



Thai Meteorological Department

Three-month Climate Outlook
For October – December 2017
Issued on 26 September 2017

Climate Outlook

1. During the next 3 months, the total rain of the Upper Thailand (northern, northeastern, central and eastern parts) is expected to be 5-15% below normal or about 140 mm (Normal: 165 mm), 120 mm (Normal: 135 mm), 210 mm (Normal: 235 mm) and 270 mm (Normal: 285 mm) consecutively.

On the other hand, the total rain of the eastern and western sides of the Southern Thailand will be 5% above normal or 935 mm (Normal: 890 mm) and 665 mm (Normal: 635 mm) consecutively.

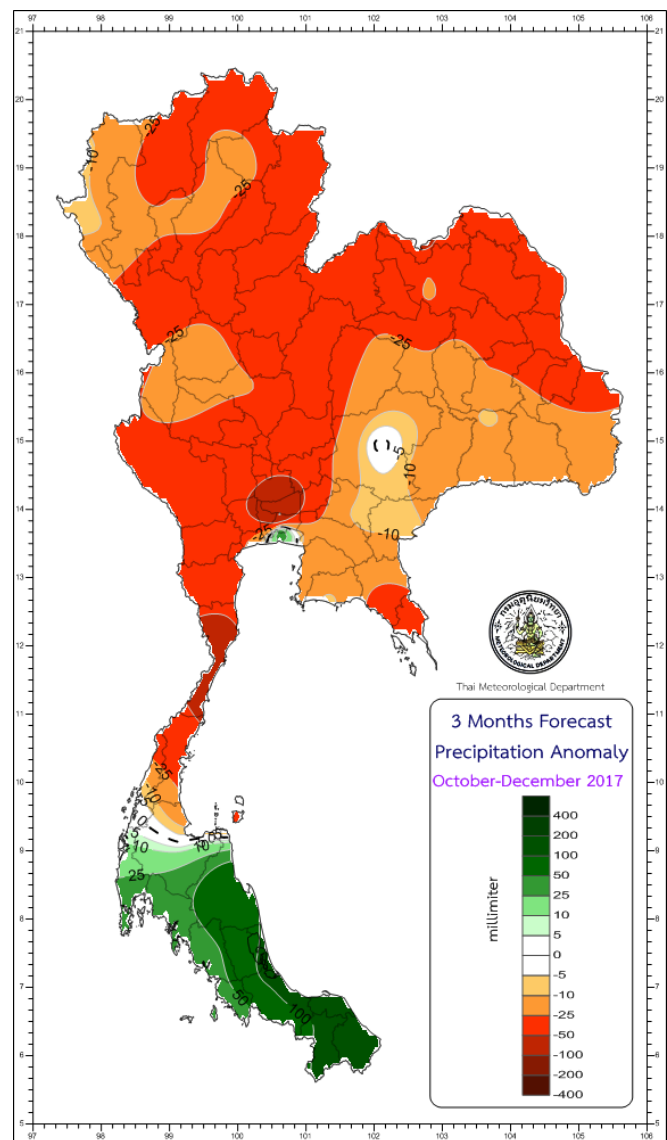
Furthermore, the mean temperature of the Upper Thailand will be 0.5 – 1.0 °C above normal while that of the Southern Thailand will be near normal.

2. In October, the total rain of the northern and central parts is expected to be near normal whereas that of the northeastern part will be below normal. Moreover, the total rain of the eastern part and the Southern Thailand (both coasts) will be above normal.

However, the mean temperature of the Upper Thailand will be above normal while that of the Southern Thailand will be near normal.

3. Then in November, the total rain of the Upper Thailand and the Southern Thailand (west coast) will be below normal while that of the Southern Thailand (east coast) will be near normal. For this whole month, the mean temperature of Thailand will be near normal over all the country.

4. Later during December, the total rain of the northern, central and eastern parts will be below normal while that of the northeastern part will be near normal. On the other hand, the total rain of the Southern Thailand (both coasts) will be above normal. Furthermore, the mean temperature will be near normal all over the country for this whole month.



* For the information supporting this 3-month climate outlook are at the following pages.

Thailand Climate for October-November-December from 1981 – 2010

October: Being the transition month from the rainy to winter seasons, the rain and temperature of the Upper Thailand will reduce; cool weather starts to happen since the middle of this month onward. The reason is that the southwest monsoon prevailing over Thailand starts to transform to be the northeastern monsoon. Moreover, high-pressure air mass areas from China will prevail over the Upper Thailand periodically whereas low-pressure air mass cells prevailing over the central and eastern parts are going to move downward to place over the Southern Thailand and the Gulf of Thailand during the 2nd half of this month. Consequently, the Southern Thailand will still face up with densely abundant rain. Furthermore, some tropical cyclones may move closer or toward Thailand from the middle portion of the South China Sea and continuously downward to the upper portion of the Gulf of Thailand and the Southern Thailand further.

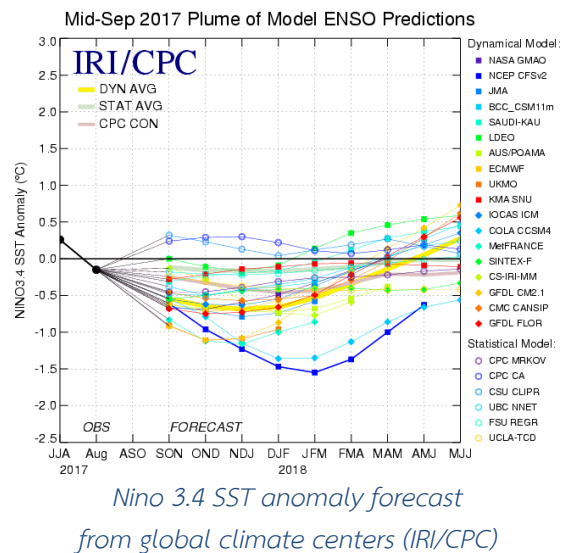
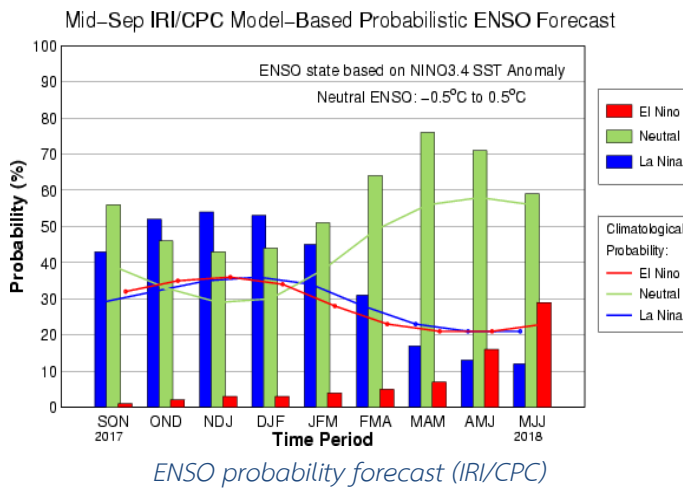
November: The Upper Thailand will experience little rain and cool weather for the whole month. As being influenced by active high-pressure air mass areas from China prevailing over the Upper Thailand periodically, temperature will lessen to become cold weather at some areas, specifically at the northern and northeastern parts. However, the Southern Thailand will still experience abundant rain, specifically at the Southern Thailand (east coast) as influenced by the northeastern monsoon and some low-pressure troughs placing over the Southern Thailand and the Gulf of Thailand.

December: Usually, high-pressure or cold air mass areas from China will prevail over Thailand for this whole month and be active periodically. As a result, the temperature of the Upper Thailand will lessen and become cold or cool commonly, especially at the upper portions of the northern and northeastern parts. Also, very cold weather at mountainous areas and mount tops can occur. Nevertheless, the Southern Thailand still experiences abundant rain mostly during the 1st half of this month, specifically around the eastern coast. The reason is that the influential northeastern monsoon prevails over the Southern Thailand and the Gulf of Thailand. However, for this month, some tropical cyclones possibly move near or toward Thailand, specifically around the lower portion of the Southern Thailand.

Prediction of phenomena influencing climate of Thailand

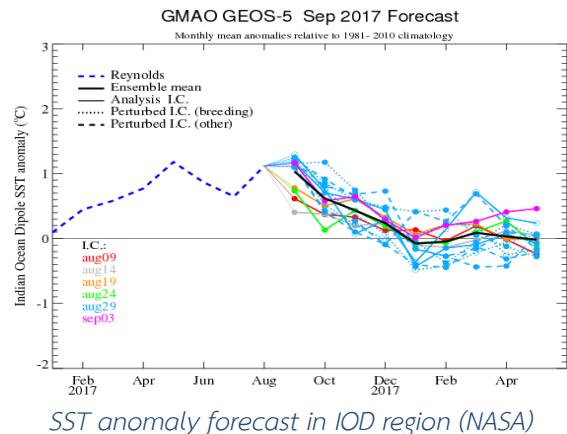
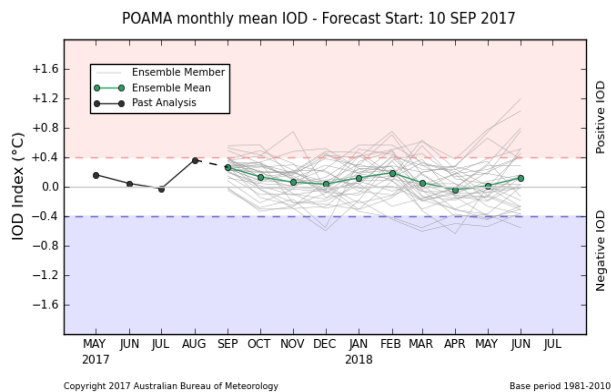
1. El Niño Southern Oscillation (ENSO)

ENSO-neutral conditions persisted during August to September (Nino 3.4 = -0.1). And from El Niño/Southern Oscillation (ENSO) Diagnostic Discussion, ENSO probability forecast, and sea surface temperature prediction at Noni 3.4 region, ENSO is expected to become neutral for the whole period from October until November 2017 while ENSO will still become neutral further or possibly weak La Niña in December. Then, ENSO will not influence the total rain and mean temperature of Thailand during this period.



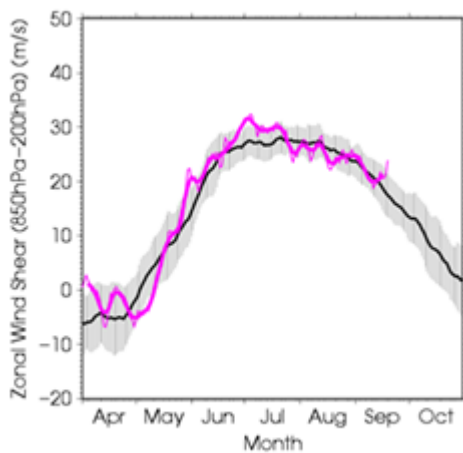
2. Indian Ocean Dipole (IOD)

During the past August until September, IOD was still neutral. In other words, from IOD forecast models, IOD probability forecast and the sea surface temperature forecast at the Indian Ocean, they predict that IOD will still become neutral for the whole period from October until December 2017. Then, IOD will not influence on the rain and temperature of Thailand.

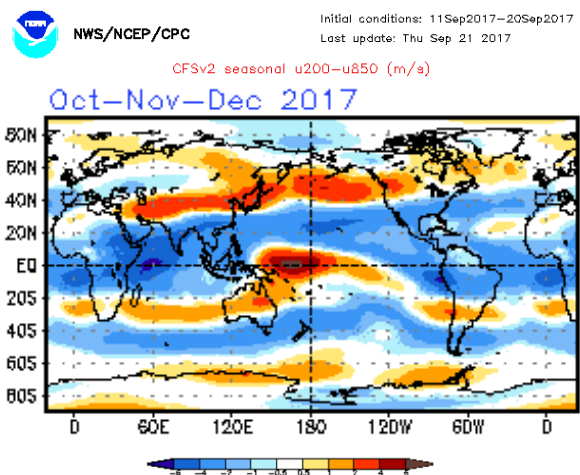


3. Asian Monsoon (Southwest and Northeast monsoon)

During the past August till September, the southwest monsoon was near-normal active. Together with wind forecast analyses at the 850 hPa and 200 hPa levels with Outgoing Long Wave Radiation (OLR), the southwest monsoon is expected to be near-normal for the 1st half of October 2017. Later, the northeast monsoon starting to prevail over Thailand will be near-normal during the 2nd half of October and enhanced probability of slightly stronger than normal northeastern monsoon on November to December. Thus, the total rain of the Upper Thailand will be below normal while that of the Southern Thailand (both coasts) will be above normal. Furthermore, the mean temperature of the Upper Thailand will be slightly above normal whereas that of the Southern Thailand is to be near normal.



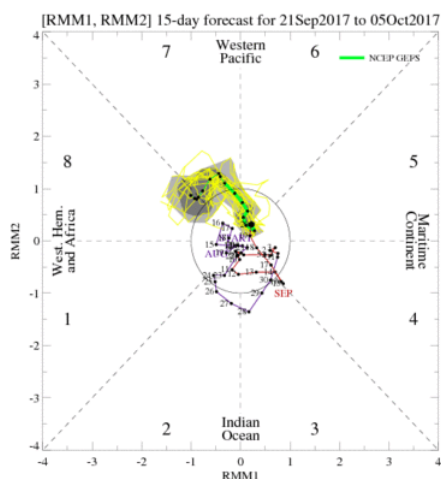
Mean zonal wind graph around the Indian Ocean and the Southeast Asia between the 850-hPa and 200-hPa levels



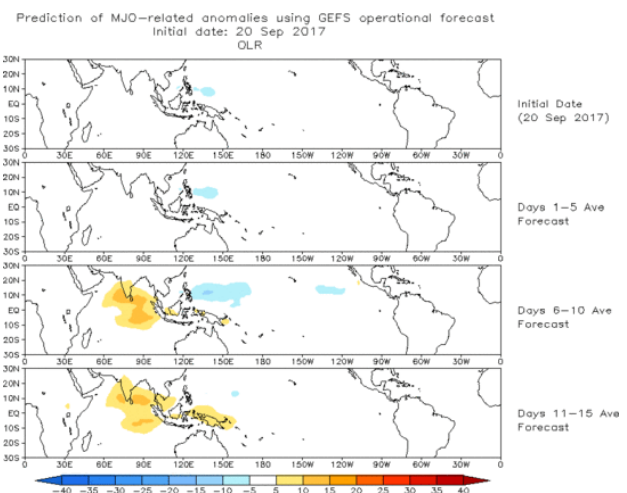
Mean OLR map around the Globe from October until December 2017 between the 850-hPa and 200-hPa levels

4. Madden Julian Oscillation (MJO)

During the past September 2017, MJO mostly weakened. And from MJO index and Outgoing Long Wave Radiation (OLR) forecast models, they predict that MJO will strengthen at the Northwestern Pacific during early October 2017 and not influence on the rain of Thailand.



MJO Index and Phase forecast (IRI/CPC)

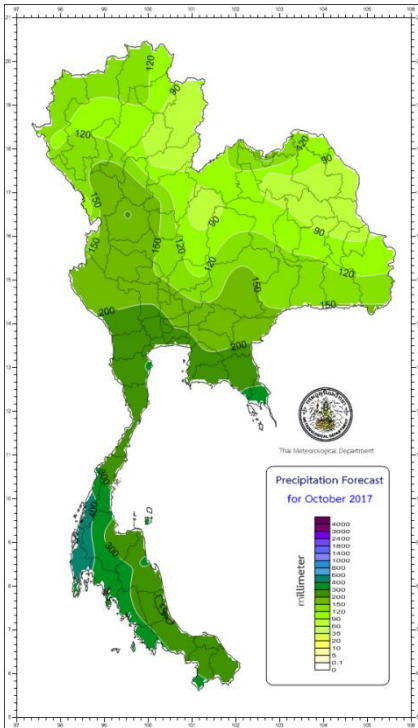


Mean OLR 3-phase forecast, each phase consisting of 5 days. (IRI/CPC)

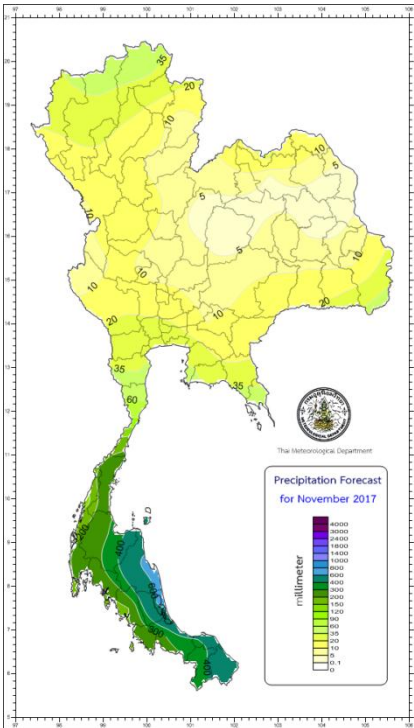
** For further information, please visit www.tmd.go.th/en and www.climate.tmd.go.th **

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

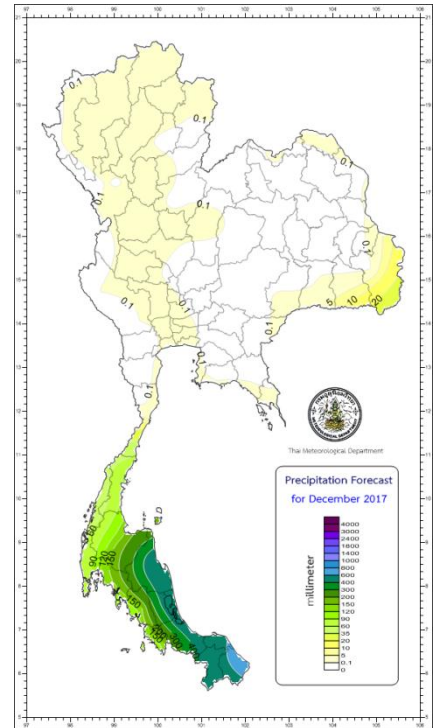
Precipitation forecast
for October 2017



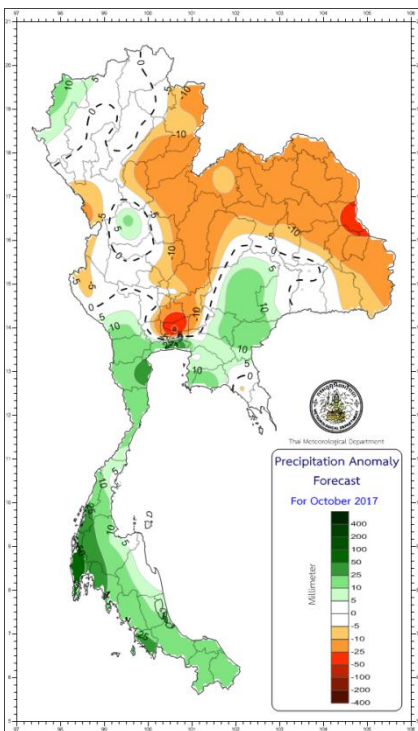
Precipitation forecast
for November 2017



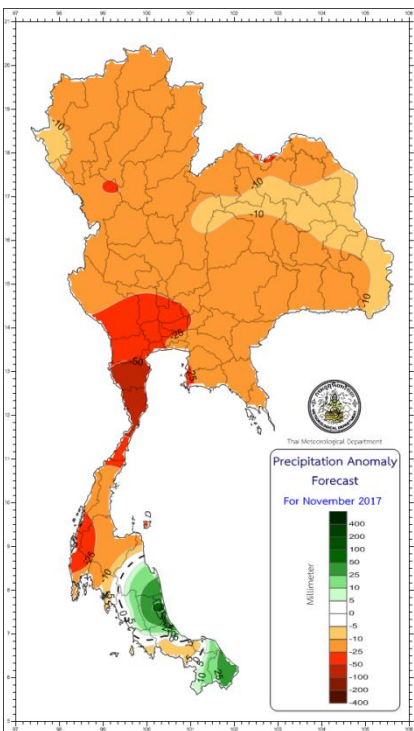
Precipitation forecast
for December 2017



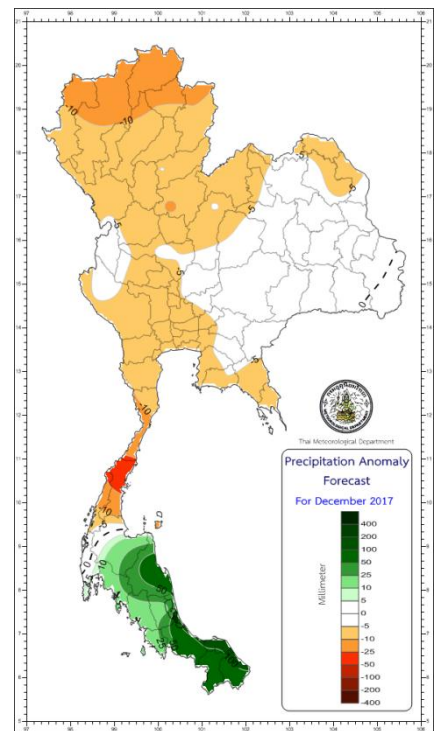
Precipitation anomaly forecast
for October 2017



Precipitation anomaly forecast
for November 2017

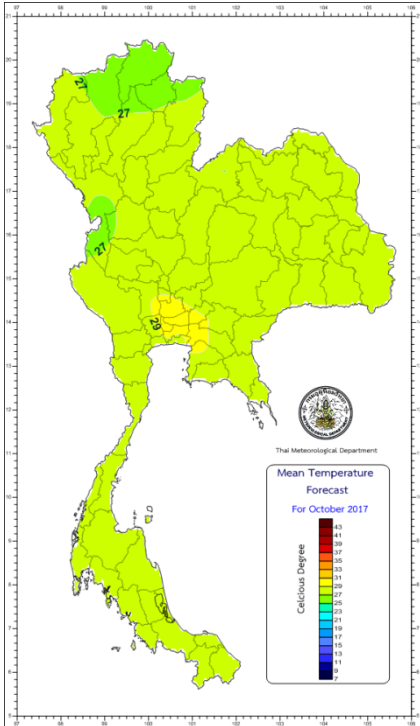


Precipitation anomaly forecast
for December 2017

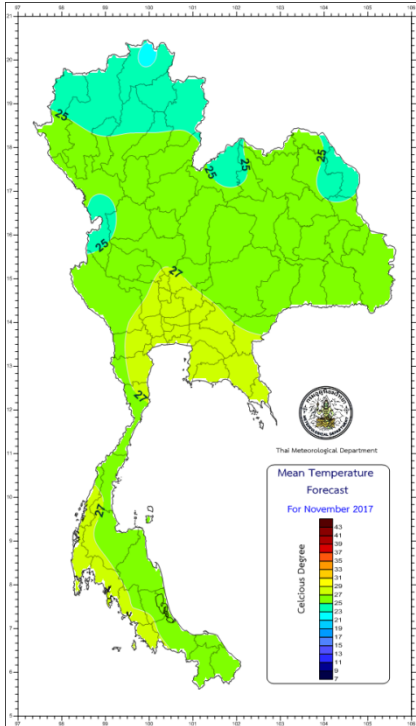


Mean Temperature ($^{\circ}\text{C}$) and Mean Temperature Anomaly ($^{\circ}\text{C}$) Forecast:

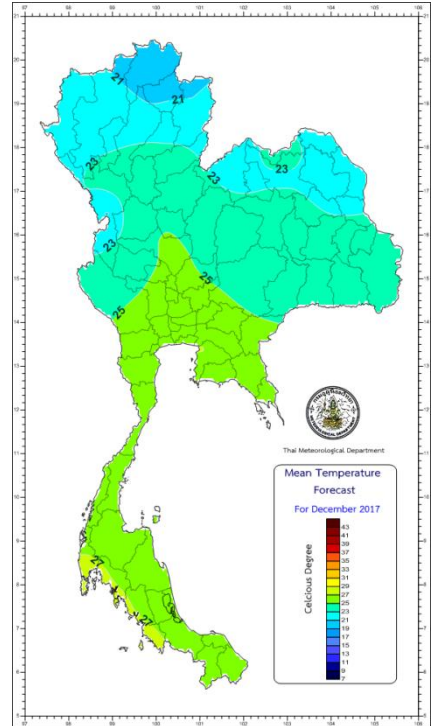
Mean Temperature forecast
for October 2017



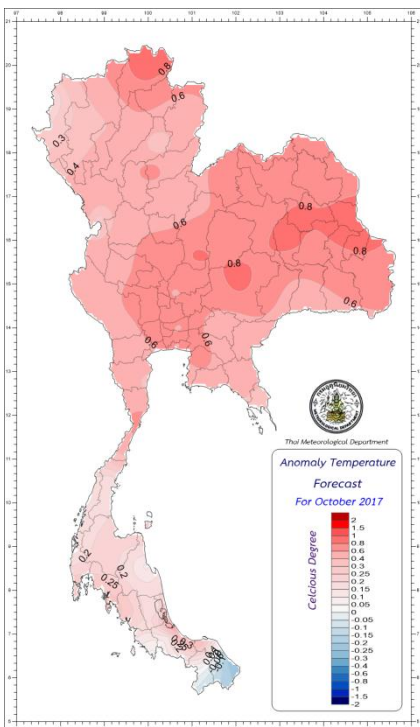
Mean Temperature forecast
for November 2017



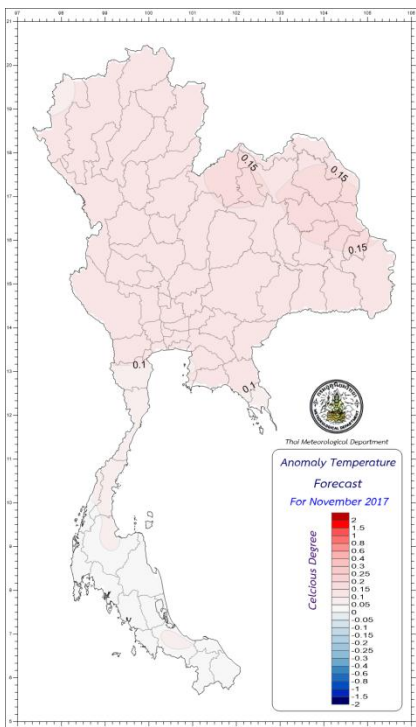
Mean Temperature forecast
for December 2017



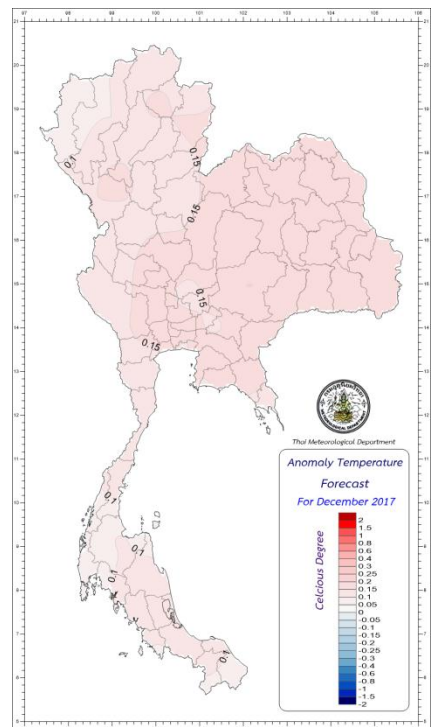
Temperature Anomaly forecast
for October 2017



Temperature Anomaly forecast
for November 2017



Temperature Anomaly forecast
for December 2017



***** Cautions: *****

October. rain occurs continuously at the central and eastern parts. Additionally, storm surges and high tides will occur at some periods influencing flooding and overflowing to inundate at some areas.

November. chances are high that some tropical cyclones may move toward Thailand or move pass the Southern Thailand. They may move pass the tip of the Indochina Peninsula toward the Gulf of Thailand. Consequently, the Southern Thailand (east coast) will face up with more rainfall influencing flash and forest flood to inundate at some areas.

December. the westerly “middle-to-high level” wind waves from Myanmar may move pass the Upper Thailand influencing thunder rain, gusty wind and hail to occur at some areas. The Public then should follow the weather forecast news from the Thai Meteorological Department closely further.

Prediction of Rain (millimeters), Rainy Days (days) and comparing to normal:

Part	Prediction									Normal (Baseline period 1980-2010)					
	October 2017			November 2017			December 2017			October		November		December	
	Rain (mm)	Rainy Days (days)	Comparing To Normal	Rain (mm)	Rainy Days (days)	Comparing To Normal	Rain (mm)	Rainy Days (days)	Comparing To Normal	Rain (mm)	Rainy Days (days)	Rain (mm)	Rainy Days (days)	Rain (mm)	Rainy Days (days)
Northern	100-150	10-13	Near Normal	10-30	3-5	40% Below Normal	< 10	1-2	50% Below Normal	124.1	12.0	32.9	4.1	8.2	1.2
Northeastern	80-120	8-11	5% Below Normal	5-15	2-4	50% Below Normal	< 5	1-2	Near Normal	117.1	10.4	19.5	2.9	3.5	0.8
Central	160-200	12-15	Near Normal	10-20	3-5	50% Below Normal	< 5	1-2	50% Below Normal	187.1	14.4	37.2	4.1	5.2	1.0
Eastern	200-250	14-17	5% Above Normal	20-40	5-7	40% Below Normal	< 10	1-3	40% Below Normal	225.1	16.5	53.3	5.6	8.1	1.4
Southern Thailand (East Coast)	220-300	17-20	5% Above Normal	280-400	15-18	Near normal	260-350	11-14	25% Above Normal	255.3	18.6	357.2	16.3	236.9	12.1
Southern Thailand (West Coast)	360-440	20-24	10% Above Normal	140-200	15-18	10% Below Normal	70-120	7-10	25% Above Normal	366.5	22.8	193.3	16.2	75.0	9.1
Bangkok Metropolis and Vicinity	270-310	16-19	Near Normal	15-30	4-6	50% Below Normal	< 10	1-2	5% Below Normal	292.1	17.5	49.5	5.8	6.3	1.2

Mean Maximum Temperature (Tmax) and Mean Minimum Temperature (Tmin) (°C) and comparing to normal:

Part	Prediction									Normal (Baseline period 1980-2010)					
	October 2017			November 2017			December 2017			October		November		December	
	Tmax mean	Tmin mean	Comparing to Normal	Tmax mean	Tmin mean	Comparing to Normal	Tmax mean	Tmin mean	Comparing to Normal	Tmax mean	Tmin mean	Tmax mean	Tmin mean	Tmax mean	Tmin mean
Northern	32-34	22-24	Above Normal	31-33	19-21	Above Normal	30-32	16-18	Above Normal	31.9	22.5	31.0	19.5	29.8	15.9
Northeastern	31-33	22-24	Above Normal	30-32	20-22	Above Normal	29-31	17-19	Above Normal	31.4	22.8	30.7	20.3	29.5	17.1
Central	32-34	24-26	Above Normal	31-33	22-24	Above Normal	31-33	20-22	Above Normal	32.4	24.2	31.9	22.6	31.4	20.1
Eastern	32-34	24-26	Above Normal	31-33	23-25	Above Normal	31-33	21-23	Above Normal	32.0	24.1	32.1	23.0	31.6	21.2
Southern Thailand (East Coast)	31-33	23-25	Near Normal	30-32	23-25	Near Normal	29-31	22-24	Near Normal	31.4	23.8	30.3	23.4	29.7	22.5
Southern Thailand (West Coast)	30-32	23-25	Near Normal	30-32	23-25	Near Normal	30-32	22-24	Near Normal	31.2	23.7	31.4	23.5	31.5	23.0
Bangkok Metropolis and Vicinity	32-34	24-26	Above Normal	32-34	24-26	Above Normal	31-33	22-24	Above Normal	32.6	24.8	32.4	23.9	31.7	22.0

Remarks:

- Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553)
- These long range climate expectation is created by applying some climate models and statistical methods, the public then should follow the daily weather news from the Thai Meteorological Department for more accuracy further.
- The next 3-month climate expectation will be at the last week of October 2017.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: 02-398-9929 or Fax: 02-383-8827.
- Please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en/ at the climate tab.