Hail and Wind Damage Swath (HWDS) Event Database v1.2
5 February 2025

Attribute Field Name	Description
swathID	A unique identification number assigned to each swath during the database development.
swathDate	Date that the hail damage swath most likely occurred. This date will match the SPC event date, 1200 UTC to 1159 UTC, with the corresponding storm reports, if available. The format is YYYY-MM-DD.
swathYear	Year when HWDS occurred (ex. 2011).
swathMonth	Month when swath occurred (ex. 5).
swathDay	Day when swath occurred (ex. 22).
firstDate	The swath first appears in MODIS true color imagery. The format is YYYY-MM-DD.
bestDate	Subjectively, the best appearance in MODIS true color imagery up to 15 days after the SwathDate, and potentially the same as FirstDate. The format is YYYY-MM-DD.
bestSat	The satellite with from MODIS captured the bestDate. This field is populated with Terra, Aqua, or Both.
s1Date	Date in which swath best appears in ESA's Sentinel-1 acquisitions. Only HWDSs that occurred after in 2015 through 2020 will have this field populated.
planetDate	Date in which swath best appears in Planet Lab acquisitions. Only HWDSs that occurred after in 2016 through 2020 will have this field populated. Access to data from Planet Labs can be obtained through NASA's Commercial Satellite Data Acquisition (CSDA) Program (https://www.earthdata.nasa.gov/about/csda).
ls5hlsDate	Date in which swath best appears in moderate resolution imagery. HWDS that occurred between 2000 and 2011 will be populated using Landsat 5 MSS acquisitions. Swaths that occurred between 2013 and 2020 utilized the Harmonized Landsat and Sentinel-2 dataset.
states	States of which individual swath impacts.
classifica	Each HWDS was classified into 4 different categories based on general shape of swath. The four categories are: - Circular - Complex - Curved - Linear
classInt	Integer value that corresponds to each of the 4 classification classes of swaths inside the database: 1 – Circular 2 – Complex 3 – Curved 4 – Linear
pristine	Investigators labeled swaths 'Yes' for pristine cases and 'No' for non-pristine cases for machine learning training and validation dataset testing purposes. There were 570 pristine cases and 1076 non-pristine cases.
eventEst	Yes or No. 'Yes' is indicated if swath is found in True Color Imagery but has no corresponding SPC Storm Reports for multiple days before and after the

	event was identified. 10 swaths were assigned ‘Yes’.
manLength	Length of the polygon in kilometers that was manually measured in GIS software.
mbrLength	Minimum bounding rectangle derived length. The units are km.
manWidth	Width of the polygon in kilometers that was manually measured in GIS software.
mbrWidth	Minimum bounding rectangle derived width. The units are km.
km2	Area of each swath in km^2. These measurements were derived in GIS software.
spcReport	URL to local storm reports from Storm Prediction Center that matches the swathDate.