VTBS - Suvarnabhumi Airport

Overview

Suvarnabhumi Airport (VTBS) is the biggest airport in Thailand, and is one of two airports covering Bangkok and the surrounding areas - the other being Don Mueang Airport (VTBD). Opened in 2006, it is located 25 kilometers east of downtown Bangkok and is a major hub for international transportation within Southeast Asia and beyond.

News

? Updates to procedures - 3 OCT 2024

> VTBS has implemented entirely new SID & STAR procedures and 3rd runway opening as of AIRAC 2410 (3 OCT 2024). Please kindly ensure to update your navigation data if you are able to do so.

Runway redesignations

Old	New
- (not exist)	Runway 02L/20R
Runway 01L/19R	Runway 02R/20L
Runway 01R/19L	Runway 01/19

New procedures

Arrivals: DOLNI arrivals do not exist anymore. Depending on airways, please file the following:

Airway R201: R201 BUT DCT TUMGA
Airway Y12: Y12 ALEMI DCT TUMGA
Airway N891: N891 RYN DCT TUMGA
Airway P629: P629 NUGPA DCT TUMGA

Departures: KIGOB/GORSI departures do not exist anymore. Refile via BUT and GOMES respectively.

Pilot Briefing

Main frequencies

Identifier	Radio Callsign	Frequency	Remarks
VTBS_DEL	Suvarnabhumi Delivery	128.700 MHz	
VTBS_GND	Suvarnabhumi Ground	121.750 MHz	
VTBS_TWR	Suvarnabhumi Tower	118.200 MHz	
VTBS_APP	Bangkok Approach	124.350 MHz	
VTBS_F_APP	Suvarnabhumi Arrival	121.100 MHz	Arrivals below 7000ft
VTBS_DEP	Suvarnabhumi Departure	119.250 MHz	
VTBS_D_ATIS	-	127.650 MHz	Departure ATIS
VTBS_A_ATIS	-	133.600 MHz	Arrival ATIS

Gates

At Suvarnabhumi, there are two areas in use: the main terminal (A-G gates), and the newly opened SAT-1 terminal.

Domestic flights

- A Gates
- B Gates
- Remote stands (including stands in front of cargo terminal)

International flights

- C Gates
- D Gates
- E Gates
- F Gates
- G Gates
- SAT-1 Terminal
- Remote stands (including stands in front of cargo terminal)

Airbus A380 stands

- **Main terminal:** C3, C7, E4, E8
- **SAT-1 terminal:** S111-118
- **Remote:** 201-203, 401-403

TWY T8, T9, T10, T11, T12 prohibited for A380

Cargo flights

- Remote stands in front of cargo terminal (506-525)

Preferential runway system

> The runway in use on VATSIM does not necessarily follow what is used in real life all the time for various reasons, including but not limited to traffic, controller discretion, etc.

Generally, runways 19/20L/20R are used unless the tailwind component exceeds 5 knots (usually in the winter season).

Usually, runway 01/19 will handle both arrivals and departures; 02L/20R will handle arrivals only while 02R/20L will handle departures.

Transition Altitude & Transition Level

For all airports in Thailand, the transition altitude is 11,000ft and the transition level is always FL130.

Departing flights

IFR Clearance

On initial contact, state stand number and received ATIS.

□□✈	Suvarnabhumi Delivery, sawasdee krub, THAI 104, information B, gate A4, requesting IFR clearance to Chiang Mai, FL360
□□	THAI 104, Delivery, sawasdee krub, cleared to Chiang Mai via OLVUK1K departure flight plan route, runway 01, initial climb 6000ft, expect FL360, squawk 7120

> The standard initial climb altitude for all departures is 6,000ft.

Pushback

Pushback instructions will include the direction for the nose to face.

□□✈	Suvarnabhumi Ground, sawasdee krub, THAI 104, gate A4, requesting push and start
□□	THAI 104, Suvarnabhumi Ground, sawasdee krub, push and start approved, facing south on T5

If the pushback is not approved straight away, a reason will be given by the controller.

Taxi

> Please take a look at the ground charts at least once before requesting taxi. The taxiway layout is quite complex with different taxiway designations for each intersection.

Departure

> All speed and level restrictions apply unless explicitly cancelled by ATC!

Upon first contact with the departure frequency, state your passing altitude and assigned departure route.

□□✈	Suvarnabhumi Departure, Thai 104, passing 1300ft for 6000ft, OLVUK1K departure

You will be identified and given further climb instructions when appropriate. Do not climb above initial climb altitude (usually 6,000ft) until assigned otherwise.

As alluded above, there are restrictions on the SID which need to be followed unless cancelled. Keep an ear out for the following phraseology:

🎧	THAI 104, climb unrestricted FL160 THAI 104, climb via SID FL160, no restrictions *All speed and level restrictions on the SID are cancelled. You still have to maintain 250kts or less below 10,000ft*
🎧	THAI 104, climb via SID FL160, cancel level / altitude restrictions *Only level restrictions on the SID are cancelled, speed restrictions remain*
🎧	THAI 104, climb via SID FL160, cancel speed restrictions *Only speed restrictions on the SID are cancelled, level restrictions remain. 250 kts or less below 10,000ft still applies*
🎧	THAI 104, direct TANGO *All restrictions for waypoints before TANGO are cancelled. You still have to maintain 250kts or less below 10,000ft*

Subsequently, when nearing FL160, you will be handed off to enroute ATC (Bangkok Control) if online.

Arriving flights

During cruise, you will be cleared for an appropriate STAR for the active runway(s). When nearing top of descent, inform the controller that you are ready for descent if instructions have not yet been given.

When nearing FL170, you will be handed off to Bangkok Approach if online.

Descent

All STARs have speed and level restrictions. You must follow them unless explicitly cancelled by ATC, or if instructions were given at a time where it is impractical to meet those restrictions.

🎧	THAI 103, descend via STAR 5000ft QNH 1013, no restrictions *All speed and level restrictions on the STAR are cancelled. You still have to maintain 250kts or less below 10,000ft*
🎧	THAI 103, descend via STAR 5000ft QNH 1013, cancel level / altitude restrictions *Only level restrictions on the STAR are cancelled, speed restrictions remain*

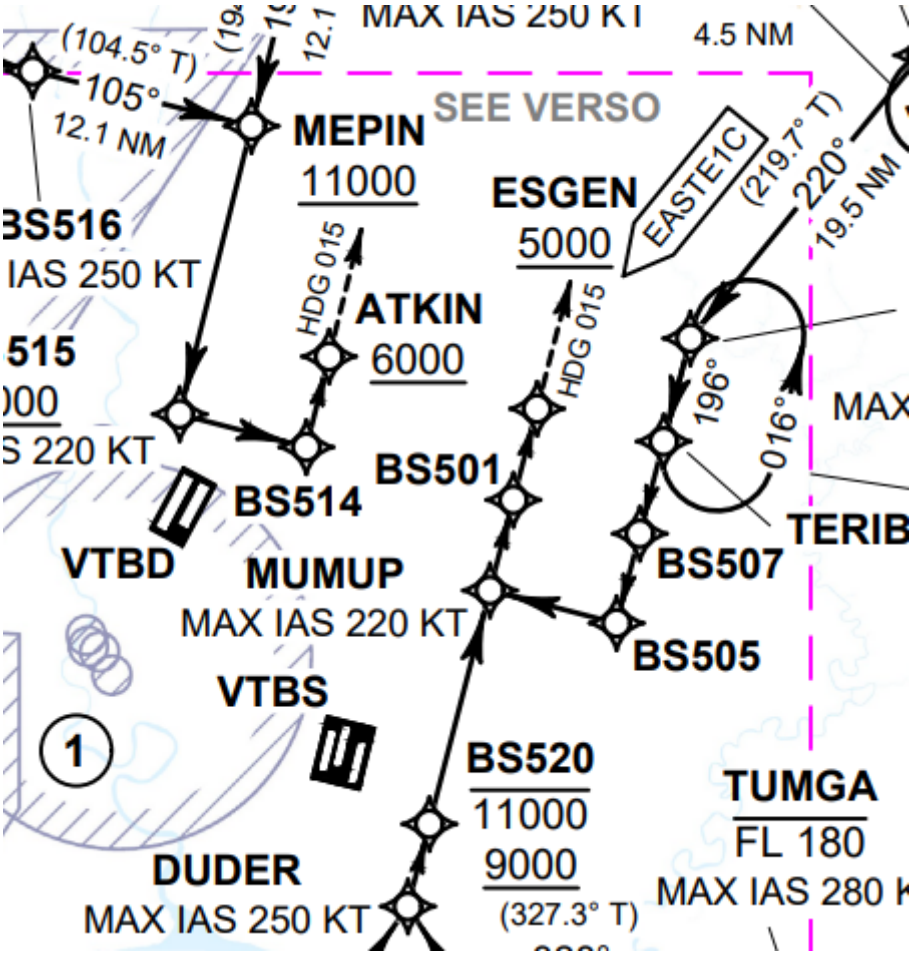
□□	THAI 103, descend via STAR 5000ft QNH 1013, cancel speed restrictions *Only speed restrictions on the STAR are cancelled, level restrictions remain. 250 kts or less below 10,000ft still applies*
□□	THAI 103, direct EKCHO *All restrictions for waypoints **before** EKCHO are cancelled. You still have to maintain 250kts or less below 10,000ft*

If traffic levels are low, you may be given "direct to" instructions to shorten the track miles to landing, or told by ATC to expect shortcuts. In that case, you should use your discretion to descend below VNAV profile while following constraints if not cancelled.

> If traffic levels are low, you may be given "direct to" instructions to shorten the track miles to landing, or told by ATC to expect shortcuts. In that case, you should use your discretion to descend below VNAV profile while following constraints if not cancelled. Expect to be vectored to the IAP before ending of STAR

Open STARs

> All VTBS STARs are open STARs. If ATC has not given instructions otherwise, **continue on the charted heading after the last waypoint on the STAR**. Do not proceed on instrument approach procedure without ATC clearance! **Do not delete flightplan discontinuity between STAR and IAP**



WARNING

- **After ESGEN, ATKIN maintain heading 015° or as directed by ATC.**
- **Do not proceed Instrument Approach Procedure without ATC clearance.**

Approach clearance

There are two methods that you can be cleared for the ILS or LOC Z approach:

1) Own navigation (direct to)
You can be given a direct to instruction to a waypoint on the instrument approach procedure, along with a possible descent instruction to the appropriate altitude for the waypoint. The maximum turn radius is 90 degrees.

You may be cleared for the approach even though you are still on the downwind leg.

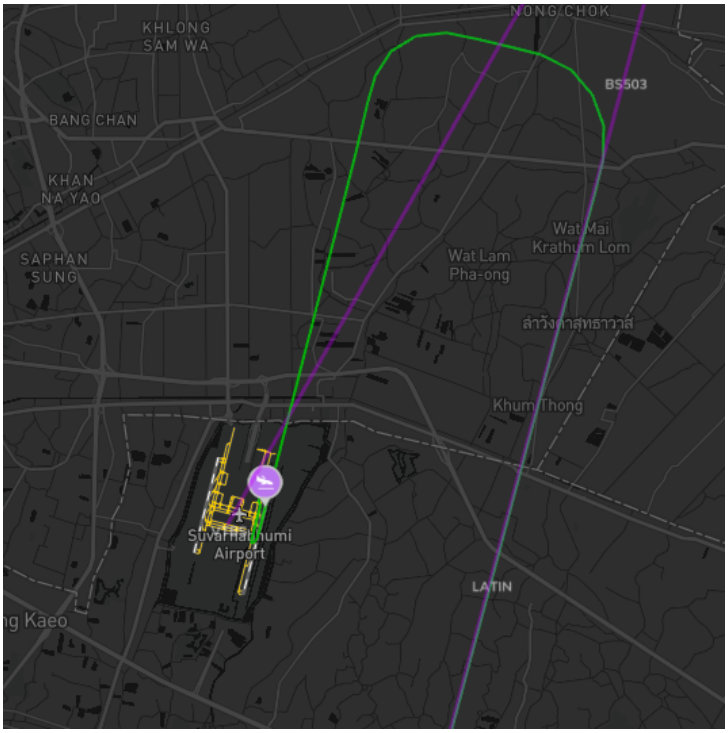
> Waypoints on the ILS Z approach procedures for all runways have been changed as of 13JUN 2024. These table refer to the updated procedures.

Runway	**19 (ILS Z)**	**20L (ILS Z)**	**20R (RNP)**
Waypoints	LOTMU @ 2500ft LAVOG @ 2500ft LETMA @ 4000ft	REVMO @ 3500ft RUMAD @ 3500ft REGIR @ 5000ft	OSEVA @ 3500ft ANORU @ 3500ft RUPED @ 5000ft
Runway	**01 (ILS Z)**	**02L (RNP)**	**02R (ILS Z)**
Waypoints	RUPUX @ 2500ft REPEN @ 3000ft	ABVER @ 3500ft BATEM @ 4000ft	LOSDO @ 3500ft LASAM @ 4000ft

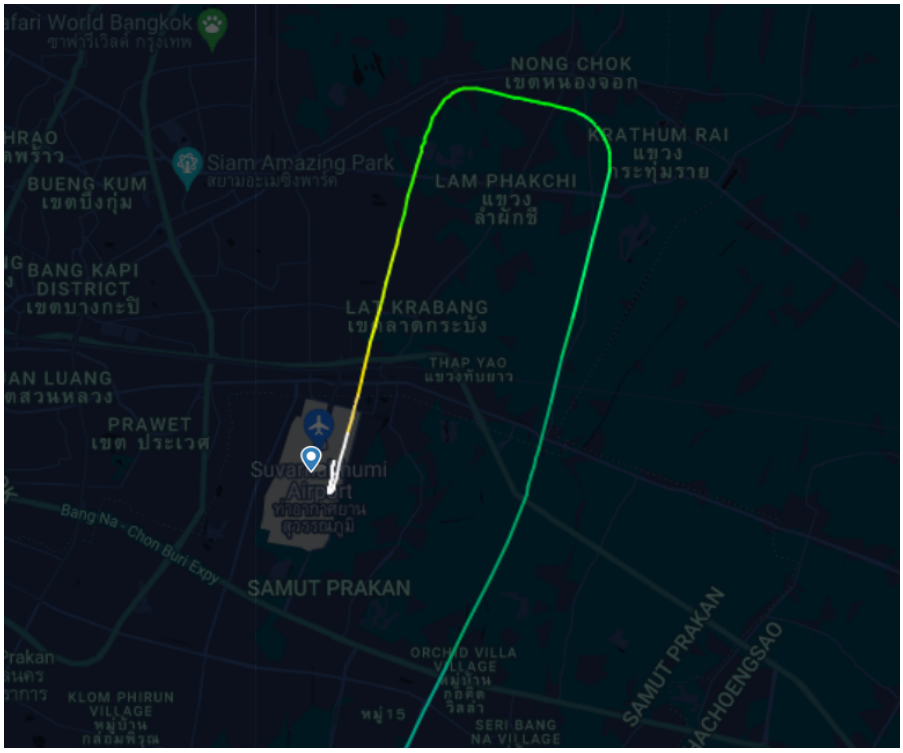
This can happen from three situations:

- Turn after waypoint: "After BS503, direct LOTMU"
  - The intended turn is 90 degrees. You do not need to wait until you have reached BS503 before starting the turn, it is not abeam.
  - This can be programmed in the flight management computer in your aircraft.

Examples of correct execution



In this specific example the turn is programmed using the A320 MCDU.



Real life example from Flightradar24 (BS503 -> LANCO). This is before the procedures changed.

- Straightforward turn: "Turn left direct LOTMU"
- "Resume own navigation" after vectoring: "Resume own navigation, direct LOTMU"

After you are given the approach clearance, you may descend below your last assigned altitude in accordance to the procedure.

□□	THAIVIETJET 2343, cleared ILS Z approach runway 19L, report established

2) Vectoring to intercept localizer
In this case, you will be given heading and altitude instructions, ending with a clearance to intercept the localizer (and glideslope if ILS). Inform the controller once you are established on the approach.

Speed control

To facilitate traffic flow, ATC may issue speed instructions such as follows:

□□	THAIVIETJET 2343, speed 160 knots or greater until 6 miles final

> The ILS DME for Suvarnabhumi is offset by 2.2nm (01L/19R) or 2.3nm (01R/19L) - in other words, at the runway threshold, the DME will read 2.2 or 2.3nm.
> As such, you should rely on the navigation display or apply the offset if relying on the DME.

Landing

On first contact with Tower, state your callsign and arriving runway. You will be given the weather information, and if there is no preceding traffic for the runway, you will be cleared to land.

As of writing, there is only one side to vacate for each runway. Expect simple taxi instructions on rollout.

Please ensure you vacate the runway completely. Additionally, with instructions, please turn onto the assigned taxiway without stopping at the runway exit.

If you have a particular stand in mind, please inform the Ground controller on initial contact.

Taxi

> Please take a look at the ground charts at least once before arrival. The taxiway layout is quite complex with different taxiway designations for each intersection.

If you have arrived on runway 02L/20R, you are automatically cleared to taxi to runway 02R/20L holding point without explicit instructions.

> 6.9.3 Taxi procedures for arriving aircraft runway 02L/20R
>
> After landing runway 02L/20R, aircraft are not to stop on rapid exit taxiway to awaiting instructions from ATC, but should continue taxi via the following taxi procedures, unless otherwise instructed by ATC.
>
> - 6.9.3.1 Runway 02L: All landing aircraft should continue taxi to TWY F and W then hold short of RWY 02R. Remain on the TWR FREQ (119.0 MHz). Explicit runway crossing clearance required.
> - 6.9.3.2 Runway 20R: All landing aircraft should continue taxi to TWY F and Z then hold short of RWY 20L. Remain on the TWR FREQ (119.0 MHz). Explicit runway crossing clearance required.

VFR flights

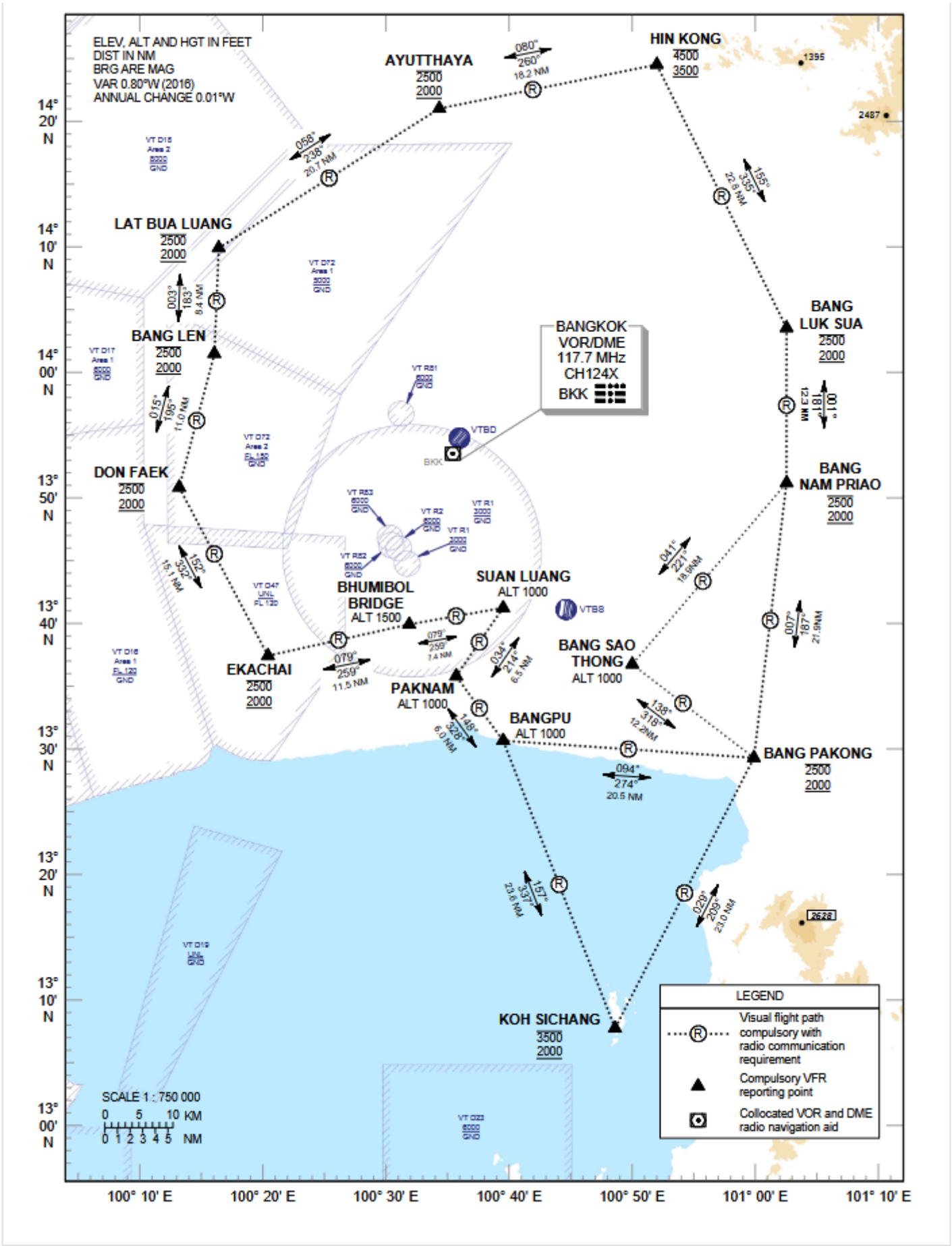
While VFR traffic is on an approval-only basis at Suvarnabhumi in real life, there exists procedures and reporting points.

Controlled airspace

- Suvarnabhumi Aerodrome Traffic Zone - a circle of 5nm radius around VTBS, SFC-2,000ft
- Bangkok Control Zone - a circle of 35nm radius around VTBD, SFC-11,000ft
- Bangkok Terminal Control Area - a circle of 50nm radius around VTBD, 3,000ft-FL160

Reporting points

Map of reporting points



Usually aircraft departing west will be asked to report over Suanluang, while aircraft departing east will be asked to report over Bang Sao Thong.

ATC clearance

Initial contact will be with Ground (or higher station covering). Delivery does not cover VFR traffic; request VFR clearance from Ground.

Closing remarks

If you do not understand any instructions on frequency, please do not hesitate to ask for clarification! Our controllers are here to assist you.

Any constructive feedback (no matter positive or negative) for our controllers can be submitted at this page.

Thank you for reading this pilot briefing and we sincerely hope you enjoy your flight to/from Suvarnabhumi Airport!

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