired from <i>Titanic</i> by QM Rowe. He then goes to take charge of Collapsible boat C which was loading. On <i>Californian</i> , 2/O Stone and Apprentice Gibson see the last white rocket go up from the steamer now about 1 point on their port bow. Stone thought it was about 1:40am <i>Californian</i> ATS (which would correspond to 1:52am on <i>Titanic</i>). Boat No. 10 port side aft launched from boat deck with AB Buley in charge. Boat No. 4 launched from A deck on port side forward with QM Perkis in charge.	Stone, BI 7935; Gibson's signed report to Capt. Lord Apr 18; Halpern, "Rockets, Lifeboats, and Time Changes"; Lifeboat launch time table.	
14 Apr NY 23:49	1:51 AM	<i>Frankfurt</i> (DFT) tries calling <i>Titanic</i> (MGY).	PV <i>Ypiranga</i> .	
14 Apr NY 23:50	1:52 AM	<i>Ypiranga</i> (DYA) hears <i>Titanic</i> (MGY) send message that she is getting “flooded.” This is the last that <i>Ypiranga</i> heard directly from <i>Titanic</i> . Phillips returns to wireless cabin and informs Bride who was at the transmitting key that “the forward well deck was awash,” and “they were putting the women and children in the boats and clearing off.” The ship’s list to port was very noticeable.	PV <i>Olympic</i> ; PV <i>Ypiranga</i> ; Bride, BI 16540-16553.	64
14 Apr NY 23:53	1:55 AM	<i>Birma</i> (SBA) hears <i>Titanic</i> (MGY) say, “Women and children in boats, cannot last much longer. MGY.” This apparently was the last message heard by <i>Birma</i> from <i>Titanic</i> .	Marconi office form of SS <i>Birma</i> ; Halpern, "Enigmatic Excursion of the SS <i>Birma</i> ."	
14 Apr NY 23:55	1:57 AM	Capt. Smith comes into the wireless cabin and tells Phillips and Bride, “You can do nothing more; look out for yourselves.” Last wireless message from <i>Titanic</i> (MGY) heard by <i>Carpathia</i> (MPA) was: “Engine room full up to boilers.” <i>Frankfurt</i> (DFT) and <i>Birma</i> (SBA) try calling <i>Titanic</i> .	Bride's report to Marconi Co. Apr 27; List of wireless messages in BI Report; Cottam, BI 17193-17201; PV <i>Mount Temple</i> ; PV <i>Caronia</i> ; Bride, BI 16540-16553.	
14 Apr NY 23:58	2:00 AM	Collapsible boat C launched with QM Rowe in charge. <i>Asian</i> (MKL) hears <i>Titanic</i> (MGY) call SOS. Answers <i>Titanic</i> , but receives no reply. <i>Frankfurt</i> (DFT) calling <i>Titanic</i> .	Lifeboat launch time table; List of wireless messages in BI Report; PV <i>Ypiranga</i> .	
15 Apr NY 00:00	2:02 AM	<i>Ypiranga</i> hears “Stdbi-stdbi-stdbi” from some wireless station.	PV <i>Ypiranga</i> .	65
15 Apr NY 00:03	2:05 AM	Collapsible boat D launched with QM Bright in charge. QM Bright sees forecastle head going under as boat D is lowered. Boat C reaches the water at this time and QM Rowe notices that the well deck was completely submerged.	Lifeboat launch time table; Bright, AI p.837; Rowe, AI p.524.	66
15 Apr NY 00:05	2:07 AM	Last “CQD MGY” message transmitted by Phillips. No answers received. Marconi cabin abandoned, and Bride goes and climbs to the top of the officers’ quarters and helps to push Collapsible B off onto the boat deck.	Bride, BI 16566; Bride's report to Marconi Co. Apr 27.	67

15 Apr NY 00:10	2:12 AM	<i>Virginian</i> (MGN) thinks he hears <i>Titanic</i> (MGY) calling very faintly, “his power greatly reduced.” <i>Mount Temple</i> (MLQ) hears <i>Olympic</i> (MKC), <i>Frankfurt</i> (DFT), and <i>Baltic</i> (MBC) calling <i>Titanic</i> , but no replies were heard back.	PV <i>Virginian</i> ; PV <i>Mount Temple</i> .	68
15 Apr NY 00:13	2:15 AM	Chief Baker Joughin rushes up to the boat deck after the ship had taken a lurch while he was down in the lounge pantry on A deck, just aft of the 3rd funnel casing by the ship’s aft expansion joint. He heard “a kind of a crash as if something had buckled...It was like as if the iron was parting.” He transfers his watch from his front pocket to his back pocket as he was making his way aft following a crowd of people rushing to get onto the poop deck. He notices the time as “a quarter past two then,” and the lights of the ship were still on. 2/O Lightoller saw the water level was up to the crow's nest and coming onto the forebridge just as the ship took “a bit of a dive,” and he went into the water. Collapsible boats A and B are swept off.	Joughin, BI 6040-6049 & 6359-6364; Lightoller, AI p. 90-91, BI 14052; Lifeboat launch time table.	69
15 Apr NY 00:15	2:17 AM	Trimmer Dillon out on <i>Titanic</i> ’s poop deck sees the ship take “one final plunge and righted herself again.” Lookout Symons in Boat No. 1 sees the stern “come well out” as ship pitches down suddenly as all the lights go out. At the same time, Symons sees the ship split in two “abaft the after expansion plate” with the stern righting itself without the bow. Apprentice Gibson on the upper bridge of <i>Californian</i> sees the lights of the steamer disappear. He noted the time as 2:05am by <i>Californian</i> ’s wheelhouse clock as he was sent down by 2/O Stone to inform Capt. Lord that ship they were watching had disappeared.	Dillon, BI 3858; Symons, BI 11510-11525; Gibson, BI 7533, 7565.	70
15 Apr NY 00:18	2:20 AM	Stern section disappears below the surface. Location 41° 43.5' N, 49° 56.8' W. Symons sees stern go straight up accompanied with “a sound like steady thunder” and then disappear. Dillon sees 4th funnel fall aft toward him as the stern goes down pulling him under. He soon will be picked up by Boat No. 4. 3/O Pitman [boat 5] sees the ship disappear at “2:20 exactly, ship's time. I took my watch out at the time she disappeared, and I said, It is 2:20, and the passengers around me heard it...2:20am, the 15th of April.”; Mrs. Marian Thayer [boat 4]: "It was 2:20am when the <i>Titanic</i> disappeared, according to a wrist watch worn by one of the passengers in my boat.”; Miss Daisy Minahan [boat 15]: "This was at 2:20am by a man's watch who stood next to me.”	Ballard, <i>The Discovery of the Titanic</i> ; Symons, BI 11512; Dillon, BI 3861-3876; Pitman, AI p.294; Halpern, "Mystery of Time - Part 2."	71
15 Apr NY 00:20	2:22 AM	<i>Virginian</i> (MGN) hears two "V"s signaled faintly in spark similar to <i>Titanic</i> ’s.	PV <i>Virginian</i> .	72
15 Apr NY 00:25	2:27 AM	<i>Birma</i> (SBA) tells <i>Frankfurt</i> (DFT) he is 70 miles from <i>Titanic</i> .	PV <i>Mount Temple</i> .	

15 Apr NY 00:27	2:29 AM	<i>Virginian</i> (MGN) hears the transmission of a “CQ.” Unable to make out signals which seemed to end abruptly. Spark sounded “blurred or ragged.”	PV <i>Virginian</i> .	73
15 Apr NY 01:16	3:18 AM	<i>Caronia</i> (MRA) hears some ship say “We are firing rockets. Lookout for rockets.”	PV <i>Caronia</i> .	74
15 Apr NY 01:25	3:27 AM	<i>Carpathia</i> (MPA) sends: “If you are there, we are firing rockets.”	PV <i>Mount Temple</i> .	
15 Apr NY 01:39	3:41 AM	At 3:25 ATS on <i>Mount Temple</i> , Capt. Moore orders 'Stop' on his engine telegraph to take the way off his ship because of ice getting a bit thick. He believes he is about 14 miles from the CQD position. He then proceeds ahead slowly.	Capt. Moore, AI p.762-764; See Section 11.	
15 Apr NY 01:40	3:42 AM	<i>Carpathia</i> (MPA) calling <i>Titanic</i> (MGY).	PV <i>Mount Temple</i> .	
15 Apr NY 01:58	4:00 AM	<i>Birma</i> (SBA) tells <i>Frankfurt</i> (DFT) that he thinks he hears <i>Titanic</i> (MGY), and sends: “Steaming full speed to you, shall arrive you 6 in the morning. Hope you are safe. We are only 50 miles now.”	PV <i>Mount Temple</i> ; Durrant, BI 9571.	75
15 Apr NY 02:00	4:02 AM	<i>Carpathia</i> (MPA) calling <i>Titanic</i> (MGY).	PV <i>Mount Temple</i> .	
15 Apr NY 02:13	4:15 AM	4:10am <i>Carpathia</i> ATS. Boat No. 2 arrives with Joseph Boxhall in it.	Lifeboat pickup sequence table; Halpern, “12:35 AM Apparent Time <i>Carpathia</i> .”	76
15 Apr NY 02:15	4:17 AM	<i>Virginian</i> (MGN) signals <i>Birma</i> (SBA) who tells <i>Virginian</i> that he is 55 miles from <i>Titanic</i> and has not heard anything from him.	PV <i>Virginian</i> .	77
15 Apr NY 02:48	4:50 AM	Approx. 4:45am <i>Carpathia</i> ATS. Boat No. 1 arrives.	Lifeboat pickup sequence table; Halpern, “12:35 AM Apparent Time <i>Carpathia</i> .”	
15 Apr NY 03:00	5:02 AM	4:46am <i>Mount Temple</i> ATS. Durrant notes in his PV that "All quite. - We're stopped amongst pack ice."	PV <i>Mount Temple</i> ; See Section 11.	
15 Apr NY 03:05	5:07 AM	<i>Birma</i> (SBA) and <i>Frankfurt</i> (DFT) working.	PV <i>Mount Temple</i> .	
15 Apr NY 03:20	5:22 AM	<i>Birma</i> (SBA) and <i>Frankfurt</i> (DFT) working. It is 5:06am <i>Mount Temple</i> ATS. Capt. Moore backs his ship out of ice and starts heading SSE True to find an opening across the pack ice.	PV <i>Mount Temple</i> ; Capt. Moore, AI p.767.	
15 Apr NY 03:24	5:26 AM	<i>Birma</i> (SBA) says that they are 30 miles off <i>Titanic</i> 's distress position.	PV <i>Ypiranga</i> ; See also: Halpern, “The Enigmatic Excursion of the SS <i>Birma</i> .”	
15 Apr NY 03:25	5:27 AM	<i>Californian</i> (MWL) calls CQ. <i>Mount Temple</i> (MLQ) answers and advises him of <i>Titanic</i> and gives him <i>Titanic</i> 's distress position.	PV <i>Mount Temple</i> .	
15 Apr NY 03:40	5:42 AM	<i>Californian</i> (MWL) working <i>Frankfurt</i> (DFT). <i>Frankfurt</i> sends him the same information that given to him by <i>Mount Temple</i> .	PV <i>Mount Temple</i> .	
15 Apr NY 03:48	5:50 AM	Approx. 5:45am <i>Carpathia</i> ATS. Collapsible boat C arrives. (This boat was set adrift afterwards.)	Lifeboat pickup sequence table; Halpern, “12:35 AM Apparent Time <i>Carpathia</i> .”	
15 Apr NY 04:00	6:02 AM	<i>Californian</i> (MWL) working <i>Virginian</i> (MGN).	PV <i>Mount Temple</i> .	
15 Apr NY 04:03	6:05 AM	Approx. 6:00am <i>Carpathia</i> ATS. Boat No. 5 arrives.	Lifeboat pickup sequence table; Halpern, “12:35 AM Apparent Time <i>Carpathia</i> .”	

15 Apr NY 04:15	6:17 AM	<i>Virginian</i> (MGN) tells <i>Californian</i> (MWL): "Captain: <i>Titanic</i> struck iceberg, wants assistance urgently, ship sinking, passengers in boats, his position lat. 41.46, long. 50.14. Gambell, Commander."	Associated Press report interview with <i>Virginian's</i> Capt. Gambell Apr 27. Also Lord, AI p. 731.	78
15 Apr NY 04:18	6:20 AM	Approx. 6:15am <i>Carpathia</i> ATS. Boats No. 7 and No. 9 arrive.	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 04:25	6:27 AM	<i>Californian</i> (MWL) working <i>Birma</i> (SBA).	PV <i>Mount Temple</i> .	
15 Apr NY 04:33	6:35 AM	Approx. 6:30am <i>Carpathia</i> ATS. Boat No. 13 arrives.	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 04:48	6:50 AM	Approx. 6:45am <i>Carpathia</i> ATS. Boat No. 16 arrives.	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 05:03	7:05 AM	Approx. 7:00am <i>Carpathia</i> ATS. Boat No. 11 arrives.	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 05:05	7:07 AM	After coming back up north, <i>Mount Temple</i> takes a prime vertical sight of the sun. They discover that they are at longitude 50° 9.5' W which was about 3 miles east of the CQD longitude. It becomes obvious to Capt. Moore that <i>Titanic</i> must have been further east because of a 5 to 6 mile wide field of ice blocking their path eastward. Ship's time was 6:51am ATS.	Capt. Moore, AI. p.777; SkyChart-III.	
15 Apr NY 05:18	7:20 AM	Approx. 7:15am <i>Carpathia</i> ATS. Boat No. 14 and Collapsible D arrive. (Both these boats were set adrift afterward.)	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 05:20	7:22 AM	<i>Mount Temple</i> (MLQ) signals <i>Californian</i> (MWL). Exchanges positions. <i>Mount Temple</i> says that the two ships are very close.	PV <i>Mount Temple</i> .	
15 Apr NY 05:33	7:35 AM	Approx. 7:30am <i>Carpathia</i> ATS. Boats No. 3, No. 8, and No. 15 arrive. (No. 15 was set adrift afterward.)	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 06:00	8:02 AM	<i>Mount Temple</i> (MLQ) reports much jamming, and that <i>Carpathia</i> (MPA) and <i>Californian</i> (MWL) are in sight.	PV <i>Mount Temple</i> .	
15 Apr NY 06:03	8:05 AM	Approx.8:00am <i>Carpathia</i> ATS. Boats No. 4, No. 6, and No. 10 arrive. (No. 4 was set adrift afterward.)	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	
15 Apr NY 06:18	8:20 AM	Approx. 8:15am <i>Carpathia</i> ATS. The last boat, No. 12, arrives with 2/O Lightoller at the helm.	Lifeboat pickup sequence table; Halpern, "12:35 AM Apparent Time <i>Carpathia</i> ."	79
15 Apr NY 06:33	8:35 AM	Approx. 8:30am <i>Carpathia</i> ATS. All survivors and last boat taken on board. Of the 13 boats taken on board, 6 were put on the forward deck and 7 were carried in davits.	Rostron's report to General manager of Cunard Co. Apr 19.	
15 Apr NY 06:45	8:47 AM	<i>Carpathia</i> (MPA) reports rescuing 20 boats.	PV <i>Mount Temple</i> .	
15 Apr NY 06:53	8:55 AM	Approx. 8:50am <i>Carpathia</i> ATS. Capt. Rostron orders full speed ahead while searching over the area.	Rostron's report to General manager of Cunard Co. Apr 19.	

15 Apr NY 07:03	9:05 AM	9:00am <i>Carpathia</i> ATS. <i>Californian's</i> 3/O Groves hears <i>Carpathia's</i> bells strike as she is seen steaming away. <i>Californian</i> remains on the scene to search to leeward taking large circular sweeps before returning to where <i>Carpathia</i> abandoned 5 of <i>Titanic's</i> boats (C, D, 4, 14 and 15). Seen amongst the wreckage was overturned Collapsible B.	Groves, BI 8367; Lord, AI p. 723; Rostron, BI 25477.	
15 Apr NY 07:10	9:12 AM	<i>Baltic</i> (MBC) receives MSG from <i>Carpathia</i> (MPA): From captain <i>Carpathia</i> to captain <i>Baltic</i> , "Am proceeding for Halifax or New York full speed. You had better proceed to Liverpool. Have about 800 passengers aboard."	PV <i>Baltic</i> .	
15 Apr NY 07:15	9:17 AM	<i>Mount Temple</i> (MLQ) again reports much jamming, and that <i>Carpathia</i> (MPA) is working <i>Baltic</i> (MPA).	PV <i>Mount Temple</i> .	
15 Apr NY 07:30	9:32 AM	<i>Baltic</i> (MBC) sends MSG to <i>Californian</i> (MWL): "Stdby immediately. You have been instructed to do so frequently. Balfour, inspector."	PV <i>Mount Temple</i> .	
15 Apr NY 07:40	9:42 AM	<i>Mount Temple</i> (MLQ) hears <i>Carpathia</i> (MPA) call CQ and says: "No need to stand by him, nothing more can be done." Operator Durrant then advised Capt. Moore, who reverses <i>Mount Temple's</i> course to leave the area.	PV <i>Mount Temple</i> .	
15 Apr NY 09:30	11:32 AM	11:20 <i>Californian</i> ATS. <i>Californian</i> leaves scene of wreckage heading 271° True proceeding slowly across ice. DR position was 41° 33' N, 50° 01' W.	Lord, BI 7267-7269; Stewart, BI 8830-8831.	
15 Apr NY 10:20	12:22 PM	<i>Frankfurt</i> reaches 41° 35' N, 50° 15' W. Sees <i>Californian</i> off port bow coming out of icefield.	Behe, " <i>Frankfurt Incident</i> ."	80
15 Apr NY 10:21	12:23 PM	<i>Californian</i> takes a noon sight of the sun. Position is 41° 33' N, 50° 09' W. <i>Californian</i> just under 5 miles from <i>Frankfurt</i> at this time.	Lord, BI 7265.	81
15 Apr NY 10:26	12:28 PM	Capt. Lord sees <i>Frankfurt</i> off to his northwest running down about SSE.	Lord, AI p.730.	82
15 Apr NY 14:00	4:02 PM	<i>Olympic</i> (MKC) establishes communications with <i>Carpathia</i> (MPA).	PV <i>Olympic</i> .	
15 Apr NY 14:12	4:14 PM	<i>Olympic</i> is at 41° 17'N, 53° 53'W, heading 090° True.	See entry for 2:35pm NYT.	
15 Apr NY 14:30	4:32 PM	<i>Carpathia</i> is at 41° 15'N, 51° 45'W, heading 267° True for Nantucket Shoals light vessel.	See entry for 3:15pm NYT.	83
15 Apr NY 14:35	4:37 PM	<i>Olympic</i> (MKC) sends message to <i>Carpathia</i> (MPA): "Capt. <i>Carpathia</i> : 7.12pm GMT Our position 41.17 N, 53.53 W. Steering east, true; shall I meet you and where? Haddock."	PV <i>Olympic</i> .	
15 Apr NY 15:10	5:12 PM	<i>Carpathia</i> (MPA) sends several messages to <i>Olympic</i> (MKC): 1. "Capt. <i>Olympic</i> . 7.30 GMT Lat. 41.15 north, long. 51.45 west. Am steering south 87 west, true. Returning to New York with <i>Titanic's</i> passengers. Rostron." 2. "Capt. <i>Olympic</i> . Bruce Ismay is under opiate. Rostron." 3. "Capt. <i>Olympic</i> . Do you think it is advisable <i>Titanic's</i> passengers see <i>Olympic</i> ? Personally I say not. Rostron."	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	84

15 Apr NY 15:15	5:17 PM	<i>Olympic</i> (MKC) sends message to <i>Carpathia</i> (MKC): “Capt. <i>Carpathia</i> : Kindly inform me if there is the slightest hope of searching <i>Titanic</i> position at daybreak. Agree with you on not meeting. Will stand on present course until you have passed and will then haul more to southward. Does this parallel of 41.17 N. lead clear of the ice? Have you communicated the disaster to our people at New York or Liverpool, or shall I do so, and what particulars can you give me to send? Sincere thanks for what you have done. Haddock.”	PV <i>Olympic</i> .	
15 Apr NY 15:25	5:27 PM	<i>Carpathia</i> (MPA) sends to <i>Olympic</i> (MKC): “Capt. <i>Olympic</i> . Mr. Ismay orders <i>Olympic</i> not to be seen by <i>Carpathia</i> . No transfer to take place. Rostron.”	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	85
15 Apr NY 16:10	6:12 PM	<i>Carpathia</i> (MPA) sends message to <i>Olympic</i> (MKC): “Capt. Haddock, <i>Olympic</i> . South point pack ice 41.16 north. Don't attempt to go north until 49.30 west. Many bergs. large and small, amongst pack. Also for many miles to eastward. Fear absolutely no hope searching <i>Titanic's</i> position. Left Leyland SS <i>Californian</i> searching around. All boats accounted for. About 675 souls saved, crew and passengers; latter nearly all women and children. <i>Titanic</i> foundered about 2.20am, 5.47 GMT, in 41.46 north. 50.14 west; not certain of having got through. Please forward to White Star, also to Cunard, Liverpool and New York, that I am returning to New York. Consider this most advisable for many considerations. Rostron.”	Booth and Coughlan, <i>Titanic - Signals of Disaster</i> .	
15 Apr NY 16:15	6:17 PM	<i>Olympic</i> (MKC) informs <i>Carpathia</i> (MPA) that they will forward the information to White Star and Cunard immediately.	PV <i>Olympic</i> .	
15 Apr NY 16:35	6:37 PM	<i>Olympic</i> (MKC) sends two messages to Cape Race (MCE) for forwarding. 1. <i>Olympic</i> to WSL office New York and Liverpool: “ <i>Carpathia</i> reached <i>Titanic</i> position at daybreak. Found boats and wreckage only. <i>Titanic</i> had foundered about 2.20am in 41.16 N., 50.14 W. All her boats accounted for. About 675 souls saved, crew and passengers; latter nearly all women and children. Leyland Line SS <i>Californian</i> remaining and searching position of disaster. <i>Carpathia</i> returning to New York with survivors. Please inform Cunard. Haddock.” 2. <i>Olympic</i> to Franklin in WSL office NY: “Inexpressible sorrow. Am proceeding straight on voyage. <i>Carpathia</i> informs me no hope in searching. Will send names survivors as obtainable. Yamsi on <i>Carpathia</i> . Haddock.”	PV <i>Olympic</i> .	86
15 Apr NY 17:20	7:22 PM	<i>Californian</i> (MWL) transmits ice report to <i>Olympic</i> (MKC): “Icebergs and field ice at 42.3 north 49.9 west; 41.33 north, 50.09 west.” He tells <i>Olympic</i> that he is 200 miles out of his course.	PV <i>Olympic</i> .	87

15 Apr NY 17:45	7:47 PM	<p><i>Carpathia</i> (MPA) sends the following two messages to <i>Olympic</i> (MKC):</p> <p>1. “(Private to Capt. Haddock, <i>Olympic</i>.) Captain: Chief, first, and sixth officers, and all engineers gone; also doctor; all pursers; one Marconi operator, and chief steward gone. We have second, third, fourth, and fifth officers and one Marconi operator on board. Rostron.”</p> <p>2. “Captain <i>Olympic</i>: Will send names immediately we can. You can understand we are working under considerable difficulty. Everything possible being done for comfort of survivors. Please maintain Stanbi. Rostron.”</p>	PV <i>Olympic</i> .
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- Lifeboat launch time table can be found in: Halpern, et. al., *Report Into the Loss of the SS Titanic - A Centennial Reappraisal*, The History Press, Ch. 7, Lifeboat Launch Sequence [Wormstedt & Fitch], p. 135.
- Lifeboat pickup sequence table can be found in: Halpern, et. al., *Report Into the Loss of the SS Titanic - A Centennial Reappraisal*, The History Press, Ch. 7, The Recovery of *Titanic*'s Lifeboats [Behe], p. 144.

Chronology Notes

1. The port side of the ship lay alongside the wharf, so the only boats that could be lowered were those on the starboard side. The two boats that were lowered were regular lifeboats from the aft starboard side of the ship. (The aft starboard-side lifeboats were numbered [starting from aft] No. 15, 13, 11, and 9.) We know that AB Scarrott was one of the seamen that manned boat No. 13 during this drill. We also were told by 5/O Lowe that he was assigned to boat No. 11 when the boat drill took place, and that he was in charge of one boat, while 6/O Moody was in charge of the other boat.
2. The SS *New York* was moored alongside the SS *Oceanic* at berth 38 down by the lower Test quays near the juncture of the Test and Itchen rivers. *New York* broke her moorings due to hydrodynamic interaction caused by the back-rush of water as *Titanic* was moving past the moored vessels, forcing *Titanic* to stop until several tugs were able to take control of *New York* and bring her back to the quay. Instead of the usual 5½ hours to get to Cherbourg, it took *Titanic* about 6½ hours because of this incident.
3. The 25 minute total clock adjustment on the night of April 10 would have been to change ship's time from GMT to Dublin Mean Time so they would show the local mean time upon arrival at Queenstown in the forenoon.
4. The official departure point for transatlantic voyages leaving Queenstown was the Daunt's Rock light vessel just outside the harbor. (The Ambrose Channel light vessel at the entrance to lower NY harbor marked the end of the transatlantic crossing for vessels going to New York.) By IMM Co. Rule 116, all departures and arrivals in British and Irish waters were to be entered in the abstract logs in GMT. Arrival and departures from the United States and Canada were to be entered in mean time for the 75th meridian of west longitude (NYT).
5. The 14.1 nautical miles from Daunt's Rock light vessel at 20.7 knots takes 41 minutes.
6. The 55.2 nautical miles from Daunt's Rock light vessel to Fastnet light at 20.7 knots takes a total of 2 hours 40 minutes.
7. Clocks on *Titanic* adjusted at around midnight. The first of two clock retardations taking place on the master clocks in the chart room during the last half hour of the First Watch. We show this at 12:00 but it was likely done a few minutes before the Master clocks actually reached 12:00. When the master clocks finally reached 12:00, 8 bells were struck indicating the end of the First Watch and the close of the current day.
8. Master clocks put back the remaining half of the total adjustment amount during the first half-hour of the Middle Watch.
9. Bride was clearly confused at the British inquiry. He said 11pm Friday to 5am Saturday. However, this took place the night before the accident making the outage from Saturday night into early Sunday morning. That is why he planned to relieve Phillips earlier than usual Sunday night.

10. From this point onward we will be showing greater detail.
11. 45°N, 40°W on GC track is about 318 miles beyond noon position of Apr 13. At 22.1 knots average over ground, time to cover that distance is 14h 23m. To get ATS: 12:00 + 14:23 - 0:23 = 26:00 = 2:00am.
12. However, this took place the night before the accident making the outage from Saturday night into early Sunday morning as previously noted.
13. There was 40 minutes between 7 and 8 bells during the Morning Watch to allow oncoming watch enough time for breakfast. (Ref: WSL brochure given to passengers.)
14. Time Turnbull gave as received was 1:26pm (Turnbull, BI 16110). The 1:26pm time was probably GMT, not NYT. If this was NY mean time it would suggest a 6h 16m delay in Smith's response back to Barr; far excessive compared to other responses Smith made that day. Based on navigational analysis, *Caronia* would have crossed 40°W about 7:32am NYT, and her PV would then give GMT times after that. So it appears Barr's message was sent at 7:10am NYT, and Smith's reply was received at 8:26am NYT, consistent with other response times.
15. There was 40 minutes between 7 and 8 bells during the Forenoon Watch to allow oncoming watch enough time for their lunch which was called 'dinner' in WSL publications. (Ref: WSL brochure given to passengers.)
16. *Noordam* sent this ice message to *Titanic* via *Caronia* at 2:30pm GMT. It was received by *Caronia* at 2:31pm GMT, and *Caronia* relayed the message to *Titanic* at 2:45pm GMT.
17. It seems that an error may have been made when recording her noontime position in the scrap log where the departure distance from the corner longitude of 25 miles was accidentally put down for minutes-of-arc. When accounting for her speed and time between crossing 47°W and noon, the noontime longitude comes out to 47° 34'W. Her clocks would still be set for 1h 50m ahead of NYT. See: Samuel Halpern, "Navigational Inconsistencies of the SS *Californian*," at: http://www.titanicology.com/Californian/Navigational_Inconsistencies.pdf.
18. The 266° True heading following the course change was discovered later by 4/O Boxhall after getting compass deviation error following star sights. The intent was make 265° True from the corner to the lightship.
19. In second dog watch, bells start with 1 bell again at 1st half hour.
20. In BI 13586 Lightoller said he thought he went to dinner at 7:05 and came back at 7:35. But he went out to take star sights at 7:30 so he must have returned before that time.
21. The Marconi abbreviation "TR" stands for "Time Rush" messages. They are the messages that ships exchange with each other as soon as they enter into communications. They are used to inform each other of any telegrams they may have for the other, and to check their clock times (BI 16215). Several exchanges between *Carpathia* and *Titanic* followed into the evening. From PV *Carpathia* (BI 17067), "5.30 p.m. [NYT] signals exchanged with the 'Titanic' at frequent intervals until 9.45 p.m. [NYT]."
22. End of second dog watch marked with 8 bells.
23. In an affidavit addressed to Senator Smith at the American Inquiry, Miss Daisy Minahan wrote that Captain Smith could not have been on the "bridge from 8:45 to 9:25" talking to an officer because she saw him first leave a dinner party given by the Wideners in the restaurant between 9:25 and 9:45pm. She said she knew the time because her brother suggested at 9:25 that they should leave and go to bed, which they did 20 minutes later. However, according to a newspaper account by Mrs. Lillian Minahan, Daisy's sister-in-law, she, her husband and Daisy retired early that evening, and that "it was about 9.30 when I got into bed." Obviously one cannot leave the restaurant at 9:45 and be in bed by 9:30 the same night. One simple explanation is that Daisy's brother, Dr. William Minahan, either forgot to set his pocket watch back the night before (thus showing a time that was 45 minutes ahead of ship's time for April 14), or he simply suggested to his sister that it was later than it really was.
24. The reference to "one bell" here should not be confused with the striking of the bell once after the first half hour of a watch. It was also the practice to strike the bell once half way between 7 bells and 8 bells as a warning to those below that they are due on deck in 15 minutes. In this case Hitchens was simply implying that he went to tell Murdoch that he is due on deck in 15 minutes. The bell was not physically struck.
25. Lights in the smoking rooms were extinguished at midnight. (IMM Co. Rule 21; WSL passenger brochure: "Information for Passengers," shown on p. 36 of Peter Thresh's book, *Titanic: The Truth Behind the Disaster*.) The extinguishing of lights at midnight apparently included not only the smoking

rooms on *Titanic*, but also the Café Parisien, as some passengers were still up playing cards there when the accident happened (e.g., Alfred Fernand Omont, Pierre Maréchal, Paul Chevré and Lucien P. Smith).

26. Time from when 3 bells were struck by Fleet to the moment of collision is estimated to be about 50-55 seconds.
27. Range of most accounts for the collision time was from 11:40 to 11:45. The American Inquiry report listed the collision at 11:46pm; the British Inquiry report listed the collision at 11:40pm. We have taken the time of collision at 11:40pm *Titanic* ATS.
28. Shier's put this at 4-5 minutes after impact. Correlates well with Lightoller's observation.
29. Hendrickson's time our estimate based on his reported actions. From reconstructed PV *Carpathia* (BI 17067), "5.30 p.m. signals exchanged with the 'Titanic' at frequent intervals until 9.45 p.m." If Cottam's time was correct, this would have been just minutes after the accident.
30. Note given to Olliver apparently was written by Smith, but Olliver did not say who gave it to him to take below. (Was Smith already going below to find Bell, or to meet up with Andrews if he knew that Andrews was heading to see Bell?) There is no evidence that Andrews or Smith actually met up with Bell. With lights out in stokeholds Bell could have been almost anywhere trying to sort things out. If Smith met up with Andrews at that time, Andrews may have told Smith he was going forward to check on the reported flooding in forward holds that the carpenter reported. Boxhall said he saw Andrews that night after the collision, but they didn't speak. Boxhall was uncovering boats between about 12:00 and 12:25 and so it may have been after he came from the mail room.
31. It seems that the boatswain's mate gave the watch below a warning that they may be needed topside before all hands were actually called out. Symons' observation about water around the hatch coamings in Hold 1 implies ship was down at the head by almost 1° at this time. Lights were reported out in BR 5 (Barrett) and BR 4 (Cavell). Time of going to get lamps for the stokeholds estimated from Hendrickson's and Barrett's described actions. Johnston estimated the time he saw water was 25 minutes after collision; Wheat estimated the time he saw the water was 10-15 minutes after collision. Wheat had to be in mail room shortly after Boxhall was based on water level seen. Mackay thought Smith had been aft for about 10 min before he saw him come back. Johnston's and Wheat's observations were consistent with Boxhall seeing flooding coming within 2 ft of G deck just a few minutes earlier.
32. Evans had his contact with *Mount Temple* at about 10:00pm NYT, while Durrant showed this contact with *Carpathia* was at 9:55pm NYT.
33. Boxhall said 20-30 minutes to call upon the officers. Lightoller thought it was about 1/2 hour, Pitman thought it was about 20 minutes. Wheat said it was about 5-6 minutes after seeing the water on G deck.
34. Lights coming back on estimated by the time takes for Barrett and Hendrickson to get lamps from the engine room to take to the stokeholds. From Chamber's observation of water level, the ship was down by the head about 1.3° at this time. The three officers he saw may have been engineers sent forward to inspect flooding. He did not recognize their department.
35. Pitman's time our estimate based on his stated actions.
36. Since it took Dillon 1 hr 40 min from time of collision to the time he left BR 4, and 1h 10m from leaving engine room to leaving BR 4, that leaves 30 min after collision when he left the engine room to open the WTDs forward. From Robinson's water level account, ship is down by the head by almost 2.0° at this time. At this point Smith knew things were very serious but he also knew the ship could stay afloat with the 1st four compartments flooded.
37. Ismay not sure when this was. Hichens not sure of specific time but said it was after 12:00. We put it before Wheat heard McElroy give order to have stewards get passengers up on deck with lifebelts on. Hichens left the bridge at 12:23.
38. Mrs. Warren estimated this event took place about 45 minutes after the collision.
39. From Poingdestre's observation, ship was down by head by between 2 ½ to 3 degrees at this time.
40. Boxhall was out on the boat deck uncovering boats when someone spotted a light off the port bow. Boxhall went to the bridge (presumably to get a pair of binoculars) to have a closer look at the reported light. He said he met Smith there who asked him how the work to clear the boats was going. It was then he asked Smith how serious was it, and Smith told him what Andrews had said. From context of the testimony, it was at this time he went to work on the ship's position, before he saw the light through a pair of glasses. Since we know the time that the CQD with his coordinates went out, this had to be about the time we show. It would take him about 5 minutes to work the position before he showed it to Smith who told him to take to the Marconi

cabin. It was after he left the position with Phillips that he went back on the bridge to look at the light of the stopped steamer off their port bow (BI 15391-15392). Annie Robinson said it was about 45 minutes after the accident that Andrews told her to put her lifebelt on.

41. Scott said the order to open the watertight doors aft came at “quarter to one.”
42. PV *Ypiranga* had 10.46pm NYT; PV *Mount Temple* had 10.48pm NYT. *Frankfurt's* 12am (midnight) for her position report was apparently ship's time. The question “what is the matter with you?” probably came about because the 10:40pm NYT contact told *Frankfurt* that *Titanic* “was on ice.” It may not have been clear to the German operator at first that *Titanic* was sinking.
43. From BI 17068 & 17115, it can be implied that Cottam returned close to 10 minutes after receiving CQD with *Carpathia's* position. Cottam overheard *Titanic* communicating with *Frankfurt* when he returned, so we put the time down at 10:47pm NYT.
44. Time based on Ray having seen boat No. 7 being lowered (launched at 12:40) and then 5 minutes to reach the sea from 60 feet. We assume Ray was by the emergency door from the working alley into the 1st class stairway within 5 min after seeing No. 7 reach the water. Ray's observation is consistent with Wheat's observation which we put down for 12:45 except that water came up to that point in the working alley as well as the starboard side corridor by this time. Wheat said working alley was still dry when he was there, but the water was coming from the starboard side corridor to the staircase (BI 1104-1105). *Titanic's* starboard list may have started to straighten out by time Ray arrived there which would explain why Ray saw water on both sides, while Wheat did not.
45. Cottam said this was about 4 minutes after he initially gave his position to *Titanic*.
46. *Ypiranga's* PV had “MKC to MGN?????” Most probably it was a call to MGY. Note: an “N” in Morse code is sent by a dash-dot while a “Y” is a dash-dot-dash-dash.
47. We put this down as immediately after the contact attempt noted by *Ypiranga's* PV for 10:52 NYT. This implies that steam was still blowing off while *Olympic* was trying to contact *Titanic*. It probably stopped very soon after this.
48. PV *Olympic* listed this at 11.00 NYT.
49. Time estimated for bringing the pipe forward is based on getting four watertight doors opened aft assuming it takes 5 minutes each.
50. PV *Frankfurt* shows *Cincinnati* and *Olympic* answering *Titanic* at this time.
51. PV *Ypiranga* only shows a contact between these two ships at this time. Symons' observation implies ship down at the head by about 4.0° at this time. Time based on boat No. 1 launch time and allowing for boat being hung up by guy wire on the way down. Cavell said there were still men pulling the fires in BR when he went up the escape to E deck.
52. Dillon said it was 1hr 40min after collision [1:20am]. Scott said he was ordered up at 1:20; Threlfall said this order came at 1:20.
53. PV *Ypiranga* has contact at 11:18 NYT. PV *Caronia* has these words at 4:15am GMT [11:15 NYT]. PV *Mount Temple* and PV *Olympic* has this transmission with these words listed at 11:20 NYT.
54. We base this on the timing that the order came to abandon the stokeholds at 1:20am ATS. Those two boats, 13 and 15, were lowered to A deck for loading.
55. See entry for 11:34pm NYT.
56. PV *Ypiranga* had 11:26pm NYT for this, while PV *Mount Temple* had 11:25pm NYT.
57. PV *Ypiranga* had this at 11:27pm NYT.
58. Wilding thought that it would take them at least a 1/2 hour to bring the pipe forward and get it connected up once all the watertight doors aft and forward were raised.
59. PV *Ypiranga* has 11:34 NYT, while PV *Olympic* had 11:35 NYT for this communication. PV *Frankfurt* only shows MGY and MKC working together at 11:35 NYT.
60. PV *Ypiranga* has this for 11:37 NYT. PV *Mount Temple* had this "putting women off" message and the 11:34 message listed above for 11:35 NYT. PV *Baltic* lists the women in small boats message at 11:35 NYT. PV *Virginian* has this for 11:35 NYT.

61. Both have putting "passengers" off message at same time 11.40 NY. PV Birma logged this at 1:30 ship's time which would correspond to 11:43pm NYT, but they rounded their times to nearest 5 minutes.
62. PV *Olympic* had this at 11:45 NYT. Ship down at the head about 5° based on observations of Barrett and Nichols after these boats reached the water.
63. PV *Ypiranga* lists this at 11:47pm NYT. PV *Baltic* listed this at 11:50pm NYT. PV *Mount Temple* has the *Olympic* MSG sent at 11:47pm NYT. PV *Olympic* logs it at 11:50pm NYT. *Olympic* and *Baltic* PVs show messages in only 5 minute increments during these critical hours.
64. Based on observation reported by Phillips to Bride about the well deck being awash, *Titanic* was down by the head about 5.5° at this time.
65. This may have been the time that Bride heard Phillips tell *Frankfurt* to "keep out of it, to stand by" as Phillips, according to Bride, was trying to communicate with *Carpathia*. But it seems that *Titanic*'s power was now greatly reduced as steam pressure supplying the electric dynamo engines continued to drop. The last transmission from *Titanic* that *Carpathia* heard was about 5 minutes before. As Bride said, "Mr. Phillips called once or twice more, but the power was failing us and I do not think we were getting a spark, as there were no replies." (BI 16561-16566.)
66. Observation of well deck submerged and forecastle head under water implies ship was down by the head about 6.5° at this time.
67. It should be noted that Harold Bride estimated that he and Phillips abandoned the wireless cabin about 10 minutes before the ship went under (AI p. 158) having heard no replies to the last CQD message that Phillips sent out. They both thought they were no longer generating a spark. We put the time for this at 10 minutes before the ship was seen to split apart as the bow took a forward cant, and the lights went out as observed from the boats.
68. Strangely enough, this was not reported by any other vessels that were much closer to *Titanic*. At this same time *Mount Temple* reported three other ships calling MGY and getting no response. These were *Olympic*, *Frankfurt*, and *Baltic*. The PVs of those other vessels do not list these, nor do they say that they heard anything from *Titanic* at this time. But ship's PVs did not list every transmission that took place. If these vessels did try to call *Titanic* about this time, one or all of them should have been heard by Phillips since the ability to receive signals had nothing to do with *Titanic*'s ability to transmit signals, or the electrical power supplied to the Marconi set. The receiver was a passive device that worked by a windup clockwork mechanism. The strength of received signals depended primarily on the strengths of the signals transmitted by the other stations and their distances away from the receiving station. Other wireless signals heard afterward were thought to have come from *Titanic*, even as late as 1:58am NYT by *Birma*.
69. Lightoller's observation implies ship down at the head by about 10° at this time. Time is based on events just before breakup, and Joughin's observation of 2:15 on his watch.
70. Gibson said the steamer had "disappeared" and Stone said "gone out of sight" in their respective reports to Capt. Lord on Apr 18 while *Californian* was still at sea. *Californian* ATS was 12 minutes behind *Titanic* ATS. Lookout Symons estimated the lights went out 2-3 minutes before the stern disappeared.
71. Wreck site location taken at the center of the boiler field. Numerous references to 2:20. Both the America and British inquiry reports listed the sinking at 2:20 am ATS. Several of the lifeboats had oil lamps that were lit enabling people to read their watches.
72. *Virginian*'s operator assumed that this came from *Titanic*. Most likely this came from a far off land station with a rotary spark gap transmitter that was being tuned before going on line.
73. *Virginian*'s operator assumed that this came from *Titanic*. Most likely a far off land station with a rotary spark gap trying to establish contact with another station. The transmission of the letters "CQ" was used as a general call up signal by wireless stations worldwide. Harold Cottam on *Carpathia*, then perhaps only about 25 miles away, did not hear what *Virginian*'s operator heard. Nor did John Durrant on *Mount Temple* report hearing these. Cottam later said that he did not believe that these faint signals came from *Titanic* when he found out about them at the British inquiry (BI 17147). And Durrant said that *Titanic*'s signal did not appear to get weaker near the end (BI 9548) as his ship was getting closer. Both these vessels were much closer to *Titanic* than *Virginian* was. *Carpathia* reported being 58 miles from the CQD, *Mount Temple* reported being 49 miles from the CQD, and *Virginian* reported being 178 miles from the CQD, when they each picked up the first calls for assistance.
74. This most likely came from *Carpathia*. See message for 1:25am NYT.
75. This was well after *Titanic* had foundered, close to the time that *Carpathia* was coming near to picking up the first boat.
76. *Carpathia* ATS was 1h 57m ahead of NYT. (Ref: Halpern, "12:35 AM Apparent Time *Carpathia*.")

77. Notice that this came 17 minutes after *Birma* had told *Frankfurt* that she was only 50 miles away from the CQD location. This is likely an error in reception by *Virginian* who was plagued by atmospheric conditions all night. *Birma* most likely transmitted that she was then 45 miles away. (Ref: Halpern, "The Enigmatic Excursion of the SS *Birma*.")
78. Gambell said he sent this message at 5:45am *Virginian* ATS. His ship was 1h 30m ahead of NYT making the transmission time 4:15am NYT. Log of *Californian* had this MSG message listed at 6:00am *Californian* ATS (4:10am NYT.)
79. Lightoller was picked up from overturned Collapsible boat B along with many others. He then assumed command of boat 12.
80. Time is 1 minute before local apparent noon for the longitude given on that date.
81. *Californian* ATS now 1h 39m ahead of NYT at their local apparent noon for their given longitude on this date.
82. Lord said this was about 5 minutes past noon.
83. The longitude of *Carpathia* in the message, 51° 45'W, corresponds to a local mean time that is precisely 3h 27m behind GMT. It was this time difference that later shows up in the message transmitted to *Olympic* at 4:00pm NYT which led to the erroneous foundering time of 5:47am GMT.
84. These three messages were put down in *Olympic's* PV as being received with a number of messages from *Carpathia* at 3.15p.m. NYT. *Carpathia's* Marconi office form shows these three were sent at 3.10p.m. NYT.
85. This message was listed in *Olympic's* PV as being received with other *Carpathia* messages at 3.15p.m. NYT. *Carpathia's* Marconi office form shows it was first sent at 3.25p.m. NYT.
86. "Yamsi" was the not so subtle way of saying "Ismy" (spelled backward).
87. The first set of coordinates in this ice report, 42.3 north 49.9 west, were exactly the same as that sent to *Antillian* on Apr 14 at 5:35pm NYT. The second set of coordinates, 41.33 north, 50.09 west, corresponded to *Californian's* noontime location for Apr 15 when she departed the west side of the pack ice on her way to Boston.