



Thai Meteorological Department
Ministry of Thailand Digital Economy

Three-month Climate Outlook

For April – June 2018

Issued on 21 March 2018

Climate Outlook:

1. During the next 3 months, the total rain of Thailand at northern, central, eastern parts and Bangkok Metropolis and Vicinity will be 5-15% above normal.

In other words, the total rain is about 470 millimeters (Normal: 400 millimeters) for northern, 450 millimeters (Normal: 390 millimeters) for central, 630 millimeters (Normal: 580 millimeters) for eastern and 560 millimeters (Normal: 480 millimeters) for Bangkok Metropolis and Vicinity consecutively.

While the total rain of northeastern part and the Southern Thailand (eastern and western coasts) will be near normal; that is 490, 340 and 780 millimeters in order.

Furthermore, the mean temperature of Thailand will be near normal. Whereas mean maximum temperature of Thailand during the next 3 months will be near normal, except that that of the northern, northeastern and central parts is slightly below normal (about 0.5 degrees Celsius).

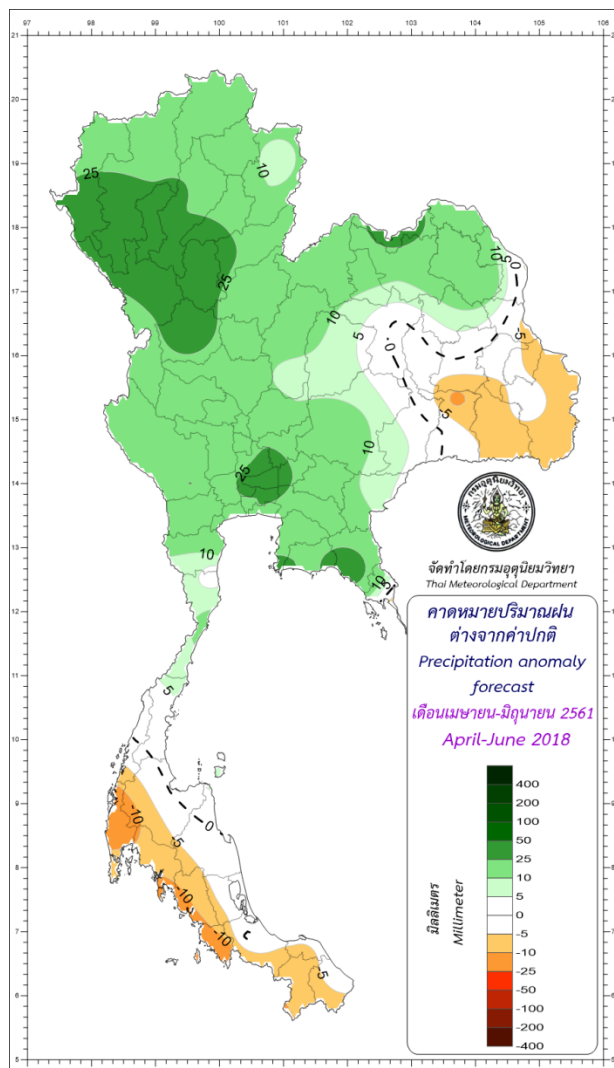
2. In April, the total rain of Thailand will be 10-20% above normal whereas the mean temperature of Thailand is near normal.

Moreover, the mean temperature of Thailand will be near normal except that that of Bangkok Metropolis is slightly above normal (about 0.5 degrees Celsius).

3. In May, the total rain of Thailand will be near normal whereas the mean and mean maximum temperature of Thailand is near normal.

4. In June, the total rain of Thailand in the northern, central parts and Bangkok Metropolis and Vicinity will be 10-20% above normal. However, the total rain of the northeastern part and the Southern Thailand (both coasts) will be 10-20% below normal whereas that of the eastern part is near normal.

Besides, the mean temperature of Thailand will be near normal while the mean maximum temperature is slightly above normal (about 0.5 degrees Celsius) in the northern, northeastern, central parts and Bangkok Metropolis and Vicinity.



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

Thailand Climate for April-May-June from baseline: 1981 – 2010

April 2018: As the most sweltering month for the whole year, especially for the Upper Thailand, April is often hot to very hot commonly. The reason is that influential heat low-pressure air mass cells prevail over the Upper Thailand. Also, as being the duration of the Sun radiating perpendicular to Thailand's areas helps create summer thunderstorms. For rainfall of this month, rain will appear more than that of March 2018 for all parts of the country.

May 2018: As being the transition month from summer to rainy seasons, usually weather during the 1st half of this month is still sweltering and thunder rain or summer thunderstorms often occurs. Sometimes, falling hail may happen too due to heat low-pressure air mass cells. Later during the 2nd half of this month, the rainy season will start. Also, temperature will reduce with more abundant rainfall because the prevailing wind over Thailand begins to be from the southwest monsoon. In addition, the low-pressure trough placing over Malaysia tends to move upward toward the Southern Thailand and the central part of Thailand consecutively. In addition, some tropical cyclones may develop in the Andaman Sea or the Bay of Bengal and then move toward or near the western side of Thailand further.

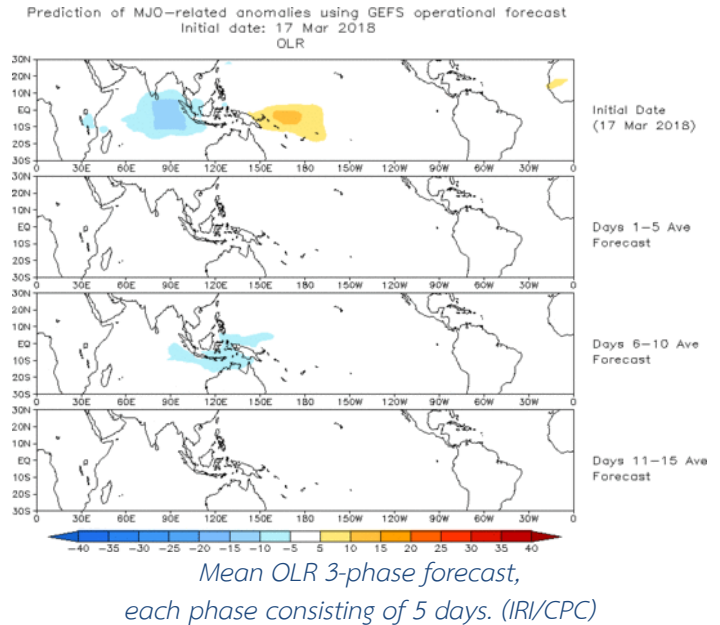
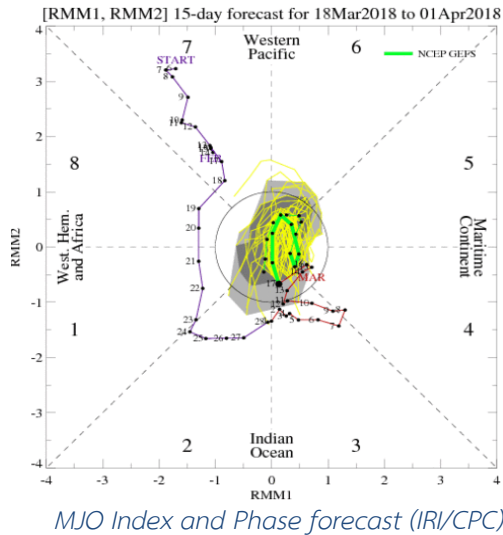
June 2018: Usually, abundant rainfall occurs during the 1st half of this month due to influential southwest monsoon prevailing over Thailand together with low-pressure air mass cells placing over the central portion of Thailand. Afterward, rainfall will reduce and dry spell may happen for about 1-2 weeks, specifically at the Upper Thailand. The reason is that a low-pressure trough moves upward to the southern portion of China along with the southwest monsoon prevailing over Thailand becomes weakening. Additionally, some tropical cyclones from the Northwest Pacific or the South China Sea may move near or toward Thailand further, especially at the eastern side of Thailand.

Outlook of phenomena influencing climate of Thailand

1. Madden Julian Oscillation (MJO)

During the start of the past March 2018, MJO was active at the Indian Ocean but weakened during middle till late March 2018.

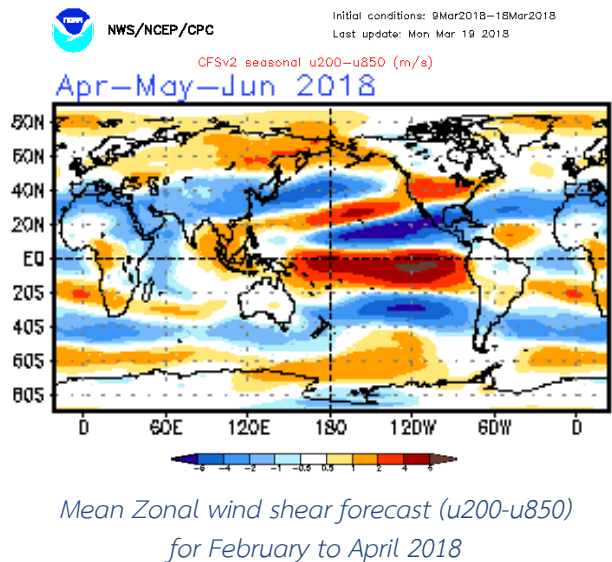
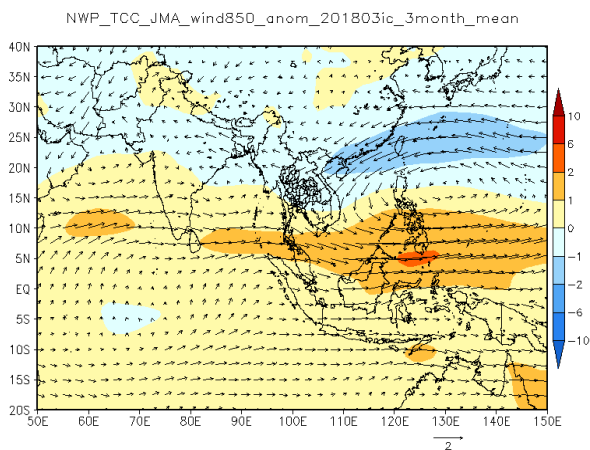
From MJO index and OLR (Outgoing Long-wave Radiation) forecast models, they predict that for the 1st half of April 2018, MJO will be still weak and will not influence on rain and temperature of Thailand.



2. Asian Monsoon (Southwest and Northeast monsoon)

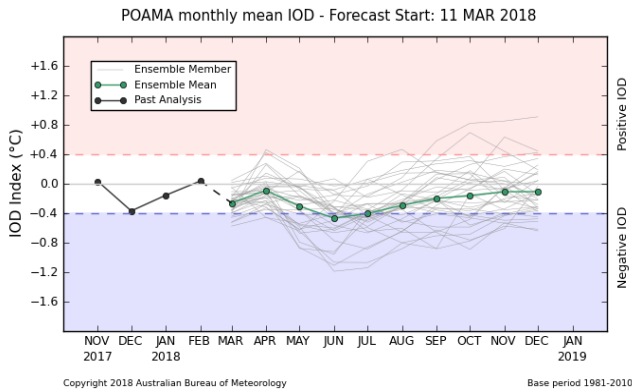
From wind forecast analyses at the 850-hPa and 200-hPa during April until early May 2018, monsoon will be near average before turning to become southwest monsoon during middle May 2018 when the monsoon is slightly stronger than average at the Southern Thailand.

Then in June 2018, the southwest monsoon will be stronger than average for overall Thailand. Consequently, Thailand rainfall will be near average.

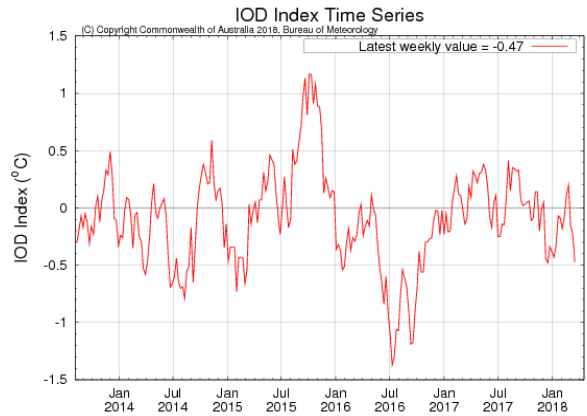


3. Indian Ocean Dipole (IOD)

During the past February until March 2018, IOD was still neutral. Moreover, from forecast models of IOD index, IOD scenario probability and sea surface temperature around the Indian Ocean, they predict that IOD will still become neutral for the whole period during April till June 2018. In other words, IOD will not influence on the total rain and mean temperature of Thailand.



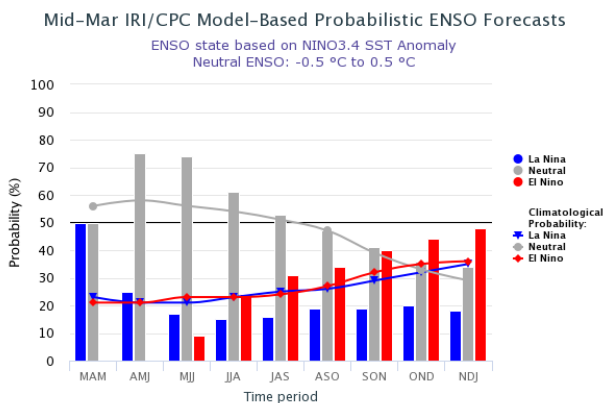
IOD index forecast model (BOM)



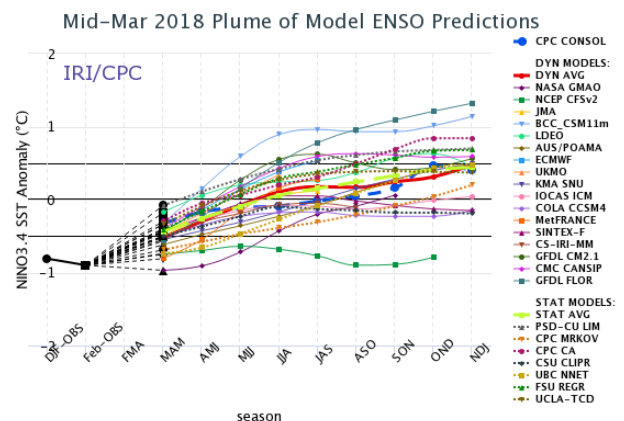
IOD index time series: Jan. 2014 – Jan. 2018 (BOM)

4. El Niño Southern Oscillation (ENSO)

During the past February till March 2018, the ENSO phenomenon as La Niña became less active (Nino 3.4 = -0.6). And from El Niño/Southern Oscillation (ENSO) Diagnostic Discussion, ENSO probability forecast, and ENSO: Recent Evolution, Current Status and Predictions, global climate centers predict that ENSO favors 50% chance to return back becoming neutral around March – May 2018. Furthermore, ENSO will still become neutral during April till June 2018. Thus, ENSO will not influence on the total rain and mean temperature of Thailand during this April until June 2018.



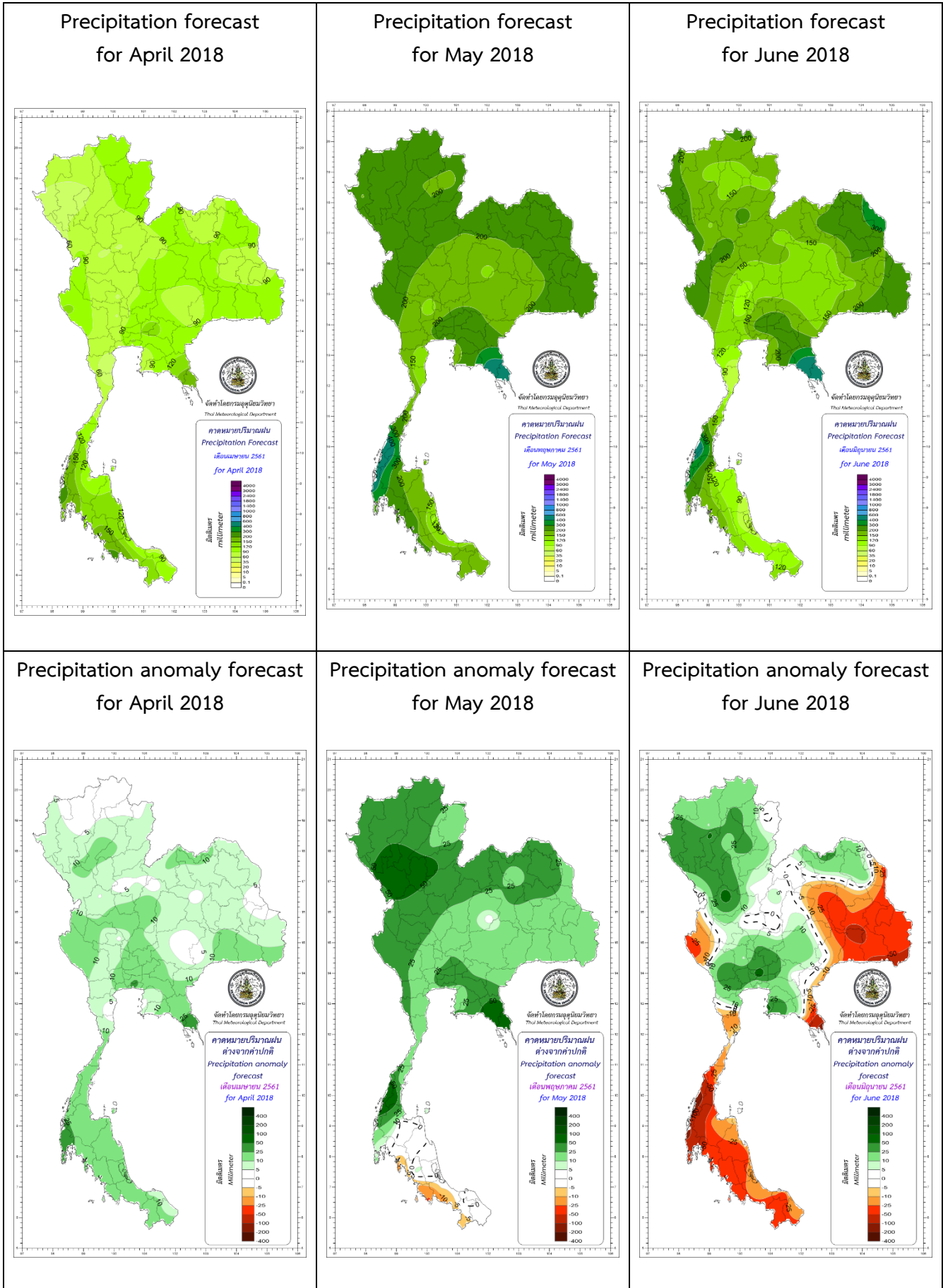
ENSO probability forecast (IRI/CPC)



Nino 3.4 SST anomaly forecast from global climate centers (IRI/CPC)

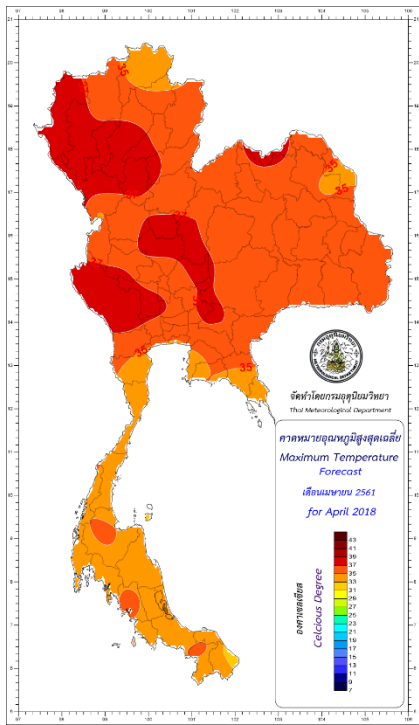
** For further information, please visit www.tmd.go.th/en and www.climate.tmd.go.th ****

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

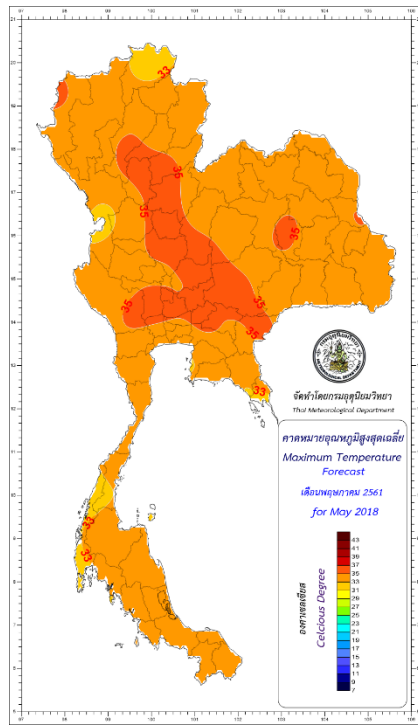


Mean Maximum Temperature (°C) and anomaly (°C) Forecast:

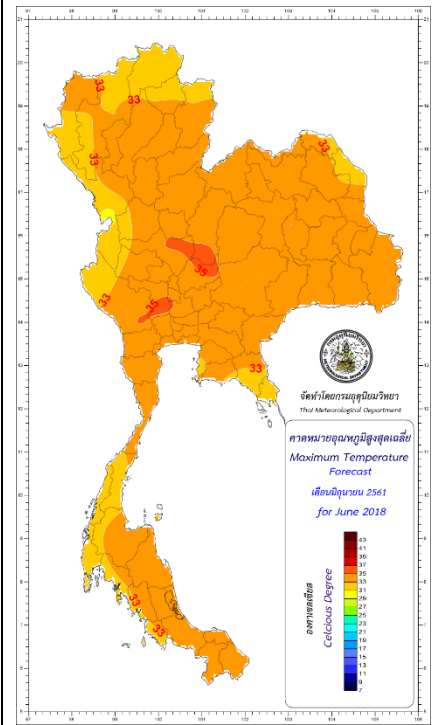
Mean Maximum Temperature
for April 2018



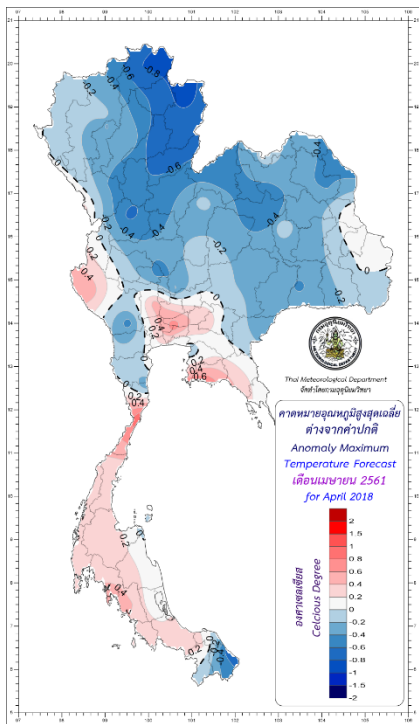
Mean Maximum Temperature
for May 2018



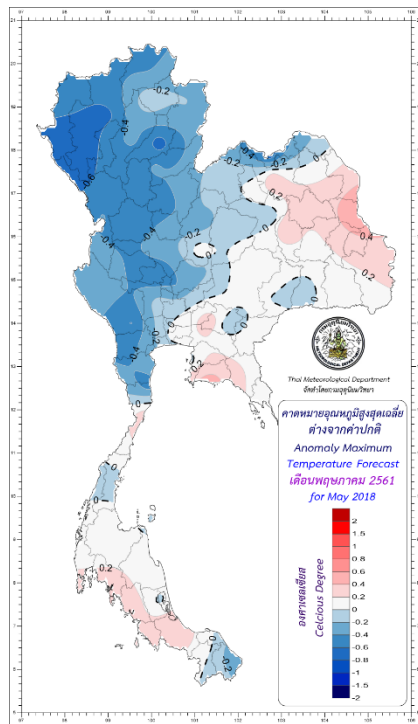
Mean Maximum Temperature
for June 2018



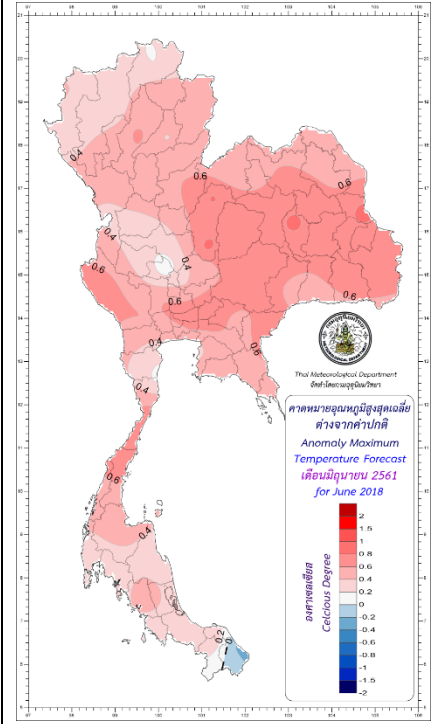
Mean maximum Temperature
Anomaly forecast
for April 2018



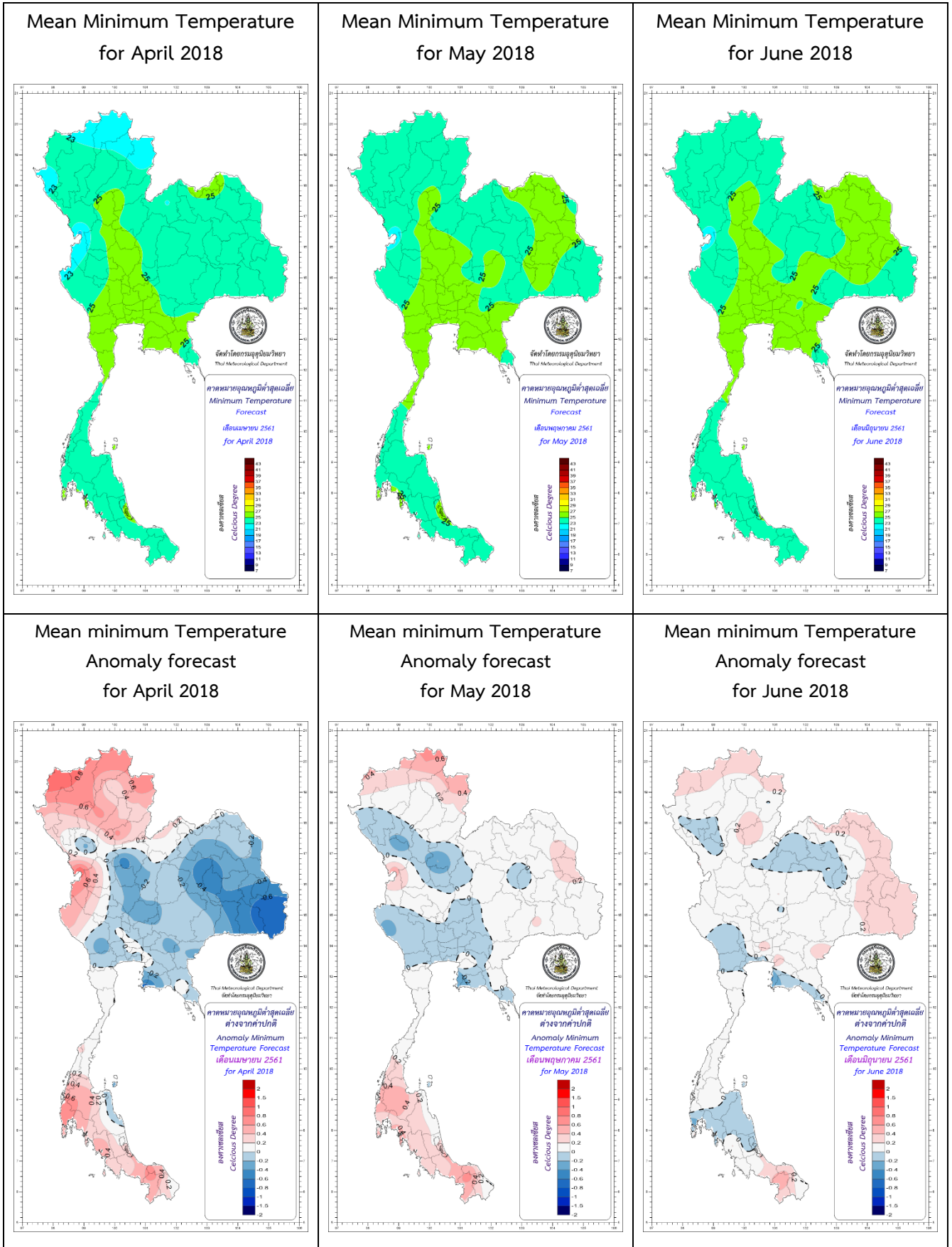
Mean maximum Temperature
Anomaly forecast
for May 2018



Mean maximum Temperature
Anomaly forecast
for June 2018



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



***** Cautions *****

April 2018: summer thunderstorms often occur as thunder rain, gusty wind and possibly falling hail at some areas reasonably causing damages for property and agricultural product.

During late April until May 2018: low-pressure air mass cells feasibly develop around the Andaman Sea and possibly strengthen to become depressions, tropical storms or cyclones. Their movements are toward the western side of Thailand. As a result, the western portion at both of the northern and central parts including with the Southern Thailand will meet more rain.

June 2018: some tropical cyclones often develop at the western side of the Pacific Ocean, they may move pass the Philippines toward the South China Sea. This will influence the prevailing southwest monsoon over Thailand and the Gulf of Thailand to become more active. As a result, Thailand will meet more rain, specifically at the coastal region of the eastern part and the Southern Thailand (west coast). Then, the public should follow 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)					
	April 2018			May 2018			June 2018			April		May		June	
	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	60-100	6-8	10 % Above Normal	185-250	15-17	20 % Above Normal	150-210	17-19	15 % Above Normal	71.3	7.0	177.8	15.5	156.2	17.8
Northeastern	75-115	7-9	10 % Above Normal	180-240	15-17	10 % Above Normal	160-230	15-17	5 % Below Normal	86.3	8.0	187.1	15.3	203.4	16.1
Central	70-120	6-9	20 % Above Normal	170-230	14-16	15 % Above Normal	130-185	15-17	10 % Above Normal	79.5	6.4	172.1	14.3	145.2	15.4
Eastern	90-140	7-10	15 % Above Normal	220-290	15-17	15 % Above Normal	210-310	15-17	Near Normal	98.9	8.3	223.9	15.8	261.5	16.7
Southern Thailand (East Coast)	75-115	6-9	15 % Above Normal	125-175	13-15	Near Normal	75-120	12-14	10 % Below Normal	75.4	7.3	143.7	14.3	113.0	13.7
Southern Thailand (West Coast)	155-220	12-14	15 % Above Normal	290-370	19-21	5 % Above Normal	200-285	17-19	20 % Below Normal	160.6	12.7	310.1	19.9	312.4	18.9
Bangkok Metropolis and Vicinity	85-145	6-9	25 % Above Normal	215-295	16-18	15 % Above Normal	160-225	15-18	20% Above Normal	91.4	6.5	247.7	16.2	157.1	16.2

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

Part	Prediction									Normal (Baseline period 1980-2010)					
	April 2018			May 2018			June 2018			April		May		June	
	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	36-38	23-25	Near Normal	33-36	23-25	Near Normal	32-35	23-25	Near Normal	37.1	23.4	34.7	24.2	33.0	24.3
Northeastern	35-37	23-25	Near Normal	34-36	24-26	Near Normal	33-35	24-26	Near Normal	36.1	24.5	34.4	24.8	33.4	24.9
Central	36-38	25-26	Near Normal	34-36	24-26	Near Normal	33-36	24-26	Near Normal	37.0	25.8	35.2	25.7	34.0	25.5
Eastern	34-36	25-26	Near Normal	33-35	25-27	Near Normal	32-34	25-27	Near Normal	34.7	25.9	33.7	25.8	32.8	25.7
Southern Thailand (East Coast)	33-35	24-26	Near Normal	33-35	24-26	Near Normal	33-35	24-26	Near Normal	33.7	24.6	33.5	24.9	33.1	24.7
Southern Thailand (West Coast)	33-35	24-26	Near Normal	32-34	24-26	Near Normal	31-33	24-26	Near Normal	34.2	24.4	32.7	24.6	32.0	24.6
Bangkok Metropolis and Vicinity	35-37	26-28	Near Normal	34-36	25-27	Near Normal	33-35	25-27	Near Normal	35.4	26.9	34.4	26.3	33.6	26.1

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 April 2018.
- 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.

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