



Tropical Storm BONNIE QuickLook  
Posted: 12:00 EDT 07/23/2010



NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 07/23/2010 12:00 EDT, water levels across southern Florida are at or near predicted. Wind speeds range from 7 to 23 kts with gusts up to 29 kts seen at Virginia Key. Barometric pressure is slightly increasing across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to Mean Lower Low Water are:

Trident Pier, FL: Next predicted high tides are 3.95 ft (1.20 m) at 07/23/2010 19:05 EDT and 2.85 ft (0.87 m) at 07/24/2010 07:10 EDT.

Naples, FL: Next predicted high tides are 2.21 ft (0.67 m) at 07/24/2010 13:18 EDT and 3.23 ft (0.98 m) at 07/24/2010 11:36 EDT.

Virginia Key, FL: Next predicted high tides are 2.06 ft (0.63 m) at 07/23/2010 20:14 EDT and 1.98 ft (0.60 m) at 07/24/2010 20:23 EDT.

Vaca Key, FL: Next predicted high tides are 0.85 ft (0.26 m) at 07/23/2010 11:01 EDT and 0.48 ft (0.15 m) at 07/24/2010 03:16 EDT.

Key West, FL: Next predicted high tides are 0.95 ft (0.29 m) at 07/23/2010 22:15 EDT and 1.96 ft (0.60 m) at 07/24/2010 09:20 EDT.

For additional data, please see the Center for Operational Oceanographic Products & Services website. For more information or archived products and reports, please see the Storm QuickLook Homepage.

Analyst:LSB

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SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM BONNIE ADVISORY NUMBER 5

NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL 1100 AM EDT FRI JUL 23 2010

CENTER OF BONNIE OVER BISCAYNE BAY MOST OF THE WEATHER ALREADY INLAND.

SUMMARY OF 1100 AM EDT INFORMATION

LOCATION...25.4N 80.3W ABOUT 30 MI SSW OF MIAMI FLORIDA ABOUT 130 MI SE OF FT. MYERS FLORIDA MAXIMUM SUSTAINED WINDS...40 MPH.  
PRESENT MOVEMENT...WNW OR 300 DEGREES AT 18 MPH MINIMUM CENTRAL PRESSURE 1008 MB.

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY

THE TROPICAL STORM WATCH FOR THE NORTHERN GULF COAST FROM DESTIN FLORIDA TO MORGAN CITY LOUISIANA INCLUDING LAKE PONTCHARTRAIN HAS BEEN UPGRADED TO A TROPICAL STORM WARNING

SUMMARY OF WATCHES AND WARNINGS IN EFFECT

A TROPICAL STORM WARNING IS IN EFFECT FOR  
\* THE FLORIDA EAST COAST FROM DEERFIELD BEACH SOUTHWARD INCLUDING THE ENTIRE FLORIDA KEYS AND FLORIDA BAY AND ALONG THE WEST COAST OF FLORIDA NORTHWARD TO ENGLEWOOD  
\* DESTIN FLORIDA TO MORGAN CITY LOUISIANA INCLUDING LAKE PONTCHARTRAIN

A TROPICAL STORM WATCH IS IN EFFECT FOR

\* THE EAST COAST OF FLORIDA NORTH OF DEERFIELD BEACH TO JUPITER INLET AND LAKE OKEECHOBEE

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS.PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION SPECIFIC TO YOUR AREA OUTSIDE UNITED STATES.PLEASE MONITOR PRODUCTS ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

DISCUSSION AND 48-HOUR OUTLOOK

RADAR AND SURFACE OBSERVATIONS INDICATE THAT AT 1100 AM EDT THE CENTER OF TROPICAL STORM BONNIE WAS APPROACHING THE SOUTHEAST FLORIDA COAST NEAR LATITUDE 25.4 NORTH LONGITUDE 80.3 WEST. BONNIE IS MOVING TOWARD THE WEST-NORTHWEST NEAR 18 MPH. ON THIS TRACK THE CENTER OF BONNIE WILL MOVE ACROSS THE SOUTHERN FLORIDA PENINSULA TODAY AND MOVE OVER THE EASTERN GULF OF MEXICO TONIGHT AND SATURDAY. BONNIE IS FORECAST TO APPROACH THE NORTHERN GULF COAST LATE SATURDAY.

MAXIMUM SUSTAINED WINDS REMAIN NEAR 40 MPH WITH HIGHER GUSTS. NO IMPORTANT CHANGE IN STRENGTH IS FORECAST WHILE BONNIE IS CROSSING THE FLORIDA PENINSULA. HOWEVER SOME SLIGHT STRENGTHENING IS POSSIBLE WHEN THE CYCLONE MOVES OVER THE GULF OF MEXICO LATE TONIGHT AND SATURDAY.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 85 MILES MAINLY TO THE NORTH AND EAST OF THE CENTER. AN ELEVATED AUTOMATIC STATION AT FOWEY ROCKS OFF THE EAST COAST OF SOUTH FLORIDA JUST REPORTED SUSTAINED WINDS OF 46 MPH WITH GUSTS TO 52 MPH.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 1008 MB.

HAZARDS AFFECTING LAND

TROPICAL STORM CONDITIONS WILL CONTINUE OVER PORTIONS OF THE NORTHWESTERN BAHAMAS BUT SHOULD DIMINISH TODAY. TROPICAL STORM FORCE WINDS MAINLY IN SQUALLS WILL CONTINUE TO SPREAD OVER SOUTHERN FLORIDA AND PORTIONS OF THE KEYS IN THE WARNING AREA TODAY.

BONNIE IS EXPECTED TO PRODUCE TOTAL RAIN ACCUMULATIONS OF 1 TO 3 INCHES OVER SOUTH FLORIDA WITH POSSIBLE ISOLATED MAXIMUM AMOUNTS OF 5 INCHES. ADDITIONAL RAINFALL AMOUNTS OF 1 TO 2 INCHES ARE POSSIBLE OVER THE NORTHWESTERN BAHAMAS.

STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 1 TO 2 FEET ABOVE GROUND LEVEL OVER PORTIONS OF THE NORTHWESTERN BAHAMAS, THE FLORIDA KEYS, AND THE SOUTHERN FLORIDA PENINSULA.  
 STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 3 TO 5 FEET ABOVE GROUND LEVEL ALONG THE IMMEDIATE COAST NEAR AND TO THE RIGHT OF WHERE THE CENTER MAKES LANDFALL IN THE NORTHERN GULF COAST.

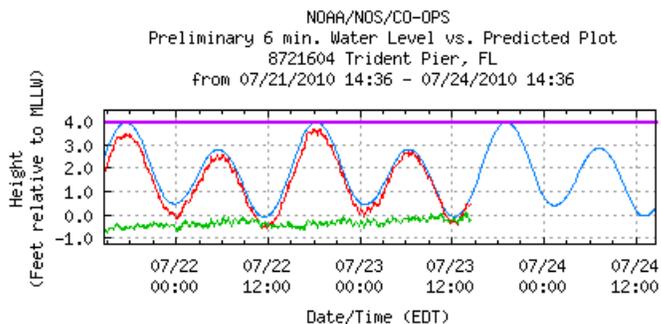
ISOLATED TORNADOES ARE POSSIBLE OVER EXTREME SOUTHERN FLORIDA LATER TODAY.

FORECASTER AVILA/ROBERTS

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Trident Pier - Water Level](#), [Trident Pier - Winds](#), [Trident Pier - Barometric](#), [Trident Pier - Air/Water Temp](#), [Virginia Key - Water Level](#), [Virginia Key - Winds](#), [Virginia Key - Barometric](#), [Virginia Key - Air/Water Temp](#), [Vaca Key - Water Level](#), [Vaca Key - Winds](#), [Vaca Key - Barometric](#), [Vaca Key - Air/Water Temp](#), [Key West - Water Level](#), [Key West - Barometric](#), [Naples - Water Level](#), [Naples - Winds](#), [Naples - Barometric](#), [Naples - Air/Water Temp](#),

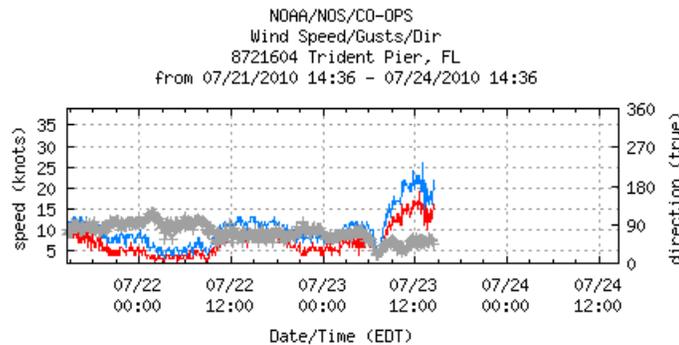
[Trident Pier, FL - Return to List](#)



Predicted WL — (Obs-Pred) —  
 Observed WL — MHHW —

Last Observed Sample: 07/23/2010 14:24 (EDT)  
 Relative to MLLW: Observed: 0.49 ft. Predicted: 0.71 ft. Residual: -0.22 ft.  
 Historical Maximum Water Level: Sep 26 2004, 4.13 ft. above MHHW

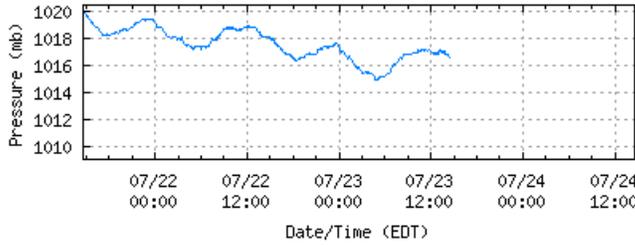
[Trident Pier, FL - Return to List](#)



speed — gusts — direction +  
 Last Observed Sample: 07/23/2010 14:24 (EDT)  
 Wind Speed: 16 knots Gusts: 22 knots Direction: 045° T

[Trident Pier, FL - Return to List](#)

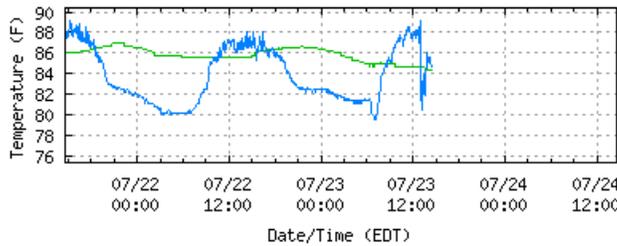
NOAA/NOS/CO-OPS  
 Barometric Pressure Plot  
 8721604 Trident Pier, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



barometric pressure —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Barometric Pressure: 1016.6 mb**

[Trident Pier, FL - Return to List](#)

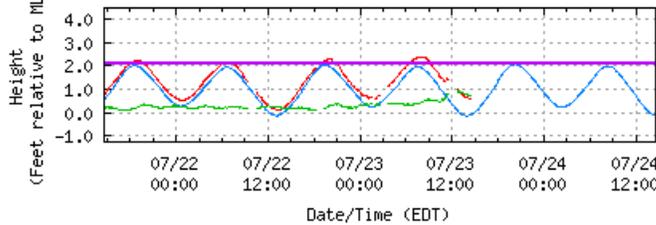
NOAA/NOS/CO-OPS  
 Air/Water Temperature Plot  
 8721604 Trident Pier, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



water temp. — air temp —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Water Temperature: 84.4° F Air Temperature: 84.6° F**

[Virginia Key, FL - Return to List](#)

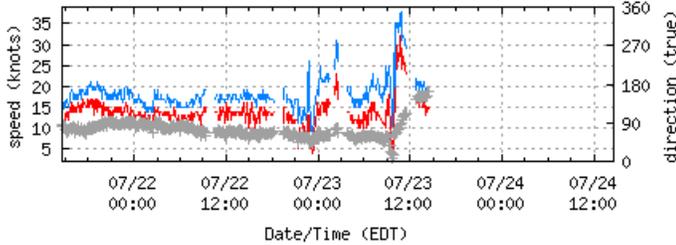
NOAA/NOS/CO-OPS  
 Preliminary 6 min. Water Level vs. Predicted Plot  
 8723214 Virginia Key, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



Predicted WL — (Obs-Pred) —  
 Observed WL — MHHW —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Relative to MLLW: Observed: 0.61 ft. Predicted: -0.09 ft. Residual: 0.70 ft.**  
**Historical Maximum Water Level: Oct 24 2005, 2.58 ft. above MHHW**

[Virginia Key, FL - Return to List](#)

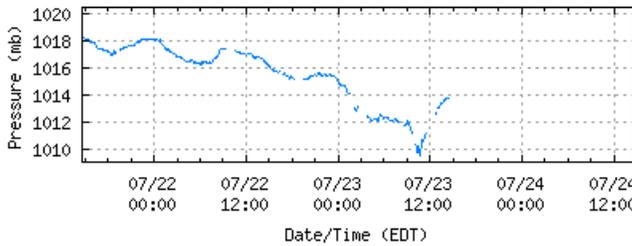
NOAA/NOS/CO-OPS  
 Wind Speed/Gusts/Dir  
 8723214 Virginia Key, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



speed — gusts — direction +  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Wind Speed: 15 knots Gusts: 20 knots Direction: 164° T**

[Virginia Key, FL - Return to List](#)

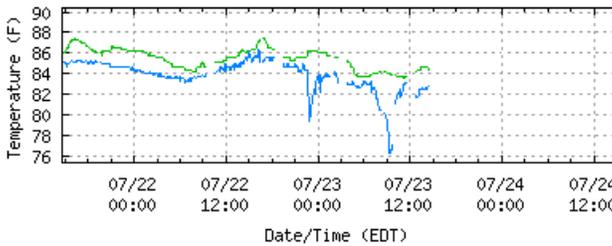
NOAA/NOS/CO-OPS  
 Barometric Pressure Plot  
 8723214 Virginia Key, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



barometric pressure —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Barometric Pressure: 1013.8 mb**

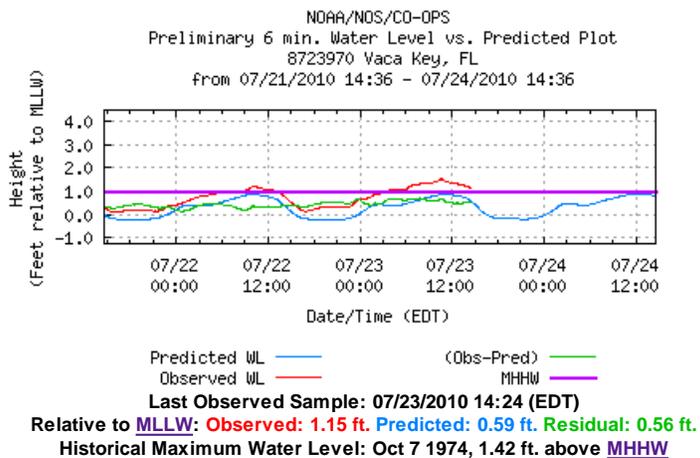
[Virginia Key, FL - Return to List](#)

NOAA/NOS/CO-OPS  
 Air/Water Temperature Plot  
 8723214 Virginia Key, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36

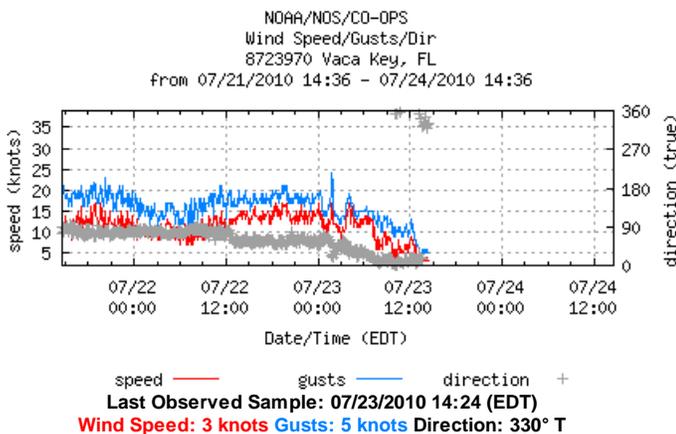


water temp. — air temp. —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Water Temperature: 84.4° F Air Temperature: 82.8° F**

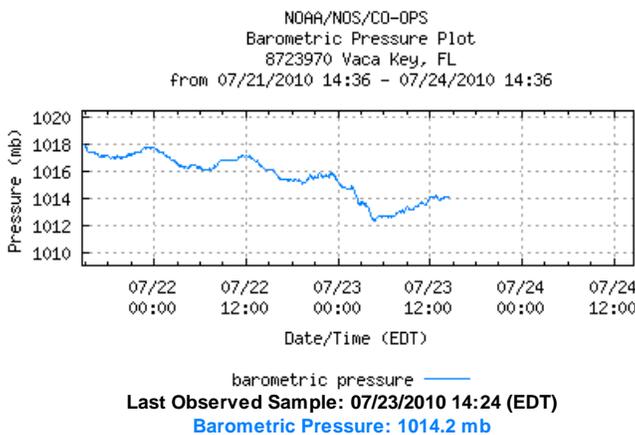
[Vaca Key, FL - Return to List](#)



[Vaca Key, FL - Return to List](#)

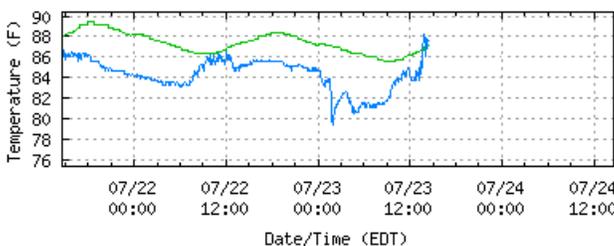


[Vaca Key, FL - Return to List](#)



[Vaca Key, FL - Return to List](#)

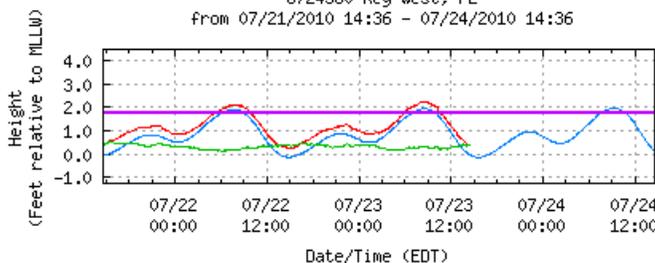
NOAA/NOS/CO-OPS  
 Air/Water Temperature Plot  
 8723970 Vaca Key, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



water temp. — air temp —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Water Temperature: 87.1° F Air Temperature: 87.6° F**

[Key West, FL - Return to List](#)

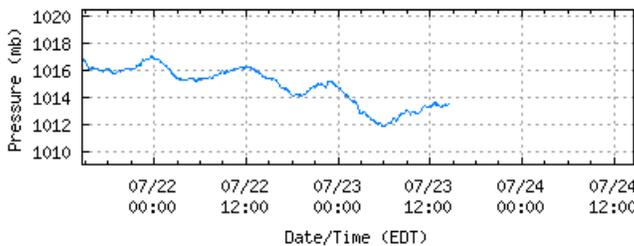
NOAA/NOS/CO-OPS  
 Preliminary 6 min. Water Level vs. Predicted Plot  
 8724580 Key West, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



Predicted WL — (Obs-Pred) —  
 Observed WL — MHHW —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Relative to MLLW: Observed: 0.36 ft. Predicted: -0.01 ft. Residual: 0.37 ft.**  
**Historical Maximum Water Level: Sep 8 1965, 1.93 ft. above MHHW**

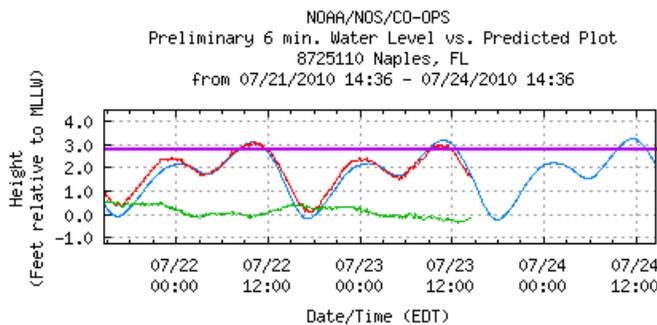
[Key West, FL - Return to List](#)

NOAA/NOS/CO-OPS  
 Barometric Pressure Plot  
 8724580 Key West, FL  
 from 07/21/2010 14:36 - 07/24/2010 14:36



barometric pressure —  
**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Barometric Pressure: 1013.6 mb**

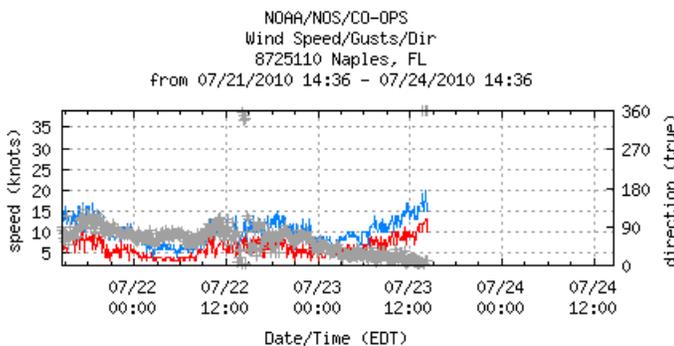
[Naples, FL - Return to List](#)



Predicted WL — (Obs-Pred) —  
 Observed WL — MHHW —

**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
 Relative to **MLLW**: **Observed: 1.59 ft. Predicted: 1.75 ft. Residual: -0.16 ft.**  
 Historical Maximum Water Level: Dec 21 1972, 3.11 ft. above **MHHW**

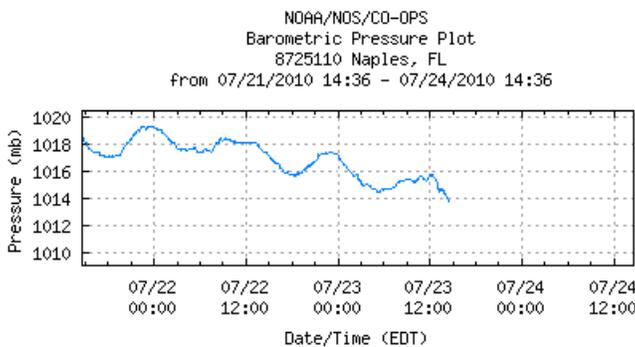
[Naples, FL - Return to List](#)



speed — gusts — direction +

**Last Observed Sample: 07/23/2010 14:18 (EDT)**  
**Wind Speed: 10 knots Gusts: 15 knots Direction: 011° T**

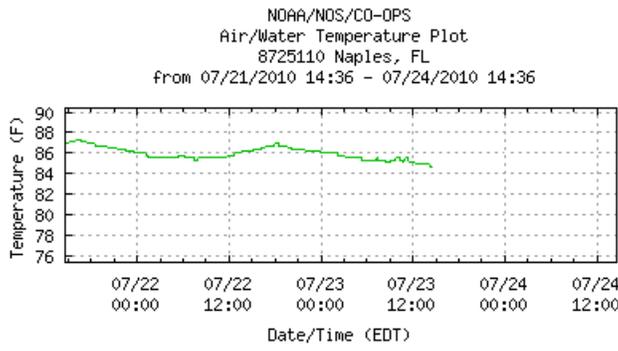
[Naples, FL - Return to List](#)



barometric pressure —

**Last Observed Sample: 07/23/2010 14:24 (EDT)**  
**Barometric Pressure: 1013.8 mb**

[Naples, FL - Return to List](#)



water temp. — air temp. —

**Last Observed Sample: 07/21/2010 14:36 (EDT)**

**Water Temperature: 86.7° F Air Temperature: n/a**

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)  
National Oceanic and Atmospheric Administration | U.S. Department of Commerce