

Monthly Weather Summary in Thailand September 2011

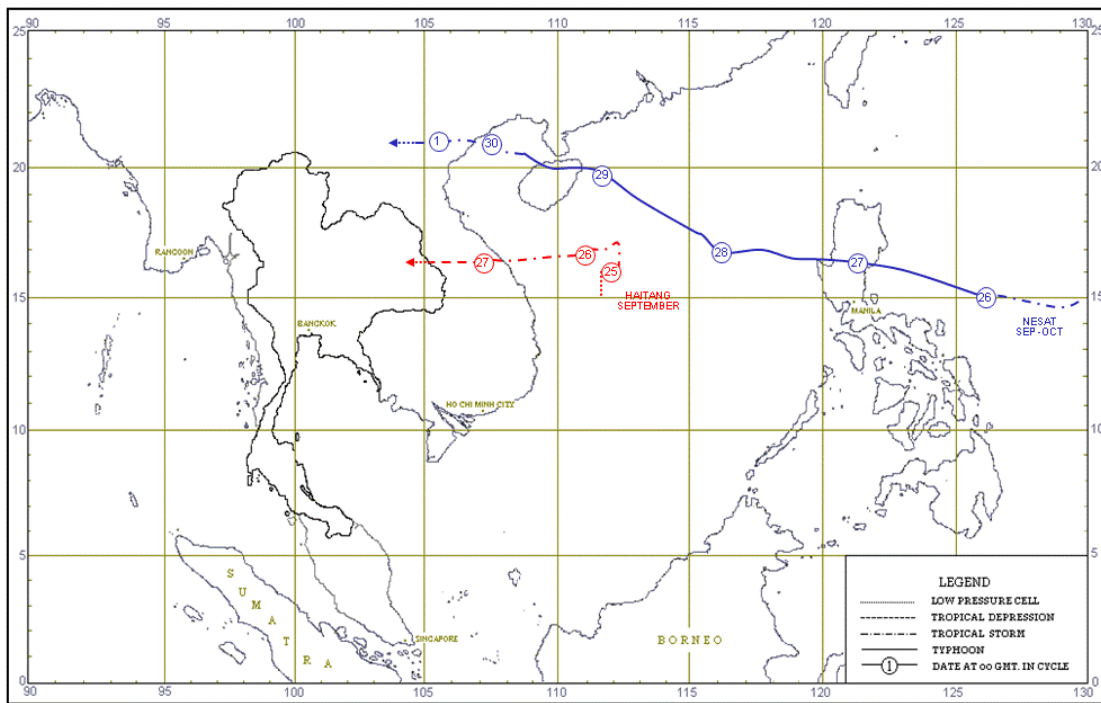
The weather during September was a combination between the rather active monsoon trough which lay across upper Thailand almost the whole month and the moderate to rather active southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand. This was followed by the remnants of tropical storm “HAITANG” and Typhoon “NESAT” during late September, resulting in abundant rainfall led to widely major flooding across upper Thailand mainly in lower northern and central parts almost the whole month. These conditions brought above normal rainfall in northern part 97.5 mm (46%), northeastern part 110.3 mm (46%), eastern part 132.7 mm (40%) and southern part (west coast) 6.7 mm (2%). For the rest of the country, monthly rainfalls were inversely below normal in central part 4.1 mm (2%) and southern part (east coast) 21.3 mm (15%). Mean temperatures were slightly above normal in most parts except for slightly below normal in northeastern part.

1 – 11 September: The moderate monsoon trough which lay across the northern and northeastern parts during mid period after that it strengthened and moved southward to the central northeastern and eastern parts. In addition, the moderate to rather active southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand almost the period. These caused heavy downpour rainfall in upper Thailand throughout the period. The highest daily rainfall of 221.2 mm was measured at Amphoe Mueang, Chanthaburi province on September 10. Phitsanulok, Sukhothai, Phra Nakhon Si Ayutthaya, Ang Thong, Saraburi and Nakhon Sawan provinces remained severe flooding as well as Chanthaburi, Nakhon Nayok and Chon Buri provinces experienced flooding during late period. Moreover, flash floods occurred at Uttaradit and Lampang provinces on September 9 and Phetchabun province on September 10 and also mudslide at Uttaradit on September 9. In southern Thailand, widely scattered to scattered rain and heavy rainfall occurred in some areas with an exceptional of widespread rain with heavy to very heavy rainfall in several places on September 10 and 11. The highest amount of rainfall was 157.1 mm at Amphoe Mueang, Ranong province on September 11. Floods occurred at Phang-nga and Satun provinces on September 11.

12 – 18 September: The monsoon trough lay across northern and upper northeastern parts almost the period. During the first half of the period, the monsoon trough lay to the low pressure cell which located in the Gulf of Tonkin. In addition with the rather active southwest monsoon weakened during the second half of the period. Under these influences, upper Thailand experienced widespread rain with heavy rainfall in several places and very heavy rainfall in some areas especially in the northern and northeastern parts mainly during the first half of the period. The maximum daily rainfall in upper Thailand was 160.0 mm at Bung Khla in Nong Khai province on September 17. Flooding remained in the northern, central and eastern parts and expanded to Phichit, Tak, Nakhon Ratchasima, Kalasin, Loei, Lop Buri, Sing Buri, Suphan Buri, Nonthaburi and Pathum Thani provinces. There were also reports of flash flood at Uttaradit Lampang and Phetchabun provinces during the first half of the period. For southern Thailand, fairly widespread rain and isolated heavy rainfall occurred in the first half of the period then rainfall was relatively decreased over the area of east coast. The maximum daily rainfall was 82.2 mm at Amphoe Mueang, Narathiwat province on September 13.

19 – 30 September: The moderated high pressure area from China extended its ridge to cover upper Thailand during early period. The monsoon trough moved southward to lie across the lower northern, upper central and northeastern parts, after that it lay over the central and lower northeastern parts to the low pressure cell which located in the middle South China Sea. This low pressure cell intensified into a tropical storm “HAITANG” on September 25 before making

landfall over coast of Hue, Vietnam on September 27 and downgraded to tropical depression as it moved pass Lao. Moreover, the remnant of “HAITANG” covered northeastern and northern parts of Thailand on September 28 and typhoon “NESAT”, which weakened into a tropical storm, made landfall over Halong, Vietnam on September 30. In addition, the rather active southwest monsoon prevailed over the Andaman Sea, southern part and the Gulf of Thailand almost the period. The combined effect of these conditions brought plentiful rain to upper Thailand almost the period. The highest daily rainfall of 152.3 mm was measured at Na Thom in Nakhon Phanom province on September 30. Flooding remained in Phitsanulok, Sukhothai, Uttaradit, Lampang, Phetchabun, Phichit, Tak, Kalasin, Loei, Nakhon Sawan, Phra Nakhon Si Ayutthaya, Ang Thong, Saraburi, Lop Buri, Sing Buri, Suphan Buri and Nakhon Nayok provinces. Prachin Buri and Chaing Mai provinces experienced flash flood on September 24 and September 28, respectively. In southern Thailand, scattered to fairly widespread rain was found with heavy rainfall in some areas mainly in west coast with the maximum daily rainfall, 93.5 mm at Takua Pa in Phang-nga province on September 19.



Tropical cyclone tracks in September 2011

Note : Rainfall, temperatures and natural disasters in this report were updated up to October 5, 2011.

Climatological Center
 Meteorological Development Bureau
 Meteorological Department

Monthly Current Report
Rainfall and Accumulative Rainfall
September 2011

Northern Thailand

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|----------------|------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Chiang Rai | 26.7 | 0.8 | 273.5 | 2.3 | 1952.9 | 456.5 |
| Mae Hong Son | 27.3 | 0.6 | 235.6 | 30.9 | 1503.9 | 388.0 |
| Phayao | 26.8 | 0.4 | 161.3 | -32.2 | 1277.6 | 350.2 |
| Chiang Mai | 27.2 | 0.6 | 254.9 | 52.5 | 1372.5 | 424.6 |
| Tha Wang Pha | 27.0 | 0.2 | 400.0 | 217.0 | 1840.7 | 560.7 |
| Nan | 27.3 | 0.3 | 326.7 | 130.2 | 1868.5 | 737.0 |
| Lamphun | 26.9 | 0.0 | 318.4 | 127.1 | 1558.0 | 761.4 |
| Lampang | 27.3 | 0.5 | 314.3 | 104.0 | 1624.7 | 713.0 |
| Mae Sariang | 26.6 | 0.0 | 233.8 | 56.9 | 1471.5 | 468.3 |
| Phrae | 27.2 | 0.2 | 263.0 | 77.6 | 1479.7 | 516.9 |
| Uttaradit | 27.7 | -0.2 | 501.0 | 237.5 | 1953.7 | 693.8 |
| Bhumibol Dam | 27.6 | 0.1 | 227.2 | 8.6 | 1102.7 | 329.2 |
| Tak | 27.8 | 0.4 | 238.4 | 29.5 | 1126.8 | 342.9 |
| Mae Sot | 26.0 | 0.0 | 374.1 | 214.2 | 1948.2 | 680.6 |
| Umphang | 24.6 | 0.3 | 262.7 | 14.7 | 1724.0 | 485.5 |
| Phitsanulok | 27.9 | -0.2 | 380.5 | 149.9 | 1695.4 | 559.0 |
| Lom Sak | 27.0 | -0.1 | 323.0 | 134.8 | 978.7 | 32.7 |
| Phetchabun | 27.1 | 0.0 | 400.0 | 199.2 | 1553.3 | 578.2 |
| Wichian Buri | 27.8 | 0.0 | 339.1 | 94.8 | 1452.0 | 387.3 |
| Kamphaeng Phet | 27.5 | -0.2 | 368.8 | 100.3 | 1342.6 | 308.5 |
| Over the area | 27.1 | 0.2 | 309.8 | 97.5 46% | 1541.4 | 488.9 46% |

Northeastern Thailand

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|-------------------|------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Nong Khai | 27.5 | 0.2 | 574.3 | 338.9 | 2219.4 | 778.8 |
| Loei | 26.4 | 0.1 | 464.2 | 244.3 | 1781.6 | 683.5 |
| Udon Thani | 27.2 | -0.3 | 274.7 | 50.4 | 1456.8 | 159.5 |
| Nakhon Phanom | 26.6 | -0.4 | 527.7 | 251.2 | 2643.7 | 483.2 |
| Sakon Nakhon | 26.8 | -0.4 | 220.2 | 8.9 | 1689.0 | 175.0 |
| Mukdahan | 26.8 | -0.5 | 231.5 | -4.0 | 1701.5 | 301.1 |
| Khon Kaen | 26.8 | -0.3 | 367.8 | 131.7 | 1188.5 | 108.0 |
| Kosum Phisai | 27.4 | -0.2 | 385.3 | 157.8 | 1294.8 | 206.4 |
| Roi Et | 27.0 | -0.4 | 561.6 | 312.0 | 1423.9 | 190.3 |
| Chaiyaphum | 27.0 | -0.2 | 282.1 | 52.8 | 1169.0 | 204.8 |
| Ubon Ratchathani | 26.6 | -0.6 | 366.8 | 77.1 | 1661.1 | 211.7 |
| Tha Tum | 27.6 | 0.0 | 297.5 | 21.2 | 1237.2 | -5.5 |
| Surin | 27.0 | -0.2 | 315.5 | 56.3 | 1518.1 | 328.6 |
| Nakhon Ratchasima | 27.5 | 0.3 | 187.0 | -39.6 | 1039.9 | 176.4 |
| Chok Chai | 27.3 | 0.2 | 313.1 | 82.0 | 894.8 | -7.2 |
| Nang Rong | 27.0 | -0.2 | 265.3 | 23.9 | 1121.4 | 106.1 |
| Over the area | 27.0 | -0.2 | 352.2 | 110.3 46% | 1502.5 | 256.1 21% |

- NOTES :
- 1) Input data are received via ssb radio each day. They have not been certified yet so this current report has to be checked with monthly weather reports later
 - 2) Mean temperature is the average of daily dry-bulb temperature
 - 3) "T" is trace, rainfall amount less than 0.1 mm.
 - 4) "blank" is incomplete data.

Monthly Current Report
Rainfall and Accumulative Rainfal
September 2011

Central Thailand

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|--------------------|-------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Nakhon Sawan | 28.0 | 0.1 | 210.9 | -7.3 | 1375.1 | 465.7 |
| Bua Chum | 27.8 | 0.3 | 426.1 | 163.0 | 1030.0 | 83.8 |
| Lop Buri | 27.9 | 0.1 | 325.5 | 61.8 | 1047.5 | 114.1 |
| Suphan Buri | 28.3 | 0.2 | 189.7 | -64.2 | 765.3 | -33.8 |
| Thong Pha Phum | 26.2 | -0.4 | 218.0 | -24.5 | 1806.3 | 246.9 |
| Kanchanaburi | 28.5 | 0.6 | 131.8 | -96.0 | 911.2 | 134.1 |
| Bangkok Airport | 28.2 | 0.1 | 329.7 | 56.3 | 1840.8 | 831.0 |
| Bangkok Metropolis | 28.3 | 0.3 | 223.6 | -121.7 | 1876.7 | 653.4 |
| Over the area | 27.9 | 0.2 | 256.9 | -4.1 -2% | 1331.6 | 311.9 31% |

Eastern Thailand

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|---------------|-------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Prachin Buri | 27.9 | -0.1 | 627.0 | 271.3 | 2169.5 | 497.1 |
| Kabin Buri | 27.4 | -0.2 | 207.4 | -95.8 | 1018.7 | -445.8 |
| Aranyaprathet | 27.3 | 0.0 | 219.4 | -38.8 | 1137.4 | -17.8 |
| Chon Buri | 28.7 | 0.8 | 309.6 | 27.9 | 1507.4 | 481.5 |
| Ko Sichang | 28.4 | 0.5 | 142.9 | -146.5 | 822.8 | -125.1 |
| Pattaya | 28.0 | 0.4 | 291.9 | 77.2 | 1028.6 | 235.7 |
| Sattahip | 28.5 | 0.7 | 179.7 | -51.7 | 1098.9 | 182.4 |
| Rayong | 28.2 | 0.2 | 373.8 | 110.7 | 1436.1 | 309.8 |
| Chanthaburi | 27.2 | 0.3 | 860.7 | 360.6 | 2998.3 | 487.4 |
| Khlong Yai | 26.7 | -0.2 | 1446.7 | 812.1 | 4826.9 | 552.4 |
| Over the area | 27.8 | 0.2 | 465.9 | 132.7 40% | 1804.5 | 215.7 14% |

- NOTES :
- 1) Input data are received via ssb radio each day. They have not been certified yet so this current report has to be checked with monthly weather reports later.
 - 2) Mean temperature is the average of daily dry-bulb temperature
 - 3) "T" is trace, rainfall amount less than 0.1 mm.
 - 4) "blank" is incomplete data.

Monthly Current Report
Rainfall and Accumulative Rainfal
September 2011

Southern Thailand, east coast

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|---------------------|-------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Phetchaburi | 28.4 | 0.3 | 129.2 | -27.5 | 783.3 | 202.4 |
| Hua Hin | 28.6 | 0.8 | 61.9 | -59.8 | 524.2 | -50.9 |
| Prachuap Khiri Khar | 27.8 | 0.3 | 18.7 | -69.7 | 723.4 | 64.2 |
| Chumphon | 26.9 | 0.1 | 178.9 | 10.9 | 1481.2 | 288.6 |
| Surat Thani | 27.2 | 0.7 | 94.7 | -43.3 | 1559.1 | 720.5 |
| Ko Samui | 28.3 | 0.6 | 72.7 | -44.3 | 2139.0 | 1197.7 |
| Nakhon Si Thammarat | 27.5 | 0.4 | 104.0 | -56.1 | 2934.1 | 1900.6 |
| Songkhla | 28.1 | 0.1 | 136.6 | 6.6 | 1579.4 | 824.3 |
| Hat Yai Airport | 27.0 | 0.3 | 246.0 | 86.6 | 1296.2 | 410.5 |
| Pattani Airport | 27.5 | 0.5 | 79.8 | -71.5 | 1184.3 | 341.8 |
| Narathiwat | 27.4 | 0.2 | 223.0 | 34.1 | 2142.2 | 1084.3 |
| Over the area | 27.7 | 0.4 | 122.3 | -21.3 -15% | 1486.0 | 634.8 75% |

Southern Thailand, west coast

| Station | Temperature (°c) | | Rainfall (mm) | | Accumulative rainfall (mm) Since 1 January | |
|----------------|-------------------|-----------------------------|---------------|-----------------------------|---|-----------------------------|
| | Mean | Above or below normal | Actual | Above or below normal | Actual | Above or below normal |
| Ranong | 26.3 | 0.1 | 911.5 | 250.2 | 3880.9 | 385.4 |
| Takua Pa | 26.7 | 0.1 | 594.1 | -4.1 | 3542.7 | 741.4 |
| Phuket | 28.4 | 1.1 | 262.0 | -120.8 | 1685.6 | -47.4 |
| Phuket Airport | 27.8 | 0.7 | 316.0 | -92.9 | 2235.5 | 368.1 |
| Ko Lanta | 27.9 | 0.4 | 264.6 | -86.7 | 1608.6 | -39.5 |
| Trang Airport | 27.0 | 0.5 | 299.3 | -30.9 | 1798.3 | 201.0 |
| Satun | 27.2 | 0.4 | 480.7 | 132.3 | 2012.1 | 349.3 |
| Over the area | 27.3 | 0.4 | 446.9 | 6.7 2% | 2394.8 | 279.8 13% |

- NOTES :
- 1) Input data are received via ssb radio each day. They have not been certified yet so this current report has to be checked with monthly weather reports later.
 - 2) Mean temperature is the average of daily dry-bulb temperature
 - 3) "T" is trace, rainfall amount less than 0.1 mm.
 - 4) "blank" is incomplete data.