

Data File Details

Column Name	Unit	Description
sid	unitless	Unique ID for the cyclone system in its month of lysis
year	year (C.E.)	Year of observation
month	month of year	Month of observation
day	day of month	Day of observation
hour	hour of day	Hour of observation
time	days since 1 Jan 1900 0:00 UTC	Time of observation
lat	degrees N	Latitude of cyclone center (-90° to +90°)
lon	degrees E	Longitude of cyclone center (-180° to +180°)
x	grid columns	Column of input grid
y	grid rows	Row of input grid
p_cent	hPa	Sea-level pressure at cyclone center
p_edge	hPa	Sea-level pressure at cyclone edge (last closed isobar)
depth	hPa	Edge pressure – center pressure
p_grad	hPa / [1000 km]	Pressure gradient between center and ring of cells with radius of 1000 km
DsqP	hPa / [100 km] ²	Laplacian of central pressure
radius	km	Radius of a circle with the same area as the cyclone
area	km ²	Area enclosed by last closed isobar
Dp	hPa	Change in center pressure since last observation
DpDt	hPa / day	Deepening rate (scaled by latitude wrt 60°N)
u	km / h	Zonal propagation velocity since last observation
v	km / h	Meridional propagation velocity since last observation
uv	km / h	Propagation speed since last observation
Ege	unitless	0 = no genesis, 1 = center genesis, 2 = area genesis, 3 = center + area genesis
Erg	unitless	0 = no event, 1 = secondary genesis event
Ely	unitless	0 = no lysis, 1 = center lysis, 2 = area lysis, 3 = center + area lysis
Esp	unitless	0 = no split, 1 = centers split, 2 = areas split, 3 = centers + areas split
Emg	unitless	0 = no merge, 1 = centers merge, 2 = areas merge, 3 = centers + areas merge
id	unitless	Unique ID for the cyclone center in the instantaneous cyclone field

pid	unitless	Unique ID of the lowest pressure cyclone center in a multi-center cyclone in the instantaneous cyclone field
type	unitless	1 = primary center, 2 = secondary center, 0 = row only present for calculating propagation (used during splits, merges, and lysis events)
centers	count	Number of centers in the cyclone system; if it is a secondary center, set to 0

Formula/Scripts Applied

The original cyclone detection and tracking output is processed with a post-analysis Python script (C17_ExportToCSV_V##.py) that exports all tracks experiencing cyclolysis in a given month to a CSV file and converts values into more standard units. (The ## represents the version number.)