AD 2 AERODROMES

Note: The following sections in this chapter are intentionally left blank: AD-2.7

RPLL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RPLL - NINOY AQUINO INTERNATIONAL AIRPORT

RPLL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	**ARP coordinates and site at AD**	143036N 1210049E.
2	**Direction and distance from (city)**	10KM SE.
3	**Elevation/Reference temperature**	23M (75FT) / 34.7ºC.
4	**Geoid undulation at AD ELEV PSN**	43M.
5	**MAG VAR/Annual Change**	1.6ºW (2014) / 2.3' increasing.
6	**AD Operator, address, telephone, telefax, telex, AFS**	Manila International Airport Authority MIAA Administration Building MIA Road, Pasay City, Metro Manila Phone: (632) 8877-1109 (Trunkline) Fax: (632) 8832-5956, 8832-2922 Email: gmo@miaagovphils.onmicrosoft.com Website: www.miaa.gov.ph/miaa
7	**Types of traffic permitted (IFR/VFR)**	IFR-VFR.
8	**Remarks**	Nil.

RPLL AD 2.3 OPERATIONAL HOURS

1	**AD Operator**	H24.
2	**Customs and immigration**	H24.
3	**Health and sanitation**	H24.
4	**AIS Briefing Office**	H24.
5	**ATS Reporting Office (ARO)**	H24.
6	**MET Briefing Office**	H24.
7	**ATS**	H24.
8	**Fuelling**	H24.
9	**Handling**	H24.
10	**Security**	H24.
11	**De-icing**	Nil.
12	**Remarks**	Nil.

RPLL AD 2.4 HANDLING SERVICES AND FACILITIES

1	**Cargo-handling facilities**	Forklifts, mechanize loaders and other standard equipment.
2	**Fuel/oil types**	80/87, 100/130, 115/145, Jet A1 and Jet B.
3	**Fuelling facilities/capacity**	By hydrant and tank truck. Service requires prior notice.
4	**De-icing facilities**	Nil.
5	**Hangar space for visiting aircraft**	Limited.
6	**Repair facilities for visiting aircraft**	Minor repairs for airframes, engines & avionics. Service requires prior arrangements.
7	**Remarks**	Nil.

RPLL AD 2.5 PASSENGER FACILITIES

1	**Hotels**	Unlimited in the city.
2	**Restaurants**	Limited at the airport.
3	**Transportation**	Limousines, taxi, rent a car and buses.
4	**Medical facilities**	Ambulance and first-aid/emergency treatment available at the airport. Hospital and ambulance services in the city.
5	**Bank and Post Office**	Unlimited in the city.
6	**Tourist Office**	Nil.
7	**Remarks**	Nil.

RPLL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	**AD category for fire fighting**	CAT IX.
2	**Rescue equipment**	171 trained personnel, 8 fire trucks and 1 wrecker.
3	**Capability for removal of disabled aircraft**	One (1) set Aircraft Recovery Equipment for lifting all aircraft of size up to and including B747-400. One (1) set Aircraft Recovery Equipment for moving all aircraft of size up to and including B747-400, one (1) hatbed trailer and one (1) forklift.
4	**Remarks**	Nil.

RPLL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	**Apron surface and strength**	International Passenger Terminal: Cement CONC (PCN 91 R/D/W/V). Cargo Terminal: Cement CONC (PCN 92 R/D/W/V). Domestic Terminal.: CONC+ASPH (PCN 91 F/D/W/V).
2	**Taxiway width, surface and strength**	TWY06/24: 23M, CONC+ASPH (PCN 114 F/D/W/U). TWY13/31: 23M, CONC+ASPH (PCN 91 F/D/W/U).
3	**Altimeter checkpoint location and elevation**	Nil.
4	**VOR checkpoints**	Nil.
5	**INS checkpoints**	Nil.
6	**Remarks**	Nil.

RPLL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	**Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands**	Taxiing aircraft should follow ground marshall. Follow me vehicle available. Guide lines for Ninoy Aquino International Airport (NAIA) International Passenger Terminal Building Apron and NAIA Domestic Terminal Apron.
2	**RWY and TWY markings and LGT**	RWY13/31: Designation, THR, displaced THR, CL and distance-to-go. RWY06/24: Designation, THR, TDZ, CL, fixed distances and distance-to-go. THR lights on RWY06 unidirectional with green lights activated. Red end lights installed at the end of RWY06. TWY13/31: THR and CL. TWY06/24: CL, holding positions and non-load bearing. International Passenger Terminal Apron: Parking bays. Domestic Terminal Apron: Parking positions. Domestic Passenger North TWY/South TWY, H3 Area: TWY edge light.
3	**Stop bars and RWY guard lights**	Nil.
4	**Other RWY protection measures**	Nil.
5	**Remarks**	Nil.

RPLL AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
06	Antenna 316M	143437.2N 1211004.7E	Nil	Nil	Nil
	Antenna 63M	143035.5N 1210042.1E	Nil	Nil	Nil
	Control Tower 49M	143035.4N 1210042.1E	Nil	Nil	Nil
	Antenna 48M	142922.9N 1205940.5E	Nil	Nil	Nil
	DME Antenna 8M	Nil	Nil	Nil	200M from edge of RWY. Offset to left of RWY CL.
	Antenna (field detector) 2M	Nil	Nil	Nil	150M from RWY end.
24	Tower 451M	143949.9N 1211132.3E	Nil	Nil	Nil
	Tower 320M	143747.2N 121322.2E	Nil	Nil	Nil
	Antenna 316M	143437.2N 1211004.7E	Nil	Nil	Nil
	Antenna 83M	143142.7N 1210328.4E	Nil	Nil	Nil
	Tower Building 72M	143144.9N 1210329.5E	Nil	Nil	Nil
	Sculpture 54M	143122.8N 1210242.3E	Nil	Nil	Nil
	Telegraph poles along railroad track 25M	Nil	Nil	Nil	173M from RWY end.
	Antenna	Nil	Nil	Nil	3M from RWY end. 423M N of CL. Below the 2% obstruction clearance.
	Group of ipil-ipil trees	Nil	Nil	Nil	142M from RWY end. Penetrates the 2% take-off climb surface by 0.9M.
13	Building 212M	143434.0N 1205848.0E	Nil	Nil	Golden Empire.
	Building 160M LGTD	143312.1N 1205949.1E	Nil	Nil	EGI.
	Building 139M	142519.0N 1210219.0E	Nil	Nil	118.40M high 30-storey building.

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
13/31	Building 110M	143036.7N 1205840.9E	Billboard 44M	143056.9N 1210016.4E	Exercise caution for helicopter operations on West side of RWY13/31
	Building 104M	143040.5N 1205840.4E	Nil	Nil	Nil
	Building 83M	143141.1N 1205938.6E	Nil	Nil	Nil
	Building 78M	143039.4N 1205935.0E	Nil	Nil	Nil
	Building 73M	143109.7N 1205937.7E	Nil	Nil	Nil
	Building 69M	143107.0N 1205937.7E	Nil	Nil	Nil
	Communication Tower 42M Marked/LGTD	143046.6N 1210024.7E	Nil	Nil	Nil
	Billboard 39M	143200.2N 1205937.0E	Nil	Nil	Nil
	Billboard 39M	143200.6N 1205937.3E	Nil	Nil	Nil
	Billboard 36M	143150.5N 1205937.7E	Nil	Nil	Nil
	Building 34M	143156.0N 1205939.8E	Nil	Nil	Nil
	Billboard 33M	143158.4N 1205937.1E	Nil	Nil	Nil
	Building 32M	143156.0N 1205938.6E	Nil	Nil	Nil
	Building 31M	143156.2N 1205940.5E	Nil	Nil	Nil
	Crane 26M	143139.1N 1205959.1E	Nil	Nil	Nil
	Crane 26M	143139.8N 1210001.6E	Nil	Nil	Nil
	Church 25M	143143.2N 1205952.0E	Nil	Nil	Nil
	Luffing Crane 19M	143140.0N 1210000.0E	Nil	Nil	Nil
	Electric Post 18M	143127.9N 1210004.7E	Nil	Nil	Nil
	Electric Post 16M	143125.3N 1210006.6E	Nil	Nil	Nil
	Electric Post 16M	143132.6N 1210001.2E	Nil	Nil	Nil
	Aircraft on Ramp 14M	143125.5N 1210008.9E	Nil	Nil	Nil

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
13/31	Billboard 14M	143125.5N 1210005.1E	Nil	Nil	Nil
	Aircraft on Ramp 14M	143129.6N 1210008.3E	Nil	Nil	Nil
	Aircraft on Ramp 14M	143130.6N 1210007.5E	Nil	Nil	Nil
	Aircraft on Ramp 14M	143122.8N 1210009.3E	Nil	Nil	Nil
	Ramp Light 13M	143125.5N 1210006.7E	Nil	Nil	Nil
	Ramp Light 13M	143127.0N 1210006.7E	Nil	Nil	Nil

RPLL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	**Associated MET Office**	Aviation Meteorological Service Office (AMSO) Weather Branch, PAGASA.
2	**Hours of service** **MET Office outside hours**	H24. -
3	**Office responsible for TAF preparation** **Periods of validity**	RPLLYMYX (AMSO). H24 - 00/24, 06/06, 12/12, 18/18.
4	**Trend forecast** **Interval of issuance**	Included in the SPECI report when criteria are met and in the TAF. 6-Hourly.
5	**Briefing/consultation provided**	Direct briefing/consultation are afforded to pilots and/or duly authorized representative on the current en-route and prognostic situations (meteorological) within the Manila FIR and its immediate FIRs.
6	**Flight documentation** **Language(s) used**	Standard ICAO flight levels to include: SIG WX CHART (FL250-630); 500hPa Prog Ascend/Descend; 300hPa and 200hPa Prog Charts and other level upon request. English.
7	**Charts and other information available for briefing or consultation**	Upper-air Charts (700-, 500-, 300-, 200-hPa), TAFs from other Meteorological Centers, RPLLYMYX hourly (METAR/SPECI) observations and from other MET Centers, PIREPS, SIGMETS (on Tropical Cyclones and Volcanic Ash), Meteorological Satellite pictures and Climatological summaries/charts.
8	**Supplementary equipment available for providing information**	GMS-5 Receiving Station, Integrated Runway Meteorological Observation System; AEROVIEW at Manila Tower; WAFS workstation (to be established soon); PC with Internet access as a backup to WAFS, AMHS connection; two (2) units of TELEFAX; copying machine. RWY06/24 and RWY13/31 AWOS (Anemometer, Wind Direction Indicator, Barometer, RWY Temperature Indicator, Relative Humidity, Transmissometer, Ceilometer) HR of OPS: H24.
9	**ATS units provided with information**	Manila Tower; FOBS (International and Domestic).

10	**Additional information (limitation of service, etc.)**	Obstructed point of weather observation or evaluation; prolonged power outages; unavailability of vehicle to service maintenance engineers and/or meteorological facilities technicians.

RPLL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY	Slope of RWY-SWY
1	**2**	**3**	**4**	**5**	**6**	**7**
06	060.30º GEO 061.90º MAG	3410M X 60M	PCN 114 F/D/W/U CONC+ASPH overlay	142954.84N 1210005.15E (48.0M)	THR 4.8M/15.6FT TDZ 7.3M/24.0FT	Nil
24	240.30º GEO 241.90º MAG	3410M X 60M	PCN 114 F/D/W/U CONC+ASPH overlay	143049.80N 1210144.05E (66.2M)	THR 22.8M/ 75.0FT TDZ 22.8M/ 75.0FT	Nil
13	134.80º GEO 136.40º MAG	1911M X 45M	PCN 65 F/A/W/T CONC+ASPH overlay	143121.67N 1210018.14E (48.1M)	THR 5.0M/16.3FT TDZ 7.6M/25.0FT	Nil
31	314.80º GEO 316.40º MAG	1911M X 45M	PCN 65 F/A/WT CONC+ASPH overlay	143041.31N 1210059.89E (54.7M)	THR 12.7M/ 41.8FT TDZ 12.7M/ 41.8FT	Nil

SWY dimensions	CWY dimensions	Strip dimensions	RESA dimensions	Location/ description of arresting system	OFZ	Remarks
8	**9**	**10**	**11**	**12**	**13**	**14**
111M	111M	3529M X 300M	Nil	Nil	Nil	Nil
178M	178M	3529M X 300M	Nil	Nil	Nil	Nil
60M	60M	2130M X 100M	Nil	Nil	Nil	Nil
Nil	Nil	2130M X 100M	Nil	Nil	Nil	Nil

RPLL AD 2.13 DECLARED DISTANCES

RWY Designator	TORA	TODA	ASDA	LDA	Remarks
1	**2**	**3**	**4**	**5**	**6**
06	3410M	3521M	3521M	3410M	Nil
24	3410M	3588M	3588M	3410M	Nil
13	1911M	1971M	1971M	1911M	Nil
31	1800M	1800M	1800M	NU	Nil

RPLL AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type, LEN, INTST	THR LGT colour, WBAR	VASIS, (MEHT), PAPI	TDZ, LGT LEN
1	2	3	4	5
06	CAT I 900M 5 LGT Barette	Green 20 LGT with WBAR	PAPI 3.0º Left/Right (45.93FT)	Nil
24	CAT I 900M 5 LGT Barette with sequence FLG LGT	Green 20 LGT with WBAR	PAPI 3.0º Left/Right (45.93FT)	Nil
13	RTIL LIH	Nil	PAPI 3.0º Left/Right (26.25FT)	Nil

RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
6	7	8	9	10
3390M 15M Red	60M Yellow	Red	Nil	Path WID: 0.50º. VIS RG: 5NM. VER Obstruction CLR: 1.36º. Horizontal Obstruction CLR: -8.0º/ +10 RWY CL. DIST from THR: 1404.20FT.
3390M 15M Red	60M Yellow	Red	Nil	Path WID: 0.50º. VIS RG: 5NM. VER Obstruction CLR: 1.36º. Horizontal Obstruction CLR: -8.0º/ +10 RWY CL. DIST from THR: 1463.26FT.
Nil	Nil	Nil	Nil	PAPI: Path WID: 0.36º. VIS RG: 5NM. VER Obstruction CLR: 1.36º. Horizontal Obstruction CLR: -8.0º/ +10 RWY CL. DIST from THR: 1049.87FT. RTIL: Location: RWY13 - Left/Right.

RPLL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	**ABN/IBN location, characteristics and hours of operation**	Nil.
2	**LDI location and LGT** **Anemometer location and LGT**	LDI: Windcone 143044.5900N 1210107.5100E. Anemometer: RWY06: 142957.20N 1210017.20E, LGTD. RWY24: 143038.65N 1210133.06E, LGTD. RWY13: 143111.90N 1210024.00E, LGTD. RWY31: 143024.30N 1210109.80E, LGTD.
3	**TWY edge and centre line lighting**	Rapid Exit, H1, H2, and E5.
4	**Secondary power supply/switch-over time**	15 seconds.
5	**Remarks**	Nil.

RPLL AD 2.16 HELICOPTER LANDING AREA

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	143013.63N 1210022.13E. -
2	**TLOF and/or FATO elevation M/FT**	26.1M AMSL.
3	**TLOF and FATO area dimensions, surface, strength, marking**	14M diameter, reinforced concrete, 1.076 x10^5 KG/M^2.
4	**True BRG of FATO**	Nil.
5	**Declared distance available**	Nil.
6	**APP and FATO lighting**	Nil.
7	**Remarks**	Operational HR: 2200 - 1000 DLY.

RPLL AD 2.17 ATS AIRSPACE

1	**Designation and lateral limits**	MANILA AERODROME TRAFFIC ZONE (ATZ): A circle radius 5NM centered on 143036N 1210049E (ARP). MANILA CONTROL ZONE (CTR): A circle radius 10NM centered on 143028.7N 1210118.2E (MIA DVOR/DME) extending to 15NM radius on the NE bounded by R042 clockwise to R115 and on the SW bounded by R200 clockwise to R255. MANILA IFR Climb/Descend Area: The airspace bounded by 143028.7N 1210118.2E (MIA DVOR/DME) R042 clockwise to R115 to the E and R200 clockwise to R255 to the SW starting from 5NM of 143036N 1210049E (ARP) extending to 15NM. MANILA VFR Corridor: All areas outside the IFR climb/descend areas within 15NM from 143036N 1210049E (ARP) excluding ATZ. MANILA TERMINAL CONTROL AREAS (TMA): From 152932N 1204903E then a clockwise arc radius 60NM centered on 143028.7N 1210118.2E (MIA DVOR/DME) - 150030N 1215500E - 144555N 1223005E - 143955N 1223005E - 142949N 1220309E then a clockwise arc radius 60NM centered on 143028.7N 1210118.2E (MIA DVOR/DME) - 134525N 1202021E - 134525N 1200305E - 135037N 1195953E - 143440N 1202353E - 144740N 1202353E - 145658N 1204320E - 150704N 1204903E - 152932N 1204903E.

2	**Vertical limits**	ATZ: SFC up to but excluding 2000FT. VFR Corridor: 5NM to 10NM - SFC to 2000FT. : 10NM to 15NM - SFC to 2500FT. CTR: SFC up to 1500FT. IFR Climb/Descend Areas: GND to UNL. TMA: 1500FT to FL200 (exc ATS routes at FL130 & above). 1500FT to 11000FT (ATS routes inside TMA at 11000FT & below). FL130 to FL200 (ATS routes inside TMA at FL130 & above).
3	**Airspace classification**	ATZ - B; CTR - D; TMA - D (exc ATS routes at FL130 & above; ATS routes inside TMA at 11000FT & below) and A (ATS routes inside TMA at FL130 & above).
4	**ATS unit call sign** **Language(s)**	ATZ - Manila Tower. CTR/TMA - Manila Radar Approach. In English.
5	**Transition altitude**	11000FT.
6	**Hours of applicability**	H24.
7	**Remarks**	VFR Corridor - shall only be in effect between sunrise to sunset.

RPLL AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Call Sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	Manila Tower	118.1MHZ 121.5MHZ 118.4MHZ	H24	PRI FREQ. Distress FREQ. SRY FREQ.
GND	Ground Control	121.8MHZ 122.0MHZ		PRI FREQ. SRY FREQ.
RAMP	Ramp Control One	121.7MHZ 121.6MHZ		PRI FREQ. SRY FREQ. Operating Agency: MIA Authority.
	Ramp Control Two	128.8MHZ 122.45MHZ		PRI FREQ. SRY FREQ. Operating Agency: MIA Authority.
	Ramp Control Three	121.35MHZ 121.55MHZ		PRI FREQ. SRY FREQ. Operating Agency: MIA Authority.
	Domestic Ramp	123.25MHZ 123.65MHZ		PRI FREQ. SRY FREQ. Operating Agency: MIA Authority.
APP	Final/Departure Control	121.1MHZ 124.8MHZ 119.9MHZ		PRI FREQ. SRY FREQ. SRY 2 FREQ.
	Arrival Control	119.7MHZ 127.7MHZ 124.4MHZ		PRI FREQ. SRY FREQ. SRY 2 FREQ.
CLNC DEL	Clearance Delivery	125.1MHZ 125.5MHZ		PRI FREQ. SRY FREQ.
ACC	Manila Control	128.3MHZ 119.3MHZ 120.5MHZ 125.7MHZ 118.9MHZ		All sectors Backup FREQ. N sector FREQ w/ extended range. E sector FREQ. S sector FREQ w/ extended range. W sector FREQ w/ extended range.
ATIS	Manila ATIS	126.4MHZ		Nil.
FSS	Manila Radio	5447.5KHZ 3834.0KHZ 124.0MHZ 127.1MHZ	2100 - 1300	P/P PRI FREQ. P/P SRY FREQ. A/G communication. Backup FREQ for 124.0MHZ.

Service Designation	Call Sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
FIS	Manila Radio	124.9MHZ 2998 / 6532KHZ 6562 / 8903KHZ 13300 / 17904KHZ 3485 / 5655KHZ 8942 / 11396KHZ 13309KHZ	H24	Pre-flight check FREQ. Central West Pacific (CWP) FREQ. South East Asia (SEA-2) FREQ.

RPLL AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, Type of supported OP(for VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME	MIA	114.4MHZ/ CH91X	H24	143028.7N 1210118.2E	30M/100FT	193.66M from RWY06/24 CL and 117.83M from extended RWY13/31 CL. DVOR output power: 100W. DME output power: 1000W. Restriction: VOR R090 to R100 and R114 to R120 U/S beyond 50NM.
LOC06 ILS CAT I	IML	109.1MHZ	H24	143052.7N 1210149.3E	Nil	Output: 25W. 0M from RWY06 CL & 180M from RWY24 THR. WID: 3.6º.
GP06		331.4MHZ	H24	142956.1N 1210015.9E	Nil	Output: 10W. 125M right of RWY06 CL & 300M from RWY06 THR. TCH: 52FT. Angle: 3.01º. WID: 0.75º.
DME06		CH28X	H24	142956.1N 1210015.9E	Nil	Output: 100W.
LOC24 ILS CAT I	IMA	109.9MHZ	H24	142950.2N 1205956.9E	Nil	Output: 25W. 0M from RWY24 CL and 286.34M from SWY end of RWY24. WID: 3.6º.

Type of aid, MAG VAR, Type of supported OP(for VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
GP24		333.8MHZ	H24	143039.6N 1210134.3E	Nil	Output: 10W. 125M right of RWY24 and 410M from RWY24 THR. TCH: 50FT. Angle: 3.06º. WID: 0.7º.
DME24		CH36X	H24	143039.6N 1210134.3E	Nil	Output: 100W.

RPLL AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport regulations

1.1 General

1.1.1 Entry and departure of international flights:

a. All Manila bound international scheduled/non-scheduled air carriers must land at NAIA and shall park at the assigned bay for CIQ clearance as approved by Manila International Airport Authority - Airport Ground Operations and Safety Division (MIAA-AGOSD).

b. No aircraft shall be released from the assigned bay to their respective hangars unless officially released by the Office of the Military Supervisor, CIQ and airport authority.

c. All international scheduled/non-scheduled air carriers intending to depart from NAIA shall proceed to the assigned bay for CIQ clearance.

d. Airport flight charges/clearance/payment is also required from departing non-scheduled air carriers.

e. Loading and unloading of cargoes and embarkation/disembarkation of passengers shall be done at the assigned bay.

f. All air carriers intending to operate in Manila must ensure availability of ground handling equipment such as tow bar prior operations in the airport.

1.1.2 NAIA is open to DC10 operations subject to the compliance with the following conditions:

a. That the Director of Civil Aviation of the country and airline certify that the aircraft has undergone the special inspection and maintenance program which was agreed by European States at Zurich on June 18 and that each Certificate of Airworthiness is valid in accordance with Article 33;

b. That before resumption of services to/from Manila, it is certified that the liability covered in respect of passengers and cargoes is at least equivalent to the Warsaw Convention (as amended by the Hague Protocol);

c. That in respect to damage caused to third party on the surface, the liability covered is at least equivalent to that of Rome Convention 1952 limits; and

d. That while pushing back from IPT Bay 2, DC10 and L1011 type of aircraft are not allowed to run engine No. 2 until the aircraft reached point S1.

1.1.3 Check ride and all training flights from and/or to NAIA or within the Manila ATZ such as but not limited to the following are hereby prohibited:

a. Touch and go

b. Solo flight

c. Cross country

d. Local flights (fixed wing)

e. Helicopter training

1.2 Local Flying Restrictions

1.2.1 Closed to aircraft operations without a functioning two-way radio.

1.2.2 No aircraft without a functioning ATC Transponder with a Mode C capability shall be authorized to operate within the Manila Terminal Control Area, except helicopters flying below 304M (1000FT) AMSL.

1.2.3 The following are imposed on general aviation traffic at NAIA:

a. General Aviation operations and aerial works shall be prohibited to use NAIA from 0400 - 1100, except helicopter operations, medical evacuations and aircraft on emergency.

b. General Aviation operations and aerial works shall be limited to only two (2) cycles per hour from 2200 - 0359, provided further that the number of arrivals per hour shall not exceed two (2) cycles.

c. Aircraft not exceeding 5682KG are permitted to land only during 0200 - 0359 and only when RWY13 in use.

1.2.4 To ensure compliance with the above parameters, the following rules on General Aviation operations are laid down:

a. Flight plans for domestic operations may be filed five (5) days in advance with the AIS Operations but the assignment of slot(s) shall only take place 24 hours before the Estimated Off-Block Time (EOBT).

b. Requests of slot for International operations may be filed in advance with the Air Traffic Service (ATS) but the assignment of slot(s) shall only take place 15 days before its EOBT.

c. All Domestic and International General Aviation flights are covered under the slot allocation system of AIS Operations all the time of the day.

All Domestic and International General Aviation flight departing and arriving NAIA shall, as a condition for the provision of ATC clearance, secure a slot from AIS Operations (Domestic GA) and ATS or Air Traffic Flow Management (ATFM) unit in the absence of ATS (International GA).

1.2.5 All General Aviation flights arriving between 2200 - 0400 and 1100 - 2159 daily are advise to secure arrival slot from AIS Operations via Phone/Fax number: (632) 8672-7780/8672-7781/8672-7783 prior to filing of flight plan.

1.2.6 General Aviation category aircraft in a state of emergency landing must, as much as possible, utilize RWY13/31.

1.2.7 Food and fish runs are prohibited to take-off and land at NAIA.

1.2.8 Unless authorized by ATC, arriving aircraft shall enter Manila TMA at 250KT IAS, to cross 20NM at 210KT IAS, and to cross 10NM final at 180KT IAS. For CAT C and D, cross Final Approach Fix (FAF/FAP) at 150KT IAS. For CAT A and B, cross 5NM final at 130KT IAS.

Note: For ATR, cross 5NM final at 150KT IAS.

1.2.9 Aircraft with security emergency shall park and will be cleared by authorities at Isolation Parking Area located at C6.

1.2.10 S1, S2 and S7 IPT Start-up areas are not allowed for 180º turn to all types of aircraft.

1.2.11 Engine start-up operations for aircraft A320 and below category must follow the newly established displaced taxiway center line (broken lines) at S-22A for wing tip safety clear from vehicular lane and jet blasts.

1.2.12 One way traffic flow in effect when entering/leaving Manila TMA

For N Sector, Arrival: CIA W16 MIA

Departure: MIA M646 ALPAS

MIA DCT CAB

For E Sector, Arrival: POLIO DCT MIA

Departure: MIA DCT JOM

For W Sector, Arrival: GUKUM DCT LUBAN DCT MIA

REKEL DCT LUBAN DCT MIA

LEGED DCT LUBAN DCT MIA

TOKON DCT LUBAN DCT MIA

Departure: MIA L628 KARAG

MIA M765 EXORA

MIA M646 BUCAL

For S Sector, Arrival: IBAGO B472 LIP DCT MIA

LAIYA B473 LIP DCT MIA

CONDE W11 MIA

ALBAT DCT MIA

Departure: MIA A461 VERDE

MIA B462 IPATA

MIA W15 TIMON

Remarks: For flights arriving and departing MIA, file your flight plans accordingly.

1.2.13 To provide one way flow of air traffic between NAIA and Francisco B. Reyes Airport (Busuanga), flight should flight plan via the following route:

a. RPLL to RPVV
- MIA M646 until OLRAX

b. RPVV to RPLL
- Join AWY TELEN W3 OLRAX M646 MIA

1.2.14 A maximum of 1500FT/MIN rate of climb/descent shall be observed by pilots prior to reaching the last 2000FT of its assigned altitude/level.

1.3 RWY13/31 Operations

1.3.1 RWY13/31 open to aircraft operations H24 daily except every Sunday between 1400 - 2000.

1.3.2 RWY13/31 closed every 2200 - 2220 from Sunday - Wednesday every second and fourth week of the month for technical inspection, except during emergency wherein a 30-minute prior notice is

required and must be approved by the Assistant General Manager for Operations of Manila International Airport Authority (MIAA) and/or his representative.

1.3.3 Touchdown on RWY13/31 shall be made beyond threshold marker (MNM ALT 15M).

1.3.4 Aircraft departing at RWY13 to commence take-off roll at Arrow 2.

1.3.5 Take-off/landing on RWY13/31 of Code C (A320) and lower category aircraft allowed based on the following limitations:

a. Take-off on RWY13 allowed from 0200 - 0359.

b. Take-off on RWY31 allowed except from 0200 - 0359.

1. Aircraft authorized for RNP1 operations shall indicate on filed flight plan field 18/RMK-PBN/01 AND/OR 02.

2. Aircraft not authorized for RNP1 operations provided during day visual operations only.

c. Landing on RWY31 not allowed.

d. Landing on RWY13 of Code C aircraft allowed whenever RWY06/24 is closed.

1. Landing on RWY13 during VMC is limited to General Aviation from 0200 - 0359 and slotting of Category A and B aircraft shall be approved by FOBS of AIS Operations.

Note:

i. During IMC, no take-off/landing on RWY13/31 of Code C aircraft whenever there is a Code C aircraft operating on TWY D.

ii. During VMC, no take-off/landing on RWY13/31 of Code C aircraft whenever there is a Code D and E aircraft operating on TWY D.

e. All take-off and landing on RWY13 must comply with existing noise abatement procedure.

1.3.6 RWY31 take-off from F1 and F2 intersection is not allowed.

1.3.7 Take-off on RWY13 from west General Aviation hangar should commence at F1-B instead of going to H3 or S-22 and S-22A in order to declog the extension RWY13 departure. VFR start-up clearance to be regulated by Manila Domestic Ramp Control.

1.3.8 Aircraft not exceeding 5682KG shall be permitted to land only during the hours of 0200 - 0359 and only when RWY13 in use.

1.3.9 RWY13/31 landing shall vacate via F1, F1B, F2, F3, F4, F5, G3 or TWY P.

1.3.10 B747/A340 and equivalent aircraft may use RWY13/31 for taxiing only from F1 to RWY06/24 and vice versa.

1.3.11 RWY13 open for take-off for huskitted B737-200 and DC9 (Stage 2) aircraft from sunrise to sunset.

1.3.12 A320/A319 not allowed on TWY D during VMC take-off/landing of A330 on RWY13/31.

1.3.13 Access road from Terminal 2 to Balagbag Apron and/or vice versa is closed to vehicle operations due to increase of flight movement at RWY13/31 and its adjacent taxiway.

1.3.14 Vehicular movement on access road from Terminal 2 and Balagbag area and vice versa is prohibited from 2300 - 1100 due to increased aircraft movement in NAIA.

1.3.15 Vehicle crossing on RWY13/31 is not permitted unless identified and cleared by Manila Control Tower through a two-way radio. Runway vehicular traffic light at RWY13/31 shall be available during emergency and as authorized by appropriate authority.

1.4 RWY06/24 Operations

1.4.1 RWY06/24 open to aircraft operations daily except every Monday to Saturday between 1730 - 1930. During emergency, a 30-minute prior notice is required and must be approved by the Assistant General Manager for Operations of MIAA and/or his representative. Airlines' request for exemption to utilize the runway during closure brought by other operating requirements beyond emergency situation must be coordinated with all other concerned offices (e.g. Manila Control Tower/CAAP, OPCEN/PARCC/MIAA Engineering and Command Center/Airlines) and shall also be approved by the Assistant General Manager for Operations of MIAA and/or his representative.

1.4.2 RWY06/24 closed every 2200 - 2220 daily for technical inspection except during emergency wherein a 30-minute prior notice is required and must be approved by the Assistant General Manager for Operations of MIAA and/or his representative.

1.4.3 To expedite the flow of landing aircraft at NAIA, the following procedures are to be followed:

a. Landing RWY06
   1. Code C and below - vacate via TWY R-2 or R-1.
   2. Code D and above - vacate via TWY R-1 or E1.

b. Landing RWY24
   1. Code C and below - vacate via TWY R-4 or R-5.
   2. Code D and above - vacate via TWY R-5 or E5.

1.4.4 RWY06 take-off from E3 intersection not allowed to B737 and higher category aircraft.

1.4.5 Arriving Code C and below aircraft on RWY06 vacating via rapid exit taxiway should take R-2, R-3 for TWY C.

1.4.6 RWY06 fillet available including 180º turn for wide body aircraft (B777, A340, A330 and B747).

1.4.7 All take-off RWY06/24 every 1000 - 2200 daily shall contact departure Functional Volume of Manila Inner (FMI) on 124.4MHZ upon passing 1000FT AGL.

2. Taxiing to and from stands

2.1 General

2.1.1 Departure Procedures

2.1.1.1 Aircraft should not commence pushback or any other maneuvers on the apron (including idle power start-up on bays) unless clearance to do so has been obtained from Ramp Control. Request for clearance to pushback shall be made only when the aircraft doors are closed and the aircraft is ready for departure.

2.1.1.2 When delay is expected, Ramp Control will advise the pilot of the earliest time of departure.

2.1.1.3 After pushback/engine start, taxi clearance will be given by Ramp Control for movement with the apron area towards the specified exit gateways.

2.1.1.4 Change to Ground Control frequency (121.8MHZ) prior to entering the main taxiway or as instructed by ATC. Do not proceed to the main taxiway without clearance from Ground Control.

2.1.2 Arrival Procedures

2.1.2.1 After the aircraft has landed, the pilot shall change to Ground Control immediately after clearing the

runway or as instructed by ATC. Ground Control will instruct the aircraft to proceed to specified entrance gateways.

2.1.2.2 Contact Ramp Control or as instructed by ATC for approval to continue taxiing to the apron towards assigned parking bay.

2.1.2.3 Aircraft entering the apron are to follow closely the apron taxi guide lines so as to maintain safe distance between taxiing and parked aircraft.

2.2 Void time of ATC Clearance for Delayed Start-up

2.2.1 International Departures

2.2.1.1 The Pilot shall call Clearance Delivery on 125.1MHZ for ATC clearance five (5) minutes from the estimated start-up time. After receiving clearance, the pilot shall switch to Ground Control on 121.8MHZ for start-up clearance then after receiving start-up clearance, the pilot shall switch to ramp control for pushback clearance or any other maneuver on the apron (including idle power start-up on bays).

Note: Start-up shall commence at designated starting point only.

2.2.1.2 Pilots intending to utilize RNAV route L628 shall call Clearance Delivery for ATC clearance five (5) minutes prior to block-off/pushback time. Clearance shall be cancelled if not block-off/pushback five (5) minutes after receipt of ATC clearance.

2.2.1.3 Procedures for issuance of ATC clearance and pushback for flights utilizing L628.

a. Pilot shall call Clearance Delivery notifying that aircraft is ready for pushback in five (5) minutes using the following phraseology:

- Call sign
- DEST (_____), via L628
- Parking position
- “Req ATC CLNC, ready to pushback in 5MIN.”

b. Clearance Delivery shall relay ATC clearance issued by Manila Control, in addition to the instruction “ATC clearance void if not pushback by (time)”.

Note: Clearance Delivery shall notify Ramp Control and Manila Tower Ground Control of the time ATC clearance was issued for aircraft concerned. Manila Tower Ground Control shall be advised of the required longitudinal separation between successive departure for L628.

c. ATC clearance shall be cancelled on the expiry of the 5-minute grace period.

2.2.1.4 Procedures for departing flight from Manila utilizing L628:

a. FL280 and FL390 are reserved flight levels on L628.

b. Ten (10) minutes longitudinal separation using Mach Number Technique (MNT) will be applied to successive departures requesting same FL.

Note: For application of Mach Number Technique, FPL should indicate True Mach Number from IBOBI until MENAM.

c. Additional longitudinal separation as appropriate shall be provided by ATC for the faster aircraft following a slower aircraft on the same route.

2.2.2 Domestic Departures

2.2.2.1 The pilot shall call Clearance Delivery specifying preferred runway and request for ATC clearance five (5) minutes from estimated start-up time. After receiving clearance, the pilot shall switch to Ground Control on 121.8MHZ for start-up clearance then after receiving start-up clearance, the pilot shall switch to ramp control for pushback clearance or any other maneuver on the apron (including idle power start-up on bays).

Note: Start-up shall commence at designated starting point only.

2.2.3 Validity of ATC Clearance

2.2.3.1 Failure to start-up engine within the specified start-up time shall render the ATC clearance void. Any anticipated delay in starting shall be relayed to Clearance Delivery.

2.3 Communication Failure Between Pilot and Ramp Control

2.3.1 If communication cannot be established by a departing or arriving aircraft with Ramp Control, all aircraft movement within the apron shall be controlled by the ground marshall or by a follow-me vehicle.

2.3.2 When communication has been re-established with Ramp Control, departing aircraft shall immediately contact Clearance Delivery for start-up and ATC clearance.

2.4 Domestic Ramp Control Procedures

2.4.1 All arriving scheduled air carriers operating at Manila Domestic Passenger Terminal (DPT) including remote parking bays 12 to 19 shall contact Domestic Ramp Control for traffic flow, tow-in, and bay assignment, from designated release points of Ground Control or as authorized by ATC.

2.4.2 After securing ATC clearance from Clearance Delivery or when authorized by Air Traffic Control, all departing scheduled air carriers originating at Manila Domestic Passenger Terminal shall contact Domestic Ramp Control for gate holding and subsequent pushback to designated starting points prior to start-up.

2.4.3 All general aviation aircraft (including rotary wing) operating in the General Aviation area shall contact Domestic Ramp Control for clearance/traffic advisory/information service prior to start-up and taxi operations from their respective hangar.

2.4.4 When unable to contact Domestic Ramp Control frequency, all aircraft on the Domestic Passenger and General Aviation aprons shall switch to Manila Ground Control frequency.

2.4.5 All aircraft on east and west maintenance area (Lima Gate and Delta Gate) and at F1-B shall provide their own separation until positive control with Domestic Ramp Control.

2.4.6 All aircraft on the General Aviation movement area must exercise caution due to ramp control restrictive vision.

3. Parking Bays and Remote Parking Apron

3.1 All parking bays are allocated on a first come first serve basis with due regard to aircraft type, location of airline handling facilities and the prevailing or anticipated traffic situation. Normally, parking bays shall be assigned at least three (3) hours prior to parking.

Note: Long term parking or aircraft staying overnight may be required to park at the cargo apron.

3.2 Assignment of Parking Bays at the International Passenger Terminal Apron (IPT), Cargo Terminal Apron (ICT), Balagbag Apron, Remote Parking Apron (RPA), Manila Domestic Terminal Apron, Remote Parking Apron 2 (RPA2) and NAIA Centennial Terminal II Apron (NCT2).

3.2.1 International Passenger Terminal Apron (IPT)

a. East Wing

Bay No.	Aircraft Type	Restrictions/Remarks
1 (Single Tunnel)	B757, B737, B727, A321, A320, A319, A310, DC9	Nil.
2 (Single Tunnel)	B767, B757, B737, B727, B787-8, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	Nil.
3 (Double Tunnel)	B744, B743, B742, B741, B747SP, B772, B767, B757, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, L1011	Tow-in procedure with wing-walker for B744, B743, B742, B741, B747SP, B772.
4 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B787-8, B787-900, B772, B767, B757, B737, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC9, L1011	Tow-in procedure with wing-walker for B744, B743, B742, B741, B747SP, B773, B772.
5 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B727, B707, A346, A345, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, L1011	A346 and A345 utilizing first class tube on L1 door only due to bridge limitation.
6 (Double Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B727, B707, B787-900, A343, A342, A330, A300, MD11, DC10, DC8, L1011	Nil.
7 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B727, B707, B787-8, B787-900, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	Tow-in procedure implemented.

b. Center

Bay No.	Aircraft Type	Restrictions/Remarks
8	All types of aircraft.	No aerobridge. For wide bodied aircraft, bay 7 and 9 closed.

c. West Wing

Bay. No.	Aircraft Type	Restrictions/Remarks
9 (Double Tunnel)	B773, B744, B743, B742, B741, B747SP, B772, B767, B757, B727, B707, B737-800, B787-8, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	Nil.
10 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B737, B727, B707, B787-8, B787-900, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	Nil.
11 (Double Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B727, B737-800, B787-900, A346, A345, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, L1011	A346 and A345 utilizing first class tube on L1 door only due to bridge limitation.

Bay. No.	Aircraft Type	Restrictions/Remarks
12 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B737, B727, B707, B787-900, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, L1011.	All inbound aircraft for IPT Bay 12, 14, 15, and 16 should apply minimum power during taxi when either RPA Bay 20 to 24 are occupied to avoid jet blast. Bay 14 - A345 utilizing first class tube on L1 door only due to bridge limitations.
14 (Double Tunnel)	B744, B743, B742, B741, B747SP, B772, B767, B757, B737, B727, B707, B777-300, A345, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	
15 (Single Tunnel)	B744, B743, B742, B741, B747SP, B773, B772, B767, B757, B737, B727, B707, A343, A342, A330, A321, A320, A319, A310, A300, MD11, DC10, DC8, L1011	
16 (Single Tunnel)	B767, B757, B737, B727, B707, A321, A320, A319, A310, A300, MD11, DC10, L1011	

Note:

1. IPT Auto-Docking Guidance System (ADGS) for parking bay NR 3, 4, 5, 6, 7, 9 and 10 not available. Manual marshalling of aircraft implemented.
2. Stop bar markings available for parking bay NR 3, 4, 6, 7, 9, 10, 11 and 12.

3.2.2 Cargo Terminal Apron (ICT)

Bay No.	Coordinates	Aircraft Type	Restrictions/Remarks
17	143021.1942N 1210030.8609E	A321 and lower category aircraft	Nil.
18	143022.9442N 1210033.5167E	B747-400, B777-200, A350-900 and lower category aircraft	Can accommodate B747-400, B777-200 and A350-900 aircraft provided that Bay 17, 18A, 18B are vacant. Last-out procedure for B747-400, B777-200 and A350-900 if Bay 17 is occupied by A321 and lower category.
18A	143021.9200N 1210032.1584E	A321 and lower category aircraft	Can accommodate A321 and lower category aircraft provided that Bay 18 is vacant.
18B	143022.6431N 1210033.4556E	A321 and lower category aircraft	Can accommodate A321 and lower category aircraft provided that Bay 18 is vacant.
18C	143023.3705N 1210034.7601E	A321 and lower category aircraft	Can accommodate A321 and lower category aircraft provided that Bay 19 is vacant.
19	143024.5068N 1210036.3214E	B777-200, A340-300, A330-300 and lower category aircraft	Can accommodate B777-200, A340-300 and A330-300 aircraft provided that Bay 18B, 18C and 19A are vacant. Last-out procedure implemented for said aircraft if Bay 18B is occupied by A321 and lower category aircraft.
19A	143024.0937N 1210036.0606E	A321 and lower category aircraft	Can accommodate A321 and lower category aircraft provided that Bay 19 is vacant.

Note:

1. Stop bar markings for A321 available at Bay 17, 18A, 18B, 18C and 19A.
2. Stop bar markings for B747-400, B777-200 and A350-900 available at Bay 18.
3. Stop bar markings for B777-200, A340-300 and A330-300 available at Bay 19.
4. Aircraft safety envelope established at Parking Bay 17, 18A, 18B, 18C and 19A.
5. Wingtip marshall/guide is mandatory for aircraft operations.

3.2.3 Remote Parking Apron (RPA)

Bay No.	Aircraft Type	Restrictions/Remarks
RPA 20 to RPA 24	B773 and lower category aircraft	All inbound aircraft for RPA Bay 20 to 24 should apply minimum power during taxi when either IPT Bay 12, 14, 15, and 16 are occupied to avoid jet blast.

3.2.4 Balagbag Apron

Bay No.	Aircraft Type	Restrictions/Remarks
B1 to B4	A300 and lower category aircraft	Three (3) B747-400 are allowed to park at the Balagbag apron in case of emergency.

3.2.5 Manila Domestic Terminal Apron

Bay No.	Aircraft Type	Restrictions/Remarks
1, 1A, 2, 3 & 4	A320 and lower category aircraft	Nil.
5	A319 and lower category aircraft	Nil.
6 to 8	A320 and lower category aircraft	Nil.
9	A320 and A319	Available if Bay 10 is vacant or occupied only by DO328 & lower category aircraft.
	DC9, Dash 7 and lower category aircraft	Available if BAe146 and lower category aircraft is occupying Bay 10.
	BAe ATP and lower category aircraft	Available if YAK40 and lower category aircraft is occupying Bay 10.
10	YS11, BAe ATP and lower category aircraft	Available if Bay 9 is occupied only by DO328/below and Let410 is at Bay 11 or vacant.
11	YS11, BAe ATP and lower category aircraft	Available if Bay 10 is vacant or occupied only by Let410 aircraft.
12	A320 and lower category aircraft	- Tow-in/nose-out procedures implemented on parking stands. - Arriving aircraft will hold at starting point S-26 or S-27 to wait for nose-out towing procedure.
14	A320 and lower category aircraft	- Departing aircraft will be towed to starting point S-22, S-22A, S-25, S-26, or S-27 for engine start-up. - Bay 12 COORD: 14º 31.60’ N 121º 00.10’E
15	A319 and lower category aircraft	- Bay 14 COORD: 14º 31.50’N 120º 59.00’E - Bay 15 COORD: 14º 31.60’N 121º 00.20’E

Notes:

1. Available aircraft stop bar markings according to category: A320, A319, Dash 7, YS-11, D0328, CN235, YAK40, Let410.

2. Domestic Passenger Terminal (DPT) apron aircraft safety parking envelope have been established at parking bays NR 1 to 11 and can be identified by red and white lines ramp pavement markers.

3. H4B is hereby established located along DPT North TWY extension across Lima Gate.

4. Vehicle roadway pavement markings crossing the taxiway are established and can be identified by white zipper type markings on the following areas:

   a. GA1, GA2, GA3, GA4, GA5, GA6, F1-B TWY.

   b. South General Aviation TWY in front of the following hangars: Allied Bank, Transco and World Aviation.

      Remarks: Pilots and drivers are advised to exercise caution when passing these areas due crossing/movement of aircraft and vehicles.

5. General Aviation inner taxiways are named and designated with erected TWY identification signboards as follows:

   a. GA1 - South General aviation TWY leading to Asian Spirit, Republic Aviation, Philcox, Hawker Pacific 2 and AAOP hangars.

   b. GA2 - South General aviation TWY leading to Pacific Airways, Olympic aviation and Airlink hangars.

   c. GA3 - North General aviation TWY leading to Subic Air hangar.

   d. GA4 - North General aviation TWY leading to Air Ads hangar.

   e. GA5 - North General aviation TWY leading to Ayala2, Interisland, Tropical, Marcopper and National Steel hangars.

   f. GA6 - North General aviation TWY leading to Asian Aerospace, A. Soriano, Chemtrad, CAAP, Prudential, Topflite, Orient and Lepanto hangars.

      Remarks: Pilots are instructed to report to Domestic Ramp control upon reaching these areas.

3.2.6 Remote Parking Apron 2 (RPA2)

Bay No.	Coordinates	Aircraft Type	Restrictions/Remarks
RPA 25	143029.4900N 1210033.4300E	A321 and lower category	Taxi-in/tow-out procedure implemented on parking stands. TWY L between G6 and S-3 closed for code C and above category if Bay 25 and/or Bay 26 is occupied by A321. TWY L between G6 and S-3 open for A320 and lower category if Bay 25 and/or Bay 26 is occupied by A321. Higher category allowed when no aircraft is parked at Bay 25 and 26. First-in procedure implemented at Bay 25 for A321 if Bay 26 is to be occupied by A321. Last-out procedure implemented at Bay 25 for A321 if Bay 26 is occupied by A321. First-out procedure implemented at Bay 26 for A321 if Bay 25 is occupied by A321. TWY L between S-3A and G6 closed for code D and above category if there is an aircraft parked at RPA2.
RPA 26	143030.1400N 1210034.5800E		
RPA 27	143030.7900N 1210035.7500E	A320 and lower category	TWY L between S-3A and G6 closed for code D and above category if there is an aircraft parked at RPA2.
RPA 28	143031.4400N 1210036.9100E		

Notes:

1. Available aircraft stop bar markings according to category: A321, A320, A319, and B737.

2. Designated aircraft safety envelope markings have been established.

3. Aircraft parking bay coordinates have been provided.

4. Tow tractor for A321, A320, A319 and B737 shall only be attached to the aircraft tow bar when all aircraft doors have been closed.

5. Starting Point S-3A

   Coordinates: 143029.7200N 1210036.9100E
   Aircraft Type: A320 and lower category
   Location: Abeam Bay 28
   Remarks: Taxi-in/tow-out for A330, A340 and B747 aircraft at NCT2 parking Bay 30 not allowed when S-3A is occupied.

3.2.7 NAIA Centennial Terminal II Apron (NCT2)

Bay No.	Coordinates	Aircraft Type	Restrictions/Remarks
Remote 30, 31	143034.1200N 1210037.9700E	A340, A330, A320, A319, B737 and lower category aircraft	- A340 and A330 can occupy Bay 30 if Bay 32 is occupied by A320 and lower category. - Taxi-in/tow-out for A330, A340 and B747 aircraft at NCT2 Bay 30 not allowed when S-3A is occupied.
32	143034.7300N 1210039.6000E	A320 and lower category aircraft	A340 and A330 aircraft can occupy Bay 32 if Bays 30 and 33 are vacant.
33	143035.4600N 1210040.7300E	A321 and lower category aircraft	A321 can occupy Bay 33 if Bay 32 is occupied by A321 and lower category aircraft.
34	143035.9900N 1210041.8600E		Nil
35	143036.6500N 1210043.0300E		
36	143037.4300N 1210044.1400E		
38	143038.4400N 1210045.6900E	B777-300ER, B747-400, A350-900 and lower category aircraft	B777-300ER, B747-400 will be towed-in to bay 38 if Bay 39 is occupied by B747-400 and B777-300ER.
39	143039.5700N 1210047.2400E	B777-300ER, B747-400 and lower category aircraft	Tow-in procedure for B777-300ER and B747-400 if Bay 38 is occupied by B737-400 and B777-300ER. Remote parking Bay 40 must be vacant. Tow-in procedure for A300, A330, A340 if Bay 40 is occupied.
Remote 40	143040.7500N 1210050.1800E	A320 and lower category aircraft	Nil
41	143040.6300N 1210048.0000E	Nil	Nil
42	143040.6400N 1210046.3200E	B777-300ER, B747-400, A350-900 and lower category aircraft	First-out procedure for B777-300ER and B747-400 if Bay 43 is occupied by B777-300ER and B747-400.
43	143041.9400N 1210045.1800E	B777-300ER, B747-400, A350-900 and lower category aircraft	Tow-in procedure for B777-300ER and B747-400 if Bay 45 and 42 are occupied by B777-300ER and B747-400 and B747-400 must be last-out.
44, 46	143043.2100N 1210043.8700E	Nil	Nil
45		B777-300ER,B747-400, A350-900 and lower category aircraft	Tow-in procedure for B777-300ER and B747-400 if Bay 47 and 48 are occupied by B747-400 and B777-300ER.
47	143044.5800N 1210042.2500E	B777-300ER, B747-400, A350-900 and lower category aircraft	Tow-in procedure for B777-300ER and B747-400 if Bay 45 and 49 are occupied by B747-400 and B777-300ER.
48	143046.2300N 1210040.5400E	Nil	Nil

Bay No.	Coordinates	Aircraft Type	Restrictions/Remarks
49	143046.2300N 1210040.5400E	B777-300ER, B747-400, A350-900 and lower category aircraft	B777-300ER, B747-400, A340, A330 and MD11 to parking bay when unable to taxi via gateway Papa due to maneuvering restrictions. Tow-in procedure for B777-300ER and B747-400 if Bay 47 is occupied by B777-300ER or B747-400. Tow-in procedure for A330/A340 and higher category aircraft if taxiing via TWY Kilo.

Notes:

1. Available aircraft stop bar markings according to category: B747, A340, A330, MD11, A300, MD82, A320, B737 and DC9.

2. Bays 47 and 49 limited to L1 door aerobridge utilization for B747-400, A340, A330 & MD11.

3. Designated aircraft safety envelope markings have been established.

4. Lighted aircraft parking bay coordinates have been provided with the exception of remote bay 40 due to existing location.

5. B737 Engine Inlet Hazard Zone Markings have been established at Bays 30, 32, 33, 34, 35, 36, 38, 39, 40 and 42.

6. Wing-tip walkers are mandatory for aircraft with parking bay restrictions.

7. NAIA Centennial Terminal 2 Advance Visual Docking Guidance System (AVDGS) for parking bays 30, 32, 33, 34, 35, 36, 38, 42, 43, 45, 47 and 49 established and operational.

8. NAIA Centennial Terminal 2 Auto Docking Guidance System (ADGS) established for:

   a. Parking bay 36; and

   b. Parking bays 38, 43, 45, 47 and 49 (operates for B777-300ER aircraft type).

9. NAIA Centennial Terminal 2 Fuel Hydrant Pit Valve now serviceable on all parking bays/ stands.

10. Designations of maneuvering areas:

    a. S-8, S-9, S-10, S-11 - Start-up area

    b. G-3S, G-4, G-5, G-6, G-3N - Gateway

    c. K-1, K-2, J - Taxiway

    d. R-2, R-3, R-4 - Rapid Exit Taxiway

11. Center line markers for TWY L established.

12. Stop bar markings available for parking bays 38, 42, 43, 45, 47 and 49.

3.2.8 NAIA Terminal III Apron

Bay No.	Coordinates	Aircraft type	Gross weight (KG)	Restrictions/Remarks
101	143103.5900N 1210056.3400E	A320, ATR, Bombardier, B737, B727, A320, A319	68000	
101A	143103.3500N 1210056.7100E	MD11, ATR, Bombardier, B737, B727, A320, A319	281700	
102	143102.2000N 1210057.7200E	A320, ATR, Bombardier, B737, B727, A320, A319	68000	
103A	143101.9800N 1210058.1100E	MD11, ATR, Bombardier, B737, B727, A320, A319	281700	
103	143102.2200N 1210058.8200E	A320, ATR, Bombardier, B737, B727, A319	68000	
104	143100.8700N 1210059.4800E	A320, ATR, Bombardier, B737, B727, A319	68000	
104A	143100.6200N 1210059.5100E	MD11, ATR, Bombardier, B737, B727, A320, A319	281700	
105	143059.4300N 1210100.6000E	A320, ATR, Bombardier, B737, B727, A319	68000	
106	143059.3200N 1210101.7300E	ATR, Bombardier, B737, B727, A320, A319	68000	
106A	143059.2600N 1210100.9100E	MD11, ATR, Bombardier, B737, B727, A320, A319	281700	
107	143056.9000N 1210058.5600E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
108	143058.5600N 1210056.8600E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
109	143100.2200N 1210055.1500E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
110	143101.9000N 1210053.4200E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
111	143103.5600N 1210051.7200E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
112	143105.3700N 1210049.8600E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
113	143107.0100N 1210048.1400E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
114	143108.6700N 1210046.4300E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
115	143110.3300N 1210044.7300E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
116	143111.9900N 1210043.0200E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
117	143114.2500N 1210041.5700E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	

Bay No.	Coordinates	Aircraft type	Gross weight (KG)	Restrictions/Remarks
118	143115.9100N 1210039.8700E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
119	143117.5700N 1210038.1600E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
120	143119.8900N 1210036.4800E	B747, ATR, Bombardier, B737, B727, A320, A319, B747-400, B777-300ER, B777-200, B787-8	396000	
121	143120.9000N 1210134.7600E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
122	143122.7300N 1210032.8800E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
123	143123.9800N 1210030.7600E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
124	143125.6400N 1210029.0600E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
125	143127.3000N 1210027.3500E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
126	143128.9600N 1210025.6400E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
127	143129.9500N 1210023.9400E	B747, ATR, Bombardier, B737, B727, A320, A319	396000	
127A	143130.2800N 1210023.9000E	MD11, ATR, Bombardier, B737, B727, A320, A319	281700	
128	143130.6900N 1210022.6600E	ATR, Bombardier, B737, B727, A320, A319	68000	

Notes:

1. Fuel hydrant system at Terminal 3 Apron commissioned for parking bay NR 101 to 128.

2. NAIA Terminal 3 starting points and coordinates are:

S-12	143128.859N 1210019.63E
S-12A	143125.887N 1210022.71E
S-13	1431.3830N 12100.4270E
S-14	1431.2940N 12100.5210E
S-15	1431.2130N 12100.6020E
S-16	1431.1250N 12100.6940E
S-17	1431.0610N 12100.7580E
S-18	1431.0470N 12100.8940E
S-19	1430.9170N 12100.9110E
S-20	143104.530N 1210100.39E
S-20A	143101.559N 1210103.48E
S-20B	143057.825N 1210103.26E

Remarks:
Pushback Procedures

a. Aircraft shall pushback to the nearest starting point unless two or more aircraft are requesting pushback utilizing different departure runway or an arriving aircraft would be obtsructed if a departing aircraft pushes back on a starting point in the way of the arriving aircraft.
b. Arriving aircraft shall have priority over departing aircraft.

c. First to contact ramp control shall be prioritized.
d. Generally, aircraft at Bay NR 101, 102, and 103 shall pushback to starting point S-20. Aircraft at Bay NR 104, 105, and 106 shall pushback to starting point S-20A. Starting point S-20B can be utilized for start up and as holding point to maximize use and expedite aircraft movement.

3. NAIA Terminal 3 TWY N including Gateway G10, G11, G12, G13 and G14 open to aircraft operations.

Remarks: Gateway G10 limited to A320, B737, DC9 and below type only.

4. Taxiing - limitations

4.1 All aircraft taxiing out from NAIA Centennial Terminal 2 Apron via G5 should apply minimum taxi power requirements to avoid jet blast hazards.

4.2 Inner North TWY limited to Code C and below category aircraft.

4.3 Inner South TWY limited to code C and below category aircraft.

4.4 A320, A319, B737 and DC9 type of aircraft are advised to exercise minimum taxi power from the following area:

a. Domestic Passenger Terminal S-23 and S-24 towards South TWY due to jet blast hazard along parking bays 5 and 6.

b. Domestic Passenger Terminal S-24 towards North TWY due to jet blast hazard along parking bays 7, 8 and 9.

c. Domestic Passenger Terminal South TWY towards TWY N when there is an aircraft at S-27 due to jet blast hazard.

4.5 TWY E3 closed for aircraft operations.

4.6 No entry on Rapid Exit TWY R-1 for aircraft traffic coming from TWY C.

4.7 TWY R-1, R-2 and R-3 limited to Code C and below category aircraft.

4.8 Rapid Exit TWY R-1, R-5 and R-6 passable for Code F category aircraft with the following restrictions:

a. Code F aircraft movement limited during non-peak hours.

b. No other aircraft allowed to taxi at TWY C during Code F aircraft movement.

c. No landing/takeoff at RWY06/24 allowed except Code F aircraft during its movement at TWY C or TWY L.

4.9 Portion of Rapid Exit TWY R-2 going to TWY C3 and RWY31 closed. Observe stop bar light.

4.10 Pilots are advised to exercise caution and follow the center line of TWY E5. Non-bearing shoulders are painted with yellow diagonal lines on both sides.

5. Training Flights

5.1 Touch-and-go landings and helicopter training flights are prohibited.

6. Helicopter Traffic - limitations

6.1 Except when a clearance is obtained from an air traffic control unit, VFR helicopter flights shall not take-off or land at the Ninoy Aquino International Heliport within its control zone, or enter its aerodrome traffic zone:

a. When the ceiling is less than 150M (500FT);

b. When the ground visibility is less than 1.5KM (1 mile).

6.2 Helicopter operating VFR may be allowed outside controlled airspace with flight visibility below 1.5KM (1 mile) provided that:

a. The helicopter is clear of clouds and the ground or water is in sight at all times.

b. The helicopter shall be maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstruction to avoid collision.

RPLL AD 2.21 NOISE ABATEMENT PROCEDURES

1. General

The noise abatement procedures described below are applicable to all aircraft operating at NAIA.

1.1 Departure Procedures for All Runways

1.1.1 For jet aircraft, a speed of V2 plus 10KT shall be maintained up to 3000FT AGL after take-off, after which, acceleration to flap refraction may be commenced. Climb thrust shall be selected at 1500FT AGL.

1.1.2 All other (non-jet) aircraft shall attempt to attain 3000FT AGL as soon as practicable to be consistent with safe operational practices for subject aircraft climb performance.

1.1.3 In all the above cases, SID procedures shall be tracked as published.

1.1.4 The above procedures shall be terminated and standard climb out procedures be implemented immediately should any event affecting climb performance occur (i.e. problem with or loss of engine power).

1.2 Arrival Procedures

1.2.1 RWY06 or RWY24 Landings: Observe published aerodrome traffic circuit, altitudes/speeds.

Note: IFR aircraft from the North and landing on RWY24 shall be radar vectored to the RIGHT base leg at 2000FT or higher.

1.3 Modified Noise Abatement Procedures for RWY13 Departure (South Bound)

a. After take-off, make a left climbing turn before the end of RWY13 (max 15º bank angle) heading 100 degrees.

b. For jet aircraft, a speed of V2 plus 10KT shall be maintained to 3000FT AGL after take-off, after which, flap retraction may be commenced. Climb thrust shall be selected at 1500FT AGL.

c. In all cases, SID procedures shall be tracked as published.

d. The above procedures shall be terminated and standard climb-out procedures shall be implemented immediately should any event affecting climb performance occur (i.e. problem with loss of power).

RPLL AD 2.22 FLIGHT PROCEDURES

1. Procedures for the Control of VFR and IFR Traffic

1.1 VFR Operations

1.1.1 All VFR aircraft operating within the VFR areas shall:

1.1.1.1 Be equipped with 118.1MHZ transceivers and any of the following approach frequencies: 119.7MHZ, 121.1MHZ and 125.1MHZ.

1.1.1.2 Prior to entering the designated VFR areas, contact Manila Tower on 118.1MHZ.

1.1.1.3 Adhere to the established Manila VFR arrival/departure routings.

1.1.1.4 Maintain the required altitude of 2500FT or below within 15NM from the ARP. Cruise/climb to higher altitude shall be on a prior approval from Manila Approach.

1.1.1.5 When intending to transit the IFR climb/descend areas, contact Manila Approach on 119.7MHZ, 121.1MHZ and/or 125.1MHZ for the necessary clearance.

1.1.1.6 When requesting radar vector within 15NM radius maintain 2500FT unless otherwise instructed by Manila Approach Control.

1.1.1.7 When requesting radar vector within 15NM radius maintain 2500FT unless otherwise instructed by Manila Approach Control.

1.2 IFR Operations

1.2.1 The radar traffic circuit shall not penetrate the aerodrome traffic zone.

1.2.2 IFR traffic radar vector to final approach of RWY06/24 shall maintain 3500FT prior to entering the IFR climb/descend area. Descent shall be made without violating the radar minimum altitude.

1.2.3 In the event of radar and/or radio communication failure, descent to 3000FT shall be effected only in the designated VFR areas - 10 miles from the ARP. Otherwise, follow the Lost Communication Procedures.

1.2.4 Arriving aircraft on radar vector to Manila shall not cancel IFR clearance within 20NM.

1.2.5 All IFR flights landing RWY06/24/13 shall contact Manila Tower on 118.1MHZ at 5NM final approach.

1.3 Simultaneous Operations on NAIA RWY06/24 and RWY13/31

During period of traffic congestion, simultaneous operations on RWY06/24 and RWY13/31 may be authorized by the controller in accordance with the procedures and separation minima described below.

1.3.1 Departure

a. Between aircraft taking-off on either RWY06/24 and aircraft taking-off RWY31: No separation is necessary between the two departures regardless of type, provided that the departure in RWY31 shall commence its take-off not farther than the intersection of RWY31 and RWY06/24.

b. Between aircraft taking-off on either RWY06/24 and aircraft taking-off on RWY13: Sufficient separation shall be effected between the two departures to ensure that the first departing aircraft shall have passed the intersection of two runways before the second departing aircraft shall commence its take-off.

1.3.2 Arrivals

a. Between aircraft landing on either RWY06 or RWY24 ahead of another aircraft landing on RWY13: Sufficient separation shall be effected between the two arrivals to ensure that the aircraft landing on RWY13 shall not cross the Filinvest Cyberzone Building (2.3NM) on its final glide until the landing aircraft on RWY06 or RWY24 shall have passed and is clear of the intersection of the two runways.

b. Between aircraft landing on RWY13 ahead of another aircraft landing on RWY06 or RWY24.

1. The landing aircraft on RWY06 shall not cross the Las Piñas shoreline (2.63NM) on its final glide until the landing aircraft on RWY13 shall have turned into the taxiway, or have made a 180-degree turn, or made a full-stop before reaching the intersection of RWY13 and RWY06/24.

2. The landing aircraft on RWY24 shall not cross Cypress Tower (2.6NM) on its final glide until the landing aircraft on RWY13 shall have turned into the taxiway, or have made a 180-degree turn, or made a full-stop before reaching the intersection of RWY13 and RWY06/24.

c. Between aircraft landing on RWY13 ahead of another aircraft taking-off on either RWY06 or RWY24: Sufficient separation shall be effected between the two aircraft to ensure that the departing aircraft on RWY06 or RWY24 shall not commence its take-off until the landing aircraft on RWY13 shall have turned into a taxiway, or have made a 180-degree turn, or made a full-stop, before reaching the intersection of the two runways.

d. Between aircraft landing on either RWY06 or RWY24 ahead of another aircraft taking-off on RWY13: Sufficient separation shall be effected between the two aircraft to ensure that the aircraft departing on RWY13 shall not commence its take-off until the landing aircraft on either RWY06 or RWY24, shall have passed, or have stopped short, and will remain clear of, the intersection of the two runways.

e. Between aircraft taking-off on RWY13 is ahead of another aircraft landing on either RWY06 or RWY24:

1. Sufficient separation shall be effected between the two aircraft to ensure that the landing aircraft on RWY06 or RWY24 shall not cross the Las Piñas shoreline (2.63NM) or Cypress Tower (2.6NM), as the case may be, on its final glide until the departing aircraft on RWY13 shall have passed the intersection of the two runways.

2. Sufficient separation shall be effected between the two aircraft to ensure that a departing aircraft on RWY13 shall not converge with a landing aircraft on the downwind leg of either RWY06 or RWY24.

1.3.3 Go-around procedures

a. RWY24: Follow Instrument Missed Approach Procedure.

b. RWY06: Follow Instrument Missed Approach Procedure.

c. RWY13: Make a right turn before Baclaran Church and join downwind RWY13.

d. Simultaneous use of RWY06/24 and RWY13/31 for jet aircraft shall be prohibited.

e. The controller on duty may deviate from the above procedures if in his best judgment such deviation are in the interest of safety and efficiency.

1.3.4 A320 and below type of aircraft to limit ROTA on RWY06/24 and RWY13/31 to 55 seconds and ROTD on RWY06/24 and RWY13, to 45 seconds, provided the runway is dry. Utilizing the most expeditious means out of the runway. If unable, pilots are to notify Manila Control Tower upon initial contact.

Note:

1. ROTA - Runway Occupancy Time - ARR
   ROTA will start at the time the aircraft crosses the runway threshold marker on its final glide to the time it vacates the runway from a specified point.

2. ROTD - Runway Occupancy Time - DEP
   ROTD will start at the time the aircraft reaches NR 1 PSN (lined-up on the runway threshold marker) and the pilot reads back to the ATC's take-off clearance to the time it is airborne (wheels off ground).

2. Procedures for VFR Departure/Arrival Flights

2.1 General

2.1.1 The following air traffic procedures shall apply to all VFR flights operating within the Manila TMA:

2.1.1.1 VFR aircraft intending to fly along SIDs and/or STARs routes shall inform Manila Approach on 119.7MHZ.

2.1.1.2 All VFR aircraft shall maintain continuous listening watch on 119.7MHZ while operating within the Manila TMA excluding the aerodrome traffic zone.

2.1.1.3 All departing VFR flights shall maintain a listening watch on Manila Tower frequency 118.1MHZ up to the exit points.

2.1.1.4 All arriving VFR flights shall initiate contact and remain on listening watch thereafter with Manila Tower upon entering the Manila Control zone.

2.1.1.5 Any deviation from the departure/arrival procedures shall have prior approval from Manila Tower.

2.2 VFR departure flights

2.2.1 Northbound aircraft

a. RWY13/06 Take-off: CLIMB STRAIGHT AHEAD. After passing runway intersection make a right climbing turn to join downwind RWY06. Obtain clearance from Manila Control Tower before crossing final approach of RWY06. Climb to 2000FT after crossing final approach of RWY06. Execute a left turn abeam threshold of RWY13 to fly WEST OF SOUTH HARBOR. Report ABEAM MALABON then proceed to destination.

b. RWY31 Take-off: Make a LEFT TURN after take-off to fly WEST OF SOUTH HARBOR, continue climb to 2000FT. Report ABEAM MALABON then proceed to destination.

c. RWY24 Take-off: Climb STRAIGHT AHEAD. Make a right turn at the end of the runway. Execute a left turn abeam threshold of RWY13 to fly WEST OF SOUTH HARBOR. Report ABEAM MALABON then proceed to destination.

d. South Harbor Take-off: After take-off, fly westward towards ABEAM NORTH HARBOR. Then report ABEAM MALABON. Proceed to destination or as instructed by Manila Control Tower.

e. Sangley Take-off: Fly Northwestward ABEAM NORTH HARBOR. Report to Manila Approach for traffic information.

2.2.2 Southbound aircraft

a. RWY13 Take-off: Make a STRAIGHT OUT departure climbing to 2000FT towards the east side of the MERALCO CHIMNEYS.

b. RWY31 Take-off: Climb STRAIGHT AHEAD and execute a left climbing turn. Obtain clearance from Manila Control Tower before crossing over the threshold of RWY06. Fly STRAIGHT AHEAD climbing to 2000FT towards the east side of the MERALCO CHIMNEYS.

c. RWY06 Take-off: Climb STRAIGHT AHEAD and execute a right turn towards the east side of the MERALCO CHIMNEYS.

d. RWY24 Take-off: Climb STRAIGHT AHEAD and execute a left turn towards the east side of the MERALCO CHIMNEYS.

e. SOUTH HARBOR Take-off:

1. Via NAIC RIVER MOUTH: After take-off, fly westward to abeam NORTH HARBOR. Report to Manila Control Tower when airborne. Contact Sangley Tower or as instructed by Manila Control Tower. Continue towards EAST OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 15NM ARP. Fly southwards via NAIC RIVER MOUTH.

2. Via PICO DE LORO: After take-off, fly westward abeam NORTH HARBOR. Report to Manila Control Tower when airborne. Contact Sangley Tower or as instructed by Manila Control Tower. Continue towards TAIL OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 20NM ARP. Fly south westward via PICO DE LORO.

f. Sangley Take-off:

1. Via NAIC RIVER MOUTH: After take-off, fly westward to EAST OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 15NM ARP. Fly southwards via NAIC RIVER MOUTH.

2. Via PICO DE LORO: After take-off, fly westward to TAIL OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 20NM ARP. Fly southwestward via PICO DE LORO.

2.2.3 Westbound aircraft

a. RWY13/06 Take-off: Climb STRAIGHT AHEAD. After passing runway intersection, execute a right climbing turn to join downwind RWY06. Obtain clearance from Manila Control Tower before crossing final approach of RWY06. Climb to 2000FT after crossing final approach of RWY06. Execute a left turn abeam the threshold of RWY13 towards abeam NORTH HARBOR. Contact Sangley Tower or as instructed by ATC.

b. RWY31 Take-off: Make a LEFT TURN after take-off towards abeam NORTH HARBOR. Continue climb to 2000FT. Contact Sangley Tower or as instructed by ATC.

c. RWY24 Take-off: Climb STRAIGHT AHEAD. Make a Right turn at the end of the runway. Execute a left turn abeam the threshold of RWY13 towards abeam NORTH HARBOR. Continue climb to 2000FT. Contact Sangley Tower or as instructed by ATC.

d. SOUTH HARBOR Take-off: After take-off, fly westward to abeam NORTH HARBOR. Report to Manila Control Tower when airborne. Contact Sangley Tower or as instructed by Manila Control Tower. Continue towards North of Corregidor and contact Manila Approach before crossing the final approach of RWY06 not above 2500FT beyond 20NM ARP.

e. Sangley Take-off: After take-off, fly westward to NORTH OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2500FT beyond 20NM ARP.

2.2.4 Eastbound aircraft

a. South Harbor Take-off:

1. Via NAIC River Mouth: After take-off, fly westward abeam NORTH HARBOR. Report to Manila Control Tower when airborne. Contact Sangley Tower or as instructed by Manila Control Tower. Continue towards EAST OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 15NM ARP. Fly towards TRECE MARTIRES via NAIC RIVER MOUTH then towards GENERAL TRIAS.

2. Via Downwind RWY31: After take-off, request clearance from Manila Control Tower to cross the threshold of RWY06. Fly STRAIGHT AHEAD towards the east side of the MERALCO CHIMNEYS or as instructed by ATC.

Note: While requesting for take-off clearance, Manila Control Tower shall be advised of the desired route to be utilized for departure.

b. Sangley Take-off: After take-off, fly westward to EAST OF CORREGIDOR and contact Manila Approach before crossing the final approach of RWY06 not above 2000FT beyond 15NM ARP. Fly towards TRECE MARTIRES via NAIC RIVER MOUTH then towards GENERAL TRIAS.

2.3 VFR Arrival flights

2.3.1 From the North

a. Report to Manila Control Tower approaching Malabon.

b. RWY13 Landing: Request to make STRAIGHT-IN-APPROACH before SOUTH HARBOR. When request is approved, report to Philippine Navy. If request is disapproved, join downwind RWY13 or any other maneuver as instructed by the ATC.

c. RWY31 Landing
Note: Landing allowed in case of emergency and subject to ATC instructions.

d. RWY06 Landing
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

e. RWY24 Landing
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

f. South Harbor Landing: Report over SOUTH HARBOR. Report on the water.

g. Sangley Landing: Report over SOUTH HARBOR. Make a right turn then contact Sangley Tower or as instructed by Manila Control Tower.

2.3.2 From the South

1. Via SOUTHMALL:

a. Report to Manila Control Tower approaching Muntinlupa.

b. Report over Southmall.

c. RWY13 Landing: Request for clearance to cross over threshold or final approach RWY06 prior to entering downwind at traffic altitude.

d. RWY31 Landing
Note: Landing allowed in case of emergency and subject to ATC instructions.

e. RWY06 Landing
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

f. RWY24 Landing
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

g. South Harbor/Sangley Landing

1. Via PICO DE LORO: Report to Manila Approach approaching PICO DE LORO at or below 3000FT. Continue towards EAST OF CORREGIDOR. Cross final approach of RWY06 beyond 20NM ARP. Contact Sangley Tower or as instructed by Manila Approach.

2. Via NAIC RIVER MOUTH (From Southeast): Report to Manila Approach approaching TRECE MARTIRES at or below 1500FT. Fly towards NAIC RIVER MOUTH then cross final approach RWY06 beyond 15NM ARP. Contact Sangley Tower or as instructed by Manila Approach.

2.3.3 From the West

a. RWY13 Landing: Report to Manila Approach approaching CORREGIDOR at or below 3000FT. Continue towards NORTH OF CORREGIDOR. ABEAM SANGLEY, contact Manila Control Tower prior entering downwind at traffic altitude.

b. RWY31 Landing:
Note: Landing allowed in case of emergency and subject to ATC instructions.

c. RWY06 Landing:
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

d. RWY24 Landing:
Note: Landing allowed in case of RWY13/31 closure and emergency subject to ATC instructions.

e. SOUTH HARBOR/SANGLEY Landing: Report to Manila Approach approaching CORREGIDOR at or below 3000FT. Continue towards NORTH OF CORREGIDOR. Cross final approach of RWY06. Contact Sangley Tower or as instructed by Manila Approach.

3. Helicopter Operations

The procedures for the control of VFR and IFR traffic shall apply to all helicopters flying within the established corridors and IFR climb/descent areas when departing or arriving at the Ninoy Aquino International Heliport.

3.1 VFR Departure Procedures

3.1.1 Departure East side of RWY13/31

a. Lift-off to 300FT then fly towards WESTIN PHILIPPINE PLAZA not above 500FT.

b. Lift-off to 300FT then fly right side of EDSA, GUADALUPE BRIDGE, then cross PASIG PUBLIC MARKET not above 500FT. If South bound, fly not above 300FT when crossing the approach path extension of RWY24.

3.1.2 Departure West side of RWY13/31

a. North Departure Procedure for helicopters along TWY ALPHA – contact Manila Tower for take-off clearance. Air taxi towards point “N”, lift-off to 300FT. From point “N” turn left and fly towards MANILA BAY and intercept helicopter route avoiding final approach path of RWY13.

b. North Departure Procedure for helicopters along TWY BRAVO – contact Manila Tower for take-off clearance. Air taxi towards point “D”, take-off towards point “N” then climb to 300FT. Turn left and fly towards MANILA BAY and intercept helicopter route avoiding final approach path of RWY13.

c. South Departure Procedure for helicopters along TWY ALPHA – contact Manila Tower for take-off clearance. Air taxi towards point “D”. Lift-off to 200FT then proceed Southwest crossing MIA road. Turn right towards MANILA BAY and intercept helicopter route avoiding final approach path of RWY06

d. South Departure Procedure for helicopters along TWY BRAVO – contact Manila Tower for take-off clearance. Air taxi towards point “S”. Lift-off, turn right at NAYONG PILIPINO LAGOON climbing to 300FT between PAL In-flight and CAAP offices. Proceed towards MANILA BAY and intercept helicopter route avoiding final approach path of RWY06.

3.1.3 Restriction

a. Movement of helicopters from East to West side of RWY13/31 and vice versa shall fly over MARINA, PHILIPPINE PLAZA HOTEL not above 300FT.

b. All flights shall be conducted well to the right of all reference points.

c. Landing and take-off time shall be relayed to Manila Tower.

d. PNOC & AAOP helicopters must take-off at COCOFED helipad.

e. Since the ground area at the Hw is not visible from the tower, the responsibility of avoiding obstructions and vehicles traversing the area lies solely on the pilot.

f. When North Departure Procedure is in use, all arrivals must use the South Arrival Procedure & if South Departure Procedure is in use, all arrivals must use the North Arrival Procedure.

Note: Hw - Helicopter area right of RWY13; He - Helicopter area left of RWY13.

3.2 VFR Arrival Procedures

3.2.1 Landing East side of RWY13/31

a. Contact Manila Tower when entering the control zone not above 500FT. Fly on the right side of MERALCO BUILDING (Ortigas Avenue). Continue flying on the right side of EDSA until SOUTH SUPER HIGHWAY interchange to helipad.

b. If coming from the South, cross the approach path extension of RWY24 not above 300FT. Fly on the right side of PASIG PUBLIC MARKET towards MERALCO BUILDING.

3.2.2 Landing West side of RWY13/31

a. Contact Manila Tower when entering the control zone not above 500FT. Fly not above 200FT over ANTENNA FARM then right side of MARINA towards helipad.

b. North Arrival Procedure for helicopters with hangars beside TWY ALPHA – contact Manila Tower before entering the aerodrome traffic zone. From MANILA BAY along the helicopter route, proceed to point “N” and air taxi along the general aviation TWY to parking area.

c. North Arrival Procedure for helicopters with hangars beside TWY BRAVO – contact Manila Tower before entering the aerodrome traffic zone. From MANILA BAY along the helicopter route, proceed to point “D” and air taxi along the general aviation TWY to parking area.

d. South Arrival Procedure for helicopters with hangars beside TWY ALPHA – contact Manila Tower before entering the aerodrome traffic zone. From MANILA BAY along helicopter route, ABEAM MARINA, proceed towards PADC Hangar NR 3 to point “D” and air taxi along the general aviation TWY to parking area.

e. South Arrival Procedure for helicopters with hangars beside TWY BRAVO – contact Manila Tower before entering the aerodrome traffic zone. From MANILA BAY along the helicopter route, ABEAM MARINA, proceed to point “S” passing between PAL In-flight and CAAP offices and approach via NAYONG PILIPINO LAGOON. From point “S” air taxi along the general aviation TWY to parking areas.

3.3 IFR Arrival and Departure Procedures

3.3.1 Helicopters desiring to fly IFR shall adhere to the IFR procedures provided for, provided that:

a. The helicopter is IFR rated;

b. The pilot is IFR rated; and

c. The helicopter and pilot meet all other requirements.

3.4 Deviation

3.4.1 Any deviation from these departure/arrival procedures shall have prior approval from the appropriate air traffic control unit.

3.5 Security Measures

3.5.1 Helicopters shall not fly within the Malacañang security area (RP-P1) whose limits are 2NM radius centered on 143536.6095N 1205929.1339E) and a vertical limit of 5500FT AGL.

4. List of VFR Reporting Points

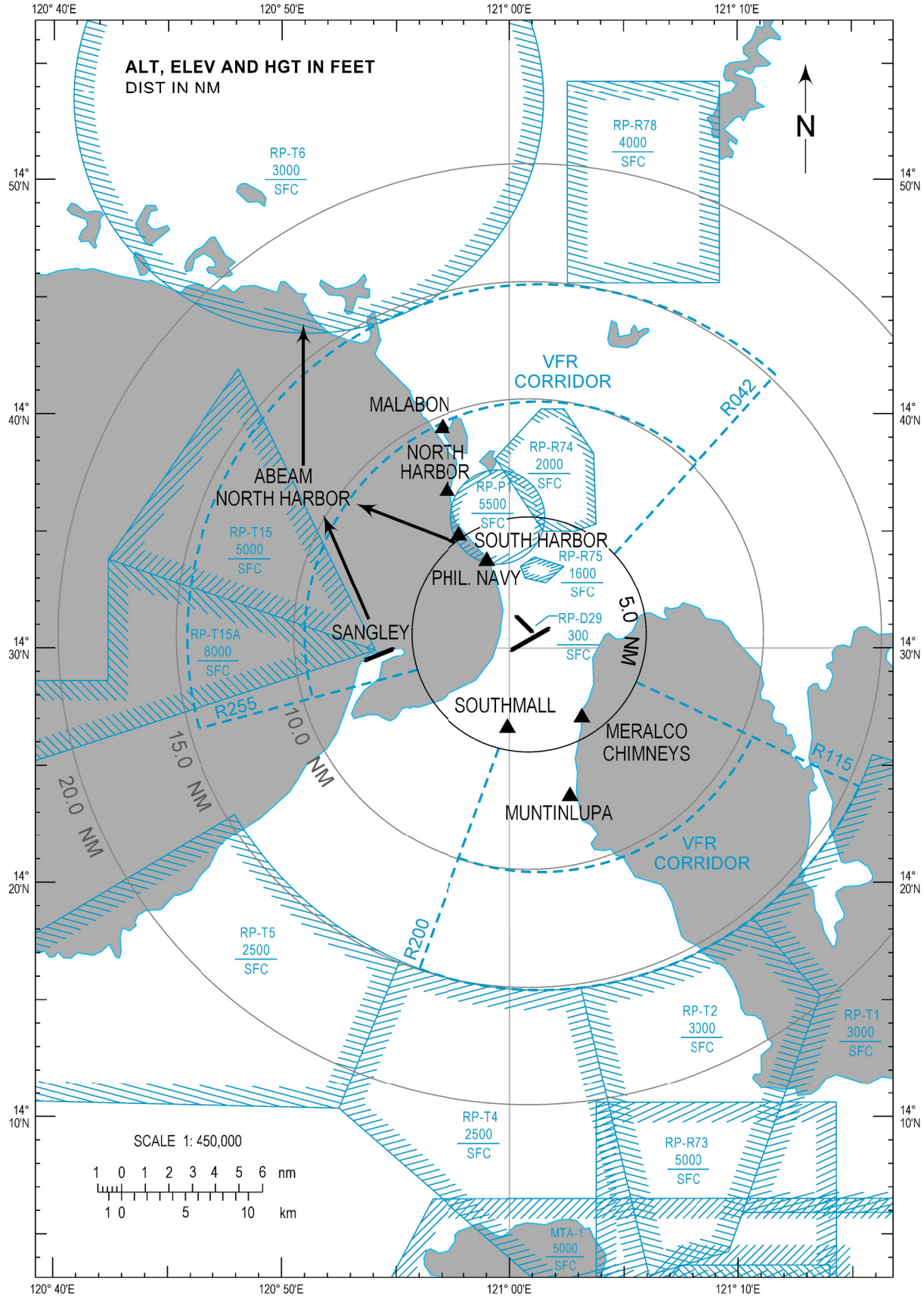
WAYPOINT NAME	COORDINATES	DISTANCE (NM)	RELATIVE POSITION FROM ARP	DESCRIPTION
CORREGIDOR	142256N 1203428E	27.0	W	Corregidor Island
GENERAL TRIAS	141549N 1205520E	16.0	SSW	Gateway Business Park General Trias, Cavite
MALABON	143923N 1205702E	10.0	NNW	Malabon Public Market
MERALCO CHIMNEYS	142703N 1210310E	4.2	SE	4-Chimneys along Meralco Road, Sucat Paranaque
MUNTINLUPA	142342N 1210239E	7.0	SSE	Muntinlupa Municipal Hall
NAIC RIVER MOUTH	141938N 1204542E	18.0	WSW	C-shaped river mouth, Naic Cavite
NORTH HARBOR	143643N 1205715E	7.0	NW	North Harbor Port Area, Manila
PHILIPPINE NAVY	143344N 1205901E	3.5	NW	Philippine Navy near Manila Yacht Club
PICO DE LORO	141401N 1203527E	30.0	SW	Island West of Pico de Loro
SOUTHMALL	142636N 1205955E	4.1	S	SM Southmall, Muntinlupa
SOUTH HARBOR	143449N 1205747E	5.0	NW	South Harbor Port Area, Manila
TAIL OF CORREGIDOR	142249N 1203723E	24.0	W	Eastern tip of Corregidor Island
TRECE MARTIRES	141648N 1205201E	16.0	SW	Trece Martires Provincial Capitol

VFR AREA CHART

AD ELEV **75 ft**

APP	121.1 / 124.8
TWR	118.1 / 118.4
GND	121.8 / 122.0
ATIS	126.4

MANILA/Ninoy Aquino Intl (RPLL)
SOUTH HARBOR & SANGLEY
DEPARTURE - NORTHBOUND

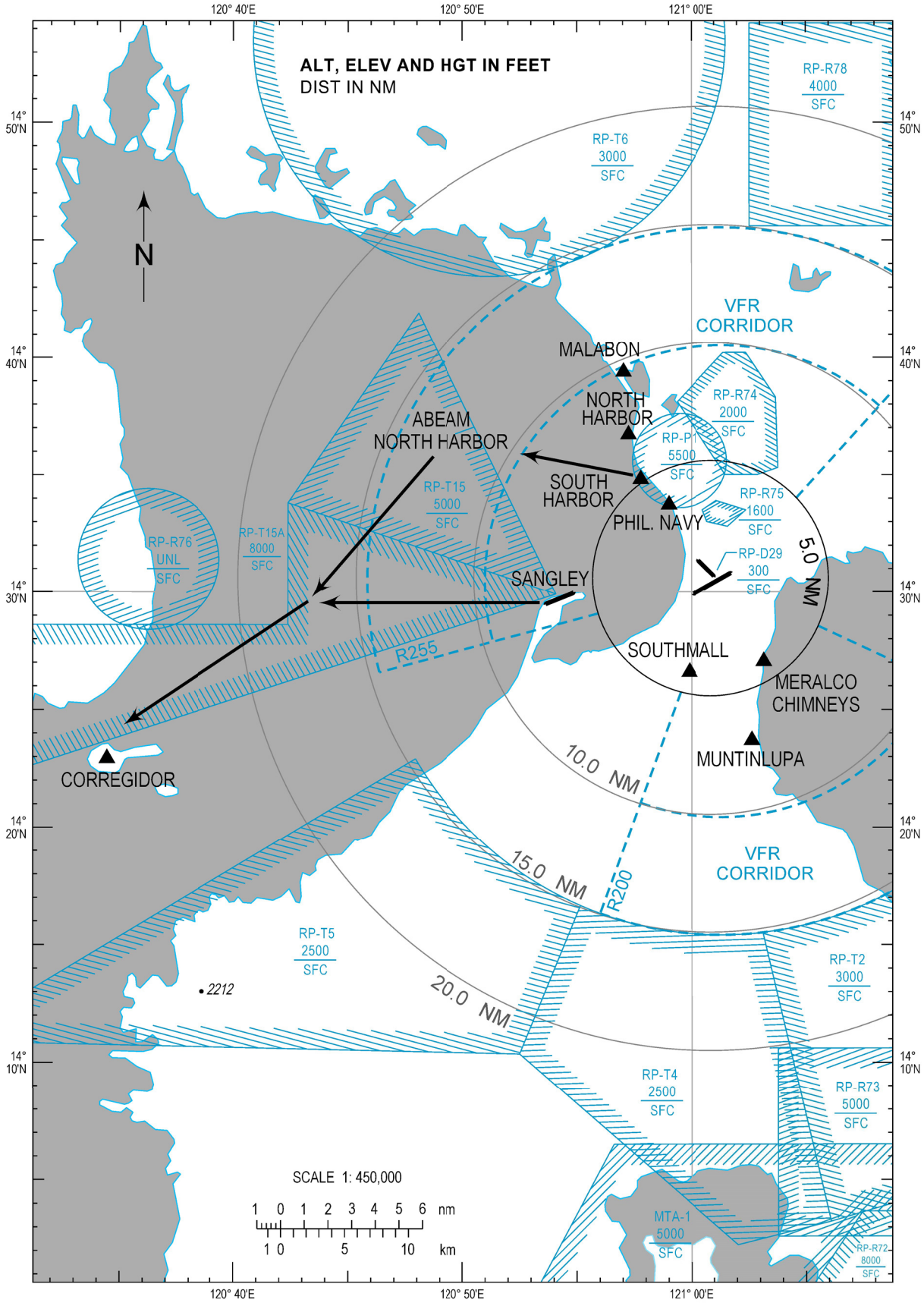


VFR
AREA
CHART

AD ELEV
75 ft

APP - 121.1 / 124.8
TWR - 118.1 / 118.4
GND - 121.8 / 122.0
ATIS - 126.4

MANILA/Ninoy Aquino Intl (RPLL)
SOUTH HARBOR & SANGLEY
DEPARTURE - WESTBOUND

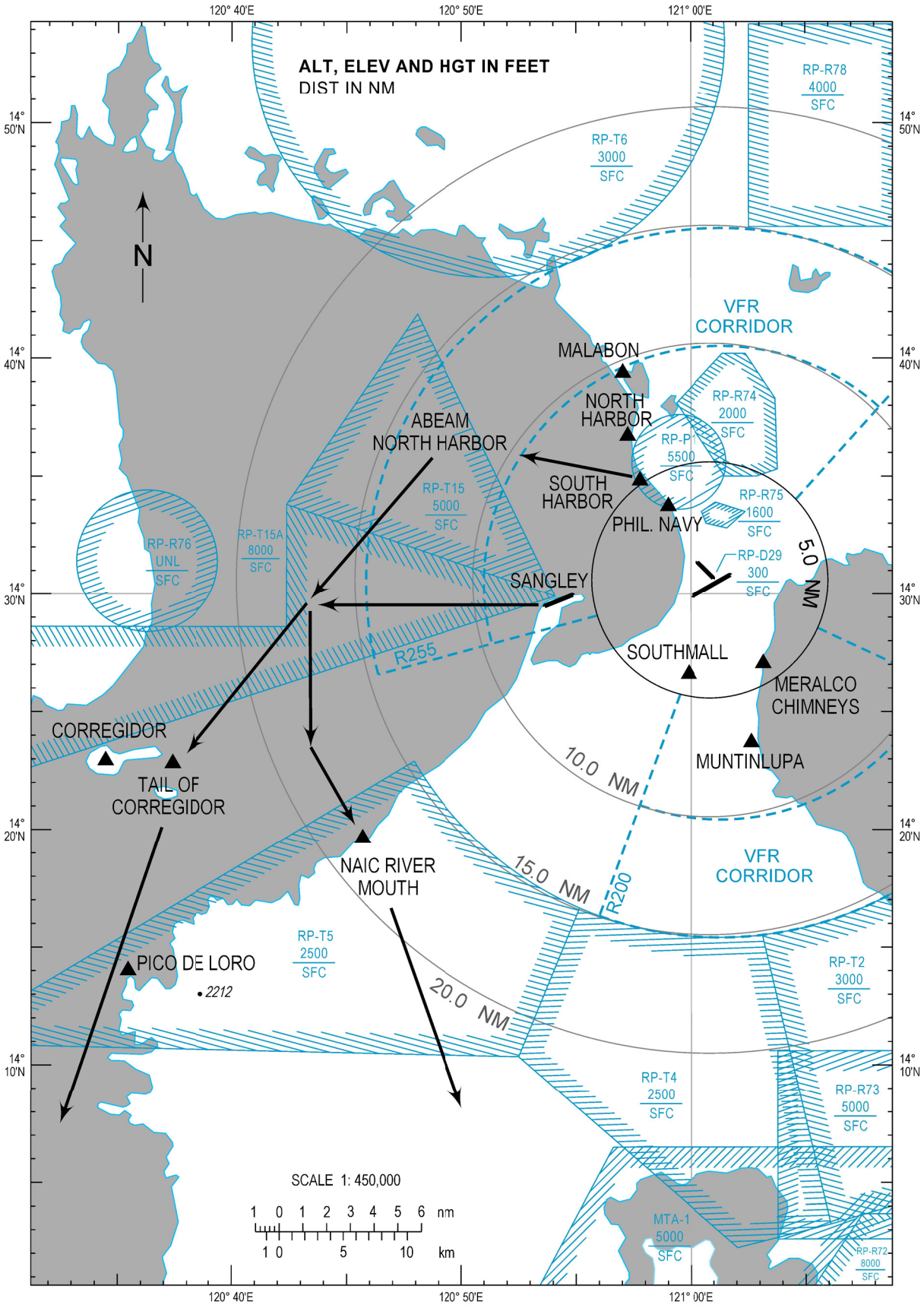


VFR
AREA
CHART

AD ELEV
75 ft

APP - 121.1 / 124.8
TWR - 118.1 / 118.4
GND - 121.8 / 122.0
ATIS - 126.4

MANILA/Ninoy Aquino Intl (RPLL)
SOUTH HARBOR & SANGLEY
DEPARTURE - SOUTHBOUND

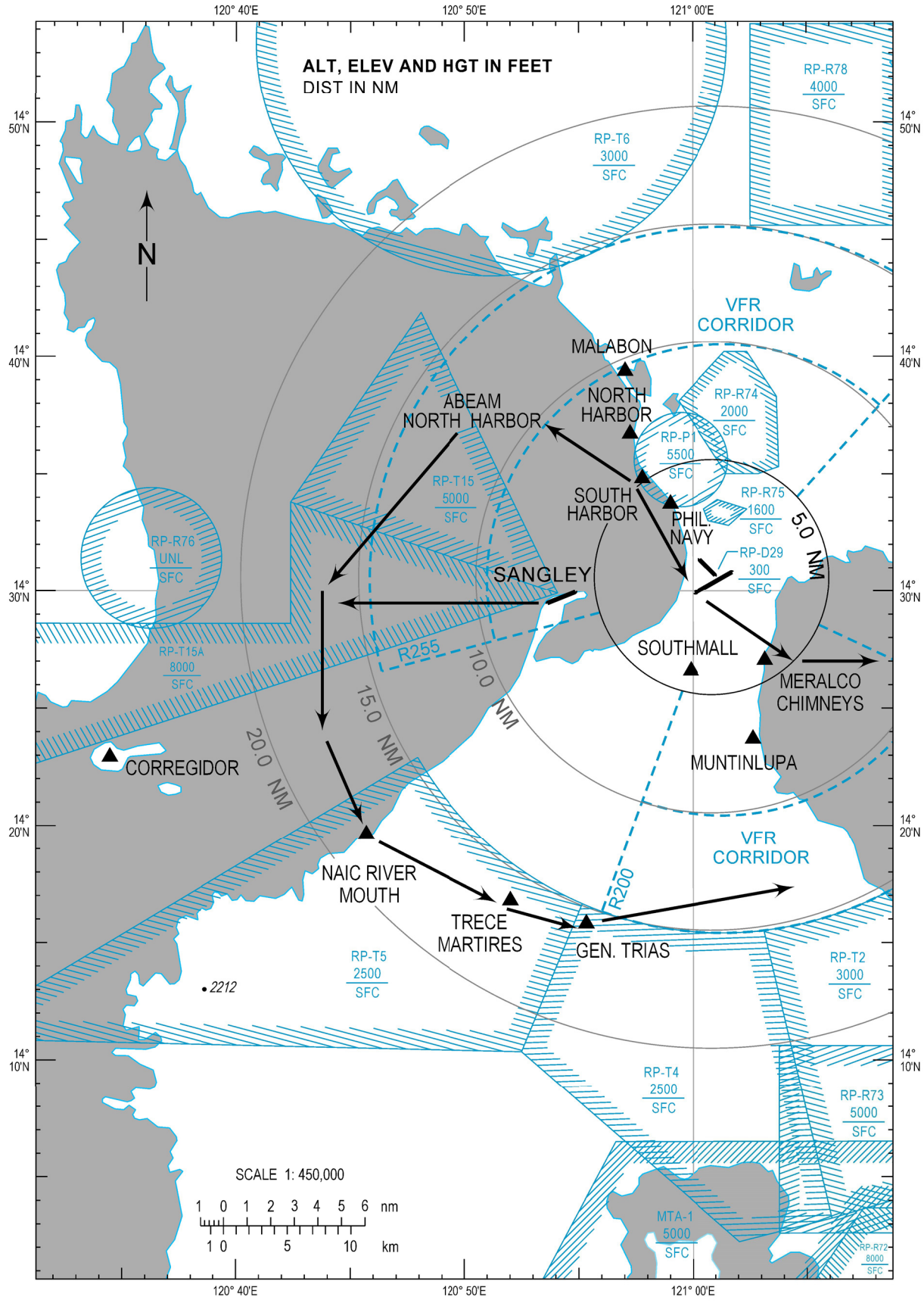


VFR AREA CHART

AD ELEV **75 ft**

APP - 121.1 / 124.8
TWR - 118.1 / 118.4
GND - 121.8 / 122.0
ATIS - 126.4

MANILA/Ninoy Aquino Intl (RPLL)
SOUTH HARBOR & SANGLEY
DEPARTURE - EASTBOUND

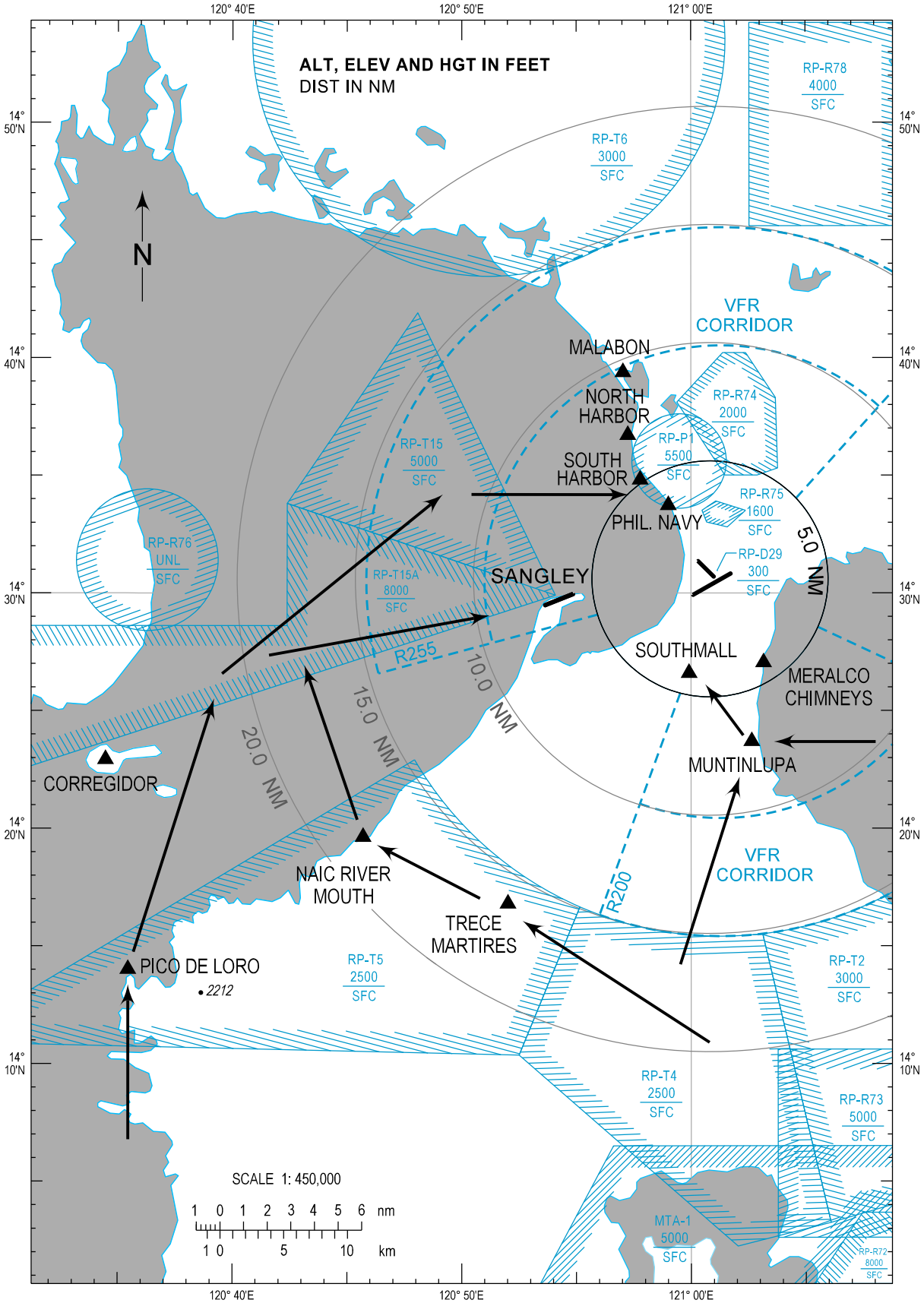


VFR AREA CHART

AD ELEV 75 ft

APP - 121.1 / 124.8
TWR - 118.1 / 118.4
GND - 121.8 / 122.0
ATIS - 126.4

MANILA/Ninoy Aquino Intl (RPLL)
RWY 13 SOUTH HARBOR & SANGLEY
ARRIVAL - FROM THE SOUTH

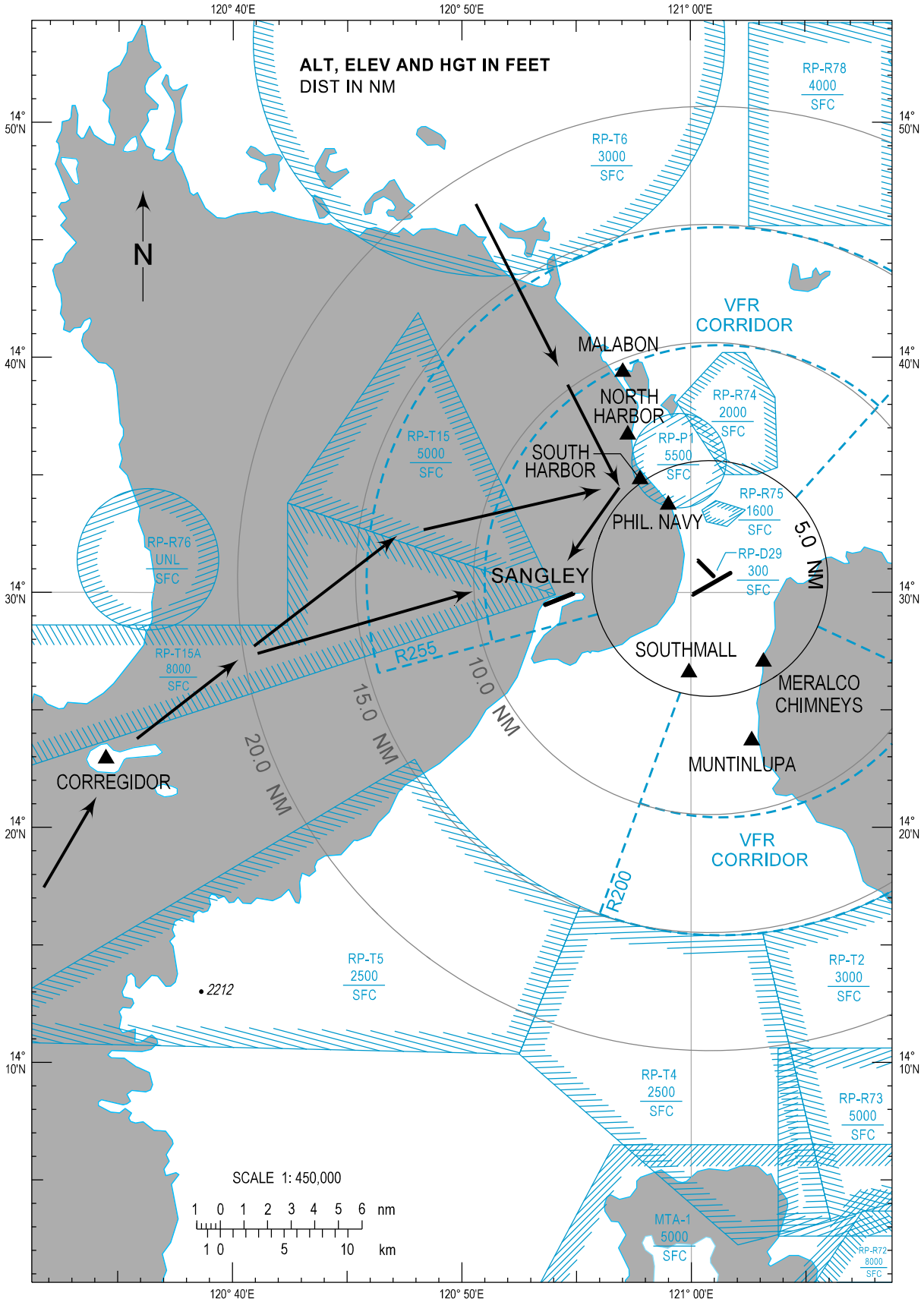


VFR
AREA
CHART

AD ELEV
75 ft

APP - 121.1 / 124.8
TWR - 118.1 / 118.4
GND - 121.8 / 122.0
ATIS - 126.4

MANILA/Ninoy Aquino Intl (RPLL)
RWY 13 SOUTH HARBOR & SANGLEY
ARRIVAL - FROM THE NORTH/WEST



RPLL AD 2.23 ADDITIONAL INFORMATION

1. Bird Concentrations in the Vicinity of the Airports

1.1 Pond areas and salt beds along RWY06 final approach area - presence of passerines and waterbirds. Increase in concentration during the months of August to October and February to April due to the southward and northward bird migrations, respectively, along the East Asia - Australasian Flyway.

1.2 Grass areas adjacent to the runways/taxiways - occasional feeding ground for passerines and pigeons. Increase in concentration after grass cutting operations.

1.3 Approach area along MANILA BAY (NW of the airport) and LAGUNA BAY (SE of the airport) - feeding/staging area for migratory birds. Increase in concentration during low tide.

1.4 Pond area near radar station - feeding area for waterbirds, as well as migratory shorebirds.

Note: There is an existing bird control procedure that prevents bird congregation within the airport area, and implement immediate dispersal operations if such occur.

RPLL AD 2.24 CHARTS RELATED TO AN AERODROME