**ESCAP/WMO Typhoon Committee**

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HONG KONG, CHINA

AGENDA ITEM 2

29 JANUARY – 1 FEBRUARY 2013

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# SUMMARY OF THE 2012 TYPHOON SEASON

(Submitted by the RSMC Tokyo - Typhoon Center)

## Action Proposed

The Committee is invited to review the summary of the 2012 typhoon season.

## Review of the 2012 Typhoon Season

**Provided by RSMC-Tokyo**

In the western North Pacific, 25 named tropical cyclones (TCs) formed in 2012 and 14 reached typhoon (TY) intensity (see Table 1). During the season, 13 named TCs hit the continent. The mean genesis point of named TCs in 2012 was 16.2°N and 133.7°E, showing a westward deviation from the 30-year average* (16.2°N and 137.4°E).

Six named TCs formed from March to June (see green lines in Figure 3). Pakhar (1201) formed over the South China Sea in March and slowly moved westward, which damaged Viet Nam. Guchol (1204) and Doksuri (1206) formed east of the Philippines in June and damaged Japan and China, respectively.

Nine named TCs formed from July to August (see red lines in Figure 3). Vicente (1108) formed over the South China Sea in July and damaged the Philippines, China and Viet Nam. Saola (1209) formed east of the Philippines in July and moved northward, which damaged the Philippines, Japan and China. Damrey (1210) and Haikui (1211) formed around the Ogasawara Islands and moved west-northwestward, which damaged Japan and China. Kai-tak (1213) formed east of the Philippines in August and brought damage to the Philippines, China and Viet Nam. Tembin (1214) and Bolaven (1215) formed in August and damaged the Philippines, China, Japan and the Korean Peninsula.

Eight named TCs formed from September to October (see blue lines in Figure 3). Sanba (1216) and Jelawat (1217) formed east of the Philippines in September and damaged the Philippines, Japan and the Korean Peninsula. Gaemi (1220) formed over the South China Sea in October and brought damage to Viet Nam. Son-tinh (1223) formed east of Mindanao Island and moved northwestward, which damaged the Philippines, China and Viet Nam.

Two named TCs formed from November to December (see an orange line in Figure 3). Bopha (1224) formed southwest of Pohnpei Island at a low latitude near 4 degrees north in November and moved westward. It brought heavy damage to Mindanao Island early in December. Wukong (1225) formed east of the Philippines late in December and damaged the Philippines.

* The 30-year average is from 1981 to 2010

Table 1 List of the tropical cyclones reaching TS intensity or higher in 2012

| Tropical Cyclone | | | Duration (UTC) (TS or higher) | | | | | | Minimum Central Pressure (UTC) | lat(N) | long(E) | (hPa) | Max Wind (kt) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TS | Pakhar | (1201) | 291200 | Mar | - | 020000 | Apr | | 300600 | 9.7 | 111.0 | 998 | 40 |
| STS | Sanvu | (1202) | 220600 | May | - | 271800 | May | | 241800 | 21.3 | 139.0 | 975 | 60 |
| TY | Mawar | (1203) | 011800 | Jun | - | 060600 | Jun | | 031800 | 20.8 | 125.7 | 960 | 75 |
| TY | Guchol | (1204) | 131200 | Jun | - | 200000 | Jun | | 161200 | 14.9 | 128.8 | 930 | 100 |
| STS | Talim | (1205) | 170600 | Jun | - | 201800 | Jun | | 190600 | 20.0 | 115.6 | 985 | 50 |
| TS | Doksuri | (1206) | 261800 | Jun | - | 300000 | Jun | | 290000 | 20.8 | 117.7 | 992 | 40 |
| STS | Khanun | (1207) | 160600 | Jul | - | 190000 | Jul | | 171800 | 28.7 | 127.5 | 985 | 50 |
| TY | Vicente | (1208) | 211200 | Jul | - | 241800 | Jul | | 231800 | 21.7 | 113.4 | 950 | 80 |
| TY | Saola | (1209) | 280000 | Jul | - | 030600 | Aug | | 010600 | 23.4 | 123.4 | 960 | 70 |
| TY | Damrey | (1210) | 281200 | Jul | - | 031200 | Aug | | 020600 | 33.8 | 122.2 | 965 | 70 |
| TY | Haikui | (1211) | 030000 | Aug | - | 091200 | Aug | | 060600 | 27.4 | 125.5 | 965 | 65 |
| STS | Kirogi | (1212) | 061200 | Aug | - | 100600 | Aug | | 090600 | 36.0 | 154.1 | 990 | 50 |
| TY | Kai-tak | (1213) | 130000 | Aug | - | 180600 | Aug | | 161200 | 19.5 | 114.3 | 970 | 65 |
| TY | Tembin | (1214) | 190600 | Aug | - | 301200 | Aug | | 201200 | 18.8 | 125.2 | 950 | 80 |
| TY | Bolaven | (1215) | 200600 | Aug | - | 290600 | Aug | | 251200 | 24.3 | 130.7 | 910 | 100 |
| TY | Sanba | (1216) | 110000 | Sep | - | 180000 | Sep | | 131800 | 17.2 | 129.7 | 900 | 110 |
| TY | Jelawat | (1217) | 201800 | Sep | - | 011200 | Oct | | 241800 | 15.2 | 127.9 | 905 | 110 |
| STS | Ewiniar | (1218) | 241200 | Sep | - | 300000 | Sep | | 260600 | 26.3 | 142.4 | 985 | 50 |
| STS | Maliksi | (1219) | 010600 | Oct | - | 040600 | Oct | | 030000 | 24.5 | 140.9 | 985 | 50 |
| STS | Gaemi | (1220) | 011200 | Oct | - | 061200 | Oct | | 030600 | 15.3 | 117.7 | 990 | 50 |
| TY | Prapiroon | (1221) | 071200 | Oct | - | 191200 | Oct | | 111200 | 19.5 | 128.4 | 940 | 90 |
| STS | Maria | (1222) | 140600 | Oct | - | 190000 | Oct | | 150000 | 19.3 | 141.7 | 990 | 50 |
| TY | Son-tinh | (1223) | 231200 | Oct | - | 290600 | Oct | | 271200 | 17.5 | 108.9 | 945 | 85 |
| TY | Bopha | (1224) | 261800 | Nov | - | 090600 | Dec | | 031200 | 7.4 | 128.9 | 930 | 100 |
| TS | Wukong | (1225) | 250000 | Dec | - | 280600 | Dec | | 250600 | 10.2 | 127.2 | 1000 | 40 |

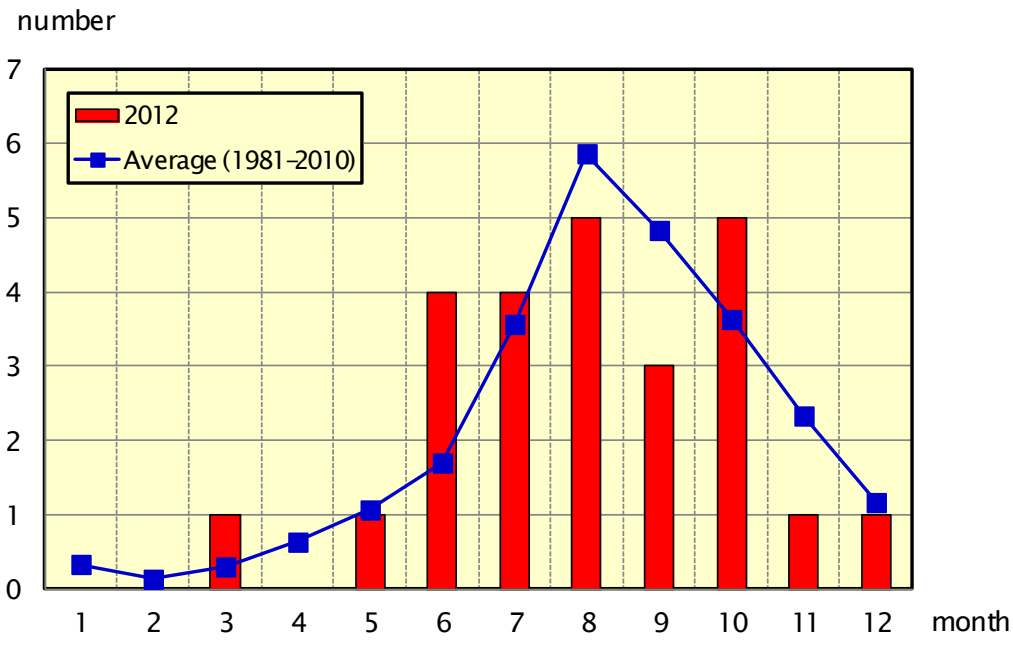


Figure 1 Monthly formation number of named TCs in 2012

Red bar: formation number in 2012, blue line: 30-year average from 1981 to 2010

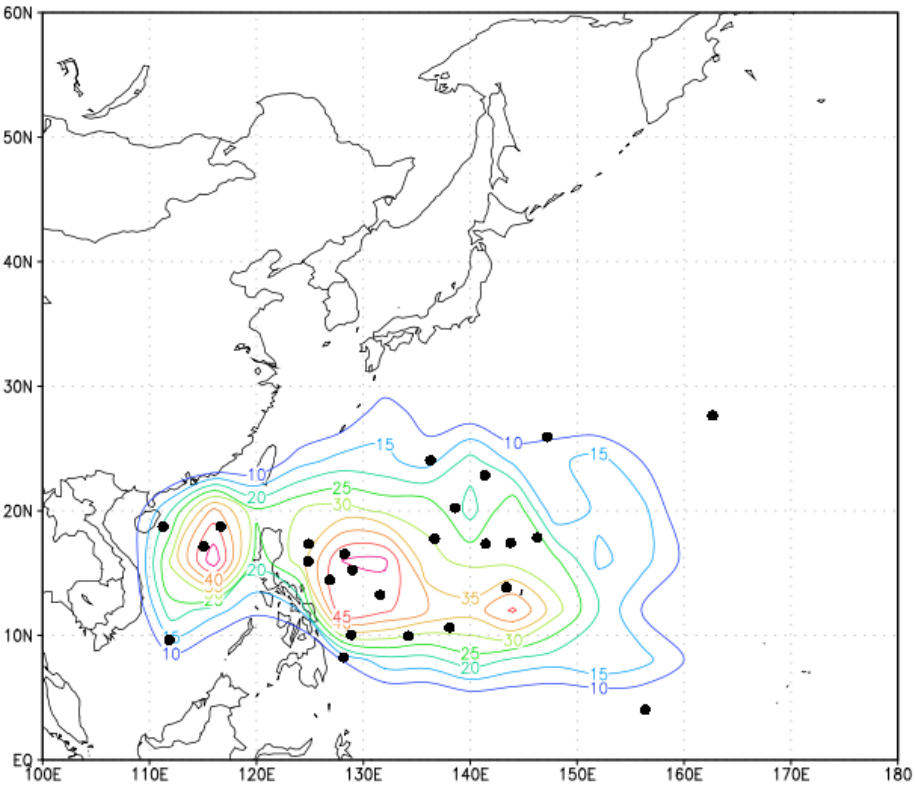


Figure 2 Genesis points of Tropical Cyclones in 2012 (dots) and frequency distribution of genesis points for 1951-2011 (lines)

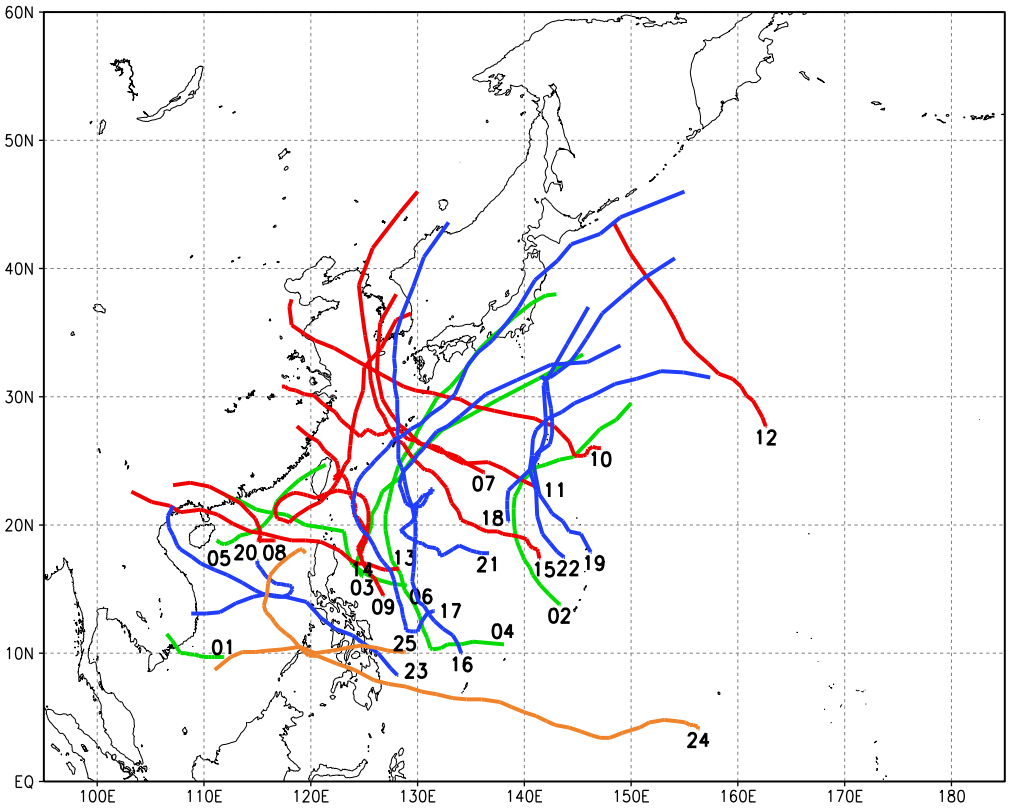


Figure 3 Tracks of Tropical Cyclones in 2012

The numbers represent the genesis points of named TCs (the last two digits of their identification numbers).

## Narrative Accounts of the 24 Named Tropical Cyclones in 2012

### PAKHAR (1201)

Pakhar formed as a tropical depression (TD) over the South China Sea at 00 UTC on 26 March 2012. Slowly moving westward, it was upgraded to tropical storm (TS) intensity over the same waters at 12 UTC on 29 March. Moving westward and developing slowly, Pakhar reached its peak intensity with maximum sustained winds of 40 kt and a central pressure of 998 hPa at 06 UTC on 30 March. It turned northwestward before hitting Viet Nam with TS intensity on 1 April. Pakhar weakened to TD intensity over Viet Nam at 00 UTC on 02 April and dissipated 12 hours later.

### SANVU (1202)

Sanvu formed as a tropical depression (TD) north of the Caroline Islands at 18 UTC on 20 May 2012. Moving northwestward, it was upgraded to tropical storm (TS) intensity northwest of Guam Island at 06 UTC on 22 May. Gradually turning northward, Sanvu was upgraded to severe tropical storm (STS) intensity southwest of Iwoto Island at 06 UTC on 24 May and reached its peak intensity with maximum sustained winds of 60 kt and a central pressure of 975 hPa 12 hours later. After turning northeastward, it was downgraded to TS intensity east of the Ogasawara Islands at 00 UTC on 27 May and transformed into an extratropical cyclone 18 hours later. Moving east-northeastward, Sanvu dissipated far east of Japan at 18 UTC on 30 May.

### MAWAR (1203)

Mawar formed as a tropical depression (TD) east of Luzon Island at 18 UTC on 31 May 2012. Keeping its northwestward track, it was upgraded to tropical storm (TS) intensity over the same waters at 18 UTC on 1 June. After turning north-northeastward the next day, Mawar was upgraded to typhoon (TY) intensity south of Okinawa Island at 12 UTC on 3 June and reached its peak intensity with maximum sustained winds of 75 kt and a central pressure of 960 hPa at 18 UTC the same day. Accelerating northeastward, it transformed into an extratropical cyclone east of Hachijojima Island at 06 UTC on 6 June and dissipated east of the Kamchatka Peninsula at 06 UTC on 13 June.

### GUCHOL (1204)

Guchol formed as a tropical depression (TD) near the Caroline Islands at 12 UTC on 10 June 2012 and moved north-northwestward. It turned westward before being upgraded to tropical storm (TS) intensity north of the Yap Islands at 12 UTC on 13 June. After turning sharply north-northwestward, Guchol was upgraded to typhoon (TY) intensity east of the Philippines at 00 UTC on 16 June and reached its peak intensity with maximum sustained winds of 100 kt and a central pressure of 930 hPa 12 hours later. Moving northeastward, it made landfall on Honshu Island with TY intensity early on 19 June. Keeping its northeastward track, Guchol transformed

into an extratropical cyclone east of Japan at 00 UTC on 20 June and dissipated over the same waters at 12 UTC on 22 June.

**TALIM (1205)**

Talim formed as a tropical depression (TD) east of Hainan Island at 06 UTC on 16 June 2012. Turning in a counterclockwise direction, it was upgraded to tropical storm (TS) intensity over the same waters at 06 UTC the next day. Moving east-northeastward, Talim was further upgraded to severe tropical storm (STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 985 hPa at 06 UTC on 19 June. After hitting Taiwan Island with TS intensity late on 20 June, it weakened to TD intensity at 18 UTC the same day and dissipated six hours later.

**DOKSURI (1206)**

Doksuri formed as a tropical depression (TD) north of the Palau Islands at 00 UTC on 25 June 2012. Moving northwestward, it was upgraded to tropical storm (TS) intensity east of Luzon Island at 18 UTC on 26 June. After passing through the Luzon Strait on 28 June, Doksuri reached its peak intensity with maximum sustained winds of 40 kt and a central pressure of 992 hPa 00 UTC the next day. Moving west-northwestward, it weakened to TD intensity at 00 UTC on 30 June after hitting southern China and dissipated 12 hours later.

**KHANUN (1207)**

Khanun formed as a tropical depression (TD) west of the Mariana Islands at 18 UTC on 14 July 2012. Moving northwestward, it was upgraded to tropical storm (TS) intensity west of Iwoto Island at 06 UTC on 16 July. Keeping its northwestward track, Khanun reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 985 hPa over the East China Sea at 18 UTC the next day and then turned northward. It hit the Korean Peninsula late on 18 July after crossing Jeju Island and weakened to TD intensity at 00 UTC the next day. Khanun transformed into an extratropical cyclone at 18 UTC the same day and dissipated at 06 UTC on 20 July.

**VICENTE (1208)**

Vicente formed as a tropical depression (TD) east of the Philippines at 12 UTC on 18 July 2012 and moved westward. It turned gradually northwestward and then passed through the Luzon Strait on 20 July. After entering the South China Sea, Vicente moved westward and was upgraded to tropical storm (TS) intensity at 12 UTC the next day. Turning northward on 22 July, it was upgraded to typhoon (TY) intensity on the same waters at 12 UTC the next day and reached its peak intensity with maximum sustained winds of 80 kt and a central pressure of 950 hPa six hours later before hitting the southern part of China. Moving westward over the continent, Vicente weakened to TD intensity on 18 UTC on 24 July and dissipated at 12 UTC the next day.

**SAOLA (1209)**

Saola formed as a tropical depression (TD) east of the Philippines at 18 UTC on 26 July 2012. Moving north-northwestward, it was upgraded to tropical storm (TS) intensity at 00 UTC on 28 July. Saola was upgraded to typhoon (TY) intensity south of Okinawa Island at 18 UTC on 31 July and reached its peak intensity with maximum sustained winds of 70 kt and a central pressure of 960 hPa 12 hours later. After turning in a counterclockwise direction and circling the area near Taiwan Island, it accelerated northwestward and hit the eastern coast of China with TS intensity before 00 UTC on 3 August and then weakened to TD intensity at 06UTC on the same day. Saola dissipated over the southern part of China at 06 UTC on 5 August.

**DAMREY (1210)**

Damrey formed as a tropical depression (TD) west of Minamitorishima Island at 06 UTC on 27 July 2012. Moving northwestward, it was upgraded to tropical storm (TS) intensity over the same waters at 12 UTC the next day. Keeping its west-northwestward track after drifting southwestward, Damrey was upgraded to severe tropical storm (STS) intensity north of Chichijima Island at 18 UTC on 30 July and passed around Yakushima Island early on 1 August. Moving northwestward, it was upgraded to typhoon (TY) intensity over the Yellow Sea at 00 UTC the next day and reached its peak intensity with maximum sustained winds of 70 kt and a central pressure of 965 hPa six hours later. After hitting the area near the Shandong Peninsula and turning north-northeastward, Damrey weakened to TD intensity around the Bohai Sea at 12 UTC on 3 August and dissipated 18 hours later.

**HAIKUI (1211)**

Haikui formed as a tropical depression (TD) north of the Northern Mariana Islands at 12 UTC on 1 August 2012 and moved westward. It was upgraded to tropical storm (TS) intensity south of Iwoto Island at 00 UTC on 3 August and then turned west-northwestward. Haikui was upgraded to severe tropical storm (STS) intensity northwest of Okinawa Island at 12 UTC on 5 August. After slowly moving westward over the East China Sea, it was upgraded to typhoon (TY) intensity and reached its peak intensity with maximum sustained winds of 65 kt and a central pressure of 965 hPa over the same waters at 12 UTC on 7 August. Moving northwestward, Haikui hit eastern China late the same day. After weakening to TD intensity at 12 UTC on 9 August, it remained almost stationary and dissipated at 12 UTC on 11 August.

**KIROGI (1212)**

Kirogi formed as a tropical depression (TD) northwest of Wake Island at 06 UTC on 3 August 2012 and slowly moved southeastward and then southwestward. After turning northward on 5 August, it was upgraded to tropical storm (TS) intensity over the same waters at 12 UTC the next day. Gradually turning northwestward, Kirogi was further upgraded to severe tropical storm

(STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 990 hPa east of Japan at 06 UTC on 9 August. It transformed into an extratropical cyclone east of Hokkaido Island on 06 UTC the next day and then turned northward. After moving across the Sea of Okhotsk, it crossed latitude 60 degrees north before 06UTC on 12 August.

**KAI-TAK (1213)**

Kai-tak formed as a tropical depression (TD) east of the Philippines at 00 UTC on 12 August 2012. Moving westward, it was upgraded to tropical storm (TS) intensity over the same waters at 00 UTC on 13 August. Kai-tak hit Luzon Island with TS intensity early on 15 August and then it reached its peak intensity with maximum sustained winds of 65 kt and a central pressure of 970 hPa over the South China Sea at 12 UTC on 16 August. Moving west-northwestward, Kai-tak entered the Gulf of Tonkin and hit Viet Nam with severe tropical storm (STS) intensity late on 17 August. It weakened to TD intensity around the border between Viet Nam and China at 06 UTC on 18 August and dissipated 12 hours later.

**TEMBIN (1214)**

Tembin formed as a tropical depression (TD) south of Okinawa Island at 06 UTC on 17 August 2012. Moving southward, it was upgraded to tropical storm (TS) intensity east of Luzon Island at 06 UTC on 19 August. After turning sharply northward, Tembin was upgraded to typhoon (TY) intensity over the same waters at 06 UTC the next day and reached its peak intensity with maximum sustained winds of 80 kt and a central pressure of 950 hPa six hours later. Gradually turning westward, it again reached its peak intensity with maximum sustained winds of 80 kt and a central pressure of 950 hPa south of the Sakishima Islands at 00 UTC on 23 August. After crossing the southern part of Taiwan Island, turning in a counterclockwise direction and circling, Tembin was downgraded to severe tropical storm (STS) intensity north of the Sakishima Islands at 12 UTC on 28 August. Moving north-northeastward, it transformed into an extratropical cyclone at 12 UTC on 30 August after hitting the Korean Peninsula and dissipated over the Sea of Japan at 06 UTC on 1 September.

**BOLAVEN (1215)**

Bolaven formed as a tropical depression (TD) west of the Mariana Islands at 06 UTC on 19 August 2012 and was upgraded to tropical storm (TS) intensity over the same waters 24 hours later. Turning west-northwestward, it was upgraded to typhoon (TY) intensity over the same waters at 12 UTC on 21 August. Bolaven reached its peak intensity with maximum sustained winds of 100 kt and a central pressure of 910 hPa south of Minamidaitojima Island at 12 UTC on 25 August It passed around Okinawa Island with TY intensity around 12 UTC the next day. While moving north-northwestward over the East China Sea and the Yellow Sea, Bolaven slowly weakened

before hitting the northern part of the Korean Peninsula late on 28 August. Moving northeastward, it transformed into an extratropical cyclone over northeastern China at 06 UTC the next day. After moving eastward across the Sea of Okhotsk and the Kamchatka Peninsula, Bolaven crossed longitude 180 degrees east over the Bering Sea before 18 UTC on 1 September.

**SANBA (1216)**

Sanba formed as a tropical depression (TD) north of the Palau Islands at 00 UTC on 10 September 2012 and slowly moved northward. It was upgraded to tropical storm (TS) intensity over the same waters at 00 UTC the next day before turning northwestward. Developing rapidly, Sanba was upgraded to typhoon (TY) intensity east of the Philippines at 12 UTC on 12 September. After turning northward, it reached its peak intensity with maximum sustained winds of 110 kt and a central pressure of 900 hPa over the same waters at 18 UTC the next day. Keeping its northward track, Sanba passed around Okinawa Island with TY intensity late on 15 September. It continued moving northward over the East China Sea and hit the Korean Peninsula early on 17 September. Sanba was downgraded to severe tropical storm (STS) intensity at 06 UTC the same day while moving across the peninsula before entering the Sea of Japan. Soon after hitting Russia, it transformed into an extratropical cyclone at 00 UTC on 18 September and dissipated 00 UTC the next day.

**JELAWAT (1217)**

Jelawat formed as a tropical depression (TD) east of the Philippines at 00 UTC on 20 September 2012 and was upgraded to tropical storm (TS) intensity over the same waters 18 hours later after moving westward. It was upgraded to typhoon (TY) intensity over the same waters at 00 UTC on 23 September before turning north-northwestward. Jelawat developed rapidly and reached its peak intensity with maximum sustained winds of 110 kt and a central pressure of 905 hPa over the same waters at 18 UTC the next day. It turned northeastward south of Ishigakijima Island at 00UTC on 28 September. Accelerating northeastward, Jelawat landed on Honshu Island with TY intensity early on 30 September. After landing, it weakened rapidly and transformed into an extratropical cyclone east of Hokkaido Island at 12 UTC the next day. After moving eastward, Jelawat crossed longitude 180 degrees east over the sea south of the Aleutian Islands before 00 UTC on 3 October.

**EWINIAR (1218)**

Ewiniar formed as a tropical depression (TD) west of the Northern Mariana Islands at 06 UTC on 23 September 2012. Moving north-northwestward, it was upgraded to tropical storm (TS) intensity east of Okinotorishima Island at 12 UTC the next day. After turning northeastward, Ewiniar was upgraded to severe tropical storm (STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 985 hPa southwest of Chichijima Island at 06 UTC on 26 September. Moving northward with STS intensity, it remains almost

stationary southeast of Hachijojima Island late on the next day. Moving northeastward again, Ewiniar transformed into an extratropical cyclone east of Hokkaido Island at 00 UTC on 30 September and dissipated far east of Hokkaido Island 24 hours later.

**MALIKSI (1219)**

Maliksi formed as a tropical depression (TD) east of the Mariana Islands at 12 UTC on 29 September 2012. Moving northwestward, it was upgraded to tropical storm (TS) intensity at 06 UTC on 1 October around the Mariana Islands. Before turning north-northeastward, Maliksi was upgraded to severe tropical storm (STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 985 hPa near Iwoto Island at 00 UTC on 3 October. Maliksi moved northeastward with STS intensity and then transformed into an extratropical cyclone east of Japan at 06 UTC on 4 October. After turning eastward over the sea south of Kamchatka Peninsula, Maliksi crossed longitude 180 degrees east over the sea south of the Aleutian Islands before 18 UTC on 6 October.

**GAEMI (1220)**

Gaemi formed as a tropical depression (TD) over the South China Sea at 00 UTC on 29 September 2012 and slowly moved northeastward. It was upgraded to tropical storm (TS) intensity at 12 UTC on 1 October over the same waters before turning southeastward. Gaemi was upgraded to severe tropical storm (STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 990 hPa west of the Luzon Island at 06 UTC on 3 October. It was downgraded to TS intensity over the same waters 12 hours later, before turning westward on 4 October. Keeping its westward track, Gaemi weakened to TD intensity at 12 UTC on 6 October soon after hitting Viet Nam and dissipated 18 UTC the next day.

**PRAPIROON (1221)**

Prapiroon formed as a tropical depression (TD) west of the Mariana Islands at 00 UTC on 5 October 2012 and slowly moved westward. It was upgraded to tropical storm (TS) intensity east of the Philippines at 12UTC on 7 October and was further upgraded to typhoon intensity (TY) over the same waters at 18UTC the next day. Continuing westward, Prapiroon reached its peak intensity with maximum sustained winds of 90 kt and a central pressure of 940 hPa east of the Philippines at 12 UTC on 11 October and turned northeastward 12 hours later. It turned again sharply southwestward over the sea south of Minamidaitojima Island early on 15 October. After moving southwestward, Prapiroon turn northward over the sea south of Okinawa Island late the next day and then turned again northeastward over the same waters early on 17 October. It accelerated northeastward and transformed into an extratropical cyclone east of Japan at 12 UTC on 19 October. After moving eastward, Prapiroon turned northward late on 21 October and then it crossed longitude 180 degrees east near the Aleutian Islands before 18 UTC on 23 October.

**MARIA (1222)**

Maria formed as a tropical depression (TD) east of the Northern Mariana Islands at 18 UTC on 12 October 2012. Moving west-northwestward, it was upgraded to tropical storm (TS) intensity west of the islands at 06 UTC on 14 October. Keeping its northwestward track, Maria was upgraded to severe tropical storm (STS) intensity and reached its peak intensity with maximum sustained winds of 50 kt and a central pressure of 990 hPa over the same waters at 00 UTC the next day. Moving northward, it was downgraded to TS intensity northwest of Iwoto Island 24 hours later. Turning east-northeastward, Maria weakened to TD intensity far east of Japan at 00 UTC on 19 October and dissipated over the same waters 06 UTC the next day.

**SON-TINH (1223)**

Son-tinh formed as a tropical depression (TD) southeast of the Palau Islands at 12 UTC on 21 October 2012 and moved northwestward. It was upgraded to tropical storm (TS) intensity east of Mindanao Island at 12 UTC on 23 October. Keeping its northwestward track, Son-tinh crossed the Philippines the next day. It was upgraded to severe tropical storm (STS) intensity over the South China Sea at 06 UTC on 26 October. Son-tinh was further upgraded to typhoon (TY) intensity east of Viet Nam at 06 UTC the next day and reached its peak intensity with maximum sustained winds of 85 kt and a central pressure of 945 hPa six hours later. Moving northward over the Gulf of Tonkin, it weakened rapidly and was downgraded to TS intensity at 18 UTC on 28 October after hitting northern Viet Nam. Son-tinh rapidly weakened to TD intensity at 06 UTC the next day and dissipated 12 hours later.

**BOPHA (1224)**

Bopha formed as a tropical depression (TD) southwest of Pohnpei Island at 18 UTC on 25 November 2012. Slowly moving northwestward, it was upgraded to tropical storm (TS) intensity over the same waters at 18 UTC the next day. Moving westward, Bopha was upgraded to typhoon (TY) intensity at 12 UTC on 30 November. It reached its peak intensity with maximum sustained winds of 100 kt and a central pressure of 930 hPa east of Mindanao Island at 12 UTC on 3 December. After crossing the island and the Sulu Sea, Bopha gradually turned northward and was downgraded to severe tropical storm (STS) intensity over the South China Sea at 18 UTC on 6 December. It developed again and was upgraded to TY intensity six hours later before turning northeastward over the sea west of Luzon Island. Bopha rapidly weakened late on 8 December and remained almost stationary over the same waters. It weakened to TD intensity at 06 UTC the next day and dissipated six hours later.

**WUKONG (1225)**

Wukong formed as a tropical depression (TD) west of the Palau Islands at 00 UTC on 24 December 2012 and moved northwestward. It was upgraded to tropical storm (TS) intensity east of the Philippines at 00 UTC the next day before turning westward. Wukong reached its

peak intensity with maximum sustained winds of 40 kt and a central pressure of 1000 hPa six hours later and then crossed the Philippines. It weakened to TD intensity over the South China Sea at 06 UTC on 28 December and dissipated over the same waters 18UTC the next day.