

Monthly Weather Summary in Thailand

September 2020

The weather in September 2020 was dominated by the monsoon trough which lay across upper Thailand almost the month and lay toward the low pressure cell in the Gulf of Tonkin and over upper Vietnam at times. Also, the southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand throughout the month. Besides, the tropical storm “NOUL (2011)” entering the northeastern part of Thailand at Mukdahan province in the afternoon of September 18. This storm moved through Amnat Charoen, Yasothon, Roi Et, Mahasarakham and downgraded into a tropical depression in the areas of Khon Kaen province on September 19 then it passed Chaiyaphum and Phetchabun provinces and degenerated into the active low pressure cell covering Phitsanulok province in the afternoon of the same day. These conditions caused intermittent abundant rainfall in upper Thailand especially during September 18-20 that experienced widespread rain in almost regions with heavy to very heavy rainfall in several areas in particularly lower northern, lower northeastern and the upper portion of the central and eastern parts which induced flash flooding in many during that time. In southern part, plentiful rainfall was found almost the month especially during the beginning and the middle of the month while rainfall was relatively decreased during the end of the month due to the weakening of the southwest monsoon. The average total rainfall over Thailand in this month was about 3% higher than normal and monthly rainfall was above normal i.e. northeastern part 0.2 mm (0%), eastern part 12.5 mm (4%), southern part (eastern coast) 42.9 mm (29%) and southern part (west coast) 70.2 mm (17%) whereas northern and central parts were below normal 25.7 mm (12%) and 14.2 mm (2%), respectively. The mean temperature this month was above normal in every part. More details on the weather were as follow:

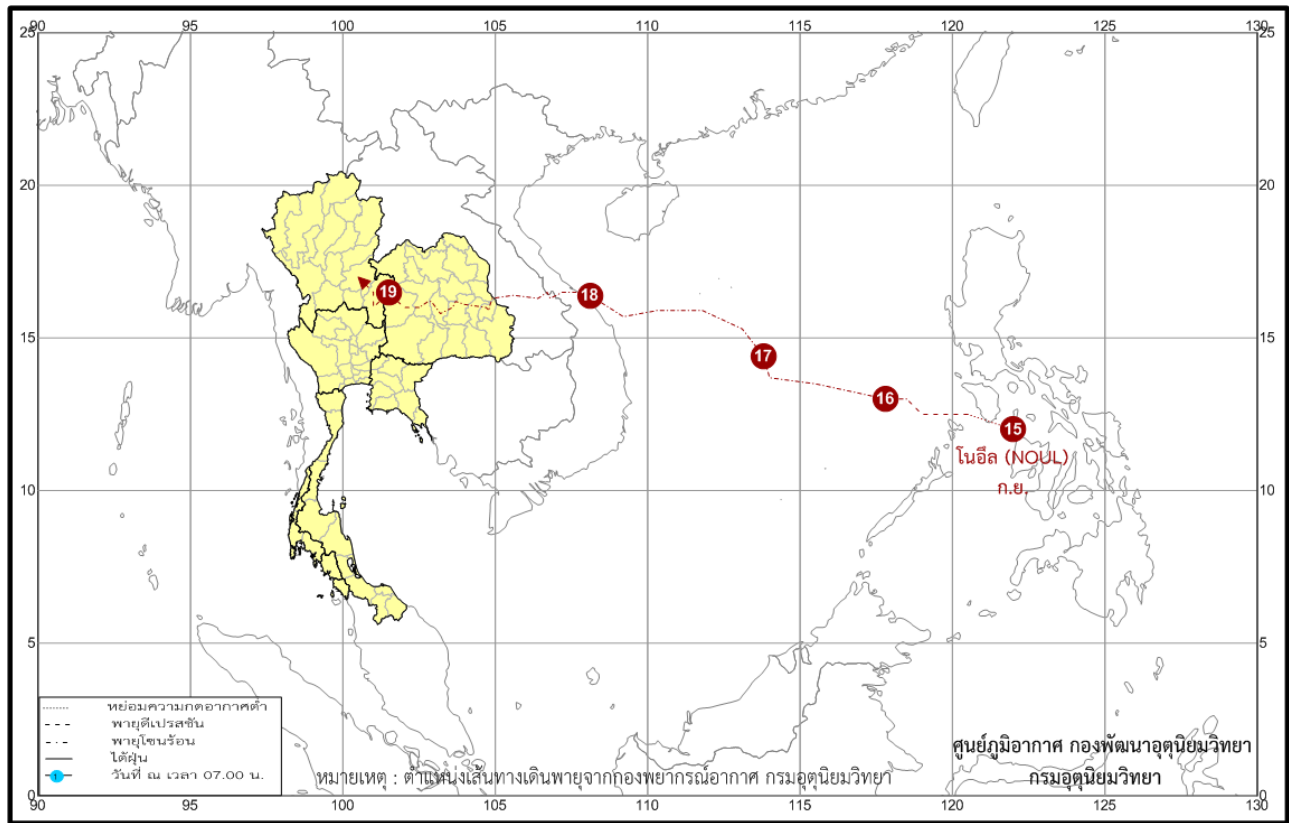
1 – 10 September: The monsoon trough lay across lower northern, central and northeastern parts during the first half of the period then it moved northward to lie across upper northern and upper northeastern parts toward the active low pressure cell over upper Vietnam in addition with the prevailing of the southwest monsoon over the Andaman Sea, Thailand and the Gulf of Thailand and the blowing of the southeasterly wind over the eastern part and the Gulf of Thailand during mid-period. These caused isolated to scattered rain almost the period in the northern and northeastern parts with heavy rainfall in some places. Scattered to fairly widespread rain was observed in the central and eastern parts almost the period with heavy rainfall in some areas. The highest daily rainfall in upper Thailand was 134.5 millimeters at Phutthaisong in Buriram province on September 5 with flash flooding at Uttaradit province on September 5, at Nan and Sa Kaeo provinces on September 7, at Mae Hong Son and Chiang Rai provinces on September 8. The gusty wind was reported at Amnat Charoen province on September 5, at Nakhon Ratchasima province on September 6 and at Pichit on September 9. Mudslide occurred in Chiang Rai province on September 8. In southern part, abundant rain was found almost the period with fairly widespread rain along the west coast while fairly widespread rain also observed almost the period along the east coast. The maximum daily rainfall was 121.4 millimeters at Takua Pa in Phang-nga province on September 8. Flash flood was reported at Phang-nga and Yala provinces on September 10 and mudslide was reported at Phuket province on September 8.

11 – 20 September: The monsoon trough lay across upper Thailand during the first half of the period. It lay over the northern and upper northeastern part toward the low pressure cell over Vietnam during the early period then it moved southward to lie across the central, eastern and lower northeastern parts accompanied with the strengthened of the southwest monsoon prevailing over the Andaman Sea, Thailand and the Gulf of Thailand during the second half of the period due to the influence of the low pressure cell in Philippines intensified into a tropical depression at 01:00 P.M. on September 15 and reached tropical storm strength “NOUL, (2011)” over the middle South China Sea at 01.00 A.M. on September 16. It moved northwesterly before making landfall at Danang, upper Vietnam in the morning of September 18, then moved through Laos entering Thailand at Mukdahan province at

02.00 P.M. after that it passed through Amnat Charoen, Yasothon, Roi Et, Mahasarakham provinces before weakening into the tropical depression in Khon Kaen province at 01.00 A.M. on September 19 and then moving through Chaiyaphum and Phetchabun provinces and degenerated into active low pressure cell covering Phitsanulok province in the afternoon of the same day. These caused isolated to scattered rain in the northern, northeastern and central parts during the middle and the end of the period then increasing in rainfall to fairly widespread rain with heavy to very heavy rainfall in some places inducing flash flooding in several areas. The eastern part obtained fairly widespread rain with isolated heavy to very heavy rainfall mainly during the middle and the end of the period. The heaviest daily rainfall in upper Thailand was 243.7 millimeters at Wichian Buri in Phetchabun province on September 18. Flooding was reported at Nakhon Ratchasima province on September 13, at Tak and Nakhon Nayok provinces on September 15, at Phetchabun, Kamphaeng Phet, Khon Kaen, Chaiyaphum, Mukdahan, Ubon Ratchathani, Surin, Si Sa Ket, Nakhon Ratchasima, Lop Buri, Chanthaburi and Trat provinces on September 18 and at Tak, Buriram and Prachin Buri provinces on September 19 and at Lamphun, Lampang, Pichit and Loei provinces on September 20. The gusty wind was reported at Surin on September 14. For southern Thailand, plentiful rain was found almost the period especially the southern part west coast that obtained widespread rain with heavy to very heavy rainfall in some areas whereas fairly widespread rain with isolated heavy to very heavy rainfall was observed along the east coast. The highest daily rainfall was 205.2 mm at Kra Buri in Ranong province on September 17. Flash flood was reported at Phang-nga province on September 12 and at Chumphon, Ranong and Phang-nga province on September 18.

21 – 30 September: The monsoon trough lay across upper Thailand almost the period. It lay over the northern and upper northeastern parts during the early period and moved southward to lie over lower northern, upper central and northeastern parts for few days and shifted backward to lie over northern and upper northeastern parts on the last day of the period. In addition, the southwest monsoon prevailed over the Andaman Sea, Thailand and the Gulf of Thailand throughout the period and weakening during the middle of the period. These caused scattered to fairly widespread rain almost the period with heavy to very heavy rainfall in some areas in the northern and northeastern parts. For the central and eastern regions, rainfall was mainly observed during the middle and the end of the period with scattered to fairly widespread rain with heavy to very heavy rainfall in some areas while isolated to scattered rain with heavy rainfall in some areas was found during the middle of the period. The heaviest daily rainfall in upper Thailand was 224.6 millimeters at Sattahip in Chon Buri on September 21. Flash flood was reported at Phrae and Sing Buri provinces on September 21, at Si Sa Ket province on September 22, at Prachin Buri province on September 23, at Kanchanaburi and Chai Nat provinces on September 23 and mudslide occurred at Phrae province on September 21 and Mae Hong Son province on September 29. In southern part, rainfall was mainly observed during the middle and the end of the period with scattered to fairly widespread rain and heavy to very heavy rainfall in some areas. The maximum daily rainfall was 193.9 millimeters at Suk Samran in Ranong province on September 27 with flash flooding at Surat Thani province on September 24.

Track of tropical storm "NOUL, (2011)" that affected Thailand rainfall in September 2020



Breaking records of the highest daily rainfall in September

Station	New Record		Previous Record		Start since
	Rainfall (mm.)	Date	Rainfall (mm.)	Date / Year	
Wichian Buri (Phetchabun)	243.8	18	154.4	6/1987	1970
Mueang (Ubon Ratchaburi)	190.0	18	172.6	18/2013	1951
Ubon Ratchaburi Agometeorological Station	200.8	18	198.9	13/2018	1970
Si Sa Ket Agometeorological Station	170.7	18	142.7	3/2019	1983
Mueang (Nakhon Ratchasima)	152.8	18	143.7	12/1968	1951
Mueang (Buriram)	157.2	18	124.2	6/2009	2003
Tak Fa Agometeorological Station (Nakhon Sawan)	189.5	18	149.3	10/2009	1969
Bua Chum (Lop Buri)	173.1	18	154.4	10/1975	1970
Sattahip (Chon Buri)	224.6	27	125.9	17/2015	1951

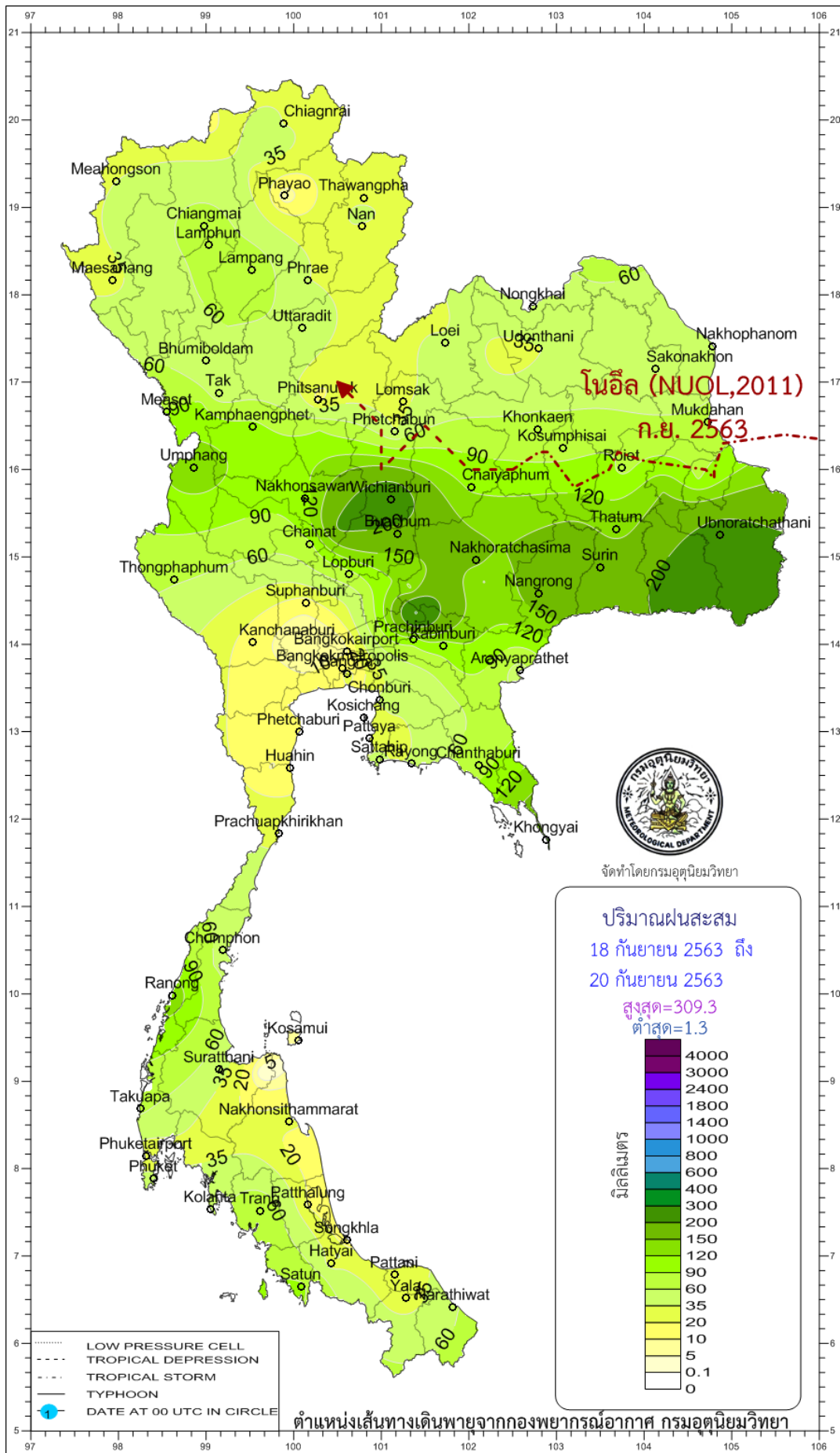
Breaking records of the highest monthly rainfall in September

Station	New Record 2020	Previous Record		Start since
		Previous Record	Year	
Umphang (Tak)	448.2	427.4	2002	1978
Sattahip (Chon Buri)	624.7	482.0	1979	1951
Chawang (Nakhon Si Thammarat)	362.5	351.1	2002	1998

- Note :**
- 1) Rainfall, temperatures and natural disasters in this report were updated up to October 2, 2020.
 - 2) "NOUL" mean glows, red sky contributed by Democratic People's Republic of Korea.

Climatological Center
 Meteorological Development Division
 Meteorological Department

Accumulative rainfall during 18-20 September 2020



Monthly Current Report
Rainfall and Accumulative Rainfall
September 2020

Northern Thailand

Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Chiang Rai	27.4	1.2	242.5	-41.4	1154.8	-337.6
Mae Hong Son	28.0	1.0	97.0	-102.0	917.2	-205.4
Phayao	27.5	1.2	69.7	-133.9	729.0	-237.2
Chiang Mai	28.2	1.5	251.5	40.1	987.9	44.7
Tha Wang Pha	27.9	1.1	207.6	-3.9	1157.0	-129.1
Nan	28.1	0.9	128.3	-75.2	1174.0	36.9
Lamphun	27.8	0.9	135.1	-73.1	950.2	108.0
Lampang	28.3	1.3	215.7	4.1	792.6	-118.1
Mae Sariang	27.8	1.3	73.0	-104.1	664.4	-326.5
Phrae	28.2	1.0	150.6	-41.1	1314.2	321.6
Uttaradit	29.0	1.0	231.5	-16.8	1038.0	-190.9
Bhumibol Dam	28.7	1.2	178.2	-29.4	563.1	-224.0
Tak	29.0	1.3	224.8	9.3	677.3	-124.9
Mae Sot	27.7	1.5	177.4	-8.0	795.7	-540.2
Umphang	25.8	1.4	448.2	200.6	1100.5	-174.7
Phitsanulok	28.9	0.8	214.4	-32.2	967.2	-142.8
Lom Sak	28.2	1.1	187.6	-6.0	965.1	28.9
Phetchabun	28.5	1.4	101.1	-104.6	833.0	-190.6
Wichian Buri	28.7	0.8	353.6	107.5	1058.4	-6.0
Kamphaeng Phet	29.0	1.4	163.8	-105.0	533.1	-531.1
Over the area	28.1	1.1	192.6	-25.7 -12%	918.6	-147.1 -14%

Northeastern Thailand

Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Nong Khai	28.7	1.3	291.4	34.2	1793.4	295.6
Loei	27.6	1.2	232.8	-2.2	1015.7	-73.2
Udon Thani	28.6	1.0	163.2	-76.3	1067.6	-247.5
Nakhon Phanom	28.9	1.8	84.8	-205.4	1154.0	-1081.3
Sakon Nakhon	28.3	1.1	126.8	-98.0	1138.7	-411.9
Mukdahan	28.8	1.6	117.7	-94.0	887.7	-475.8
Khon Kaen	27.9	0.7	294.4	62.4	1072.0	-37.1
Kosum Phisai	28.7	1.0	204.4	-36.2	1134.8	3.7
Roi Et	28.5	1.0	280.5	60.7	1046.5	-170.9
Chaiyaphum	28.4	1.1	240.0	10.0	1020.0	42.9
Ubon Ratchathani	28.5	1.1	439.4	145.6	1399.8	-35.2
Tha Tum	28.4	0.7	265.4	2.4	844.5	-395.1
Surin	28.2	0.9	394.0	138.6	1214.5	-58.9
Nakhon Ratchasima	28.5	1.1	265.9	37.6	1172.1	273.5
Chok Chai	28.2	0.9	167.1	-44.5	859.3	-18.6
Nang Rong	27.9	0.7	308.1	68.5	1306.7	287.3
Over the area	28.4	1.1	242.2	0.2 0%	1133.0	-131.4 -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
September 2020

Central Thailand

Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Nakhon Sawan	29.4	1.4	150.8	-86.2	625.4	-338.9
Bua Chum	28.6	1.0	255.9	4.2	849.3	-84.1
Lop Buri	29.0	1.0	206.3	-59.2	749.5	-184.3
Suphan Buri	29.4	1.1	170.2	-53.2	563.5	-164.4
Thong Pha Phum	27.6	0.9	363.5	122.3	1210.0	-373.9
Kanchanaburi	29.2	1.2	265.6	45.1	740.5	-41.9
Bangkok Airport	29.0	0.6	190.4	-94.5	1027.6	-112.3
Bangkok Metropolis	29.4	1.1	342.3	8.0	1243.9	-56.4
Over the area	29.0	1.1	243.1	-14.2 -6%	876.2	-169.5 -16%

Eastern Thailand

Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Prachin Buri	28.9	0.8	474.1	124.7	1311.0	-314.7
Kabin Buri	27.9	0.2	300.4	-2.9	1217.4	-191.9
Aranyaprathet	28.6	0.9	165.0	-87.3	929.5	-200.8
Chon Buri	29.2	0.9	156.9	-112.0	981.7	-50.7
Ko Sichang	28.8	0.7	119.5	-149.7	841.0	-101.7
Pattaya	28.4	0.7	158.2	-46.5	740.2	-74.0
Sattahip	28.9	0.8	624.7	405.7	1398.6	478.4
Rayong	28.8	0.6	399.6	144.4	1418.5	286.4
Chanthaburi	27.8	0.6	407.7	-89.9	2147.8	-487.5
Khlong Yai	27.4	0.5	619.6	-61.4	2891.1	-1482.4
Over the area	28.5	0.7	342.6	12.5 4%	1387.7	-214.0 -13%

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Monthly Current Report
Rainfall and Accumulative Rainfall
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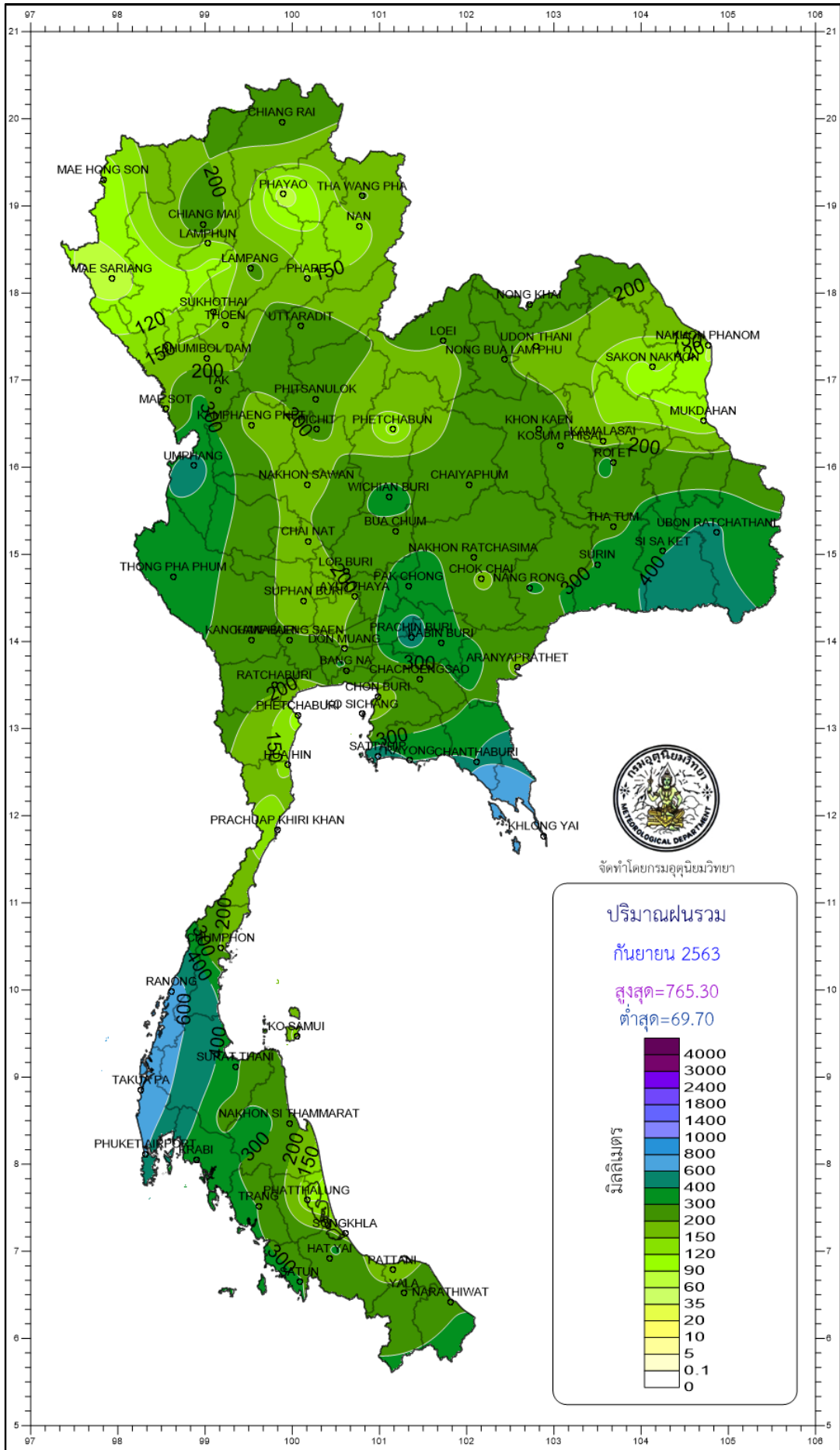
Southern Thailand, east coast

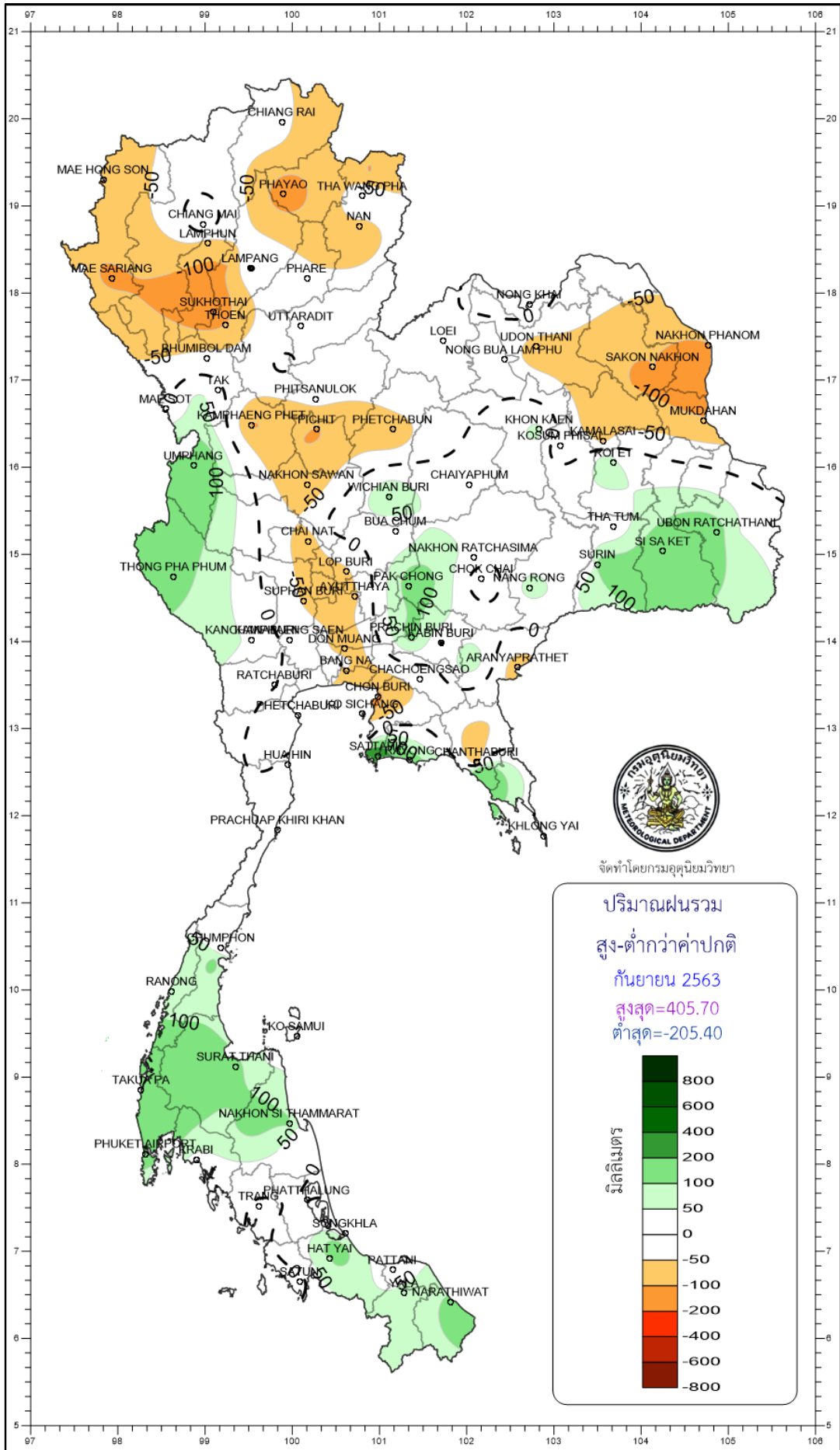
Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Phetchaburi	29.1	0.9	103.4	-50.2	469.9	-133.6
Hua Hin	28.8	0.8	132.3	11.9	463.7	-136.1
Prachuap Khiri Khan	28.7	1.0	119.7	20.2	664.5	-30.0
Chumphon	27.3	0.4	192.4	14.1	1127.3	-82.6
Surat Thani	27.1	0.5	309.2	120.8	1103.2	176.9
Ko Samui	28.2	0.3	137.6	15.9	1038.9	105.5
Nakhon Si Thammarat	27.7	0.4	267.1	105.5	1406.4	295.8
Songkhla	27.9	0.0	146.8	9.9	927.9	108.9
Hat Yai Airport	27.0	0.1	254.4	97.1	879.8	-33.9
Pattani Airport	27.6	0.4	164.1	17.0	1364.4	500.4
Narathiwat	27.8	0.6	292.8	110.1	1188.1	102.3
Over the area	27.9	0.5	192.7	42.9 29%	966.7	79.2 9%

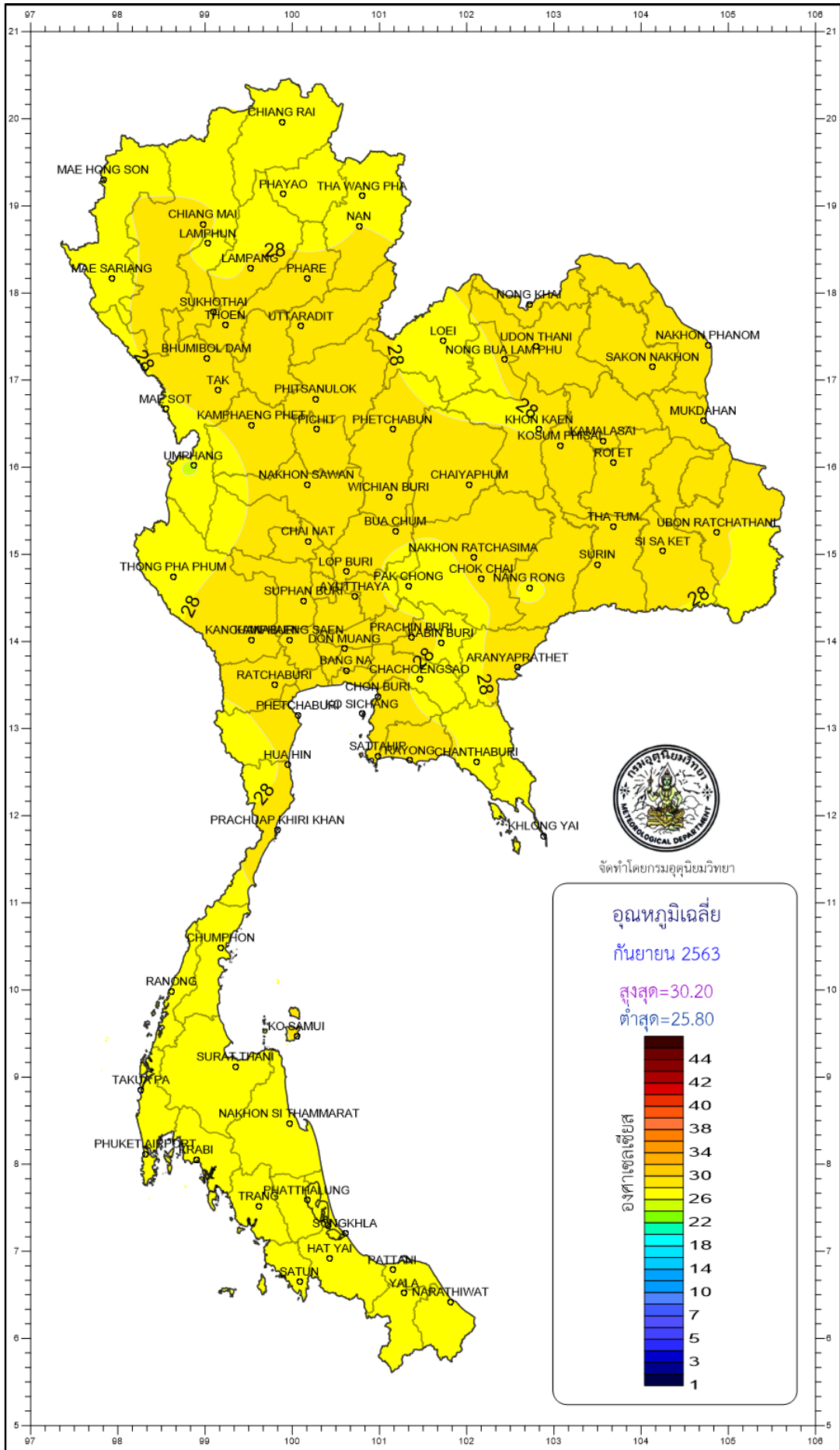
Southern Thailand, west coast

Station	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
	Mean	Above or below normal	Actual	Above or below normal	Actual	Above or below normal
Ranong	26.9	0.5	715.1	68.6	2258.9	-1187.2
Takua Pa	27.0	0.3	765.3	169.8	2605.7	-231.5
Phuket	27.8	0.3	399.2	38.0	1757.0	107.4
Phuket Airport	27.8	0.5	606.5	207.4	2045.1	198.7
Ko Lanta	27.6	0.0	362.7	32.4	1785.5	137.0
Trang Airport	27.0	0.4	297.1	-8.0	1234.0	-299.7
Satun	27.3	0.4	311.1	-17.3	1574.1	-56.0
Over the area	27.3	0.3	493.9	70.2 17%	1894.3	-190.2 -9%

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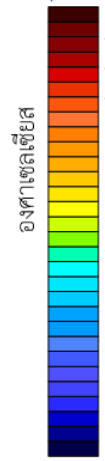




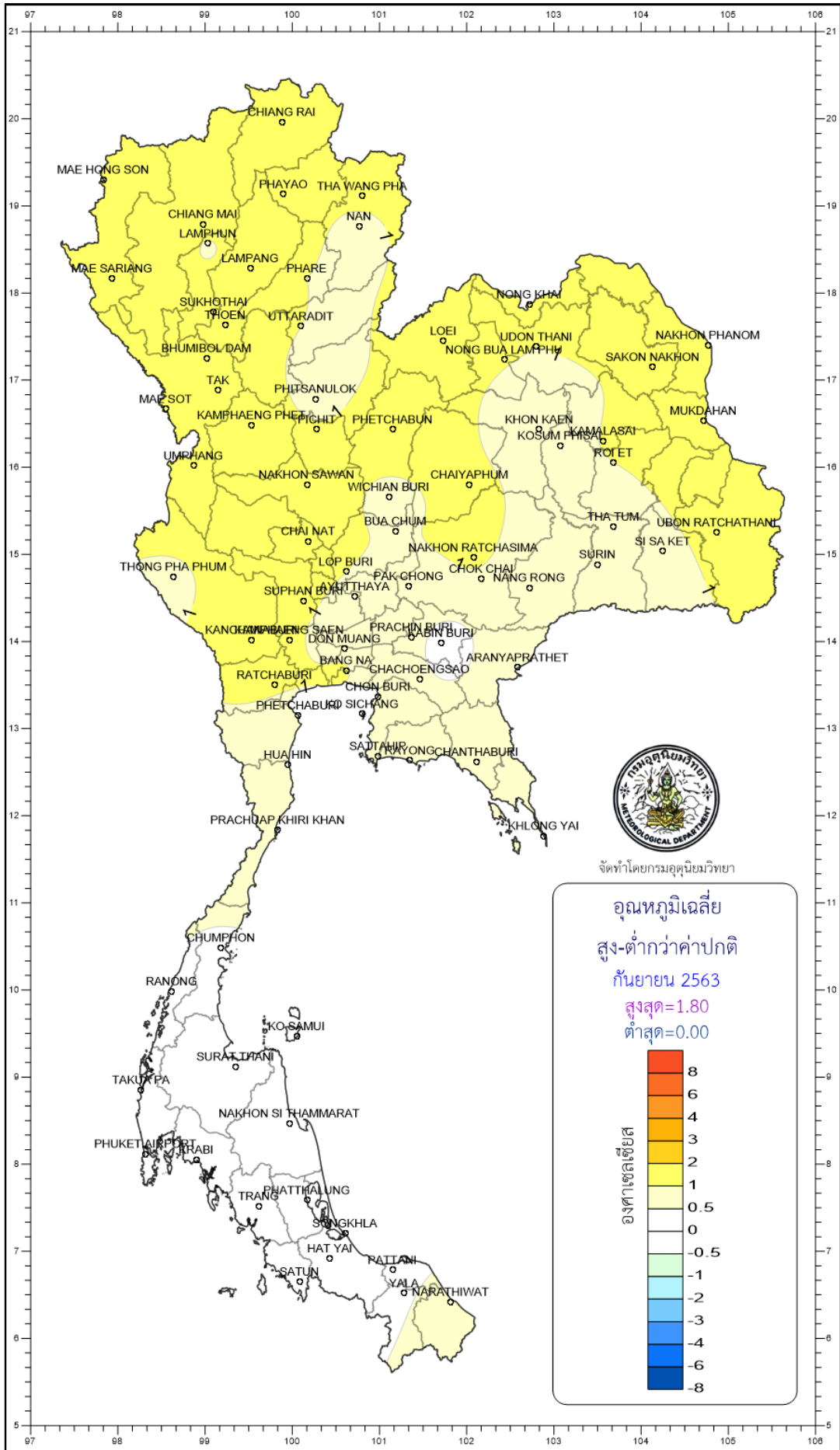


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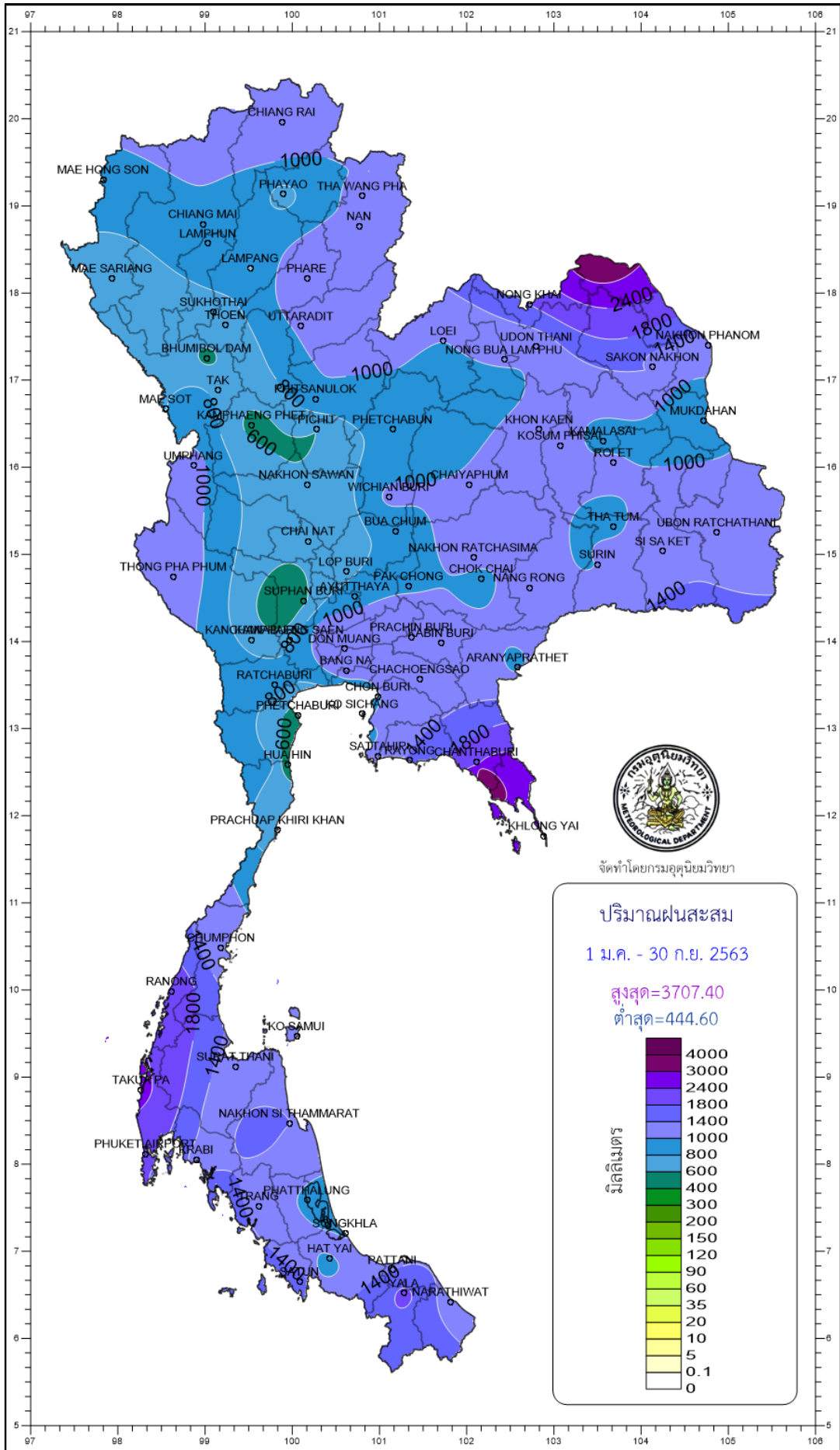
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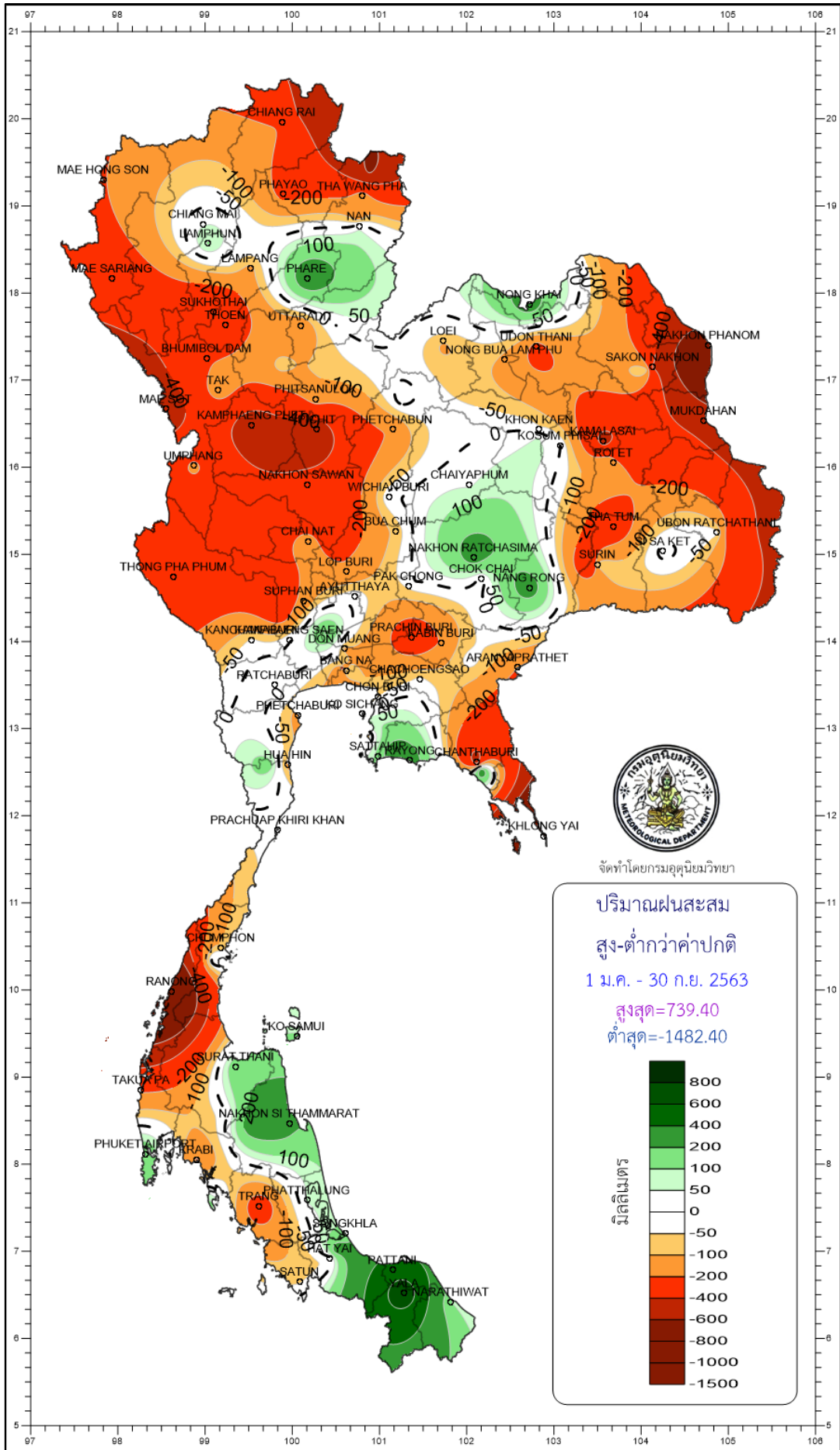
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