

“IT MAY HAVE BEEN A DOZEN OR IT MAY HAVE BEEN MORE”

by Samuel Halpern

In the early morning hours of Monday, April 15th 1912, the first of several socket distress signals was fired from the deck of the sinking *Titanic*. As described by *Titanic*'s Fifth Officer Harold Lowe:

“He [J. Bruce Ismay] was there, and I distinctly remember seeing him alongside of me - that is, by my side - when the first detonator went off. I will tell you how I happen to remember it so distinctly. It was because the flash of the detonator lit up the whole deck. I did not know who Mr. Ismay was then, but I learned afterwards who he was, and he was standing alongside of me.”

This event occurred soon after lifeboat No. 5 was launched from *Titanic*, which was about 12:45am *Titanic* time, a little over an hour after *Titanic* struck an iceberg along her starboard side. The person in charge of sending up these distress signals was *Titanic*'s Fourth Officer Joseph Boxhall. Boxhall had testified that he was sending up these signals at intervals of “probably five minutes.”¹ This is somewhat supported by Quartermaster George Rowe who, along with Quartermaster Arthur Bright, had brought two metal boxes containing extra signals to the bridge at Boxhall's request after Rowe had called the bridge to inform them that he had seen a boat in water while stationed out on the poop. In later years, George Rowe wrote that when he arrived on the forebridge, he was told to fire one of these distress signals every 5 to 6 minutes.² Boxhall confirmed that he got a quartermaster to assist him with the firing of these signals as well as working one of the Morse signaling lamps in a failed attempt to communicate with this stopped steamer that was seen off *Titanic*'s port bow that night. In a letter he wrote in later years, Rowe implied that he had fired about 7 of these signals himself after he arrived on the bridge. He also stated in a private interview that distress signals had been fired from *Titanic* before he came onto the bridge while he was still stationed out on the poop.³ QM Bright thought that about half a dozen had been fired after he and Rowe arrived on the bridge.⁴

In all, a number of these socket distress signals were fired from *Titanic* over course of about an hour that night. Of the 36 socket distress signals supplied to *Titanic*, 24 were kept in a box on the forebridge, and the remaining 12 were kept in metal boxes in a quartermaster's locker located under the poop. It was these extra signals that quartermasters Rowe and Bright brought to the bridge at Boxhall's request.⁵

It is also clear from eyewitness reports that nobody on *Titanic* actually counted how many distress signals in all were fired off that night. *Titanic*'s Fourth Officer Joseph Boxhall, who was put in charge of firing these signals, thought “between half a dozen and a dozen” were fired. Third Officer Herbert Pitman thought “it may have been a dozen or it may have been more.” And Second Officer Charles Lightoller thought it was “somewhere about eight.” What they all agreed with is that these signals were being sent up one at a time at intervals.

The requirements dealing with distress signals that can be used at night at the time of *Titanic* included a number of different types. In addition to such things as the continuous use of a fog signal, or the use of a flaming tar or oil barrel on the deck of a distressed vessel, the requirements allowed for the use of “A gun or other explosive signal fired at intervals of about a minute,” as well as “Rockets or shells, throwing stars of any colour or description, fired one at a time, at short intervals.” It should be noted that the term “short intervals” dealing with the use of rockets or shells throwing stars was not specified.

The socket distress signals that were supplied by the Cotton Powder Company to *Titanic* and other vessels of that period were described as “regulation distress signals” that could be used in lieu of using guns or conventional rockets. They were fired from a socket located in the rail of a ship, and produced both a very loud report when they burst high in the air, as well as throwing bright stars. In effect, they were a combination of both, a sound signal and a light signal, that can be used to indicate distress. That fateful night

on *Titanic*, these signals were used as distress rockets to attract the attention of this stopped steamer that appeared off *Titanic*'s port bow.

Northwestward of *Titanic*, on the upper bridge of the stopped SS *Californian*, Second Officer Herbert Stone was keeping a lonely vigil, with orders to keep an occasional eye on this irresponsible steamer that had stopped toward the southeast over an hour before. Suddenly, while glancing over the weather cloth toward that stopped steamer:

“At about 12:45 [*Californian* time], I observed a flash of light in the sky just above that steamer. I thought nothing of it as there were several shooting stars about, the night being fine and clear with light airs and calms. Shortly after I observed another distinctly over the steamer which I made out to be a white rocket though I observed no flash on the deck or any indication that it had come from that steamer, in fact, it appeared to come from a good distance beyond her. Between then and about 1:15 I observed three more the same as before, and all white in colour.”



In all, Stone went on to see a total of what appeared to be eight white rockets go up from about 12:45am to about 1:40am according to Stone's estimate.⁶ The first five that he saw was between about 12:45am and 1:15am; a span of about half an hour. The last three were seen sometime between about 1:15am and 1:40am; a span of about 25 minutes. Those last three were also seen by *Californian*'s Apprentice James Gibson who arrived back on *Californian*'s upper bridge sometime soon after Stone saw his fifth rocket.

Time on *Californian* was not the same as time on *Titanic*. Clocks on *Californian* were running 12 minutes behind clocks on *Titanic*. Their respective clocks were set to keep what was called Apparent time such that when the sun reached its highest point in the sky each day, what was called local apparent noon, their clocks would read 12:00. That Sunday, April 14th 1912, the two ships were crossing different longitudes when local apparent noon for each of them took place. Noon for *Titanic* took place at 2:58pm GMT, while noon for *Californian* took place at 3:10pm GMT.

As pointed out before, the first distress rocket signal fired from *Titanic* took place soon after lifeboat No. 5 was launched, while adjacent lifeboat No. 3 was being loaded. If we take the accepted time that boat No. 5 was lowered as 12:45am *Titanic* time, and assume that Boxhall fired the first distress signal two minutes later, then we get **12:47am** as the time when the first distress rocket went up from *Titanic*. Being 12 minutes behind, the time on the SS *Californian* would be 12:35am, or 10 minutes before Second Officer

Stone saw his first of eight white rockets.

So why did Stone not see *Titanic*'s first rocket? According to what Stone wrote in his April 18th report to *Californian* Captain Stanley Lord:

“At 12:35 you whistled up the speaking tube and asked if the other steamer had moved. I replied ‘No’ and that she was on the same bearing and also reported I had called him up and the result.”

From the above we see that when the first distress signal went up from *Titanic*, *Californian*'s second officer was busy speaking to his Captain on the speaking tube that connected the upper bridge with the Captain's quarters below. Therefore, Herbert Stone would not realize that something was going on with that stranger on the horizon to the southeast. And that may not have been the only distress signal that was missed by this young officer, as we shall soon see.

According to *Titanic*'s Fourth Officer Joseph Boxhall,

“I was sending the rockets up right to the very last minute when I was sent away in the boat [emergency boat No. 2]...I cannot give the time, but I have approximated it nearly half an hour, as near as I could tell [before the vessel sank]...The order was given to lower away when I was told to go in it and the boat was full; they had started the tackles when I got in.”

Boxhall's “sending the rockets up” could very well mean being involved with the firing of rockets, not necessarily meaning that he himself always pulled the firing lanyard for every rocket that was fired off.

It is taken that emergency lifeboat No. 2 was launched somewhere around 1:45am *Titanic* time when Fourth Officer Boxhall stepped in and took charge of the boat. However, Boxhall was not the one to fire the last distress signal from *Titanic*. That honor seems to lie with Quartermaster George Rowe. How do we know that?

At the American Inquiry, Chief Steward John Hardy was asked by Senator Fletcher about seeing Captain Smith for the last time.

Senator FLETCHER. Did you see him [Capt. Smith], Hardy?

Mr. HARDY. Yes, sir; I did.

Senator FLETCHER. Where did you see him?

Mr. HARDY. On the bridge, before our boat left.

Senator FLETCHER. What was he doing?

Mr. HARDY. He was superintending the rockets, calling out to the quartermaster about the rockets.

Senator FLETCHER. That is the last you saw of him?

Mr. HARDY. Yes, sir. He walked on the deck, watching the filling of the boats. That is the last thing I saw of him.

John Hardy left *Titanic* in collapsible lifeboat D, the very last boat to be lowered from the ship around 2:05am, and a boat that happened to use the same set of davits that were used to lower emergency lifeboat No. 2 with Boxhall in it earlier. Thus we see that Captain Smith was on the bridge supervising the firing of distress signals after Boxhall had already left, while lifeboat D was being loaded, and it was Captain Smith who therefore decided when the last distress signal was sent up.

Mrs. Mahala Douglas, who also left the ship in emergency lifeboat No. 2 along with Joseph Boxhall, had mentioned in an interview that “they were putting off rockets on the deck as we got away,” thus confirming that distress signals were still being sent up *after* Boxhall was sent away.⁷ We also know that QM George Rowe was involved in firing distress signals right up until he was ordered by Chief Officer

Wilde to go and finish loading collapsible lifeboat C and take charge of the boat. This took place just a few minutes before boat C was lowered to the sea.⁸ As Rowe recalled during the American inquiry, lifeboat C was launched about “twenty minutes” before the ship sank. That would put the launching of lifeboat C around 2:00am *Titanic* time. Based on what was left for him to do, it appears that Rowe was ordered to finish loading and take charge boat C sometime between 1:50 and 1:55am.

If we now assume that distress rockets from *Titanic* were being sent up at an average of one every six minutes, with the first signal being sent up at 12:47am *Titanic* time as we previously worked out, and furthermore assume that about a dozen signals altogether were sent up, then we get the following distress signal firing timeline:

Distress signal fired	<i>Titanic</i> time	<i>Californian</i> time
1	12:47 AM	12:35 AM
2	12:53 AM	12:41 AM
3	12:59 AM	12:47 AM
4	1:05 AM	12:53 AM
5	1:11 AM	12:59 AM
6	1:17 AM	1:05 AM
7	1:23 AM	1:11 AM
8	1:29 AM	1:17 AM
9	1:35 AM	1:23 AM
10	1:41 AM	1:29 AM
11	1:47 AM	1:35 AM
12	1:53 AM	1:41 AM

First signal fired on *Titanic*

Last signal fired on *Titanic*

But what about those eight white rockets seen from *Californian*? If a dozen were sent up from *Titanic*, and only eight were seen from *Californian*, then somehow four were missed.

According to what Second Officer Herbert Stone wrote in his report to Captain Lord on the 18th of April while *Californian* was still at sea, the first rocket he saw, the one that he thought may have been a shooting star, was seen about 12:45am *Californian* time, or about 10 minutes after speaking to Lord on the speaking tube at 12:35am *Californian* time. In his testimony before the British Wreck Commission, Stone claimed that the last rocket he saw was about 1:40am *Californian* time, or about 55 minutes later. If we try and match his time estimates to the *Californian* times listed in the above table, then it seems that Stone’s first observed rocket matches closely with the third signal fired from *Titanic* (listed at 12:59am *Titanic* time), and Stone’s last observed rocket matches closely with the 12th and last signal fired from *Titanic* (listed at 1:53am *Titanic* time).

Stone obviously missed seeing the first two signals that were sent up from *Titanic*, the first (listed at 12:47am *Titanic* time) when he was busy with Lord on the speaking tube, and also missed seeing the second one sent up from *Titanic* (listed at 12:53am *Titanic* time) when he was probably pacing back and forth on the bridge trying to keep warm, and likely not looking in the direction of the steamer at that particular time.

In addition to missing the first two signals that were fired from *Titanic*, Stone likely missed seeing two more. Which ones would they have been?

We know that he saw five consecutive white rockets burst over this steamer. He admitted during the Wreck Commission’s investigation into the *Titanic* disaster that they came at regular intervals over a period of about 25 minutes.⁹ So given the above timeline, it seems he saw distress signals 3 through 7, which in *Californian* time, would have been from about 12:47am to about 1:11am according to the above table.

In his testimony before the Wreck Commission, Stone said he called down on the speaking tube to report to Captain Lord that he had seen these rockets:

“I communicated that I had seen white lights in the sky in the direction of this other steamer, which I took to be white rockets...[it was] just about 1:10.”

When questioned further about the details of what he saw, Stone went on to explain:¹⁰

“First of all, I was walking up and down the bridge and I saw one white flash in the sky, immediately above this other steamer. I did not know what it was; I thought it might be a shooting star...It was just a white flash in the sky; it might have been anything...I thought nothing until I brought the ship under observation with the binoculars and saw the others...I saw four more then...They had the appearance of white rockets bursting in the sky...I just took them as white rockets, and informed the master and left him to judge.”

We see from Stone’s account that he informed Captain Lord that he saw white rockets burst above this steamer after witnessing five of them. However, *Californian*’s Apprentice James Gibson implied something a little different. Gibson wrote in his own report on April 18th to Captain Lord:

“Arriving on the bridge again at that time, the Second Officer told me that the other ship...had fired five rockets and he also remarked that after seeing the second one to make sure that he was not mistaken, he had told the Captain, through the speaking tube, and that the Captain had told him to watch her and keep calling her up on the Morse light.”

We therefore see that there is some question as to exactly when did Stone call down to Lord to report seeing these lights in the sky over the steamer. Was it after he saw five, or was it after he saw two? However, what is clear from both accounts is that Gibson arrived back on the bridge *after* Stone had seen five of them, and that Stone had already called down to Lord by that time to tell him that he saw rockets in the direction of that steamer.

Based on the firing timeline above, it is possible that the eighth signal fired from *Titanic*, the one that we list for 1:29am *Titanic* time, may have been missed by Stone and Gibson. It is very possible that Stone was briefing Gibson as to what had previously transpired when that particular signal went up. We also know from Gibson’s account, that right after Stone told him what transpired, he watched the steamer for a short time and then went to the Morse key and tried calling up the steamer by Morse lamp for about 3 minutes before getting his binoculars on the steamer to witness for himself a signal go up from her deck.

“I then got the binoculars and had just got them focused on the vessel when I observed a white flash apparently on her deck, followed by a faint streak towards the sky which then burst into white stars.”

The signal that Gibson described so vividly in detail was probably the ninth signal fired from *Titanic*, the one we list at 1:35am *Titanic* time.

Gibson and Stone went on to see two more signals burst over this unresponsive steamer. The next burst was probably the tenth signal fired from *Titanic*, the one that we list at about 1:41am *Titanic* time. We also believe that the one that we list as the twelfth signal was the last signal fired from *Titanic*, the one listed at 1:53am *Titanic* time (1:41am *Californian* time). That signal was also seen by both of them. But what about the eleventh signal, the one we list at 1:47am *Titanic* time?

1:47am on *Titanic* would be about the time that emergency lifeboat No. 2 was being lowered, the one that Fourth Officer Boxhall went away in. Before being sent to the boat, Boxhall was busy supervising QM Rowe with the firing of these distress signals as well as working the Morse lamp and looking for any response to their signaling efforts from this elusive stranger. Could it be that in the disruption caused by Boxhall being sent away to take charge of lifeboat No. 2 that no distress signal was actually fired from the

deck of *Titanic* at that time? If so, this would also be about the time that *Titanic*'s red sidelight would have disappeared to those looking at her from the upper bridge of *Californian* due to a 10° list to port along with a down-tilt angle by the bow of about 5° that *Titanic* took on by that time.¹¹

We also know from James Gibson that the observed steamer's red (port-side) sidelight disappeared soon after the seventh rocket was seen, and that her deck lights appeared to have taken on a strange looking appearance. We know that Stone and Gibson were "talking about it all the time" with such remarks as, "Look at her now; she looks very queer out of the water; her lights look queer," and that "a ship was not going to fire rockets at sea for nothing."

Either way, it seems that what we list here as the eleventh signal fired from *Titanic* may not have even been fired at all, or it simply may have been missed while Stone and Gibson were busy conversing with each other. It is quite apparent that the two vessels, *Titanic* and *Californian*, were far enough apart from each other that the explosive sounds from the distress signals being fired could not be heard, and attempts at Morse signaling were very problematic.¹² Unless one was actively looking in the direction of the steamer, the flash of a distress signal low down near the horizon, along with its resulting display of stars that followed, could easily be missed.

If this is what happened that fateful night, then we have the following summary of events as listed in the following table:

Rocket fired (every 6 min)	<i>Titanic</i> time	<i>Californian</i> time	Rocket sighted from <i>Californian</i>	NOTES
1	12:47 AM	12:35 AM	–	First signal fired from <i>Titanic</i> . 2/O Stone on <i>Californian</i> busy on speaking tube conversing with Captain Lord.
2	12:53 AM	12:41 AM	–	2/O Stone pacing the upper bridge and not looking in direction of steamer.
3	12:59 AM	12:47 AM	1st	2/O Stone thinks he sees a shooting star over stopped steamer. Not sure what it really was at that time.
4	1:05 AM	12:53 AM	2nd	Stone sees a 2nd burst over steamer in what appears to be a white rocket throwing stars. (Calls down to Lord via the speaking tube?)
5	1:11 AM	12:59 AM	3rd	Stone sees a 3rd rocket burst over steamer.
6	1:17 AM	1:05 AM	4th	Stone sees a 4th rocket burst over steamer.
7	1:23 AM	1:11 AM	5th	Stone sees a 5th rocket burst over steamer. (Calls down to Lord via the speaking tube?)
8	1:29 AM	1:17 AM	–	Gibson arrives on bridge and briefed by Stone. Told that 5 rockets were seen and that Lord had been informed.
9	1:35 AM	1:23 AM	6th	Gibson sees a signal fired from deck of steamer through a pair of glasses after failing to communicate with steamer via Morse lamp.
10	1:41 AM	1:29 AM	7th	Gibson and Stone see a 7th rocket burst over steamer.
11	1:47 AM	1:35 AM	–	Lifeboat #2 on <i>Titanic</i> being lowered with 4/O Boxhall in charge. Possibly no eleventh signal fired because of Boxhall's departure, or the signal was simply missed by Stone and Gibson.
12	1:53 AM	1:41 AM	8th	Last signal fired by QM Rowe before being sent to boat C on <i>Titanic</i> . This signal was seen by Gibson and Stone about 20-25 minutes before the steamer disappeared from sight.

According to James Gibson, the lights of the steamer they were observing disappeared from view "at five minutes past two by the wheelhouse clock" when he was ordered down to inform Captain Lord that the steamer that fired those white rockets had disappeared out of sight. It so happened that 2:05am *Californian* time was 2:17am on *Titanic*, about the time that all of *Titanic*'s lights went out as her hull seemed to split apart. About three minutes later, at 2:20am, what remained of *Titanic* disappeared beneath the surface of the Atlantic.

From the analysis that was done here, it is likely that a total of 11 or 12 socket distress signals were sent up from *Titanic* that memorable night in April of 1912. It appears that they were being fired over a

period of about an hour at intervals averaging about 6 minutes apart; intervals consistent with what was stated by those involved with firing them. Of those 11 or 12 signals, only eight were seen from the upper bridge of *Californian* for reasons explained.

Key References:

- British Wreck Commission investigation into the loss of the SS *Titanic* (BI).
- United States Senate investigation into the loss off the SS *Titanic* (AI).
- Herbert Stone’s written report to Captain Lord of April 18th 1912.
- James Gibson’s written report to Captain Lord of April 18th 1912.
- Samuel Halpern, *Strangers on the Horizon: Titanic and Californian - A Forensic Approach*, printed by Kindle Direct Publishing, First printing 2019. Updated 2021.

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¹ BI 15399.

² Letter from George Rowe to Ed Kamuda of the *Titanic Historical Society*, August 16, 1968.

³ Documented in a note from MMSA District Secretary J. Powell to W. L. S. Harrison, June 12, 1963.

⁴ AI p. 832.

⁵ Ref: *Strangers on the Horizon*, App. G.

⁶ BI 7935.

⁷ Interview with Mahala Douglas in the *New York Herald*, April 20, 1912.

⁸ AI p. 519-520. Rowe said that when he got to the boat he helped to finish loading it with 3 women and 3 children before two men got in after a call was made for any more women or children. Those two men were Bruce Ismay and William Carter. The boat was then lowered.

⁹ Stone thought that these first five rockets were being sent up “at intervals of about three or four minutes” (BI 7842). Obviously, if that were accurate, he should have seen much more than 5 rockets over a period of about 25 minutes. His interval estimate was very subjective, but it does imply that the intervals were more or less regular, and more importantly, consistent with rockets being sent up one at a time at short intervals. The duration of the intervals between firings was never suggested during the inquiries as a reason for not recognizing these signals for what they really were, signals of distress, by those on *Californian*.

¹⁰ BI 7832-7853.

¹¹ Ref: *Strangers on the Horizon*, Ch. 6. In addition to the disappearance of the steamer’s red sidelight shortly after the 7th rocket was seen, we also know from Gibson’s April 18th report to Captain Lord that during the time between seeing the 7th rocket to the time of the 8th rocket, the stopped *Californian* had slowly swung around to starboard some 3 compass points (about 35°), and during that period, Gibson once again spent some of his time trying to call up this rocket firing steamer by Morse lamp. As before, there was no reply.

¹² It has been shown that *Californian* was bearing about 315° true at a distance most likely between 12 and perhaps no more than about 14 nautical miles from *Titanic*. This result is supported by multiple, independently derived analytical methods. Ref: *Strangers on the Horizon*, Ch. 6 and 7.