

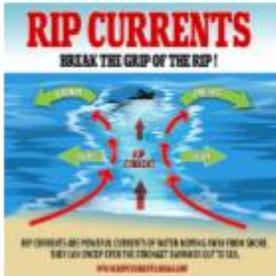
SUNCOAST OBSERVER

A quarterly newsletter brought to you by the National Weather Service Tampa Bay Area, FL

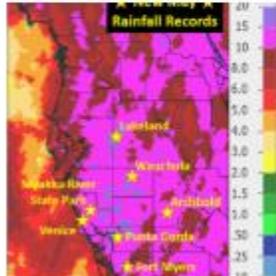
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Top stories in this newsletter



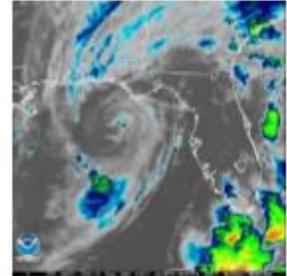
Rip Current Safety



Record Breaking May Rainfall



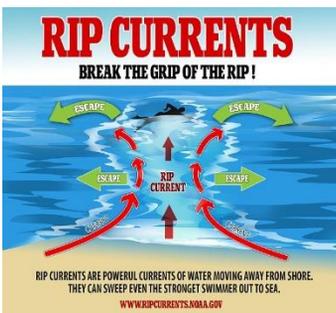
NWS Cooperative Observer Program



What is a Subtropical Storm?

Rip Current Safety

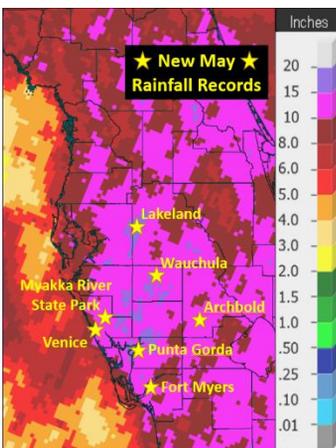
By: Nicole Carlisle



It's beach season here in our beautiful state. What is one of the most common occurrences at the beach? Rip currents! They can be very difficult to identify, so be sure to use extra caution if venturing out into the water and always swim near a lifeguard. If you're out in the water and feel like you're getting tired trying to swim back to shore or that you're being pulled farther from the beach- it's probably a rip current! They can move at speeds up to 8 feet per second, which is faster than an Olympic swimmer. If you're caught in one, NEVER try to fight it. Instead, swim out of the current parallel to the beach, and then swim at an angle away from the current toward shore. And if you can't do that, float and ride the current until it's weaker. Just a few safety tips for those headed to the beach. Happy summer!

Record Breaking May Rainfall

By: Paul Close



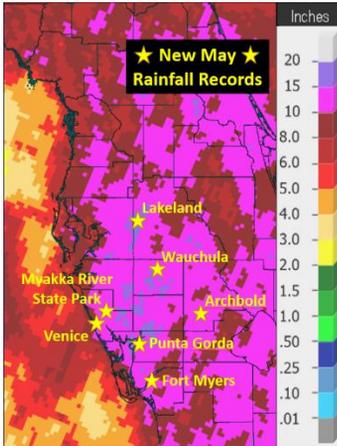
The big story this May was the rainfall with seven of the official NWS locations setting new records for the month and several others in the Top Ten.

MAY RAINFALL (inches):

Location	Rank	May 2018 Rainfall	Normal May Rain	Departure fm Normal	Previous Record	Records Began
Lakeland	1 st	19.19	3.36	+15.83	16.03/1979	1915
Punta Gorda Area	1 st	15.98	2.60	+13.38	10.13/1946	1914
Myakka River St Pk	1 st	15.06	2.82	+12.24	12.81/1959	1943
Archbold Bio Stn	1 st	14.46	3.41	+11.05	7.61/1996	1969
Wauchula 2 N	1 st	13.94	3.09	+10.85	11.32/1954	1933
Venice	1 st	13.39	2.27	+11.12	8.57/1969	1955
Fort Myers Area	1 st	12.77	2.65	+10.12	10.32/1968	1902

Record Breaking May Rainfall Cont.

By: Paul Close



MAY RAINFALL (inches):

Other official NWS sites that were in the Top Ten Wettest for May are listed below.

Location	Rank	May 2018 Rainfall	Normal May Rain	Departure fm Normal	Current Record	Records Began
Plant City	2nd	14.27	3.38	+10.89	16.44/2009	1893
Arcadia	2nd	12.63	3.57	+9.06	15.72/1987	1899
St Petersburg Area	2nd	9.68	2.21	+7.47	10.64/1959	1914
Brooksville Area	3rd	12.25	2.95	+9.30	16.27/1976	1892
Inverness 3 SE	3rd	10.61	2.67	+7.94	11.97/1976	1948
St Leo	5th	10.06	2.78	+7.28	16.81/1979	1895
Tampa Area	6th	7.73	2.10	+5.63	17.64/1979	1890
Winter Haven Area	7th	7.58	2.90	+4.68	12.72/1957	1941
Chiefland 5 ESE	7th	6.72	2.29	+4.43	13.14/1976	1956
Bartow	9th	9.46	2.78	+6.68	17.74/1923	1892
Tarpon Springs	9th	6.79	2.02	+4.77	15.17/1979	1892
Sarasota-Bradenton	10th	6.97	2.21	+4.76	9.52/1996	1911

NWS Cooperative Observer Program

By: Dustin Norman

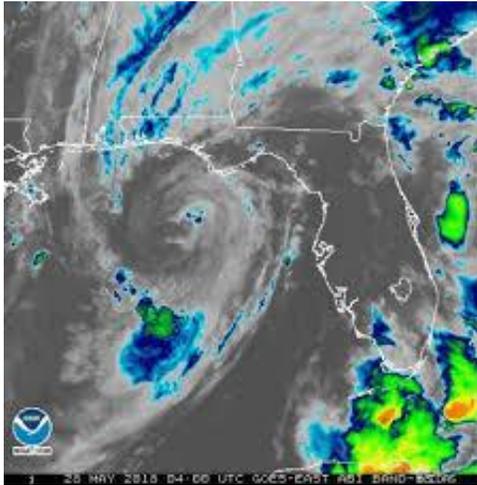


The National Weather Service (NWS) needs surface observations for ground truth to verify its forecasts and warnings. There are a few different networks in place in order to obtain this information. The first are Automated Surface Observing Systems (ASOS). These are very expensive and high tech pieces of equipment, typically FAA owned and operated at large airports. Next, to supplement this, we use a much older and higher density network known as the Cooperative Observer Program (COOP). This program, operated by the NWS, is a network of over 10,000 specially trained volunteer or low-paid observers across the U.S. and its territories who measure various weather elements every day. In Florida, we typically receive daily minimum/maximum temperature and 24 hour rainfall. These observers are equipped with NWS owned equipment which is standardized across the country and routinely maintained by trained personnel. The NWS Tampa Bay office has 15 counties in its area of responsibility and has a total of 21 sites sprawled across the region from Levy to Lee and east to Polk counties. They are located at homes, water treatment facilities, state parks, airports, Florida Forestry Service towers, agricultural research centers, and of course our office here in Ruskin, FL.

The equipment located at each site varies with some locations measuring rainfall, temperature, or both. The manually measured 8-inch rain gauge is the preferred method for measuring rain as it is the most accurate. The temperature sensor which is called an MMTS simply measures the resistance of a small probe and carries the signal through a wire where it is read off by the observer on a display unit. One final piece of equipment used in the COOP program is the Fischer & Porter Rain Gauge (pictured). We have eight of these carefully calibrated electronic systems across West Central Florida. Precipitation is caught in a bucket where it is weighed and recorded every 15 minutes to an onboard computer. Observers collect the data at the beginning of every month on an SD card and send it to their local NWS office. Up to 20 inches of rain can accumulate in these gauges before they require emptying and a heavy oil is used to prevent evaporation of the water. Regardless of the method used, we are extremely grateful for the willingness and dedication of our COOP observers!

What is a Subtropical Storm?

By: Dan Noah



Florida is located in the subtropics, between the moderate temperature zone to our north and the tropical zone to our south. The tropical climate shifts north into our area in the summer and leads to daily sea breezes and thunderstorms. In the winter, the colder air to the north moves into our area.

Subtropical Storm Alberto moved through the eastern Gulf of Mexico in late May of this year. Alberto derived some of its energy from an upper-level trough of low pressure that had colder temperatures aloft and some of its energy from warm Gulf waters. A true tropical storm is like a big bubble of warm air with no cold air aloft. Well-developed subtropical storms like Alberto often have a large, cloud-free center and maximum winds much farther from the center, while the strongest winds in a tropical storm are closer to the center.

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