

GEN 3.5 METEOROLOGICAL SERVICES

1. Responsible services

1.1 The meteorological services for civil aviation are provided by the Meteorological Department of the Ministry of Digital Economy and Society:

Thai Meteorological Department
4353 Sukhumvit Road
Bangkok 10260
Thailand
Tel: +662 399 4566-74
Fax: +662 399 4597-8
AFS: VTBBYMYX

1.2 The meteorological services for civil aviation are provided by the Royal Thai Navy weather Section, Base Operation, Naval Air Station Subdivision, Royal Thai Naval Air Division:
Rayong 21130 Thailand

Tel: +663 824-5489
Fax: +663 824-5489
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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**.

2. Area of responsibility

Meteorological services are provided within Bangkok FIR.

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/ SUVARNABHUMI International / VTBS	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 350 M from THR 01R, THR 01L, THR 19L and THR 19R	H24	Climatological table AVBL
Bangkok / DON MUEANG International VTBD	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 390 M from THR 21R and 160 M from THR 03L	H24	Climatological table AVBL
CHIANG MAI International VTCC	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 300 M from THR 18 and 402 M from THR 36	H24	Climatological table AVBL
CHIANGRAI / MAE FAH LUANG-CHIANG RAI International VTCT	Hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 436 M from THR 03 and 445 M from THR 21	H24	Climatological table AVBL

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
PHUKET International VTSP	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 205 M from THR 09 and 405 M from THR 27	H24	Climatological table AVBL
SONGKHLA / HAT YAI International VTSS	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 425 M from THR 08 and 399 M from THR 26	H24	Climatological table AVBL
RAYONG/ U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT VTBU	Half hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 270 M from THR 18 and 258 M from THR 36	H24	Climatological table AVBL
KRABI/ VTSG	Hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 300 M from THR 14 and 360 M from THR 32	H24	Climatological table AVBL
SURAT THANI / Samui VTSM	Hourly routine plus special observations/ Automatic: NIL	METAR, SPECI TREND	Cup Anemometer: 90 M FM MID RWY Thermometer and Barometer: 130 M FM TDZ 17	2200-1500	NIL
SURAT THANI / Surat Thani VTSB	Hourly routine plus special observations/ Automatic: NIL	METAR, SPECI, MET REPORT, SPECIAL TREND	Complete observation station: 300 M FM THR 04 and 370 M FM THR 22	2200-1500	NIL

4. Types of services

Personal briefing and consultation for flight crew members are provided only at the Aerodrome Meteorological Offices as following:

4.1 The Aerodrome Meteorological Offices (BANGKOK / Suvarnabhumi Intl, CHIANG MAI / Chiang Mai Intl, PHUKET / Phuket Intl, SONGKHLA / Hat Yai Intl, UBON RATCHATHANI / Ubon Ratchathani, and KHON KAEN / KhonKaen). For all other international aerodromes, consultation is available by telephone as requested.

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

- a) Flight documentation is provided for domestic flights and international flights, the flight documentation comprises significant weather charts, upper wind and upper air temperature charts and the latest available aerodrome forecasts for the destination and its alternate. Whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Aerodrome 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; and
- c) Meteorological information for Air Traffic Service.

4.1.2 The Aerodrome Meteorological Office at CHIANG MAI International Airport (VTCC), SONGKHLA / HAT YAI International Airport (VTSS), PHUKET International Airport (VTSP), KHON KAEN Airport (VTUK) and UBON RATCHATHANI Airport (VTUU) 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 Aerodrome Meteorological Office, otherwise briefing may be carried out by telephone;
- b) Meteorological information including SIGMET information to aircraft in flight through the Bangkok ATS radio channels; and
- c) Meteorological information for Air Traffic Services.

4.1.3 Details of documentation supplied for each flight are determined by agreement between operator and aerodrome meteorological

office. In general, the pilot-in-command is provided with documentation comprising:

- a) Forecasts of upper wind and upper-air temperature and SIGWX phenomena;
- b) METAR or SPECI (including trend forecasts as issued in accordance with regional air navigation agreement) for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
- c) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
- d) SIGMET information and appropriate special air-reports relevant to the whole route;
- e) volcanic ash and tropical cyclone advisory information relevant to the whole route; and
- f) if appropriate, as determined by regional air navigation agreement, area forecasts for low-level flights in chart, and space weather advisory information relevant to the whole route.

The documentation for flights of two hours' duration or less, after a short stop or turn around shall be limited to the information operationally needed, as agreed between the aerodrome meteorological office and the operator concerned, but in all cases, it shall at least comprise information on b), c), d), e) and f).

4.1.4 Routine aerodrome forecasts received from other meteorological offices are included in meteorological documentation without modification.

4.2 Aerodrome Meteorological Offices (RAYONG/U-Tapao Rayong Pattaya International)

4.2.1 The Aerodrome Meteorological Office at RAYONG/U-Tapao Rayong Pattaya International Airport (VTBU) 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 Aerodrome Meteorological Office, otherwise briefing may be carried out by telephone;
- b) Meteorological information for Air Traffic Services.

4.2.2 Details of documentation supplied for each flight are determined by agreement between operator and aerodrome meteorological office. In general, the pilot-in-command is provided with documentation comprising:

- a) METAR or SPECI (including trend forecasts as issued in accordance with regional air navigation agreement) for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
- b) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;

4.2.3 Routine aerodrome forecasts received from other meteorological offices are included in meteorological documentation without modification.

5. Notification required from operators

It is the responsibility of the operator or the pilot-in-command to notify the aerodrome meteorological office of any flight for which meteorological documentation is required (ref. ICAO Annex 3, paragraph 2.3). As much prior notice as possible should be given, and at least 2 hours before the expected time of departure for non-scheduled flight would be required at aerodrome meteorological office.

6. Aircraft reports

Special Aircraft Observations and Other Non-routine Aircraft Observations

6.1 Special aircraft observations are required to be issued by aircraft as special air-reports in Bangkok FIR whenever any of the following conditions are encountered or observed:

- a) moderate turbulence (MOD TURB) or severe turbulence (SEV TURB);
- b) moderate icing (MOD ICE) or severe icing (SEV ICE); or
- c) severe mountain wave (SEV MTW); or
- d) thunderstorms with or without hail (that are obscured, embedded, widespread or in squall lines) (TSGR or TS); or
- e) volcanic ash cloud (VA CLD).

6.2 When other meteorological conditions not listed under 6.1 e.g. wind shear, are encountered and which, in the opinion of the pilot-in-command, may affect the safety or markedly affect the efficiency of other aircraft operations, the pilot-in-command shall advise the appropriate air traffic services unit as soon as practicable.

6.3 Aircraft observations shall be reports as air-reports following the instructions in ICAO-ATM (Doc 4444) Appendix 1.

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 VOLMET (J3E)	11387 KHZ 6676 KHZ 2965 KHZ	H+10 to H+15 and H+40 to H+45	2310 - 1145 Z H24 1210 - 2245 Z	BANGKOK FIR	SIGMET (as available)
					YANGON FIR	SIGMET (as available)
					BANGKOK/ SUARNABHUMI	METAR/ SPECI with TREND
					YANGON/ MINGALADON	METAR/ SPECI with TREND
					HANOI/NOIBAI	METAR/ SPECI with TREND
					HO CHI MINH/ TAN SON NHAT	METAR/ SPECI with TREND
					PHNOM PENH	METAR/ SPECI with TREND
					VIENTIANE/ WATTAY	METAR/ SPECI with TREND
					RAYONG/ U- TAPAO	METAR/ SPECI with TREND
					CHIANG MAI	METAR/ SPECI with TREND
					PHUKET	METAR/ SPECI with TREND
					BANGKOK / DON MUEANG	METAR/ SPECI with TREND
					BANGKOK/ SUARNABHUMI	TAF (valid for 9 hrs)

8. SIGMET and Aerodrome Warning Service

8.1 SIGMET Service

8.1.1 For the safety of air traffic, the meteorological watch office provides round the clock meteorological watch service for the Bangkok FIR. This service consists of a continuous weather watch within the Bangkok FIR and the issuance of SIGMET information for this area.

Table GEN 3.5.8 SIGMET service

Name of MWO / Location indicators	Hours	FIR or CTA served	Type of SIGMET / validity	Specific procedures	ATS unit served	Additional information
1	2	3	4	5	6	7
Bangkok/ VTBS	H24	Bangkok FIR	- WS SIGMET/ not more than 4 hours - WC SIGMET/ up to 6 hours - WV SIGMET/ up to 6 hours	NIL	Bangkok ACC	NIL

Note: WS SIGMET for phenomena other than volcanic ash cloud or tropical cyclone.

WC SIGMET for tropical cyclone.

WV SIGMET for volcanic ash.

8.1.2 The meteorological watch office issues SIGMET information in abbreviated plain language concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations, and of the development of those phenomena in time and space, in the Bangkok FIR. The specified en-route weather and other phenomena in the atmosphere are as follows:

- thunderstorms
- severe turbulence
- severe icing
- tropical cyclone
- volcanic ash

8.1.3 Tropical cyclone SIGMET messages issued are based on advisory information provided by Tropical Cyclone Advisory Centres.

8.1.4 Volcanic ash SIGMET messages issued are based on advisory information provided by Volcanic Ash Advisory Centres.

8.1.5 SIGMET information is disseminated via the AFTN and broadcast in VOLMET service during the period of validity of the SIGMET information (see Table GEN 3.5.7 VOLMET Service).

8.2 Aerodrome Warnings Service

8.2.1 Aerodrome warnings are issued by the aerodrome meteorological office designated by the meteorological authority concerned and give concise information of meteorological conditions which could adversely affect aircraft on the ground, including parked aircraft, and the aerodrome facilities and services.

8.2.2 The aerodrome meteorological office issues aerodrome warnings in both abbreviated plain language and plain language if one or several of the following phenomena are occurring or expected to occur at the airport:

- tropical cyclone
- thunderstorm
- hail
- fog
- strong surface wind and gusts
- tsunami

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

10. ATS/MET REPORTING POINT CHART

NIL

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