



Three-month Climate Forecast of Thailand

During July – September 2019

Issued on 3 July 2019

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,

THAI METEOROLOGICAL DEPARTMENT

(This document is best viewed by Google Chrome; enlarging & decreasing page size by +, - buttons from the bottom right corner.)

Climate Outlook

1. During the next three months, the total rain at central and eastern parts with Bangkok Metropolis and Vicinity would be 5% below normal. In other words, the total rain of the central part is to be about 480-580 millimeters (mm, normal: 558 mm) whereas that of the eastern part is to be about 795-935 mm (normal: 910 mm) while that of Bangkok Metropolis and Vicinity is to be about 570-730 mm (normal: 689 mm).

Moreover, the total rain of northern and northeastern parts and the Southern Thailand (east coast) would be near normal as 535-690 mm (normal: 617 mm), 640-810 mm (normal: 735 mm), and 340-450 mm (normal: 394 mm) consecutively. However, the total rain of the Southern Thailand (west coast) is to be 5% above normal or about 1,065 – 1,380 mm (normal: 1,159 mm).

Meanwhile, the mean temperature of Thailand would be above normal while the mean maximum temperature is to be 32-33 °C (normal: 32.4 °C) whereas the mean minimum temperature is to be 24-25 °C (normal: 24.5 °C).

2. In July 2019, the total rain around the central and eastern parts with Bangkok Metropolis and Vicinity would be 5% below normal while that of the northern part and the Southern Thailand (east coast) is to be near normal. Meanwhile, the total rain of the northeastern part and the Southern Thailand (west coast) is to be 5% above normal.

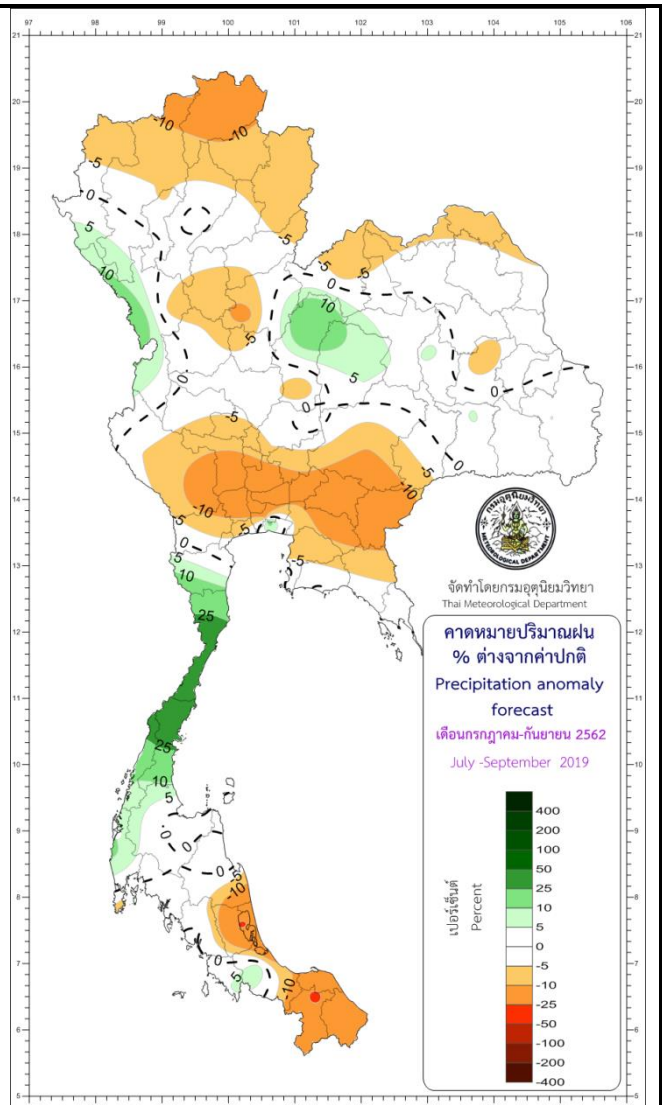
In detail, the total rain of each part would be near the following: the northern part: 160-200 mm, the northeastern part: 190-230 mm, the central part: 120-160 mm, the eastern part: 240-290 mm, the Southern Thailand (east coast): 100-140 mm, the Southern Thailand (west coast): 320-370 mm, and Bangkok Metropolis and Vicinity: 140-180 mm.

Meanwhile, the mean temperature of Thailand would be mostly above normal except that of the eastern part and the Southern Thailand (west coast) is to be near normal. For the Upper Thailand, the mean maximum temperature is to be 32-35 °C while the mean minimum temperature is to be 25-27 °C. For the Southern Thailand, the mean temperature would be near normal whereas the mean maximum temperature is to be 32-34 °C while the mean minimum temperature is to be 22-24 °C.

3. In August 2019, the total rain around Thailand would be mostly near normal except that of the Southern Thailand (west coast) is to be 5% above normal. In detail, the total rain of each part would be about as follows: the northern part: 200-250 mm, the northeastern part: 240-290 mm, the central part: 160-200 mm, the eastern part: 280-330 mm, the Southern Thailand (east coast): 100-140 mm, the Southern Thailand (west coast): 350-450 mm, and Bangkok Metropolis and Vicinity: 190-230 mm.

Meanwhile, the mean temperature of Thailand would be mostly above normal except that of the Southern Thailand (east coast) is to be near normal. In fact, the mean maximum temperature of Thailand is to be 32-34 °C whereas the mean minimum temperature of Thailand is to be 24-26 °C.

4. In September 2019, the total rain around the Upper Thailand would be 5% below normal whereas that of the Southern Thailand is to be 5% above normal. In detail, the total rain of all parts are approximate as follows: the northern part: 190-230 mm, the northeastern part: 200-250 mm, the central part: 220-270 mm, the eastern part: 290-340 mm, the Southern



Thailand (east coast): 140-180 mm, the Southern Thailand (west coast): 400-500 mm, and Bangkok Metropolis and Vicinity: 300-350 mm.

Meanwhile, the mean temperature of Thailand would be above normal whereas the mean maximum temperature is to be 32-34 °C while the mean minimum temperature is to be 24-26 °C.

* The data supporting this 3-month climate outlook are at Tables 1 & 2 on Pages 7 & 8:

Thailand climate for July-August-September 2019 from 30-year normal (1981-2010 baseline average)

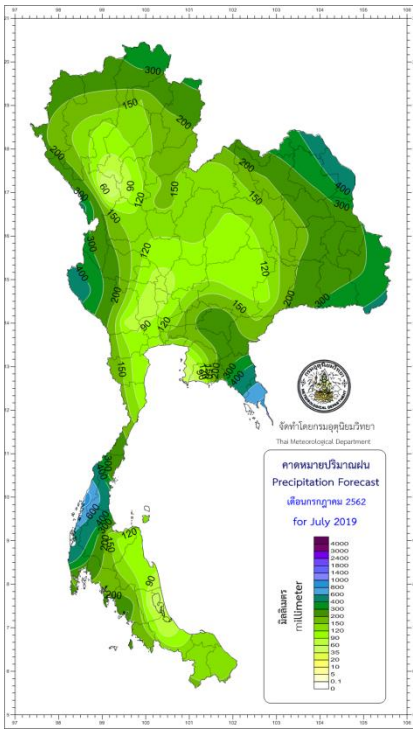
July 2019: During the 1st half of this month, the dry spell may often occur continuously from late June because the low-pressure trough still places on the southern portion of China along with the Southwest Monsoon prevailing over Thailand mostly weakens. As a result, many areas may meet little or no rain continuously for many days. Later during the 2nd half of this month, abundant rainfall will happen because of the low-pressure trough moving downward to place on the Upper Thailand again together with the Southwest Monsoon prevailing over Thailand becoming more active periodically. Additionally, some tropical cyclones may move near or toward Thailand along the eastern portion of Thailand.

August 2019: Commonly, densely abundant rainfall often occurs at this month with more monthly rain amount than previous months each year. The reason is that the low-pressure trough places on the northern and northeastern parts of Thailand along with the prevailing Southwest Monsoon over Thailand becomes more active periodically. Additionally, some tropical cyclones may move closer or toward the upper portion of both of the northern and northeastern parts more than other parts.

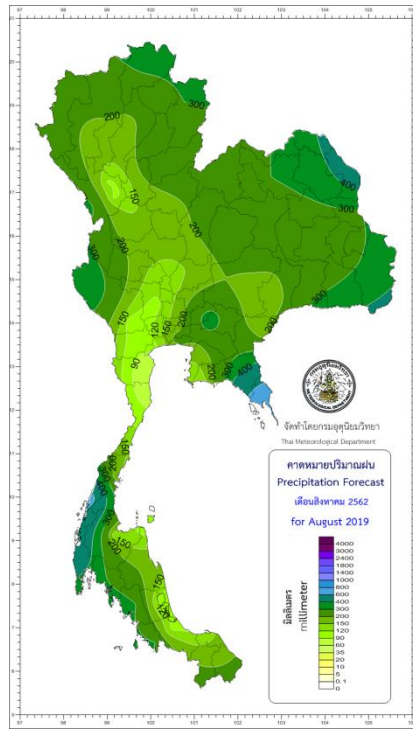
September 2019: Thailand will meet densely abundant rainfall. In fact, most areas will be affected by the most densely abundant monthly rainfall for the whole year. The reason is that the influential low-pressure trough places on the central portion of Thailand along with some tropical cyclones move to dissipate near or toward Thailand directly, specifically at the eastern portion of the country.

Precipitation (mm/month) and Anomaly (mm/month) Forecast:

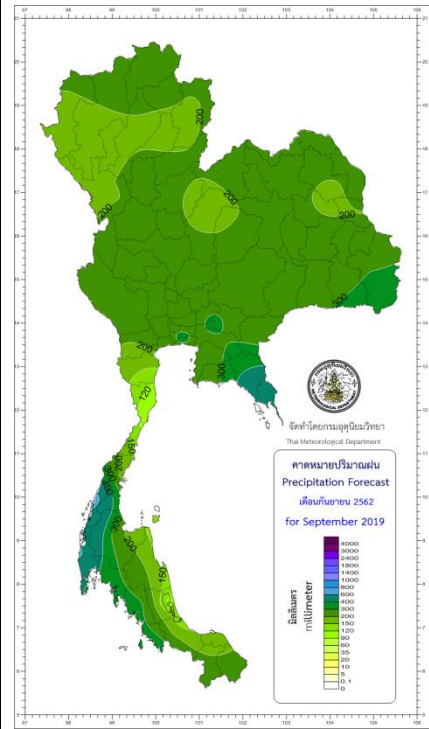
Precipitation forecast for July 2019



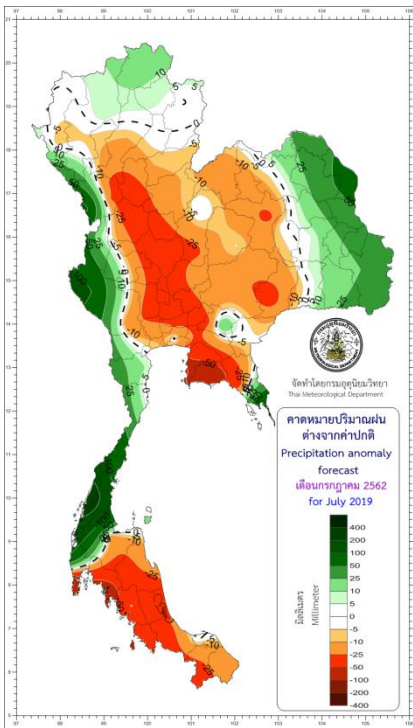
Precipitation forecast for August 2019



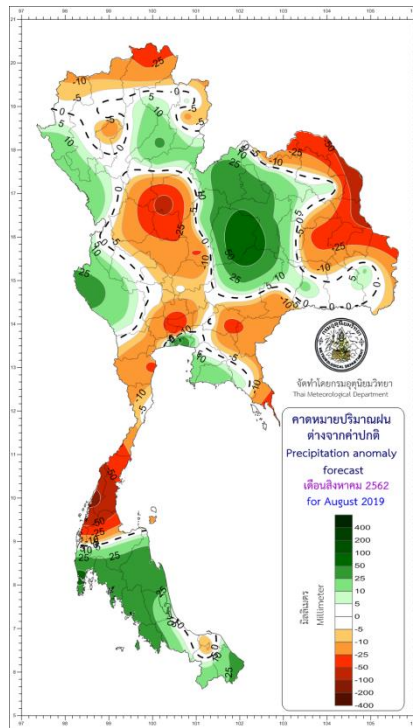
Precipitation forecast for September 2019



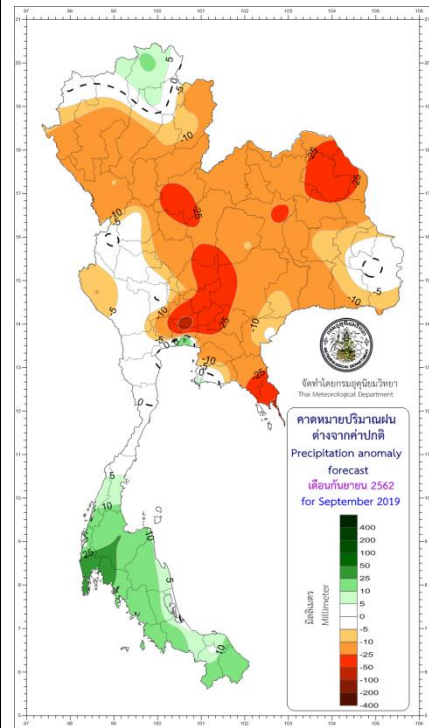
Precipitation anomaly forecast for July 2019



Precipitation anomaly forecast for August 2019

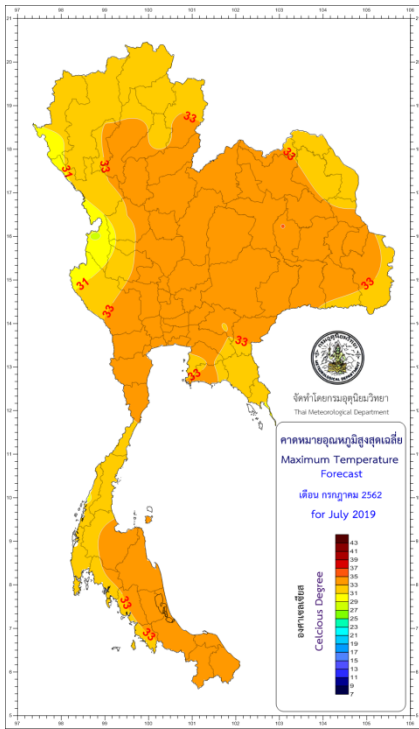


Precipitation anomaly forecast for September 2019

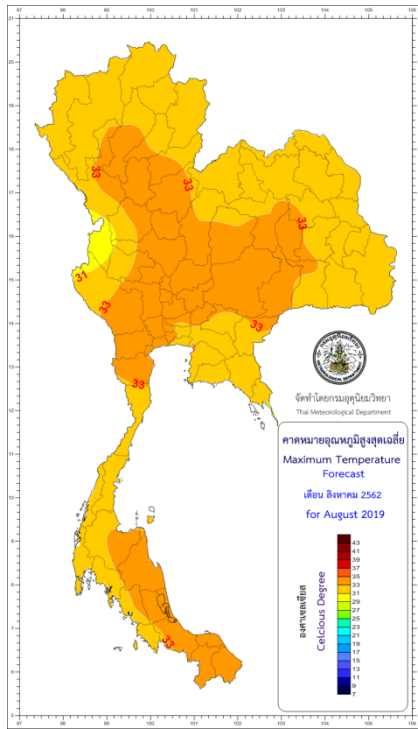


Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

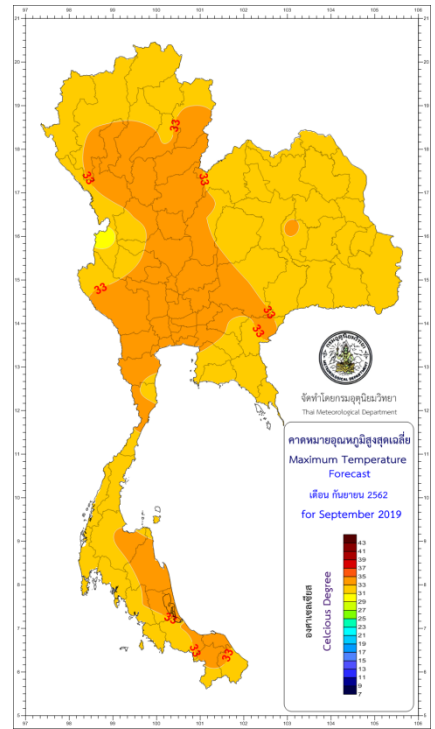
Mean maximum temperature forecast for July 2019



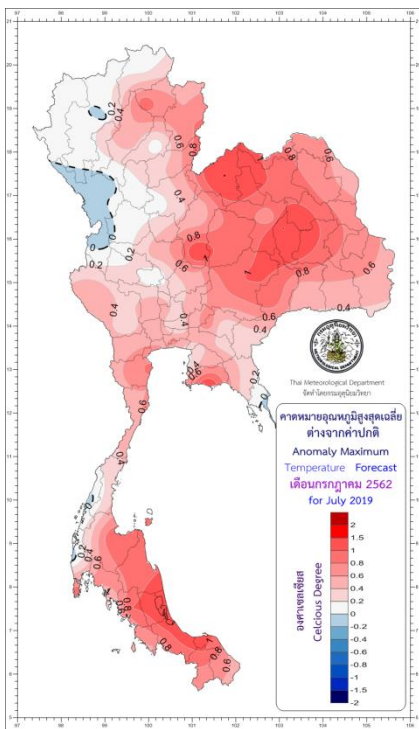
Mean maximum temperature forecast for August 2019



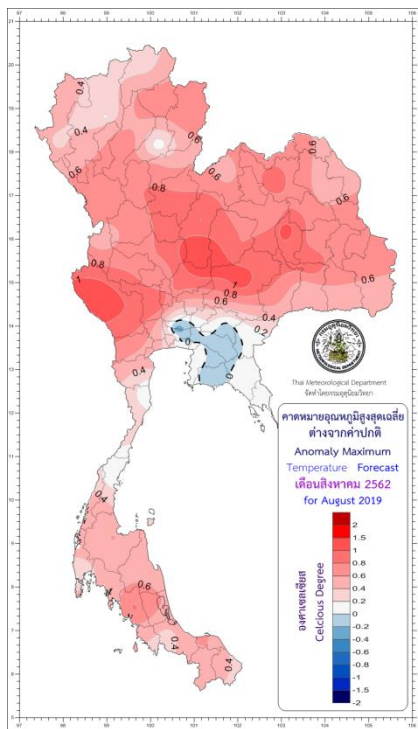
Mean maximum temperature forecast for September 2019



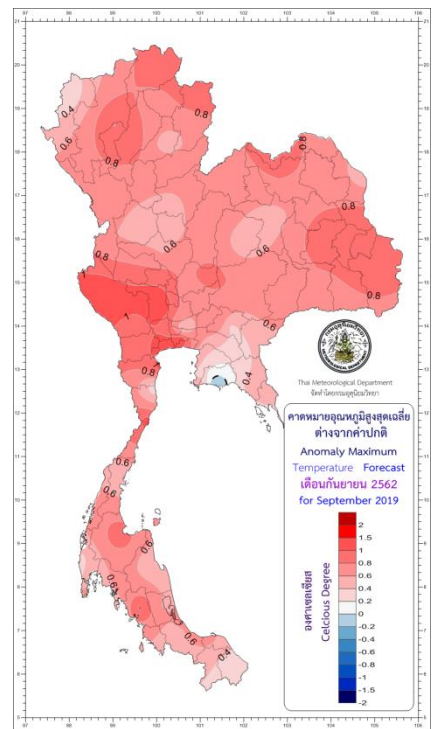
Mean maximum temperature anomaly forecast for July 2019



Mean maximum temperature anomaly forecast for August 2019

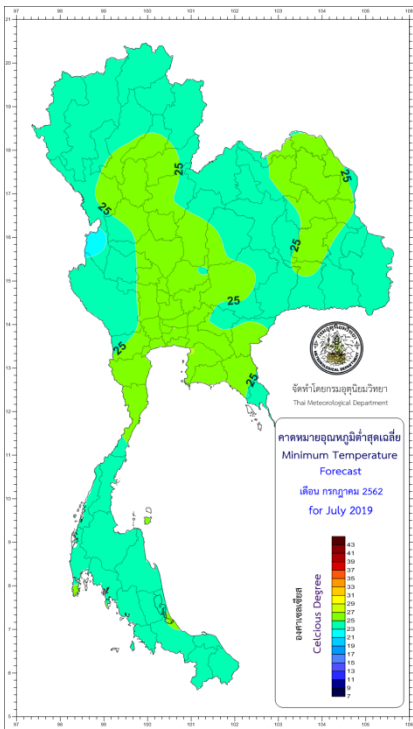


Mean maximum temperature anomaly forecast for September 2019

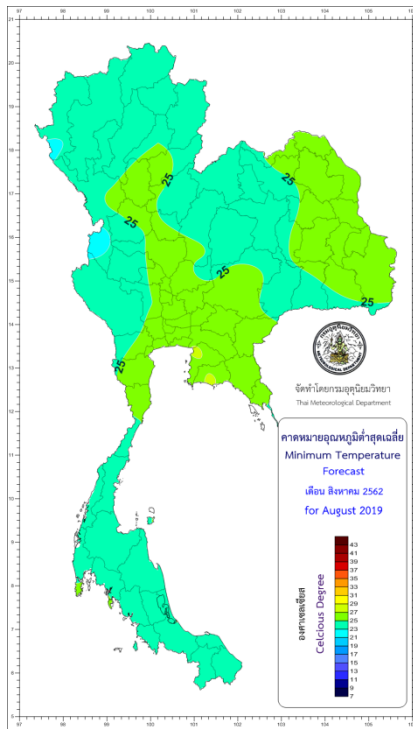


Mean Minimum Temperature (°C) and Anomaly (°C) Forecast:

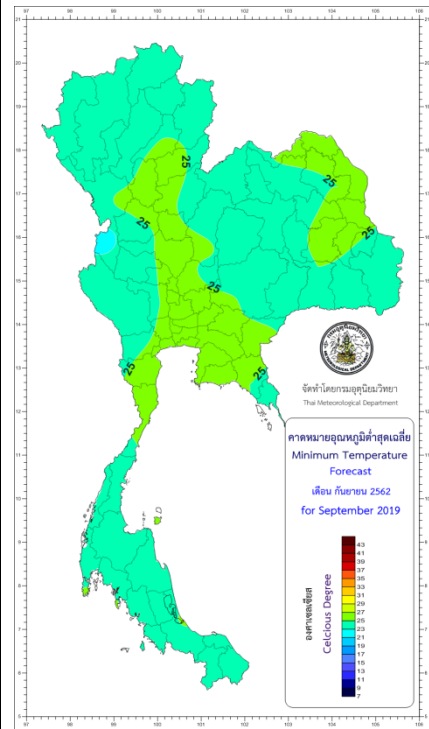
Mean minimum temperature forecast for July 2019



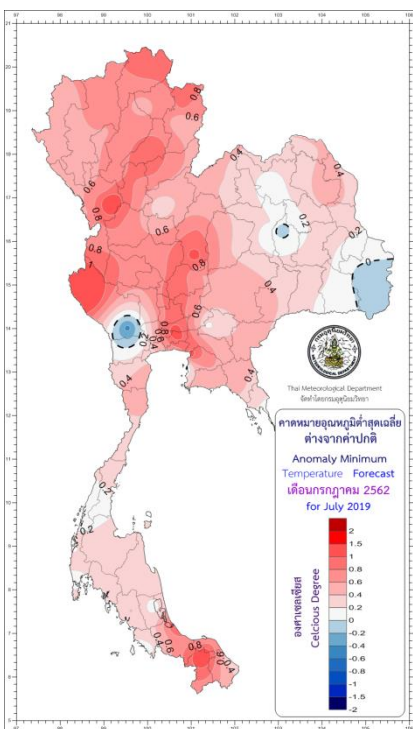
Mean minimum temperature forecast for August 2019



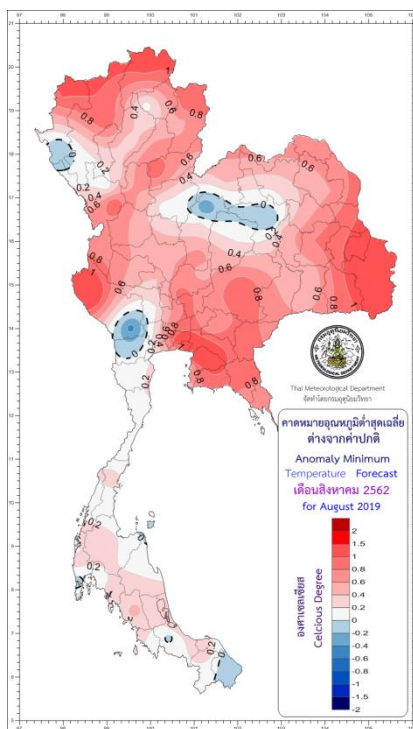
Mean minimum temperature forecast for September 2019



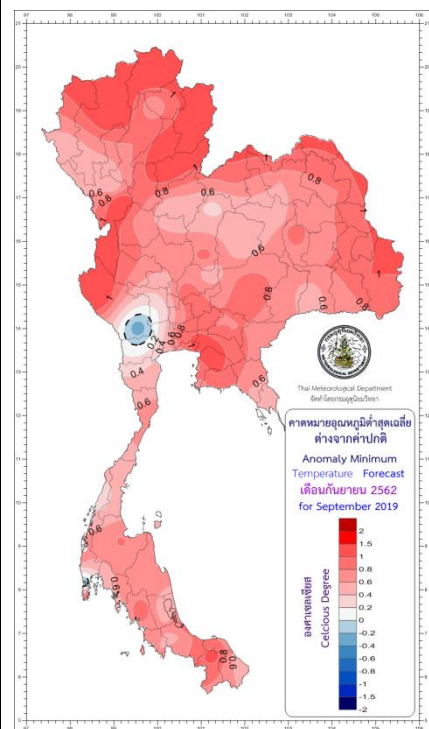
Mean minimum temperature anomaly forecast for July 2019



Mean minimum temperature anomaly forecast for August 2019



Mean minimum temperature anomaly forecast for September 2019



***** Caution: *****

July 2019: Some tropical cyclones may develop at the western side of the northern Pacific Ocean and move pass the Philippines toward the South China Sea. Then, they may move northwesterly pass the Gulf of Tonkin and influence the Southwest Monsoon prevailing over Thailand and the Gulf of Thailand to strengthen. Consequently, Thailand will meet more rainfall, especially at the eastern part and the Southern Thailand (west coast).

August and September 2019: Some tropical cyclones may develop at the western side of the northern Pacific Ocean and move northwesterly pass the South China Sea. They favor a high chance to pass the Upper Thailand causing Thailand to meet dense rainfall with heavy to very heavy rain amount at many areas, especially around the areas where the tropical cyclones move trough. Consequently, flash and forest flood with overflow will inundate at many areas. Thus, the public should follow the weather forecast news and tropical cyclone warnings from the Thai Meteorological Department further.

The below Image illustrates 7 parts of Thailand with seasons and Monsoons or wind:

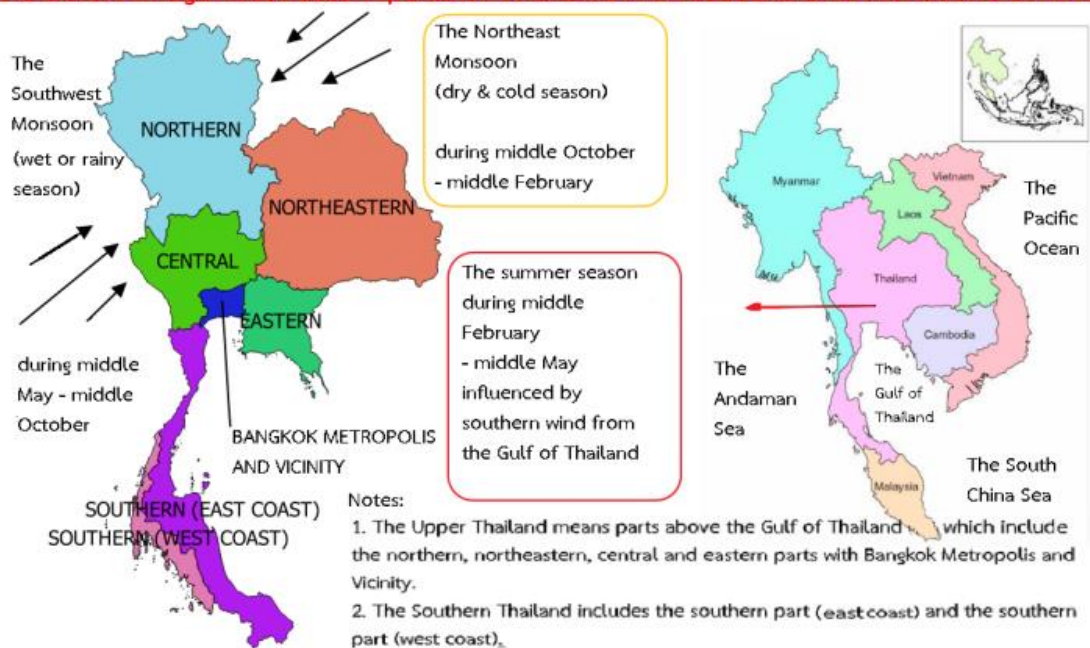


Table 1: Forecast of rain amount (millimeters: mm) comparing with normal, and rainy day (days):

Part	Forecast									Normal (Baseline period: 1981-2010)					
	July 2019			August 2019			September 2019			July		August		September	
	Rain (mm)	Rainy days	Comparing with normal	Rain (mm)	Rainy days	Comparing with normal	Rain (mm)	Rainy days	Comparing with normal	Rain (mm)	Rainy days	Rain (mm)	Rainy days	Rain (mm)	Rainy days
Northern	160-200	18-21	Near normal	200-250	19-22	Near normal	190-230	16-19	5 % below normal	176.0	19.4	223.0	21.0	218.3	18.3
Northeastern	190-230	16-19	5 % above normal	240-290	18-21	Near normal	200-250	16-19	5 % below normal	211.4	17.4	266.2	19.4	242.0	17.7
Central	120-160	15-18	5 % below normal	160-200	17-20	Near normal	220-270	17-20	5 % below normal	155.5	16.4	181.1	18.2	257.3	19.2
Eastern	240-290	16-19	5 % below normal	280-330	17-20	Near normal	290-340	18-21	5 % below normal	277.5	17.2	302.5	18.4	330.1	19.9
Southern Thailand (east coast)	100-140	13-15	Near normal	100-140	14-16	Near normal	140-180	16-19	5 % above normal	118.9	14.5	124.1	15.4	149.8	16.7
Southern Thailand (west coast)	320-370	19-22	5 % above normal	350-450	18-21	5 % above normal	400-500	21-24	5 % above normal	336.5	19.8	398.5	20.5	423.7	22.4
Bangkok Metropolis and Vicinity	140-180	16-19	5 % below normal	190-230	18-21	Near normal	300-350	20-23	5 % below normal	175.1	17.1	211.3	19.1	334.3	21.1

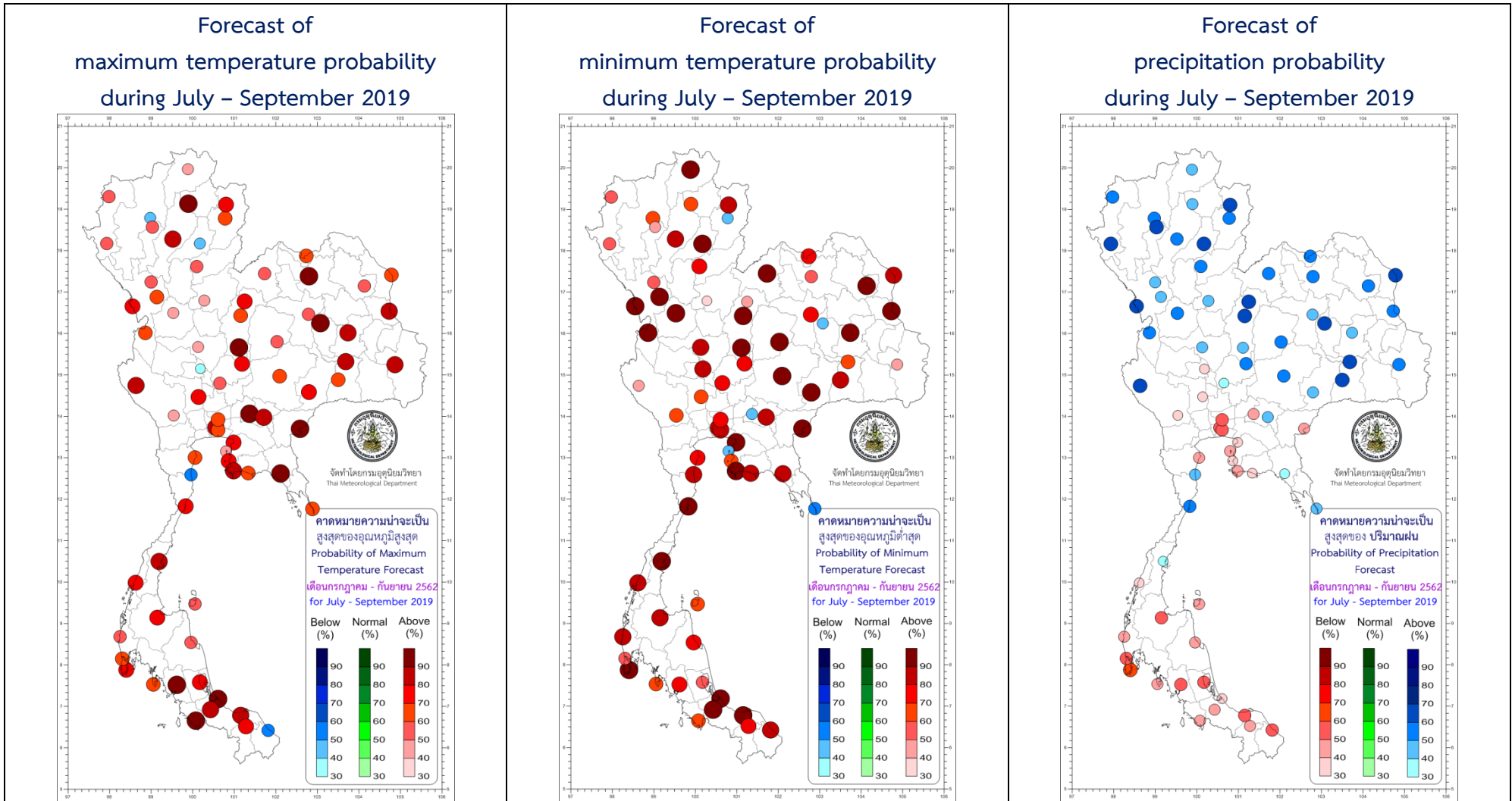
Table 2: Forecast of mean maximum temperature (Tmax) and mean minimum temperature (Tmin) (°C), and comparing (mean temperature (°C)) with normal:

Part	Forecast									Normal (Baseline period: 1981-2010)					
	July 2019			August 2019			September 2019			July		August		September	
	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin
Northern	31-33	24-26	Above normal	31-33	23-25	Above normal	32-34	24-26	Above normal	32.1	24.0	31.8	23.8	32.2	23.5
Northeastern	33-35	24-26	Above normal	32-34	24-26	Above normal	32-34	24-26	Above normal	32.8	24.6	32.2	24.4	31.9	24.0
Central	33-35	24-26	Above normal	33-35	24-26	Above normal	33-35	24-26	Above normal	33.4	25.1	33.1	24.8	32.9	24.7
Eastern	31-33	24-26	Near normal	31-33	25-27	Above normal	31-33	24-26	Above normal	32.2	25.3	32.0	25.3	31.9	24.7
Southern Thailand (east coast)	33-35	24-26	Above normal	32-34	23-25	Near normal	32-34	23-25	Above normal	32.8	24.4	32.8	24.2	32.3	24.1
Southern Thailand (west coast)	31-33	24-26	Near normal	31-33	24-26	Above normal	31-33	23-25	Above normal	31.7	24.3	31.5	24.4	31.1	23.9
Bangkok Metropolis and Vicinity	33-35	26-28	Above normal	33-35	25-27	Above normal	33-35	25-27	Above normal	33.2	25.7	33.0	25.5	32.8	25.0

- Remarks:** 1) Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553). 2) This long-range climate forecast is created by applying some climate models and statistical methods, the public then should follow the daily weather forecast news from the Thai Meteorological Department for more accuracy further.
3) The next 3-month climate forecast will be published online before the end of next month.
4) Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827.
5) Also, please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en at the **climate tab**.

Climate Center, Meteorological Development Division,
Thai Meteorological Department,
Ministry of Digital Economy and Society

Point probability forecast maps of maximum and minimum temperature, and precipitation
 (Point maps for probability percentage (%) of: below normal, near normal or above normal)



Note: These maps are mean model forecasts for being included in this three-month climate forecast.