East Central Florida Severe Weather Climatology: A Look at the Last 30 Years

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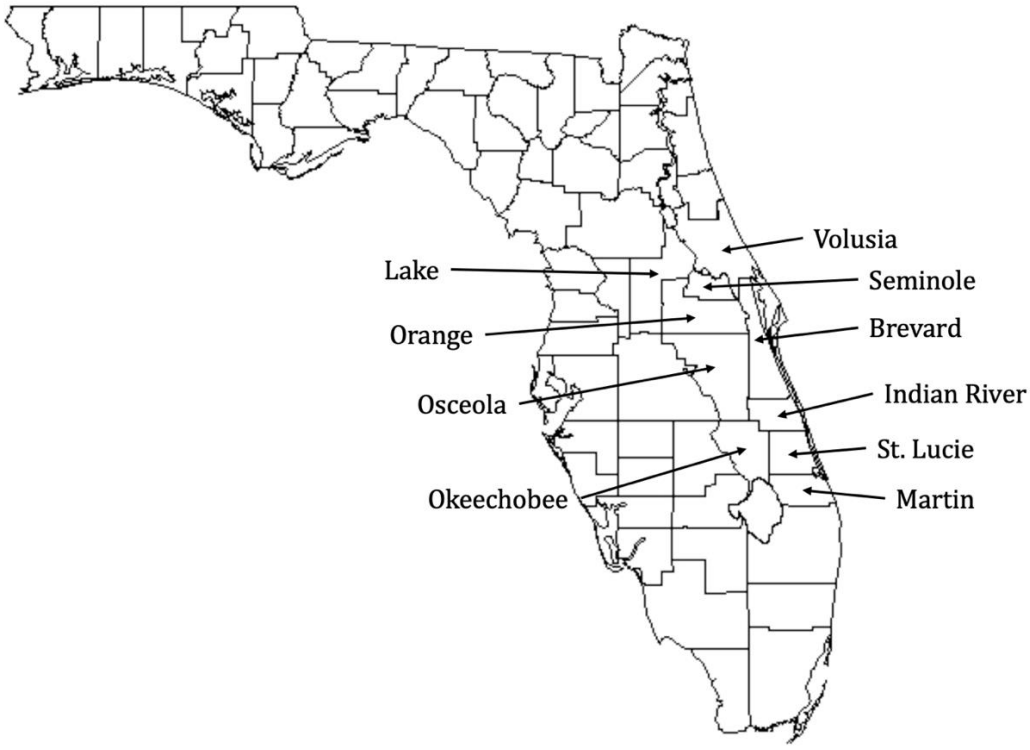
The National Oceanic and Atmospheric Administration (NOAA) issues climatological normals that span 30 years. Every 10 years, these normal are updated to account for the previous decade. Understanding the climatological normal for the National Weather Service Melbourne forecast area is important in order to gain insight to weather patterns month-to-month and county-by-county.

This climatological report will focus on three primary severe weather impacts: tornadoes, hail, and convective wind gusts. The range of time for this update starts on January 1st, 1991 and ends on December 31st, 2020. Tornadoes are rated on the Fujita scale (0-5) from 1991 to 2007 and are then rated on the Enhanced Fujita scale (0-5) from 2007 to 2020. Hail reports are included for stones that were 0.75 inches in diameter and greater. However, it is important to note that on January 5, 2010, the National Weather Service criteria for hail changed from 0.75 inches to 1 inch, and values of 1 inch and greater are considered large, damaging hail. Convective wind reports were included for gusts of 58 miles per hour (approximately 50 knots) and greater.

Data for this climatological update was pulled from the Storm Events Database[1]. The data was then compiled into an Excel spreadsheet, and the various graphs within this report were created using Excel.

The document is split into three distinct sections. The first section will show the East Central Florida climatology, the second section will show a breakdown by the ten counties within the NWS Melbourne WFO, and the third section contains reference material.

Melbourne County Warning Area

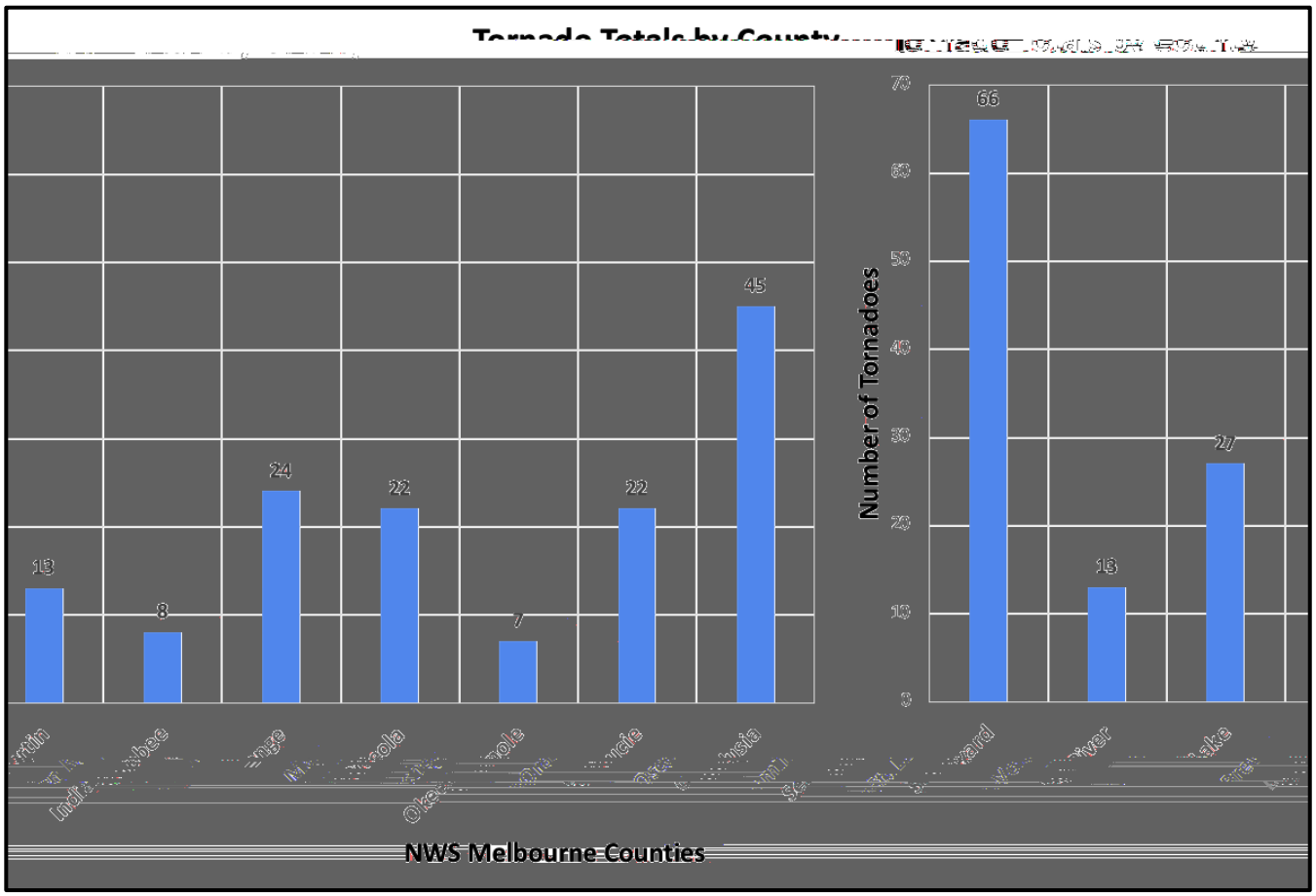


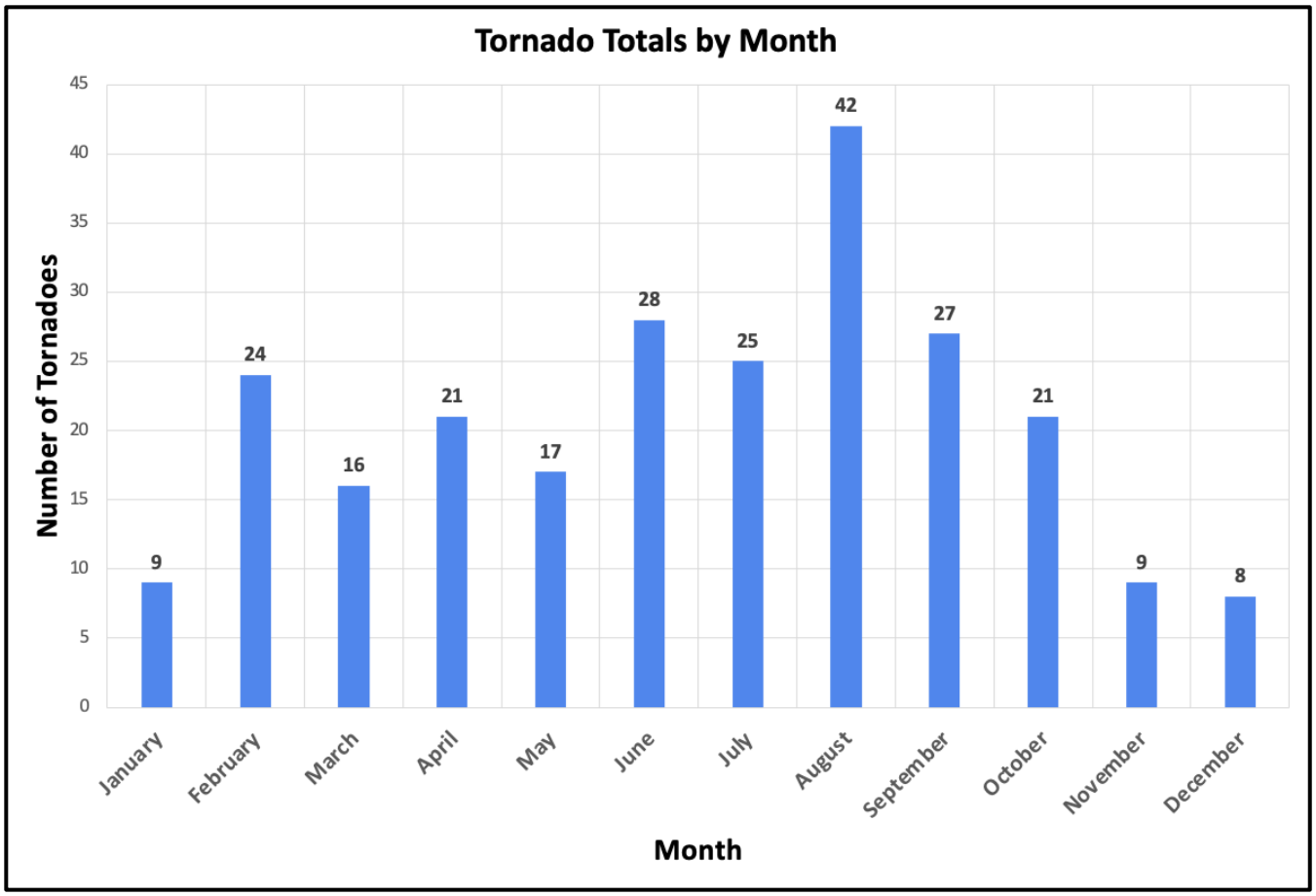
[1] The Storm Events Database archive can be accessed at https://www.ncdc.noaa.gov/stormevents/ .

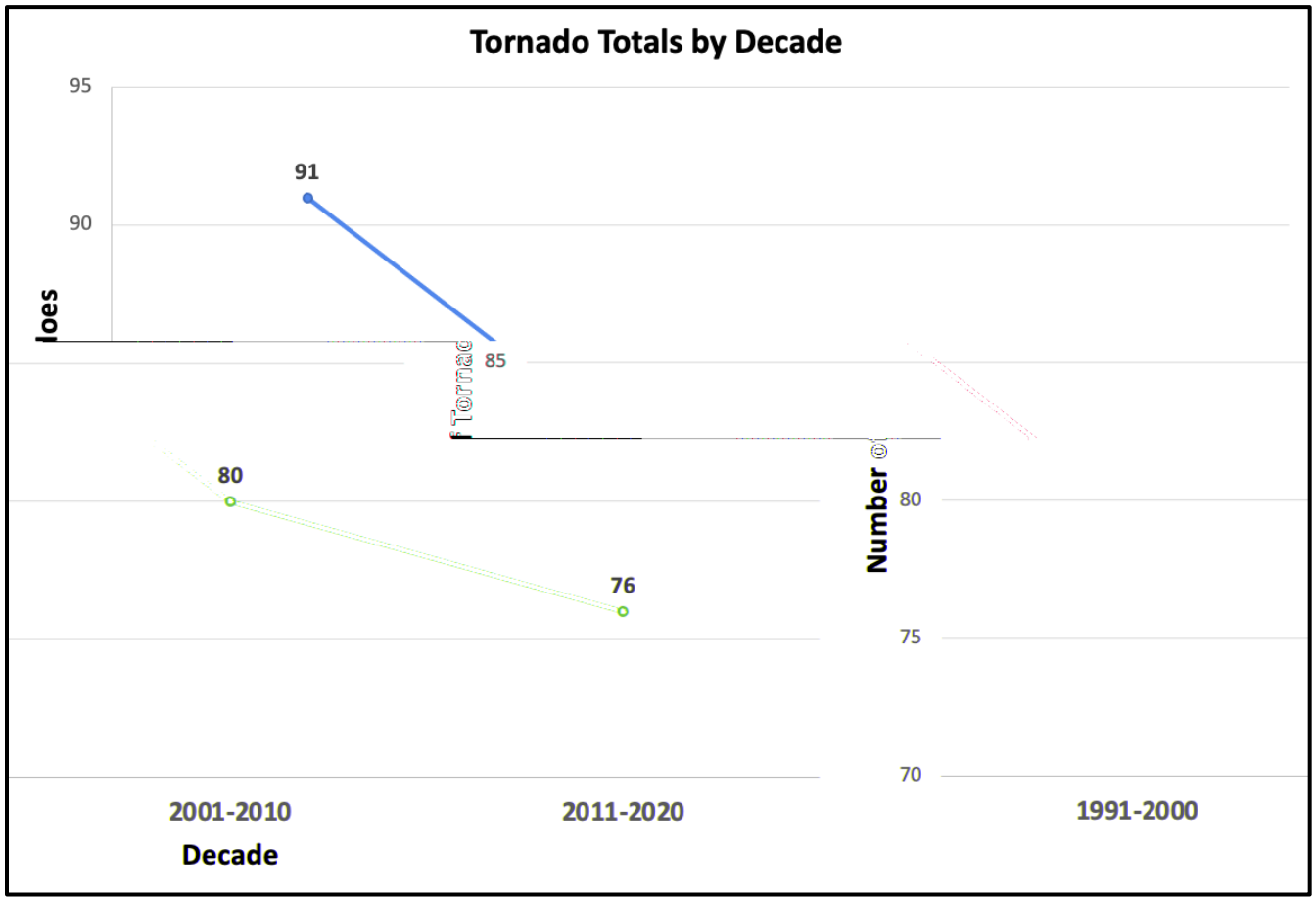
Part 1: Melbourne County Warning Area Climatology

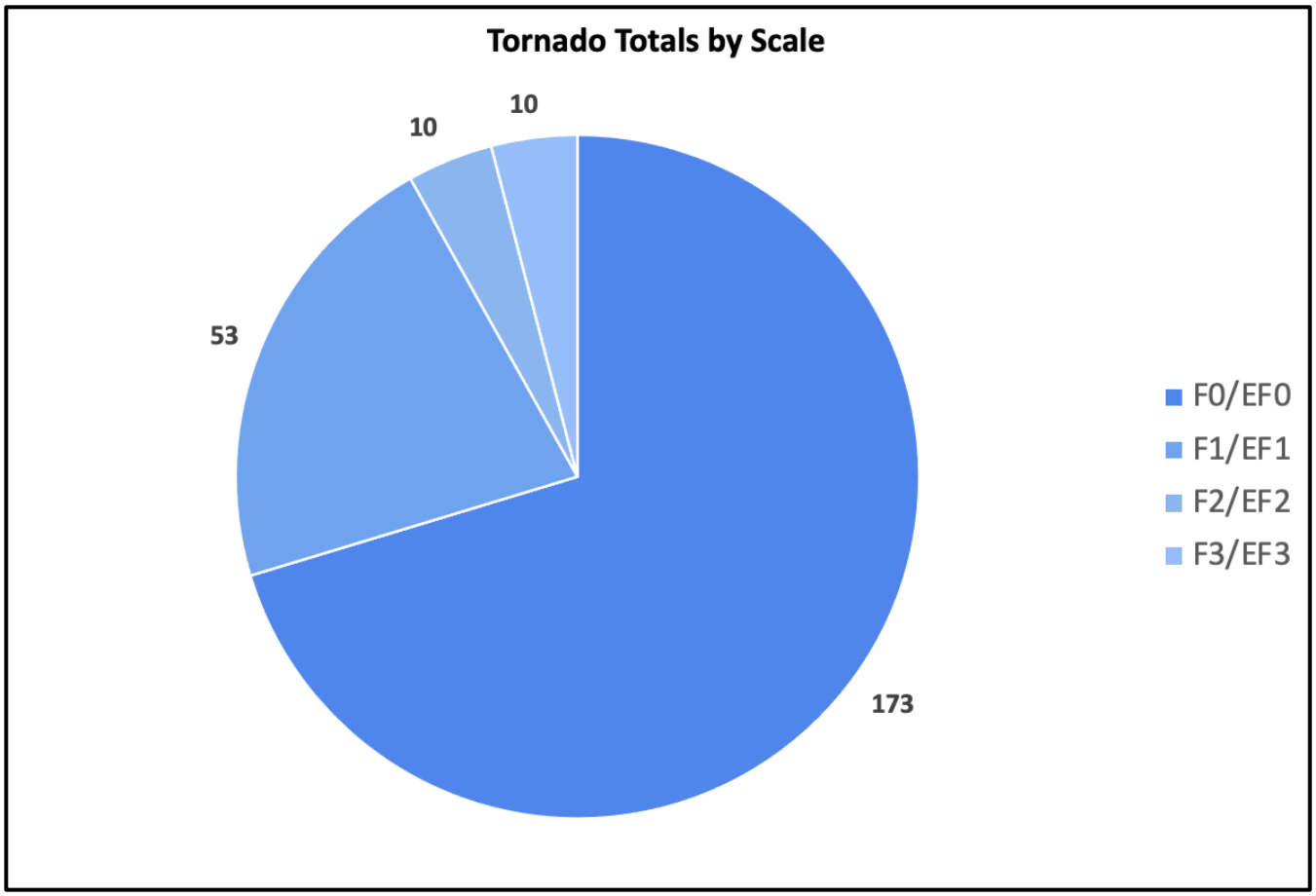
Tornado Overview

The period of time from January 1st, 1991, to December 31st, 2020, had a total of 247 tornadoes within the NWS Melbourne WFO. Brevard County saw the greatest number of tornadoes over this time period. The month of August saw the greatest number of tornadoes, and the decade that had the greatest number of tornado occurrences was the 1991-2000 period. The strength of these tornadoes never surpassed an F3/EF3, with 10 tornadoes during the period being categorized as an F3/EF3. As for injuries and deaths associated with tornadoes, there were a total of 519 injuries attributed to tornadoes within the NWS Melbourne area, and 66 fatalities.



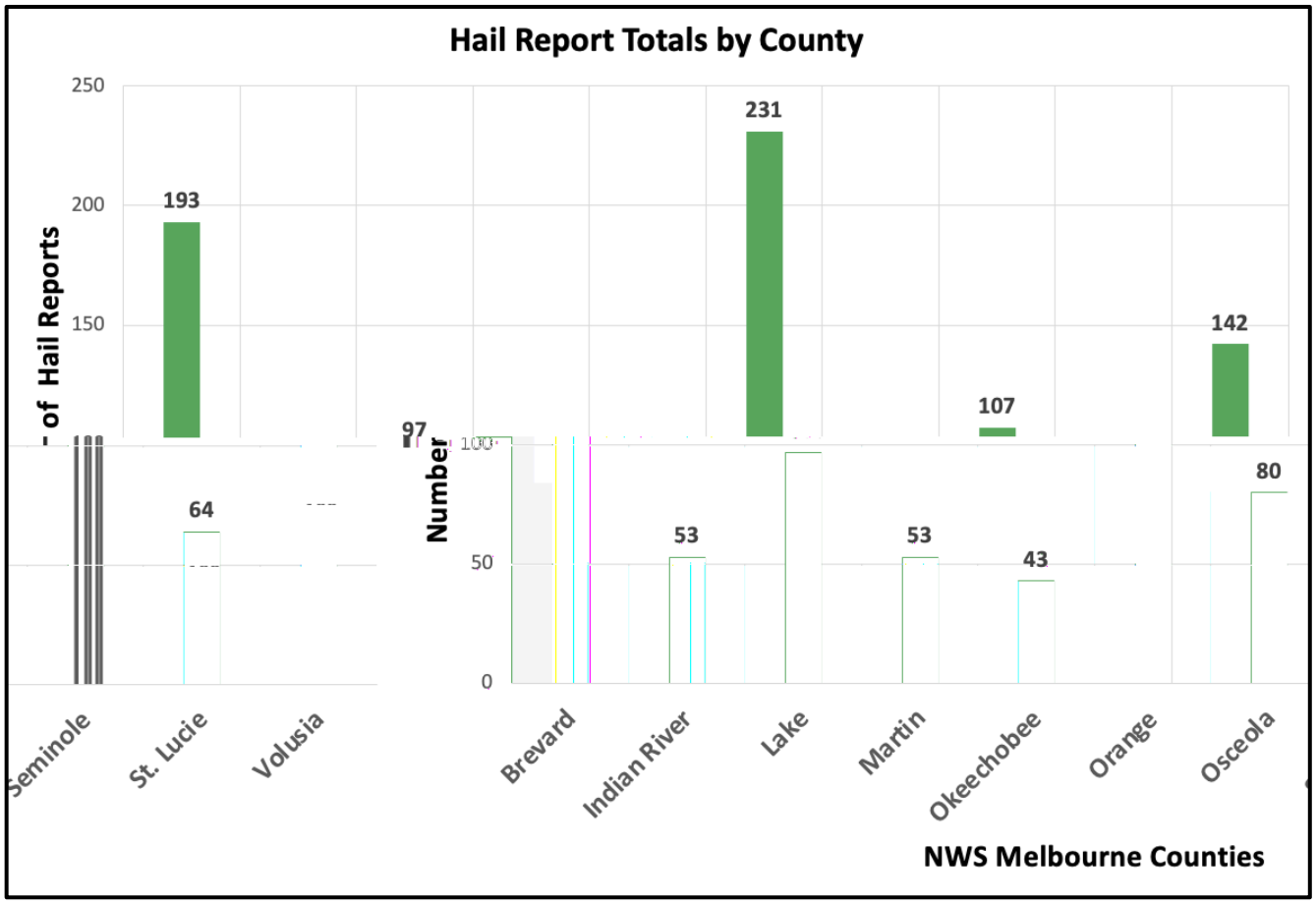

Tornado Totals by Month
Number of Tornadoes
45
40
35
30
25
20
15
10
5
0
9
24
16
21
17
28
25
42
27
21
9
8
January
February
March
April
May
June
July
August
September
October
November
December
Month

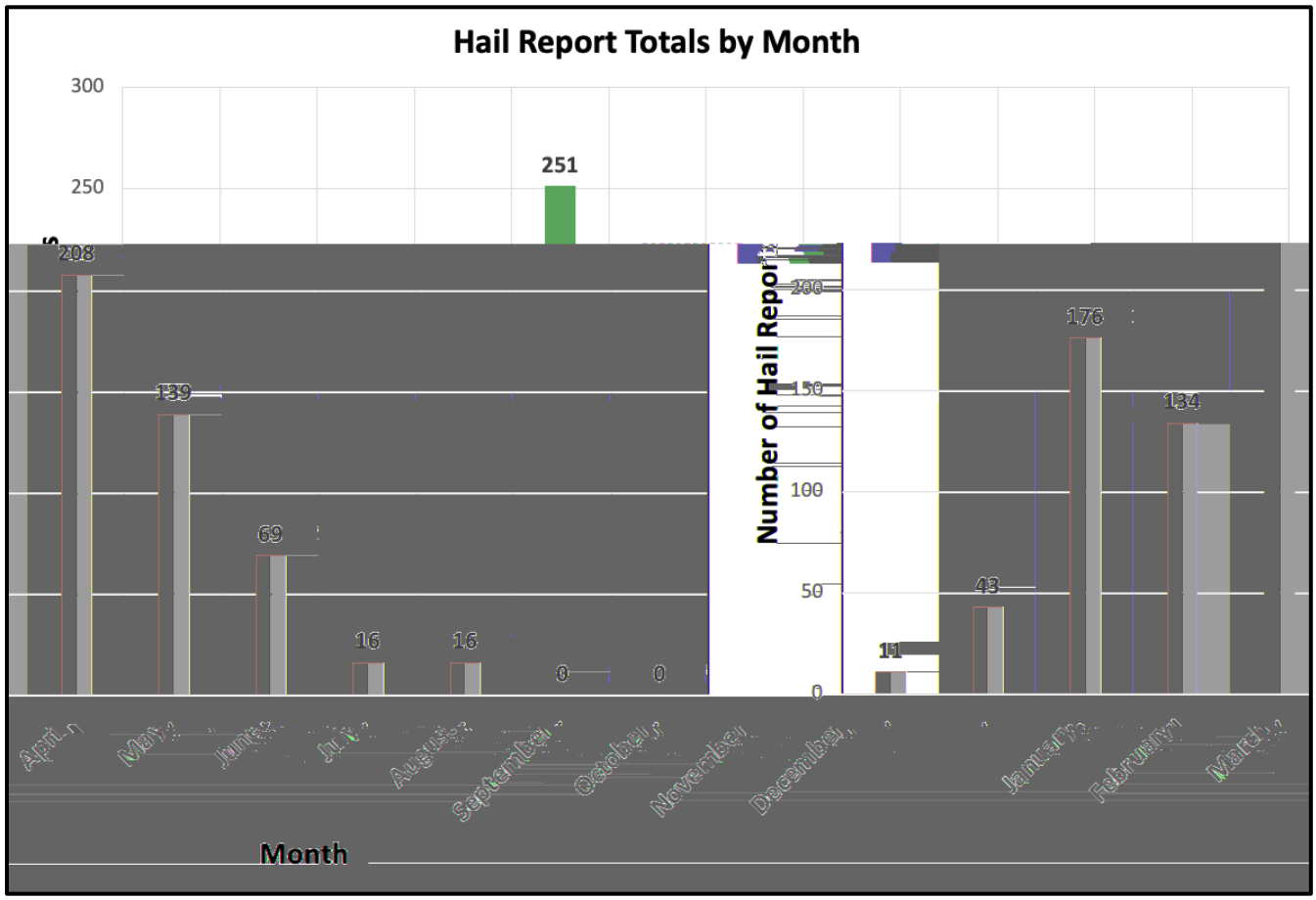

Tornado Totals by Decade
95
90
91
85
80
76
75
70
2001-2010
2011-2020
1991-2000
Decade

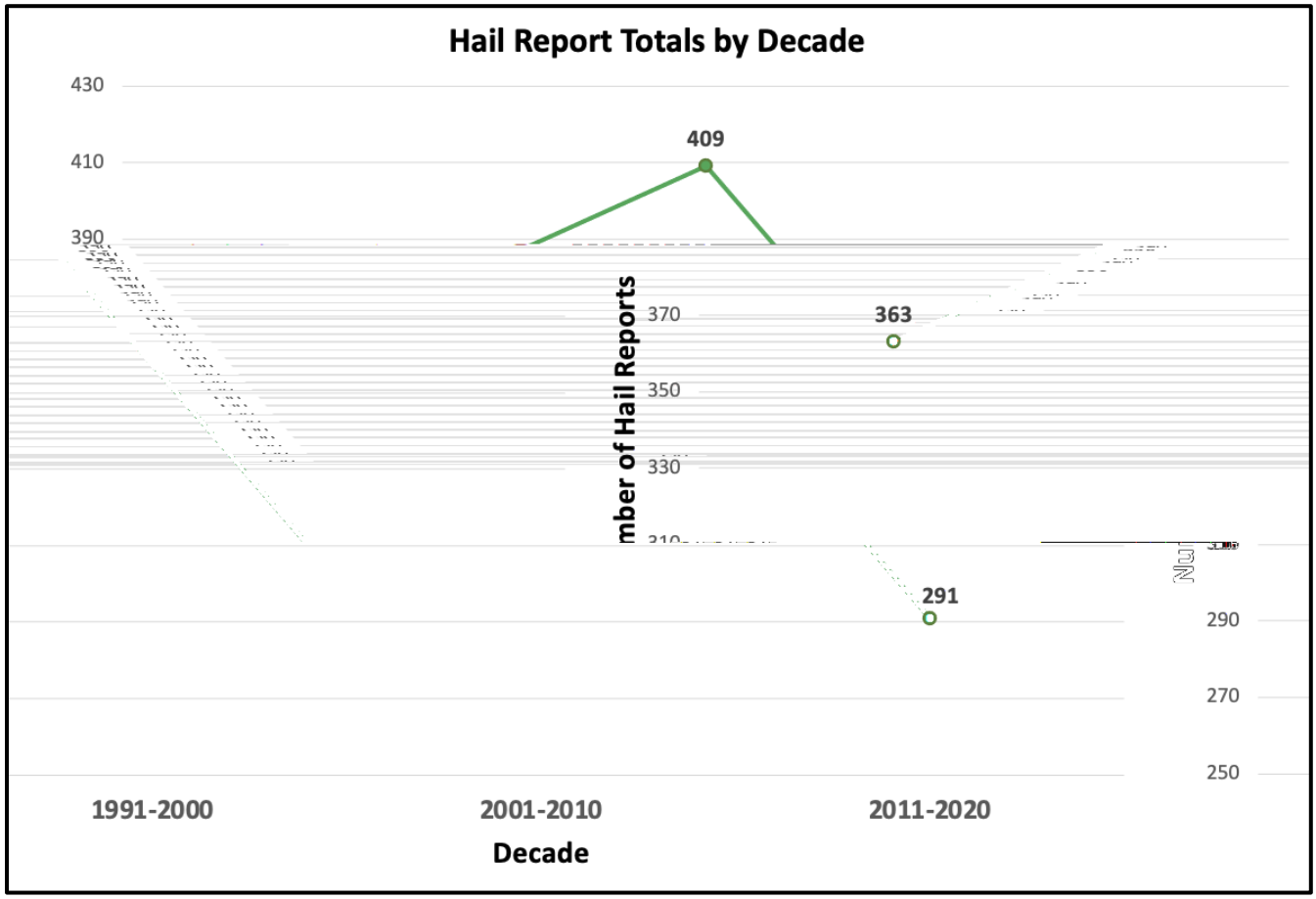

Tornado Totals by Scale
10
10
53
173
F0/EF0
F1/EF1
F2/EF2
F3/EF3

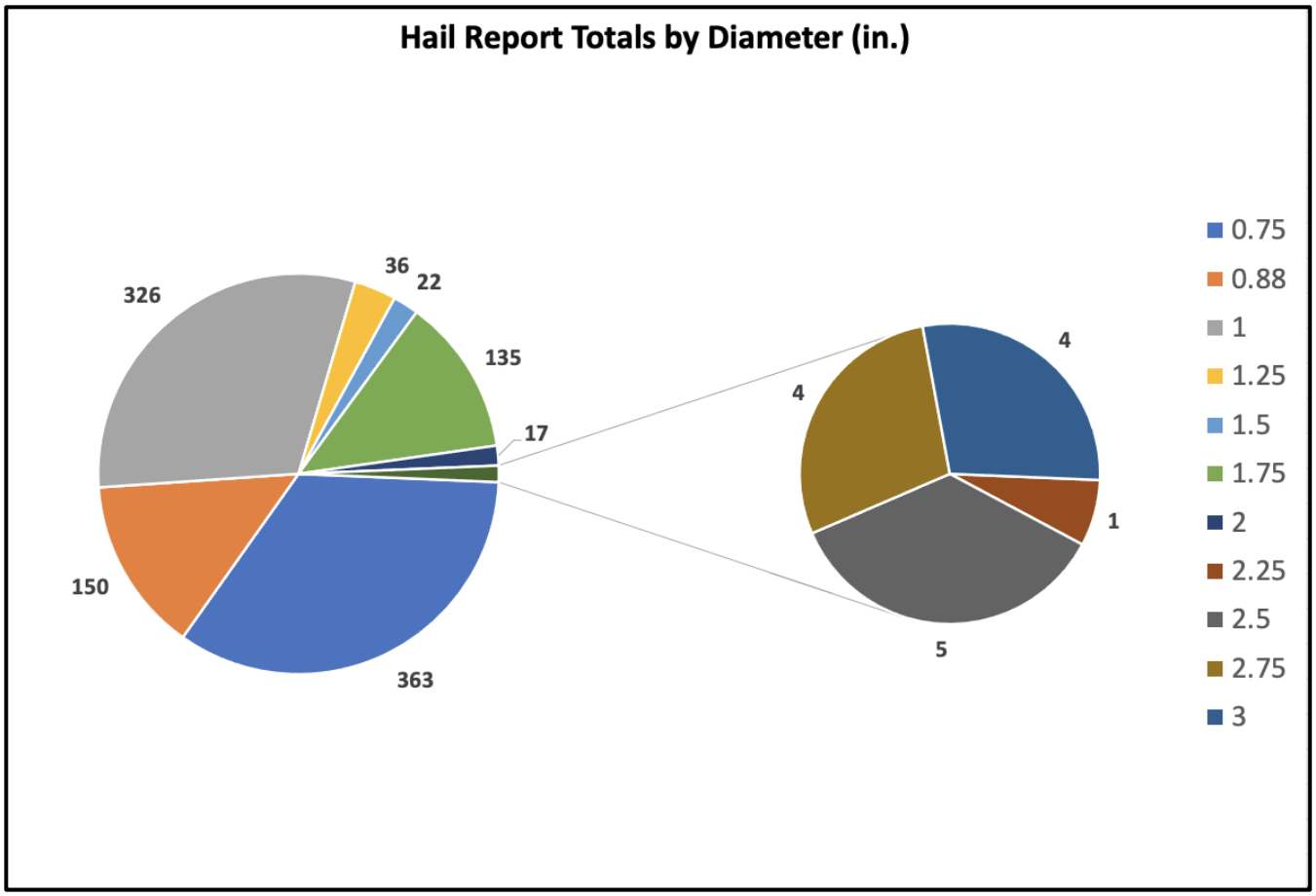
Hail Overview

The period of time from January 1st, 1991, to December 31st, 2020, had a total of 1,063 hail reports within the NWS Melbourne CWA. Orange County saw the greatest number of hail reports over this time period. The month of May saw the greatest number of hail reports, and the decade that had the greatest number of hail reports was the 2001-2010 period. The diameter of hail stone that was the most reported was 0.75 inches. There were 4 injuries associated with hail in the Melbourne area and no fatalities.




Hail Report Totals by Month
300
250
200
150
100
50
0
Number of Hail Reports
208
139
69
16
16
0
0
251
11
43
176
134
Month

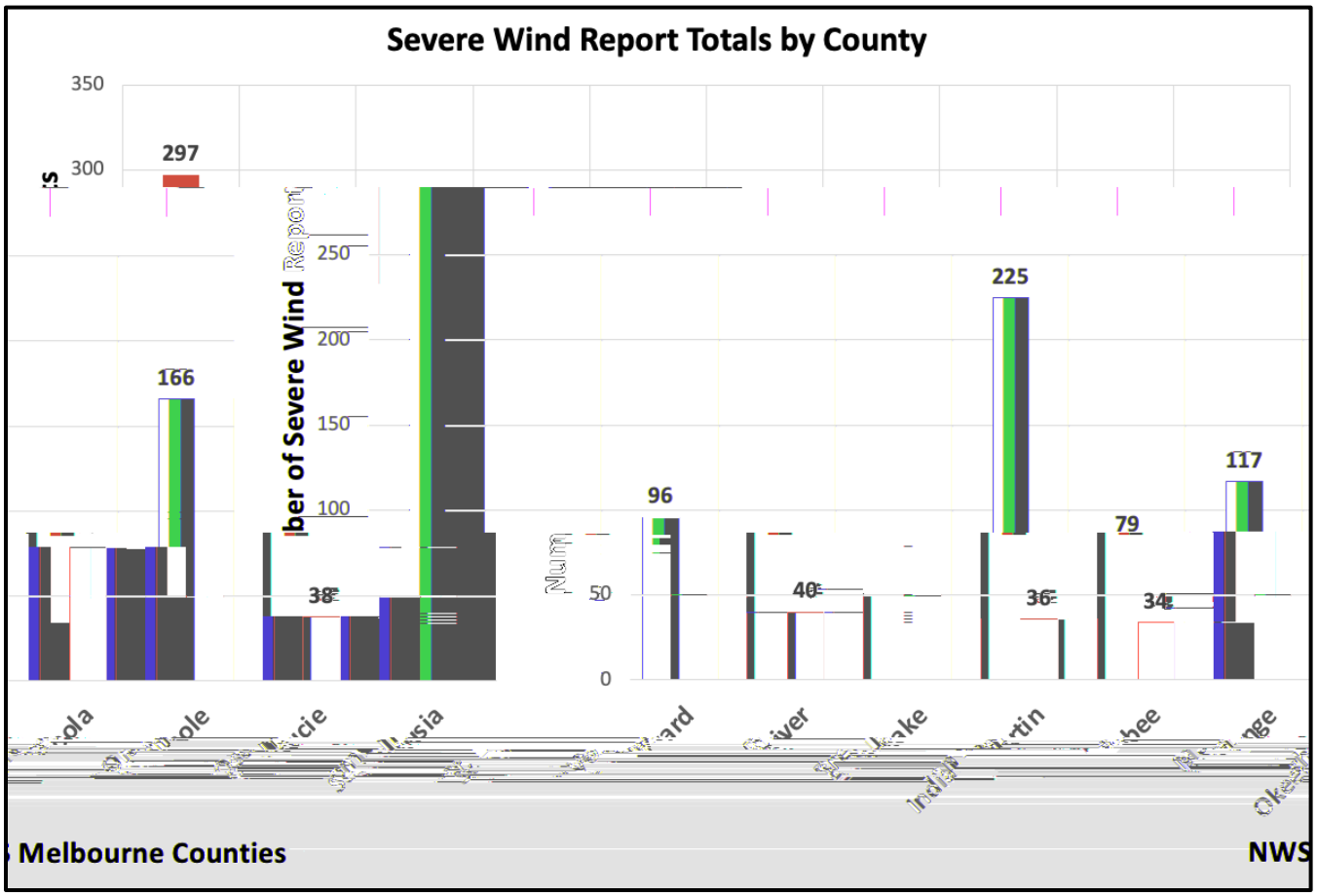

Hail Report Totals by Decade
430
410
390
370
350
330
310
290
270
250
409
363
291
1991-2000
2001-2010
2011-2020
Decade

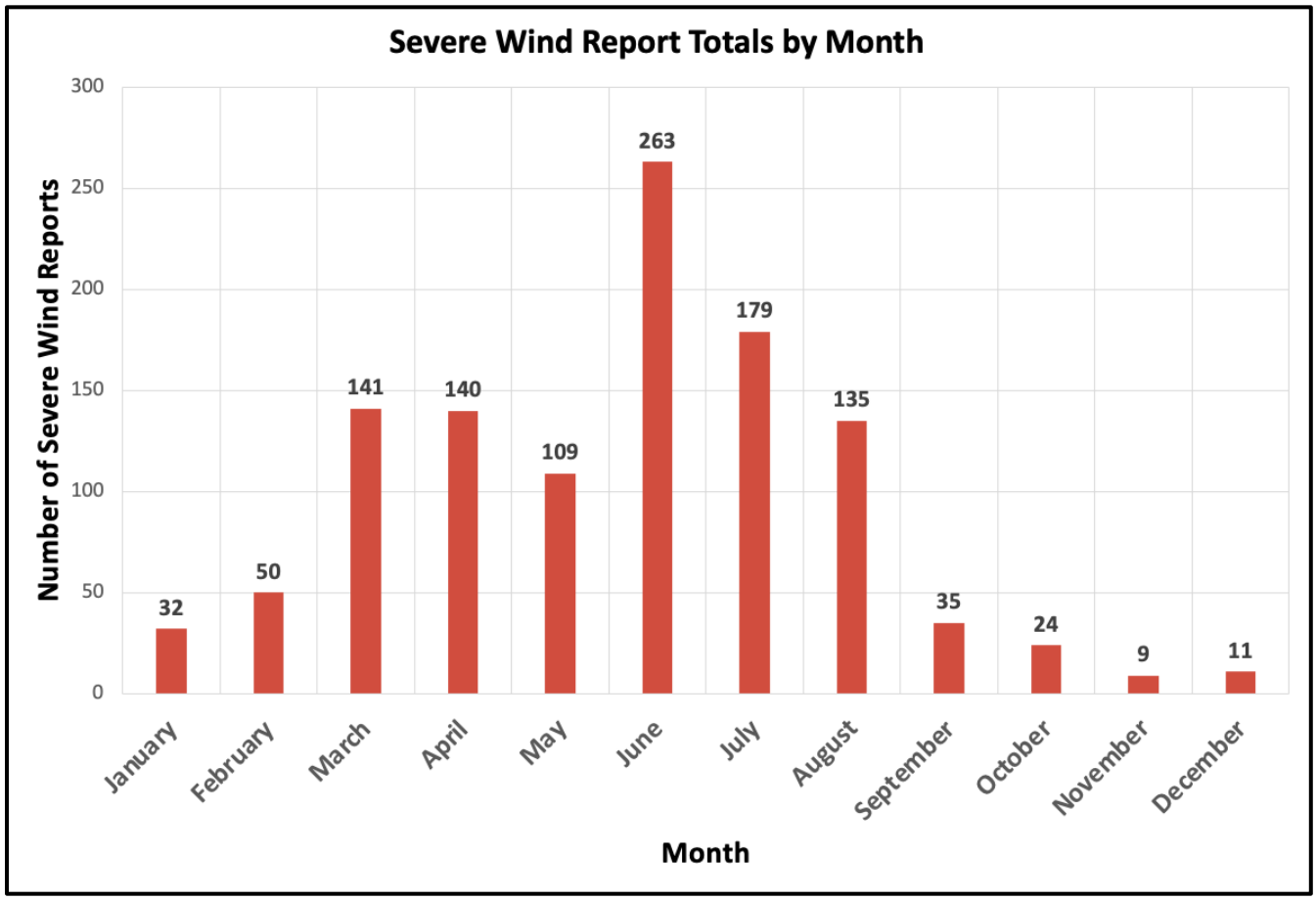


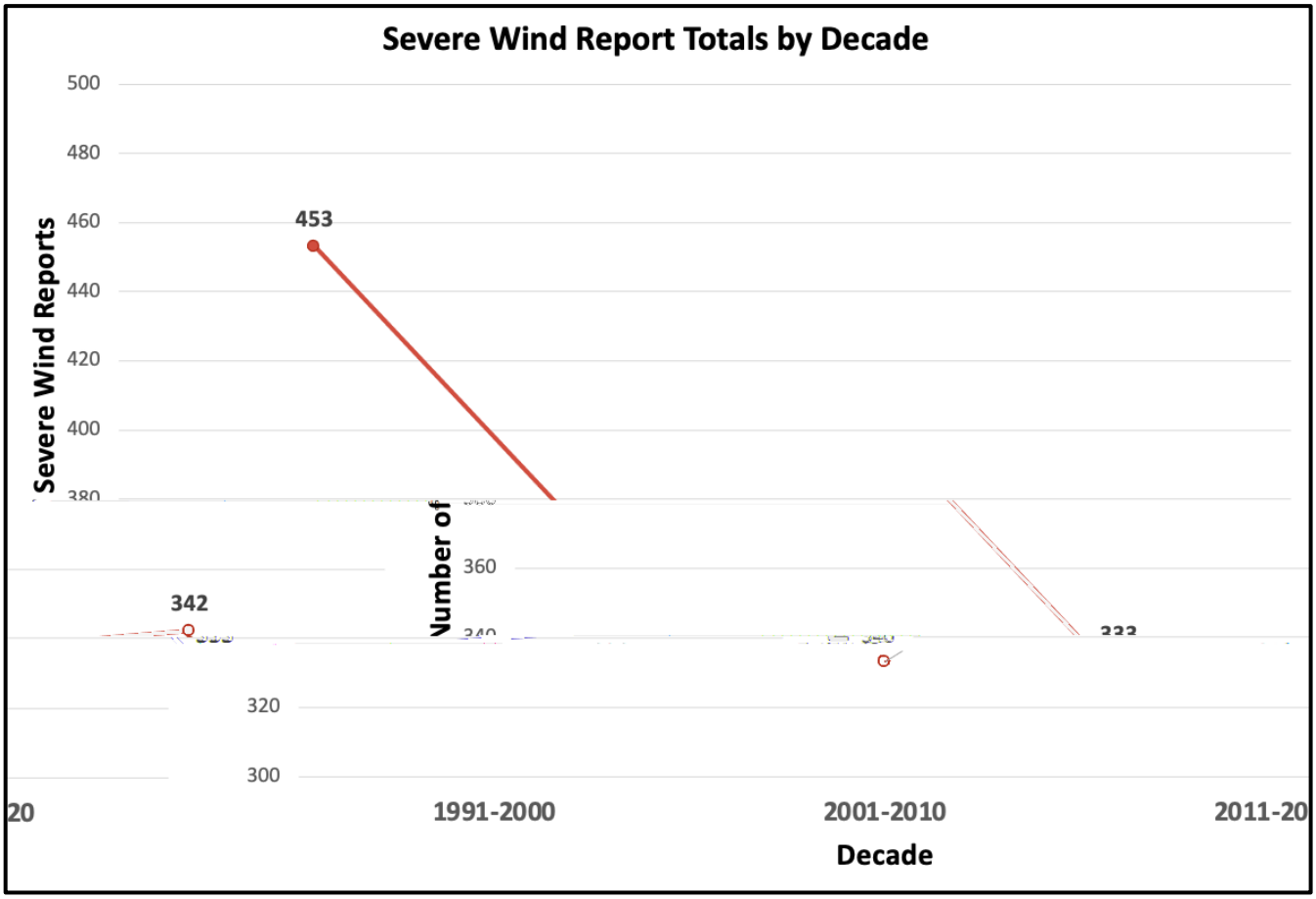
NOTE: The pie chart that it is to the left shows the 0.75 inches to 2 inches distribution of hail while the smaller pie chart to the right coming out of the dark green section shows the 2.25 inch to 3 inches distribution, as it was too small on a single pie chart.

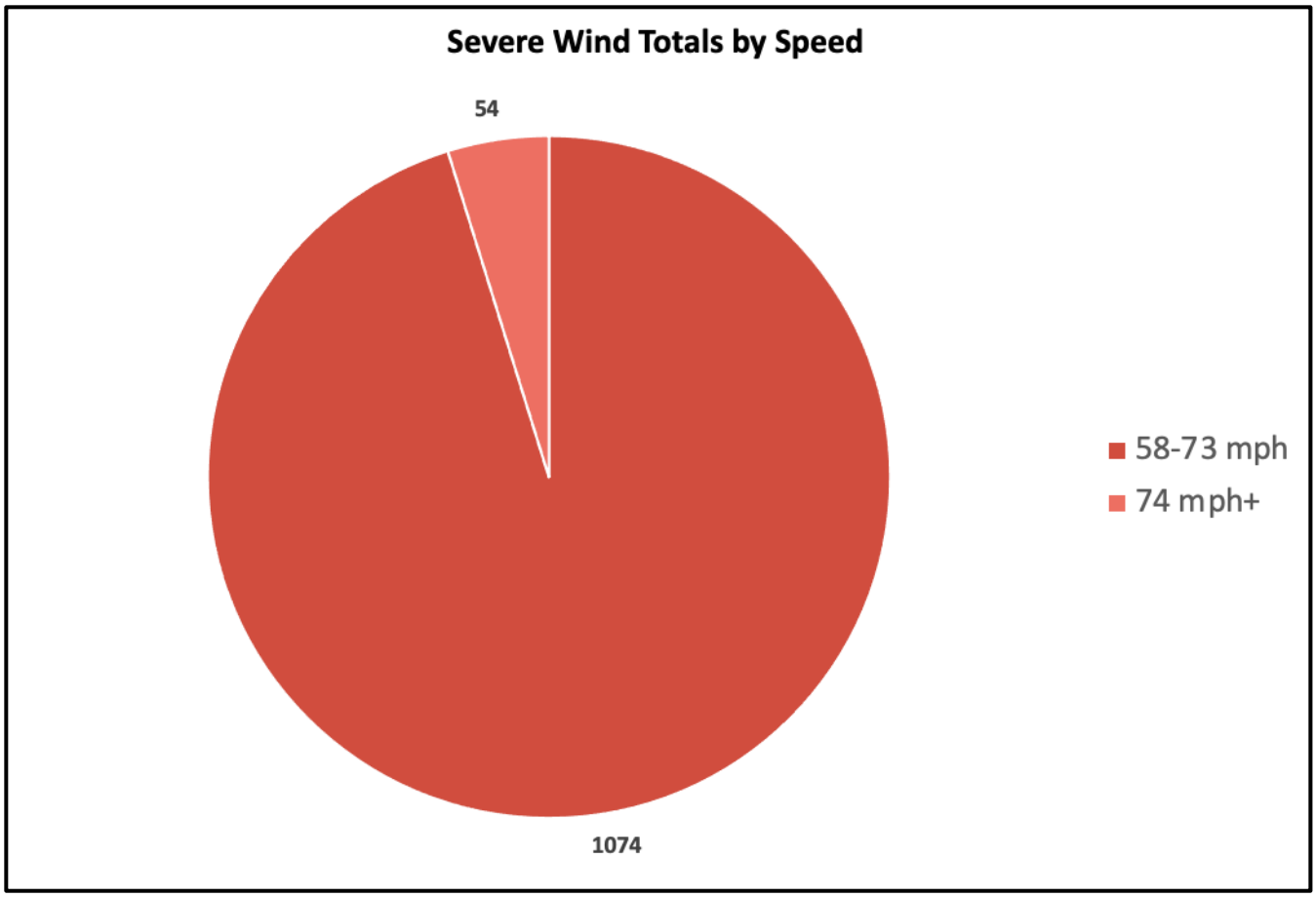
Severe Wind Overview

The period of time from January 1st, 1991, to December 31st, 2020, had a total of 1,128 severe wind reports within the NWS Melbourne CWA. Brevard County saw the greatest number of severe wind reports over this time period. The month of June saw the greatest number of reports, and the decade that had the greatest number of severe wind reports was the 1991-2000 period. Out of the 1,128 severe wind reports, 54 reports had gusts of 74 miles per hour (65 knots) or greater. As for injuries and deaths associated with severe wind gusts, there were a total of 54 injuries attributed to severe wind within the NWS Melbourne area, and 2 fatalities.




Severe Wind Report Totals by Month
Number of Severe Wind Reports
300
250
200
150
100
50
0
32
50
141
140
109
263
179
135
35
24
9
11
January
February
March
April
May
June
July
August
September
October
November
December
Month

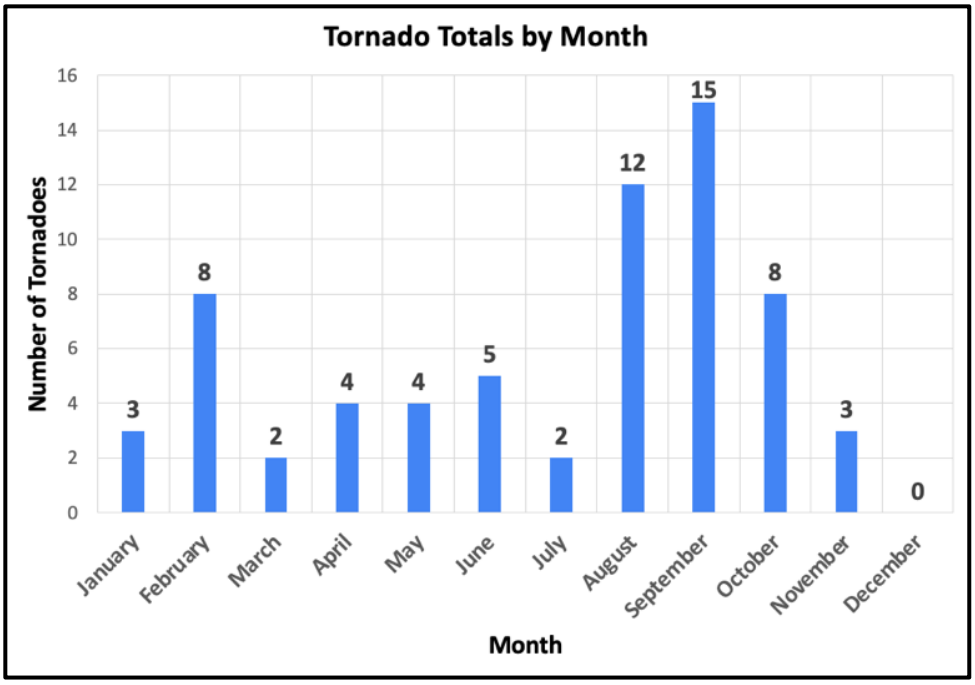

Severe Wind Report Totals by Decade
Severe Wind Reports
500
480
460
440
420
400
380
360
340
320
300
453
342
333
20
1991-2000
2001-2010
2011-20
Decade


Severe Wind Totals by Speed
54
1074
58-73 mph
74 mph+

Part 2: NWS Melbourne County Climatology

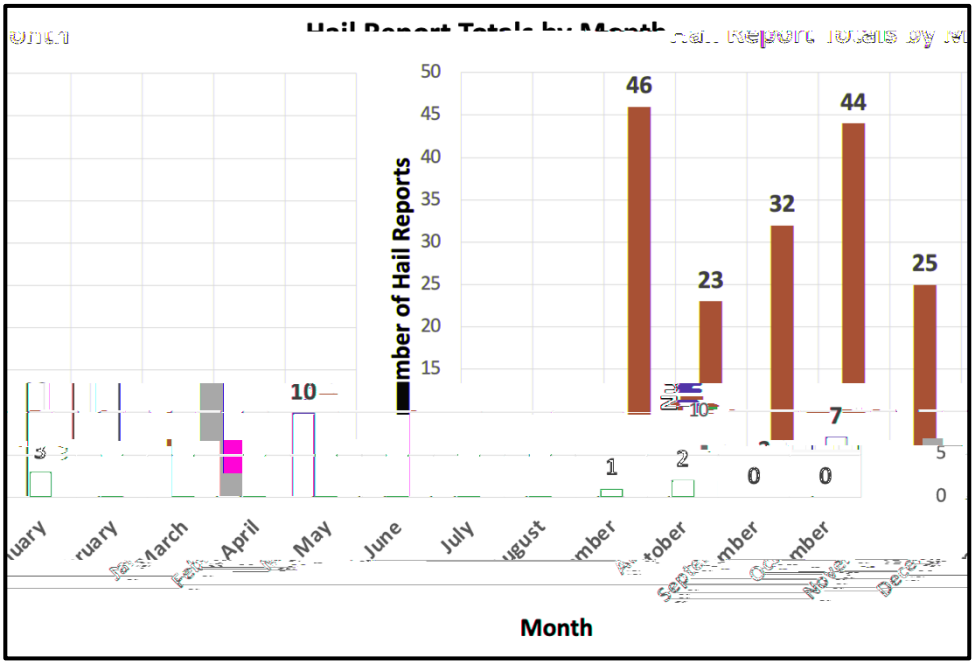
Brevard: Overview

Tornado Overview



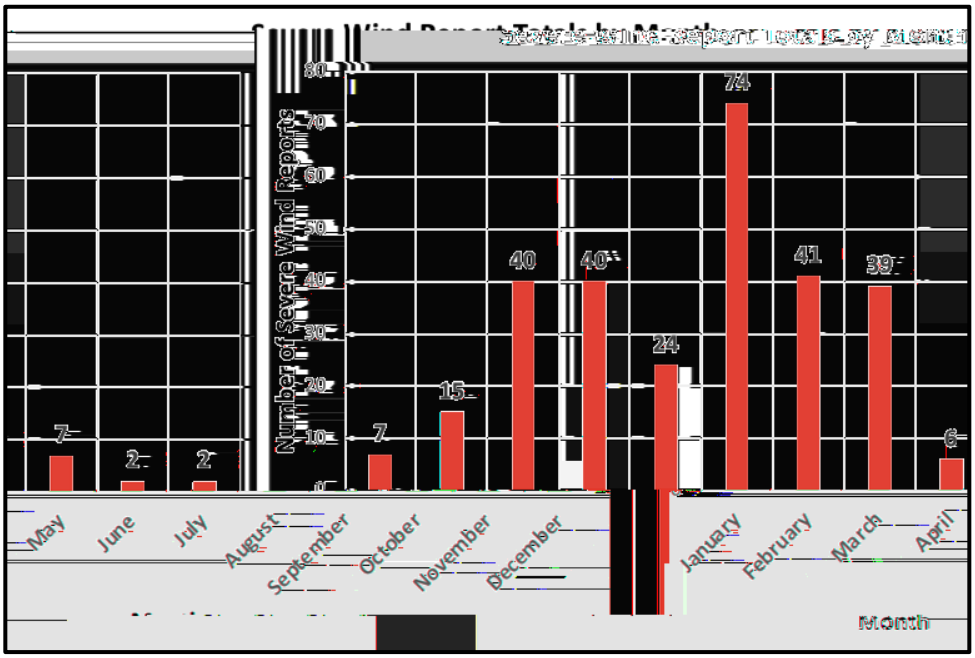
Brevard County experienced a total of 66 tornadoes from 1991 to 2020. There were 40 F0/EF0 tornadoes, 22 F1/EF1 tornadoes, and 3 F2/EF2 tornadoes during this period of time. One tornado had an unknown scale. Between 1991 and 2020, September was the month with the greatest number of tornado occurrences (15 tornadoes).

Hail Overview



Brevard County had a total of 193 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 2.5 inches in diameter. Between 1991 and 2020, March was the month with the greatest number of hail reports (46 hail reports).

Severe Wind Overview



Brevard County had a total of 297 severe wind reports from 1991 to 2020. 20 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 277 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (74 severe wind reports)

Brevard: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	November 15, 1994	Barefoot Bay	F2	1	40
2	October 24, 2005	Melbourne Beach	F2	0	0
3	September 10, 2017	Mims	EF2	0	0
4	March 30, 1996	Merritt Island	F1	0	18
5	August 19, 2008	Micco	EF1	0	2

Hail

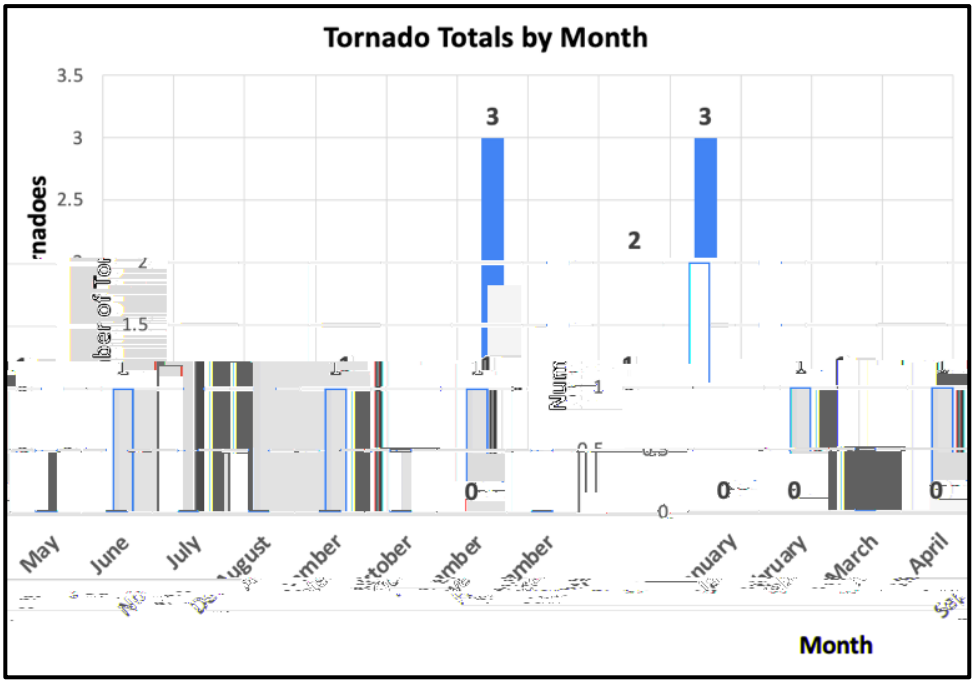
Rank	Date	Location	Diameter (inches)
1	March 17, 2003	Melbourne Beach	2.50
2	March 27, 2019	Indialantic	2.00
3	March 30, 2011	June Park	2.00
4	February 26, 2007	Cape Kennedy Regional	2.00
5	April 25, 2003	Palm Bay	2.00

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	June 10, 2015	Cape Canaveral	84	97
2	October 21, 2002	Merritt Island	80	92
3	July 23, 2003	Patrick Air Force Base	77	89
4	March 30, 2011	Shiloh	74	85
5	July 30, 2006	Rockledge	73	84

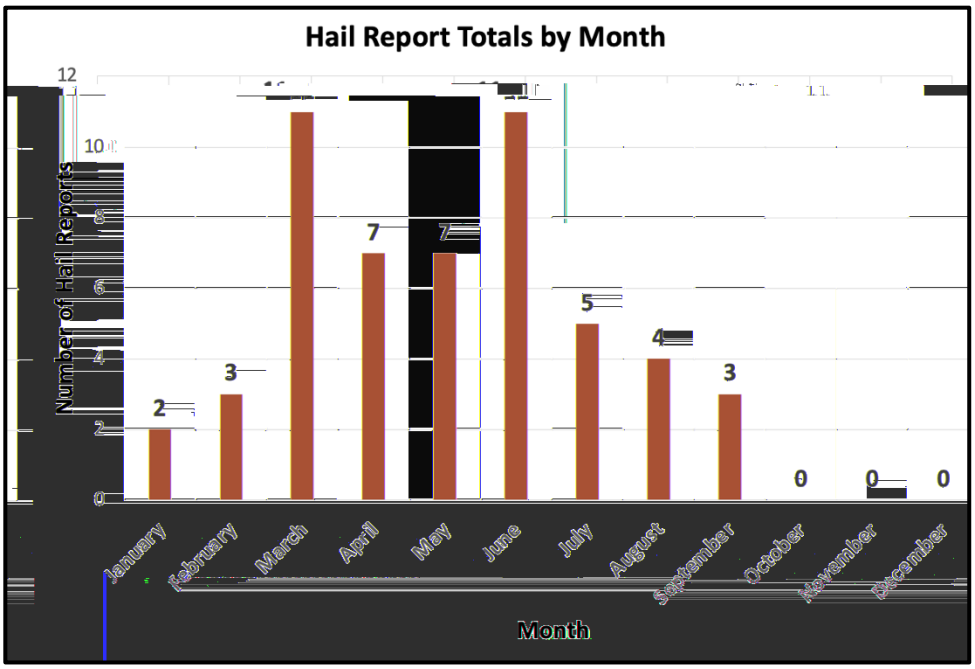
Indian River: Overview

Tornado Overview



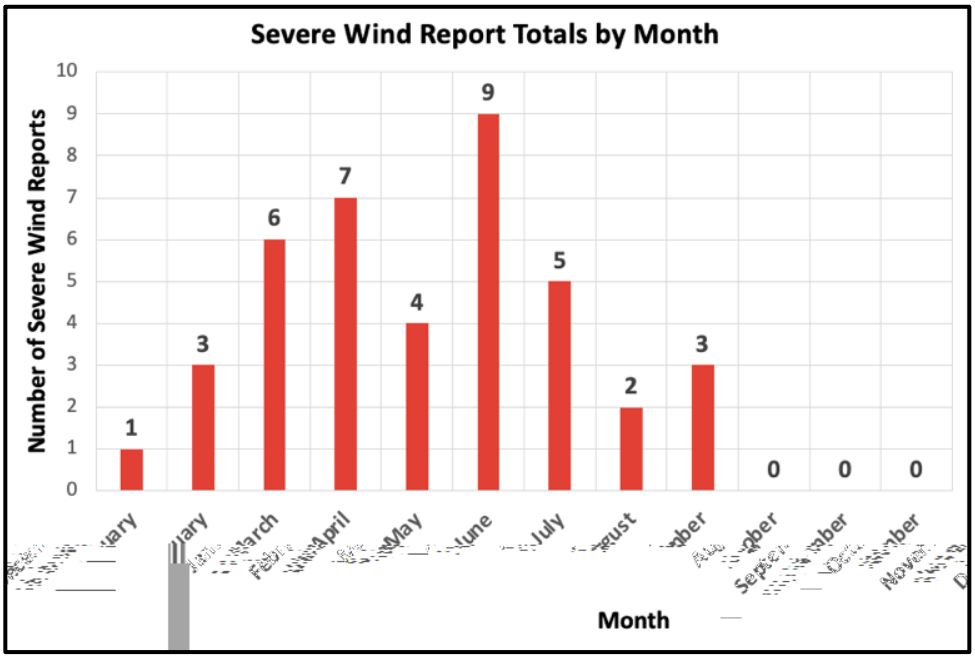
Indian River County experienced a total of 13 tornadoes from 1991 to 2020. There were 8 F0/EF0 tornadoes and 5 F1/EF1 tornadoes during this period of time. Between 1991 and 2020, September and June were the months with the greatest number of tornado occurrences (3 tornadoes each).

Hail Overview



Indian River County had a total of 53 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 3 inches in diameter. Between 1991 and 2020, March and June were the months with the greatest number of hail reports (11 hail reports each).

Severe Wind Overview



Indian River County had a total of 40 severe wind reports from 1991 to 2020. 3 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 37 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (9 severe wind reports)

Indian River: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	December 13, 2002	Wabasso	F1	0	1
2	May 17, 2016	Oslo	EF1	0	0
3	September 25, 2004	Vero Beach	F1	0	0
4	June 24, 2001	Sebastian	F1	0	0
5	September 25, 1998	Sebastian	F1	0	0

Hail

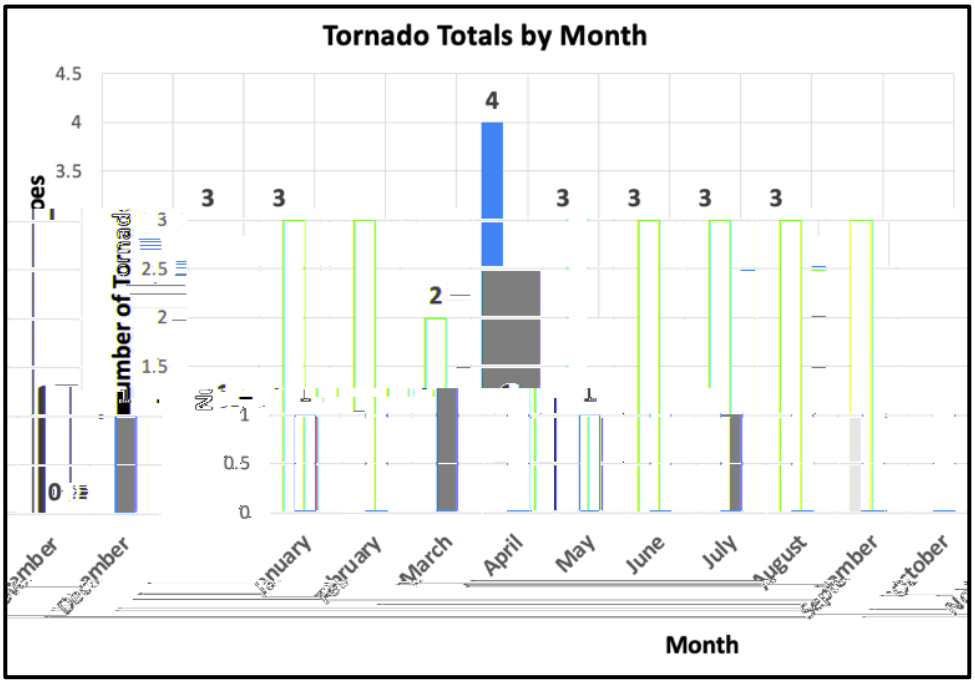
Rank	Date	Location	Diameter (inches)
1	February 13, 1995	Vero Beach	3.00
2	May 9, 1999	Sebastian	1.75
3	March 31, 1996	Wabasso	1.75
4	March 18, 1995	Vero Beach	1.75
5	September 19, 1994	Vero Beach	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	March 23, 2017	Vero Beach Air Park	87	100
2	March 13, 1993	Vero Beach	72	83
3	August 3, 2002	Sebastian	70	81
4	May 6, 2007	Blue Cypress Lake	63	72
5	June 1, 2014	Indian River Shores	57	66

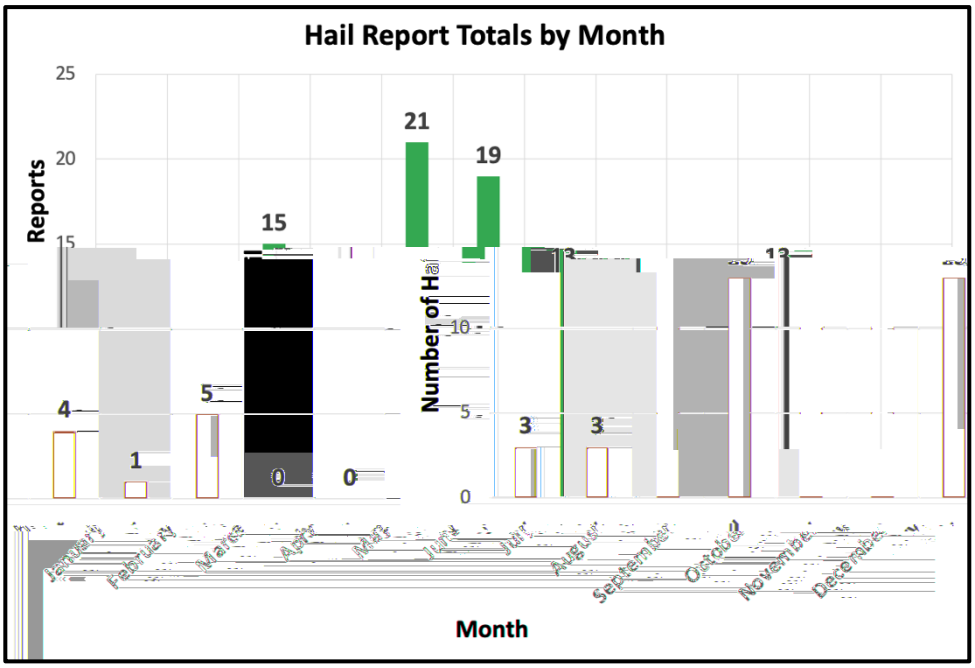
Lake: Overview

Tornado Overview



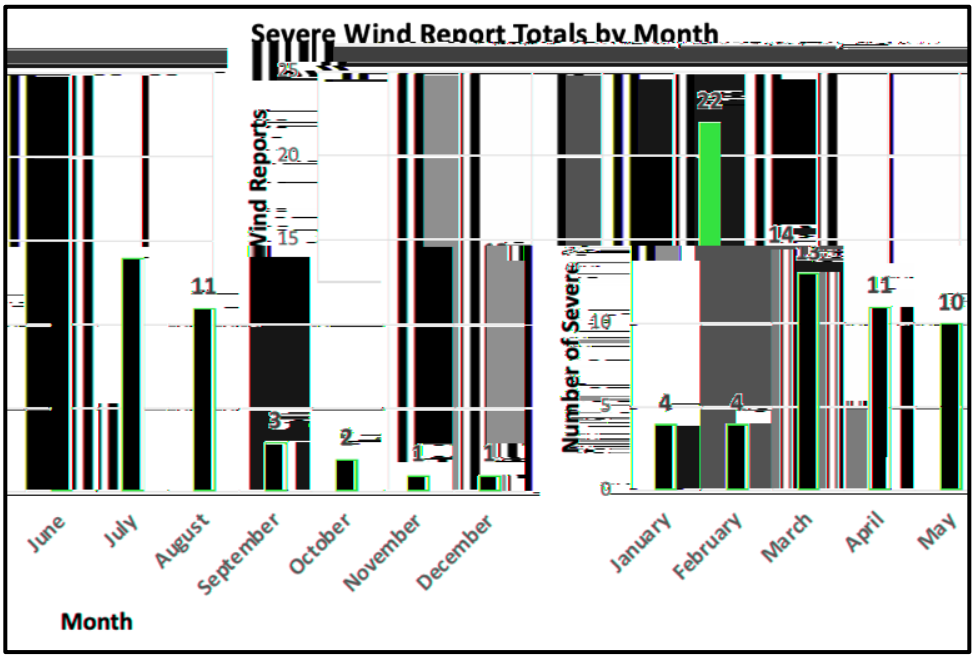
Lake County experienced a total of 27 tornadoes from 1991 to 2020. There were 20 F0/EF0 tornadoes, 3 F1/EF1 tornadoes, 1 F2/EF2 tornado, and 3 F3/EF3 tornadoes during this period of time. Between 1991 and 2020, June was the month with the greatest number of tornado occurrences (4 tornadoes).

Hail Overview



Lake County had a total of 97 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 2 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (21 hail reports).

Severe Wind Overview



Lake County had a total of 96 severe wind reports from 1991 to 2020. 34 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 92 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (22 severe wind reports).

Lake: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	February 2, 2007	Turpentine	EF3	13	9
2	February 2, 2007	Lady Lake	EF3	8	10
3	February 22, 1998	Clermont	F3	0	0
4	March 13, 1993	Mount Dora	F2	1	60
5	September 10, 2017	Turpentine	EF1	0	0

Hail

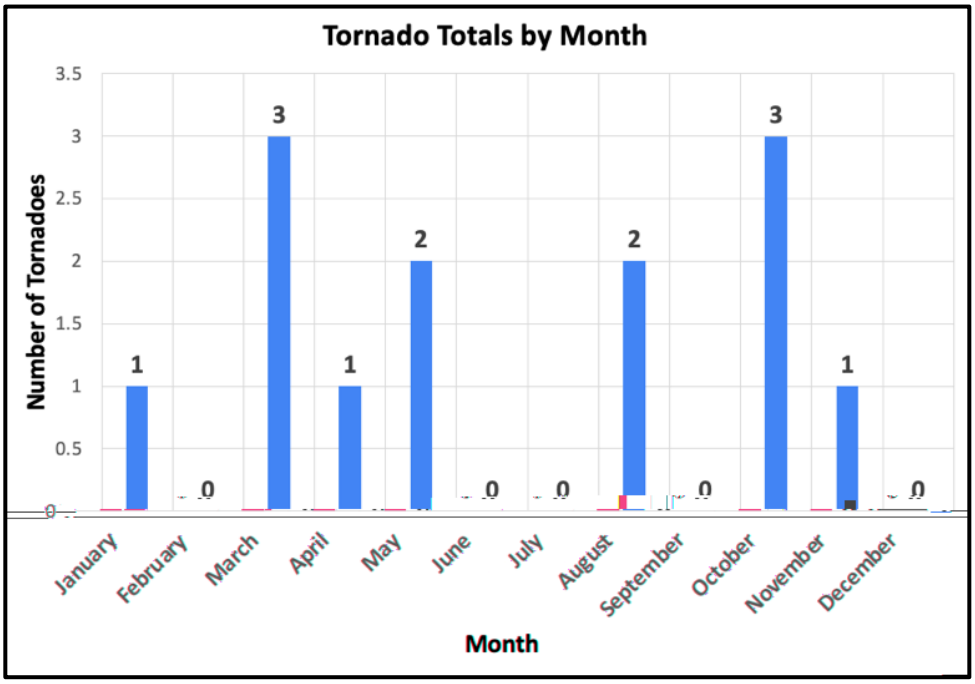
Rank	Date	Location	Diameter (inches)
1	June 29, 1998	Tavares	2.00
2	April 20, 2012	Astor Park	1.75
3	October 9, 2008	Lake Yale	1.75
4	June 14, 2001	Umatilla	1.75
5	July 9, 1999	Sorrento	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	January 24, 2019	Mascotte	83	95
2	March 24, 2013	Lake Louisa	70	81
3	March 24, 2013	Lake Louisa	65	75
4	July 21, 2017	Howey in the Hills	61	70
5	January 25, 2011	Mascotte	61	70

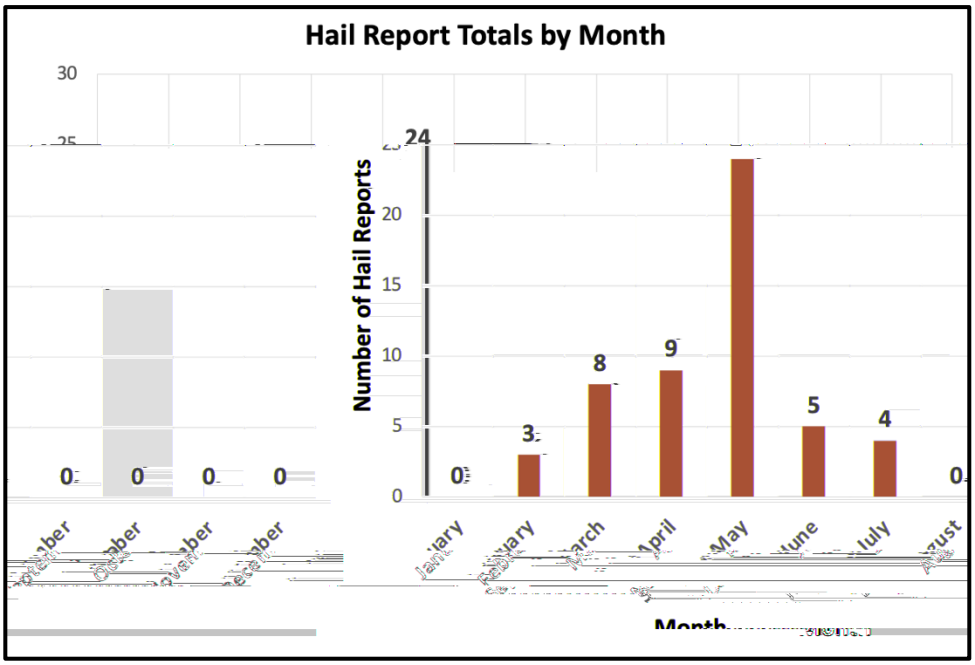
Martin: Overview

Tornado Overview



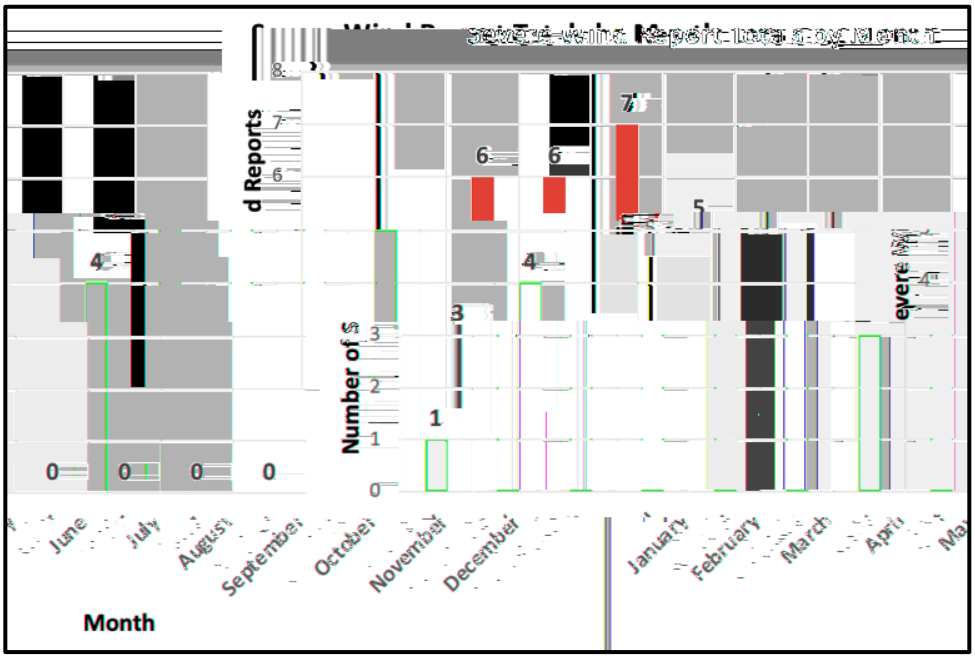
Martin County experienced a total of 13 tornadoes from 1991 to 2020. There were 12 F0/EF0 tornadoes and 1 F1/EF1 tornado during this period of time. Between 1991 and 2020, March and October were the months with the greatest number of tornado occurrences (3 tornadoes each).

Hail Overview



Martin County had a total of 53 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 1.75 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (24 hail reports).

Severe Wind Overview



Martin County had a total of 36 severe wind reports from 1991 to 2020. 2 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 34 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, May was the month with the greatest number of severe wind reports (7 severe wind reports).

Martin: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	January 17, 2016	Gomez	EF1	0	0
2	November 5, 2019	Waveland	EF0	0	0
3	May 27, 2018	Salerno	EF0	0	0
4	May 14, 2018	Marcy	EF0	0	0
5	October 29, 2011	Gomez	EF0	0	0

Hail

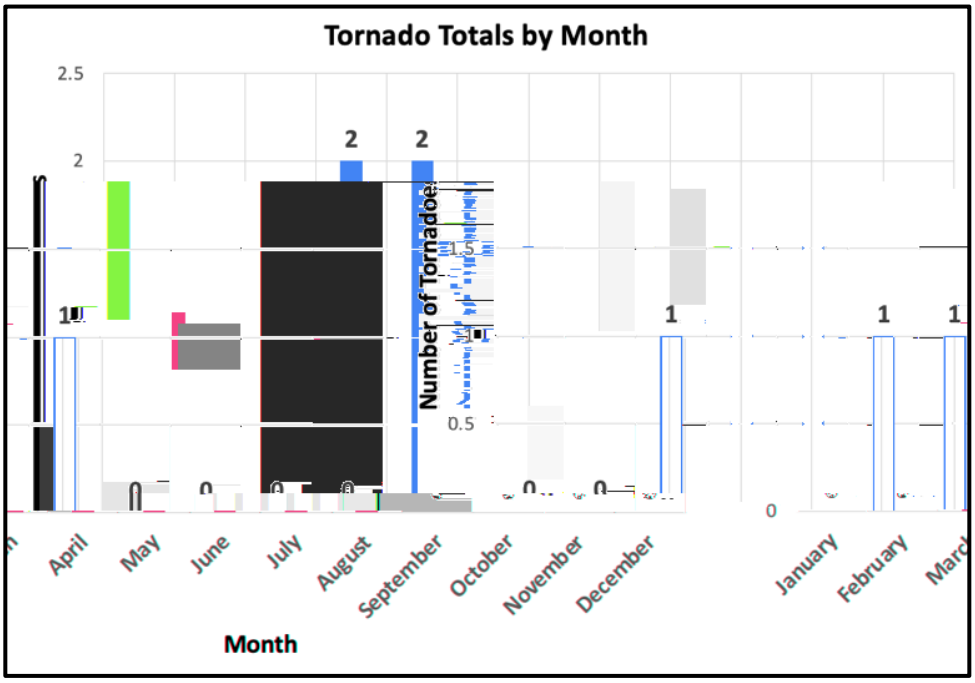
Rank	Date	Location	Diameter (inches)
1	April 24, 2018	Jupiter Island	1.75
2	April 27, 2015	Lighthouse Point	1.75
3	June 15, 2011	Marcy	1.75
4	June 22, 2008	Waveland	1.75
5	May 3, 2005	Hobe Sound	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	March 6, 2008	Martin County Airport	84	97
2	January 9, 2014	Hobe Sound	70	81
3	April 20, 2020	Palm City	57	66
4	May 13, 2019	Jupiter Island	56	64
5	August 9, 2018	Port Mayaca	56	64

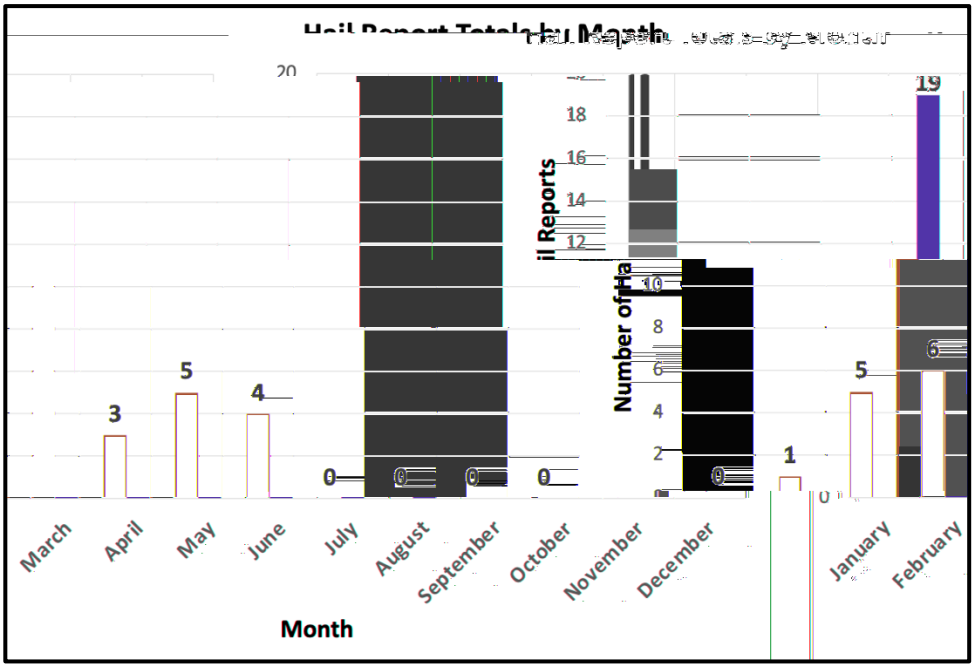
Okeechobee: Overview

Tornado Overview



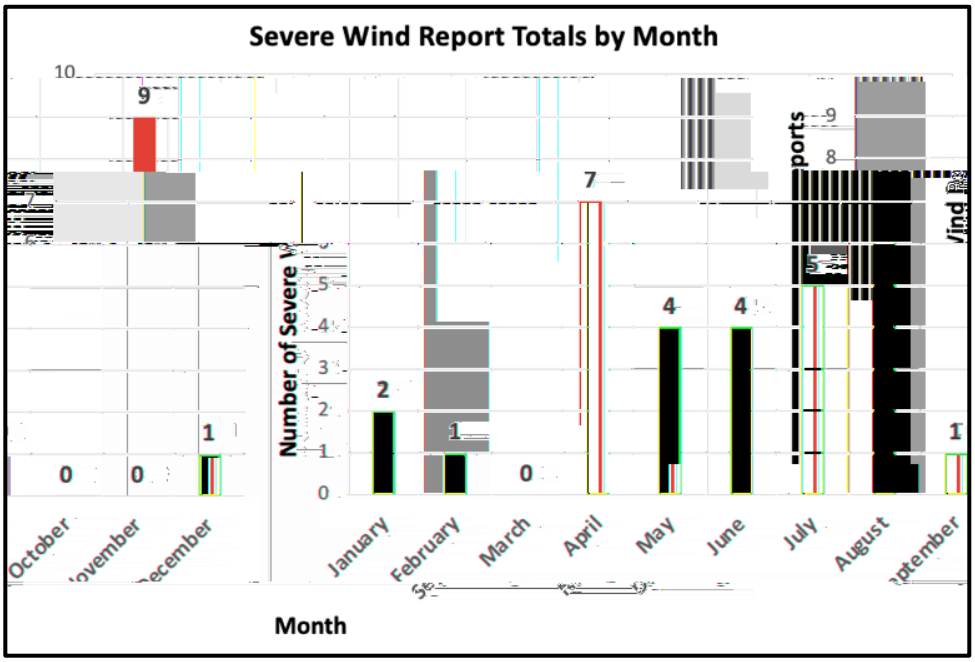
Okeechobee County experienced a total of 8 tornadoes from 1991 to 2020. There were 6 F0/EF0 tornadoes, 1 F1/EF1 tornado, and 1 F2/EF2 tornado during this period of time. Between 1991 and 2020, April and May were the months with the greatest number of tornado occurrences (2 tornadoes each).

Hail Overview



Okeechobee County had a total of 43 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 2.5 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (19 hail reports).

Severe Wind Overview



Okeechobee County had a total of 34 severe wind reports from 1991 to 2020. 3 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 31 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, April was the month with the greatest number of severe wind reports (9 severe wind reports).

Okeechobee: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	April 6, 2017	Fort Drum	EF2	0	0
2	March 9, 1998	Lake Okeechobee	F1	0	10
3	May 12, 1996	Lake Okeechobee	F0	1	0
4	July 12, 2014	Sherman	EF0	0	0
5	June 1, 2012	North Okeechobee	EF0	0	0

Hail

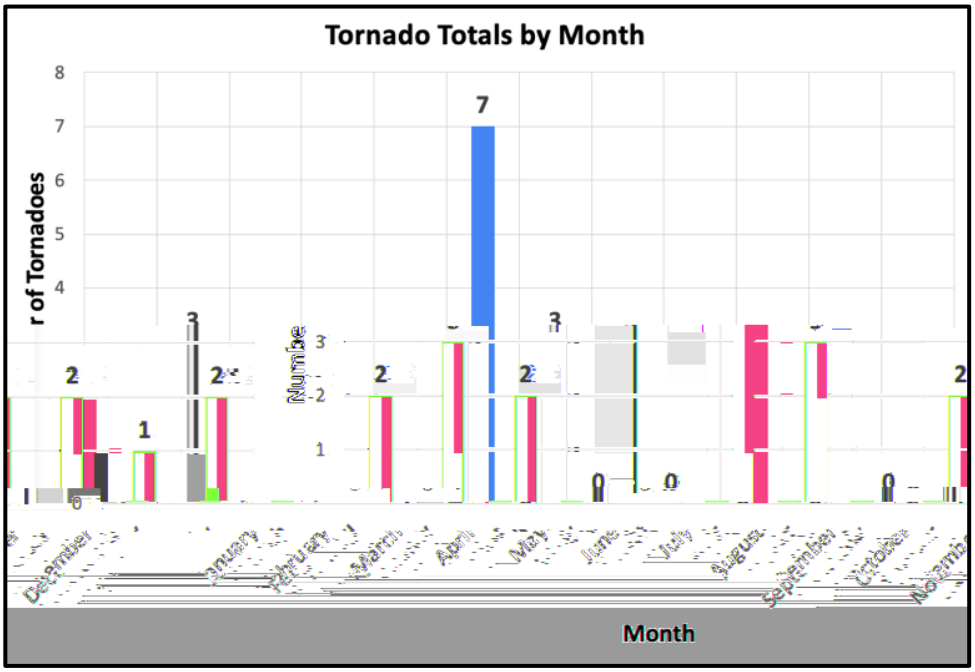
Rank	Date	Location	Diameter (inches)
1	April 28, 2011	Okeechobee	2.50
2	March 24, 2016	Hilolo	1.75
3	April 27, 2015	Sherman	1.75
4	April 28, 2011	Okeechobee	1.75
5	May 18, 2007	Okeechobee	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	April 3, 2002	Okeechobee	80	92
2	April 6, 2017	Basinger	70	81
3	June 27, 2003	Okeechobee	70	81
4	August 15, 1991	Okeechobee	61	70
5	August 1, 2003	Okeechobee	60	69

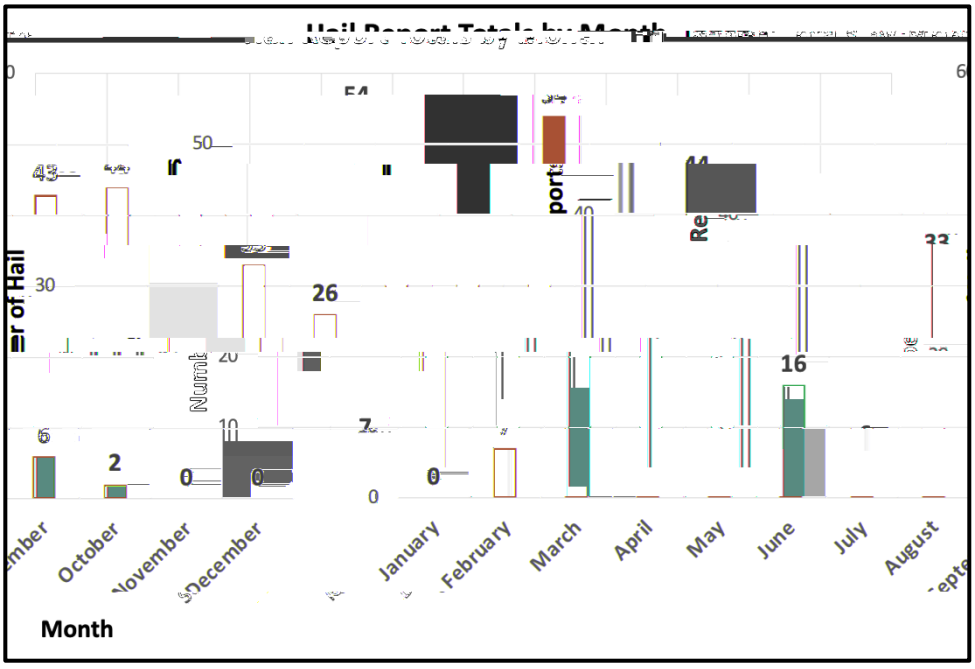
Orange: Overview

Tornado Overview



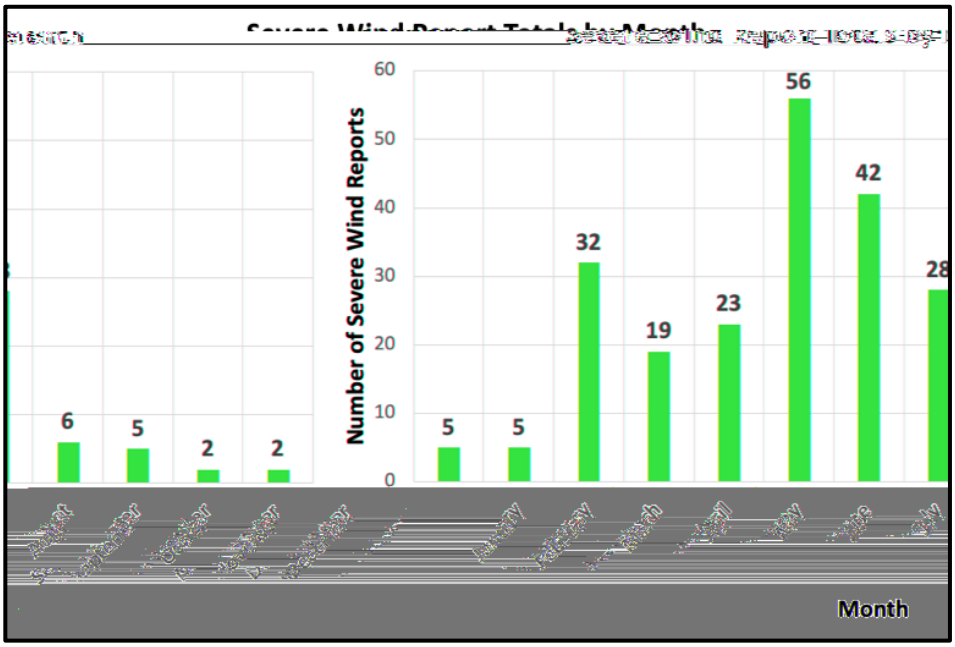
Orange County experienced a total of 24 tornadoes from 1991 to 2020. There were 17 F0/EF0 tornadoes, 5 F1/EF1 tornadoes, and 2 F3/EF3 tornadoes during this period of time. Between 1991 and 2020, June was the month with the greatest number of tornado occurrences (7 tornadoes).

Hail Overview



Orange County had a total of 231 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 3 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (54 hail reports).

Severe Wind Overview



Orange County had a total of 225 severe wind reports from 1991 to 2020. 8 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 217 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (56 severe wind reports).

Orange: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	February 2, 1998	Winter Garden	F3	3	70
2	February 3, 1998	Orlando International Airport	F3	0	5
3	February 25 1992	Lake Buena Vista	F1	0	11
4	June 6, 2020	Belle Isle	EF1	0	0
5	January 7, 1995	Orlando	F1	0	0

Hail

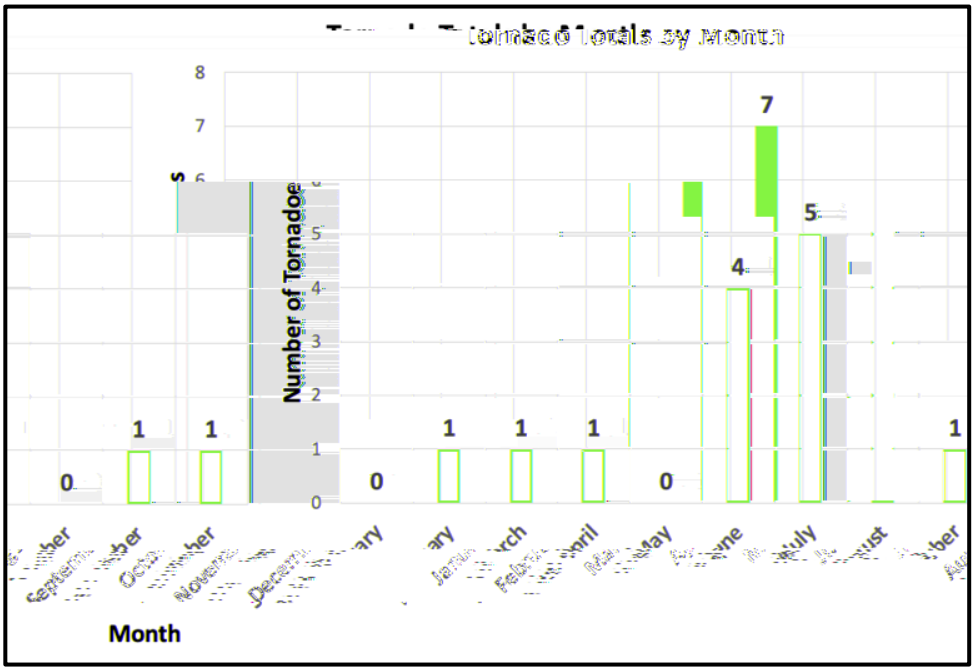
Rank	Date	Location	Diameter (inches)
1	March 25, 1992	Orlando	3.00
2	April 7, 2005	Orlando	2.75
3	March 25, 1992	Ocoee	2.75
4	March 25, 1992	Winter Garden	2.75
5	April 7, 2005	Bithlo	2.25

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	March 24, 2013	Doctor Phillips	75	86
2	March 24, 2013	Orlando International Airport	75	86
3	April 30, 2013	Lake Ola	70	81
4	October 15, 2004	Orlando	70	81
5	June 12, 2003	Oakland	70	81

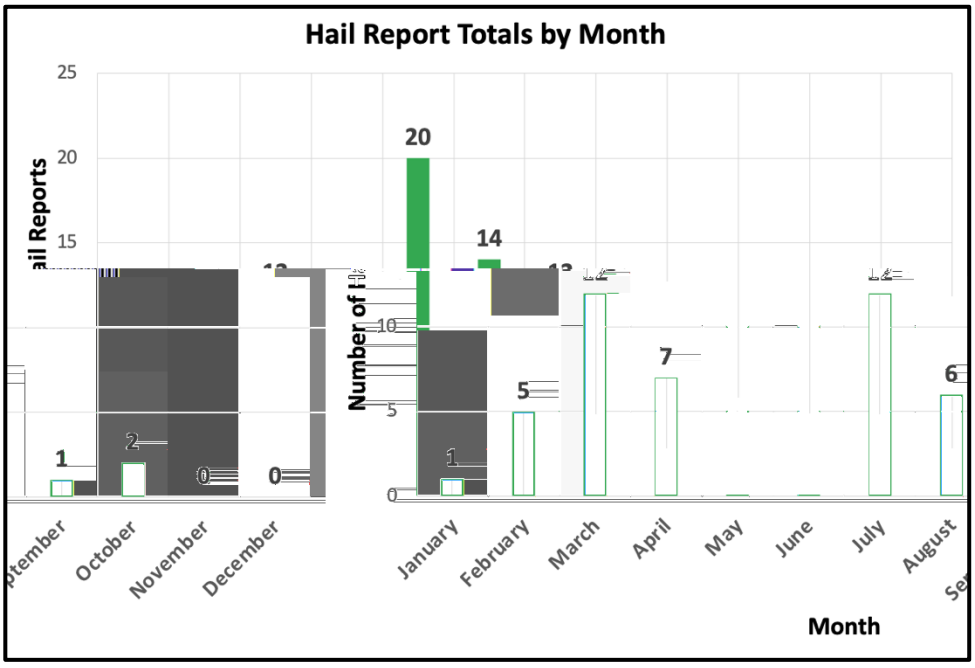
Osceola: Overview

Tornado Overview



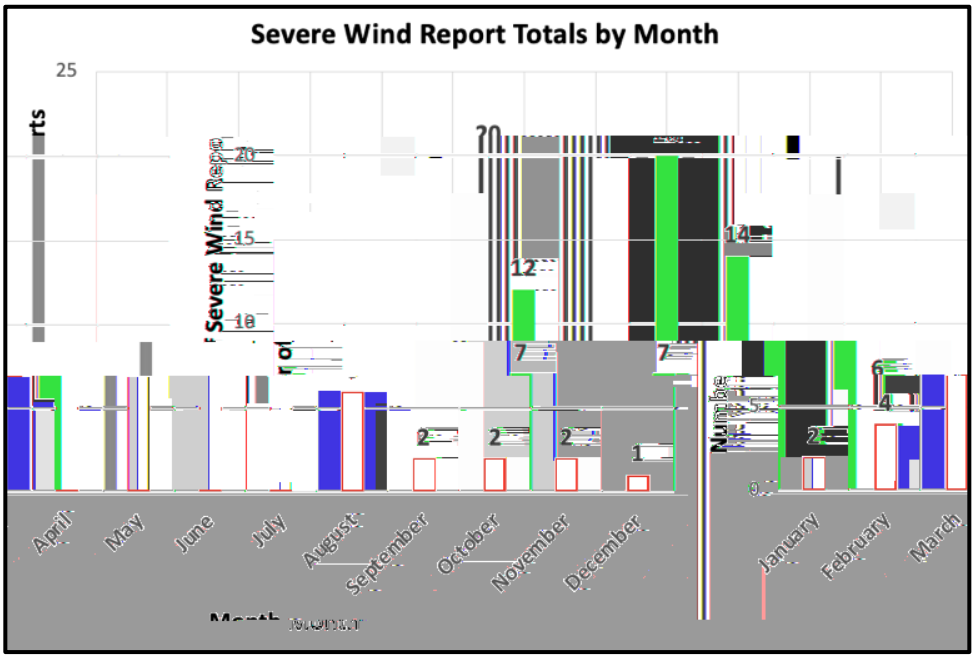
Osceola County experienced a total of 22 tornadoes from 1991 to 2020. There were 16 F0/EF0 tornadoes, 5 F1/EF1 tornadoes, and 1 F3/EF3 tornado during this period of time. Between 1991 and 2020, August was the month with the greatest number of tornado occurrences (7 tornadoes).

Hail Overview



Osceola County had a total of 80 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 2 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (20 hail reports).

Severe Wind Overview



Osceola County had a total of 79 severe wind reports from 1991 to 2020. 1 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 78 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (20 severe wind reports).

Osceola: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	February 23, 1998	Intercession City	F3	25	145
2	August 13, 2004	Narcoosee	F1	0	0
3	August 13, 2004	St. Cloud	F1	0	0
4	December 27, 1997	St. Cloud	F1	0	0
5	July 4, 1997	Kissimmee	F1	0	0

Hail

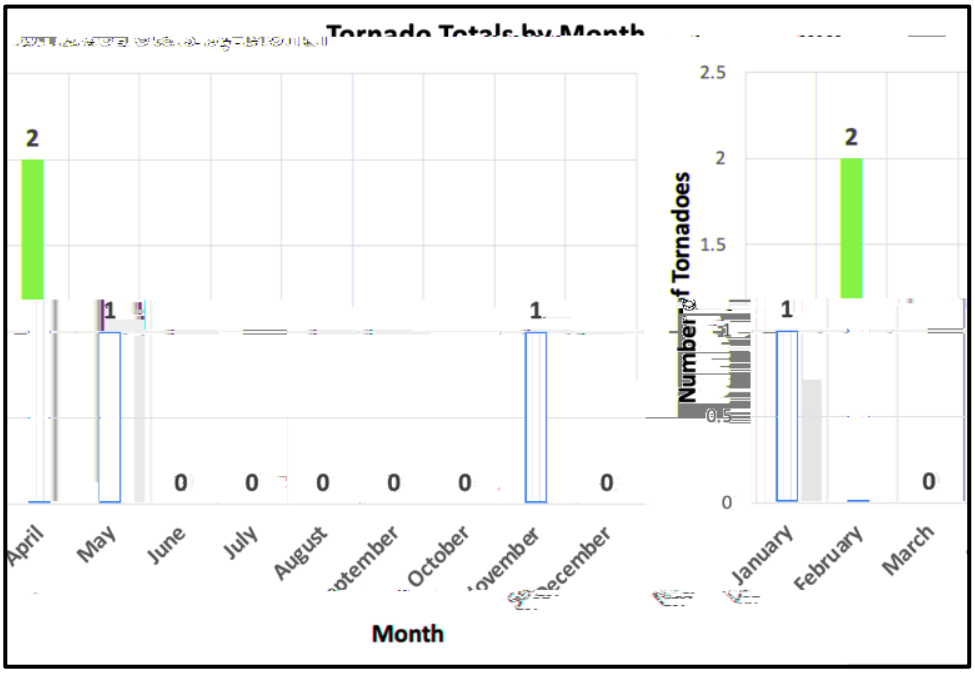
Rank	Date	Location	Diameter (inches)
1	May 6, 1999	Kissimmee	2.00
2	May 21, 2020	East Lake Tohopekaliga	1.75
3	June 2, 2008	Campbell	1.75
4	May 3, 2005	Kissimmee	1.75
5	March 29, 2001	Holopaw	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	February 12, 2014	St. Cloud	65	75
2	January 3, 1999	Deer Park	61	70
3	June 19, 2019	Kissimmee	60	69
4	June 10, 2008	St. Cloud	60	69
5	March 21, 2005	Yeehaw Junction	60	69

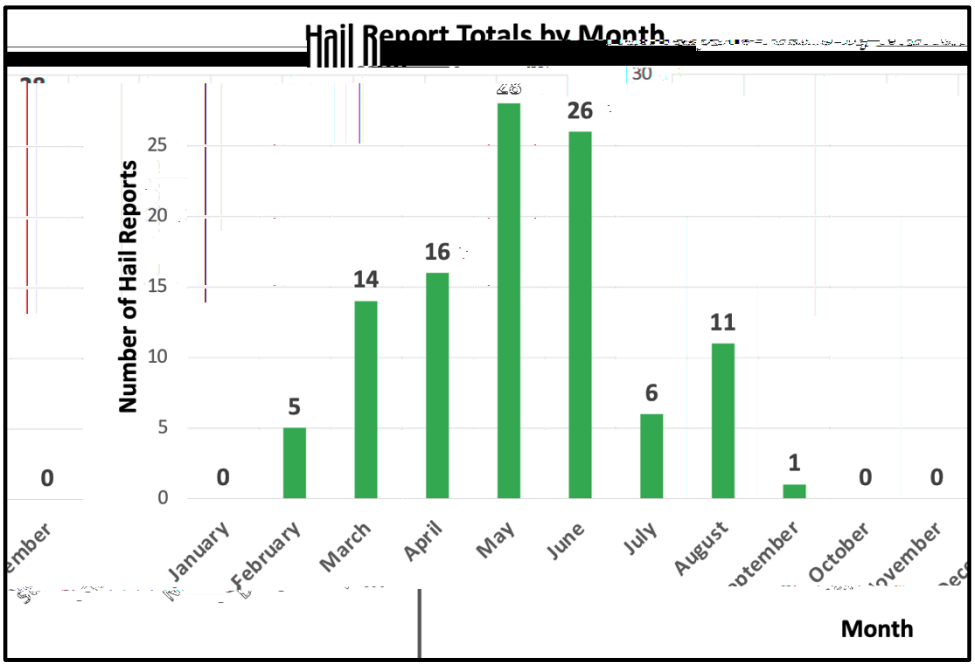
Seminole: Overview

Tornado Overview



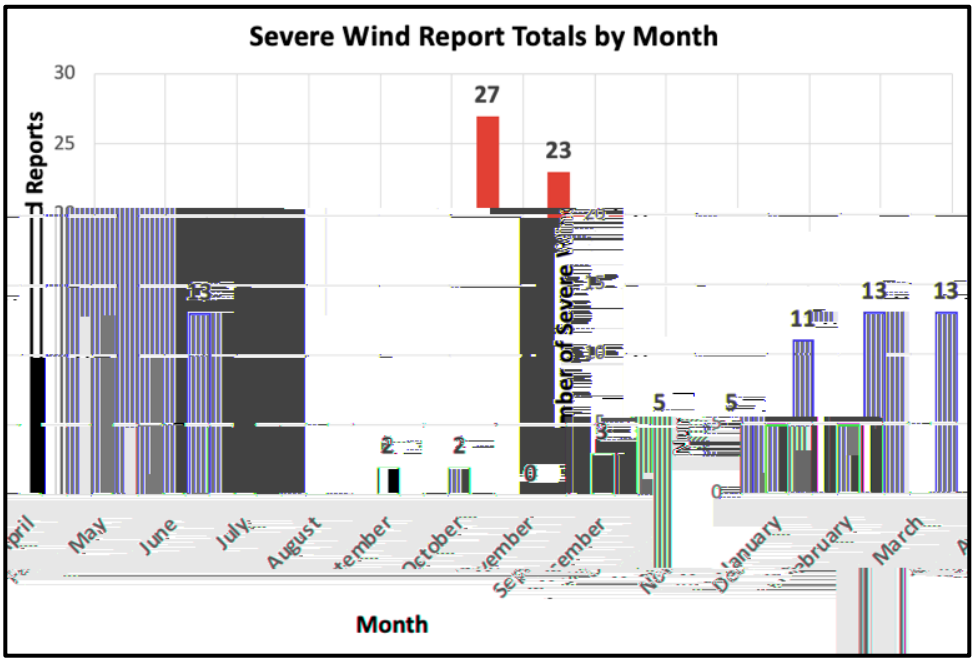
Seminole County experienced a total of 7 tornadoes from 1991 to 2020. There were 5 F0/EF0 tornadoes, 1 F1/EF1 tornado, and 1 F3/EF3 tornado during this period of time. Between 1991 and 2020, February and April were the months with the greatest number of tornado occurrences (2 tornadoes each).

Hail Overview



Seminole County had a total of 107 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 3 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (28 hail reports).

Severe Wind Overview



Seminole County had a total of 117 severe wind reports from 1991 to 2020. 5 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 112 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (27 severe wind reports).

Seminole: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	February 23, 1998	Longwood	F3	12	36
2	November 7, 2006	Oviedo	F1	0	0
3	April 20, 2020	Lake Jessup	EF0	0	0
4	January 24, 2019	Lake Monroe	EF0	0	0
5	May 19, 2009	Casselberry	EF0	0	0

Hail

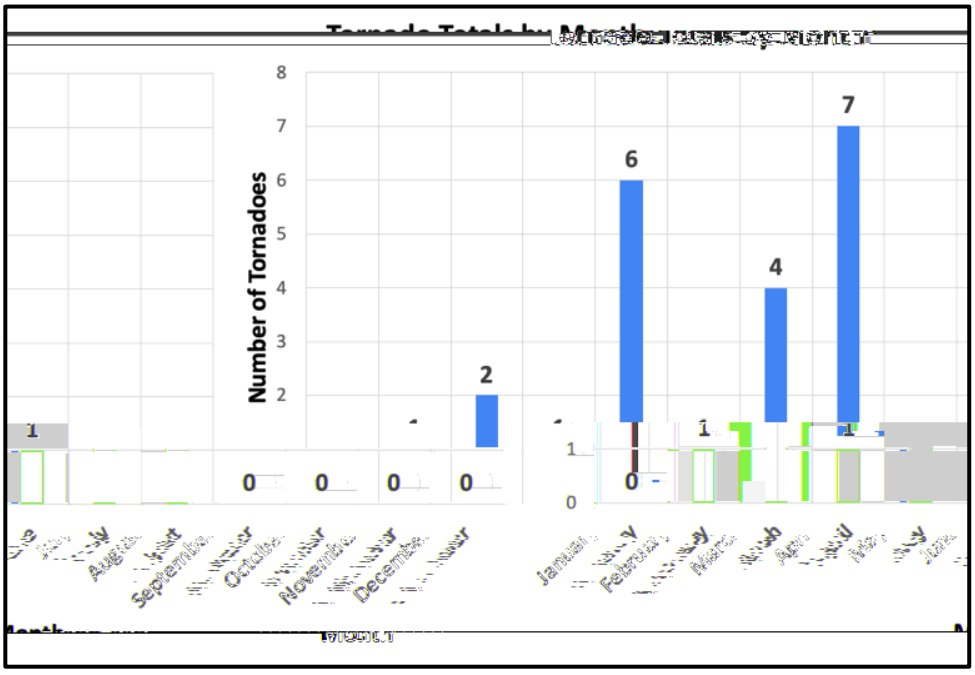
Rank	Date	Location	Diameter (inches)
1	May 21, 2020	New Upsala	3.00
2	May 21, 2020	Sipes	2.50
3	May 21, 2020	Lake Mary	2.00
4	June 24, 2020	Bear Lake	1.75
5	March 20, 2018	Oviedo	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	April 7, 2005	Oviedo	70	81
2	April 7, 2005	Geneva	70	81
3	May 24, 2005	Sanford	67	77
4	July 27, 2013	Sanford Airport	66	76
5	March 30, 2011	Winter Springs	65	75

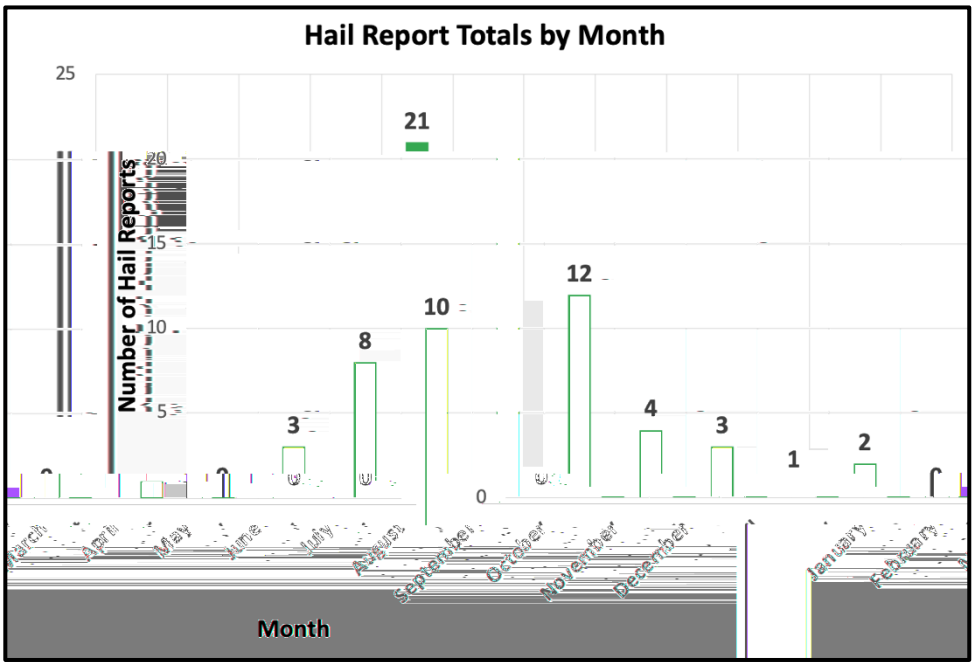
St. Lucie: Overview

Tornado Overview



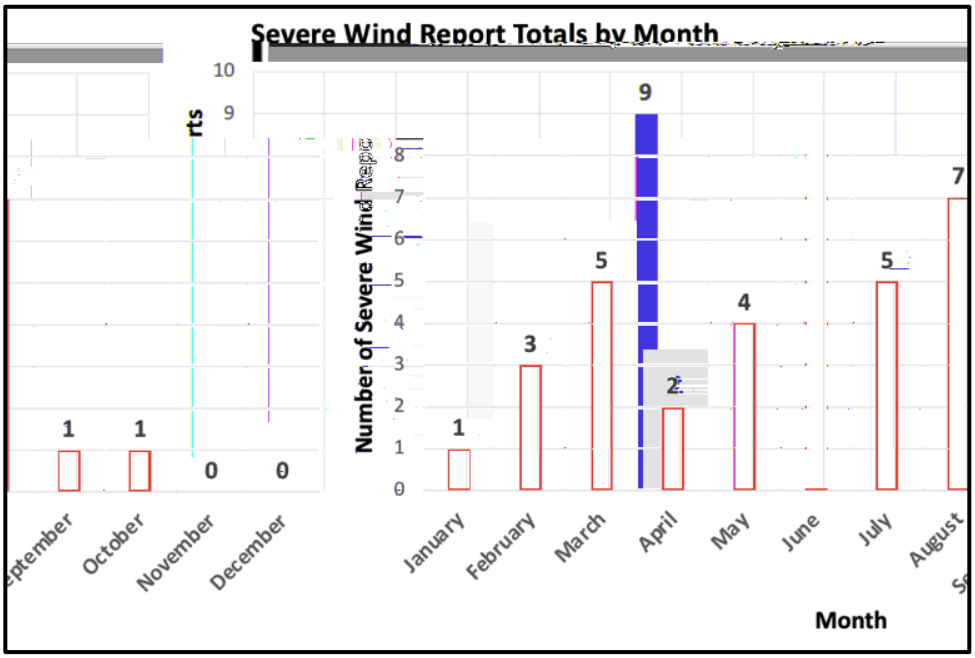
St. Lucie County experienced a total of 22 tornadoes from 1991 to 2020. There were 19 F0/EF0 tornadoes and 3 F1/EF1 tornadoes during this period of time. Between 1991 and 2020, August was the month with the greatest number of tornado occurrences (7 tornadoes).

Hail Overview



St. Lucie County had a total of 64 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 3 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (21 hail reports).

Severe Wind Overview



St. Lucie County had a total of 38 severe wind reports from 1991 to 2020. 3 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 35 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (9 severe wind reports).

St. Lucie: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	May 17, 2016	Viking	EF1	0	0
2	July 27, 2002	Fort Pierce	F1	0	0
3	March 9, 1998	Fort Pierce	F1	0	0
4	March 23, 2017	Fort Pierce	EF0	0	0
5	May 17, 2017	Fort Pierce	EF0	0	0

Hail

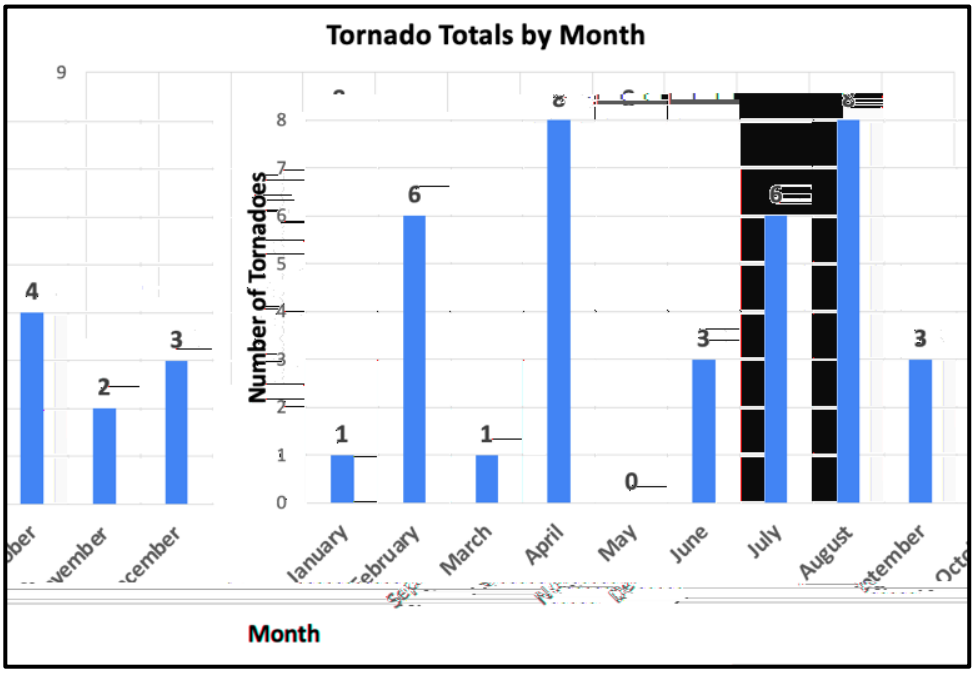
Rank	Date	Location	Diameter (inches)
1	February 13, 1995	Fort Pierce	3.00
2	May 3, 2007	Port St. Lucie	2.75
3	March 21, 2005	Fort Pierce	2.00
4	April 5, 2019	Port St. Lucie	1.75
5	July 2, 2008	White City	1.75

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	March 23, 2017	Fort Pierce	87	100
2	August 26, 1996	Fort Pierce	70	81
3	June 26, 1996	Fort Pierce	70	81
4	July 19, 2009	Fort Pierce	61	70
5	August 3, 2006	Fort Pierce	60	69

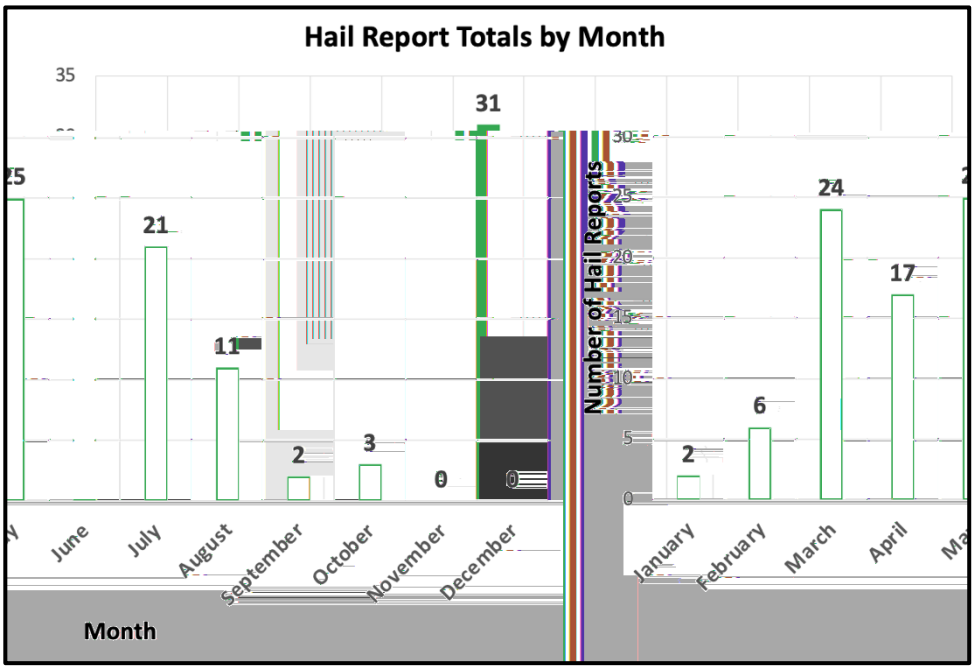
Volusia: Overview

Tornado Overview



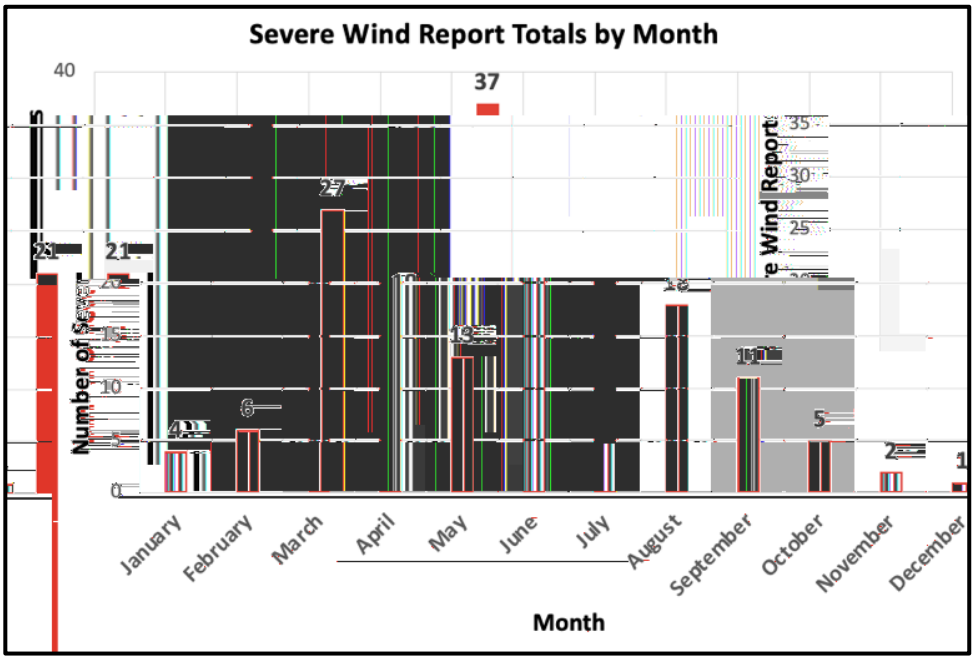
Volusia County experienced a total of 45 tornadoes from 1991 to 2020. There were 30 F0/EF0 tornadoes, 7 F1/EF1 tornadoes, 5 F2/EF2 tornadoes, and 3 F3/EF3 tornadoes during this period of time. Between 1991 and 2020, April and August were the months with the greatest number of tornado occurrences (8 tornadoes each).

Hail Overview



Volusia County had a total of 142 hail reports from 1991 to 2020, with hail stones ranging from 0.75 to 2.5 inches in diameter. Between 1991 and 2020, May was the month with the greatest number of hail reports (31 hail reports).

Severe Wind Overview



Volusia County had a total of 166 severe wind reports from 1991 to 2020. 5 of these reports involved winds 74 miles per hour (65 knots) and greater. The other 161 severe wind reports fell between 58 miles per hour (50 knots) and 73 miles per hour (64 knots). Between 1991 and 2020, June was the month with the greatest number of severe wind reports (37 severe wind reports)

Volusia: Top 5 Severe Events

Tornado

Rank	Date	Location	Scale	Fatalities	Injuries
1	February 23, 1998	Osteen	F3	1	0
2	February 2, 2007	Beresford	EF3	0	42
3	November 2, 1997	New Smyrna Beach	F3	0	32
4	February 22, 1998	Daytona Beach	F2	1	3
5	December 25, 2006	De Land	EF1	0	5

Hail

Rank	Date	Location	Diameter (inches)
1	March 3, 1991	Ormond by the Sea	2.50
2	June 19, 1995	Daytona Beach	2.50
3	March 20, 2018	Holly Hill	2.00
4	March 20, 2018	Daytona Beach	2.00
5	July 8, 2004	Port Orange	2.00

Severe Wind

Rank	Date	Location	Speed (knots)	Speed (mph)
1	March 19, 2003	Deltona	80	92
2	June 16, 2005	Port Orange	70	81
3	April 8, 2004	Osteen	70	81
4	April 8, 2004	De Leon Springs	70	81
5	June 16, 2001	Daytona Beach	70	81

Part 3: Reference Material

The Fujita Scale (F-Scale)

The Fujita Scale was used by the National Weather Service up until February 1, 2007. It was based on damage made to structures and vegetation, and from this assessment, a wind speed for the tornado could be estimated.

F-Scale	Wind Speed
F0	45 – 78
F1	79 – 117
F2	118 – 161
F3	162 – 209
F4	210 – 261
F5	262 – 317

** Wind speed is measured in miles per hour, 3 second gust**

The Enhanced Fujita Scale (EF-Scale)

On February 1, 2007, the National Weather Service began using the Enhanced Fujita Scale to assess tornadoes. Also based on damaged caused by a tornado, the Enhanced Fujita Scale is determined based on a list of damage indicators that help to better estimate the wind speed from a tornado. This newer rating system is more relevant to how man-made structures are built today.

EF-Scale	Wind Speed
EF0	65 – 85
EF1	86 – 109
EF2	110 – 137
EF3	138 – 167
EF4	168 – 199
EF5	200 – 234

** Wind speed is measured in miles per hour, 3 second gust**

Hail Sizes

Below is a table with descriptors to help translate hail size into an actual measurement. Often, it is best to have an actual measurement of hail rather than just an estimate of the hail size.

Hail Diameter	Description
0.50	Moth Ball
0.75	Penny
0.88	Nickel
1.00	Quarter
1.25	Half Dollar
1.50	Ping Pong
1.75	Golf Ball
2.00	Hen Egg
2.50	Tennis Ball
2.75	Baseball
3.00	Tea Cup
4.00	Softball
4.50	Grapefruit