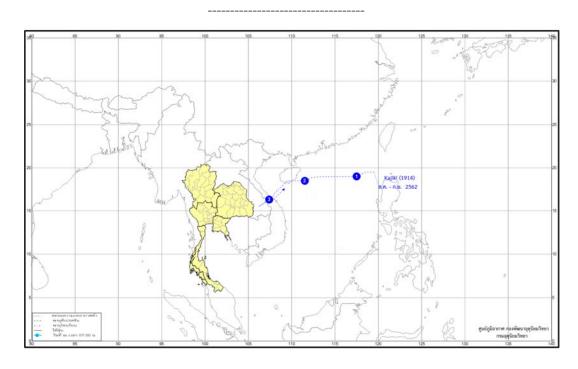
# Monthly Weather Summary in Thailand September 2019

Thailand's weather in September 2019 was dominated by the monsoon trough which lay across upper Thailand during the beginning and the middle of the month and later it moved southward to lie over the Gulf of Thailand and southern part. Moreover, the tropical storm "KAJIKI (1914)" over the upper South China Sea moved nearly the northeastern part during September 3-4 in addition the active southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand during the beginning and the middle of the month after that the easterly wind prevailed over the Gulf of the Thailand and southern part. By the way, the moderate high pressure area from China extended its ridge to cover Thailand during the last of the month and the westerly trough moved through the northern part during September 27-30. These caused abundant rainfall over upper Thailand and heavy to very heavy rainfall in several areas during the beginning and the middle of the month then decreasing in rainfall. The new highest amount of daily rainfall in September was established and inducing flash flooding in several places of the northern and northeastern parts especially flooding continued over Ubon Ratchathani, Si Saket, Yasothon and Rot Et provinces nearly the whole month. In southern part experienced rainfall nearly the whole month and increasing both amount and distribution of rainfall during the middle and last of the month. The average total rainfall over Thailand in this month was about 13% lower than normal and monthly rainfall was below normal i.e. northern part 77.7 mm (26%), central part 43.6 mm (17%), southern part (eastern coast) 0.9 mm (1%) and southern part (west coast) 142.9 mm (34%) whereas northeastern and eastern parts was above normal 0.3 mm (0%) and 50.2 mm (15%), respectively. Mean temperature in this month was 0.5% above normal. More details on the weather areas as follow:

1 – 10 September: During the first half of the period, the monsoon trough lay across northern and northeastern parts toward the tropical depression over upper South China Sea. The mention tropical depression intensified to the tropical storm "KAJIKI (1914)" and made landfall over central Vietnam in the morning of September 3 and moved through southern Laos before weakened into tropical depression at Salawan, Laos in the evening on the same day. It recurved to Vietnam and moved into the upper South China Sea during late evening and weakened into an active low pressure cell in the morning on September 4. During the second half of the period, the monsoon trough moved northward to lie across Myanmar, Laos and upper Vietnam associated with the active southwest monsoon over the Andaman Sea, Thailand and the Gulf of Thailand which weakened during this period. These conditions caused fairly widespread to widespread rain with heavy to very heavy rainfall in several places of the upper Thailand during the first half of the period after that rainfall was decreasing. The highest daily rainfall was 220.5 mm at Si Saket Sericulture Research in Si Saket province on September 3. Flash floods occurred at Mae Hong Son, Phrae, Uttaradit, Phitsanulok, Phetchabun, Chiang Mai, Nan, Khon Khen and Loei provinces on September 2 and at Sukhothai, Phetchabun, Nakhon Phanom and Sakhon Nakhon provinces on September 3. Landslide was reported at Chiang Mai and Nan provinces on September 2. In southern Thailand, scattered to fairly widespread rain almost the whole period with heavy to very heavy rainfall in some areas mainly during the middle and last periods. The maximum daily rainfall of 158.9 mm was measured at Kra Buri in Ranong on September 4.

11 – 20 September: The monsoon trough shifted southward to lay across northern and northeastern parts toward the low pressure cell covered upper Vietnam and the Gulf of Tonkin during the beginning of the period after that it moved southward to lie across to the lower northern, central, lower northeastern, upper southern and eastern parts toward the low pressure cell over the central South China Sea and Cambodia. In addition, the southwest monsoon which prevailed over the Andaman Sea, Thailand and the Gulf of Thailand strengthened almost the period. These caused fairly widespread to widespread rain over upper Thailand with heavy to very rainfall in some areas. The heaviest daily rainfall in upper Thailand was 409.5 mm at Phliu agrometeorological station in Chantaburi province on September 15. Flooding had continued at Ubon Ratchthani, Si Saket, Yasothon and Roi Et provinces. For southern Thailand, plentiful rain especially during the middle of the period was found fairly widespread to widespread rain with heavy to very heavy rainfall in some areas. The highest daily rainfall was 164.9 mm at Kra Buri in Ranong province on September 14.

21 – 30 September: The moderate high pressure area from China extended to cover the upper Thailand during the first half of the period inducing of the monsoon trough which lay across lower northern, central, lower northeastern and eastern parts moved southward to lie over the Gulf of Thailand and southern Thailand. During the second half of the period, the southwesterly wind which prevailed over southern part and the Gulf of Thailand, it varied to be the easterly wind. Moreover, the passage of the westerly trough through the northern part during late period. These conditions caused decreasing in rainfall and cool weather in several place of northern and northeastern parts while central and eastern parts experienced fairly widespread rain during the beginning of the period after that decreasing both amount and distribution of rainfall. The heaviest daily rainfall in upper Thailand was 131.4 mm at Chomphon Cave Arboretum in Ratchaburi on September 22. And continuous flooding at Ubon Ratchathani, Si Saket, Yasothon and Rot Et provinces became better at the late period. For southern Thailand, abundant rainfall was found almost the period especially fairly widespread rain with heavy to very heavy rainfall in some areas occurred along east coast. The maximum daily rainfall of 104.0 mm at Ko Samui at Surat Thani on September 22.



Track of tropical storm effected on rainfall of Thailand in September 2019

### Breaking records of the highest daily rainfall in September

Station	New Record 2019		Previous	Start since	
	Rainfall (mm.)	Date	Rainfall (mm.)	Date / Year	
Mueang (Khon Khen)	166.2	1	146.6	7/2525	2494
Si Saket Agometeorological Station	142.7	3	137.0	4/2527	2526
Mueang (Ratchaburi)	117.5	22	113.0	18/2558	2536
Phliu Agometeorological Station	409.5	15	249.3	15/2536	2512

### Breaking records of the highest monthly rainfall in September

Station		Previous F	Record	
Station	New Record 2019	Previous	Start	Start since
		Record	since	
Mueang (Ubon Ratchathani)	554.5	543.6	2539	2494

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Note: 1) Rainfall, temperatures and natural disasters in this report were updated up to October 1, 2019.

Climatological Center Meteorological Development Division Meteorological Department

## Monthly Current Report Rainfall and Accumulative Rainfall September 2019

### Northern Thailand

	Tempera	ature (°c)	Rainfa	ll (mm)		rainfall (mm) January
Station		Above		Above	Since 1	Above
2 1111-2-2-	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Chiang Rai	27.2	1.0	70.7	-213.2	870.3	-622.1
Mae Hong Son	26.9	-0.1	158.2	-40.8	1056.1	-66.5
Phayao	26.8	0.5	63.2	-140.4	662.5	-303.7
Chiang Mai	27.8	1.1	214.3	2.9	760.5	-182.7
Tha Wang Pha	27.7	0.9	62.2	-149.3	1302.6	16.5
Nan	27.9	0.7	91.1	-112.4	1214.6	77.5
Lamphun	27.4	0.5	233.3	25.1	798.9	-43.3
Lampang	27.3	0.3	251.2	39.6	1133.5	222.8
Mae Sariang	26.8	0.3	58.1	-119.0	858.3	-132.6
Phrae	27.8	0.6	144.8	-46.9	967.8	-24.8
Uttaradit	28.7	0.7	123.9	-124.4	737.3	-491.6
Bhumibol Dam	27.8	0.3	90.4	-117.2	548.3	-238.8
Tak	28.1	0.4	120.7	-94.8	694.0	-108.2
Mae Sot	26.7	0.5	218.4	33.0	1570.0	234.1
Umphang	24.8	0.4	204.3	-43.3	1209.2	-66.0
Phitsanulok	28.5	0.4	179.9	-66.7	837.9	-272.1
Lom Sak	28.2	1.1	57.1	-136.5	766.0	-170.2
Phetchabun	28.3	1.2	71.1	-134.6	841.6	-182.0
Wichian Buri	28.4	0.5	161.1	-85.0	1071.9	7.5
Kamphaeng Phet	28.4	0.8	237.7	-31.1	914.8	-149.4
Over the area	27.6	0.6	140.6	-77.7	940.8	-124.9
				-36%		-12%

### Northeastern Thailand

	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm)	
	Tempera	iture (°c)	Kamia	II (IIIII)	Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Nong Khai	29.0	1.6	120.0	-137.2	1591.4	93.6
Loei	27.6	1.2	97.3	-137.7	614.8	-474.1
Udon Thani	28.1	0.5	223.3	-16.2	1254.4	-60.7
Nakhon Phanom	27.7	0.6	280.7	-9.5	2146.9	-88.4
Sakon Nakhon	27.6	0.4	161.0	-63.8	1203.9	-346.7
Mukdahan	27.6	0.4	203.0	-8.7	1573.4	209.9
Khon Kaen	27.8	0.6	308.4	76.4	1028.0	-81.1
Kosum Phisai	28.2	0.5	192.1	-48.5	1245.3	114.2
Roi Et	27.9	0.4	400.2	180.4	1509.6	292.2
Chaiyaphum	28.0	0.7	218.8	-11.2	754.6	-222.5
Ubon Ratchathani	27.7	0.3	554.5	260.7	1664.1	229.1
Tha Tum	27.9	0.2	304.5	41.5	1153.9	-85.7
Surin	27.4	0.1	285.4	30.0	1172.0	-101.4
Nakhon Ratchasima	27.9	0.5	157.0	-71.3	557.9	-340.7
Chok Chai	27.7	0.4	147.2	-64.4	464.6	-413.3
Nang Rong	27.3	0.1	222.6	-17.0	738.7	-280.7
Over the area	27.8	0.5	242.3	0.3	1167.1	-97.3
				0%		-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 Rainfall and Accumulative Rainfall September 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	28.8	0.8	165.7	-71.3	909.1	-55.2
Bua Chum	28.1	0.5	147.5	-104.2	827.3	-106.1
Lop Buri	28.5	0.5	288.7	23.2	681.5	-252.3
Suphan Buri	29.1	0.8	123.0	-100.4	435.5	-292.4
Thong Pha Phum	26.6	-0.1	319.9	78.7	1413.0	-170.9
Kanchanaburi	28.7	0.7	146.5	-74.0	511.5	-270.9
Bangkok Airport	28.6	0.2	156.7	-128.2	811.8	-328.1
Bangkok Metropolis	28.6	0.3	361.4	27.1	895.3	-405.0
Over the area	28.4	0.5	213.7	-43.6	810.6	-235.1
				-17%		-22%

### Eastern Thailand

	Tempera	ture (°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	28.6	0.5	290.7	-58.7	1316.2	-309.5
Kabin Buri	27.5	-0.2	357.8	54.5	1200.6	-208.7
Aranyaprathet	27.9	0.2	461.7	209.4	1058.2	-72.1
Chon Buri	28.8	0.5	289.6	20.7	892.9	-139.5
Ko Sichang	28.5	0.4	234.7	-34.5	743.1	-199.6
Pattaya	28.0	0.3	156.6	-48.1	674.3	-139.9
Sattahip	28.5	0.4	251.5	32.5	812.9	-107.3
Rayong	28.2	0.0	193.4	-61.8	838.1	-294.0
Chanthaburi	27.8	0.6	412.1	-85.5	2406.3	-229.0
Khlong Yai	26.8	-0.1	1155.1	474.1	5146.9	773.4
Over the area	28.1	0.3	380.3	50.2	1509.0	-92.7
				15%		-6%

- 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 September 2019

### 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	28.7	0.5	65.3	-88.3	529.6	-73.9
Hua Hin	28.3	0.3	168.2	47.8	528.2	-71.6
Prachuap Khiri Khan	27.5	-0.2	122.7	23.2	607.5	-87.0
Chumphon	26.9	0.0	184.2	5.9	1266.6	56.7
Surat Thani	26.7	0.1	145.5	-42.9	782.2	-144.1
Ko Samui	27.7	-0.2	118.2	-3.5	742.0	-191.4
Nakhon Si Thammarat	27.4	0.1	201.6	40.0	1131.9	21.3
Songkhla	28.3	0.4	103.2	-33.7	797.8	-21.2
Hat Yai Airport	27.4	0.5	75.4	-81.9	805.4	-108.3
Pattani Airport	27.6	0.4	171.6	24.5	982.4	118.4
Narathiwat	27.5	0.3	282.5	99.8	1214.3	128.5
Over the area	27.6	0.2	148.9	-0.9	853.4	-34.1
				-1%		-4%

### 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	26.7	0.3	728.8	82.3	3577.1	131.0
Takua Pa	27.1	0.4	286.0	-309.5	2845.1	7.9
Phuket	28.3	0.8	148.3	-212.9	1289.4	-360.2
Phuket Airport	27.9	0.6	195.4	-203.7	2028.9	182.5
Ko Lanta	27.7	0.1	182.6	-147.7	1657.8	9.3
Trang Airport	27.5	0.9	230.1	-75.0	1502.3	-31.4
Satun	27.7	0.8	194.5	-133.9	1506.6	-123.5
Over the area	27.6	0.6	280.8	-142.9	2058.2	-26.3
				-34%		-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.

