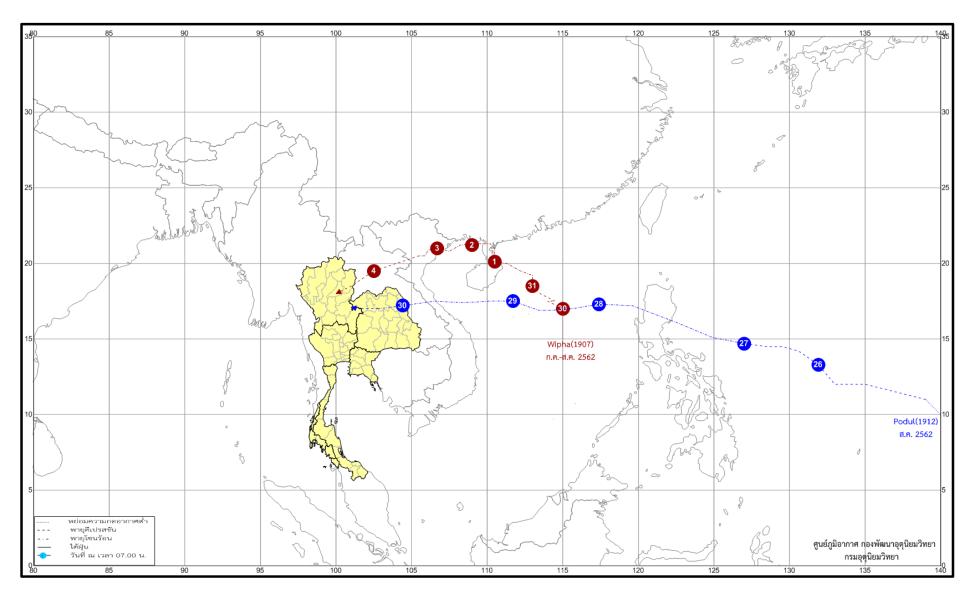
Monthly Weather Summary in Thailand August 2019

Thailand's weather in August 2019 was dominated by the monsoon trough which lay across the northern and upper northeastern parts during the beginning and the end of the month and it moved northward to lie over Myanmar, Laos and upper Vietnam for few days. In addition, the intermittent active southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand. Moreover, there were 2 tropical cyclones having some effects on rainfall in Thailand namely "WIPHA (1907)" which entered Thailand at Mae Charim in Nan province on August 4 as tropical depression strength associated with the tropical storm "PODUL (1912)" which hit Thailand at Nakhon Phanom province on August 30 then it downgraded into the tropical depression while moved pass Sakon Nakhon province and moved through Udon Thani and Nong Bua Lamphu provinces to Loei before downgraded into active low pressure cell covering lower northern part on the next day. These caused abundant rainfall in majority areas of Thailand in particularly during late month that the northern and northeastern parts experienced increasing rainfall with heavy to very heavy rainfall in many areas inducing flash flooding in several places and land slide in some places during that time. Monthly rainfall was above normal in most parts of Thailand i.e. northern part 112.4 mm (50%), northeastern part 121.3 mm (46%), central part 10.2 mm (6%), southern part (eastern coast) 9.7 mm (7%) and southern part (west coast) 105.3 mm (26%) except for below normal in eastern part 42.6 mm (14%). The new highest amount of daily rainfall and monthly total rainfall in August was established. The average total rainfall over Thailand in this month was 27 percent higher than normal. Mean temperatures in Thailand was slightly above normal in all parts.

1 – 10 August: During early period, the monsoon trough lay across Myanmar, Laos and upper Vietnam toward the tropical storm "WIPHA (1907)" in upper South China Sea. The storm moved upper most of Hainan Island and made landfall at southern China, Guangdong Province in the evening of August 1 then moved into the Gulf of Tonkin and making landfall at upper Vietnam in the morning of August 3 and downgraded into the tropical depression before heading to Laos and entering Thailand at Mae Charim in Nan provinces at 11.50 a.m. of August 4 and moves through Phrae province and degenerated into an area of low pressure covering Lampang province and western of northern part. By the way, during the middle of the period, the monsoon trough had shifted southward to lie over the northern and upper northeastern part for few days before moved backward to lie over Myanmar and it lay across upper northern part toward the low pressure cell over Laos on the last day of the period. In addition, the active southwest monsoon prevailed across the Andaman Sea, Thailand and the Gulf of Thailand almost the period. These conditions caused plentiful of rainfall in upper Thailand especially in the northern, central and eastern parts that received fairly widespread rain almost the whole period with heavy to very heavy rainfall in some areas. Whereas, the northeastern part received scattered to fairly widespread rain during early and mid-period then widespread rain with heavy rainfall in some areas during late period. The highest daily rainfall was 184.4 mm at Klong Yai in Trat province on August 6. Gusty wind was reported at Kamphaeng Phet province on August 2 and at Chiang Mai and Loei provinces on August 3 with flash flooding at Phayao province on August 3-5, at Tak province on August 4, at Mae Hong son and Trat provinces on August 10 and landslide at Nan province on August 3. In southern part, isolated to scattered rain was reported almost the period with heavy to very heavy rainfall in some areas. The maximum daily rainfall of 121.6 mm was measured at Kra Buri in Ranong province on August 9 and gusty wind was reported at Surat Thani and Ranong provinces on August 2, at Chumphon and Ranong provinces on August 3 and at Pattani and Satun provinces on August 9 and also landslide at Ranong province on August 9.

11 - 20 August: The monsoon trough lay across the northern and upper northeastern parts during early period accompanied with the moderate southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand during early and mid-period after that it weakened. In addition, low pressure covered over Laos and upper Vietnam during mid-period. These caused fairly widespread rain almost the week with isolated heavy to very heavy rainfall in the northern and northeastern parts while central and eastern parts received fairly widespread rain with heavy to very heavy rainfall in some areas mainly during early and late period. The heaviest daily rainfall in upper Thailand was 128.0 mm at Mae Charim in Nan province on August 20. Flash floods was reported at Chiang Mai and Kanchanaburi provinces on August 11, and at Mae Hong Son, Phrae and Phayao provinces on August 16 and at Nan and Nakhon Nayok provinces on August 17. Landslide was reported at Mae Hong Son, Phrae, Chiang Mai, and Nan province on August 17. In southern part, rainfall was mainly observed along the west coast with fairly widespread rain during early and mid-period and heavy rainfall in many areas and very heavy rainfall in some areas after that rainfall decreased. Scattered to fairly widespread rain was observed along the east coast almost the whole period with heavy rainfall in some. The highest daily rainfall was 170.0 mm at Kapoe in Ranong province on August 11. The floods have been reported at Trang province on August 16 and at Ranong province on August 17.

21 – 31 August: The monsoon trough lay across the northern and upper northeastern parts toward the low pressure cell over Laos and upper Vietnam during early and mid-period after that it moved southward to lie over lower northern, upper central and northeastern parts toward the tropical storm "PODUL (1912)" in the upper South China Sea. This storm made landfall over Dong Hoi, Vietnam at 00.30 a.m. of August 30 and passing through Laos before entering Thailand at Nakhon Phanom province at 05.00 a.m. It downgraded into the tropical depression at 09.00 a.m. while moving through Sakon Nakhon province and passing Udon Thani and Nong Bua Lam Phu provinces to Loei and degenerated into an active low pressure cell on the same day and covering lower northern part on the next day. In addition, the southwest monsoon which blowing over the Andaman Sea, Thailand and the Gulf of Thailand was active during the second half of the period. These caused abundant rainfall nationwide especially in the northern and northeastern parts that experienced torrential rain during late period, which triggered flooding in many areas and landslide in some areas. The maximum daily rainfall in upper Thailand was 495.0 mm at Kao Kho in Phetchabun province on August 30 with flash flood at Nan province on August 21, at Phrae and Sakon Nakhon provinces on August 23, at Mae Hong Son province on August 24, at Roi Et and Ubon Ratchathani provinces on August 26, at Udon Thani and Nong Khai provinces on August 27, at Chiang Mai and Nong Khai provinces on August 28, at Prachinburi province on August 29, and at Phrae, Phichit, Phetchabun, Chaiyaphum, Mukdahan, Yasothon, Kalasin, Roi Et, Maha Sarakham, Surin, Amnat Charoen and Ubon Ratchathani provinces on August 30, and at Mae Hong Son, Chiang Mai, Phitsanulok, Uttaradit, Khon Kean and Trat provinces on August 31. Floods was reported at Nakhon Phanom and Mukdahan provinces on August 24, at Phetchabun province on August 25 and landslide at Chiang Mai province on August 23, at Loei province on August 27 and overflow bank was reported at Bung Kan province on August 22 and Phayao province on August 23. Gusty wind was reported at Chiang Mai, Phrae and Nakhon Phanom provinces on August 30. In southern part, plentiful of rain was observed throughout the period especially along the west coast that obtained widespread rainfall with heavy to very heavy rainfall in some areas. The highest daily rainfall of 182.4 mm at Kra Buri in Ranong province on August 30. Gusty wind was reported at Surat thani province on August 26 with gusty wind and landslide at Ranong province on August 29.



Track of tropical storm entering Thailand in August 2019

Breaking records of the highest daily rainfall in August

Station	New Record 2019		Previous	Start since	
	Rainfall	Date	Rainfall	Date /	
	(mm.)		(mm.)	Year	
Bhumibhol Dan (Tak)	101.9	30	80.6	6/1983	1960
Wichian Buri (Pethchabun)	161.0	24	99.8	7/2015	1970
Phichit Agometeorological Station	112.2	30	78.0	9/2007	1993
Kosum Phisai (Mahasarakham))	183.7	30	132.3	7/1983	1970
Roi Et	172.2	30	150.3	23/2016	1955
Roi Et Agometeorological Station	201.3	29	128.7	19/1983	1983

Breaking records of the highest monthly rainfall in August

Station		Previous F		
Station	New Record 2019	Previous	Start	Start since
S.U.		Record	since	
Tha Wang Pha (Nan)	589.1	561.8	1970	1970
Lampang	487.4	413.4	1975	1951
Sri Samrong (Sukhothai)	374.6	359.6	1991	1969
Mukdahan	803.3	717.4	2010	1953
Kosum Phisai (Mahasarakham))	577.2	464.3	1983	1970
Roi Et	661.1	456.6	1974	1955
Roi Et Agometeorological Station	789.2	452.2	1983	1983
Sa Dao (Songkhla)	191.6	142.1	2001	1999

Note:

- 1) Rainfall, temperatures and natural disasters in this report were updated up to September 12, 2019.
- 2) "WIPHA" mean Name of woman contributed by Thailand
- 3) "PHODUL" mean Willow tree contributed by Democratic People's Republic of Korea.

Climatological Center Meteorological Development Division Meteorological Department

Monthly Current Report Rainfall and Accumulative Rainfall August 2019

Northern Thailand

	Tempera	nture (°c)	Rainfa	ll (mm)		rainfall (mm) January
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Chiang Rai	27.5	1.0	338.8	-19.6	799.6	-408.9
Mae Hong Son	27.1	0.2	365.0	125.7	897.9	-25.7
Phayao	27.0	0.3	267.0	63.0	599.3	-163.3
Chiang Mai	27.4	0.6	238.2	21.3	546.2	-185.6
Tha Wang Pha	27.3	0.4	589.1	291.3	1240.4	165.8
Nan	27.5	0.2	440.1	166.9	1123.5	189.9
Lamphun	27.4	0.1	292.6	119.9	565.6	-68.4
Lampang	27.3	-0.1	487.4	301.1	882.3	183.2
Mae Sariang	26.5	0.3	330.5	110.1	800.2	-13.6
Phrae	27.4	0.0	361.0	155.5	823.0	22.1
Uttaradit	28.0	0.0	287.2	23.8	613.4	-367.2
Bhumibol Dam	28.1	0.0	222.4	110.4	457.9	-121.6
Tak	28.0	0.1	196.5	80.7	573.3	-13.4
Mae Sot	25.7	0.1	580.0	258.3	1351.6	201.1
Umphang	24.5	0.2	391.5	143.1	1004.9	-22.7
Phitsanulok	28.0	-0.1	254.0	6.4	658.0	-205.4
Lom Sak	27.5	0.2	228.4	30.3	708.9	-33.7
Phetchabun	27.6	0.3	269.8	70.8	770.5	-47.4
Wichian Buri	28.1	0.0	336.2	127.0	910.8	92.5
Kamphaeng Phet	28.0	0.2	232.9	62.4	677.1	-118.3
Over the area	27.3	0.2	335.4	112.4	800.2	-47.2
				50%		-6%

Northeastern Thailand

	Tempera	ature (°c)	Rainfa	ll (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	0.7	659.6	336.4	1471.4	230.8
Loei	27.5	0.4	249.5	64.6	517.5	-336.4
Udon Thani	28.1	0.3	410.5	125.4	1031.1	-44.5
Nakhon Phanom	27.1	0.1	603.8	23.5	1866.2	-78.9
Sakon Nakhon	27.5	0.1	411.2	53.3	1042.9	-282.9
Mukdahan	27.5	0.2	803.3	452.6	1370.4	218.6
Khon Kaen	28.2	0.5	212.4	-4.0	719.6	-157.5
Kosum Phisai	28.5	0.5	577.2	345.3	1053.2	162.7
Roi Et	28.1	0.2	661.1	408.9	1109.4	111.8
Chaiyaphum	28.3	0.7	145.3	-50.9	535.8	-211.3
Ubon Ratchathani	28.0	0.4	341.9	38.6	1109.6	-31.6
Tha Tum	28.3	0.1	371.3	143.4	849.4	-127.2
Surin	28.1	0.5	326.5	70.3	886.6	-131.4
Nakhon Ratchasima	29.0	0.9	155.7	-1.5	400.9	-269.4
Chok Chai	28.8	0.9	113.5	-40.0	317.4	-348.9
Nang Rong	28.7	0.9	157.2	-24.5	516.1	-263.7
Over the area	28.1	0.4	387.5	121.3	924.8	-97.6
				46%		-10%

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 August 2019

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	28.5	0.1	220.5	42.2	743.4	16.1
Bua Chum	28.2	0.2	327.1	157.9	679.8	-1.9
Lop Buri	28.6	0.3	119.2	-31.7	392.8	-275.5
Suphan Buri	29.0	0.5	62.8	-55.6	312.5	-192.0
Thong Pha Phum	26.1	-0.2	544.3	200.6	1093.1	-249.6
Kanchanaburi	28.7	0.3	60.2	-38.1	365.0	-196.9
Bangkok Airport	29.1	0.3	98.6	-72.3	655.1	-199.9
Bangkok Metropolis	29.0	0.2	97.8	-121.5	533.9	-432.1
Over the area	28.4	0.2	191.3	10.2	597.0	-191.4
				6%		-24%

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	29.1	0.8	284.7	-73.8	1025.5	-250.8
Kabin Buri	27.9	0.2	221.0	-69.4	842.8	-263.2
Aranyaprathet	28.7	0.9	92.5	-116.1	596.5	-281.5
Chon Buri	29.5	0.5	90.0	-64.1	603.3	-160.2
Ko Sichang	29.0	0.3	68.8	-68.0	508.4	-165.1
Pattaya	28.7	0.3	48.8	-48.8	517.7	-91.8
Sattahip	29.5	0.7	57.8	-51.2	561.4	-139.8
Rayong	29.0	0.2	20.4	-111.9	644.7	-232.2
Chanthaburi	28.2	0.7	454.5	-42.7	1994.2	-143.5
Khlong Yai	27.1	0.1	1260.2	219.8	3991.8	299.3
Over the area	28.7	0.5	259.9	-42.6	1128.6	-143.0
				-14%		-11%

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 August 2019

Southern Thailand, east coast

	Tempera	nture (°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	0.0	164.9	72.6	464.3	14.4
Hua Hin	28.2	-0.3	100.5	29.3	360.0	-119.4
Prachuap Khiri Khan	27.4	-0.4	161.7	62.6	484.8	-110.2
Chumphon	26.9	-0.2	340.8	133.3	1082.4	50.8
Surat Thani	27.2	0.2	99.4	-40.2	636.7	-101.2
Ko Samui	28.9	0.7	45.8	-65.1	623.8	-187.9
Nakhon Si Thammarat	28.3	0.5	97.4	-32.4	930.3	-18.7
Songkhla	28.8	0.6	52.4	-57.0	694.6	12.5
Hat Yai Airport	27.5	0.1	122.8	9.8	730.0	-26.4
Pattani Airport	28.0	0.5	105.3	-28.7	810.8	93.9
Narathiwat	28.2	0.8	176.8	18.5	931.8	28.7
Over the area	28.0	0.2	133.4	9.3	704.5	-33.2
				7%		-5%

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	26.8	0.0	1104.9	315.8	2848.3	48.7
Takua Pa	27.5	0.1	630.8	85.8	2559.1	317.4
Phuket	28.8	0.7	273.4	-13.4	1141.1	-147.3
Phuket Airport	28.7	0.7	434.8	105.0	1833.5	386.2
Ko Lanta	28.4	0.2	312.8	8.6	1475.2	157.0
Trang Airport	27.3	0.3	382.5	107.4	1272.2	43.6
Satun	27.6	0.2	387.4	128.1	1312.1	10.4
Over the area	27.9	0.3	503.8	105.3	1777.4	116.6
				26%		7%

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.

