Description of data and predictors in Cloud et al (2019)

Cloud KA, Reich BJ, Rozoff CM, Alessandrini S, Lewis WE, Monache LD William E. Lewis, Delle Monache, L (2019). A feed forward neural network based on model output statistics for short-term hurricane intensity prediction. Weather and Forecasting, 34, 985–997. *

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* Observations with missing values and lead times greater than 48 hours have been removed.

STORMID: Storm ID number
DATE: Date and time of the forecast
LEAD_TIME: Forecast time in hours
BASIN: Atlantic or Pacific
LAT: Latitude of storm center (deg N)
LON: Longitude of storm center (deg E)
MINSLP: Minimum sea level pressure (hPa)
SHR_MAG: 850-200 hPa vertical wind shear magnitude (kt) (r = 0 – 500 km)
STM_SPD: Estimated storm speed (kt)
SST: Sea-surface temperature (10^0C) (r = 0 – 50 km)
RHLO: Relative humidity 850-700 hPa (10%) (r = 200 – 800 km)
CAPE1: Convective Available Potential Energy (J kg^{-1}) (r = 0 – 100 km)
CAPE3: Convective Available Potential Energy (J kg^{-1}) (r = 200 – 500 km)
SHTFL2: Surface turbulent sensible heat flux (W m^{-2}) (r = 100 – 200 km)
TCOND7002: Average 700-hPa total condensate (10 g kg^{-1}) (r = 0 – 100 km)
INST2: 850-500 hPa inertial stability parameter (10^{-4} s^{-2}) (r = 0 – 100 km)
CP1: 850-500 hPa inert. stab. pos. vert. mot. coupling param (10^{-4} Pa s^{-3} r = 0 – 50 km)
TCONDSYM2: 850-500 hPa TCOND symmetry parameter (10%) (r = 0 – 100 km)
COUPLSYM3: 850-500 hPa coupling CP3 parameter (10%) (r = 100 – 250 km)
HWFI: maximum 1-min 10-m wind speed from HWFI (kt)
VMAX_OP_T0: Operational estimate at the time of the forecast (kt)
HWRF: HWRT forecast (a benchmark)
NHC: National Hurricane Center forecast (a benchmark)
VMAX: Observed value (the response variable)

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