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Titanic's Time Enigmas

by Markus Philipp

One of the thorniest questions about the *Titanic* disaster is, how her clock was changed during the journey.

Several events observed by differing observers at different locations add to the confusion about the difference between *Titanic* ship's time and New York time. (Eastern Standard Time E.S.T.) This difference is not easy to come by and both the US enquiry and the British enquiry took great pains to elucidate this problem. The focus of discussion centred on the radio logs of Marconi stations which recorded the first C.Q.D. at 10.25 New York time and the last C.Q.D. at 12.27 New York time. There is, however no direct evidence when these calls were sent by the *Titanic* by her ship's time. This could of course be calculated if only one had an authentic and independent source for the difference between *Titanic* ship's time and New York time.

Three time differences are in question, the first being:

1) 1 hour 50 minutes?

Generally it is supposed that *Titanic*'s time is 1 hour 50 minutes ahead of New York time. This time is surmised in Walter Lord's "A night to remember" and in many other books as well.

According to its radio log Cape Race heard the first C.Q.D. at 10.25 New York time. With a difference of 1 hour 50 minutes this C.Q.D. would have had to be sent at 12.15 ship's time. But this is NOT what Bride said in the US Inquiry:

Senator Smith: You remained in bed until 12:05?

Bride: I think it was this side of 12, sir; it was about 5 minutes to 12.

Smith: Then you must have been aroused somewhat by this impact?

Bride: No; I had promised to relieve Mr. Phillips earlier than usual, you see.

Bride went to the operating room to speak to Phillips. Then he went back to get dressed. He returned and took over the watch for Phillips, and Phillips retired:

Smith: Did he retire?

Bride: He got inside of the other room when the Captain came in, then... He told us that we had better get assistance... When Mr. Phillips heard him he came out and asked him if he wanted him to use a distress call. He said, "Yes; at once."

The Captain turned up when Phillips retired. Bride does not fix the time with minute accuracy, but it was about 12 o'clock, not a quarter past!

And the end of the drama, the *Virginian* would hear the last CQD at 12.27 New York time:

"12.27 M.G.Y. calls C.Q - unable to make out his signal; ended very abruptly, as if power suddenly switched off. His spark rather blurred or ragged. Called M.G.Y. and suggested he should try emergency set, but heard no response." (Br17147)

With 1 hour 50 minutes this last CQD would have had to be sent at 2.17 *Titanic* time. But Bride said in the US enquiry, they were relieved by Captain Smith about 2.05 a.m! They left the room about 2.10 a.m.
So, Who then sent the C.Q.D at 2.17?

It seems that every new book about the *Titanic* comes up with a timetable that the first C.Q.D. was sent at 12.15 a.m. and the last one was sent at 2.17 a.m. So, one hour and 50 minutes seems to be taken for an approved fact. But is it really?

1) 1 hour 33 minutes?

The US enquiry found that *Titanic's* time was 1 hour 33 minutes ahead of New York time. Here some quotes from the "Report of Committee":

A) Smith remarked to Officer Lightoller, who was the officer doing duty on the bridge until 10 o'clock ship's time, or 8.27 o'clock New York time, "If it was in a slight degree hazy there would be no doubt we should have to go very slowly" (p. 67), and "If in the slightest degree doubtful, let me know."

B) At 11.46 p.m. ship's time, or 10.13 p.m. New York time, Sunday evening, April 14, the lookout signalled the bridge and telephoned the Officer of the watch, "Iceberg right ahead."

C) The ship went down gradually by the bow, assuming an almost perpendicular position just before sinking at 12.47 a.m., New York time, April 15.

These are three statements. Even if not correct, at least they all consequently use the same time!

Strangely enough, "One hour and 33 minutes" seems to have sunk into oblivion. Nobody can tell why, and everybody seems to be convinced that "One hour 50 minutes" comes closer to reality. Does it?

3) 1 hour 46 minutes? - Why not 1 hour 55 minutes?

For some reason the British enquiry did not pay attention to the time found by the US enquiry. They used the ship's time of Mount Temple, 1 h 46 minutes, to convert Durrant's process verbal into Titanic time. Not all the way bad! Later on, however, Sir John Rufus cited some records of Durrant by memory, but he used 1 h 55 minutes to convert these.

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Here a quote of questions put to John Oscar Durrant, the *Mount Temple* wireless operator:

9436. We have been told that to get back to ship's time in the sort of latitude (Sic) where the *Titanic* was struck, you would have to add 1 hour and 55 minutes? - In my case it is 1 hour and 46 minutes.

9437. Then if I add 1 hour and 46 minutes to the time you have written down I shall get what your ship's time was? - Yes.

...

9450. Now let us take the story in order of time, as you recorded it with the help of your Marconi apparatus. I am going to add 1 hour and 46 minutes to your time, so as to keep your ship's time all the way through? - In this copy I have New York time and ship's time both together.

9451. That is very convenient. Now tell us the ship's time when you first got a message as to the *Titanic* being in distress? - 12.11 a.m.

That's enough of that. They asked Durrant, the wireless operator of *Mount Temple* for *Mount Temple's* time and they got 1 h 46 minutes. We also can explain the origin of the 1 hour 55 figure.

They got it from Evans, the wireless operator of *Californian*:

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8935. Perhaps ... you can tell me this: What is the difference between New York time and ship's time at the place where you stopped? - One hour and fifty-five minutes.

Why didn't they simply ask *Titanic's* officers, whom they had plenty of in the witness stand, for *Titanic's* time as it related to New York?

Senator Smith did however ask Rostron for *Carpathia's* time:

Mr. Rostron: ... It was an urgent distress signal from the *Titanic*, requiring immediate assistance and giving me his position ... 12.35 was our apparent time. I can give you the New York time, if you would rather have it?

Sen. Smith: Yes; please do so.

Rostron: The New York time at 12:35 was 10:45 p. m. Sunday night.

Hence we have 1 h 50 minutes for *Carpathia*, not for *Titanic*! Rostron however mentioned a different time for *Titanic* in a telegram to Haddock. He must have had some reason to assume that *Titanic's* time was not the same as *Carpathia's*.

Five Pieces of evidence about the Titanic Time

Here and there we can find isolated statements about *Titanic's* time. To connect them to a self-contained unity seems difficult. Five isolated pieces of evidence are the starting point of our attempt to understand how *Titanic's* clock was set.

1. Hichens: 47 minutes

"I left the wheel at 23 minutes past 12, sir. I was relieved by Quartermaster Perkins. He relieved me at 23 minutes past 12. The clock was to be set back 47 Minutes, 23 Minutes in one watch and 24 minutes in the other one."

2. Pitman's memorandum in the US enquiry

Pitman prepared a table for the US Inquiry with figures about the daily runs, the time setting and the speed, and also the time when *Titanic* passed the Daunt Rock at Queenstown.

3. Ismay's revolutions

Hold on! Revolutions and ship's clock? Are you sure? - Yes. Strangely enough, but indeed this helps.

Ismay: "After embarking the mails and passengers, we proceeded at 70 revolutions. ... The second day the number of revolutions was increased. I think the number of revolutions on the second day was about 72."

4. Rostrons telegram to Haddock, Captain of the *Olympic*

"*Titanic* foundered about 2.20 a. m., 5.47 G. M. T."

5. Boxhall's statement

Senator Smith: Mr. Boxhall, you seem to be the one ... to give ship's time and give the New York time when this accident occurred.

Boxhall: At 11.46 p.m., ship's time, it was 10.13 Washington time, or New York time.

This is what we read about *Titanic's* time here and there. Let's look into these pieces carefully one by one.

Enjoy a thorny journey through *Titanic's* time.

1. Hichens: "47 minutes"

Hichens said that the clock was to be set back 47 minutes in the night from Sunday to Monday.

47 minutes? How odd!

In fact it is not as odd as it looks.

Traditionally ships changed their clocks at noon, when the officers took a prime vertical sight of the sun. The clock was set to twelve o'clock. The clock was changed according to longitude time.

Can we explain 47 minutes on *Titanic*? 47 minutes every night?

From Daunt Rock, Queenstown, to Ambrose Lightship, New York, *Titanic* had to travel 2889 nautical miles.

At a speed of 21 knots this would take her 5 days, 17 hours 34 minutes.

Calculation: 2889 miles / 21 knots = 137 hours 34 minutes

Supposed she changed her clock according to her progress in longitude, we should find how many degrees of longitude she could have passed every day:

Longitude of Queenstown, Daunt Rock: 8°17' West.

Longitude of New York, Ambrose: 73°50' West.

Titanic had to cover about 66 degrees of longitude in 138 hours. By ready-reckoning we can see that she must cover nearly one degree of longitude every two hours. In 24 hours, therefore, she will eat up 12 degrees longitude. With 4 minutes of time per degree of longitude her time changes by roughly 48 minutes each day.

And Hichens said 47 minutes.

Conclusions drawn from Hichens' testimony:

1. Ship's time was adjusted according daily progress of longitude.
2. Ship's time was changed **at night**. There we discover a deviation from seagoing tradition to change ship's time at noon.

2. Pitman's Table

Hichens told how the clock was changed that Sunday night. What about the nights before and after?

Titanic started her transatlantic journey on Thursday. She was due to arrive at New York on Tuesday evening about ten or eleven. Thus she had five nights available to adjust the time. In total the clock was to be changed by five hours.

This is one hour every night. But Hichens gave us 47 minutes only. Once more - how odd!

Fortunately *Titanic's* third officer Pitman left us some more information about the first three nights. Pitman's table is the source for vital detail about time settings. For each day he gives mileage, time from noon to noon and speed. The figures are naked and some elucidating comments would help. The appearance in the transcript looks queer sometimes, such as

24.7) 546 (22.1 knts. per hour.

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But this means nothing else than: 546 miles / 24.7 hours = 22.1 knots.

For better understanding Pitman's table is presented hereunder:

First day:

Time from noon to noon: 24 h 58 min. **The clock was set back 58 minutes.**

But *Titanic* did not start at noon!

The first days run of 484 miles starts at Daunt Rock, and this was passed at 2.20 p.m.

So we have to subtract 2 h 20 min to get the time from departure at Daunt Rock till noon next day:

Time: 24 h 58 min less 2 h 20 min = 22 h 38 min

Miles: 484

Speed: 484 miles / 22.6 hours = 20.14 knots (sic!)

Second day:

Time: 24 h 44 minutes = 24.7 hrs. **(clock set back 44 minutes)**

Miles: 519

Speed: 519 miles / 24.7 hours = 21.00 knots hours

Third day:

Time: 24 h 44 minutes = 24.7 hours **(clock set back 44 minutes)**

Miles: 546

Speed: 546 miles / 24.7 hours = 22.10 knots

The clock was changed by 44 minutes on the second and the third nights. This is quite near to the 47 minutes we got from Hichens. This makes sense, because *Titanic* covered 11 to 12 degrees longitudes every day, from noon to noon.

What about the first night?

Pitman's table declares that the clock was set back by 58 minutes. This is remarkably more than the 44 or 47 minutes we found in the subsequent nights. We don't know why yet. There is, however, no need to understand everything at the very beginning.

So let's take it as it is (for now at least).

To find *Titanic's* time on Sunday we have to add the time settings of the first three nights. In other words, we must find 2 hours 26 minutes. [Calculation: (58+44+44) minutes = 146 minutes = 2 hours 26 minutes.]

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In total there are 5 hours to be adjusted between G.M.T and New York time. Supposed Pitman's table to be right, the remaining declination for New York time on Sunday evening was 2 hours 34 minutes.

We know the time when Cape Race and *Mount Temple* heard the first distress call. Here some quotes from the synopsis of wireless logs used by British Inquiry:
10-25 p.m. [NYT] Cape Race hears "Titanic" giving position on C.Q.D. 41.44 N., 50.24 W.

10-25 p.m. "La Provence" receives "Titanic" distress signals.

10-25 p.m. "Mount Temple" heard "Titanic" sending C.Q.D. Says require assistance. Gives position. Can not hear me. Advise my Captain his position 41.46 N. 50.24 W.

We know the time of the last distress call as well. *Virginian* heard CQD at 12.27 a.m. New York time (Br17147).

Add 2 hours and 34 minutes, and these messages would have had to be sent from *Titanic*:

first CQD: 12.59 a.m.

last CQD: 03.01 a.m.

Titanic hit the berg at 11.40 p.m. and foundered at 2.20 a.m. ship's time.

Undoubtedly something went wrong or is incomplete in Pitman's table.

Pitman's figuring for the first days speed looks queer as well: 484 miles / 22.6 hours = 20.14 knots

When the same figures are put into a calculator, we instead get 21.41 knots.

Note that the speed on the second day was 21.0 knots. According to the figures in Pitman's table *Titanic* slowed down a bit the second day, from 21.41 knots the first day to 21.0 knots the second day! This is in contradiction to the revolutions, which we got from Ismay.

Confusion now. For sure the figures for the first night are not correct. It's time to look at Ismay's revolutions.

3. Ismay's revolutions

"...She arrived in Cherbourg that evening, having run over at 68 revolutions. We left Cherbourg and proceeded to Queenstown. We arrived there, I think, about midday on Thursday. We ran from Cherbourg to Queenstown at 70 revolutions. After embarking the mails and passengers, we proceeded at 70 revolutions. I am not absolutely clear what the first day's run was, whether it was 464 miles or 484 miles.

The second day the number of revolutions was increased. I think the number of revolutions on the second day was about 72. I think we ran on the second day 519 miles.

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The third day the revolutions were increased to 75,"

Stop, stop, stop, ... Thank's, Mr Ismay, that's all we want to hear from you!
Now compare Ismay's revolutions with the speed given in Pitman's table:

Day	Revolutions	Pitman's speed
1	70	20.14 knots *
2	72	21 knots
3	75	22.1 knots

*) *But 21.42 knots calculated out of mileage and time stated by Pitman!*

The more revolutions, the more speed. Otherwise there would be no need to increase revolutions.

The speed at first day, calculated out of mileage and time does not correspond with the revolutions!

Supposed 72 RPM make 21 knots - then 70 RPM, scaled down, should make 20.42 knots

Thus we would expect the speed increasing 0.6 knots from the first to the second day. Even if we consider varying currents of 0.2 or 0.4 knots the speed should increase by some 0.2 - 0.4 knots, but never decrease!

Pitman's table contradicts both the radio logs and Ismay's revolutions. To get out of this, let's proceed with the fourth piece of evidence, Rostron's telegram.

4. Rostron's telegram

Ernest James Moore, wireless operator of the *Olympic*, presented a copy of the wireless log starting on Sunday, 14 April, 1912. There we find a Marconi message from Rostron to Haddock, Captain of the *Olympic*.

4 p.m. Following from Carpathia:

To Captain Haddock, *Olympic*:

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 Titanic's position. Left Leyland S. S. Californian searching around. All boats accounted for. About 675 souls saved, crew and passengers; latter nearly all women and children.

Titanic foundered about 2.20 a. m., 5.47 G. M. T., in 41.46 north. 50.14 west; not certain of having got through. Please forward to White Star, also to Cunard, Liverpool

The key words out of this are: "*Titanic* foundered about 2.20 a. m., 5.47 G. M. T."

5.47 G.M.T equals 0.47 New York time. The difference to 2.20 Titanic time is **1 hour 33 minutes**. This happens to be the time we find in the report of the US enquiry.

Rostron sent this Marconigram on the afternoon of Monday, April 15. Obviously he had asked one of *Titanic's* officers for *Titanic's* time.

5. Boxhall's statement

Josef Groves, Boxhall, *Titanic's* fourth officer, stated *Titanic's* time in the US enquiry on Monday, 29 April.

(US Inquiry p. 918):

Senator Smith: Mr. Boxhall, you seem to be the one upon whom we must rely to give the difference between ship's time and New York time; or, rather, to give ship's time and give the New York time when this accident occurred.

Boxhall: **At 11.46 p.m., ship's time, it was 10.13 Washington time, or New York time.**

Senator Smith: And that was the time of the impact?

Boxhall: There is a question about that. Some say 11.45, some say 11.43. I myself did not note it exactly, but that is as near as I can tell. I reckoned it was about 11.45.

Two primary sources thus confirm the time used in the report of the US enquiry. *Titanic's* time was 1 h 33 minutes ahead of New York time on Sunday evening, it found.

So, just two nights were left to switch the clock all the way to New York time. To find the clock setting for the fifth night we subtract 47 minutes, which we know from Hitchens the clock was to be set back at Sunday night. The remaining time for the last night amounts to 46 minutes.

Just 46 minutes? - Indeed 46 minutes. ($47 + 46 = 1 \text{ hr } 33 \text{ min.}$) Again we get a time which fits 11.5 longitudes. The *Titanic* made everyday between 11 and 12 degrees longitude in westward progress. The clock was changed every night by between 44 and 47 minutes.

But five nights at an average of minutes each amounts 3 hours and 45 minutes. But the difference between GMT and NYT is five hours. One more: How odd!

Pitman allows us one hour (15 minutes over the average) for the first night. Thus we have four hours declined. But we need five!

Correction of Pitman's table

The timing given by Pitman for the second and the third nights looks quite reasonable. His speed calculations are all right. Only the first night needs correction.

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Now we can calculate the time setting for the first night, using Rostron's telegram with times for the last two nights:

5 hours - 44 min - 44 min - 47 min - 46 min (less 181 mins total) = 1 h 59 min.

This is a full hour more than given by Pitman. So the clock was set back 2 hours in the first night.

Strange, but not necessarily wrong. -

Now we have to check whether this time setting allows a reasonable correlation of speed and revolutions.

484 or 464 miles?

Before we calculate the speed we have to clarify the first days mileage. Ismay said, 464 or 484 miles. The US-enquiry choose 464 miles, but Pitman put down 484 miles. Which one is correct?

To find out we need the total mileage from Daunt Rock to the place of the disaster. We subtract the mileages of the first three days and get the mileage from Sunday noon to the wreckage. With 484 miles covered, *Titanic's* average speed at Sunday afternoon and evening would have been 22.1 knots. If the distance is only 464 miles, the *Titanic* is necessarily travelling faster. This would result in a speed of 23.84 knots.

From Queenstown, Daunt Rock to Fastnet Rock:	55 miles
From Fastnet Rock to Corner:	1620 miles
(Great circle navigation)	
Corner to place of collision, 41°44' N, 49°57' W:	133 miles
<hr/>	
Daunt Rock to place of collision, therefore:	1808 miles
Remaining distance from Sunday noon until incident:	
a) with 484 miles: 1808 – 484 – 519 – 546 =	259 miles
b) with 464 miles: 1808 – 464 – 519 – 546 =	279 miles
Rowe read the log. It displayed 260 miles from noon 'til accident.	
Time from noon till 11.40 p.m. = 11 hours 40 minutes = 11.7 hours	
a) Speed with 484 miles: 259 miles / 11.7 hours =	22.13 knots
b) Speed with 464 miles: 279 miles / 11.7 hours =	23.84 knots

Titanic's speed on Sunday afternoon was about 21 or to 22 knots (Lightoller, US enquiry, Day 1).

Boxhall used 22 knots to calculate the last position (Br15646).

Rowe said the log displayed 260 miles from noon 'til accident:

17603. Before you went on the bridge did you go and look at the taffrail; did you look at the patent log? - I did, after the iceberg was cleared.

17607. Then did you go back and have a look at the register of the patent log? - I went [after docking] on the bridge to find that out. The log was on the port side of the bridge.

17608. What did it register? - **260**.

17609. Do you know, of your own knowledge, when the patent log is set on board this ship? - Yes.

17610. When? - At noon.

[Remark: The log displays the speed through the water. Because of the gulf stream the speed through the water is about 0.5 or 1 knot more than the speed over ground. The true distance over ground was 259 or 279 miles. After 12 hours drive against the gulf stream the log should even have registered a few miles more. In fact it registered 260 miles.]

After comparison with the evidence we draw the conclusion the 484 miles is the correct mileage.

Let's now check the speed for the first day with the new time:

Time from noon to noon: 24 hours + 1 h 59 minutes = 25 h 59 min. *Titanic* did not start at noon. The first days run of 484 miles starts at Daunt Rock, and this was passed at 2.20 p.m. So we must subtract 2 h 20 min:

25 h 59 min less 2 h 20 min = 23 h 39 min, or decimalised 23.7 hours.

Speed at 1st day computed with revised time: 484 miles / 23.7 hours = 20.42 knots

From Ismay we know that the revolutions were increased from 70 to 72 R.P.M. Now we use the ratio of the revolutions to predict the second day's speed:

If 70 revs is upped by two revs on the second day, then a speed of 20.42 knots increased by two Seventieths (or 3.5 per cent), should give a speed of 21 knots.

[Figuring: 20.42 knots * 72/70 = 21.00 knots]

According Pitman's table the speed on the second day was 21.01 knots. This meets beautifully with the speed calculated with the revised clock setting of a two hour clock retardation in the first night!

The synchronising of Pitman's table and Hichens' and Boxhall's statements now enables us to reconstruct how the clock was changed daily. Finally we have got a full account of *Titanic's* clock settings during a complete journey:

1st night 1 h 59 min (computed from later nights)

2nd night 44 min (Pitman)

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3rd night	44 min (Pitman)
4th night	47 min (Hichens)
5th night	46 min (Boxhall, Hichens)

Why was *Titanic's* time changed that way?

At last we know how *Titanic's* clock was set. Now the question arises why it was changed in those curious steps. Can we find a reason for those remarkable two hours in the first night?

Titanic travelled 484 miles on her first day's run from Queenstown. We know the course - the great circle from Fastnet Rock to the Corner. With 484 miles we calculate *Titanic's* position at noon on Friday April 12, a day out at sea and find it to be 49°59' North and 20°41' West.

[The position of Queenstown, Daunt Rock is 51°43' North and 8°17' West.]

So *Titanic* increased her longitude from Queenstown till Friday noon by 12 degrees and 24 minutes. This alone would require a time reset of 50 minutes reduction.

But we have to take into account the geographical position of Queenstown: While *Titanic* was on her anchorage in Queenstown, her clock was adjusted to G.M.T., although her position was already 8°17' West. The longitude time of Queenstown is 33 minutes behind Greenwich time, even though Ireland keeps the same time as Greenwich for convenience. Accordingly one had to change the clock another 33 minutes during the first night. In total we get 1 hour 23 minutes for the first night, which is considerably more than the one hour we find in Pitman's table. And we need two hours.

The estimated arrival time for the *Titanic* at New York Ambrose was Tuesday night, ten or eleven p.m. So *Titanic* would approach New York in the evening 36 minutes ahead of local time.

[1 h 59 min - 1 h 23 min = 36 min.]

Such a lack of correspondence would be inconvenient for the officer who has to ask for a pilot, or for workmen at the peer. Sending and reading Marconigrams would give quite a headache with a 36 minute difference. And passengers are not pleased when they have to change their clocks again during Tuesday afternoon or evening.

Consequently these 36 minutes were moved into the first night. So we get 1 h 59 minutes in the first night, and 44 to 47 minutes in the subsequent nights, aligned with the daily progress of longitude.

This time setting is a compromise with the traditional way to set the clock at noon in accordance with the sun (as the *Californian* did) and with the necessity not to mess up the tremendous organisation of a passenger ship.

The memorial log of the maiden voyage of *Bremen* shows us an alternative example for clock setting of passenger steamers. The *Bremen* won the Blue Riband in July 1929 on her maiden voyage. She left Cherbourg on the 18th of July, 2.12 a.m. and arrived at New York Ambrose on the 22nd of July at 2.30 p.m.

Because of daylight saving time in USA the time difference was 4 hours only. Four nights were available to distribute the clock setting. She changed her clock like this:

1st night: 1.5 hours
2nd night: 1.5 hours
3rd night: 1.0 hours
4th night: none

The custom of clock setting daily according longitude has thus been abandoned. The clock is set in even intervals which are easy to handle by passengers and crew members. Nevertheless a big amount is shifted to the beginning of the journey to allow for ease at the end of the voyage.

Final conclusions for *Titanic*

The first and the last distress calls are the cornerstones in the radio logs of Cape Race, *Mount Temple* and *Virginian*. After the setting of *Titanic's* ship's clock has been clarified, the timing for the first and the last wireless calls for distress must be revised by remarkable 17 minutes:

The first C.Q.D. was sent at 11.58 pm *Titanic* time!

Phillips thus sent the first C.Q.D. at 11.58 pm, and not at 12.15 am as we have been told for decades.

Bride's testimony in the US enquiry, already cited, allows that the first C.Q.D. was transmitted around 12 o'clock. It's not fixed to a minute, but it was twelve, not a quarter past!

The last C.Q.D. was sent at two o'clock ship's time!

The last C.Q.D., received by *Virginian* at 12.27 a.m., will now move from it's unlikely place of 2.17 to the more realistic 2.00 a.m. Read what Bride told in the US enquiry and decide on your own whether this fits 2.00 a.m. rather than 2.17 a.m.

[*Virginian* heard the last CQD at 12.27 New York time]:

Bride: "Phillips went out to see what's going on. He returned and said that things looked very queer outside. ... The sooner we were out of it the better."

Phillips sat down and tried to transmit again, but he could not get any sparks. But they had to wait until they were relieved by Captain Smith. According to Bride's testimony they left the room 10 minutes before the ship went down. Captain Smith relieved the operators about 15 minutes before the ship went down.

Bride: The motor and alternator that was working with our wireless set were running when we left the cabin, 10 minutes before the ship went down.

Senator Smith: Did you continue to send messages, or Mr. Phillips, up to the time you left the cabin?

Bride: When we had finished with the Frankfurt, and we had thoroughly informed the *Carpathia* of our position, Mr. Phillips again went out to look and see how things were going outside. I tried to establish a communication with the Baltic, and it was not very satisfactory, and I judged myself, from the strength of her signals, that she was too far away to do any good and it was not worth taking any trouble, and I told her we were sinking fast and there was no hope of saving the ship.

Smith: What did you do then, Mr. Bride? - **Bride:** Mr. Phillips sat down again at the telephone and gave a general call of C.Q.D., but I think that our lamps were running down; we did not get a spark. We could not tell, because the spark of our wireless was in an enclosed room. We could not hear at any time whether it was sparking.

Smith: When Mr. Phillips sat down to the instrument did he have a life preserver on, and did you put one on? - **Bride:** Yes, sir.

Smith: But after he had put the life preserver on he tried and succeeded, as I understand you, in sending a last message, and that message was C.Q.D.; and anything else?

Bride: General C.Q.D., M.G.Y.; waiting for some one to answer.

Smith: What did you do then, Mr. Bride?

Bride: On Mr. Phillips's request I started to gather up his spare money and put on another coat, and made general preparations for leaving the ship.

Smith: How did you expect to leave the ship? - **Bride:** We had to wait until the captain told us, first.

Smith: You had to wait until the captain told you?

Bride: Yes, sir. He came along in a very short period afterwards and told us we had better look out for ourselves.

Smith: You waited until the captain told you that you could leave the ship? - **Bride:** Yes, sir.

Smith: How long was that before the ship disappeared?

Bride: I should say it was just about a quarter of an hour.

Smith: About 15 minutes? - **Bride:** About 15 minutes.

Smith: And the captain said you had better take care of yourselves? - **Bride:** Yes, sir.

Virginian heard the last C.Q.D. at 12.27 New York Time or 2.17 *Titanic* time, we have been told. This is "proved" by the difference of 1 hour and 50 minutes offered us for years.

Is it so proved? NO!

The real difference is 1 hr 33 mins, as testified by Boxhall. And as reported very early by Rostron.

Let's make a big funeral to bury "One hour and 50 minutes" in the big tomb full of *Titanic* research errors.

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References

[1] Formal Investigation ordered by the Board of Trade into the The Loss of the SS TITANIC;

<http://www.titanicinquiry.org/BOTInq/BritInq.html>

[2] The TITANIC Disaster Hearings of the US Senate;

<http://www.titanicinquiry.org/USInq/AmInq01.html>

[3] Pitman's table: <http://www.titanicinquiry.org/USInq/AmInq05Memo02.html>

[4] Bertram G., *Aus der Zeit der großen Schnelldampfer*; Hauschild GmbH, Bremen, 1997