

<b>LOA</b>	VATSIM (VIRTUAL AIR TRAFFIC SIMULATION) Letter of Agreement (LOA)	
Subject:	<b>Thailand vACC</b> <b>Singapore vACC</b>	Final 3.0
LOA	Bangkok FIR	12-November-2015

## 1. PURPOSE

This agreement between Thailand Air Traffic Control Center (VTBB) and Singapore Air Traffic Control Center (WSJC) covers co-ordination procedures and is supplementary to the procedures in the ICAO Regulations, VATSIM Code of Conduct, and the VATSIM User Agreement.

## 2. CANCELLATION

Any and all previous LOA's between VTBB and WSJC are cancelled.

## 3. General Guidelines

Singapore Radar WSJC\_CTR, Singapore Radio WSJC\_FSS and Bangkok Control VTBB\_CTR shall ensure

- a. That: All aircraft are at 1x simulation rate before handoff.
- b. The other party is kept informed of any flight plan deviations and coordinated amicably.
- c. All enroute altitudes are assigned as per ENR1.8 of the Singapore AIP on all No-Pre Departure Coordination airways crossing the South China Sea.
- d. Mach Number Technique will be used for separation. In other words, for every Mach .01x that a following aircraft exceeds a preceding aircraft, an increase in x minutes of separation is required.

## 4. Handoff Procedures: WSJC\_CTR/FSS to VTBB\_CTR

WSJC\_CTR shall ensure that all RNAV traffic crossing into Bangkok FIR are tracking the following airways before initiating handoffs. Any abnormal circumstances are to be coordinated with VTBB\_CTR beforehand.

### M904 Airway

- a. WSJC\_CTR/FSS shall ensure that all RNAV traffic are cruising at the following flight levels as per ENR1.8 of the Singapore AIP: **FL260, FL300, FL380** at 1x time acceleration. Separation between aircraft is **10 minutes** on the same flight level.
- b. WSJC\_CTR/FSS shall initiate handoff to VTBB\_CTR at 3 minutes before TIDAR intersection.
- c. WSJC\_CTR/FSS shall provide estimate at TIDAR, flight levels and Mach Number when aircraft is abeam ODOÑO.
- d. To minimize conflict, no change in flight level is allowed on M904 between TIDAR and ODOÑO

- c. WSJC shall ensure that:
  - i. Aircraft landing at VTBS or VTBD with a cruise altitude at or above 10,000 and departing from WSSS (or surrounding airports under their approach control's airspace) are routed as follows:
    - 1. WSSS departures: WSSS-SID VMR B469 VPK M751 REGOS –STAR VTBS.
  - ii. Arrivals landing at VTBD with a cruise altitude at or above 10,000 and departing from WSSS are routed as follows:
    - 1. WSSS departures: WSSS-SID VMR B469 VPK M751 REGOS –STAR VTBD.
  - iii. Aircraft filing for Airway N891 Northbound for VTBB shall be issued FL260, FL300 or FL380 as their cruise altitude.
  - iv. Aircraft filing for Airway M904 Northbound for VTBB shall be issued FL260, FL300 or FL380 as their cruise altitude.
- d. Airway Altitude restrictions (coordination)
  - 1. Thailand vACC and Singapore vACC shall adhere to the following airway altitude restrictions:
    - M904 Northbound – FL260, FL300, FL380 / Southbound – FL330
    - N891 Northbound – FL260, FL300, FL380 / Southbound – FL330
    - 10 Minute Separation by Mach Number shall be the means of separation.

## 5. Handoff Procedures: VTBB\_CTR to WSJC\_CTR/FSS

VTBB\_CTR shall ensure that all RNAV traffic crossing into Singapore FIR are tracking the following airways before initiating handoff. Any abnormal circumstances are to be coordinated with WSJC\_CTR beforehand.

### M904 Airway

- a. VTBB\_CTR shall ensure that all RNAV traffic are cruising at the following flight levels as per ENR1.8 of the Singapore AIP: **FL330** at 1x time acceleration. Separation between aircraft is **10 minutes** on the same flight level.
- b. VTBB\_CTR shall initiate handoff to WSJC\_CTR/FSS at 3 minutes before TIDAR intersection.
- c. VTBB\_CTR shall provide estimate at TIDAR, flight levels and Mach Number when aircraft is abeam TONIK.

## 6. Preferred Routing:

- a. VTBB shall ensure that:
  - i. Aircraft landing at WSSS with a cruise altitude at or above 10,000 and departing from VTBS and VTBD (or surrounding airports under their approach control's airspace) are routed as follows:
    - 1. VTBS departures: VTBS SID REGOS M751 VPK B469 BIKTA PASPU-STAR.
    - 1a. VTBS departures: VTBS SID BUT M904 ENREP L642 VEPLI PASPU-STAR. At FL330
    - 2. VTBD departures: VTBD (no SID) REGOS M751 VPK B469 BIKTA PASPU-STAR.
    - 2a. VTBD departures: VTBD (no SID) KIGOB M904 ENREP L642 VEPLI PASPU-STAR. At FL330
    - 3. All other airports in Bangkok FIR and flyovers will be routed to join the appropriate transition via:
      - B469 BIKTA PASPU-STAR
      - or
      - A464 ARAMA BROBAG-STAR

- ii. Aircraft filing for airway N891 Southbound for WSJC shall be issued FL330 as their cruise altitude.
- iii. Aircraft filing for airway M904 Southbound for WSJC shall be issued FL330 as their cruise altitude.

b. WSJC shall ensure that:

- i. Aircraft landing at VTBS or VTBD with a cruise altitude at or above 10,000 and departing from WSSS (or surrounding airports under their approach control's airspace) are routed as follows:

- 1. WSSS departures: WSSS-SID VMR B469 VPK M751 GUSTO –STAR VTBS.

- ii. Arrivals landing at VTBD with a cruise altitude at or above 10,000 and departing from WSSS are routed as follows:

- 1. WSSS departures: WSSS-SID VMR B469 VPK M751 GUSTO –STAR VTBD.

- iii. Aircraft filing for Airway N891 Northbound for VTBB shall be issued FL260, FL300 or FL380 as their cruise altitude.

- iv. Aircraft filing for Airway M904 Northbound for VTBB shall be issued FL260, FL300 or FL380 as their cruise altitude.

## 7. EXCEPTIONS

Deviations from the procedures established in this agreement may be made only after prior co-ordination and agreement with the parties involved.

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