# Monthly Weather Summary in Thailand July 2021

Thailand weather in July 2021 was dominated by the southwest monsoon prevailing over the Andaman Sea, Thailand and the Gulf of Thailand throughout the month. In addition, the monsoon trough lay across upper Thailand during early month and it moved northward to lie over the upper part of Thailand during late month. In addition, it was influenced by the tropical storm "CEMPAKA, (2107)" in the upper South China Sea moving close to Thailand. This storm made landfall over southern China on July 20 and later moved to cover the coast of upper Vietnam and the Gulf of Tonkin accompanied with the low pressure cell periodically covered upper Vietnam. These conditions caused intermittent abundant rainfall in Thailand with heavy to very heavy rainfall in some areas almost the whole month inducing flooding in some areas. However, there was the period of decreasing rainfall due to the weakening of the southwest monsoon and the monsoon trough had shifted to lie over Myanmar, Laos and upper Vietnam. Monthly rainfall was above normal in all parts i.e. northern part 58.9 mm (33%), northeastern part 12.8 mm (6%), central part 78.5 mm (50%), eastern part 78.7 mm (28%), southern part (east coast) 19.7 mm (17%) and southern part (west coast) 97.1 mm (29%). The average rainfall over the whole areas of Thailand was 25% higher than normal. The average temperature over Thailand was 0.5 °C above normal.

1 - 10 July: The weak southwest monsoon which prevailed over the Andaman Sea, Thailand and the Gulf of Thailand had intensified in the second half of the period. In addition, the monsoon trough lay across upper Thailand during the second half of the period. It lay over the northern and the northeastern toward the active low pressure cell in the upper South China Sea which later moved into the Gulf of Tonkin covering the coast of upper Vietnam. After that, the monsoon trough had shifted southward to lie over the northern, upper central and lower northeastern of Thailand during late period. These conditions caused plentiful rainfall in upper Thailand during the second half of the period with fairly widespread rain with heavy rainfall in many areas and very heavy rain in some areas. The highest daily rainfall in upper Thailand was 437.0 millimeter at Khlung, Chanthaburi province on July 8. There were reports of flash floods in Nan province on July 6, at Mae Hong Son province on July 7, at Nakhon Nayok and Chanthaburi provinces on July 8, at Nakhon Sawan province on July 10 with landslide at Lampang province on July 9. Gusty wind occurred at Surin province on July 2, at Bueng Kan and Yasothon provinces on July 5, at Buriram province on July 7, at Ratchaburi province on July 3 and 5, at Saraburi province on July 5, at Trat province on July 8 and at Uttaradit province on July 10. Southern Thailand obtained isolated to scattered rain along the east coast during the first half of the period then fairly widespread rain with heavy rainfall in some areas almost the whole period. Southern part west coast mainly received fairly widespread rain during the middle and late periods, especially during late period that obtained heavy rainfall in many areas and very heavy rain in some areas. The highest daily rainfall of 140.6 millimeters was measured at Amphoe Mueang in Ranong province on July 10. Gusty wind were reported at Phetchaburi province on July 6, at Nakhon Si Thammarat province on July 7, at Ranong province on July 8, at Phang-nga province on July 10 with flash floods in Krabi province on July 9. Flash floods and landslides occurred in Ranong and Trang provinces on July 10.

11 – 20 July: The monsoon trough lay across the central, eastern and lower northeastern parts during early period with a low pressure cell covering the central South China Sea during mid-period. In addition, the monsoon trough lay across Myanmar, upper Laos and upper Vietnam toward the low pressure cell in the upper South China Sea. Subsequently, this low pressure cell intensified into a tropical depression in the early morning of July 19 and strengthened to the tropical Storm "CEMPAKA, (2107)" in the evening of the same day. The storm made landfall in Yangjiang, Guangdong, China in the evening of the July 20, and the southwest monsoon prevailing over the Andaman Sea, Thailand and the Gulf of Thailand was strengthened during the second half of the period. These conditions cause abundant rainfall in upper Thailand almost the period especially the central and eastern parts had fairly widespread rain with heavy to very heavy rainfall in some areas. There was scattered to fairly widespread rain in the northern and northeastern parts almost the entire

period with heavy to very heavy rain in some places. The highest rainfall in upper Thailand was 120.4 millimeters at Pa Tio, Yasothon province on the July 13. Flash floods were reported at Lampang province on the July 11, at Mae Hong Son, Nakhon Ratchasima, Chaiyaphum, Nong Bua Lam Phu and Saraburi provinces on July 14, at Mae Hong Son and Tak provinces on July 15, at Nan and Kanchanaburi provinces on July 19, at Chiang Mai province on July 20, with gusty wind occurred at Phichit province on July 11, at Phayao province on July 15, at Trat province on July 19. In southern Thailand, rainfall mainly observed during the first half of the period with scattered to fairly widespread rain. In the second half, most of the rains were in the upper part of the region. The highest daily rainfall was 136.8 millimeters at Phato, Chumphon province on July 20, and gusty wind occurred at Pattani province on the July 12 and July 15.

21 - 31 July: Tropical Storm "CEMPAKA, (2107)" had weakened into the depression in Guangxi Zhuang, China in the morning of the July 22 then it moved to cover upper Vietnam and the Gulf of Tonkin for a while before weakening into an intense low pressure cell covering the coast of Vietnam and the Gulf of Tonkin. In addition, the monsoon trough lay across upper northern and upper Laos to the low pressure cell in the coastal of southern China on July 26 and it moved northward to lie across Myanmar, upper part of northern Thailand, Laos and Upper Vietnam during the July 27-29 with a low pressure cell covering the upper Vietnam during the late period. Besides, the southwest monsoon prevailing over the Andaman Sea, Thailand and the Gulf of Thailand was strong almost the entire period. These conditions cause abundant rainfall in upper Thailand especially in the first half of the period that received fairly widespread rain except for the northeastern part that had less rainfall than other areas. During this period, heavy to very heavy rainfall was reported in many areas in the upper Thailand with flooding in some places. In the southern Thailand, rainfall increased in the second half of the period, especially in the south west coast, there was fairly widespread rain with heavy to very heavy rainfall in some areas. The highest daily rainfall was 187.0 millimeters at Amphoe Mueang in Ranong province on July 29, with flash floods reported in Chumphon and Ranong provinces on July 21. Gusty wind were reported in Ranong province on July 21 and July 30, at Pattani province on July 23, at Nakhon Si Thammarat province on July 26 and at Surat Thani province on July 29.

<u>Note</u>: 1. Rainfall, temperatures and natural disasters in this report were updated up to August 9, 2021

2. "CEMPAKA" mean fragrant flowers contributed by Malaysia

Climatological Center Meteorological Development Division Meteorological Department

# Monthly Current Report Rainfall and Accumulative Rainfall July 2021

## 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	27.2	0.5	295.3	-15.6	804.7	-45.4
Mae Hong Son	27.7	0.7	178.3	-48.6	609.2	-75.1
Phayao	27.4	0.4	133.4	-8.4	615.8	57.2
Chiang Mai	28.3	1.1	135.0	-5.2	548.2	33.3
Tha Wang Pha	27.8	0.6	181.8	-86.6	880.7	103.9
Nan	28.2	0.5	178.1	-22.6	650.2	-10.2
Lamphun	28.4	0.6	202.6	85.6	480.0	18.7
Lampang	28.6	0.8	132.5	-2.1	427.9	-84.9
Mae Sariang	27.0	0.8	226.3	45.1	719.4	126.0
Phrae	28.3	0.6	216.8	62.6	746.1	150.7
Uttaradit	28.8	0.4	302.5	136.1	647.4	-69.8
Bhumibol Dam	28.1	-0.1	398.6	331.9	833.3	365.8
Tak	28.4	0.3	262.7	175.0	808.3	337.4
Mae Sot	26.3	0.5	756.3	427.3	1246.7	417.9
Umphang	25.0	0.5	332.5	100.9	872.5	93.3
Phitsanulok	28.9	0.4	143.2	-36.2	629.0	13.2
Lom Sak	28.1	0.5	127.6	-1.0	560.1	15.6
Phetchabun	28.3	0.6	216.4	67.6	649.5	30.6
Wichian Buri	28.8	0.2	162.7	16.8	571.1	-38.0
Kamphaeng Phet	28.6	0.5	115.7	-43.7	490.9	-134.0
Over the area	27.9	0.5	234.9	58.9	689.6	65.2
				33%		10%

## 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	29.2	1.4	276.2	-5.2	965.3	47.9
Loei	28.2	0.8	128.4	-17.4	623.7	-45.3
Udon Thani	28.9	0.7	135.7	-75.2	726.3	-64.2
Nakhon Phanom	28.1	0.8	570.4	67.4	1452.0	87.2
Sakon Nakhon	28.5	0.8	284.2	-4.5	911.6	-56.3
Mukdahan	28.7	0.9	342.9	111.0	1058.6	257.5
Khon Kaen	28.4	0.3	114.8	-58.5	582.5	-78.2
Kosum Phisai	29.3	0.7	148.4	-11.6	631.6	-27.0
Roi Et	28.9	0.6	157.4	-38.5	585.9	-159.5
Chaiyaphum	28.3	0.3	222.0	111.6	530.9	-20.0
Ubon Ratchathani	28.8	0.8	360.8	106.4	852.1	14.2
Tha Tum	28.9	0.3	132.0	-86.2	614.7	-134.0
Surin	28.6	0.7	140.9	-80.4	777.6	15.8
Nakhon Ratchasima	28.7	0.1	201.9	81.0	590.0	76.9
Chok Chai	28.6	0.3	137.2	18.3	451.0	-61.8
Nang Rong	28.3	0.2	234.4	86.4	809.4	211.3
Over the area	28.7	0.7	224.2	12.8	760.2	4.0
				6%		1%

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 July 2021

#### 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	29.3	0.5	225.3	77.3	586.0	37.0
Bua Chum	29.1	0.6	168.2	51.2	471.5	-41.0
Lop Buri	29.1	0.5	330.3	210.2	618.2	100.8
Suphan Buri	29.2	0.5	108.7	9.9	559.8	173.7
Thong Pha Phum	26.9	0.4	573.8	250.6	1122.3	123.3
Kanchanaburi	29.1	0.5	135.2	32.3	506.5	42.9
Bangkok Airport	29.3	0.3	120.5	-38.6	491.9	-192.2
Bangkok Metropolis	29.4	0.4	209.9	34.8	772.4	25.7
Over the area	28.9	0.4	234.0	78.5	641.1	33.8
				50%		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	29.0	0.5	333.9	62.0	780.8	-137.0
Kabin Buri	28.0	0.1	396.4	155.2	944.4	128.8
Aranyaprathet	28.8	0.7	192.4	26.0	808.6	139.2
Chon Buri	29.6	0.4	191.3	50.7	695.4	86.0
Ko Sichang	28.5	-0.4	187.2	63.8	458.9	-77.8
Pattaya	28.7	0.2	148.8	51.4	566.2	54.3
Sattahip	29.0	0.1	305.3	197.8	1195.2	603.0
Rayong	29.1	0.1	227.3	55.5	750.6	6.0
Chanthaburi	28.3	0.7	675.7	192.5	1758.5	118.0
Khlong Yai	27.3	0.3	903.9	-67.7	2501.5	-150.6
Over the area	28.6	0.2	356.2	78.7	1046.0	76.9
				28%		8%

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.

## Monthly Current Report Rainfall and Accumulative Rainfall July 2021

## 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	28.6	-0.1	186.0	105.2	360.7	3.1
Hua Hin	28.7	0.1	169.4	76.4	441.3	33.1
Prachuap Khiri Khan	28.7	0.7	77.2	-32.1	375.7	-120.2
Chumphon	27.8	0.6	308.8	129.8	677.7	-146.4
Surat Thani	27.7	0.6	148.6	-0.2	516.0	-82.3
Ko Samui	29.2	0.9	74.5	-41.8	373.9	-326.9
Nakhon Si Thammarat	28.6	0.7	74.9	-42.9	687.9	-131.3
Songkhla	28.7	0.4	128.4	33.4	657.8	85.1
Hat Yai Airport	27.9	0.5	89.6	-14.9	681.2	37.8
Pattani Airport	28.4	0.8	139.1	10.0	665.7	82.8
Narathiwat	28.5	1.0	128.6	-5.4	652.8	-92.0
Over the area	28.4	0.5	138.6	19.7	553.7	-59.9
				17%		-10%

## 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	27.4	0.5	964.9	344.2	2294.6	284.1
Takua Pa	27.9	0.5	659.0	229.1	2162.1	465.4
Phuket	28.9	0.7	203.1	-55.1	862.2	-139.4
Phuket Airport	28.7	0.8	220.2	-41.3	1253.0	135.5
Ko Lanta	28.3	0.1	239.7	-56.6	1056.0	42.0
Trang Airport	27.7	0.7	425.4	166.9	1055.3	101.8
Satun	28.0	0.6	322.8	92.2	1307.7	265.3
Over the area	28.1	0.5	433.6	97.1	1427.3	165.0
				29%		13%

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.
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