Monthly Weather Summary in Thailand October 2018

In October 2018, high pressure area from China extended its ridge to cover upper Thailand induced the monsoon trough moved southward to lie over the southern part during the beginning of the month and lay toward the low pressure cell in the lower Gulf of Thailand and in the lower South China Sea for few days in addition with the prevailing of the easterly wind over Thailand almost the whole month. Besides, the tropical depression in the lower South China Sea moved to the Gulf of Thailand and made landfall in southern Thailand at Prachuap Khiri Khan province on October 20 after that it downgraded into low pressure cell and moved to cover the Gulf of Mataban, Myanmar. From these weather conditions, the amount and distribution of rainfall in upper Thailand was mainly observed in the central and eastern parts while northern and northeastern parts obtained rainfall during the second half of the month and plentiful of rain was found in the southern part nearly the whole month. However, the high pressure areas from China extended its ridge to cover upper Thailand during late month causing cool weather in the morning in upper Thailand mainly in the northern and northeastern parts on October 30 onwards and rainfall was relatively decreased which considered as the beginning of the 2018 winter. The monthly rainfall were lower than normal in most regions i.e., northeastern part 65.0 mm (56%), central part 33.3 mm (18%), eastern part 9.5 mm (4%) and southern part (west coast) 61.5 mm (17%) while it was higher than normal in the northern and southern part (east coast) 1.8 mm (1%) and 44.9 mm (18%), respectively.

1 - 10 October: A ridge of high pressure area extended from China to cover upper Thailand during early period and later weakened. The monsoon trough which lay across the central, eastern and upper southern parts during early period shifted southwards to lie over southern part during the middle and the end of the period. It lay towards the low pressure cell in the lower Gulf of Thailand on October 4 and 5 and towards the low pressure area in the lower South China Sea on October 6 and 7. the associated easterly wind prevailed over the central, eastern and southern parts almost the whole period brought rainfall in the central and eastern parts almost the whole period especially during the first half of the period that experienced fairly widespread rain with heavy to very heavy rainfall in some areas. Northern part obtained rain with heavy to very heavy rainfall during early period whereas northeastern had less rainfall. The highest daily rainfall was 129.5 millimeter at Amphoe Mueang in Phayao province on October 2 with flooding at Phayao province on October 2 and at Lampang province on October3. In southern part, plentiful of rain was observed throughout the period especially during mid-period that obtained fairly widespread rain with heavy to very heavy rainfall in some areas. The maximum daily rainfall of 128.5 millimeter was measured at Sukhirin in Narathiwat province on October 5 with flooding at Surat Thani and Phuket provinces on October 2 and at Krabi province on October 3 and at Prachuap Khiri Khan on October 4 and 5 and also flash flooding at Krabi province on October 3.

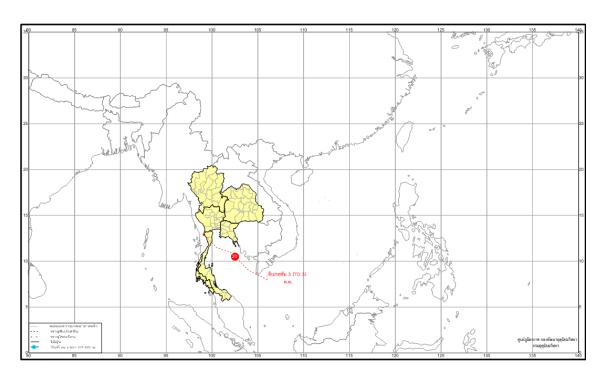
11 – 20 October: The another rather active high pressure areas extended its ridge to cover upper Thailand and the South China Sea during early period and later weakened, the easterly wind prevailed over the lower northeastern, eastern, lower central and southern parts almost the whole period and the low pressure cell covered Malaysia during early period. Moreover, during late period, the active low pressure cell in the lower South China Sea intensified

into the tropical depression on October 19 after that it moved through the Tip of Indochina into the Gulf of Thailand and made landfall in Southern part of Thailand at Kui Buri, Prachuap Khiri Khan province at 10.00 p.m. on October 20 and downgraded into low pressure area covering Prachuap Khiri Khan province. These conditions caused rainfall in the central, eastern and southern parts especially on the last day of the period that obtained widespread rain with heavy rainfall in several areas and very heavy rainfall in some areas. Meanwhile, northern and northeastern parts experienced rainfall in the lower portion during the second half of the period. The highest daily rainfall in upper Thailand was 110.7 millimeter at Non Sang self-help Settlement in Nong Bua Lamphu province on October 17 with flash flooding at Kanchanaburi province on October 20. The heaviest daily rainfall in southern Thailand was 98.6 mm at Hat Chao Samran, Amphoe Mueang, Phetchaburi province on October 20.

21 - 31 October: Under the influence of the low pressure cell which downgraded from the tropical depression moved to cover the Gulf of Mataban, Myanmar during early period and the prevailing of the southeasterly over the northeastern, central, eastern and the Gulf of Thailand during the first half of the period. Besides, the easterly wind blowing over the southern part and the low pressure area covered lower southern part and Malaysia during mid-period. These conditions caused scattered to fairy widespread rain with heavy to very heavy rainfall in some areas in the northern and northeastern parts during early period while central and eastern part experienced rainfall during the first half of the period. The maximum daily rainfall in upper Thailand was 364.0 millimeter at Wat Sap Samosorn School, Nong Chok District, Bangkok on October 22. Flash flooding was reported at Lampang province on October 23 and flash flooding with mudslide at Lamphun province on October 23. In southern part, abundant rainfall was observed almost the whole period especially fairly widespread rain with heavy to very heavy rainfall in some places during the first half of the period. The heaviest daily rainfall in southern Thailand was 100.4 millimeter at Phato in Chumphon province on October 24 with flash flooding at Trang province on October 23 and at Prachuap Khiri Khan province on October 25. However, the rather active high pressure area from China extended its ridge to cover upper Thailand during the middle of the period and the another high pressure extended to dominate the mentioned areas during late period causing cool weather in the morning in the northern and northeastern parts and decreasing in rainfall in upper Thailand. The lowest minimum temperature was 16.8 $^{\circ}\mathrm{C}$ at Agrometeorological Staton in Roi Et and Nakhon Phanom province on October 31. Cold weather was observed in the mountainous areas and mountain tops with the lowest temperature of 8.8 °C at Doi Tnthanon, Chom Thong in Chiang Mai province on October 28.

<u>Note</u>: Rainfall, temperatures and natural disasters in this report were updated up to November 6, 2018.

Climatological Center Meteorological Development Bureau Meteorological Department



Track of tropical depression entering Thailand in October 2018

Monthly Current Report Rainfall and Accumulative Rainfall October 2018

Northern Thailand

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|----------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Chiang Rai | 26.1 | 1.0 | 168.4 | 43.5 | 1808.5 | 191.2 |
| Mae Hong Son | 26.4 | 0.0 | 120.8 | 6.3 | 1135.8 | -101.3 |
| Phayao | 25.9 | 0.6 | 239.0 | 116.4 | 1437.8 | 349.0 |
| Chiang Mai | 27.5 | 1.4 | 214.6 | 97.0 | 951.0 | -109.8 |
| Tha Wang Pha | 27.1 | 1.3 | 95.2 | 11.8 | 1830.5 | 461.0 |
| Nan | 27.7 | 1.3 | 18.2 | -52.1 | 1109.6 | -97.8 |
| Lamphun | 26.9 | 0.8 | 254.1 | 144.0 | 1101.1 | 148.8 |
| Lampang | 27.3 | 1.0 | 102.7 | 4.4 | 1150.3 | 141.3 |
| Mae Sariang | 26.6 | 0.5 | 202.7 | 87.5 | 1501.6 | 395.5 |
| Phrae | 27.6 | 1.1 | 32.7 | -56.1 | 1031.7 | -49.7 |
| Uttaradit | 28.7 | 1.0 | 102.3 | -8.7 | 1326.1 | -13.8 |
| Bhumibol Dam | 26.9 | 0.5 | 209.2 | 4.9 | 1025.3 | 33.9 |
| Tak | 27.7 | 0.9 | 180.9 | -18.3 | 911.5 | -89.9 |
| Mae Sot | 27.0 | 0.9 | 77.0 | -25.1 | 1770.3 | 332.3 |
| Umphang | 24.9 | 1.0 | 79.6 | -76.2 | 1202.2 | -228.8 |
| Phitsanulok | 28.6 | 0.8 | 60.4 | -102.1 | 1160.2 | -112.3 |
| Lom Sak | 28.1 | 1.3 | 45.5 | -43.0 | 872.4 | -152.3 |
| Phetchabun | 28.3 | 1.5 | 94.8 | 4.4 | 1016.5 | -97.5 |
| Wichian Buri | 28.7 | 1.0 | 83.9 | -47.7 | 1315.8 | 119.8 |
| Kamphaeng Phet | 28.5 | 1.3 | 136.5 | -55.2 | 1119.6 | -136.3 |
| Over the area | 27.3 | 0.9 | 125.9 | 1.8 | 1238.9 | 49.1 |
| | | | | 1% | | 4% |

Northeastern Thailand

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|-------------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Nong Khai | 28.2 | 1.5 | 75.6 | -15.3 | 1743.2 | 154.5 |
| Loei | 26.7 | 1.1 | 71.6 | -51.7 | 1142.6 | -69.6 |
| Udon Thani | 27.9 | 1.0 | 38.9 | -51.2 | 1398.6 | -6.6 |
| Nakhon Phanom | 28.2 | 1.8 | 44.6 | -52.4 | 2790.2 | 457.9 |
| Sakon Nakhon | 27.5 | 1.1 | 2.2 | -74.7 | 1572.1 | -55.4 |
| Mukdahan | 28.0 | 1.7 | 27.0 | -73.6 | 1931.1 | 467.0 |
| Khon Kaen | 27.5 | 1.0 | 77.6 | -40.1 | 1277.8 | 51.0 |
| Kosum Phisai | 28.3 | 1.2 | 23.6 | -87.8 | 1206.1 | -36.4 |
| Roi Et | 28.3 | 1.6 | 14.1 | -93.2 | 1216.7 | -108.0 |
| Chaiyaphum | 28.4 | 1.4 | 76.7 | -60.3 | 898.5 | -215.6 |
| Ubon Ratchathani | 28.2 | 1.4 | 77.3 | -45.8 | 1722.4 | 164.3 |
| Tha Tum | 28.1 | 1.1 | 46.2 | -80.1 | 1086.2 | -279.7 |
| Surin | 28.1 | 1.4 | 55.3 | -72.9 | 1112.5 | -289.1 |
| Nakhon Ratchasima | 28.3 | 1.6 | 106.8 | -39.5 | 1009.2 | -35.7 |
| Chok Chai | 28.1 | 1.5 | 67.6 | -96.7 | 860.7 | -181.5 |
| Nang Rong | 27.7 | 1.2 | 27.8 | -106.1 | 743.5 | -409.8 |
| Over the area | 28.0 | 1.4 | 52.1 | -65.0 | 1357.0 | -24.5 |
| | | | | -56% | | -2% |

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 Rainfall and Accumulative Rainfall October 2018

Central Thailand

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|--------------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Nakhon Sawan | 29.2 | 1.5 | 20.7 | -132.7 | 859.4 | -258.3 |
| Bua Chum | 28.1 | 0.9 | 102.3 | -25.0 | 1633.4 | 572.7 |
| Lop Buri | 29.0 | 1.2 | 106.3 | -47.4 | 1211.1 | 123.6 |
| Suphan Buri | 29.1 | 1.1 | 186.2 | -10.5 | 867.5 | -57.1 |
| Thong Pha Phum | 27.4 | 0.8 | 126.4 | -45.9 | 1865.1 | 108.9 |
| Kanchanaburi | 28.6 | 1.3 | 186.2 | -23.0 | 728.1 | -263.5 |
| Bangkok Airport | 28.8 | 0.6 | 193.3 | 1.4 | 1590.0 | 258.2 |
| Bangkok Metropolis | 28.8 | 0.7 | 311.1 | 19.0 | 1745.6 | 153.2 |
| Over the area | 28.6 | 1.0 | 154.1 | -33.0 | 1312.5 | 79.7 |
| | | | | -18% | | 6% |

Eastern Thailand

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|---------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Prachin Buri | 29.5 | 1.4 | 112.0 | -48.9 | 1956.7 | 170.1 |
| Kabin Buri | 28.2 | 0.7 | 166.0 | 11.5 | 2254.1 | 690.3 |
| Aranyaprathet | 28.7 | 1.2 | 149.7 | -24.5 | 1403.6 | 99.1 |
| Chon Buri | 28.9 | 1.0 | 186.3 | -22.6 | 1304.6 | 63.3 |
| Ko Sichang | 28.2 | 0.7 | 219.6 | 12.5 | 1117.9 | -31.9 |
| Pattaya | 27.6 | 0.6 | 226.6 | 10.5 | 1053.4 | 23.1 |
| Sattahip | 27.9 | 0.6 | 402.5 | 142.7 | 1464.0 | 284.0 |
| Rayong | 28.0 | 0.4 | 127.4 | -67.0 | 938.3 | -388.2 |
| Chanthaburi | 28.1 | 1.1 | 248.0 | -49.6 | 2333.7 | -599.2 |
| Khlong Yai | 27.4 | 0.6 | 317.9 | -59.5 | 4776.3 | 25.4 |
| Over the area | 28.3 | 0.9 | 215.6 | -9.5 | 1860.3 | 33.5 |
| | | | | -4% | | 2% |

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 Rainfall and Accumulative Rainfall October 2018

Southern Thailand, east coast

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|---------------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Phetchaburi | 28.8 | 1.1 | 360.2 | 81.8 | 942.6 | 60.7 |
| Hua Hin | 28.3 | 0.9 | 355.7 | 109.5 | 1095.1 | 249.1 |
| Prachuap Khiri Khan | 27.7 | 0.6 | 345.6 | 117.8 | 1121.9 | 199.6 |
| Chumphon | 27.3 | 0.7 | 224.4 | -27.2 | 1593.7 | 132.2 |
| Surat Thani | 26.9 | 0.5 | 162.7 | -73.7 | 1280.2 | 117.5 |
| Ko Samui | 27.6 | 0.4 | 215.0 | -94.8 | 1217.9 | -25.3 |
| Nakhon Si Thammarat | 27.1 | 0.4 | 335.1 | 32.1 | 1299.1 | -114.5 |
| Songkhla | 27.5 | 0.2 | 456.8 | 199.7 | 1366.3 | 290.2 |
| Hat Yai Airport | 26.9 | 0.4 | 212.0 | -15.8 | 1023.8 | -117.7 |
| Pattani Airport | 27.3 | 0.4 | 309.1 | 92.9 | 1318.1 | 237.9 |
| Narathiwat | 27.4 | 0.5 | 326.0 | 71.6 | 1783.6 | 443.4 |
| Over the area | 27.5 | 0.5 | 300.2 | 44.9 | 1276.6 | 133.8 |
| | | | | 18% | | 12% |

Southern Thailand, west coast

| | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|----------------|------------------|----------|---------------|----------|--|----------|
| Station | | Above | | Above | | Above |
| | Mean | or below | Actual | or below | Actual | or below |
| | | normal | | normal | | normal |
| Ranong | 27.1 | 0.7 | 307.2 | -117.3 | 4669.8 | 799.2 |
| Takua Pa | 26.6 | 0.1 | 382.0 | -135.8 | 3574.8 | 219.8 |
| Phuket | 27.8 | 0.4 | 360.0 | 39.9 | 1964.1 | -5.6 |
| Phuket Airport | 27.5 | 0.5 | 216.5 | -136.9 | 2393.0 | 193.2 |
| Ko Lanta | 27.3 | 0.0 | 300.2 | -25.2 | 1641.9 | -332.0 |
| Trang Airport | 27.0 | 0.6 | 299.9 | 14.4 | 1947.1 | 127.9 |
| Satun | 27.3 | 0.5 | 268.9 | -70.1 | 1984.3 | 15.2 |
| Over the area | 27.2 | 0.4 | 305.0 | -61.5 | 2596.4 | 145.4 |
| | | | | -17% | | 6% |

NOTES: 1) Mean temperature is the average of daily dry-bulb temperature

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- 4) Temperature and rainfall are preliminary data.

