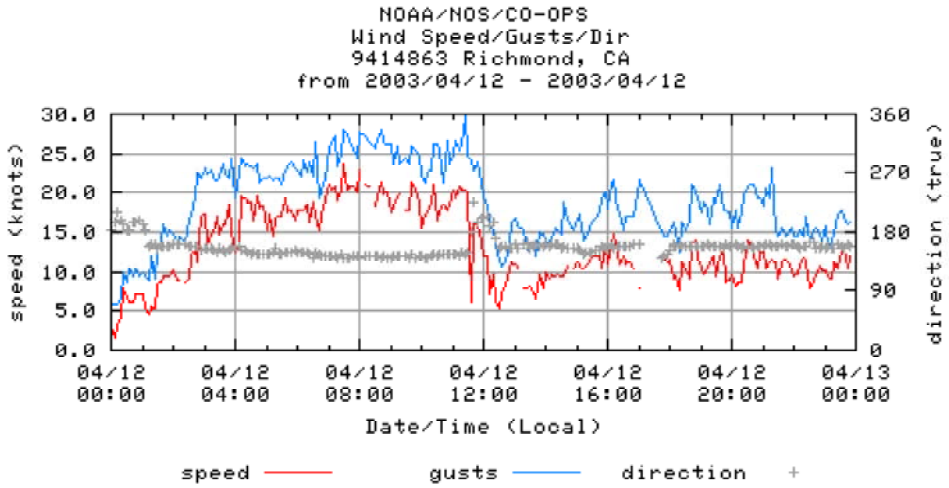
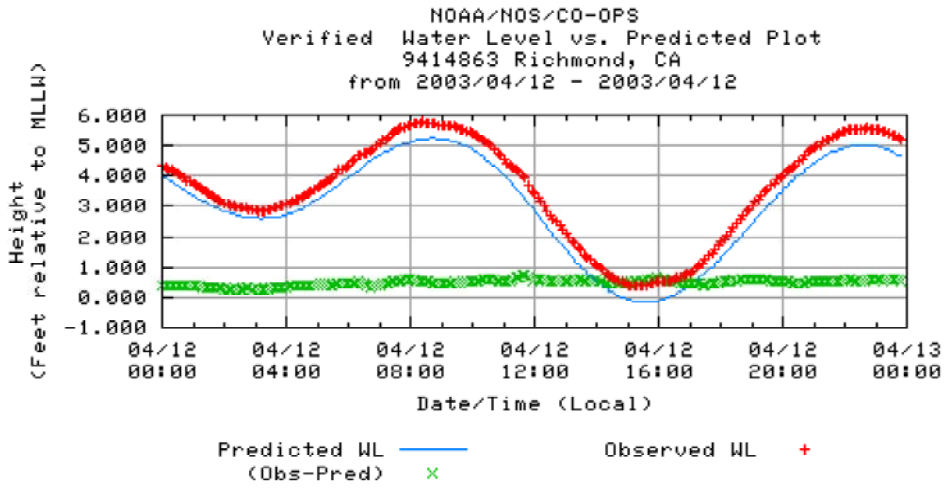
NOAA Richmond Station

This station is located at the Chevron pier and is operated by the NOAA. It provides wind data as well as tide data.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots

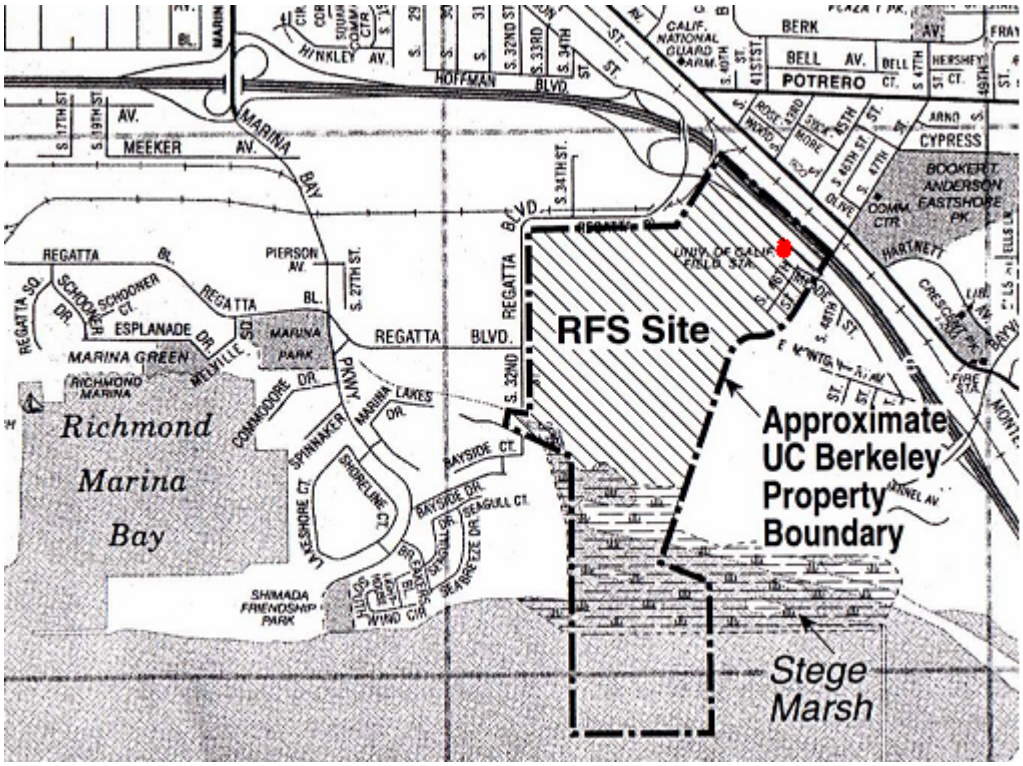




sulting

UC Richmond

This is the UC Berkeley Richmond Field Station, an academic teaching and research off-site facility located 6 miles northwest of the UC Berkeley Central Campus on the San Francisco Bay that has been used primarily for large-scale engineering research since 1950. The 152-acre property consists of 100-acres of uplands with the remainder being marsh or bay lands. The field station is located on South 47th off of Mead Street, as indicated by the red dot on this map.



This station was mentioned by Dr. Cheng in his testimony. In fact, in his 25-slide demonstration he included wind data from it. However, it was not the wind data from April 11-14, 2003, but rather the wind data from December 24, 2002.

> **Ralph Cheng:** Like to apologize to the jurors. This particular slide might be a little bit scientific, but I think of great importance. Summarizes the waves and tidal condition near the Richmond area the day the wind was measured by Bay Area Air Quality Management District at Richmond, not far from the area of interest. The plot has three components. Three panels here, the horizontal axis, horizontal section is moving this way, represents the time. And the first panel here shows the wind direction. And, sorry, you cannot read it very much, very clearly. But bottom here is 0 degrees, 90 degrees, 375 -- and 275 and 360. Basically, it shows where the wind is coming from. And you can see now during the period of time, which is indicated on the bottom here, deliberately choose this as an example. We do have this data covering throughout the period of time. In fact, these data collections are ongoing, continuous. Cover the entire period of time. I used this particular slide as an example was now December -- centered on December 24th, one day before this area, called the timeline, the time mark for December 23rd, December 24th, 25th. So you can see the tide come two highs, two lows each day. And so the second panel indicates the wind speed measured in terms of meters per second. One meter per second is roughly two knots in common language. We way 10 knots, 15 knots. One meter is two knots per second -- two knots per hour. And here now we see that now, during period of time, December

> 24th in particularly around noontime, that the wind was very calm, very weak. Wandering around five or ten knots. Wind direction is not quite defined. You can see the randomness is not well defined, because weakness of the wind. Typically you don't see clear definition of the wind direction. In terms of the tides at that particular time, during December 24th at noontime, it is rising tide from the Higher Low Tide approaching the Higher High Tide, implying it's flooding water coming in from outside the ocean into The Bay.

Dr. Cheng is correct, the data from this station is made available by the Bay Area Quality Management District.

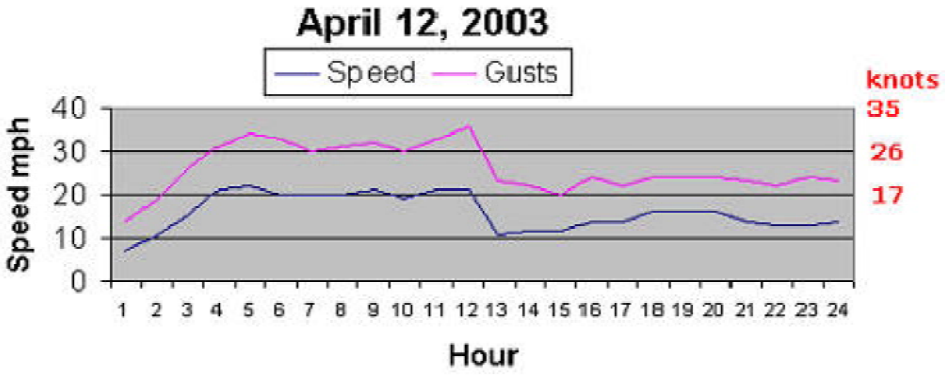
This station records in Local Standard Time, so you have to adjust for Daylight Savings Time.

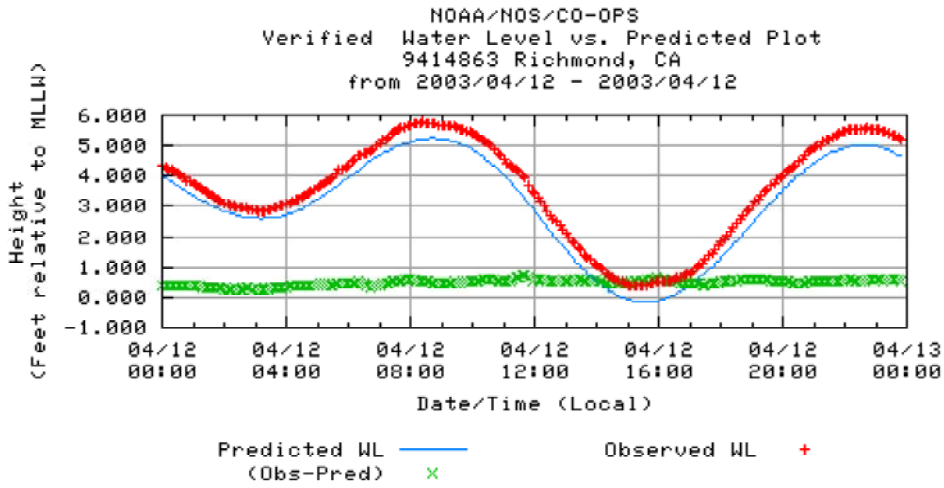
I have converted the data into a graphic. The wind speed is measured in mph. Hours are in military time; i.e., 17 represents 5 p.m.

The graphic explains why Dr. Cheng chose not to use data from this station for April 12 in his slide -- it would have been glaring evidence that his theory was based wholly on incorrect information.

According to this station, on April 12th:

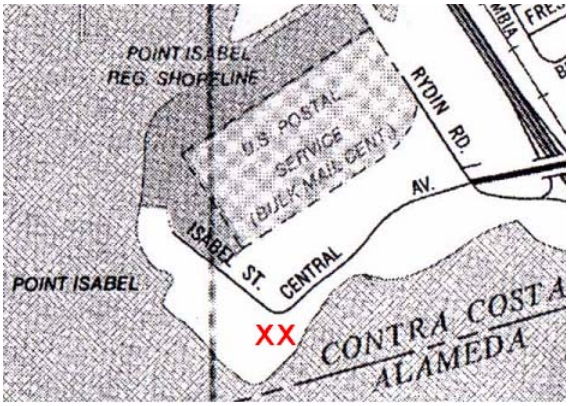
- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots





Point Isabel

This wind sensor is a Weatherflow product, located at the East Bay Municipal Utility District Wet Weather Water Treatment Plant, which is at the corner of Central Ave and Isabel St., indicated by the red X's on this detail map.



Data for this station is available from http://www.ikitesurf.com. However, a membership is required to view the wind archive data. If you do have a membership, select Wind Reports, select CA - sf south bay, select Point Isabel, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

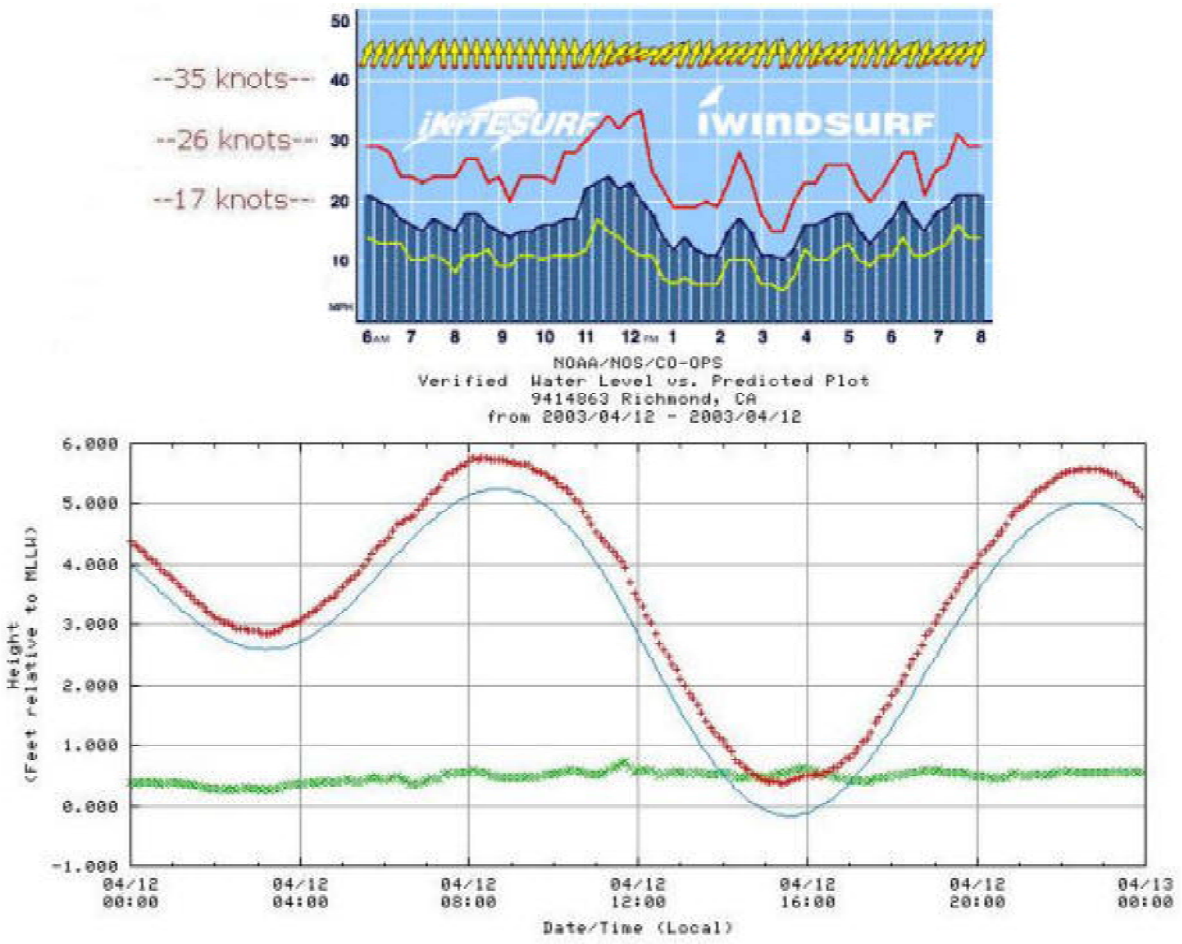
The wind graph displays observations as reported in miles per hour, and the value lines are 0, 10, 20, 30, 40, and 50. The blue line and shaded area represents the average wind speed, the red line represents gust value, and the green line represents lull. Dots along the lines indicate time of data reported. The yellow arrows represent observed wind direction.

The hours on each chart are only from 6 a.m. to 8 p.m. However, no low tides occurred during the nighttime hours for these days, so the missing information would not support Cheng's theory.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots

Point Isabel



This station was discussed during the testimony of Timothy Phillips, East Bay Regional Park District Officer, called as a Defense witness. David Harris, on cross examination, elicited this information:

HARRIS: Officer Phillips, since counsel was asking you about the meteorological conditions, let's go to the second part of your report there. Did you also obtain for the 13th and the 14th what the wind speeds were?
PHILLIPS: Yes, sir.
HARRIS: And for the 13th the wind speeds were as high as 35 miles per hour in the area of the East Bay Utility District, right there by Point Isabel?
PHILLIPS: Yes, sir. Those are records that are retained by the East Bay Municipal Utility District wet weather treatment plant, which borders the south area of the riprap where the remains were found.
HARRIS: So, in fact, is it visible in this photograph that we're looking at up there?
PHILLIPS: Yes, sir. It would be to the lower right corner, the building that you see to the right.
JUDGE: Why, why don't you point it out.
PHILLIPS: Yes, sir.
JUDGE: Walk up there, Officer Phillips. Officer Phillips, there's a pointer up there. Why don't you use that, show us where that is.
PHILLIPS: This building in here is the East Bay Municipal Utility District I referred to.
HARRIS: Okay. So what you found is a wind sensor right at that location, within a few thousand yards of where Laci Peterson's body washed up?
PHILLIPS: Yes, sir.
HARRIS: And on the 13th and the 14th you checked the wind speeds at that particular

sensor and found that it was as high as 35 miles an hour for wind speeds during that time period?
PHILLIPS: Yes, sir. I believe that was the maximum speed.

The only apparent purpose for this information was to solidify in the minds of the Jurors the image of a "very violent storm."

Oakland North

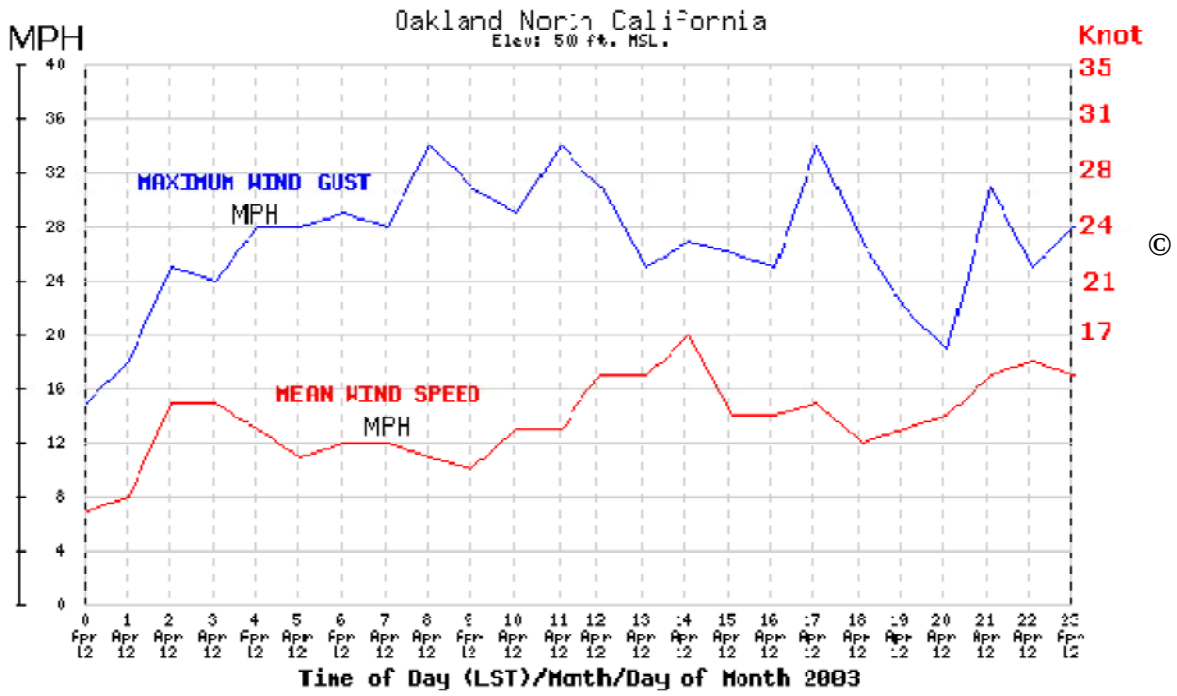
This is a RAWS (Remote Automated Weather Station). RAWS stations record data every hour and are transmitted by satellite. Most stations record wind speed and direction, peak winds, air temperature, dew point, wet bulb, fuel temperature, fuel moisture, relative humidity, precipitation, and solar radiation. These stations are owned and operated by various agencies, including Bureau of Land Management (BLM) and the US Forest Service. Data is available from California Climate Data Archive, Western Regional Climate Center, Scripps Institution of Oceanograph, California Energy Commission.

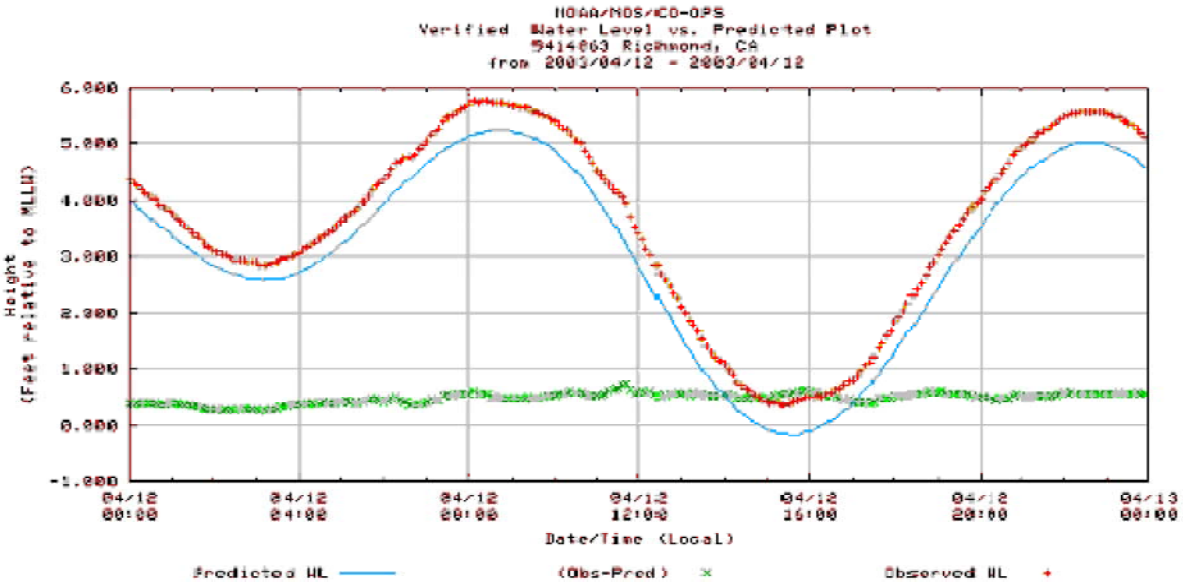
According to the latitude and longitude provided (Latitude: 37° 52' 30'; Longitude: 122° 12' 60"), the station is located at the red star on this map.

The station data is in LST, which needs to be adjusted one hour for PDT.

According to this station, on April 12th:

- The winds never reached 40 knots.
- The average wind speed never reached 20 knots.
- The lower low tide did not coincide with winds averaging 20 knots.


Oakland North California
Elev: 50 ft. MSL.
MPH
Knot
MAXIMUM WIND GUST
MPH
MEAN WIND SPEED
MPH
Time of Day (LST)/Month/Day of Month 2003


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height (Feet relative to MLLW)
Date/Time (Local)
Predicted WL
(Obs-Pred)
Observed WL

Berkeley Marina

Exclusive WeatherFlow high-resolution sensor located at His Lordships restaurant, indicated by the A on this map.

Wind readings are 5-10 knots higher than at the pier launch site, but reflect winds out on the bay with good accuracy.

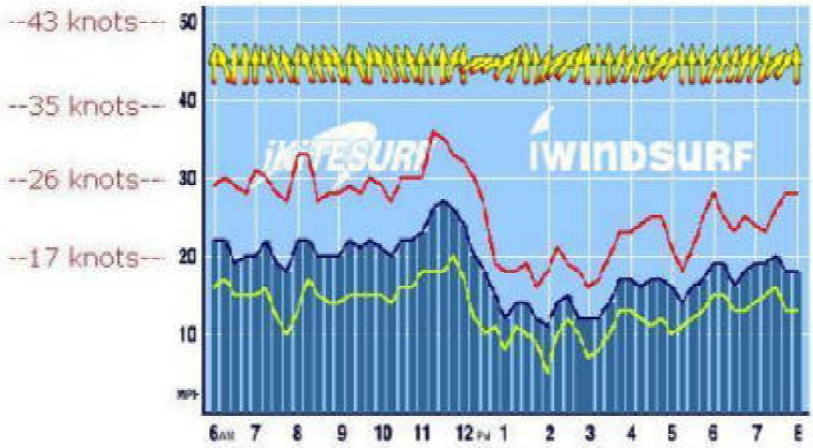
Data for this station is available from http://www.ikitesurf.com. However, a membership is required to view the wind archive data. If you do have a membership, select Wind Reports, select CA - sf south bay, select Berkeley Marina, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

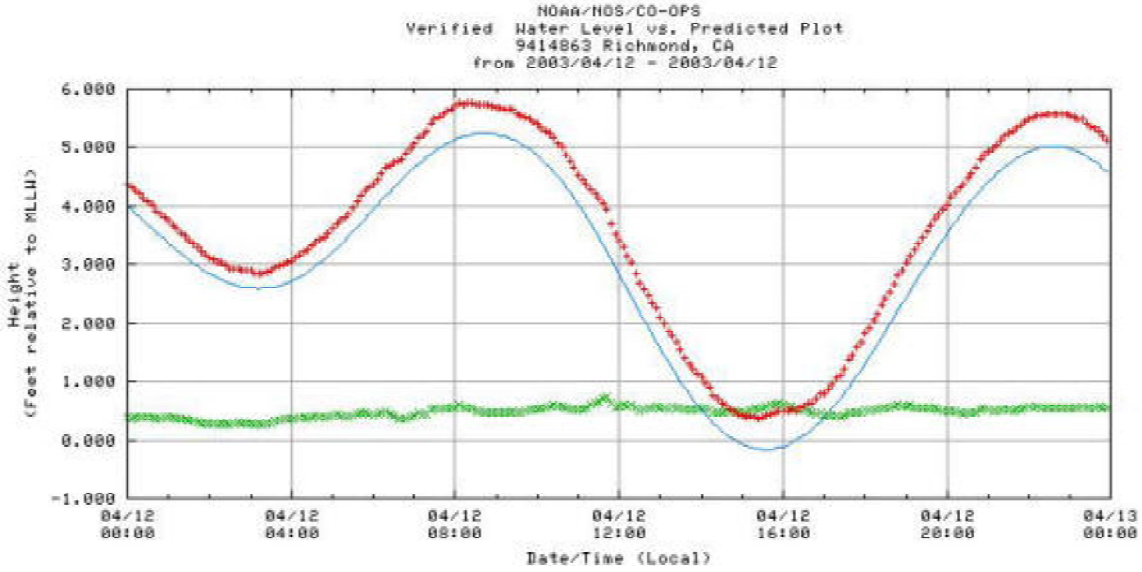
Time displayed is based on Berkeley Marina, CA local time. The wind graph displays observations as reported in miles per hour. The blue line and shaded area represents the average wind speed, the red represents gust value, and the green represents lull. Dots along the lines indicate time of data reported. The yellow arrows represent observed wind direction.

The hours on each chart are only from 6 a.m. to 8 p.m. However, no low tides occurred during the nighttime hours for these days, so the missing information would not support Cheng's theory.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots


--43 knots--
--35 knots--
--26 knots--
--17 knots--
50
40
30
20
10
MPH
IWINDSURF
6AM 7 8 9 10 11 12PM 1 2 3 4 5 6 7 8


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height
(Feet relative to MLLW)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
04/12 00:00
04/12 04:00
04/12 08:00
04/12 12:00
04/12 16:00
04/12 20:00
04/13 00:00
Date/Time (Local)

Angel Island

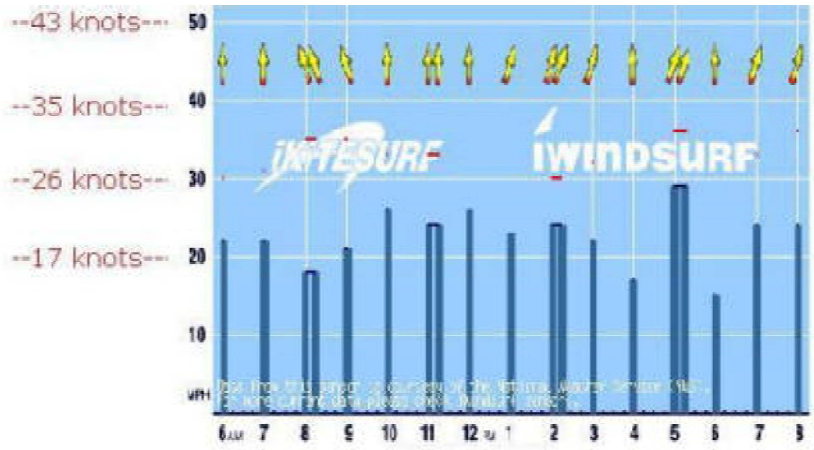
Data from this station is courtesy http://www.ikitesurf.com and is borrowed from the National Weather Service (NWS). This sensor is at Blunt Point on the Treasure Island side of the Island. Because of a local venturi and the height of the sensor it **reads high by 5 to 10 knots**.

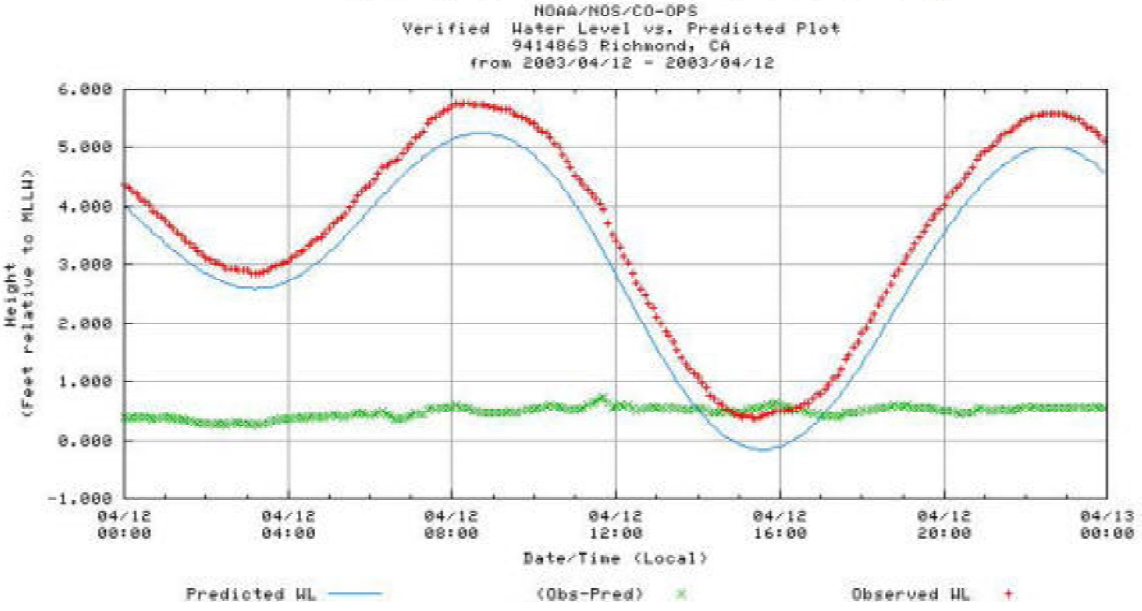
No membership is required to access this data at http://www.ikitesurf.com. Select Wind Reports, select CA - sf south bay, select Angel Island, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

The data does not include maximum gusts, but it does adequately identify the strength and duration of the sustained winds. The hours on each chart are only from 6 a.m. to 8 p.m. However, no low tides occurred during the nighttime hours for these days, so the missing information would not support Cheng's theory. Click chart to enlarge.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did measure in the 20 knot range, but not after subtracting the 5-10 knots per hour that this station reads high
- The average wind speeds were not at 20 knots for 8-10 hours
- The lower low tide did not coincide with winds averaging 20 knots


--43 knots--
--35 knots--
--26 knots--
--17 knots--
50
40
30
20
10
KITESURF
IWINDSURF
6 AM
7
8
9
10
11
12
1
2
3
4
5
6
7
8


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height
(Feet relative to MLLW)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
04/12
00:00
04/12
04:00
04/12
08:00
04/12
12:00
04/12
16:00
04/12
20:00
04/13
00:00
Date/Time (Local)
Predicted WL
(Obs-Pred)
Observed WL

Treasure Island

This wind sensor is a Weatherflow instrument, located on a building on the northeast corner of the Island.

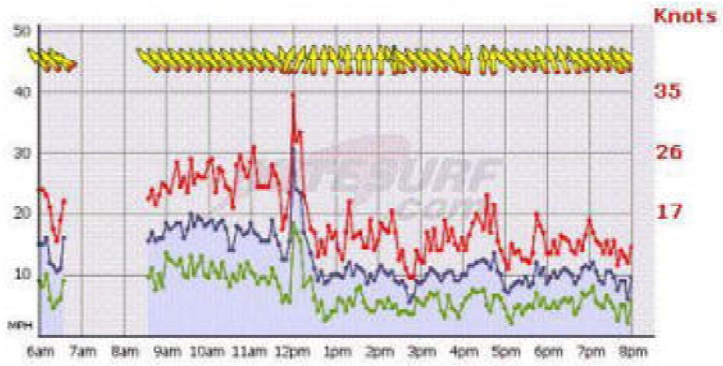
Data for this station is available from http://www.ikitesurf.com. However, a membership is required to view the wind archive data. If you do have a membership, select Wind Reports, select CA - sf south bay, select Treasure Island, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

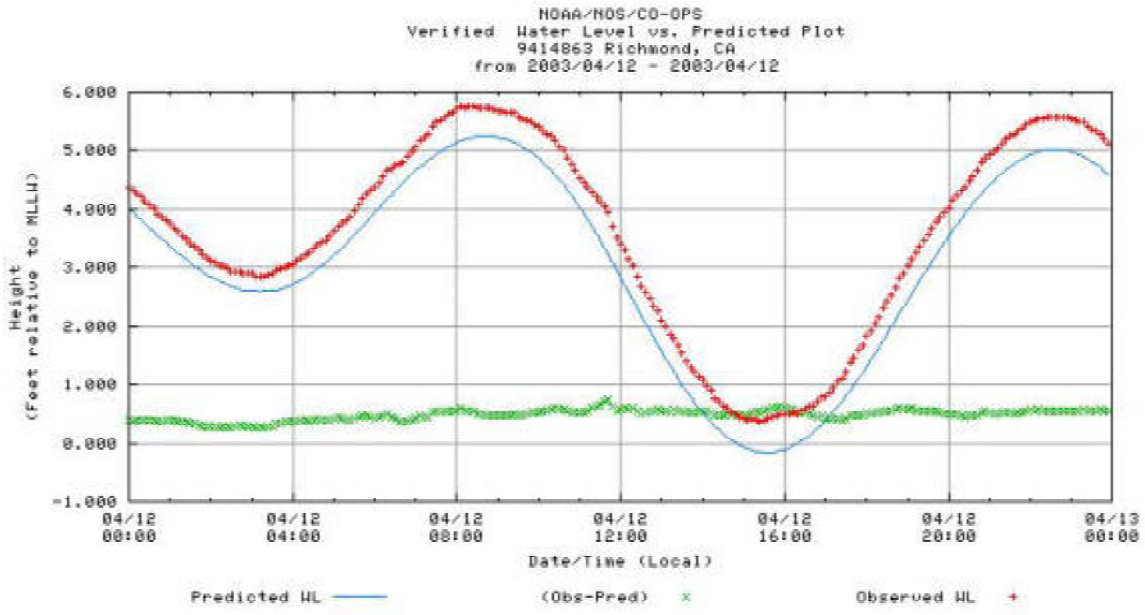
Time displayed is based on Treasure Island, CA local time. The wind graph displays observations as reported in miles per hour. The blue line and shaded area represents the average wind speed, the red represents gust value, and the green represents lull. Dots along the lines indicate time of data reported. The yellow arrows represent observed wind direction.

As with the other Weatherflow stations, wind data is provided for 6 a.m. – 8 p.m. only. However, no low tides occurred during the nighttime hours for these days, so the missing information would not support Cheng's theory.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots


Knots
35
26
17
MPH
6am 7am 8am 9am 10am 11am 12pm 1pm 2pm 3pm 4pm 5pm 6pm 7pm 8pm


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height (Feet relative to MLLW)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
04/12 00:00
04/12 04:00
04/12 08:00
04/12 12:00
04/12 16:00
04/12 20:00
04/13 00:00
Date/Time (Local)
Predicted WL
(Obs-Pred)
Observed WL

Oakland South

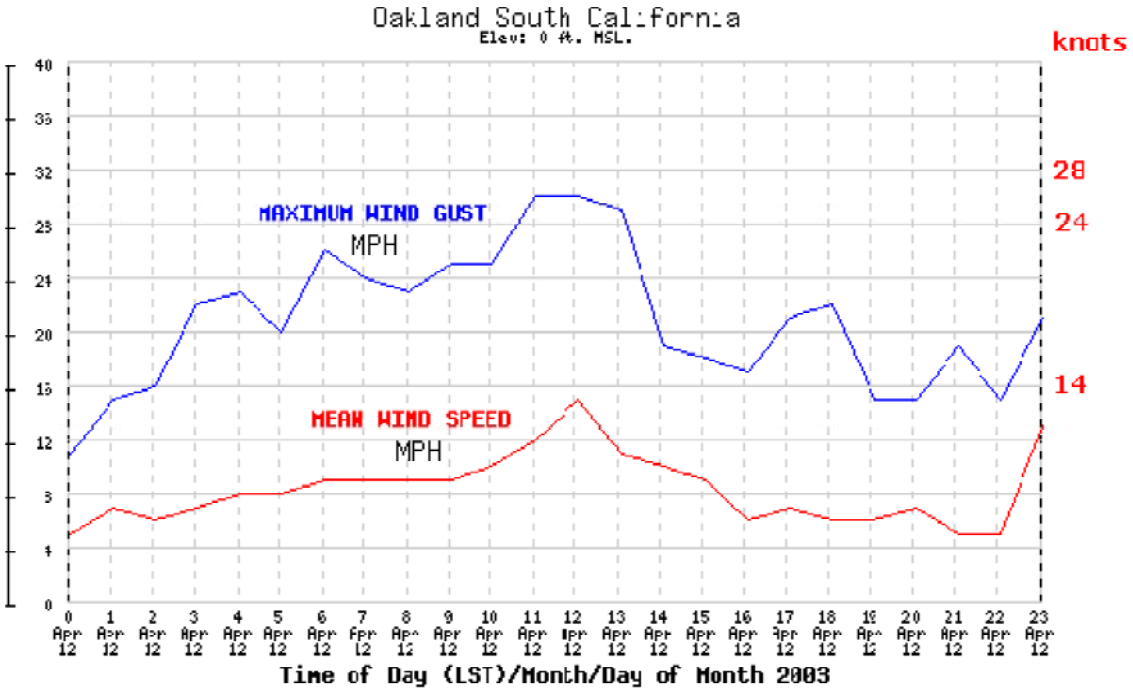
This is a RAWS (Remote Automated Weather Station). RAWS stations record data every hour and are transmitted by satellite. Most stations record wind speed and direction, peak winds, air temperature, dew point, wet bulb, fuel temperature, fuel moisture, relative humidity, precipitation, and solar radiation. These stations are owned and operated by various agencies, including Bureau of Land Management (BLM) and the US Forest Service. Data is available from California Climate Data Archive, Western Regional Climate Center, Scripps Institution of Oceanograph, California Energy Commission.

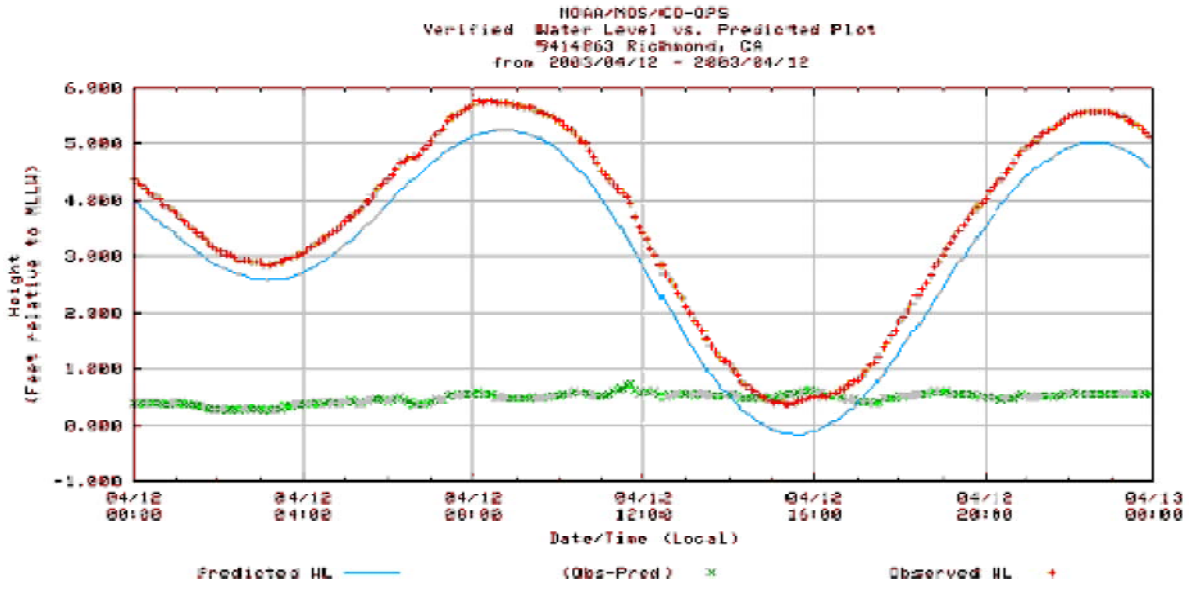
According to the latitude and longitude provided (Latitude: 37° 47' 18"; Longitude: 122° 09' 42"), the station is located at the red star on this map.

The station data is in LST, which needs to be adjusted one hour for PDT.

According to this station, on April 12th:

- The winds never reached 40 knots.
- The mean wind speed never reached 20 knots.
- The lower low tide did not coincide with winds averaging 20 knots.


Oakland South California
Elev: 0 ft. MSL.
knots
MAXIMUM WIND GUST
MPH
MEAN WIND SPEED
MPH
28
24
14
Time of Day (LST)/Month/Day of Month 2003

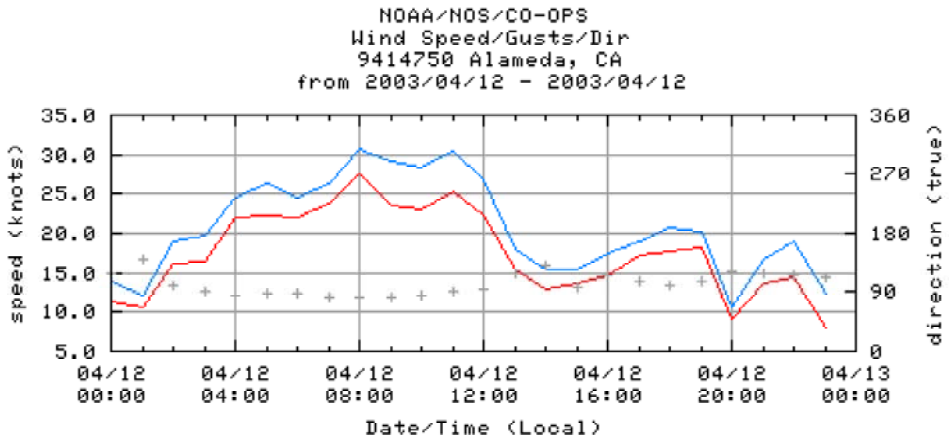

NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height
(Feet relative to MLLW)
Date/Time (Local)
Predicted HL
(Obs-Pred)
Observed HL

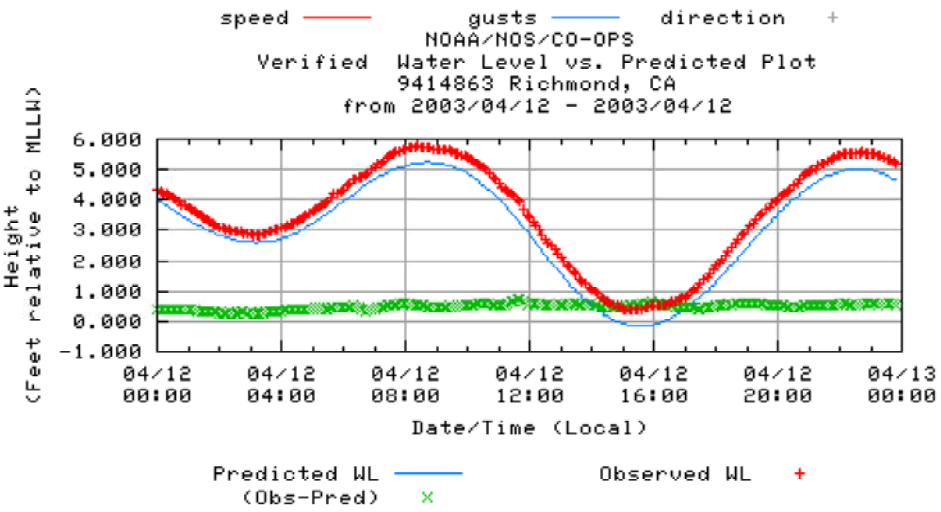
NOAA Alameda

This NOAA station is located at the U.S. Naval Air station in Alameda.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots





Alameda

This Weatherflow sensor is located on Crown Beach in Alameda.

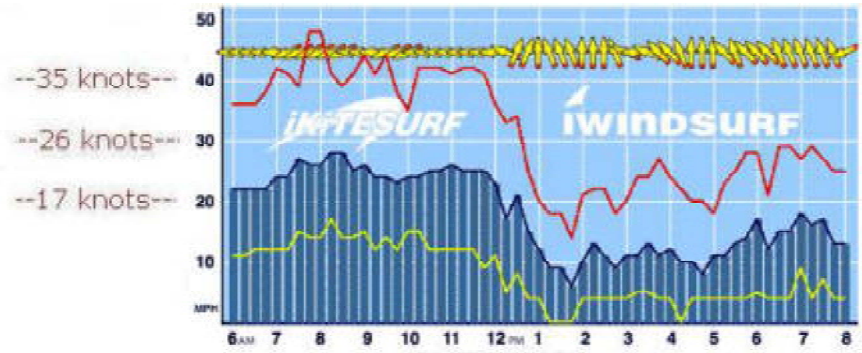
Time displayed is based on Alameda, Crown Beach, CA local time. The wind graph displays observations as reported in miles per hour. The blue line and shaded area represents the average wind speed, the red represents gust value, and the green represents lull. Dots along the lines indicate time of data reported. The yellow arrows represent observed wind direction.

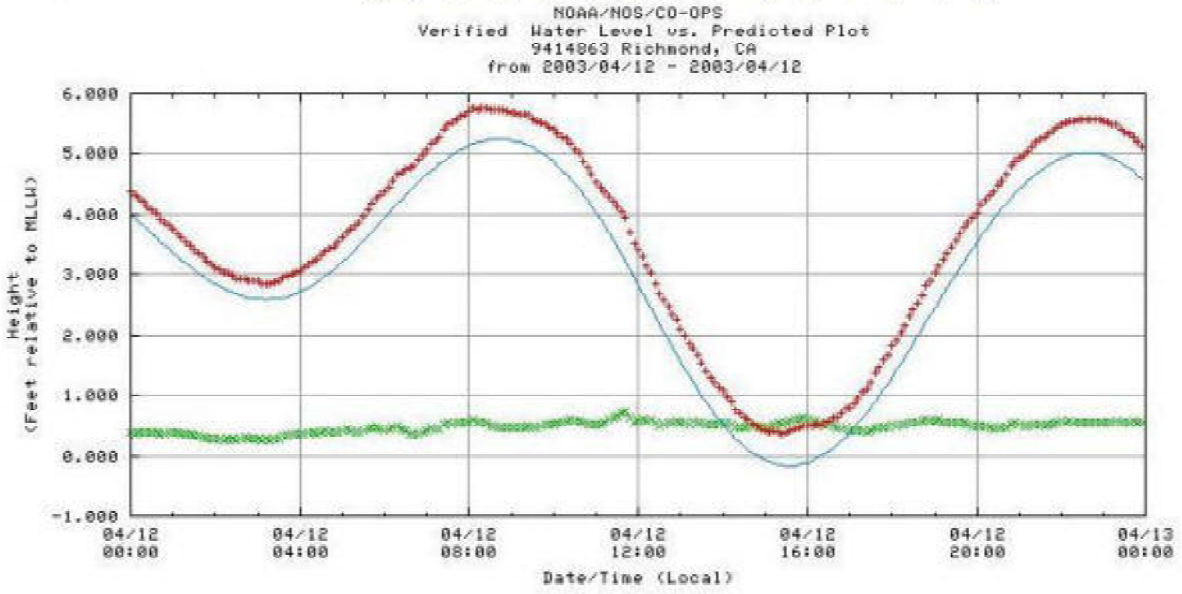
Data for this station is available from http://www.ikitesurf.com. However, a membership is required to view the wind archive data. If you do have a membership, select Wind Reports, select CA - sf south bay, select Alameda, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

The hours on each chart are only from 6 a.m. to 8 p.m. However, no lower low tides occurred during the nighttime hours for these days, so the missing information would not support Cheng's theory.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots


--35 knots--
--26 knots--
--17 knots--
50
40
30
20
10
MPH
6AM 7 8 9 10 11 12PM 1 2 3 4 5 6 7 8
IWINDSURF


NOAA/NOS/CO-OPS
Verified Water Level vs. Predicted Plot
9414863 Richmond, CA
from 2003/04/12 - 2003/04/12
Height
(Feet relative to MLLW)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
04/12 00:00
04/12 04:00
04/12 08:00
04/12 12:00
04/12 16:00
04/12 20:00
04/13 00:00
Date/Time (Local)

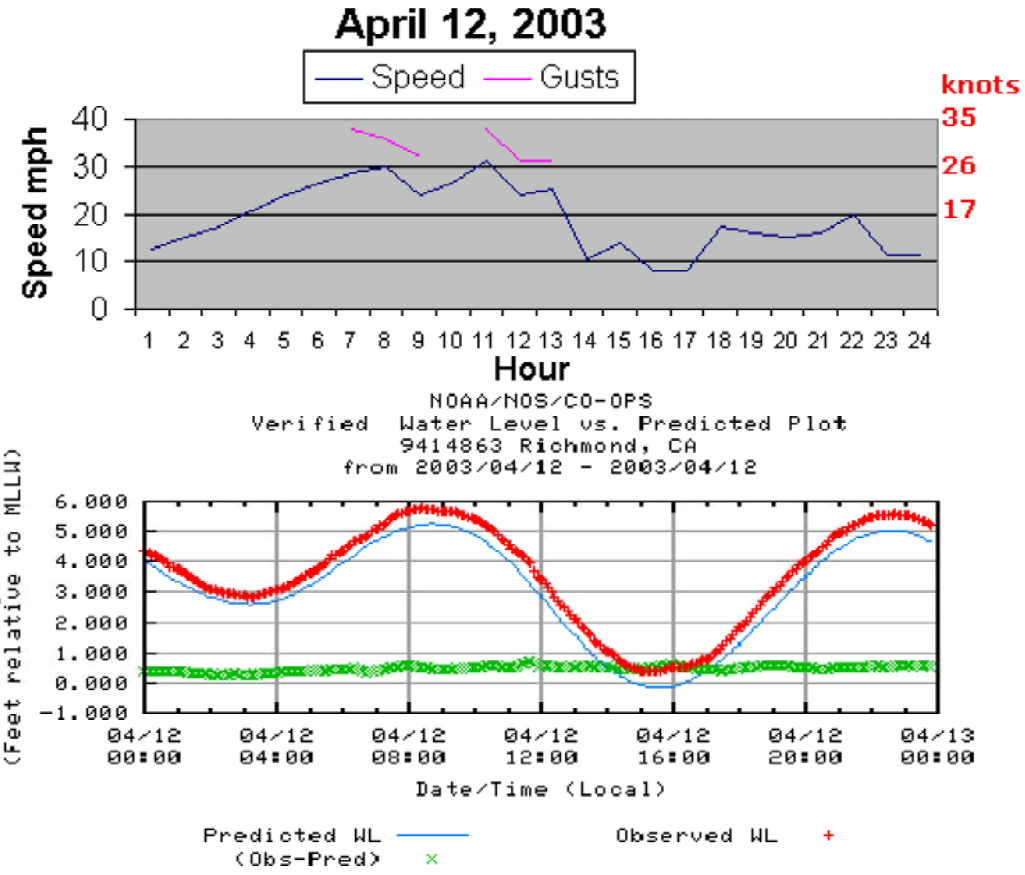
Oakland Airport

Data for this station is provided by the LATimes.com. Data is reported hourly, with both wind speeds and wind gusts. However, most of the hours did not have gusts reported.

Data for the Oakland Airport is also provided by http://www.ikitesurf.com. Membership is not required to view the wind archives. The data is in the form of a bar graph, which is harder to read than the line graph. To reproduce this data at ikitesurf.com, select Wind Reports, select CA - sf south bay, select Oakland, select Wind Archive, input the month and year, and each day comes up as a separate graphic.

According to this station, on April 12th:

- The winds never reached 40 knots
- The winds did not average 20 knots for 12-18 hours
- The lower low tide did not coincide with winds averaging 20 knots



ulting