



National Weather Service Melbourne, Florida

<http://www.srh.noaa.gov/mlb/>

Brevard County Hail Event of March 27, 2019

Event Summary:

A weather disturbance with unusually cold temperatures aloft created an environment conducive for hail storm formation on March 27, 2019. Isolated thunderstorms developed just after sunrise over Lake and Orange counties and produced nickel to quarter sized hail as the storms moved eastward. The storms continued to intensify as they moved farther southeast, with hail becoming more widespread, larger and longer-lasting as they reached central Brevard County during the mid to late morning. Numerous reports were received of hail the size of quarters and larger, especially in and near Canaveral Groves, Cocoa, Rockledge, Merritt Island, Satellite Beach and Indialantic. The largest, confirmed hail stones reached golf ball (1.75" diameter) to hen egg (2.00" diameter) size, mainly in the Indialantic area. Damage occurred to vehicles, roofs, windows and pool screen enclosures within areas where the largest hail fell. Many reports indicated hail durations of several minutes, resulting in minor accumulations in some areas. A few locations including Canaveral Groves and Cocoa experienced two rounds of large hail as severe storms followed nearly similar tracks across central Brevard County.

Fast Facts:

- *The hail storm(s) traveled 35-40 miles from east of Christmas to Indialantic.
- *Hail lasted 5-10 minutes in some areas (varying in size).
- *Several areas were impacted by a second round of large/damaging hail about an hour after the first event.
- *There have been 6 other events in Brevard County since 1950 which produced hail of 2" diameter or greater:

April 23, 1991 (southern Brevard, location not specified) **2" diameter**

June 8, 1996 (Lake Poinsett) **2" diameter**

March 17, 2003 (Melbourne Beach) **2.5" diameter**

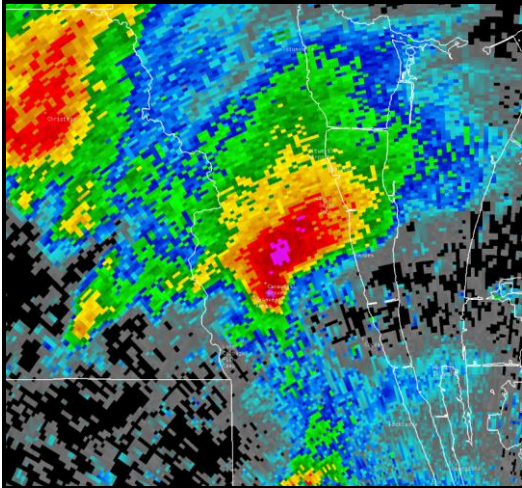
April 25, 2003 (West Melbourne) **2" diameter**

February 26, 2007 (KSC; damaged "Atlantis" on the launch pad, 100 vehicles damaged) **2" diameter**

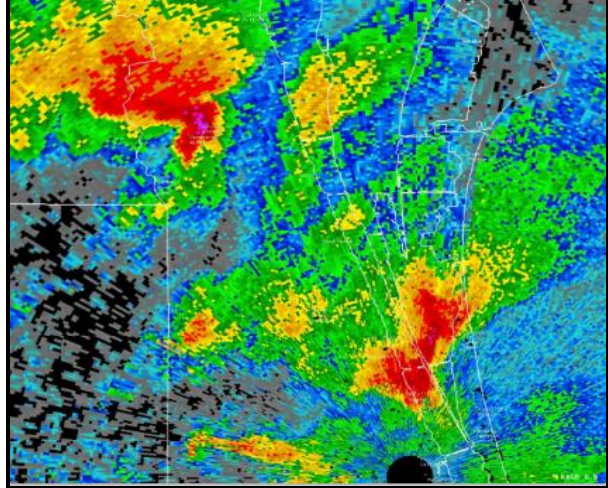
March 30, 2011 (June Park) **2" diameter**

Radar Reflectivity Images from KMLB WSR-88D:

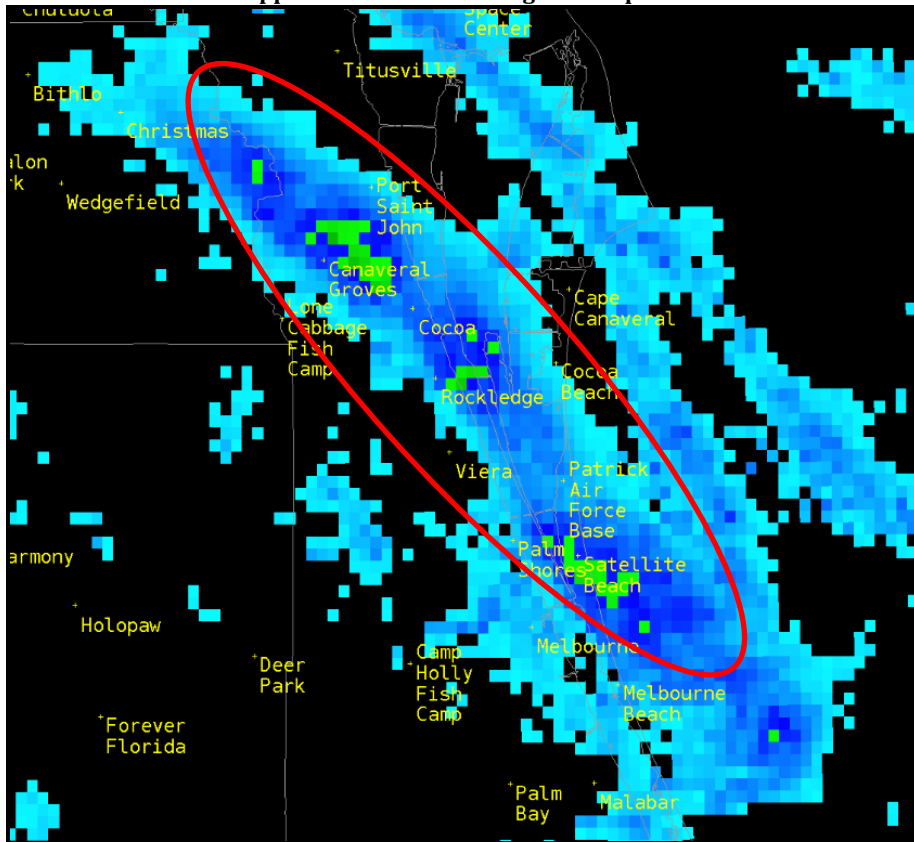
High Reflectivity in Canaveral Groves Area around the time of large hail reports (1237 UTC, 837 am EDT):



High Reflectivity in Melbourne and Satellite Beach areas and second area near Cocoa (1333 UTC, 933 am EDT):



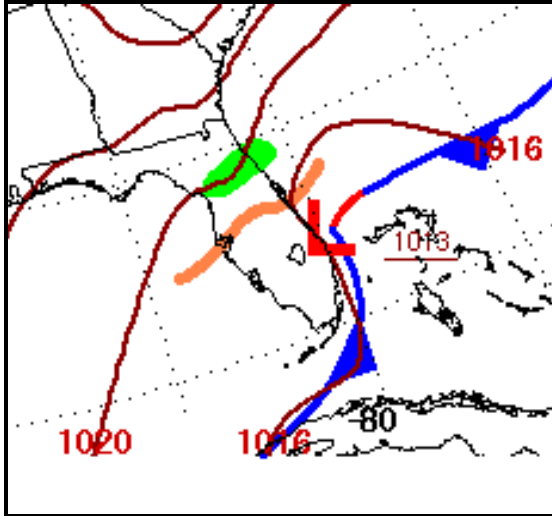
Green & darker blues approximate swath of large hail reports.



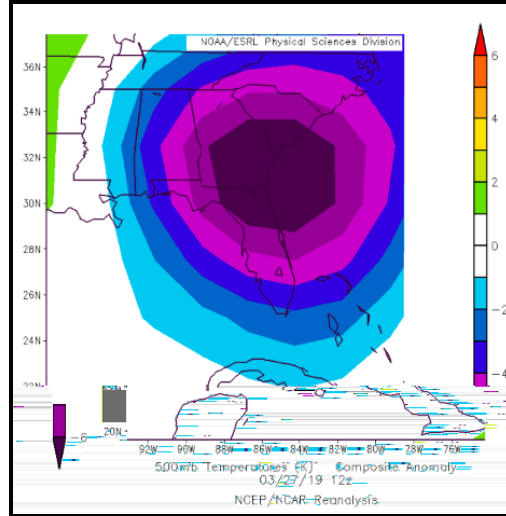
KMLB WSR-88d precipitation estimates.

Maps:

Surface Map 3/27/19 at 12 UTC (8 am EDT):



500 mb Temp Anomaly (K) 3/27/19 12 UTC:



Hail Photos:

Relayed from Brevard County Emergency Management:

Cocoa, FL on Cox Road



Posted to NWS MLB on Social Media:

Cocoa, Areca Palm Street, west of I-95



Cocoa, near Range Road



More Hail Photos:

South Rockledge/Viera area was one of the locations with large hail plus accumulating hail



Indialantic :



(photos courtesy Andrew Bargo)



(photo courtesy Steve Sponsler)

PRELIMINARY LOCAL STORM REPORT...SUMMARY
 National Weather Service Melbourne FL
 336 PM EDT WED MAR 27 2019

..TIME...	..EVENT...	..CITY LOCATION...	..LAT.LON...
..DATE...	..MAG....	..COUNTY LOCATION..ST..	..SOURCE....
..REMARKS..			
0620 AM 03/27/2019	TSTM WND GST M39.00 MPH	8 NNW PORT CANAVERAL Brevard FL	28.52N 80.64W AIRPLANE PILOT
GUST TO 34 KNOTS FROM THE NW AT USAF TOWER 506.			
0635 AM 03/27/2019	TSTM WND GST M39.00 MPH	5 N PORT CANAVERAL Brevard FL	28.47N 80.57W AWOS
GUST TO 34 KNOTS FROM THE NW AT CCAFS SKID STRIP.			
0635 AM 03/27/2019	TSTM WND GST M44.00 MPH	5 N CAPE CANAVERAL Brevard FL	28.46N 80.59W AIRPLANE PILOT
GUST TO 38 KNOTS FROM N AT USAF TOWER 403.			
0745 AM 03/27/2019	HAIL E1.00 INCH	3 WSW LAKE HARRIS Lake FL	28.76N 81.88W TRAINED SPOTTER
QUARTER SIZE HAIL IN THE HAWTHORNE AT LEESBURG AREA. REPORTED BY TRAINED WEATHER SPOTTER.			
0808 AM 03/27/2019	HAIL E0.88 INCH	4 SSE AZALEA PARK Orange FL	28.49N 81.27W TRAINED SPOTTER
HAIL UP TO NICKEL SIZE OCCURRED FOR ABOUT 5 MINUTES.			
0836 AM 03/27/2019	HAIL E1.50 INCH	3 S CAPE CANAVERAL Brevard FL	28.35N 80.61W TRAINED SPOTTER
HAIL UP TO 1-1.5 INCHES IN DIAMETER REPORTED IN THE CANAVERAL GROVES AREA.			
0850 AM 03/27/2019	COASTAL FLOOD E1.75 INCH	4 W COCOA Brevard FL	28.38N 80.82W TRAINED SPOTTER
HAIL UP TO QUARTER SIZE IN COCOA, WEST OF I-95.			
0852 AM 03/27/2019	HAIL E1.00 INCH	2 WSW COCOA Brevard FL	28.36N 80.78W TRAINED SPOTTER
0855 AM 03/27/2019	HAIL E1.75 INCH	1 SW COCOA Brevard FL	28.37N 80.76W TRAINED SPOTTER
HAIL UP TO GOLF BALL SIZE IN COCOA.			
0859 AM 03/27/2019	HAIL E1.00 INCH	1 N COCOA Brevard FL	28.40N 80.75W TRAINED SPOTTER
HAIL UP TO AN INCH IN COCOA.			
0900 AM 03/27/2019	HAIL E1.75 INCH	2 WSW COCOA Brevard FL	28.37N 80.78W PUBLIC
HAIL UP TO GOLF BALL SIZE OFF RANGE ROAD IN COCOA.			
0903 AM 03/27/2019	HAIL E1.00 INCH	ROCKLEDGE BREVARD FL	28.32N 80.73W TRAINED SPOTTER
QUARTER SIZE HAIL AT BREVARD CO EOC IN ROCKLEDGE.			
0904 AM 03/27/2019	HAIL E1.00 INCH	6 WSW CAPE CANAVERAL Brevard FL	28.37N 80.70W TRAINED SPOTTER
0910 AM 03/27/2019	HAIL E1.75 INCH	6 S MERRITT ISLAND Brevard FL	28.28N 80.69W PUBLIC
NUMEROUS REPORTS OF QUARTER TO GOLF BALL SIZE HAIL IN RIVER WOODS SUBDIVISION IN SOUTH ROCKLEDGE NEAR THE INDIAN RIVER. HAIL REPORTED BETWEEN 910-923 AM.			
0910 AM 03/27/2019	HAIL M1.50 INCH	5 SSW MERRITT ISLAND Brevard FL	28.28N 80.71W PUBLIC
HAIL UP TO PING PONG BALL SIZE 910 AM TO 920 AM IN SOUTH ROCKLEDGE/VIERA.			

0934 AM TSTM WND GST PATRICK AIR FORCE BASE 28.24N 80.61W
03/27/2019 M52.00 MPH BREVARD FL AWOS
GUST TO 45 KNOTS FROM NW.

0940 AM HAIL 5 NNW INDIALANTIC 28.16N 80.61W
03/27/2019 E1.00 INCH Brevard FL PUBLIC
HAIL ESTIMATED UP TO QUARTER SIZE OR SLIGHTLY LARGER.
OCCURRED FOR 10-15 MINUTES.

0940 AM HAIL 4 WNW CAPE CANAVERAL 28.40N 80.67W
03/27/2019 E1.00 INCH Brevard FL PUBLIC
ONE INCH HAIL REPORTED NEAR KELLY PARK IN MERRITT ISLAND.

0940 AM HAIL 5 NNW INDIALANTIC 28.16N 80.61W
03/27/2019 E1.00 INCH Brevard FL PUBLIC
HAIL ALONG SOUTH TROPICAL TRAIL IN MERRITT ISLAND,
ESTIMATED UP TO QUARTER SIZE OR SLIGHTLY LARGER.OCCURRED
STARTING AT 940 AM FOR 10 TO 15 MINUTES.

0945 AM HAIL 5 NNW INDIALANTIC 28.16N 80.60W
03/27/2019 E1.00 INCH Brevard FL TRAINED SPOTTER
CORRECTION TO EARLIER REPORT. NEAR 1753 A1A SATELLITE
BEACH.

0945 AM HAIL INDIALANTIC 28.09N 80.57W
03/27/2019 M2.00 INCH BREVARD FL PUBLIC
SEVERE STORM PRODUCED A LARGE AMOUNT OF DAMAGING HAIL.
DURATION WAS 10 MINUTES AND A PHOTO OF THE LARGEST STONES
NEXT TO A MEASURING TAPE WAS PROVIDED.

0954 AM HAIL INDIAN HARBOUR BEACH 28.15N 80.60W
03/27/2019 E1.00 INCH BREVARD FL TRAINED SPOTTER

0956 AM TSTM WND GST MELBOURNE AIRPORT 28.10N 80.64W
03/27/2019 M45.00 MPH BREVARD FL ASOS
GUST TO 39 KNOTS FROM THE NE.

1032 AM HAIL SEBASTIAN 27.79N 80.49W
03/27/2019 E0.88 INCH INDIAN RIVER FL BROADCAST MEDIA
REPORT RELAYED BY WPTV.

1033 AM TSTM WND GST 2 SW COCOA BEACH 28.31N 80.63W
03/27/2019 E54.00 MPH Brevard FL MESONET
GUST TO 47 KNOTS FROM WSW.

1046 AM TSTM WND GST 4 WSW PATRICK AIR FORCE 28.22N 80.67W
03/27/2019 M48.00 MPH Brevard FL MESONET
GUST TO 42 KNOTS FROM NNE NEAR INDIAN RIVER IN SUNTREE
AREA.

1049 AM HAIL PATRICK AIR FORCE BASE 28.24N 80.61W
03/27/2019 E0.88 INCH BREVARD FL OTHER FEDERAL

1054 AM TSTM WND GST PATRICK AIR FORCE BASE 28.24N 80.61W
03/27/2019 M54.00 MPH BREVARD FL OTHER FEDERAL
GUST TO 47 KNOTS FROM THE NORTH RECORDED AT SOUTH END OF
PAFB RUNWAY.

1145 AM TSTM WND GST 5 NE PORT CANAVERAL 28.46N 80.53W
03/27/2019 M41.00 MPH Brevard FL OTHER FEDERAL
GUST TO 36 KNOTS FROM N AT USAF TOWER 003.

0245 PM NON-TSTM WND GST 5 NE PORT CANAVERAL 28.46N 80.53W
03/27/2019 M47.00 MPH Brevard FL OTHER FEDERAL
GRADIENT WIND GUST TO 41 KNOTS FROM N AT USAF TOWER 003.