



# **OPERATION MANUAL**

## **STANDARD OPERATION PROCEDURES**

### **ELEVATED HELIPADS**

**PT. Smart Cakrawala Aviation**

Smartdeal Building 4th Floor  
Jl. Cideng Timur No. 16A, Petojo-Gambir  
Jakarta Pusat, 10130 INDONESIA



# OPERATION MANUAL

STANDARD OPERATING PROCEDURES  
ELEVATED HELIPORT  
LIST OF EFFECTIVE PAGES

## LIST OF EFFECTIVE PAGES

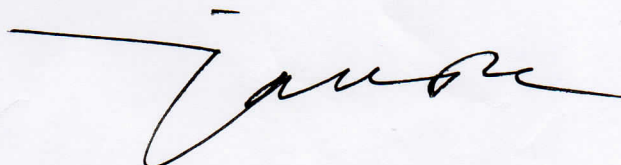
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## PT. SMART CAKRAWALA AVIATION

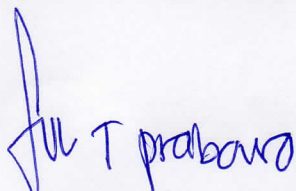


**CAPT. BARRY CHAMBERS**  
CHIEF PILOT ROTARY WING

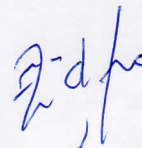


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# OPERATION MANUAL

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STANDARD OPERATING PROCEDURES  
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## REVISIONS HIGHLIGHT

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## REVISIONS OF RECORD

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# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPORT PREFACE

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### PREFACE

PT Smart Cakrawala Aviation is authorized to conduct air transportation under CASR Part 135 current amendment to carriage of passengers in non-scheduled Operation within the contiguous Indonesia. This Manual has been prepared as guidance of Operation personnel in the execution of their duties. It contains policies and procedures applicable to all flight Operation conducted under CASR 135 current amendment. All duties shall be conducted in accordance with the procedures and minimum times contained in this manual and in accordance with Civil Aviation Safety Regulations (CASR).

***This manual explains the internal organization system in detail, including the continuity of flight operation responsibility. It gives samples of flight operation forms used and their method of execution. The manual gives a detailed explanation of the following portions of the flight operation system.***

The instructions, policies and procedures contained in this manual are in accordance with the laws and regulations of Indonesia. They are intended to summarize and display those provisions of the regulations applicable to PT Smart Cakrawala Aviation, Operation and equipment, not replace existing regulations. In the event of conflict, the CASR take precedence.

This manual or applicable part thereof will be distributed to all personnel concerned with the conduct of Operation. Holders of this manual will be responsible for its safe custody.

Any reference made in this manual to the company, and/ or the Air Operator, shall be taken to mean PT Smart Cakrawala Aviation.

Any question or comments pertaining to the use of this manual or the information contained herein should be directed to the Operation Manager, or the appropriate division of Operation at headquarters in PT Smart Cakrawala Aviation.



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD GENERAL

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### 1. GENERAL

#### 1.1. INTRODUCTION

Helicopter operations are located on elevated sites normally only when there is no suitable space at ground level, however, security or convenience may also influence the choice of site.

Safe operations for helicopters at a ground level site require the availability under approach and departure routes of open spaces suitable for an emergency landing or a rejected take-off. It is equally necessary to have cleared spaces for the same purposes for those helicopters operating at an elevated site, particularly in the immediate vicinity of the site.

Attention must be given, therefore, to the relative height and proximity of other structures when planning approach and departure routes.

Items such as air vents or lift machinery housings, commonly located on the roofs of large, tall buildings, can be not only hazardous to the safety of the helicopter but also the cause of considerable turbulence. Therefore they should be below the level of the FATO whenever possible and, in any case, be situated well clear of the FATO plus safety area.

### **1.2. MINIMUM REQUIREMENT ELEVATED HELIPADS.**

Elevated heliports may be designed for a specific helicopter type though greater operational flexibility will be obtained from a classification system of design. The FATO should be designed for the largest or heaviest type of helicopter that it is anticipated will use the heliport, and account taken of other types of loading such as personnel, freight, refuelling equipment, etc. For the purpose of design, it is to be assumed that the helicopter will land on two main wheels, irrespective of the actual number of wheels in the undercarriage, or on two skids if they are fitted. The loads imposed on the structure should be taken as point loads at the wheel centres.

The FATO should be designed for the worse condition derived from consideration of the following two cases.

#### **1.2.1. The slope requirements**

The slope requirements for elevated heliports should conform to the requirements for surface level heliports.

The over-all slope in any direction on the FATO shall not exceed 3 percent. No portion of a FATO shall have a slope exceeding:

- a) 5 per cent where the heliport is intended to be used by performance class 1 helicopters; and
- b) 7 per cent where the heliport is intended to be used by performance class 2 and 3 helicopters.

#### **1.2.2. The Obstacle Limitation Requirements.**

The obstacle limitation requirements for elevated heliports shall be the same as the requirements for surface level ground heliports, II height and slope dimensions shall be relative to a datum which shall be a horizontal plane whose elevation is the elevation of the elevated FATO. An elevated heliport shall have at least two take-off climb and approach surfaces separated by not less than 150".

#### **1.2.3. Safety Area.**

The FATO shall be surrounded by a safety area. The safety area shall extend outwards from the periphery of the FATO for a distance of at least 3 m or 0.25 times the over-all length/width, whichever is the greater, of the longest/widest helicopter intended to use the elevated heliport. No fixed object shall be permitted on the safety area, except for frangibly designed objects which, because of their function, must be located on the area. No mobile object shall be permitted on the safety area during helicopter operations. Objects whose function require them to be located on the safety area shall not exceed a height of 25 cm when located along the edges of the FATO nor penetrate a plane originating at a height of 25 cm above the edge of the FATO and sloping upwards and outwards from the edges of the FATO at a gradient of 5 per cent. The surface of the safety area shall not exceed an upward slope of 4 per cent outwards from the edge of the FATO. The surface of the safety area abutting the FATO shall be continuous with the FATO and be capable of

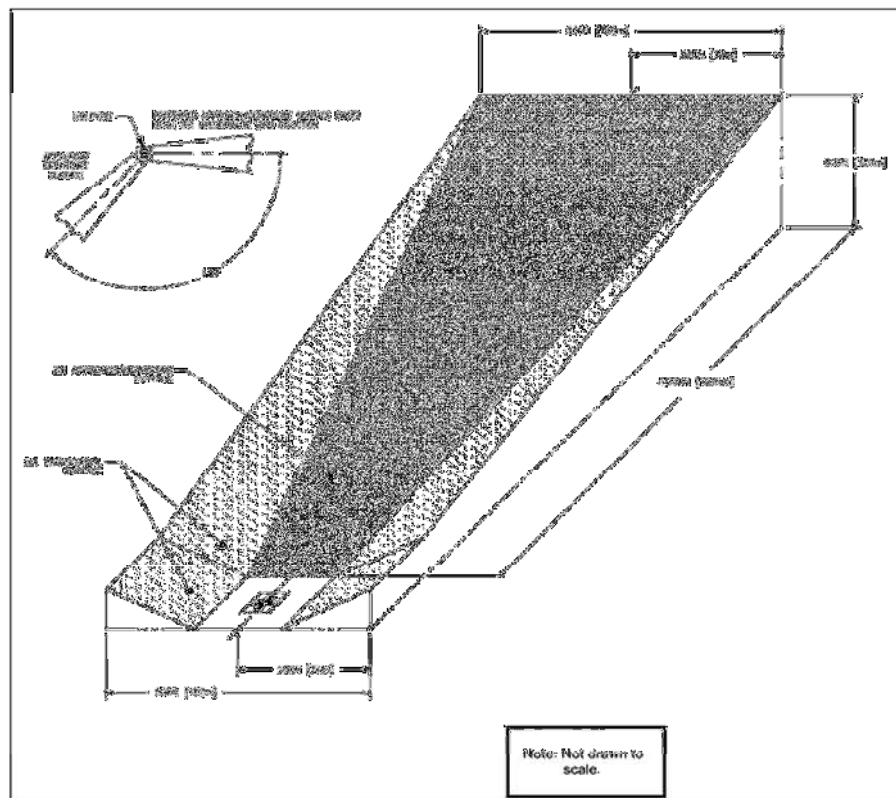
supporting, without structural damage, the helicopters that the heliport is intended to serve.

#### 1.2.4. Vfr Approach/ Departure Paths

#### 1.2.5.1. Number of Approach/ Departure Paths.

The purpose of approach/ departure airspace as shown in Figure 1-1 is to provide sufficient airspace clear of hazards to allow safe approaches to and departures from landing sites.

Approach/ departure paths should be such that downwind operations are avoided and crosswind operations are kept to a minimum. To accomplish this, a heliport should have more than one approach/ departure paths. The preferred flight approach/departure path should, to the extent feasible, be aligned with the predominate wind. Other approach/departure paths should be based on the assessment of the prevailing winds or when this information is not available the separation between such flight paths and the preferred flight path should be at least 135 degrees.(See Figure). Elevated Helipads facilities may have only single approach/departure path although a second flight path provides additional safety margin and operational flexibility.



**NOTE:** Rotor diameter and weight limitation markings are not shown for simplicity.

**FIGURE 1-1**



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD GENERAL

### 1.2.5.2. VFR Approach/ Departure and Transitional Surfaces.

An approach/ departure surface is centered on each approach/ departure path. Figure 1-1 illustrates the approach/ departure (primary and transitional) surfaces. The approach/ departure path starts at the edge of the FATO and slopes upward at 8:1 (8 units horizontal in 1 unit vertical) for a distance of 4000 ft (1219 m) where the width is 500 ft (152 m) at a height of 500 ft (152 m) above the elevation of TLOF surface.

The transitional surfaces start from the edges of the FATO parallel to the flight path center line, and from the outer edges of approach/ departure surface, and extend outwards at a slope of 2:1 (2 units horizontal in 1 unit vertical) for a distance of 250 ft (76 m) from the centerline. The transitional surfaces start at the edge of the FATO opposite the approach/ departure surfaces and extend to the end of the approach/ departure surface. See Figure 1-1.

**NOTE:** The transitional surface is not applied on the FATO edge opposite the approach/ departure surface.

The approach/ departure surface should be free of penetrations. Any penetration of the transitional surface should be considered a hazard will not have a substantial adverse effect upon the safe and efficient use of this airspace. The transitional surfaces need not be considered if the size of the approach/ departure surface is increased for a distance of 2000 ft. (610 m) as shown in Figure 1-2. The lateral extensions on each side of the 8:1 approach/ departure surface starts at the width of the FATO and is increased so that at a distance of 2000 ft (610 m) from the FATO it is 100 ft (30 m) wide. Penetrations of area A or area B, but not both, shown on Figure 4-7 by obstacles may be allowed providing the penetrations are marked or lighted and not considered a hazard.

**NOTE:** When the standard surface is incompatible with the airspace available at the heliport site, no operations may be conducted unless helicopter performance data supports a capability to safely operate using an alternate approach/ departure surface. The site would be limited to those helicopters meeting or exceeding the required performance.

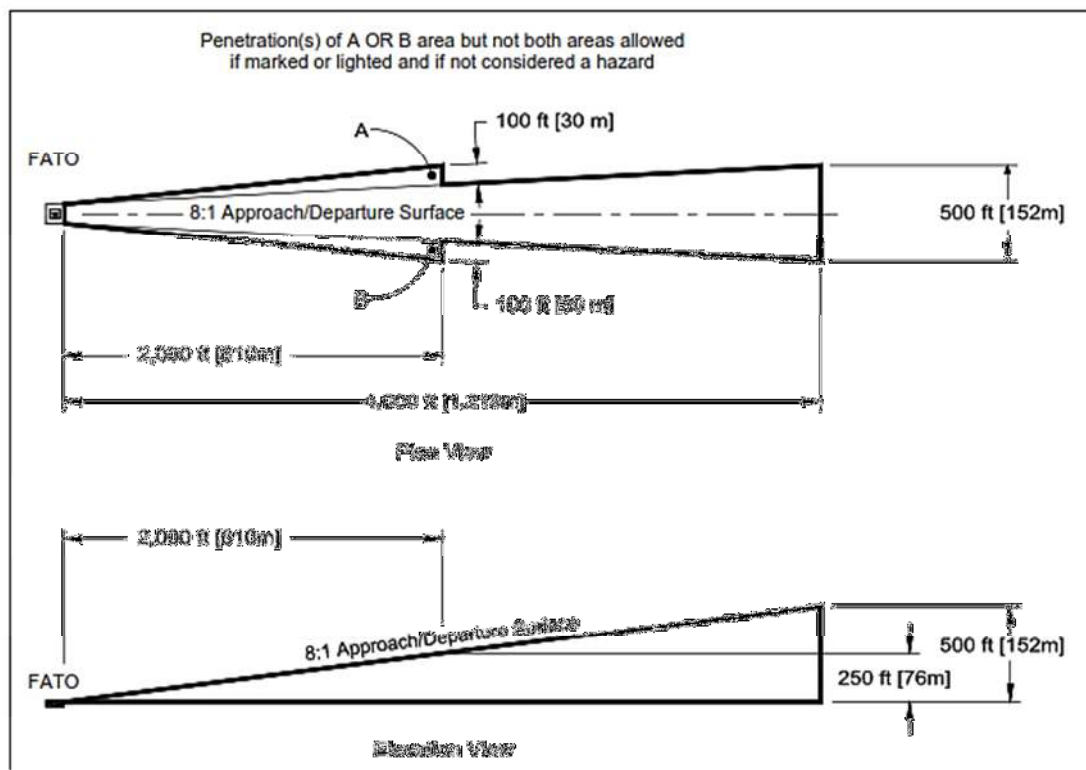


FIGURE 1-2

### 1.2.5.3. Curved VFR Approach/ Departure Paths.

VFR approach/ departure paths may curve in order to avoid objects or noise-sensitive areas. More than one curve in the path is not recommended. Heliport designers are encouraged to use the airspace above public lands, such as freeways or rivers.

### 1.2.5. Windsock.

The windsock should provide the best possible color contrast to its background. The windsock should be located so it provides the pilot with valid wind direction and speed information in the vicinity of the heliport under all wind conditions.

- (1) The windsock should be sited so it is clearly visible to the pilot on the approach path when the helicopter is at a distance of 500 feet (152 m) from the TLOF.
- (2) Pilots should also be able to see a windsock from the TLOF.
- (3) To avoid presenting an obstruction hazard, the windsock should be located outside the Safety Area and it should not penetrate the approach/departure or transitional approach/ departure surfaces.
- (4) At many landing sites, there may be no single, ideal location for the windsock. At other sites, it may not be possible to site a windsock at the ideal location. Consequently, more than one windsock may be required in order to provide the pilot with all the wind information needed for safe operations.



### 1.2.6. Rescue and Fire Fighting Services.

Heliports should meet the criteria KP.40 TAHUN 2015 Chapter 5 Rescue and Fire Fighting.

| Kategori  | Panjang Keseluruhan Helikopter (a)                       |
|---|--|
| H1  | Sampai dengan, tetapi tidak termasuk 15 m                |
| H2  | Dari 15 m sampai dengan, tetapi tapi tidak termasuk 24 m |
| H3  | Dari 24 m sampai dengan, tetapi tidak termasuk 35 m      |
| (a) Panjang helikopter, termasuk tail boom dan rotor. |  |

Table 6.2-1 Kategori *fire fighting heliport*

| No  | Rescue equipment                                | Category H2 | Category H3 |
|-----|---|-------------|-------------|
| 1.  | Adjustable wrench                               | 1 unit      | 1 unit      |
| 2.  | Axe, rescue, non – wedge or aircraft type       | 1 unit      | 1 unit      |
| 3.  | Cutter bolt                                     | 1 unit      | 1 unit      |
| 4.  | Crowbar   | 1 unit      | 1 unit      |
| 5.  | Hook grap or salving                            | 1 unit      | 1 unit      |
| 6.  | Hacksaw heavy duty complete with 6 spare blades | 1 set       | 1 set       |
| 7.  | Blanket fire resistant                          | 1 unit      | 1 unit      |
| 8.  | Ladder, helicopter type                         | -           | 1 unit      |
| 9.  | Lifeline, 5 cm, 15 m in length                  | 1 roll      | 1 roll      |
| 10. | Plier side cutting                              | 1 unit      | 1 unit      |
| 11. | Set of assorted screwdrivers                    | 1 set       | 1 set       |
| 12. | Harness knife complete with sheath              | 1 units     | 1 units     |
| 13. | Gloves, fire resistant                          | 2 pairs     | 3 pairs     |
| 14. | Power cutting tool                              | -           | 1 unit      |

Table 6.7-1 Kategori *fire fighting heliport*

| Category | Foam meeting performance<br>level B |   | Complementary agents         |    |                |                         |     |
|----------|-------------------------------------|---|------------------------------|----|----------------|-------------------------|-----|
|          | Water<br>(L)                        | Discharge rate<br>foam solution (L/min) | Dry chemical<br>powders (kg) |    | Halons<br>(kg) | CO <sub>2</sub><br>(kg) |     |
|          | (1)                                 | (3)                                     | (4)                          | or | (5)            | or                      | (6) |
| H1       | 2 500                               | 250                                     | 45                           |    | 45             |                         | 90  |
| H2       | 5 000                               | 500                                     | 45                           |    | 45             |                         | 90  |
| H3       | 8 000                               | 800                                     | 45                           |    | 45             |                         | 90  |

Table 6.7-3 Minimum kategori *fire fighting* untuk *elevated heliport*

### 1.2.7. Communications.

A UNICOM radio may be used to provide arriving helicopters with heliport and traffic advisory information but may not be used to control air traffic.

### 1.2.8. Final approach and take-off area and touchdown and lift-off area.

On elevated heliports, it is presumed that the FATO and the touchdown and lift-off area will be coincidental. An elevated heliport shall be provided with at least one FATO. The dimensions of the FATO shall be:

- For a heliport intended to be used by performance class 1 helicopters, as prescribed in the helicopter flight manual except that, in the absence of width specifications, the width shall be not less than 1.5 times the over-all length/width, whichever is the greater, of the longest/widest helicopter the heliport is intended to serve; and
- for a heliport intended to be used by performance class 2 helicopters, of sufficient size and shape to contain an area within which can be drawn a circle of diameter not less than 1.5 times the over-all length/width, whichever is the greater, of the longest/widest helicopter the heliport is intended to serve.

#### 1.2.8.1. Final Approach Reference Area (FARA).

A certificated helicopter precision approach procedure terminates with the helicopter coming to a hover or touching down within a 150-foot-wide (45 m) by at least 150-foot long (45 m) FARA.

The FARA is located at the far end of a 300-foot-wide by 1,225-foot-long (91 m by 373 m) FATO required for a precision instrument procedure.

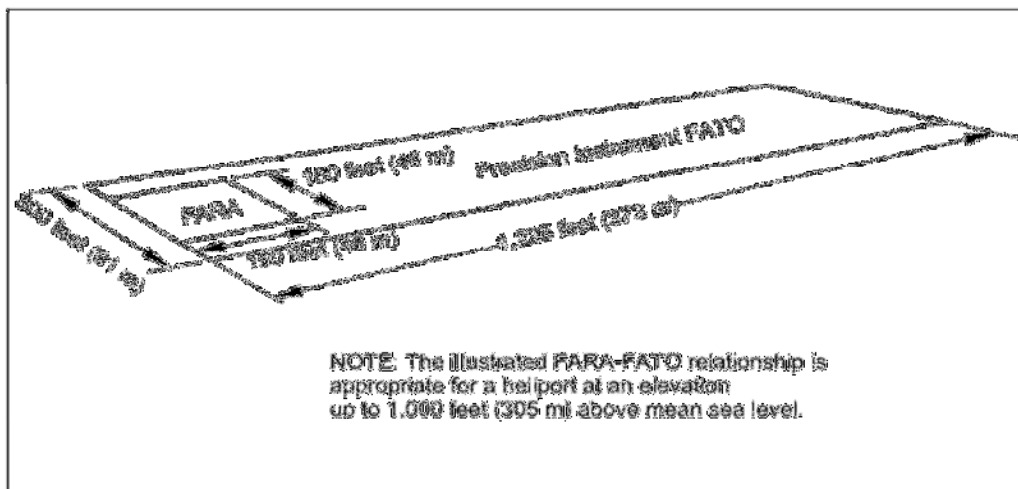


Figure 7-3

### 1.2.9. Procedures for landing on an Elevated Heliport

- Pilots will familiarize themselves with all relevant information pertaining to the heliport prior to departure.





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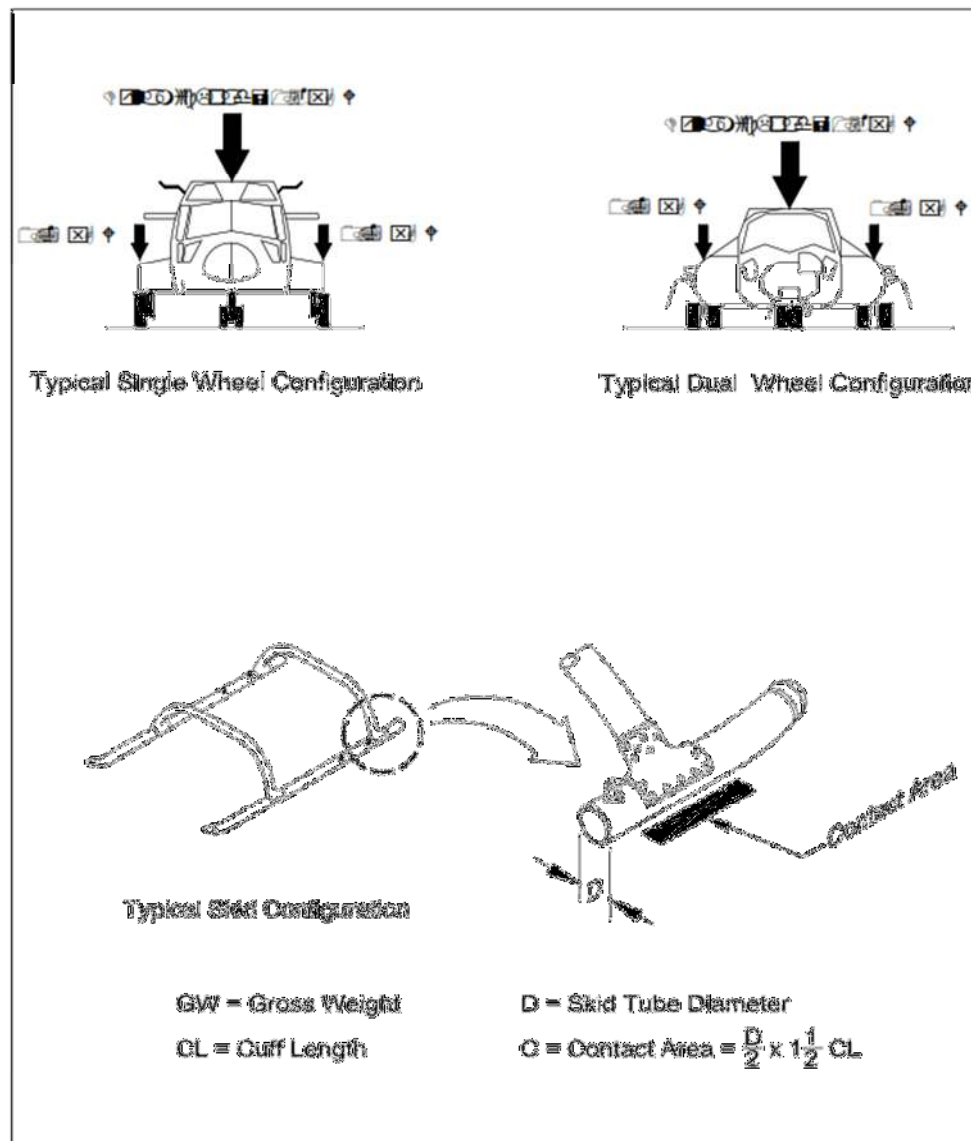
## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD GENERAL

2. The weight and balance prepared for the flight will be cross-referenced to the Pilot Operating Handbook Section 5 for “Out of Ground” hover capabilities for Robinson R66.
3. Arriving in the vicinity of the helipad, pilots are to carry out a “high reconnaissance” consisting of an orbit at approx. 300 feet above the helipad and an indicated airspeed of no less than 60Kts to establish the following: -
  - a. Confirmation of obstacles that could be a hazard
  - b. Confirmation that the helideck is clear of loose materials that could get caught up in the downwash
  - c. Take note of the sun. (avoid landings into direct sunlight particularly early morning and late afternoon when the sun is lower on the horizon)
  - d. Note the wind direction as indicated by the wind sock on the deck
4. With the information from No.2, pilots should make a decision as to the correct direction for the final approach, ideally into the wind, that will eliminate as many potential hazards as possible. The approach is NEVER to be made “downwind”. Final approach should be planned to keep any potential obstacles to either side of the helicopter (NEVER in front) to allow for a “go miss” to be safely executed
5. The approach angle should be that of a “normal approach”, approx. 10°-15° and the approach should start at about 300 feet above the helipad elevation with an indicated airspeed as per POH of 60KIAS
6. The approach angle is to be maintained throughout the approach with airspeed gradually reducing.
7. As the approach comes within 200 feet of the landing zone, pilots are to conduct a “Low Reconnaissance” to confirm all information previously gathered is correct, confirm airspeed, rate of descent and power setting to make an informed GO/NO GO decision.
8. Airspeed should not drop below 30KIAS unless rate of descent has been reduced to less than 300fpm.
9. Ideally the approach should terminate in a hover before setting the aircraft down

### Notes of Caution

- Operating in the vicinity of high rise buildings has a lot of hazards. Pilots must always be aware of the possibility of mechanical turbulence induced by prevailing winds being pushed between buildings and around buildings causing it to gust and swirl. Pilots need to expect and anticipate such turbulence when landing on helipads lower than the surrounding buildings.
- Know your aircraft's weight and power limitations
- Always be aware of your rate of descent
- If anything feels “not right”, don't be afraid to Go Round and set up your approach again
- Always err on the side of caution and be safe!

### Helicopter Landing Gear Loading



#### 1.2.10. Prior Inspection of Helipad.

All HLOs will personally visit each elevated helipad where the company intends to land. Picture of the helipad and potential hazards will be taken and kept on file for future reference.

Pilots should visit the helipad before attempting a landing. If time does not allow such a visit, they will be fully briefed by the HLO on duty as to the potential hazards associated with the helipad. Pictures (as taken by HLO) will give the pilot a clear picture of the surroundings of the Helipad.



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD GENERAL

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### 1.3. TYPES OF AIRCRAFT OPERATED

PT. Smart Cakrawala Aviation is authorized to conduct on demand aircraft operation pursuant to CASR 135 current amendment on carriage of passengers and cargo in non-scheduled operation. Rev to OM A section 2.1.3 Types of Aircraft Operated.



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD TRAINING

### 2. TRAINING.

#### 2.1. ELEVATED HELIPADS TRAINING

##### 2.1.1. General

This section contains "Special" curriculum segments which serve to train crewmembers in specific operations which may be required by Company. Special curriculum segments may be developed and added to this section to meet the training requirements as specific types of operations are added to the Company Operations Specifications, or other specific training needs arise.

##### 2.1.2. Objective

Qualify crewmembers in specific operations which are beyond the scope of basic training.

##### 2.1.3. Conduct of Training

Normally, special curriculum segments are treated as independent programs when first introduced to the crewmember. For the purposes of Recurrent and Requalification Training, special segments may be integrated with other curriculum segments to enhance training efficiency.

##### 2.1.4. Ground training

|                                |   |  |
|--------------------------------|---|--|
| Objective                      | : | To train Pilots to operate in the Elevated Helipads Environment. |
| Instructional Delivery Methods | : | Lecture.   |
| Training Aids/Courseware       | : | Classroom equip./Ref. docs.                                      |
| Testing/Checking               | : | Oral or written examination.                                     |

**TIME SCALE.....16 Hours**

###### 1) Elevated Helipads Flying

- (a) Elevated Helipads Environment
  - Block System (3 miles square).
  - Military Operations Area.
- (b) Elevated Helipads Weather
  - Obtaining Weather.
  - Avoiding Severe Weather.
  - Minimums.
- (c) Safety in the Elevated Helipads Environment
- (d) Airworthiness Determination
  - Daily Inspection Sign-Off.
  - Next Component or Inspection Due Determination.
  - Status Sheet.
  - Maintenance Carry-Over-Discrepancy Sheet.
  - Aircraft Pre-flight.
  - Pilot Write-Ups.
  - Maintenance Correction for Write-Ups.
  - Maintenance Compulsory Checks.
  - Operational Check Flight Release.

- Grounding Conditions.
  - Minimum Equipment List Release.
  - Release of a Grounded Aircraft.
  - Pilot's Responsibility in determination of Airworthiness Release.
  - Mechanics Responsibility in determination of Airworthiness release.
  - Incident Report Requirements.
  - (e) Overview of Elevated Helipads Flight Following Boundaries and Areas
  - (f) Platform Operations
    - Takeoffs.
    - Landings.
    - Hazards.
    - Tie down Procedures.
    - Refuelling.
  - (g) Refuelling Operations
    - Refer to Special Curriculum Segment.
  - (h) Maintenance Services Available
  - (i) En-route Flight Planning
  - (j) Evaluating Flight Requirements
  - (k) Customer Relations
- 2) One-Way Fuel Procedures For Elevated Helipads Flights
- (a) Weather Requirements
    - Ceiling and Visibility.
    - Wind.
  - (b) Aircraft Requirements / Performance
    - Robinson R66
  - (c) Flight Planning
    - Point of Commitment.
    - Fuel burn.
    - Refuelling requirements.
    - Fuel Service
  - (d) Landing Platform Selection
    - Size.
    - Wind orientation.
    - Obstructions.
    - Deck surface.
    - Landing with minimum fuel.

Noted:

One of the main concerns that any pilot should have when setting up an approach to an elevated helipad is that of "Settling with Power" or "Vortex Ring State.

All company pilots should be familiar with the signs/indications of a "Vortex Ring State" and current on the recovery techniques should they inadvertently find themselves in a situation of Vortex Ring State. All pilots will have refresher training every six months on the environmental characteristics and performance characteristics that can lead to or contribute to the hazard.

Please see Operations Manual Part D Section

Below is Safety Notice "SN-22" from the RHC R66 Pilot Operating Handbook.





## OPERATION MANUAL

STANDARD OPERATING PROCEDURES  
ELEVATED HELIPAD  
TRAINING

**ROBINSON**  
HELICOPTER COMPANY

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### **Safety Notice SN-22**

Issued: July 1986 Revised: June 1994; October 2016

#### **VORTEX RING STATE CATCHES MANY PILOTS BY SURPRISE**

A vertical or steep approach, particularly downwind, can cause the rotor to fly into its own downwash. This condition is known as vortex ring state due to the vortices that develop as the downwash is recirculated through the rotor disk. Once vortex ring state exists, adding power (raising collective) can unexpectedly increase descent rate due to the increase in downwash recirculating through the rotor. Maximum engine power may not be enough to stop the descent before a hard landing occurs.

To avoid vortex ring state, reduce rate of descent before reducing airspeed. A good rule to follow is never allow your airspeed to be less than 30 knots until your rate-of-descent is less than 300 feet per minute.

Signs that vortex ring state is developing include increased vibration levels, decreased control authority ("mushy controls"), and a rapid increase in sink rate.

If vortex ring state is inadvertently encountered, two recovery techniques are available. One technique involves reducing collective pitch (to reduce downwash), lowering the nose to fly forward out of the downwash, and then applying recovery power. This can result in significant altitude loss which may not be acceptable on an approach.

A second technique known as the Vuichard recovery involves applying recovery power while moving the helicopter sideways, assisted by tail rotor thrust, out of the downwash. When flown properly, the Vuichard recovery produces minimal altitude loss.

Pilots should always be aware of wind conditions and plan descents to avoid vortex ring state. Training should emphasize recognition and avoidance of vortex ring state and include instruction in both recovery techniques.



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD TRAINING

---

### 2.1.5. Flight Training.

**TIME SCALE.....1 Hours**

- (a) Briefing
- (b) Preflight
- (c) Procedures
- (d) Ground Operations
- (e) Takeoff and Departure Maneuvers
- (f) Inflight maneuvers
- (g) Landings and Approaches to Landings
- (h) Normal, Abnormal and Emergency Procedures
- (i) Post Flight Procedures
- (j) Debriefing

### 2.1.6. Courseware

- a. Operations Manual (OM); Minimum Equipment List (MEL); Pilot Operating Handbooks (POH); Standard Operating Procedures (SOP) Elevated Helipads; Flight Plans, Indoavis Area Charts and Approach Charts;
- b. Other applicable material as necessary.

### 2.1.7. Instructional Delivery Methods:

Aircraft demonstrated by the pilot being trained.

### 2.1.8. Testing / Checking:

Questions pertaining to duties will be done by Flight Instructor/DCP.

### 2.1.9. Training Environment:

Aircraft.



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD ROUTE GUIDANCE AND LOCAL PROCEDURES

---

### 3. ROUTE GUIDANCE AND LOCAL PROCEDURES.

Landing a helicopter on an elevated/rooftop helipad is a challenging maneuver even for the most experienced pilots.

Elevated pads can have a host of hazards that must be taken into consideration before an approach can be made.

Apart from the obstacles that surround elevated helipads, pilots must be familiar with the performance limitations and characteristics of the aircraft being used. This SOP sets out the procedures to be used before any attempt at a landing can be made.

Base Manager shall be responsible for the efficient use and routings of aircraft. This includes many factors a crew may not be aware of, so the Base Manager must approve all route changes before a change is made by a crew.

Pilots may change the routing for flight safety reasons such as fuel, or aircraft mass that will not permit a safe landing.

Suggestions on how the flight might have been completed more efficiently should be discussed upon return to Base.

Routes are designed to avoid prohibited, restricted and danger areas.

#### 3.1. Day VFR minimum Altitudes.

These are as stipulated in the Operations Manual Part A (List any special routes for use by day, including minimum altitude for meeting requirements of OM Part A and OM Part C Appendix B Route Information). In addition to the above chart may be produced for each route, or a number of routes, for ease of use in the cockpit. These charts should use standard AIP, Indoavis and Jeppesen symbology.

After take off intercept VFR route maintain 700 until 1000 feet or instructed by ATC.





# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD ROUTE GUIDANCE AND LOCAL PROCEDURES

---

### 3.2. Arrival Procedure.

Day VFR (Visual Flight Rules) :

Proceed to overhead station or and upwind leg (Put the Helipad in use on the left or right side the Air Craft) maintain 500 feet and or below 1.000 feet then joint to aerodrome traffic circuit or and instructed by ATC.

### 3.3. ROUTE.

Route map attached are simply a direct track and procedures from Cibubur to the registered elevated heliports.

**REGISTER ELEVATED HELIPORT (RELV)**

| ID | NAMA HELIPORT              | LOKASI HELIPORT  |
|----|----------------------------|--|
| 1  | MRCCC - SILOAM HOSPITAL    | JL. GARNISUN DALAM NO. 8, SETIABUDI, JAKARTA SELATAN         |
| 2  | Aryaduta Hotel             | Hotel Aryaduta - Jakarta, Jl. Prapatan No. 44A Jakarta Pusat |
| 3  | PACIFIC PLACE - I          | JL. SUDIRMAN KAV. 52 - 53, JAKARTA                           |
| 4  | PACIFIC PLACE - II         | JL. SUDIRMAN KAV. 52 - 53, JAKARTA                           |
| 5  | Siloam Hospital Simatupang | Siloam Hospital Simatupang - Jakarta Selatan                 |
| 6  | STREET GALLERY             | JL. METRO PONDOK INDAH, JAKARTA SELATAN                      |
| 7  | Fairmont Jakarta           | Jl. Asia Afrika No.8, Gelora Bung Karno, Jakarta Pusat 10270 |
| 8  | BNPB                       | JL. PRAMUKA KAV. 38, JAKARTA TIMUR                           |

### 3.2.1. MRCCC - SILOAM HOSPITAL

Data's:

Location : Jl. Garnisun Dalam No. 8, Jakarta

Coordinated : 6°13'09.42"S ; 106° 49'01.99"E.

FATO & TLOF : D 16 m (Circle).

Strength : 7,000 kg (07t).

Status

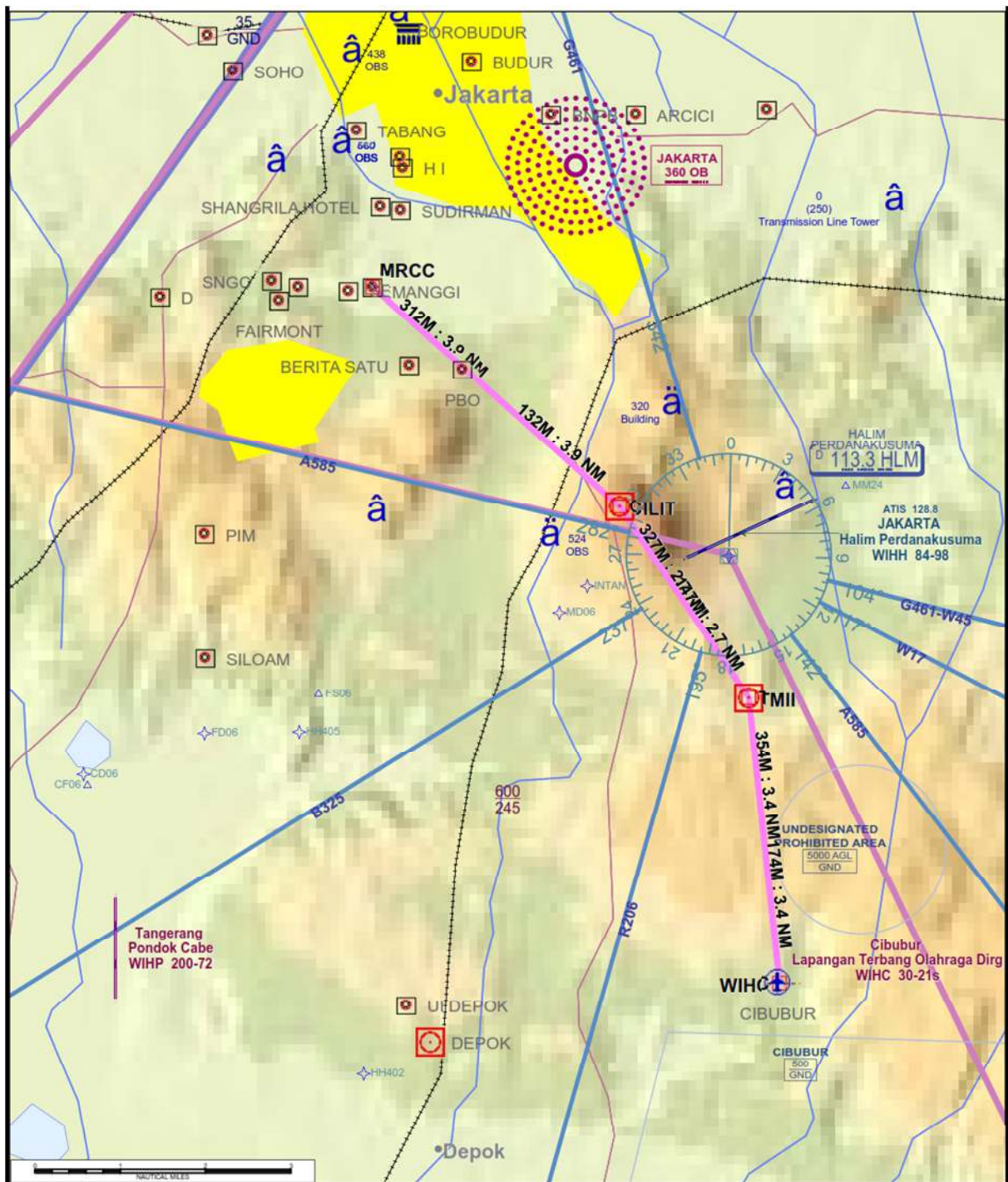
- Private and Day Light VFR
- Operation & Emergency Operation

Elevation : ± 547.9 Feet MSL / ± 167 m

| Spd(Kts)   |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|--|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E 106° 53' 49.0 | WIHC   |       |            |     |     |      |          |       |       |      |
|  |        | 30    |            |     |     |      | 20       |       |       |      |
| TMII<br>S 06° 18' 01.2<br>E 106° 53' 27.1                  | CLIMB  | TMII  | 12,300     | 354 | 71  |      | 2        | 00:02 |       |      |
|  |        | 1000  | (12,300)   | 354 | 71  |      | 18       | 00:02 |       |      |
|  | CRUISE |       | 12,300     | 354 | 100 |      | 1        | 00:01 |       |      |
|  |        | 1000  | (12,300)   | 354 | 100 |      | 17       | 00:03 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E 106° 51' 56.0                 | CRUISE | CILIT | 12,300     | 327 | 100 |      | 3        | 00:02 |       |      |
|  |        | 1000  | (12,300)   | 327 | 100 |      | 14       | 00:04 |       |      |
| MRCC<br>S 06° 13' 07.1<br>E 106° 49' 01.6                  | CRUISE | MRCC  | 12,300     | 312 | 100 |      | 4        | 00:02 |       |      |
|  |        | 1000  | (12,300)   | 312 | 100 |      | 10       | 00:07 |       |      |

| Spd(Kts)  |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| MRCC<br>S 06° 13' 07.1<br>E 106° 49' 01.6             | MRCC   |       |            |     |     |      |          |       |       |      |
|   |        | 1000  |            |     |     |      | 10       |       |       |      |
| MRCC<br>S 06° 13' 07.1<br>E 106° 49' 01.6             | CRUISE | MRCC  | 12,300     | 045 | 100 |      | 0        | 00:02 |       |      |
|   |        | 1000  | (12,300)   | 045 | 100 |      | 10       | 00:08 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E 106° 51' 56.0            | CRUISE | CILIT | 12,300     | 132 | 100 |      | 4        | 00:02 |       |      |
|   |        | 1000  | (12,300)   | 132 | 100 |      | 6        | 00:11 |       |      |
| TMII<br>S 06° 18' 01.2<br>E 106° 53' 27.1             | CRUISE | TMII  | 12,300     | 147 | 100 |      | 3        | 00:02 |       |      |
|   |        | 1000  | (12,300)   | 147 | 100 |      | 3        | 00:12 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E 106° 53' 49.0 | CRUISE | WIHC  | 12,300     | 174 | 100 |      | 1        | 00:01 |       |      |
|   |        | 1000  | (12,300)   | 174 | 100 |      | 2        | 00:13 |       |      |
|   | DESCNT |       | 12,300     | 174 | 71  |      | 2        | 00:02 |       |      |
|   |        | 30    | (12,300)   | 174 | 71  |      | 0        | 00:15 |       |      |



### 3.2.2. Aryaduta Hotel

#### Procedure Final/Approach:

- Proceed to Arya Duta maintain 1.000 feet
- Final 700 feet ; Distance  $\pm$  0.7 nm
- Normal Podedure Descend and Landing

#### Procedure Takeoff/Departure:

- Hover and continue maximum takeoff performance or TQ 10 percent from Limitation Max. Engine performance.
- Normal Procedure Takeoff See
- Maintain heading to 3 direction until up to 700 feet make turn to the destination proceed to are climb and maintain 1.000 feet or as instructed by ATC.
- Emergency/Malfunction Procedures, see Part B Operation Manual and FM/POH

| Spd(Kts)  |        |       |           |          |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|-----------|----------|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA | MT       | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA(MORA) | MH       | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |           |          |     |      |          |       |       |      |
|   |        | 30    |           |          |     |      | 23       |       |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1                  | CLIMB  | TMII  | 12,300    | 354      | 71  |      | 2        | 00:02 |       |      |
|   |        |       | 1000      | (12,300) | 354 | 71   | 20       | 00:02 |       |      |
|   | CRUISE |       | 12,300    | 354      | 100 |      | 1        | 00:01 |       |      |
|   |        | 1000  | (12,300)  | 354      | 100 |      | 19       | 00:03 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0                 | CRUISE | CILIT | 12,300    | 327      | 100 |      | 3        | 00:02 |       |      |
|   |        | 1000  | (12,300)  | 327      | 100 |      | 16       | 00:04 |       |      |
| ARYAD<br>S 06° 10' 54.0<br>E106° 50' 07.0                 | CRUISE | ARYAD | 12,300    | 340      | 100 |      | 5        | 00:03 |       |      |
|   |        | 1000  | (12,300)  | 340      | 100 |      | 11       | 00:07 |       |      |





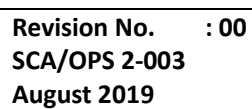
# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES

### ELEVATED HELIPAD

#### ROUTE GUIDANCE AND LOCAL PROCEDURES

| Spd(Kts)   |       |      |            |     |     |      | Dist(NM) | Time  |       |      |
|--|-------|------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident | AWY  | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq. | ALT  | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| ARYAD<br>S 06° 10' 54.0<br>E106° 50' 07.0            | ARYAD |      |            |     |     |      |          |       |       |      |
|  |       | 1000 |            |     |     |      | 11       |       |       |      |
| ARYAD<br>S 06° 10' 54.0<br>E106° 50' 07.0            | ARYAD |      | 12,300     | 223 | 100 |      | 0        | 00:02 |       |      |
|  |       | 1000 | (12,300)   | 223 | 100 |      | 11       | 00:09 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0            | CILIT |      | 12,300     | 160 | 100 |      | 5        | 00:03 |       |      |
|  |       | 1000 | (12,300)   | 160 | 100 |      | 6        | 00:12 |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1             | TMII  |      | 12,300     | 147 | 100 |      | 3        | 00:02 |       |      |
|  |       | 1000 | (12,300)   | 147 | 100 |      | 3        | 00:14 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC  |      | 12,300     | 174 | 100 |      | 1        | 00:01 |       |      |
|  |       | 1000 | (12,300)   | 174 | 100 |      | 2        | 00:15 |       |      |
|  |       |      | 12,300     | 174 | 71  |      | 2        | 00:02 |       |      |
|  |       | 30   | (12,300)   | 174 | 71  |      | 0        | 00:17 |       |      |



### 3.2.3. PACIFIC PLACE - I

| Spd(Kts)  |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |            |     |     |      |          |       |       |      |
|   |        | 30    |            |     |     |      | 20       |       |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1                  | CLIMB  | TMII  | 12,300     | 354 | 71  |      | 2        | 00:02 |       |      |
|   |        |       | (12,300)   | 354 | 71  |      | 18       | 00:02 |       |      |
|   | CRUISE |       | 12,300     | 354 | 100 |      | 1        | 00:01 |       |      |
|   |        | 1000  | (12,300)   | 354 | 100 |      | 17       | 00:03 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0                 | CRUISE | CILIT | 12,300     | 327 | 100 |      | 3        | 00:02 |       |      |
|   |        |       | (12,300)   | 327 | 100 |      | 14       | 00:04 |       |      |
| PASIF<br>S 06° 13' 29.0<br>E106° 48' 35.0                 | CRUISE | PASIF | 12,300     | 304 | 100 |      | 4        | 00:02 |       |      |
|   |        |       | (12,300)   | 304 | 100 |      | 10       | 00:07 |       |      |

| Spd(Kts)   |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|--|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| PASIF<br>S 06° 13' 29.0<br>E106° 48' 35.0            | PASIF  |       |            |     |     |      |          |       |       |      |
|  |        | 1000  |            |     |     |      | 10       |       |       |      |
| PASIF<br>S 06° 13' 29.0<br>E106° 48' 35.0            | CRUISE | PASIF | 12,300     | 031 | 100 |      | 0        | 00:02 |       |      |
|  |        |       | (12,300)   | 031 | 100 |      | 10       | 00:08 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0            | CRUISE | CILIT | 12,300     | 124 | 100 |      | 4        | 00:02 |       |      |
|  |        |       | (12,300)   | 124 | 100 |      | 6        | 00:11 |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1             | CRUISE | TMII  | 12,300     | 147 | 100 |      | 3        | 00:02 |       |      |
|  |        |       | (12,300)   | 147 | 100 |      | 3        | 00:13 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | CRUISE | WIHC  | 12,300     | 174 | 100 |      | 1        | 00:01 |       |      |
|  |        |       | (12,300)   | 174 | 100 |      | 2        | 00:13 |       |      |
|  | DESCNT |       | 12,300     | 174 | 71  |      | 2        | 00:02 |       |      |
|  |        | 30    | (12,300)   | 174 | 71  |      | 0        | 00:15 |       |      |





### 3.2.4. Siloam Hospital Simatupang

#### Approach and Departure Procedure

Final/Approach and Takeoff/Departure to 2 direction North West until North East, preferred surface based upon the predominate wind direction.

#### Procedure Final/Approach:

- Proceed to Siloam Hospital Simatupang maintain 1.000 feet
- Final 900 feet ; Distance  $\pm$  0.7 nm
- Normal Podedure Descend and Landing

#### Procedure Takeoff/Departure:

- Hover and continue maximum takeoff performance or TQ 10 percent from Limitation Max. Engine performance.
- Normal Procedure Takeoff See Chapter III (g) FM Section 2, 2-8.
- Maintain heading to 2 direction until up to 1000 feet make turn to the destination and maintain 1.000 feet or as instructed by ATC.

Emergency/Malfunction Procedures, see Operation Manual Part B and POH/FM Chapter 3

|   |        |       | Spd(Kts)  |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|-----------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |           |     |     |      |          |       |       |      |
|   |        | 30    |           |     |     |      | 19       |       |       |      |
| DEPOK<br>S 06° 22' 07.0<br>E106° 49' 42.3                 | CLIMB  | DEPOK | 12,300    | 260 | 71  |      | 2        | 00:02 |       |      |
|   |        | 1000  | (12,300)  | 260 | 71  |      | 17       | 00:02 |       |      |
|   | CRUISE |       | 12,300    | 260 | 100 |      | 2        | 00:01 |       |      |
|   |        | 1000  | (12,300)  | 260 | 100 |      | 15       | 00:03 |       |      |
| SILOA<br>S 06° 17' 32.7<br>E106° 47' 03.5                 | CRUISE | SILOA | 12,300    | 330 | 100 |      | 5        | 00:03 |       |      |
|   |        | 1000  | (12,300)  | 330 | 100 |      | 9        | 00:06 |       |      |
| SILOA<br>S 06° 17' 32.7<br>E106° 47' 03.5                 | CRUISE | SILOA | 12,300    | 024 | 100 |      | 0        | 00:03 |       |      |
|   |        | 1000  | (12,300)  | 024 | 100 |      | 9        | 00:09 |       |      |



# OPERATION MANUAL

## STANDARD OPERATING PROCEDURES ELEVATED HELIPAD ROUTE GUIDANCE AND LOCAL PROCEDURES

| Spd(Kts)   |        |      |            |     |     |      | Dist(NM) | Time  |       |      |
|--|--------|------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident  | AWY  | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq.  | ALT  | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| SILOA<br>S 06° 17' 32.7<br>E106° 47' 03.5            | SILOA  |      |            |     |     |      |          |       |       |      |
|  |        | 1000 |            |     |     |      | 9        |       |       |      |
| DEPOK<br>S 06° 22' 07.0<br>E106° 49' 42.3            | DEPOK  |      | 12,300     | 150 | 100 |      | 5        | 00:03 |       |      |
|  |        | 1000 | (12,300)   | 150 | 100 |      | 4        | 00:12 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | CRUISE | WIHC | 12,300     | 080 | 100 |      | 2        | 00:01 |       |      |
|  |        |      | (12,300)   | 080 | 100 |      | 2        | 00:13 |       |      |
|  | DESCNT |      | 12,300     | 080 | 71  |      | 2        | 00:02 |       |      |
|  |        | 30   | (12,300)   | 080 | 71  |      | 0        | 00:15 |       |      |



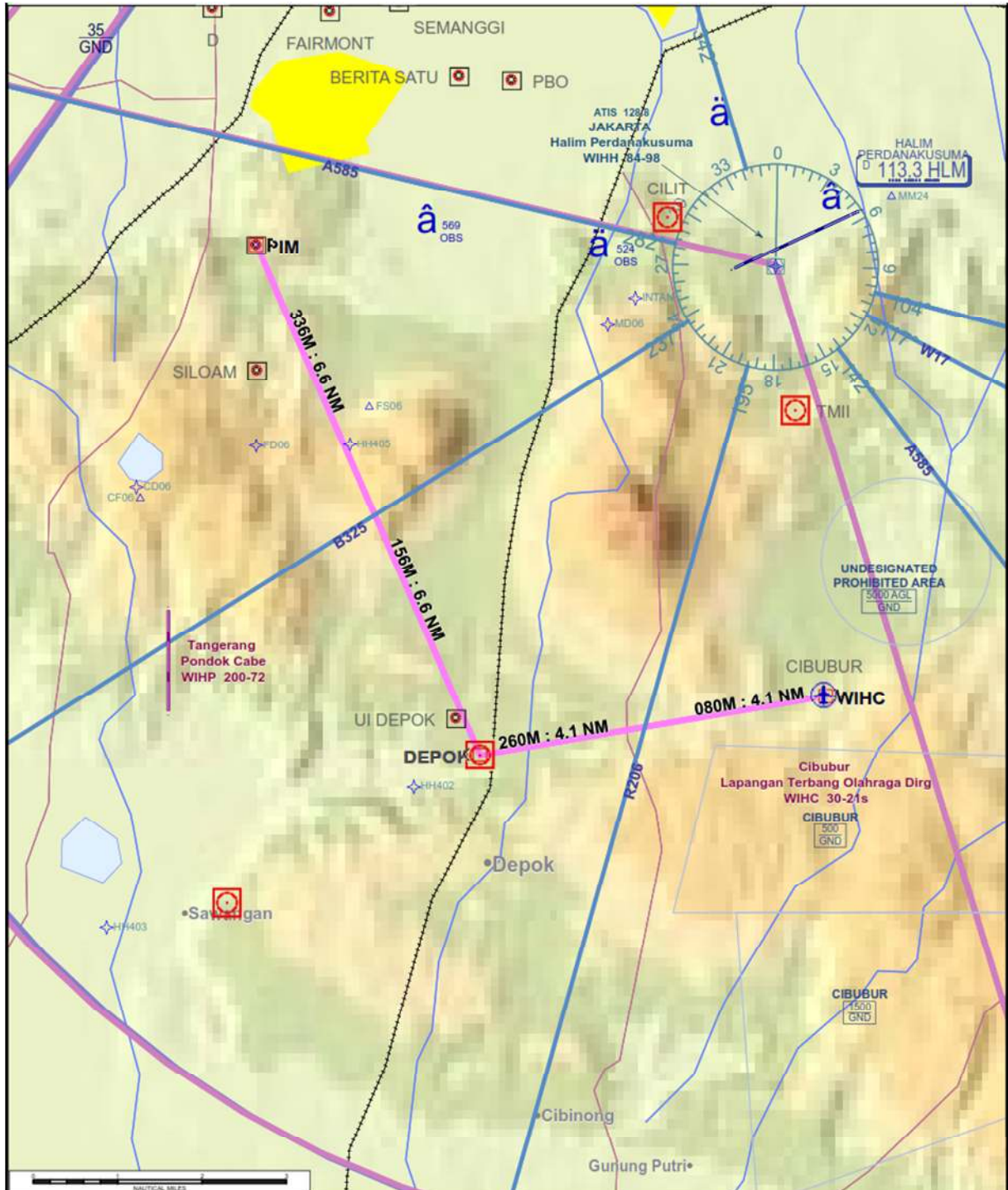


### 3.2.5. STREET GALLERY

| Spd(Kts)  |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |            |     |     |      |          |       |       |      |
|   |        | 30    |            |     |     |      | 22       |       |       |      |
| DEPOK<br>S 06° 22' 07.0<br>E106° 49' 42.3                 | CLIMB  | DEPOK | 12,300     | 260 | 71  |      | 2        | 00:02 |       |      |
|   |        |       | (12,300)   | 260 | 71  |      | 19       | 00:02 |       |      |
|   | CRUISE |       | 12,300     | 260 | 100 |      | 2        | 00:01 |       |      |
|   |        | 1000  | (12,300)   | 260 | 100 |      | 17       | 00:03 |       |      |
| PIM<br>S 06° 16' 03.4<br>E106° 47' 02.9                   | CRUISE | PIM   | 12,300     | 336 | 100 |      | 7        | 00:04 |       |      |
|   |        |       | (12,300)   | 336 | 100 |      | 11       | 00:07 |       |      |
| PIM<br>S 06° 16' 03.4<br>E106° 47' 02.9                   | CRUISE | PIM   | 12,300     | 180 | 100 |      | 0        | 00:01 |       |      |
|   |        |       | (12,300)   | 180 | 100 |      | 11       | 00:08 |       |      |

| Spd(Kts)   |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|--|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| PIM<br>S 06° 16' 03.4<br>E106° 47' 02.9              | PIM    |       |            |     |     |      |          |       |       |      |
|  |        | 1000  |            |     |     |      | 11       |       |       |      |
| DEPOK<br>S 06° 22' 07.0<br>E106° 49' 42.3            | CRUISE | DEPOK | 12,300     | 156 | 100 |      | 7        | 00:04 |       |      |
|  |        |       | (12,300)   | 156 | 100 |      | 4        | 00:12 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | CRUISE | WIHC  | 12,300     | 080 | 100 |      | 2        | 00:01 |       |      |
|  |        |       | (12,300)   | 080 | 100 |      | 2        | 00:13 |       |      |
|  | DESCNT |       | 12,300     | 080 | 71  |      | 2        | 00:02 |       |      |
|  |        | 30    | (12,300)   | 080 | 71  |      | 0        | 00:15 |       |      |



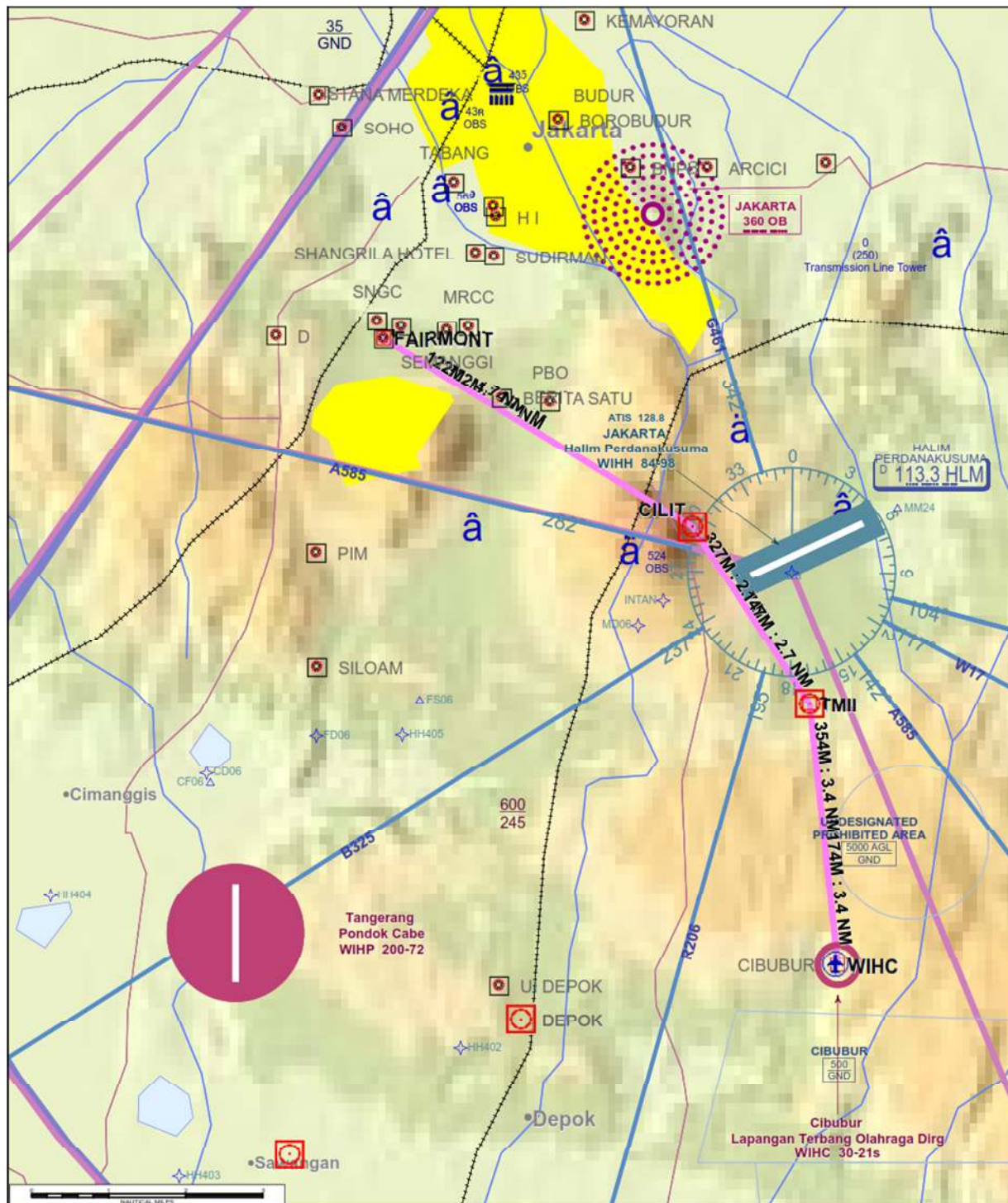


### 3.2.6. Fairmont Jakarta

| Spd(Kts)  |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |            |     |     |      |          |       |       |      |
|   |        | 30    |            |     |     |      | 22       |       |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1                  | CLIMB  | TMII  | 12,300     | 354 | 71  |      | 2        | 00:02 |       |      |
|   |        |       | (12,300)   | 354 | 71  |      | 19       | 00:02 |       |      |
|   | CRUISE |       | 12,300     | 354 | 100 |      | 1        | 00:01 |       |      |
|   |        | 1000  | (12,300)   | 354 | 100 |      | 18       | 00:03 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0                 | CRUISE | CILIT | 12,300     | 327 | 100 |      | 3        | 00:02 |       |      |
|   |        |       | (12,300)   | 327 | 100 |      | 16       | 00:04 |       |      |
| FAIRM<br>S 06° 13' 16.7<br>E106° 47' 55.4                 | CRUISE | FAIRM | 12,300     | 302 | 100 |      | 5        | 00:03 |       |      |
|   |        |       | (12,300)   | 302 | 100 |      | 11       | 00:07 |       |      |

| Waypoint   | Ident  | AWY   | Grid MORA    | MT       | TAS | Wind | Leg  | ETE   | FP TO | RETO |  |
|--|--------|-------|--------------|----------|-----|------|------|-------|-------|------|--|
| Coordinates  | Freq.  | ALT   | MEA/(MORA)   | MH       | GS  | OAT  | Rem. | ACC   | ETO   | ATO  |  |
| FAIRM<br>S 06° 13' 16.7<br>E106° 47' 55.4            | FAIRM  |       |              |          |     |      |      |       |       |      |  |
|  |        | 1000  |              |          |     |      | 11   |       |       |      |  |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0            | CRUISE | CILIT | 12,300       | 122      | 100 |      | 5    | 00:03 |       |      |  |
|  |        |       | 1000         | (12,300) | 122 | 100  |      | 6     | 00:10 |      |  |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1             | CRUISE | TMII  | 12,300       | 147      | 100 |      | 3    | 00:02 |       |      |  |
|  |        |       | 1000         | (12,300) | 147 | 100  |      | 3     | 00:12 |      |  |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | CRUISE | WIHC  | 12,300       | 174      | 100 |      | 1    | 00:01 |       |      |  |
|  |        |       | 1000         | (12,300) | 174 | 100  |      | 2     | 00:12 |      |  |
|  | DESCNT |       |              | 12,300   | 174 | 71   |      | 2     | 00:02 |      |  |
|  |        |       | 30           | (12,300) | 174 | 71   |      | 0     | 00:14 |      |  |
| ROUTE'S GC DIST. (NM)                                |        | 0     | ROUTE TOTALS |          |     |      | 22   | 00:14 |       |      |  |







### 3.2.7. BNPB

| Spd(Kts)  |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|---|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint  | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates   | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| Lapangan Terbang Olai<br>S 06° 21' 25.0<br>E106° 53' 49.0 | WIHC   |       |            |     |     |      |          |       |       |      |
|   |        | 30    |            |     |     |      | 22       |       |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1                  | CLIMB  | TMII  | 12,300     | 354 | 71  |      | 2        | 00:02 |       |      |
|   |        |       | (12,300)   | 354 | 71  |      | 20       | 00:02 |       |      |
|   | CRUISE |       | 12,300     | 354 | 100 |      | 1        | 00:01 |       |      |
|   |        | 1000  | (12,300)   | 354 | 100 |      | 18       | 00:03 |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0                 | CRUISE | CILIT | 12,300     | 327 | 100 |      | 3        | 00:02 |       |      |
|   |        |       | (12,300)   | 327 | 100 |      | 16       | 00:04 |       |      |
| BNPB<br>S 06° 11' 03.6<br>E106° 51' 07.7                  | CRUISE | BNPB  | 12,300     | 350 | 100 |      | 5        | 00:03 |       |      |
|   |        |       | (12,300)   | 350 | 100 |      | 11       | 00:07 |       |      |

| Spd(Kts)   |        |       |            |     |     |      | Dist(NM) | Time  |       |      |
|--|--------|-------|------------|-----|-----|------|----------|-------|-------|------|
| Waypoint   | Ident  | AWY   | Grid MORA  | MT  | TAS | Wind | Leg      | ETE   | FP TO | RETO |
| Coordinates  | Freq.  | ALT   | MEA/(MORA) | MH  | GS  | OAT  | Rem.     | ACC   | ETO   | ATO  |
| BNPB<br>S 06° 11' 03.6<br>E106° 51' 07.7             | BNPB   |       |            |     |     |      |          |       |       |      |
|  |        | 1000  |            |     |     |      | 11       |       |       |      |
| CILIT<br>S 06° 15' 43.8<br>E106° 51' 56.0            | CRUISE | CILIT | 12,300     | 170 | 100 |      | 5        | 00:03 |       |      |
|  |        |       | (12,300)   | 170 | 100 |      | 6        | 00:10 |       |      |
| TMII<br>S 06° 18' 01.2<br>E106° 53' 27.1             | CRUISE | TMII  | 12,300     | 147 | 100 |      | 3        | 00:02 |       |      |
|  |        |       | (12,300)   | 147 | 100 |      | 3        | 00:12 |       |      |
| Lapangan Terbang<br>S 06° 21' 25.0<br>E106° 53' 49.0 | CRUISE | WIHC  | 12,300     | 174 | 100 |      | 1        | 00:01 |       |      |
|  |        |       | (12,300)   | 174 | 100 |      | 2        | 00:12 |       |      |
|  | DESCNT |       | 12,300     | 174 | 71  |      | 2        | 00:02 |       |      |
|  |        | 30    | (12,300)   | 174 | 71  |      | 0        | 00:14 |       |      |

