



**SINGAPORE vACC (SINvACC)
THAILAND vACC (vACC-THA)**

**LETTER OF AGREEMENT (LoA)
BETWEEN
SINGAPORE ACC AND BANGKOK ACC**

**VERSION 2.0
EFFECTIVE 19 SEPTEMBER 2022**

Changelog

Version	Amendment	Section(s)	Effective Date
1.0	Initial Publication	-	21 June 2015
2.0	Full Revision - New format - Sector revisions for Singapore vACC - Introduction of agreed levels inside the Malaysia-Singapore-Thailand-Vietnam (MSTV) Complex	Whole Document	19 September 2022

Validity


This Letter of Agreement becomes effective 19 September 2022 and supersedes all previous versions.

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Distribution and Scope

This Letter of Agreement (LoA) outlines the agreements between Singapore vACC (Singapore ACC) and Thailand vACC (Bangkok ACC) for the provision of air traffic services.

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SECTION 1| GENERAL

1.1 Purpose

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Singapore ACC and Bangkok ACC when providing ATS to General Air Traffic (IFR). These procedures are supplementary to those specified in ICAO, VATSIM Regulations, inter-Division or inter virtual air traffic services provider's agreements and/or National documents. If a translated version of this Letter of Agreement is available in any other language, when there is a difference in interpretation, the English version will be the overriding authority.

This document is an Operational Letter of Agreement (LoA) between Singapore ACC (Singapore vACC) and Bangkok ACC (Thailand vACC). This Operational LoA details separation standards, level assignment and coordination procedures between the two Air Traffic Services (ATS) units.

1.2 Operational Status

Both ATS units shall keep each other advised of any changes in the operational status of their facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

SECTION 2| AREAS OF RESPONSIBILITY FOR THE PROVISION OF ATS

2.1 Airspace Structure and Classification within the Area of Common Interest

2.1.1 Singapore ACC

Lateral limits: The limits of the area of responsibility correspond to the boundary of Singapore FIR as published in the AIP of Singapore.

Vertical limits: GND/SEA – UNL

Airspace Structure and Classification

Airspace	Flight Levels	Airspace Classification
Controlled Airspace (within 100nm of shoreline)	FL150 – FL460	A
	Lower Limit – FL150	B
Controlled Airspace (>100nm seaward from shoreline)	Lower Limit – FL460	A
Uncontrolled Airspace		G

2.1.2 Bangkok ACC

Lateral limits: The limits of the area of responsibility correspond to the boundary of Bangkok FIR as published in the AIP of Thailand.

Vertical limits: GND/SEA – UNL

Airspace Structure and Classification

Airspace	Flight Levels	Airspace Classification
ATS Routes	FL285 – FL460	A
	Lower Limit – FL285	B
Uncontrolled Airspace		G

2.2 Sectorisation

Note 1: Southeast Asia Control South (ASEA_2_FSS), or Southeast Asia Control (ASEA_FSS) in its absence, controls all Singapore's airspace above FL245 in the absence of local ATC.

Note 2: Southeast Asia Control (ASEA_FSS) controls all Thailand's airspace above FL245 in the absence of local ATC.

2.2.1 Singapore ACC Sector

2.2.1.1 Singapore AC Sector 8

The coverage priority (left to right) for Singapore AC Sector 8 at the interface with Bangkok ACC is as follows:

WSJC_8_CTR	WSJC_CTR
134.350 MHz	123.700 MHz

2.2.2 Bangkok ACC Sector

2.2.2.1 Bangkok AC South Sector

The coverage priority (left to right) for Bangkok AC South Sector at the interface with Singapore ACC is as follows:

VTBB_S_CTR	VTBB_CTR
126.600 MHz	132.100 MHz

SECTION 3| COORDINATION PROCEDURES

3.1 General Conditions for Acceptance of Flights

- a) Coordination of flights shall take place by reference to the coordination point (COP) and in accordance with the appropriate levels specified for the relevant route.
- b) Flights shall be considered to be maintaining the co-ordinated level at the transfer of control point unless climb or descent conditions have been coordinated separately.
- c) If the accepting ATS unit cannot accept a flight offered in accordance with the conditions specified above, it shall clearly indicate its inability and specify the conditions under which the flight will be accepted.
- d) For any proposed deviation from the conditions specified in this document, the transferring ATS unit shall separately co-ordinate with the accepting ATS unit using the appropriate tools.

3.2 ATS Routes, Coordination Points and Level Allocation

Available ATS routes, COPs to be used, level allocation and specific separation to be applied are described in the tables below.

Flights operating through the Malaysia-Singapore-Thailand-Vietnam (MSTV) Complex are subject to No Pre-Departure Coordination (NPDC) flight level allocation.

Upon transfer, IFR aircraft are to conform to such levels incorporating the implementation of Reduced Vertical Separation Minima (RVSM), as published in the relevant AIPs.

The NDPC flight level allocations are listed in section 3.3.1.

3.2.1 Deemed Coordination of Enroute Traffic

Cruising traffic which has reached the RFL indicated on the flight plan is deemed to have been coordinated provided that:

- the aircraft is at the correct level for its airway and direction; and
- no objection has been raised by the receiving controller.

Traffic climbing or descending to the RFL must be level at least 15 nm before the sector boundary in order to be deemed coordinated.

3.2.2 Transfer of Control and Communications

Unless otherwise stated in the following table, transfer of communications shall occur no later than 5 nm and no sooner than 4 minutes before the relevant coordination point (COP). Use of vectors requires coordination before the transfer of communications take place.

Transfer of control shall occur at the point specified in the following table, or else at the FIR or sector boundary. Unless a more generous release is specified in this document, aircraft are only released within the confines of the offering sector and must not enter the airspace of a third-party sector.

3.2.2.1 From Singapore AC Sector 8 to Bangkok AC South Sector

ATS Route	Coordination Point	Transfer of Control	Transfer of Communications
M904	TIDAR	TIDAR	Before TIDAR

3.2.2.2 From Bangkok AC South Sector to Singapore AC Sector 8

ATS Route	Coordination Point	Transfer of Control	Transfer of Communications
M904	TIDAR	TIDAR	Before TIDAR

3.3 Special Procedures

3.3.1 No Pre-Departure Coordination (NPDC) Flight Levels Allocation

Flights operating on the following ATS routes over the Malaysia-Singapore-Thailand-Vietnam (MSTV) Complex are subject to NPDC flight level allocation. Such flights are also subject to increased separation minima due to reduced radar coverage over water.

Singapore ACC and Bangkok ACC shall ensure flights via the following ATS routes are cruising at the allocated NDPC levels and separated accordingly.

ATS Route	COP	Allocated NPDC FLs	Separation Minima on same FL
M904	TIDAR	Northbound – FL300, FL380 Southbound – FL330, FL370	40 nm longitudinal separation

SECTION 4| ATS SURVEILLANCE BASED COORDINATION PROCEDURES

4.1 Transfer of Aircraft Identification

- a) Transfer of aircraft identification between Singapore ACC and Bangkok ACC is normally performed by transfer of the radar tag.
- b) Discrete SSR codes used for transfer of identification shall be assigned in accordance with ORCAM or any other VATSIM network defined ranges.
- c) Any changes of SSR code made by the accepting ATS unit may only take place after transfer of control.
- d) The accepting ATS unit shall be notified of any observed irregularity in the operation of SSR transponders.
- e) Mode S identification is not used within Singapore ACC and Bangkok ACC. All aircraft shall be assigned a discrete SSR code before transfer.

4.2 Radar Coordination Procedures

4.2.1 General

Transfer of control between Singapore ACC and Bangkok ACC will be subject to the serviceability of respective equipment used by controllers and the VATSIM data network for necessary information exchange. Additionally, two-way communication between the two ATS units should be possible.

4.2.2 Transfer of Control

Transfer of control may be initiated, after prior coordination, if the minimum separation between aircraft is at least at the separation minima stipulated in section 3.3.1.

4.2.3 Coordination-Free Transfer of Control

Transfer of Control without prior coordination (i.e. Coordination-Free Transfer of Control), may take place provided that:

- If the aircraft concerned are travelling on the same route, they are spaced accordingly to the separation minima stipulated in section 3.3.1, constant or increasing.
- The transferring controller places any coordinated vectoring instructions or speed control in the aircraft tag and instructs aircraft to report these on first contact with the receiving controller.
- The receiving controller is informed, by means of electronic coordination via the radar client or otherwise, of any level restriction other than the aircraft's requested flight level or those covered by section 3 in this document prior to transfer of communications.
- The transferring controller shall wait for the receiving controller to accept the transfer of radar tag before transferring communications.

4.3 Separation Minima

The separation minima stated in section 3.3.1 shall be applied.

Where the radar separation minima at the boundary are different, the greater minima of the relevant ATS units shall be applied to all transfers.