

# **Calming of the wind and waves by Jesus or the calming of frantic disciples by Jesus? (Mark 4:35-41; Luke 8:22-25; Matthew 8:23-27)**

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## **Abstract**

In the book by Adam Hamilton titled “The Way” there is a chapter that includes a discussion of the calming of a storm by Jesus as reported in Mark 4:35-41.

Accompanying the book is a video in which Adam shows a fishing boat that could have been like the one on which Jesus and his disciples sailed. In the evening, after speaking to crowds of people, Jesus suddenly decided to go to the other side of the Sea of Galilee. Likely, there was not a cloud in the sky, and the weather was beautiful. If there had been the potential of a regional storm, sailing across the sea would have been dangerous, and Jesus would not have suggested sailing under those conditions. The timing of the departure in the evening, the sailing from the western shore somewhere closer to the widest part of the Sea of Galilee, and the observation that the weight of fifteen people in the boat would have caused the tops of the gunnels of the boat to be perhaps just one foot above the level of the sea are significant facts. Under these circumstances, cold, relatively-dense air from the tops of mountains (crests at 2,000 feet above the sea) west of the Sea of Galilee could suddenly drain down east to the sea to displace warm, less-dense, air above the sea. The wind, produced by this cold-air drainage, could create waves one foot high that could splash over the gunnels and swamp the boat. Moreover, the cold-air drainage would probably last no more than one hour and would stop rather quickly after the cold air had flowed down the mountain so that the sea would abruptly flatten-out. Therefore, the suddenly-created, wind-wave squall has a scientific explanation, and Jesus may have been telling frantic disciples to calm down and not be afraid rather than rebuking the wind and the waves.

**Mark 4:35-41.** On that day, when evening had come, he said to them, “Let us go across to the other side.” And leaving the crowd behind, they took him with them

in the boat, just as he was. Other boats were with him. A great windstorm arose, and the waves beat into the boat, so that the boat was already being swamped. But he was in the stern, asleep on the cushion, and they woke him up, and said to him. “Teacher, do you not care that we are perishing?” He woke up and rebuked the wind, and said to the sea. “Peace! Be still!” Then the wind ceased, and there was dead calm. He said to them, “Why are you afraid? Have you still no faith?” And they were filled with great awe and said to one another, “Who then is this, that even the wind and the sea obey him?”

**First relationships that set the scene.** Theoretically, let’s lift the fishing boat out of the water, using a crane and a cable attached to the boat, and then lower the boat back into the water. As the boat sinks into the water, its shape and volume begins to displace the water. As it is lowered farther, it will continue to sink until the weight of the boat is equal to the weight of the volume of the water that is displaced. When that equality occurs, the boat floats and will not sink any farther.

Now let’s put a fisherman and one crew member on the boat as well as Adam Hamilton (representing Jesus) on the boat. (The fisherman needs a crew member to help maneuver the boat and adjust the sail.) The added weight of these three people will cause the boat to sink farther into the water. Now the gunnels (tops of the sides of the boat) will be about 2 ½ feet above the water in the Sea of Galilee (as seen in the video).

I think that it is significant to note that it was **evening** when Jesus said to his disciples: “Let’s go to the other side.” The timing may explain what happened. I think that we can also assume that when Jesus made the decision to go to the other side that the weather was beautiful, perhaps not a cloud in the sky. That is, there was not a storm in sight because going to the other side during a bad regional storm on the Sea of Galilee would be dangerous. We can also assume that he and the disciples are not leaving from Capernaum at the north end of the Sea of Galilee but at some point along the western shore, probably at some place closer to where the Sea of Galilee is widest.

So, now 12 disciples climb into the boat with Jesus, the fisherman, and the crew member. Their added weight would cause the boat to sink deeper into the water.

(Adam Hamilton suggests that the boat would seat 12 people, so the boat could have been a bit crowded with 15 people.)

The final result (before departing the sea shore) could be that the gunnels of the boat are now just 1 foot above the water level instead of 2 ½ feet. The boat is still floating but would move very sluggishly through the water because of the added weight and the resistance of the water against the larger surface area of the boat under water.

Okay, the boat finally is pushed off from the shore and starts sailing eastward.

**Related facts.** Waves are created by wind which drags by friction on the water surface, pushing the water ahead of the wind and piling it up. The heights of waves are functions of three properties.

1. Strength of the wind. The stronger the wind, the higher the waves.
2. Duration of the wind. The longer the wind blows, the higher the waves.
3. Fetch over which the wind travels. The greater the distance over water that the wind blows, the higher the waves can be piled up at the end of this distance. (I have seen waves created 1 ½ inches high before they collide with the wall at the end of a 50-foot-long reflection pool at California State University Northridge.)

**Time relationships and other facts.** Adam Hamilton says that crossing over to the other side of the Sea of Galilee took only about 2 hours of sailing time. However, because it was evening and Jesus was tired, he did not stay awake but fell asleep on a cushion in the stern of the boat. My guess is that within a half hour of departing the shore, when the boat was still close to the western shore, the wind storm (blowing from the west) occurred and that the total distance (fetch) that the wind had traveled across the sea from the shore to the boat was relatively short (perhaps less than a mile because the boat was moving sluggishly).

Note that the three Gospel authors say that the storm was caused only by wind. That is, it was not a regional storm accompanied by rain, thunder, and lightning, that would last for several hours. Moreover, I doubt that the waves produced by the wind were 3 to 4 feet high, as depicted by some art historians, but perhaps no more than 1 foot high. If the waves were 3 to 4 feet high, the boat would have

been tossed and rocked violently, and Jesus could not have slept through such vigorous movements. Instead, the waves were likely gentle slaps against the boat. Probably, the storm lasted less than one hour (as explained in the next section). Nevertheless, because these 1-foot-high waves were splashing over the tops of the gunnels just one foot (or less) above the water surface, the boat was being swamped, and Jesus had to be awakened.

**How was the wind storm started?** Along the western side of the Sea of Galilee is a mountain range whose crests are 2,000 feet above the sea. The wind storm would have been created because of the difference in the cold temperature of air on tops of these mountains and the warm temperature of air at the lower elevation of the Sea of Galilee. In the evening after the sun sets, if the difference in temperature is sufficient, cold, dense, heavy air in the tops of the mountain will drain down in valleys to the lake and displace the warm, expanded, less-dense air over the Sea of Galilee. It would take about one hour for this cold-air drainage to occur, and once the drainage is complete, the wind abruptly stops. (I have observed winds suddenly created in the evening and one-hour, cold-air drainage of air in the mountains when I have gone camping in the Sierras of California.)

This weather phenomenon on the Sea of Galilee would not happen every day because of the lack of snow on the mountains, but would occur only under the right conditions, which might take several days (or weeks) to be re-produced and have a repeated occurrence. Peter, Andrew, James, and John, fishing in the Sea of Galilee near Capernaum at the narrower end of the sea, would likely never have seen this phenomenon because any possible cold air drainage from the mountain range west of Capernaum would not have sufficient fetch on the sea to produce any waves of large size. Thus, the wind-wave phenomenon is a local, infrequent weather event that took place only on the western side of the Sea of Galilee.

**Conclusion.** So, the following is the probable scenario. In the evening, the boat, over-loaded for its size with the weight of 15 people, probably had moved away from the western shore perhaps no more than a mile when the wind storm began. Therefore, the fetch of the cold-air-draining-wind, moving over the water, was only a mile, and the waves could pile up no more than 1 foot high before intersecting the boat. But this height would be sufficient for the water to splash over the tops of the gunnels which were only 1 foot above the water. Therefore,

the fishing boat began to be swamped. The disciples were using whatever they could find to bail the water out of the boat as the water splashed over. Otherwise, the boat would sink, and they could drown. Soon, they realized they were in trouble and began to panic. Of course, they woke Jesus and begged him to save them.

Now, the question is: Did Jesus rebuke the wind and the waves or did he shout at the frightened disciples: “Peace! Be still. Calm down! Don’t be afraid!!!”

I do not know the answer.

Of course, it would have been very impressive to have the wind suddenly stop and the waves rather quickly flatten-out, cease to exist, and leave a placid water surface. No wonder the disciples were filled with great awe and said: “Who is this, that even the wind and the waves obey him?”

Nevertheless, the phenomenon has a natural explanation and does not require the presence of Jesus every time to control the forces of nature.

Perhaps because Jesus had walked along the western shores of the Sea of Galilee, he had once observed the cold air drainage, the creation of the waves, and the sudden ceasing of the wind and the flattening of the waves. Therefore, he could have been telling the disciples not to be afraid.

Who knows?

It has been suggested before that Jesus may have been speaking to the disciples instead of to the wind and the waves, but no one to my knowledge has proposed a possible scientific explanation for what happened. Although it is speculation, it is a reasonable solution.

## **Reference**

Hamilton, A. 2012, *The Way, Walking in the Footsteps of Jesus*, Abington Press, Nashville, 173 pages.

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