

STANDARD OPERATING PROCEDURES (SOP)

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REVISION: 1

SUBJECT: Hong Kong VACC Pre-departure Clearance Standard Operating Procedures

EFFECTIVE DATE: 1 OCT 2017 0001z

SCOPE: Outlines standard techniques for issuing pre-departure clearance at aerodromes within Hong Kong FIR on VATSIM

1. PURPOSE

- 1.1. This Standard Operating Procedure (SOP) sets forth the procedures for all controllers providing clearance delivery service in order to properly and accurately issue pre-departure clearance.

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 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 providing clearance delivery service within Hong Kong FIR. This SOP remains effective even when Clearance Delivery position is offline or unavailable.

4. BACKGROUND

- 4.1. **Pre-departure clearance (PDC)** is a method of delivering departure clearance via ACARS or private text message. It substitutes the conventional method of obtaining clearance over the frequency of Clearance Delivery (CD) to reduce communication and work required of aerodrome controllers. In the real world, PDC is performed from the data link system of the controller to the dispatch system of the airlines, which then relay the PDC to the flight deck crew via ACARS on the aircraft. This method was first used on VATSIM in 2008.

- 4.2. On VATSIM, private text message is readily available which eliminates the need of installing a separate data link tool by the controller and an ACARS tool by the pilot. Hence, PDC is performed via private text messages within Hong Kong FIR.

5. PREREQUISITES

- 5.1. Prior to reviewing or referencing this SOP document, controller shall be PROFICIENT in the role of clearance delivery. This SOP document does not cover in details procedures pertaining general knowledge of clearance delivery.

- 5.2. This document references other SOP documents. Controllers are expected to be able to locate and review these referenced sections.

- 5.3. Controllers shall download the latest alias file containing the commands for PDC in order to properly issue PDC on their radar clients.

6. GETTING STARTED

6.1. DOWNLOADING AND ACTIVATING THE ALIAS FILE

6.1.1. In order to issue PDC via private message, controller shall download the Hong Kong VACC alias file from the Controller Download section of the Hong Kong VACC official website. The alias file shall then be activated within the Radar Client (etc. VRC or Euroscope). This will allow the controller to use the custom-created alias (or “dot-commands”) of Hong Kong VACC.

6.2. FLIGHT PLAN INSPECTION

6.2.1. **When PDC is in use, submitting a flight plan constitutes a request for PDC.** A clearance delivery controller (referring to anyone provide clearance delivery service hereafter) shall review the flight plan for accuracy prior to issuing a departure clearance. This shall be done as if the clearance is issued with the conventional method via CD frequency. Controller shall refer to the appropriate SOP and/or training manuals for methods of inspecting elements within a flight plan.

6.2.2. **If a filed flight plan requires necessary amendment, PDC shall not be issued.** Clearance delivery controller shall wait for the pilot to request for clearance via the frequency to discuss the needed amendments.

6.2.3. If the flight plan requires necessary amendments, controller shall use the “**.nopdc**” command within the alias file, which reads:

“PDC REJECTED – FLIGHT PLAN INVALID – REVERT TO VOICE PROCEDURES.”

(To use this command, type **.nopdc** in the text message field and then select the aircraft to which you would like to send the message. You need to set up the Hong Kong VACC alias file to do this.)

6.2.4. If the flight plan is confirmed to be correct, the clearance delivery controller shall assign the appropriate **SID, departing runway (if applicable), initial climb altitude, and transponder squawk code**. Controller shall refer to the appropriate SOP documents for details of this particular step. Controller shall also take note of the initial climb altitude and the appropriate ground controller frequency (your frequency if you will be providing ground control) as they will come in handy in the next step.

- 6.2.5. **Generating the Flight Plan Unique Identifier (FPUI):** Upon completing the assignment of elements in the last section, the controller shall generate a unique identifier for each flight plan. The purpose of the FPUI is to confirm the receipt of correct PDC by the pilot by reading back a unique identifier to the CD controller.

FPUI in Hong Kong FIR:

XXX X



[Last 3 digits of Squawk Code] [First Letter of Callsign]

Example:

CPA501 XPDR:5301 → FPUI: 301C

HDA436 XPDR:5331 → FPUI: 331H

- 6.2.6. PDC does not apply to VFR traffic within Hong Kong FIR.

7. ISSUING PRE-DEPARTURE CLEARANCE

- 7.1. PDC contains the information found in a conventional clearance over the frequency:

-PRE-DEPARTURE CLEARANCE START- CALL SIGN: CPA401 XPDR: 5301 - FLIGHT LEVEL: 35000 INITIAL CLIMB: 5000feet DEPT: VHHH ARR: RCTP EQUIPMENT: A333 APPROVED ROUTE: OCEAN2A/07R V3 ENVAR M750 TONGA — CONTACT DELIVERY ON FREQUENCY 121.90 WITHIN 10 MINS BEFORE *PUSHBACK* WITH ATIS, GATE NUMBER and *IDENTIFIER 301C* — END OF ACARS MESSAGE

LEGEND: Black = from alias; Red = manually entered; Blue = generated from flight plan

- 7.2. **When PDC is in use, clearance delivery controller shall issue the PDC as soon as the flight plan is filed and the flight plan is inspected to be correct.** There are three types of alias of PDC available to use depending on the situation:

- 7.2.1. For departing aircraft from VHHH, all SID invariably provide an initial climb altitude of 5000feet. This eliminates the need to hand type the initial altitude when issuing PDC. The command of the first part of the PDC with initial climb altitude 5000 feet embedded is **.pdc5k**, which reads:

`.pdc5k .msg $aircraft -PRE-DEPARTURE CLEARANCE START- CALL SIGN: $aircraft XPDR: $squawk - FLIGHT LEVEL: $cruise INITIAL CLIMB: 5000 FT DEPT: $dep ARR: $arr EQUIPMENT: $type($aircraft) APPROVED ROUTE: $route — CONTACT DELIVERY ON FREQUENCY: $1 WITHIN 10 MINS BEFORE *PUSHBACK* WITH ATIS, GATE NUMBER and *IDENTIFIER $2* — END OF ACARS MESSAGE`

As one may be able to see, the two strings that require user input are the CD frequency (string \$1 in red) and the FPUI (string \$2 in red). For example, if the Ground South is online and this aircraft is parked at a gate controlled by Ground South (121.900), and assuming the

FPUI is 301C, the CD controller will simply do the following to issue the PDC:

Type .pdc5k 121.9 301C in the text field → Select the desired aircraft by clicking on the aircraft

(There is no need to start a private chat window)

- 7.2.2. For departing aircraft from other airport when the initial climb altitude is not 5000 feet, the command requires manually entering the initial climb altitude as one of the strings. In such case, the command of the first part of the PDC with initial climb altitude as a string is **.pdc**, which reads:

```
.pdc .msg $aircraft -PRE-DEPARTURE CLEARANCE START- CALL SIGN: $aircraft XPDR: $squawk - FLIGHT  
LEVEL: $cruise INITIAL CLIMB: $1 FT DEPT: $dep ARR: $arr EQUIPMENT: $type($aircraft) APPROVED ROUTE:  
$route — CONTACT DELIVERY ON FREQUENCY: $2 WITHIN 10 MINS BEFORE *PUSHBACK* WITH ATIS, GATE  
NUMBER and *IDENTIFIER $3* — END OF ACARS MESSAGE
```

As one may be able to see, there are three strings requiring user input: **the initial climb altitude** (string \$1 in red), **the ground frequency** (string \$2 in red), and **the FPUI** (string \$3 in red). For example, if the Macau Ground is online and an aircraft with FPUI 501A assigned is parked at a gate controlled by Macau Ground (121.725), the CD controller (Ground controller him/herself) will simply do the following to issue the first part of the PDC:

Type .pdc 6000 121.725 501A in the text field → Select the desired aircraft by clicking on the aircraft (There is no need to start a private chat window)

- 7.2.3. For departing aircraft requiring radar vectors on departure, the PDC differs slightly but the command still requires manually entering the **initial climb altitude**, the **ground frequency** and the **FPUI**. Controller shall ensure that the initial climb altitude is set as the temporary altitude before issuing the PDC. In such case, the command of the first part of the PDC with initial climb altitude as a string is **.pdcvr**, which reads:

```
.pdcvr .msg $aircraft -PRE-DEPARTURE CLEARANCE START- CALL SIGN: $aircraft XPDR: $squawk - FLIGHT  
LEVEL: $cruise INITIAL CLIMB: $1 FT DEPT: $dep ARR: $arr EQUIPMENT: $type($aircraft) APPROVED ROUTE:  
$route - SID INFORMATION: EXPECT RADAR VECTORS FOR DEP. — CONTACT DELIVERY ON FREQUENCY: $2  
WITHIN 10 MINS BEFORE *PUSHBACK* WITH ATIS, GATE NUMBER and *IDENTIFIER $3* — END OF ACARS  
MESSAGE
```

For example, if the Macau Ground is online and this aircraft is parked at a gate controlled by Macau Ground (121.725), the CD controller will simply do the following to issue the first part of the PDC:

Type .pdcvr 6000 121.725 501A in the text field → Select the desired aircraft by clicking on the aircraft (There is no need to start a private chat window)

7.3. Immediately after the PDC is issued, the CD controller shall enter the **FPUI** in the **scratchpad** (shortcut: "Insert" button) to remind the controller that PDC has been issued to the aircraft and that the controller shall verify the FPUI from the pilot. This is highly encouraged when the CD controller also provides ground control to the aircraft as a way to keep track of aircraft that have been issued PDC.

7.4. Once the PDC is issued, there is no additional step required of the clearance delivery controller until the pilot contacts such controller to confirm receipt of the PDC by stating the FPUI. **If a pilot is unsure of what steps to take next, CD controller shall explain to the pilot the ensuing steps or refer the pilot to the pilot PDC information page within the Hong Kong VACC website.**

Once the PDC is issued, and the pilot contacts the CD controller, the following is an example of what the conversation on the radio between the CD controller and the pilot should resemble:

Pilot: "Hong Kong Delivery, Cathay 401, at gate E1 with information Bravo, Identifier 301C"

Controller: "PDC readback correct. Contact ground on 122.500 for push back and start up. Good day."

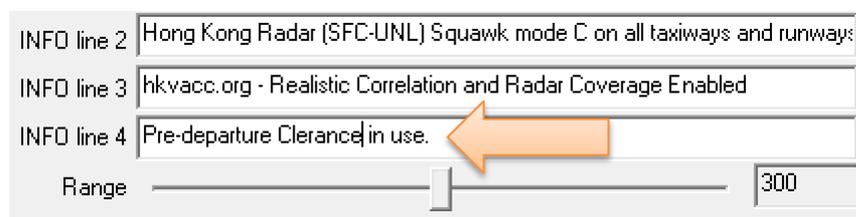
8. ACTIONS REQUIRED OF GROUND CONTROLLERS

8.1. After traffic with PDC is handed off from CD controller to GND controller, the GND controller shall treat such traffic no different from those that received clearance over radio. **There is not a different set of procedures required of the GND controller for traffic with PDC.**

9. ADDITIONAL INFORMATION

9.1. While PDC is designed as an alternative method to reduce the workload of CD controllers, it is not intend to mandatorily replace the conventional method of delivering clearance via ATC frequency. Departure clearance may continue to be delivered through the conventional method over radio, although CD controllers are encouraged to use the PDC method, particularly during fly-in events or when traffic volume is higher than usual.

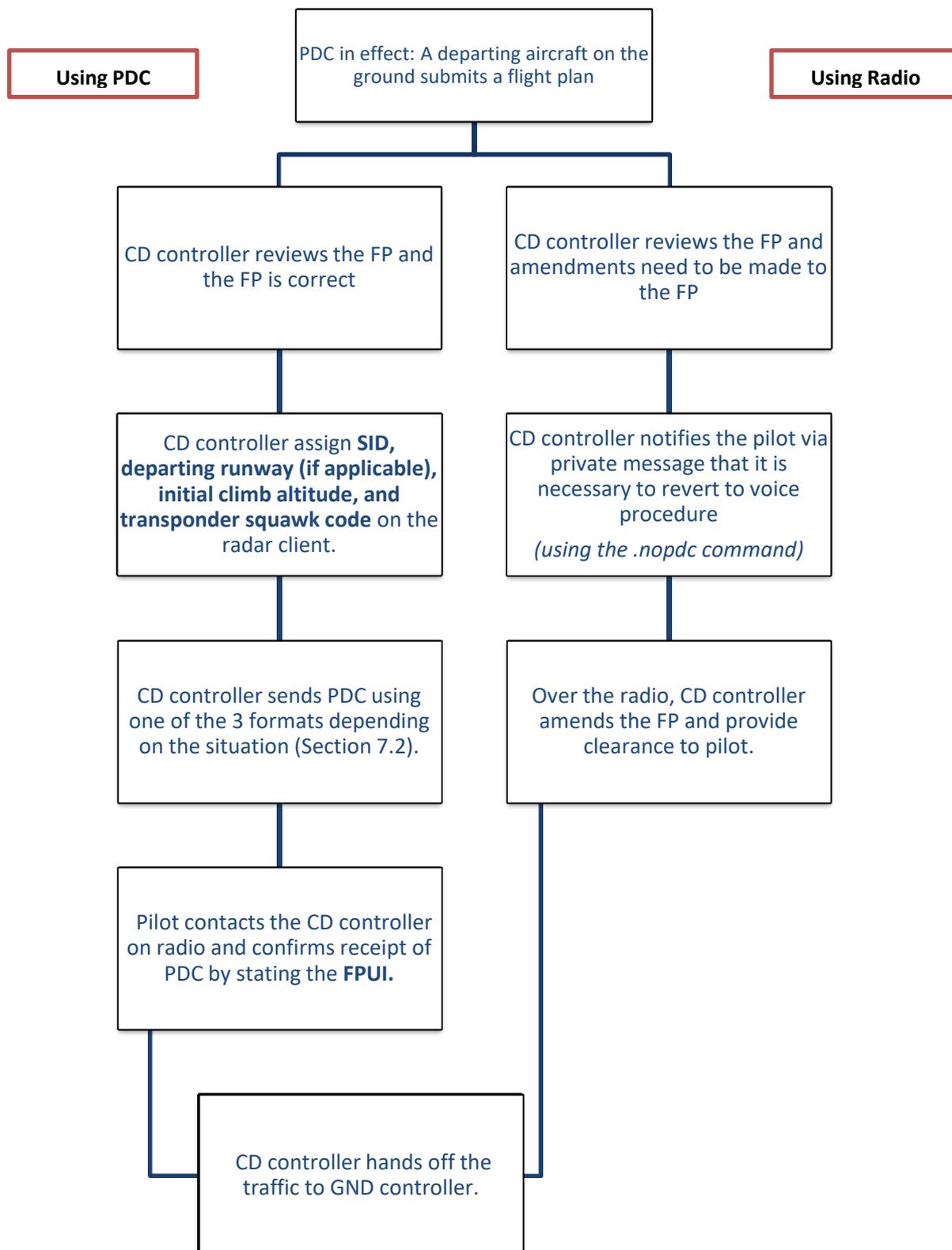
9.2. If a CD controller elects to use PDC as the primary method, such controller shall indicate that in their controller INFO line during log-in. For example, on Euroscope:



The screenshot shows the Euroscope interface with three INFO lines and a Range slider. An orange arrow points to the text in INFO line 4.

| | |
|-------------|---|
| INFO line 2 | Hong Kong Radar (SFC-UNL) Squawk mode C on all taxiways and runways |
| INFO line 3 | hkvacc.org - Realistic Correlation and Radar Coverage Enabled |
| INFO line 4 | Pre-departure Clearance in use. |
| Range | <input type="text" value="300"/> |

APPENDIX A: ACTION FLOW CHART



RECORD OF REVISION

| DATE | REV. | REVISION CONTENT | APPROVAL |
|------------|------|--|----------|
| 1 OCT 2017 | 01 | <ol style="list-style-type: none">1. Added new Section 6.1. Number changed for remaining content of Section 6.2. Added Section 6.2.5 regarding Flight Plan Unique Identified (FPUI).3. Changes to PDC request rejection message.4. PDC changes from two parts to one part only, and the content of the PDC changes along with actions required of CD controller.5. Revised Section 8, ground controller treats PDC traffic as other traffic with clearance over radio (no differentiation).6. Added Appendix A. | A TANG |