## Monthly Weather Summary in Thailand September 2021

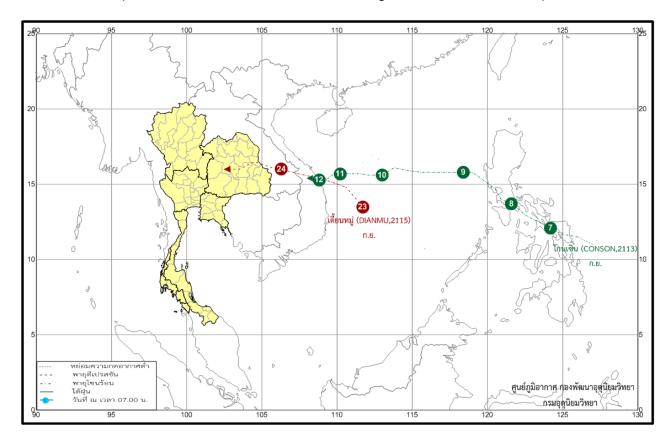
September 2021 was dominated by the monsoon trough which lay across upper Thailand almost the month coupled with the prevailing of southwest monsoon over the Andaman Sea, southern part and the Gulf of Thailand. Besides, there were 2 tropical storms that affected Thailand in September including the tropical storm "CONSON (2113)" in the middle South China Sea made landfall at Quang Ngai, Vietnam and covered the coast of Vietnam during September 12-13 coupled with the tropical storm "DIANMU (2115)" which was the first tropical storm entering Thailand this year at Mukdahan province as the tropical depression in the evening of September 24. This storm moved through Roi Et and Maha Sarakham provinces and downgraded into the active low pressure cell over Khon Kaen province before moved further to cover the central part during September 25-26. Moreover, during September 20-22, the low pressure cell which covered Cambodia moved to cover lower central part before moved into the Gulf of Mataban. These conditions caused plentiful of rainfall in much of Thailand almost the month with flash flooding and prolong floods in many areas. Monthly rainfall was above normal in most parts of Thailand i.e. northern part 77.0 mm (35%) and northeastern part 99.8 mm (41%), central part 51.4 mm (20%), eastern part 153.1 mm (46%) and southern part (west coast) 18.7 mm (4%) while below normal was found in southern part (east coast) 31.8 mm (21%). The average rainfall over the whole area of Thailand was 27 percent higher than normal. Mean temperatures were above normal in the northern and southern parts and below normal for the rest parts.

1 – 10 September: The monsoon trough lay across upper Thailand throughout the period. It lay over lower northern, upper central and northeastern parts during early and late period. During mid-period, it shifted northward to lie across the northern and upper northeastern part for few days before moved to lie over the central, eastern and lower northeastern part. In addition, the southwest monsoon which prevailed over the Andaman Sea, Thailand and the Gulf of Thailand was strengthened during late period. These caused fairly widespread rain almost the whole period with heavy to very heavy rainfall in many places and flash flooding in several places. The highest daily rainfall was 200.1 millimeter at Phon Phisai Self-Help Settlement in Nong Khai province on September 4. Flash floods were reported in Tak, Kamphaeng Phet, Kanchanaburi on September 1, Suphan Buri and Chon Buri provinces on September 2, Mae Hong Son, Phitsanulok, Ang Thong, Prachin Buri on September 3, Loei and Nakhon Ratchasima provinces on September 4, Nakhon Ratchasima on September 5, Nakhon Sawan province on September 6, Mae Hong Son, Lop Buri, Sa Kaeo and Chon Buri provinces on September 7, Kamphaeng Phet, Loei Chaiyaphum, Nakhon Ratchasima, Prachin Buri, Rayong, Chon Buri, Trat and Chanthaburi provinces on September 8, Mae Hong Son, Phrae, Lamphun, Lampang, Tak, Phetchabun, Phitsanulok, Phichit Nakhon, Ratchasima, Prachin Buri, Sa Kaeo provinces on September 9, Mae Hong Son and Samut Prakan provinces on September 10. Landslide was reported in Chaiyaphum province on September 8, Mae Hong Son province on September 10, and gusty wind was reported at Bueng Kan province on September 1. In southern part, rainfall was mainly observed during the second half of the period. Fairly widespread rain was found along the west coast almost the period with heavy to very heavy rainfall in some places except for isolate slightly rain during September 3-6. Southeast coast received fairly widespread rain with heavy rain in some areas except for isolated rain during September 3-5. The maximum daily rainfall in southern part was 155.5 millimeters at Suk Samran, Ranong province on September 8 with flash floods in Phang - nga province on September 6 and floods was reported at Phang-nga province on September 2, Ranong province on September 8, and Krabi and Trang provinces on September 9.

11 – 20 September: The monsoon trough lay across lower northern, central and northeastern parts almost the period and lay toward the tropical depression during September 12-13. This storm downgraded from the tropical storm "CONSON (2113)" that made landfall over Quang Ngai, Vietnam in early morning of September 12 as the tropical depression and covering the coastal of Quang Ngai before degenerated into the active low pressure cell in the morning of the following day. Besides, the low pressure cell covered Cambodia on the last day of the period. In Addition with the active southwest monsoon which prevailing over the Andaman Sea, southern part and the Gulf of Thailand was weakened during the second half of the period. These conditions brought abundant rainfall almost the period with flooding in many areas. The heaviest daily rainfall was 234.4 millimeter at Klong Yai in Trat province on September 13. There have been reports of continual flooding from the previous period at Phitsanulok, Phichit, Kamphaeng Phet, Phetchabun, Nakhon Ratchasima, Loei, Samut Prakan, Prachin Buri, and there were reports of flash floods at Chiang Mai province on September 11, Lampang province on September 16 and flooding occurred at Nakhon Sawan province on September 11, Ubon Ratchathani and Nakhon Nayok provinces on September 12, Phra Nakhon Si Ayutthaya province on September 13, Tak, Sukhothai, Loei provinces on September 16, and Chiang Mai, Sisaket and Sa Kaeo provinces on September 20, and landslide occurred in Mae Hong Son province on September 12, Chiang Rai province on September 20 with gusty wind reported at Yasothon and Sakon Nakhon province on September 12, Chiang Mai province on September 14, Ubon Ratchathani, Surin, Samut Sakhon, Ang Thong, Nakhon Nayok provinces on September 19. In southern part, abundant rainfall was found almost the period especially along the west coast. The maximum daily rainfall was 110.0 millimeters at Suksan, Ranong province on September 20 and flash floods were reported in Nakhon Si Thammarat province on September 20 with gusty wind at Trang province on September 19.

21 - 30 September: During this period, upper Thailand experienced plentiful rainfall during the early and mid-period while rainfall relatively decreased both amount and distribution during late period due to the influence of the monsoon trough lying across the central, eastern and lower northeastern parts during early period and it lay toward the low pressure cell that covered Cambodia, which later moved to cover the lower central region before moving into the Gulf of Mataban. After that, the low pressure trough shifted to lie over lower northern, central and eastern parts including with the influence of the tropical storm "DIANMU (2115)" which was the first storm of this year entering Thailand. The storm developed from the low pressure cell in the middle South China Sea, which intensified into the tropical depression on September 23 and intensified into a tropical storm "DIANMU (2115)" in the evening of the same day. This storm made landfall at Quang Nam, Vietnam at 4:00 AM on September 24 and moved through Laos and weakened into tropical depression before moving into Thailand at Mukdahan province on September 24. It moved through Roi Et, Maha Sarakham and downgraded into an active low pressure cell at Khon Kaen province in the early morning of September 25 before moving to cover the central part during September 25 and 26 and covering Myanmar respectively. These caused plentiful rainfall in upper Thailand during the early and middle periods with widespread rain and heavy to very heavy rainfall in some areas especially on September 24 and 25 that obtained heavy to very heavy rainfall in many areas of the northeast and central parts. Meanwhile, the wind that prevailed over upper Thailand was the easterly and the northeasterly wind during late period, rainfall relatively decreased in most areas during that time. The highest daily rainfall in upper Thailand was 362.0 millimeters at Phaisali, Nakhon Sawan province on September 25, with reports of flooding remained from previous period at Tak, Sukhothai, Phichit, Nakhon Ratchasima, Chaiyaphum, Phra Nakhon Si Ayutthaya, Prachin Buri provinces with flooding at Phitsanulok and Ratchaburi provinces on September 23, Chiang Mai, Lamphun, Chai Nat, Singburi, Pathum Thani provinces on September 23 and 24, Lamphun, Lampang, Khon Kaen, Ubon Ratchathani on September 25, Phitsanulok, Loei, Khon Kaen, Ubon Ratchathani, Lop Buri, Ang Thong, Suphan Buri, Nakhon Pathom provinces on September 26, Nakhon Sawan, Chai Nat and Singburi provinces on September 24-26, Sa Kaeo province on September 26-28 and Chanthaburi province on September 27-28 and there was report of landslide in Chiang Mai province on September 24, and gusty wind were reported in Roi Et, Sakon Nakhon and Ang Thong provinces on September 24. In southern part, the southwest monsoon prevailed over the Andaman Sea, southern part and the Gulf of Thailand throughout the period resulted in fairly widespread rain almost the period along the west coast with heavy to very heavy rainfall in some areas whereas rainfall was mainly observed in the second half of the period along the east coast with scattered to fairly widespread rain and heavy to very heavy rain in some places. The highest maximum rainfall of 129.8 millimeters was reported at Phang-nga Rubber Experiment Station, Phang Nga province on September 26 and flash floods also reported in Nakhon Si Thammarat province on September 21.

Track of tropical storm that affected and entering Thailand rainfall in September 2021



Note: 1) Rainfall, temperatures and natural disasters in this report were updated up to October 5, 2021.

- 2) "CONSON" mean the name of Côn Sơn Island, the historical place contributed by Vietnam.
- 3) "DIANMU" mean mother of lightning contributed by People's Republic of China.

Climatological Center Meteorological Development Division Meteorological Department

### Monthly Current Report Rainfall and Accumulative Rainfall September 2021

#### Northern Thailand

	Temperature ( °c)		Rainfall (mm)		Accumulative rainfall (mm)	
g					Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Chiang Rai	27.0	0.8	216.6	-67.3	1436.9	-55.5
Mae Hong Son	27.6	0.6	154.2	-44.8	891.9	-230.7
Phayao	27.0	0.7	208.5	4.9	1067.6	101.4
Chiang Mai	27.6	0.9	239.8	28.4	896.0	-47.2
Tha Wang Pha	27.6	0.8	161.9	-49.6	1278.9	-7.2
Nan	27.7	0.5	189.9	-13.6	967.5	-169.6
Lamphun	27.1	0.2	301.6	93.4	951.2	109.0
Lampang	27.4	0.4	259.5	47.9	924.7	14.0
Mae Sariang	26.9	0.4	219.7	42.6	1158.4	167.5
Phrae	27.6	0.4	213.1	21.4	1137.8	145.2
Uttaradit	28.1	0.1	220.7	-27.6	1057.5	-171.4
Bhumibol Dam	26.9	-0.6	592.9	385.3	1601.1	814.0
Tak	27.4	-0.3	623.7	408.2	1678.5	876.3
Mae Sot	26.6	0.4	212.7	27.3	1810.8	474.9
Umphang	25.0	0.6	394.8	147.2	1581.7	306.5
Phitsanulok	27.8	-0.3	378.7	132.1	1064.3	-45.7
Lom Sak	27.1	0.0	297.7	104.1	972.3	36.1
Phetchabun	27.3	0.2	155.2	-50.5	952.7	-70.9
Wichian Buri	27.5	-0.4	516.3	270.2	1290.1	225.7
Kamphaeng Phet	27.8	0.2	348.3	79.5	1005.8	-58.4
Over the area	27.3	0.3	295.3	77.0	1186.3	120.6
				35%		11%

#### 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	28.1	0.7	385.7	128.5	1532.2	34.4
Loei	26.6	0.2	532.6	297.6	1277.9	189.0
Udon Thani	27.5	-0.1	293.7	54.2	1144.0	-171.1
Nakhon Phanom	27.6	0.5	282.8	-7.4	1976.2	-259.1
Sakon Nakhon	27.4	0.2	182.6	-42.2	1252.6	-298.0
Mukdahan	27.6	0.4	323.9	112.2	1500.6	137.1
Khon Kaen	27.0	-0.2	271.5	39.5	995.7	-113.4
Kosum Phisai	27.8	0.1	401.0	160.4	1165.0	33.9
Roi Et	27.6	0.1	320.9	101.1	1148.9	-68.5
Chaiyaphum	27.3	0.0	455.3	225.3	1131.8	154.7
Ubon Ratchathani	27.6	0.2	375.0	81.2	1522.3	87.3
Tha Tum	27.5	-0.2	372.7	109.7	1084.3	-155.3
Surin	27.3	0.0	253.9	-1.5	1175.3	-98.1
Nakhon Ratchasima	27.3	-0.1	267.5	39.2	936.7	38.1
Chok Chai	27.3	0.0	390.1	178.5	1034.7	156.8
Nang Rong	27.0	-0.2	359.6	120.0	1274.0	254.6
Over the area	27.4	0.1	341.8	99.8	1259.5	-4.9
				41%		0%

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 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	28.0	0.0	341.6	104.6	1120.4	156.1
Bua Chum	27.5	-0.1	374.2	122.5	1094.8	161.4
Lop Buri	28.1	0.1	260.0	-5.5	991.4	57.6
Suphan Buri	28.4	0.1	320.2	96.8	1035.6	307.7
Thong Pha Phum	26.9	0.2	378.2	137.0	1730.6	146.7
Kanchanaburi	28.2	0.2	220.4	-0.1	849.1	66.7
Bangkok Airport	28.0	-0.4	229.0	-55.9	939.6	-200.3
Bangkok Metropolis	28.3	0.0	346.1	11.8	1380.7	80.4
Over the area	27.9	0.0	308.7	51.4	1142.8	97.1
				20%		9%

#### 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	28.0	-0.1	325.8	-23.6	1371.2	-254.5
Kabin Buri	27.4	-0.3	283.7	-19.6	1465.4	56.1
Aranyaprathet	27.9	0.2	330.9	78.6	1328.6	198.3
Chon Buri	28.3	0.0	283.7	14.8	1127.4	95.0
Ko Sichang	27.4	-0.7	284.9	15.7	970.4	27.7
Pattaya	27.5	-0.2	483.8	279.1	1373.1	558.9
Sattahip	27.9	-0.2	520.1	301.1	2050.2	1130.0
Rayong	27.9	-0.3	452.6	197.4	1429.9	297.8
Chanthaburi	27.2	0.0	767.9	270.3	3145.0	509.7
Khlong Yai	26.5	-0.4	1098.9	417.9	4196.2	-177.3
Over the area	27.6	-0.2	483.2	153.1	1845.7	244.0
				46%		15%

- NOTES: 1) Mean temperature is the average of daily dry-bulb temperature
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## Monthly Current Report Rainfall and Accumulative Rainfall September 2021

#### Southern Thailand, east coast

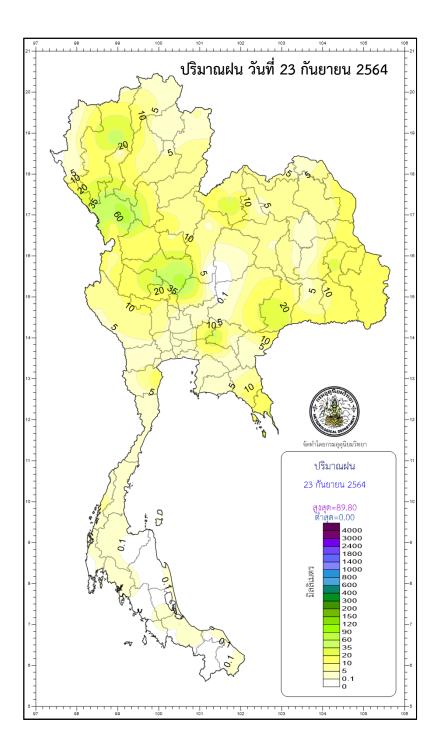
	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Phetchaburi	27.9	-0.3	180.4	26.8	635.2	31.7
Hua Hin	27.7	-0.3	185.1	64.7	739.7	139.9
Prachuap Khiri Khan	27.7	0.0	82.7	-16.8	542.2	-152.3
Chumphon	27.2	0.3	119.1	-59.2	1025.9	-184.0
Surat Thani	27.1	0.5	108.0	-80.4	696.3	-230.0
Ko Samui	28.3	0.4	74.5	-47.2	732.1	-201.3
Nakhon Si Thammarat	27.9	0.6	59.8	-101.8	950.6	-160.0
Songkhla	28.1	0.2	95.8	-41.1	901.7	82.7
Hat Yai Airport	27.0	0.1	90.1	-67.2	882.5	-31.2
Pattani Airport	27.7	0.5	161.9	14.8	967.8	103.8
Narathiwat	27.7	0.5	140.9	-41.8	1067.9	-17.9
Over the area	27.7	0.3	118.0	-31.8	831.1	-56.4
				-21%		-6%

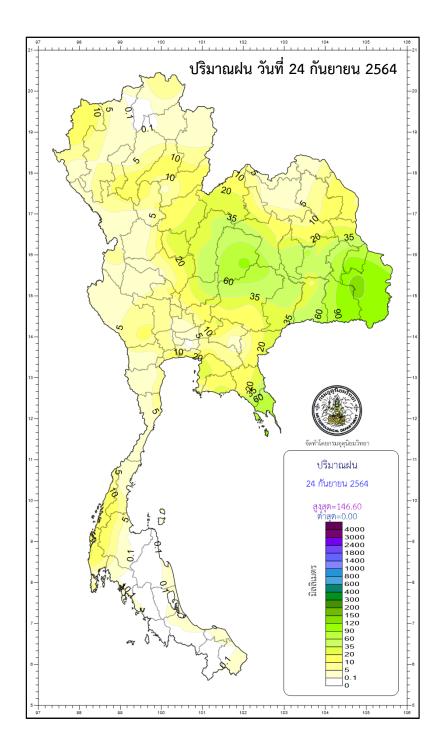
### Southern Thailand, west coast

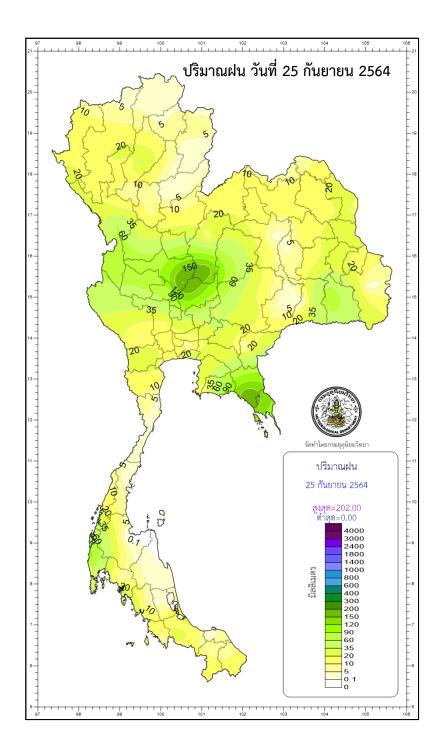
	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Ranong	26.5	0.1	781.6	135.1	3983.7	537.6
Takua Pa	26.9	0.2	678.6	83.1	3384.0	546.8
Phuket	28.1	0.6	224.3	-136.9	1364.0	-285.6
Phuket Airport	27.7	0.4	214.9	-184.2	2095.2	248.8
Ko Lanta	27.4	-0.2	492.1	161.8	1903.1	254.6
Trang Airport	27.0	0.4	273.8	-31.3	1635.6	101.9
Satun	27.3	0.4	431.6	103.2	2124.5	494.4
Over the area	27.3	0.3	442.4	18.7	2355.7	271.2
				4%		13%

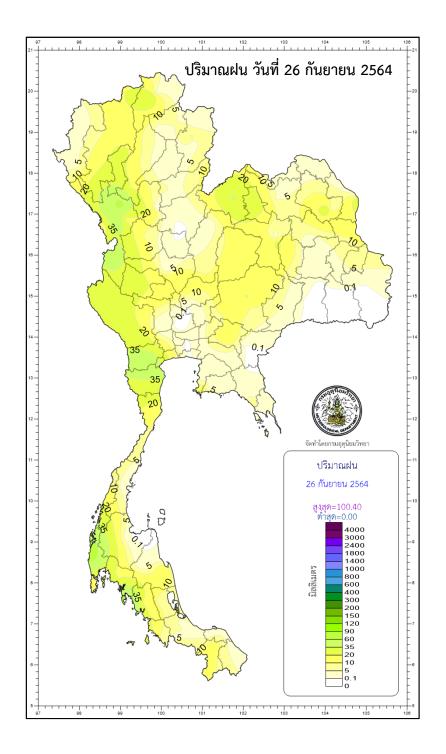
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## ปริมาณฝนรวมระหว่างวันที่ 23-26 กันยายน 2564

