

Climate characteristic expectation of Thailand during the summer season of 2017 (Revised Edition),

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Weather characteristic prediction for the 2017- summer of Thailand during about March until middle May of 2017:

The summer of Thailand this year is expected that mean maximum temperature will be slightly above normal as about 35 – 37 C. while April is the hottest month as extreme maximum temperature reaching 42 – 43 C. on some days. Also, the total rain will be above normal and ends at about middle May.

Besides, summer thunderstorms will happen in the summer at many areas as thunder rain, gusty wind and hail at many areas. This results in loss of life and property damages. However, the rainfall of this summer will not suit demands at some areas in consumption and agricultural usages, specifically at areas outside irrigation zones including with repeated drought areas. As a result, people should maximize water utilization and prepare for the above-mentioned summer thunderstorms further.

General climate characteristics:

The Upper Thailand (The northern, northeastern, central and eastern parts of Thailand):

<u>During the 1st half of March</u>, hot weather occurs commonly at daytime with thick fog at many areas on some days, especially around mountainous areas. Even though the northern and northeastern parts still meet morning cool weather due to weakening high pressure air mass areas from China still prevailing over the northern and northeastern parts from time to time.

Then about middle March until April, sweltering weather occurs commonly with very hot weather at some areas on some days whereas extreme maximum temperatures may reach 42 – 43 C. Nevertheless, summer thunderstorms will occur at many areas during some periods as thunder rain, gusty wind and possibly falling hail, thus helping reduce some heat. This results from prevailing southerly or southeasterly wind for almost all of this period. In addition, heat low-pressure air mass cells will prevail from time to time.

<u>During the 1st half of May.</u> weather will fluctuate as sweltering weather occurring almost widely with very hot weather happening at some areas on some days and thunder rain at many areas. This results from prevailing southerly or southeasterly wind transforming to become southwestern monsoon prevailing over Thailand.

The Southern Thailand

<u>During March until about late April</u>, rainfall distribution occurs as 20 – 30% of the area with hot weather at many areas. While wind waves in the Gulf of Thailand and the Andaman Sea will be about 1 meter high because easterly or southeasterly wind prevails over the Gulf of Thailand and the Southern Thailand almost all of this period.

Then since late April, the Southern Thailand will meet more rain. Specifically, around the western coast, heavy to very heavy rain will occur at some areas together with wind waves in the Andaman Sea become stronger as 2–3 meters high during some periods comparing to wind waves in the Gulf of Thailand being about 1 meter high. This results from easterly or southeasterly wind prevailing over the Gulf of Thailand and the Southern Thailand transforming to become the southwest monsoon prevailing over the Andaman Sea and the Southern Thailand.

+++ <u>Cautions</u> +++

<u>Fires and forest fires:</u> During this summer, the weather will favor for generating fires and forest fires easily. People should be cautious for fuel usage for any activities.

<u>Thunderstorms</u>: During March until May, summer thunderstorms will occur as thunder rain, gusty wind at many areas and possibly falling hail on some days.

Cyclones: During late April until May, low-pressure air mass cells may develop in the Andaman Sea and strengthening to become depressions, tropical storms and cyclones further. Their movements are toward northeasterly and may be near the western side of Thailand. This results in more rain at the western portion at both of the northern and central parts including with that of the Southern Thailand. As a result, flash or forest flood may inundate further.

Remarks:

- Daily rainfall distribution (% of the area) criteria: Isolated: > 0 until < 20%>=20 until < 40% >= 40 until < 60% Widely scattered: Scattered: Almost widespread: >=60 until < 80% Widespread >= 80% Daily rainfall amount (millimeters) criteria: > 0 until 10.0 Light: Moderate: >=10.1 until <=35.0 Heavy: >=35.1 until <90
- Daily minimum temperature criteria for the winter season:

Very heavy:

>= 90.1

Cool weather = 18.0 - 22.9 °C.

Moderately cold weather = 16.0 - 17.9 °C.

Cold weather = 8.0 - 15.9 °C.

Very cold weather = <=7.9 °C.

- Daily maximum temperature criteria for the summer season:

Hot weather = 35.0 - 39.9 ° C. Very hot weather = >= 40.0 ° C.

- Normal means average during the 30-year period (A.D. 1981 2010 or B.E. 2524 2553)
- These long range expectations are utilized by applying some climatic models and statistical methods, the public then should follow the daily weather news from the Thai Meteorological Department further.
- 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.

Climatological Center, Meteorological Development Bureau, Thai Meteorological Department,

A table showing details of the weather prediction, maximum temperature and rain amount for each part of Thailand:

| Part | The weather prediction | Maximum temperature | | | |
|--|---|--|--|--|--|
| | Hot weather appears at almost all of these | 40 – 43°C. around provinces: Mae Hong Son, Chiang Mai, | | | |
| | parts with very hot weather happening at some | Lamphun, Lampang, Phrae, Tak, Uttaradit, Sukhothai, | | | |
| Northern and northeastern | areas on some days. However, for some | Kamphaeng Phet, Phitsanulok, Phetchabun, Pichit, Loei, | | | |
| | periods, some rain occurring as thunder rain, | Nong Khai, Bueng Kan, Nong bua Lam Phu, Udon Thani, | | | |
| | windy gust and possible hail helps reduce some | Sakon Nakhon, Nakhon Phanom, Mukdahan, Chaiyaphum, | | | |
| | heat. | Khon Kaen, Mahasarakham, Kalasin, Roi Et, Yasothon, | | | |
| | | Amnat Charoen, Nakhon Ratchasima, Burirum, Surin, Si | | | |
| | | Saket and Ubon Ratchathani. | | | |
| Central and eastern (including with coastal areas) | Hot weather appears at almost all of these | 40 – 42°C. around provinces: Nakhon Sawan, Uthai Thani, | | | |
| | parts with very hot weather happening at some | Chainat, Sing Buri, Ang Thong, Suphan Buri, Lop Buri, | | | |
| | areas on some days, particularly at the upper | Saraburi, Ayutthaya, Ratchaburi, Kanchana Buri, Prachin Buri | | | |
| | portion. But during some periods, some rain | and Sa Kaew. | | | |
| | occurring as thunder rain, wind gust and | | | | |
| | possible hail at some areas helps reduce some | | | | |
| | heat. | | | | |
| | Hot weather will happen at many areas and | 37 - 39°C. around provinces: Prachuap Khirikhan, | | | |
| | rainfall distribution will occur at 20-30% of the | Chumphon, Surat Thani, Nakhonsi Thammarat, Songkhla, | | | |
| | area. Wind waves in the Gulf of Thailand and | Pattani, Yala, Phuket, Krabi, Trang and Satun. | | | |
| | the Andaman Sea will be about 1 meter high. | | | | |
| Southern | But since late April, more rain will happen at | | | | |
| | the Southern Thailand (the western coast) with | | | | |
| | heavy to very heavy rain at some areas. For | | | | |
| | wind waves in the Andaman Sea, they will be | | | | |
| | more active as 2-3 meters high. | | | | |
| | Hot weather will happen at almost all of this | 37 − 39 °C. | | | |
| Bangkok and vicinity | area. However, during some periods, some rain | | | | |
| | occurring as thunder rain, wind gust and hail | | | | |
| | helps reduce some heat on some days. | | | | |
| | | | | | |

Mean maximum temperature (° C.) prediction of Thailand during the summer of 2017 and normal (average of the 30-year period: 1981 - 2010, ° C.)

| | March | | April | | The 1 st half of May | | |
|-----------------------------------|------------------------------|--------|------------------------------|--------|---------------------------------|--------|--|
| Part | Mean max temp. of 2017 | Normal | Mean max temp. of 2017 | Normal | Mean max temp. of 2017 | Normal | |
| North | 36-38 | 36.1 | 37-39 | 37.1 | 35-37 | 35.4 | |
| Northeastern | 35-37 | 35.1 | 36-38 | 36.1 | 35-37 | 34.9 | |
| Central | 36-38 | 36.1 | 37-39 | 37.0 | 35-37 | 35.8 | |
| Eastern | 34-36 | 33.8 | 35-37 | 34.7 | 34-36 | 34.1 | |
| Southern Thailand (East Coast) | 33-35 | 32.6 | 34-36 | 33.7 | 33-35 | 33.6 | |
| Southern Thailand (West Coast) | 34-36 | 34.4 | 34-36 | 34.2 | 33-35 | 33.0 | |
| Bangkok and Vicinity | 34-36 | 34.3 | 35-37 | 35.4 | 34-36 | 34.8 | |

Rain amount (millimeters) prediction of Thailand during the summer of 2017 and normal (average of 30-year period: 1981 – 2010, millimeters.)

| | March | | April | | The 1 st half of May | | |
|-----------------------------------|------------------------|--------|------------------------|--------|---------------------------------|--------|--|
| Part | Rain amount of 2017 | Normal | Rain amount of 2017 | Normal | Rain amount of 2017 | Normal | |
| North | 30-50 | 28.1 | 70-100 | 71.3 | 80-110 | 0 80.2 | |
| Northeastern | 40-60 | 44.7 | 80-110 | 86.3 | 80-110 | 83.6 | |
| Central | 40-60 | 36.0 | 80-110 | 79.5 | 80-110 | 83.5 | |
| Eastern | 60-90 | 62.1 | 100-140 | 98.9 | 100-140 | 98.6 | |
| Southern Thailand (East Coast) | 70-100 | 68.4 | 70-100 | 75.4 | 70-100 | 71.7 | |
| Southern Thailand (West Coast) | 90-120 | 88.8 | 160-200 | 160.6 | 150-190 | 147.0 | |
| Bangkok and Vicinity | 40-60 | 42.1 | 90-120 | 91.4 | 120-160 | 116.4 | |

The extreme maximum temperature (° C.) statistics of Thailand during February – May of the past year (2016)

| | March April | | | April | oril May | | | | |
|-------------------------|-------------|------|-------------------|----------------------|----------|-------------------|------|------|----------------|
| Part | ° C. | Date | Location | ° C. | Date | Location | ° C. | Date | Location |
| Northern | 41.7 | 18 | Thoen district, | 44.6 | 28 | Muang district, | 44.5 | 1 | Si Samrong, |
| | | | Lam Pang | | | Mae Hong Son | | | Sukhothai |
| Northeastern | 42.1 | 19 | Muang dist., Nong | 43.6 | 17 | Muang dist., Nong | 41.8 | 11 | Muang, Nakhon |
| | | | Bua Lum Phu | | | Bua Lum Phu | | | Ratchasima |
| Central | 42.3 | 22 | Muang distict, | 43.5 | 11 | Muang distict, | 43.7 | 7 | Muang, |
| | | | Kanchanaburi | | | Kanchanaburi | | | Nakhon Sawan |
| | | | | | | | | | |
| Eastern | 40.9 | 17 | Muang district, | 42.2 | 11 | Muang, Sa Kaew | 40.9 | 5 | Muang, Sa Kaew |
| | | | Sa Kaew | | 11 | Aranyaprathet, | | | |
| | | | | | | Sa Kaew | | | |
| Southern Thailand | 39.5 | 17 | Chawang district, | 42.0 | 11 | Nong Plub | 41.4 | 11 | Muang, |
| (East Coast) | | | Nakhon Si | | | Agromet. Station, | | | Surat Thani |
| | | | Thammarat | | | Prachuab Kirikhan | | | |
| Southern Thailand | 39.6 | 21 | Trang airport, | 40.3 | 16 | Trang airport, | 39.0 | 9,10 | Trang airport, |
| (West Coast) | | | Muang, Trang | , Trang Muang, Trang | | Muang, Trang | | | Muang, Trang |
| The whole country | 42.3 | 22 | Muang district, | 44.6 | 28 | Muang district, | 44.5 | 12 | Si Samrong, |
| of Thailand | | | Kanchanaburi | | | Mae Hong Son | | | Suthothai |
| | 38.7 | 24 | Don Muang | 39.9 | 23 | Queen Sirikit | 39.3 | 13 | Don Muang |
| Bangkok and Vicinity | | | airport, Don | | | NCC, Klong Toei | | | airport, Don |
| and vicinity | | | Munag district | | | | | | Munag district |

Notes:

1. The extreme temperature data are from meteorological stations (classified into three groups as Agromet. = agrometeorological stations, Hydromet. = hydrometeorological stations, Synoptic. = synoptic stations) of the Thai Meteorological Department all over Thailand.

^{2.} Meteorological station names are from http://www.tmd.go.th/en/climate.php?FileID=1.

Map of provinces with possibly very hot weather occurring on some days, especially in March and April 2017:

