

## Storm Data Export Format, Field names

### Event Details File (named *storm\_data\_search\_results.csv*):

**event\_id** Ex: 383097, 374427, 364175

(Primary database key field)

(ID assigned by NWS to note a single, small part that goes into a specific storm episode; links the storm episode between the three files downloaded from SPC's website)

**cz\_name str** Ex: AIKEN Co., RICHMOND Co, DEKALB (ZONE) (County/Parish, Zone or Marine Name assigned to the county FIPS number or NWS Forecast Zone)

**begin\_location** Ex: DAVENPORT, PLATO CENTER, BENNETTSVILLE

The name of the begin location of the event

**begin\_date** Ex: 4/1/2012

The begin time of the event in MM/DD/YYYY format

**begin\_time** Ex: 1744

The time of day the event began in hhmm format

**event\_type** Ex: Hail, Thunderstorm Wind, Snow, Ice (spelled out; not abbreviated)

The only events permitted in Storm Data are listed in Table 1 of Section 2.1.1 of NWS Directive 10-1605 at <http://www.nws.noaa.gov/directives/sym/pd01016005curr.pdf>. The chosen event name should be the one that most accurately describes the meteorological event leading to fatalities, injuries, damage, etc. However, significant events, such as tornadoes, having no impact or causing no damage, should also be included in Storm Data.

### From Section 2.1.1 of NWS Directive 10-1605:

<u>Event Name</u>	<u>Designator (County or Zone)</u>	<u>Event Name</u>	<u>Designator (County or Zone)</u>
Astronomical Low Tide	Z	Freezing Fog	Z
Avalanche	Z	Frost/Freeze	Z
Blizzard	Z	Funnel Cloud	C
Coastal Flood	Z	Hail	C
Cold/Wind Chill	Z	Heat	Z
Debris Flow	C	Heavy Rain	C
Dense Fog	Z	Heavy Snow	Z
Dense Smoke	Z	High Surf	Z
Drought	Z	High Wind	Z
Dust Devil	C	Hurricane (Typhoon)	Z
Dust Storm	Z	Lake-Effect Snow	Z
Excessive Heat	Z	Lakeshore Flood	Z
Extreme Cold/Wind Chill	Z	Lightning	C
Flash Flood	C	Marine Hail	M
Flood	C	Marine High Wind	M

Marine Strong Wind	M	Tropical Depression	Z
Marine Thunderstorm Wind	M	Tropical Storm	Z
Rip Current	Z	Tsunami	Z
Seiche	Z	Volcanic Ash	Z
Sleet	Z	Waterspout	M
Storm Surge/Tide	Z	Wildfire	Z
Strong Wind	Z	Winter Storm	Z
Thunderstorm Wind	C	Winter Weather	Z
Tornado	C		

**magnitude** Ex: 0.75, 60, 0.88, 2.75

The magnitude of the event. This is only used for wind speeds and hail size (e.g. 0.75” of hail; 60 knot winds)

**tor\_f\_scale** Ex: EF0, EF1, EF2, EF3, EF4, EF5

Enhanced Fujita Scale describes the strength of the tornado based on the amount and type of damage caused by the tornado. The F-scale of damage will vary in the destruction area; therefore, the highest value of the F-scale is recorded for each event.

EF0 – Light Damage (40 – 72 mph)

EF1 – Moderate Damage (73 – 112 mph)

EF2 – Significant damage (113 – 157 mph)

EF3 – Severe Damage (158 – 206 mph)

EF4 – Devastating Damage (207 – 260 mph)

EF5 – Incredible Damage (261 – 318 mph)

**deaths\_direct** Ex: 0, 45, 23

The number of deaths directly related to the weather event.

**injuries\_direct** Ex: 1, 0, 56

The number of injuries directly related to the weather event

**damage\_property\_num** Ex: 10.00K, 0.00K, 10.00M

The estimated amount of damage to property incurred by the weather event. (e.g. 10.00K = \$10,000; 10.00M = \$10,000,000)

**damage\_crops\_num** Ex: 0.00K, 500.00K, 15.00M

The estimated amount of damage to crops incurred by the weather event (e.g. 10.00K = \$10,000; 10.00M = \$10,000,000)

**state\_abbr** Ex: GA, WY, CO

The state postal abbreviation of the event

**cz\_timezone** Ex: EST-5, MST-7, CST-6

(Time Zone for the County/Parish, Zone or Marine Name)

Eastern Standard Time (EST), Central Standard Time (CST), Mountain Standard Time (MST), etc.

**magnitude\_type** Ex: EG, MS, MG, ES

EG = Wind Estimated Gust; ES = Estimated Sustained Wind; MS = Measured Sustained Wind; MG = Measured Wind Gust (no magnitude is included for instances of hail)

**episode\_id** Ex: 60904

ID assigned by NWS to denote the storm episode; links the storm episode with the information within the event details file. An Episode may contain several different events.

**cz\_type** Ex: C, Z, M

Indicates whether the event happened in a (C) county/parish, (Z) zone or (M) marine

**cz\_fips** Ex: 245, 003, 155

The county FIPS number is a unique number assigned to the county by the National Institute for Standards and Technology (NIST) or NWS Forecast Zone Number (See addendum)

**wfo** Ex: CAE, BYZ, GJT (National Weather Service Forecast Office's area of responsibility (County Warning Area) in which the event occurred)

**injuries\_indirect** Ex: 0, 15, 87

The number of injuries indirectly related to the weather event

**deaths\_indirect** Ex: 0, 4, 6

The number of deaths indirectly related to the weather event

**source** Ex: Public, Newspaper, Law Enforcement, Broadcast Media, ASOS, Park and Forest Service, Trained Spotter, CoCoRaHS, etc. (can be any entry; isn't restricted in what's allowed)

Source reporting the weather event

**flood\_cause** Ex: Ice Jam, Heavy Rain, Heavy Rain/Snow Melt

Reported or estimated cause of the flood

**tor\_length** Ex: 0.66, 1.05, 0.48

Length of the tornado or tornado segment while on the ground (minimal of tenths of miles)

**tor\_width** Ex: 25, 50, 2640, 10

Width of the tornado or tornado segment while on the ground (in feet)

**begin\_range** Ex: 0.59, 0.69, 4.84, 1.17 (in miles)

The distance to the nearest tenth of a mile, to the location referenced below.

**begin\_azimuth** Ex: ENE, NW, WSW, S

16-point compass direction from the location referenced below.

**end\_range** see begin\_range

**end\_azimuth** see begin\_azimuth

**end\_location** see begin\_location

**begin\_lat** Ex: 29.7898

The latitude in decimal degrees of the begin point of the event or damage path.

**begin\_lon** Ex: -98.6406

The longitude in decimal degrees of the begin point of the event or damage path.

**end\_lat** Ex: 29.7158

The latitude in decimal degrees of the end point of the event or damage path. Signed negative (-) if in the southern hemisphere.

**end\_lon** Ex: -98.7744

The longitude in decimal degrees of the end point of the event or damage path. Signed negative (-) if in the eastern hemisphere.

**episode\_narrative** Ex: *On the morning of Sunday March 3rd, 2019, an upper-level disturbance moved eastward from the Southern Plains into the southern Gulf Coast States.*

The episode narrative depicting the general nature and overall activity of the episode. The National Weather Service creates the narrative.

**event\_narrative** Ex: *National Weather Service meteorologists surveyed damage in far southern Lee County and determined that it was consistent with an EF4 tornado, with maximum sustained winds near 170 mph*The event narrative provides descriptive details of the individual event. The National Weather Service creates the narrative.

**absolute\_row\_number** the sequential number of events exported in this data file.