The Longest Day of the Year for *Over the Moon*

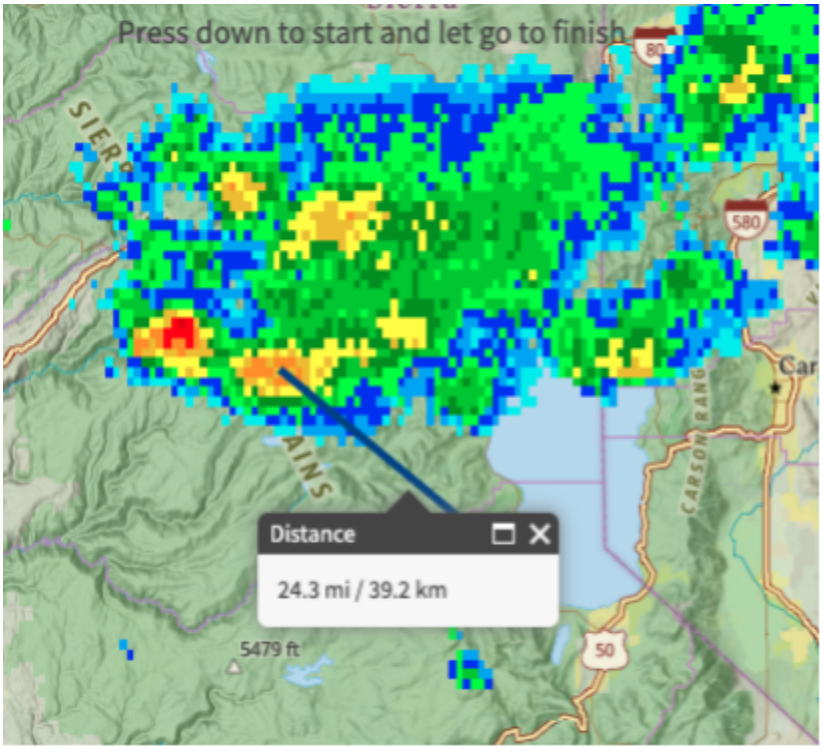
Lessons Learned from a Family Cruise Turned Deadly

"Safety Moments, presented at CCA Stations and Posts"

By Chuck Hawley, San Francisco Station

A boating accident on Lake Tahoe June 21 took 8 lives in a very short amount of time. The skipper wasn't drinking, the incident took place around 3:00pm in the afternoon, the boat was in excellent condition, and there were plenty of lifejackets on board. So what happened?

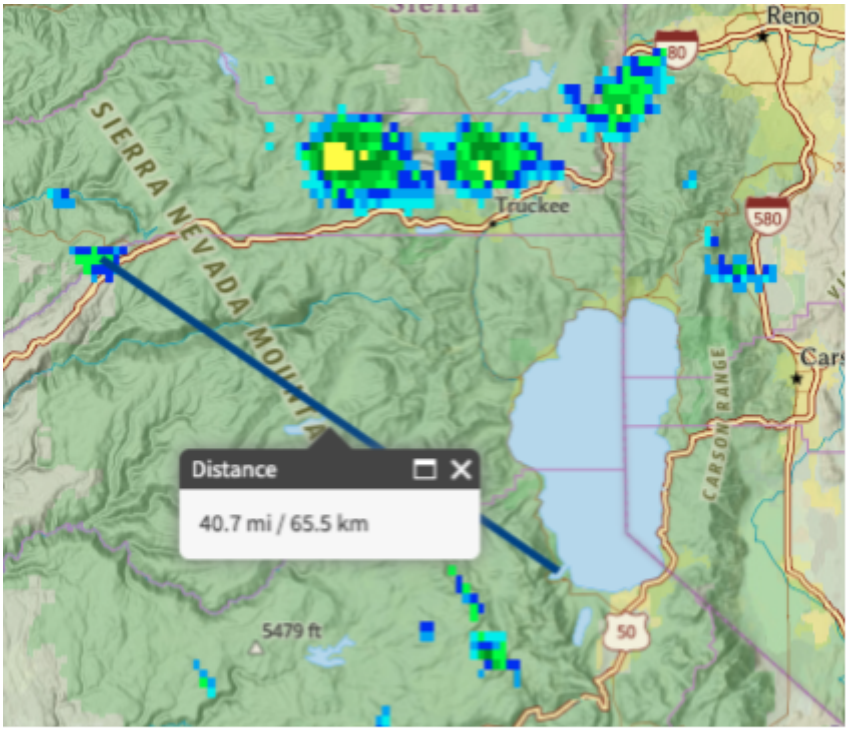
Coincidentally, my wife Susan and I happened to be about five miles from the accident site when it happened. June 20 and 21 were odd days for Sierra weather. On June 20, from the early morning until late in the afternoon, the wind blew at speeds up to 35mph. On Fallen Leaf Lake, which is about a mile from the southern shore of Lake Tahoe and where we were located (the tiny lake in the image below next to the Highway 50 icon), the brisk southerly wind blew spume off the tops of the widecaps and caused an ominous howling sound in the forest.



June 21, 1:30pm. The storm was about 25 miles from Emerald Bay.

The following day, June 21, had some of the most peculiar weather that I've ever experienced in the Tahoe area. The day was uncommonly chilly, with clouds starting to form around noon, followed by a noticeably darkening sky around 1:30pm or so. As a

result, I checked the NOAA weather radar map for the area, which showed an intense rain squall to the NW of Lake Tahoe, just beginning to cross the northern shore of the lake. At that time, the squall measured 60 miles by 25 miles and had some intense areas, shown by orange and red colors, to the west of the lake. Around 2:30pm, it started to hail, which soon turned to snow. In less than two hours, the clouds had parted and the sun was shining.



The early stages of the storm at noon on June 21. The SE end of the measurement line is on Emerald Bay, very close to where the accident took place.

However, if you unwind the clock, it's possible to locate the origin of this storm cell around noon, local time. A small, unremarkable cell appears N of Interstate 80, about 40 miles from Emerald Bay. This cell continued to build and join with other cells, likely cumulonimbus clouds, that appeared in the Truckee area in the next 30 minutes.

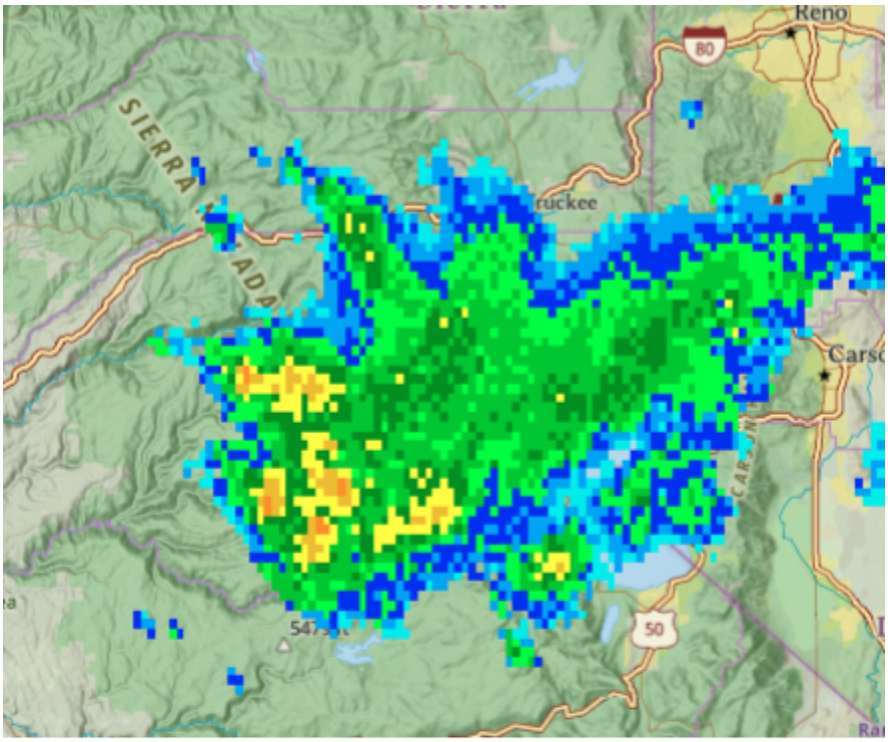
Earlier that day, around 10:40, the skipper and co-owner of *Over the Moon,* a Chris Craft Launch 28 GT, departed from a launch ramp in Tahoe City with four people onboard. If the skipper of *Over the Moon* checked the radar weather map prior to his departure to Emerald Bay from his last passenger pickup location, he would have had no forewarning of the storm that was about to occur.

He stopped and picked up passengers at two marinas, possibly Tahoe City Marina and Sunnyside Marina, bringing the total onboard to 10.

The skipper's destination, Emerald Bay, is one of the most striking features of Lake Tahoe. Surrounded on three sides by steep slopes, the glacierally-carved bay is slightly over 200' deep, and is only accessible via a shallow entrance with a depth of about 12'. The bay is 1.4 NM long by 0.5 NM wide and provides excellent protection from inclement weather.

After arriving at their destination around 12:30, the captain anchored the boat and the boat remained there for about 90 minutes. Initially, the weather was pleasant with clear skies and

light winds. The air and water temperature were around 54°F. Around 2:00, with clouds increasing, the skipper weighed anchor and began to return to the marinas to the north of the bay. After venturing out for a short period of time, and with the weather deteriorating, the skipper elected to return to Emerald Bay. About ten minutes later, the skipper again left Emerald Bay and headed north along the shore.



NOAA weather radar at 3:00pm, approximately the time that Over the Moon capsized.

At this point, around 2:30, the weather conditions deteriorated very quickly. The winds increased, it started to hail, and the wave height went from an estimated 2-3 feet to 8-10 feet. The boat began to take on water, and the skipper reportedly turned on the two bilge pumps.[1]

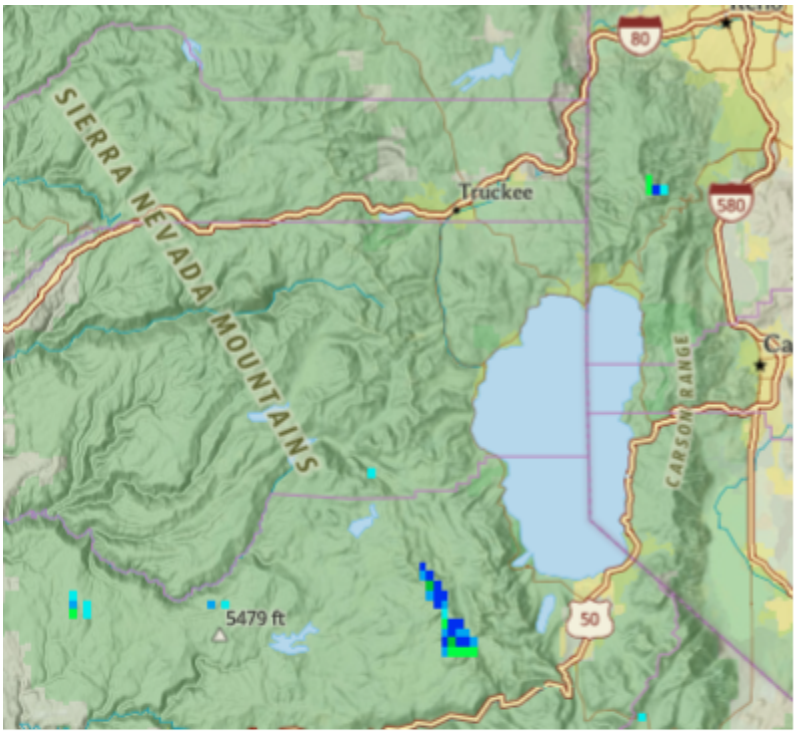
The Chris Craft Launch 28 is an open bow, or bowrider, style boat. While the freeboard of the vessel was 3'9" amidships, it's still possible to "bury the bow" into oncoming waves when they are sufficiently tall and steep. Ideally, a skipper would operate the boat with a "bow high" attitude to avoid taking water over the bow, but in 8-10' seas, it's difficult to imagine that the boat would not take on substantial water. The boat design is self-bailing, meaning that the sole, or floor of the boat is above the waterline and water can drain out without the use of pumps through scuppers. However, in extreme conditions, the self-bailing ability of the boat can be overcome by the amount of water that is coming aboard.

Approximately 2NM north of the entrance to Emerald Bay, the engine stopped. This caused the vessel to turn beam-to the seas and begin to take on water due to rolling. One crewmember

[1] The two 1100 gallon per hour bilge pumps were "automatic" meaning that they could sense water in the bilge area and pump it out without having to be manually activated. Sometimes, a three-position switch is used with OFF, ON and AUTO positions. It is unclear whether the pumps were in the off position initially, and what position they were changed to.

who survived the incident began handing lifejackets to the others. Only she donned her lifejacket, and her mother was able to hold onto hers. They ended up being the only survivors.

Despite their attempts to bail out the water, the vessel eventually swamped around 2:57, causing all 10 occupants to enter the water. Eight of them were brought to shore with help from a hiker and a California State Parks lifeguard. Six drowned, despite efforts to revive them using CPR, and two others were found the following day. The two survivors were taken to the local South Lake Tahoe hospital for treatment.



The NOAA radar weather map at 5:00, two hours after the capsize.

By 5:00 that afternoon, skies were clear and winds were light.

The Boat

The boat was a Chris Craft Launch 28 GT with a 430 HP Volvo sterndrive engine. The boat was very luxurious and can be used to tow wakeboarders and wake surfers, as well as serve as a "picnic" boat. It has a capacity of 12 adults, and weighs between 7,800 and 10,800 pounds depending on the engine choice. The design has an open bow, a "bowrider", a small enclosed head, and seats and lounges for the passengers. The boat had a value of $393,000 according to the NTSB preliminary report.

Of note, the manufacturer information as well as the NTSB report state that the boat had two 1100 gph automatic bilge pumps. The boat is self-bailing with scuppers that allow accumulated water to drain overboard.

Length Overall (LOA)	28'9"

Length Waterline (LWL)	22’2”
Maximum Beam	8’5”
Draft, engine(s) down	3’0”
Freeboard amidships	3’9”
Maximum Horsepower	430

Air Temperature data around the time of the accident

The following day, June 21, dawned with clear skies and calm winds. Temperatures were predicted to be lower than the previous and following days. Climate data from NOAA for South Lake Tahoe showed the following:

Date	Max Temp	Min Temp	Precipitation
June 19	78	42	0.00
June 20	66	48	0.00
June 21	57	31	0.04
June 22	63	28	0.00
June 23	68	35	0.00

What is apparent is that the temperature on June 21 was quite a bit lower than all but one day in June, the following day June 22. June 21 was also the only day with measurable precipitation.

Lessons Learned from the Incident

In John Rousmaniere’s book, *The Annapolis Book of Seamanship*, the chapter titled Formula for Disaster describes seven “patterns of human behavior” that are common elements of marine emergencies. Not all emergencies involve all seven, but it’s common to find three or four which conspire to turn a safe voyage into a dangerous one.

1. “A rushed, ill-considered departure.” There’s no evidence that there was a rush to get out on the water. The owner(s) took the time to make two stops on their way to the destination, and had a leisurely visit once they arrived. However, it’s easy to argue that he had a “rushed, ill-considered return”.

2. “Predictably risky waters.” Lake Tahoe can get rough due to its 22 mile fetch, but it has relatively few obstructions and shoals. The water is cold year-round, and was 54°F on the day of the accident. It also has few natural or manmade harbors where protection can be found if the weather deteriorates. By far the best natural harbor is Emerald Bay, which has a narrow entrance to the NE and is surrounded by tall slopes on three sides.

3. “The route has no alternative.” Once in Emerald Bay, it’s hard to conceive of a better harbor in a storm. However, after the skipper left Emerald Bay, he was heading N along a rocky coast with virtually no protection from the wind and waves. The safe alternative was to stay put.

4. “The crew is unprepared.” It’s not known how many of the passengers had boating experience. Seven of the eight who died were in their 60s and 70s, one one was in his 30s. The survivors were 40 and 65. The vessel was relatively new, having been purchased in 2023, but it’s not clear how many previous boats the owners might have had. From a safety gear perspective, the lack of use of lifejackets made nine of the ten passengers unprepared for what was in store for them.

5. “The boat is unprepared.” The list of required gear for a 28’ powerboat is remarkably brief. All that we know from the available information is that the boat had some inflatable lifejackets and some inherently-buoyant lifejackets. However, they were only distributed to the passengers immediately prior to the capsize.

6. “The crew panics after an injury.” There’s no mention of injuries to the crew, and they were reported to have tried to bail the vessel when it took on water.

7. “Leadership is poor.” Again, at the time of this article, there’s not much information regarding the skipper’s leadership. What stands out is the lack of safety precautions, especially after the skipper returned to Emerald Bay. There, he made two fatal mistakes: he failed to have his passengers don lifejackets, and he went back out into a storm from the relative safety of Emerald Bay.

Appendix 1: Timeline of Events

Times with a ? are believed to be in the correct order, but the time is estimated based on witness reports and the NTSB preliminary report.

10:40am *Over the Moon* is launched at Tahoe City, CA. Four adults are aboard initially, including two owners. Some time later, the vessel stops at two marinas to pick up additional crewmembers for a total of 10.

11:58am Vessel departs for Emerald Bay, about 10 miles south

12:30pm Vessel anchors in Emerald Bay for about 1.5 hours. Weather conditions were clear skies, light winds from the S, air temp 54℉, water temp 5454℉

2:00pm? Vessel begins trip back to marina where passengers had boarded earlier. The sky is beginning to cloud over. Winds, waves, and rain increase.

2:10pm? Vessel returns to Emerald Bay

2:20pm? Vessel tries again to return to the marina

2:30pm? Heavy rain, waves are 2-3 feet, vessel not taking on water. Wind speed increases, large hail begins falling, waves increase to 8-10 feet. Water begins to accumulate in the cockpit (boat deck). The operator turns on bilge pumps.

2:45pm Local camera records whitecaps and low-level clouds on the lake. Blowing rain and freezing precipitation

2:49pm Blowing snow in vicinity

2:53pm A weather reporting station located 7NM away measures winds at 14KTS and gusts to 34KTS.

2:55pm The vessel's engine stopped while 50-100yds offshore in the vicinity of Rubicon Pt./Lester Beach. As a result, the vessel turned beam-to the waves. Occupants attempted to bail the boat. The boat took on a starboard list, causing the starboard aft corner to submerge. A large wave came over the starboard side, resulting in downflooding. One of the survivors "donned a personal flotation device (PFD) and distributed PFDs to everyone else in the boat. No one immediately donned their PFD." Shortly thereafter, the boat rolled over to starboard and all occupants entered the water. It was snowing at the time. No distress call was made.

2:57pm Hikers in the area witnessed the capsize.

2:58pm Hikers call 911 to report an accident. A hiker and a lifeguard begin recovering survivors from the water. The sheriff's marine unit (vessel) reports 8’ waves in the area. Eight people were recovered, two of whom were alive (and later transported to a nearby hospital.) One of the survivors was wearing a lifejacket, and the other one was clinging to a lifejacket. The other six drowned after CPR failed to revive them according to the coroner. The two remaining occupants were recovered the following day.

4:05pm The snow stops and the weather begins to clear.

5:25pm Skies are clear with light winds.

Appendix 2: Links of Interest

https://southtahoenow.com/06/21/2025/multiple-capsized-boats-on-lake-tahoe-saturday, local news report with videos shot from South Lake Tahoe during the storm.

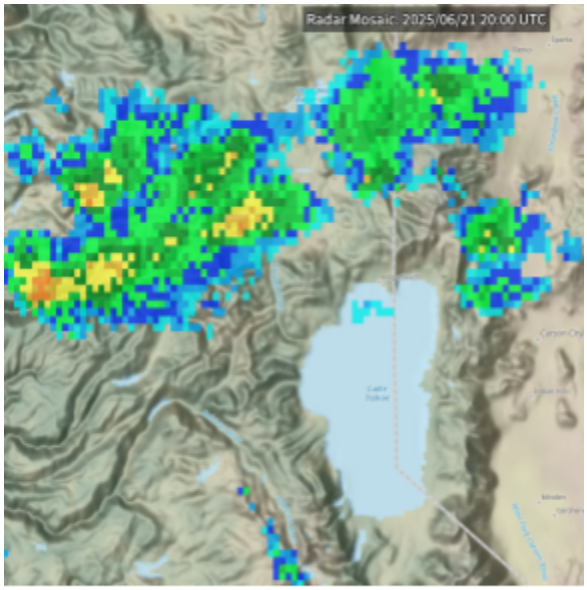
https://www.ncei.noaa.gov/maps/radar/,NOAA National Centers for Environmental Information site that allows the user to recreate weather radar plots from 1995 to present.

https://www.ntsb.gov/investigations/Pages/DCA25FM048.aspx, NTSB preliminary report on the accident.

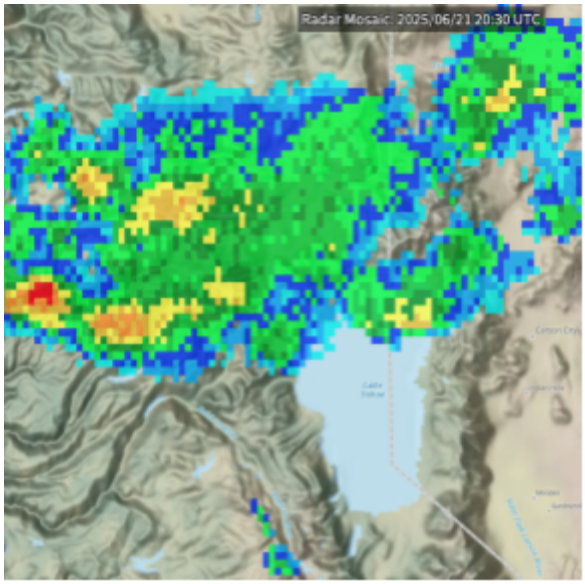
https://www.chriscraft.com/models/launch-gt-series/launch-28-gt, Chris Craft boat company website showing the features of the Launch 28 GT

https://laketahoe.jpl.nasa.gov/field-data/raw-form, JPL site that provides plots of meteorological data from buoys on Lake Tahoe from 2006.

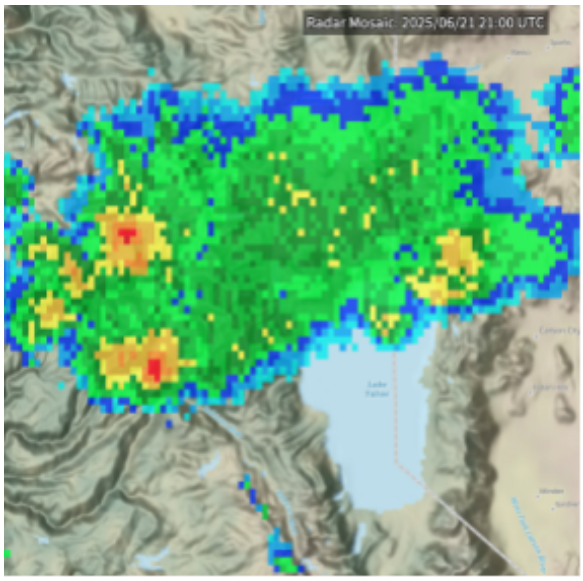
Appendix 3: NOAA Weather Radar Plots, 1:00pm to 3:30pm



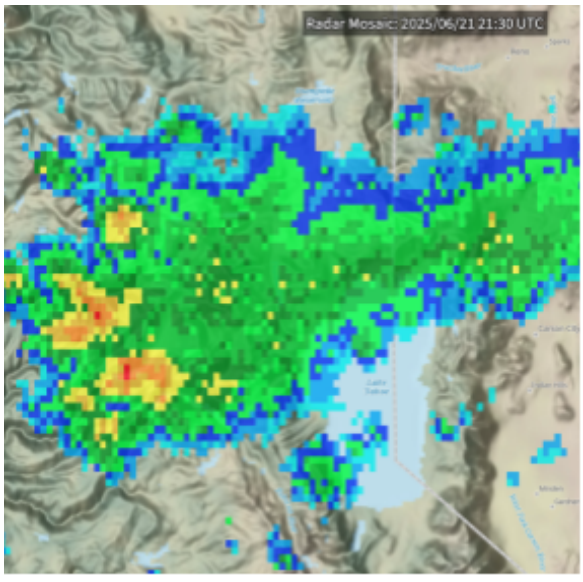
20:00Z, 1:00pm



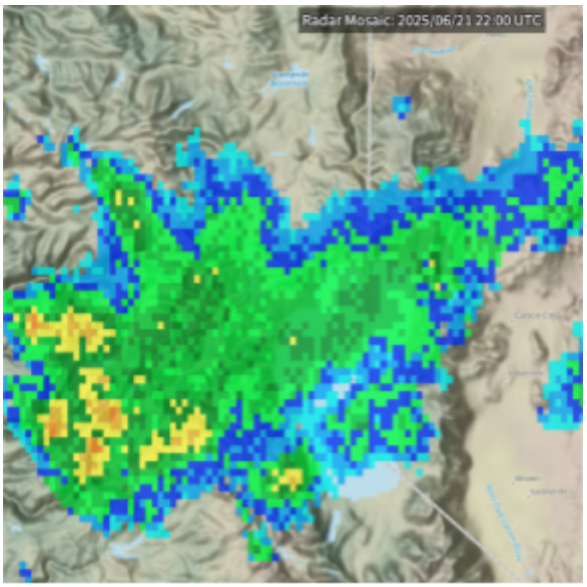
20:30Z, 1:30pm



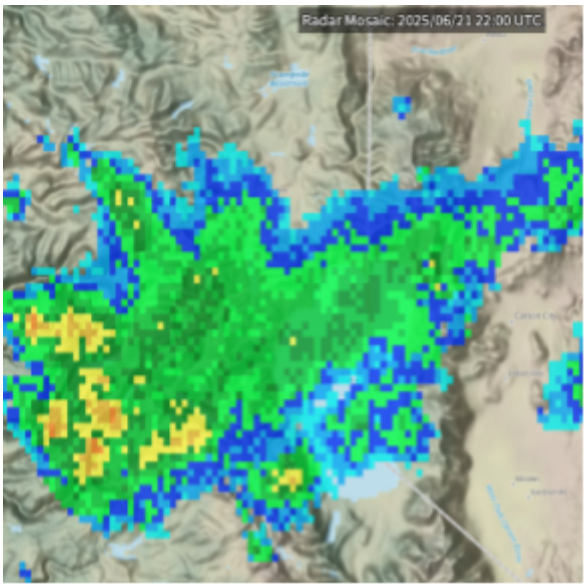
21:00Z, 2:00pm



21:30Z, 2:30pm



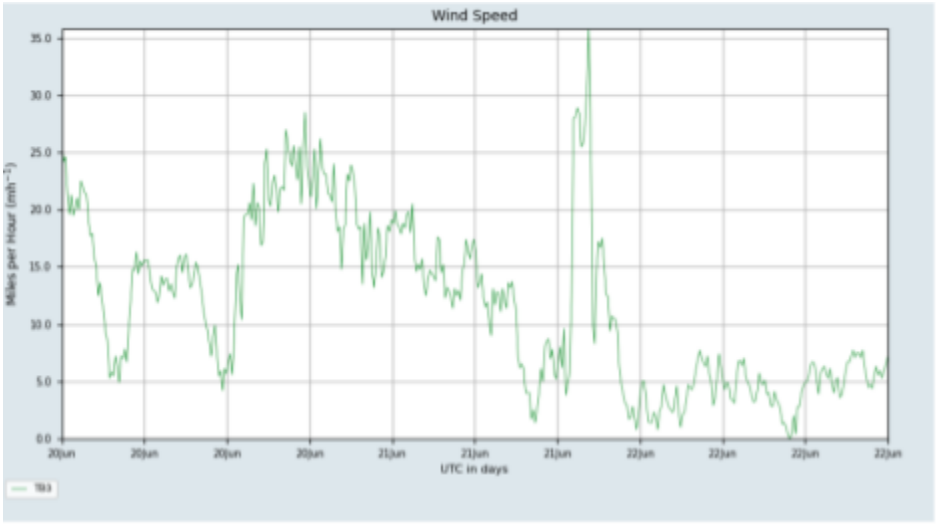
22:00Z, 3:00pm



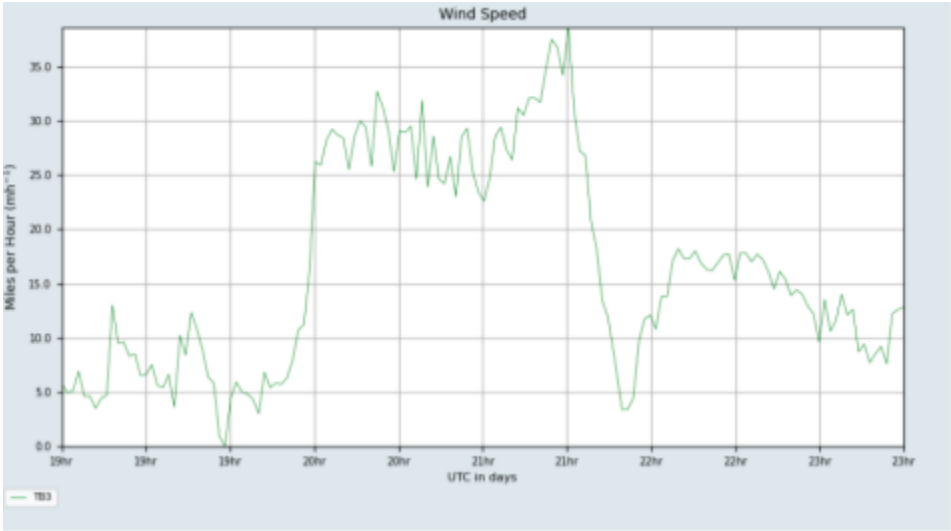
23:30Z, 3:30pm

Appendix 4: Weather Information from Jet Propulsion Laboratory Weather Buoy TB3

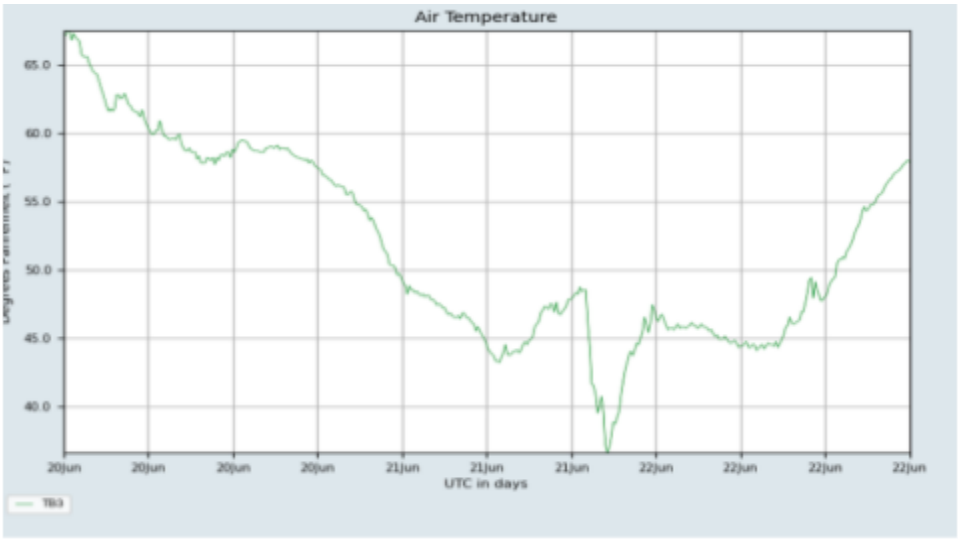
There are at least 8 weather buoys on Lake Tahoe which record wind speed and direction, temperatures, solar radiation, and so forth. TB3 is located about 8.7NM due north of the entrance to Emerald Bay.



This graph covers three days of time, from 0000Z on June 20 (5:00pm June 19) to 0000Z on June 23 (5:00pm on June 22.) Each horizontal division is 7h20m in width. This shows the intense winds that the area experienced on June 20 all day, and the intense winds that the area experienced around 3:00pm on June 21.

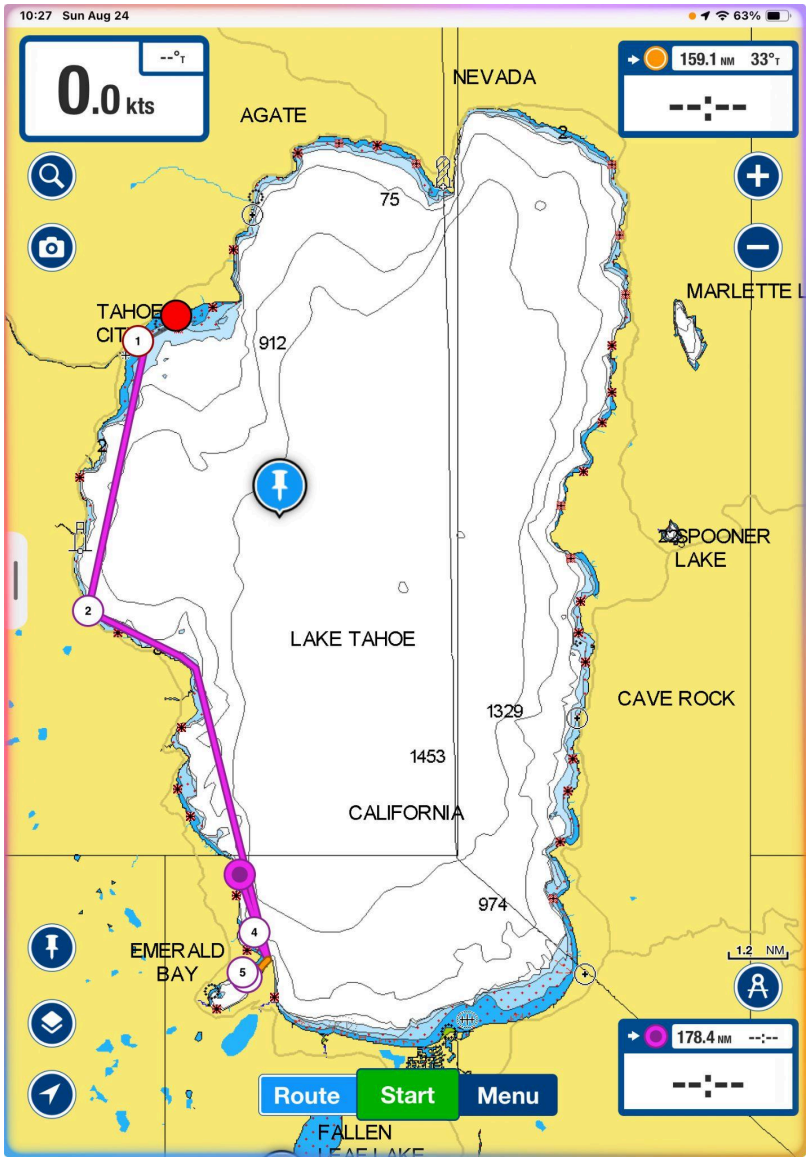


This plot shows the wind velocity from 1900Z (2:00pm) to 2359Z (6:59pm) on June 21. Each horizontal division is 30 minutes. The intense part of the storm occurred between 3:30 and 5:30pm.



This graph shows the dramatic drop in temperature associated with the storm on June 21, 2025. While the time axis is difficult to measure, the dip in air temperature occurs slightly after the peak wind velocity during the storm.

Appendix 5: Likely Course of *Over the Moon*

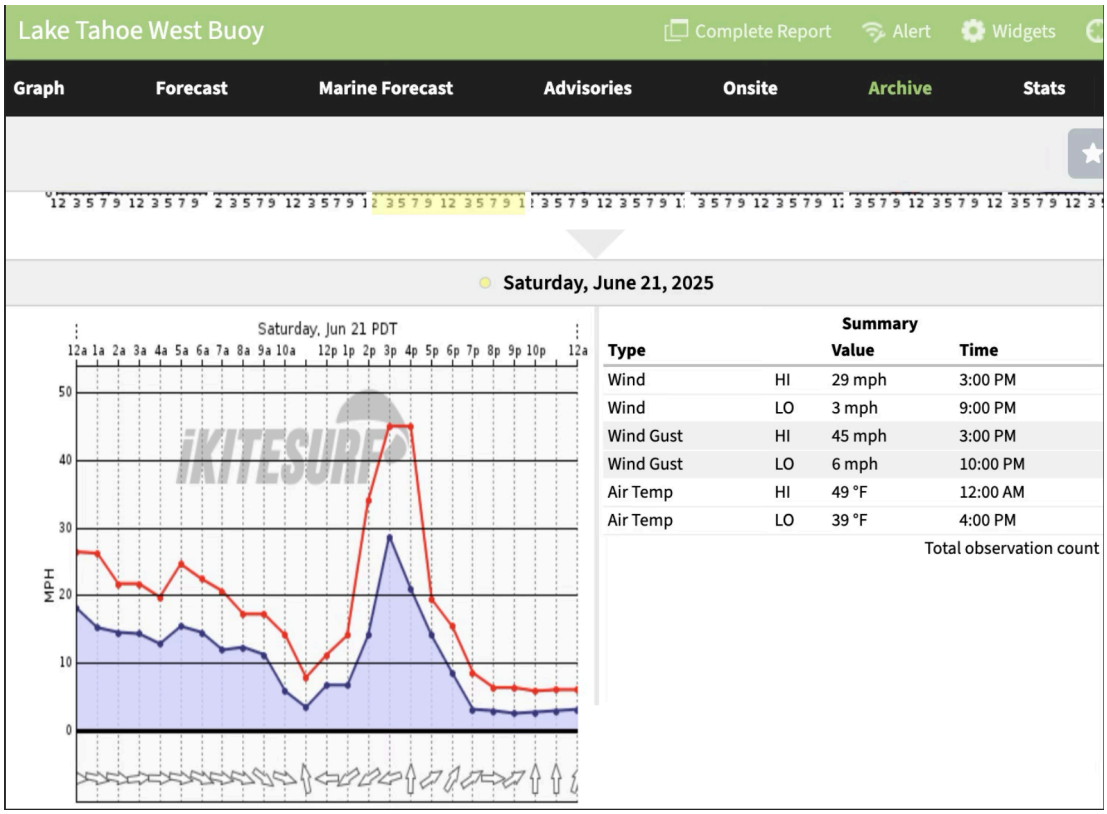


While the actual course of Over the Moon on June 21 is not currently known, it may be possible to reconstruct the vessel's track by extracting information from the electronics onboard. The NTSB states that the vessel was launched on a boat ramp in Tahoe City, made two pickups for passengers at marinas along the way, and went as far as Emerald Bay. The additional tracks in Emerald Bay account for the decision to depart, return, and then to depart again.

The pushpin icon is the location of Buoy TB3, which is very close to due north of the accident site, and was a source for most of the meteorological data.

Appendix 5: Information from KiteSurf

Times in PDT, gusts in red. Wind direction shown at the bottom; note dramatic change in wind direction during storm. Unsure of buoy's exact location.



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