

Thai Meteorological Department Ministry of Information and Communication Technology

## Climate Characteristic Expectations of Thailand during the Winter Season: About from middle October 2014 until middle February 2014

The winter of this year is expected to begin as normal about middle October 2014 and end at about middle February 2015. As northern and northeastern parts will be cool before others at about the 2<sup>nd</sup> week of the month, the weather will be cold on some days. And the coldest weather will appear during December and January, while mountainous areas and mountain tops will be cold to very cold with frost in some periods.

For Southern Thailand, the weather will be cool mostly around the upper portion during November until middle January with densely abundant rainfall and heavy to very heavy falls in some areas, especially from Chumphon province downward. Flash floods, flooding situations and over-flows can occur in some areas. During some periods, wind waves in the Gulf of Thailand will be rough as 2–4 meters height from time to time while those in the Andaman Sea will be 1–2 meters.

### **General Climatic Characteristics**

#### Upper Thailand (Northern, Northeastern, Central and Eastern parts)

During middle October until November:\_Medium to rather active high pressure air masses from China will prevail over the Upper Thailand from time to time, but not continuously. During the prevalent high pressure air masses, thunderstorms and gusts appear in some areas then temperatures will drop a little. As northern and northeastern parts will be cool almost all of the area and cold in some areas mostly at the upper portion of the parts, while central and eastern parts will be cool in many areas mostly also at the upper portion of the parts. During December until January: More continuously active high pressure air masses from China still prevail to cover the Upper Thailand causing much temperature reduction. Thus, northern and northeastern parts will be cool or cold generally, while central and eastern parts will be cool almost generally with being cold in some areas on some days. For mountainous areas and mountain tops, the weather will be cold to very cold with frost in some periods. During the 1st half of February: The prevalent high pressure air masses will weaken discontinuously causing warmer weather as hot weather during day time while northern and northeastern parts will be cool or cold in the morning.

The winter of this year is expected to end around middle February 2015.

#### Southern Thailand

During middle October until middle January: Northeastern monsoon will prevail over the Gulf of Thailand and Southern Thailand bringing about moisture from the Gulf of Thailand toward the Southern Thailand, especially during November until December the monsoon will be mostly active. Furthermore, in some periods a monsoon trough will place over the upper, middle and lower portions of the Southern Thailand during October, November and December consecutively. These events cause the Southern Thailand still to have densely abundant rainfall with heavy to very heavy falls in many areas, especially along the eastern coast from Chumphon province downward. Thus, flash floods, flooding situations and over-flows occur at some areas. Wind waves in the Gulf of Thailand will be rough from time to time as 2–4 meters height in some periods, while those in the Andaman Sea will be 1–2 meters height. Then during middle January until middle February: The prevalent northeastern monsoon over the Gulf of Thailand and the Southern Thailand will start to weaken, and change its direction to be as prevalent eastern or southeastern winds instead. As a result, the amount and distribution of rainfall will reduce and the rainy season of the Southern Thailand ends.

#### Details of each part are as follows:

Northern and Northeastern part: During middle October until November, cool air appearing generally together with cold air appears in some areas on some days mostly around the upper portion of the parts. Additionally, fog appears in the morning with isolated to widely scattered rains (about 20 – 30 percent of the area). Then during December and January, cool or cold air appears generally with thick fogs occur on many areas in some periods. For mountainous areas and mountain tops, the weather will be cold to very cold with frost occurring on some days. While during February, cool or cold air appears in the morning especially at the upper portion of the parts with thick fog in many areas. Furthermore, warmer air occurs with hot air during day time.

<u>Central and Eastern parts</u>: During middle October until November, widely scattered to scattered rainfall (30 – 50 percent of the area) occurs and cool air starts to appear in many areas, mostly at the upper portion of the parts with thick fog in the morning. Then during December and January, cool air appears generally and very cold air occurs in some areas on some days, especially around mountainous areas of Nakhon Sawan, Utai Tani, Kanchana Buri, Ratcha Buri, Suphan Buri, Sara Buri, Nakhon Nayok, Chachoengsao, Prachin Buri and Chantha Buri provinces with thick fogs in many areas in some periods. While during February at the upper portion of the parts and mountainous areas, cool air appears in the morning with very thick fogs in many areas. Warmer air occur causing hot air during day time.

Southern Thailand - Eastern Coast (The Gulf of Thailand side): During middle October until middle January, densely abundant rainfall happens; additionally, wind waves will be rough. Especially around November and December, almost widespread rain (70 – 80 percent of the area) appears with heavy to very heavy falls in many areas mostly from Chumphon province downward. Thus, flash floods, flooding situations and over-flows occur in some areas. Then, during middle January until February, the amount and distribution of rainfall begins to reduce. Still isolated to scattered rainfall (30 – 50 percent of the area) occurs at the lower portion of the part with heavy falls on some days.

<u>Southern Thailand – Western Coast (The Andaman Sea)</u>: During middle October until November, densely abundant rainfall happens as scattered to almost widespread (50–70% of the area). Besides, wind waves in the Andaman Sea will be rather rough. Afterward, from December the amount and distribution of rainfall will reduce.

**Bangkok Metropolis and neighbor provinces:** During middle October until November, isolated to scattered rainfall (30 – 50 percent of the area) occurs. Moreover, cool air appears on some days with morning fog. Then during December and January, cool air occurs from time to time; while in February, warmer air appears with hot air during day time.

## Cautions:

- 1. During October, continuous rainfall still occurs around the central and eastern parts together with northern over-flows flow downward. Furthermore, in some periods, sea water level rises up. These events cause floods and over-flows in some areas.
- 2. During November and December, some active low pressure cells occur in the lower portion of the South China Sea. Then they develop to be tropical cyclones (depressions, tropical storms or typhoons) and favor to move pass the Gulf of Thailand toward the Southern Thailand causing widespread rainfall in the area with heavy to very heavy falls in many areas. Wind waves in the Gulf of Thailand will be windy and rough with 2 4 meters height. Possible storm surges occur along the eastern coast of the Southern Thailand. The public should follow the weather news from the Thai Meteorological Department closely.
- 3. During December and January, frost possibly happens in mountainous areas and mountain tops. Thick fog occurs at many areas especially in the northern and northeastern parts. The public should be cautious of vehicle accidents.
- **<u>Remarks:</u>** Normal mean averages of the 30-year period during B.E. 2524–2553 or A.D. 1971–2010.
  - Next update will be at the last week in November 2014.
  - Daily rainfall distribution (percent of the area) criteria:

Isolated: $> 0$ until $< 20$ %,	Widely scattered: >=20 until < 40 %
Scattered: >= 40 until < 60 %	Almost widespread: >=60 until < 80 %

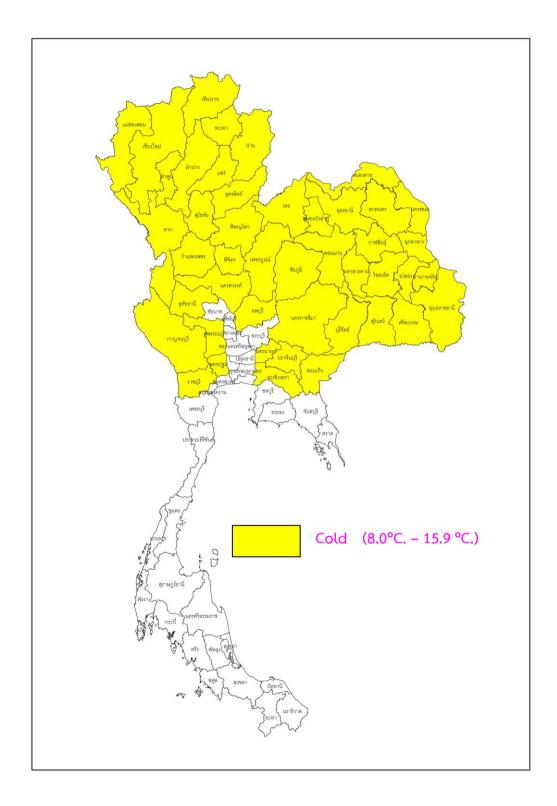
- Widespread: >= 80 %
- Daily rainfall amount (millimeters) criteria:

Light:	> 0	until 9.9	Moderate:	>=10	until	<= 34.9
Heavy:	>= 35	until <= 90	Very Heavy:	>= 90.1	L	

- Daily Minimum temperature criteria (used in the winter season):

Cool:	16.0 – 22.9	Celsius degrees.
Cold:	8.0 - 15.9	Celsius degrees.
Very cold:	< 8.0	Celsius degrees.

Climatological Center, Meteorological Development Bureau, Thai Meteorological Department, Ministry of Information and Communication Technology Map for possible areas for cold air In December 2014 – January 2015



Remarks: 1. Long range expectations, the public should follow daily weather forecasts.2. Not including mountain and mount tops, and mountainous areas.

Regions	November2014	December2014	January 2015	February 2015	
				First half	Second half
Upper	18-20 °C. Isolated showers	15-17 °C. Slightly showers	15-17 °C. Slightly showers	17-19 °C.	19-21 °C.
Northern				Slightly showers	
Lower	20-22 °C. Isolated showers	17-19 °C. Slightly showers	17-19 °C. Slightly showers	19-21 °C.	21-23 °C.
Upper	19-21 °C. Isolated showers	16-18 °C. Slightly showers	16-18 °C. Slightly showers	18-20 <sup>°</sup> C.	19-21 °C.
Northeastern				Slightly	showers
Lower	21-23 °C. Isolated showers	18-20 °C. Slightly showers	18-20 °C. Slightly showers	20-22 °C.	21-23 °C.
Central	22-24 °C. Isolated showers	19-21 °C. Slightly showers	19-21 °C. Slightly showers	21-23 °C.	23-25 °C.
				Slightly showers	
East	22-24 °C. Widely scattered	21-23 °C. Slightly showers	21-23 °C. Slightly showers	22-24 °C.	23-25 <sup>°</sup> C.
	showers			Isolated showers	
	23-25 °C.	22-24 °C.	22-24 <sup>°</sup> C.	22-24 <sup>°</sup> C.	
Southern	Almost widespread	Almost widespread	Widely scattered showers,	Isolated sh	owers, mainly
Thailand	thundershowers and heavy	thundershowers and heavy	mainly during the first half lower po		portion.
(East coast)	to very heavy falls in some	falls in some areas, mainly	of the month.		
	areas, mainly from	from Surat Thani southward.			
	Chumphon southward.				
Southern	23-25 °C.	23-25 °C.	22-24 °C.	23-25 °C.	
Thailand	Scattered showers and	Widely scattered showers.	Isolated showers	Isolated showers	
(West coast)	isolated heavy falls.				
Bangkok	23-25 °C.	22-24 °C.	22-24 °C.	23-25 °C.	24-26 <sup>°</sup> C.
Metropolis and	Widely scattered showers.	Slightly showers	Slightly showers	Slightly showers	
Vicinity					

Table of expected average minimum temperatures and rainfall for parts of Thailand during the winter season of 2014 - 2015

	December				January					
	Extreme r	Extreme minimum temperature Extreme Ext. minimum Extreme minimum temperature			Extreme	Ext. minimum				
		(1951-2013	)	minimum	temperature	(1951-2014)		minimum	temperature	
				temperature	forecast in			temperature	forecast in	
				in 2013	2014				in 2014	2015
	( °C.)	Date	Year	( °C.)	( °C.)	( °C.)	Date	Year	( °C.)	( °C.)
Northern										
Chiang Rai	1.5	25	1999	7.8	11-13	1.5	2	1974	7.0	10-12
Chiang Mai	3.8	25	1999	10.5	13-15	3.7	2	1974	11.0	12-14
Phitsanulok	8.9	26	1999	12.0	15-17	7.5	13	1955	10.5	14-16
Northeastern										
loei	2.2	31	1973 1975	8.0	11-13	0.1	2	1974	5.5	10-12
Nakhon Phanom	4.1	30	1975	10.1	12-14	1.8	12	1955	9.4	11-13
Nakhon Ratchasima	6.2	31	1975	12.2	15-17	4.9	12	1955	11.2	14-16
Ubon Ratchathani	8.5	30	1975	12.4	14-16	7.6	12	1955	12.1	13-15
Central										
Nakhon Sawan	7.7	25	1999	12.2	15-17	6.1	13	1955	10.3	14-16
Suphanburi	10.0	31	1975	14.2	15-17	9.2	13	1955	12.6	14-16
Kanchanaburi	6.8	31	1975	13.8	14-16	5.5	13	1955	12.0	13-15
Eastern										
Sa kaew	9.0	24	1999	13.0	15-17	11.4	12	2009	11.9	14-16
Chon Buri	12.0	29	1975	16.4	18-20	9.9	12	1955	15.5	17-19
South										
Prachuap Khiri Khan	11.4	31	1956	17.5	19-21	10.5	19	1963	14.5	18-20
Trang	18.4	1	1982	24.1	22-24	17.4	4	1957	23.0	21-23
Bangkok	10.5	30	1975	17.8	19-21	9.9	12	1955	16.6	18-20

# The extreme minimum temperature by statistics and forecast in December and January

Remark : Excludes minimum temperature in mountainous areas.