

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|--|
| 1 | SID | SID | | Storm Identifier. |
| 2 | SEASON | (same) | year | |
| 3 | NUMBER | (same) | | The cardinal number of the system for that season. The count includes all basins, so this will not be continuous for basin files. |
| 4 | BASIN | (same) | | Basins include: NA - North Atlantic EP - Eastern North Pacific WP - Western North Pacific NI - North Indian SI - South Indian SP - Southern Pacific SA - South Atlantic MM - Missing - should not appear in final IBTrACS product |
| 5 | SUBBASIN | (same) | | Subbasins include: MM - missing - no sub basin for this basin (no subbasins provided for WP, SI) CS - Caribbean Sea GM - Gulf of Mexico CP - Central Pacific BB - Bay of Bengal AS - Arabian Sea WA - Western Australia EA - Eastern Australia |
| 6 | NAME | (same) | | Name provided by the agency. IBTrACS ignores most names that include digits or abbreviations. |
| 7 | ISO_TIME | (same) | UTC | ISO Time provided in Universal Time Coordinates (UTC). Format is YYYY-MM-DD HH:mm:ss Most points are provided at 6 hour intervals. Some agencies provided 3 hour points (e.g., New Delhi) or times at important observations (e.g., landfall times in the North Atlantic, etc.). |
| 8 | NATURE | (same) | | Combined storm type. This is assigned based on all available storm types. They include: DS - Disturbance TS - Tropical ET - Extratropical SS - Subtropical NR - Not reported MX - Mixture (contradicting nature reports from different agencies) |
| 9 | LAT | (same) | deg north | |
| 10 | LON | (same) | deg_east | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-------|---|
| 11 | WMO_WIND | (same) | knots | Maximum sustained wind speed from the WMO agency for the current location. NO adjustment is made for differences in wind speed averaging periods. hurdat/atcf = North Atlantic - U.S. Miami (NOAA NHC) - 1-minute winds tokyo = RSMC Tokyo (JMA) - 10-minute newdelhi = RSMC New Delhi (IMD) - 3-minute reunion = RSMC La Reunion (MFLR) - 10 minute bom = Australian TCWCs (TCWC Perth, Darwin, Brisbane) - 10-minute nadi = RSMC Nadi (FMS) - 10 minute wellington = TCWC Wellington (NZMS) - 10-minute |
| 12 | WMO_PRES | (same) | mb | |
| 13 | WMO_AGENCY | (same) | | This is the reporting agency responsible for the basin as currently listed. It should be noted that many of the agencies did not accept official WMO responsibility until relatively recently, e.g., La Reunion in 1993 or IMD in 1990. Therefore the WMO agency is used loosely to describe the currently responsible agency. |
| 14 | TRACK_TYPE | (same) | | Track type Tropical storms can interact. This identifies : PROVISIONAL - Real time data used to populate the position and other parameters of this system. This is a provisional track that will be replaced when reanalysis of the storm is performed. (Usually within 2 years of the storm's occurrence) PROVISIONAL_spur - Real time data (see provisional description above) but due to differences in positions between various inputs, algorithm can not identify accurate position. When counting storms, these should not likely be counted. These should be rare for PROVISIONAL data. MAIN - primary track associated with a storm system. This is a track that has had some reanalysis and is higher quality than provisional data. spur - usually short lived tracks associated with a main track and often represents alternate positions at the beginning of a system. Can also represent actual system interactions (e.g., Fujiwhara interactions). |
| 15 | DIST2LAND | (same) | km | Distance to land from the current position. The land dataset includes all continents and any islands larger than XX. The distance is the nearest at the present time in any direction. |
| 16 | LANDFALL | (same) | km | Nearest location to land within next 6 hours. This can be thought of a landfall flag: =0 -- Landfall within 6 hours. >0 -- No landfall within next 6 hours. Calculations are based on storm center (columns 9,10). Values less than 60 nmile likely are impacted by the system even though the center of the system is not over land. The uses the same land mask as DIST2LAND. |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-------|---|
| 17 | IFLAG | (same) | | <p>Interpolation Flag</p> <p>A 14 character flag string which denotes the source of each agency's report:</p> <p>Interpolation Flags include:</p> <p>_ == missing reports. No information provided.</p> <p>O == original report as provided by the agency.</p> <p>P == position was interpolated (all variables were interpolated/filled, including intensity)</p> <p>I == Position was provided, but Intensity variables (and likely other variables) were interpolated/filled</p> <p>V = Position and intensity variables are original but some variables were interpolated/filled.</p> <p>The order of the 14 characters refers to the following 14 datasets:</p> <p>1 - USA Agency (see column 18)</p> <p>2 - Tokyo</p> <p>3 - CMA</p> <p>4 - HKO</p> <p>5 - NewDelhi</p> <p>6 - Reunion</p> <p>7 - BoM</p> <p>8 - Nadi</p> <p>9 - Wellington</p> <p>10 - ds824</p> <p>11 - TD9636</p> <p>12 - TD9635</p> <p>13 - Neumann Southern Hemisphere data set</p> <p>14 - M.L. Chenoweth N Atlantic Historic dataset</p> |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|--|
| 18 | USA_AGENCY | (same) | | <p>The agency file providing the information: The representative US agency data is derived from a hierarchical selection: the first dataset in the following list to provide information at the given time is used as the USA_agency:</p> <ul style="list-style-type: none"> - HURDAT_ATL - HURSAT_EPA - ATCF (for NA and EP basins only) - JTWC_WP - JTWC_IO - JTWC_EP - JTWC_CP - JTWC_SH - CPHC [separate file provided by CPHC for years TBD] - tcvitals - THIS INDICATES THAT THE DATA ARE PRELIMINARY <p>While these agencies are generally orthogonal, there are cases where a system is provided in more than one source. In this case, the report from the highest source is used.</p> <p>ATCF format info from: https://www.nrlmry.navy.mil/atcf_web/docs/database/new/abdeck.txt HURDAT2 info from: http://www.nhc.noaa.gov/data/hurdat/hurdat2-format-atlantic.pdf</p> |
| 19 | USA_ATCF_ID | (same) | | <p>The ATCF ID is assigned by US agencies and can be used to compare the storm with other US cyclone-related datasets. If two (or more) ATCF tracks make up one storm, then the IDs are separated by a colon. The format of the ATCF ID is B<bb><nn><yyyy> where bb is the basin ID, nn is the number of the storm in that basin and yyyy is the year. Possible basin values are: AL: North Atlantic, SL: South Atlantic, EP: East Pacific, WP: West Pacific, SH: Southern Hemisphere, IO: North Indian For the provisional data, other basin identifiers were provided that include: CP: Central Pacific, SP: South Pacific, SI: South Indian, AS: Arabian Sea (North Indian) and BB: Bay of Bengal (North Indian)</p> |
| 20 | USA_LAT | (same) | deg north | |
| 21 | USA_LON | (same) | deg east | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-------|---|
| 22 | USA_RECORD | (same) | | Record identifier (see notes below) C – Closest approach to a coast, not followed by a landfall G – Genesis I – An intensity peak in terms of both pressure and wind L – Landfall (center of system crossing a coastline) P – Minimum in central pressure R – Provides additional detail on the intensity of the cyclone when rapid changes are underway S – Change of status of the system T – Provides additional detail on the track (position) of the cyclone W – Maximum sustained wind speed |
| 23 | USA_STATUS | (same) | | Status of system. Options are: DB - disturbance, TD - tropical depression, TS - tropical storm, TY - typhoon, ST - super typhoon, TC - tropical cyclone, HU,HR - hurricane, SD - subtropical depression, SS - subtropical storm, EX - extratropical systems, PT - post tropical, IN - inland, DS - dissipating, LO - low, WV - tropical wave, ET - extrapolated, MD - monsoon depression, XX - unknown. |
| 24 | USA_WIND | (same) | knots | Maximum sustained wind speed in knots: 0 - 300 kts. |
| 25 | USA_PRES | (same) | mb | Minimum sea level pressure, 850 - 1050 mb. |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|---|
| 26 | USA_SSHS | (same) | | <p>Saffir-Simpson Hurricane Scale information based on the wind speed provided by the US agency wind speed (US agencies provide 1-minute wind speeds)</p> <p>-5 = Unknown [XX] -4 = Post-tropical [EX, ET, PT] -3 = Miscellaneous disturbances [WV, LO, DB, DS, IN, MD] -2 = Subtropical [SS, SD] Tropical systems classified based on wind speeds [TD, TS, HU, TY,, TC, ST, HR] -1 = Tropical depression (W<34) 0 = Tropical storm [34<W<64] 1 = Category 1 [64<=W<83] 2 = Category 2 [83<=W<96] 3 = Category 3 [96<=W<113] 4 = Category 4 [113<=W<137] 5 = Category 5 [W >= 137]</p> |
| 27 | USA_R34_NE | (same) | nmile | 34 kt wind radii maximum extent in northeastern quadrant |
| 28 | USA_R34_SE | (same) | nmile | 34 kt wind radii maximum extent in southeastern quadrant |
| 29 | USA_R34_SW | (same) | nmile | 34 kt wind radii maximum extent in southwestern quadrant |
| 30 | USA_R34_NW | (same) | nmile | 34 kt wind radii maximum extent in northwestern quadrant |
| 31 | USA_R50_NE | (same) | nmile | 50 kt wind radii maximum extent in northeastern quadrant |
| 32 | USA_R50_SE | (same) | nmile | 50 kt wind radii maximum extent in southeastern quadrant |
| 33 | USA_R50_SW | (same) | nmile | 50 kt wind radii maximum extent in southwestern quadrant |
| 34 | USA_R50_NW | (same) | nmile | 50 kt wind radii maximum extent in northwestern quadrant |
| 35 | USA_R64_NE | (same) | nmile | 64 kt wind radii maximum extent in northeastern quadrant |
| 36 | USA_R64_SE | (same) | nmile | 64 kt wind radii maximum extent in southeastern quadrant |
| 37 | USA_R64_SW | (same) | nmile | 64 kt wind radii maximum extent in southwestern quadrant |
| 38 | USA_R64_NW | (same) | nmile | 64 kt wind radii maximum extent in northwestern quadrant |
| 39 | USA_POCI | (same) | mb | pressure in millibars of the last closed isobar, 900 - 1050 mb NOT BEST-TRACKED (not reanalyzed) |
| 40 | USA_ROCI | (same) | nmile | radius of the last closed isobar, 0 - 999 n mi. NOT BEST TRACKED (not reanalyzed) |
| 41 | USA_RMW | (same) | nmile | radius of max winds, 0 - 999 n mi. NOT BEST TRACKED (not reanalyzed) |
| 42 | USA_EYE | (same) | nmile | eye diameter, 0 - 120 n mi. NOT BEST TRACKED (not reanalyzed) |
| 43 | TOKYO_LAT | TOK_LAT | deg north | |
| 44 | TOKYO_LON | TOK_LON | deg east | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|--|
| 45 | TOKYO_GRADE | TOK_GRADE | | <Grade> 1 : Not used 2 : Tropical Depression (TD) 3 : Tropical Storm (TS) 4 : Severe Tropical Storm (STS) 5 : Typhoon (TY) 6 : Extratropical Cyclone (L) 7 : Just entering into the responsible area of Japan Meteorological Agency (JMA) 8 : Not used 9 : Tropical Cyclone of TS intensity or higher |
| 46 | TOKYO_WIND | TOK_WIND | knots | Maximum sustained wind speed [10-min averaging period] |
| 47 | TOKYO_PRES | TOK_PRES | mb | Central pressure |
| 48 | TOKYO_R50_DIR | TOK_R50_DR | | 1 : Northeast (NE) 2 : East (E) 3 : Southeast (SE) 4 : South (S) 5 : Southwest (SW) 6 : West (W) 7 : Northwest (NW) 8 : North (N) 9 : (symmetric circle) |
| 49 | TOKYO_R50_LONG | TOK_R50_L | nmile | The longest radius of 50kt winds or greater |
| 50 | TOKYO_R50_SHORT | TOK_R50_S | nmile | The shortest radius of 50kt winds or greater |
| 51 | TOKYO_R30_DIR | TOK_R30_DR | | 1 : Northeast (NE) 2 : East (E) 3 : Southeast (SE) 4 : South (S) 5 : Southwest (SW) 6 : West (W) 7 : Northwest (NW) 8 : North (N) 9 : (symmetric circle) |
| 52 | TOKYO_R30_LONG | TOK_R30_L | nmile | The longest radius of 30kt winds or greater |
| 53 | TOKYO_R30_SHORT | TOK_R30_S | nmile | The shortest radius of 30kt winds or greater |
| 54 | TOKYO_LAND | TOK_LAND | | <Indicator of landfall or passage> Landfall or passage over the Japanese islands occurred within one hour after the time of the analysis with this indicator. |
| 55 | CMA_LAT | (same) | deg north | |
| 56 | CMA_LON | (same) | deg east | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|---|
| 57 | CMA_CAT | (same) | | Intensity category according to the Chinese National Standard for Grade of Tropical Cyclones (which has been used since 15 June 2006): 0 — Weaker than Tropical Depression or unknown intensity; 1 — Tropical Depression (TD: 10.8–17.1 m/s); 2 — Tropical Storm (TS: 17.2–24.4 m/s); 3 — Severe Tropical Storm (STS: 24.5–32.6 m/s); 4 — Typhoon (TY: 32.7–41.4 m/s); 5 — Severe Typhoon (STY: 41.5–50.9 m/s); 6 — Super Typhoon (SuperTY: ≥51.0 m/s); 9 — Extratropical Cyclone (ET) stage. |
| 58 | CMA_WIND | (same) | knots | Two-minute mean maximum sustained wind (MSW; m/s) near the TC center. WND = 9 indicates MSW < 10 m/s, WND = 0 indicates unknown intensity. |
| 59 | CMA_PRES | (same) | mb | Minimum pressure (hPa) near the TC center. |
| 60 | HKO_LAT | (same) | deg north | |
| 61 | HKO_LON | (same) | deg east | |
| 62 | HKO_CAT | (same) | | After 2009, we further classified two more storm types above typhoon, so there are in total 7 storm types LW (Low) <22 kt TD (Tropical Depression) 22 – 33 kt TS (Tropical Storm) 34 – 47 kt STS (Severe Tropical Storm) 48 – 63 kt T (Typhoon) 64 – 80 kt ST (Severe Typhoon) 81 – 99 kt SuperT (Super Typhoon) ≥ 100 kt |
| 63 | HKO_WIND | (same) | knots | |
| 64 | HKO_PRES | (same) | mb | |
| 65 | NEWDELHI_LAT | NEW_LAT | deg north | |
| 66 | NEWDELHI_LON | NEW_LON | deg east | |
| 67 | NEWDELHI_GRADE | NEW_GRADE | | Types of disturbances: Low pressure area W<17 knots D - Depression 17<=W<28 DD - Deep Depression 28<=W<34 CS - Cyclonic Storm 34<=W<48 SCS - Severe Cyclonic Storm 48<=W<64 VSCS - Very Severe Cyclonic Storm 64<=W<120 SCS - Super Cyclonic Storm W>=120 knots |
| 68 | NEWDELHI_WIND | NEW_WIND | knots | |
| 69 | NEWDELHI_PRES | NEW_PRES | mb | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|----|-----------------------|----------------|-----------|--|
| 70 | NEWDELHI_CI | NEW_CI | | |
| 71 | NEWDELHI_DP | NEW_DP | mb | |
| 72 | NEWDELHI_POCI | NEW_POCI | mb | |
| 73 | REUNION_LAT | REU_LAT | deg north | |
| 74 | REUNION_LON | REU_LON | deg east | |
| 75 | REUNION_TYPE | REU_TYPE | | 01= tropics; disturbance (no closed isobars) 02= <34 knot winds, <17m/s winds and at least one closed isobar 03= 34-63 knots, 17-32m/s 04= >63 knots, >32m/s 05= extratropical 06= dissipating 07= subtropical cyclone (nonfrontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) 08= overland 09= unknown |
| 76 | REUNION_WIND | REU_WIND | knots | Maximum average wind speed |
| 77 | REUNION_PRES | REU_PRES | mb | Central pressure |
| 78 | REUNION_TNUM | REU_TNUM | | Dvorak T-number |
| 79 | REUNION_CI | REU_CI | | Dvorak CI-number |
| 80 | REUNION_RMW | REU_RMW | nmile | Radius of maximum winds |
| 81 | REUNION_R34_NE | REU_R34_NE | nmile | 34 kt wind radii maximum extent in northeastern quadrant |
| 82 | REUNION_R34_SE | REU_R34_SE | nmile | 34 kt wind radii maximum extent in southeastern quadrant |
| 83 | REUNION_R34_SW | REU_R34_SW | nmile | 34 kt wind radii maximum extent in southwestern quadrant |
| 84 | REUNION_R34_NW | REU_R34_NW | nmile | 34 kt wind radii maximum extent in northwestern quadrant |
| 85 | REUNION_R50_NE | REU_R50_NE | nmile | 50 kt wind radii maximum extent in northeastern quadrant |
| 86 | REUNION_R50_SE | REU_R50_SE | nmile | 50 kt wind radii maximum extent in southeastern quadrant |
| 87 | REUNION_R50_SW | REU_R50_SW | nmile | 50 kt wind radii maximum extent in southwestern quadrant |
| 88 | REUNION_R50_NW | REU_R50_NW | nmile | 50 kt wind radii maximum extent in northwestern quadrant |
| 89 | REUNION_R64_NE | REU_R64_NE | nmile | 64 kt wind radii maximum extent in northeastern quadrant |
| 90 | REUNION_R64_SE | REU_R64_SE | nmile | 64 kt wind radii maximum extent in southeastern quadrant |
| 91 | REUNION_R64_SW | REU_R64_SW | nmile | 64 kt wind radii maximum extent in southwestern quadrant |
| 92 | REUNION_R64_NW | REU_R64_NW | nmile | 64 kt wind radii maximum extent in northwestern quadrant |
| 93 | BOM_LAT | (same) | deg north | |

| # | Column/ Variable name | Shapefile name | Units | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|----------------|----------|---|-----------|-----------------|----------|------|-------------------|----|----|---|----|----|--|----|----|--|----|----|--|----|----|--------------------|----|----|---------------------------|----|----|-----------------------------|----|----|-----------------------------------|----|----|------------------------|----|----|---|----|----|---|----|----|---|----|----|---------------------|----|----|------------------|----|----|---|----|
| 94 | BOM_LON | (same) | deg east | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | <p>This indicates the type of system that this cyclone was at the time of the observation. Note that cyclones can evolve during their lifetimes and hence change type mid-stream (e.g. Extratropical transition (ETT))</p> <table><tr><th>ADAM Code</th><th>Type of Cyclone</th><th>WMO Code</th></tr><tr><td>NULL</td><td>Default – unknown</td><td>09</td></tr><tr><td>10</td><td>Tropics; disturbance (no closed isobars)</td><td>01</td></tr><tr><td>20</td><td><34 knot (17m/s) winds, and at least one closed isobar</td><td>02</td></tr><tr><td>21</td><td>34-63 knots (17-32m/s) two or less quadrants</td><td>02</td></tr><tr><td>30</td><td>34-63 knots (17-32m/s) more than two quadrants</td><td>03</td></tr><tr><td>40</td><td>>63 knots (>32m/s)</td><td>04</td></tr><tr><td>50</td><td>Extra-tropical (no gales)</td><td>05</td></tr><tr><td>51</td><td>Extra-tropical (with gales)</td><td>05</td></tr><tr><td>52</td><td>Extra-tropical (max wind unknown)</td><td>05</td></tr><tr><td>60</td><td>Dissipating (no gales)</td><td>06</td></tr><tr><td>70</td><td>Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (no gales)</td><td>07</td></tr><tr><td>71</td><td>Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (with gales)</td><td>07</td></tr><tr><td>72</td><td>Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (max wind unknown)</td><td>07</td></tr><tr><td>80</td><td>Overland (no gales)</td><td>08</td></tr><tr><td>81</td><td>Overland (gales)</td><td>08</td></tr><tr><td>91</td><td>Tropical Cold-cored – Monsoon Low (with surrounding gales away from centre)</td><td>09</td></tr></table> | ADAM Code | Type of Cyclone | WMO Code | NULL | Default – unknown | 09 | 10 | Tropics; disturbance (no closed isobars) | 01 | 20 | <34 knot (17m/s) winds, and at least one closed isobar | 02 | 21 | 34-63 knots (17-32m/s) two or less quadrants | 02 | 30 | 34-63 knots (17-32m/s) more than two quadrants | 03 | 40 | >63 knots (>32m/s) | 04 | 50 | Extra-tropical (no gales) | 05 | 51 | Extra-tropical (with gales) | 05 | 52 | Extra-tropical (max wind unknown) | 05 | 60 | Dissipating (no gales) | 06 | 70 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (no gales) | 07 | 71 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (with gales) | 07 | 72 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (max wind unknown) | 07 | 80 | Overland (no gales) | 08 | 81 | Overland (gales) | 08 | 91 | Tropical Cold-cored – Monsoon Low (with surrounding gales away from centre) | 09 |
| ADAM Code | Type of Cyclone | WMO Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NULL | Default – unknown | 09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Tropics; disturbance (no closed isobars) | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | <34 knot (17m/s) winds, and at least one closed isobar | 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | 34-63 knots (17-32m/s) two or less quadrants | 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 34-63 knots (17-32m/s) more than two quadrants | 03 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | >63 knots (>32m/s) | 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | Extra-tropical (no gales) | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | Extra-tropical (with gales) | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | Extra-tropical (max wind unknown) | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | Dissipating (no gales) | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (no gales) | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (with gales) | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 72 | Subtropical cyclone (non-frontal, low pressure system that comprises initially baroclinic circulation developing over subtropical water) (max wind unknown) | 07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | Overland (no gales) | 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 81 | Overland (gales) | 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 91 | Tropical Cold-cored – Monsoon Low (with surrounding gales away from centre) | 09 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95 | BOM_TYPE | (same) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 96 | BOM_WIND | (same) | knots | This is the estimated maximum mean wind around the cyclone – that is in the vicinity of the centre. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 97 | BOM_PRES | (same) | mb | Central pressure of the cyclone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 98 | BOM_TNUM | (same) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 99 | BOM_CI | (same) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | BOM_RMW | (same) | nmile | This is the mean radius (from the system centre) of the maximum mean wind. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 101 | BOM_R34_NE | (same) | nmile | This is the mean radius (from the system centre) of the extent of winds; gale-force (17m/s) or above. The four sectors show the mean extent in the respective quadrant centred on the cardinal point. Northeast quadrant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|-----|-----------------------|----------------|-------|--|
| 102 | BOM_R34_SE | (same) | nmile | This is the mean radius (from the system centre) of the extent of winds; gale-force (17m/s) or above. The four sectors show the mean extent in the respective quadrant centred on the cardinal point. Southeast quadrant |
| 103 | BOM_R34_SW | (same) | nmile | This is the mean radius (from the system centre) of the extent of winds; gale-force (17m/s) or above. The four sectors show the mean extent in the respective quadrant centred on the cardinal point. Southwest quadrant |
| 104 | BOM_R34_NW | (same) | nmile | This is the mean radius (from the system centre) of the extent of winds; gale-force (17m/s) or above. The four sectors show the mean extent in the respective quadrant centred on the cardinal point. Northwest quadrant |
| 105 | BOM_R50_NE | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; storm-force (25m/s) or above. Northeast quadrant. |
| 106 | BOM_R50_SE | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; storm-force (25m/s) or above. Southeast quadrant. |
| 107 | BOM_R50_SW | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; storm-force (25m/s) or above. Southwest quadrant. |
| 108 | BOM_R50_NW | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; storm-force (25m/s) or above. Northwest quadrant. |
| 109 | BOM_R64_NE | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; hurricane-force (33m/s) or above. Northeast quadrant |
| 110 | BOM_R64_SE | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; hurricane-force (33m/s) or above. Southeast quadrant |
| 111 | BOM_R64_SW | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; hurricane-force (33m/s) or above. Southwest quadrant |
| 112 | BOM_R64_NW | (same) | nmile | These are the mean radius (from the system centre) of the extent of winds; hurricane-force (33m/s) or above. Northwest quadrant |
| 113 | BOM_ROCI | (same) | nmile | The estimated mean radius of the outermost closed isobar (1-hPa spacing). |
| 114 | BOM_POCI | (same) | mb | Environmental pressure in which the cyclone is embedded |
| 115 | BOM_EYE | (same) | nmile | Mean radius of the cyclone eye. |

| # | Column/ Variable name | Shapefile name | Units | Description |
|-----|-----------------------|----------------|-----------|---|
| 116 | BOM_POS_METHOD | BOM_POS_FL | | <p>This indicates the tools that were used to derive the centre location of the system.</p> <p>ADAM Code Method to derive position NULL Default - unknown 1 no sat, no rad, no obs 2 no sat, no rad, obs only 3 Sat IR/Vis; no clear eye 4 Sat IR/Vis; clearly defined eye 5 aircraft radar report 6 land-based radar report 7 Sat IR/Vis & rad & obs 8 report inside eye 10 Sat- Scatterometer 11 Sat- Microwave 12 Manned Aircraft Reconnaissance 13 UAV Aircraft Reconnaissance</p> |
| 117 | BOM_PRES_METHOD | BOM_PRS_FL | | <p>This code may need to be expanded to handle new systems in the future, and also to differentiate between pressure-wind relationships used to derive the central pressure.</p> <p>ADAM code Method WMO Code NULL Unknown or N/A 1 Aircraft or Dropsonde observation 1 2 Over water observation (e.g. buoy) 2 3 Over land observation 3 4 Instrument – unknown type 5 5 Derived Directly from DVORAK 4 6 Derived from wind via a P-W equation 5 7 Estimate from surrounding obs 5 8 Extrapolation from radar 5 9 Other 5</p> |
| 118 | WELLINGTON_LAT | WEL_LAT | deg north | |
| 119 | WELLINGTON_LON | WEL_LON | deg east | |
| 120 | WELLINGTON_WIND | WEL_WIND | knots | |
| 121 | WELLINGTON_PRES | WEL_PRES | mb | |
| 122 | NADI_LAT | NAD_LAT | deg north | |
| 123 | NADI_LON | NAD_LON | deg east | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|-----|-----------------------|----------------|-----------|--|
| 124 | NADI_CAT | NAD_CAT | | Nadi assigned category |
| 125 | NADI_WIND | NAD_WIND | knots | |
| 126 | NADI_PRES | NAD_PRES | mb | |
| 127 | DS824_LAT | DS8_LAT | deg north | |
| 128 | DS824_LON | DS8_LON | deg east | |
| 129 | DS824_STAGE | DS8_STAGE | | TC - Tropical cyclone |
| 130 | DS824_WIND | DS8_WIND | knots | |
| 131 | DS824_PRES | DS8_PRES | mb | |
| 132 | TD9636_LAT | TD6_LAT | deg north | |
| 133 | TD9636_LON | TD6_LON | deg east | |
| 134 | TD9636_STAGE | TD6_STAGE | | <p>This field gives an estimate of the highest winds occurring in the storm at the time and location indicated. The entire storm was coded as to the highest stage reached for some of the earlier years.</p> <p>0 - Tropical disturbance (1969 onward)</p> <p>1 - depression < 34 [some variation in definition for S Indian]</p> <p>2 - Storm 34-63 [with some variation in definition for S Indian]</p> <p>3 - point where wind reached 64 knots [except N Indian where it is wind 43-47 knots]</p> <p>4 - Hurricane > 64 [except in N Indian, Wind > 48]</p> <p>5 - Extratropical</p> <p>6 - Dissipating</p> <p>7 - Unknown Intensity or doubtful track</p> |
| 135 | TD9636_WIND | TD6_WIND | knots | Estimated highest wind speed at the time indicated. These estimates are subjective and must be interpreted with caution. |
| 136 | TD9636_PRES | TD6_PRES | mb | |
| 137 | TD9635_LAT | TD5_LAT | deg north | |
| 138 | TD9635_LON | TD5_LON | deg east | |
| 139 | TD9635_WIND | TD5_WIND | knots | |
| 140 | TD9635_PRES | TD5_PRES | mb | |
| 141 | TD9635_ROCI | TD5_ROCI | nmile | Size. (Radius of system) |
| 142 | NEUMANN_LAT | NEU_LAT | deg north | |
| 143 | NEUMANN_LON | NEU_LON | deg east | |
| 144 | NEUMANN_CLASS | NEU_CLASS | | <p>EX - Extratropical</p> <p>TC - Tropical</p> <p>MM - Missing</p> |
| 145 | NEUMANN_WIND | NEU_WIND | knots | |

| # | Column/ Variable name | Shapefile name | Units | Description |
|-----|-----------------------|----------------|-----------|--|
| 146 | NEUMANN_PRES | NEU_PRES | mb | |
| 147 | MLC_LAT | (same) | deg north | |
| 148 | MLC_LON | (same) | deg east | |
| 149 | MLC_CLASS | (same) | | Storm classification EX - Extratropical HU - Hurricane LO - Low MH SD - Subtropical depression SS - Subtropical storm TD - Tropical Depression TS - Tropical Storm TW WV - Open Wave |
| 150 | MLC_WIND | (same) | knots | |
| 151 | MLC_PRES | (same) | mb | |
| 152 | USA_GUST | (same) | knots | Gust reported by the USA_AGENCY. |
| 153 | BOM_GUST | (same) | knots | This is the <u>estimated maximum wind gust</u> around the cyclone – that is in the vicinity of the centre based on open terrain estimate |
| 154 | BOM_GUST_PER | BOM_GUSTP | seconds | This is the period of the gust used when measuring max wind gusts. This parameter will only be used when receiving data in WMO format that is not based on 3-sec gusts. All Australian based data should be based on 3-sec gusts. |
| 155 | REUNION_GUST | REU_GUST | knots | Maximum Wind Gust |
| 156 | REUNION_GUST_PER | REU_GUSTP | seconds | Gust Period |
| 157 | USA_SEAHGT | (same) | ft | Wave height for radii defined in SEARAD |
| 158 | USA_SEARAD_NE | USA_SEA_NE | nmile | Radial extent of seas (as defined in SEAHGT) extending from storm center to the Northeast. |
| 159 | USA_SEARAD_SE | USA_SEA_SE | nmile | Radial extent of seas (as defined in SEAHGT) extending from storm center to the Southeast. |
| 160 | USA_SEARAD_SW | USA_SEA_SW | nmile | Radial extent of seas (as defined in SEAHGT) extending from storm center to the Southwest. |
| 161 | USA_SEARAD_NW | USA_SEA_NW | nmile | Radial extent of seas (as defined in SEAHGT) extending from storm center to the Northwest. |
| 162 | STORM_SPEED | STORM_SPD | knots | Translation speed of the system as calculated from the positions in LAT and LON |
| 163 | STORM_DIR | (same) | degrees | Translation direction of the system as calculated from the positions in LAT and LON. Direction is moving toward the vector pointing in degrees east of north [range = 0-360 deg] |