Monthly Weather Summary in Thailand September 2022

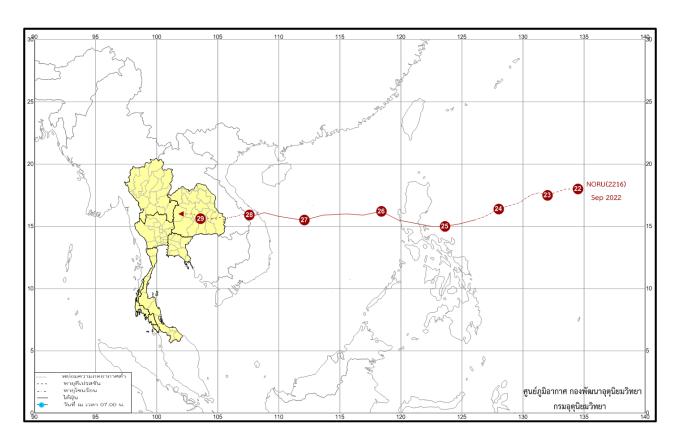
In September 2022, Thailand experienced abundant rainfall almost the whole month due to the influence of the monsoon trough which lay across upper Thailand almost the month coupled with the prevailing of southwest monsoon over the Andaman Sea, southern part and the Gulf of Thailand. Besides, there was the effect of typhoon "NORU (2216)" making landfall at Hội An, Vietnam at 04.00 a.m. on September 28 and downgraded into the tropical storm before moving further into Laos and entering Thailand at Khong Chiam, Ubon Ratchathani at 5:00 p.m. on September 28. It weakened into the tropical depression and moved through Amnat Charoen, Yasothon, Roi Et, Maha Sarakham, Khon Kaen and degenerated into an active low pressure cell in Chaiyaphum at 07.00 p.m. on September 29 before covering lower northern and upper central on the following day. These conditions caused plentiful of rainfall in majority areas of Thailand in particularly during early and late month that experienced heavy to very heavy rainfall in many areas inducing flooding in several areas and landslides in some places. The average total rainfall over Thailand in September was 32% higher than normal with the new highest record of the daily and monthly total rainfall in some stations. Monthly rainfall was above normal in most parts of Thailand i.e. northern part 109.9 mm (50%), northeastern part 110.2 mm (44%), central part 83.6 mm (32%), eastern part 131.7 mm (37%) and southern part (west coast) 16.9 mm (4%) while below normal rainfall in southern part (east coast) 12.2 mm (8%).

1 – 10 September: The weak monsoon trough lay across Myanmar, northern and upper northeastern Thailand during early period. After that it moved southward to lie across the northern and northeastern parts for few days before moved to lie over the central, lower northeastern and eastern part into the low pressure cell over the coastal Vietnam on September 7 and into the low pressure cell over Cambodia on September 8. It lay over lower northern, upper central and northeastern part during late period. In addition, the southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand. These conditions caused fairly widespread rain in upper Thailand during the middle and the end of the period with heavy to very heavy rainfall in some places especially in the central and eastern parts that experienced heavy rainfall in several areas and very heavy rainfall in some areas during midperiod. The highest daily rainfall was 248.3 mm at Khlong Yai in Trat on September 7. Flooding were reported in Mae Hong Son, Lampang, Nan Phichit, Saraburi, Pathum Thani, Prachin Buri on September 1, Phetchabun, Loei, Pathum Thani, Bangkok, Samut Prakan, Rayong on September 4, Chiang Rai, Chiang Mai, Lampang, Phayao, Phetchabun, Si Sa Ket, Rayong on September 5, Phitsanulok, Uthai Thani, Bangkok, Nonthaburi, Pathum Thani, Chon Buri on September 6, Phrae, Lampang, Rayong, Chanthaburi on September 7, Chaiyaphum, Pathum Thani, Sa Kaeo, Chanthaburi, Trat on September 8, Maha Sarakham, Khon Kaen, Suphan Buri, Chanthaburi on September 9, Chiang Mai, Lamphun, Phrae, Sukhothai, Loei, Udon Thani, Nong Bua La Phu, Buriram, Bangkok and Samut Prakan on September 10, with gusty winds reported in Chiang Rai, Kalasin, Saraburi, Ratchaburi on September 10, Ratchaburi and Sing Buri on September 3, Phitsanulok and Uthai Thani on September 6, Phrae on September 7. Landslides were reported in Nong Khai on September 6, Rayong on September 7 and Chon Buri and Chachoengsao on September 8. In southern part, fairly widespread rain was observed along the west coast during the middle and the end of the period with heavy to very heavy rainfall in some areas after that rainfall decreased. Southeast coast received scattered rain almost the period with heavy rain in some areas except for fairly widespread rain with heavy rainfall in some areas during September 6-7 and 9. The maximum daily rainfall in southern part was 245.7 mm at Phuket Airport on September 1 with flooding in Surat Thani and Nakhon Si Thammarat on September 1, Phuket and Krabi on September 2, and Trang on September 4.

11 - 20 September: The monsoon trough lay across lower northern, upper central and northeastern parts during early and late period. It shifted to lay over Myanmar and upper Laos toward the low pressure cell over upper Vietnam during mid-period. In addition, the southwest monsoon which prevailed over the Andaman Sea, Thailand and the Gulf of Thailand was strengthened during late period. These conditions brought fairly widespread rain with heavy to very heavy rainfall in the northern part almost the period except for decreasing in rainfall to scattered rain during mid-period. Scattered to fairly widespread rain was found in the northeastern, central and eastern part almost the period with isolated heavy to very heavy rainfall. The heaviest daily rainfall was 234.4 mm at Doi Ang Khang in Chiang Mai on September 11. There were reports of flooding in Chiang Mai, Lampang, Nan, Phayao, Phetchabun, Kalasin, Bangkok, Samut Prakan, Rayong on September 11, Tak, Sa Kaeo, Chon Buri on September 12, Mae Hong Son, Lampang, Roi Et on September 14, Tak, Sing Buri, and Rayong on September 15. Chiang Rai, Chiang Mai, Udon Thani on September 16, Lampang, Phayao, Maha Sarakham, Surin on September 18, Nakhon Ratchasima, Buriram, Surin, Si Sa Ket, Sa Kaeo on September 20, with flooding in Bangkok Metropolis on September 12-14. Gusty winds were reported in Yasothon on September 16 and Sa Kaeo on September 17, with landslides reported in Chiang Rai and Lamphun on September 11. In southern part, scattered rain was reported along the east coast almost the period with heavy to very heavy rain in some places. Fairly widespread rain was found along the west coast almost the period with heavy rainfall in some areas. The highest daily rainfall was 94.0 mm at Cha Na in Narathiwat on September 18 with gusty wind in Nakhon Si Thammarat on September 12 and 20.

21 – 30 September: The monsoon trough lay across lower northern, upper central toward the low pressure cell over lower northeastern during early and mid-period after that it lay toward the typhoon "NORU (2216)" in the middle South China Sea. This storm made landfall at Hội An, Vietnam in the early morning of September 28 and weakened into the tropical storm and moved into Laos before entering Thailand at Khong Chiam, Ubon Ratchathani at 5:00 p.m. on September 28 and downgraded into the tropical depression at 6:00 p.m. on the same day and moved through Amnat Charoen, Yasothon, Roi Et, Maha Sarakham, Khon Kaen and degenerated into an active low pressure cell at Chaiyaphum at 07.00 p.m. on September 29 and covering lower northern, upper central and northeastern parts on the last day of the period. In addition, the moderate southwest monsoon which prevailed over the Andaman Sea, southern part and the Gulf of Thailand was strengthened during late period. These caused plentiful rainfall in upper Thailand mainly during the middle and the end of the periods especially on September 28 that received heavy to very heavy rainfall in several areas in the northeastern part. The highest daily rainfall in upper Thailand was 203.0 mm at Mueang Chan, Si Sa Ket on September 28, Flooding was reported in Kamphaeng Phet on September 22, Chiang Mai, Mukdahan, Nakhon Ratchasima, Amnat Charoen, Samut Prakan on September 23, Lamphun, Sukhothai, Amnat Chaaroen, Yasothon, Rayong on September 24, Chiang Mai, Lampang, Phitsanulok, Tak, Phetchabun, Kamphaeng Phet, Loei, Khon Kaen, Chaiyaphum, Nakhon Ratchasima, Si Sa Ket, Nong Bua Lum Phu, Prachinburi on September 25, Phichit, Ubon Ratchathani, Anachcharoen, Si Sa Ket, Yasothon on September 28, Phetchabun, Saraburi, Sa Kaeo on September 29, Nakhon Ratchasima, Buriram, Lop Buri on September 30 and gusty wind was reported in Si Sa Ket on September 28, Mukdahan on September 29 and Kalasin on September 30. Landslides were reported in Chiang Mai on September 25. In southern part, abundant rainfall was observed along the west coast with fairly widespread rain almost the entire period and heavy to very heavy rain in some places. The southern eastern coast scattered to fairly widespread rain with heavy rainfall in some areas almost the period. The highest daily rainfall was 110.0 mm in Khura Buri, Phang-nga on September 30, with flooding in Phang-nga on September 30 and gusty wind in Narathiwat on September 21.

Track of tropical storm that entering Thailand in September 2022



Note: 1) Rainfall, temperatures and natural disasters in this report were updated up to October 7, 2022.

2) "NORU" mean a type of small deer living in the wild forest contributed by Republic of Korea.

Climatological Center Meteorological Development Division Meteorological Department

Breaking record of daily maximum rainfall in September 2022

	New Record 2022		Previous	Start	
Station	Rainfall (mm)	Date	Rainfall (mm)	Date/Year	Year
Lampang Agromet. Stn.	123.1	11	104.3	11/2006	1982
Khon Kaen	171.8	25	166.2	1/2019	1951
Nong Plub Agromet. Stn.	86.0	24	81.0	16/2010	1974
Phuket Airport	245.7	1	207.8	24/2001	1952

Breaking record of monthly total rainfall in September 2022

	New Record 2022	Previous	Start	
Station	Rainfall (mm)	Rainfall (mm)	Date/Year	Year
Phayao	383.8	368.2	2003	1981
Wichian Buri (Phetchabun)	521.5	516.3	2021	1970
Ubon Ratchathani	653.9	554.5	2019	1951
Ubon Ratchathani Agromet. Stn.	666.7	553.2	1996	1970
Surin	676.3	591.9	2013	1951
Surin Agromet. Stn.	651.5	621.8	2003	1969
Bangkok Metropolis (Sirikit Center)	687.0	676.3	1972	1951
Bangkok Port (Khet Khlong Toei)	703.9	574.4	1998	1994
Rayong	650.9	504.7	2012	1981
Huai Pong Agromet. Stn. (Rayong)	567.5	511.4	2015	1969

Monthly Current Report Rainfall and Accumulative Rainfall September 2022

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	27.0	0.5	251.6	-23.5	1764.7	230.1
Mae Hong Son	27.4	0.2	288.2	87.7	1398.8	269.1
Phayao	26.7	0.2	383.8	186.4	1402.6	428.7
Chiang Mai	27.2	0.3	452.9	245.7	1668.2	707.8
Tha Wang Pha	27.3	0.2	259.6	39.7	1661.6	314.8
Nan	27.5	0.1	201.4	-4.8	1319.8	144.0
Lamphun	27.0	-0.1	340.2	129.4	1280.6	375.1
Lampang	27.3	0.0	355.2	145.5	1155.9	187.2
Mae Sariang	26.9	0.1	369.6	196.0	1276.7	257.9
Phrae	27.4	0.0	235.7	48.0	1155.6	96.3
Uttaradit	28.2	0.0	227.3	-19.3	1190.3	-54.6
Bhumibol Dam	27.4	-0.3	411.1	186.9	1181.0	357.3
Tak	27.6	-0.4	414.3	193.7	1276.5	457.9
Mae Sot	26.7	0.3	274.5	69.8	1369.1	-33.7
Umphang	24.9	0.2	323.6	65.6	1675.1	368.4
Phitsanulok	27.8	-0.4	379.2	110.8	1439.2	303.8
Lom Sak	27.2	-0.1	363.3	167.0	996.3	60.9
Phetchabun	27.1	-0.3	236.8	26.8	1101.5	55.8
Wichian Buri	27.4	-0.6	540.0	284.2	1661.2	550.0
Kamphaeng Phet	27.8	-0.1	330.5	62.5	1610.7	523.6
Over the area	27.2	0.0	331.9	109.9	1379.3	280.0
				50%		25%

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	28.0	0.2	282.1	13.3	1985.8	407.2
Loei	26.6	-0.1	301.8	62.0	1402.2	288.4
Udon Thani	27.6	-0.1	256.2	6.7	1368.3	37.5
Nakhon Phanom	27.8	0.4	283.2	-14.0	1797.5	-449.3
Sakon Nakhon	27.5	0.1	257.8	24.8	1244.4	-327.8
Mukdahan	27.4	-0.1	306.0	73.9	1450.0	48.3
Khon Kaen	26.9	-0.4	455.0	209.0	1578.7	476.0
Kosum Phisai	27.7	-0.2	254.1	-10.3	1380.7	176.1
Roi Et	27.5	-0.2	289.5	38.6	1532.0	287.1
Chaiyaphum	27.1	-0.4	516.1	278.3	1541.0	521.8
Ubon Ratchathani	27.2	-0.4	653.9	339.5	2283.4	798.3
Tha Tum	27.2	-0.7	360.9	106.4	1026.6	-174.3
Surin	27.1	-0.3	676.3	409.8	2117.7	830.5
Nakhon Ratchasima	27.2	-0.4	307.8	69.0	1184.0	218.3
Chok Chai	27.2	-0.2	222.8	18.4	1052.1	184.3
Nang Rong	26.7	-0.6	392.1	136.9	1816.3	759.2
Over the area	27.3	-0.2	363.5	110.2	1547.5	255.1
				44%		20%

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 2022

Central Thailand

	Tempera	ature (°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	-0.2	276.7	41.0	1360.4	382.2
Bua Chum	27.7	0.0	367.9	121.9	1296.0	344.3
Lop Buri	28.1	-0.1	312.7	45.9	979.3	57.2
Suphan Buri	28.6	0.0	262.1	43.3	1152.3	411.1
Thong Pha Phum	26.9	0.1	255.6	5.0	1515.0	-56.6
Kanchanaburi	28.3	0.0	288.6	69.6	1032.4	236.8
Bangkok Airport	28.0	-0.6	291.2	-8.8	1435.6	198.6
Bangkok Metropolis	27.8	-0.8	687.0	351.1	2054.2	696.9
Over the area	27.9	-0.2	342.7	83.6	1353.2	283.7
				32%		27%

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	28.2	-0.1	407.5	40.3	1878.3	288.3
Kabin Buri	27.4	-0.3	440.6	137.3	1632.9	263.4
Aranyaprathet	27.7	-0.2	316.5	72.3	1402.6	284.1
Chon Buri	28.4	-0.3	301.9	22.1	1295.4	244.5
Ko Sichang	27.4	-0.9	327.6	86.4	1182.1	277.0
Pattaya	27.6	-0.3	300.2	86.6	1082.3	269.3
Sattahip	27.8	-0.5	334.2	89.7	1452.5	482.6
Rayong	27.8	-0.5	650.9	382.1	1506.2	347.6
Chanthaburi	26.8	-0.6	836.7	298.4	2919.3	265.9
Khlong Yai	26.9	-0.1	917.9	101.5	4527.2	51.3
Over the area	27.6	-0.4	483.4	131.7	1887.9	277.4
				37%		17%

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Monthly Current Report Rainfall and Accumulative Rainfall September 2022

Southern Thailand, east coast

	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
Phetchaburi	28.4	0.0	99.8	-51.8	725.1	107.7
Hua Hin	28.5	0.3	45.1	-84.7	767.9	167.1
Prachuap Khiri Khan	28.2	0.3	32.2	-71.9	1139.1	410.0
Chumphon	27.2	0.1	203.6	24.7	1679.8	420.8
Surat Thani	27.1	0.1	172.4	0.5	1290.6	316.0
Ko Samui	28.3	0.3	155.3	37.8	1602.5	610.8
Nakhon Si Thammarat	27.6	0.2	222.2	66.5	2296.5	1023.2
Songkhla	28.3	0.3	125.4	2.1	1131.1	218.2
Hat Yai Airport	27.0	0.0	126.0	-20.8	1269.0	336.6
Pattani Airport	27.7	0.3	116.1	-24.7	1349.8	412.9
Narathiwat	27.6	0.3	183.0	-11.6	2000.9	737.4
Over the area	27.8	0.2	134.6	-12.2	1386.6	432.7
				-8%		45%

Southern Thailand, west coast

	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
Ranong	26.4	-0.2	866.7	187.9	3704.2	131.0
Takua Pa	27.1	0.4	587.5	-48.2	3385.4	352.4
Phuket	28.4	0.6	169.0	-181.4	1870.0	194.7
Phuket Airport	28.2	0.6	615.0	215.8	2234.7	246.3
Ko Lanta	28.1	0.3	298.4	-21.0	2075.0	366.0
Trang Airport	27.1	0.2	285.6	-1.4	1963.8	371.5
Satun	27.1	0.0	300.3	-33.9	1933.3	244.1
Over the area	27.5	0.3	446.1	16.9	2452.3	272.2
				4%		12%

NOTES: 1) Mean temperature is the average of daily dry-bulb temperature

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