

# EdgeWARN Primary Data Keys

Key	Units	Description
id	N/A	ProbSevere Cell ID
num_gates	N/A	Number of gates in the storm cell
centroid	Lat, Lon	Latitude and Longitude of Cell Centroid (Lon is in 0 - 360 format)
bbox	List of [lat, lon]	Bounding Box of storm cell (Lon is in 0 - 360 format)
max_refl	dBZ	Maximum reflectivity in the storm cell
storm_history	N/A	See Below

## EdgeWARN Storm History Data Keys

Key	Units	Description
timestamp	ISOFormat	Storm history timestamp
max_refl	dBZ	Maximum reflectivity in the storm cell
num_gates	N/A	Number of gates
centroid	List of [lat, lon]	Latitude and longitude of storm cell (Lon is 0 - 360 format)
dx	m	X-difference between previous storm scan centroid
dy	m	Y-difference between previous storm scan centroid
dt	s	Time difference between previous storm scan
CGFlashRate	fl/km <sup>2</sup> /min	Max 5-min cloud-to-ground flash rate derived from 5-min MRMS NLDN
EchoTop18	km MSL	Highest level of 18 dBZ reflectivity found in storm cell
EchoTop30	km MSL	Highest level of 30 dBZ reflectivity found in storm cell
PrecipRate	mm	Highest instantaneous precip rate found in storm cell
VILDensity	g/kg <sup>3</sup>	Highest VIL Density found in storm cell
RotationTrack	0.001 s <sup>-1</sup>	Highest azimuthal shear found in storm cell
RALA	dBZ	Reflectivity at lowest altitude in storm cell
VII	kg/m <sup>2</sup>	Highest VII found in storm cell
probsevere_details	N/A	See below

Key	Units	Description
MLCAPE	J/kg	MLCAPE
MUCAPE	J/kg	MUCAPE
MLCIN	J/kg	MLCIN
DCAPE	J/kg	DCAPE
CAPE_M10M30	J/kg	CAPE from -10C to -30C
LCL	LCL	Lifted Condensation Level
Wetbulb_0C_Hgt	kft	Height of 0C Dewpoint
LLLR	°C/km	Low-level lapse rate
MLLR	°C/km	Mid-level lapse rate
EBShear	kt	Effective Bulk Shear
SRH01km	m <sup>2</sup> s <sup>-2</sup>	0-1 km Storm-Relative Helicity
SRH03km	m <sup>2</sup> s <sup>-2</sup>	0-3 km Storm-Relative Helicity
SRW46km	kt	4-6 km Storm-Relative Wind
MeanWind_1-3kmAGL	kt	1-3 km Mean Wind
CompRef	dBZ	Composite Reflectivity
Ref10	dBZ	Max Reflectivity at -10°C
Ref20	dBZ	Max Reflectivity at -20°C
MESH	in	Maximum Expected Size of Hail
H50_Above_0C	km	Height of 50 dBZ echo above 0°C Isotherm
EchoTop50	km	Maximum Height of 50 dBZ reflectivity
VIL	kg/m <sup>2</sup>	Vertically Integrated Liquid

Key	Units	Description
MaxFED	fl/km <sup>2</sup> /min	Maximum Flash Extent Density
MaxFCD	fl/km <sup>2</sup> /min	Maximum Flash Centroid Density
AccumFCD	fl/km <sup>2</sup>	Accumulated Flash Centroid Density
MinFlashArea	km <sup>2</sup>	Minimum Flash Area
TE@MaxFCD	fJ	Total Optical Energy at MaxFCD
FlashRate	fl/min	Total lightning flashes per minute
FlashDensity	fl/km <sup>2</sup> /min	ENI Lightning Flash Density
MaxLLAz	0.001 s <sup>-1</sup>	Maximum Low-level Azimuthal Shear
p98LLAz	0.001 s <sup>-1</sup>	98th percentile Low-Level Azimuthal Shear
p98MLAz	0.001 s <sup>-1</sup>	98th percentile Mid-Level Azimuthal Shear
MaxRC_Emiss	%/min	Max rate of change in 11μm top-of-troposphere emissivity
ICP	N/A	Intense Convection Probability
LJA	std	Lightning Jump Algorithm
PWAT	in	Precipitable Water
avg_beam_hgt	km AGL	Average Beam Height over storm cell