

Weather data for 2019 Summer in Tokyo and remote venue areas

1. Monthly weather highlights for 2019 summer

◆ July 2019

From the beginning of the month to the first half of the last ten days, cloudy and rainy days were dominant all over Japan. Around the end of the month, sunny and hot days were dominant nationwide.

In Tokyo, mean daily maximum temperature was 26.2 degrees Celsius in mid-July, which was 3.0 degrees lower than normal. On the other hand, late-July mean daily maximum was 31.3 degrees Celsius and 0.7 degrees higher than normal, with its highest 34.6 degrees recorded on July 31th.

◆ August 2019

Monthly mean temperatures were significantly above normal in eastern Japan.

In Tokyo, mean daily maximum in August was 32.8 degrees Celsius, which was 2.0 degrees higher than normal. There were 10 days with temperatures of 35.0 degrees or higher, including its highest 35.6 degrees on August 7th, 9th, 11th.

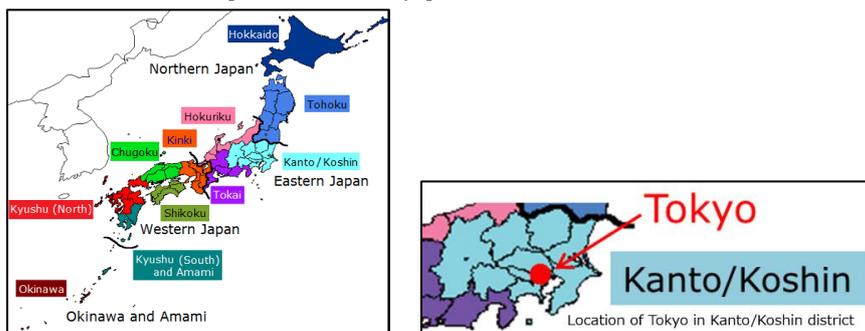
◆ September 2019

Monthly mean temperatures were significantly above normal from northern to western Japan.

In Tokyo, mean daily maximum in September was 29.4 degrees Celsius, which was 2.5 degrees higher than normal. There were 2 days with temperatures of 35.0 degrees or higher, including highest in the summer 36.2 degrees on September 9th.

Typhoon Faxai made landfall in Kanto region on 9th September and brought unprecedented strong winds in and around the Pacific side of eastern Japan including Tokyo metropolitan area.

Reference: Meteorological Districts of Japan



Figures created by Tokyo2020 JMA website on 22th, Nov. 2019 <https://www.data.jma.go.jp/gmd/cpd/longfct/en/tourist.html>

2. Daily weather observation data at Tokyo and other areas including local venues

Daily specific observational data such as *temperature, precipitation, wind speed and direction, etc.* from July to September 2019 of observation sites listed below.

- ① **Tokyo** (observed by Japan Meteorological Agency), 35° 41.5'N, 139° 45.0'E, Altitude: 25 m
- ② **Mobara** (Japan Meteorological Agency), 35° 25.0'N, 140° 18.6'E, Altitude: 9 m, 8.9km northwest of **Tsurigasaki Surfing Beach**
- ③ **Tsujido** (Japan Meteorological Agency), 35° 19.2'N, 139° 27.0'E, Altitude: 5 m, 3.8km northwest of **Enoshima Yacht Harbour**
- ④ **Ajiro** (Japan Meteorological Agency), 35° 2.7'N, 139° 5.5'E, Altitude: 67 m, 8.1km northeast of **Izu MTB Course**
- ⑤ **Gotemba** (Japan Meteorological Agency), 35° 18.3'N, 138° 55.6'E, Altitude: 472 m, 6.9km south of **Fuji International Speedway**
- ⑥ **Fukushima** (Japan Meteorological Agency), 37° 45.5'N, 140° 28.2'E, Altitude: 67 m
- ⑦ **Sapporo** (Japan Meteorological Agency), 43° 3.6'N, 141° 19.7'E, Altitude: 17 m
- ⑧ **Sendai** (Japan Meteorological Agency), 38° 15.7'N, 140° 53.8'E, Altitude: 39 m, 9.2km southwest of **Miyagi Stadium**
- ⑨ **Kashima** (Japan Meteorological Agency), 35° 57.8'N, 140° 37.3'E, Altitude: 37 m



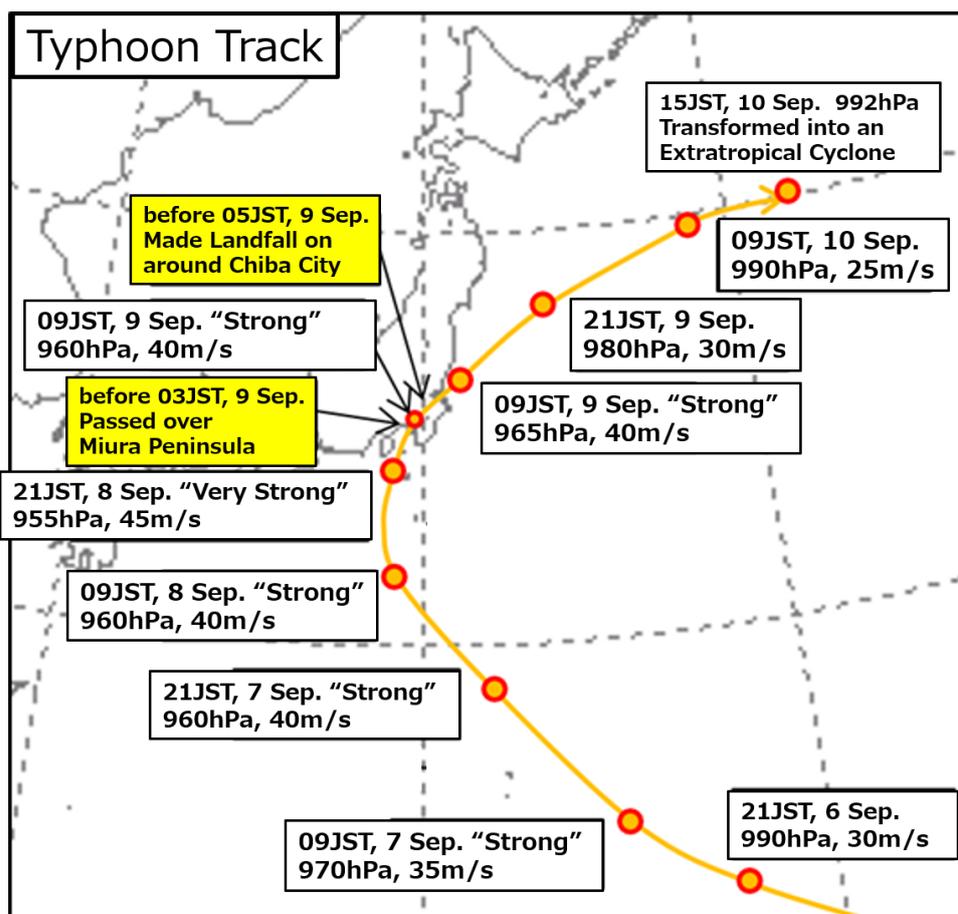
3. Typhoon

There were two major typhoons named Faxai and Hagibis, which caused significant impact on Tokyo area in 2019.

(1) Typhoon Faxai (or Typhoon No.15)

- Prior to its approach, Japan Meteorological Agency announced on 11am, 8 Sep. that Faxai could bring “historic” winds in the area including Tokyo.
- Faxai made landfall on around Chiba City before 05am, 9 Sept. with intensity 960hPa and 40m/s wind, which could be categorized into one of the strongest ever landed on Kanto-region including Tokyo.

Track of Faxai



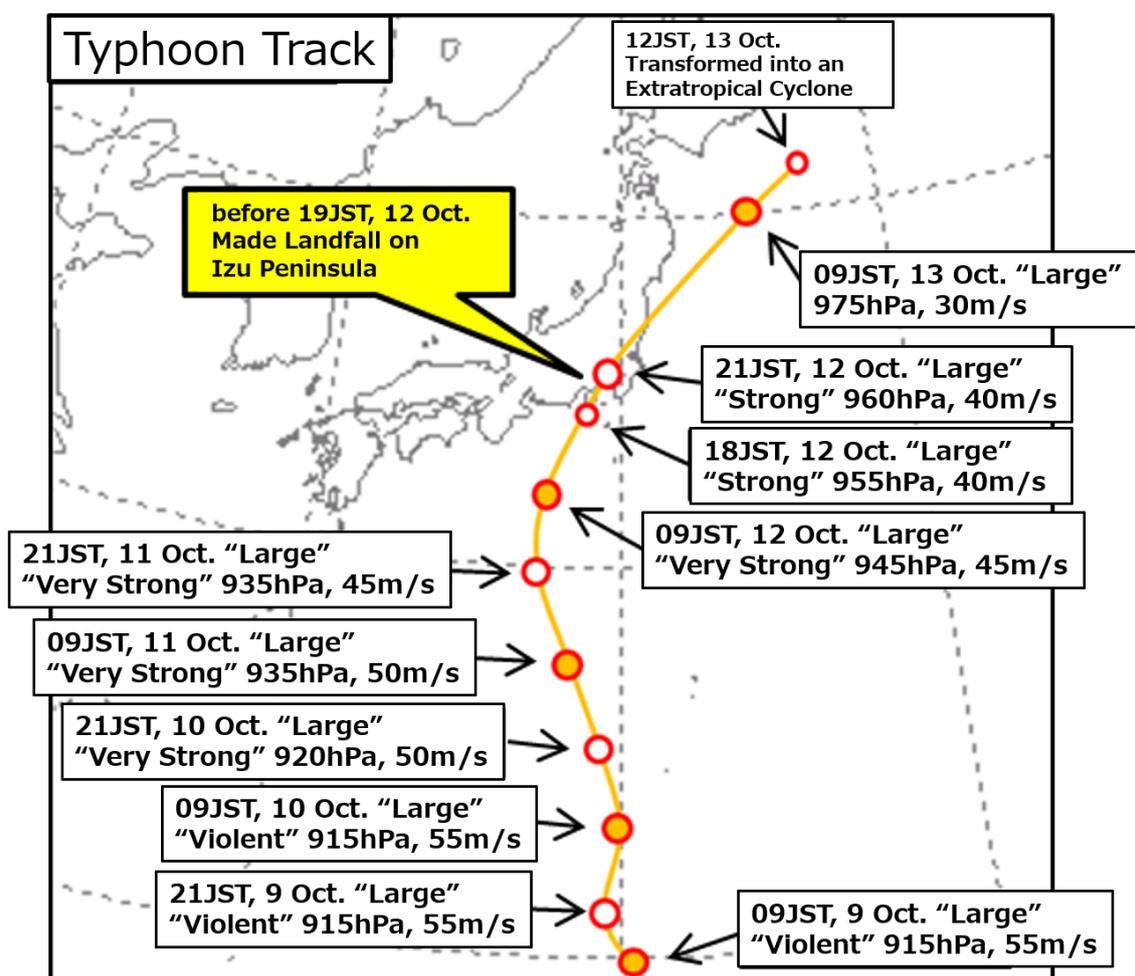
Indicated wind speed is the maximum 10-minute sustained wind speed near center.

contents created by Tokyo2020 based on information of Japan Meteorological Agency.

(2) Typhoon Hagibis (or Typhoon No.19)

- Hagibis brought record-breaking rainfall over widespread area in Shizuoka Pref. (located west of Tokyo, hosting Cycling Road and MTB venues), Kanto-Koshin Region including Tokyo, and Tohoku Region including Fukushima and Miyagi Pref.
- Total Rainfall from Oct.10 reached over 500 mm at 17 points in Kanto-Koshin Region and Shizuoka Pref., and 1,000 mm in Hakone town of Kanagawa Pref.

Track of Hagibis



Indicated wind speed is the maximum 10-minute sustained wind speed near center.

contents created by Tokyo2020 based on information of Japan Meteorological Agency.

Reference: Classification of Typhoon Scale and Intensity by Japan Meteorological Agency

• Scale

| Scale | Radius of The Area with Wind Speed of 15m/s and Above |
|------------|---|
| Large | ≥ 500km |
| Very Large | ≥ 800km |

• Intensity

| Intensity | Maximum 10-minute Sustained Wind |
|-------------|----------------------------------|
| Strong | ≥ 33m/s (64knots) |
| Very Strong | ≥ 44m/s (85knots) |
| Violent | ≥ 54m/s (105knots) |

Description of the appendix files:

01_Appendix_2019_Weather_Observation_Data_Tokyo_and_local_venues.xlsx

- Daily specific observational data such as temperature, precipitation, wind speed and direction at Tokyo and other areas including local venues.

02_Appendix_2019_WBGT_Data_20points.xlsx

- Hourly WBGT data at 20 points around venues