



Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

STANDARD OPERATING PROCEDURE (SOP)

**DOCUMENT NUMBER:** HKVACC-SOP004-ANNEX-I

DATE ISSUED: 05 OCT 2024

**REVISION:** 5

SUBJECT: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

**EFFECTIVE DATE: 05 OCT 2024** 

SCOPE: Outlines standard techniques for online ATC service in Hong Kong TMA positions on VATSIM.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 1. PURPOSE

1.1. This Standard Operating Procedure (SOP) Annex I sets forth the procedures for all controllers providing terminal airspace air traffic control service in the Hong Kong Terminal Airspace (TMA) to improve communication, techniques, and to distinguish procedures that are specific to the online environment.

## 2. ROLES AND RESPONSIBILITIES

2.1. The Office of Primary Responsibility (OPR) for this SOP is the team under the supervision of the Facilities Director. This SOP shall be maintained, revised, updated or cancelled by the Facilities Director. Any suggestions for modification / amendment to this SOP should be sent to the Facilities Director for review.

#### 3. **DISTRIBUTION**

3.1. This SOP is intended for controllers staffing ATC positions in the Hong Kong TMA.

#### 4. BACKGROUND

4.1. Due to the complexity of sectorisation within Approach/Departure airspace, a supplementary document is required to support HKVACC-SOP004 so that controllers can have a clear idea on the responsibilities of different sectors within Approach/Departure airspace. This would also facilitate the coordination between controllers through standardising certain air traffic management strategies.

## 5. INFORMATION ON HANDOFF AGREEMENTS

5.1. For handoff agreements, an up arrow † indicates that aircraft are to be transferred whilst still

climbing to that altitude, while a down arrow ↓ indicates that aircraft are to be transferred

whilst descending to that altitude. Agreements with no arrows indicates that aircraft are to be transferred at the exact altitude specified in the agreement. Agreements are only valid when aircraft are flying the correct route as listed in the Hong Kong AIP. Other traffic shall be individually coordinated. Additionally, agreements for Kai Tak International Airport (VHHX) are only valid when RWY 13 is in use. All aircraft landing on RWY 31 shall be individually coordinated.

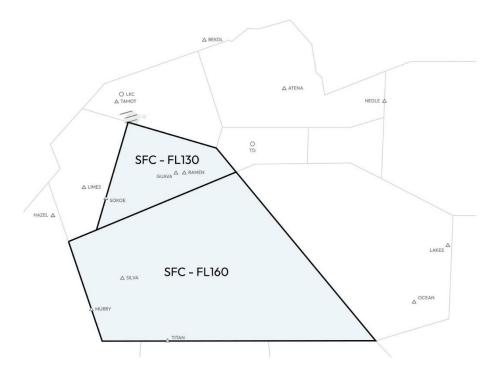




Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 6. Hong Kong Approach (App)

- 6.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
- APP -> TRW
- 6.2. Approach Sector in Runway 07 Operations

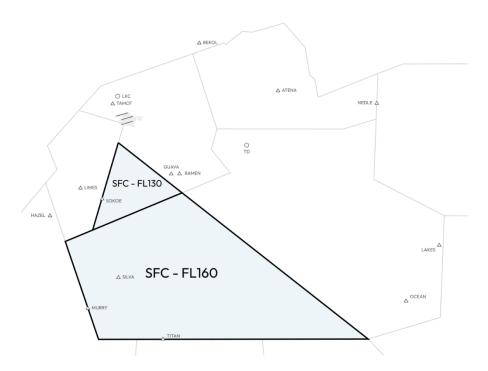






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 6.3. Approach Sector in Runway 07 Noise Abatement Operations



#### 6.4. Responsibilities

- Arrivals from Terminal Radar & Departure High via ABBEY, BETTY and CANTO until transferred to FAD
- Departures to PECAN
- FAD sector when the traffic volume is low

## 6.5. Procedures (Inbound)

- Descend arrivals between 7000ft and FL110 on handoff from Terminal Radar or Departure
- Descend arrivals to 4000ft when clear of PECAN departures
- Transfer to FAD in a single sequence towards LIMES with an instruction to maintain 220 knots

### 6.6. Procedures (Outbound)

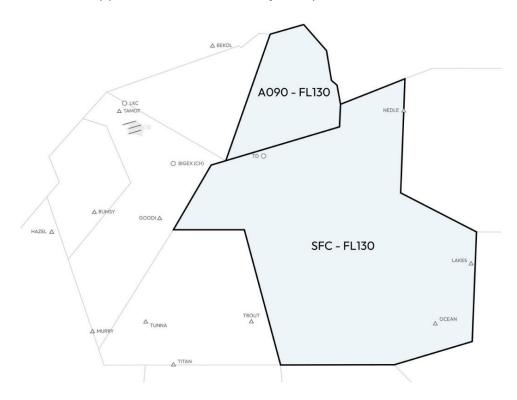
 PECAN – Climb to 5000ft on SID track (Note in event of a catch up, 5000ft and 6000ft be used as required). When clear of arrivals climb to FL160 and transfer to TDC





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 6.7. Approach Sector in Runway 25 Operations



#### 6.7.1. Responsibilities

- Arrivals from Terminal Radar & Departure via ABBEY, BETTY and CANTO until transferred to FAD
- FAD sector when the traffic volume is low

#### 6.7.2. Procedures (Inbound)

- Descend arrivals to 6000ft on handoff from Terminal Radar or Departure
- Transfer to FAD in a single sequence towards TD with an instruction to maintain 220 knots

#### 6.8. Note to Hong Kong Approach

- 6.8.1. During Runway 07 Noise Abatement Operations, the SID tracks route south after PORPA instead of routing via the harbour, bringing traffic out over the sea. The section of airspace around PORSH and RAMEN lies within Approach airspace, however this airspace is released to Hong Kong Departure for climb. As there is an agreement to transfer arrivals to Approach at 9000ft, VHHH arrivals should be kept at 9000ft until clear of GUAVA.
- 6.8.2. During Runway 07 Noise Abatement Operations, arrivals from BETTY shall be instructed to "proceed direct LIMES" wherever possible to avoid conflicts around GUAVA/RAMEN in





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

Departure airspace. Controllers shall note that close coordination is required between Approach and Departure.

## 6.9. Handoff Agreements

#### 6.9.1. Runway 07 Operations

## From Departure (DEP) to Approach (APP)

То	Altitude	Handoff Location
VHHH (From ABBEY)	9000ft	GUAVA (note)

Note: This agreement is only active during noise abatement operations. See Section 6.8.1.

#### From Terminal Radar South (TMS) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MANGO
VHHX	FL140	Abeam MANGO

#### From Terminal Radar West (TMW) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL110	MURRY
VHHX	FL140	Abeam MURRY

## From Departure High (DEH) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL110	After TD
VHHX	FL120	After abeam TD

## From Departure (DEP) to Approach (APP)

From	Altitude	Handoff Location
VHHH	5000ft	After PORPA
VMMC (ALLEY)	6000ft	Sector Boundary
VHHX (SABNO1B, EPDOS1A,	4 0000ft	Aft WILLICKEY
IDOSI1A, IDOSI1B, SIKOU1A)	↑ 9000ft	After WHISKEY





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Approach (APP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHH	↓ 4000ft	7nm to LIMES

## From Approach (APP) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	↓ 8000ft	10nm to CH

## From Approach (APP) to Terminal Radar South (TMS)

From	Altitude	Handoff Location
VHHX (SABNO1B)	FL140	Abeam MANGO

## From Approach (APP) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	FL140	10nm before sector boundary

## From Approach (APP) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VHHH, VMMC, ZGSZ	FL160	TITAN
VHHX (EPDOS1A, IDOSI1A,	FL140	10nm before sector boundary
SIKOU1A)		(note)

Note: VHHX EPDOS1A, IDOS11A & SIKOU1A departures will enter Terminal Radar West airspace near PECAN. Coordination with TMW shall be done to prevent conflicts.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 6.9.2. Runway 25 Operations

#### From Terminal Radar South (TMS) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MANGO
VHHX	FL140	Abeam MANGO

#### From Terminal Radar East (TME) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MUSEL
VHHX	FL140	Abeam MUSEL (note)

Note: The airspace ceiling for Hong Kong Approach is FL130 at the boundary with Terminal Radar East, however for the purposes of handling VHHX inbound traffic this airspace is delegated to Hong Kong Approach up to FL140.

## From Approach (APP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHH	↓ 6000 – 8000ft	5nm to TD
VHHH (ABBEY1G, BETTY1G)	↓ 5000ft	ALAPI (note)
VHHX	↓ 8000ft	After abeam TD

Note: The initial approach fix for ABBEY/BETTY/CANTO1G arrivals is GUAVA, which lies within Departure airspace. This airspace is delegated to Final Approach Director whenever an aircraft is on the procedure.

#### From Approach (APP) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	↓ 8000ft	After abeam TD





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Approach (APP) to Departure (DEP)

From	Altitude	Handoff Location
VHHX (DOTMI, ELATO, ENVAR,	↑ FL130	On approaching FL130
NOMAN, SABNO)		
VHHX (EPDOS, IDOSI, SIKOU)	↑ FL110	On approaching FL110 (note)

Note: VHHX EPDOS, IDOSI and SIKOU departures will be in close proximity with VHHH outbounds near TUNNA and SAMON. Hong Kong Departure shall be responsible for separating these departures against VHHH outbounds.

## From Approach (APP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHX (BEKOL1A)	↑ FL160	After JULIETT (note)

Note: VHHX BEKOL1A departures will enter Final Approach Director airspace near TH. Coordination shall be done with FAD such that they do not conflict with VHHH inbounds.



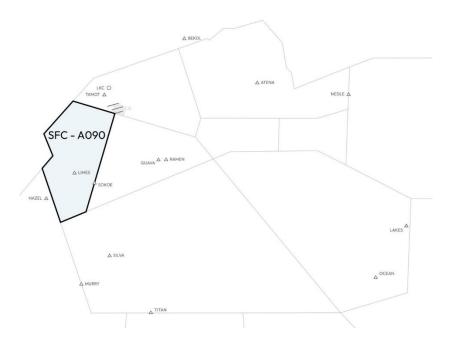


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 7. FINAL APPROACH DIRECTOR (FAD)

- 7.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
- FAD -> APP -> TRW

# 7.2. Final Approach Director Sector in Runway 07 Operations

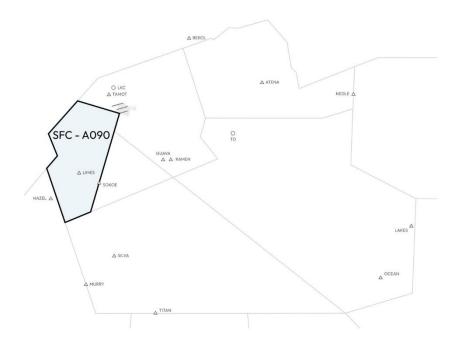






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 7.3. Final Approach Director Sector in Runway 07 Noise Abatement Operations



#### 7.4. Responsibilities

- Tactically control aircraft to achieve accurate and consistent spacing
- Coordination between Air Movements Control and Final Approach Director regarding runway occupancy time (ROT) such that if the spacing results in a large number of late landing clearances, Air Movements Control must ask Final Approach Director to increase the spacing before missed approaches start to occur
- When vectoring aircraft for final approach, keep aircraft at least 2nm away from the sector boundary with PRC airspace

#### 7.5. Procedures

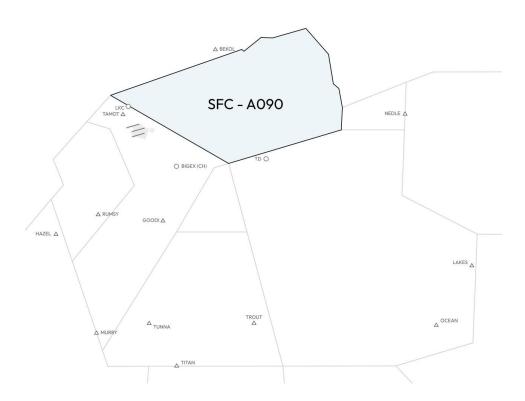
- Aircraft intercept localiser at 1700ft
- All aircraft fly a strict speed regime and then are permitted to reduce speed as required inside 5 DME. 180kts is used on base leg and 160kts to 5 DME.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 7.6. Final Approach Director Sector in Runway 25 Operations



## 7.6.1. Responsibilities

• Please refer to Section 6.1.1.

#### 7.6.2. Procedures

- Aircraft intercept localiser at 4500ft
- All aircraft fly a strict speed regime and then are permitted to reduce speed as required inside 5 DME. 210kts is used on base leg, 180kts to 7 DME, and 160kts to 5 DME.

#### 7.7. Note to Final Approach Director

- 7.7.1. During strong northerly wind, ground speed increases on final causing increase in spacing (pull-away). Less than 4 miles spacing is required on base leg (vertical separation must be maintained) to achieve 4 miles on final. On the other hand, during strong southerly wind, ground speed reduces on final causing decrease in spacing (catch-up). More than 4 miles spacing is required on base leg but controlling speed during the turn is demanding. Not recommended to use NATS Style Final Approach Spacings (68-second spacing) in 07 operations.
- 7.7.2. During Runway 25 Operations, the IGS approach to Runway 13 at Kai Tak lies mostly within Final Approach Director airspace. Therefore, the section of Departure airspace that





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

contains the initial portion of the IGS approach (i.e. CH to GOLF) is delegated to Final Approach Director whenever an aircraft flies the IGS approach. Final Approach Director shall be mindful of VHHH arrivals conflicting with aircraft flying the IGS.

#### 7.8. Handoff Agreements

## 7.8.1. Runway 07 Operations

## From Approach (APP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHH	↓ 3000 – 6000ft	7nm to LIMES

#### 7.8.2. Runway 25 Operations

#### From Approach (APP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHH	↓ 6000 – 8000ft	5nm to TD
VHHH (ABBEY1G, BETTY1G)	↓ 5000ft	ALAPI (note)
VHHX	↓ 8000ft	After TD

Note: The initial approach fix for ABBEY/BETTY/CANTO1G arrivals is GUAVA, which lies within Departure airspace. This airspace is delegated to Final Approach Director whenever an aircraft is on the procedure.

#### From Departure (DEP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHX	↓ 8000ft	On approaching 8000ft



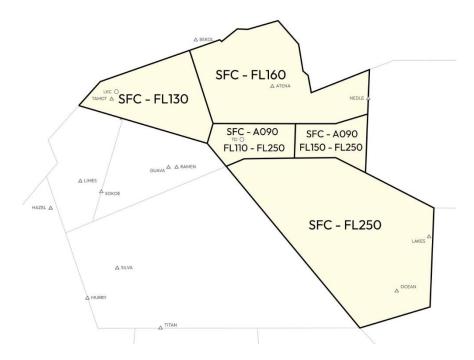


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 8. Hong Kong Departure (DEP)

- 8.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
- DEP -> APP -> TRW

## 8.2. Departure Sector in Runway 07 Operations

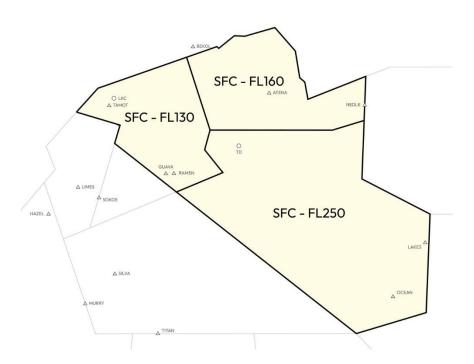






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 8.3. Departure Sector in Runway 07 Noise Abatement Operations



#### 8.4. Responsibilities

- Hong Kong Departures
- Macau 34 Departures via Hong Kong FIR
- Shenzhen Arrivals via BEKOL
- DEH sector when the traffic volume is low

#### 8.5. Procedures (Outbound)

- LAKES Climb to 9000ft on SID track (Note in event of a catch up, 5000ft, 6000ft, 7000ft and 8000ft can be used as required). On passing TD and clear of VHHH arrivals, climb to FL170 (if RFL below S0690/FL226), FL230 (if RFL S0690/FL226 or above)
- OCEAN Climb to 9000ft on SID track (Note in event of a catch up, 5000ft, 6000ft, 7000ft and 8000ft can be used as required). On passing TD and clear of VHHH arrivals, climb to FL250.
- BEKOL Climb to 9000ft on SID track (Note in event of a catch up, 5000ft, 6000ft, 7000ft and 8000ft can be used as required). On passing TD and clear of VHHH arrivals, climb to FL160 and transfer to DEH, or climb to RFL if below FL160.
- PECAN Climb to 5000ft on SID track and transfer to APP (Note in event of a catch up, 5000ft and 6000ft can be used as required)





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 8.6. Procedures (Outbound, Noise Abatement)

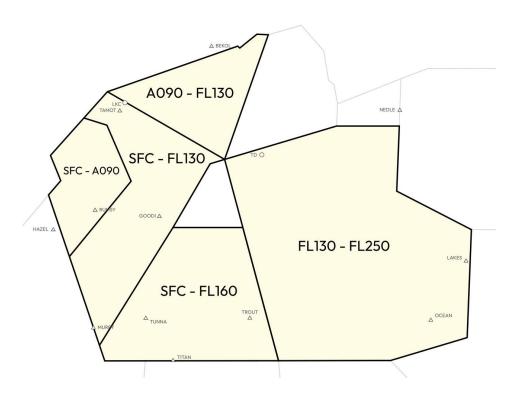
- LAKES Climb to 8000ft or below on SID track (Note in event of a catch up, 5000ft, 6000ft and 7000ft can be used as required). On passing GUAVA and clear of VHHH arrivals, climb to FL170 (if RFL below S0690/FL226), FL230 (if RFL S0690/FL226 or above)
- OCEAN Climb to 8000ft or below on SID track (Note in event of a catch up, 5000ft, 6000ft, 7000ft can be used as required). On passing GUAVA and clear of VHHH arrivals, climb to FL250.
- BEKOL Climb to 8000ft or below on SID track (Note in event of a catch up, 5000ft, 6000ft, 7000ft can be used as required). On passing GUAVA and clear of VHHH arrivals, climb to FL160 and transfer to DEH, or climb to RFL if below FL160.
- PECAN Climb to 6000ft on SID track and transfer to APP (Note in event of a catch up, 5000ft and 6000ft can be used as required)





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 8.7. Departure Sector in Runway 25 Operations



#### 8.7.1. Responsibilities

- Hong Kong Departures
- Macau 34 Departures via Hong Kong FIR
- DEH sector when the traffic volume is low

#### 8.7.2. Procedures (Outbound)

- LAKES/OCEAN Climb to FL130 on SID track (Note in event of a catch-up, lower altitudes can be used as required). After passing the MURRY arrival corridor climb to FL160.. Reach FL140 by TROUT. After passing TROUT climb to FL250
- BEKOL Climb to FL130 on SID track (Note in event of a catch-up, lower altitudes can be
  used as required). After passing the MURRY arrival corridor, climb to FL160 and transfer to
  DEH, or climb to RFL if below FL160 and transfer to DEH/APP as appropriate
- PECAN Climb to FL130 on SID track (Note in event of a catch-up, lower altitudes can be used as required). After passing the MURRY arrival corridor, climb to FL160 and transfer to TDC





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 8.8. Note to Hong Kong Departure

- 8.8.1. During Runway 07 Noise Abatement Operations, the SID tracks route south after PORPA instead of routing via the harbour, bringing traffic out over the sea. The section of airspace around PORSH and RAMEN lies within Approach airspace, however this airspace is released to Hong Kong Departure for climb. As there is an agreement to transfer arrivals to Approach at 9000ft, VHHH departures should be kept at 8000ft or below until they are clear of GUAVA/RAMEN.
- 8.8.2. During Runway 07 Operations, the IGS approach to Runway 13 at Kai Tak lies mostly within Departure airspace. Therefore, the section of Approach airspace that contains the initial portion of the IGS approach (i.e. CH to GOLF) is delegated to Hong Kong Departure whenever an aircraft flies the IGS approach. Hong Kong Departure shall be mindful of VHHH departures conflicting with aircraft flying the IGS.
- 8.8.3. During Runway 07 Operations with both Departure and Departure High online, the airspace around TD is split such that DEP owns the airspace from SFC to 9000ft, and from FL110 to FL250. Additionally, the airspace around TAMAR is split such that DEP owns the airspace from SFC to 9000ft, and from FL150 to FL250. This is done to facilitate ABBEY arrivals to VHHH. Departure shall not climb/descend aircraft without prior coordination with Departure High to prevent conflicts with arriving aircraft.
- **8.8.4.** During Runway 34 Operations at Macau, departures are transferred from Zhuhai Approach at an altitude of 6000ft. Zhuhai will transfer aircraft on the Zhuhai QNH. As such, if Departure needs aircraft to remain on an altitude instead of a Flight Level, then the Hong Kong QNH shall be passed to the aircraft.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 8.9. Handoff Agreements

#### 8.9.1. Runway 07 Operations

## From Zhuhai Approach (ZUH) to Departure (DEP)

From	Altitude	Handoff Location
VMMC	6000ft	LUKBU

#### From Terminal Radar East (TME) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MUSEL (note)

Note: This agreement is only active during noise abatement operations.

## From Departure (DEP) to Approach (APP)

From	Altitude	Handoff Location
VHHH	5000ft	After PORPA
VMMC (ALLEY)	6000ft	Sector Boundary
VHHX (SABNO1B, EPDOS1A,	4 0000ft	Aft WILLICKEV
IDOSI1A, IDOSI1B, SIKOU1A)	↑ 9000ft	After WHISKEY

## From Departure (DEP) to Approach (APP)

То	Altitude	Handoff Location
VHHH (From ABBEY)	9000ft	GUAVA (note)

Note: This agreement is only active during noise abatement operations. See Section 8.8.1.

## From Departure (DEP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHH	↑ FL160	After TD
VHHX (BEKOL1A)	† FL160	After JULIETT





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Departure (DEP) to Area Radar East (TRE)

From	Altitude	Handoff Location
VHHH, VMMC (ELATO, ENVAR)	↑ FL250	OCEAN
VHHH, VMMC (DOTMI, LELIM)	↑ FL170, ↑ FL230	LAKES (note)
VHHX (DOTMI, ELATO, ENVAR)	↑ FL250	Abeam/At KILOG

Note: Aircraft with RFL below S0690 (FL226) shall be climbed to FL170, whilst aircraft with RFL at or above S0690 (FL226) shall be climbed to FL230.

#### From Departure (DEP) to Area Radar South (TRS)

From	Altitude	Handoff Location
ZGSZ, VHHH, VMMC (NOMAN,	↑ FL250	OCEAN
SABNO, KAPLI)	FL25U	OCEAN
VHHX (NOMAN1A, NOMAN1B,	A 51.050	Ab com OCFAN
SABNO1A)	↑ FL250	Abeam OCEAN

## From Departure (DEP) to Zhuhai Approach (ZUH)

То	Altitude	Handoff Location
ZGSZ	S0180 (5900ft)	BEKOL (note 1)
ZGGG	S0420 (FL138), S0450 (FL148)	BEKOL (note 2)

Note 1: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

Note 2: S0450 (FL148) requires coordination with Zhuhai Approach.

## 8.9.2. Runway 25 Operations





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Zhuhai Approach (ZUH) to Departure (DEP)

From	Altitude	Handoff Location
VMMC	6000ft	LUKBU

#### From Terminal Radar South (TMS) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MANGO

## From Terminal Departures Central (TDC) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MANGO

#### From Departure High (DEH) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL130	Once clear of arrival corridor

## From Departure (DEP) to Final Approach Director (FAD)

То	Altitude	Handoff Location
VHHX	↓ 8000ft	On approaching 8000ft

## From Departure (DEP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHH	† FL160 / RFL if below	On approaching FL160 / RFL
	S0690 (FL226)	and clear of arrival corridor
VHHX (BEKOL1A)	↑ FL160	After JULIETT





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Departure (DEP) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	FL140	10nm before sector boundary

#### From Departure (DEP) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VHHH, VMMC, ZGSZ	FL160	TITAN
VHHX (EPDOS1A, IDOSI1A,	FL140	10nm before sector boundary
SIKOU1A)		(note)

Note: VHHX EPDOS1A, IDOSI1A & SIKOU1A departures will enter Terminal Radar West airspace near PECAN. Coordination with TMW shall be done to prevent conflicts.

#### From Departure (DEP) to Area Radar East (TRE)

From	Altitude	Handoff Location
VHHH, VMMC (ELATO, ENVAR)	↑ FL250	OCEAN
VHHH, VMMC (DOTMI, LELIM)	↑ FL170, ↑ FL230	LAKES (note)
VHHX (DOTMI, ELATO, ENVAR)	↑ FL250	Abeam/At KILOG

Note: Aircraft with RFL below S0690 (FL226) shall be climbed to FL170, whilst aircraft with RFL at or above S0690 (FL226) shall be climbed to FL230.

## From Departure (DEP) to Area Radar South (TRS)

From	Altitude	Handoff Location
ZGSZ, VHHH, VMMC (NOMAN, SABNO, KAPLI)	↑ FL250	OCEAN
VHHX (NOMAN1A, NOMAN1B, SABNO1A)	↑ FL250	Abeam OCEAN





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Departure (DEP) to Zhuhai Approach (ZUH)

То	Altitude	Handoff Location
ZGSZ	S0180 (5900ft)	BEKOL (note 1 & 2)

Note 1: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

Note 2: Aircraft flying BEKOL2B to ZGSZ will enter Final Approach Director airspace. Coordination shall be made with FAD to prevent conflicts with VHHH 25 arrivals.

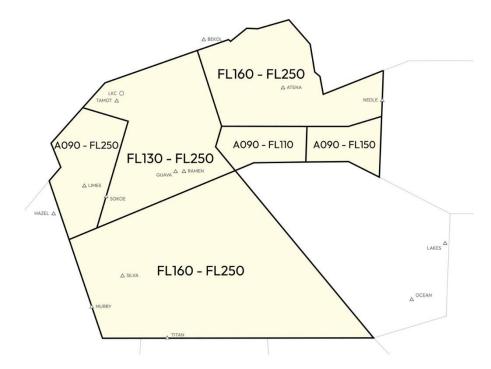




Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 9. HONG KONG DEPARTURE HIGH (DEH)

- 9.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
- DEH -> DEP -> APP -> TRW
- 9.2. Departure High Sector in Runway 07 Operations

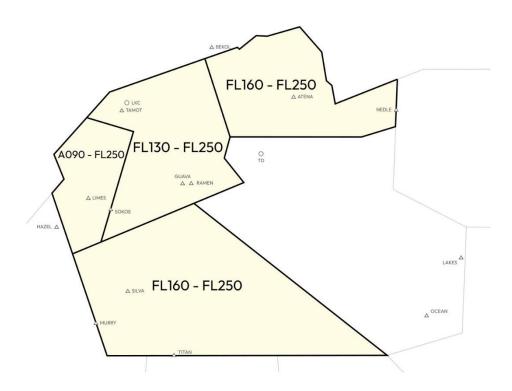






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 9.3. Departure High Sector in Runway 07 Noise Abatement Operations



#### 9.4. Responsibilities

- Hong Kong Departures via BEKOL
- Hong Kong Arrivals via MUSEL
- Macau Arrivals from NEDLE
- Guangzhou Arrivals

## 9.5. Procedures (Outbound)

 Climb BEKOL traffic via Guangzhou FIR to S0690 (FL226), ensuring that they are at least above S0480 (FL157) before transferring to Guangzhou Control

#### 9.6. Procedures (Inbound)

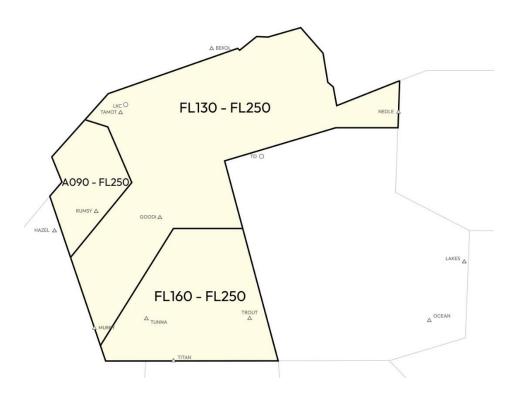
- Descend VHHH arrivals via MUSEL to FL110 then transfer to APP
- Clear VMMC arrivals via SMT for the STAR (SMT4A/SMT5B) and descend them to FL110, then transfer to MCU
- Descend ZGGG arrivals to S0420 (FL138) or S0450 (FL148), then transfer to Zhuhai Approach.
   Coordinate with DEP for aircraft transferred at S0420 (FL138)





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 9.7. Departure High Sector in Runway 25 Operations



#### 9.7.1. Responsibilities

- Hong Kong Departures via BEKOL
- Hong Kong Arrivals via MURRY
- Macau Arrivals from NEDLE
- Guangzhou Arrivals

#### 9.7.2. Procedures (Outbound)

• Climb BEKOL traffic via Guangzhou FIR to S0690 (FL226), ensuring that they are at least above S0480 (FL157) before transferring to Guangzhou Control

#### 9.7.3. Procedures (Inbound)

- Descend VHHH arrivals via MURRY to FL140 after crossing GOODI and clear of the departure corridor, then transfer to APP
- Clear VMMC arrivals via SMT for the STAR (SMT4A/SMT5B) and descend them to FL110, then transfer to MCU
- Descend ZGGG arrivals to S0420 (FL138) or S0450 (FL148), then transfer to Zhuhai Approach.
   Coordinate with DEP for aircraft transferred at S0420 (FL138)





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 9.8. Note to Hong Kong Departure High

9.8.1. During Runway 07 Operations with both Departure and Departure High online, the airspace around TD is split such that DEH owns the airspace from 9000ft to FL110, and the airspace around TAMAR is split such that DEH owns the airspace from 9000ft to FL150. The airspace below and above DEH in these two sectors are owned by Hong Kong Departure. This is done to facilitate ABBEY arrivals to VHHH. Departure High shall not climb/descend aircraft without prior coordination with DEP to prevent conflicts with outbound aircraft from VHHH/VMMC.

#### 9.9. Handoff Agreements

9.9.1. Runway 07 Operations

#### From Departure (DEP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHH	↑ FL160	After TD
VHHX (BEKOL1A)	↑ FL160	After JULIETT (note)

#### From Terminal Radar East (TME) to Departure High (DEH)

То	Altitude	Handoff Location
VMMC, ZGGG	FL230	NEDLE
VHHH	FL130	MUSEL
VHHX	FL140	Abeam MUSEL (note)

Note: This agreement becomes inactive during noise abatement operations.

## From Terminal Departures Central (TDC) to Departure High (DEH)

То	Altitude	Handoff Location
ZGGG	FL220	SAPAX





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# From Departure High (DEH) to Guangzhou Control (GGG)

То	Altitude	Handoff Location
Guangzhou FIR	↑ S0690 (FL226) but not	BEKOL (note)
	below S0480 (FL157)	

Note: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

#### From Departure High (DEH) to Zhuhai Approach (ZUH)

То	Altitude	Handoff Location
ZGGG	SO420 (FL138) & SO450	TAMOT (note 1 & 2)
	(FL148)	BEKOL (note 1 & 3)

Note 1: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

Note 2: Descent to S0420 (FL138) requires coordination with DEP due to DEP airspace ceiling being FL130. Coordination is additionally required with Zhuhai Approach.

Note 3: S0450 (FL148) requires coordination with Zhuhai Approach.

#### From Departure High (DEH) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	HAZEL

#### From Departure High (DEH) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL110	After TD





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 9.9.2. Runway 25 Operations

#### From Departure High (DEH) to Guangzhou Control (GGG)

То	Altitude	Handoff Location
Guangzhou FIR	↑ S0690 (FL226) but not	BEKOL (note)
	below S0480 (FL157)	

Note: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

#### From Departure (DEP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHH	† FL160 / RFL if below	On approaching FL160 / RFL
	S0690 (FL226)	and clear of arrival corridor

#### From Approach (APP) to Departure High (DEH)

From	Altitude	Handoff Location
VHHX (BEKOL1A)	↑ FL160	After JULIETT (note)

Note: VHHX BEKOL1A departures will enter Final Approach Director airspace near TH. Coordination shall be done with FAD such that they do not conflict with VHHH inbounds.

#### From Terminal Radar East (TME) to Departure High (DEH)

То	Altitude	Handoff Location
VMMC, ZGGG	FL230	NEDLE

#### From Terminal Departures Central (TDC) to Departure High (DEH)

То	Altitude	Handoff Location
ZGGG	FL220	SAPAX





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Terminal Radar West (TMW) to Departure High (DEH)

То	Altitude	Handoff Location
VHHH	FL150	MURRY

#### From Terminal Radar West (TMW) to Departure High (DEH)

То	Altitude	Handoff Location
VHHH	FL150	MURRY
VHHX	FL140	Abeam MURRY

## From Departure High (DEH) to Zhuhai Approach (ZUH)

То	Altitude	Handoff Location
ZGGG	S0420 (FL138), S0450	TAMOT (note 1 & 2)
2444	(FL148)	17 (Hote 1 & 2)

Note 1: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

Note 2: Descent to S0420 (FL138) requires coordination with DEP due to DEP airspace ceiling being FL130. Coordination is additionally required with Zhuhai Approach.

#### From Departure High (DEH) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	HAZEL

#### From Departure High (DEH) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL130	Once clear of arrival corridor

## From Departure High (DEH) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL140	After GOODI



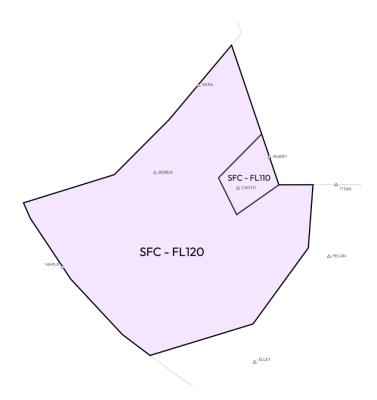


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 10. MACAU APPROACH RADAR (MCU)

- 10.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
- MCU -> TMW -> TRW -> APP

## 10.2. Macau Approach Radar Sector in Runway 07 Operations

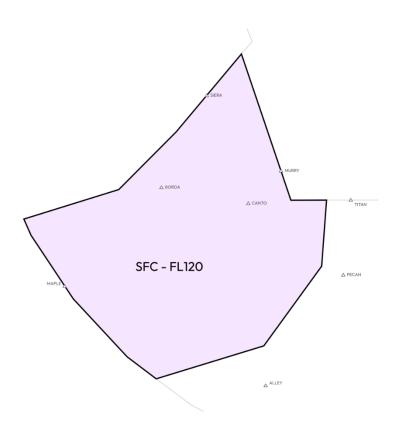






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 10.3. Macau Approach Radar Sector in Runway 25 Operations



#### 10.4. Responsibilities

- Macau 16 Departures
- Macau Arrivals
- Shenzhen Arrivals
- Holding at PAPA
- Oil Rig Track D (Refer to SOP006)
- Top-down control for VMMC when aerodrome ATC offline

#### 10.5. Procedures (Outbound)

- SOUSA, CONGA, GRUPA Climb to 9000ft and transfer to TDC
- ALLEY Climb to FL120 and transfer to TDC
- BIGRO Climb to S0150 (4900ft) and transfer to Zhuhai Approach on approaching U
- NLG, SHL Climb to S0180 (5900ft) and transfer to Zhuhai Approach on approaching MCU





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 10.6. Procedures (Inbound)

- During Runway 34 Operations, clear VMMC arrivals for their approach (ILS Z by default). Aircraft
  arriving via HAZEL should be given the QNH with the approach clearance as they will begin the
  approach at FL110
- During Runway 16 Operations, descend VMMC arrivals to S0270 (8900ft) and transfer to Zhuhai Approach before INDUS. Optionally inform aircraft to expect LOC Z approach.
- Descend ZGSZ arrivals to S0330 (FL108) and transfer to Zhuhai Approach before LANDA
- Clear VMMC arrivals for their STAR if Area Radar is offline

#### 10.7. Note to Macau Approach Radar

**10.7.1.** During Runway 07 Operations, the section of airspace around MURRY from FL110 – FL120 (known as the **MURRY Box**) is delegated to Terminal Radar West to facilitate descent to FL110. As such, the highest assignable altitude for aircraft within Macau Approach Radar is **9000ft**. Higher altitudes may conflict with VHHH arrivals.

#### 10.8. Handoff Agreements

10.8.1. Runway 16 Operations

#### From Departure High (DEH) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	HAZEL

#### From Area Radar West (TRW) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC, ZGSZ	FL120	COTON

#### From Terminal Departures Central (TDC) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	15nm before CHALI





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Macau Approach Radar (MCU) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VMMC (SOUSA, CONGA, GRUPA)	† 9000ft	After MULET
VMMC (ALLEY)	↑ FL120	After MULET

#### From Macau Approach Radar (MCU) to Zhuhai Approach (ZUH)

То	Altitude	Handoff Location
VMMC	S0270 (8900ft)	INDUS (note)
ZGSZ	S0330 (FL108)	LANDA (note)

Note: This is an external agreement with VATPRC. As such, internal handoff releases are not applicable to this agreement and controllers shall adhere to the LoA between Hong Kong FIR and Guangzhou FIR when initiating a handoff per this agreement.

## 10.8.2. Runway 34 Operations

#### From Departure High (DEH) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	HAZEL

## From Area Radar West (TRW) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC, ZGSZ	FL120	COTON

#### From Terminal Departures Central (TDC) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	15nm before CHALI



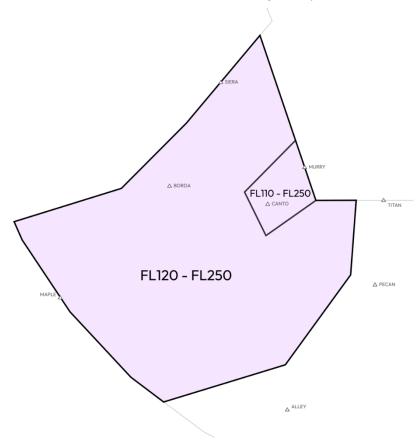


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 11. TERMINAL RADAR WEST (TMW)

- 11.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
  - TMW -> TRW -> APP

## 11.2. Terminal Radar West Sector in Runway 07 Operations

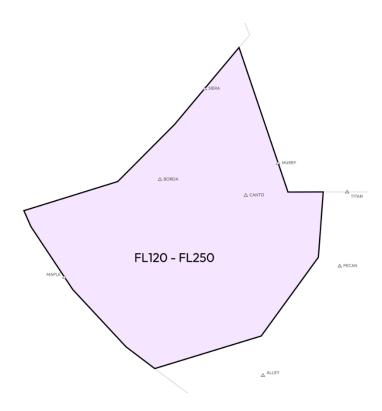






Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 11.3. Terminal Radar West Sector in Runway 25 Operations



#### 11.4. Responsibilities

- Hong Kong Arrivals via CANTO/SIERA
- Shenzhen/Guangzhou Departures via SIERA
- Holding at CANTO/COMBI

#### 11.5. Runway 07 Operations

#### 11.5.1. Procedures (Outbound)

• Climb Shenzhen/Guangzhou Departures to FL250 and transfer to TMS

#### 11.5.2. Procedures (Inbound)

- Descend VHHH arrivals to FL110 and transfer to APP
- Clear VHHH arrivals via SIERA for their STAR and clear VHHH arrivals via CANTO for their STAR if Area Radar is offline





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 11.6. Runway 25 Operations

#### 11.6.1. Procedures (Outbound)

• Climb Shenzhen/Guangzhou Departures to FL250 and transfer to TDC

### 11.6.2. Procedures (Inbound)

- Descend VHHH arrivals to FL150 and transfer to DEH
- Clear VHHH arrivals via SIERA for their STAR and clear VHHH arrivals via CANTO for their STAR
  if Area Radar is offline

#### 11.7. Note to Terminal Radar West

11.7.1. During Runway 07 Operations, the section of airspace around MURRY from FL110 – FL120 (known as the MURRY Box) is delegated to Terminal Radar West to facilitate descent to FL110. Aircraft descending to FL110 on the CANTO/SIERA STARS do not have to be individually coordinated with Macau Approach Radar. Controllers should still remain vigilant in case aircraft inadvertently descend into Macau Approach Radar airspace.

#### 11.8. Handoff Agreements

## 11.8.1. Runway 07 Operations

# From Zhuhai Approach (ZUH) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
ZGSZ	FL120	SIERA

# From Area Radar West (TRW) to Terminal Radar West (TMW)

То	Altitude	Handoff Location
VHHH	FL260	MAPLE
VHHX	FL250	Abeam MAPLE

#### From Guangzhou Control (GGG) to Terminal Radar West (TMW)

То	Altitude	Handoff Location
VHHH	FL190, FL210, FL230	CIEDA
Hong Kong FIR	FL230, FL250	SIERA





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Approach (APP) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	FL140	10nm before sector boundary

# From Terminal Radar West (TMW) to Area Radar West (TRW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	↑ FL250	On approaching FL250

# From Terminal Radar West (TMW) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL110 - FL130	MURRY
VHHX	FL140	Abeam MURRY

# From Terminal Radar West (TMW) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
ZGSZ	FL120	After ROCCA

#### 11.8.2. Runway 25 Operations

### From Zhuhai Approach (ZUH) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
ZGSZ	FL120	SIERA

# From Area Radar West (TRW) to Terminal Radar West (TMW)

То	Altitude	Handoff Location
VHHH	FL260	MAPLE
VHHX	FL250	Abeam MAPLE

# From Guangzhou Control (GGG) to Terminal Radar West (TMW)

То	Altitude	Handoff Location
VHHH	FL190, FL210, FL230	SIERA





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

### From Departure (DEP) to Terminal Radar West (TMW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	FL140	10nm before sector boundary

#### From Terminal Radar West (TMW) to Area Radar West (TRW)

From	Altitude	Handoff Location
VHHX (IDOSI1B)	↑ FL250	On approaching FL250

# From Terminal Radar West (TMW) to Area Radar West (TRV)

From	Altitude	Handoff Location
VHHX (EPDOS1A, IDOSI1A,	↑ FL250	On approaching FL2E0
SIKOU1A)		On approaching FL250

# From Terminal Radar West (TMW) to Departure High (DEH)

То	Altitude	Handoff Location
VHHH	FL150	MURRY
VHHX	FL140	Abeam MURRY

# From Terminal Radar West (TMW) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
ZGSZ	FL120	After ROCCA



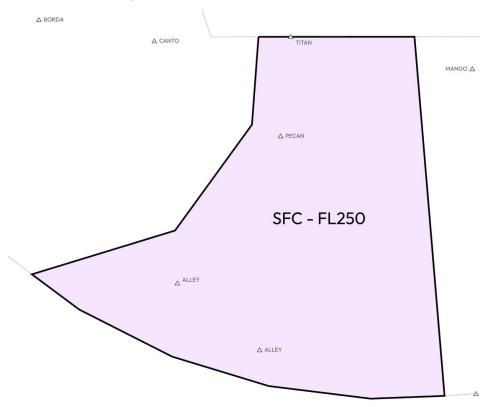


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 12. TERMINAL DEPARTURES CENTRAL (TDC)

- 12.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
  - TDC -> TMS -> TMW -> TRW -> APP

# 12.2. Terminal Departures Central Sector



### 12.3. Responsibilities

- Hong Kong/Macau/Shenzhen Departures via TITAN
- Shenzhen Departures via SKATE/ALLEY
- Macau Arrivals via ROBIN
- Guangzhou Arrivals from the Southwest

#### 12.4. Procedures (Outbound)

Climb Hong Kong/Macau/Shenzhen Departures to FL250 and transfer to TRS/TRW/TW1

#### 12.5. Procedures (Inbound)

- Descend VMMC arrivals to FL110 to be level 15NM before CHALI and transfer to MCU
- Descend ZGGG arrivals to FL220 and transfer to DEH





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 12.6. Note to Terminal Departures Central

12.6.1. During Runway 07 Operations, Approach will climb PECAN departures to FL160 and transfer them whilst inbound TITAN. It is recognised that aircraft will often reach FL160 before passing TITAN, therefore, to mitigate this a blanket release procedure is available to TDC. To avoid having to individually coordinate every aircraft, TDC can request that DEH release the airspace above FL160 to climb PECAN departures to FL250 before reaching TITAN. It is essential that DEH is notified whenever this procedure is in effect.

### 12.7. Handoff Agreements

### 12.7.1. Runway 07 Operations

### From Approach (APP) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VHHH, VMMC, ZGSZ	FL160	TITAN
VHHX (EPDOS1A, IDOSI1A,	FL140	10nm before sector boundary
SIKOU1A)		(note)

Note: VHHX EPDOS1A, IDOS11A & SIKOU1A departures will enter Terminal Radar West airspace near PECAN. Coordination with TMW shall be done to prevent conflicts.

## From Macau Approach Radar (MCU) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VMMC (SOUSA, CONGA, GRUPA)	† 9000ft	After MULET
VMMC (ALLEY)	↑ FL120	After MULET

#### From Terminal Radar West (TMW) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
ZGSZ	FL120	After ROCCA





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## From Area Radar Central (TRC) to Terminal Departures Central (TDC)

То	Altitude	Handoff Location
ZGGG	FL260	ISBAN
VHHX	FL250	Abeam ISBAN
VMMC	FL200	ISBAN

# From Area Radar West (TRW) to Terminal Departures Central (TDC)

То	Altitude	Handoff Location
ZGGG	FL260	CHALI

#### From Terminal Departures Central (TDC) to Area Radar West (TRW)

From	Altitude	Handoff Location
ZGSZ, VHHH, VHHX, VMMC	↑ FL250	ALLEY (note)
(SIKOU)	FL250	ALLEY (note)

Note: VHHX departures will infringe the Terminal Radar West airspace boundary. Coordination shall be performed with TMW to prevent conflicts.

#### From Terminal Departures Central (TDC) to Area Radar South (TRS)

From	Altitude	Handoff Location
ZGSZ, VMMC (DOTMI, LELIM,	FL160	On approaching FL160 (nota)
ELATO, ENVAR, NOMAN, SABNO)	FL160	On approaching FL160 (note)

Note: ZGSZ and VMMC departures will enter Terminal Radar South airspace. Coordination shall be performed with TMS to prevent conflicts with VHHH arrivals.

#### From Terminal Departures Central (TDC) to Area Radar West (TRV)

From	Altitude	Handoff Location
ZGSZ, VHHH, VHHX, VMMC	↑ FL250	ALLEVILAVET (noto)
(IDOSI, EPDOS)	FL250	ALLEY/LAXET (note)

Note: VHHX departures will infringe the Terminal Radar West airspace boundary. Coordination shall be performed with TMW to prevent conflicts.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# From Terminal Departures Central (TDC) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	15nm before CHALI

# From Terminal Departures Central (TDC) to Departure High (DEH)

То	Altitude	Handoff Location
ZGGG	FL220	SAPAX

# From Terminal Departures Central (TDC) to Approach (APP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MANGO





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 12.7.2. Runway 25 Operations

### From Departure (DEP) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VHHH, VMMC, ZGSZ	FL160	TITAN
VHHX (EPDOS1A, IDOSI1A,	FL140	10nm before sector boundary
SIKOU1A)		(note)

Note: VHHX EPDOS1A, IDOS11A & SIKOU1A departures will enter Terminal Radar West airspace near PECAN. Coordination with TMW shall be done to prevent conflicts.

# From Macau Approach Radar (MCU) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
VMMC (SOUSA, CONGA, GRUPA)	† 9000ft	After MULET
VMMC (ALLEY)	↑ FL120	After MULET

# From Terminal Radar West (TMW) to Terminal Departures Central (TDC)

From	Altitude	Handoff Location
ZGSZ	FL120	After ROCCA

#### From Area Radar Central (TRC) to Terminal Departures Central (TDC)

То	Altitude	Handoff Location
ZGGG	FL260	ISBAN
VHHX	FL250	Abeam ISBAN
VMMC	FL200	ISBAN

# From Area Radar West (TRW) to Terminal Departures Central (TDC)

То	Altitude	Handoff Location
ZGGG	FL260	CHALI





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### From Terminal Departures Central (TDC) to Area Radar West (TRW)

From	Altitude	Handoff Location
ZGSZ, VHHH, VHHX, VMMC	↑ FL250	ALLEY (note)
(SIKOU)	FL250	ALLET (HOLE)

Note: VHHX departures will infringe the Terminal Radar West airspace boundary. Coordination shall be performed with TMW to prevent conflicts.

#### From Terminal Departures Central (TDC) to Area Radar South (TRS)

From	Altitude	Handoff Location
ZGSZ, VMMC (DOTMI, LELIM,	FL160	On approaching FL160 (note)
ELATO, ENVAR, NOMAN, SABNO)	FLIOU	On approaching FLIOO (note)

Note: ZGSZ and VMMC departures will enter Terminal Radar South airspace. Coordination shall be performed with TMS to prevent conflicts with VHHH arrivals.

## From Terminal Departures Central (TDC) to Area Radar West (TRV)

From	Altitude	Handoff Location
ZGSZ, VHHH, VHHX, VMMC	↑ FL250	ALLEVILAYET (pata)
(IDOSI, EPDOS)	↑ FL250	ALLEY/LAXET (note)

Note: VHHX departures will infringe the Terminal Radar West airspace boundary. Coordination shall be performed with TMW to prevent conflicts.

### From Terminal Departures Central (TDC) to Macau Approach Radar (MCU)

То	Altitude	Handoff Location
VMMC	FL110	15nm before CHALI

#### From Terminal Departures Central (TDC) to Departure High (DEH)

То	Altitude	Handoff Location
ZGGG	FL220	SAPAX

#### From Terminal Departures Central (TDC) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MANGO





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 13. TERMINAL RADAR SOUTH (TMS)

- 13.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
  - TMS -> TMW -> TRW -> APP

#### 13.2. Terminal Radar South Sector



# 13.3. Responsibilities

Hong Kong Arrivals via BETTY

#### 13.4. Runway 07 Operations

### 13.4.1. Procedures (Inbound)

- Descend VHHH arrivals to FL130 and transfer to APP
- Clear VHHH arrivals for their STAR if Area Radar is offline
- Holding at BETTY





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 13.5. Runway 25 Operations

#### 13.5.1. Procedures (Inbound)

- Descend VHHH arrivals to FL130 and transfer to APP
- Clear VHHH arrivals for their STAR if Area Radar is offline
- Holding at BETTY

# 13.6. Handoff Agreements

# 13.6.1. Runway 07 Operations

### From Area Radar South (TRS) to Terminal Radar South (TMS)

То	Altitude	Handoff Location
VHHH	FL260	SONNY
VHHX	FL250	Abeam SONNY

### From Area Radar Central (TRC) to Terminal Radar South (TMS)

То	Altitude	Handoff Location
VHHH	FL260	CYBER
VHHX	FL250	Abeam CYBER

# From Approach (APP) to Terminal Radar South (TMS)

From	Altitude	Handoff Location
VHHX (SABNO1B)	FL140	Abeam MANGO

#### From Terminal Radar South (TMS) to Area Radar Central (TRC)

From	Altitude	Handoff Location
VHHX	FL250	† On approaching FL250

#### From Terminal Radar South (TMS) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MANGO
VHHX	FL140	Abeam MANGO





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

# 13.6.2. Runway 25 Operations

## From Area Radar South (TRS) to Terminal Radar South (TMS)

То	Altitude	Handoff Location
VHHH	FL260	SONNY
VHHX	FL250	Abeam SONNY

### From Area Radar Central (TRC) to Terminal Radar South (TMS)

То	Altitude	Handoff Location
VHHH	FL260	CYBER
VHHX	FL250	Abeam CYBER

# From Approach (APP) to Terminal Radar South (TMS)

From	Altitude	Handoff Location
VHHX (SABNO1B)	FL140	Abeam MANGO

## From Terminal Radar South (TMS) to Area Radar Central (TRC)

From	Altitude	Handoff Location
VHHX	FL250	† On approaching FL250

# From Terminal Radar South (TMS) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MANGO
VHHX (NOMAN13)	FL140	Abeam MANGO

#### From Terminal Radar South (TMS) to Departure (DEP)

То	Altitude	Handoff Location
VHHX (SABNO13)	FL140	Abeam MANGO



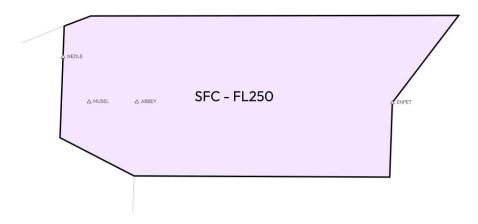


Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024
Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

## 14. TERMINAL RADAR EAST (TME)

- 14.1. Airspace Ownership Priority (Positions on the left have priority over positions on the right)
  - TME -> TRK -> TRE -> TRW -> TMW -> APP

#### 14.2. Terminal Radar East Sector



#### 14.3. Responsibilities

- Hong Kong Arrivals via ABBEY
- Macau Arrivals via NEDLE
- Guangzhou Arrivals via ELATO
- Holding at ABBEY/FISHA

#### 14.4. Runway 07 Operations

14.4.1. Procedures (Inbound)

- Descend VHHH arrivals to FL130 and transfer to DEH
- Clear VHHH/VMMC arrivals for their STAR if Area Radar is offline

### 14.5. Runway 25 Operations

14.5.1. Procedures (Inbound)

- Descend VHHH arrivals to FL130 and transfer to APP
- Clear VHHH/VMMC arrivals for their STAR if Area Radar is offline





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### 14.6. Handoff Agreements

#### 14.6.1. Runway 07 Operations

## From Area Radar East Arrivals (TRK) to Terminal Radar East (TME)

То	Altitude	Handoff Location
VHHH	FL260	ENPET
VHHX	FL270	Abeam ENPET (note)
VMMC, ZGGG	FL260	After SAMMI

Note: VHHX MAGOG13 arrivals are not laterally separated against VHHH ABBEY arrivals. Controllers shall use vertical separation where required.

#### From Terminal Radar East (TME) to Departure High (DEH)

То	Altitude	Handoff Location
VHHH	FL130	MUSEL
VHHX	FL140	Abeam MUSEL (note)

Note: This agreement becomes inactive during noise abatement operations.

### From Terminal Radar East (TME) to Departure (DEP)

То	Altitude	Handoff Location
VHHX	FL140	Abeam MUSEL (note)

Note: This agreement is only active during noise abatement operations.

# From Terminal Radar East (TME) to Departure High (DEH)

То	Altitude	Handoff Location
VMMC, ZGGG	FL230	NEDLE

# 14.6.2. Runway 25 Operations

#### From Area Radar East Arrivals (TRK) to Terminal Radar East (TME)

То	Altitude	Handoff Location
VHHH	FL260	ENPET
VHHX	FL270	Abeam ENPET (note)
VMMC, ZGGG	FL260	After SAMMI

Note: VHHX MAGOG13 arrivals are not laterally separated against VHHH ABBEY arrivals. Controllers shall use vertical separation where required.





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

### From Terminal Radar East (TME) to Approach (APP)

То	Altitude	Handoff Location
VHHH	FL130	MUSEL
VHHX	FL140	Abeam MUSEL (note)

Note: The airspace ceiling for Hong Kong Approach is FL130 at the boundary with Terminal Radar East, however for the purposes of handling VHHX inbound traffic this airspace is delegated to Hong Kong Approach up to FL140.

# From Terminal Radar East (TME) to Departure High (DEH)

То	Altitude	Handoff Location
VMMC, ZGGG	FL230	NEDLE





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

#### **RECORD OF REVISION**

DATE	REV.	REVISION CONTENT	<b>APPROVAL</b>
17 JUN 2020	0	Initial Release	J. CHENG
09 SEP 2023	1	Major Rewrite	T. SIU
		Added all 4 Terminal Radar Sectors	
		Added Macau Radar Control	
		Added Handoff Agreements	
03 APR 2024	2	Updated all Sector Diagrams	T. SIU
		Added missing TRC -> TDC restriction for VMMC J103	
		Added noise abatement agreement between APP and	
		DEP	
		Added procedure for Approach to route aircraft	
		towards LIMES from BETTY during noise abatement	
		Renamed TMA Position Names to match reality	
		Added KAPLI to DEP -> TRS handoff agreement	
		Added missing TDC -> TRS handoff agreement	
		Added ZGSZ to TRW -> TMW COTON handoff	
		agreement	
		Fixed a typo in TMW VHHX restriction	
		Added Airspace Ownership Priority	
		Updated erroneous agreement between Departure	
		and Departure High regarding BEKOL departures	
		during runway 25 operations	
23 APR 2024	3	Updated TMW -> TDC agreement to FL120 for ZGSZ	T. SIU
		departures	
		Added note for TDC -> TRS agreement for ZGSZ /	
		VMMC departures	
		Moved VHHX SIKOU1A/IDOSI1A/EPDOS1A agreements	
		from APP/DEP -> TMW to APP/DEP -> TDC	
		Added missing MAGOG13 agreements from TME ->	
		APP/DEP/DEH	
		Added top-down responsibility for VMMC to Macau	
		Approach Radar	
09 JUN 2024	4	Updated agreed handoff levels to match VATPRC LOA	T. SIU
		Revision 1	
		Added missing agreement from DEP -> APP for VMMC	
		ALLEY departures during runway 07 operations	
		Updated STAR clearances to be provided by Area	
		Radar (Terminal Radar if Area is offline)	
05 OCT 2024	5	Renamed Terminal Radar South Departures to	<b>T. SIU</b> Page 52 of 53





Doc No.: HKVACC-SOP004-ANNEX-I-R5 Date Issued: 05 OCT 2024 Subject: Hong Kong Terminal Airspace Standard Operating Procedures Annex I

Terminal Departures Central	
Corrected handoff level for VHHH departures via	
PECAN within procedures section	
Added information about MURRY Box	
Updated sector diagrams for TMW and MCU	
Added note about vectoring close to the boundary	
within FAD airspace	
Added note about Macau 34 departures remaining on	
Zhuhai QNH when handed off from Zhuhai Approach	
Updated handoff agreements between APP and FAD	