## Monthly Weather Summary in Thailand October 2019

In October 2019, high pressure area from China periodically extended its ridge to cover the northern, northeastern parts and the South China Sea almost the whole month. In addition, the southeasterly and easterly winds prevailed over upper Thailand and the Gulf of Thailand during early month and became the northeast monsoon prevailing over the southern part and the Gulf of Thailand since the middle of the month. These conditions caused abundant rainfall in upper Thailand during the first half of the month after that rainfall was relatively diminished and temperature decreased to cool in the morning especially during the middle of the month that temperature drop with successive cool weather in the northern and northeastern regions. Southern Thailand experienced abundant rainfall almost the whole month. The monthly rainfall were lower than normal in all regions i.e., northern part 47.8 mm (39\%), northeastern part 83.5 mm (71\%), central part $84.6 \mathrm{~mm}(14 \%)$, eastern part 93.8 mm (42\%), southern part (east coast) $49.8 \mathrm{~mm}(20 \%)$ and southern part (west coast) 141.7 mm (39\%). The average temperature were higher than normal in all parts especially in upper Thailand where the temperature was $1.0^{\circ} \mathrm{C}$ above normal.

1-10 October: During the beginning of the period, the southwesterly wind prevailed over the northern, central and southern parts coupled with the blowing of the southeasterly wind over the northeastern and eastern parts. In addition, high pressure area extended its ridge from China to cover upper northern, upper northeastern and the South China Sea from the middle of the period which induced the southeasterly wind and easterly wind prevailed over the upper Thailand and the Gulf of Thailand during the middle and the end of the period. These brought rainfall in upper Thailand especially in the central and eastern parts where scattered to fairly widespread rain was found almost the period with heavy to very heavy rainfall in some areas. Northern region obtained isolated rain during early period after that scattered to fairly widespread rain with heavy to very heavy rainfall in some areas whereas scattered to fairly widespread rain with heavy rainfall in some areas was found in the northeastern part during mid-period with isolated rain during early and late period. The highest daily rainfall was 145.9 millimeter at Sattahip in Chon Buri province on October 5. In southern part, plentiful of rain was found almost the whole period especially along the west coast that received fairly widespread rain with heavy rainfall in some areas. There was scattered to fairly widespread rain with heavy to very heavy rainfall in some areas along the east coast. The maximum daily rainfall of 111.0 millimeter was measured at Yala Agrometeorological station on October 3.

11 - 20 October: The weak high pressure areas covered upper northern, upper northeastern and the South China Sea during the beginning of the period after that the another moderate high pressure areas extended its ridge to cover northern, northeastern, upper central and the South China Sea during the middle and the end of the period accompanied with the prevailing of the easterly wind over Thailand and the Gulf of Thailand during the middle of the period and the northeast monsoon prevailed over the southern part and the Gulf of Thailand during late period. These caused decreasing temperature in the northern and northeastern parts with cool weather in the morning especially during late period that temperature drops obviously
and cool weather was found in almost areas. The lowest minimum temperature was $18.5^{\circ} \mathrm{C}$ at Umphang in Tak province on October 20. For rainfall, upper Thailand received isolated to scattered rain with heavy to very heavy rainfall in some areas mainly during the beginning and the middle of the period after that rainfall decreased. The maximum daily rainfall in upper Thailand was 111.0 millimeter at Mae Tha in Lamphun province on October 15. In southern part, abundant rainfall was found almost the whole period especially along the east coast that received fairly widespread rain with heavy to very heavy rainfall in some areas whereas fairly widespread rain with heavy rainfall in some areas was found along the west coast. The heaviest daily rainfall in southern Thailand was 154.3 millimeter at Surat Thani Agrometeorological station on October 20.

21-31 October: Under the covering of the high pressure areas over the northern, northeastern, central and the South China Sea in addition with the strengthening of the northeast monsoon during late period. Besides, the tropical storm "MATMO (1922)" in the central South China Sea made landfall over Quy Nhon, Vietnam at late night of October 30. Then it moved westward into Cambodia before weakened into the tropical depression in the morning of October 31 and degenerated into active low pressure cell covering Cambodia in the evening of the same day. These conditions caused cool weather in almost areas of the northern and northeastern parts during early period after that increasing in temperature but cool weather remained in some areas. During late period, the temperature obviously decreased especially on the last day of the period that cool weather was found in the northern, northeastern and central regions and cold in some areas of the northern region. The lowest minimum temperature was $14.6{ }^{\circ} \mathrm{C}$ at Thung Chang in Nan Province on October 31. Cold weather was observed in the mountainous areas and mountain tops with the lowest temperature of $9.0^{\circ} \mathrm{C}$ at Doi Inthanon, Chom Thong in Chiang Mai province on October 31. For rainfall, there was scanty rain in the northeastern part whereas isolate rain with heavy rainfall in some days in the northern part foe few days. Central and eastern parts obtained isolated rain with heavy rainfall in some areas during the middle and the end of the period. The maximum daily rainfall in upper Thailand was 77.5 millimeter at Bhumibol Dam, Sam Ngao in Tak province on October 25. Southern Thailand received abundant rainfall with scattered to fairly widespread rain and heavy rainfall in some areas along the east coast. Fairly widespread rain with heavy to very heavy rainfall in some areas was found along the west coast, the heaviest daily rainfall of 107.5 millimeter was measured at Wang Wiset in Trang province on October 30.

Note : Rainfall, temperatures and natural disasters in this report were updated up to November
7, 2019

Climatological Center
Meteorological Development Bureau
Meteorological Department

# Monthly Current Report <br> Rainfall and Accumulative Rainfall <br> October 2019 

Northern Thailand

| Station | Temperature ( $\left.{ }^{\circ} \mathrm{c}\right)$ |  | 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 |
| Chiang Rai | 26.8 | 1.7 | 80.8 | -44.1 | 951.1 | -666.2 |
| Mae Hong Son | 27.4 | 1.0 | 55.0 | -59.5 | 1111.1 | -126.0 |
| Phayao | 26.3 | 1.0 | 58.9 | -63.7 | 721.4 | -367.4 |
| Chiang Mai | 27.8 | 1.7 | 175.5 | 57.9 | 936.0 | -124.8 |
| Tha Wang Pha | 27.1 | 1.3 | 33.2 | -50.2 | 1335.8 | -33.7 |
| Nan | 27.7 | 1.3 | 59.5 | -10.8 | 1274.1 | 66.7 |
| Lamphun | 27.2 | 1.1 | 62.9 | -47.2 | 861.8 | -90.5 |
| Lampang | 27.7 | 1.4 | 82.8 | -15.5 | 1216.3 | 207.3 |
| Mae Sariang | 27.2 | 1.1 | 53.3 | -61.9 | 911.6 | -194.5 |
| Phrae | 27.9 | 1.4 | 15.0 | -73.8 | 982.8 | -98.6 |
| Uttaradit | 29.3 | 1.6 | 72.6 | -38.4 | 809.9 | -530.0 |
| Bhumibol Dam | 27.7 | 1.3 | 190.9 | -13.4 | 739.2 | -252.2 |
| Tak | 28.3 | 1.5 | 129.9 | -69.3 | 823.9 | -177.5 |
| Mae Sot | 27.6 | 1.5 | 80.6 | -21.5 | 1650.6 | 212.6 |
| Umphang | 25.2 | 1.3 | 114.5 | -41.3 | 1323.7 | -107.3 |
| Phitsanulok | 29.1 | 1.3 | 16.6 | -145.9 | 854.5 | -418.0 |
| Lom Sak | 28.4 | 1.6 | 35.8 | -52.7 | 801.8 | -222.9 |
| Phetchabun | 29.0 | 2.2 | 37.6 | -52.8 | 879.2 | -234.8 |
| Wichian Buri | 28.8 | 1.1 | 59.6 | -72.0 | 1131.5 | -64.5 |
| Kamphaeng Phet | 28.9 | 1.7 | 111.2 | -80.5 | 1026.0 | -229.9 |
| Over the area | 27.8 | 1.4 | 76.3 | -47.8 | 1017.1 | -172.7 |

Northeastern Thailand

| Station | Temperature $\left({ }^{\circ} \mathrm{c}\right)$ |  | 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 |
| Nong Khai | 29.1 | 2.4 | 16.3 | -74.6 | 1607.7 | 19.0 |
| Loei | 27.7 | 2.1 | 10.9 | -112.4 | 625.7 | -586.5 |
| Udon Thani | 28.3 | 1.4 | 31.3 | -58.8 | 1285.7 | -119.5 |
| Nakhon Phanom | 28.1 | 1.7 | 23.2 | -73.8 | 2170.1 | -162.2 |
| Sakon Nakhon | 27.8 | 1.4 | 7.5 | -69.4 | 1211.4 | -416.1 |
| Mukdahan | 28.1 | 1.8 | 13.1 | -87.5 | 1586.5 | 122.4 |
| Khon Kaen | 28.4 | 1.9 | 22.8 | -94.9 | 1050.8 | -176.0 |
| Kosum Phisai | 28.6 | 1.5 | 11.8 | -99.6 | 1257.1 | 14.6 |
| Roi Et | 28.4 | 1.7 | 21.1 | -86.2 | 1530.7 | 206.0 |
| Chaiyaphum | 28.6 | 1.6 | 23.2 | -113.8 | 777.8 | -336.3 |
| Ubon Ratchathani | 28.3 | 1.5 | 26.6 | -96.5 | 1690.7 | 132.6 |
| Tha Tum | 28.2 | 1.2 | 32.3 | -94.0 | 1186.2 | -179.7 |
| Surin | 27.8 | 1.1 | 19.1 | -109.1 | 1191.1 | -210.5 |
| Nakhon Ratchasima | 28.1 | 1.4 | 85.4 | -60.9 | 643.3 | -401.6 |
| Chok Chai | 27.7 | 1.1 | 107.0 | -57.3 | 571.6 | -470.6 |
| Nang Rong | 27.4 | 0.9 | 86.3 | -47.6 | 825.0 | -328.3 |
| Over the area | 28.2 | 1.6 | 33.6 | -83.5 | 1200.7 | -180.8 |

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.

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

Central Thailand

| Station | Temperature $\left({ }^{\circ} \mathrm{c}\right)$ |  | 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 |
| Nakhon Sawan | 29.2 | 1.5 | 61.6 | -91.8 | 970.7 | -147.0 |
| Bua Chum | 28.2 | 1.0 | 72.0 | -55.3 | 899.3 | -161.4 |
| Lop Buri | 29.4 | 1.6 | 104.5 | -49.2 | 786.0 | -301.5 |
| Suphan Buri | 29.8 | 1.8 | 71.9 | -124.8 | 507.4 | -417.2 |
| Thong Pha Phum | 27.9 | 1.3 | 53.4 | -118.9 | 1466.4 | -289.8 |
| Kanchanaburi | 29.4 | 2.1 | 124.8 | -84.4 | 636.3 | -355.3 |
| Bangkok Airport | 29.4 | 1.2 | 175.4 | -16.5 | 987.2 | -344.6 |
| Bangkok Metropolis | 29.5 | 1.4 | 156.1 | -136.0 | 1051.4 | -541.0 |
| Over the area | 29.1 | 1.5 | 102.5 | -84.6 | 913.1 | -319.7 |
|  |  |  |  | $-45 \%$ |  | $-26 \%$ |

Eastern Thailand

| Station | Temperature $\left({ }^{\circ} \mathrm{c}\right)$ |  | 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 | 30.1 | 2.0 | 19.1 | -141.8 | 1335.3 | -451.3 |
| Kabin Buri | 28.2 | 0.7 | 84.9 | -69.6 | 1285.5 | -278.3 |
| Aranyaprathet | 28.9 | 1.4 | 64.2 | -110.0 | 1122.4 | -182.1 |
| Chon Buri | 29.3 | 1.4 | 125.1 | -83.8 | 1018.0 | -223.3 |
| Ko Sichang | 28.7 | 1.2 | 144.0 | -63.1 | 887.1 | -262.7 |
| Pattaya | 28.2 | 1.2 | 172.1 | -44.0 | 846.4 | -183.9 |
| Sattahip | 28.3 | 1.0 | 356.4 | 96.6 | 1169.3 | -10.7 |
| Rayong | 28.6 | 1.0 | 84.3 | -110.1 | 922.4 | -404.1 |
| Chanthaburi | 28.7 | 1.7 | 119.2 | -178.4 | 2525.5 | -407.4 |
| Khlong Yai | 28.0 | 1.2 | 144.1 | -233.3 | 5291.0 | 540.1 |
| Over the area | 28.7 | 1.3 | 131.3 | -93.8 | 1640.3 | -186.5 |

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<br>October 2019

Southern Thailand, east 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 |
| Phetchaburi | 29.5 | 1.8 | 46.8 | -231.6 | 576.4 | -305.5 |
| Hua Hin | 28.8 | 1.4 | 111.9 | -134.3 | 640.1 | -205.9 |
| Prachuap Khiri Khan | 28.3 | 1.2 | 114.7 | -113.1 | 722.2 | -200.1 |
| Chumphon | 27.3 | 0.7 | 212.4 | -39.2 | 1479.0 | 17.5 |
| Surat Thani | 26.8 | 0.4 | 231.8 | -4.6 | 1014.0 | -148.7 |
| Ko Samui | 27.9 | 0.7 | 246.4 | -63.4 | 988.4 | -254.8 |
| Nakhon Si Thammarat | 27.0 | 0.3 | 300.6 | -2.4 | 1432.5 | 18.9 |
| Songkhla | 27.7 | 0.4 | 210.3 | -46.8 | 1008.1 | -68.0 |
| Hat Yai Airport | 26.5 | 0.0 | 288.8 | 61.0 | 1094.2 | -47.3 |
| Pattani Airport | 27.0 | 0.1 | 179.6 | -36.6 | 1162.0 | 81.8 |
| Narathiwat | 27.3 | 0.4 | 317.3 | 62.9 | 1531.6 | 191.4 |
| Over the area | 27.6 | 0.6 | 205.5 | -49.8 | 1059.0 | -83.8 |
|  |  |  | $-20 \%$ |  | $-7 \%$ |  |

Southern Thailand, west coast

| Station | Temperature ( ${ }^{\circ} \mathrm{c}$ ) |  | Rainfall (mm) |  | Accumulative rainfall (mm) <br> Since 1 January |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Ranong | 27.1 | 0.7 | 133.1 | -291.4 | 3710.2 | -160.4 |
| Takua Pa | 26.9 | 0.4 | 208.8 | -309.0 | 3053.9 | -301.1 |
| Phuket | 28.3 | 0.9 | 217.6 | -102.5 | 1507.0 | -462.7 |
| Phuket Airport | 27.7 | 0.7 | 117.9 | -235.5 | 2146.8 | -53.0 |
| Ko Lanta | 27.2 | -0.1 | 243.0 | -82.4 | 1900.8 | -73.1 |
| Trang Airport | 26.6 | 0.2 | 309.0 | 23.5 | 1811.3 | -7.9 |
| Satun | 27.1 | 0.3 | 343.9 | 4.9 | 1850.5 | -118.6 |
| Over the area | 27.3 | 0.5 | 224.8 | $\begin{aligned} & -141.7 \\ & -39 \% \\ & \hline \end{aligned}$ | 2282.9 | $\begin{gathered} -168.1 \\ -7 \% \\ \hline \end{gathered}$ |

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









