CMA-STI Best Track Dataset for Tropical Cyclones over the Western North Pacific

(August 8, 2007; update: September 9, 2010; May 4, 2011; March 22, 2012)

1. General description

Shanghai Typhoon Institute (STI) is entrusted by China Meteorological Administration (CMA) to compile the Best Track Dataset for Tropical Cyclones over the western North Pacific. The basin is to the north of the equator and to the west of 180°E, including the South China Sea (SCS). The present version of the dataset is from 1949 to 2011, with 6-hourly track and intensity analyses. Each file in the dataset contains data in one year and the dataset will be updated annually.

2. Format of the filename

CHYYYYBST.txt -----

CH:	Label 1 of the dataset, denotes CHINA;
YYYY:	Four digital calendar year;
BST:	Label 2 of the dataset, denotes BEST TRACK data.

3. Data Format

1) Header record

```
        5    10   15   20   25   30   35   40   45   50   55   60   65   70   75   80
::::+::::|::::+::::|::::+::::|::::+::::|::::+::::|::::+::::|::::+::::|::::+::::|::::+::::|
AAAAA BBBB   CCC DDDD EEEE F G HHHHHHHHHHHHHHHHHHHH                     IIIIIIII
66666 0000    46 0002 0601 0 6 Chanchu                                  20110729
```

AAAAA	5 columns	\<Indicator\> '66666'
BBBB	4 columns	\<International number ID\>
CCC	3 columns	\<Number of data lines\>
DDDD	4 columns	\<Tropical cyclone number ID\>
EEEE	4 columns	\<Chinese number ID\>
F	1 column	\<Flag of the last data line\>
		F=0 Decay, F=1 Move outside of the region,
		F=2 Merge, F=3 Quasi-stationary.
G	1 column	\<interval time of record\> Unit: hour
H...H	20 columns	\<Name of the storm\> , "(-)n" denotes sub-center[1] and its number
I...I	8 columns	\<Date of the latest revision\>

[1] The sub-center refers to a centre split or induced from the original tropical cyclone circulation center.

2) Best track record

```
1953081600 6 251 1253  930      65
1953081606 6 266 1234  935      60
1953081612 6 274 1222  945      55
1953081618 5 281 1210  955      50
1953081700 4 284 1198  968      40
1953081706 1 288 1191  975      15   30
1953081712 1 296 1185  979      15   25
1953081718 0 303 1177  984      10   20
1953081800 0 309 1171  986      10   20
YYYYMMDDHH I LAT LONG PRES     WND  OWD
::::+::::|::::+::::|::::+::::|::::+::::|
     5    10   15   20   25   30   35   40
```

YYYYMMDDHH: 4-integer year, 2-integer month, 2-integer day, and 2-integer hour (in UTC);

I: Intensity category②:

0-Weaker than Tropical Depression or unknown intensity,

1-Tropical Depression (TD, 10.8-17.1m/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.

LAT: Latitude(0.1°N);

LONG: Longitude(0.1°E);

PRES: Minimum pressure(hPa) near the TC center;

WND: 2-min mean maximum sustained wind (MSW, ms-1) near the TC center.

WND=9 means MSW < 10m/s, WND=0 means unknown intensity.

OWD: 2-min mean sustained wind (ms-1) for:

(a) the coastal severe wind of Landfalling TCs, and

(b) the MSW within radii about 300−500 km of TCs over the South China Sea.

② The Category 1-6 are according to the "Chinese National Standard for Grade of Tropical Cyclones", which was put in practice since 15 June 2006.

4. Citation

Please indicate that 'CMA-STI Best Track Dataset for Tropical Cyclones over the western North Pacific' is obtained from www.typhoon.gov.cn in any document using the dataset.

5. Revision history

2011.07.29:

1) The information of last data line has been added to the header record "F".

2) The new data column "OWD" has been added to best track record, some related errors in WND have been corrected.

2010:

Typos:

1) Errors in best track record "I" for the extratropical cyclone stage during 2007-2009 have been corrected.

2) Errors in some TC position (longitude and latitude) have been corrected.

3) Errors in date of Soulik (2006) have been corrected.

4) Errors in some TC names have been corrected:

Babe→ Babs; 1952 Lois; Agness→Agnes; 1986 Georgette; 1987 Percy, Ian, Peke, Ogden; 1988 Uleki; 1992 Gay; 1993 Keoni, Abe, Manny; 1994 Li, John, Melissa; 1995 Gary; 1996 Beth; 1997 Oliwa; 2001 Vipa; 2005 Guchol; 2006 Maria.

Others:

5) Confusion of MSW=10ms-1 and MSW<10ms-1 has been clarified.