**Weather Data Description**

* The source for weather event data is NOAA (National Oceanic and Atmospheric Administration) – National Centers for Environmental Information. [Link](https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=-999%2CALL)
* The weather event data has been collected for 10 years, 2006-2015 time-period.
* The major events are selected - flood, heat, tornado, tropical storm, wildfire, and winter storm.

Understanding the source database and data structure -

* Every event is recorded with a unique event\_id (primary key of the table) for every county in each state of the U.S.A.
* The data granularity is at time level and not only at day level. For our purpose to match and merge the data with Credit Rating data, the aggregation has been performed to make the data yearly level.

Certain variables are explained in the table below.

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| **Variable name** | **Explanation** |
| EVENT\_TYPE | Event names - flood, heat, tornado, tropical storm, wildfire, and winter storm |
| INJURIES\_DIRECT | The number of injuries directly related to the weather event. |
| DEATHS\_DIRECT | The number of deaths directly related to the weather event. |
| DAMAGE\_PROPERTY | 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 | The estimated amount of damage to crops incurred by the weather event.  (e.g. 10.00K = $10,000; 10.00M = $10,000,000) |
| MAGNITUDE | The magnitude of the event. This is only used for wind speeds and hail size (e.g. 0.75” of hail; 60 knot (69.1 MPH) winds) |
| 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) |
| CATEGORY | For the event Hurricane (Typhoon) only the different categories are present as 1,2,3,4,5 etc. |
| 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) |