STANDARD OPERATING PROCEDURE (SOP)
DOCUMENT NUMBER: HKVACC-SOP003-R4
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REVISION: 4

SUBJECT: Kai Tak International Airport (VHHX) Standard Operating Procedure

EFFECTIVE DATE: 31 MARCH 2023

SCOPE: Outlines standard techniques for VATSIM online ATC within the Hong Kong International Airport (VHHH) aerodrome

1. PURPOSE

1.1. This Standard Operating Procedure (SOP) sets forth the procedures for all controllers providing aerodrome air traffic control service at Kai Tak International Airport (VHHX) 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 Manager (Standards and Publications). This SOP shall be maintained, revised, updated or cancelled by the Manager (Standards and Publications). Any suggestions for modification / amendment to this SOP should be sent to the Manager (Standards and Publications) for review.

3. DISTRIBUTION

3.1. This SOP is intended for controllers staffing aerodrome ATC positions at Kai Tak International Airport (VHHX) and other controllers who interface with aerodrome controllers at VHHX.

4. BACKGROUND

4.1. Over time, controllers have found that having aircraft arrive and depart via pre-approved runways provides for a more orderly traffic flow and reduces the need for communication among controllers at VHHX. Due to operational differences between this online environment on VATSIM and that in the real world, it is also necessary to defines procedures that are specific to the online environment.

4.2. There have been several scenery add-ons created to simulate flights at this legacy airport. Due to interest within the VATSIM community, Hong Kong VACC consider Kai Tai as an operating airport within the Hong Kong airspace on VATSIM and continues to provide ATC service for the airport even though Kai Tak is permanently closed in the real world

5. REQUIREMENTS

5.1. FREQUENCIES

5.1.1. The following frequencies shall be used at all times for Kai Tak International Airport. Frequencies other than listed may not be used. Since many historic frequencies at Kai Tak are still in use at Hong Kong International Airport (VHHH), secondary frequencies are used to avoid conflict.

POSITION	TEXT CALL SIGN	VOICE CALL SIGN	FREQUENCY
Kai Tak Delivery	VHHX_DEL	“Kai Tak Delivery”	121.000
Kai Tak Ground	VHHX_GND	“Kai Tak Ground”	121.925
Kai Tai Tower	VHHX_TWR	“Kai Tak Tower”	124.650

5.1.2. When any position covering Kai Tak aerodrome, is online, the controller may elect to set up voice Automatic Terminal Information Service (ATIS) using METAR information from VHHH. In the real-world, there are two separate frequencies for ATIS, arrival ATIS and departure ATIS. However, on VATSIM, only one frequency broadcasting information regarding arrival

and departure is needed. The follow frequency shall be used:

POSITION	TEXT CALL SIGN	VOICE CALL SIGN	FREQUENCY
Kai Tak Information	VHHX_ATIS	N/A	122.075

6. RUNWAY-IN-USE

6.1. PREFERENTIAL RUNWAY SYSTEM (DIRECTION OF OPERATIONS)

6.1.1. **Runway 13** will be nominated as the runway in use whenever the **tailwind component**, include gust values, is **10kt or less** when the runway is dry, or 5kt or less when the runway is not dry.

6.2. All IFR arrival aircraft shall by default use **IGS approach** to land on **RWY13** and **ILS approach** to land on **RWY31**. Other IAPs and visual approach may be used with ATC approval if the pilot is unable to perform IGS or ILS approach.

6.3. As Kai Tak Int'l Airport is closed in the real world, METAR for VHHX is not available online. In lieu of VHHX METAR, controllers shall use the METAR for VHHH airport to determine runway in use. Controllers may visit the Hong Kong Civil Aviation Department (CAD) Automatic Terminal Information Service (ATIS) website (https://atis.cad.gov.hk) for the latest weather information.

6.4. See Section 7 of this SOP document for noise abatement procedures.

7. NOISE ABATEMENT PROCEDURES

7.1. As Per Hong Kong AIP AD 2-21 and AD 2-22, Noise Abatement Procedures are adopted on VATSIM for Hong Kong International Airport (VHHH). However, for the purpose of flight simulation on VATSIM, these procedures are not observed for Kai Tak Airport on VATSIM.

7.2. Kai Tak Airport is available **H24** (24 hours a day, 7 days a week) on VATSIM even though historically there were curfew hours for the airport.

8. KAI TAK DELIVERY (VHHX_DEL)

8.1. AREA OF RESPONSIBILITY

8.1.1. Kai Tak Delivery does not have its sector. All ground movements are handled by Kai Tak Ground (GND).

8.2. PRE-CLEARANCE INSTRUCTIONS

8.2.1. The ICAO code for Kai Tak Int'l Airport is **VHHX** to differentiate from the existing Hong Kong International Airport (VHHH).

8.2.2. Kai Tak Delivery shall examine each field of the flight plan submitted by the pilot and ensure that the route and altitude is sound and appropriate prior to issuing clearance. If an incorrect route or altitude is filed, the delivery controller shall remind the pilot and provide a correct

alternative. If the pilot accepts the alternative, the DEL controller shall amend the flight plan accordingly.

8.2.3. Charts for Aerodrome, SID and STAR are available on the Hong Kong VACC website.

8.2.4. DEL controller may use Appendix A of this document for SID route reference and Appendix B for squawk code reference.

8.2.5. As Kai Tak is a closed airport in the real world, certain waypoints and/or navaids may not be available on pilots' flight computers. Should this be the case, VHHX_DEL may suggest pilots to depart via radar vectors, subject to the approval of the controller online responsible for Hong Kong Departure.

8.2.6. DEL controller should also check for the runway-in-use (this is determined by TWR and announced on ATIS), noise-abatement procedures and runway closure. If TWR is not online, DEL controller can & shall only recommend pilots to depart from a specific runway under consideration of **Section 6.1** (current tail wind component, METAR and TAF). However, pilots have the final say whenever TWR is not online.

8.2.7. Normally, it is the responsibility of the controller to issue SID to departing IFR aircraft. In such situation, the route in the flight plan submitted by the pilot will begin with the transition route (e.g. V2, V3, V4 etc.) or the initial waypoint. Clearance delivery controllers shall add the cleared SID and expected departure runway into pilot's flight plan after enroute clearance being given.
(for example: ***+DOTMI1A/13.*** if cleared DOTMI1A departure via RWY 13)

8.2.8. IFR departing aircraft unable to follow a SID may be cleared for "radar vectors departure" subject to the approval of the terminal airspace controller (i.e. APP/DEP). If this is the case, "RDVR" shall be added to the flight plan to indicate that the aircraft needs radar vectors for departure.
(for example: ***+RDVR/31.*** if cleared radar vectors departure via RWY31)

8.2.9. IFR departing aircraft following SID will have an initial climb altitude of **7000 feet**. To reflect this altitude, delivery controller shall set the temporary altitude of IFR departing aircraft to **7000 feet** prior to issuing clearance.

8.2.10. DEL shall check if the voice flag is set remark section and add or correct in pilots' flight plans:

/v *for voice*
/r *for receive-voice*
/t *for text-only*

8.2.11. VHHX_DEL does not issue clearance to VFR departing aircraft. VFR departing aircraft can contact Kai Tak Ground directly for taxi clearance.

8.3. SID FOR KAI TAK AIRPORT

8.3.1. The SIDs shown in Appendix C of this SOP document are based on historical charts which did not consider the traffic flow of the new Hong Kong airport (VHHH). These SIDs lead to the boundary of Hong Kong FIR and are not followed by transitions routes. Therefore, it is not necessary to include a transition route in the flight plan

8.4. IFR CLEARANCE FORMAT

8.4.1. The format of the IFR clearance issued by VHHX_DEL shall follow the rules set forth by ICAO Doc 4444 Section 6.3.2.3.

8.4.2. As the initial altitude for all SID at VHHX is included as part of the SID (**7000 feet**), it is not necessary to include initial climb in the clearance if the aircraft is cleared via a SID (see ICAO Doc 4444 6.3.2.3.d).

8.4.3. When radar vectors departure is used, the DEL controller shall specify “radar vectors departure” and the assigned initial climb altitude (usually 7000 feet, check with DEP controller) in the IFR clearance.

8.4.4. It is mandatory that VHHX_DEL ensures pilots having them listened to the **ATIS** frequency. If pilots do not mention the latest or a wrong ATIS letter, VHHX_DEL shall ask pilots to (re-)check the ATIS. If ATIS is not available, e.g. when TWR is not online, VHHX_DEL shall state the latest QNH and recommended departure runway, for example:

“*CPA401, cleared to destination, flight plan route. ENVAR 1 Alfa departure, runway 13. Squawk 3501.* ***Information Alpha***”

8.5. PHRASEOLOGY

G: ***CLEARED / PROCEED*** **TO* (clearance limit)* ***FLIGHT PLAN ROUTE*** *(or description of route)****.*** ***(****Details of route to be followed / instructions) *CLIMB (level)* ^RUNWAY XXX^* ***SQUAWK*** *(four figures) *(instructions)**

Example 1: Cathay 401, cleared to destination, flight plan route. ENVAR 1 Alfa departure. Squawk 3501.
Example 2: Cathay 401, cleared to Taipei, flight plan route. Radar vectors departure, runway 13. Initial climb 7000 feet. Squawk 3501.

General information:

(1) The parts of the phraseology printed bold shall be used.

(2) Parts of the phraseology marked by asterisks (*) shall be used additionally, as far as necessary.

(3) Parts of the phraseology divided by diagonals (/) shall be used alternatively, as far as necessary.

(4) Parts of the phraseology marked by ^ (i.e. departure runway) is optional when an aircraft is cleared via a SID

(5) Parts of the phraseology marked by brackets shall be completed by the resp. statements.

8.6. RADAR TRACKING

8.6.1. VHHX_DEL controller shall not use radar tracking (F3 and F4 functions on the keyboard at all times)

9. KAI TAK GROUND (VHHX_GND)

9.1. AREA OF RESPONSIBILITY

9.1.1. Hong Kong Ground (VHHX _GND) owns all ground movement areas of the airport, including all taxiways and ***inactive or closed*** runways. Ground control does not own any active runway, and may not taxi aircraft across an active runway without prior approval from the controller responsible for the Tower position.

9.2. SPECIAL INSTRUCTIONS

9.2.1. Ground controller shall ensure that the current weather condition meets VFR requirement (**Visual Meteorological Conditions**, or **VMC**) before issuing taxi clearance for VFR aircraft

- Ground visibility more than 5000 meters
- Ceiling (BKN and OVC clouds) not lower than 1500 feet AGL

9.2.2. Ground control should issue taxi clearance to the appropriate departure runway-in-use as determined by TWR and announced on ATIS. If TWR is not available, the controller responsible for Kai Tak Tower position shall determine the departure runway in use based on weather condition. If Kai Tak Tower ATC service is not available, the ground controller shall determine the runway-in-use following the method Section 6A of this SOP document.

9.2.3. The ground controller shall ask the pilot of arrival aircraft if a specific parking bay is requested. If the pilot has no parking bay preference, the ground controller shall assign a gate or parking bay based on the nature of the flight. (e.g. passenger aircraft should go to the gate, cargo aircraft should go to the cargo terminal, Government Flying Service aircraft should go to the GFS hangar)

9.2.4. The ground controller shall provide the current QNH to the pilot when giving taxi clearance to the runway.

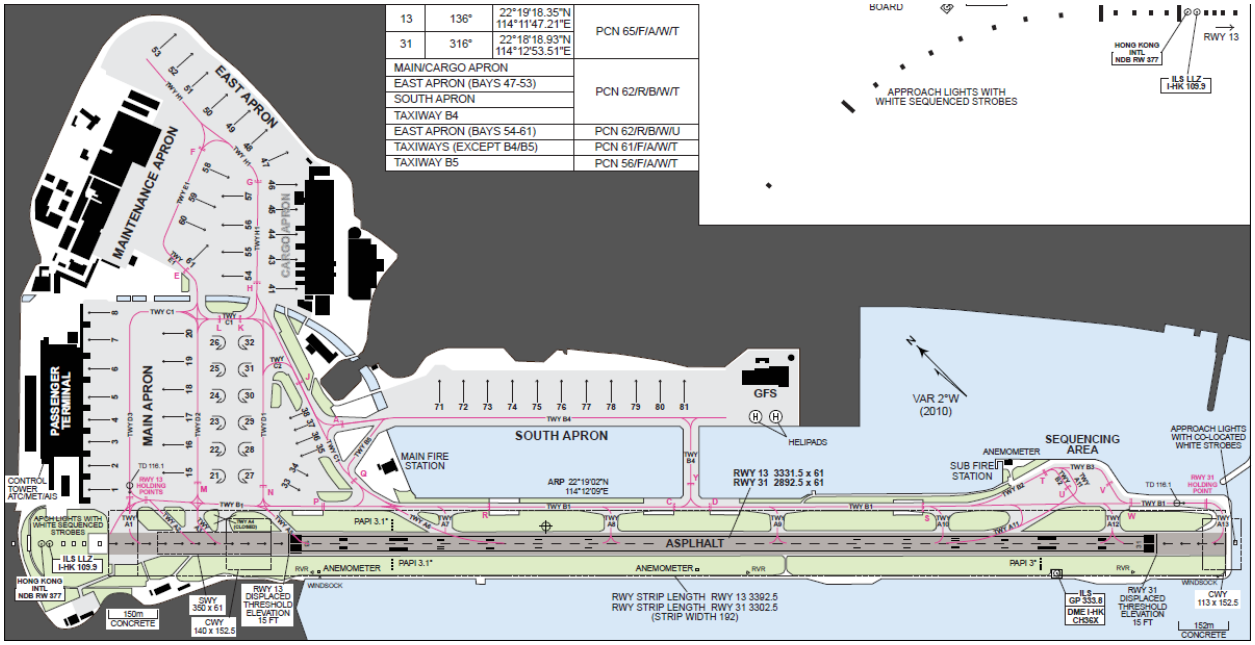

Figure 9.1: Kai Tak Int'l Airport Aerodrome Layout.

9.3. PHRASEOLOGY

(Reference Document: ICAO Doc 9432 4th Edition, Section 4.4)

Phraseology:

G: *(Callsign)* ***TAXI VIA TAXIWAY*** *(taxiway sequence)* ***TO*** *(Destination). (Additional Information)*

*Example 1: BHHN, TAXI VIA TAXIWAY BRAVO SEVEN, BRAVO, WHISKEY, HOTEL TO HOLDING POINT JULIET ONE RUNWAY ZERO SEVEN RIGHT. *QNH ONE-ZERO-ONE-SEVEN* (* only add QNH if it changes or if ATIS has not been set up yet)*

Example 2: BHHN, TAXI VIA TAXIWAY BRAVO SEVEN, BRAVO, WHISKEY, HOTEL TO HOLDING POINT JULIET ONE RUNWAY ZERO SEVEN RIGHT. FOLLOW COMPANY BOEING TRIPLE SEVEN COMING FROM YOUR RIGHT.

9.4. RADAR TRACKING

9.4.1. VHHX_GND shall not use radar tracking (F3 and F4 functions on the keyboard at all times)

10. KAI TAK TOWER (VHHX_TWR)

10.1. AIRSPACE

10.1.1. Kai Tak Tower is responsible for the Category C airspace within the Kai Tak Aerodrome Traffic Zone (ATZ) (SFC to 2000 feet). Kai Tak Tower may provide radar control service to VFR flights within ATZ. Aircraft outside of ATZ shall be controlled by Hong Kong Zone Control (VHHH_Z_APP). Refer to chart AD 2-102 for details.

10.1.2. Due to radar coverage environment extending up to 9000 feet, controllers online as VHHX_TWR may not extend the coverage to Hong Kong Zone Control (VHHH_Z_APP) if the Zone Control position is offline. Such coverage may be provided by an APP/DEP/CTR controller only (refer to AIP AD 2.17).

10.1.3. The boundary of the Kai Tak ATZ is a **rectangle** with its edges extending **two (2) nautical miles** from RWY 13/31. Certain parts of the Kai Tak ATZ fall into Port Shelter (PSH) UCARA. The boundary of UCARA shall prevail, and, as such, the boundary of Kai Tak ATZ on the northeast side where it overlaps with UCARA shall follow the boundary between Island Zone and UCARA instead.

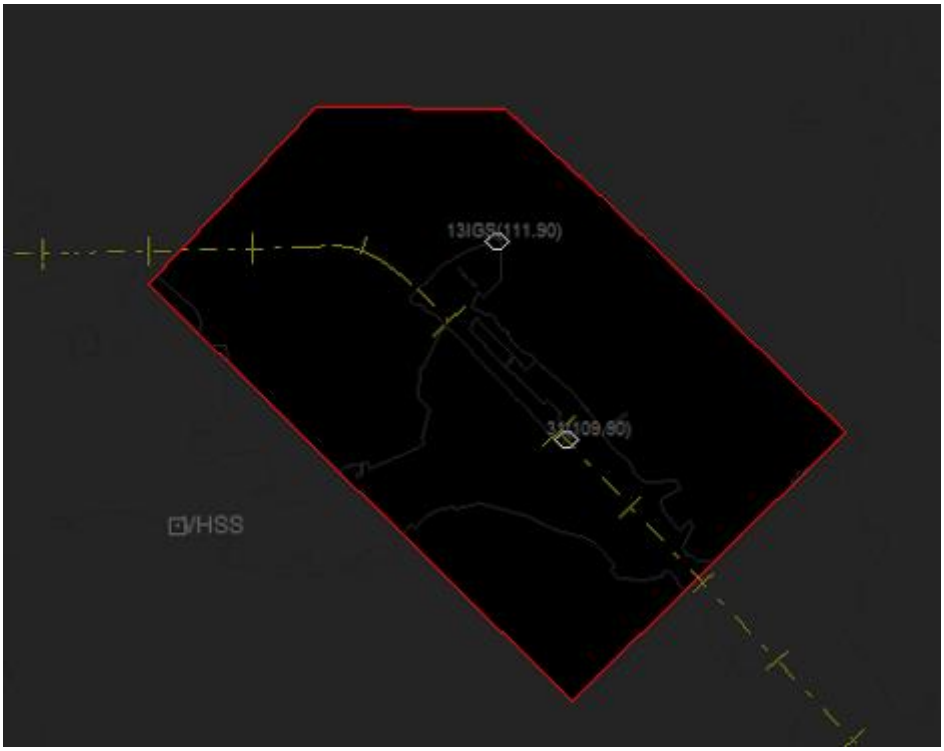

Figure 10.1: Location of VHHX ATZ in relations to other control zones. ***(Picture source: Hong Kong VACC Sector File)***

10.2. SPECIAL INSTRUCTIONS

10.2.1. VFR departing aircraft shall file a valid flight plan with a valid route prior to departure. The only exception is aircraft remaining in circuit within ATZ. Kai Tak Tower shall ensure that the current weather meets VFR minima prior to issuing clearance.

10.2.2. Kai Tak Tower shall clear VFR departing aircraft into ATZ and assign an SSR transponder code prior to granting takeoff clearance. For example, *"cleared VFR in ATZ at or below 2000 feet, squawk 5241."*

10.2.3. Since arrival VFR pilots don't need to check the ATIS, TWR must provide essential information about runways-in-use and current local air pressure on initial call.

Phraseology:
G: ***ENTER CONTROL ZONE,*** **SPECIAL VFR** ***VIA*** *(route) *(altitude)** ***RUNWAY*** *(designator)* ***QNH*** *(figures) *(instructions)**

Example: BHHN, enter ATZ (Aerodrome Traffic Zone) via ESP (East Pass), altitude 2000 feet or below, runway 13, QNH 1016.

Note: A clearance to enter control zone (ATZ) is no authorisation to join traffic circuit. If no clearance to join traffic circuit was issued the holding pattern has to be entered.

10.2.4. VFR pilots are self-responsible for being separated visually from all traffic. Since GA aircraft don't have radar, TWR controller must ensure that weather minima are full filled and give traffic information about arriving and departing aircraft.

10.2.5. VFR aircraft remaining in traffic circuit shall use fly left circuit if RWY13 is in use or right circuit if RWY31 is in use.

10.2.6. For IFR departing aircraft requiring radar vectors, TWR controller shall provide a heading along with the takeoff clearance. For RWY13, departing aircraft shall fly runway heading after takeoff. For RWY31, departing aircraft shall fly **heading 270** or **turn left to cross STONECUTTERS NDB (SC)** after takeoff.

For example, *"surface wind 100 degrees 9 knots, runway 13, cleared for takeoff. After departure, fly runway heading." Or, "surface wind 310 degrees 11 knots, runway 31, cleared for takeoff. After departure, fly heading 270."*

10.2.7. TWR controller shall advise landing aircraft on miss approach to follow the published miss approach procedures. This is especially important during major events online.

10.2.8. Kai Tak Tower shall coordinate with the controller providing APP/DEP service prior the releasing departure aircraft into the terminal airspace. Such release shall be performed prior to takeoff and can be communicated via TeamSpeak or private message on the radar client. Conversely, controller providing APP service shall coordinate with the TWR controller and communicate with the TWR controller prior to the aircraft contacting tower.

Phraseology:

G: **UNKNOWN** ***TRAFFIC*** *(direction, distance and other information)*

G: **UNKNOWN** ***TRAFFIC*** *(figure)* ***O'CLOCK*** *bearing by clock reference and distance)* ***MILES*** *(direction of flight) (information)*

G: *(traffic) (significant point)*

– SLOW / FAST MOVING

– CLOSING

– OPPOSITE / SAME DIRECTION

– OVERTAKING

– CROSSING LEFT TO RIGHT / RIGHT TO LEFT

G: If known:

– (type of aircraft)

*– (level) / (relative level) (figures) * NOT CONFIRMED**

– CLIMBING / DESCENDING

Example:

- BHHN, landing Cathay-Pacific B777, 10 o'clock position, on 5 NM final RWY 13.

- CPA401, VFR traffic, Cessna 152, 10 o'clock position, indicated altitude 1000 feet, on opposite direction.

10.3. RADAR TRACKING

10.3.1. VHHX _TWR shall not use radar tracking (F3 and F4 functions on the keyboard) for IFR aircraft. However, the TWR controller shall use radar tracking for VFR aircraft flying within ATZ when providing radar service.

11. DEVIATION FROM THE AIP OF HKSAR

11.1. While it is the goal of VATSIM to simulate real-world navigation environment, there are certain circumstances where strictly following real-world regulations may not fit the context or needs of the VATSIM online environment. In the interest of the VATSIM community, certain exemptions are granted to deviate from the AIP of Hong Kong or real-world operations.

11.2. VFR FLIGHTS IN UCARA

11.2.1. Pilots conducting VFR flights in Uncontrolled Airspace Reporting Areas (UCARA) are to monitor VATSIM universal unicom (122.800) rather than any local unicom frequency.

11.3. PUSHBACK PROCEDURE

11.3.1. In the view that many pilots flying to and from VHHX airport may not be familiar with the real-word pushback colour system outlined in Hong Kong AIP AD 2.99, AD 2.99 is not adopted on VATSIM. In lieu of the colour system, ground controllers are to provide pushback direction for departing aircraft. For example, *"pushback approved. Face east."* , or *"pushback approved. Tail north".*

APPENDIX A: REFERENCE GUIDE FOR VHHX SID ROUTES

EXIT POINT	RWY13	RWY31	TRANSITION ROUTE.EXIT POINT	TO FIR
ELATO	ELATO1A	ELATO3C	ELATO *A1 alt. restriction: at or below F270*	Taipei
ENVAR	ENVAR1A	ENVAR2C	ENVAR *M750: F270 or above at all times; No F290* *2300-1159UTC* *G86: F290, F330, F370, F390, F410*	Taipei
NOMAN	NOMAN1A NOMAN1B	NOMAN2C NOMAN2D	NOMAN *A461 & M501: F290, F330, F370, F410*	Manila
SABNO	SABNO1A SABNO1B	SABNO2C SABNO2D	SABNO *A583: F290, F330, F370, F410*	
SIKOU	SIKOU1A	SIKOU2C SIKOU2E	SIKOU *A202:S0660(ZJHK), S0720(ZJHK), S0840(ZJSY),* *S1040, S1160, S1200* *R339: S0600(ZGZJ), S0720 (ZGNN), S0780(ZGNN),* *S0980, S1040, S1100, S1160, S1200*	Guangzhou
IDOSI	IDOSI1B	IDOSI2C IDOSI2D	IDOSI *A1: F280, F300, F340, F380, F400, F430*	Sanya
EPDOS	EPDOS1A	EPDOS2C	EPDOS *L642: F280,F310,F320,F350,F360,F390,F400*	
DOTMI	DOTMI1A	DOTMI2C	DOTMI *Landing ZGOW: S0450* *Transiting ZGZU and VHHK FIRs:* *S0660,S0720,S0780,F280,F320,F360,F380* *To ZSAM & ZSQZ: S0690,S0750* *To ZSFZ & ZSWY: S0690, S0750, S0810, F290* *From VHHK FIR: F290,F330,F350,F390*	Guangzhou
BEKOL	BEKOL1A	BEKOL2C	BEKOL *VHHK FIR to ZGGG: S0420,S0450* *VHHK FIR, transiting ZGZU FIR: S0690* *Transiting VHHK & ZGZU FIRs:* *S0890,S0950,S1010,S1070,S1130,S1190*	Guangzhou

(Reference document: Hong Kong AIP ENR 1.8 Section 8.2)

APPENDIX B: TRANSPONDER SQUAWK CODE ASSIGNMENT IN HONG KONG FIR

SSR Codes	Status
3301-3377 3501-3577 5101-5777 5301-5377 5701-5777	Aircraft departing VHHX Aircraft transiting VHHK without squawk code
5201-5277	VFR aircraft Domestic / Local IFR aircraft Aircraft arriving VHHX without squawk code

RECORD OF REVISION

DATE	REV.	REVISION CONTENT	APPROVAL
19 JUL 2015	1	1. Changed TWR frequency from 118.20 to 118.70	A. TANG
14 JUN 2020	2	1. Updated Section 5 2. Updated link in Section 6.3	J. CHENG
1 DEC 2021	3	Changed Section 10.2.5	J. CHENG
30 MAR 2023	4	Updated Frequencies (Section 5) Updated Squawk Code Range (Appendix B)	J. WAI