Time on board ships were marked by the striking of ship's bells every half hour. The striking sequence was done in pairs as shown below:

| Number of Bells Struck | Bell Striking Sequence |
|---|---|
| 1 bell | Ding |
| 2 bells | Ding-Ding |
| 3 bells | Ding-Ding; Ding |
| 4 bells | Ding-Ding; Ding-Ding |
| 5 bells | Ding-Ding; Ding-Ding; Ding |
| 6 bells | Ding-Ding; Ding-Ding; Ding-Ding |
| 7 bells | Ding-Ding; Ding-Ding; Ding-Ding; Ding |
| 8 bells | Ding-Ding; Ding-Ding; Ding-Ding; Ding-Ding |

On the subject of "Time on Shipboard," written in brochures given to White Star Line passengers, it stated that shipboard time can be marked from the striking of bells on the vessel.[1] The marking of time by the ship's bells was listed as follows:

| Telling Time by Ship's Bells on White Star Line Vessels | | | | | |
|---|---|---|---|---|---|
| **Watch** | **Bridge Time** | **Bells struck** | **Watch** | **Bridge Time** | **Bells struck** |
| Middle Watch | 12:30am | 1 bell | Afternoon Watch | 12:30pm | 1 bell |
| | 1:00am | 2 bells | | 1:00pm | 2 bells |
| | 1:30am | 3 bells | | 1:30pm | 3 bells |
| | 2:00am | 4 bells | | 2:00pm | 4 bells |
| | 2:30am | 5 bells | | 2:30pm | 5 bells |
| | 3:00am | 6 bells | | 3:00pm | 6 bells |
| | 3:30am | 7 bells | | 3:30pm | 7 bells |
| | 4:00am | 8 bells | | 4:00pm | 8 bells |
| Morning Watch | 4:30am | 1 bell | First Dog Watch | 4:30pm | 1 bell |
| | 5:00am | 2 bells | | 5:00pm | 2 bells |
| | 5:30am | 3 bells | | 5:30pm | 3 bells |
| | 6:00am | 4 bells | | 6:00pm | 4 bells |
| | 6:30am | 5 bells | Second Dog Watch | 6:30pm | 1 bell |
| | 7:00am | 6 bells | | 7:00pm | 2 bells |
| | * 7:20am | 7 bells | | 7:30pm | 3 bells |
| | 8:00am | 8 bells | | 8:00pm | 8 bells |
| Forenoon Watch | 8:30am | 1 bell | First Watch | 8:30pm | 1 bell |
| | 9:00am | 2 bells | | 9:00pm | 2 bells |
| | 9:30am | 3 bells | | 9:30pm | 3 bells |
| | 10:00am | 4 bells | | 10:00pm | 4 bells |
| | 10:30am | 5 bells | | 10:30pm | 5 bells |
| | 11:00am | 6 bells | | 11:00pm | 6 bells |
| | * 11:20am | 7 bells | | 11:30pm | 7 bells |
| | Noon | 8 bells | | Midnight | 8 bells |
| * Seven bells in the Morning and Forenoon watches are struck 10 minutes early to allow the Watch below (next for duty) to take their breakfast and mid-day meal, respectively. One bell is also struck 15 minutes before the change of watch as a warning to the Watch below that they are expected to be on deck punctually when 8 bells are struck. | | | | | |

On land, time is based on a mean (or fictitious) sun that takes exactly 24 hours to go around the earth each day. However, time on board ship was based on the position of the true sun and therefore needed to be adjusted every day, an adjustment that was necessary because of the movement of the ship and something called the equation of time. On White Star Line steamers, along with many other vessels, clocks were adjusted close to midnight each night so that at local apparent noon the next day, when the true sun crossed the ship's local meridian, the clocks would read 12:00. Time kept by the position of the true sun was called Apparent Time Ship (ATS). For westbound ships, such as the *Titanic* on her maiden voyage, the clocks had to be put back each night near midnight. For eastbound ships, the clocks had to be put forward each night near midnight.

From *Titanic*'s Second Officer Lightoller and Third Officer Pitman we know that the clocks on *Titanic* were adjusted at midnight (as also noted in White Star Line information-for-passengers documents) so that they would read 12:00 at local apparent noon the next day. If a slight correction to the clocks was needed, it was done some time before noon when they would obtain a line of position from a celestial sight of the sun to give them their longitude. That correction, if even needed at all, which would have been done on the master clocks carried in the chart room, and would be at most about 1 minute either way. At local apparent noon the ship's officers would take another sight of the sun to get their noontime latitude, and then advance the morning sun line to the noon latitude line by taking into account the speed and direction the ship was making between those two observations. This would then give them what is called a running fix for their noontime position.

Clocks in public and crew places on *Titanic* were impulse driven Magneta slave clocks that were run off of Magneta master clocks located in the chart room. *Titanic* had two of these master clocks on board to control a total of 48 slave clocks. We know from QM Robert Hichens that the clocks on a westbound voyage were adjusted in two steps to add one-half the total adjustment time to each watch section of those keeping regular sea watches. The practice on White Star line Vessels was to make the first adjustment to "Bridge time" in the last hour before midnight, and the second adjustment to "Bridge time" in the first hour after midnight. (That the two partial adjustments are applied to these hours is easily seen from data recorded in the logbooks of several White Star Line vessels.)

The table below shows a possible sequence for adjusting clocks on *Titanic* on the night of April 14th assuming there was no accident. Only two clock alterations were to be carried out; the first taking place shortly before 12:00, and the second would take place sometime after 8-bells but before 12:30. For convenience, we show the first alteration on the Master Clock taking place at 11:58, two minutes before midnight, and the second alteration taking place at 12:24.

The first column in the table (for reference) is time that would be seen on an unadjusted clock originally set to read 12:00 at local apparent noon April 14, 1912.

The second column shows time that would be shown on slave clocks throughout the vessel.[2]

The third column, called Bridge Time, shows time on the master clocks kept in the chart room.

And the fourth column lists specific events. (D&E in the table refers to Deck and Engine department personnel who stood regular sea watches; OOW refers to the Officer of the Watch; and L/O refers to the ship's Lookouts.)

Where an entry in a given time column is split, time above shows the time on the clock just before an adjustment was made, while that below is the time after the adjustment was made. With these adjustments, the time served by each watch section is lengthened by about one-half of the full adjustment amount.[3]