## Monthly Weather Summary in Thailand May 2019

The weather in May 2019 was swelter especially in upper Thailand where hot weather was presented almost the whole month especially during early month that successive very hot day was found in several areas of the northern part including very hot weather in many areas of the northeastern and central parts due to the influence of heat low pressure cell covering upper Thailand at that time. Monthly mean temperature was higher than normal in all regions and the average temperature over Thailand was $1.3^{\circ} \mathrm{C}$ higher than normal and the new highest record of maximum temperature was established in some stations. For rainfall, May 2019 was actually drier than usual with less and uneven distribution of rain during the beginning and the middle of the month. After that, during late month, the southwest monsoon blowing over the Andaman Sea and Thailand accompanied with the monsoon trough lying over the northern and upper northeastern parts towards the low pressure cell in the Gulf of Tonkin and the southeasterly wind prevailing over the lower northeastern, eastern and the Gulf of Thailand brought consecutive rainfall in many areas that considered as the beginning of the rainy season of the year on May 20. Monthly rainfall was lower than normal in every parts i.e. northern part $49.6 \mathrm{~mm}(28 \%)$, northeastern part 29.1 mm (16\%), central part 55.4 mm (32\%), eastern part 35.3 mm (16\%) and southern part (east coast) 3.6 mm (3\%) and southern part (west coast) 2.8 mm (1\%). The total rainfall over Thailand in May was $17 \%$ below normal.

1-10 May: Heat low pressure cell covered upper Thailand accompanied with the southerly and southeasterly wind prevailed over lower northern, northeastern, central and eastern parts during early period. In addition, the southwesterly wind prevailed over upper Thailand during late period. These conditions caused generally hot weather in upper Thailand especially in the northern part that experienced very hot weather almost areas during early and mid-period with very hot weather in many areas of the northeastern and central parts and also in some areas of the eastern parts. The highest temperature was $43.0^{\circ} \mathrm{C}$ at Amphoe Mueang in Lampang province on May 3 and at Amphoe Mueang in Uttaradit province on May 3 and 4. For rainfall, upper Thailand was mainly observed rainfall in the northeastern part with the highest daily rainfall of 135.4 millimeter at agrometeorological station in Ubon Ratchathani province on May 8. Thunderstorm with gusty wind was reported at Chiang Mai, Phetchabun, Amnat Chareon and Surin provinces on May 2, at Sukhothai, Phisanulok, Phetchabun, Phichit, Si Sa Ket and Nakhon Sawan provinces on May 3, at Lop Buri province on May 4, at Phrae, Nong Khai, Udon Thani and Nakhon Sawan provinces on May 5 at Udon Thani, Khon Kaen, Roi Et, Nakhon Ratchasima and Nong Bua Lam Phu provinces on May 6, at Phrae, Uttaradit, Udon Thani, Sakon Nakhon, Ubon Ratchathani and Kanchanaburi provinces on May 7, at Mae Hong Son, Nan, Khon Kaen, Ubon Rathchathani, Mahasarakham and Nakhon Sawan provinces on May 8. Hail was reported at Surin province on May 2. In southern part, hot weather persisted in almost areas of east coast with the maximum tempersture of $39.5^{\circ} \mathrm{C}$ at Amphoe Mueang in Prachuap Khiri Khan province on May 2 and at Phun Phin in Surat Thani province on May 3. For rainfall, with the influence of the southwesterly wind blowing over the Andaman Sea and southern part during early and mid-period and the westerly wind prevailed over the mentioned areas during late period, plentiful of rain was found during the middle and the end of the period especially fairly
widespread rain with heavy to very heavy rainfall along the west coast. The highest daily rainfall was 129.3 millimeter at Takua Pa in Phang-nga province on May 4.

11-20 May : Hot weather persisted in upper Thailand with very hot weather in many areas of the northern part and in some areas of the northeastern, central and southern parts. The maximum temperature was $42.5^{\circ} \mathrm{C}$ at Amphoe Mueang in Nan province on May 19 and at Amphoe Mueang in Lampang province on May 20. For rainfall, with the prevailing of the southwesterly wind over the Andaman Sea and Thailand during early period and the low pressure cell covered the northern and northeastern parts during May 13-14 and the confluence of the southwesterly and southeasterly over upper Thailand during May 13-16. These caused scattered to fairly widespread rain in upper Thailand with isolated heavy to very heavy rainfall. The highest daily rainfall was 185.0 millimeter at Kamphaeng Saen in Nakhon Pathom province on May 12. Thunderstorm and gusty wind was reported at Mae Hong Son and Phrae provinces on May 11, at Phrae, Phitsanulok, Tak, Uttaradit, Nan and Nakhon Sawan provinces on May 12, at Phayao province on May 13 and 16, at Kamphaeng Phet province on May 14 and at Mae Hong Son province on May 15 and 19, at Phrae province on May 20. For southern part, due to the moderate to rather active southwesterly wind prevailed over the Andaman Sea, southern part and the Gulf of Thailand during early and mid-period and later weakened resulted in plentiful of rain almost the period with scattered to fairly widespread rain and heavy rainfall in some areas along the east coast whereas fairly widespread rain with isolated heavy rainfall during early and mid-period and decreasing to scattered rain during late period along the west coast. The heaviest daily rainfall was 80.0 millimeter at Phra Phrom in Nakhon Si Thammarat province on May 15.

21-31 May : Due to the prevailing of southwest monsoon over the Andaman Sea, Thailand and the Gulf of Thailand throughout the period, the low pressure cell covering the Gulf of Tonkin and the coastal Vietnam during early period, the monsoon trough lying across the northern and northeastern parts towards the low pressure cell in the Gulf of Tonkin during the second half of the period accompanied with the southeasterly wind prevailed over the lower northeastern, eastern and the gulf of Thailand during late period resulted in abundant rain in upper Thailand especially in the northeastern, central and eastern parts that obtained scattered to fairly widespread rain with isolated heavy to very heavy rainfall. The maximum daily rainfall was 120.0 millimeter at Kung Si in Kalasin province on May 23. Thunderstorm and gusty wind was reported at Mae Hong Son, Chiang Mai, Lampang, Nan, Phrae, Sukhothai, Phayao, Kamphaeng Phet, Loei, Kalasin, Nong Khai, Udon Thani and Nakhon Phanom provinces on May 21, at Uthai Thani, Saraburi and Sa Kaeo provinces on May 22, at Chiang Mai, Nan and Phayao provinces on May 24, at Phichit and Nong Bua Lam Phu provinces on May 23, at Phrae, Nong Khai and Nakhon Sawan provinces on May 25, at Roi Et province on May 26, at Khon Kaen and Suphan Buri provinces on May 27, at Chinag Mai, Phichit and Suphan Buri provinces on May 28. In southern part, scattered to fairly widespread rain was found almost the period with heavy rainfall in some areas. The highest daily rainfall was 80.6 millimeter at agrometeorological station in Yala province on May 21 with thunderstorm and gusty at Prachuap Khiri Khan province on the same day. Although temperature relatively decreased during this period, hot weather remained in the northern and central parts with very hot weather in some areas. The maximum temperature of $41.0^{\circ} \mathrm{C}$ was measured at Amphoe Mueang in Lampang province on May 21.

Breaking record of daily maximum temperature over Thailand in May 2019

| Station | New Record 2019 |  | Previous Record |  | Start Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | Date | Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | Date / Year |  |
| Northern Part Chiang Rai | 42.0 | 20 | 41.2 | $\begin{gathered} 2 / 1966 \\ 12 / 2016 \end{gathered}$ | 1951 |
| Nan | 42.5 | 19 | 42.1 | 2/1960 | 1951 |
| Nan Agromet. Stn. | 41.3 | 3 | 41.0 | $\begin{gathered} 23 / 1969 \\ 2 / 1980 \\ 9 / 1992 \end{gathered}$ | 1969 |
| Thung Chang (Nan) | 41.5 | 20 | 39.9 | 8/2003 | 1998 |
| Lom Sak (Phetchabun) | 41.4 | 3 | 40.6 | $\begin{aligned} & 7 / 2003 \\ & 1 / 2004 \end{aligned}$ | 1970 |
| Northeastern Part Loei | 42.2 | 2 | 41.8 | 7/2003 | 1955 |
| Loei Agromet. Stn. | 42.5 | 2 | 41.5 | 7/2003 | 1970 |
| Tha Pra (Khon Kaen) | 41.5 | 2 | 41.3 | 7/003 | 1970 |
| Chaiyaphum | 41.2 | 2 | 41.1 | 7/2003 | 1957 |
| Nang Rong (Burirum) | 40.7 | 2 | 40.7 | 2/1998 | 1970 |
| Central Part Ratchaburi | 40.4 | 2 | 39.8 | 7/1992 | 1993 |
| Samut Prakan Agromet. Stn. | 36.5 | 2 | 35.8 | 17/2013 | 2012 |
| Bangkok Metropolis | 40.0 | 2 | 39.7 | 10/2010 | 1951 |
| Klong Toey | 39.5 | 3 | 39.3 | 10/2010 | 1994 |
| Eastern Part <br> Laem Chabang (Chonburi) | 40.1 | 20 | 38.7 | 6/1998 | 1994 |
| Southern Part <br> Chumphon | 38.3 | 3 | 38.2 | 10/1958 | 1951 |
| Sawi (Chumphon) | 39.2 | 3 | 38.5 | $\begin{gathered} 21 / 1983 \\ 5 / 2005 \end{gathered}$ | 1969 |
| Nakhon Si Thammarat | 38.4 | 7 | 38.1 | $\begin{gathered} 1 / 1998 \\ 12 / 2016 \end{gathered}$ | 1952 |
| Nakhon Si Thammarat Agromet. Stn. | 38.1 | 3,12 | 38.1 | 12/2016 | 1984 |
| Phatthalung Agromet. Stn. | 37.8 | 2 | 37.7 | 12/2016 | 1981 |
| Hat Yai (Songkhla) | 38.5 | 3,4 | 38.5 | 4/2016 | 1969 |

Note : Rainfall, temperatures and natural disasters available in this report are preliminary data.

Monthly Current Report<br>Rainfall and Accumulative Rainfall<br>May 2019

Northern Thailand

| Station | Temperature ( $\left.{ }^{\circ} \mathrm{c}\right)$ |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Chiang Rai | 30.9 | 3.8 | 110.2 | -103.2 | 190.0 | -170.8 |
| Mae Hong Son | 31.3 | 2.4 | 229.8 | 55.3 | 285.2 | 18.3 |
| Phayao | 30.5 | 2.7 | 76.1 | -103.6 | 148.4 | -165.6 |
| Chiang Mai | 31.1 | 2.9 | 77.3 | -84.7 | 167.4 | -82.8 |
| Tha Wang Pha | 30.7 | 2.6 | 237.4 | 54.4 | 323.2 | -11.8 |
| Nan | 31.2 | 2.6 | 158.4 | -18.9 | 320.4 | -5.5 |
| Lamphun | 31.1 | 2.4 | 110.6 | -44.2 | 162.7 | -57.4 |
| Lampang | 31.7 | 2.9 | 201.8 | 41.4 | 247.3 | -13.4 |
| Mae Sariang | 30.8 | 2.4 | 93.2 | -69.1 | 139.9 | -89.3 |
| Phrae | 31.4 | 2.4 | 193.3 | 15.2 | 301.2 | -1.2 |
| Uttaradit | 32.4 | 2.6 | 89.2 | -140.8 | 100.8 | -243.6 |
| Bhumibol Dam | 31.9 | 2.7 | 153.8 | -43.8 | 169.5 | -124.8 |
| Tak | 31.5 | 1.9 | 145.5 | -29.4 | 209.4 | -46.0 |
| Mae Sot | 29.9 | 2.0 | 64.1 | -110.1 | 144.4 | -100.0 |
| Umphang | 26.9 | 1.3 | 96.1 | -98.9 | 220.8 | -139.3 |
| Phitsanulok | 31.6 | 1.7 | 66.8 | -104.1 | 206.1 | -64.6 |
| Lom Sak | 30.0 | 1.4 | 81.4 | -69.4 | 210.4 | -69.3 |
| Phetchabun | 30.3 | 1.5 | 134.3 | -28.5 | 289.0 | -19.4 |
| Wichian Buri | 30.8 | 1.4 | 78.2 | -79.9 | 217.4 | -101.5 |
| Kamphaeng Phet | 31.3 | 2.1 | 166.4 | -29.1 | 242.4 | -58.0 |

Northeastern Thailand

| Station | Temperature ( $\left.{ }^{\circ} \mathrm{c}\right)$ |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Nong Khai | 29.7 | 1.1 | 213.7 | -11.2 | 353.5 | -20.2 |
| Loei | 29.3 | 1.6 | 109.9 | -89.4 | 148.0 | -215.6 |
| Udon Thani | 30.0 | 1.1 | 86.3 | -112.2 | 173.5 | -177.1 |
| Nakhon Phanom | 29.2 | 0.8 | 164.5 | -92.6 | 346.9 | -105.4 |
| Sakon Nakhon | 29.0 | 0.6 | 206.5 | -21.1 | 303.1 | -109.3 |
| Mukdahan | 29.8 | 1.0 | 138.3 | -61.2 | 245.9 | -89.9 |
| Khon Kaen | 30.0 | 1.1 | 216.4 | 47.7 | 332.8 | 7.0 |
| Kosum Phisai | 30.3 | 1.0 | 232.8 | 71.3 | 294.7 | -26.1 |
| Roi Et | 30.0 | 1.0 | 123.2 | -62.9 | 273.0 | -53.0 |
| Chaiyaphum | 30.0 | 1.1 | 190.0 | 49.8 | 272.8 | -30.1 |
| Ubon Ratchathani | 30.2 | 1.2 | 236.3 | 27.7 | 347.2 | 3.9 |
| Tha Tum | 29.7 | 0.2 | 172.6 | 0.3 | 310.0 | -14.4 |
| Surin | 29.9 | 1.1 | 147.2 | -32.6 | 231.1 | -104.7 |
| Nakhon Ratchasima | 30.5 | 1.4 | 102.0 | -52.1 | 150.5 | -137.2 |
| Chok Chai | 30.4 | 1.6 | 25.9 | -123.1 | 86.0 | -200.6 |
| Nang Rong | 29.3 | 0.5 | 162.9 | -3.7 | 243.5 | -76.9 |
| Over the area | 29.8 | 1.0 | 158.0 | -29.1 | 257.0 | -84.4 |
|  |  |  | $-16 \%$ |  | $-25 \%$ |  |

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature
2) "T" is trace, rainfall amount less than 0.1 mm .
3) "blank" is incomplete data.
4) Temperature and rainfall are preliminary data.

# Monthly Current Report <br> Rainfall and Accumulative Rainfall 

May 2019
Central Thailand

| Station | Temperature ( ${ }^{\circ} \mathrm{c}$ ) |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 Janaary |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Nakhon Sawan | 31.5 | 1.5 | 233.2 | 82.5 | 312.6 | 48.9 |
| Bua Chum | 31.0 | 1.7 | 90.1 | -46.1 | 153.1 | -126.1 |
| Lop Buri | 31.1 | 1.5 | 78.6 | -68.5 | 99.5 | -173.8 |
| Suphan Buri | 31.2 | 1.4 | 107.7 | -6.6 | 159.0 | -33.9 |
| Thong Pha Phum | 29.8 | 1.7 | 115.8 | -111.7 | 161.4 | -236.1 |
| Kanchanaburi | 31.5 | 1.8 | 99.7 | -45.6 | 127.2 | -147.1 |
| Bangkok Airport | 31.1 | 1.3 | 119.4 | -88.2 | 218.0 | -138.9 |
| Bangkok Metropolis | 31.3 | 1.4 | 89.3 | -158.4 | 138.4 | -276.1 |
| Over the area | 31.1 | 1.6 | 116.7 | -55.4 | 171.2 | -135.4 |

Eastern Thailand

| Station | Temperature ( ${ }^{\circ} \mathrm{c}$ ) |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 January |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Prachin Buri | 31.0 | 1.7 | 241.8 | 10.8 | 323.4 | -99.0 |
| Kabin Buri | 30.2 | 1.3 | 73.4 | -118.9 | 229.8 | -146.7 |
| Aranyaprathet | 30.7 | 1.5 | 65.2 | -103.1 | 205.4 | -134.0 |
| Chon Buri | 31.0 | 1.2 | 117.9 | -57.4 | 266.6 | -54.5 |
| Ko Sichang | 30.8 | 1.2 | 233.7 | 99.3 | 263.2 | -24.7 |
| Pattaya | 30.2 | 1.0 | 163.1 | 14.8 | 334.0 | 38.5 |
| Sattahip | 30.7 | 1.1 | 136.4 | -35.5 | 255.4 | -99.2 |
| Rayong | 30.3 | 0.6 | 197.2 | -1.4 | 447.1 | 39.4 |
| Chanthaburi | 29.3 | 1.0 | 272.5 | -120.0 | 490.4 | -154.3 |
| Khlong Yai | 28.6 | 0.4 | 384.7 | -42.0 | 863.5 | 12.9 |
| Over the area | 30.3 | 1.1 | 188.6 | -35.3 | 367.9 | -62.2 |
|  |  |  |  | $-16 \%$ |  | $-14 \%$ |

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature
2) " T " is trace, rainfall amount less than 0.1 mm .
3) "blank" is incomplete data.
4) Temperature and rainfall are preliminary data.

# Monthly Current Report <br> Rainfall and Accumulative Rainfall 

May 2019
Southern Thailand, east coast

| Station | Temperature ( ${ }^{\circ} \mathrm{c}$ ) |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 Janaary |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Phetchaburi | 30.5 | 1.1 | 117.1 | 17.6 | 133.7 | -51.1 |
| Hua Hin | 30.3 | 1.0 | 105.5 | -3.4 | 134.1 | -102.2 |
| Prachuap Khiri Khan | 30.6 | 1.7 | 39.3 | -87.6 | 179.7 | -120.7 |
| Chumphon | 29.2 | 1.2 | 182.2 | -8.6 | 476.8 | -1.1 |
| Surat Thani | 28.4 | 0.7 | 175.0 | -3.0 | 290.8 | -33.7 |
| Ko Samui | 30.2 | 1.3 | 71.4 | -84.5 | 347.1 | -113.3 |
| Nakhon Si Thammarat | 29.1 | 0.9 | 225.0 | 51.2 | 679.7 | 95.6 |
| Songkhla | 29.5 | 0.7 | 157.6 | 38.0 | 390.7 | 12.9 |
| Hat Yai Airport | 28.3 | 0.5 | 176.2 | 28.5 | 432.0 | 12.4 |
| Pattani Airport | 29.0 | 0.8 | 140.9 | 3.4 | 454.6 | 110.2 |
| Narathiwat | Over the area | 29.2 | 1.0 | 151.0 | 8.9 | 484.8 |

Southern Thailand, west coast

| Station | Temperature ( ${ }^{\circ} \mathrm{c}$ ) |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 January |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal | Actual | Above <br> or below <br> normal |
| Ranong | 27.9 | 0.2 | 558.3 | 61.7 | 890.4 | 150.0 |
| Takua Pa | 27.7 | -0.2 | 511.5 | 74.0 | 878.5 | 35.9 |
| Phuket | 29.2 | 0.4 | 160.3 | -99.2 | 349.1 | -181.0 |
| Phuket Airport | 29.1 | 0.7 | 246.8 | -34.7 | 516.8 | -82.4 |
| Ko Lanta |  |  |  |  |  |  |
| Trang Airport <br> Satun$\quad 29.0$ | 0.3 | 149.4 | -95.4 | 313.2 | -146.0 |  |
| Over the area | 28.4 | 0.7 | 177.7 | -39.8 | 547.3 | 53.4 |
|  | 28.4 | 0.3 | 346.9 | 113.6 | 566.5 | -61.8 |

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature
2) " T " is trace, rainfall amount less than 0.1 mm .
3) "blank" is incomplete data.
4) Temperature and rainfall are preliminary data.





