

## **National Weather Service Melbourne, Florida**

A storm survey was conducted in Indian River and Martin Counties by the National Weather Service Forecast Office in Melbourne. The survey determined that EF-0 tornados hit the Vero Beach and Indiantown areas on the evening of October 18, 2011.

### Background/Synopsis of the October 18 Event:

The transition to the dry season began on a stormy note as the first strong cold front of the season swung into East Central Florida. This front was in association with an upper-level trough moving through the southeastern United States. A second low pressure system in the eastern Gulf of Mexico also encroached upon the peninsula simultaneously. These disturbances acted to produce both increasing wind speed and turning of the winds with height throughout the atmosphere (wind shear). These enhanced winds, combined with sufficient instability (warm and moist air) and forcing ahead of a cold front, created an ideal setup for isolated tornadoes across the Treasure Coast and vicinity.

The Storm Prediction Center acted on this by issuing a Tornado Watch for Indian River, St. Lucie, Martin and Okeechobee Counties at 2:20 p.m. valid until 10:00 p.m. Thunderstorm activity developed slower than expected, but a few storms did eventually begin showing strong rotation by early evening. This trend continued as the cold front pushed closer toward the area, enhancing large scale rising motion and local wind fields. Three Tornado Warnings were issued by the National Weather Service office in Melbourne across the Tornado Watch area. A second Tornado Watch was issued as an extension to the previous one at 9:55 p.m. However, thunderstorm activity across East Central Florida did not produce any further strong rotational signatures after this point.

Two tornadoes were confirmed via NWS storm surveys across East Central Florida. The first touched down near Indiantown in Martin County around 9:20 p.m., producing high-end EF0 damage with winds of 80-85 mph. The second tornado occurred ten minutes later around 9:30 p.m. in the Vero Beach area of Indian River County, causing EF0 damage with winds of 65 mph.

Details from the surveys follow on the next page.

**Tornado #1:** Indiantown in Martin County, FL

**Tornado details:** Occurred at 920 pm, Tuesday October 18, 2011

**Maximum Intensity:** EF-0

**Maximum Winds:** 80-85 mph

**Path Length:** 0.2 miles

**Tornado Width:** 85 yards

Survey revealed a two story single family home had a few windows blown in and some siding removed. A barn roof collapsed. Commercial building had roof removed and carried upwind with most of the front windows broken out. Numerous large hardwood tree branches were down.

**Here is the approximate tornado path:**



**A few photos from the Indiantown storm survey:**



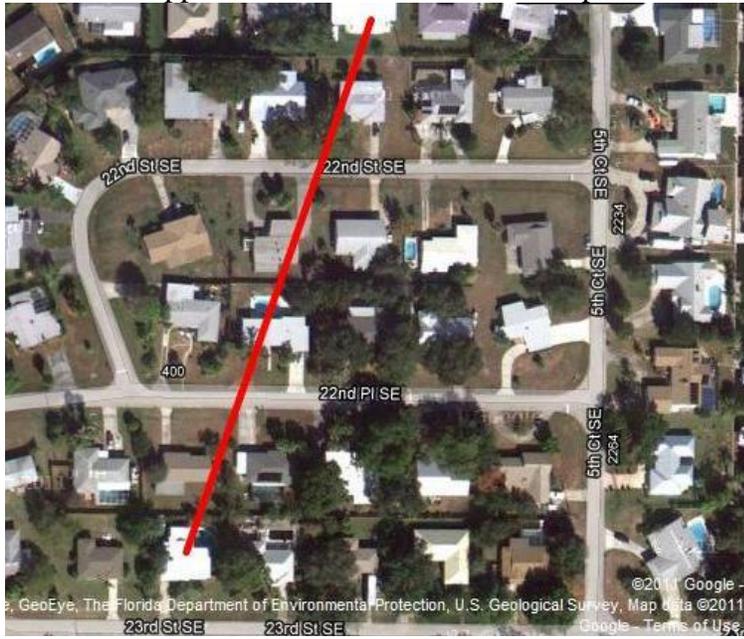
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**Tornado #2:** Vero Beach in Indian River County, FL  
**Tornado details:** Occurred at 930 pm, Tuesday October 18, 2011  
**Maximum Intensity:** EF-0  
**Maximum Winds:** 65 mph  
**Path Length:** 0.2 miles  
**Tornado Width:** 75 yards

Survey revealed major damage to one unoccupied home with the roof removed. Light damage extended one block north and south of 22<sup>nd</sup> Place Southeast, with small trees damaged and a metal storage shed blown off its foundation.

(Tornado path and storm photos follow on the next page)

Here is the approximate Vero Beach tornado path:



Here are a few photos from the Vero Beach tornado survey:

