GEN 3.5 METEOROLOGICAL SERVICES

3.5.1 Responsible services

The meteorological services for civil aviation are provided by the Meteorological Department of the Ministry of Information and Communication Technology:

Meteorological Department
4353 Sukhumvit Road
Bangkok 10260
Thailand.

Telephone number:	(662) 399 4566-75
Telefax number:	(662) 399 4597-8
Telex number:	Nil
AFS address:	METEOROLOGICAL DEPT. BANGKOK (Commercial)

The service is provided in accordance with the provisions contained in the following ICAO documents:

Annex 3 – Meteorological Service for International Air Navigation
Doc 7030 – Regional Supplementary Procedures

Differences to these provisions are detailed in subsection GEN 1.7.

3.5.2 Area of responsibility

Meteorological services are provided within Bangkok FIR.

3.5.3 Meteorological observations and reports

Table GEN 3.5.3 Meteorological observations and reports

Name of Station / Location indicator	*Type & frequency of observation/ automatic observation equipment*	*Type of MET report & Supplementary Information included*	*Observation System & Site (s)*	*Hours of operation*	*Climatological information*
1	2	3	4	5	6
Bangkok / DON MUEANG International VTBD	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 21R and THR 03L included with one RVR EQPT at the middle of RWY 21R/03L Doppler SODAR is located in the base station 300 m W of THR 21R	H24	Climatological table AVBL
CHIANGMAI / International VTCC	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 18 and THR 36 except RVR EQPT and ceilometer is located at 300 m from THR 36 only	H24	NIL
CHIANGRAI / MAE FAH LUANG-CHIANG RAI International VTCT	Hourly plus special observations	METAR, SPECI Suppl : NIL	Complete observation station 300 m from THR 03	0700-1900	NIL
PHUKET / International VTSP	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 09 and THR 27	H24	NIL
RAYONG / U-TAPAO RAYONG PATTAYA International VTBU	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 16. Ceilometer is not included.	H24	NIL
SONGKHLA / HAT YAI International VTSS	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 08 and THR 26	H24	NIL
UBON / International VTUU	Half hourly plus special observations	METAR, SPECI TREND	Complete observation station 300 m from THR 23	H24	NIL

3.5.4 Types of services

Personal briefing and consultation for flight crew members are provided for all international aerodromes.

3.5.4.1 The Meteorological Office and Meteorological Watch Office at Bangkok International Airport operate throughout 24 hours and provide the following services for civil aviation:

a) Full meteorological documentation for current operational planning for all flights operating out of Bangkok International Airport, whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Meteorological Office, otherwise briefing may be carried out by telephone;

b) Area meteorological watch over Bangkok FIR with the supply of meteorological information including SIGMET information to aircraft in flight through the Bangkok ATS radio channels;

c) Continuous VOLMET broadcasts of aviation weather reports and SIGMET information are also included in HF/SSB broadcasts for Bangkok / International Airport, Rangoon / Mingaladon International Airport, Kuala Lumpur / International Airport, Dhaka / International Airport, Chiang Mai / International Airport, U-Tapao Rayong Pattaya / International Airport and Phuket / International Airport; and

d) Meteorological informational for Air Traffic Service.

3.5.4.2 The Meteorological Office at Chiang Mai International Airport (VTCC-48327), Rayong / U-Tapao Rayong Pattaya International Airport (VTBU-48477), Songkhla / Hat Yai International Airport (VTSS-48569), Phuket International Airport (VTSP-48565), and Ubon Ratchathani Airport (VTUU-48407) operate throughout 24 hours and provide the following services for civil aviation:

a) Meteorological documentation for current operational planning for all flights operating out of the international airports, whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Meteorological Watch Office, otherwise briefing may be carried out by telephone;

b) Meteorological information including SIGMET information to aircraft in flight through the ATS radio channels; and

c) Meteorological information for Air Traffic Services.

3.5.4.3 Details of documentation supplied for each flight are determined by agreement between operator and meteorological office. In general, the pilot-in-command is provided with documentation comprising forecasts for take-off, climb and descent (ICAO model H), appropriate aerodrome forecasts in TAF code form (ICAO model A2), one fixed-time prognostic significant weather chart (ICAO model SWH/SWL) together with a selection of up to two of the following streamline/isotach/spot temperature charts (ICAO model IS):

A prognostic 850 hPa chart as necessary
A prognostic 700 hPa chart and/or
A prognostic 500 hPa chart and/or
A prognostic 300 hPa chart and/or
A prognostic 200 hPa chart and/or
A prognostic 100 hPa chart as necessary

3.5.4.4 Routine aerodrome forecasts received from other meteorological offices are normally included in meteorological documentation without modification. When a required aerodrome forecast is not received, a provisional forecast may be issued by the meteorological office providing the documentation.

3.5.5 Notification required from operators

Notification from operators in respect of briefing, consultation, flight documentation and other meteorological information needed by them is normally required (reference ICAO Annex 3, 2.3). Such notification should be received as prior as possible and at least 1 hour before the expected time of departure for non-scheduled flight would be required at Bangkok Meteorological office.

3.5.6 Aircraft reports

Pursuant to ICAO Annex 3, 5.3.1 the making and transmission of aircraft reports (AIREP) are required at the following ATS reporting points:

ATS ROUTE	AIRCRAFT ATS / MET REPORTING POINTS IN THE BANGKOK FIR
ALFA 1	BUTRA
ALFA 464	REGOS
GOLF 463	BETNO
GOLF 473	MAKAS
ROMEO 588	KAKET

The ATS/MET reporting points in respect of routes crossing FIR are indicated on page GEN 3.5-5

3.5.7 VOLMET service

Table GEN 3.5.7 VOLMET Service

Name of station	*CALL SIGN Identification (EM)*	*Frequency*	*Broadcast period*	*Hours Of service*	*Aerodromes / Heliports included*	*Content & format of REP and FCST & Remarks*
1	2	3	4	5	6	7
Bangkok	Bangkok RADIO J3E	11387 kHz 6676 kHz 2956 kHz	H+10 to H+15 and H+40 to H+45	2310 - 1145 Z. H24 1210 - 2245 Z.	BANGKOK YANGON /MINGALADON HANOI/NOIBAI HO CHI MINH PHNOM PENH VIENTIANE U-TAPAO RAYONG PATTAYA CHIANG MAI PHUKET SONGKHLA/HAT YAI BANGKOK	SIGMET (as available) METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend METAR, SPECI with trend TAFOR (valid for 9 hrs)

3.5.8 SIGMET service

Table GEN 3.5.8 SIGMET service

Name of MWO / Location indicators	Hours	FIR or CTA served	Type of SIGMET / validity	Specific procedures	ATC unit served	Additional information
1	2	3	4	5	6	7
Bangkok	H24	Bangkok FIR	SIGMET/ 4 HRS	NIL	Bangkok Radio	NIL

General

For the safety of air traffic, the meteorological authority maintains an area meteorological watch and warning service. This service consists partly of a continuous weather watch within the lower and upper FIR and the issuance of appropriate information (SIGMET) by Meteorological Watch Offices and party of the issuing of warnings for the respective aerodrome and, subject to agreement for other aerodromes by all aeronautical MET offices.

Area meteorological watch service

The area meteorological watch service is performed by Meteorological Watch Offices (MWOs): VTBDYMYX

The MWOs issue information in the form of SIGMET messages about the occurrence or expected occurrence of one of the following significant meteorological phenomena:

- thunderstorms;
- severe turbulence;
- severe icing;
- volcanic ash cloud; and
- Tropical cyclone.

The SIGMETs are issuance in abbreviations and plain language using ICAO abbreviations and are numbered consecutively for each day commencing at 0001. Their period of validity is generally limited to less than 4 hours from the time of transmission.

The MWOs transmit SIGMETs issued by them, as well as SIGMETs of other MWOs, to the regional control centre competent for the FIR or UIR concerned.

In addition to the issuance of SIGMETs, the MWOs will inform the regional control centres about the occurrence or expected occurrence of thunderstorms, moderate icing, light to moderate hail, or moderate turbulence within FIRs concerned. The information is intended for the safety of low-level flights and is limited to the lower airspace.

Warning service

Warnings for the protection of parked and moored aircraft or of other equipment at the airport are issued by all aerodrome meteorological offices, if one or several of the following phenomena are expected to occur at the airport:

- squall
- thunderstorm
- hail

Differences from these criteria have to be agreed upon locally.

The warnings are generally issued in English and are distributed in accordance with a distribution list which has to be agreed upon locally. In order to guarantee rapid dissemination of the warnings, the distribution list to be used shall, as far as possible, contains only one recipient for the further dissemination of the warning within the group.

SIGMET information is disseminated, in addition to direct transmission, to aircraft general calls as an aeronautical or radio broadcast between 0700 until SS + 30:

a) by the Bangkok Area Control Centre for Bangkok FIR; and
b) by the ATS units for their own area of responsibility.

The information is broadcast from the MWO concerned and repeated every half and full hour during the period of validity of the SIGMET information.

1. Area of widespread cumulonimbus clouds or cumulonimbus along a line (squall line) with little or no space between individual clouds. Or cumulonimbus embedded in cloud layers or obscured by haze.

2. The warning is designated as “storm warning” and will be issued when the mean speed of the surface wind is expected to exceed 34 kt (Beaufort Scale 8) or when gusts exceed 41 kt (Beaufort Scale 9) are expected to occur.

3.5.9 Other automated meteorological services

Table GEN 3.5.9 Other automated meteorological services

Service name	Information available	Area, route and aerodrome coverage	Telephone, telex and telefax numbers / remarks
1	2	3	4
NIL	NIL	NIL	NIL

ATS/MET REPORTING POINT CHART

NIL