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List of pages in this Trip Kit

Enroute Chart - RKSI - VTBS Departure
NavData cycle 2024-05 Expired: 22 May 2024
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 11 Apr 2025

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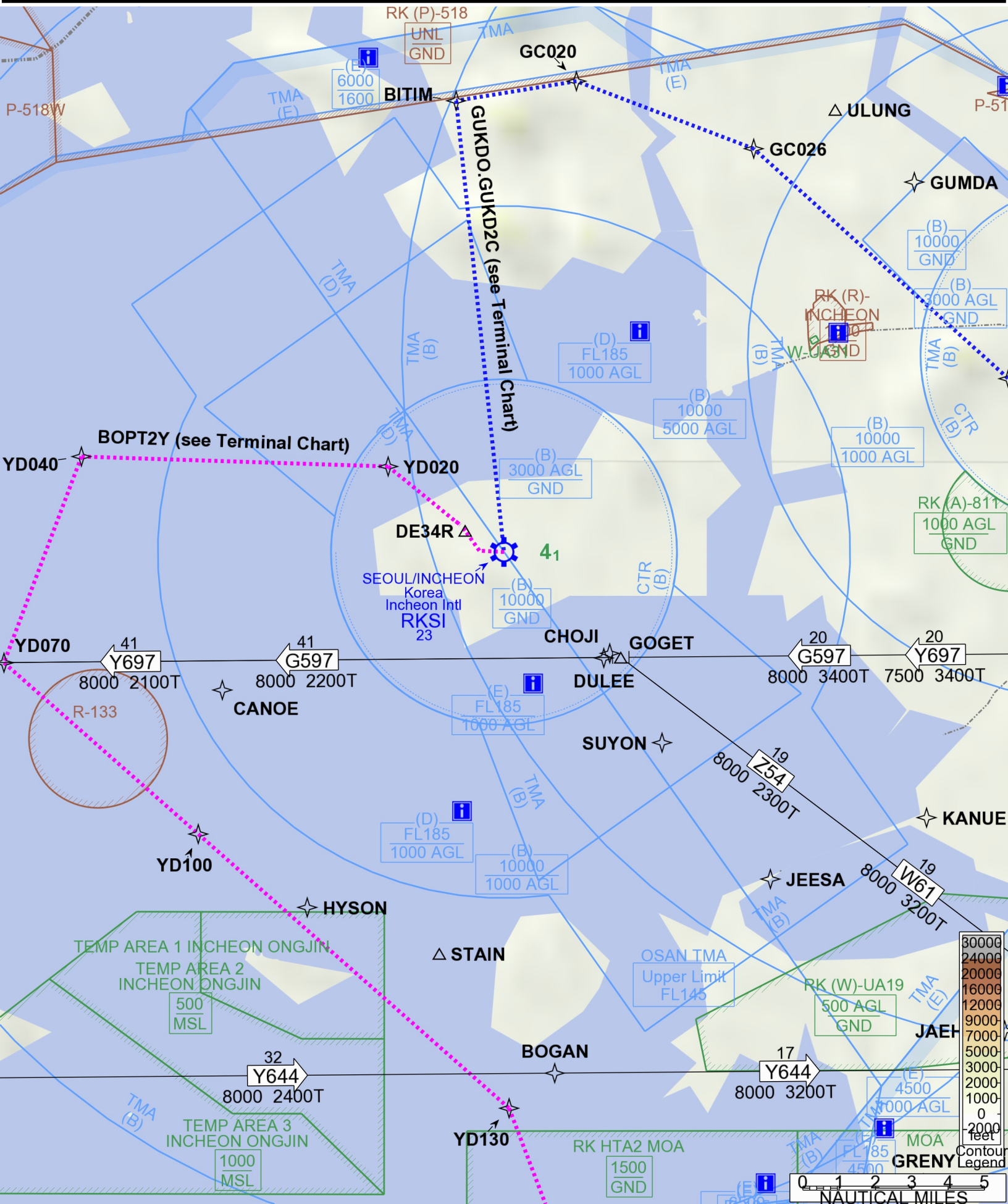

Enroute Chart - RKSI - VTBS Destination
NavData cycle 2024-05 Expired: 22 May 2024
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 11 Apr 2025

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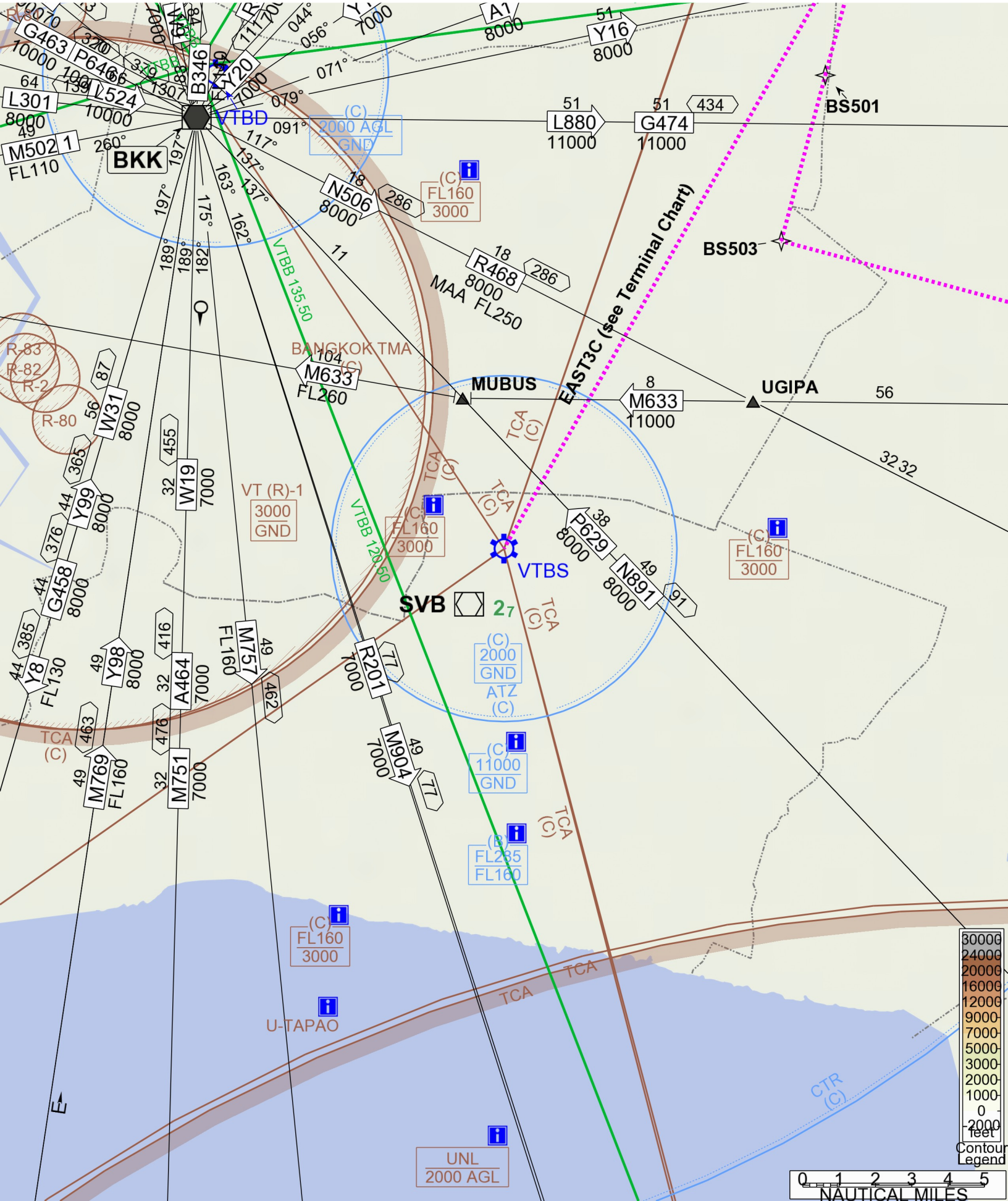
JeppView for Windows



Enroute Chart - RKSI - VTBS Full Route
NavData cycle 2024-05 Expired: 22 May 2024
Scale: 1:14713177 (1 inch = 201.79 naut mi). Printed on 11 Apr 2025

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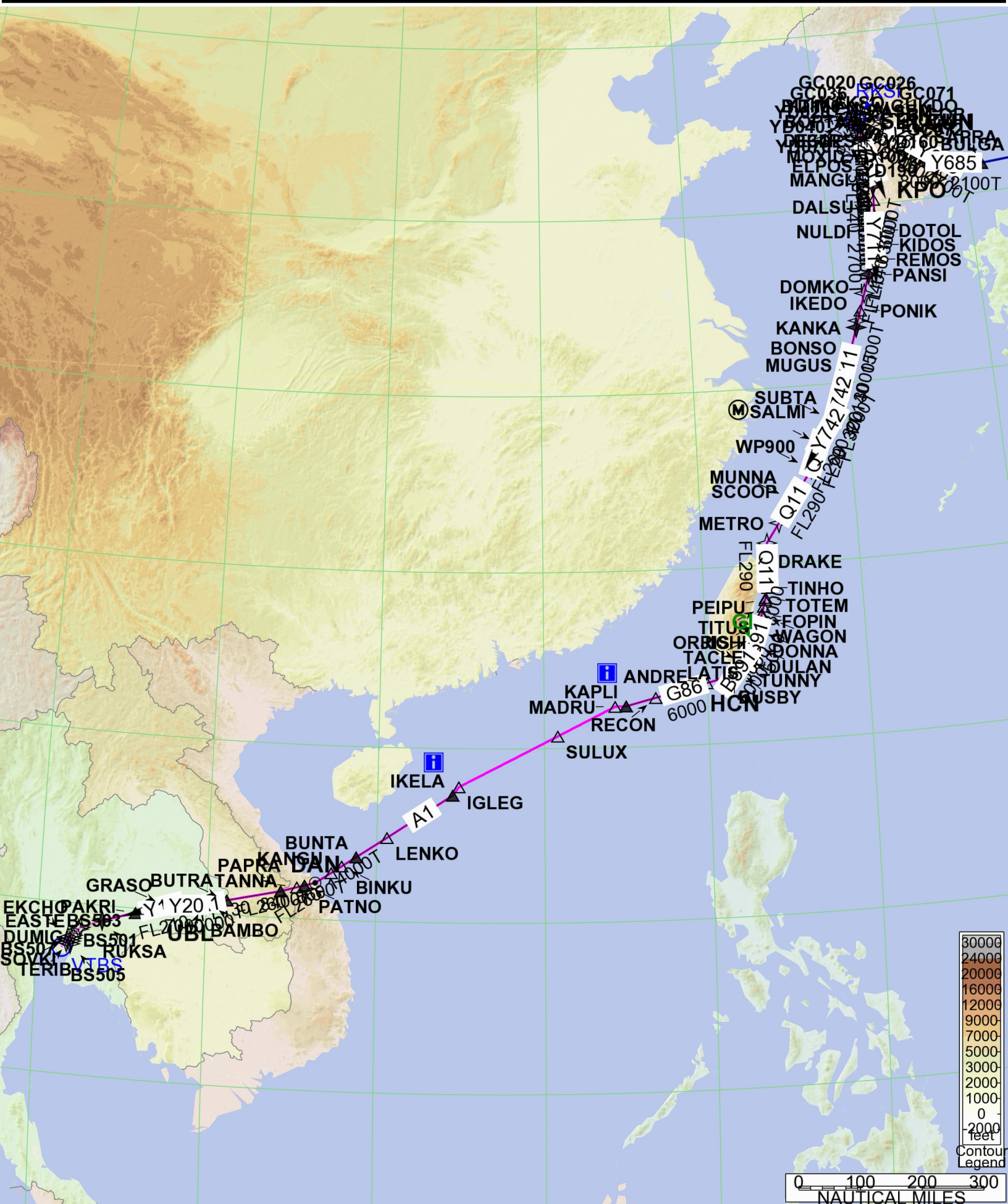
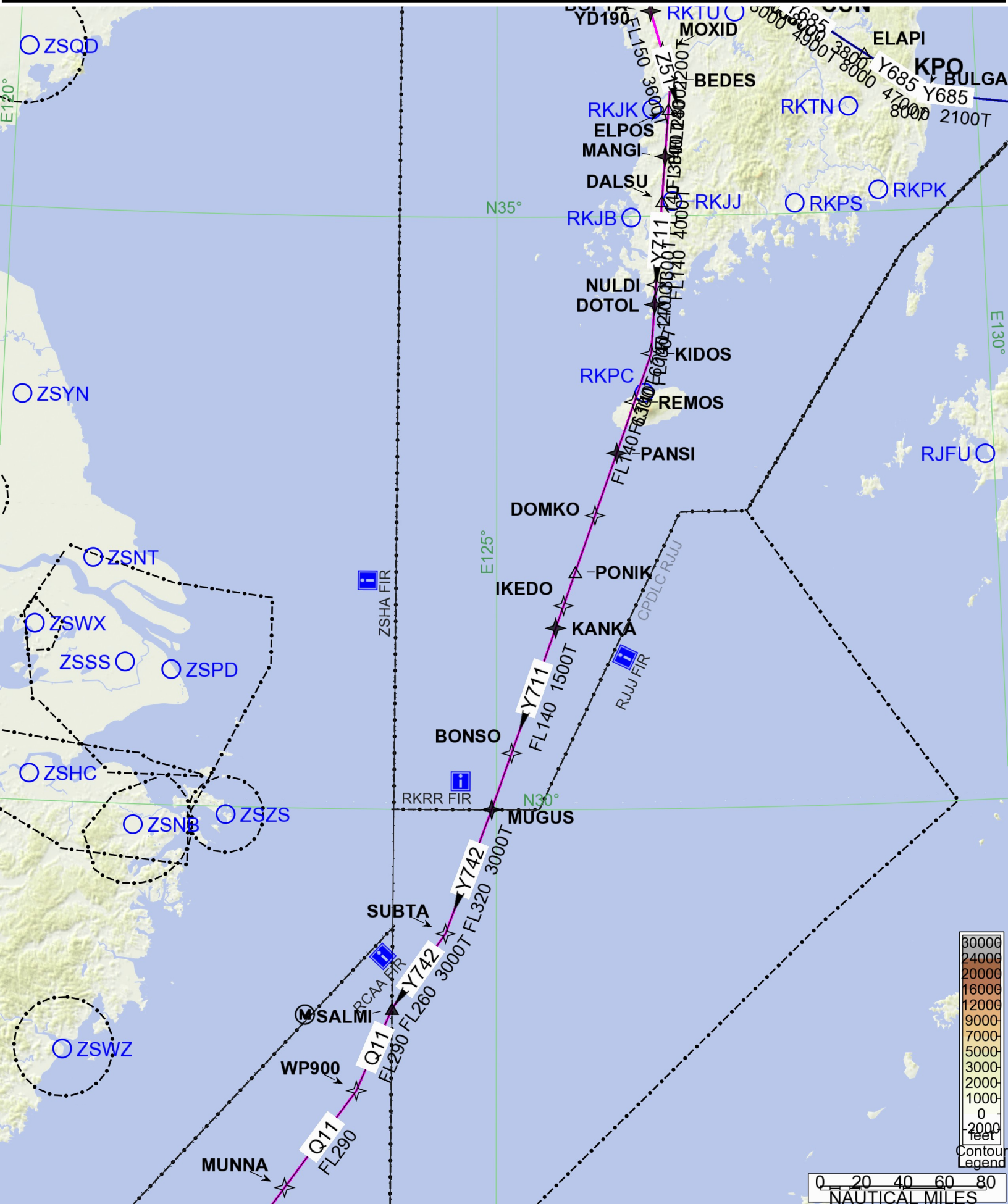
JeppView for Windows



Enroute Chart - RKSI - VTBS Strip Chart Page 1
NavData cycle 2024-05 Expired: 22 May 2024
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 11 Apr 2025

JEPPESEN
JeppView for Windows



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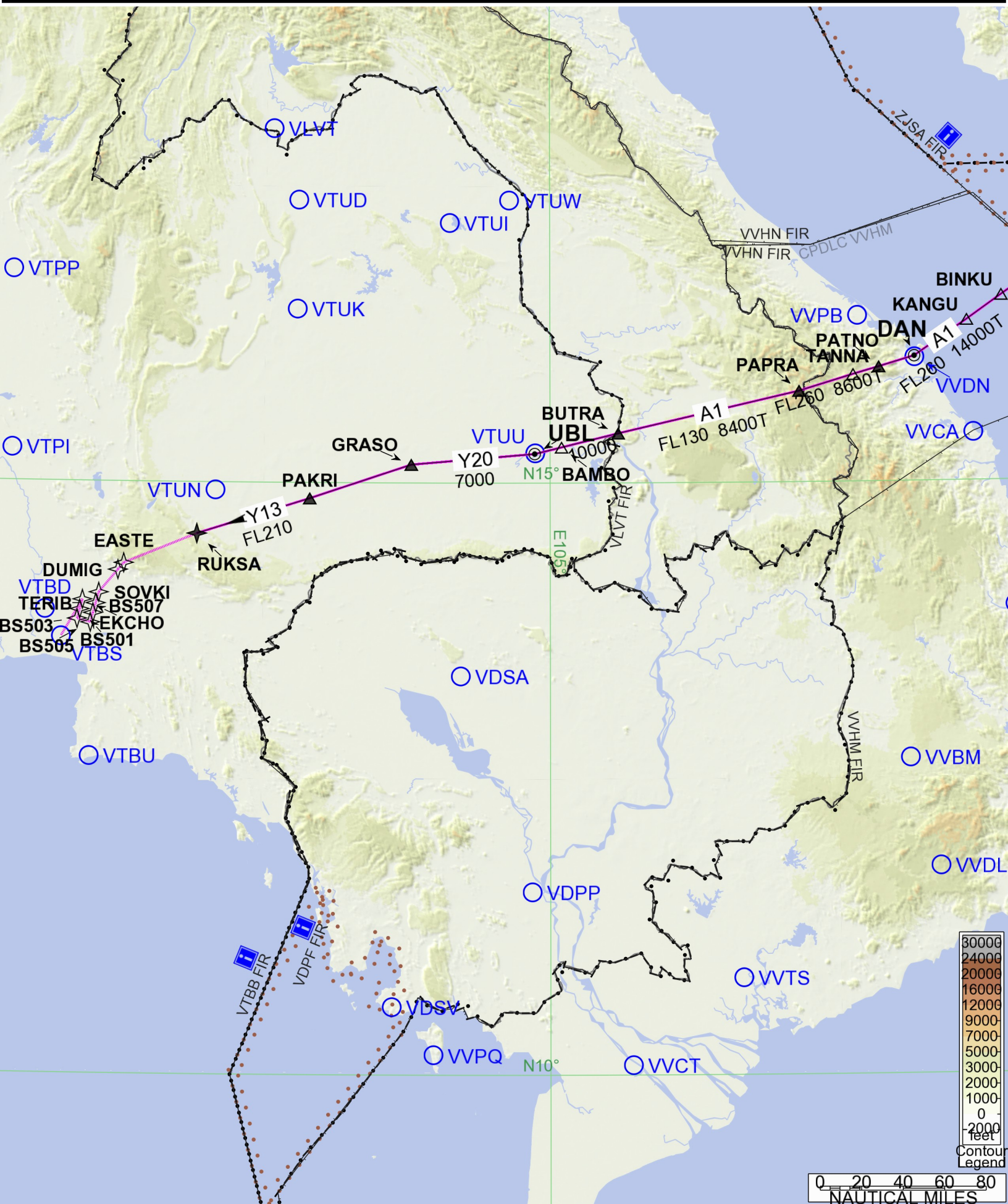
Enroute Chart - RKSI - VTBS Strip Chart Page 3
NavData cycle 2024-05 Expired: 22 May 2024
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 11 Apr 2025

JEPPESEN
JeppView for Windows



General Information

Location: SEOUL/INCHEON KOR
ICAO/IATA: RKSI / ICN
Lat/Long: N37° 27.7', E126° 26.3'
Elevation: 23 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -9:00 = UTC
Magnetic Variation: 9.0° W

Fuel Types: Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: Yes
Beacon: Yes

Sunrise: 2106 Z
Sunset: 1005 Z

Runway Information

Runway: 15L
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 15R
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 16L
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 16R
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 33L
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 33R
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 34L
Length x Width: 12303 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Runway: 34R
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 23 ft
Lighting: Edge, ALS, Centerline, TDZ
Stopway: 394 ft

Communication Information

ATIS: 128.400 Arrival Service
ATIS: 128.650 Departure Service
ATIS: 128.200 Secondary
ATIS: 34.420 Departure Service Military
ATIS: 23.025 Arrival Service Military
Incheon Tower: 118.800
Incheon Tower: 118.275
Incheon Tower: 118.200
Incheon Tower: 23.180 Military
Incheon Ground: 121.925

Incheon Ground: 121.875
Incheon Ground: 22.690 Military
Incheon Ground: 121.700
Incheon Ground: 121.750
Incheon Apron Ramp/Taxi: 121.650
Incheon Apron Ramp/Taxi: 121.800
Incheon Apron Ramp/Taxi: 122.175
Incheon Apron Ramp/Taxi: 123.675
Incheon Apron Ramp/Taxi: 123.575
Incheon Apron Ramp/Taxi: 123.325
Incheon Apron Ramp/Taxi: 122.225
Incheon Apron Ramp/Taxi: 122.325
Incheon Clearance Delivery: 26.920 Military
Incheon Clearance Delivery: 121.600
Incheon Clearance Delivery: 121.875
Seoul Approach: 120.800
Seoul Approach: 124.700
Seoul Approach: 124.200
Seoul Approach: 119.750
Seoul Approach: 119.100
Seoul Approach: 119.050
Seoul Approach: 29.330 Military
Seoul Approach: 121.350
Seoul Departure: 125.150
Seoul Departure: 35.320 Military
Seoul Departure: 121.400
Seoul Departure: 124.800
Pad Control Operations: 122.175
Incheon De-Icing Operations: 123.575
Pad Control Operations: 123.325
Ice Man Operations: 129.725
Pad Control Operations: 122.325
Incheon De-Icing Operations: 122.225
Ice Man Operations: 130.850
Ice Man Operations: 130.750
Ice Man Operations: 130.250
Daegu ACC: 132.800
Incheon ACC: 126.175 RCO

GENERAL

ASSIGNMENT OF STAR OR SID

This information will help pilots during preflight planning to select a STAR or SID. It may be changed if necessary due to ATC purposes, weather, ground conditions or traffic volume.

1. Assignment of Standard Terminal Arrival (STAR)
   a. Passenger flight/cargo flight

TIME (UTC)	AIRWAY	RUNWAY	STAR (PRIMARY/SECONDARY)
0000-2400	G-597 (KARBU)	15L/R, 16L/R	KARBU TWO HOTEL RNAV/ KARBU TWO CHARLIE RNAV
		33L/R, 34L/R	KARBU TWO ECHO RNAV/ BIKSI TWO MIKE RNAV *
	G-585 (GUKDO)	15L/R, 16L/R	GUKDO TWO HOTEL RNAV/ GUKDO TWO CHARLIE RNAV
		33L/R, 34L/R	GUKDO TWO ECHO RNAV/ CUN (YECHEON) TWO MIKE RNAV *
	Y-644 (REBIT)	15L/R, 16L/R	REBIT TWO HOTEL RNAV
	Y-644 (COWAY/GONAV)	33L/R, 34L/R	REBIT TWO ALPHA RNAV/ GONAV THREE MIKE RNAV *
	Y-722 (OLMEN)	15L/R, 16L/R	OLMEN TWO HOTEL RNAV/ OLMEN TWO CHARLIE RNAV
		33L/R, 34L/R	OLMEN TWO ECHO RNAV/ MAKSA TWO MIKE RNAV *

* These procedures are operated only 1400-1900 UTC (see 20-1P2 for details).
** Cargo flights will be preferentially assigned to Rwys 15L/R & 33L/R.

2. Assignment of Standard Instrument Departure (SID)
   a. Passenger flight /cargo flight

TIME (UTC)	AIRWAY	RUNWAY	SID (PRIMARY/SECONDARY)
0000-2400	G-597 (KARBU)	15L/R	EGOBA TWO CHARLIE RNAV
		16L/R	EGOBA TWO HOTEL RNAV
		33L/R	EGOBA TWO ECHO RNAV/ EGOBA TWO ALPHA RNAV
		34L/R	EGOBA TWO YANKEE RNAV
	G-597 (BINIL)	15L/R	BINIL TWO CHARLIE RNAV
		16L/R	BINIL TWO HOTEL RNAV
	G-597 (NOPIK)	33L/R	NOPIK TWO ALPHA RNAV
		34L/R	NOPIK TWO YANKEE RNAV
	A-582 (OSPOT)	15L/R	OSPOT TWO CHARLIE RNAV
		16L/R	OSPOT TWO HOTEL RNAV
		33L/R	OSPOT TWO ECHO RNAV/ OSPOT TWO ALPHA RNAV
		34L/R	OSPOT TWO YANKEE RNAV
	Y-711 (BOPTA)	15L/R	BOPTA TWO CHARLIE RNAV
		16L/R	BOPTA TWO HOTEL RNAV
		33L/R	BOPTA TWO ALPHA RNAV
		34L/R	BOPTA TWO YANKEE RNAV

GENERAL

ASSIGNMENT OF STAR OR SID (contd)

3. Use of SID/STAR

a. Pilot shall note that adherence to SID/STAR level restrictions are critical for aircraft separation in SEOUL TMA. For ATC separation, pilots are strongly encouraged to check whether he or she can comply with level restrictions of SID(before airborne)/ STAR(before passing subsequent waypoint) or not.

b. If unable to comply with any restrictions depicted on SID or STAR, pilot shall notify ATC as early as possible.

c. To eliminate safety risk due to a mismatch between ATC and pilot expectations, ATC will provide aircraft with explicit indications with regard to what is expected in terms of speed and level at all times using "CANCEL (LEVEL/SPEED) RESTRICTIONS" or "COMPLY WITH (LEVEL/SPEED) RESTRICTIONS" RTF phraseology.

USE OF MODE S TRANSPONDER ON THE GROUND

GENERAL. This system using Mode S transponder improves the accuracy and reliability of the Ground Movement Monitoring System. All operators having aircraft equipped with Mode S transponders shall ensure Mode S transponders are operative when aircraft are on the ground.

DEPARTING AIRCRAFT. Prior to pushback or taxiing from a parking stand (whichever comes first):
-Enter, using either FMS mode or transponder control unit, the Flight Identification as specified in Item 7 of the ICAO Flight Plan, or in the absence of Flight Identification, enter the Aircraft Registration.
-Select XPNDR, or its equivalent, on installed transponder equipment.
-If function is available, select AUTO mode. Do not select OFF or SDBY functions.
-Set Mode A code as assigned by ATC. When lining up select TA/RA.

ARRIVING AIRCRAFT. After landing and until the aircraft is stationary at a parking stand:
-Maintain XPNDR, or its equivalent, on installed transponder equipment.
-Do not select OFF or SDBY functions. Maintain Mode A code assigned by ATC.
-When aircraft is stationary at the parking stand, select OFF or SDBY.

OTHER CASES OF TAXIING AIRCRAFT. Select XPNDR, or its equivalent, on installed transponder equipment. Select AUTO mode if available. Do not select OFF or SDBY functions. Set Mode A code to 2000.

AIRCRAFT NOT EQUIPPED WITH MODE S TRANSPONDER OR TRANSPONDER UNSERVICEABLE.
DEPARTING AIRCRAFT. Maintain Mode A+C transponder in the ON position until lining up.
ARRIVING AIRCRAFT. Maintain Mode A+C transponder in the ON position and Mode A code as assigned by ATC until parking stand.
OTHER CASES OF TAXIING AIRCRAFT. Select Mode A+C transponder in the ON position, or equivalent, on installed transponder. Do not select OFF or SDBY functions. Set Mode A code to 2000. When fully parked on stand, select OFF or SDBY position.

ARRIVAL

CDO (Continuous Descent Operation) PROCEDURE FOR INCHEON AD

1. The CDO procedures are in place for all aircraft flying on Y644, Y722, G585 (Y685) and G597 (Y697) inbound to Incheon International Airport to ensure efficient arrival and approach operation as far as possible during specified time.
   a. Operation time : 1400 - 1900 UTC
   b. Available RWY: 33 L/R, 34L/R
   c. Available procedures: BIKSI 2M, CUN 2M, MAKSA 2M, GONAV 3M

2. ATC instructions
   Incheon or Daegu ACC will instruct the aircraft to perform CDO when it enters Incheon FIR, as follows:
   - Phraseology
     Controller: (Call sign), Cleared CUN (Yecheon) 2M arrival. Descend via STAR to 7000.
   *The above instruction (Phraseology) may be changed if necessary.

3. Pilots should report ATC when leaving the altitude of the Top of Descent (TOD).
   - Phraseology
     Pilot: Incheon control, (Call sign), Now leaving
   *Reference point of descending: ENPIL (IAF) at 7,000′.

4. Pilots may maintain the ECON (Economical) SPEED on the FMS, unless ATC advises otherwise.

5. If the CDO procedure is not possible due to an emergency, weather conditions and traffic, an alternate instruction will be issued by ATC or pilots can request it.

Initial Radio Call Procedures with SEOUL APPROACH

1. When instructed to 'CONTACT', pilot shall Squawk IDENT and report callsign, aircraft type (including series) and ATIS code.

2. When instructed to 'MONITOR or STAND BY FOR', pilot shall Squawk IDENT and keep silent until ATC initiate call.

Inbound cargo aircraft to Incheon Intl Airport are required to advise Seoul Approach that they are cargo operators.

Missed approach procedure when ground navigation aid is unserviceable

1. RWY 15L/R: Follow published procedure. If unable, climb to 3 000′, after passing 520′ fly HDG 100 then radar vector.
2. RWY 16L/R: Follow published procedure. If unable, climb to 3 000′, after passing 500′ fly HDG 190 then radar vector.
3. RWY 33L/R: Follow published procedure. If unable, climb to 3 000′, after passing 500′ fly HDG 010 then radar vector.
4. RWY 34L/R: Follow published procedure. If unable, climb to 3 000′, after passing 500′ fly HDG 280 then radar vector.
5. Report to ATC about missed approach route (published procedure or HDG/ALT) when going around.
6. If ATC issue another HDG/ALT, follow ATC's instruction when going around.

ARRIVAL

CAT II / III OPERATIONS

General

Incheon International Airport RWY 15L, RWY 15R, RWY 16L, RWY 16R, RWY 33L, RWY 33R, RWY 34L and RWY 34R have ILS CAT III equipment. Low Visibility Procedures are established for operation in a visibility of less than RVR 550m or a cloud ceiling of less than 200'(60m) or less.

a. Low visibility operations will be initiated by broadcasting 'ATC LOW VISIBILITY PROCEDURES ARE IN OPERATION' via ATIS and/or appropriate radio frequencies.

b. Low visibility operations will be terminated by deleting the above mentioned message from ATIS and/or broadcasting 'ATC LOW VISIBILITY OPERATIONS ARE TERMINATED' via appropriate frequencies.

Aircraft operators must obtain approval from Administrator of Seoul Regional Aviation Administration prior to conducting any low visibility operations at Incheon International Airport.

a. Approval for CAT II/III Operations

1. Aircraft operators and pilots who wish to conduct ILS CAT II/III operations at Incheon International Airport shall conform with certain requirements. Details of these requirements are published in Aviation Safety Act, Article 67 and its Enforcement Regulations Article 189, which are available from:
   Flight Operations Division
   Seoul Regional Aviation Administration
   2850 Unseo-dong, Jung-gu, Incheon
   400-718, Republic of Korea
   Tel : 82-32-740-2154 / 5
   Fax : 82-32-740-2159

b. Foreign operators may obtain the approval from Administrator of Seoul Regional Aviation Administration by providing the following information to Administrator of Seoul Regional Aviation Administration.

1. Aircraft type and register number;
2. The Category II/III minima to which they intend to operate; and
3. A copy of the category II/III certification issued by their own category authority.

Pilots shall be informed when:

a. Meteorological reports preclude ILS CAT I operations;

b. Low Visibility Procedures are in operation;

c. There is any unserviceable in a promulgated facility so that they may amend their minima.

The separation between successive landing aircraft on the same runway will not be less than 10 NM.

When informed of the failure of Surface Movement Radar (SMR), pilots should anticipate that considerable spacing between aircraft may be required.

Pilots who wish to carry out an ILS CAT II/III approach shall inform to Approach Control on initial contact.

Special Procedures and Safeguards

General Special Procedures and Ground Safeguards

Special procedures and ground safeguards will be applied during CAT II/III operations to protect aircraft from operating in low visibility and to avoid interference with the ILS signals in accordance with the provisions of ICAO Doc. 9365 - Manual of All Weather Operations, and the provisions of the Enforcement Regulations of Aviation Act, Article 210-8.

a. During low visibility operations, taxiway centerline lights will be used in conjunction with the stop bar lights as follows:
   1. If the stop bar lights are turned on, the centerline lights beyond the stop bar will be turned off.
   2. If the stop bar lights are turned off, the centerline lights beyond the stop bar will be turned on.

b. Restrictions of application on CAT-II/III holding positions: TWY G or TWY L
   1. When RWY 15L for landing and RWY 15R for departure are in use at the same time, CAT-II/III holding positions on TWY G and L are not applied.
   2. When RWY 33L for departure and RWY 33R for landing are in use at the same time, CAT-II/III holding positions on TWY L and G are not applied.

c. Arriving Aircraft
   1. Aircraft shall vacate the runway via the designated exit taxiways as follows; Other exit taxiways will not be lit.
      RWY 15L - C2, C1, D1 or G
      RWY 15R - B3, B2 or G
      RWY 33L - B4, B5 or L
      RWY 33R - C4, C5, D6 or L
      RWY 16L - N3, N2 or S
      RWY 16R - P6, P5, P4, P2 or S
      RWY 34R - N4, N5 or N7
      RWY 34L - P7, P8, P10, P11 or P13
      Refer to RKSI 20-9F and 20-9H
   2. All runway exits have taxiway center-line lead off lights that are color coded (green/yellow) to indicate that portion of the taxiway that is within the ILS sensitive area.
   3. Pilots are required to make a 'runway vacated' call giving due allowance for the size of the aircraft to ensure that the entire aircraft has vacated the ILS critical sensitive areas.

d. Departing Aircraft
   Departing aircraft shall normally enter the runway via the designated taxiways as follows:
      RWY 15L: A - L or D - L
      RWY 15R: A - L, D - L, D - K - C - L
      RWY 33L: A - G, D - G, D - J - C - G
      RWY 33R: A - G, D - G
      RWY 16L: M - N7
      RWY 16R: M - V - P - P13, M - N7 - P - P13,
      RWY 34R: M - S
      RWY 34L: M - S, M - T - P - S
      Refer to RKSI 20-9J and 20-9G

Practice Approaches

Pilots may carry out a practice ILS CAT II/III approach at any time with prior approval of ATC, but the full safeguarding ground procedures will not be applied and pilots should anticipate the possibility of ILS signal interference.

Apron Safety Management

a. All GSE (Ground Service Equipment) vehicle roadways crossing taxiways or taxi lanes are marked in the form of zipper.
b. Pilots shall pay extra caution to the vehicles while taxiing in apron areas.

DEPARTURE

INTERSECTION DEPARTURE

The take-off runway available distances for intersection departures are as follows:

RWY	Take-off from intersection with TWY:	Take-Off Runway Available
15R	-	**3750m / 12,303 ft**
	❶ B6	3560m / 11680 ft
	❶ K	3000m / 9843 ft
	B5	2550m / 8366 ft
	B4	2250m / 7382 ft
	C8	2460m / 8071 ft
33L	-	**3750m / 12,303 ft**
	❶ B1	3560m / 11680 ft
	❶ J	3000m / 9843 ft
	B2	2550m / 8366 ft
	B3	2250m / 7382 ft
	C3	2520m / 8268 ft
15L	-	**3750m / 12,303ft**
	❶ K	3000m / 9843 ft
	D6	2550m / 8366 ft
33R	-	**3750m / 12,303 ft**
	❶ J	3000m / 9843 ft
	D1	2550m / 8366 ft
16L	-	**4000m / 13,123 ft**
	❶ N6	3810m / 12,500 ft
	❶ V	3314m / 10,873 ft
	❶ U	3009m / 9872ft
	N5	2550m / 8366 ft
	P9	2404m / 7887 ft
	N4	2050m / 6726 ft
	W	1799m / 5902 ft
34R	-	**4000m / 13,123 ft**
	❶ N1	3810m / 12,500 ft
	❶ T	3259m / 10,692 ft
	P3	2786m / 9140 ft
	N2	2550m / 8366 ft
	N3	2049m / 6722 ft
	W	2049m / 6722 ft
16R	-	**3750m / 12,303 ft**
	❶ P12	3555m / 11,663 ft
	❶ V	3314m / 10,873 ft
	❶ U	3009m / 9872 ft
	P11	2500m / 8202 ft
	P10	2200m / 7218 ft
	P8	1900m / 6234 ft
	P7	1600m / 5249 ft
	W	1875m / 6152 ft
34L	-	**3750m / 12,303 ft**
	❶ P1	3555m / 11,663 ft
	❶ T	3009m / 9872 ft
	P2	2500m / 8202 ft
	P4	2200m / 7218 ft
	P5	1900m / 6234 ft
	P6	1600m / 5249 ft
	W	1875m / 6152 ft

❶ Entry Point for Intersection departure.

Note:
Intersection departure may be initiated by pilot or ATC and approved by ATC considering traffic and enroute separation. ATC may change departure sequence for the purposes of traffic flow management.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES

Aircraft Stands	Pushback Procedures	Phraseology
Apron 1		
1 and 2	The aircraft shall be pushed back to face north along blue line until its nosewheel is at spot 1.	Pushback approved to point 1.
3	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back to face north along blue line until its nosewheel is at spot 1.	Pushback approved to point 1.
6	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back to face south along taxilane R1 until the specific gate position.	Pushback approved to face south abeam gate (number).
7	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back to face south along taxilane R1 until the specific gate position.	Pushback approved to face south abeam gate (number).
	The aircraft shall be pushed back onto stand 825 on taxilane R5 to face south.	Pushback approved to stand 825.
8	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back to face north along taxilane R1 until the specific gate postition.	Pushback approved to face north abeam gate (number).
	The aircraft shall be pushed back onto stand 825 on taxilane R5 to face south.	Pushback approved to stand 825.
9	The aircraft shall be pushed back to face south along blue line until its nosewheel is at R1.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto stand 825 on taxilane R5 to face south.	Pushback approved to stand 825.
10, 11 and 12	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
14	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R1 to face north until gate 10 to minimize jet blast effect.	Pushback approved to face north.
	The aircraft shall be pushed back onto spot 53R on A6 to face west.	Pushback approved to spot 53R.
15	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R1.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto spot 53R on A6 to face west.	Pushback approved to spot 53R.
16	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto spot 53R on A6 to face west.	Pushback approved to spot 53R.
17	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east on R7.
	The aircraft shall be pushed back onto spot 53R on A6 to face west.	Pushback approved to spot 53R.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 1		
18	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R1 until the specific gate position.	Pushback approved to face north on R1 abeam gate (number).
19	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R1 until the specific gate position.	Pushback approved to face north on R1 abeam gate (number).
	The aircraft shall be pushed back to face north along taxilane R2 until its nosewheel is at spot 2.	Pushback approved to point 2.
20	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R2 until its nosewheel is at spot 2.	Pushback approved to point 2.
21	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R2.	Pushback approved to blue.
	The aircraft shall be pushed back to face north until its body is on taxilane R2.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east on R7.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west on R7.
22	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R2.	Pushback approved to blue.
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 2.	Pushback approved to point 2.
23, 24 and 26	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 2.	Pushback approved to point 2.
	The aircraft shall be pushed back to face south along blue line until its nosewheel is at spot 3.	Pushback approved to point 3.
	The aircraft shall be pushed back to face south along taxilane R2 until the specific gate number.	Pushback approved to face south on R2 [abeam gate (number)].
27	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 2.	Pushback approved to point 2.
	The aircraft shall be pushed back to face south along blue line until its nosewheel is at spot 3.	Pushback approved to point 3.
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 4.	Pushback approved to point 4.
	The aircraft shall be pushed back to face south along taxilane R2 until the specific gate number.	Pushback approved to face south on R2 [abeam gate (number)].
	The aircraft shall be pushed back to face south along taxilane R3 until the specific gate number.	Pushback approved to face south on R3 [abeam gate (number)].

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 1		
28, 30 and 31	The aircraft shall be pushed back to face south along blue line until its nosewheel is at spot 3.	Pushback approved to point 3.
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 4.	Pushback approved to point 4.
	The aircraft shall be pushed back to face south along taxilane R3 until the specific gate number.	Pushback approved to face south on R3 [abeam gate (number)].
32	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R3.	Pushback approved to blue.
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 4.	Pushback approved to point 4.
33	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R3.	Pushback approved to blue.
	The aircraft shall be pushed back to face north until its body is on taxilane R3.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east on R7.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west on R7.
34	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R3 until its nosewheel is at spot 4.	Pushback approved to point 4.
35	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R3 until its nosewheel is at spot 4.	Pushback approved to point 4.
	The aircraft shall be pushed back to face north along taxilane R4 until the specific gate position.	Pushback approved to face north on R4 abeam gate (number).
36	The aircraft shall be pushed back onto taxilane R7 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face north along taxilane R4 until the specific gate position.	Pushback approved to face north on R4 abeam gate (number).
37	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R7 to face west.	Pushback approved to face west on R7.
	The aircraft shall be pushed back onto taxilane R6 to face north.	Pushback approved to face north on R6.
38	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 1		
39	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R4.	Pushback approved to face north.
40, 41, 42 and 43	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north. Aircraft of Gate 40 shall be pushed back to face north until Gate 43 to minimize jet blast effect.	Pushback approved to face north.
45	The aircraft shall be pushed back to face south along blue line until its nosewheel is at R4.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R6 to face south.	Pushback approved to face south on R6.
46	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R6 to face south.	Pushback approved to face south on R6.
47 and 48	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back to face south along taxilane R4 until the specific gate position.	Pushback approved to face south abeam gate (number).
	The aircraft shall be pushed back to face south along taxilane R6.	Pushback approved to face south on R6.
49	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R4.	Pushback approved to face north.
	The aircraft shall be pushed back along blue line until its nosewheel is at spot 5.	Pushback approved to point 5.
50	The aircraft shall be pushed back along blue line until its nosewheel is at spot 5.	Pushback approved to point 5.
103	The aircraft shall be pushed back onto taxilane AS to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south on R1.
105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127 and 129	The aircraft shall be pushed back onto taxilane AS to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane AS to face west.	Pushback approved to face west.
131	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane AS to face west.	Pushback approved to face west.
132	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 2		
101	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
102	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto taxilane R9 to face east.	Pushback approved to face east.
104, 106, 108, 110, 112, 114, 118, 122, 124, 126 and 128	The aircraft shall be pushed back onto taxilane R9 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R9 to face west.	Pushback approved to face west.
130	The aircraft shall be pushed back onto taxilane R9 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north on R4.
302 to 304	The aircraft shall be pushed back onto taxilane R10 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R10 to face west.	Pushback approved to face west.
306 to 314	The aircraft shall be pushed back onto taxilane R10 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R10 to face west.	Pushback approved to face west.
301	The aircraft shall be pushed back onto taxilane R10 to face east.	Pushback approved to face east.
302 to 311 (309A/B, 310A/B, 311A/B)	The aircraft shall be pushed back onto taxilane R10 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R10 to face west.	Pushback approved to face west.
312	The aircraft shall be pushed back onto taxilane R10 to face west.	Pushback approved to face west.
321	The aircraft shall be pushed back onto taxilane RG to face east.	Pushback approved to face east.
322 to 331 (329A/B, 330A/B, 331A/B)	The aircraft shall be pushed back onto taxilane RG to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane RG to face west.	Pushback approved to face west.
332	The aircraft shall be pushed back onto taxilane RG to face west.	Pushback approved to face west.
341, 341R/L	The aircraft shall be pushed back onto taxilane RG to face east.	Pushback approved to face east.
342 to 352 (342R/L, 343R/L, 345R, 347R, 352R/L)	The aircraft shall be pushed back onto taxilane RG to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane RG to face west.	Pushback approved to face west.
353, 353R/L	The aircraft shall be pushed back onto taxilane RG to face west.	Pushback approved to face west.
Apron 3		
231 to 236 (231R/L, 232R/L)	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
236R	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
237	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 3		
238, 239	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue.
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back to face south until its nosewheel is at spot 31 (or 32).	Pushback approved to point 31 (32).
239R	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face south until its nosewheel is at spot 31 (or 32).	Pushback approved to point 31 (32).
240	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue.
	The aircraft shall be pushed back to face south until its nosewheel is at spot 31 (or 32).	Pushback approved to point 31 (32).
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
241	The aircraft shall be pushed back to face south until its nosewheel is at spot 32.	Pushback approved to point 32.
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 31.	Pushback approved to point 31.
	The aircraft shall be pushed back to face south until its body is on taxilane RC.	Pushback approved to face south.
	The aircraft shall be pushed back onto the stand 816 (or 817) to face west.	Pushback approved to stand 816 (817).
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east on R12.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west on R12.
242	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 31 (or 32).	Pushback approved to point 31 (32).
	The aircraft shall be pushed back to face west until its nosewheel is at spot 33.	Pushback approved to point 33.
	The aircraft shall be pushed back onto the stand 817 (or 816) to face west.	Pushback approved to stand 817 (816).
	The aircraft shall be pushed back onto taxilane RC to face north.	Pushback approved to face north.
243, 245	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 32 (or 31).	Pushback approved to point 32 (31).
	The aircraft shall be pushed back to face west until its nosewheel is at spot 33 (or 34).	Pushback approved to point 33 (34).
	The aircraft shall be pushed back onto taxilane RC to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto the stand 817 to face west.	Pushback approved to stand 817.
246	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 32 (or 31).	Pushback approved to point 32 (31).
	The aircraft shall be pushed back to face west until its nosewheel is at spot 33 (or 34).	Pushback approved to point 33 (34).
	The aircraft shall be pushed back onto taxilane RC to face north.	Pushback approved to face north.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 3		
247	The aircraft shall be pushed back onto taxilane RC (or RF) to face west.	Pushback approved to face west (face west on RF).
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 32 (or 31).	Pushback approved to point 32 (31).
	The aircraft shall be pushed back to face west until its nosewheel is at spot 33 (or 34).	Pushback approved to point 33 (34).
	The aircraft shall be pushed back onto taxilane RC (or RB) to face north.	Pushback approved to face north (face north on RB).
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 39.	Pushback approved to point 39.
248, 249	The aircraft shall be pushed back onto taxilane RC (or RF) to face west.	Pushback approved to face west (face west on RF).
	The aircraft shall be pushed back to face west until its nosewheel is at spot 33 (or 34).	Pushback approved to point 33 (34).
	The aircraft shall be pushed back onto taxilane RC (or RB) to face north.	Pushback approved to face north (face north on RB).
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 39.	Pushback approved to point 39.
250	The aircraft shall be pushed back onto taxilane RC (or RF) to face east.	Pushback approved to face east (face east on RF).
	The aircraft shall be pushed back onto taxilane RA (or RF) to face west.	Pushback approved to face west (face west on RF).
	The aircraft shall be pushed back to face west and then towed forward until its nosewheel is at spot 34.	Pushback approved to point 34.
	The aircraft shall be pushed back to face east and then towed forward until its nosewheel is at spot 35.	Pushback approved to point 35.
	The aircraft shall be pushed back onto taxilane RB to face north.	Pushback approved to face north.
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 39.	Pushback approved to point 39.
251, 252	The aircraft shall be pushed back onto taxilane RA (or RF) to face east.	Pushback approved to face east (face east on RF).
	The aircraft shall be pushed back to face east and then towed forward until its nosewheel is at spot 35 (or 36).	Pushback approved to point 35 (36).
	The aircraft shall be pushed back onto taxilane RA (or RB) to face north.	Pushback approved to face north (face north on RB).
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 39.	Pushback approved to point 39.
253	The aircraft shall be pushed back onto taxilane RA (or RF) to face east.	Pushback approved to face east (face east on RF).
	The aircraft shall be pushed back to face east until its nosewheel is at spot 35 (or 36).	Pushback approved to point 35 (36).
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 37 (or 38).	Pushback approved to point 37 (38).
	The aircraft shall be pushed back onto taxilane RA (or RB) to face north.	Pushback approved to face north (face north on RB).
	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 39.	Pushback approved to point 39.
254	The aircraft shall be pushed back to face east until its nosewheel is at spot 35 (or 36).	Pushback approved to point 35 (36).
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 37 (or 38).	Pushback approved to point 37 (38).
	The aircraft shall be pushed back onto taxilane RA to face north.	Pushback approved to face north.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 3		
255	The aircraft shall be pushed back to face east until its nosewheel is at spot 35 (or 36).	Pushback approved to point 35 (36).
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 37 (or 38).	Pushback approved to point 37 (38).
	The aircraft shall be pushed back onto taxilane RA to face north.	Pushback approved to face north.
	The aircraft shall be pushed back onto the stand 815 to face east.	Pushback approved to stand 815.
256	The aircraft shall be pushed back to face east until its nosewheel is at spot 36.	Pushback approved to point 36.
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 37 (or 38).	Pushback approved to point 37 (38).
	The aircraft shall be pushed back onto the stand 815 (or 814) to face east.	Pushback approved to stand 815 (814).
	The aircraft shall be pushed back onto taxilane RA to face north.	Pushback approved to face north.
257	The aircraft shall be pushed back to face south until its nosewheel is at spot 37.	Pushback approved to point 37.
	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 38.	Pushback approved to point 38.
	The aircraft shall be pushed back to face south until its body is on taxilane RA.	Pushback approved to face south.
	The aircraft shall be pushed back onto the stand 814 (or 815) to face east.	Pushback approved to stand 814 (815).
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east on R12.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west on R12.
258	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue
	The aircraft shall be pushed back to face south until its nosewheel is at spot 38 (or 37).	Pushback approved to point 38 (37).
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
258R	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face south until its nosewheel is at spot 38 (or 37).	Pushback approved to point 38 (37).
259, 260	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R12 to face west.	Pushback approved to face west.
	The aircraft shall be pushed back to face south until its nosewheel is at spot 38 (or 37).	Pushback approved to point 38 (37).
	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 3		
261	The aircraft shall be pushed back to face north along blue line until its nosewheel is at R12.	Pushback approved to blue.
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
261R	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R12 to face east.	Pushback approved to face east.
262 to 268 (266R/L - 268R/L)	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
362 to 375	The aircraft shall be pushed back onto taxilane R11 to face east.	Pushback approved to face east.
	The aircraft shall be pushed back onto taxilane R11 to face west.	Pushback approved to face west.
361	Pilot shall request start engine then taxi on stand except following aircraft: A320 series, B737 series and A220 series.	———
	The aircraft shall be pushed back onto taxilane R11 to face east.	Pushback approved to face east.
376	Pilot shall request start engine then taxi on stand except following aircraft: A320 series, B737 series and A220 series.	———
	The aircraft shall be pushed back onto taxilane R11 to face west.	Pushback approved to face west.
501 to 507	The aircraft shall be pushed back onto taxilane R1 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R1 to face north.	Pushback approved to face north.
511 to 517	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
Apron 4		
520	The aircraft shall be pushed back onto taxilane R26 to face south.	Pushback approved to face south.
521 to 524	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 41.	Pushback approved to point 41.
	The aircraft shall be pushed back onto taxilane R26 to face south.	Pushback approved to face south.
522R	The aircraft shall be pushed back onto taxilane R26 to face south.	Pushback approved to face south.
525	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 42.	Pushback approved to point 42.
	The aircraft shall be pushed back onto taxilane R26 to face north.	Pushback approved to face north.
526 to 528	The aircraft shall be pushed back to face south then towed forward until its nosewheel is at spot 42.	Pushback approved to point 42.
	The aircraft shall be pushed back onto taxilane R26 to face north.	Pushback approved to face north.
528R, 529	The aircraft shall be pushed back onto taxilane R26 to face north.	Pushback approved to face north.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Apron 4		
531 to 532	The aircraft shall be pushed back onto taxilane R26 to face south.	Pushback approved to face south.
533	The aircraft shall be pushed back to face north and then towed forward until its nosewheel is at spot 41.	Pushback approved to point 41.
	The aircraft shall be pushed back onto taxilane R26 to face south.	Pushback approved to face south.
534	The aircraft shall be pushed back to face south then towed forward until its nosewheel is at spot 42.	Pushback approved to point 42.
	The aircraft shall be pushed back onto taxilane R26 to face north.	Pushback approved to face north.
535	The aircraft shall be pushed back onto taxilane R26 to face north.	Pushback approved to face north.
541 to 544	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
545, 547	The aircraft shall be pushed back to face south then towed forward until its nosewheel is at spot 43.	Pushback approved to point 43.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
546	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
551 to 554	The aircraft shall be pushed back onto taxilane R4 to face south.	Pushback approved to face south.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	Pilot shall taxi on stand when assigned for deicing.	————
557	The aircraft shall be pushed back to face south and then towed forward until its nosewheel is at spot 43.	Pushback approved to point 43.
	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
	Pilot shall taxi on stand when assigned for deicing.	————
558	The aircraft shall be pushed back onto taxilane R4 to face north.	Pushback approved to face north.
Cargo Apron 1		
601 to 614 621 to 634	The aircraft shall be pushed back onto taxilane D2 or D3 to face west.	Pushback approved
615 to 616	The aircraft shall be pushed back to face west and then towed forward until its nosewheel is at spot 12.	Pushback approved to point 12.
635 to 636	The aircraft shall be pushed back to face west and then towed forward until its nosewheel is at spot 11.	Pushback approved to point 11.

DEPARTURE

AIRCRAFT PUSHBACK PROCEDURES (CONTD)

Aircraft Stands	Pushback Procedures	Phraseology
Cargo Apron 2		
641 to 652 (652R/L)	The aircraft shall be pushed back onto taxilane D4 to face west.	Pushback approved
653 to 655	The aircraft shall be pushed back to face west and then towed forward until its nosewheel is at spot 10.	Pushback approved to point 10.
671 to 681	The aircraft shall be pushed back onto taxilane D5 to face west.	Pushback approved
682, 683	The aircraft shall be pushed back to face west and then towed forward until its nosewheel is at spot 9.	Pushback approved to point 9.

RUNWAY

1. HIGH INTENSITY RUNWAY OPERATION (HIRO)

HIRO will be in force when runway surface condition is dry and adverse weather condition is not present. When HIRO are in force, ATC will inform via ATIS (Phrase: High Intensity Runway Operation in force. Minimum Runway Occupancy Time required) or RTF.

1.1 LANDING PROCEDURES

a. During HIRO in force, pilots are strongly requested to use the following preferred rapid exit taxiways or vacate the landing runway within 60 seconds of timeframe. Aircraft unable to comply with these procedures should notify ATC as early as possible.

b. Pilots are encouraged to apply proper deceleration technique take into account the following distance information of rapid exit taxiway to avoid decelerating to taxi speed on midpoint of landing runway and minimize runway occupancy time.

RUNWAY	Rapid Exit Taxiway	DISTANCE FROM THRESHOLD
15L	**C2**	7381 ft / 2250m
	C1, **D1** (to cargo apron 1, 2)	8418 ft / 2566m
15R	**B3**	7381 ft / 2250m
	B2	8418 ft / 2566m
33L	**B4**	7381 ft / 2250m
	B5	8418 ft / 2566m
33R	**C4**	7381 ft / 2250m
	C5, **D6** (to cargo apron 1, 2)	8418 ft / 2566m
16L	**N3**	6725 ft / 2050m
	N2	8366 ft / 2550m
34R	**N4**	6725 ft / 2050m
	N5	8366 ft / 2550m
16R	**P6**	5249 ft / 1600m
	P5	6233 ft / 1900m
	P4	7218 ft / 2200m
	P2	8202 ft / 2500m
34L	**P7**	5249 ft / 1600m
	P8	6233 ft / 1900m
	P10	7218 ft / 2200m
	P11	8202 ft / 2500m

Note 1: Preferred rapid exit taxiways are in bold and underlined
Note 2: The design speed of all rapid exit taxiways (RET) is 50 kt.

c. After landing, aircraft are not to stop on rapid exit taxiway to awaiting instructions from ATC but should continue taxi via the following taxi procedures, unless otherwise instructed by ATC.

RUNWAY	Preferred RET	Standard Taxi Procedures
15L	C2	During HIRO in force, any landing aircraft to Apron 1, 2, 3, 4 should continue taxi to TWY J then hold short of RWY 15R on TWY J. Remain on TWR FREQ. (refer 20-9B)
	D1	During HIRO in force, any landing aircraft to Cargo Apron 1, 2 should continue taxi via TWY D to appropriate Transfer of Control Point (TCP) of parking gate/stand. (refer 20-9B)
15R	B3	During HIRO in force, any landing aircraft to Apron 1, 2, 3, 4 should continue taxi via TWY B to appropriate Transfer of Control Point (TCP) of parking gate/stand. Remain on TWR FREQ. (refer 20-9B)
33L	B4	During HIRO in force, any landing aircraft to Apron 1, 2, 3, 4 should continue taxi via TWY B to appropriate Transfer of Control Point (TCP) of parking gate/stand. (refer 20-9B)
33R	C4	During HIRO in force, any landing aircraft to Apron 1, 2, 3, 4 should continue taxi to TWY K then hold short of RWY 33L on TWY K. Remain on the TWR FREQ. (refer 20-9B)
	D6	During HIRO in force, any landing aircraft to Cargo Apron 1, 2 should continue taxi via TWY D to appropriate Transfer of Control Point (TCP) of parking gate/stand. (refer 20-9B)

RUNWAY

RUNWAY	Preferred RET	Standard Taxi Procedures
16L	N3	During HIRO in force, all landing aircraft should continue taxi via TWY N to appropriate Transfer of Control Point (TCP) of parking gate/stand. (refer 20-9C)
34R	N4	During HIRO in force, all landing aircraft should continue taxi via TWY N to appropriate Transfer of Control Point (TCP) of parking gate/stand. (refer 20-9C)
16R	P6	During HIRO in force, all landing aircraft should continue taxi to TWY T then hold short of RWY 16L on TWY T. Remain on the TWR FREQ. (refer 20-9C)
34L	P7	During HIRO in force, all landing aircraft should continue taxi to TWY U then hold short of RWY 34R on TWY U. Remain on the TWR FREQ. (refer 20-9C)

1.2 DEPARTURE PROCEDURES

a. Pilots are strongly encouraged to check the availability of intersection departure before start-up. Declared distance for intersection departure are detailed on chart 20-1P5. For the purpose of performance calculations the standard intersection departure points are:
RWY 15R - B6 / K
RWY 33L - B1 / J
RWY 16L - N6 / V / U
RWY 34R - N1 / T

b. Intersection departures may be initiated by ATC to expedite traffic flow. Pilots must advise ATC if they are not able to comply with this request to prevent additional delay or sequence change.

1. HIGH INTENSITY RUNWAY OPERATION (HIRO) (contd)

1.2 DEPARTURE PROCEDURES (contd)

c. ATC will consider all aircrafts at the RWY holding point as able to commence line-up and take-off roll immediately on receiving clearance from ATC, unless otherwise instructed. Pilots should note that ATC expects pre-departure cockpit checks to be completed prior to entering the runway and take-off checks that must be made on the runway are kept to the minimum required. Pilots not ready when reaching the RWY holding point shall advise ATC as early as possible before reaching to RWY holding point.

d. When line-up or take-off clearance is issued, ATC will expect and has planned on seeing movement within 10 seconds.

e. Normally ATC will apply ICAO wake vortex separation minima between successive departures. If more separation than prescribed minima is required, pilot shall notify ATC before entering the RWY.

1.3 DEPARTURE SEQUENCE

a. Departures will normally be cleared in the order in which they are ready for take-off (First Come, First Served), however deviations may be made from this principle to facilitate the maximum number of departures with the least average delay considering following factors:
(1) Types of aircraft and their relative performance;
(2) Routes to be followed after take-off
(3) Any specified minimum departure interval between take-off
(4) Need to apply wake turbulence separation minima;
(5) Aircraft which should be afforded priority; and
(6) Aircraft subject to ATFM requirements

b. For aircraft subject to ATFM requirements, it is the responsibility of the pilot and the operator to ensure that the aircraft is ready to taxi in time to meet any required departure time, bearing in mind that once a departure sequence is established on the taxiway system, it can be difficult, and sometimes impossible, to change the order.

1.4 Preferential RWY System

The runway 33L/R or 34L/R is recommended to be in use to the extent of 8 kts tailwind. If unable to comply with this procedure, notify ATC of the reason 20 minutes prior to ETD or ETA. Delay may be possible depending on traffic situation.

2. REDUCED RUNWAY SEPARATION MINIMA (RRSM)

Reduced Runway Separation Minima (RRSM) will be applied between a departing aircraft and a succeeding landing aircraft or between two successive landing aircraft.

a. RRSM will be applied when the following conditions exist:
(1) Visibility of at least 5 km and ceiling not lower than 1000 ft;
(2) During daylight hours from 30 minutes local after sunrise to 30 minutes before local sunset;
(3) No unfavorable surface wind conditions (including significant tailwind/turbulence or wind-shear etc.);
(4) The braking action shall not be adversely affected by runway contaminants;
(5) The second aircraft will be able to see the first aircraft clearly and continuously until it is clear of runway

RUNWAY

2. REDUCED RUNWAY SEPARATION MINIMA (RRSM) (contd)

b. Landing clearance may be issued to an arriving aircraft while the runway is still occupied provided that there is reasonable assurance that the following separation distance will exist when the arriving aircraft crosses the runway threshold:

(1) Landing following Landing

Preceding aircraft has landed and has passed at least 7874ft (2400m) from the threshold of the landing runway, is in motion and will vacate the runway without backtracking;

(2) Landing follwing Departure

Preceding aircraft is/will be airborne and has passed at least 7874ft (2400m) from the threshold of the landing runway

c. ATC will provide traffic information when issuing the landing clearance. The following ICAO standard phraseology examples will be used:

-'(Call sign), PRECEDING B747 VACATING RUNWAY/ABOUT TO VACATE/LANDING ROLL, CLEARED TO LAND.'

-'(Call sign), DEPARTING A321 AHEAD ABOUT TO ROTATE, CLEARED TO LAND.'

3. SPEED RESTRICTIONS

a. All aircraft shall not exceed 250 kt IAS below 10000 ft in SEOUL TMA, unless otherwise authorized by ATC. If unable to comply with this speed restriction, state minimum speed acceptable to ATC.

b. ATC will use 'NO ATC SPEED RESTRICTIONS' RTF phraseology to remove MAX 250 kt IAS below 10000 ft.

c. Speed control under radar vector:

c1. When arriving traffic is being sequenced under radar direction, ATC typically will apply the following speed control:

(1) Initial approach phase: 210 kt IAS

(2) Base leg/Heading to final approach: 180 kt IAS

(3) When established on final approach: 180 kt - 160 kt IAS

(4) Thereafter to 5 DME: 160 kt IAS

c2. These speed restrictions are essential for smooth and safe operations at high traffic loads. If an aircraft does not comply with these speed instructions, the aircraft may have to be excluded from the planned approach sequence.

c3. When ATC use 'RESUME NORMAL SPEED' RTF phraseology, it means that the previously issued speed restriction by ATC is cancelled and a pilot can resume an aircraft's preferred speed. Pilot shall note that it does not mean the removal of MAX 250 kt IAS within SEOUL TMA.

4. SCHEDULED PREVENTIVE MAINTENANCE TIME

a. Rwy:

- 16R/34L: Every 3 days from the 1st day of the month (1500-1900 UTC)
- 15R/33L and 15L/33R: Every 3 days from the 2nd day of the month (1500-1900 UTC)
- 16L/34R: Every 3 days from the 3rd day of the month (1500-1900 UTC)

b. During the Scheduled Preventive Maintenance Time take-offs and landings are prohibited. Ground maneuvering is allowed under ATC instructions.

c. A 30 minutes prior request is required to use the closed runway for take-offs and landings.

5. SCHEDULED ILS INSPECTION TIME

a. Rwy:

- 16R/34L: Every 3 days from the 1st day of the month (1500-1900 UTC)
- 15R/33L and 15L/33R: Every 3 days from the 2nd day of the month (1500-1900 UTC)
- 16L/34R: Every 3 days from the 3rd day of the month (1500-1900 UTC)

b. ILS is unserviceable during the scheduled inspection time.

c. A 30 minutes prior request is required to use ILS.

INCHEON AIRPORT COLLABORATIVE DECISION MAKING(A-CDM) OPERATION

1. General

a. A-CDM is a process that allows air traffic controllers, airport operators, aircraft operators (AO), ground handling agents(GHA), pilots and air traffic flow managers to exchange operational information and work together to efficiently manage operations at aerodrome.

b. Definitions Commonly Used Terms in A-CDM

(1) Target Off Block Time(TOBT) - The time that an Aircraft Operator(AO) or Ground Handler(GH) estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start up /push back immediately upon reception of clearance from the ATC.

(2) Target Start up Approval Time(TSAT) - The time provided by ATC taking into account TOBT, Calculated Take-Off Time(CTOT) and/or the traffic situation that an aircraft can expect start up / push back approval.

c. The operation of A-CDM at Incheon Airport will be phased due to ATC environmental restrictions. TSAT will not be provided to all departure flights. The flights subject to Pre-Departure Sequencing are limited to ATFM regulated flights during first operational phase.

d. TSAT will not be provided to the aircraft in de-icing operation.

e. TOBT and TSAT will be displayed on VDGS in UTC for the improvement of A-CDM operation.

2. A-CDM Procedures

a. Incheon Airport A-CDM Portal System will automatically calculate system TOBT for each departure flight taking into account the Estimated In-Block Time/ Actual In-Block Time(EIBT/AIBT), Minimum Turnaround Time(MTTT) and Estimated Off Block Time(EOBT).

b. AO or GHA can manually update the system generated TOBT from 90 minutes prior to EOBT.

c. If the prediction of departure readiness (new TOBT) differs more than 5 minutes from the previous TOBT, AO or GHA shall update TOBT.

d. TOBT shall not deviate from EOBT by more than 15 minutes. If TOBT deviates from EOBT by more than 15 minutes, AO has to initiate a delay message. When EOBT is modified, TOBT is automatically modified to the value of EOBT.

e. TOBT shall be updated through the following channels:

(1) A-CDM portal and mobile web; or

(2) Flight Information Assistant (FIA) at PBB boarding rooms

f. TOBT information is available through the following channels:

(1) A-CDM portal and mobile web; or

(2) Flight Information Assistant (FIA) at PBB boarding rooms; or

(3) Visual Docking Guidance System(VDGS); or

(4) Radio communication with AO or GHA.

g. TSAT will be calculated by taking into account factors such as TOBT, CTOT, Estimated Taxi-Out Time(EXOT) and ATC separation standards etc. Thus the accuracy of TOBT is vital to an optimal TSAT.

h. AO or GHA are strongly encouraged to update TOBT as soon as any expected delay to the aircraft readiness for push-back is made available to avoid unnecessary hold-ups.

i. TSAT information is available through the following channels:

(1) A-CDM portal and mobile web; or

(2) Flight Information Assistant (FIA) at PBB boarding rooms; or

(3) Visual Docking Guidance System(VDGS); or

(4) Radio communication with GHA or AO; or

(5) INCHEON APRON (in case VDGS is unserviceable)

3. Non A-CDM Procedures

a. The non A-CDM procedure is applicable when TOBT and TSAT references used in A-CDM mode of operations become unavailable due to system issues or maintenance.

b. If unable to refer TOBT through any channels, pilot shall contact INCHEON DELIVERY for ATC clearance via voice RTF or Data-link Departure Clearance Service (DCL) from EOBT -10 minutes.

INCHEON AIRPORT COLLABORATIVE DECISION MAKING(A-CDM) OPERATION (CONTD)

4. Procedures for start-up and push back

1. Pilot shall ensure aircraft is ready for push-back at TOBT.
2. Pilot shall maintain communication with the AO / GHA as they are responsible for updating the TOBT. Pilot shall notify the AO / GHA to update the TOBT if it is expected to differ by 5 minutes or more.
3. ATC clearance can be requested via voice RTF or Data-link Departure Clearance Service (DCL) from TOBT -10 minutes to +5 minutes.
4. ATC will update TSAT changes if any, before push-back. Note that TSAT displayed on VDGS may not be final and can be revised due to en-route clearance restrictions, ground congestion or flow management.
5. Pilot with TSAT shall contact INCHEON APRON to request engine start-up and push-back within 5 minutes of TSAT after obtaining ATC clearance. Pilot without TSAT shall contact INCHEON APRON after obtaining ATC clearance when ready for start-up and push-back. The pilot provide the following:
   (1) Call sign
   (2) Gate/Stand number
   (3) TSAT (If applicable)
6. INCHEON APRON may swap push-back sequencing based on TSAT and real-time readiness of aircraft to maximise apron and runway capacity and to reduce the overall delay to traffic as and when required.
7. If a flight is unable to commence push-back by TSAT + 5 minutes due to the aircraft being unready, ATC clearance and TSAT will be cancelled. Pilot must notify the AO / GHA to update the TOBT for a new TSAT before requesting for a new ATC clearance. This also applies to aircraft returning back to blocks after push-back.
8. In case of engine start-up with GPU at gates due to APU malfunction or failure, pilot needs to contact INCHEON APRON earlier than TSAT window(+/-5 minutes) considering the time required for engine start-up and push-back.
9. All aircraft to be taxied within the Apron shall set their engine thrusts to idle. In case of using breakaway thrust, it should be minimized, especially when commencing taxiing from stands 814 thru 817 and starting points 33 thru 36 in Apron 3 for ground safety.
10. Push-back approval is valid for 1 minute. Push-back is therefore to begin promptly after approval. The push-back procedures of the aircraft within the Apron are as follows. As with most, these procedures shall be kept. However, if any modification of the procedures is required as the case may be, Incheon Apron may give the pilot specific instructions suited for the safety of aircraft movement.
11. The smaller aircraft (business jets) ingress and egress procedures at designated deicing pads shall follow the instructions of Incheon Apron. Deicing pads are self-maneuvering stands (i.e. taxi out with no push-back). In case of M North zone assigned not for deicing, aircraft shall be pushed back for departure.
12. There are several blue lines in Apron 1 and 3
    Locations : Right behind Gates 9, 15, 21, 22, 32, 33, 39, 45, 49 in Apron 1, and 237, 238, 239, 240, 258, 259, 260, 261 in Apron 3.
    The aircraft of those gates shall be pushed back along blue line until their nose-wheels are on the specific taxilane.
13. To avoid delay to other aircraft using 'Apron 1 and 3' area, aircraft should be ready to taxi as soon as the push-back manoeuvre and engine start procedure are completed. The push-back for gate 17, 18, 19, 20, 21, 33, 34, 35, 36 is onto taxilane R7, and for gate 236R, 237, 238, 239, 240, 241, 257, 258, 259, 260, 261, 261R is onto taxilane R12, therefore to avoid delays to other traffic it is essential that the aircraft should be ready to taxi as soon as the push-back manoeuvre is completed. If aircraft are unable to comply with these procedures, pilots shall immediately inform Incheon Apron in order that alternative taxi instructions may be issued to other aircraft.
14. When an aircraft have any problem which can't make it taxi right after push back, the pilot should report to Apron control. And then pilot will be instructed to return to gate or to move to other place to avoid blocking taxilanes.
15. Delays may be expected due to other aircraft to pushback or to taxi as distances between aircraft gates/stands vary. If push-back is delayed due to apron traffic conditions, TSAT will remain valid even if it exceeds TSAT + 5 minutes. TOBT needs not to be updated for such situations.
16. The following tables describe the procedures for pushback of aircraft from gates with airbridges and stands. Incheon Apron will issue specific instructions to the pilot if it is necessary to expedite traffic movement. Most gates and stands have several pushback procedures. Pushback instructions shall be issued including direction (only 4 directions are used) or specific position when necessary. Incheon Apron will issue a pushback instruction according to the use of runway or certain traffic condition.
17. When the aircraft push back onto taxilane R2 or R3 with facing south, the pilot shall be taxied with idle power for ground safety.
18. The aircraft that have been approved for push-back by Incheon Apron must set the Mode A code assigned by ATC prior to push-back.
19. The pilots and vehicle operators should look out all directions as they are instructed by the Incheon Apron and also obey emergency stop instruction given by any team member.
20. The aircraft that are moving after stopping at 4E and 5W must move with minimum power.

FOLLOW THE GREENS (FtGs)

1. ''Follow the Greens'' procedures at Incheon INTL Airport is operated to provide pilots with individual visual guidance (green taxiway centerline lights and red Stop bar lights) while taxiing during day and night operations as well as during periods of low visibility.
2. Aircraft taxing on maneuvering area (runway and main parallel taxiways) will be guided by dedicated individual green taxiway centerline lights in front of the aircraft.
3. ATC will use the phraseology ''Follow the Greens.....'' when issuing a clearance to pilots to taxi along the directional guidance provided by the green taxiway centerline lights to clearance limit (runway holding point or transfer of control point/TCP or stop bar lights).
4. When instructed to follow the greens by ATC, pilots are reminded of the extreme importance of maintaining a careful lookout and are at all times responsible wing tip clearance.
5. When instructed to follow the greens by ATC, pilots shall not taxi ahead if there is no green lights or red Stop bar lights are ahead.
6. Pilots and drivers shall enter/cross the runway or taxiway only when both the following conditions are met.
   The crew have:
   a. received positive ATC clearance to enter/cross the runway or taxiway, and
   b. observed that the red Stop bar lights are turned off.
7. When more than one aircraft taxi closely toward the common intersection, it is possible to see more than one directional guidance ahead because the end of proceeding green lights segment is still remaining.
8. When more than one directional guidance are provided ahead or hard to see the guidance due to reflection of sunlight, pilots shall stop and ask ATC for onward clearance before taxing.
9. When more than one aircraft taxi toward the common intersection, ATC will continue turning on the green lights to give priority to first aircraft. Second aircraft will be instructed ''GIVE WAY TO...../FOLLOW.....'' or provided turning on the red Stop bar lights.
10. When ATC wants to terminate the ''Follow the Greens'', ATC will revert to directional guidance by taxiway information or mandatory signs/markings. In this case, pilots shall navigate their taxi route with reference to signs/markings on taxiway.
11. Arriving aircraft taxiing into cargo apron 1 and 2 will not be instructed to follow the greens by apron controller because green taxiway centerline lights may not be provided for continuous guidance to each aircraft stand.
12. Aircraft taxiing onto or from deicing pads can be guided by aircraft stand maneuvering guidance lights (yellow lights) along with green taxiway centerline lights. Furthermore, aircraft stand maneuvering guidance lights are not provided in cargo apron 1 and 2.

RKSI/ICN
INCHEON INTL
(ALSO SERVES GIMPO INTL)
(ALSO SERVES SEOUL DOMESTIC)

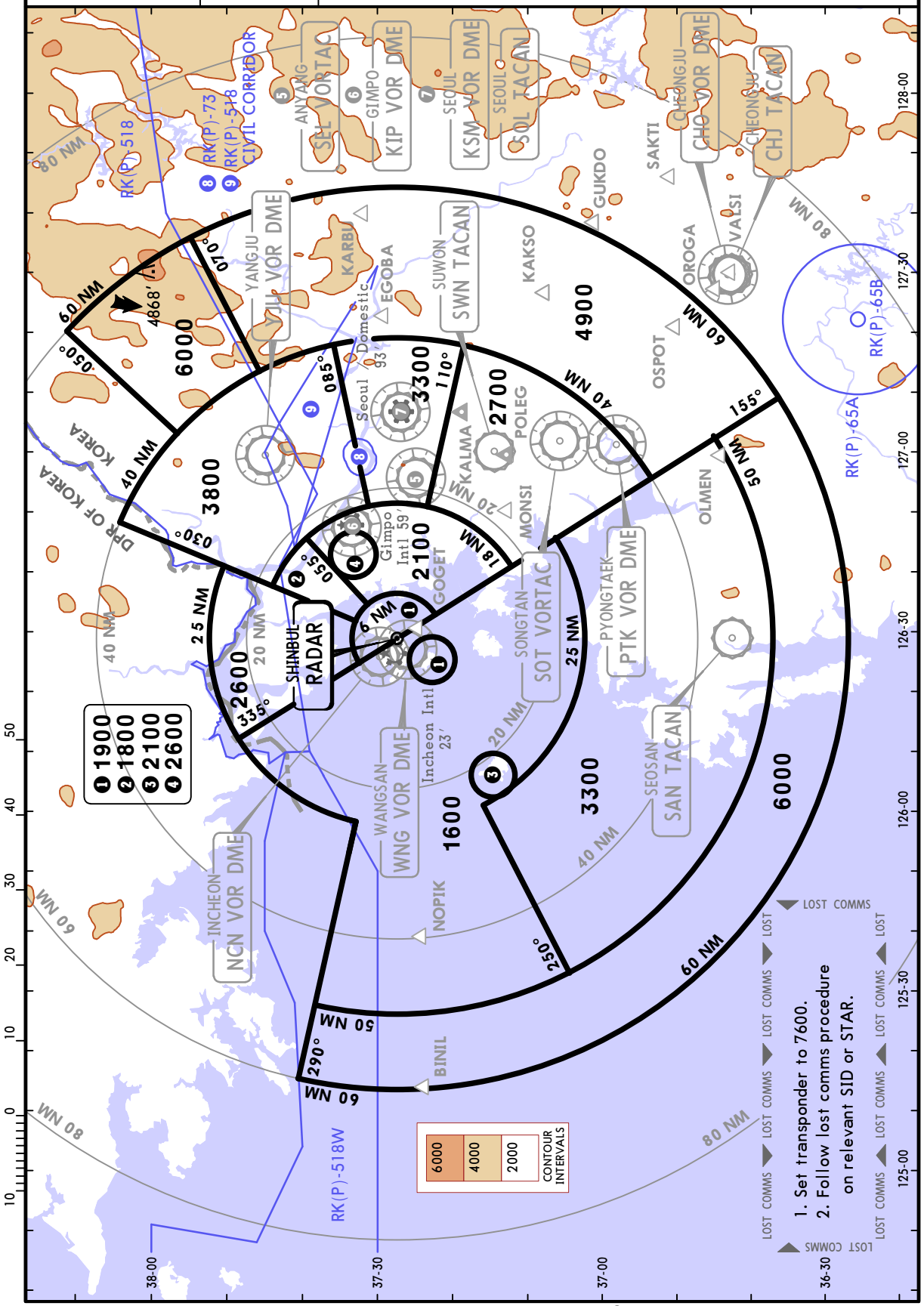
JEPPESEN

20-1R

20 JAN 23
Eff 25 Jan 1600Z

SEOUL/INCHEON, KOREA
RADAR MINIMUM ALTITUDES

SEOUL Approach (R) 119.1	Apt Elev See Graphic	Alt Set: hPa Trans level: FL140 Trans alt: 14000′ 1. Chart only to be used for cross-checking of altitudes assigned while under radar control. 2. Levels assigned by ATC include a correction for low temperature effect when necessary.



CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

RADIO COMMUNICATION FAILURE PROCEDURE

In VMCs:

1) Squawk 7600.
2) Continue to fly in VMC.
3) Land at nearest suitable aerodrome.

Procedure for VFR flights

VFR flight which has encountered radio communication failure shall:

1) Squawk 7600, and
2) If able to see the light gun signal from control tower, follow that instruction.
3) If unable to see the light gun signal from control tower, hold over downwind for RWY 16R/34L, 15L/33R until ETA or for 10 minutes, whichever is longer; then
4) Land on RWY 16R/34L, 15L/33R or H in use as appropriate.

In IMCs or when conditions are such that it does not appear likely that the pilot will complete the flight in accordance with the paragraph above:

ARRIVAL AIRCRAFT

1) Squawk 7600.
2) Follow the STAR issued by ATC. When being vectored or having been directed by ATC, proceed in the most direct manner possible to join the STAR (see 20-1P for Assignment of STAR) no later than the next significant point. Then commence descent as filed.
3) Start approach to the assigned runway without delay.
4) If no specific runway for landing has been assigned, start approach to runway 15L/33R without delay. If runway 15L/33R is closed, start approach to runway 15R/33L or runway 16R/34L.

No fly area:
Aircraft shall not fly NORTH of YJU R-271, except for simultaneous approaches to RWYs 15L/R.

AIRSPACE RESTRICTIONS

WARNING RK(P)-73
If an aircraft is seen flying through RK(P)-73 without proper clearance, a tracer warning shot will be fired. If the aircraft continues into RK(P)-73 it will be shot down without further warning. An exception to this will be civilian aircraft which has been identified as friendly.

20 JAN 23
Eff 25 Jan 1600Z

SEOUL/INCHEON, KOREA

RNAV STAR

D-ATIS	Apt Elev	Alt set: hPa
128.4 128.2	23	Trans level: FL140

RNAV 1 operation GNSS or DME/DME/IRU required.

1. ATS surveillance service required.
2. Speed and descent at pilot's discretion.
3. These procedures are developed based upon CDO (Continuous Descent Operations) concept.
4. Pilot should report ATC when leaving the altitude of the Top of Descent (TOD).
5. If the CDO procedure is not possible due to an emergency, weather condition and traffic, an alternate instruction will be issued by ATC or pilot can request it.
6. See 20-1P2 for the details of CDO procedure.

BIKSI 2M (BIKSI 2M) [BIKS2M]
CUN 2M (CUN 2M) [CUN2M]
RNAV ARRIVALS
(RWYS 33L/R, 34L/R)
(OPERATION TIME 1400-1900 UTC)

LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2

CONTOUR INTERVALS: 6000, 4000, 2000

NOT TO SCALE

BIKSI
268°
BIKSI 2M
44.7
KARBU
FL180
254°
36.6
KEØ35
10000
249°
13.6
(IAF)
ENPIL
7000
19.6
288°
GEØ41
10000
25.1
291°
GUKDO
FL160
18.4
BASEM
FL200
12.5
BIGOB
FL220
CUN 2M
9.5
314°
YECHEON
114.8 CUN

3900
2600
3300
2300
180°
270°
090°
360°
ARP

SEOUL Gimpo Intl RKSS
RK(P)-73
SEOUL -Domestic RKSM
WONJU RKNW
SUWON RKSW
OSAN AB Osan RKSO
A-511 (DESIDERIO AAF) Camp Humphreys RKSG
CHEONGJU -Intl RKTU
DPR OF KOREA
KOREA

5404

STAR	ROUTING
BIKSI 2M	BIKSI - KARBU - KEØ35 - ENPIL.
CUN 2M	CUN VOR - BIGOB - BASEM - GUKDO - GEØ41- ENPIL.

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

D-ATIS	Apt Elev	Alt set: hPa
128.4 128.2	23	Trans level: FL140

1. RNAV 1 operation. 2. GNSS or DME/DME/IRU required.
3. ATS surveillance service required.
4. Speed and descent at pilot's discretion.
5. These procedures are developed based upon CDO (Continuous Descent Operations) concept.
6. Pilot should report ATC when leaving the altitude of the Top of Descent (TOD).
7. If the CDO procedure is not possible due to an emergency, weather condition and traffic, an alternate instruction will be issued by ATC or pilot can request it.
8. See 20-1P2 for the details of CDO procedure.

GONAV 3M (GONAV 3M) [GONA3M]
MAKSA 2M (MAKSA 2M) [MAKS2M]
RNAV ARRIVALS
(RWYS 33L/R, 34L/R)
(OPERATION TIME 1400-1900 UTC)

GONAV
GONAV 3M
097° 20.0
BODOL
FL200
31.4
REBIT
FL170
15.0
BELTU
FL150
14.1
PE054
13000
6.3
098°
PE048
12000
119°
18.7
PE029
8500
ARP
070°
7.4
343°
8.0
(IAF)
ENPIL
7000
DE030
9500
20.4
342°
OLMEN
FL150
21.0
007°
PEBRI
FL180
29.5
ATASO
FL220
MAKSA 2M
23.6
013°
MAKSA

2600
3900
2300
3300
180°
270°
090°
360°

SEOUL Gimpo Intl RKSS
OSAN AB Osan RKSO
A-511 (DESIDERIO AAF) Camp Humphreys RKSG
CHEONGJU -Intl RKTU
GUNSAN Kunsan Ab RKJK

6000
4000
2000
CONTOUR INTERVALS

5234

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2

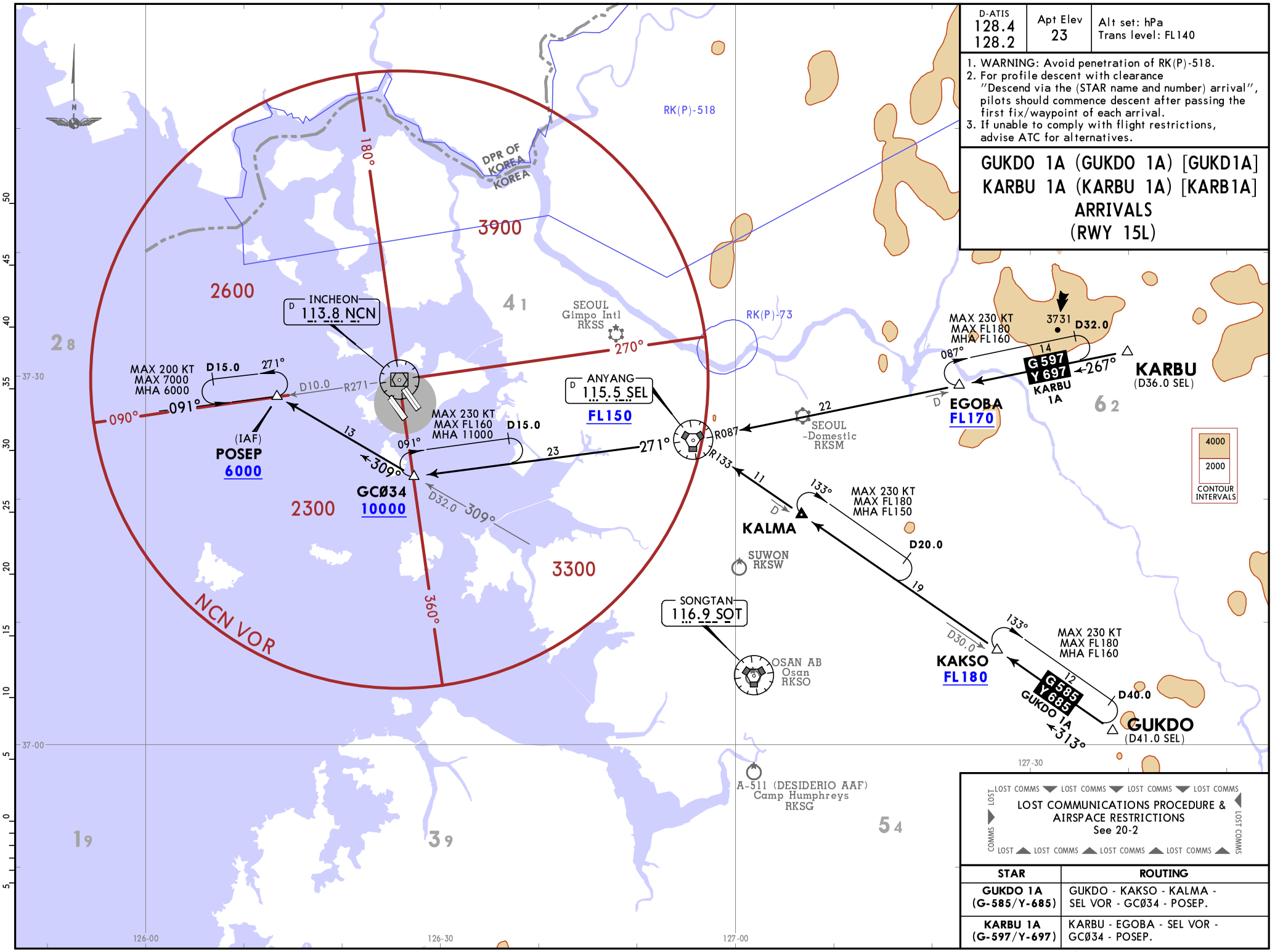
STAR	ROUTING
GONAV 3M	GONAV - BODOL - REBIT - BELTU - PE054 - PE048 - PE029 - ENPIL.
MAKSA 2M	MAKSA - ATASO - PEBRI - OLMEN - DE030 - ENPIL.

CHANGES: None.

D-ATIS	Apt Elev	
128.4 128.2	23	Alt set: hPa Trans level: FL140

1. WARNING: Avoid penetration of RK(P)-518.
2. For profile descent with clearance "Descend via the (STAR name and number) arrival", pilots should commence descent after passing the first fix/waypoint of each arrival.
3. If unable to comply with flight restrictions, advise ATC for alternatives.

GUKDO 1A (GUKDO 1A) [GUKD1A]
KARBU 1A (KARBU 1A) [KARB1A]
ARRIVALS
(RWY 15L)



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LOST COMMS ▶ LOST COMMS ◀ LOST COMMS
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2

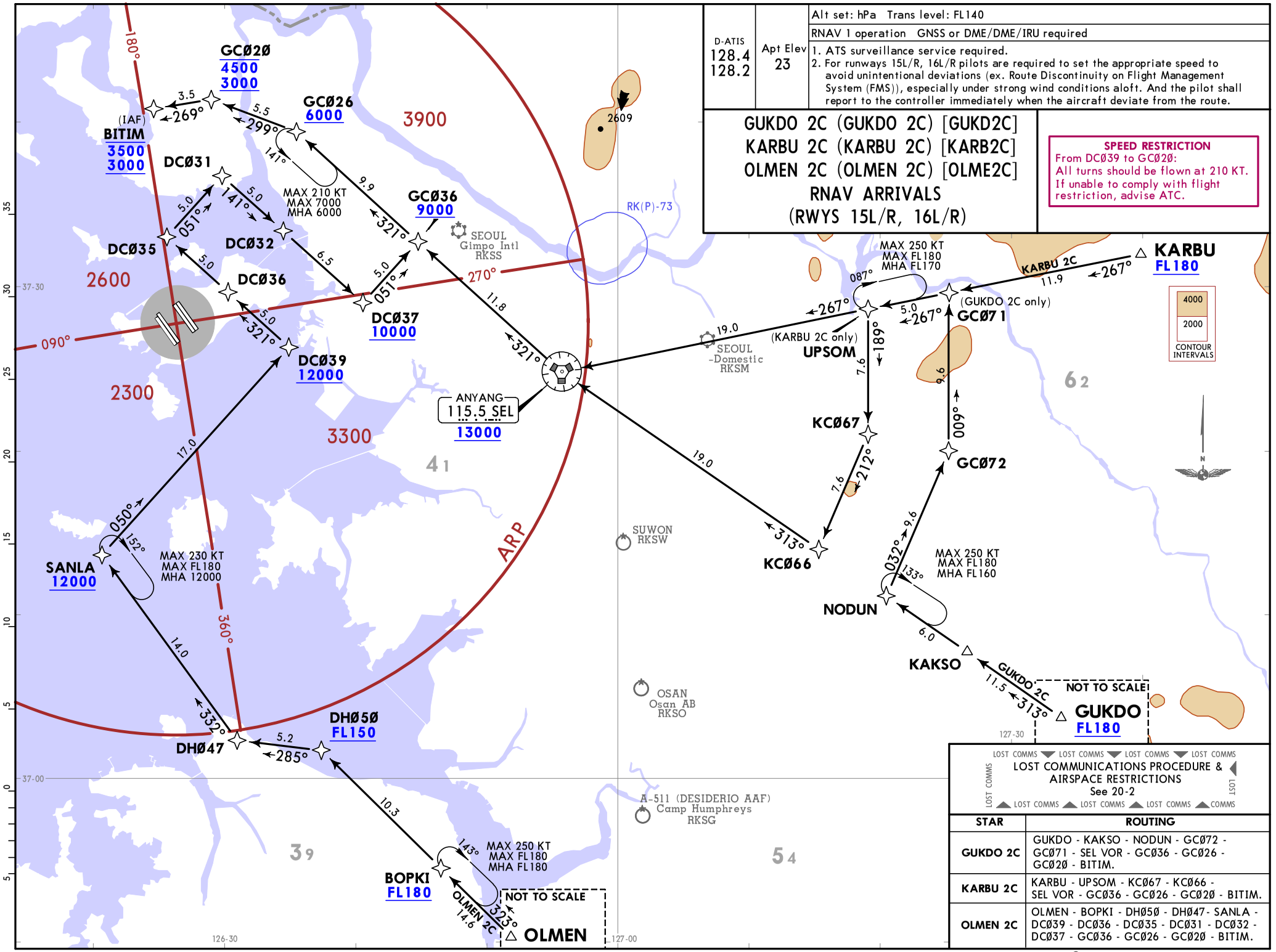
STAR	ROUTING
GUKDO 1A (G-585/Y-685)	GUKDO - KAKSO - KALMA - SEL VOR - GCØ34 - POSEP.
KARBU 1A (G-597/Y-697)	KARBU - EGOBA - SEL VOR - GCØ34 - POSEP.

CHANGES: Altitude restrictions at holdings over KALMA & POSEP.

D-ATIS	Apt Elev	
128.4 128.2	23	Alt set: hPa Trans level: FL140 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. For runways 15L/R, 16L/R pilots are required to set the appropriate speed to avoid unintentional deviations (ex. Route Discontinuity on Flight Management System (FMS)), especially under strong wind conditions aloft. And the pilot shall report to the controller immediately when the aircraft deviate from the route.

GUKDO 2C (GUKDO 2C) [GUKD2C]
KARBU 2C (KARBU 2C) [KARB2C]
OLMEN 2C (OLMEN 2C) [OLME2C]
RNAV ARRIVALS
(RWYS 15L/R, 16L/R)

SPEED RESTRICTION
From DCØ39 to GCØ2Ø:
All turns should be flown at 210 KT.
If unable to comply with flight restriction, advise ATC.



LOST COMMS LOST COMMS LOST COMMS LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2
LOST COMMS LOST COMMS LOST COMMS LOST COMMS

STAR	ROUTING
GUKDO 2C	GUKDO - KAKSO - NODUN - GCØ72 - GCØ71 - SEL VOR - GCØ36 - GCØ26 - GCØ2Ø - BITIM.
KARBU 2C	KARBU - UPSOM - KCØ67 - KCØ66 - SEL VOR - GCØ36 - GCØ26 - GCØ2Ø - BITIM.
OLMEN 2C	OLMEN - BOPKI - DHØ5Ø - DHØ47 - SANLA - DCØ39 - DCØ36 - DCØ35 - DCØ31 - DCØ32 - DCØ37 - GCØ36 - GCØ26 - GCØ2Ø - BITIM.

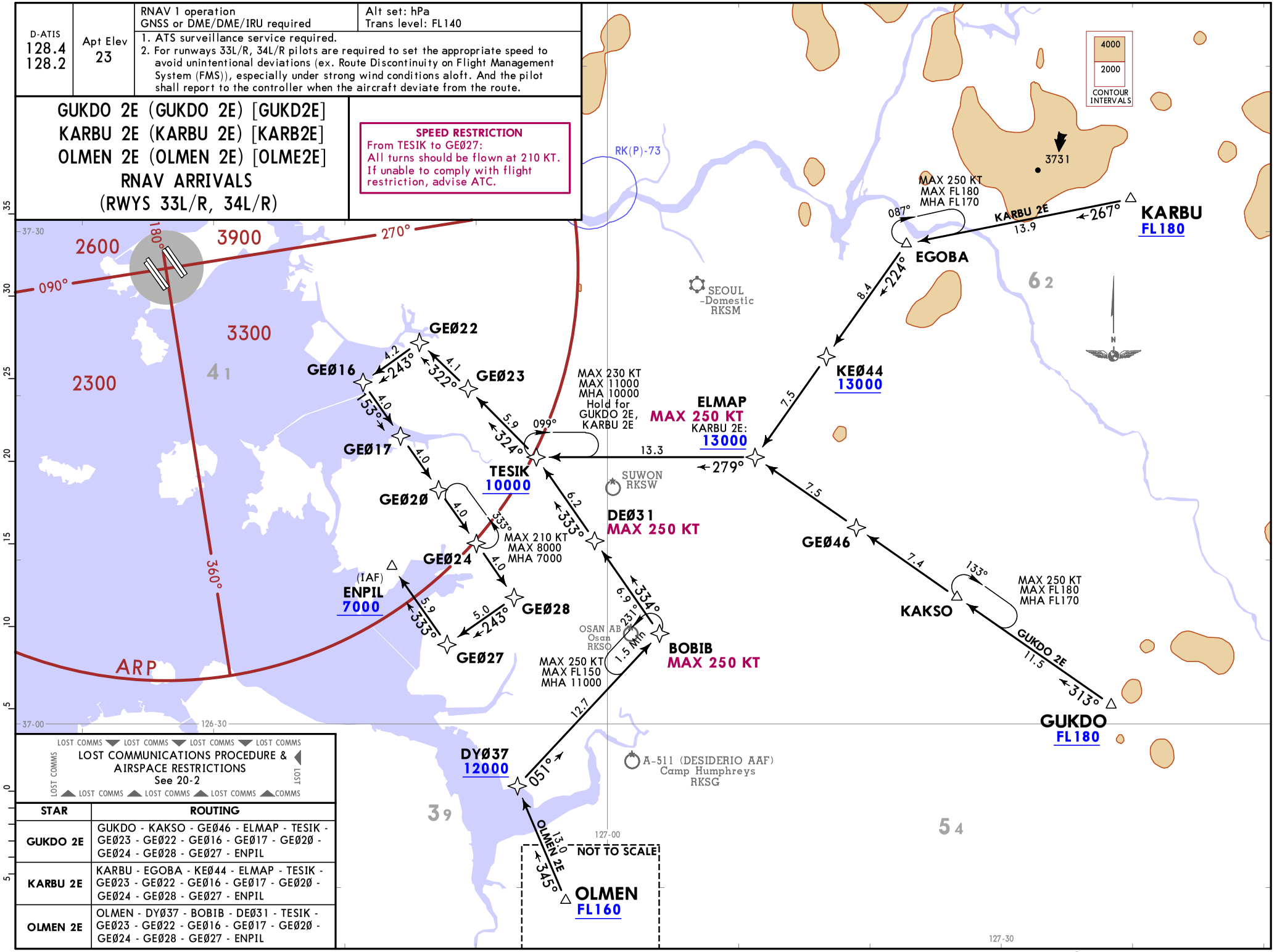
CHANGES: Altitude restrictions at holdings over BOPKI, GCØ26, NODUN, SANLA & UPSOM.

D-ATIS	Apt Elev		
128.4 128.2	23	RNAV 1 operation GNSS or DME/DME/IRU required	Alt set: hPa Trans level: FL140

1. ATS surveillance service required.
2. For runways 33L/R, 34L/R pilots are required to set the appropriate speed to avoid unintentional deviations (ex. Route Discontinuity on Flight Management System (FMS)), especially under strong wind conditions aloft. And the pilot shall report to the controller when the aircraft deviate from the route.

GUKDO 2E (GUKDO 2E) [GUKD2E]
KARBU 2E (KARBU 2E) [KARB2E]
OLMEN 2E (OLMEN 2E) [OLME2E]
RNAV ARRIVALS
(RWYS 33L/R, 34L/R)

SPEED RESTRICTION
From TESIK to GE027:
All turns should be flown at 210 KT.
If unable to comply with flight restriction, advise ATC.



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

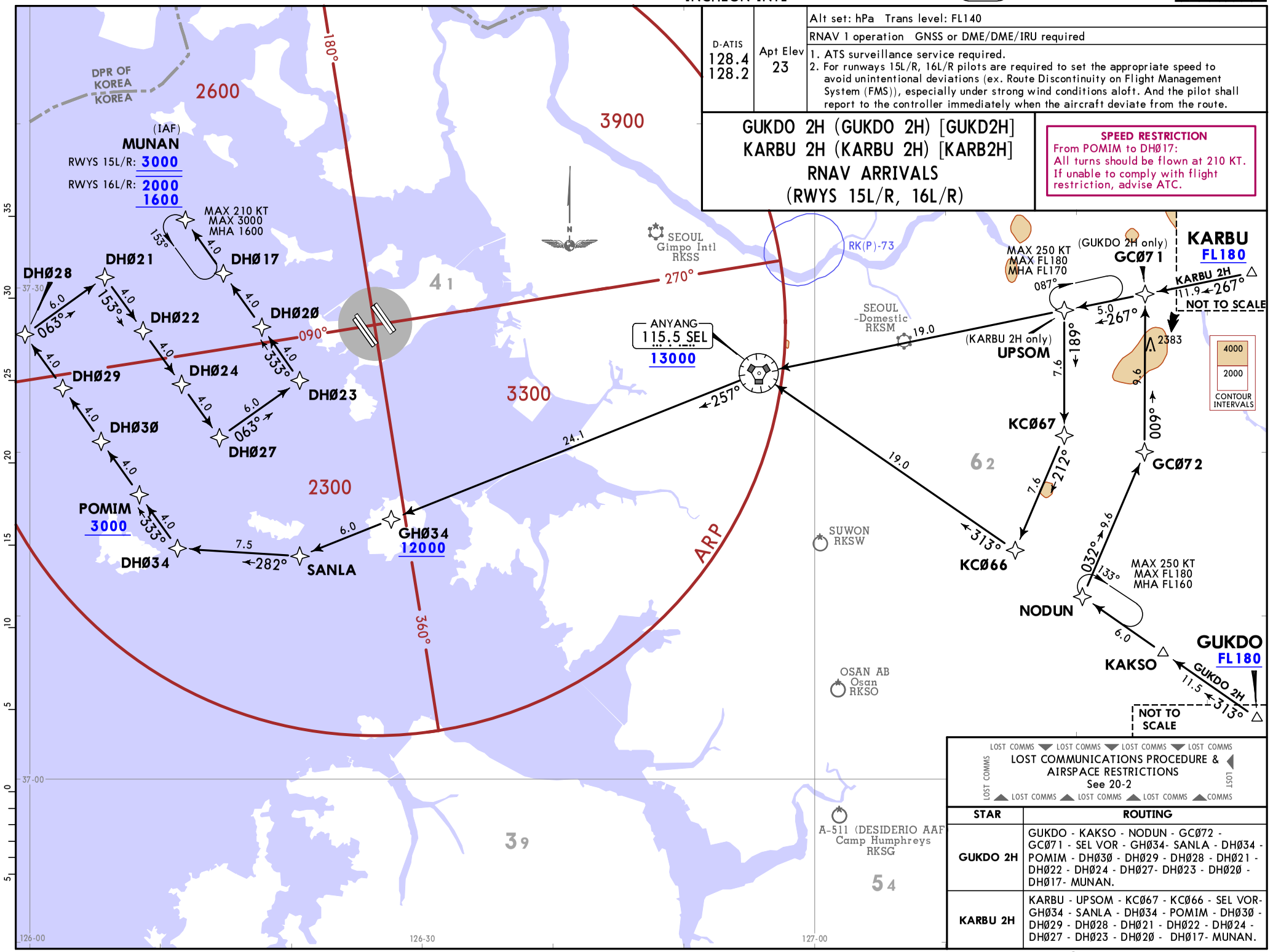
STAR	ROUTING
GUKDO 2E	GUKDO - KAKSO - GE046 - ELMAP - TESIK - GE023 - GE022 - GE016 - GE017 - GE020 - GE024 - GE028 - GE027 - ENPIL
KARBU 2E	KARBU - EGOBA - KE044 - ELMAP - TESIK - GE023 - GE022 - GE016 - GE017 - GE020 - GE024 - GE028 - GE027 - ENPIL
OLMEN 2E	OLMEN - DY037 - BOBIB - DE031 - TESIK - GE023 - GE022 - GE016 - GE017 - GE020 - GE024 - GE028 - GE027 - ENPIL

CHANGES: Altitude restrictions for holdings over BOBIB, EGOBA, GE024, KAKSO & TESIK.

D-ATIS	Apt Elev	
128.4 128.2	23	Alt set: hPa Trans level: FL140 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. For runways 15L/R, 16L/R pilots are required to set the appropriate speed to avoid unintentional deviations (ex. Route Discontinuity on Flight Management System (FMS)), especially under strong wind conditions aloft. And the pilot shall report to the controller immediately when the aircraft deviate from the route.

GUKDO 2H (GUKDO 2H) [GUKD2H]
KARBU 2H (KARBU 2H) [KARB2H]
RNAV ARRIVALS
(RWYS 15L/R, 16L/R)

SPEED RESTRICTION
From POMIM to DHØ17:
All turns should be flown at 210 KT.
If unable to comply with flight restriction, advise ATC.



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2
LOST
▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

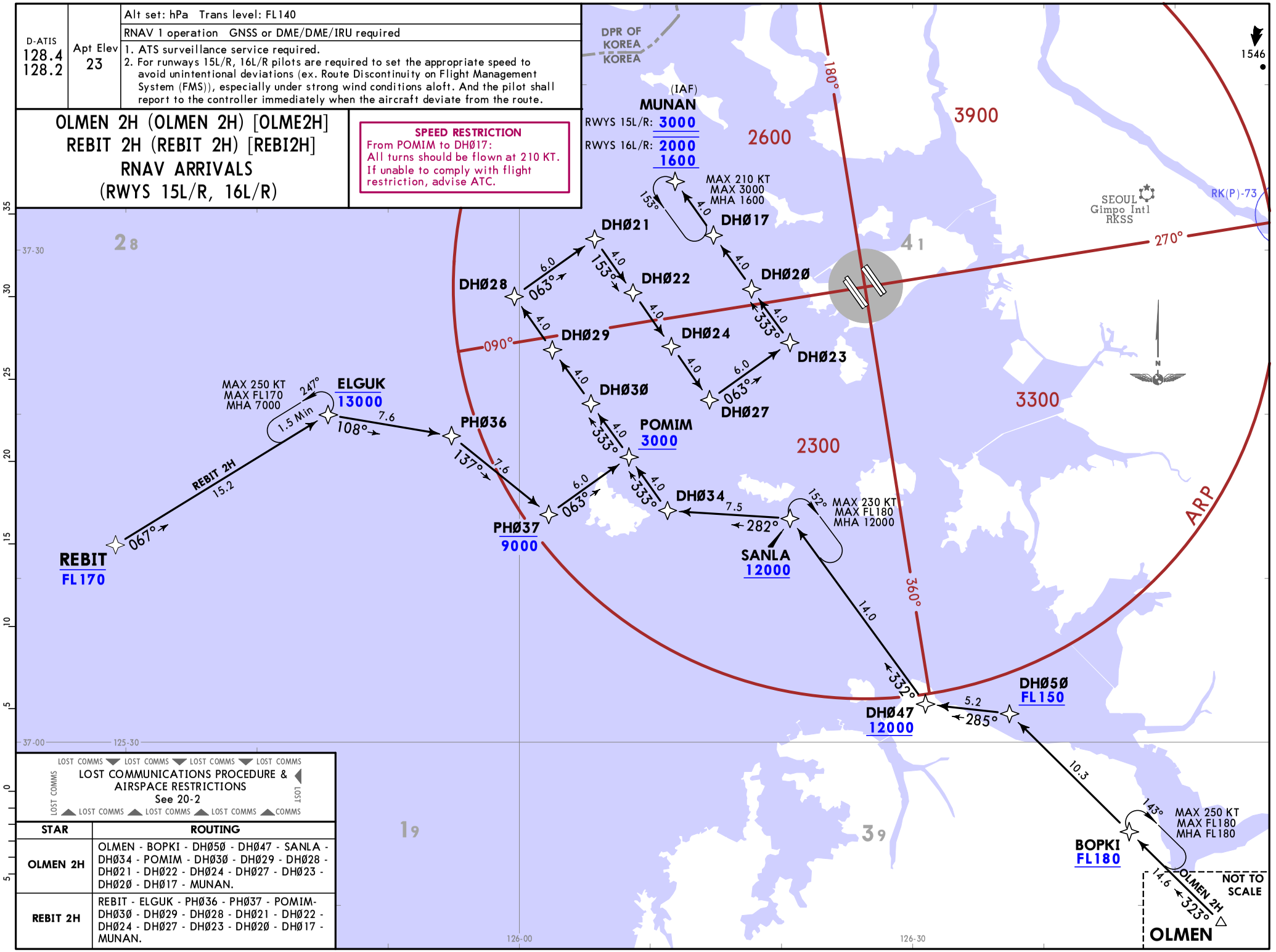
STAR	ROUTING
GUKDO 2H	GUKDO - KAKSO - NODUN - GCØ72 - GCØ71 - SEL VOR - GHØ34- SANLA - DHØ34 - POMIM - DHØ3Ø - DHØ29 - DHØ28 - DHØ21 - DHØ22 - DHØ24 - DHØ27- DHØ23 - DHØ2Ø - DHØ17- MUNAN.
KARBU 2H	KARBU - UPSOM - KCØ67 - KCØ66 - SEL VOR- GHØ34 - SANLA - DHØ34 - POMIM - DHØ3Ø - DHØ29 - DHØ28 - DHØ21 - DHØ22 - DHØ24 - DHØ27 - DHØ23 - DHØ2Ø - DHØ17- MUNAN.

CHANGES: Altitude restrictions at holdings over MUNAN, NODUN & UPSOM.

D-ATIS	Apt Elev	
128.4 128.2	23	Alt set: hPa Trans level: FL140 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. For runways 15L/R, 16L/R pilots are required to set the appropriate speed to avoid unintentional deviations (ex. Route Discontinuity on Flight Management System (FMS)), especially under strong wind conditions aloft. And the pilot shall report to the controller immediately when the aircraft deviate from the route.

OLMEN 2H (OLMEN 2H) [OLME2H]
REBIT 2H (REBIT 2H) [REBI2H]
RNAV ARRIVALS
(RWYS 15L/R, 16L/R)

SPEED RESTRICTION
From POMIM to DHØ17:
All turns should be flown at 210 KT.
If unable to comply with flight restriction, advise ATC.



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

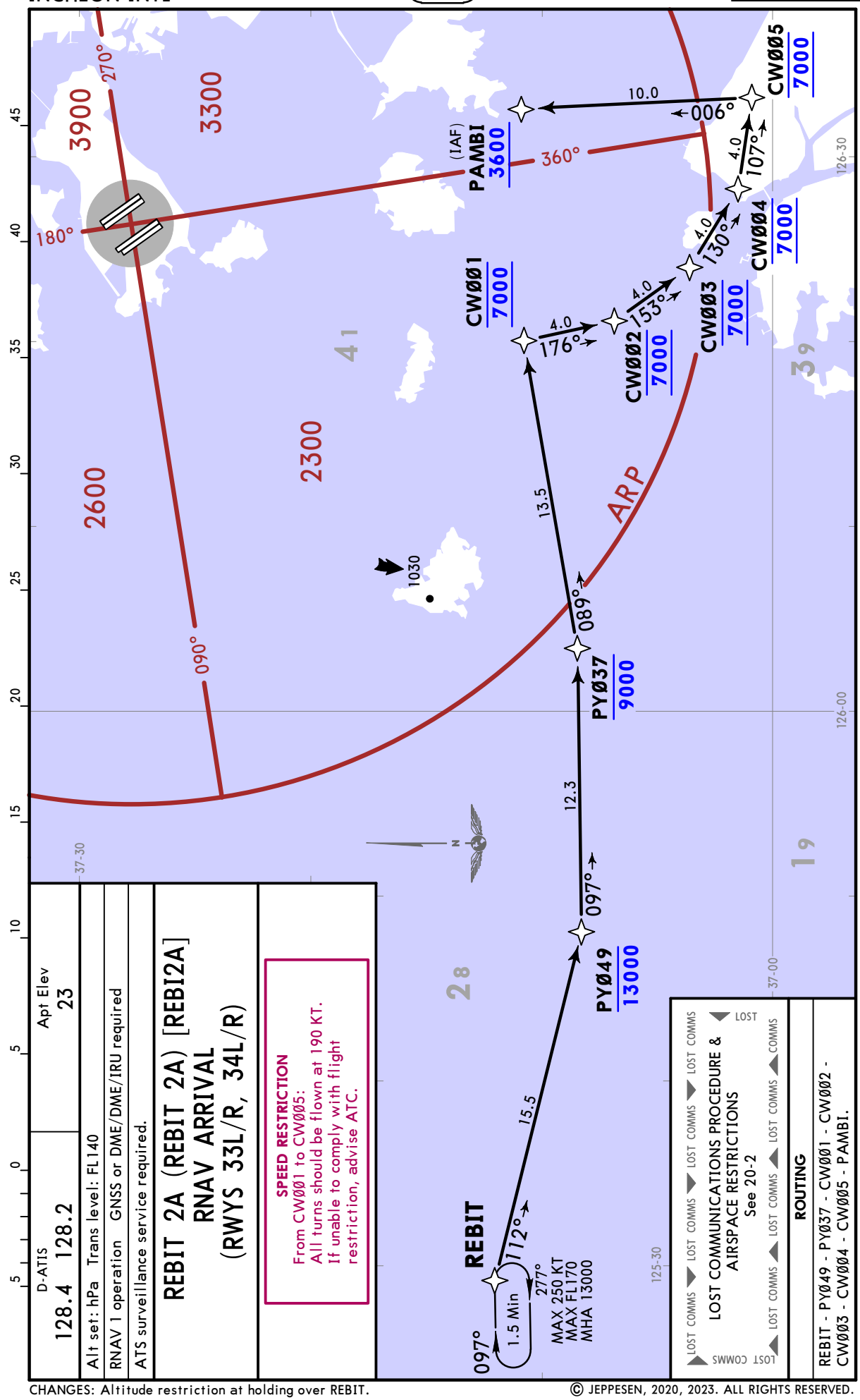
STAR	ROUTING
OLMEN 2H	OLMEN - BOPKI - DHØ5Ø - DHØ47 - SANLA - DHØ34 - POMIM - DHØ3Ø - DHØ29 - DHØ28 - DHØ21 - DHØ22 - DHØ24 - DHØ27 - DHØ23 - DHØ2Ø - DHØ17 - MUNAN.
REBIT 2H	REBIT - ELGUK - PHØ36 - PHØ37 - POMIM - DHØ3Ø - DHØ29 - DHØ28 - DHØ21 - DHØ22 - DHØ24 - DHØ27 - DHØ23 - DHØ2Ø - DHØ17 - MUNAN.

CHANGES: Altitude restrictions at holdings over BOPKI, ELGUK, MUNAN & SANLA.

RKSI/ICN
INCHEON INTL

JEPPESEN
4 AUG 23 (20-2H) Eff 9 Aug 1600Z

SEOUL/INCHEON, KOREA
RNAV STAR



D-ATIS 128.4 128.2

Apt Elev 23

Alt set: hPa Trans level: FL140

RNAV 1 operation GNSS or DME/DME/IRU required

ATS surveillance service required.

REBIT 2A (REBIT 2A) [REBI2A]
RNAV ARRIVAL
(RWYS 33L/R, 34L/R)

SPEED RESTRICTION
From CW001 to CW005:
All turns should be flown at 190 KT.
If unable to comply with flight restriction, advise ATC.

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-2

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

ROUTING

REBIT - PY049 - PY037 - CW001 - CW002 - CW003 - CW004 - CW005 - PAMBI.

CHANGES: Altitude restriction at holding over REBIT.

RADIO COMMUNICATION FAILURE PROCEDURE

In VMCs:

1) Squawk 7600.
2) Continue to fly in VMC.
3) Land at nearest suitable aerodrome.

Procedure for VFR flights

VFR flight which has encountered radio communication failure shall:

1) Squawk 7600, and
2) If able to see the light gun signal from control tower, follow that instruction.
3) If unable to see the light gun signal from control tower, hold over downwind for RWY 16R/34L, 15L/33R until ETA or for 10 minutes, whichever is longer; then
4) Land on RWY 16R/34L, 15L/33R or H in use as appropriate.

In IMCs or when conditions are such that it does not appear likely that the pilot will complete the flight in accordance with the paragraph above:

DEPARTURE AIRCRAFT

1) Squawk 7600.
2) MAINTAIN the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following:
   i) The time the transponder is set to Code 7600; or
   ii) The time the last assigned level or minimum flight altitude is reached; whichever is later and thereafter adjust level and speed in accordance with the filed flight plan;
3) When being vectored or having been directed by ATC, proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude.

RADAR 3A

No radio procedure: If no radio contact with ATC, squawk 7600, and unless otherwise instructed by ATC proceed as follows.

1) Fly SOUTH to join SEL R-269 to SEL VOR or proceed direct to YD1ØØ then SEL VOR for G-597.
2) Fly SOUTH to join G-597 to NOPIK.
3) Fly SOUTH to YD1ØØ, YD13Ø and OSPOT for A-582.
4) Fly SOUTH to YD1ØØ, YD13Ø, YD16Ø, YD19Ø and BOPTA for BEDES via Z-51.

Pilot shall remain within D16.0 NCN (D40 SEL or 17 NM from airport as appropriate) while on heading 270°.

RADAR 3D

No radio procedure: If no radio contact with ATC, squawk 7600, and unless otherwise instructed by ATC proceed as follows.

1) Fly SOUTH to join SEL R-269 to SEL VOR or proceed direct to YD1ØØ then SEL VOR for G-597.
2) Fly SOUTH to join G-597 to NOPIK.
3) Fly SOUTH to YD1ØØ, YD13Ø and OSPOT for A-582.
4) Fly SOUTH to YD1ØØ, YD13Ø, YD16Ø, YD19Ø and BOPTA for BEDES via Z-51.

Pilot shall remain within D16.0 NCN (D40 SEL or 17 NM from airport as appropriate) while on heading 250°.

RADAR 5S

No radio procedure: If no radio contact with ATC, squawk 7600, and unless otherwise instructed by ATC proceed as follows.

1) To SOT VOR via SOT R-315 for A-582, B-576.
2) To intercept Y-644 to POLEG, EGOBA, KARBU for G-597
3) To intercept SOT R-290 to BINIL or proceed direct to HP1ØØ, HP12Ø, BELTU to BINIL for G-597 as appropriate.

Pilot shall proceed as described above prior to reaching D20 NCN or SEL R-235 or D16 WNG or D19 SOT due to airspace.

RADAR 3U

No radio procedure: If no radio contact with ATC, squawk 7600, and unless otherwise instructed by ATC proceed as follows.

1) To SOT VOR via SOT R-307 for A-582, B-576.
2) To intercept Y-644 to POLEG, EGOBA, KARBU for G-597.
3) To intercept SOT R-290 to BINIL or proceed direct to HP1ØØ, HP12Ø, BELTU to BINIL for G-597 as appropriate.

Pilot shall proceed as described above prior to reaching D14 WNG or SEL R-250 or D17 NCN or SOT R-300 due to airspace.

AIRSPACE RESTRICTIONS

WARNING RK(P)-73

If an aircraft is seen flying towards RK(P)-73 without proper clearance, a tracer warning shot will be fired. If the aircraft continues into RK(P)-73 it will be shot down without further warning. An exception to this will be civilian aircraft which has been identified as friendly.

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

SEOUL/INCHEON, KOREA

Eff 25 Jan 1600Z

SID

SEOUL Departure (R)	Apt Elev	Trans alt: 14000
121.4 124.8 125.15	23	

1. If unable to comply with flight restrictions, advise ATC well before departure for alternatives.
2. Step Climb: Due to interaction with other routes, DO NOT climb above 7000 unless cleared by ATC.
3. Pilot shall use caution not to make early or lead turn prior to reaching D5.0 NCN.
4. After D5.0 NCN, 15° bank angle recommended during turn for noise abatement and pilot should use caution not to penetrate prohibited area (RK(P)-518).

ANYANG 2A (SEL 2A)
SONGTAN 1A (SOT 1A)
DEPARTURES
(RWYS 33L/R)

WARNING
Avoid penetration of RK(P)-518

DPR OF KOREA
KOREA

RK(P)-518

SEOUL TMA
6000
1600

3900

2600

2300

3300

180°

270°

090°

360°

D5.0 NCN

INCHEON
D 113.8 NCN

SEOUL
Gimpo Intl
RKSS

RK(P)-73

ANYANG
D 115.5 SEL
7000

SEOUL
-Domestic
RKSM

D28.0 SEL

098°

ANYANG 2A
28.0

R278

D40.0 SOT

125°

SONGTAN 1A
40.0

SONGTAN
116.9 SOT
7000

R305

OSAN AB
Osan
RKSO

2609

4000
2000
CONTOUR INTERVALS

NCN VOR

37-30

37-00

126-30

127-00

127-30

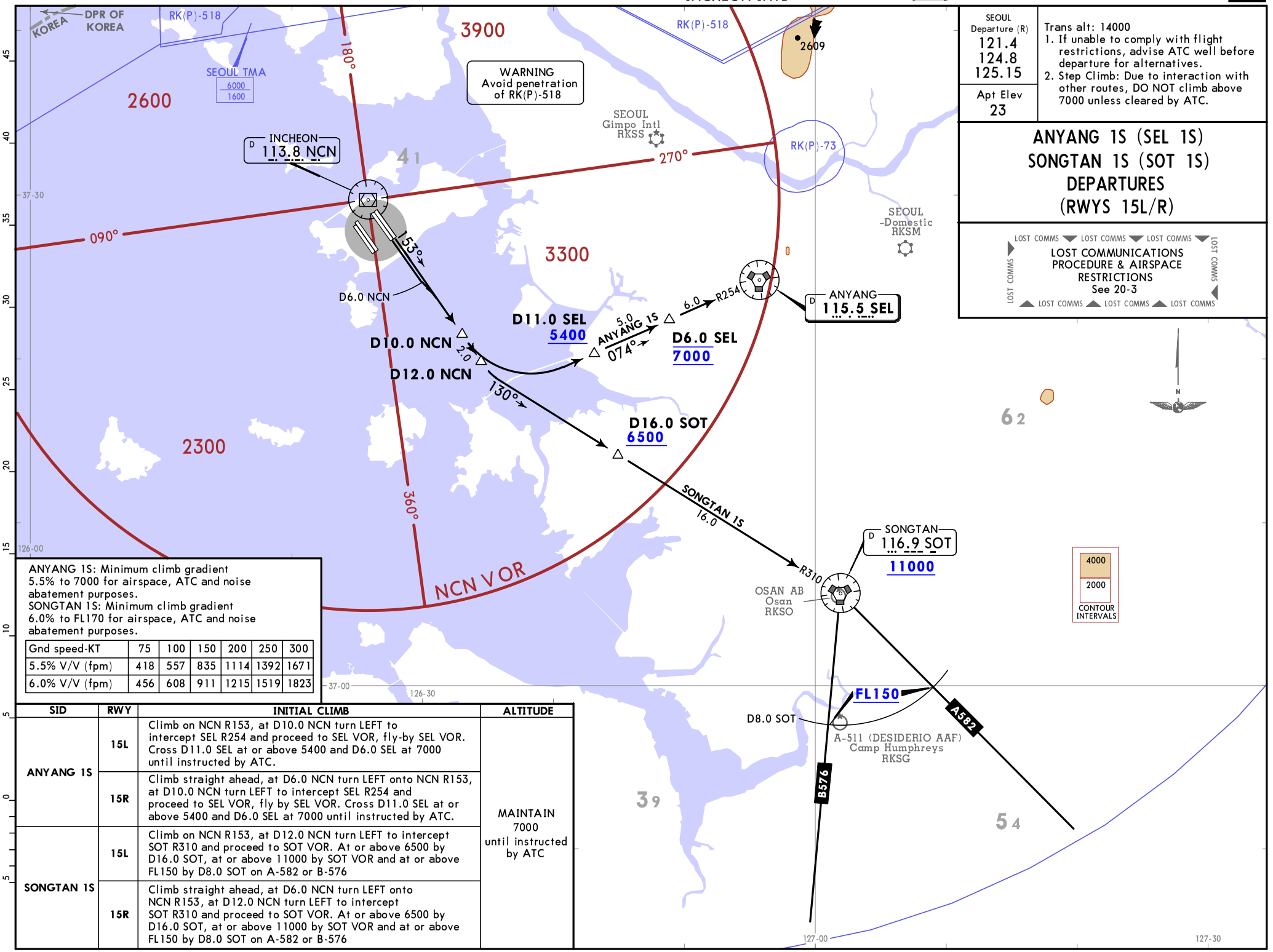
SONGTAN 1A: Minimum climb gradient 4.9% to FL170 for airspace and ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
4.9% V/V (fpm)	372	496	744	992	1241	1489

LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

SID	INITIAL CLIMB	ALTITUDE
ANYANG 2A	Climb straight ahead, at D5.0 NCN turn LEFT to intercept SEL R278. Cross SEL R278/D28.0 SEL, then proceed to SEL VOR.	MAINTAIN 7000 until instructed by ATC.
SONGTAN 1A	Climb straight ahead, at D5.0 NCN turn LEFT to intercept SOT R305. Cross SOT R305/D40.0 SOT, then proceed to SOT VOR.	

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.



SEOUL Departure (R)	Trans alt: 14000
121.4 124.8 125.15	1. If unable to comply with flight restrictions, advise ATC well before departure for alternatives. 2. Step Climb: Due to interaction with other routes, DO NOT climb above 7000 unless cleared by ATC.
Apt Elev 23	

ANYANG 1S (SEL 1S)
SONGTAN 1S (SOT 1S)
DEPARTURES
(RWYS 15L/R)

LOST COMMS LOST COMMS LOST COMMS
LOST COMMS
LOST COMMUNICATIONS
PROCEDURE & AIRSPACE
RESTRICTIONS
See 20-3
LOST COMMS
LOST COMMS LOST COMMS LOST COMMS

ANYANG 1S: Minimum climb gradient 5.5% to 7000 for airspace, ATC and noise abatement purposes.
SONGTAN 1S: Minimum climb gradient 6.0% to FL170 for airspace, ATC and noise abatement purposes.

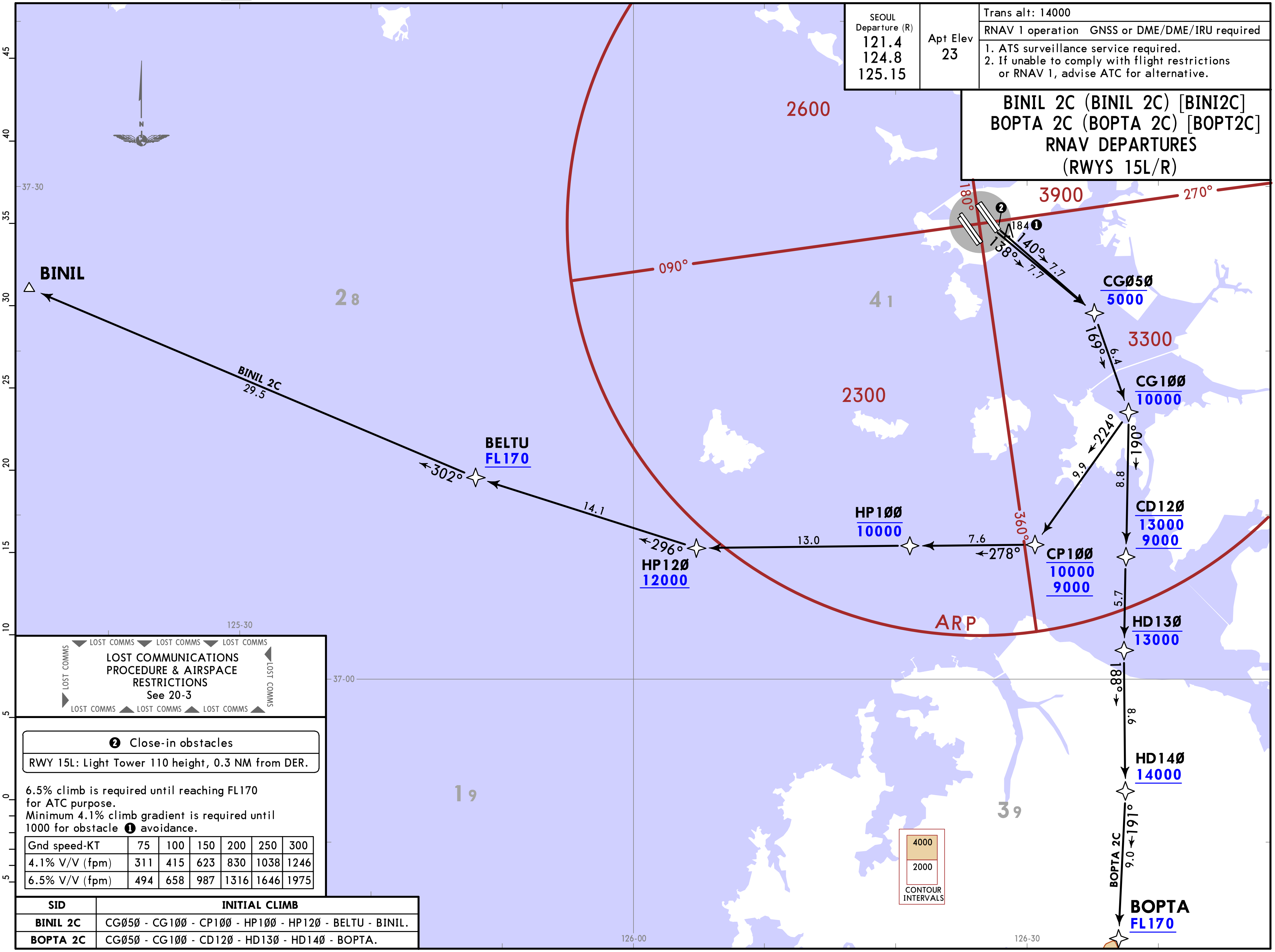
Gnd speed-KT	75	100	150	200	250	300
5.5% V/V (fpm)	418	557	835	1114	1392	1671
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID	RWY	INITIAL CLIMB	ALTITUDE
ANYANG 1S	15L	Climb on NCN R153, at D10.0 NCN turn LEFT to intercept SEL R254 and proceed to SEL VOR, fly-by SEL VOR. Cross D11.0 SEL at or above 5400 and D6.0 SEL at 7000 until instructed by ATC.	MAINTAIN 7000 until instructed by ATC
	15R	Climb straight ahead, at D6.0 NCN turn LEFT onto NCN R153, at D10.0 NCN turn LEFT to intercept SEL R254 and proceed to SEL VOR, fly by SEL VOR. Cross D11.0 SEL at or above 5400 and D6.0 SEL at 7000 until instructed by ATC.	
SONGTAN 1S	15L	Climb on NCN R153, at D12.0 NCN turn LEFT to intercept SOT R310 and proceed to SOT VOR. At or above 6500 by D16.0 SOT, at or above 11000 by SOT VOR and at or above FL150 by D8.0 SOT on A-582 or B-576	
	15R	Climb straight ahead, at D6.0 NCN turn LEFT onto NCN R153, at D12.0 NCN turn LEFT to intercept SOT R310 and proceed to SOT VOR. At or above 6500 by D16.0 SOT, at or above 11000 by SOT VOR and at or above FL150 by D8.0 SOT on A-582 or B-576	

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

SEOUL Departure (R)	Apt Elev	
121.4 124.8 125.15	23	Trans alt: 14000 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

BINIL 2C (BINIL 2C) [BINI2C]
BOPTA 2C (BOPTA 2C) [BOPT2C]
RNAV DEPARTURES
(RWYS 15L/R)



LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

❷ Close-in obstacles

RWY 15L: Light Tower 110 height, 0.3 NM from DER.

6.5% climb is required until reaching FL170 for ATC purpose.
Minimum 4.1% climb gradient is required until 1000 for obstacle ❶ avoidance.

Gnd speed-KT	75	100	150	200	250	300
4.1% V/V (fpm)	311	415	623	830	1038	1246
6.5% V/V (fpm)	494	658	987	1316	1646	1975

SID	INITIAL CLIMB
BINIL 2C	CGØ5Ø - CG1ØØ - CP1ØØ - HP1ØØ - HP12Ø - BELTU - BINIL.
BOPTA 2C	CGØ5Ø - CG1ØØ - CD12Ø - HD13Ø - HD14Ø - BOPTA.

CHANGES: Altitude restriction at CP1ØØ.

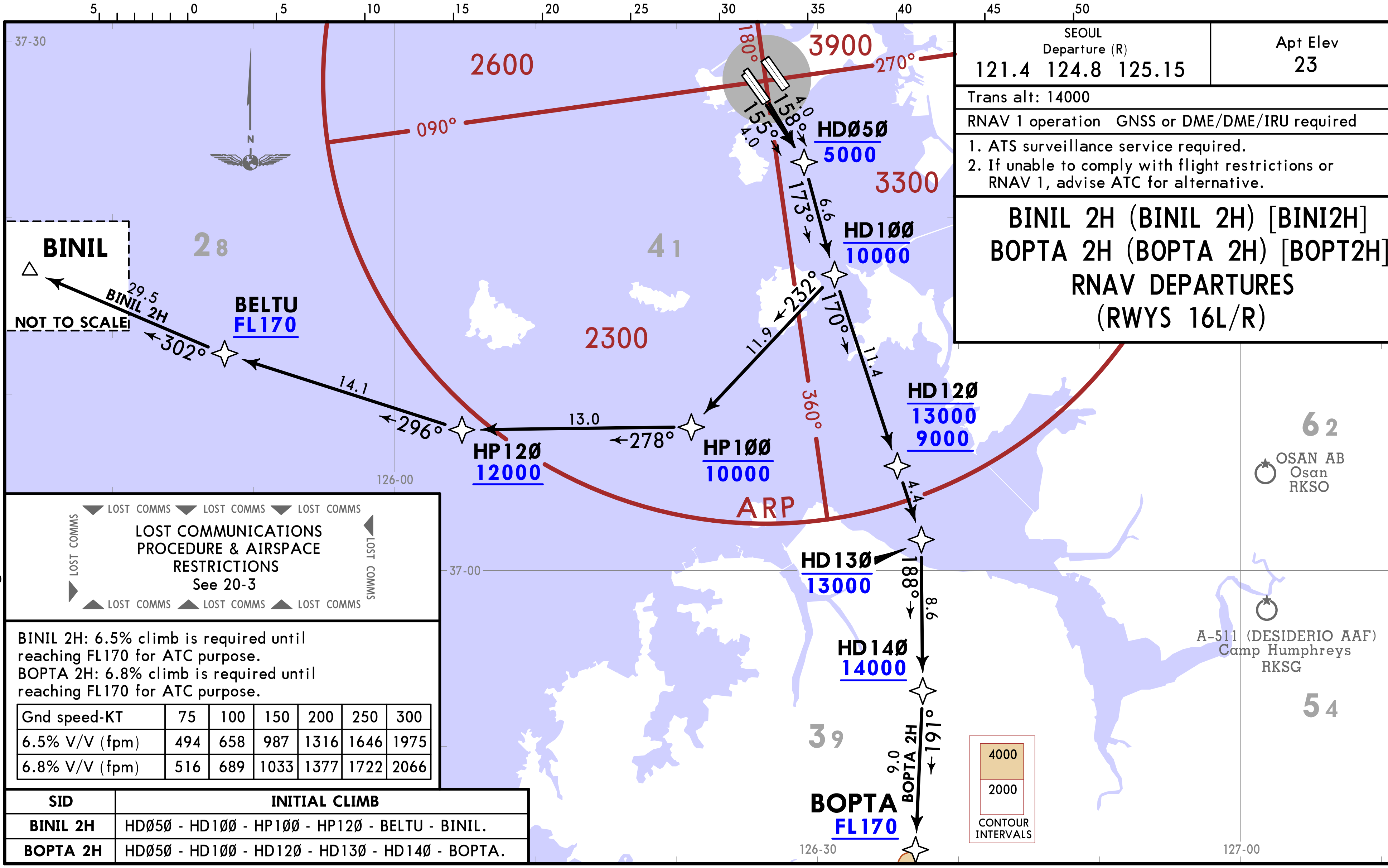
SEOUL Departure (R)	Apt Elev
121.4 124.8 125.15	23

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

BINIL 2H (BINIL 2H) [BINI2H]
BOPTA 2H (BOPTA 2H) [BOPT2H]
RNAV DEPARTURES
(RWYS 16L/R)



LOST COMMS

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS See 20-3

BINIL 2H: 6.5% climb is required until reaching FL170 for ATC purpose.
BOPTA 2H: 6.8% climb is required until reaching FL170 for ATC purpose.

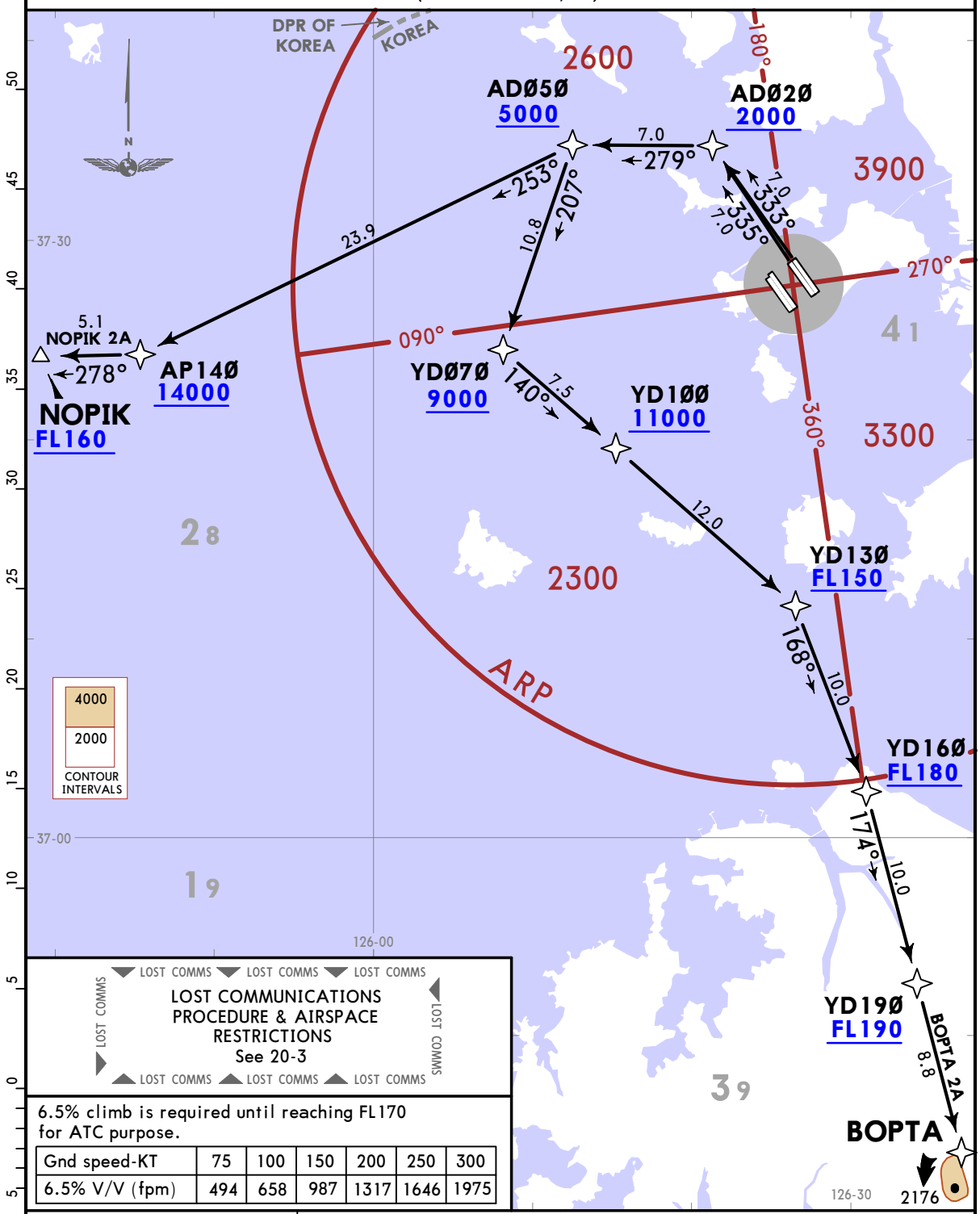
Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975
6.8% V/V (fpm)	516	689	1033	1377	1722	2066

SID	INITIAL CLIMB
BINIL 2H	HDØ5Ø - HD1ØØ - HP1ØØ - HP12Ø - BELTU - BINIL.
BOPTA 2H	HDØ5Ø - HD1ØØ - HD12Ø - HD13Ø - HD14Ø - BOPTA.

CHANGES: None.

SEOUL Departure (R)	Apt Elev	
121.4 124.8 125.15	23	Trans alt: 14000 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

BOPTA 2A (BOPTA 2A) [BOPT2A]
NOPIK 2A (NOPIK 2A) [NOPI2A]
RNAV DEPARTURES
(RWYS 33L/R)



6.5% climb is required until reaching FL170 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

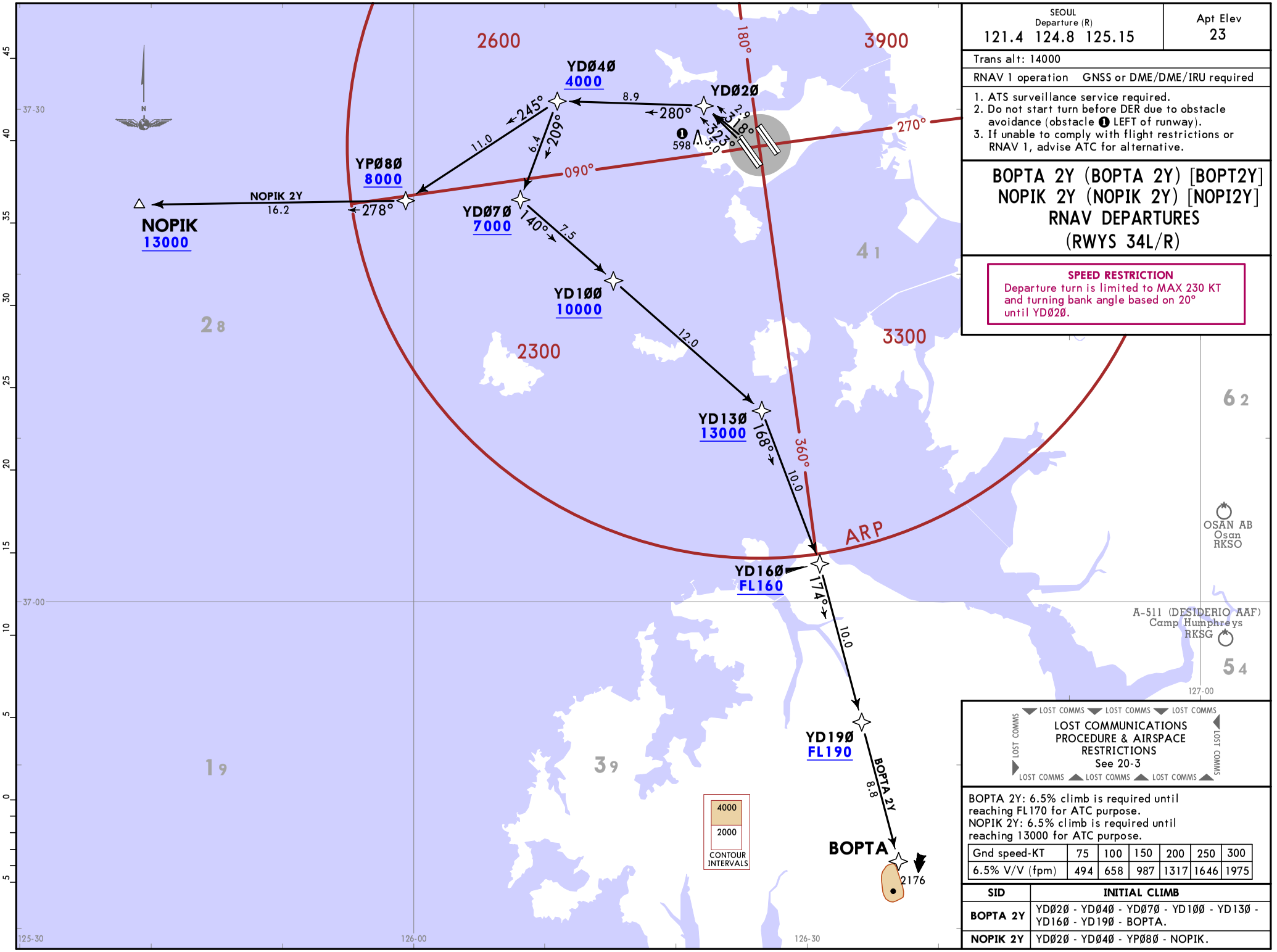
SID	INITIAL CLIMB
BOPTA 2A	AD020 - AD050 - YD070 - YD100 - YD130 - YD160 - YD190 - BOPTA.
NOPIK 2A	AD020 - AD050 - AP140 - NOPIK.

CHANGES: Altitude restriction over BOPTA withdrawn.

SEOUL/INCHEON, KOREA

Eff 25 Jan 1600Z

RNAV SID



SEOUL Departure (R)	Apt Elev
121.4 124.8 125.15	23

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. Do not start turn before DER due to obstacle avoidance (obstacle ❶ LEFT of runway).
3. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

BOPTA 2Y (BOPTA 2Y) [BOPT2Y]
NOPIK 2Y (NOPIK 2Y) [NOPI2Y]
RNAV DEPARTURES
(RWYS 34L/R)

SPEED RESTRICTION
Departure turn is limited to MAX 230 KT and turning bank angle based on 20° until YDØ2Ø.

LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

BOPTA 2Y: 6.5% climb is required until reaching FL170 for ATC purpose.
NOPIK 2Y: 6.5% climb is required until reaching 13000 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

SID	INITIAL CLIMB
BOPTA 2Y	YDØ2Ø - YDØ4Ø - YDØ7Ø - YD1ØØ - YD13Ø - YD16Ø - YD19Ø - BOPTA.
NOPIK 2Y	YDØ2Ø - YDØ4Ø - YPØ8Ø - NOPIK.

CHANGES: Altitude restriction over BOPTA withdrawn.

RKSI/ICN
INCHEON INTL

JEPPESEN
20 JAN 23 (20-3G) Eff 25 Jan 1600Z

SEOUL/INCHEON, KOREA
RNAV SID

EGOBA 2A (EGOBA 2A) [EGOB2A]
OSPOT 2A (OSPOT 2A) [OSPO2A]
RNAV DEPARTURES
(RWYS 33L/R)

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

Apt Elev 23

SEOUL Departure (R)
121.4
124.8
125.15

LOST COMMS
LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS See 20-3

6.5% climb is required until reaching FL170 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

SID	INITIAL CLIMB
EGOBA 2A	AD020 - AD050 - YD070 - YD100 - YK130 - YK170 - YK210 - EGOBA.
OSPOT 2A	AD020 - AD050 - YD070 - YD100 - YD130 - YG160 - OSPOT.

CONTOUR INTERVALS 4000 2000

NOT TO SCALE

EGOBA
OSPOT
WONJU RKNW
SEOUL Domestic RKSM
SEOUL Gimpo Intl RKSS
OSAN AB Osan RKSO
A-511 (DESIDERIO AAF) Camp Humphreys RKSG
RK(P)-73
DPR OF KOREA
KOREA
ARP
AD020 2000
AD050 5000
YD070 9000
YD100 11000
YD130 FL150
YG160 FL180
YK130 13000
YK170
YK210
EGOBA 2A
OSPOT 2A
2600
3900
2300
3300
180°
270°
360°
090°
279°
207°
140°
099°
124°
333°
335°
7.0
10.8
7.5
9.8
12.0
12.1
14.3
10.0
38.5
20.4
3511

EGOBA 2C (EGOBA 2C) [EGOB2C]
OSPOT 2C (OSPOT 2C) [OSPO2C]
RNAV DEPARTURES
(RWYS 15L/R)

SEOUL
Departure (R)
121.4 124.8 125.15

Apt Elev
23

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
LOST COMMUNICATIONS
PROCEDURE & AIRSPACE
RESTRICTIONS
See 20-3
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

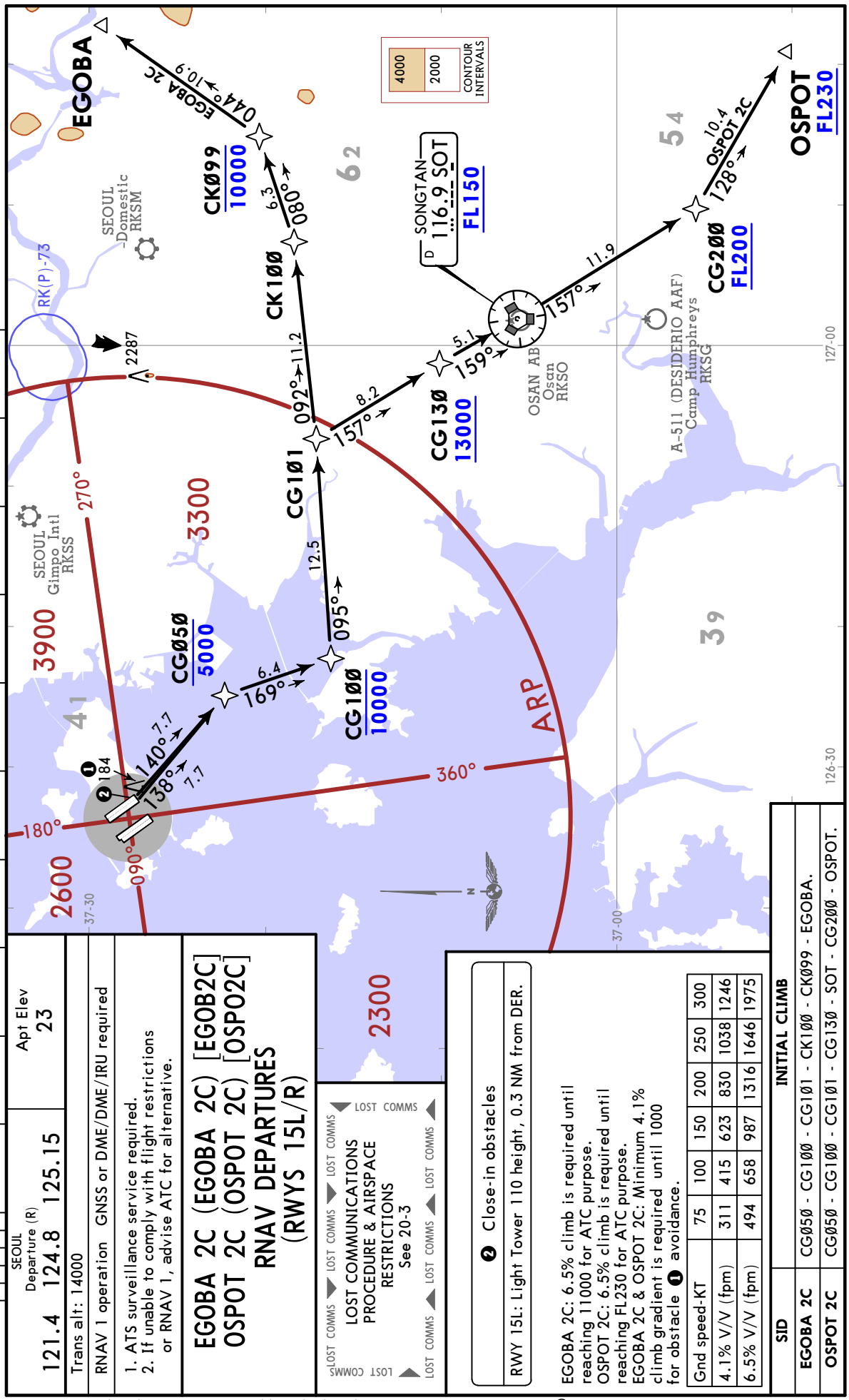
❷ Close-in obstacles

RWY 15L: Light Tower 110 height, 0.3 NM from DER.

EGOBA 2C: 6.5% climb is required until reaching 11000 for ATC purpose.
OSPOT 2C: 6.5% climb is required until reaching FL230 for ATC purpose.
EGOBA 2C & OSPOT 2C: Minimum 4.1% climb gradient is required until 1000 for obstacle ❶ avoidance.

Gnd speed-KT	75	100	150	200	250	300
4.1% V/V (fpm)	311	415	623	830	1038	1246
6.5% V/V (fpm)	494	658	987	1316	1646	1975

SID	INITIAL CLIMB
EGOBA 2C	CG050 - CG100 - CG101 - CK100 - CK099 - EGOBA.
OSPOT 2C	CG050 - CG100 - CG101 - CG130 - SOT - CG200 - OSPOT.

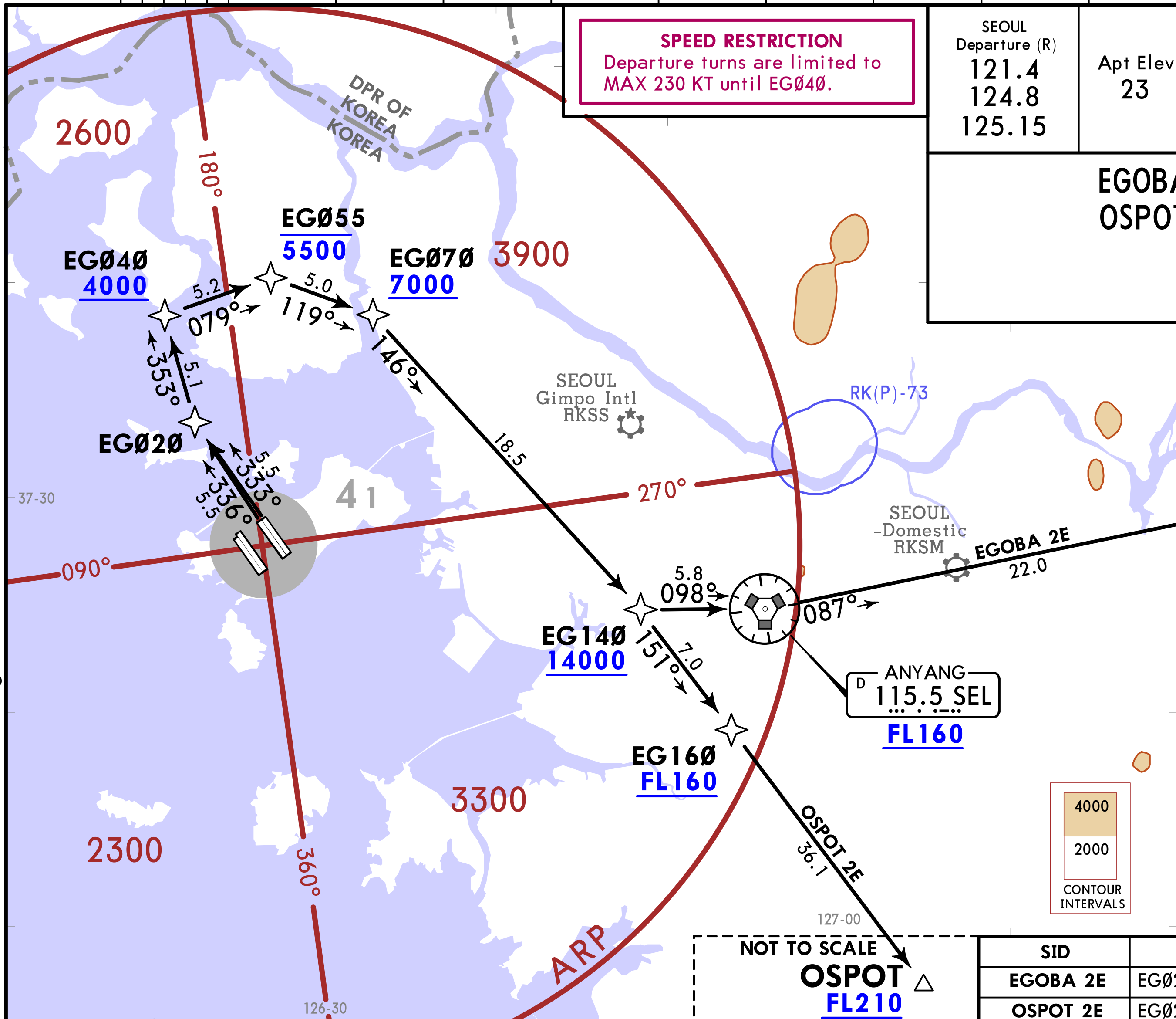


CHANGES: Prohibited area RK(P)-73 established, altitude restriction over EGOBA.

SEOUL Departure (R)	Apt Elev	
121.4 124.8 125.15	23	Trans alt: 14000 RNAV 1 operation GNSS or DME/DME/IRU required 1. ATS surveillance service required. 2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

EGOBA 2E (EGOBA 2E) [EGOB2E]
OSPOT 2E (OSPOT 2E) [OSPO2E]
RNAV DEPARTURES
(RWYS 33L/R)

SPEED RESTRICTION
Departure turns are limited to MAX 230 KT until EGØ4Ø.



CONTOUR INTERVALS: 4000, 2000

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

6.5% climb is required until reaching FL170 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

SID	INITIAL CLIMB
EGOBA 2E	EGØ2Ø - EGØ4Ø - EGØ55 - EGØ7Ø - EG14Ø - SEL - EGOBA.
OSPOT 2E	EGØ2Ø - EGØ4Ø - EGØ55 - EGØ7Ø - EG14Ø - EG16Ø - OSPOT.

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

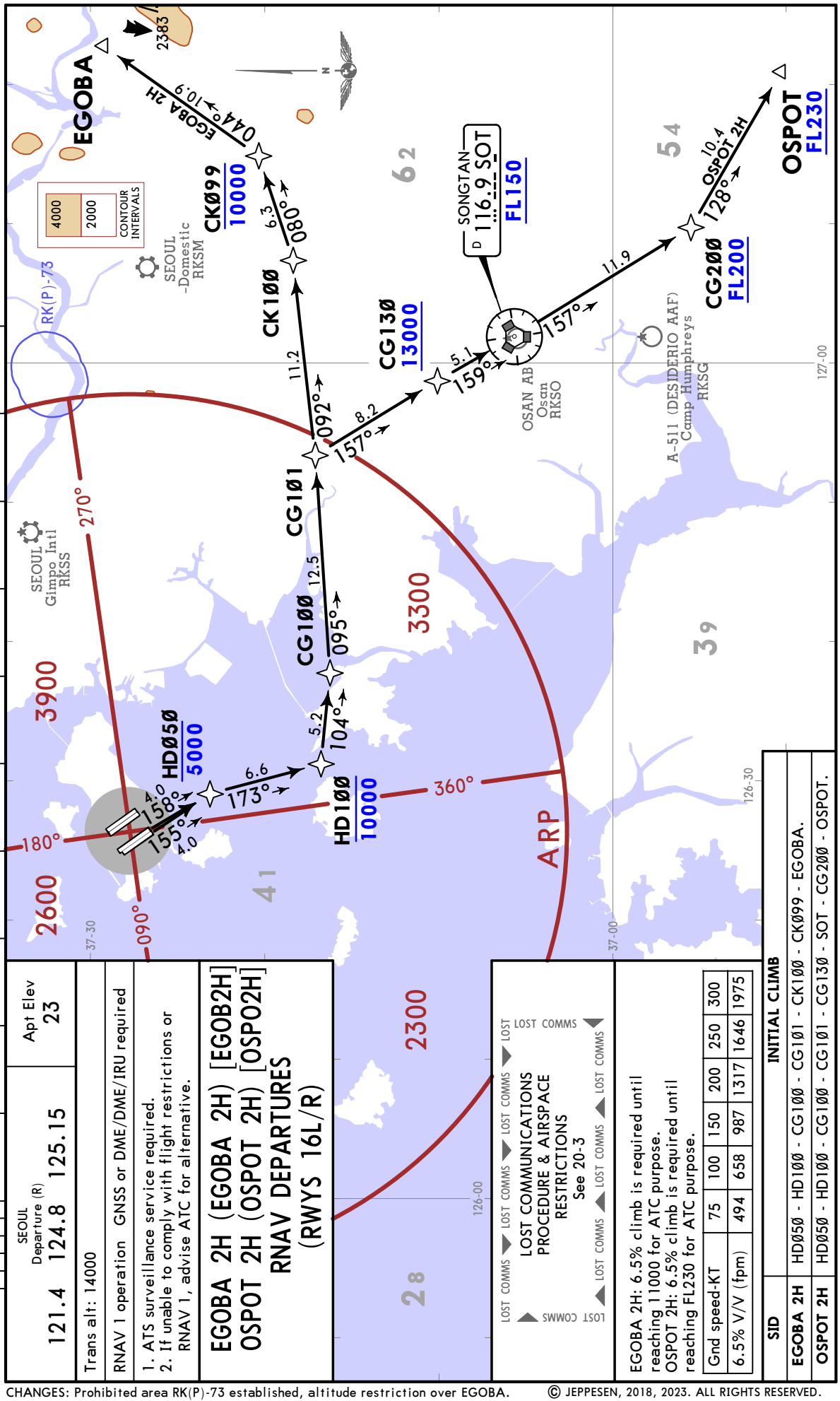
RKSI/ICN
INCHEON INTL

JEPPESEN

20 JAN 23 (20-3K) Eff 25 Jan 1600Z

SEOUL/INCHEON, KOREA

RNAV SID



SEOUL
Departure (R)
121.4 124.8 125.15

Apt Elev
23

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

EGOBA 2H (EGOB2H) [EGOB2H]
OSPOT 2H (OSPOT 2H) [OSPO2H]
RNAV DEPARTURES
(RWYS 16L/R)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

LOST COMMUNICATIONS
PROCEDURE & AIRSPACE
RESTRICTIONS
See 20-3

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

EGOBA 2H: 6.5% climb is required until reaching 11000 for ATC purpose.
OSPOT 2H: 6.5% climb is required until reaching FL230 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

SID	INITIAL CLIMB
EGOBA 2H	HD050 - HD100 - CG100 - CG101 - CK100 - CK099 - EGOBA.
OSPOT 2H	HD050 - HD100 - CG100 - CG101 - CG130 - SOT - CG200 - OSPOT.

CHANGES: Prohibited area RK(P)-73 established, altitude restriction over EGOBA.

SEOUL/INCHEON, KOREA

Eff 25 Jan 1600Z

RNAV SID

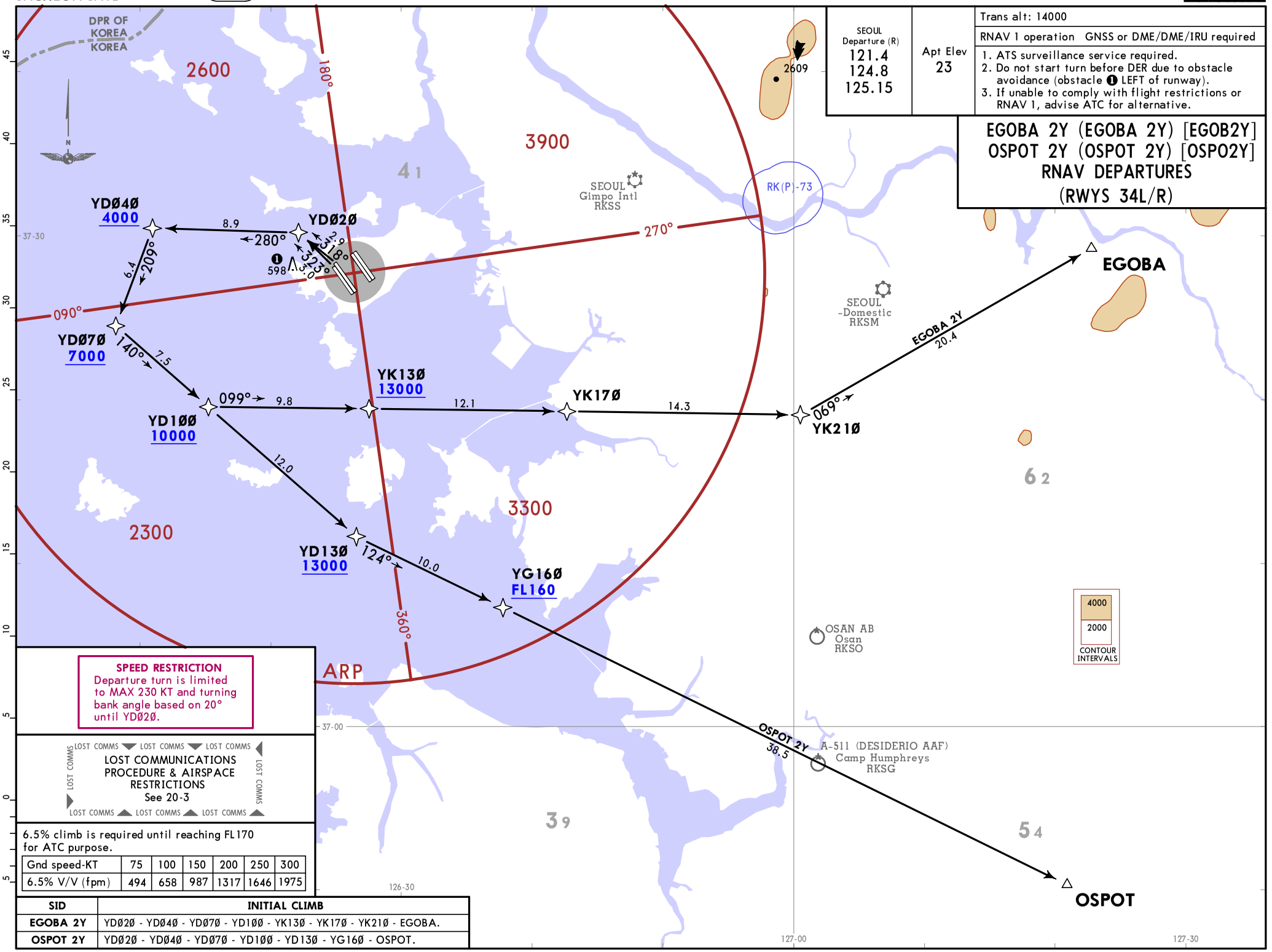
SEOUL Departure (R)	Apt Elev
121.4 124.8 125.15	23

Trans alt: 14000

RNAV 1 operation GNSS or DME/DME/IRU required

1. ATS surveillance service required.
2. Do not start turn before DER due to obstacle avoidance (obstacle ❶ LEFT of runway).
3. If unable to comply with flight restrictions or RNAV 1, advise ATC for alternative.

EGOBA 2Y (EGOBA 2Y) [EGOB2Y]
OSPOT 2Y (OSPOT 2Y) [OSPO2Y]
RNAV DEPARTURES
(RWYS 34L/R)



SPEED RESTRICTION
Departure turn is limited to MAX 230 KT and turning bank angle based on 20° until YDØ2Ø.

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

6.5% climb is required until reaching FL170 for ATC purpose.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

SID	INITIAL CLIMB
EGOBA 2Y	YDØ2Ø - YDØ4Ø - YDØ7Ø - YD1ØØ - YK13Ø - YK17Ø - YK21Ø - EGOBA.
OSPOT 2Y	YDØ2Ø - YDØ4Ø - YDØ7Ø - YD1ØØ - YD13Ø - YG16Ø - OSPOT.

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73, altitude restriction at YK17Ø withdrawn.

SEOUL Departure (R)	Apt Elev	Trans alt: 14000
121.4 124.8 125.15	23	

1. Pilot shall use caution not to penetrate prohibited or restricted areas around airport.
2. Aircraft may experience delay due to airspace use coordination, traffic volume, and so on.

RADAR 3A (RADAR 3A) [RADA3A]
RADAR 3D (RADAR 3D) [RADA3D]
DEPARTURES
(RWYS 33L/R, 34L/R)

WARNING
Avoid penetration of RK(P)-518

PYONGYANG ZKKP FIR
INCHEON RKRR FIR

RK(P)-518
RK(P)-518W
RK(P)-73

DPR OF KOREA
KOREA

SEOUL TMA
6000
1600

SEOUL Gimpo Intl RKSS

SEOUL -Domestic RKSM

OSAN AB Osan RKSO

A-511 (DESIDERIO AAF) Camp Humphreys RKSG

CHEONGJU -Intl RKTU

2383

NOPIK
FL150

G597

D16 NCN
D18 WNG
D40 SEL
D41 SOT
D43 SOT
D29.1 SEL
D6.0 NCN
D9.6 WNG
D4 NCN
D27.9 SEL
D6.0 WNG

RADAR 3A
270° hdg

RADAR 3D
250° hdg

INCHEON
113.8 NCN

WANGSAN
112.9 WNG

ANYANG
115.5 SEL

180°
270°
333°
300 hdg
090°
360°

2600
3900
3300
2300

NCN VOR

YD1ØØ
YD13Ø
YD16Ø
YD19Ø
BOPTA
OSPOT

32.7
12.0
10.0
10.0
48.5
8.8

LEGEND
Lost comms flight track

4000
2000
CONTOUR INTERVALS

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

6.0% climb gradient required until FL150 for ATC and airspace purposes.

Gnd speed-KT	75	100	150	200	250	300
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID	RWY	INITIAL CLIMB	ALTITUDE
RADAR 3A	33L/R	Climb on runway heading until D6.0 NCN (D29.1 SEL or D9.6 WNG or D43 SOT), turn LEFT heading 270°. EXPECT RADAR vector to airway.	
RADAR 3D	34L/R	Climb on heading 300° until D6.0 WNG (D27.9 SEL or D4 NCN or D41 SOT), turn LEFT heading 250°. EXPECT RADAR vector to airway.	MAINTAIN 3000 until instructed by ATC

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

SEOUL/INCHEON, KOREA

SEOUL Departure (R)	Apt Elev	Trans alt: 14000
121.4 124.8 125.15	23	

1. Pilot shall use caution not to penetrate prohibited or restricted areas around airport.
2. Aircraft may experience delay due to airspace use coordination, traffic volume, and so on.

RADAR 5S (RADAR 5S) [RADA5S]
RADAR 3U (RADAR 3U) [RADA3U]
DEPARTURES
(RWYS 15L/R, 16L/R)

PYONGYANG ZKKP FIR
INCHEON RKRR FIR
DPR OF KOREA
KOREA
RK(P)-518
WARNING
Avoid penetration of RK(P)-518
2609
3900
4 1
2600
SEOUL TMA
6000
1600
INCHEON
113.8 NCN
SEOUL Gimpo Intl RKSS
180°
270°
090°
RK(P)-518W
RK(P)-73
6 2
37-30
ANYANG
115.5 SEL
3300
WANGSAN
112.9 WNG
139° hdg RADAR 5S
138° hdg
170° hdg
169° hdg RADAR 3U
G597
BINIL
W61
Z54
SEOUL -Domestic RKSM
D20 NCN/
D16 WNG/
D19 SOT
235°
250°
300°
G585
Y685
Y644
MONSI
7.5
Y644
SUWON RKSW
POLEG
W62
Z50
2 8
2300
4000
2000
CONTOUR INTERVALS
BELTU
HP1ØØ
HP12Ø
NCN VOR
D14 WNG/
D17 NCN
360°
SONGTAN
116.9 SOT
OSAN AB
Osan
RKSO
A582
Y711
Z50
B576
Y722
Z52
A-511
(DESIDERIO AAF)
Camp Humphreys
RKSG
1 9
3 9
5 4
BULTI
OLMEN
125-30
37-00
126-00
126-30
127-00

LEGEND
Lost comms flight track

LOST COMMUNICATIONS PROCEDURE & AIRSPACE RESTRICTIONS
See 20-3

6.0% climb gradient required until FL150 for ATC and airspace purposes.

Gnd speed-KT	75	100	150	200	250	300
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID	RWY	INITIAL CLIMB	ALTITUDE
RADAR 5S	15L	Climb heading 139°, EXPECT RADAR vector to airway.	MAINTAIN 7000 until instructed by ATC
	15R	Climb heading 138°, EXPECT RADAR vector to airway.	
RADAR 3U	16L	Climb heading 170°, EXPECT RADAR vector to airway.	
	16R	Climb heading 169°, EXPECT RADAR vector to airway.	

CHANGES: Prohibited areas RK(P)-73A & B replaced by RK(P)-73.

NOISE ABATEMENT

Local Time minus 9 HOURS = UTC

AIRCRAFT OPERATING PROCEDURES
(except helicopters)

TAKE-OFF

All departing aircraft should apply ICAO PANS-OPS (Doc 8168) Volume I Noise Abatement Take-off Climb Procedures as follows:

1. Runway 33 L/R, 34L/R:
   - Noise Abatement Departure Procedure ONE (NADP ONE)
   a. Thrust reduction at 1500 ft above aerodrome elevation recommended.
2. Runway 15 L/R, 16L/R:
   - Noise Abatement Departure Procedure ONE or TWO (NADP ONE or NADP TWO)
   a. NADP ONE: Thrust reduction at 1500 ft above aerodrome elevation recommended.
   b. NADP TWO: Acceleration at 1000 ft above aerodrome elevation recommended.
   c. For noise abatement and CO2 reduction using a NADP TWO is recommended. If for safety reasons (prevention of bird strike), compliance with the recommended procedure is not possible, NADP ONE may be used.

AUXILIARY POWER UNITS (APUs)

1. At Passenger docking stands:
   - Primarily the stationary airport pneumatic and electrical service units shall be used.
   - Alternatively the airport owned mobile units shall be used.
2. At other stands:
   - The airport owned mobile units shall be used.
3. Airborne APUs shall only be started:
   -To start engine, the earliest 30 minutes before off-block time; however wide fuselage aircraft are permitted to use APU 60 minutes prior to scheduled departure time.
   -If maintenance work on the aircraft makes it unavoidable; in that case the service period shall be kept as short as possible.
   -If the airport owned units are not available or unserviceable for specific aircraft types; in that case the airborne APUs shall be started at the earliest 60 minutes before off-block time and be kept in operation not more than 30 minutes after the on-block time.

Note: In particular cases the Airport Corporation may permit longer service periods for APUs after the on-block time.
-Airport Corporation Telephone: 032-741-2458/9.
-INCHEON APRON CONTROL: 121.65 Mhz, 122.175 Mhz, 121.8 Mhz, 123.325 Mhz, 123.675 Mhz

CONSTRUCTION WORK FOR PASSENGER TERMINAL 2 EXTENSION (SUP 6/23)

1. INTRODUCTION

Construction work for passenger terminal 2 extension will be conducted as follows.
Aircraft stands 268 and 268R are not available for parking due to the construction work (only aircraft stand 268L is under normal operation).

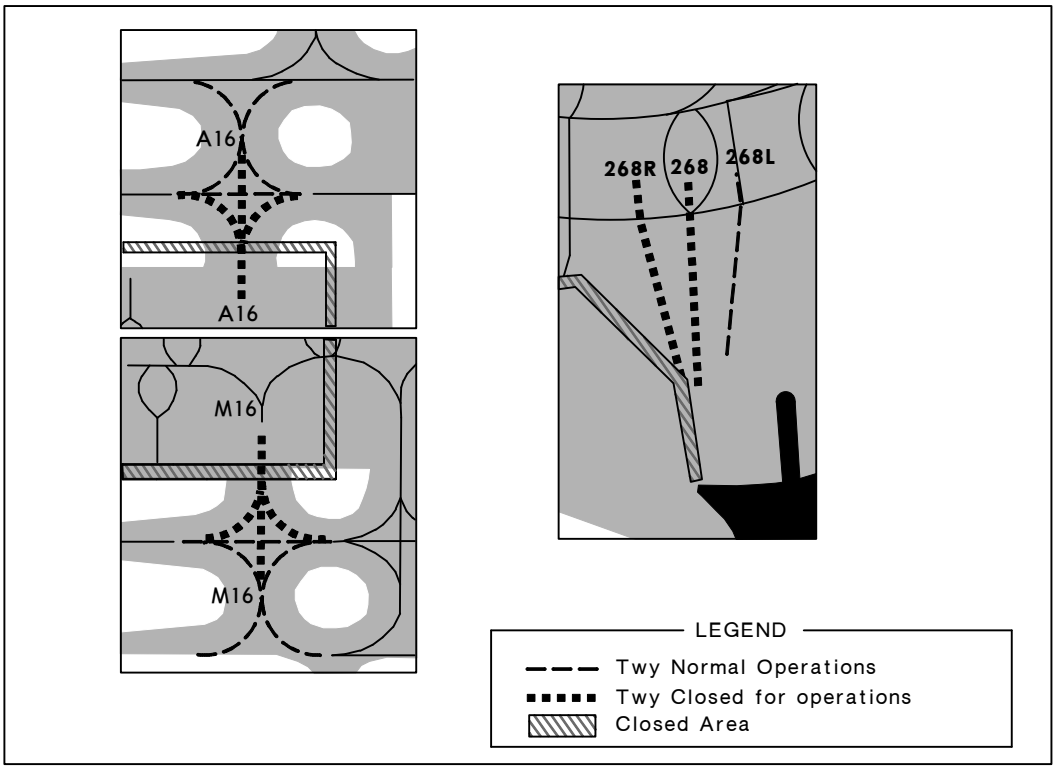
2. PERIOD

From 1500 UTC 31 MAY 2023 to 1600 UTC 30 OCT 2024.

3. REMARKS

1. Safety fence will be installed to indicate the working areas.
2. Works will be conducted by equipments and vehicles in the area as shown in the diagram.
3. This work has no effect on Rwy and Twy normal operations in maneuvering area. Exceptionally, it is unable for aircraft to taxi into or from apron via M16 and A16.
4. Each crane penetrates obstacle limitation surface (horizontal surface) and turns on its axis (radius max. 164′(50m))
5. During work period, pilots should exercise caution and follow ATC′s instruction when taxiing aircraft near the working area.
6. Any change to the contents of this page will be notified by NOTAM.

4. DIAGRAM



CHANGES: Reindex.

RWY 15L/33R AND TWYS CLOSED DUE TO CONSTRUCTION (SUP 03/24 AIRAC)

1. INTRODUCTION

(1) Rwy 15L/33R will be closed due to pavement construction.
(2) Some parts of Twy C will be closed due to pavement construction.

2. CLOSED AREAS & PERIOD

(Refer to Rwy 15L/33R and Twy closed charts series)

Closed Areas		Period (UTC)
A	Rwy 15L/33R between Twy J and K * No effect on Twy J and K operation.	From 1600 UTC 1 NOV 2023 To 1600 UTC 12 JUN 2024
	Twy C between Twy J and K	
	Rapid exit Twy C1, C2, C4, C5	
	Rapid exit Twy D1, D6	
B	Rwy 15L/33R below Twy J	
	Twy G between Twy C and D * No effect on Twy C and D operation.	
C	Rwy 15L/33R between Twy K and L * No effect on Twy K and L operation.	From 1600 UTC 21 FEB 2024 To 1600 UTC 12 JUN 2024

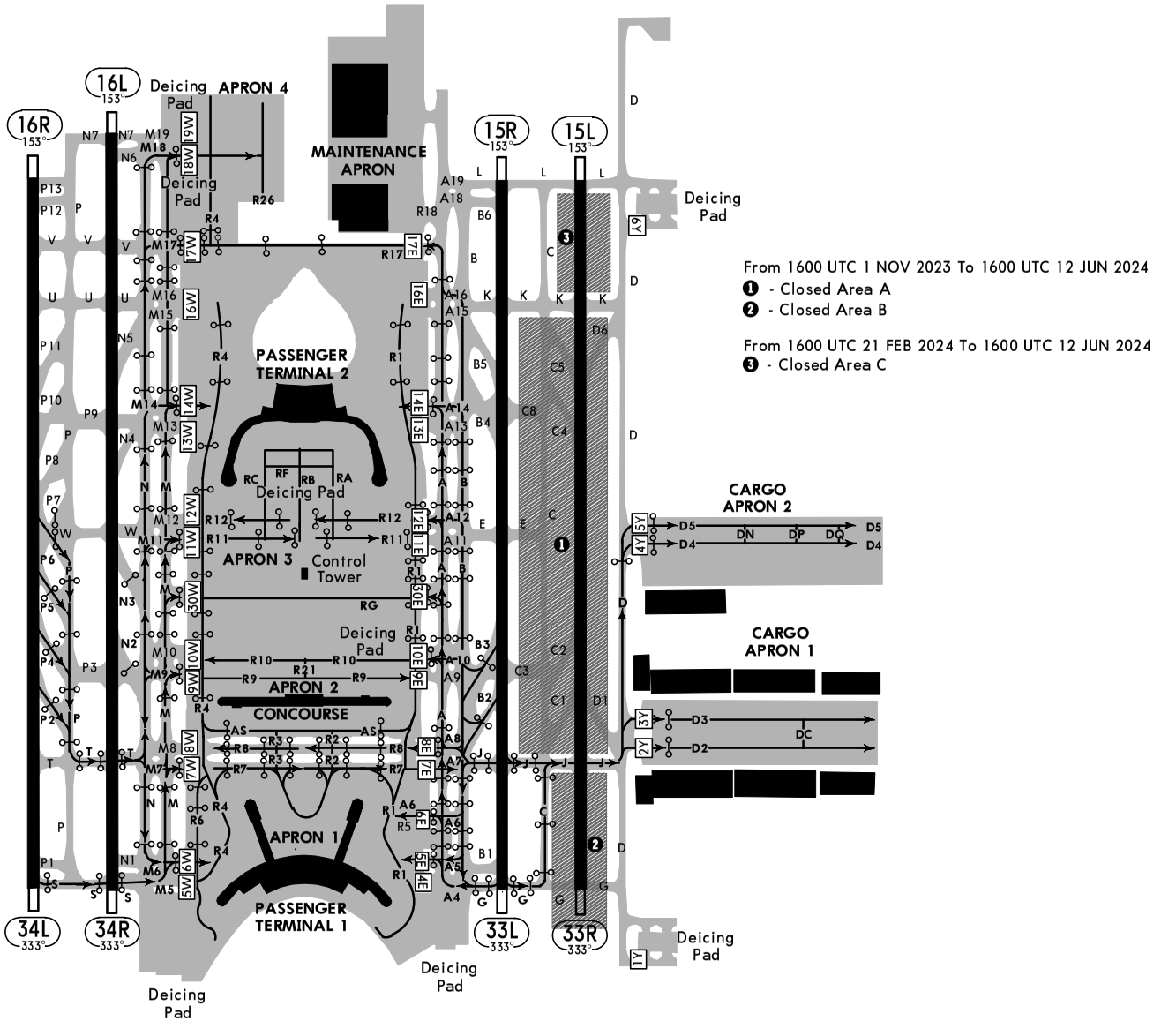
3. REMARKS

(1) Rwy 15L/33R and Twys will be closed as shown in the charts.
(2) Unserviceability lights and frangible barriers will be installed on the closed area.
(3) All lights including Rwy center line lights, Rwy edge lights, Rwy touchdown lights, Approach lighting system for Rwy 15L/33R will be unserviceable.
(4) Some parts of standard taxi routes (arrival and departure taxi routes charts) and low visibility procedures (low visibility taxi routes charts) will be temporarily changed due to the construction.
(5) Temporary taxi routes may be changed by the ATC instruction.
(6) Twy center line lights, Twy edge lights, Stop bar lights and taxiway guidance sign for the closed areas will not be operated.
(7) Works by equipment and vehicles will be conducted in the working area as shown in the charts.
(8) Closed runway lighting is operated From 0800 To 2300 UTC at the thresholds of Rwy 33R.
(9) Any change to the contents of these pages will be notified by NOTAM.

CHANGES: Closed area C added.

TEMPORARY TAXI ROUTES

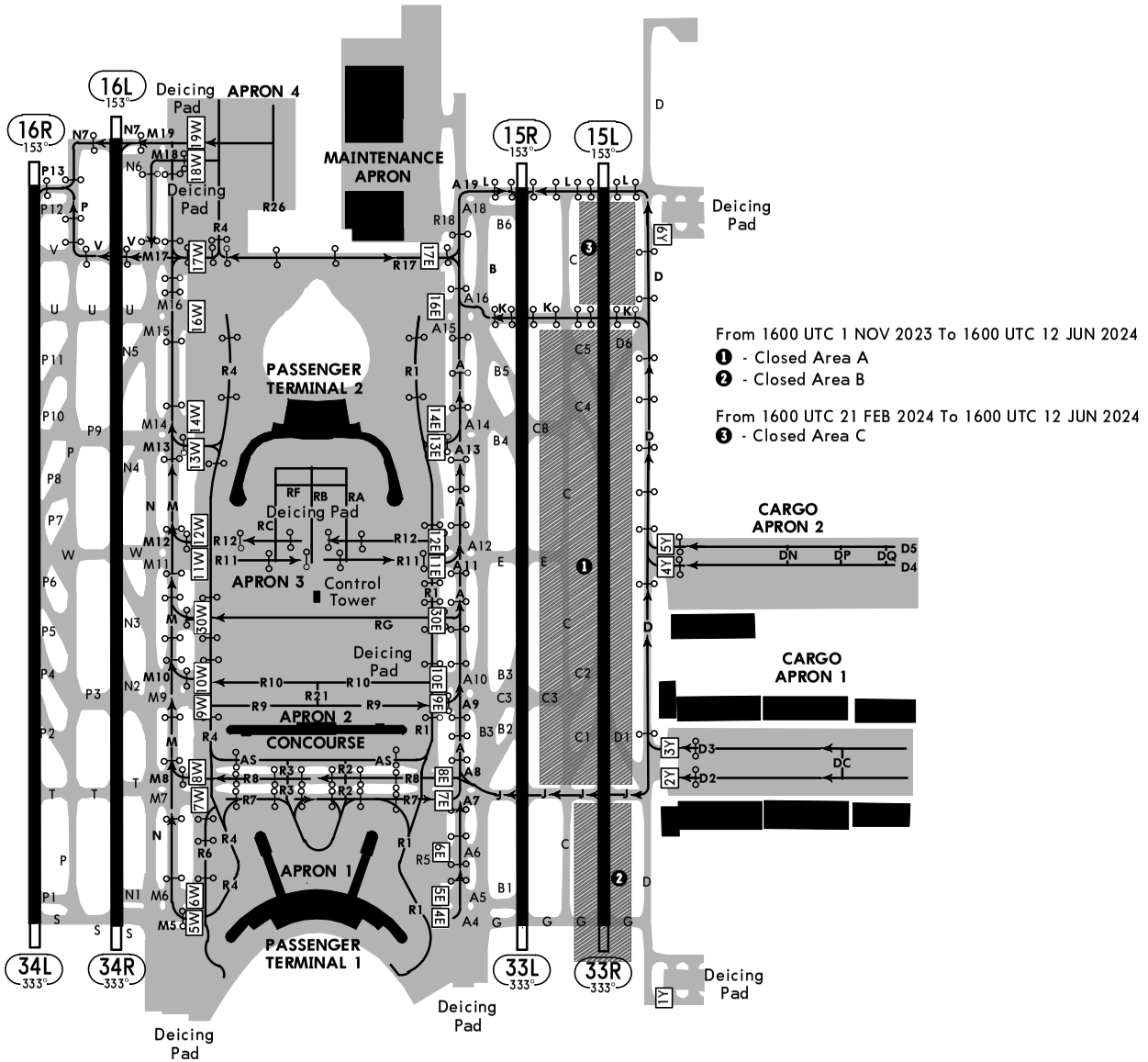
Arrival for Rwy 15L/R, 16L/R and SMGCS - Arrival for Rwy 15L/R, 16L/R



CHANGES: Closed area C added.

TEMPORARY TAXI ROUTES

Departure for Rwy 15L/R, 16L/R and SMGCS - Departure for Rwy 15L/R, 16L/R



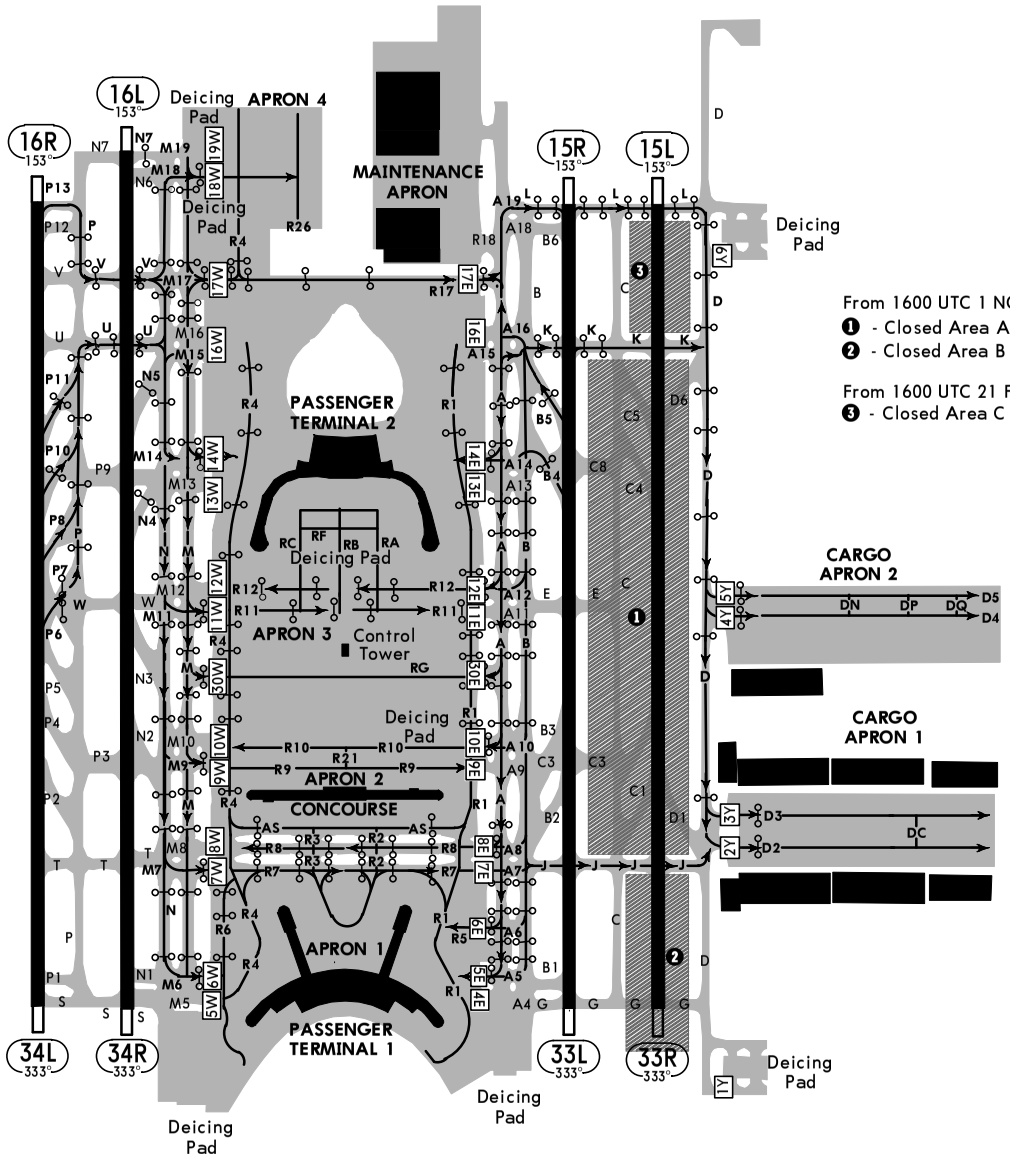
LEGEND

- CLOSED AREA
- TAXI ROUTE
- STOP BAR LIGHT
- A8 TAXIWAY/ TAXI ROUTES DESIGNATION
- 5E TRANSFER OF CONTROL POINT

CHANGES: Closed area C added.

TEMPORARY TAXI ROUTES

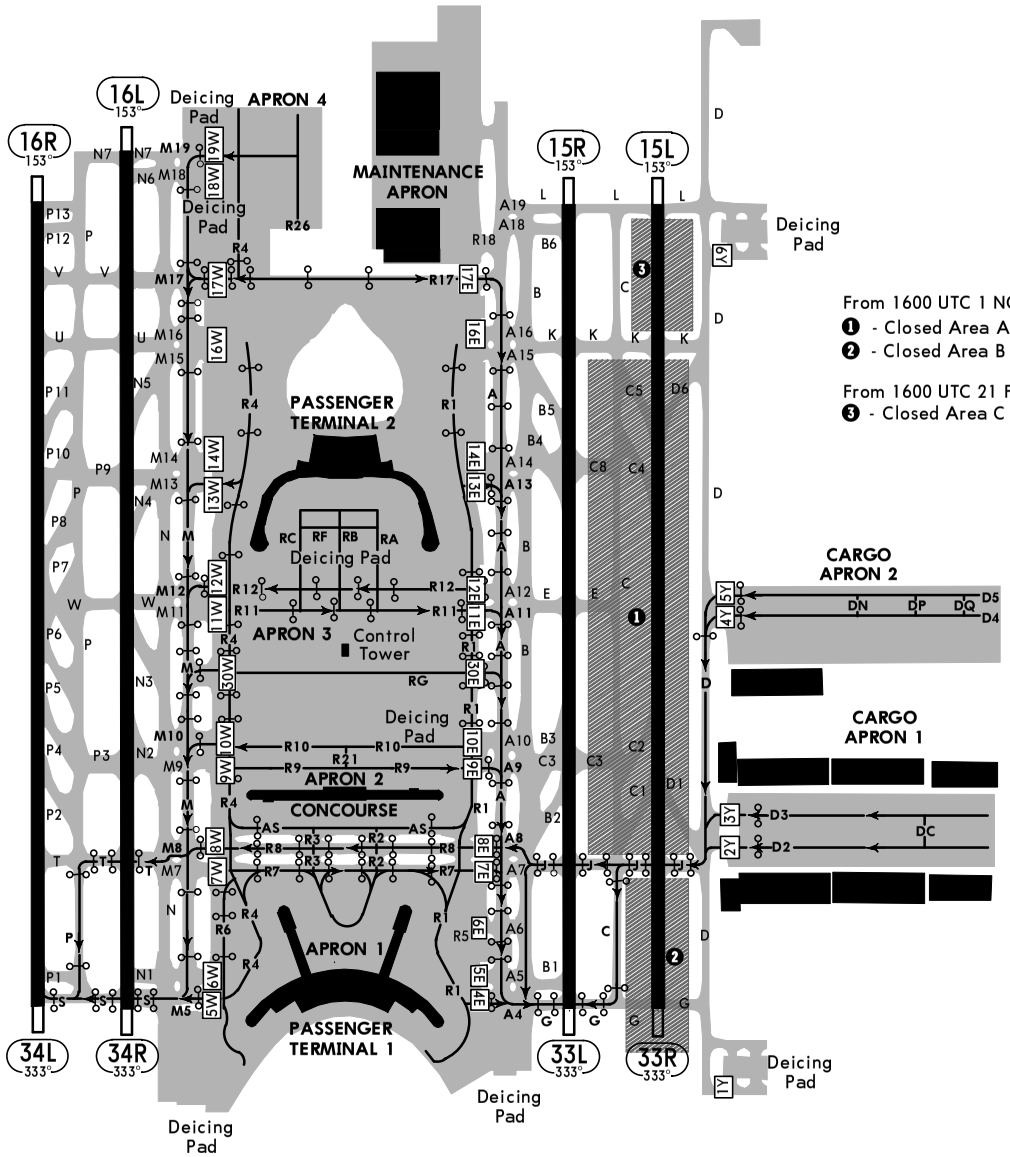
Arrival for Rwy 33L/R, 34L/R and SMGCS - Arrival for Rwy 33L/R, 34L/R



CHANGES: Closed area C added.

TEMPORARY TAXI ROUTES

Departure for Rwy 33L/R, 34L/R and SMGCS - Departure for Rwy 33L/R, 34L/R



CHANGES: Closed area C added.

TRIAL OPERATION OF RE-CATEGORIZATION (RECAT) WAKE TURBULENCE SEPARATION MINIMA WITHIN SEOUL TMA (SUP 021/23)

1. INTRODUCTION

As ICAO PANS-ATM revised in November 2020, RECAT wake turbulence separation minima will be used at Seoul TMA (RKSI, RKSS). The RECAT wake turbulence separation minima are based on a grouping of aircraft types into seven groups (A to G).

2. PERIOD

From 1600 UTC 15 DEC 2021 To 1600 UTC 14 DEC 2024.

3. APPLICATION

(1) Applicable airport : Incheon INTL Airport (RKSI) and Gimpo INTL Airport (RKSS)

(2) Applicable area : Seoul TMA, Incheon control zone, and Gimpo control zone

(3) RECAT wake turbulence separation minima are applied for arrival and departure phases, when the aircraft is airborne.

(4) For take-off phase, time based RECAT wake turbulence separation minima described in ICAO PANS-ATM is not applicable.

(5) RECAT wake turbulence group designators are described as follows:

RECAT Group	MTOW	Wing Span	Example
GROUP A	299,829lbs (136,000kg) or more	245'(74.68m)< A< = 262'(80.0m)	A380
GROUP B		175'(53.34m)< B< = 245'(74.68m)	A359, B748, B773
GROUP C		125'(38.1m)< C< = 175'(53.34m)	B767, MD11
GROUP D	less than 299,829lbs (136,000kg), but more than 41,006lbs (18,600kg)	105'(32.0m) <D	A320, B737
GROUP E		90'(27.43m)< E< = 105'(32.0m)	E190, GLEX
GROUP F		F< = 90'(27.43m)	GLF4, CRJ7
GROUP G	41,006lbs (18,600kg) or less	No wing span criterion	C525, C172

(6) The following separation minima will be provided between the leading aircraft and the succeeding aircraft as specified in 3.(6).a, 3.(6).b or 3.(6).c.

Leading Aircraft Group	Succeeding Aircraft Group	Separation Minima
A	B	4 NM
	C	5 NM
	D	5 NM
	E	6 NM
	F	6 NM
	G	8 NM
B	B	3 NM
	C	4 NM
	D	4 NM
	E	5 NM
	F	5 NM
	G	7 NM
C	D	3 NM
	E	3.5 NM
	F	3.5 NM
	G	6 NM
D	G	4 NM
E	G	4 NM

a. An aircraft is operating directly behind another aircraft at the same altitude or less than 1000'(305m) below.

b. Both aircraft are using the same runway, or parallel runways separated by less than 2493' (760m).

c. An aircraft is crossing behind another aircraft, at the same altitude or less than 1000'(305m) below.

CHANGES: Chart reindex, period.

TRIAL OPERATION OF RE-CATEGORIZATION (RECAT) WAKE TURBULENCE SEPARATION MINIMA WITHIN SEOUL TMA (CONTD)

4. PILOT PROCEDURES

The application of RECAT wake turbulence separation minima will not affect the pilot procedure mostly. Nothing has changed with regard to flight planning and flight management. As the separation minima will be reduced in most cases, pilots should pay attention to the following points;

(1) It is important to comply with ATC speed restriction at all times especially on the final approach course. The pilot must inform ATC as soon as possible if the speed cannot be maintained.

(2) Pilots should report the type of the aircraft (including series) on the initial contact with Seoul Approach.

(3) It is expected for pilots to vacate the runway expeditiously until the aircraft is completely clear of the runway.

(4) The wake turbulence designator of the ICAO flight plan does not change. Pilots will continue to fill in the flight plan wake turbulence in item 9 with the ICAO aircraft category, H, M or L and J for SUPER category.

(5) Pilots should include the word 'SUPER' or 'HEAVY' regarding the type of aircraft ICAO wake turbulence categories on the initial call. The suffix of 'SUPER' or 'HEAVY' has not been changed.

(6) It is not required for pilots to know their RECAT wake turbulence aircraft group.

5. WAKE TURBULENCE ENCOUNTER REPORT

(1) In order to conduct the safety assessment for wake turbulence separation minima by RECAT, it is required to collect Wake Turbulence Encounter Reports, and the information contained in the reports would be used only for the purpose of safety assessment.

(2) Action to be taken by pilot:
When a pilot has encountered wake turbulence, the pilot should submit the Wake Turbulence Encounter Report.

6. REMARK

Any change to the contents of these charts will be notified by NOTAM.

INCHEON INTERNATIONAL AIRPORT A-CDM TRIAL OPERATION FOR PHASE 2 (SUP 16/24)

1. INTRODUCTION

(1) A-CDM is a process that allows air traffic controllers, airport operators, aircraft operators (AO), ground handling agents (GHA), pilots and air traffic flow managers to exchange operational information and work together to efficiently manage operations at aerodrome. A-CDM involves sharing of accurate and timely information amongst airport partners through airport systems and implementing a set of operational procedures and automated processes.

(2) During A-CDM phase 1 trial operation, flights subject to A-CDM pre-departure sequencing were limited to ATFM regulated flights due to limited pre-departure sequencer (departure manager) function.

(3) Pre-departure sequencer (departure manager) has been upgraded to implement pre-departure sequence to all departure flights, and hence A-CDM phase 2 trial operation will be implemented based on Incheon International A-CDM implementation plan.

(4) The phase 2 trial operation will be introduced in 3 progressive steps to allow all airport partners to be involved an opportunity to review and refine their workflow process and relevant hardware system, especially pre-departure sequencer, prior to actual implementation.

(5) The purpose of these charts is to provide information on the Incheon A-CDM system and operational procedures, and to detail the timings of the planned Incheon A-CDM trial operation for phase 2 and the required actions by pilots, aircraft operators (AO) and ground handling agents (GHA).

2. A-CDM PHASE 2 TRIAL OPERATION PROGRESSIVE STEPS

(1) STEP 1 - From 1600 UTC 29 JUN 2022 To 1600 UTC 29 JUN 2023

a. Aircraft operators (AO) and ground handling agents (GHA) are required to access Incheon A-CDM system and input manual TOBT based on A-CDM pre-departure procedures paragraphs 3.(1) to 3.(2) below.

(2) STEP 2 - From 1600 UTC 29 JUN 2022 To 0900 UTC 3 JUN 2024

a. Aircraft operators (AO) and ground handling agents (GHA) are required to access Incheon A-CDM system and input manual TOBT based on A-CDM pre-departure procedures paragraphs 3.(1) to 3.(2) below.

b. Pre-departure sequencer will be installed in ATC system and Site-Acceptance-Test will be done.

c. ATC will validate TTOT/TSAT calculation accuracy and check ATC HMI function using actual TOBT.

d. ATC can issue TSAT to departure flights only in a specific time zone based on A-CDM pre-departure procedures paragraphs below.

e. If ATC issue TSAT to all departure flights, the specific time zone will be noticed to aircraft operator (AO) and ground handling agents (GHA) through the following channels:

(a) A-CDM portal system; and
(b) Automatic Terminal Information Services (ATIS)

f. AO, GHA and pilot shall comply with TSAT and A-CDM pre-departure procedures paragraphs below.

(3) STEP 3 - From 0900 UTC 3 JUN 2024 To 1600 UTC 28 JUL 2024

a. Aircraft operators (AO) and ground handling agents (GHA) are required to access Incheon A-CDM system and input manual TOBT based on A-CDM pre-departure procedures paragraphs below.

b. ATC will issue TSAT to all departure flights based on A-CDM pre-departure procedures paragraphs below.

c. AO, GHA and pilot shall comply with TSAT and A-CDM pre-departure procedures paragraphs below.

d. Airport performance indicator (TOBT accuracy, TSAT compliance and departure punctuality, etc.) will be monitored.

3. A-CDM PRE-DEPARTURE SEQUENCE PROCEDURES

(1) Flight plan discrepancy check

a. In order to receive TSAT, flight data in Airport Operational Database (AODB) and ATC flight plan shall be identical. AO are required to manage flight data identical on those two systems.
Note - Call-sign, EOBT, DOF, ADES, ADEP items are used to match TOBT message with ATC flight plan in pre-departure sequencer.

(2) Target Off-Block Time (TOBT)

a. Incheon airport A-CDM portal system will automatically calculate system TOBT for each departure flight taking into account the Estimated In-Block Time/Actual In-Block Time (EIBT/AIBT), Minimum Turnaround Time (MTTT) and Estimated Off Block Time (EOBT). AO or GHA may refer this system generated TOBT when input TOBT.

b. AO or GHA are required to confirm or update the system generated TOBT from 90 minutes to 40 minutes prior to TOBT. TOBT which is confirmed or updated will be applied to pre-departure sequencing to calculate TSAT.

c. If the prediction of departure readiness (new TOBT) differs more than 5 minutes (plus or minus) from the previous TOBT, AO or GHA shall update TOBT.

CHANGES: A-CDM phase 2.

INCHEON INTERNATIONAL AIRPORT A-CDM TRIAL OPERATION FOR PHASE 2 (CONTD)

(2) Target Off-Block Time (TOBT) (contd.)

d. TOBT shall not deviate from EOBT by more than 15 minutes. If TOBT deviates from EOBT by more than 15 minutes, AO has to initiate an delay/change message via AFTN. When EOBT is modified, TOBT is automatically modified to the value of EOBT. In this case, AO or GHA has to reconfirm TOBT to apply to pre-departure sequencing.
Note- If a flight is applied with CTOT, TOBT can be confirmed or updated regardless of EOBT.

e. TOBT can be corrected as often as required up until the time the TSAT is issued (30 minutes prior to TOBT).

f. The accuracy of TBOT is vital to an optimal TSAT. Thus AO or GHA are strongly encouraged to update TOBT as soon as any expected delay to the aircraft readiness for push-back is made available to avoid unnecessary hold-ups.

g. After TSAT has been issued, TOBT may be corrected up to three times for stable TSAT operation. For the forth time update, TOBT has to be deleted and a new one has to be entered. In this case, TSAT may be delayed as TSAT slot is lost in pre-departure sequencing list.

h. If AO wants to delay the passenger boarding start time due to gap between TOBT and TSAT caused by CTOT, traffic congestion, etc., TOBT has to be updated with the latest time.

i. If it is impossible to take-off due to RVR minima or adverse weather condition, unable to predict the ground handling time, etc., TOBT must be deleted or updated with delayed time. And TOBT must be re-submitted whenever aircraft ready is predictable.

j. TOBT shall be updated through the following channels:
(a) A-CDM portal and mobile APP; or
(b) Flight Information Assistant (FIA) at PBB boarding rooms; or
(c) A-CDM operation center

k. TOBT information is available through the following channels:
(a) A-CDM portal and mobile APP; or
(b) Flight Information Assistant (FIA) at PBB boarding rooms; or
(c) Visual Docking Guidance System (VDGS); or
(d) Radio communication with AO or GHA

l. AO or GHA are required to provide TOBT to pilot in case VDGS is unserviceable or in cargo apron/remote stand.

(3) Target Start-up Approval Time (TSAT) - without de-icing

a. Pilot shall ensure aircraft is ready for push-back within 5 minutes of TOBT. If it is expected to differ by 5 minutes or more, pilot shall notify the AO or GHA to update TOBT.

b. TSAT will be issued at TOBT -30 minutes.

c. If the operation situation changes, Departure Manager (D-MAN) can update the TSAT already issued. AO or GHA has to monitor TSAT continuously before Actual Off-Block Time (AOBT).

d. If TSAT is not issued at TOBT -30 minutes, AO or GHA has to take measures to make flight plan data of A-CDM portal system and ATC system identical.

e. If TSAT cannot be complied with because the new TOBT is updated later than TSAT, new TSAT will be issued.

f. If new TOBT is earlier than TSAT, TSAT may be improved only when free TSAT is available not affecting other flights TSAT.

g. TSAT information is available through the following channels:
(a) A-CDM portal system; or
(b) Flight Information Assistant (FIA) at PBB boarding rooms; or
(c) Visual Docking Guidance System (VDGS); or
(d) Radio communication with GHA or AO; or
(e) Incheon Apron (in case VDGS is unserviceable.)

h. AO or GHA are required to provide TSAT to pilot in case CDGS is unserviceable or in cargo apron/remote stand.

(4) Target Start-up Approval Time (TSAT) - regulated flight

a. If a flight applied with CTOT is expected to be unable to comply with CTOT or TSAT due to AO or GHA internal issue, AO or GHA are required to consult with ATCC to get a new CTOT.

b. If a flight applied with CTOT is expected to be unable to comply with CTOT or TSAT due to ATC issue, ATC will update TTOT/TSAT with new CTOT through consultation with ATCC.

c. When a flight applied with CTOT cannot comply with TSAT but can comply CTOT, pilot shall notify ATC of this situation. In this case, the estimated push-back time may be notified specifically.
Note - When D-MAN receives CTOT, D-MAN calculate TSAT without considering TOBT. For this reason, TSAT may be earlier than TOBT.

d. When TSAT is issued by ATC not by D-MAN, TSAT may be earlier time than TOBT or may not be updated as TOBT updated. AO or pilot are required to notify ATC in the following cases:
(a) If TSAT cannot be complied with due to TSAT earlier than TOBT.
(b) If TSAT is not updated even though updating TOBT later than TSAT.

INCHEON INTERNATIONAL AIRPORT A-CDM TRIAL OPERATION FOR PHASE 2 (CONTD)

(5) ATC clearance, start-up and push-back procedures

a. Pilot shall request ATC clearance from Incheon Delivery via RTF or DCL within TOBT -10 minutes to +5 minutes. If pilot do not request ATC clearance by TOBT +5 minutes, ATC will cancel TOBT and TSAT will be canceled. AO or GHA shall re-enter TOBT to receive TSAT.

b. Pilot shall request push-back from Incheon Apron within TSAT +/-5 minutes. If pilot do not request push-back by TSAT +5 minutes, ATC will cancel TOBT and TSAT will be cancelled. AO or GHA shall re-enter TOBT to receive TSAT.

c. Taxi clearance must be requested at roll-out positions by TSAT +10 minutes.

(6) De-icing and A-CDM

a. Incheon INTL Airport starts to implement trial operation for the de-icing milestones in A-CDM program with D-MAN indicating start/end times and duration of de-icing from winter 2023/2024.

b. If de-icing is required, AO or GHA has to request de-icing 40 minutes prior to TOBT through A-CDM portal system or mobile APP. As soon as the request for de-icing is received, Incheon De-icing will allocate remote de-icing zone. The pilot shall ensure aircraft is ready for push-back at TOBT. If pilot does not request push-back for de-icing within 5 minutes of TOBT, the order of pre-assigned de-icing can be changed.

c. Whenever a flight has been flagged for de-icing, TSAT will be generated based on Estimated de-icing Pad In Time(EPIT) taking into account the taxi time to the pad +a standard queueing time. During trial operation for the de-icing milestones (2023/2024), airport operator will validate TSAT for de-icing milestones accuracy so TSAT will be not shared to stake holders through channels (3.(3).g).

d. Estimated End of De-icing Time(EEZT) is a calculated element, derived from Estimated Commence of De-icing Time(ECZT) + Estimated De-Icing Time(EDIT). An update of EEZT is needed by GHA after the Actual de-icing Pad In Time(APIT) occurs with Integrated Information System(IIS) or mobile APP.

e. (Engine off) Once de-icing is completed, contact Incheon delivery to get ATC clearance. Report "Engine off de-icing and de-icing completed".
(Engine on) Once de-icing is started, contact Incheon delivery to get ATC clearance. Report "Engine on de-icing and de-icing started".

f. Cancellation of de-icing request is only possible through communication with the pilot and Incheon De-icing. When de-icing is requested again after cancellation, the process as described above has to be initiated again.

g. For details on de-icing and de-icing procedures, refer to DEICING charts (20-9M1 thru 20-9M4).

(7) Non A-CDM procedures

a. The non A-CDM procedures are applicable when A-CDM cannot be operated normally due to system issue or maitenance as follows:
(a) If AO or GHA is unable to submit TOBT in any channels;
(b) If Departure Manager (D-MAN) and Integrated Information System (IIS) cannot exchange TOBT and TSAT due to IIS system issues;
(c) If Departure Manager (D-MAN) has system issues;
(d) When switching from D-MAN main system to a back-up system.

b. Except paragraph 3.(6).a above, even if non A-CDM procedures are being applied, when it is available to input TOBT, AO or GHA are required enter TOBT continuously for prompt transition to normal operation.

c. When non A-CDM mode, the following procedures are applied for requesting ATC clearance and push-back.
(a) ATC clearance can be requested via voice RTF or Data-link Departure Clearance Service (DCL) from EOBT -10 minutes.
(b) The sequence of departure of take-off is determined by ATC.
(c) If a flight is unable to commence push-back within 10 minutes after receiving ATC clearance due to the aircraft being unready, ATC clearance and TSAT will be cancelled.

4. REMARKS

(1) During trial operation for phase 2, TSAT will be provided to all departure flights only when Departure Manager (D-MAN) system operates normally.

(2) Only TOBT which is confirmed or updated by AO or GHA will be applied to pre-departure sequencing for calculating TSAT.

(3) Any change to the contents of these pages will be notified by NOTAM or AIP.

INCHEON INTL AIRPORT VDGS TRIAL OPERATION FOR CARGO TERMINAL (SUP 02/24)

1. INTRODUCTION

VDGS trial operation for cargo terminal.

2. PERIOD

From 1600 UTC 10 JAN 2024 To 0900 UTC 30 JUN 2024.

3. TRIAL OPERATION AREAS

3.1. Cargo terminal 1: ACFT stands NR. 601 thru 616, 621 thru 636

3.2. Cargo terminal 2: ACFT stands NR. 641 thru 655

4. REMARKS

4.1. The information provided from VDGS is docking information (remaining distance, left and right deviation, etc.), A-CDM (TOBT, TSAT, CTOT) and weather information (low visibility, lightning information).

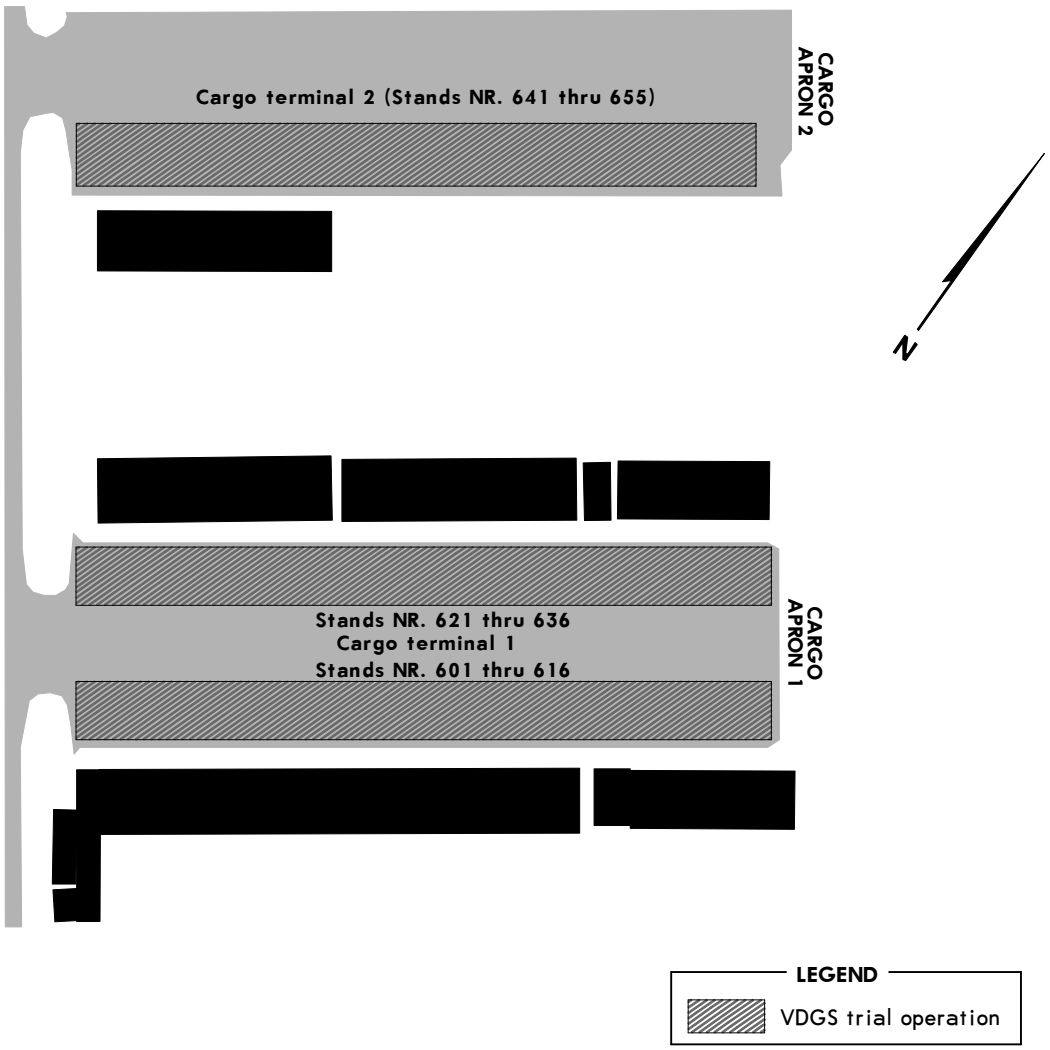
4.2. During the trial operation period, the aircraft shall be guided by the marshaller as usual, and the VDGS display information shall be used as an auxiliary facility.

4.3. Any change to the contents of these charts will be notified by NOTAM.

CHANGES: New temporary chart.

INCHEON INTL AIRPORT VDGS TRIAL OPERATION FOR CARGO TERMINAL (CONTD)

5. DIAGRAM



CHANGES: New temporary chart.

INCHEON INTL AIRPORT OPERATIONAL RESTRICTION OF CARGO APRON 1 (SUP 15/24)

1. INTRODUCTION

Some part of taxilane D2 and ACFT stands 607 thru 612 will be closed due to pavement construction as follows.

2. PERIOD

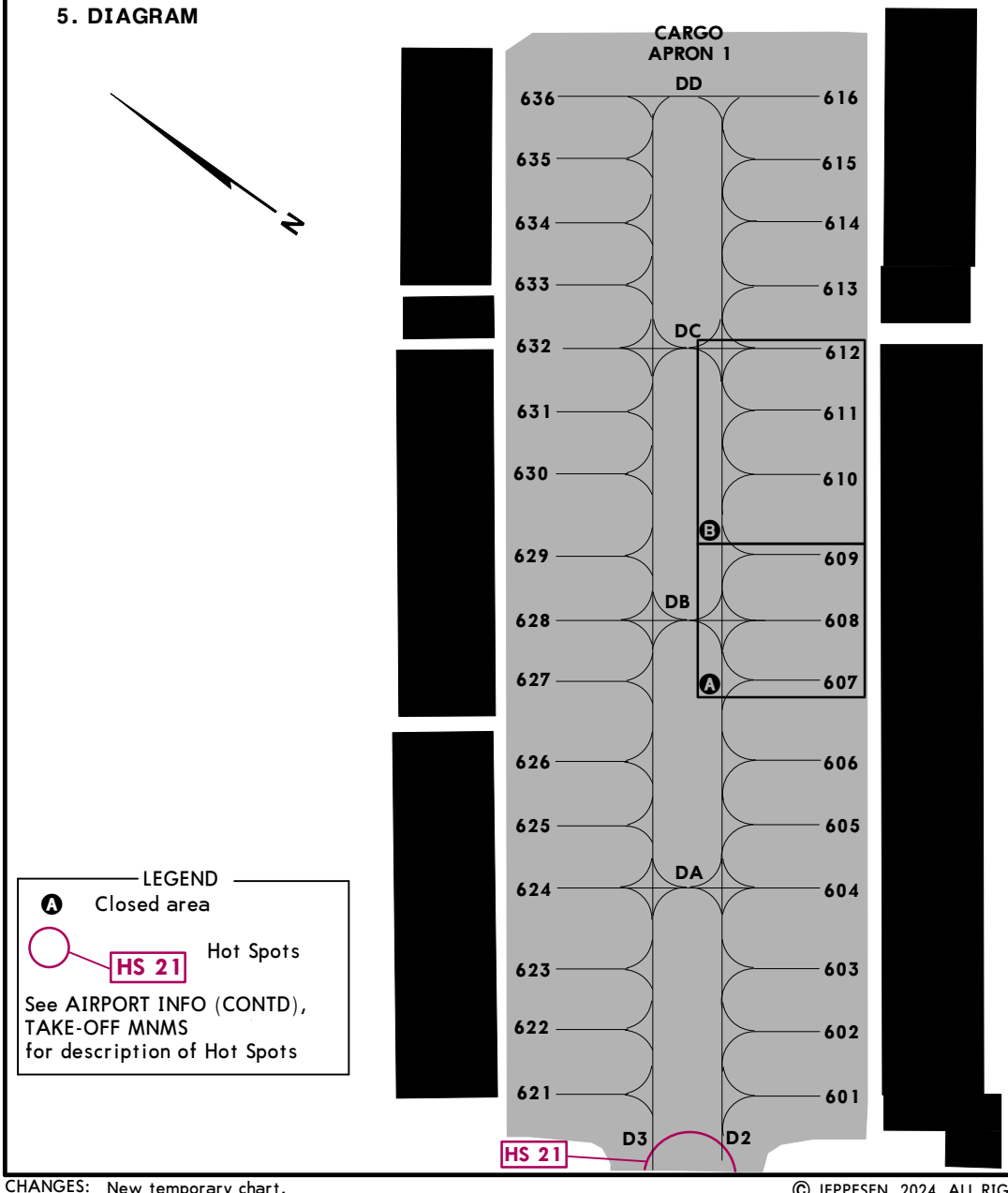
From 0900 UTC 04 APR 2024 To 0900 UTC 20 AUG 2024.

Position			Period	Remarks (ACFT Stand Availability)
Nr	Taxilane	ACFT Stands		
A	Some part of D2	607, 608, 609	From 0900 UTC 4 APR 2024 To 0900 UTC 31 JUL 2024	606 will be up to code letter "E" ACFT
B		610, 611, 612	From 2300 UTC 30 APR 2024 To 0900 UTC 20 AUG 2024	609 and 613 will be up to code letter "D" ACFT

4. REMARKS

(1) Works by equipment and vehicles will be conducted in the areas as shown in diagram.
(2) Safety fence will be installed to indicate the working areas.
(3) Equipments and vehicles do not penetrate obstacle limitation surfaces.
(4) During working period, pilots should exercise caution and follow ATC's instruction when taxiing and push-back near the working areas.
(5) Any changes to the contents of this chart will be notified by NOTAM.

5. DIAGRAM



CHANGES: New temporary chart.

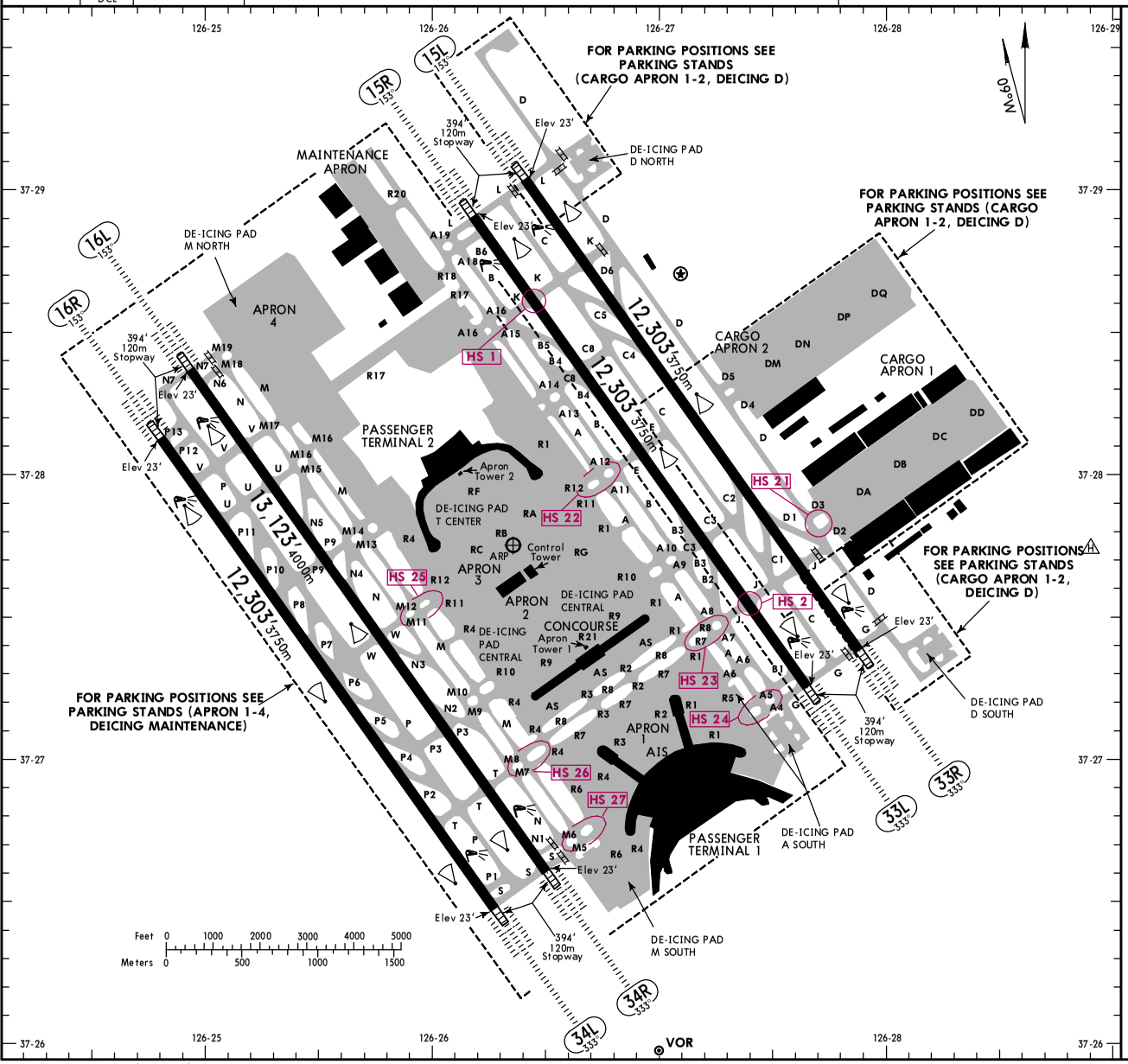
RKSI/ICN

Apt Elev 23′
N37 27.8 E126 26.4

JEPPESEN
26 APR 24 (20-9)

SEOUL/INCHEON, KOREA
INCHEON INTL

D-ATIS	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground	Tower	SEOUL Departure (R)
Departure 128.65		121.6	121.65 121.8 122.175 122.225 122.325 123.325 123.575 123.675	WEST (W): Rwy 16L/R, 34L/R EAST (E): Rwy 15L/R, 33L/R 121.7 121.75	WEST (W): Rwy 16L/R, 34L/R EAST (E): Rwy 15L/R, 33L/R 118.8 118.2	121.4 124.8 125.15



HOT SPOTS

HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS

OPERATIONAL NOTES

PREFERENTIAL RUNWAY SYSTEM

Rwys 33L/R or 34L/R are recommended to be used with a tailwind of up to 8 KT. If unable to comply with this procedure, notify ATC of the reason 20 minutes prior to ETD or ETA. Delay may be possible to ETD or ETA.

TAXIING LIMITATION

All aircraft will taxi at speeds of more than 10 KT on Twys A, B, C, D, M, N or P to ensure smooth traffic flow unless there is exceptional direction concerning safety factors by ATC. And if it is impractical, pilots shall notify ATC.

When non-standard taxi routes are applicable, Incheon Apron will issue transition taxi instructions on to another taxi lane in Apron 2, Apron 3, Apron 4 and Cargo aprons.

INCHEON APRON issues pushback or taxi instructions, approval, and/or necessary information to aircraft, vehicles and personnel within apron areas (Apron 1, 2, 3, 4, Cargo Apron 1, 2 and Maintenance Apron) and deicing pads.

RESTRICTION ON TAXILANE R17 OVER BRIDGE

1. All aircraft shall taxi at speed of less than 15 KT on Taxilane bridge R17 (Taxilane R-17 over bridge) to ensure safe movement.
2. ICAO Code C and D aircraft could be restricted for taxiing on the bridge R17 during 60 - 70 KT of wind speed.
3. All aircraft could be restricted for taxiing on the bridge R17 during not less than 70 KT of wind speed.

FOR DEPARTURE/ARRIVAL ROUTES FOR RWYS 15L/R AND 33L/R, SEE 20-9B AND 20-9D.

FOR DEPARTURE/ARRIVAL ROUTES FOR RWY 16L/R AND 34L/R, SEE 20-9C AND 20-9E.

FOR PARKING STANDS AND COORDINATES, SEE 20-9A1 thru 20-9A4.

CHANGES: Runway 15L indent moved.

GENERAL

Pilots shall exercise extreme caution to avoid penetrating prohibited areas (P-518, P-73A/B, etc), and Special Use Airspace (ACMI, R-17, etc), especially when flying north of NCN VOR R-270 and R-080 around Incheon Intl Airport.

Rapid exit taxiways are grooved.

Birds in vicinity of airport.

Passenger Terminal and Concourse VDGS (Visual Docking Guidance System) equipped.

Inbound cargo aircraft to Incheon Intl Airport are required to advise Seoul Approach that they are cargo operators. **See Airport Briefing pages.**

CAT I OPERATIONS:

Pilots are warned that during ILS CAT I operations to Rwys 15L and 33R, aircraft may experience glidepath signal fluctuations or interference caused by aircraft taxiing in the vicinity of the glidepath aerial. Pilots should therefore closely monitor their ILS approach profile and rate of decent.

CAT I taxi routes are the same as CAT II/III taxi routes, refer to low visibility procedure charts (20-9F to 20-9J).

IFR ATC CLEARANCE: The following procedures are established for all turbojet departures from Incheon Intl Airport:

1. IFR ATC clearance may be obtained by Voice RTF or datalink Departure Clearance Service (DCL) (via ARINC (623)).
2. Pilot shall contact INCHEON DELIVERY via voice RTF or Data-link Departure Clearance Service(DCL) from TOBT -10 minutes (in case of NON A-CDM, EOBT -10 minutes) to +5 minutes and report the following information. If initial call takes to place too early, Clearance Delivery will ask the pilot to call again at TOBT -10 minutes.
   In case of DCL, reject message will be received. **See Airport Briefing pages.**
   a. Aircraft Identification
   b. Destination
   c. Gate or stand number
   d. ATIS code.
3. In cases where ATC clearance is received via DCL, pilots should follow restrictions in the remarks of ATC clearance and acknowledge them within 5 minutes.
4. If unable to commence push-back by TSAT + 5 minutes(flight with TSAT) or within 10 minutes after receiving ATC clearance (flight without TSAT) due to the aircraft being unready, ATC clearance will be cancelled. Pilot shall contact again INCHEON DELIVERY for clearances (See 20-9L to 20-9L9).

VISUAL APPROACH AND INDEPENDENT VISUAL APPROACH (IVA): A Visual approach may be initiated by ATC or approved upon pilot request on a traffic permitting basis when the weather as follows:

a. Ceiling: at or above 2500'
b. Visibility: not less than 5 km.

Independent Visual Approach(IVA) will be used at Incheon International Airport(IIA). This procedure requires accurate and consistent application of the pilot procedures and responsibilities.

a. Application
   1. IVA will be used during parallel runway operations when the visibility is not less than 5 km and the ceiling is at or above 2 500'.
   2. IVA will be initiated by ATC when the pilot reports visual runway and/or preceding aircraft while turning to the final or flying on the localizer course.
   3. Pilots will be notified by ATIS or RTF using the phrase. ''EXPECT ILS APPROACH THEN INDEPENDENT VISUAL APPROACH WHEN VISUAL.''

b. ATC Procedures
   1. ATC will give IVA expectation and assigned RWY to the flight crew at initial contact. If no objection, ATC will consider that has been accepted.
   2. ATC will provide standard surveillance separation until cleared for an independent visual approach or visual separation applied.
   3. ATC will allow the aircraft to intercept the extended centerline of the landing runway at an angle of not greater than 30 degrees.
   4. ATC will use ''CLEARED INDEPENDENT VISUAL APPROACH'' phraseology when issued approach clearance.
   5. If preceding aircraft type is SUPER(e.g. A380), IVA clearance will not be issued to succeeding aircraft.
   6. After IVA clearance is issued or visual separation is applied, ATC will not apply any other type of separation with aircraft on the adjacent final approach course.
   7. If necessary, ATC will inform traffic information of other relevant aircraft on adjacent final approach course.

c. Pilot procedures
   1. Fly accurate assigned heading to final and do not pass through assigned runway extended centerline, unless otherwise instructed by ATC
   2. Other aircraft will be operating on the adjacent approach.
   3. Accurately track the extended runway centerline.
   4. After received final radar heading at an angle of not greater than 30 degrees, pilots shall intercept the localizer of landing RWY unless previously instructed to cross extended centerline when radio contact is temporarily impossible(e.g. radio failure, congestion or blocked).
   5. Report preceding aircraft and/or RWY in sight as soon as possible.
   6. If a pilot does not report visual preceding aircraft, RWY or adjacent aircraft, the controller may vector the aircraft away from the final approach for sequencing for a dependent parallel approach.
   7. Comply with speed restriction(160 kt to 5 NM from THR). If unable to comply with speed restriction, inform ATC immediately.
   8. Do not intentionally deviate from final approach course. Pilots are strongly recommended to track on normal instrument approach course until landing.
   9. In the event of deviation from final approach course, maintain own separation from aircraft on adjacent final approach course.
   10. When avoiding action is initiated, advise ATC immediately.
   11. Pilots should commence an ILS missed approach procedure of the assigned RWY in case of a go-around.

ADDITIONAL RUNWAY INFORMATION

RWY						USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
15R 33L	HIRL (60m) CL(15m) PAPI-L(Angle 3.0°)	❶ ALSF-II	TDZ	grooved	RVR		11,313' 3448m 11,311' 3448m		197' 60m
15L 33R	HIRL (60m) CL(15m) PAPI-L(Angle 3.0°)	❶ ALSF-II	TDZ	grooved	RVR		11,313' 3448m 11,313' 3448m		197' 60m
16L 34R	HIRL (60m) CL(15m) PAPI-L(Angle 3.0°)	❶ ALSF-II	TDZ	grooved	RVR		12,079' 3682m 12,069' 3679m		197' 60m
16R 34L	HIRL (60m) CL(15m) PAPI-L(Angle 3.0°)	❶ ALSF-II	TDZ	grooved	RVR		11,251' 3429m 11,256' 3431m		197' 60m

❶ length 900m

HOT SPOTS

HS

(For information only, not to be construed as ATC instructions.)

HS 1 — Aircraft taxiing on Twy K from Rwy 33R after landing use caution when ATC utilizes Rwy 33L for takeoffs. Do not cross the holding marking for Rwy 33L without ATC authorization.

HS 2 — Aircraft taxiing on Twy J from Rwy 15L after landing use caution when ATC utilizes Rwy 15R for takeoffs. Do not cross the holding marking for Rwy 15R without ATC authorization.

HS 21, HS 23, HS 25, HS 26 — Use caution of confusion on taxiways. Do not proceed taxiing beyond transfer of control points without clearance from Incheon Apron or Ground (Tower).

HS 24, HS 27 — Use caution of confusion on taxiways. Do not proceed taxiing beyond transfer of control points without clearance from Incheon Apron or Ground (Tower). And do not move when safety distance is not assured.

State	TAKE-OFF						
	3 RVR Required						
	❶ TGS, HIRL, & CL	HIRL & CL	RL & CL	RL & CL	❷ RL & RCLM	❷ RL or RCLM	NIL (Day Only)
Multi Engine Aircraft	R/V75m R/V300'	R/V125m R/V400'	R/V150m R/V500'	R/V200m R/V600'	R/V300m R/V1000'	R/V400m R/V1200'	R/V500m R/V1600'

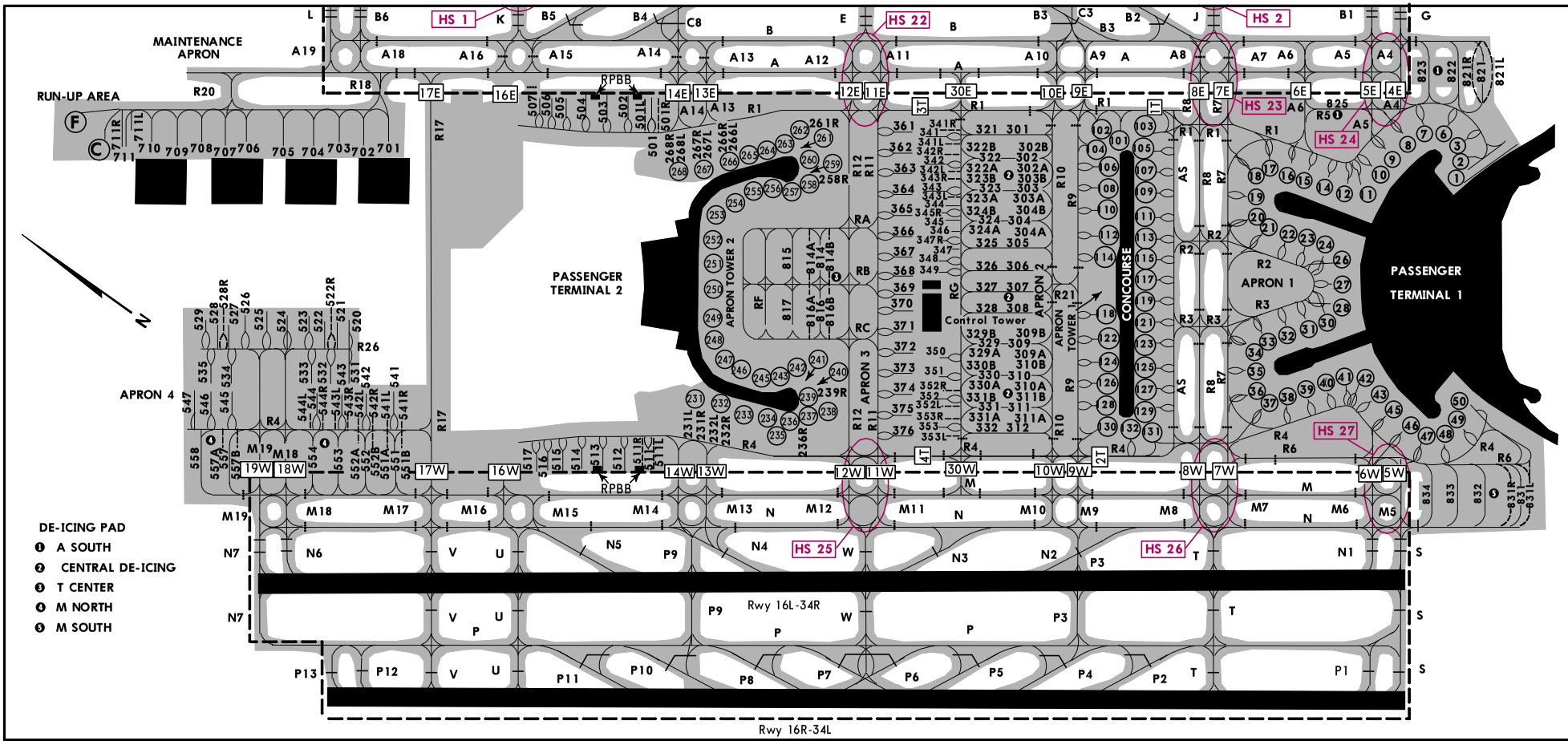
The TDZ RVR/VIS may be assessed by the pilot.

SIDs are designed in accordance with STANDARDS for FLIGHT PROCEDURE DESIGN.

❶ TGS (Take-off Guidance System).

❷ For Night Operations at least RL or CL and Rwy End Lights are available.

CHANGES: None.



HOT SPOTS

HS

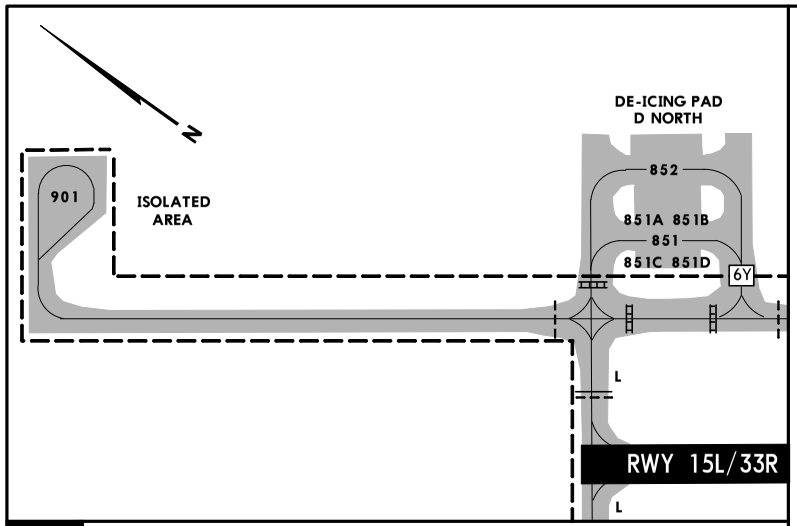
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

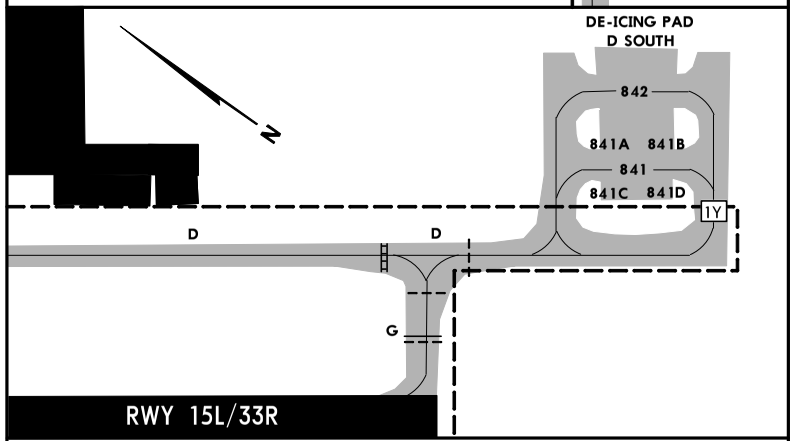
LEGEND

R1	Taxi lane
(50)	Gate
4E	Transfer of control point (TCP)
202	Remote stand
	ATC service boundary (Maneuvering Area)
	RPBB (Remote Passenger Boarding Bridge)
	Runway-holding position
	Intermediate holding position

For Gates 11 and 42, pilots need to pay extra caution to follow the lead- in lines, which may require more than two turns.
Aircraft shall not taxi into maneuvering are withouts clearance from Incheon Tower or Ground.

CHANGES: None.





LEGEND

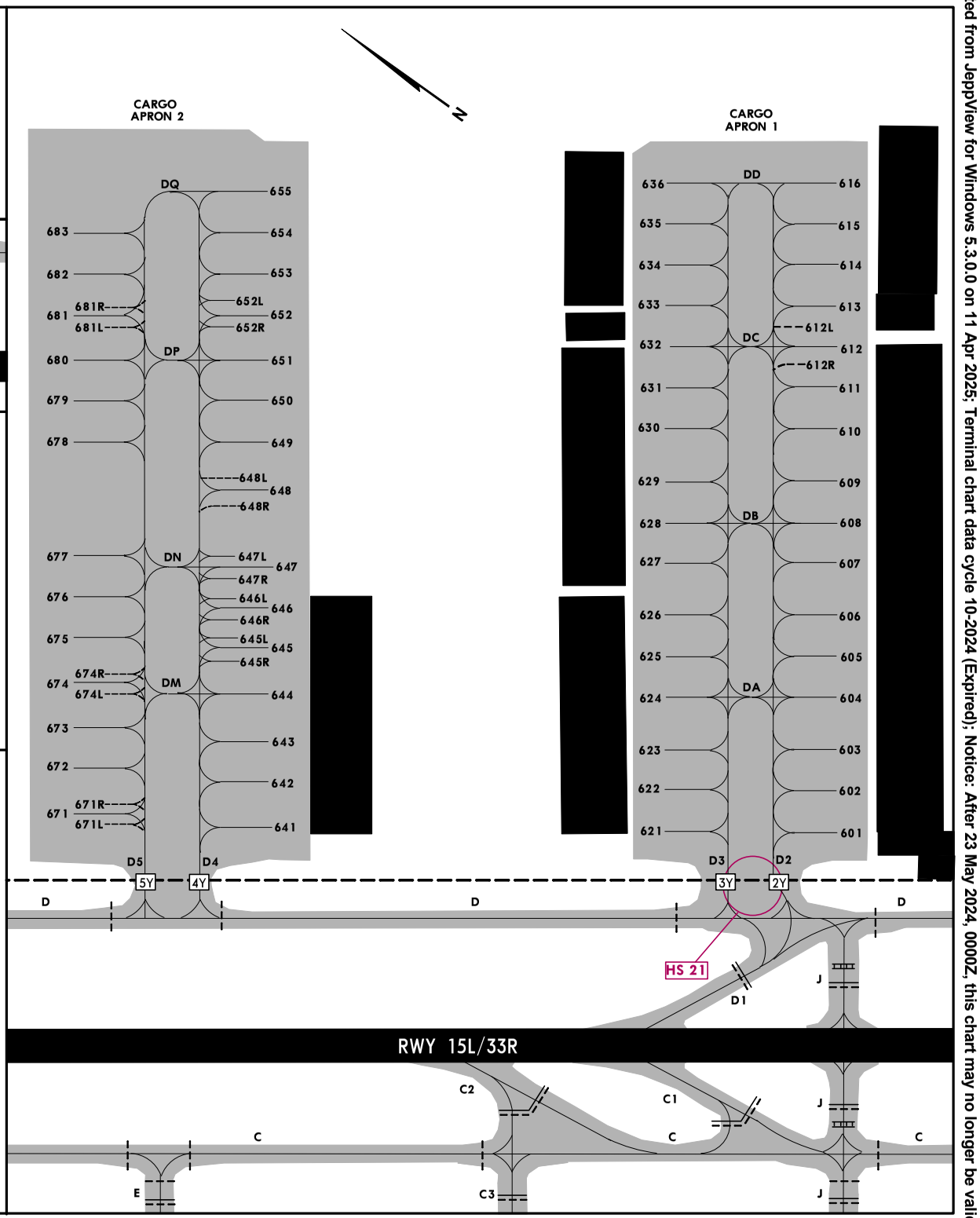
4E Transfer of control point (TCP)

ATC service boundary (Maneuvering Area)

HS Hot Spots

See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

Aircraft shall not taxi into maneuvering are withouts clearance from Incheon Tower or Ground.



CHANGES: Cargo Apron 2 extended, parking stands 671 - 683 added.

PARKING STAND COORDINATES

STAND No.	COORDINATES	ELEV
Apron 1		
1, 2, 3, 6, 7	N37 27.0 E126 27.4	16′
8 thru 10	N37 27.1 E126 27.3	16′
11	N37 27.1 E126 27.2	16′
12	N37 27.1 E126 27.1	16′
14 thru 17	N37 27.2 E126 27.1	16′
18	N37 27.3 E126 27.1	16′
19 thru 22	N37 27.2 E126 27.0	16′
23, 24	N37 27.1 E126 27.1	16′
26 thru 28	N37 27.0 E126 27.0	16′
30	N37 27.0 E126 26.9	16′
31, 32	N37 27.0 E126 26.8	16′
33	N37 27.1 E126 26.8	16′
34, 35	N37 27.1 E126 26.7	16′
36 thru 38	N37 27.0 E126 26.7	16′
39, 40	N37 27.0 E126 26.8	16′
41	N37 26.9 E126 26.8	16′
42	N37 26.9 E126 26.9	16′
43	N37 26.8 E126 26.9	16′
45, 46	N37 26.8 E126 26.8	16′
47	N37 26.7 E126 26.8	16′
48 thru 50	N37 26.7 E126 26.9	16′
103, 105	N37 27.5 E126 27.0	16′
107	N37 27.5 E126 26.9	16′
109	N37 27.4 E126 26.9	16′
111, 113, 115	N37 27.4 E126 26.8	16′
117, 119	N37 27.3 E126 26.7	16′
121, 123	N37 27.3 E126 26.6	16′
125	N37 27.2 E126 26.6	16′
127, 129, 131	N37 27.2 E126 26.5	16′
132	N37 27.2 E126 26.4	16′
Apron 2		
101	N37 27.5 E126 27.0	16′
102, 104	N37 27.5 E126 26.9	20′
106	N37 27.5 E126 26.9	16′
108	N37 27.5 E126 26.9	20′
110	N37 27.5 E126 26.8	20′
112	N37 27.4 E126 26.8	20′
114	N37 27.4 E126 26.7	20′
118, 122	N37 27.3 E126 26.6	20′
124, 126	N37 27.3 E126 26.5	16′
128	N37 27.3 E126 26.4	16′
130	N37 27.2 E126 26.4	16′
321, 322	N37 27.7 E126 26.8	16′
323, 323B	N37 27.7 E126 26.7	16′
323A, 324, 324B	N37 27.6 E126 26.7	16′
324A, 325	N37 27.6 E126 26.6	16′
326	N37 27.6 E126 26.5	16′
327, 328	N37 27.5 E126 26.5	16′
329	N37 27.5 E126 26.4	16′
330A, 330	N37 27.4 E126 26.3	16′
330B	N37 27.5 E126 26.4	16′
331	N37 27.4 E126 26.3	16′
332	N37 27.4 E126 26.2	16′
341R	N37 27.8 E126 26.7	20′
341	N37 27.8 E126 26.7	16′
341L	N37 27.8 E126 26.7	20′
342R	N37 27.8 E126 26.7	20′
342	N37 27.8 E126 26.7	16′
342L	N37 27.8 E126 26.7	20′
343R	N37 27.8 E126 26.6	20′
343	N37 27.8 E126 26.6	16′
343L	N37 27.7 E126 26.6	20′
344, 345	N37 27.7 E126 26.6	16′
345R	N37 27.7 E126 26.6	20′
346	N37 27.7 E126 26.5	16′
347R	N37 27.7 E126 26.5	20′
347 thru 349	N37 27.7 E126 26.5	16′
350	N37 27.6 E126 26.3	16′
351	N37 27.6 E126 26.2	16′
352	N37 27.5 E126 26.2	16′
353	N37 27.5 E126 26.1	16′
Apron 3		
231	N37 27.9 E126 25.9	20′
232, 233	N37 27.8 E126 25.9	20′
234	N37 27.8 E126 26.0	20′
235	N37 27.7 E126 26.0	20′
236	N37 27.7 E126 26.0	16′
236R	N37 27.7 E126 26.0	20′
237, 238	N37 27.7 E126 26.0	16′
239	N37 27.7 E126 26.1	16′
239R	N37 27.7 E126 26.1	20′
240	N37 27.7 E126 26.1	16′
241, 242	N37 27.8 E126 26.1	20′
243, 245	N37 27.8 E126 26.0	20′
246, 247	N37 27.9 E126 26.0	20′
248	N37 28.0 E126 26.0	20′
249, 250	N37 28.0 E126 26.1	20′
251	N37 28.0 E126 26.2	20′
252	N37 28.1 E126 26.2	20′
253, 254	N37 28.1 E126 26.3	20′
255 thru 257	N37 28.0 E126 26.4	20′
258	N37 27.9 E126 26.5	16′
258R	N37 28.0 E126 26.5	20′
259 thru 261	N37 28.0 E126 26.5	16′
261R thru 264	N37 28.0 E126 26.5	20′
265 thru 267L	N37 28.1 E126 26.4	20′
267, 267R	N37 28.1 E126 26.3	20′
268	N37 28.2 E126 26.3	20′
361	N37 27.9 E126 26.7	16′
362	N37 27.8 E126 26.7	16′
363, 364	N37 27.8 E126 26.6	16′
365	N37 27.8 E126 26.5	16′
366, 367	N37 27.7 E126 26.5	16′
368 thru 370	N37 27.7 E126 26.4	16′
371, 372	N37 27.6 E126 26.3	16′
373, 374	N37 27.6 E126 26.2	16′
375	N37 27.5 E126 26.2	16′
376	N37 27.5 E126 26.1	16′

Run-up Area

1. Engine Run-up Area: North of Maintenance Apron.
2. In case of run-up area unusable, temporary run-up area 14A (North part of twy A) can be allocated.
3. 122.175 Mhz shall be monitored during engine performance check in temporary run-up areas.

CHANGES: None.

PARKING STAND COORDINATES

STAND No.	COORDINATES	ELEV
Apron 3		
501L	N37 28.3 E126 26.4	20′
501	N37 28.3 E126 26.4	16′
501R	N37 28.3 E126 26.4	20′
502	N37 28.3 E126 26.4	16′
503 thru 506	N37 28.4 E126 26.3	16′
507	N37 28.5 E126 26.2	16′
511L	N37 27.9 E126 25.7	20′
511	N37 27.9 E126 25.7	16′
511R	N37 27.9 E126 25.7	20′
512	N37 27.9 E126 25.7	16′
513 thru 515	N37 28.0 E126 25.6	16′
516	N37 28.0 E126 25.5	16′
517	N37 28.1 E126 25.5	16′
Apron 4		
520	N37 28.5 E126 25.6	16′
521, 522	N37 28.5 E126 25.5	16′
523, 524, 525	N37 28.6 E126 25.5	16′
526 thru 529	N37 28.7 E126 25.4	16′
531, 541, 542, 542R	N37 28.4 E126 25.5	16′
532, 533, 544	N37 28.5 E126 25.4	16′
534, 545	N37 28.6 E126 25.3	16′
535	N37 28.7 E126 25.3	16′
542L, 543	N37 28.4 E126 25.4	16′
546	N37 28.6 E126 25.2	16′
547	N37 28.7 E126 25.2	16′
558	N37 28.6 E126 25.1	16′
Cargo Apron 1		
601	N37 27.8 E126 27.8	20′
602, 603	N37 27.8 E126 27.9	20′
604 thru 606	N37 27.9 E126 28.0	20′
607	N37 27.9 E126 28.1	20′
608	N37 28.0 E126 28.1	20′
609, 610	N37 28.0 E126 28.2	20′
611	N37 28.0 E126 28.3	20′
612L thru 613	N37 28.1 E126 28.3	20′
614, 615	N37 28.1 E126 28.4	20′
616	N37 28.2 E126 28.5	20′
621	N37 27.9 E126 27.7	20′
622	N37 28.0 E126 27.7	20′
623, 624	N37 28.0 E126 27.8	20′
625	N37 28.0 E126 27.9	20′
626	N37 28.1 E126 27.9	20′
627 thru 629	N37 28.1 E126 28.0	20′
630, 631	N37 28.2 E126 28.1	20′
632, 633	N37 28.2 E126 28.2	20′
634	N37 28.2 E126 28.3	20′
635, 636	N37 28.3 E126 28.3	20′

STAND No.	COORDINATES	ELEV
Cargo Apron 2		
641	N37 28.2 E126 27.4	20′
642, 643	N37 28.3 E126 27.5	20′
644	N37 28.3 E126 27.6	20′
645L	N37 28.4 E126 27.6	23′
645	N37 28.3 E126 27.6	20′
645R	N37 28.3 E126 27.6	23′
646L	N37 28.4 E126 27.6	23′
646	N37 28.4 E126 27.6	20′
646R	N37 28.4 E126 27.6	23′
647L, 647	N37 28.4 E126 27.7	20′
647R	N37 28.4 E126 27.7	23′
648L, 648	N37 28.4 E126 27.8	20′
648R	N37 28.4 E126 27.7	20′
649, 650	N37 28.5 E126 27.8	20′
651	N37 28.5 E126 27.9	20′
652L	N37 28.6 E126 27.9	20′
652, 652R	N37 28.5 E126 27.9	20′
653, 654	N37 28.6 E126 28.0	20′
655	N37 28.6 E126 28.1	20′
671	N37 28.4 E126 27.3	20′
672	N37 28.4 E126 27.4	20′
673, 674, 674L	N37 28.5 E126 27.4	20′
674R, 675, 676	N37 28.5 E126 27.5	20′
677	N37 28.5 E126 27.6	20′
678, 679	N37 28.6 E126 27.7	20′
680, 681	N37 28.7 E126 27.8	20′
682, 683	N37 28.7 E126 27.9	20′
Maintenance Apron		
701	N37 28.6 E126 25.9	16′
702, 703	N37 28.7 E126 25.9	16′
704, 705	N37 28.8 E126 25.8	16′
706	N37 28.9 E126 25.8	16′
707, 708	N37 28.9 E126 25.7	16′
709	N37 29.0 E126 25.7	16′
710 thru 711R	N37 29.0 E126 25.6	16′
DE-ICING APRONS		
Central De-icing Zone		
301	N37 27.7 E126 26.9	16′
302A, 302B	N37 27.7 E126 26.8	16′
302, 303	N37 27.6 E126 26.8	16′
303A thru 304B	N37 27.6 E126 26.7	16′
305, 306	N37 27.5 E126 26.6	16′
307, 308	N37 27.5 E126 26.5	16′
309	N37 27.5 E126 26.4	16′
310A	N37 27.4 E126 26.3	16′
310, 310B	N37 27.4 E126 26.4	16′
311, 312	N37 27.4 E126 26.3	16′

Run-up Area

1. Engine Run-up Area: North of Maintenance Apron.
2. In case of run-up area unusable, temporary run-up area 14A (North part of twy A) can be allocated.
3. 122.175 Mhz shall be monitored during engine performance check in temporary run-up areas.

CHANGES: Stands 671-683 at Cargo Apron 2 added, stand 301 coords updated.

PARKING STAND COORDINATES

STAND No.	COORDINATES	ELEV	STAND No.	COORDINATES	ELEV
M North Zone					
551, 551A	N37 28.3 E126 25.3	16′			
551B	N37 28.3 E126 25.4	16′			
552 thru 552B	N37 28.3 E126 25.3	16′			
553	N37 28.4 E126 25.3	16′			
554	N37 28.4 E126 25.2	16′			
557 thru 557B	N37 28.5 E126 25.1	16′			
T Center Zone					
814, 814A	N37 27.9 E126 26.3	20′			
814B	N37 27.9 E126 26.4	20′			
815	N37 27.9 E126 26.3	20′			
816 thru 816B	N37 27.8 E126 26.2	20′			
817	N37 27.8 E126 26.2	16′			
A South Zone					
821L	N37 27.1 E126 27.6	16′			
821, 821R	N37 27.0 E126 27.6	16′			
822	N37 27.1 E126 27.6	16′			
823	N37 27.1 E126 27.5	16′			
825	N37 27.2 E126 27.3	16′			
M South Zone					
831L thru 831R	N37 26.5 E126 26.8	16′			
832	N37 26.6 E126 26.8	16′			
833, 834	N37 26.6 E126 26.7	16′			
D South Zone					
841 thru 841B	N37 27.4 E126 28.2	20′			
841C	N37 27.4 E126 28.1	20′			
841D, 842	N37 27.4 E126 28.2	20′			
D North Zone					
851	N37 29.1 E126 26.6	16′			
851A, 851B	N37 29.1 E126 26.7	16′			
851C, 851D	N37 29.1 E126 26.6	16′			
852	N37 29.1 E126 26.7	16′			
Isolated Security Parking Position					
901	N37 29.5 E126 26.3	16′			

Run-up Area

1. Engine Run-up Area: North of Maintenance Apron.
2. In case of run-up area unusable, temporary run-up area 14A (North part of twy A) can be allocated.
3. 122.175 Mhz shall be monitored during engine performance check in temporary run-up areas.

CHANGES: None.

SEOUL/INCHEON, KOREA
Rwys 15L/R, 33L/R ARRIVAL ROUTES

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground	Tower	SEOUL Departure (R)
128.65		121.6	121.65 121.8 122.175 123.325 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7 EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8 EAST (E): Rwy 15L/R, 33L/R 118.2	121.4 124.8 125.15

See 20-9C for Rwys 16L/R and 34L/R arrival routes.

MAINTENANCE APPRON
APRON 4
APRON 3
APRON 2
APRON 1
PASSENGER TERMINAL 2
PASSENGER TERMINAL 1
CARGO APRON 2
CARGO APRON 1
CONCOURSE
Control Tower
MET
AIS
DE-ICING PAD D NORTH
DE-ICING PAD M NORTH
DE-ICING PAD T CENTER
DE-ICING PAD CENTRAL
DE-ICING PAD D SOUTH
DE-ICING PAD A SOUTH
DE-ICING PAD M SOUTH
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
33L 333°
33R 333°
34L 333°
34R 333°
N 0.6°W

LEGEND
- Taxi routes
- Alternate taxi routes
- 4E Transfer of control point
- 52R Holding Position
- R1 Taxi lane
- Stop-bar light
- ATC service boundary

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

All aircraft will taxi at speeds of more than 10 KT on Taxiways A, B, C, D, M, N or P to ensure smooth traffic flow unless there is exceptional direction concerning safety factors by ATC. And if it is impractical, pilots shall notify ATC.

When non-standard taxi routes are applicable, Incheon Apron will issue transition taxi instructions to another taxilane in Apron 2, Apron 3, Apron 4 and Cargo Aprons.

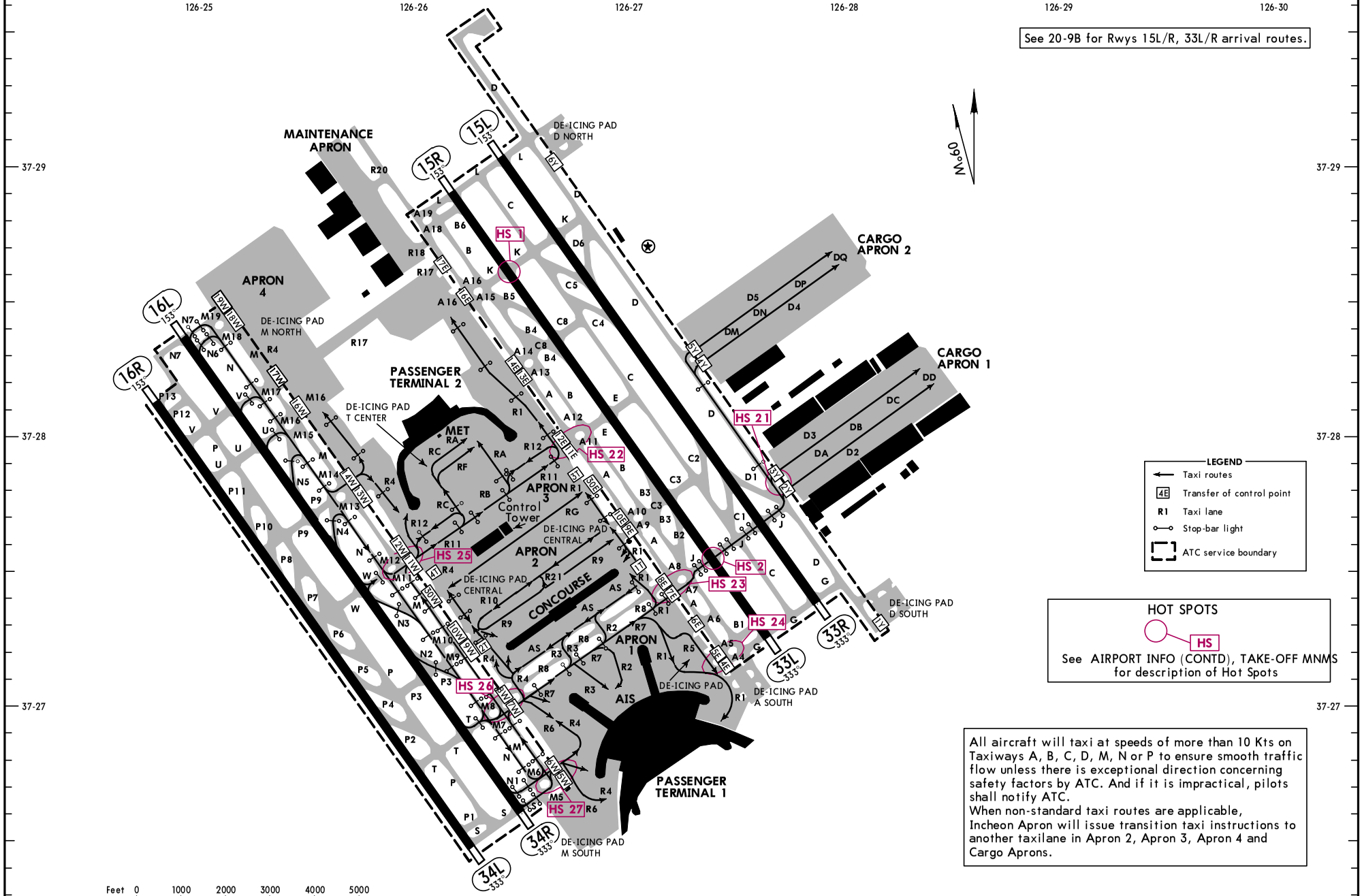
Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

126-25 126-26 126-27 126-28 126-29 126-30
37-29 37-28 37-27 37-26

CHANGES: Cargo Apron 2 extended.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	121.65	121.8		WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	121.4	124.8	125.15
			122.175	123.325	123.675	121.7	121.75	118.8	118.2			

See 20-9B for Rwys 15L/R, 33L/R arrival routes.



All aircraft will taxi at speeds of more than 10 Kts on Taxiways A, B, C, D, M, N or P to ensure smooth traffic flow unless there is exceptional direction concerning safety factors by ATC. And if it is impractical, pilots shall notify ATC.
When non-standard taxi routes are applicable, Incheon Apron will issue transition taxi instructions to another taxilane in Apron 2, Apron 3, Apron 4 and Cargo Aprons.

CHANGES: Cargo Apron 2 extended.

SEOUL/INCHEON, KOREA
Rwys 15L/R, 33L/R DEPARTURE ROUTES

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	121.65	121.8		WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	121.4	124.8	125.15
			122.175	123.325	123.675	121.7	121.75	118.8	118.2			

See 20-9E for Rwys 16L/R and 34L/R departure routes.

MAINTENANCE APRON
APRON 4
DE-ICING PAD M NORTH
PASSENGER TERMINAL 2
DE-ICING PAD T CENTER
MET
APRON 3
DE-ICING PAD CENTRAL
APRON 2
Control Tower
DE-ICING PAD CENTRAL
CONCOURSE
APRON 1 AIS
PASSENGER TERMINAL 1
DE-ICING PAD M SOUTH
DE-ICING PAD A SOUTH
DE-ICING PAD
DE-ICING PAD D SOUTH
DE-ICING PAD D NORTH
CARGO APRON 2
CARGO APRON 1
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
33L 333°
33R 333°
34L 333°
34R 333°
09°W

LEGEND
- Taxi routes
- Alternate taxi routes
- 4E Transfer of control point
- 52R Holding Position
- R1 Taxi lane
- Stop-bar light
- 10 Powered taxi-start point
- ATC service boundary

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

All aircraft will taxi at speeds of more than 10 KT on Taxiways A, B, C, D, M, N or P to ensure smooth traffic flow unless there is exceptional direction concerning safety factors by ATC. And if it is impractical, pilots shall notify ATC.

When non-standard taxi routes are applicable, Incheon Apron will issue transition taxi instructions to another taxilane in Apron 2, Apron 3, Apron 4 and Cargo Aprons.

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Cargo Apron 2 extended.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground		Tower		SEOUL Departure (R)		
128.65		121.6	121.65 122.175	121.8 123.325 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7	EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8	EAST (E): Rwy 15L/R, 33L/R 118.2	121.4	124.8 125.15

126-25 126-26 126-27 126-28 126-29 126-30

37-29 37-28 37-27

See 20-9D for Rwys 15L/R, 33L/R departure routes.

090°

MAINTENANCE APRON
APRON 4
DE-ICING PAD M NORTH
PASSENGER TERMINAL 2
DE-ICING PAD T CENTER
MET
APRON 3
APRON 2
DE-ICING PAD CENTRAL
Control Tower
CONCOURSE
DE-ICING PAD CENTRAL
APRON 1
AIS
DE-ICING PAD
PASSENGER TERMINAL 1
DE-ICING PAD M SOUTH
DE-ICING PAD A SOUTH
DE-ICING PAD D SOUTH
DE-ICING PAD D NORTH
CARGO APRON 2
CARGO APRON 1
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
33L 333°
33R 333°
34L 333°
34R 333°

LEGEND
- Taxi routes
- 4E Transfer of control point
- R1 Taxi lane
- 53R Holding position
- 10 Powered taxi-start point
- Stop-bar light
- ATC service boundary

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

All aircraft will taxi at speeds of more than 10 Kts on Taxiways A, B, C, D, M, N or P to ensure smooth traffic flow unless there is exceptional direction concerning safety factors by ATC. And if it is impractical, pilots shall notify ATC.
When non-standard taxi routes are applicable, Incheon Apron will issue transition taxi instructions to another taxilane in Apron 2, Apron 3, Apron 4 and Cargo Aprons.

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Cargo Apron 2 extended.

15 MAR 24
Eff 20 Mar 1600Z

SMGCS

SEOUL/INCHEON, KOREA

LOW VISIBILITY TAXI ROUTES

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	122.175	121.65 123.325	121.8 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7	EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8	EAST (E): Rwy 15L/R, 33L/R 118.2	121.4	124.8	125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

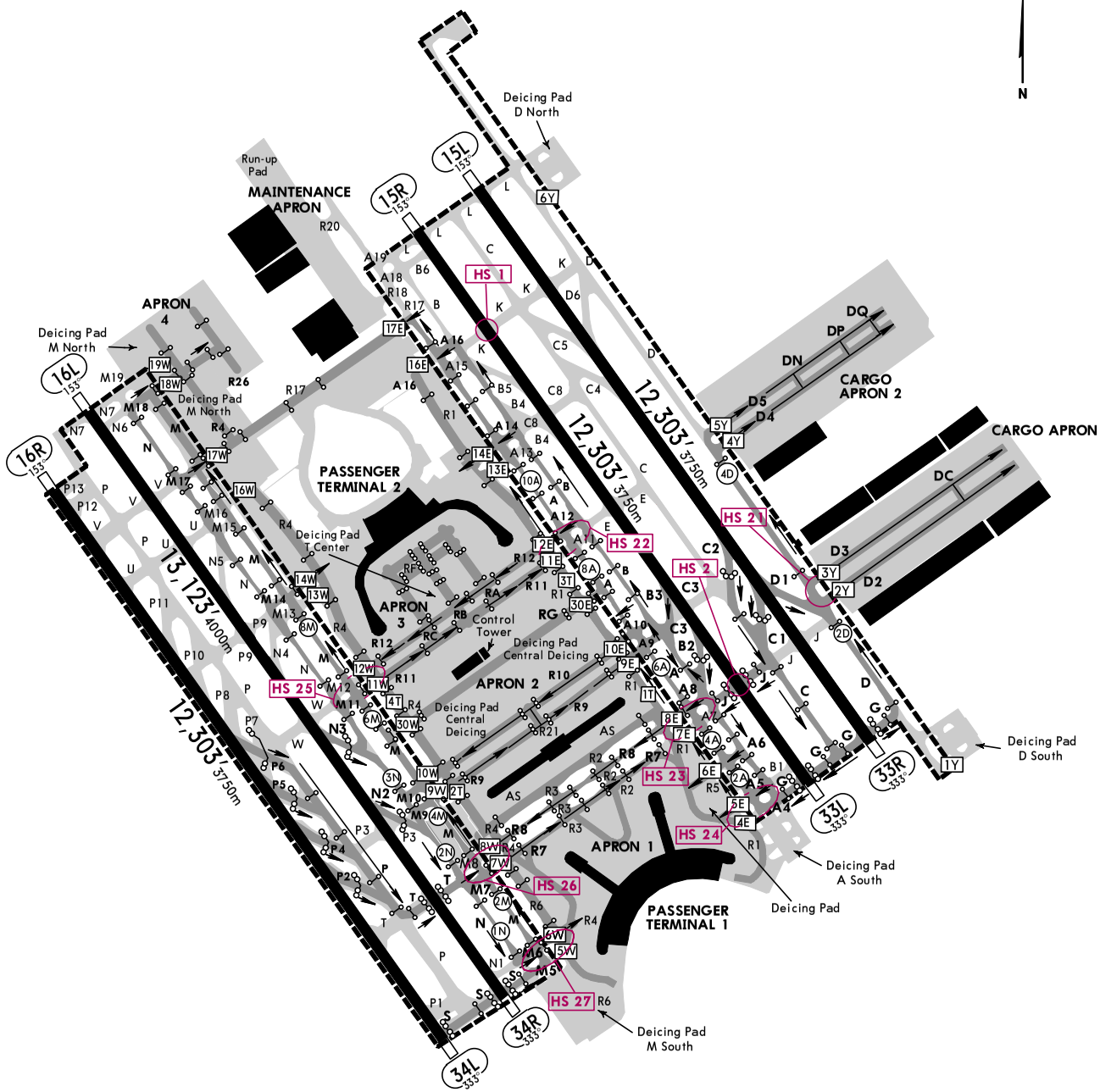
37-29 37-28 37-27

Rwys 15L/R, 16L/R ARRIVAL TAXI ROUTE

NOTE 1
1. Aircraft landing on Rwy 15L/R contact Ground 121.75.
2. Aircraft landing on Rwy 16L/R contact Ground 121.7.
3. Aircraft taxiing via A5, A6, M6, R7 and R8 contact Apron on 121.65.
4. Aircraft taxiing via R9, R10 and RG contact Apron on 121.8.
5. Aircraft taxiing via R11, R12, A13, A14, A16, M13, M14, M16 and R17 contact Apron 122.175.
6. Aircraft taxiing via M18 and M19 contact Apron on 123.675.
7. Aircraft for Cargo Aprons contact Apron on 123.325.
8. Aircraft stand maneuvering guidance lights on stands 361, 376, 506, 507, 516, 517 are not installed. Follow-me or ground marshalling service will be provided at the pilot's request.

NOTE 2
Apron 2 (321-332, 341-353), Apron 3 (361-376, 501-507, 511-517) and Apron 4 (520-529, 531-535, 541-547, 558) are for remote apron of passenger acft.

NOTE 3
1. ACFT LVP Routes in Apron area can be used in both directions under the traffic situation.
2. Taxiing routes for A380 ACFT are restricted in some Apron areas. Refer to 20-9L thru 20-9L2 SPCL NOTICE TO A380 & B747-8 OPRS chart.



LEGEND

- TAXI ROUTE
- STOP BAR LIGHT
- STOP BAR LIGHT with Runway Guard Lights
- Intermediate holding position light
- A8 TAXIWAY/ TAXI ROUTES DESIGNATION
- 1A HOLDING POSITION
- 4E TRANSFER of CONTROL POINT (TCP)
- ATC SERVICE BOUNDARY (Maneuvering Area)

FOR HOT SPOTS SEE AIRPORT INFO (CONTD), TAKE-OFF MNMS CHART

HS

CHANGES: Cargo Apron 2 extended, Note 2.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	121.65	121.8		WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	121.4	124.8	125.15
			122.175	123.325	123.675	121.7	121.75	118.8	118.2			

126-23 126-24 126-25 126-26 126-27 126-28 126-29

Rwys 15L/R, 16L/R DEPARTURE TAXI ROUTE

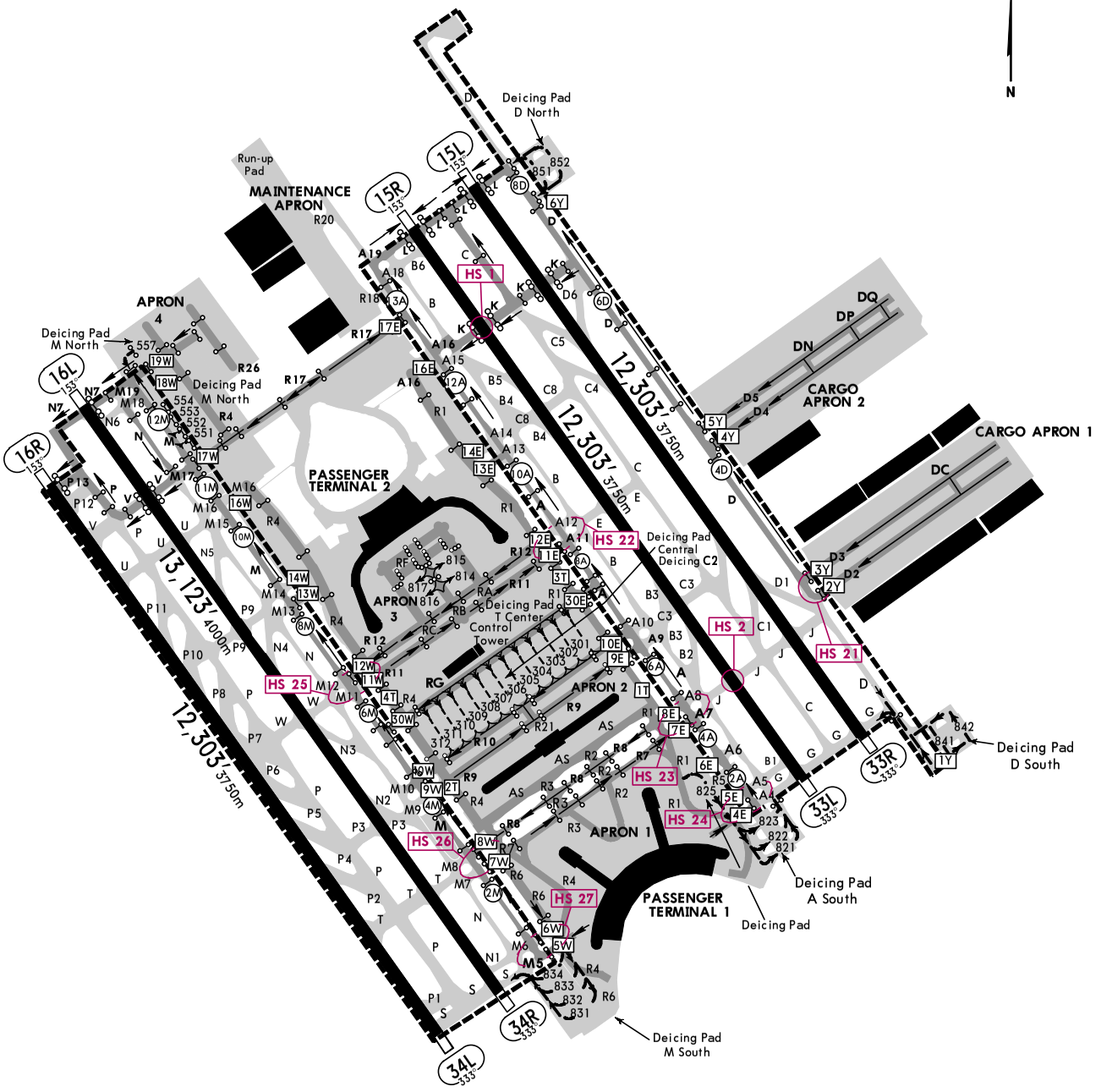
NOTE 1
1. Aircraft taking off from Rwy 15L/R contact Ground 121.75.
2. Aircraft taking off from Rwy 16L/R contact Ground 121.7.
3. Aircraft at Gates 1-50, odd number Gates 103-131 and Gate 132 contact Apron on 121.65.
4. Aircraft at Gate 101, even number Gates 102-130 and Remote stands 301-312, 321-332, 341-353 contact Apron on 121.8.
5. Aircraft at Gate 231-268, Remote stands 361-376, 501-507, 511-517 contact Apron 122.175.
6. Aircraft at Remote stands 520-529, 531-535, 541-547, 558 contact Apron at 123.675.
7. Aircraft at Cargo stands 601-616, 621-636 and 641-655 contact Apron on 123.325.
8. Aircraft stand maneuvering guidance lights on stands 361, 376, 506, 507 516, 517 are not installed. Follow-me or ground marshalling service will be provided at the pilot's request.

NOTE 2
Apron 2 (321-332, 341-353), Apron 3 (361-376, 501-507, 511-517) and Apron 4 (520-259, 531-535, 541-547, 558) are for remote apron of passenger acft.

NOTE 3
1. ACFT LVP Routes in Apron area can be used in both directions under the traffic situation.
2. Taxiing routes for A380 ACFT are restricted in some Apron areas. Refer to 20-9L thru 20-9L2 SPCL NOTICE TO A380 & B747-8 OPRS chart.

LEGEND
- TAXI ROUTE
- STOP BAR LIGHT
- STOP BAR LIGHT with Runway Guard Lights
- Intermediate holding position light
- A8 TAXIWAY/ TAXI ROUTES DESIGNATION
- (2M) HOLDING POSITION
- 5E TRANSFER of CONTROL POINT (TCP)
- DEICING PAD TAXI ROUTES
- ATC SERVICE BOUNDARY (Maneuvering Area)

FOR HOT SPOTS SEE AIRPORT INFO (CONTD), TAKE-OFF MNMS CHART
HS



CHANGES: Cargo Apron 2 extended, Note 2.

RKSI/ICN
INCHEON INTL
JEPPESEN
20-9H
LESS THAN RVR 550m

SMGCS
15 MAR 24
Eff 20 Mar 1600Z
SEOUL/INCHEON, KOREA
LOW VISIBILITY TAXI ROUTES

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	122.175	121.65 / 123.325	121.8 / 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7	EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8	EAST (E): Rwy 15L/R, 33L/R 118.2	121.4	124.8	125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

37-29 37-28 37-27

Rwys 33L/R, 34L/R ARRIVAL TAXI ROUTE

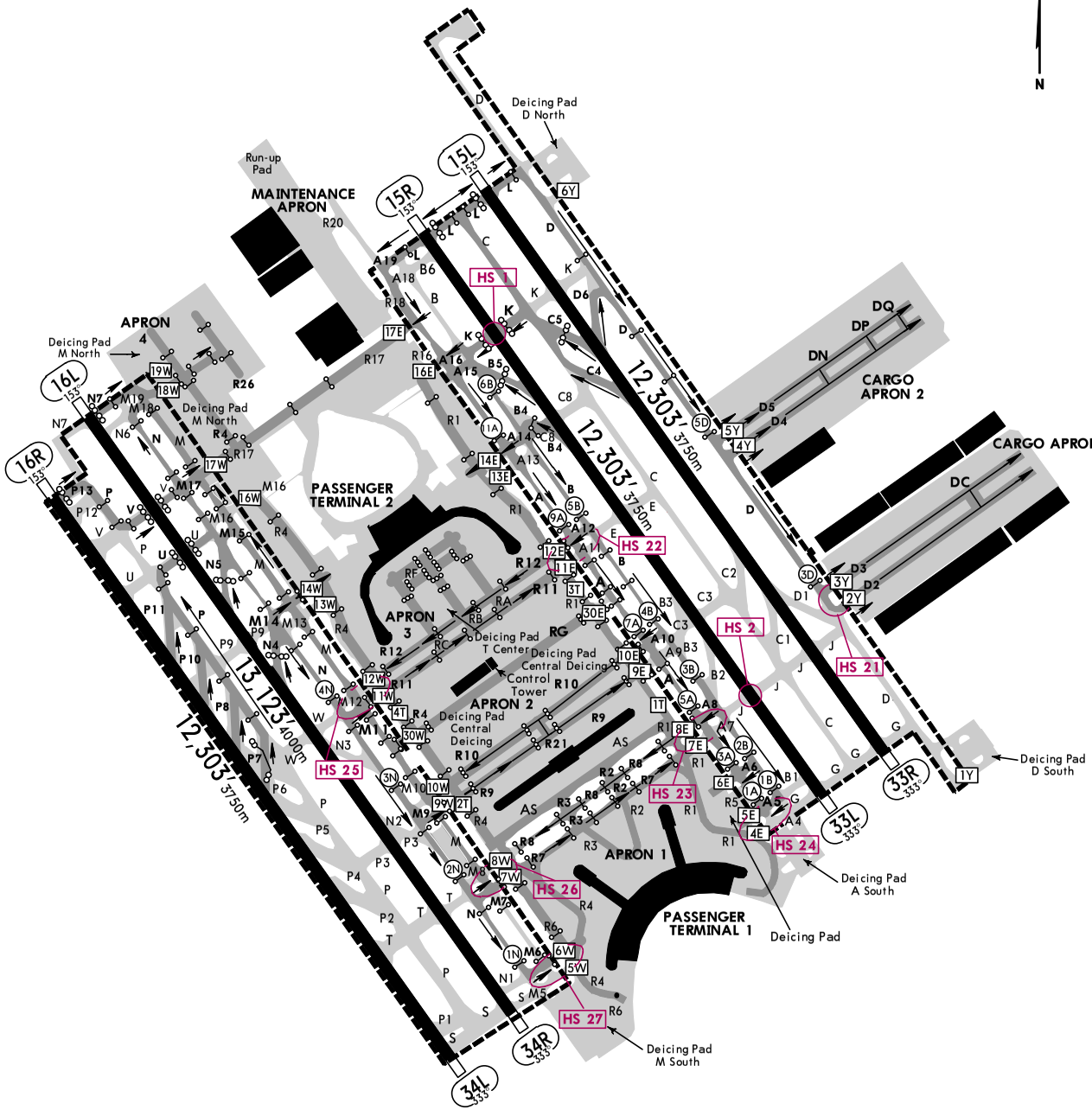
NOTE 1
1. Aircraft landing on Rwy 33L/R contact Ground 121.75.
2. Aircraft landing on Rwy 34L/R contact Ground 121.7.
3. Aircraft taxiing via A5, A6, M6, R7 and R8 contact Apron on 121.65.
4. Aircraft taxiing via R9, R10 and RG contact Apron on 121.8.
5. Aircraft taxiing via R11, R12, A13, A14, A16, M13, M14, M16 and R17 contact Apron 122.175.
6. Aircraft taxiing via M18 and M19 contact Apron on 123.675.
7. Aircraft for Cargo Aprons contact Apron on 123.325.
8. Aircraft stand maneuvering guidance lights on stands 361, 376, 506, 507, 516 517 are not installed. Follow-me or ground marshalling service will be provided at the pilot's requsest.

NOTE 2
Apron 2 (321-332, 341-353), Apron 3 (361-376, 501-507, 511-517) and Apron 4 (520-529, 531-535, 541-547, 558) are for remote apron of passenger acft.

NOTE 3
1. ACFT LVP Routes in Apron area can be used in both directions under the traffic situation.
2. Taxiing routes for A380 ACFT are restricted in some Apron areas. Refer to 20-9L thru 20-9L2 SPCL NOTICE TO A380 & B747-8 OPRS chart.

LEGEND
- TAXI ROUTE
- STOP BAR LIGHT
- STOP BAR LIGHT with Runway Guard Lights
- Intermediate Holding Position Light
- A8 TAXIWAY/ TAXI ROUTES DESIGNATION
- (1N) HOLDING POSITION
- 5E TRANSFER OF CONTROL POINT (TCP)
- ATC SERVICE BOUNDARY (Maneuvering Area)

FOR HOT SPOTS SEE AIRPORT INFO (CONTD), TAKE-OFF MNMS CHART
HS



CHANGES: Cargo Apron 2 extended, Note 2.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron			Ground		Tower		SEOUL Departure (R)		
128.65		121.6	121.65	121.8		WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	WEST (W): Rwy 16L/R, 34L/R	EAST (E): Rwy 15L/R, 33L/R	121.4	124.8	125.15
			122.175	123.325	123.675	121.7	121.75	118.8	118.2			

126-23 126-24 126-25 126-26 126-27 126-28 126-29

Rwys 33L/R, 34L/R DEPARTURE TAXI ROUTE

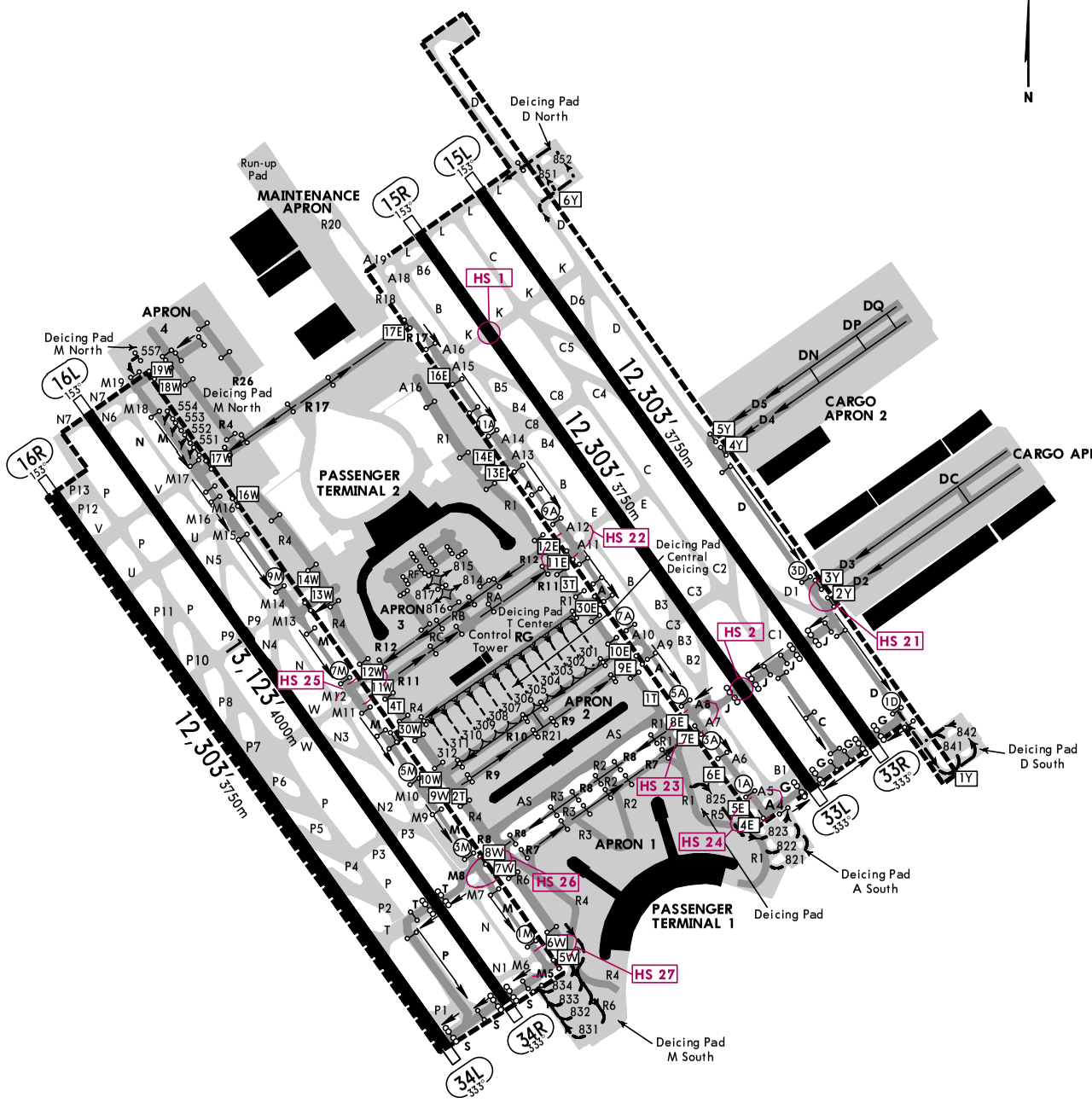
NOTE 1
1. Aircraft taking off from Rwy 33L/R contact Ground 121.75.
2. Aircraft taking off from Rwy 34L/R contact Ground 121.7.
3. Aircraft at Gates 1-50, odd number Gates 103-131 and Gate 132 contact Apron on 121.65.
4. Aircraft at Gate 101, even number Gates 102-130 and Remote stands 301-312, 321-332, 341-353 contact Apron 121.8.
5. Aircraft at Gate 231-268, Remote stands stands 361-376, 501-507, 511-517 contact Apron 122.175.
6. Aircraft at Remote stands 520-529, 531-535, 541-547, 558 contact Apron 123.675.
7. Aircraft at Cargo stands 601-616, 621-636 and 641-655 contact Apron on 123.325.
8. Aircraft stand maneuvering guidance lights on stands 361, 376, 506, 507 516, 517 are not installed. Follow-me or ground marshalling service will be provided at the pilot's request.

NOTE 2
Apron 2 (321-332, 341-353), Apron 3 (361-376, 501-507, 511-517) and Apron 4 (520-529, 531-535, 541-547, 558) are for remote apron of passenger acft.

NOTE 3
1. ACFT LVP Routes in Apron area can be used in both directions under the traffic situation.
2. Taxiing routes for A380 ACFT are restricted in some Apron areas. Refer to 20-9L thru 20-9L2 SPCL NOTICE TO A380 & B747-8 OPRS chart.

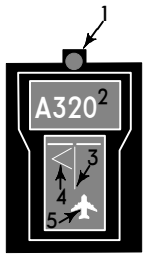
LEGEND
- TAXI ROUTE
- STOP BAR LIGHT
- STOP BAR LIGHT with Runway Guard Lights
- INTERMEDIATE HOLDING POSITION LIGHT
- A8 TAXIWAY/ TAXI ROUTES DESIGNATION
- (2M) HOLDING POSITION
- 5E TRANSFER of CONTROL POINT (TCP)
- DEICING PAD TAXI ROUTES
- ATC SERVICE BOUNDARY (Maneuvering Area)

FOR HOT SPOTS SEE AIRPORT INFO (CONTD), TAKE-OFF MNMS CHART
HS



CHANGES: Cargo Apron 2 extended, Note 2.

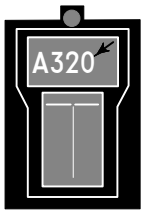
VISUAL DOCKING GUIDANCE SYSTEM-CONCOURSE



General explanation of PDU (Pilot Display Unit) Concourse

1. It is the camera to detect the approaching aircraft.
2. During the docking procedure, it visually represents the guidance information such as aircraft type and remaining distance.
3. It represents the stand centre line. When the camera detects the approaching aircraft, this vertical bar is displayed to let the pilot know the correct course.
4. It provides the azimuth guidance information to the pilot. When the aircraft deviates from the stand centre line, this symbol is shown to correct the direction which the arrow symbol points to.
5. It is the symbol of the aircraft.

VDGS (Visual Docking Guidance System) Docking Procedure Concourse

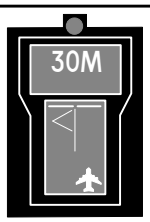


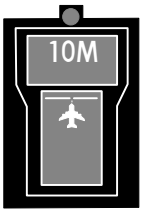
1. Docking Preparation

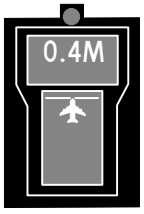
a. After initializing the docking stand designation, the the expected aircraft type and the stand number will be alternatively displayed on the upper LCD of the PDU. At the same time, the lead-in lights installed along the stand centre line will be switched on.

2. Azimuth Guidance Information

a. When the aircraft is detected by the camera, azimuth guidance information will be provided on the lower LCD of the PDU. In case the aircraft deviates from the stand centre line, the arrow symbol will be displayed.



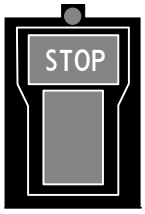




3. Remaining Distance Information

a. The remaining distance information will be shown numerically on the upper LCD of the PDU with the graphical presentation starting from 30 m before the stop point. At the same time, the aircraft symbol will be shown along the centre line displaying on the lower LCD of the PDU.

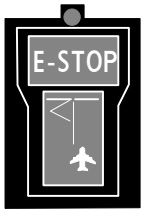
b. The remaining distance information will be displayed 30m to 20m by 5m step (30, 25, and 20m), 20m to 10m by 2m step (20, 18, 16, 14, 12, and 10m), 10m to 1m by 1m step (10, 9, 8, 7, 6, 5, 4, 3, 2, and 1m), and the remaining last 1m will be shown by 0.2m step (1, 0.8, 0.6, 0.4, 0.2, and STOP). Some remaining distance information may not be displayed on the PDU according to the aircraft docking speed.



4. Stop Information

a. It represents that the pilot should stop his aircraft.

b. If the aircraft overruns the stop position by more than 7′(2m), STOP TOO FAR will be shown on the upper LCD of the PDU.



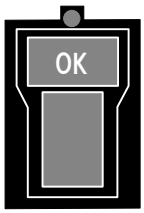
5. E-STOP Information

a. The ESTOP (Emergency stop) will be displayed when the aircraft deviates too far from the stand centre line or the field operator presses the E-STOP button.

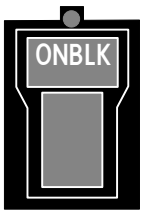
b. In case ESTOP message is shown on the PDU, the aircraft should be stopped immediately.

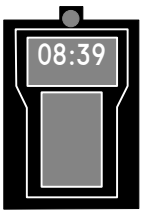
CHANGES: None.

VISUAL DOCKING GUIDANCE SYSTEM-CONCOURSE



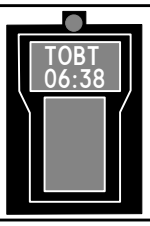
6. Docking Completion Information
When the aircraft has reached the stop point within the tolerance, the OK message will be shown on the upper LCD of the PDU.

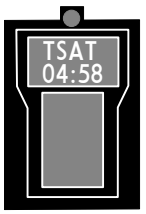




7. On Block Information
a. The ONBLK (On block) message and time will be displayed on the PDU right after changing from STOP to OK message.
b. The On Block time will be transmitted to the IIS (Integrated Information System)

A-CDM Information on VDGS (Visual Docking Guidance System) - Concourse





TOBT or TSAT information is provided on VDGS for push-back waiting aircraft.

Notice for the use of VDGS

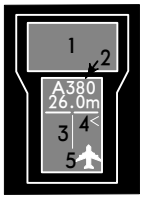
1. VDGS service is provided to Concourse stands (30 stands in total). Marshalling service should be provided for any of the following cases:
   a. When VDGS or ASDE is inoperative in case of work in progress, heavy snow, etc.
   b. When a Low Visibility Procedure is in operation.
   c. When Aircraft types are IL62, IL76, IL96, TU204, B789, B748, A359, B781, 7M8, A339, A32N and A32Q.
2. In case the aircraft type and the stand number displaying on the PDU are different from the actual approaching aircraft type and the actual stand number, the pilot should stop his aircraft immediately and notify the Incheon Apron, and then follow the marshaller's instruction.
3. If the stand number and aircraft type are still displayed alternately on the PDU until the aircraft approaches to 33'(10m) prior to the stop point, the pilot should stop his aircraft immediately and notify Incheon Apron, and then follow the marshaller's instruction.
4. If the 'E-STOP' is displayed on the PDU, the pilot should stop the aircraft immediately and notify Incheon Apron, and then follow the marshaller's instruction. For any of the following cases, the field operator should press the emergency stop button.
   a. When the aircraft overruns or is expected to go more than 3'(1m) from stop point.
   b. In case the pilot does not stop the aircraft immediately, although the aircraft type and the gate numer displayed on the PDU differ from the actual aircraft type and gate number.
   c. In case there is any obstacle interrupting the normal docking procedure around the docking area.

VISUAL DOCKING GUIDANCE SYSTEM-CONCOURSE

Notice for the use of VDGS (contd.)

5. In case that the VDGS docking information and the marshaller's instruction are different, the pilot should follow the marshaller's instruction first.
6. When the aircraft reaches about 33'(10m) prior to the stop point, the pilot should decrease the speed as much as the aircraft could be stopped immediately until the STOP or ESTOP message is displayed on the PDU.
7. If the aircraft approaches to the stand in excess of the speed limit in Concourse, the SLOW message should be displayed on the PDU. The pilot should reduce speed.

VISUAL DOCKING GUIDANCE SYSTEM-TERMINAL



General explanation of PDU (Pilot Display Unit) Passenger Terminal #1 and #2

1. It is the laser unit to detect the approaching aircraft.
2. During the docking procedure, it visually represents the guidance information such as aircraft type and remaining distance
3. It represents the stand center line. When the laser unit detects the approaching aircraft, this vertical bar is displayed to let the pilot know the correct course.
4. It provides the azimuth guidance information to the pilot. When the aircraft deviates from the stand center line, this symbol is shown to correct the direction which the arrow symbol points to.
5. It is the symbol of the aircraft.

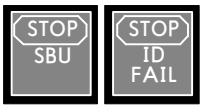
VDGS (Visual Docking Guidance System) Docking Procedure Passenger Terminal #1 and #2

1. Docking Preparation
a. After initializing the docking stand designation, WAIT message will be displayed and then the expected aircraft type displayed continuously on the upper LED of the PDU. At the same time, the lead-in lights installed along the stand center line will be switched on.
b. When the aircraft is detected by the laser unit, floating arrow symbol will be displayed on the lower LED of the PDU.

2. The azimuth guidance information
a. In case the aircraft deviates from the stand center line, the red arrow symbol will be displayed.

3. The Remaining Distance Information
a. The remaining distance information will be shown numerically on the upper LED of the PDU with the graphical presentation starting from 30 m before the stop point. At the same time, the aircraft symbol will be shown along the center line displaying on the lower LED of the PDU.
b. The remaining distance information will be displayed 30m to 3m by 1m step (30, 29, and 3m), and the remaining last 3m will be shown by 0.1m step (3.0, 2.9,... 0.1, and STOP). Some remaining distance information may not be displayed on the PDU according to the aircraft docking speed.

4. The STOP Information
a. It represents that the pilot should stop his aircraft.
b. If the aircraft overruns more than 3'(1m), STOP TOO FAR message will be shown on the upper LED of the PDU.
c. The STOP will be displayed if the aircraft deviates too far from the stand center line or the field operator presses the E-STOP button.



5. The STOP - SBU/ID FAIL Information
a. The STOP - SBU/ID FAIL (Emergency Stop) will be displayed when system error or approaching aircraft is different actual aircraft type.
b. In case STOP - SBU/ID FAIL message is shown on the PDU, the aircraft should be stopped immediately.

6. The Docking Completion Information
When the aircraft has reached the stop point within the tolerance, the OK message will be shown on the upper LED of the PDU.

CHANGES: None.

VDGS (Visual Docking Guidance System) Docking Procedure Passenger Terminal #1 and #2

	7. The BTIME (On Block Time) Information a. The BTIME message and time will be displayed on the PDU right after changing from STOP to OK message. b. The BTIME (On Block time) will be transmitted to the IIS (Intergrated Information System).

A-CDM Information on VDGS (Visual Docking Guidance System) - Concourse Passenger Terminal #1 and #2

	TOBT and TSAT information is provided on VDGS for push-back waiting aircraft.

Notice for the use of VDGS

1. VDGS service is provided to Passenger Terminal 1 stands (44 stands in total) and Passenger Terminal 2 stands (51 stands in total). Marshalling service should be provided for any of the following cases:
   a. When VDGS or ASDE is inoperative in case of work in progress, heavy snow, etc.
   b. When a Low Visibility Procedure is in operation.
2. In case the aircraft type displaying on the PDU is different from the actual approaching aircraft type, the pilot should stop his aircraft immediately and notify the Incheon Apron, and then follow the marshaller's instruction.
3. If ID FAIL is displayed on the PDU between the stop point and 49'(15m) prior to the stop point, the pilot should stop his aircraft immediately and notify the Incheon Apron, and follow the marshaller's instruction.
4. If the ESTOP message is displayed on the PDU, the pilot should stop his aircraft immediately and notify the Incheon Apron, and then follow the marshaller's instruction. For any of the following cases, the field operator should press the emergency stop button.
   a. When the acft overruns or is expected to go more than 3'(1m) from the stop point.
   b. In case the pilot does not stop the aircraft immediately, although the acft type and the gate number displayed on the PDU differ from the actual aircraft type and gate number.
   c. In case there is any obstacle interrupting the normal docking procedure around the docking area.
5. In case that the VDGS docking information and the marshaller's instruction are different, the pilot should follow the marshaller's instruction first.
6. When the aircraft reaches about 33'(10m) prior to the stop point, the pilot should decrease the speed as much as the aircraft could be stopped immediately until the STOP message is displayed on the PDU.
7. If the aircraft approaches to the stand in excess of the speed limit, the SLOW message should be displayed on the PDU. The pilot should reduce the speed.

ARRIVAL/DEPARTURE ROUTES and TRANSFER OF CONTROL POINTS (TCP)

Unless otherwise instructed, aircraft should use the following routes:

Apron	Apron FREQ	Route	TCP	Gate/Stand
Apron 1 (Arrival)	121.65 MHz	A5 - R1	5E	1 to 12
		A6 - R1	6E	14 to 17
		R7 -R1	7W	1 to 17
		R7 R8	7W 8E	18 to 36
		R7 - R4 (R6)	7W	37 to 42
		M6 - R4	6W	43 to 50
		R8 - R4 (R6)	8E	37 to 50
		R7 R8	7W 8E	103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 132
Apron 1 (Departure)	121.65 MHz	R1 - A4 R1 - R7 R1 - R8	4E 7E 8W	1 to 17
		R7 R8	7E 8W	18 to 36
		R4 - M5 R4 (R6) - R7 R4 (R6) - R8	5W 7E 8W	37 to 50
		R7 R8	7E 8W	103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 132
Apron 2 (Arrival)	121.8 MHz	R9 R10	9W 10E	101, 102, 104, 106, 108, 110, 112, 114, 118, 122, 124, 126, 128, 130
				301 to 312
		RG	30W 30E	321 to 332 341 to 353
Apron 2 (Departure)		R9 R10	9E 10W	101, 102, 104, 106, 108, 110, 112, 114, 118, 122, 124, 126, 128, 130
				301 to 312
		RG	30E 30W	321 to 332 341 to 353
Apron 3 (Arrival)	122.175 MHz	R11-R1 A14-R1	11W 14E	262 to 268 501 to 507
		R12-R4 M14-R4	12E 14W	229 to 236 511 to 517
		R11 R12	11W 12E	237 to 261 361 to 376
Apron 3 (Departure)		R1-R11 R1-R12 R1-A13(A16)	11E 12W 13E(16E)	262 to 268
		R1-A13(A16) R1-R12	13E(16E) 12W	501 to 507
		R4-R11 R4-R12 R4-M13(M16)	11E 12W 13W(16W)	229 to 236
		R4-R11 R4-M13(M16)	11E 13W(16W)	511 to 517
		R11 R12	11E 12W	237 to 261 361 to 376
Apron 4 (Arrival)	123.675 MHz	R17-R4 M18	17E 18W	520 to 529, 531 to 535, 541 to 547, 551 to 554, 557 to 558
Apron 4 (Departure)		R4-R17 M19	17E (17W) 19W	520 to 529, 531 to 535, 541 to 547, 551 to 554, 557 to 558
Cargo Apron 1 (Arrival and Departure)	123.325 MHz	D2 D3	2Y 3Y	601 to 616 621 to 636
Cargo Apron 2 (Arrivial and Departure)		D4 D5	4Y 5Y	641 to 655 671 to 683

Remarks:

Arrival and departure routes in apron areas will be issued in detail according to runway in use and traffic movement condition by INCHEON APRON.

(Arrival/Departure Routes and Transfer of Control Points continued on 20-9M1)

CHANGES: Stands 671-683 on Cargo Apron 2 added.

ARRIVAL/DEPARTURE ROUTES and TRANSFER OF CONTROL POINTS (TCP) (cont.)

1. Aircraft will normally be transferred to INCHEON APRON prior to the TCP. Unless otherwise directed, aircraft may automatically contact INCHEON APRON at the TCP.
2. Aircraft shall not proceed beyond the TCP without clearance from INCHEON GROUND or TOWER (departure) or INCHEON APRON (Arrival).

Transfer of Control Between Aprons

Transfer of Control Point in Apron 1, 2, and 3
Aircraft taxiing from Apron 1 to Apron 2 (or from Apron 2 to Apron 1), or from Apron 2 to Apron 3 (or from Apron 3 to Apron 2) will change the frequency when approaching the transfer of control point below.

Apron	Position	TCP (Transfer of Control Point)
Apron 1-Apron 2	Gate 103	1T
	Gate 130	2T
Apron 2-Apron 3	between ACFT stands 341 & 361	3T
	between ACFT stands 353 & 376	4T

De-icing Operations

De/anti-icing Phase Notification

De/Anti-icing Phase	Application of Phase It is estimated that the average time between aircraft Estimated Off-Block TIme and being airborne will:
Phase 1 (Blue)	be less than 60 minutes
Phase 2 (Yellow)	range from 60 minutes to 119 minutes
Phase 3 (Orange)	range from 120 minutes to 239 minutes
Phase 4 (Red)	be at or above 240 minutes

De-icing Zones and Pads

De-icing pad assignments will be made as pad-group.
1. A South zone: 821, 822, 823, 825 pads
2. M South zone: 831, 832, 833, 834 pads
3. M North zone: 551, 552, 553, 554, 557 pads
4. T Center zone: 814, 815, 816, 817 pads
5. Central De-icing zone: 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312 pads
6. D South zone: 841, 842 pads
7. D North zone: 851, 852 pads

De-icing Operational Procedures

1. De-icing requests and cancellations must be made by the flight crew to Incheon De-icing.
2. Aircraft types applicable for engine on de-icing:

Airbus	A318,A319,A320,A321, A330,A350,A220,A380
Boeing	B737,B757,B767,B777,B787,B747

3. Technical de-icing (landing gear, brakes, inside LE- or TE-flaps, under wing, engine inlets, fan blades and sensors/ static ports/ pitot probes) should be performed by Engine off.
4. On the de-icing pads ACFT shall hold abeam the stop line which indicates the cockpit stop position or follow advice of the marshaller.
5. Aircrew shall control the throttle carefully, avoiding the exhausted gas causing damage to support personnel and equipment, when aircraft exit the de-icing stands.
6. During the engine on de-icing, aircrew shall keep the engine idle and set the brake. ACFT hold position until Pad control give the taxi instruction.

De-icing Operations (contd.)

FREQ	Call Sign	Procedure
128.65, 344.2 (ATIS)	Incheon INTL Airport	-Acknowledge "De/Anti-icing Phase" by ATIS
123.575 (Apron 1, Apron 2, Cargos) 122.225 (Apron 3, 4)	Incheon De-icing	-Contact when ready for pushback -Advise "Aircraft De-icing required and Engine On/Off De-icing" -De-icing zones assignment
121.65 (Apron 1) 121.8 (Apron 2, Cargos) 122.175 (Apron 3) 123.675 (Apron 4)	Incheon Apron	-Set Mode A code to 2000 -Select XPNDR or AUTO -Pushback & taxi to De-icing zones
123.325 (A South zone, M South zone, D South/North zone) 122.175 (T Center zone) 122.325 (Central De-icing zone, M North zone)	Pad Control	-De-icing pads assignment. -Taxi to De-icing pads.
130.750 (A South zone) 130.850 (M South zone) 130.250 (T Center zone, Central De-icing zone) 129.725 (M North zone)	Ice Man	-Enter the pad and report the brake set to Ice Man. Monitor Ice Man until De-icing is completed. -Do not shut down engines until instructed by Ice Man for ground safety.
121.6	Incheon Delivery	-(Engine Off) Once De-icing is completed, Contact Incheon delivery to get ATC clearance. Report "Engine Off De-icing and De-icing completed" when initial contact with Incheon delivery by voice or DCL. Monitor Ice Man. -(Engine On) Once De-icing is started, Contact Incheon delivery to get ATC clearance. Report "Engine On De-icing and De-icing started" when initial contact with Incheon delivery by voice or DCL. Monitor Ice Man. -Set Mode A assigned by ATC -Select XPNDR or AUTO
130.750 (A South zone) 130.850 (M South zone) 130.250 (T Center zone, Central De-icing zone) 129.725 (M North zone)	Ice Man	-Re-contact Ice Man and Report start engine and ready to taxi.
123.325 (A South zones, M South zone, Central De-icing zone, D South/North zone) 122.175 (T Center zone) 122.325 (M North zones)	Pad Control	- Taxi out from De-icing pads.

NOTE 1: The de-icing pad will be appropriately assigned by Incheon Apron or Pad Control when aircraft approaches the de-icing zone.

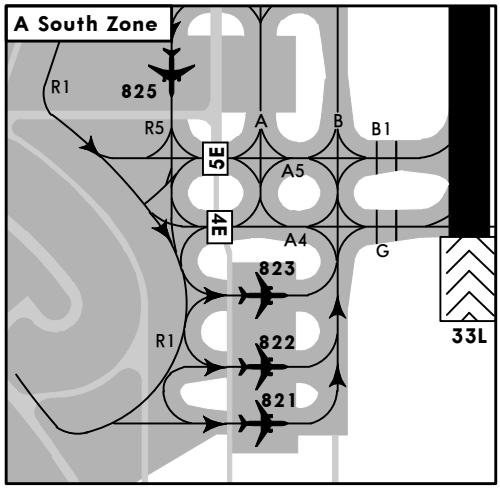
NOTE 2: Flight Crews shall monitor and maintain radio contact, otherwise re-sequenced as a result of no response to 3 successive calls.

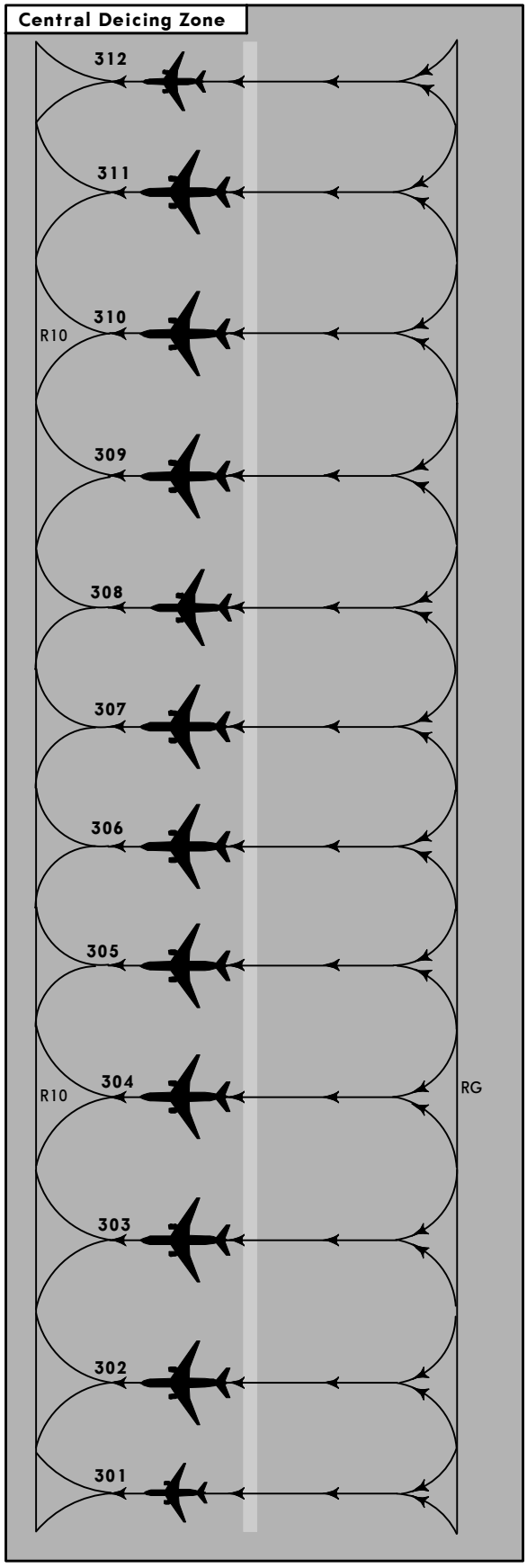
NOTE 3: These procedures can be changed by Incheon Apron according to the volume of de-icing traffic.

NOTE 4: Flight crews need extra caution when entering and leaving the de-icing pad, since there are GSE roads in front of or behind the de-icing pad.

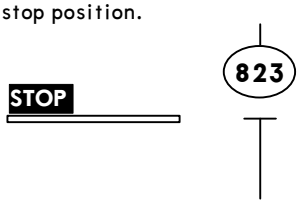
De-icing Operations (contd.)

De-icing Zones Operation





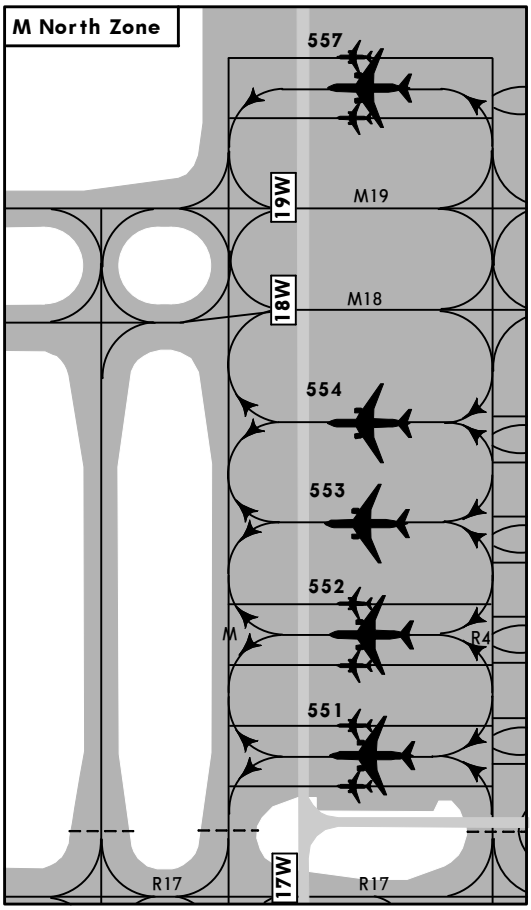
The pilot stop line marking is located on all deicing pads to help stop without marshalling, where the transverse bar indicates the cockpit stop position.

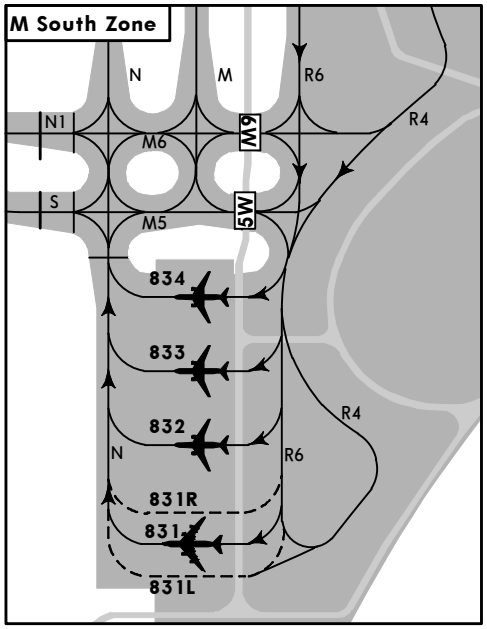


CHANGES: Central Deicing Zone.

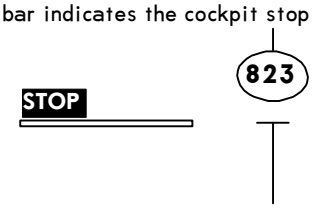
De-icing Operations (contd.)

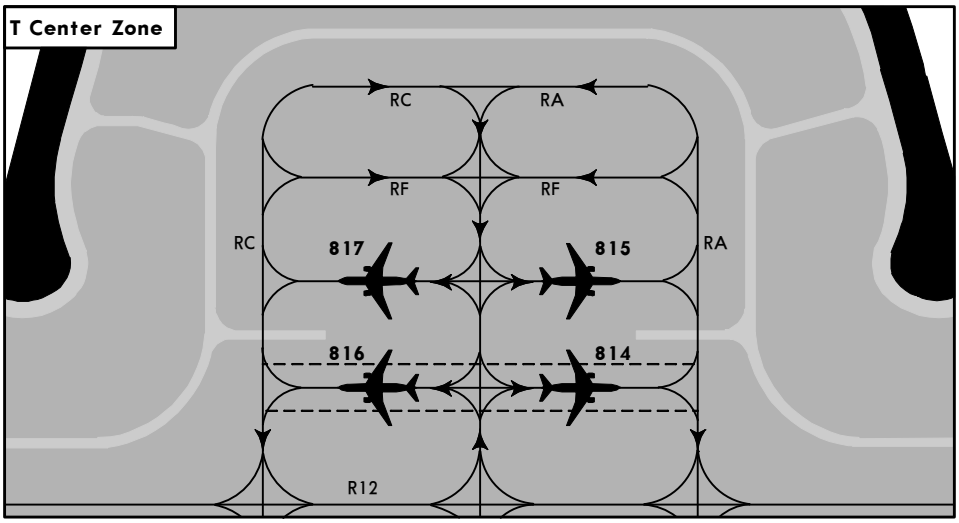
De-icing Zones Operation

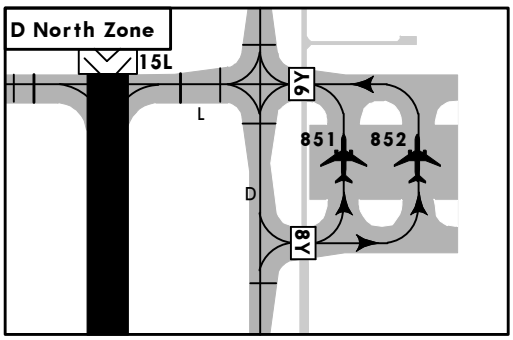


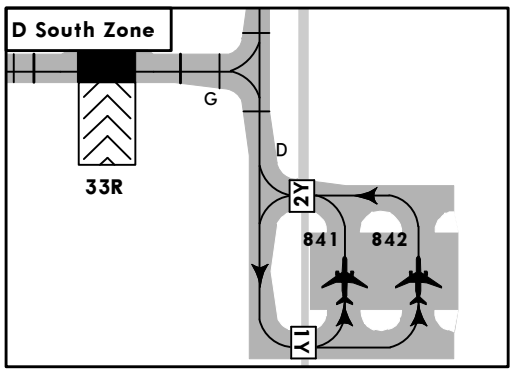


The pilot stop line marking is located on all deicing pads to help stop without marshalling, where the transverse bar indicates the cockpit stop position.









CHANGES: Chart format.

Implementation of Cargo Taxi Routes from Cargo Apron at Incheon International Airport

1. TAXI ROUTES FROM CARGO APRON

1.1 Departure runway from cargo apron is depended on traffic situation to optimize traffic flow. ATC may change departure runway for purposes of traffic flow management.

1.2 Taxi routes for departure runway 15R, 33L from cargo apron to protect GP signals of ILS of RWY 15L and 33R are expected as follows unless otherwise instructed by ATC.

Route	Taxi Route Details
Route for Rwy 15R Departure	CGO APRON ➔ Turn RIGHT on **D** ➔ Turn LEFT onto **K** ➔ ➔ Hold at Holding Point **Rwy 15L** on Twy **K** ➔ Turn RIGHT on **C** ➔ ➔ Turn LEFT on **L** ➔ Hold at Holding Point **Rwy 15R**
Route for Rwy 33L Departure	CGO APRON ➔ Turn LEFT on **D** ➔ Turn RIGHT onto **J** ➔ ➔ Hold at Holding Point **Rwy 33R** on Twy **J** ➔ Turn LEFT on **C** ➔ ➔ Turn RIGHT on **G** ➔ Hold at Holding Point **Rwy 33L**

1.3 Taxi routes for departure runway 16L, 34R from cargo apron to optimize traffic flow are expected as follows unless otherwise instructed by ATC.

Route	Taxi Route Details
Route for Rwy 16L Departure	CGO APRON ➔ Turn RIGHT on **D** ➔ Turn LEFT onto **K** ➔ ➔ Hold at Holding Point **Rwy 15L** on Twy **K** ➔ Turn RIGHT onto **A16** ➔ ➔ Turn RIGHT on **A** ➔ Turn LEFT onto **R17** ➔ **R17** ➔ Turn RIGHT on **M** ➔ **M19** ➔ Hold at Holding Point **Rwy 16L**
Route for Rwy 34R Departure	CGO APRON ➔ Turn LEFT on **D** ➔ Turn RIGHT onto **J** ➔ ➔ Hold at Holding Point **Rwy 33R** on Twy **J** ➔ **A8** ➔ **R8** ➔ ➔ Turn LEFT on **M** ➔ **M5** ➔ Hold at Holding Point **Rwy 34R**

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground	Tower	SEOUL Departure (R)
128.65		121.6	121.65 121.8 122.175 122.225 122.325 123.325 123.575 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7 EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8 EAST (E): Rwy 15L/R, 33L/R 118.2	121.4 124.8 125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

37-29 37-28 37-27

CARGO TRANSITION 15R

LEGEND
- STANDARD TAXI ROUTE (STR) FOR CARGO FLIGHTS
- STOP BAR
- GUARD LIGHTS/STOP BAR

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

MAINTENANCE APRON
APRON 4
Deicing Pad M North
PASSENGER TERMINAL 2
MET
Deicing Pad T Center
Control Tower
APRON 3
APRON 2
CONCOURSE
Deicing Pad Central Deicing
APRON 1
AIS
PASSENGER TERMINAL 1
Deicing Pad D North
CARGO APRON 2
CARGO APRON 1
Deicing Pad D South
Deicing Pad A South
Deicing Pad R1 Pad
Deicing Pad M South
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
33L 333°
33R 333°
34L 333°
34R 333°
M090

CHANGES: Cargo Apron 2 extended.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground	Tower	SEOUL Departure (R)
128.65		121.6	121.65 121.8 122.175 122.225 122.325 123.325 123.575 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7 EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8 EAST (E): Rwy 15L/R, 33L/R 118.2	121.4 124.8 125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

37-29 37-28 37-27

CARGO TRANSITION 16L

LEGEND

- STANDARD TAXI ROUTE (STR) FOR CARGO FLIGHTS
- STOP BAR
- GUARD LIGHTS/STOP BAR

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

MAINTENANCE APRON
APRON 4
Deicing Pad M North
Deicing Pad D North
PASSENGER TERMINAL 2
MET
Deicing Pad T Center
Control Tower
APRON 3
APRON 2
CONCOURSE
Deicing Pad Central Deicing
CARGO APRON 2
CARGO APRON 1
APRON 1
AIS
PASSENGER TERMINAL 1
Deicing Pad D South
Deicing Pad A South
Deicing Pad M South
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
33L 333°
33R 333°
34L 333°
34R 333°
N 09°W

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Cargo Apron 2 extended.

RKSI/ICN
INCHEON INTL

JEPPESEN
20-9N3

15 MAR 24
Eff 20 Mar 1600Z

SEOUL/INCHEON, KOREA
CARGO TAXI ROUTES FOR RWY 33L

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground		Tower		SEOUL Departure (R)
128.65		121.6	121.65 121.8 122.175 122.225 122.325 123.325 123.575 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7	EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8	EAST (E): Rwy 15L/R, 33L/R 118.2	121.4 124.8 125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

37-29 37-28 37-27

CARGO TRANSITION 33L

LEGEND
- STANDARD TAXI ROUTE (STR) FOR CARGO FLIGHTS
- STOP BAR
- GUARD LIGHTS/STOP BAR

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

MAINTENANCE APRON
APRON 4
Deicing Pad M North
Deicing Pad D North
PASSENGER TERMINAL 2
MET
RF
Deicing Pad T Center
Control Tower
APRON 3
APRON 2
RG Deicing Pad Central Deicing
CONCOURSE
APRON 1
AIS
PASSENGER TERMINAL 1
Deicing Pad M South
Deicing Pad A South
Deicing Pad D South
CARGO APRON 2
CARGO APRON 1
D1 D2 D3 D4 DA DB DC DD DM DN DP DQ
HS 1 HS 2 HS 21 HS 22 HS 23 HS 24 HS 25 HS 26 HS 27
15L 153° 15R 153° 16L 153° 16R 153° 33L 333° 33R 333° 34L 333° 34R 333°

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Cargo Apron 2 extended.

D-ATIS Departure	ACARS D-ATIS PDC DCL	INCHEON Delivery	Apron	Ground	Tower	SEOUL Departure (R)
128.65		121.6	121.65 121.8 122.175 122.225 122.325 123.325 123.575 123.675	WEST (W): Rwy 16L/R, 34L/R 121.7 EAST (E): Rwy 15L/R, 33L/R 121.75	WEST (W): Rwy 16L/R, 34L/R 118.8 EAST (E): Rwy 15L/R, 33L/R 118.2	121.4 124.8 125.15

126-23 126-24 126-25 126-26 126-27 126-28 126-29

37-29 37-28 37-27

CARGO TRANSITION 34R

LEGEND
- STANDARD TAXI ROUTE (STR) FOR CARGO FLIGHTS
- STOP BAR
- GUARD LIGHTS/STOP BAR

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

MAINTENANCE APRON
APRON 4
Deicing Pad M North
PASSENGER TERMINAL 2
MET
Deicing Pad T Center
Control Tower
APRON 3
APRON 2
Deicing Pad Central Deicing
CONCOURSE
APRON 1
AIS
PASSENGER TERMINAL 1
Deicing Pad D North
CARGO APRON 2
CARGO APRON 1
Deicing Pad D South
Deicing Pad A South
Deicing Pad M South
HS 1
HS 2
HS 21
HS 22
HS 23
HS 24
HS 25
HS 26
HS 27
15L 153°
15R 153°
16L 153°
16R 153°
34L 333°
34R 333°
33L 333°
33R 333°
M 060

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Cargo Apron 2 extended.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN

21-1

SEOUL/INCHEON, KOREA
ILS Z or LOC Z Rwy 15L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

LOC ISLL	Final Apch Crs	SAKOS	ILS DA(H)	Apt Elev 23′
111.9	153°	2600′ (2577′)	223′ (200′)	Rwy 23′

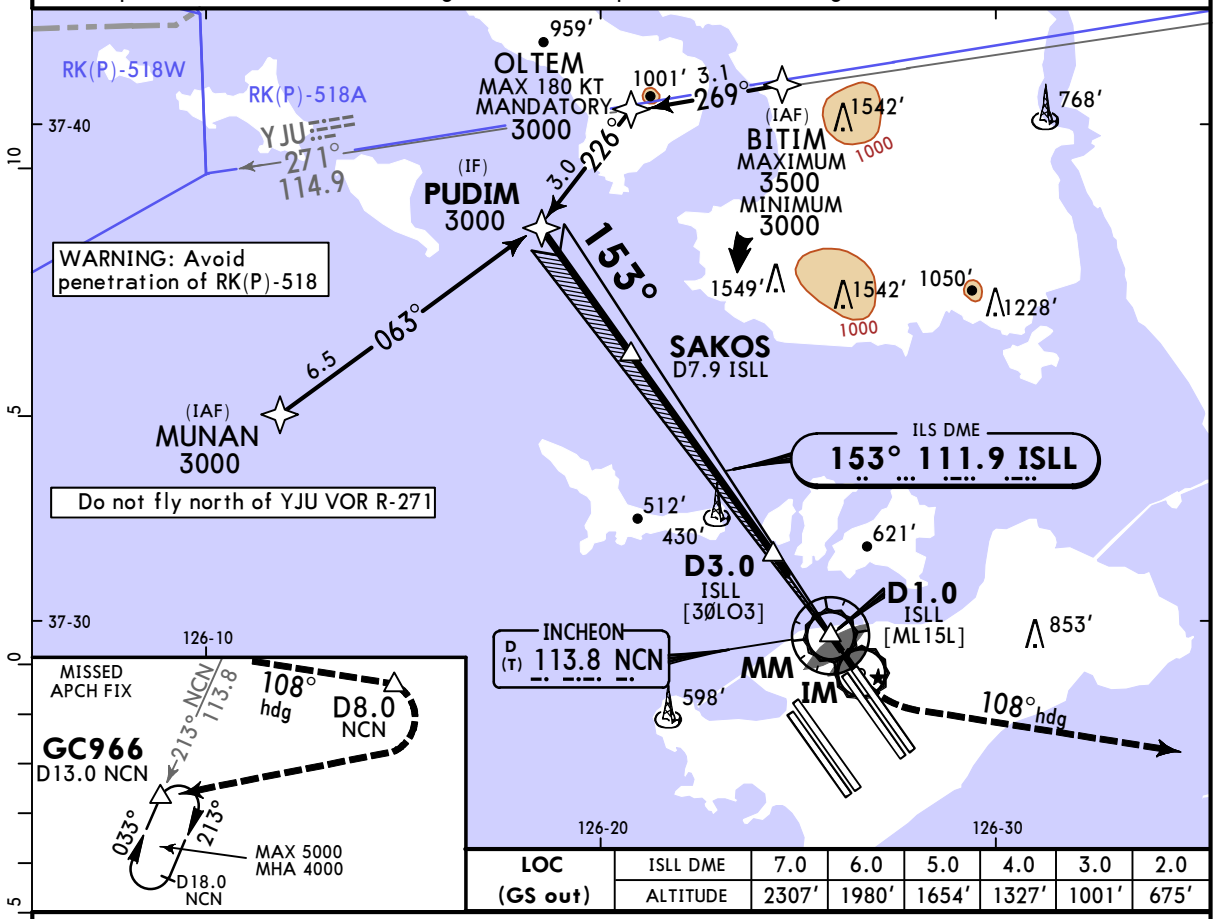
MSA ARP: 180° 2600 3900 270° 090° 2300 3300 360°

MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 108°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published. Do not turn before passing MAP.

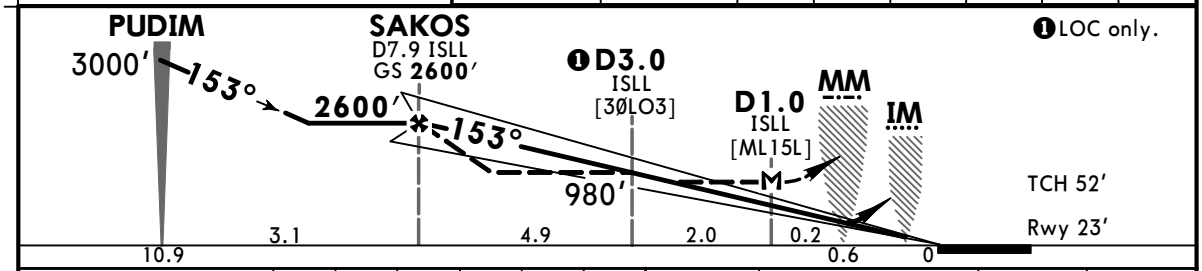
RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with Rwy 16L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.

BRIEFING STRIP ™



LOC (GS out)	ISLL DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	2307′	1980′	1654′	1327′	1001′	675′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.07°	380	489	543	652	760	869
MAP at D1.0 ISLL							

Timing not authorized for defining the MAP.

ALSF-II | PAPI | 720′ on Rwy hdg | LT | 108° hdg

State — STRAIGHT-IN LANDING

PANS OPS

	ILS DA(H) 223′ (200′)	ALS out	LOC (GS out) MDA(H) 380′ (357′)	ALS out
A	R550m V800m	R/V1200m	R/V900m	R/V1600m
B				
C				
D				

CHANGES: Missed apch, recommended altitudes, minimums.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-1A

SEOUL/INCHEON, KOREA
ILS Z Rwy 15L CAT II & III

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

LOC ISLL	Final Apch Crs	SAKOS	CAT III	CAT II ILS	Apt Elev 23′
111.9	153°	2600′(2577′)	Refer to Minimums	RA 110′ DA(H) 123′(100′)	Rwy 23′

BRIEFING STRIP ™

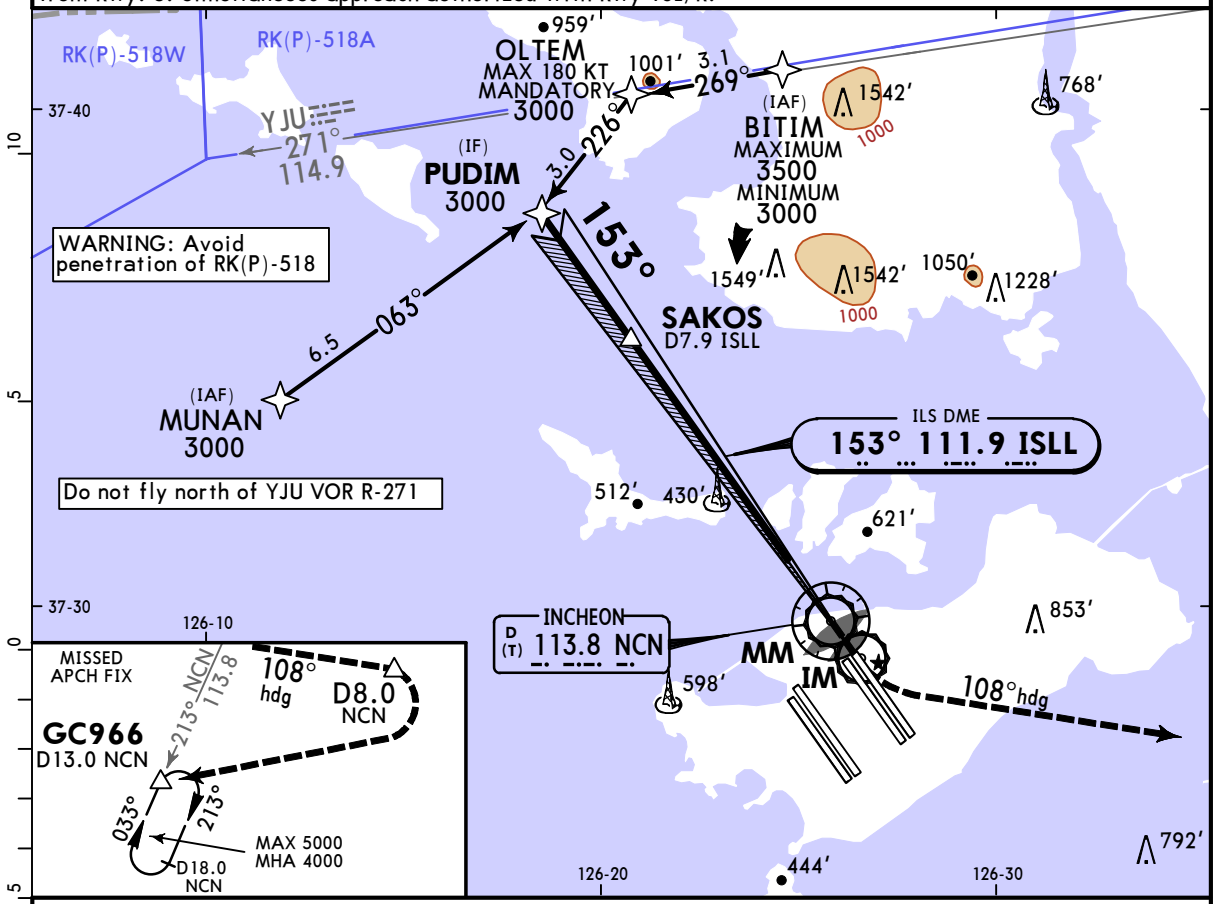
MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 108°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.

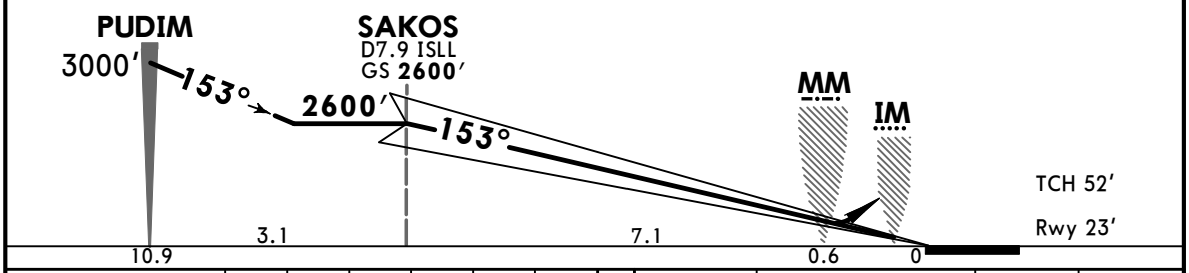
MSA ARP: 180° 2600 3900 270° 090° 3300 2300 360°

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 16L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 720′ on Rwy hdg | LT | 108° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS RA 110′ DA(H) 123′(100′)
1 R75m R125m	2 R300m

PANS OPS

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-2

SEOUL/INCHEON, KOREA
ILS Y or LOC Y Rwy 15L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

LOC ISLL	Final Apch Crs	NOPEN	ILS DA(H)	Apt Elev 23′
111.9	153°	1600′(1577′)	223′(200′)	Rwy 23′

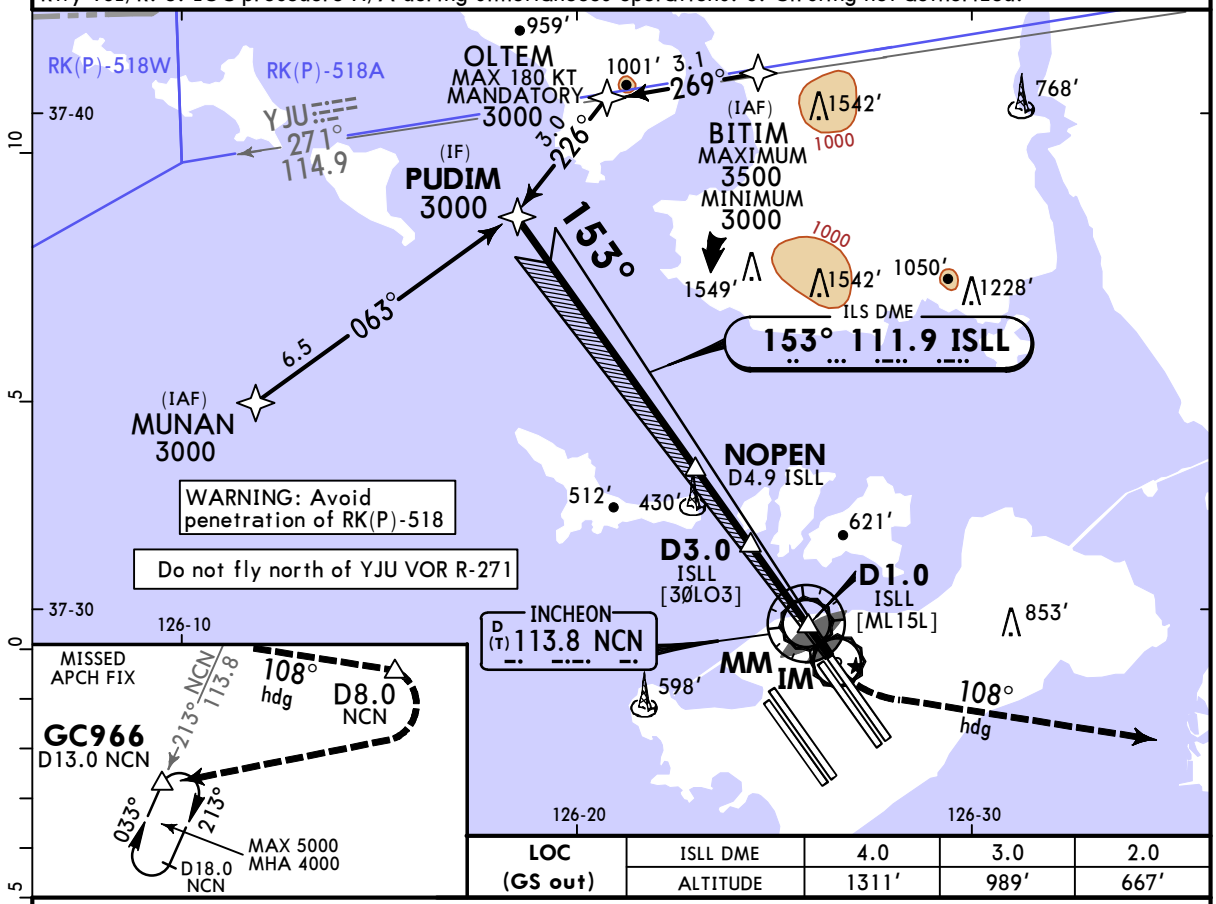
BRIEFING STRIP™

MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 108°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published. Do not turn before passing MAP.

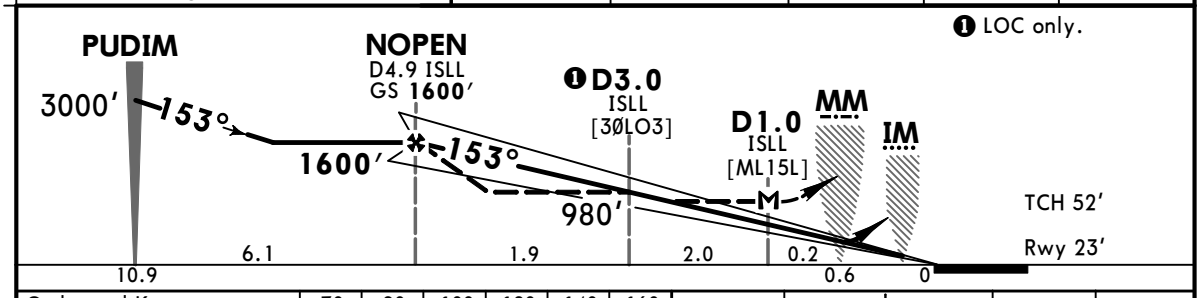
MSA ARP: 180° 2600 3900 270° 090° 3300 2300 360°

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation. 1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with Rwy 16L/R. 5. LOC procedure N/A during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	ISLL DME	4.0	3.0	2.0
	ALTITUDE	1311′	989′	667′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	375	482	536	643	750	858
MAP at D1.0 ISLL							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
720′ on Rwy hdg
LT
108° hdg

PANS OPS

State — STRAIGHT-IN LANDING

	ILS DA(H) 223′(200′)		LOC (GS out) MDA(H) 380′(357′)	
		ALS out		ALS out
A	R550m V800m	R/V1200m	R/V900m	R/V1600m
B				
C				
D				

CHANGES: Missed apch, recommended altitude, minimums.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-2A

SEOUL/INCHEON, KOREA
ILS Y Rwy 15L CAT II & III

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP™

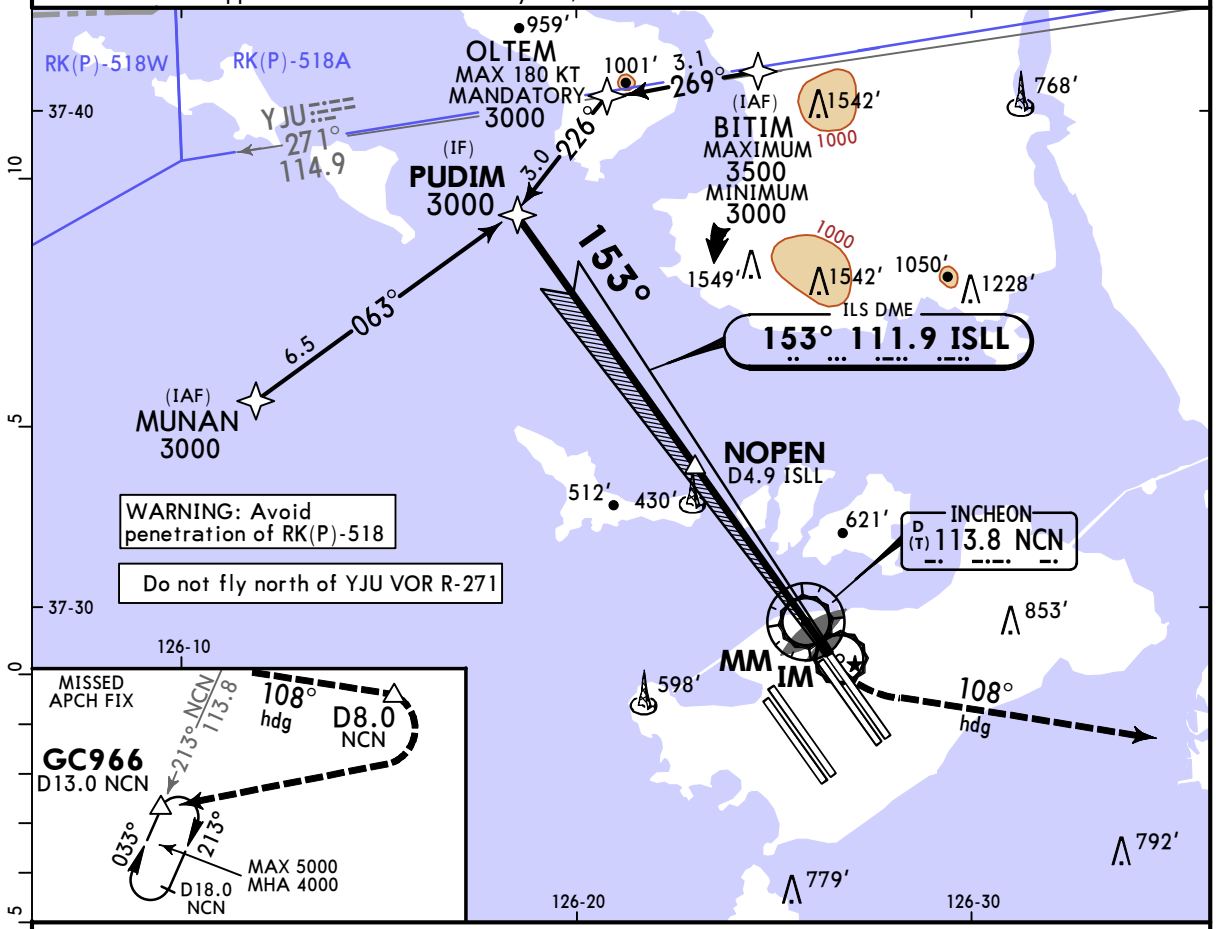
LOC ISLL	Final Apch Crs	NOPEN	CAT III	CAT II ILS	Apt Elev 23′
111.9	153°	1600′(1577′)	Refer to Minimums	RA 110′ DA(H) 123′(100′)	Rwy 23′

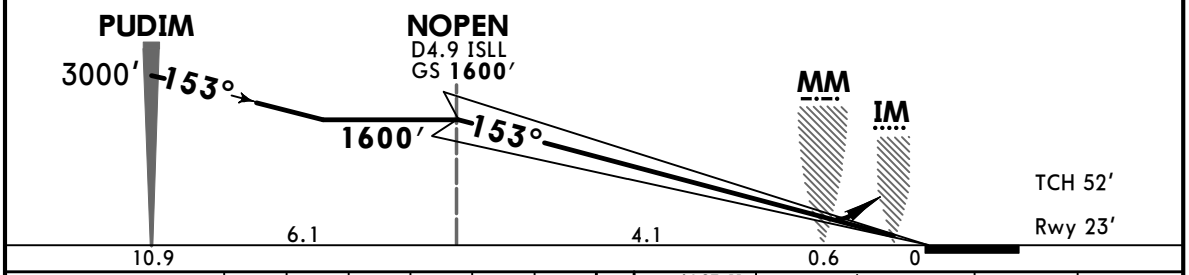
MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 108°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.

MSA ARP: 180°–2600–3900–270°–3300–360°–2300–090°

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation
1. Special Aircrew & Acft Certification required. 2. GNSS or DME/DME/IRU required.
3. ATS surveillance service required. 4. Min speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy.
5. Simultaneous approach authorized with Rwy 16L/R.





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 720′ on Rwy hdg | LT | 108° hdg

PANS OPS

State	STRAIGHT-IN LANDING	
	CAT III ILS	CAT II ILS RA 110′ DA(H) 123′(100′)
	1 R75m R125m	2 R300m

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-3

SEOUL/INCHEON, KOREA
ILS Z or LOC Z Rwy 15R

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP™

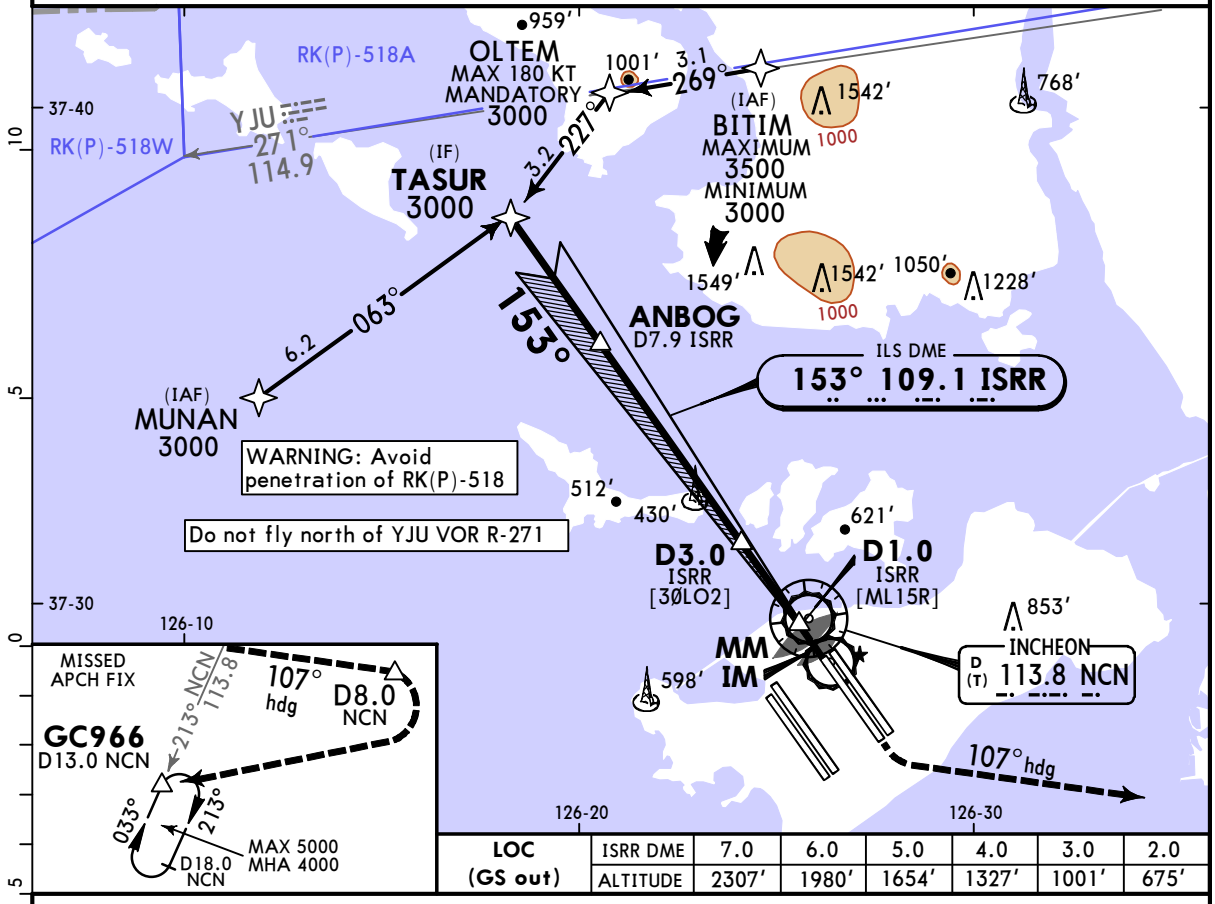
LOC ISRR	Final Apch Crs	ANBOG	ILS DA(H)	Apt Elev 23′
109.1	153°	2600′ (2577′)	223′ (200′)	Rwy 23′

MSA ARP: 180° 3900 · 270° 3300 · 360° 2300 · 090° 2600

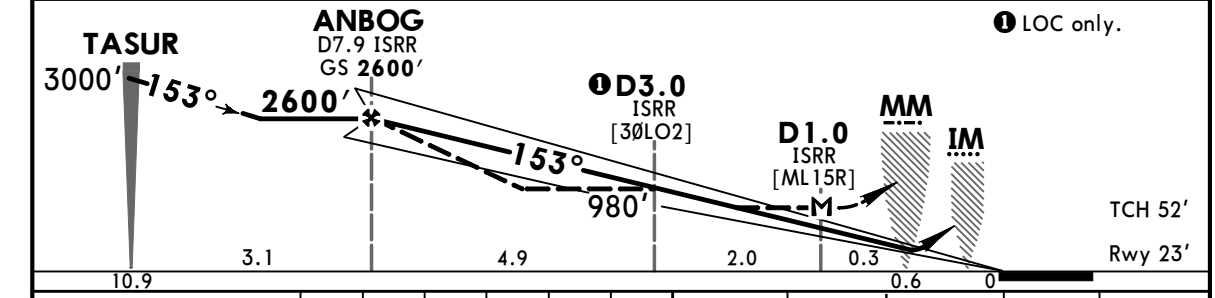
MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 107°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.
Do not turn before passing MAP.

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with Rwy 16L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	ISRR DME	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	2307′	1980′	1654′	1327′	1001′	675′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.07°	380	489	543	652	760	869
MAP at D1.0 ISRR							
Timing not authorized for defining the MAP.							

ALSF-II
PAPI
720′ on Rwy hdg
LT
107° hdg

State — STRAIGHT-IN LANDING

PANS OPS

	ILS DA(H) 223′ (200′)		LOC (GS out) MDA(H) 380′ (357′)	
		ALS out		ALS out
A	R550m V800m	R/V1200m	R/V900m	R/V1600m
B				
C				
D				

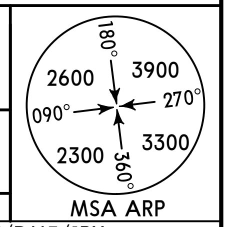
CHANGES: Missed apch, CNF, recommended altitude, minimums.

D-ATIS		SEOUL Approach (R)		INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4	128.2	119.75	121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

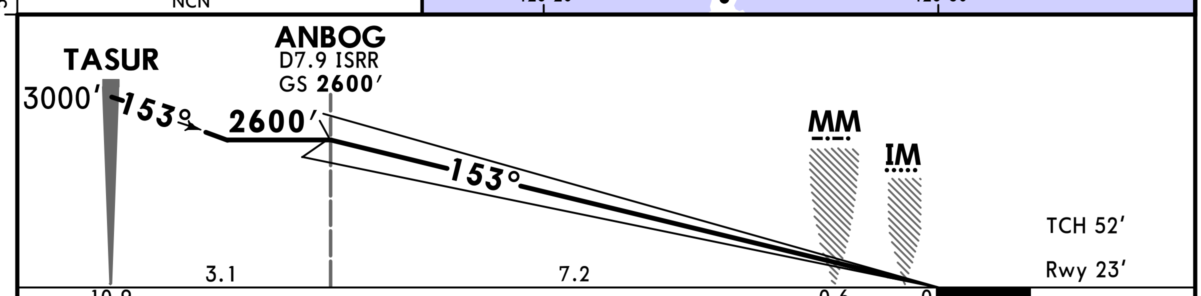
LOC ISRR	Final Apch Crs	ANBOG	CAT III	CAT II ILS	
109.1	153°	2600′ (2577′)	Refer to Minimums	RA 106′ DA(H) 123′ (100′)	Apt Elev 23′ Rwy 23′

MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 107°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.



Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation | 1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 16L/R.



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II
PAPI

720′ on Rwy hdg | LT | 107° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS RA 106′ DA(H) 123′ (100′)
1 R75m R125m	2 R300m

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

PANS OPS

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN 21-4

SEOUL/INCHEON, KOREA
ILS Y or LOC Y Rwy 15R

BRIEFING STRIP™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

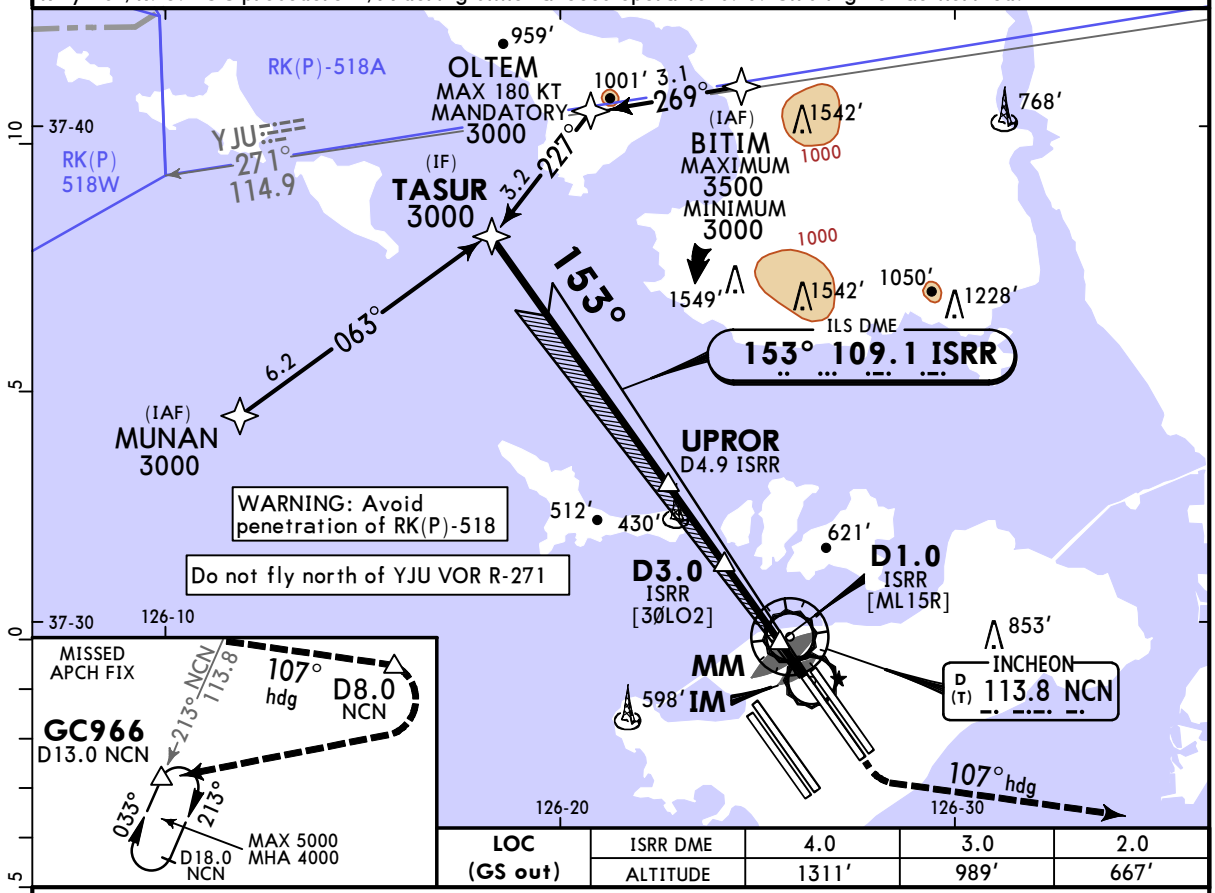
LOC ISRR	Final Apch Crs	UPROR	ILS DA(H)	Apt Elev 23′
109.1	153°	1600′ (1577′)	223′ (200′)	Rwy 23′

MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 107°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.
Do not turn before passing MAP.

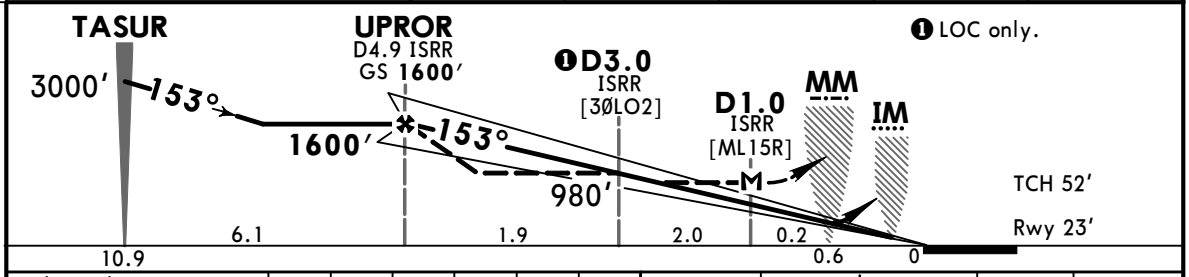
MSA ARP: 180° 2600 3900 270° 090° 3300 2300 360°

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation | 1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with Rwy 16L/R. 5. LOC procedure N/A during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	ISRR DME	4.0	3.0	2.0
	ALTITUDE	1311′	989′	667′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	375	482	536	643	750	858
MAP at D1.0 ISRR							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
720′ on Rwy hdg
LT
107° hdg

State STRAIGHT-IN LANDING

PANS OPS

	ILS DA(H) 223′ (200′)	ALS out	LOC (GS out) MDA(H) 380′ (357′)	ALS out
A	R550m V800m	R/V1200m	R/V900m	R/V1600m
B				
C				
D				

CHANGES: Missed apch, CNF, recommended altitude, minimums.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24
Eff 24 Jan 1600Z
21-4A

SEOUL/INCHEON, KOREA
ILS Y Rwy 15R CAT II & III

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

LOC ISRR	Final Apch Crs	UPROR	CAT III	CAT II ILS	Apt Elev 23′
109.1	153°	1600′ (1577′)	Refer to Minimums	RA 106′ DA(H) 123′ (100′)	Rwy 23′

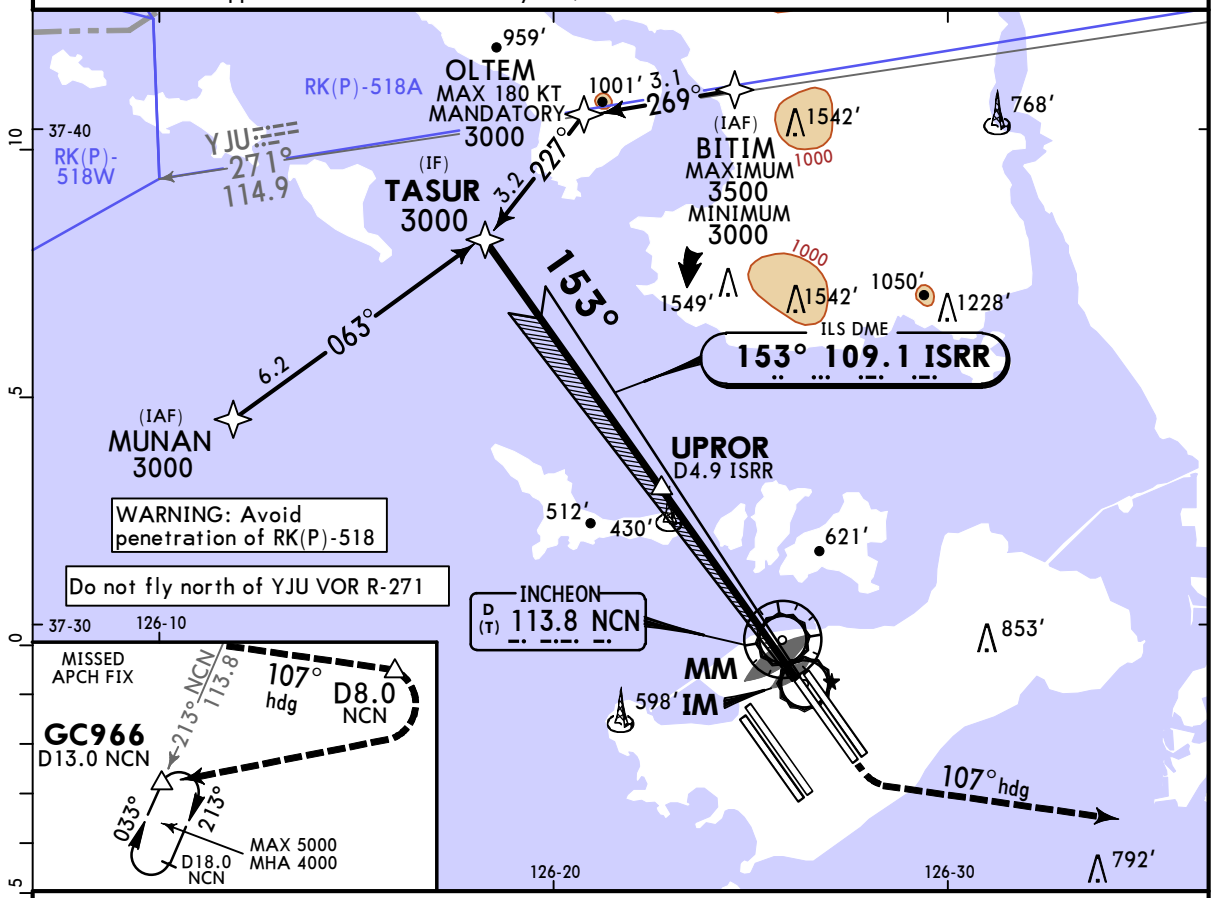
MSA ARP: 180° 2600 3900 270° 090° 2300 3300 360°

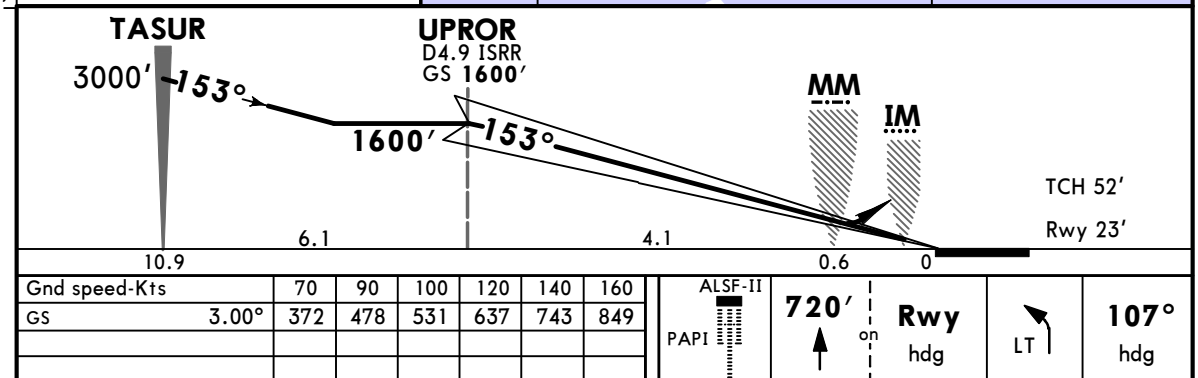
MISSED APCH: Fly Rwy heading, climb to 4000′. At 720′, turn LEFT heading 107°. At D8.0 NCN, turn RIGHT direct to GC966. Hold as published.

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 16L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 720′ on Rwy hdg | LT | 107° hdg

PANS OPS

State	STRAIGHT-IN LANDING CAT III ILS	CAT II ILS RA 106′ DA(H) 123′ (100′)
	1 R75m R125m	2 R300m

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24 (21-5) Eff 20 Mar 1600Z

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 16L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

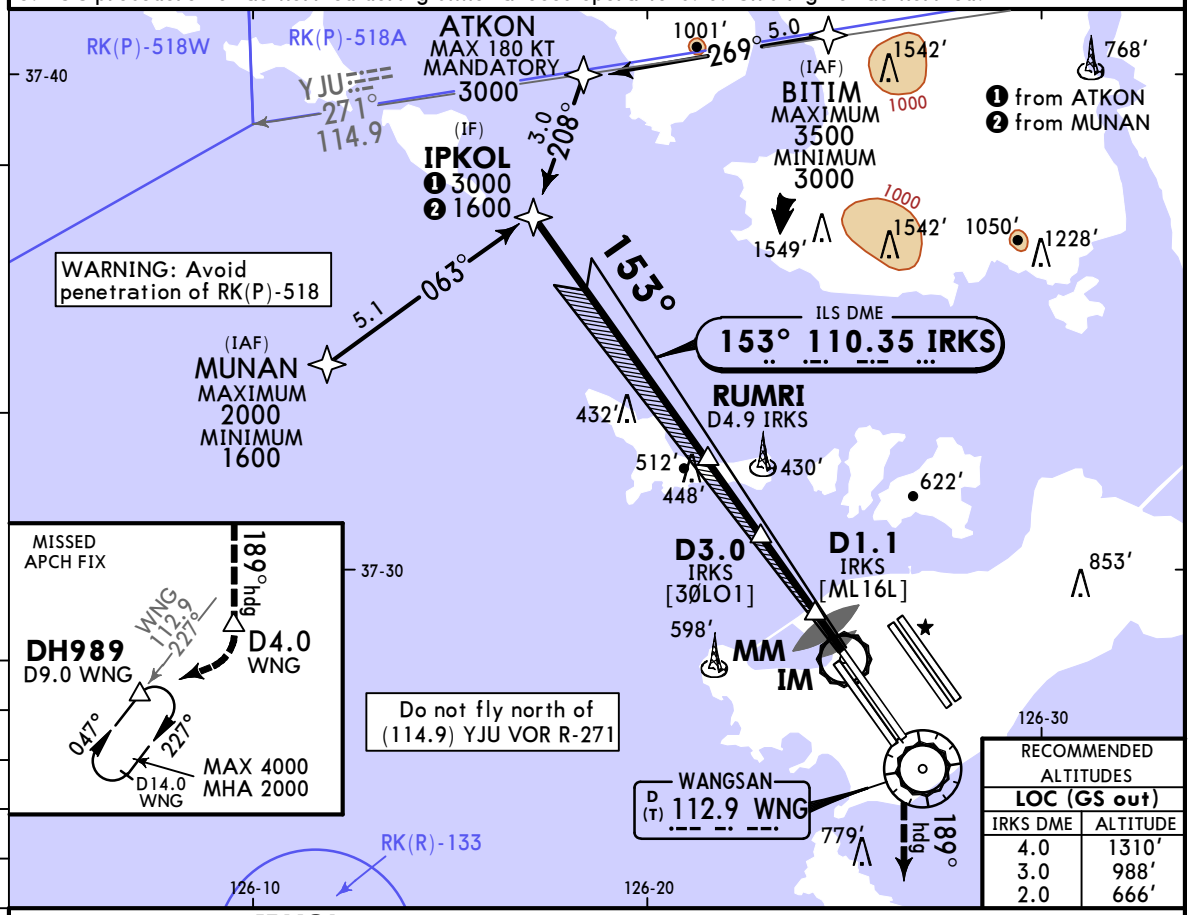
LOC IRKS	Final Apch Crs	RUMRI	ILS DA(H) Refer to Minimums	Apt Elev 23′ Rwy 23′
110.35	153°	1600′ (1577′)		

MISSED APCH: Fly Rwy heading, climb to 2000′. At 500′, turn RIGHT heading 189°. At D4.0 WNG, turn RIGHT direct to DH989. Hold as published. Do not turn before passing MAP. Missed approach turn limited to 210 KT maximum. Refer to minimums for missed apch climb gradient.

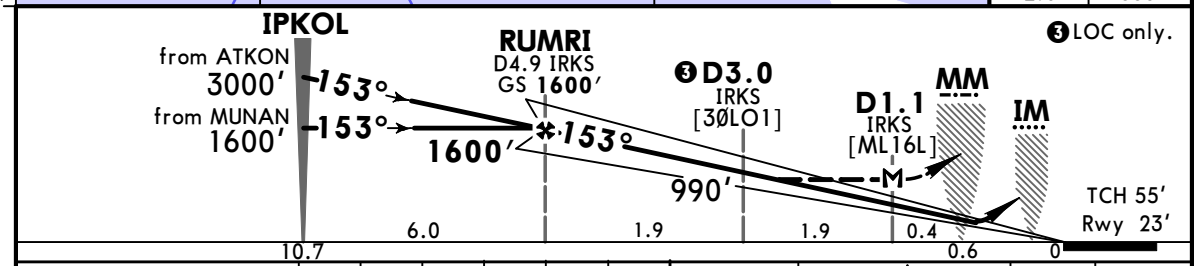
MSA ARP: 180° 2600 3900 270° 090° 3300 2300 360°

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy threshold. 4. Simultaneous approach authorized with Rwy 15L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



RECOMMENDED ALTITUDES LOC (GS out)	
IRKS DME	ALTITUDE
4.0	1310′
3.0	988′
2.0	666′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	375	482	536	643	750	868
MAP at D1.1 IRKS							

Timing not authorized for defining the MAP.

ALSF-II | PAPI | 500′ on Rwy hdg | RT | 189° hdg

State

	ILS	STRAIGHT-IN LANDING		LOC (GS out)	
	Missed apch requires min climb of 4.0% (244′/NM) to 2000′ DA(H) 223′(200′)	Missed apch requires min climb of 2.5% (152′/NM) to 2000′ DA(H) 460′(437′)		Missed apch requires min climb of 2.5% (152′/NM) to 2000′ MDA(H) 410′(387′)	
		ALS out		ALS out	ALS out
A B C D	R550m V800m	R/V1200m	R/V1300m	R/V2000m	R/V1100m	R/V1800m

PANS OPS

CHANGES: Notes, holding.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24
Eff 20 Mar 1600Z
21-5A

SEOUL/INCHEON, KOREA
ILS Rwy 16L CAT II & III

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP™

LOC IRKS	Final Apch Crs	RUMRI	CAT III	CAT II ILS	Apt Elev 23′
110.35	153°	1600′ (1577′)	Refer to Minimums	RA 105′ DA(H) 123′(100′)	Rwy 23′

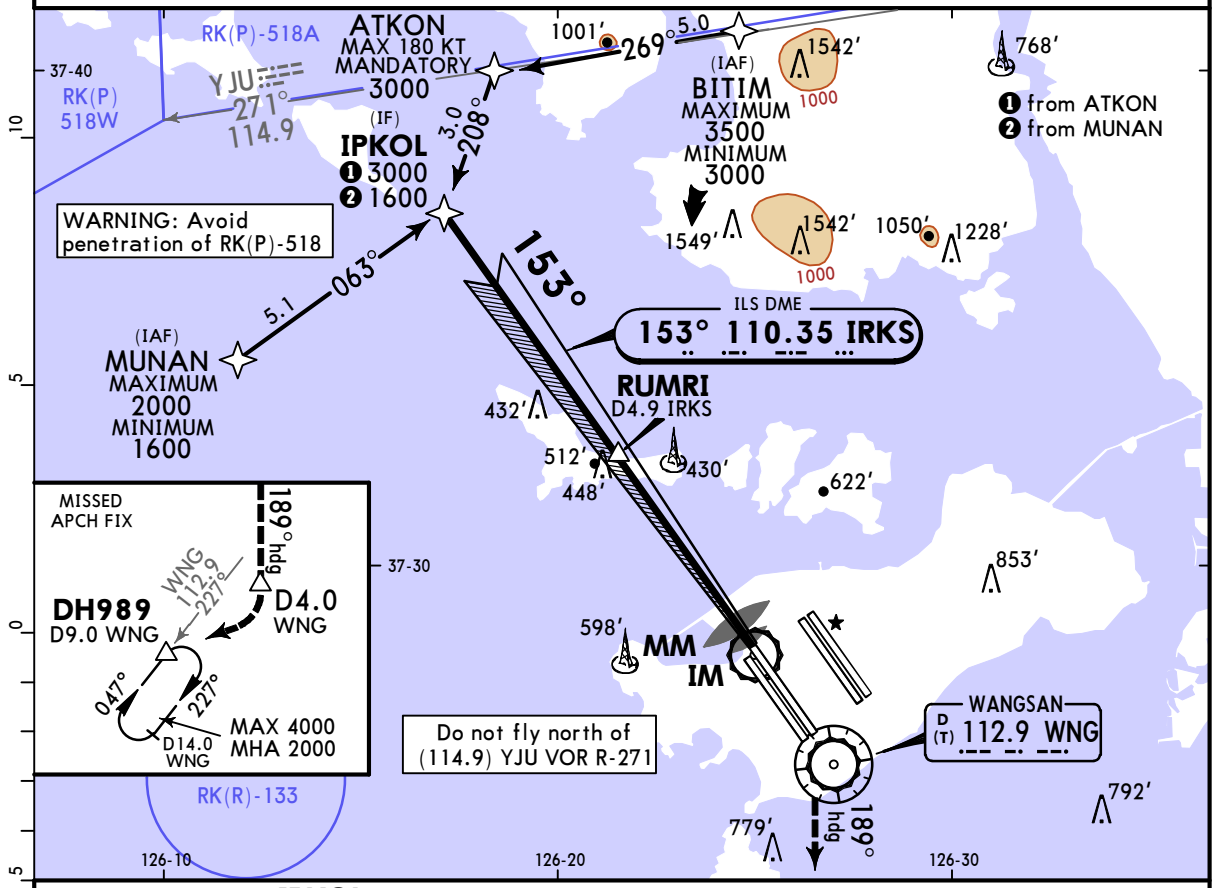
MISSED APCH: Fly Rwy heading, climb to 2000′. At 500′, turn RIGHT heading 189°. At D4.0 WNG, turn RIGHT direct to DH989. Hold as published. Missed approach turn limited to 210 KT maximum. Refer to minimums for missed apch climb gradient.

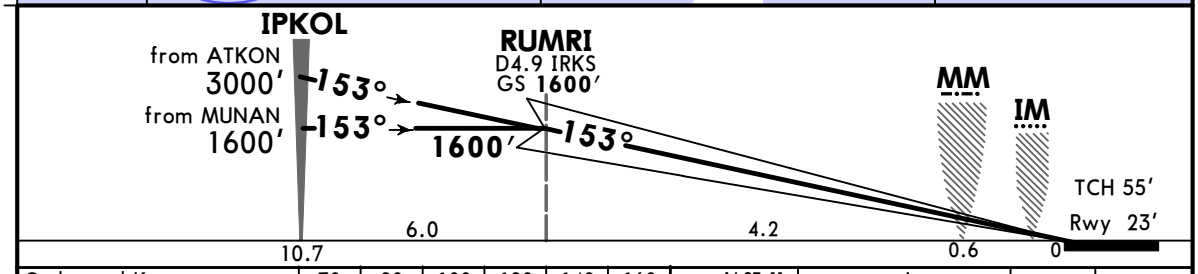
MSA ARP: 180° 2600 3900 270° 090° 2300 3300 360°

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy threshold. 5. Simultaneous approach authorized with Rwy 15L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 500′ on Rwy hdg | RT | 189° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch requires min climb of 4.0% (244′/NM) to 2000′ RA 105′ DA(H) 123′(100′)
1 R75m R125m	2 R300m

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

PANS OPS

CHANGES: Notes, holding.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24 (21-6) Eff 20 Mar 1600Z

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 16R

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

BRIEFING STRIP™

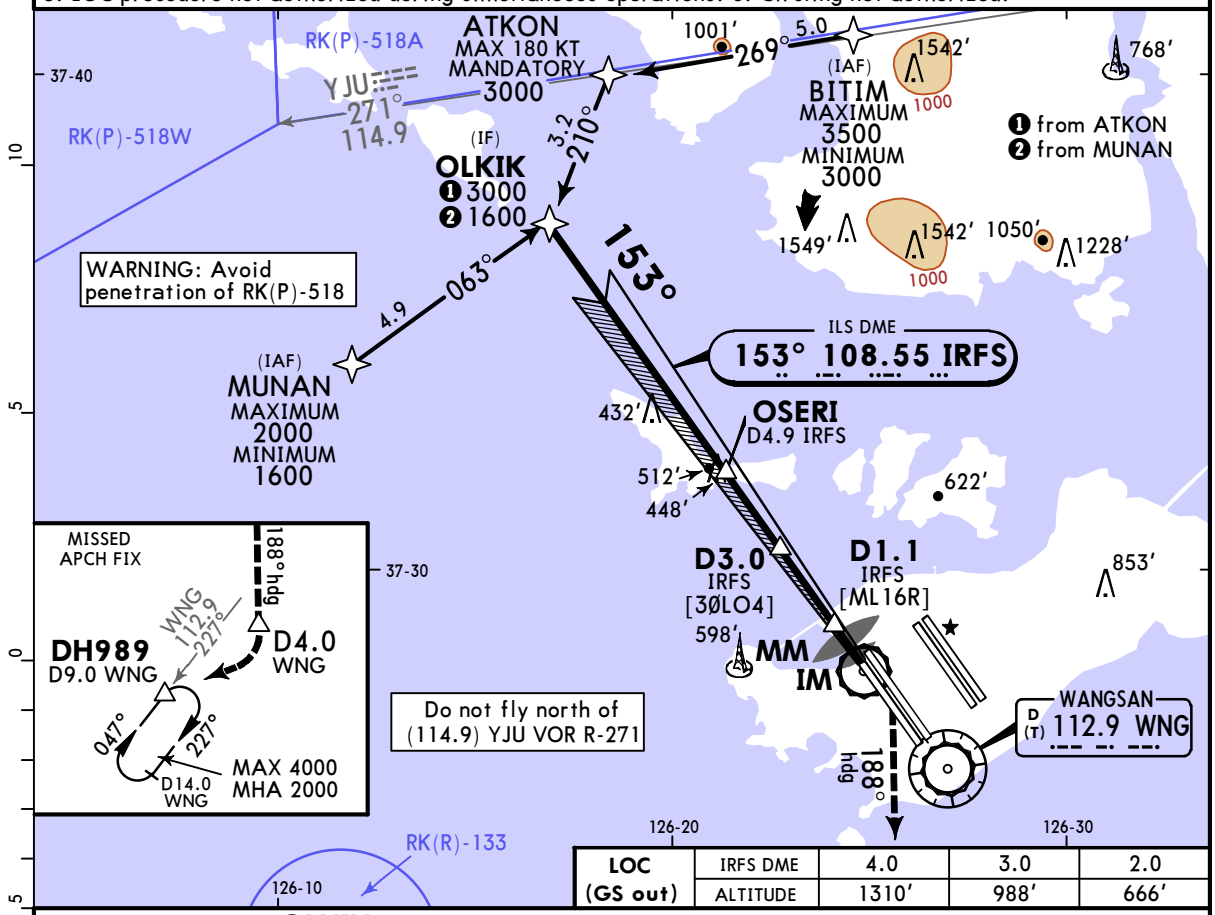
LOC IRFS	Final Apch Crs	OSERI	ILS DA(H) Refer to Minimums	Apt Elev 23′ / Rwy 23′
108.55	153°	1600′ (1577′)		

MSA ARP: 180° 2600 3900 270° 090° 3300 2300 360°

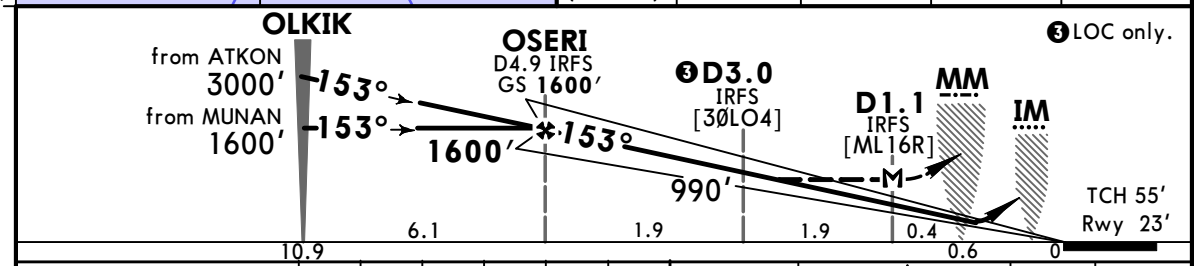
MISSED APCH: Fly Rwy heading, climb to 2000′. At 500′, turn RIGHT heading 188°. At D4.0 WNG, turn RIGHT direct to DH989. Hold as published. Do not turn before passing MAP. Missed approach turn limited to 210 KT maximum. Refer to minimums for missed apch climb gradient.

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM,180 KT before 8 NM from Rwy threshold. 4. Simultaneous approach authorized with Rwy 15L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	IRFS DME	4.0	3.0	2.0
	ALTITUDE	1310′	988′	666′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	375	482	536	643	750	868
MAP at D1.1 IRFS							

Timing not authorized for defining the MAP.

ALSF-II | PAPI | 500′ on Rwy hdg | RT | 188° hdg

State

	ILS	STRAIGHT-IN LANDING	LOC (GS out)
	Missed apch requires min climb of 4.0% (244′/NM) to 2000′ DA(H) 223′(200′)	Missed apch requires min climb of 2.5% (152′/NM) to 2000′ DA(H) 460′(437′)	Missed apch requires min climb of 2.5% (152′/NM) to 2000′ MDA(H) 410′(387′)
	ALS out	ALS out	ALS out
PANS OPS A B C D	R550m V800m	R/V1200m	R/V1300m	R/V2000m	R/V1100m	R/V1800m

CHANGES: Notes, holding.

RKSI/ICN
INCHEON INTL

JEPPESEN

15 MAR 24
Eff 20 Mar 1600Z

21-6A

SEOUL/INCHEON, KOREA
ILS Rwy 16R CAT II & III

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwy 16L/R, 34L/R	INCHEON Tower EAST Rwy 15L/R, 33L/R	Ground WEST Rwy 16L/R, 34L/R	Ground EAST Rwy 15L/R, 33L/R
128.4 128.2	119.75 121.35	118.8	118.2	121.7	121.75

LOC IRFS	Final Apch Crs	OSERI	CAT III	CAT II ILS	Apt Elev / Rwy
108.55	153°	1600′ (1577′)	Refer to Minimums	RA 105′ DA(H) 123′(100′)	Apt Elev 23′ Rwy 23′

BRIEFING STRIP ™

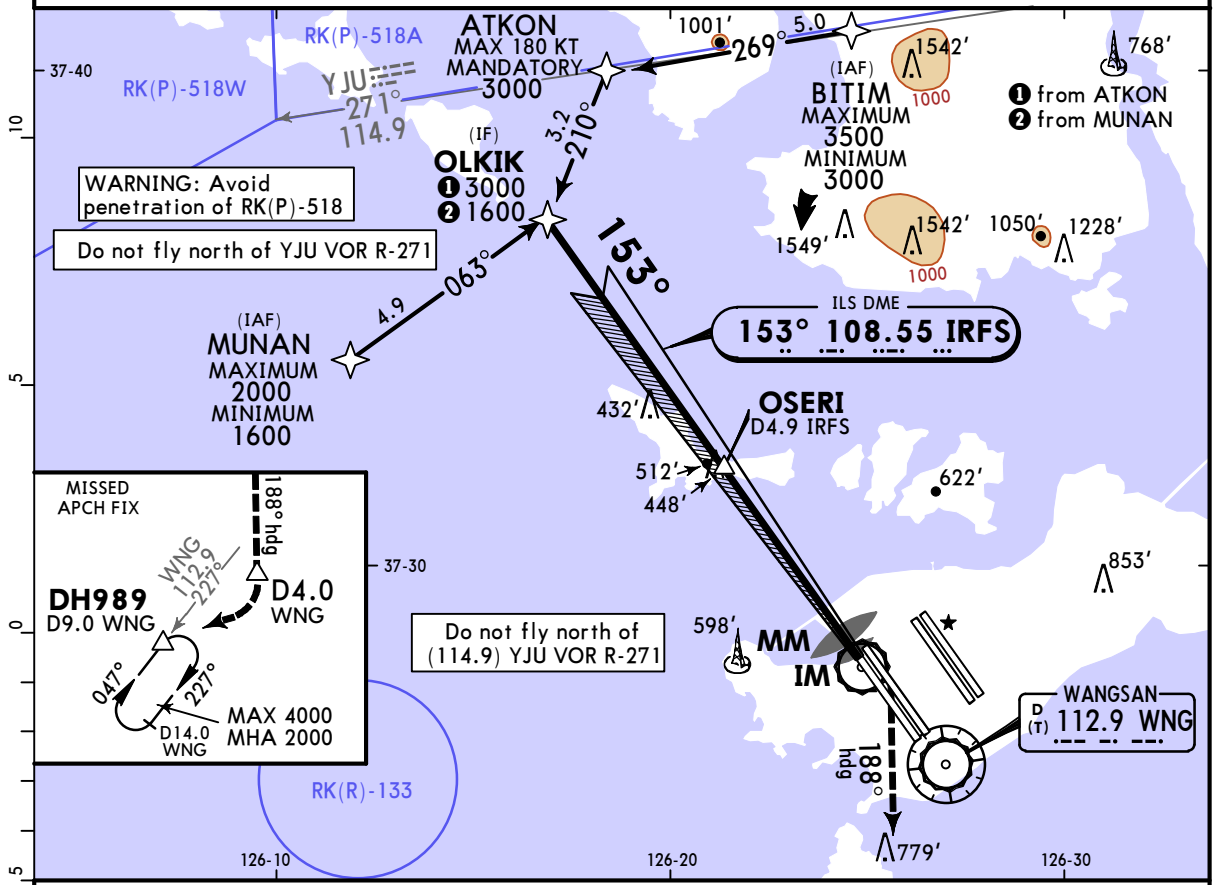
MISSED APCH: Fly Rwy heading, climb to 2000′. At 500′, turn RIGHT heading 188°. At D4.0 WNG, turn RIGHT direct to DH989. Hold as published. Missed approach turn limited to 210 KT maximum. Refer to minimums for missed apch climb gradient.

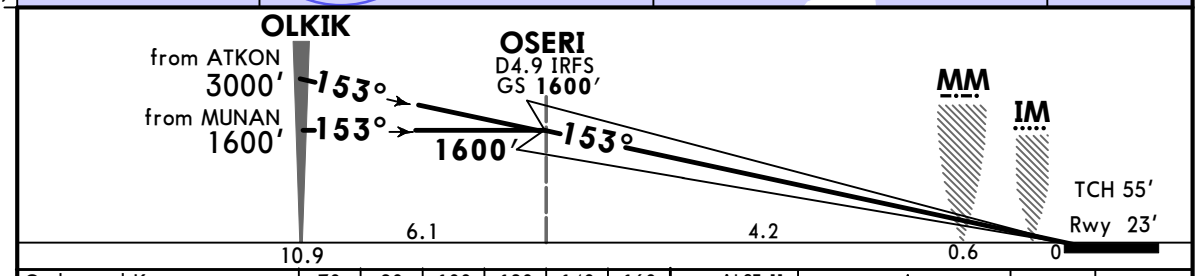
MSA ARP: 180°–090° 2600; 090°–180° 3900; 180°–270° 2300; 270°–360° 3300

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy threshold. 5. Simultaneous approach authorized with Rwy 15L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI
500′ on Rwy hdg
RT
188° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch requires min climb of 4.0% (244′/NM) to 2000′ RA 105′ DA(H) 123′(100′)
1 R75m R125m	2 R300m

PANS OPS

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

CHANGES: Notes, holding.

RKSI/ICN
INCHEON INTL

JEPPESEN

19 JAN 24 (21-7) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 33L

BRIEFING STRIP™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

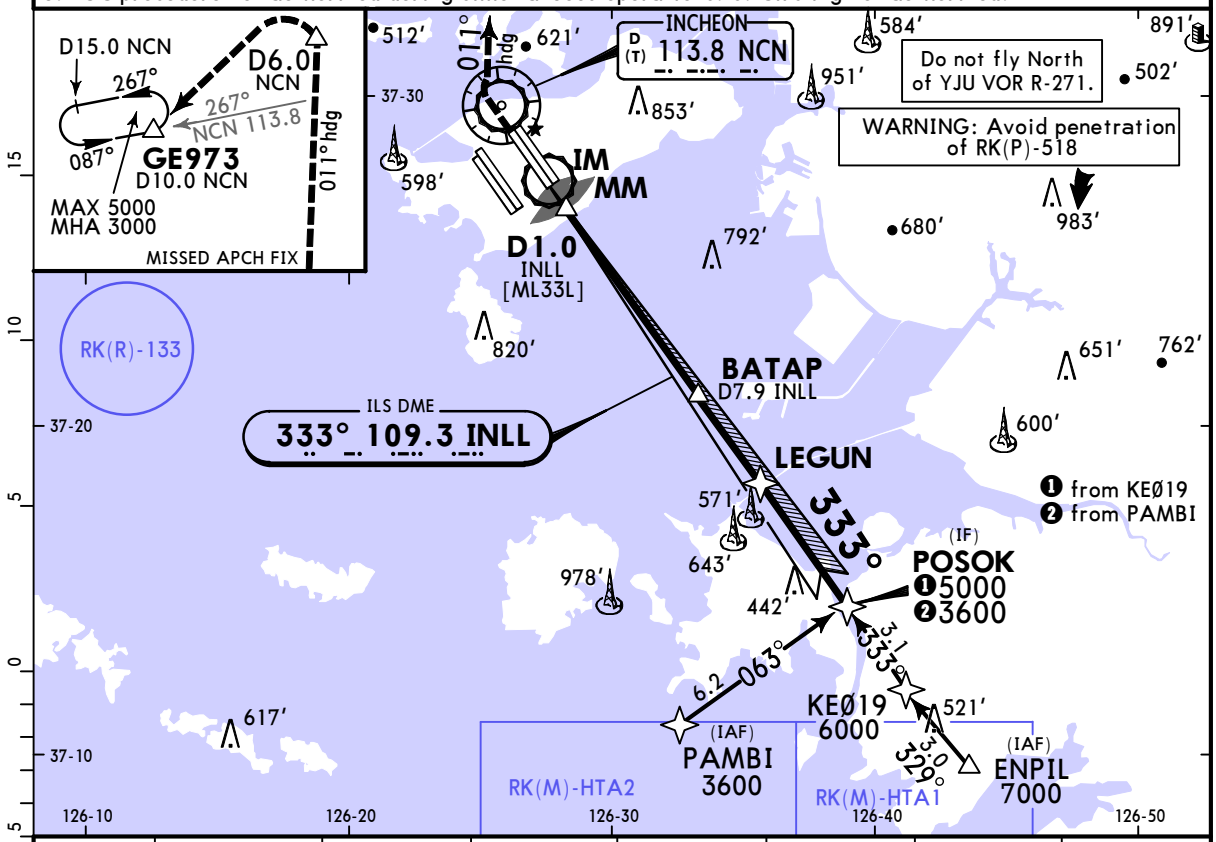
LOC INLL 109.3	Final Apch Crs 333°	BATAP 2600′ (2577′)	ILS DA(H) Refer to Minimums	Apt Elev 23′ Rwy 23′

MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn RIGHT heading 011°. At D6.0 NCN, turn LEFT direct to GE973. Hold as published. Do not turn before passing MAP. Missed apch turn limited to MAX 210 KT. Refer to minimums for missed apch climb gradient.

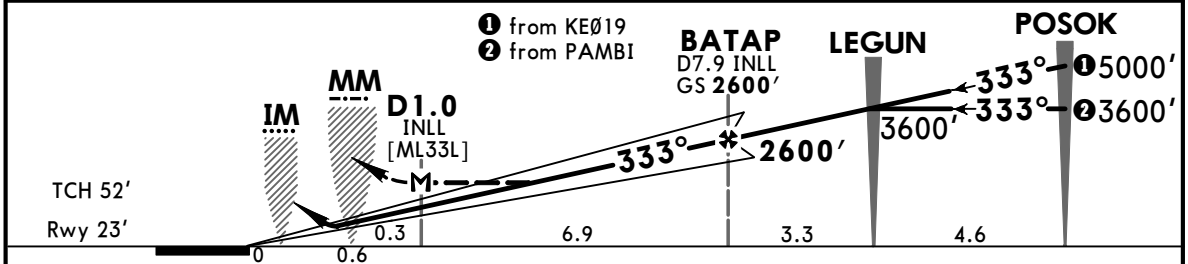
MSA ARP: 180°–3900, 270°–3300, 360°–2300, 090°–2600

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with Rwy 34L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	INLL DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE	675′	1001′	1327′	1654′	1980′	2306′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.07°	380	489	543	652	760	869
MAP at D1.0 INLL							
Timing not authorized for defining the MAP.							

ALSF-II | PAPI | 500′ | Rwy hdg | RT | 011° hdg

State — STRAIGHT-IN LANDING

	ILS		LOC (GS out)	
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ DA(H) 223′ (200′)	Missed apch climb gradient min 2.5% (152′/NM) to 3000′ DA(H) 461′ (438′)	Missed apch climb gradient min 2.5% (152′/NM) to 3000′ MDA(H) 440′ (417′)	
		ALS out	ALS out	ALS out
A B C D	R550m V800m	R/V1200m	R/V1300m	R/V2000m	R/V1200m	R/V1900m

PANS OPS

CHANGES: Missed apch, recommended altitudes.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-7A

SEOUL/INCHEON, KOREA
ILS Rwy 33L CAT II & III

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

LOC INLL	Final Apch Crs	BATAP	CAT III	CAT II ILS	Apt Elev / Rwy
109.3	333°	2600′ (2577′)	Refer to Minimums	RA 106′ DA(H) 123′ (100′)	Apt Elev 23′ Rwy 23′

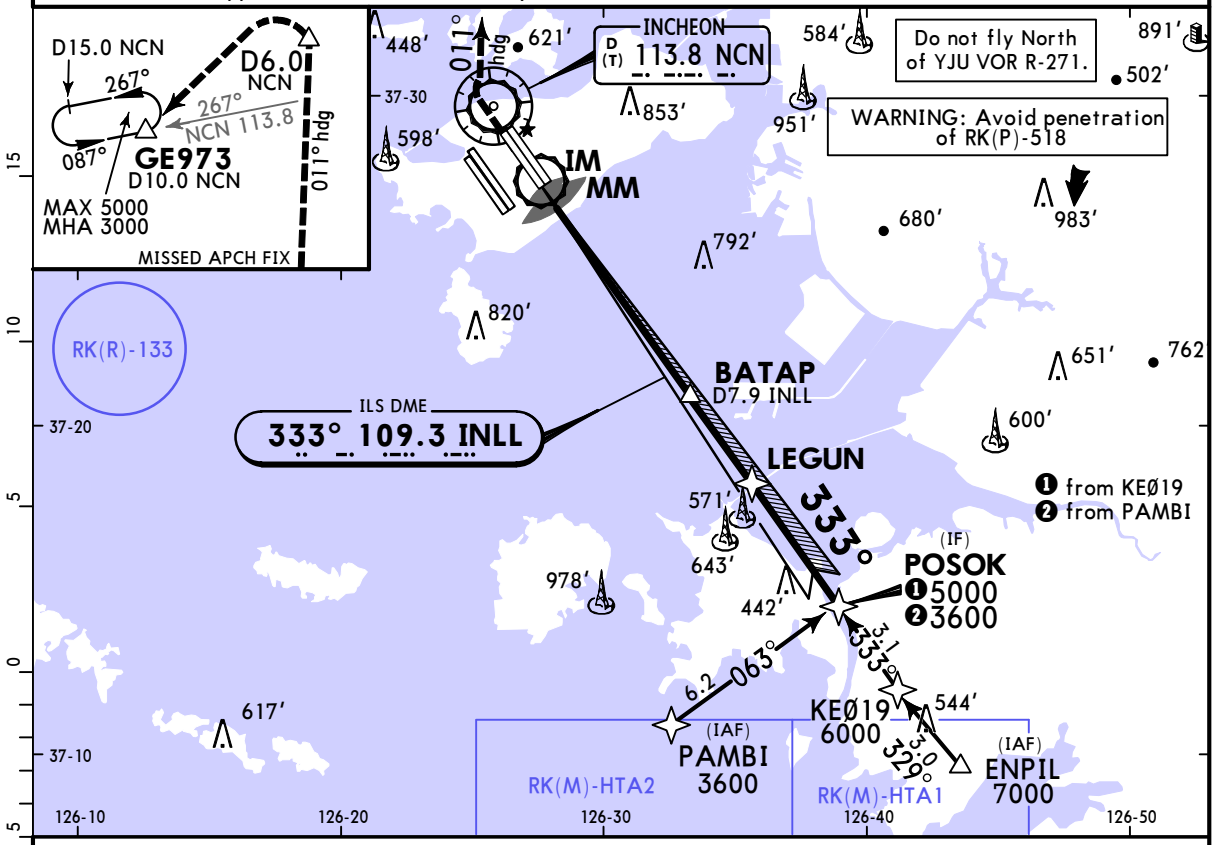
MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn RIGHT heading 011°. At D6.0 NCN, turn LEFT direct to GE973. Hold as published. Missed apch turn limited to MAX 210 KT.
Refer to minimums for missed apch climb gradient.

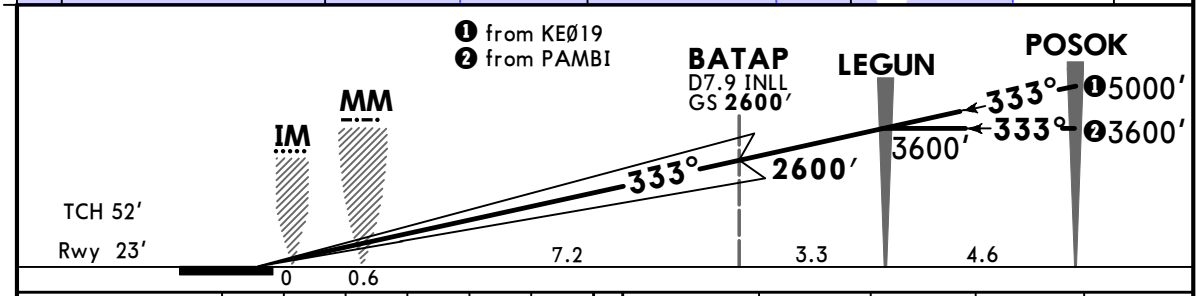
MSA ARP: 180° 3900 | 270° 3300 | 360° 2300 | 090° 2600

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 34L/R.





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II / PAPI | 500′ | Rwy hdg | RT | 011° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ RA 106′ DA(H) 123′ (100′)
1 R75m R125m	2 R300m

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

PANS OPS

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24 (21-8) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 33R

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

LOC INRR	Final Apch Crs	GOKAK	ILS DA(H) Refer to Minimums	Apt Elev 23′ Rwy 23′
108.9	333°	2600′ (2577′)		

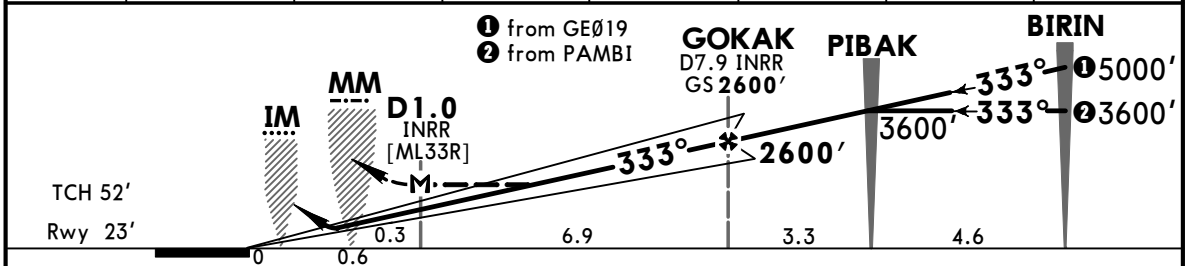
MSA ARP: 180° 3900 270° 3300 360° 2300 090° 2600

MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn RIGHT heading 010°. At D6.0 NCN, turn LEFT direct to GE973. Hold as published. Do not turn before passing MAP. Missed apch turn limited to MAX 210 KT. Refer to minimums for missed apch climb gradient.

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1.GNSS or DME/DME/IRU required. 2.ATS surveillance service required. 3.Minimum speed 160 KT before 5NM 180 KT before 8 NM from Rwy. 4.Simultaneous approach authorized with Rwy 34L/R. 5. LOC procedure not authorized during simultaneous operations. 6.Circling not authorized.

LOC (GS out)	INRR DME	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE	675′	1001′	1327′	1654′	1980′	2306′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.07°	380	489	543	652	760	869
MAP at D1.0 INRR							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
500′
Rwy hdg
RT
010° hdg

PANS OPS

State — STRAIGHT-IN LANDING

	ILS		LOC (GS out)	
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ DA(H) 223′(200′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ DA(H) 461′(438′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ MDA(H) 440′(417′)	
		ALS out		ALS out		ALS out
A B C D	R550m V800m	R/V1200m	R/V1300m	R/V2000m	R/V1200m	R/V1900m

CHANGES: Missed apch, recommended altitudes.

RKSI/ICN
INCHEON INTL

19 JAN 24
Eff 24 Jan 1600Z

JEPPESEN
21-8A

SEOUL/INCHEON, KOREA
ILS Rwy 33R CAT II & III

BRIEFING STRIP ™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

LOC INRR	Final Apch Crs	GOKAK	CAT III	CAT II ILS	Apt Elev / Rwy
108.9	333°	2600′ (2577′)	Refer to Minimums	RA 106′ DA(H) 123′(100′)	Apt Elev 23′ Rwy 23′

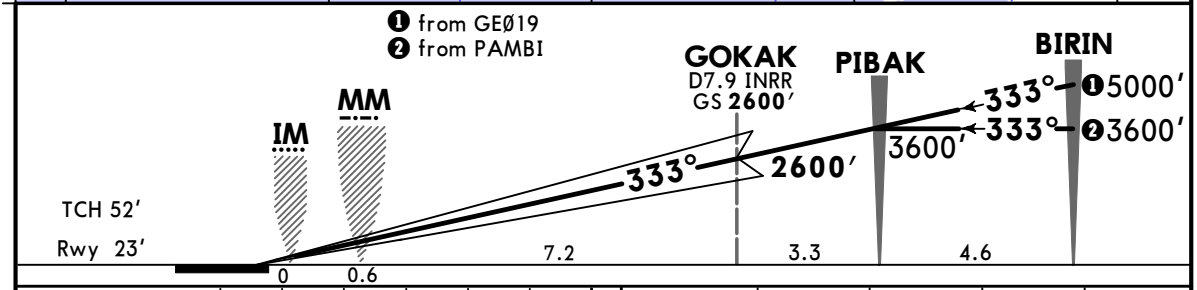
MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn RIGHT heading 010°. At D6.0 NCN, turn LEFT direct to GE973. Hold as published. Missed apch turn limited to MAX 210 KT.
Refer to minimums for missed apch climb gradient.

MSA ARP: 180° 3900 · 270° · 090° 2300 · 3300 · 360° · 2600

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Acft Certification Required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 34L/R.



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II · PAPI · 500′ · Rwy hdg · RT · 010° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ RA 106′ DA(H) 123′(100′)
1 R75m R125m	2 R300m

PANS OPS

1 Airplanes using fail-operational system. 2 CAT D without autoland: R350m.

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24
Eff 24 Jan 1600Z
21-9

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 34L

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

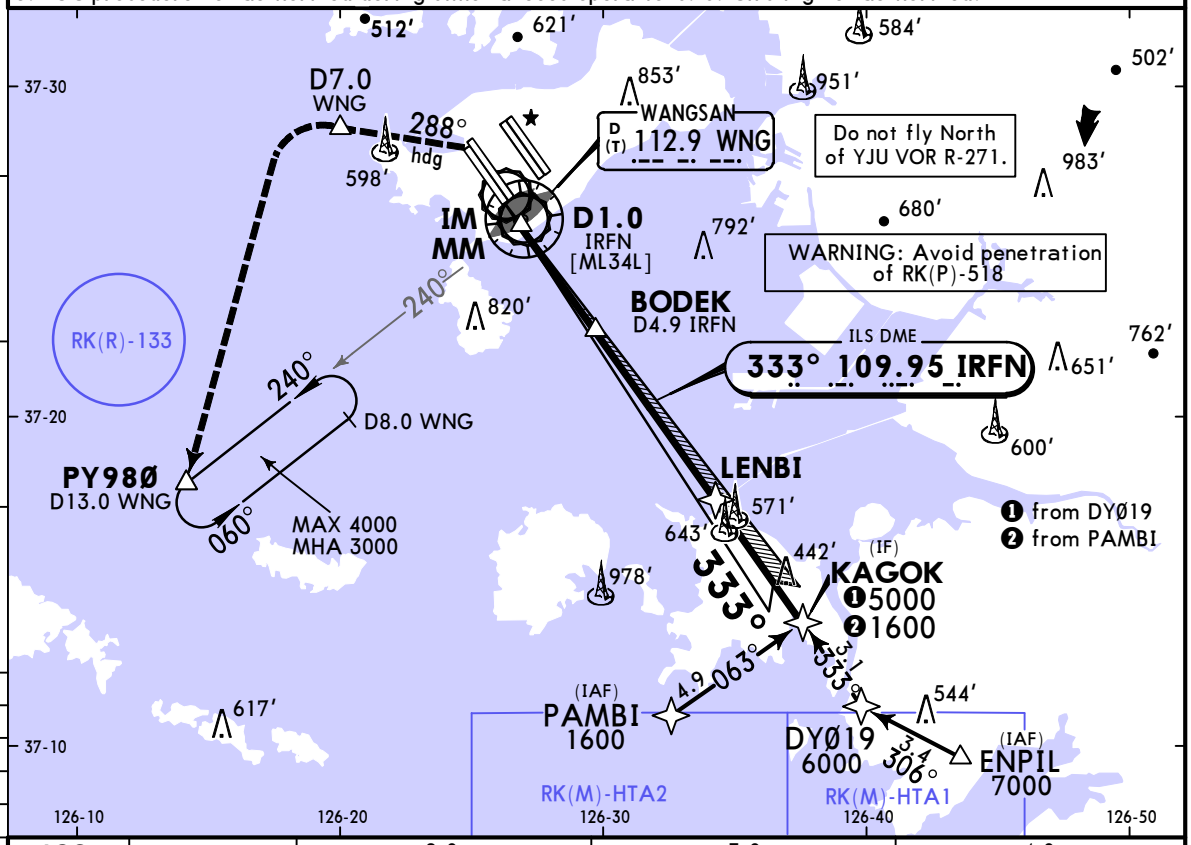
LOC IRFN	Final Apch Crs	BODEK	ILS DA(H) Refer to Minimums	Apt Elev 23′ Rwy 23′
109.95	333°	1600′(1577′)		

MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn LEFT heading 288°. At D7.0 WNG, turn LEFT direct to PY98Ø. Hold as published. Do not turn before passing MAP. Missed apch turn limited to MAX 210 KT. Refer to minimums for missed apch climb gradient.

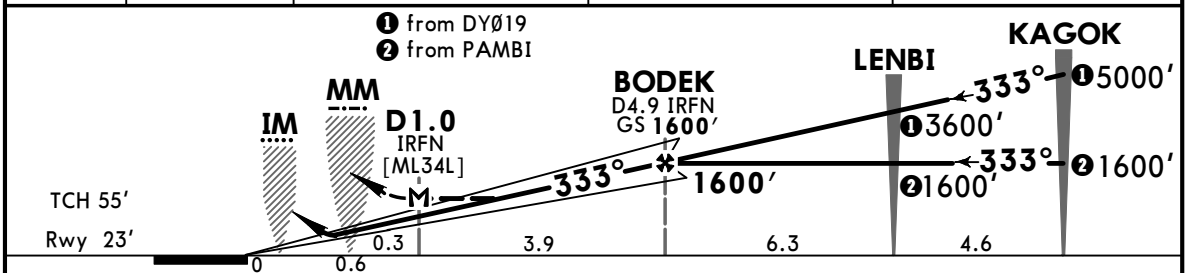
MSA ARP: 180° 3900 | 270° 3300 | 360° 2300 | 090° 2600

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with ILS Rwy 33L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	IRFN DME	2.0	3.0	4.0
	ALTITUDE	666′	988′	1310′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	575	536	536	643	750	858
MAP at D1.0 IRFN							
Timing not authorized for defining the MAP.							

ALSF-II
PAPI
500′
Rwy hdg
LT
288° hdg

State

STRAIGHT-IN LANDING

	ILS		LOC (GS out)	
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ DA(H) 223′(200′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ DA(H) 360′(337′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ MDA(H) 410′(387′)	
		ALS out		ALS out		ALS out
PANS OPS A	R550m V800m	R/V1200m	R/V800m	R/V1500m	R/V1100m	R/V1800m
B						
C						
D						

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

JEPPESEN

19 JAN 24
Eff 24 Jan 1600Z

21-9A

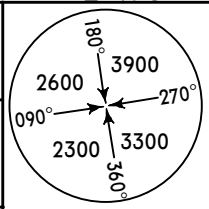
SEOUL/INCHEON, KOREA
ILS Rwy 34L CAT II & III

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP™

LOC IRFN	Final Apch Crs	BODEK	CAT III	CAT II ILS	Apt Elev / Rwy
109.95	333°	1600′ (1577′)	Refer to Minimums	RA 105′ DA(H) 123′ (100′)	Apt Elev 23′ Rwy 23′

MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn LEFT heading 288°. At D7.0 WNG, turn LEFT direct to PY98Ø. Hold as published. Missed apch turn limited to MAX 210 KT.
Refer to minimums for missed apch climb gradient.

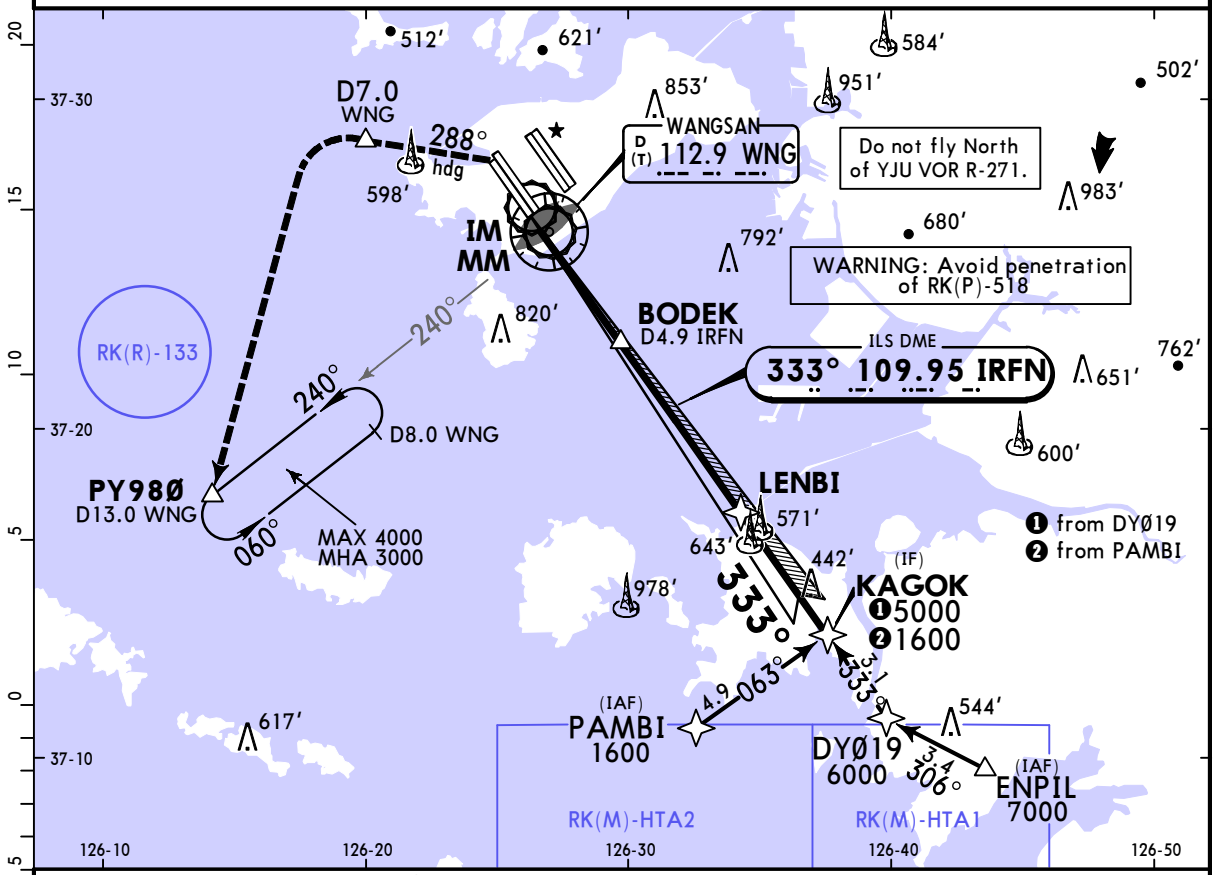


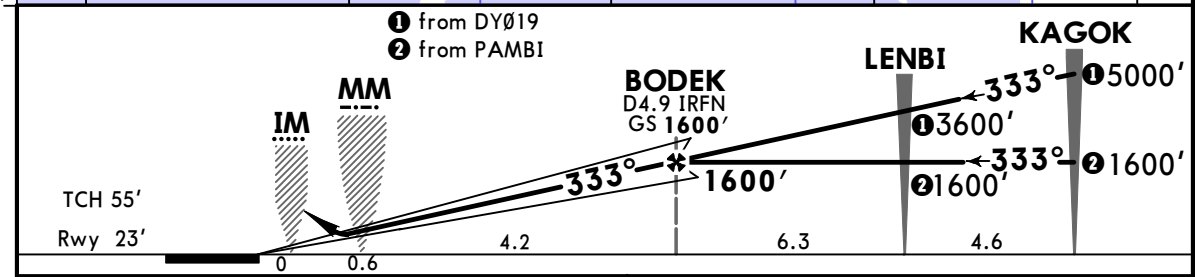
MSA ARP

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Acft Certification Required. 2. GNSS or DME/DME/IRU required. 3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with Rwy 33L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 500′ | Rwy hdg | LT | 288° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ RA 105′ DA(H) 123′ (100′)
❶ R75m R125m	❷ R300m

❶ Airplanes using fail-operational system. ❷ CAT D without autoland: R350m.

PANS OPS

CHANGES: Missed apch.

RKSI/ICN
INCHEON INTL

JEPPESEN
16 FEB 24 (21-10)

SEOUL/INCHEON, KOREA
ILS or LOC Rwy 34R

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

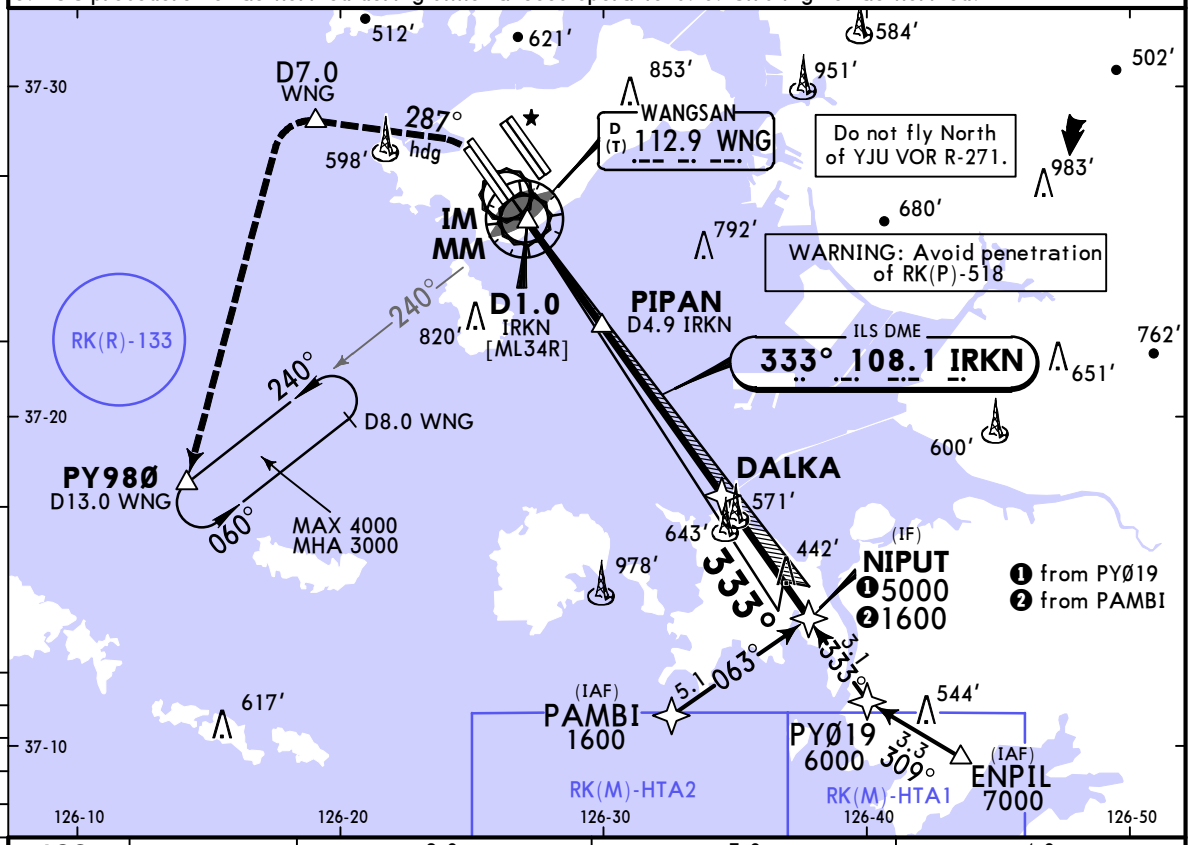
LOC IRKN	Final Apch Crs	PIPAN	ILS DA(H) Refer to Minimums	Apt Elev 23′ Rwy 23′
108.1	333°	1600′(1577′)		

MSA ARP: 180°–3900, 270°–3300, 360°–2300, 090°–2600

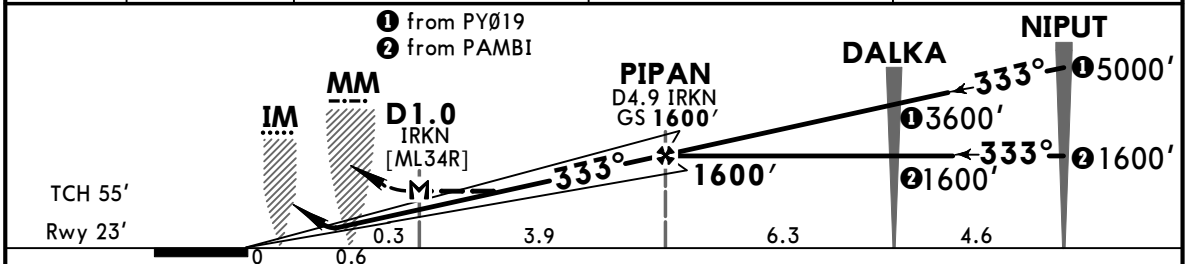
MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn LEFT heading 287°. At D7.0 WNG, turn LEFT direct to PY98Ø. Hold as published. Do not turn before passing MAP. Missed apch turn limited to MAX 210 KT. Refer to minimums for missed apch climb gradient.

RNAV 1 operation | Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. GNSS or DME/DME/IRU required. 2. ATS surveillance service required. 3. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 4. Simultaneous approach authorized with ILS Rwy 33L/R. 5. LOC procedure not authorized during simultaneous operations. 6. Circling not authorized.



LOC (GS out)	IRKN DME	2.0	3.0	4.0
	ALTITUDE	666′	988′	1310′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.03°	575	536	536	643	750	858
MAP at D1.0 IRKN							
Timing not authorized for defining the MAP.							

ALSF-II | PAPI | 500′ | Rwy hdg | LT | 287° hdg

State — STRAIGHT-IN LANDING

	ILS		LOC (GS out)	
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ DA(H) 223′(200′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ DA(H) 360′(337′)		Missed apch climb gradient min 2.5% (152′/NM) to 3000′ MDA(H) 410′(387′)	
		ALS out		ALS out		ALS out
A	R550m V800m	R/V1200m	R/V800m	R/V1500m	R/V1100m	R/V1800m
B						
C						
D						

PANS OPS

CHANGES: ILS missed approach climb gradient & ALS out visibility.

RKSI/ICN
INCHEON INTL

JEPPESEN
16 FEB 24 (21-10A)

SEOUL/INCHEON, KOREA
ILS Rwy 34R CAT II & III

BRIEFING STRIP ™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

LOC IRKN	Final Apch Crs	PIPAN	CAT III	CAT II ILS	Apt Elev / Rwy
108.1	333°	1600′ (1577′)	Refer to Minimums	RA 105′ DA(H) 123′ (100′)	Apt Elev 23′ Rwy 23′

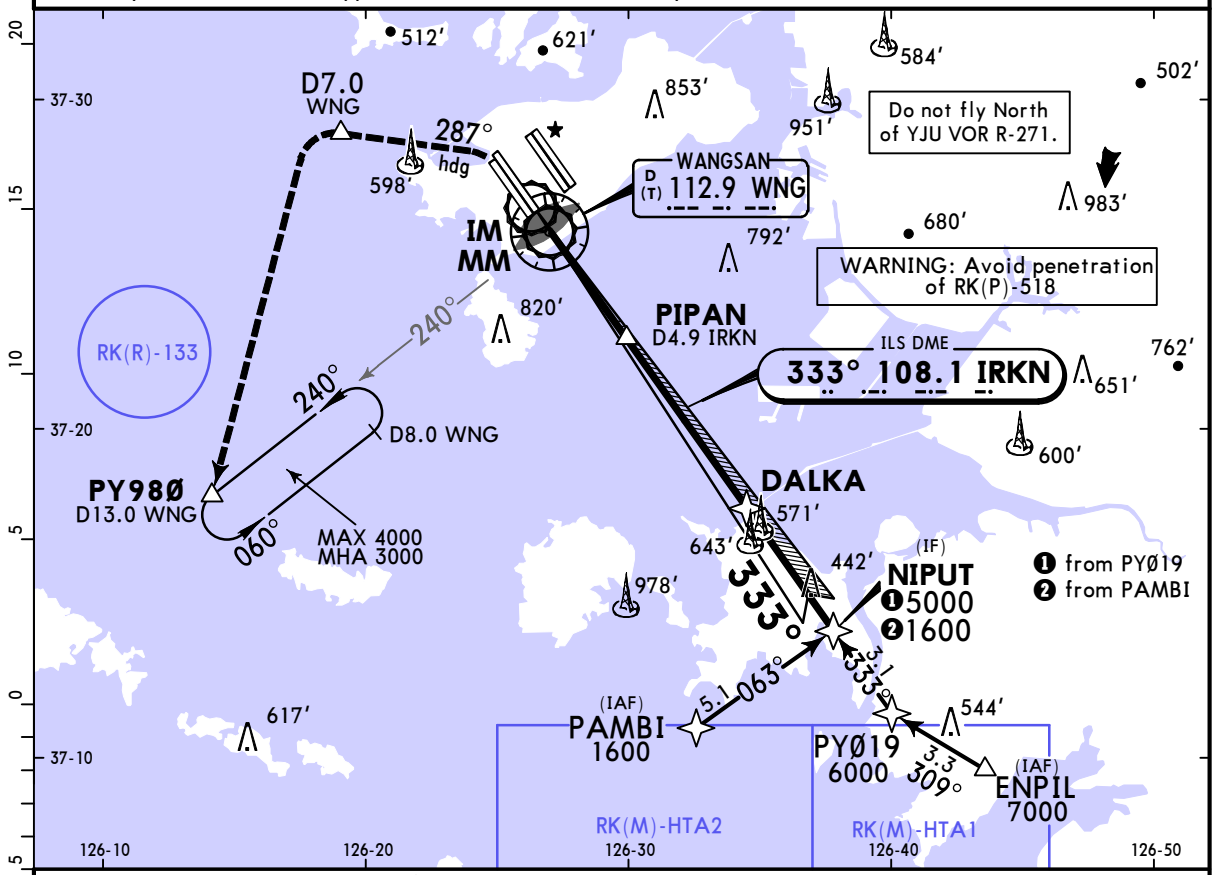
MISSED APCH: Fly Rwy heading, climb to 3000′. At 500′, turn LEFT heading 287°. At D7.0 WNG, turn LEFT direct to PY98Ø. Hold as published. Missed apch turn limited to MAX 210 KT.
Refer to minimums for missed apch climb gradient.

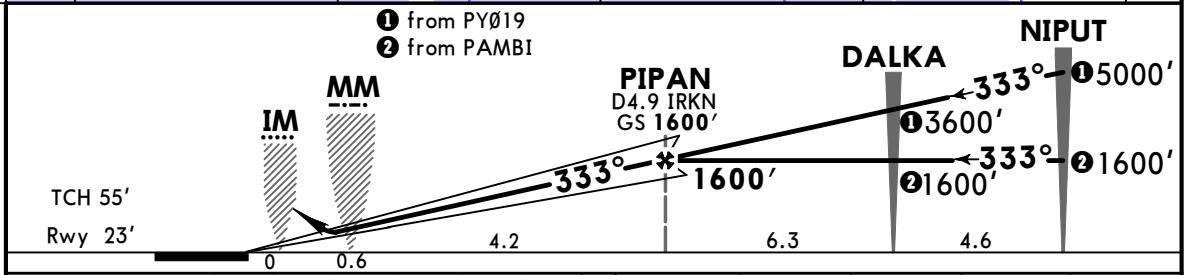
MSA ARP: 180° 3900, 270° 3300, 360° 2300, 090° 2600

Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNAV 1 operation

1. Special Aircrew & Acft Certification Required. 2. GNSS or DME/DME/IRU required.
3. ATS surveillance service required. 4. Minimum speed 160 KT before 5 NM, 180 KT before 8 NM from Rwy. 5. Simultaneous approach authorized with ILS Rwy 33L/R.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II | PAPI | 500′ | Rwy hdg | LT | 287° hdg

State

STRAIGHT-IN LANDING

CAT III ILS	CAT II ILS
	Missed apch climb gradient min 4.0% (244′/NM) to 2000′ RA 105′ DA(H) 123′ (100′)
❶ R75m R125m	❷ R300m

PANS OPS

❶ Airplanes using fail-operational system. ❷ CAT D without autoland: R350m.

CHANGES: CAT II ILS missed approach climb gradient.

RKSI/ICN
INCHEON INTL

JEPPESEN
2 FEB 24 (22-1)

SEOUL/INCHEON, KOREA
RNP Rwy 15L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP™

RNAV	Final Apch Crs 153°	NOPEN 1600′ (1577′)	LNAV/VNAV DA(H) 460′ (437′)	Apt Elev 23′ Rwy 23′

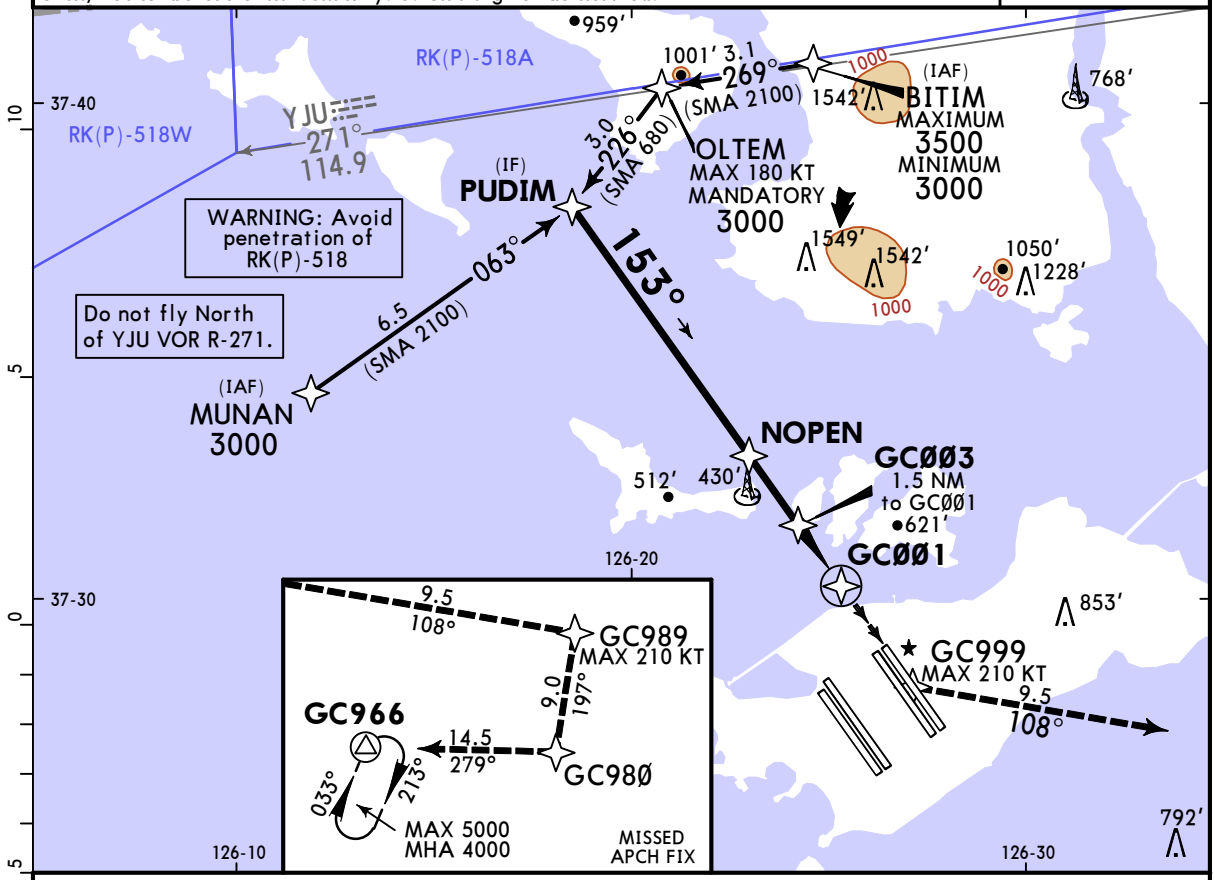
MISSED APCH: Climb to 4000′. Track to GC999, GC989, GC98Ø and GC966. Hold as published.

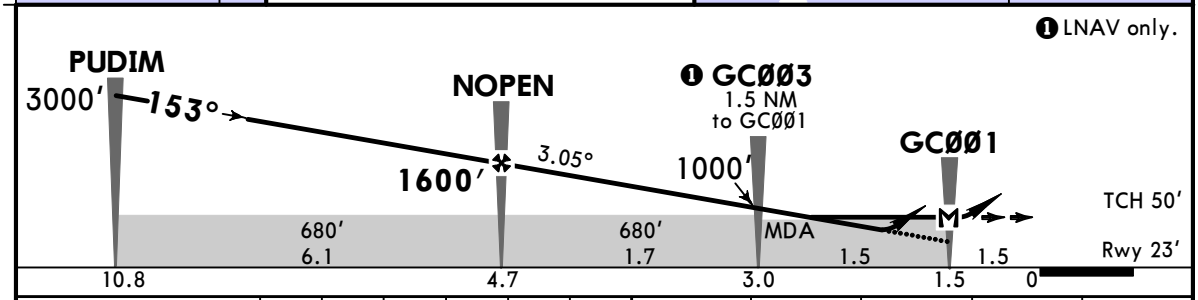
Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNP Apch | RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from Rwy. 3. Circling not authorized.

MSA ARP
180° 3900 270° 3300 360° 2300 090° 2600





Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.05°	378	486	540	648	755	863
MAP at GCØØ1							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
4000′

GC999	GC989	GC98Ø

State — STRAIGHT-IN LANDING

PANS OPS

	LNAV/VNAV DA(H) 460′ (437′)		LNAV MDA(H) 540′ (517′)	
		ALS out		ALS out
A	R/V1300m	R/V2000m	R/V1600m	R/V2400m
B				
C				
D				

CHANGES: None.

RKSI/ICN
INCHEON INTL

JEPPESEN
2 FEB 24 (22-2)

SEOUL/INCHEON, KOREA
RNP Rwy 15R

BRIEFING STRIP ™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

RNAV	Final Apch Crs	UPROR	LNAV/VNAV DA(H)	Apt Elev 23′
	153°	1600′ (1577′)	460′ (437′)	Rwy 23′

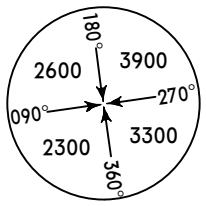
MISSED APCH: Climb to 4000′. Track to KC999, GC989 and GC98Ø and GC966. Hold as published.

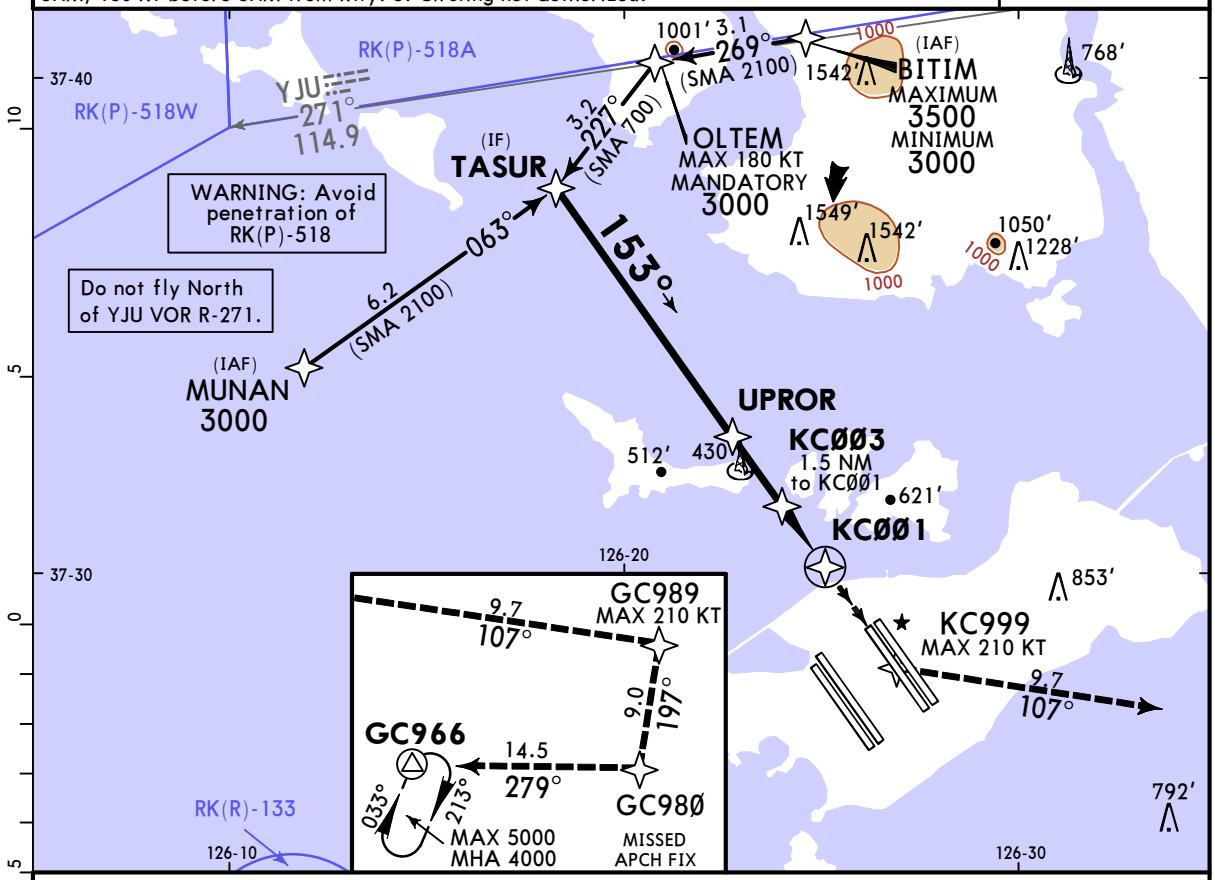
Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

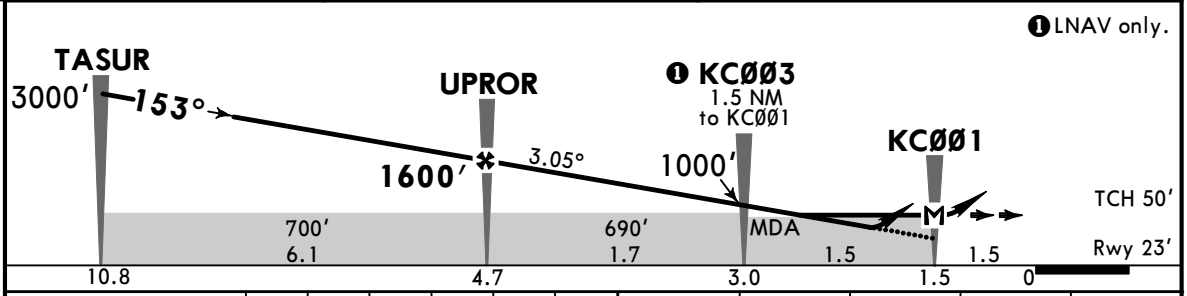
RNP Apch | RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from Rwy. 3. Circling not authorized.

MSA ARP







Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.05°	378	486	540	648	755	863
MAP at KCØØ1							

Timing not authorized for defining the MAP.

ALSF-II
PAPI

4000′	KC999	GC989	GC98Ø

State

STRAIGHT-IN LANDING

	LNAV/VNAV DA(H) 460′ (437′)		LNAV MDA(H) 540′ (517′)	
		ALS out		ALS out
A	R/V1300m	R/V2000m	R/V1600m	R/V2400m
B				
C				
D				

PANS OPS

CHANGES: KC999 ident in missed apch text and icons.

RKSI/ICN
INCHEON INTL

JEPPESEN 19 JAN 24 22-3 Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 16L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

RNAV	Final Apch Crs 153°	RUMRI 1600′ (1577′)	LNAV/VNAV DA(H) 430′ (407′)	Apt Elev 23′ Rwy 23′

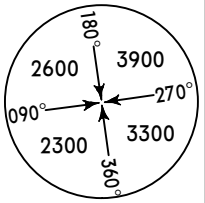
MISSED APCH: Climb to 3000′. Track to DH993 and DH989. Hold as published. Missed approach turn limited to 240 KT maximum. Missed approach climb gradient of 4.0% (244′/NM) for ATC purpose.

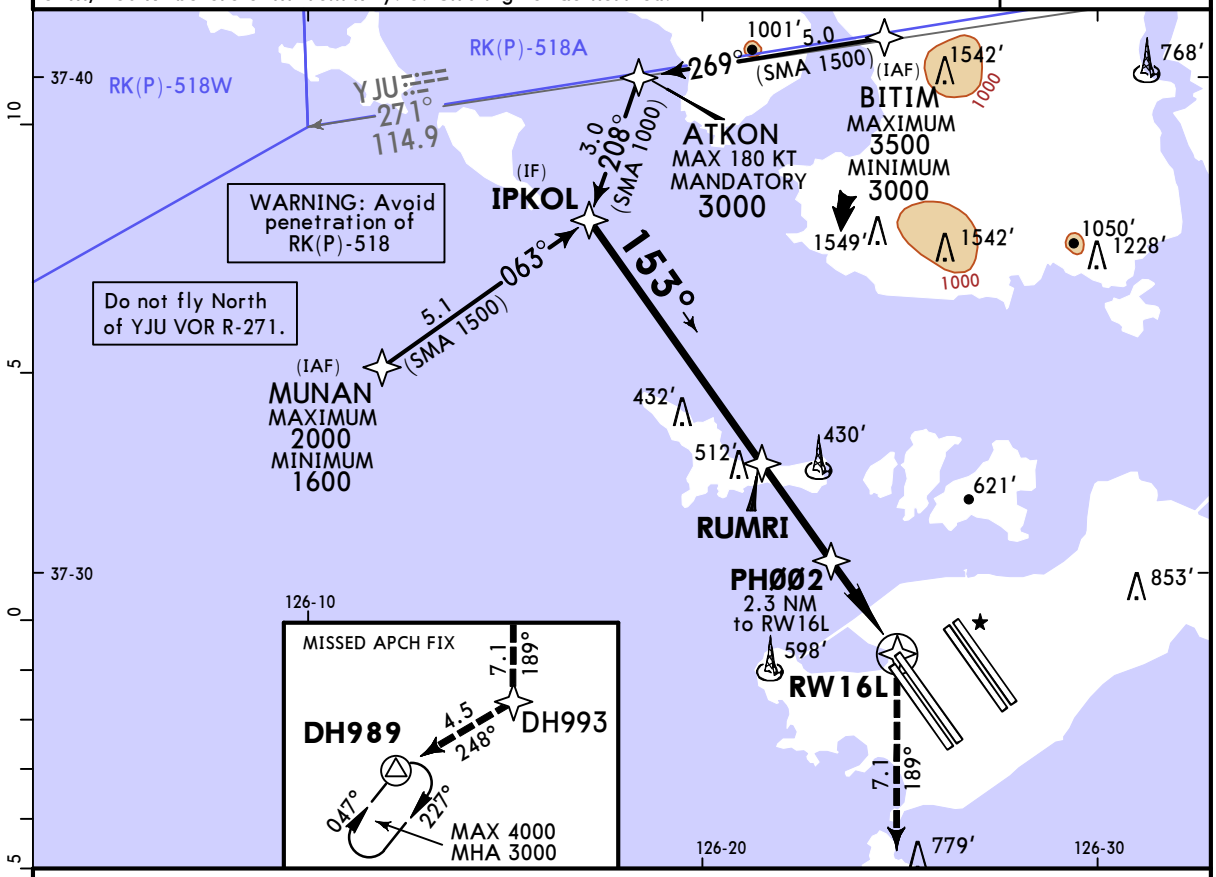
Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

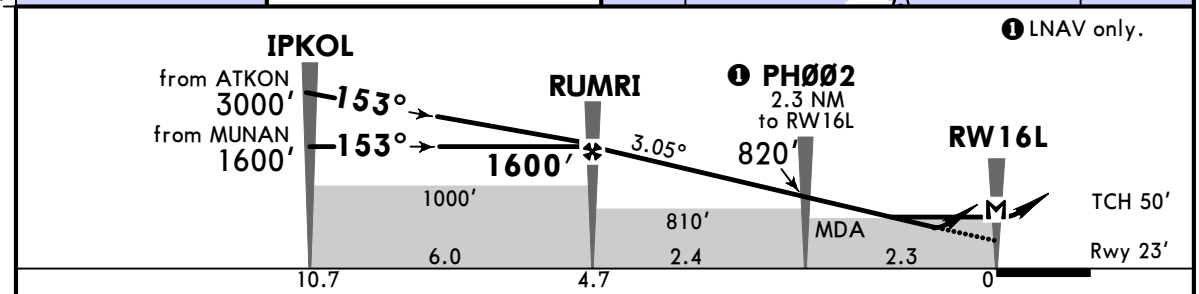
RNP Apch | RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from Rwy. 3. Circling not authorized.

MSA ARP







Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.05°	378	486	540	648	755	863
MAP at RW16L						

Timing not authorized for defining the MAP.

ALSF-II PAPI 3000′ DH993 DH989

State STRAIGHT-IN LANDING

PANS OPS

	LNAV/VNAV DA(H) 430′ (407′)		LNAV MDA(H) 520′ (497′)	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1500m	R/V2300m
B				
C				
D				

CHANGES: Missed approach, note added.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24 (22-4) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 16R

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

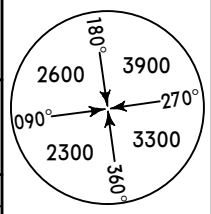
RNAV	Final Apch Crs 153°	OSERI 1600′ (1577′)	LNAV/VNAV DA(H) 430′ (407′)	Apt Elev 23′ Rwy 23′

MISSED APCH: Climb to 3000′. Track to DH993 and DH989. Hold as published. Missed approach turn limited to 240 KT maximum. Missed approach climb gradient of 4.0% (244′/NM) for ATC purpose.

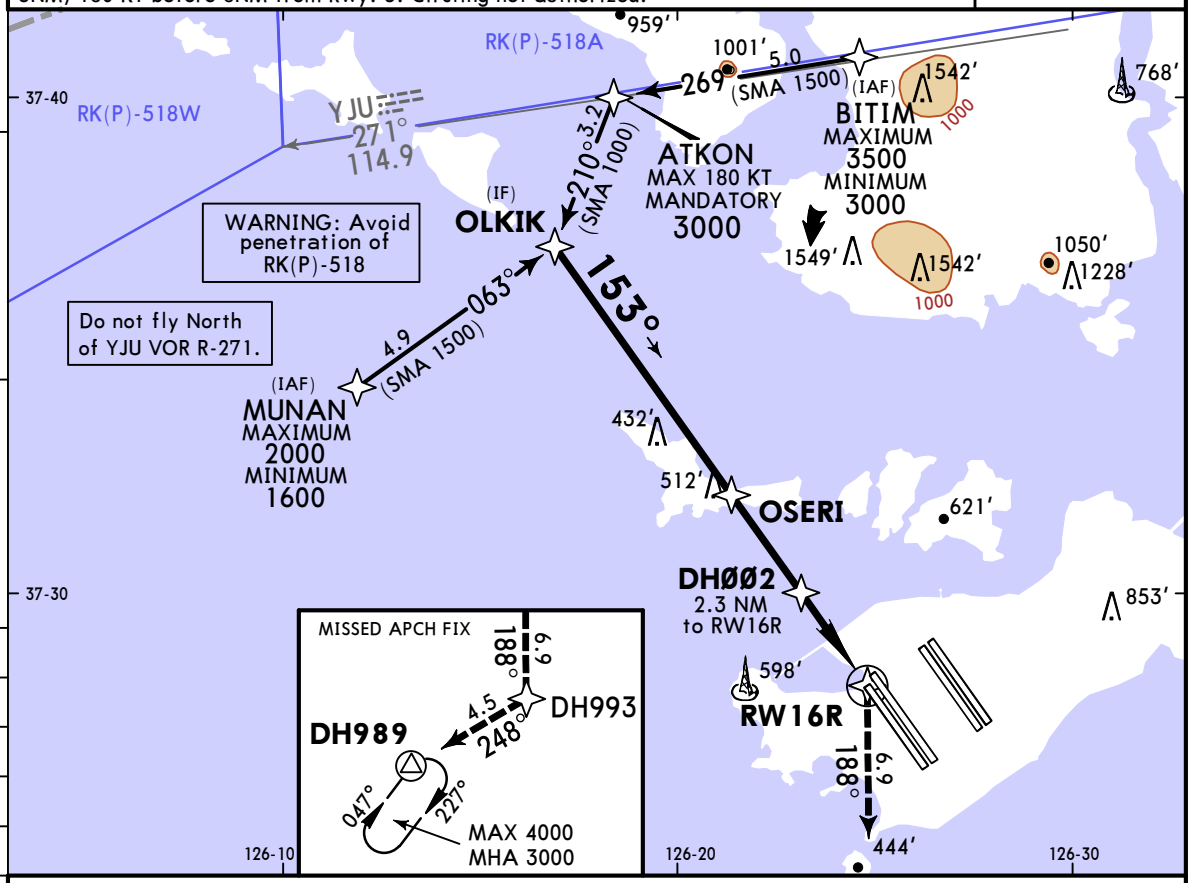
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL140	Trans alt: 14000′

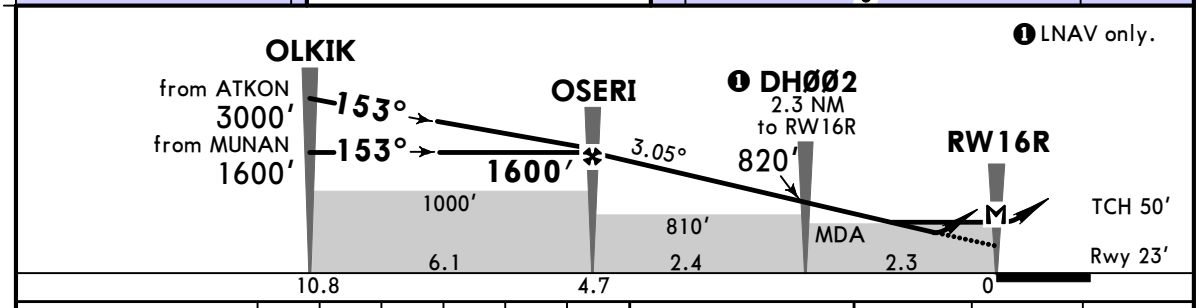
RNP Apch | RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from Rwy. 3. Circling not authorized.



MSA ARP





Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.05°	378	486	540	648	755	863
MAP at RW16R							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
3000′
DH993

State STRAIGHT-IN LANDING

PANS OPS

	LNAV/VNAV DA(H) 430′ (407′)		LNAV MDA(H) 520′ (497′)	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1500m	R/V2300m
B				
C				
D				

CHANGES: Missed apch notes.

RKSI/ICN
INCHEON INTL

JEPPESEN

19 JAN 24 (22-5) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 33L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

RNAV	Final Apch Crs	KIDAB	LNAV/VNAV DA(H)	Apt Elev 23′ Rwy 23′
	333°	1600′ (1577′)	430′ (407′)	

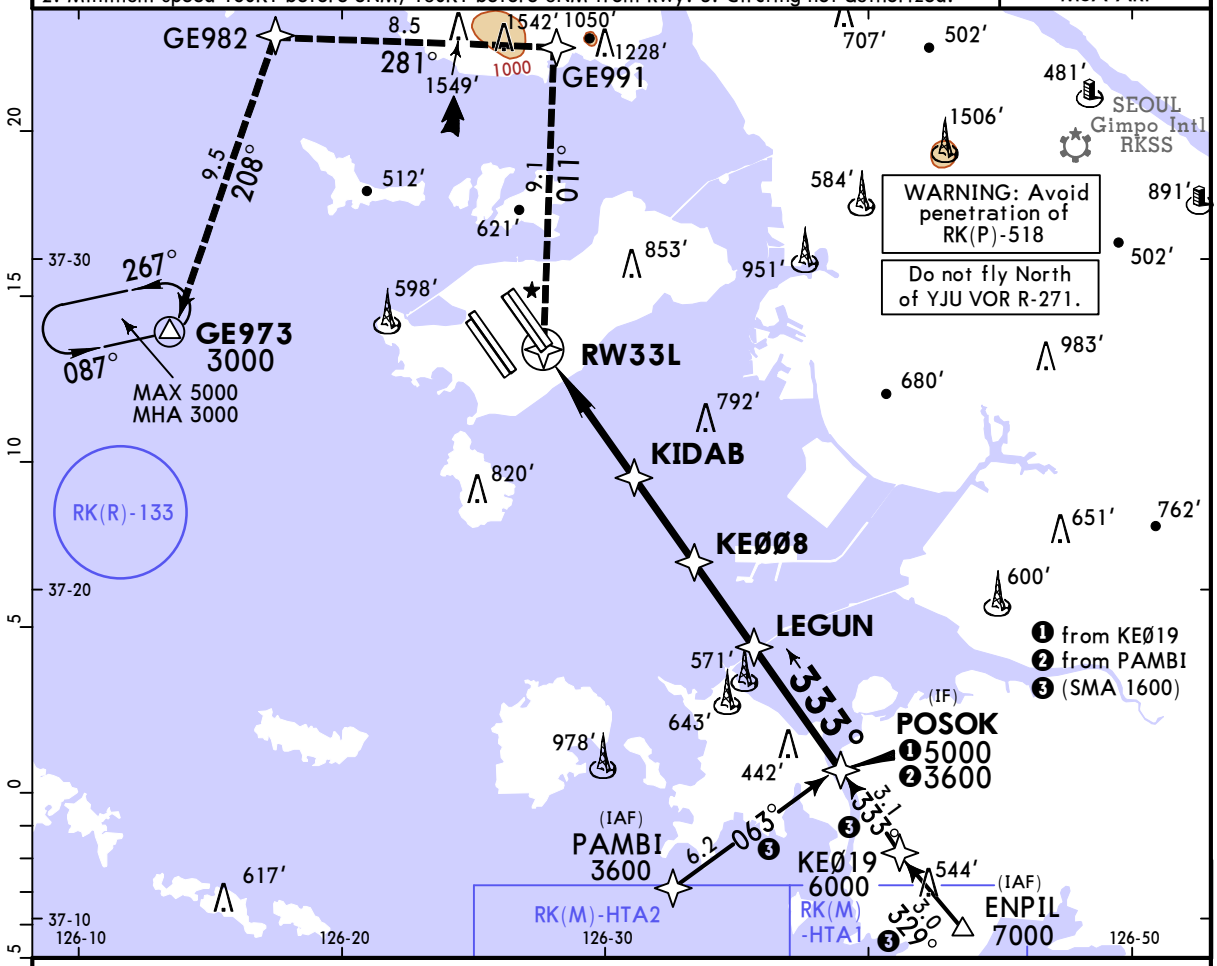
MISSED APCH: Climb to 3000′. Track to GE991, GE982 and GE973. Hold as published.

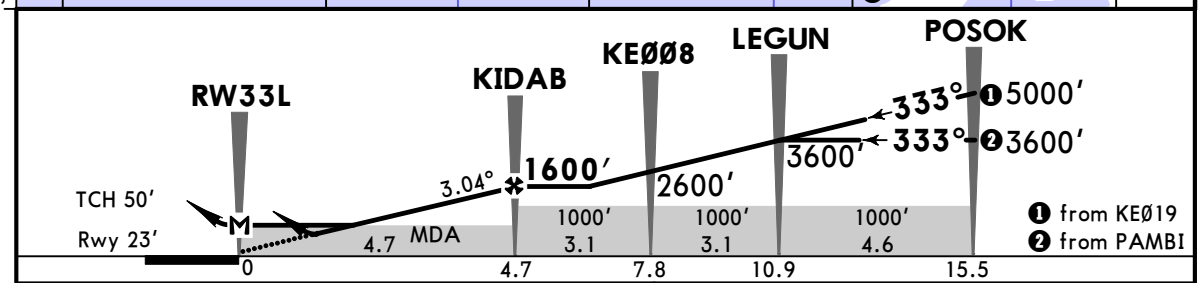
Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

RNP Apch | RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C.
2. Minimum speed 160KT before 5NM, 180KT before 8NM from Rwy. 3. Circling not authorized.

MSA ARP: 180° 3900 | 270° 3300 | 360° 2300 | 090° 2600





Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.04°	376	484	538	645	753	861
MAP at RW33L						

Timing not authorized for defining the MAP.

ALSF-II
PAPI
3000′
GE991

State STRAIGHT-IN LANDING

	LNAV/VNAV DA(H) 430′ (407′)		LNAV MDA(H) 560′ (537′)	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1700m	R/V2400m
B				
C				
D				

PANS OPS

CHANGES: Missed apch, minimums.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24 (22-6) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 33R

BRIEFING STRIP ™

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

RNAV	Final Apch Crs	ENBUK	LNAV/VNAV DA(H)	Apt Elev 23'
	333°	1600' (1577')	430' (407')	Rwy 23'

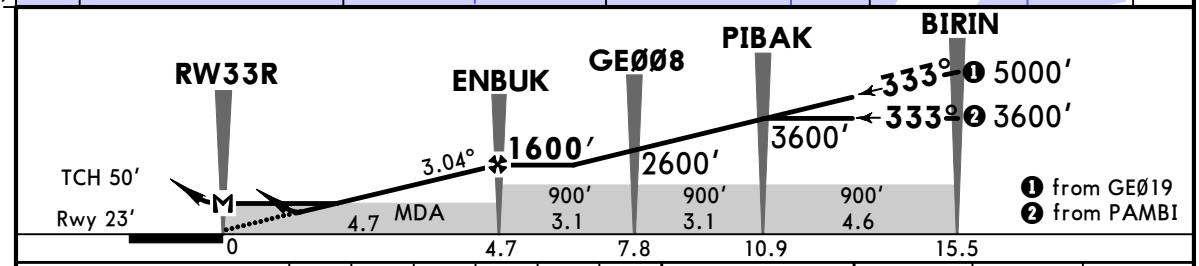
MISSED APCH: Climb to 3000'. Track to GE991, GE982 and GE973. Hold as published.

Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL140	Trans alt: 14000'

RNP Apch | RNP 0.30 required | 1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160KT before 5NM, 180KT before 8NM from Rwy. 3. Circling not authorized.

MSA ARP
180° 3900
270° 3300
360° 2300
090° 2600

GE982 8.5 281° 1549' 1542' 1050' 1228' GE991 1000
9.5 208° 512'
9.0 010° 621'
GE973 3000
267° 087°
MAX 5000
MHA 3000
598' 853' 951' 707' 502' 481' 1506' 1000 584' 489' 502'
SEOUL Gimpo Intl RKSS
983' 680' 792' 820'
RW33R
ENBUK
GEØØ8
PIBAK
333°
RK(R)-133
651' 762' 600'
1 from GEØ19
2 from PAMBI
3 (SMA 1600)
(IF) BIRIN
1 5000
2 3600
643' 978' 442'
3.1 333° 3
(IAF) PAMBI 3600
6.5 063° 3
GEØ19 6000 544'
3.0 333° 3
(IAF) ENPIL 7000
617'
RK(M)-HTA2
RK(M)-HTA1
37-30 37-20 37-10
126-10 126-20 126-30 126-50



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.04°	376	484	538	645	753	861
MAP at RW33R							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
3000'
GE991

State STRAIGHT-IN LANDING

	LNAV/VNAV DA(H) 430' (407')		LNAV MDA(H) 560' (537')	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1700m	R/V2400m
B				
C				
D				

PANS OPS

CHANGES: Missed apch, minimums.

RKSI/ICN
INCHEON INTL

JEPPESEN
19 JAN 24 (22-7) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 34L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

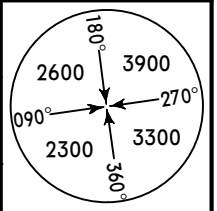
BRIEFING STRIP ™

RNAV	Final Apch Crs	BODEK	LNAV/VNAV DA(H)	Apt Elev 23'
	333°	1600' (1577')	430' (407')	Rwy 23'

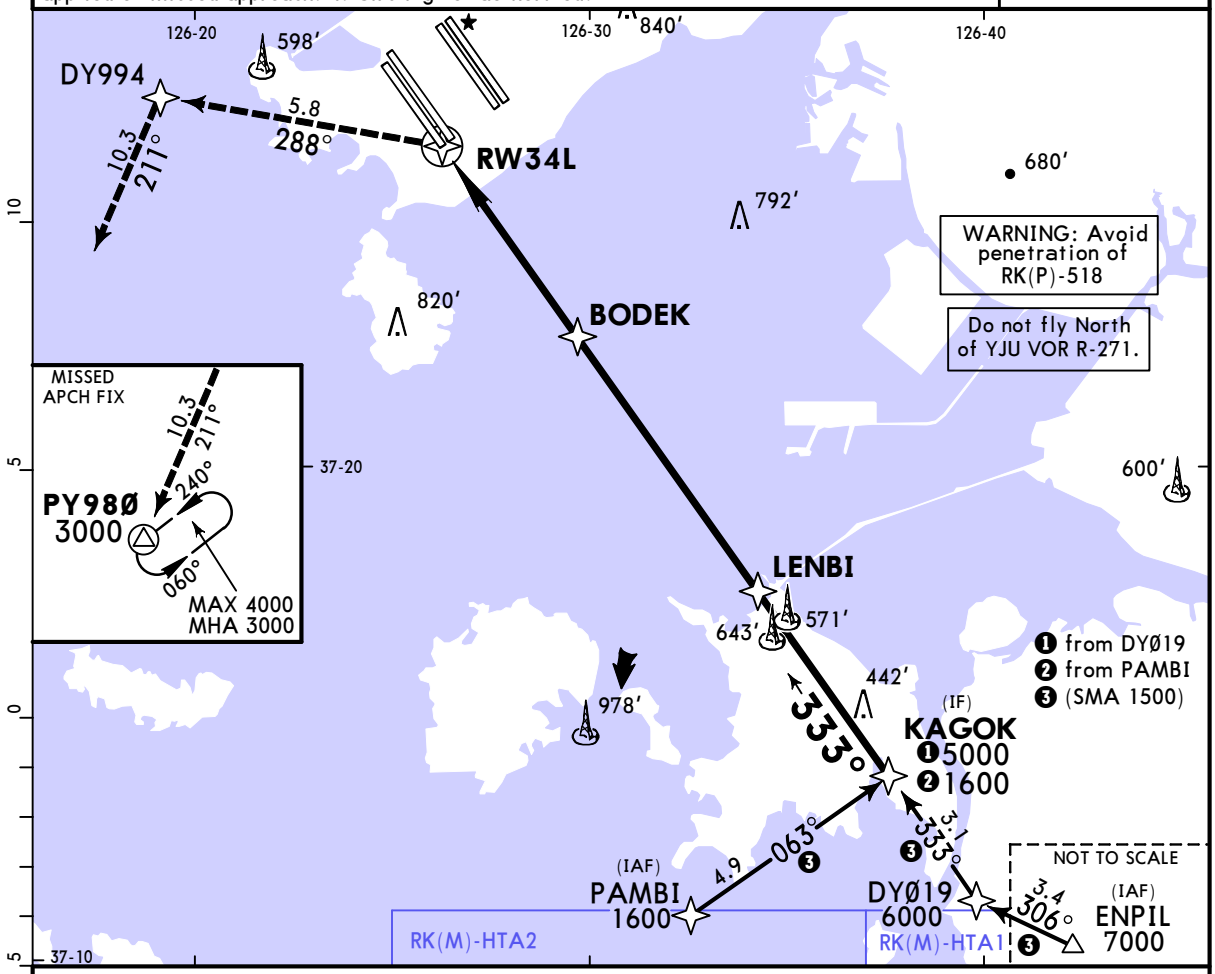
MISSED APCH: Climb to 3000'. Track to DY994, PY98Ø. Hold as published. Missed approach turn limited to 220 KT maximum.
Missed approach climb gradient of 3.0% (183'/NM) for ATC purpose.

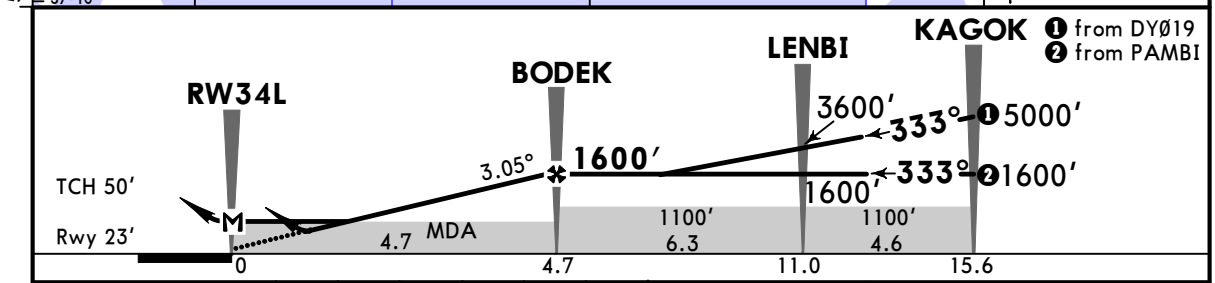
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL140	Trans alt: 14000'

RNP Apch | RNP 0.30 required | 1. Baro-VNAV not authorized below -20°C or above 45°C.
2. Minimum speed 160KT before 5NM, 180KT before 8NM from Rwy. 3. Bank angle 25° applied on missed approach. 4. Circling not authorized.



MSA ARP





Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.05°	378	486	540	648	755	863
MAP at RW34L							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
3000'
DY994

State STRAIGHT-IN LANDING

PANS OPS

	LNAV/VNAV DA(H) 430' (407')		LNAV MDA(H) 510' (487')	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1500m	R/V2300m
B				
C				
D				

CHANGES: Missed apch hold, note added, VNAV angle.

RKSI/ICN
INCHEON INTL

JEPPESEN 19 JAN 24 (22-8) Eff 24 Jan 1600Z

SEOUL/INCHEON, KOREA
RNP Rwy 34R

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

BRIEFING STRIP ™

RNAV	Final Apch Crs	PIPAN	LNAV/VNAV DA(H)	Apt Elev 23′
	333°	1600′ (1577′)	430′ (407′)	Rwy 23′

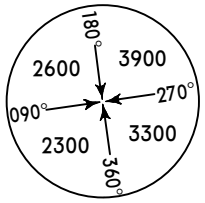
MISSED APCH: Climb to 3000′. Track to DY994, PY98Ø. Hold as published. Missed approach turn limited to 220 KT maximum. Missed approach climb gradient of 3.0% (183′/NM) for ATC purpose.

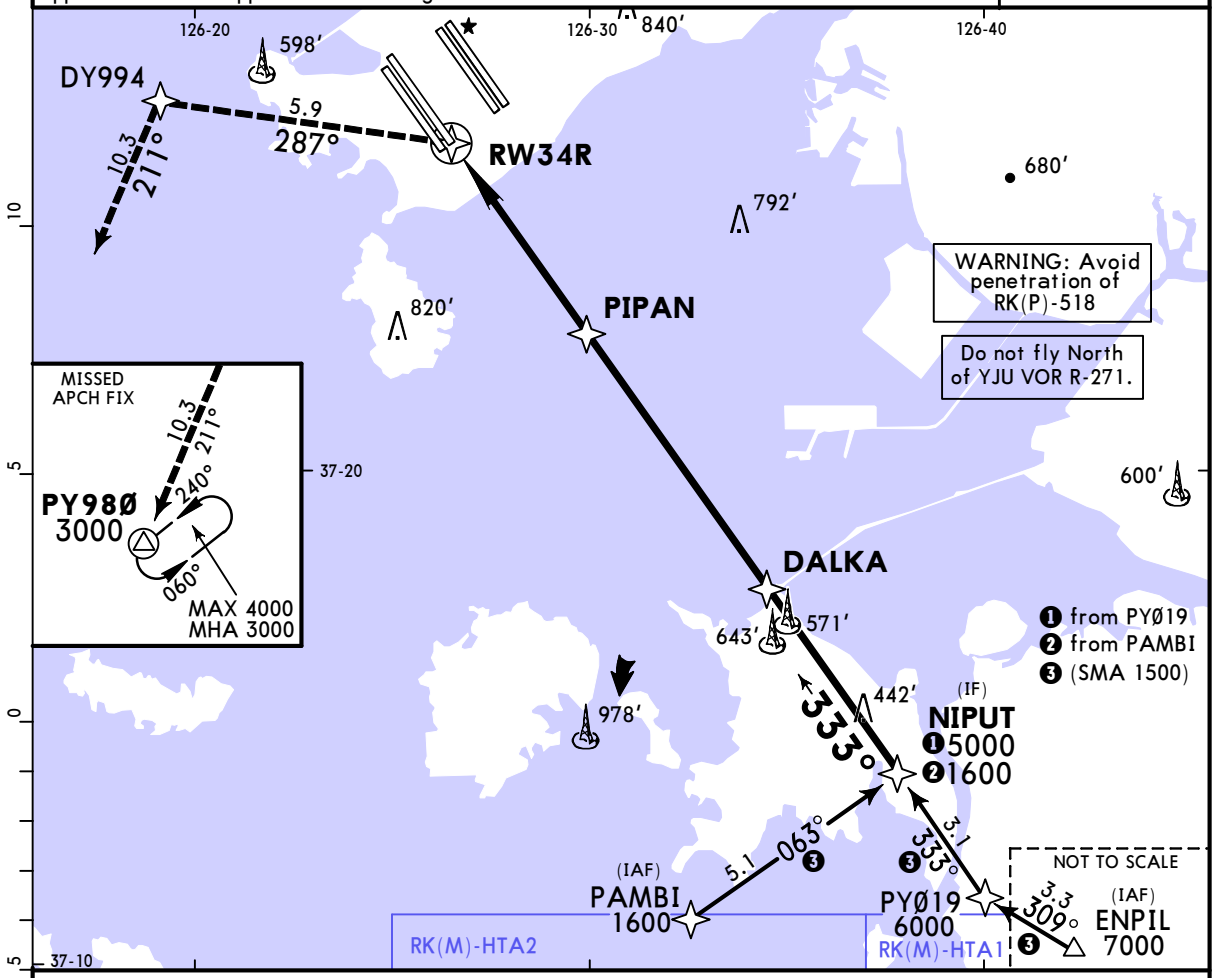
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL140	Trans alt: 14000′

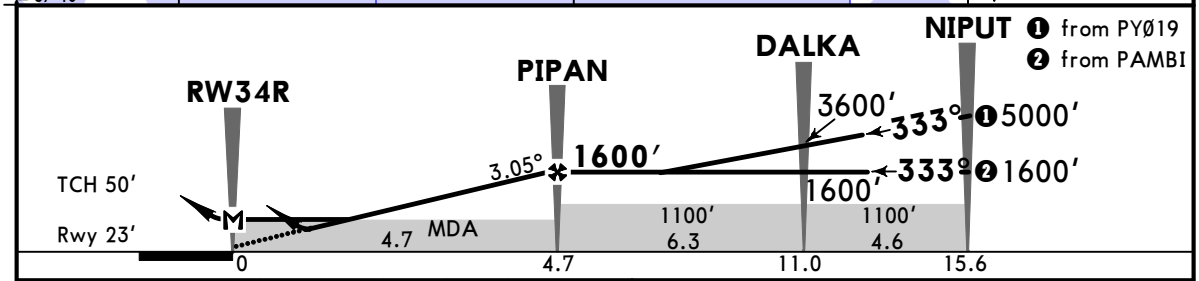
RNP Apch	RNP 0.30 required

1. Baro-VNAV not authorized below -20°C or above 45°C. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from runway. 3. Bank angle 25° applied on missed approach. 4. Circling not authorized.

MSA ARP







Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.05°	378	486	540	648	755	863
MAP at RW34R							

Timing not authorized for defining the MAP.

ALSF-II
PAPI
3000′
DY994

State

STRAIGHT-IN LANDING

PANS OPS	LNAV/VNAV DA(H) 430′ (407′)		LNAV MDA(H) 510′ (487′)	
		ALS out		ALS out
A	R/V1200m	R/V1900m	R/V1500m	R/V2300m
B				
C				
D				

CHANGES: Missed apch, VNAV angle.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24 (23-1) Eff 20 Mar 1600Z

SEOUL/INCHEON, KOREA
VOR Rwy 15L

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

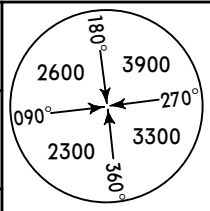
BRIEFING STRIP

VOR NCN	Final Apch Crs	D4.3	MDA(H)	Apt Elev 23′
113.8	153°	1700′ (1677′)	460′ (437′)	Rwy 23′

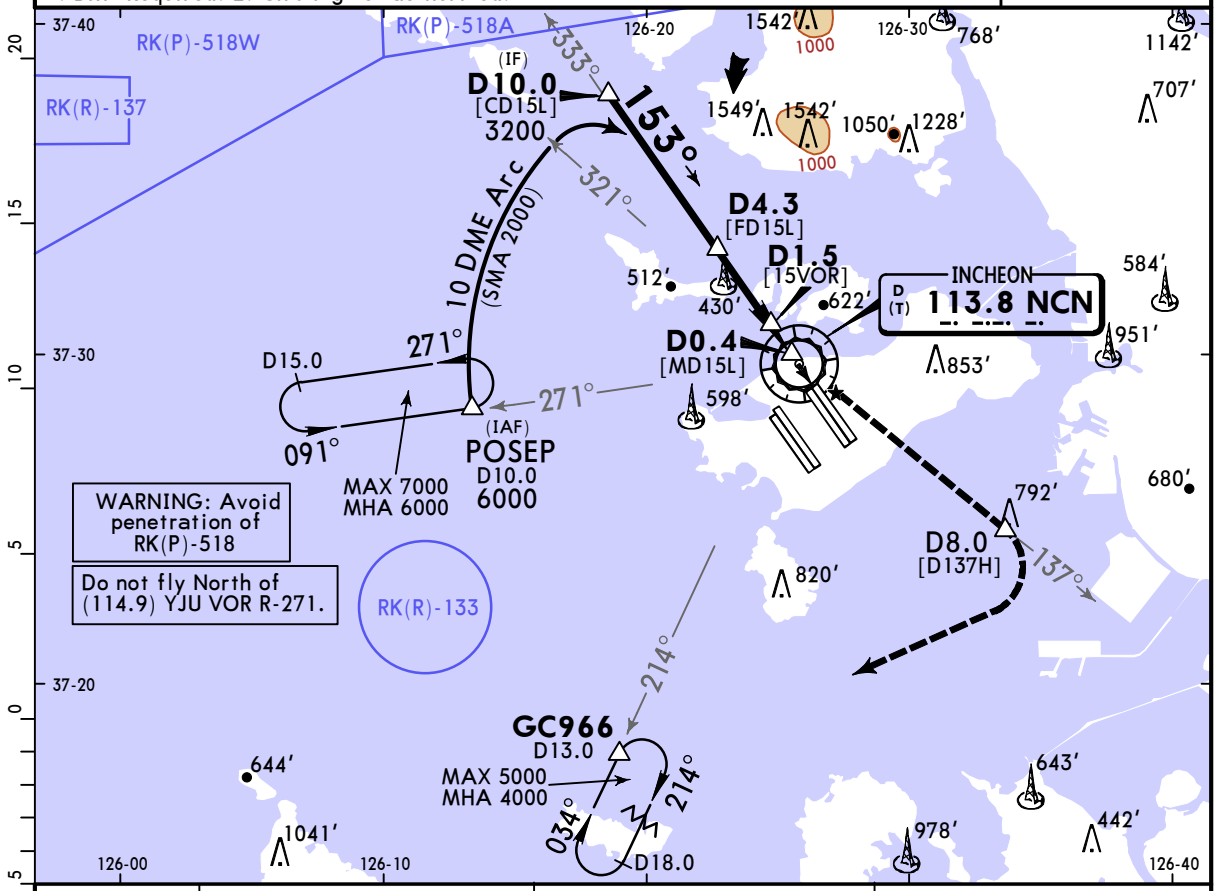
MISSED APCH: Climb to 4000′ via NCN VOR then LEFT turn on NCN R-137 to D8.0 and turn RIGHT direct to GC966. Hold as published.

Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL140	Trans alt: 14000′

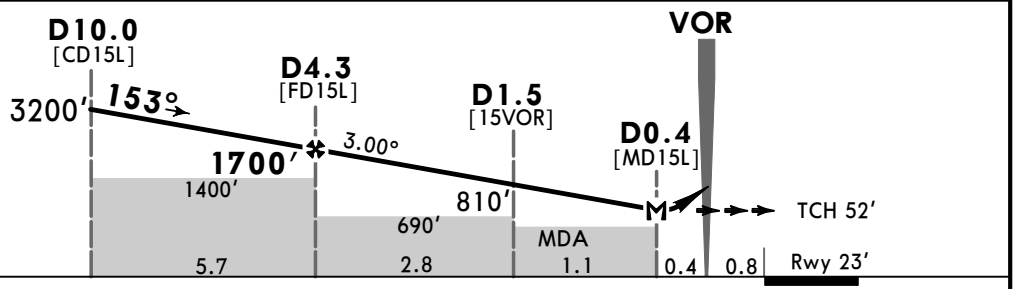
1. DME Required. 2. Circling not authorized.



MSA NCN VOR



NCN DME	3.0	2.0	1.0
ALTITUDE	1287′	969′	650′



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at D0.4						

Timing not authorized for defining MAP.

ALSF-II
PAPI
4000′ via NCN 113.8

State

STRAIGHT-IN LANDING

MDA(H) 460′ (437′)

PANS OPS

	ALS out
A	R/V1300m
B	
C	R/V2000m
D	

CHANGES: Missed approach fix ident, note, airspaces.

RKSI/ICN
INCHEON INTL

JEPPESEN 15 MAR 24 (23-2) Eff 20 Mar 1600Z

SEOUL/INCHEON, KOREA
VOR Rwy 33R

BRIEFING STRIP

D-ATIS	SEOUL Approach (R)	INCHEON Tower WEST Rwys 16L/R, 34L/R	INCHEON Tower EAST Rwys 15L/R, 33L/R	Ground WEST Rwys 16L/R, 34L/R	Ground EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

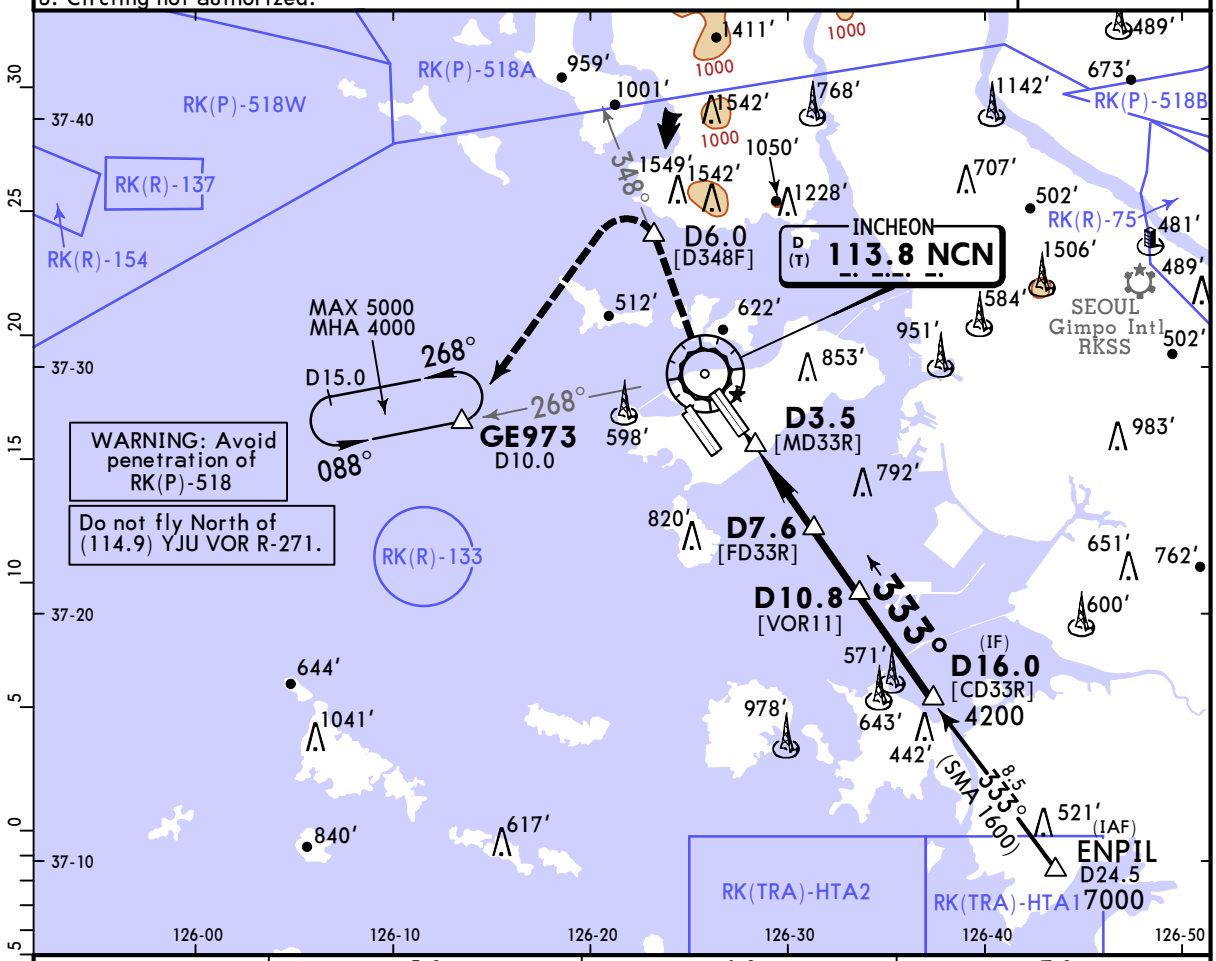
VOR NCN	Final Apch Crs	D7.6	MDA(H)	Apt Elev 23′
113.8	333°	1600′ (1577′)	510′ (487′)	Rwy 23′

MISSED APCH: Climb to 4000′ via NCN VOR then RIGHT turn on NCN R-348 to D6.0 and turn LEFT direct to GE973. Hold as published.

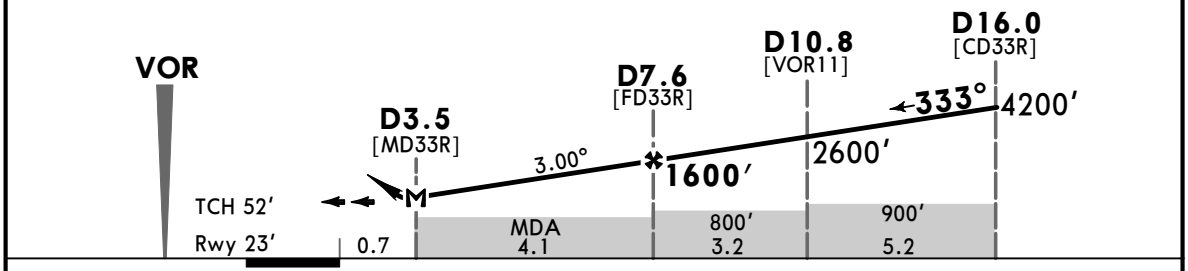
Alt Set: hPa | Rwy Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. DME Required. 2. Minimum speed 160 KT before 5NM, 180 KT before 8NM from runway.
3. Circling not authorized.

MSA NCN VOR
180° 3900 270° 3300 360° 2300 090° 2600



NCN DME	5.0	6.0	7.0
ALTITUDE	801′	1121′	1441′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00°	372	478	531	637	743	849
MAP at D3.5							

Timing not authorized for defining MAP.

ALSF-II
PAPI

4000′ via NCN 113.8

State

STRAIGHT-IN LANDING

MDA(H) 510′ (487′)

PANS OPS

	ALS out
A B C D	R/V1500m
	R/V2300m

CHANGES: Missed approach fix ident, note, airspaces.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24
Eff 20 Mar 1600Z
29-1

SEOUL/INCHEON, KOREA
HANEE VISUAL Rwy 15L

BRIEFING STRIP ™

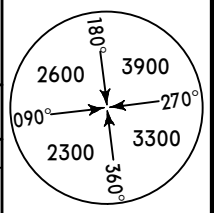
D-ATIS	SEOUL Approach (R)	INCHEON Tower		Ground	
	119.1	WEST Rwys 16L/R, 34L/R	EAST Rwys 15L/R, 33L/R	WEST Rwys 16L/R, 34L/R	EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

NAVAIDS- Refer to Planview	Final Apch Crs 152°	No FAF	CEIL-VIS 2500′-8km	Apt Elev 23′

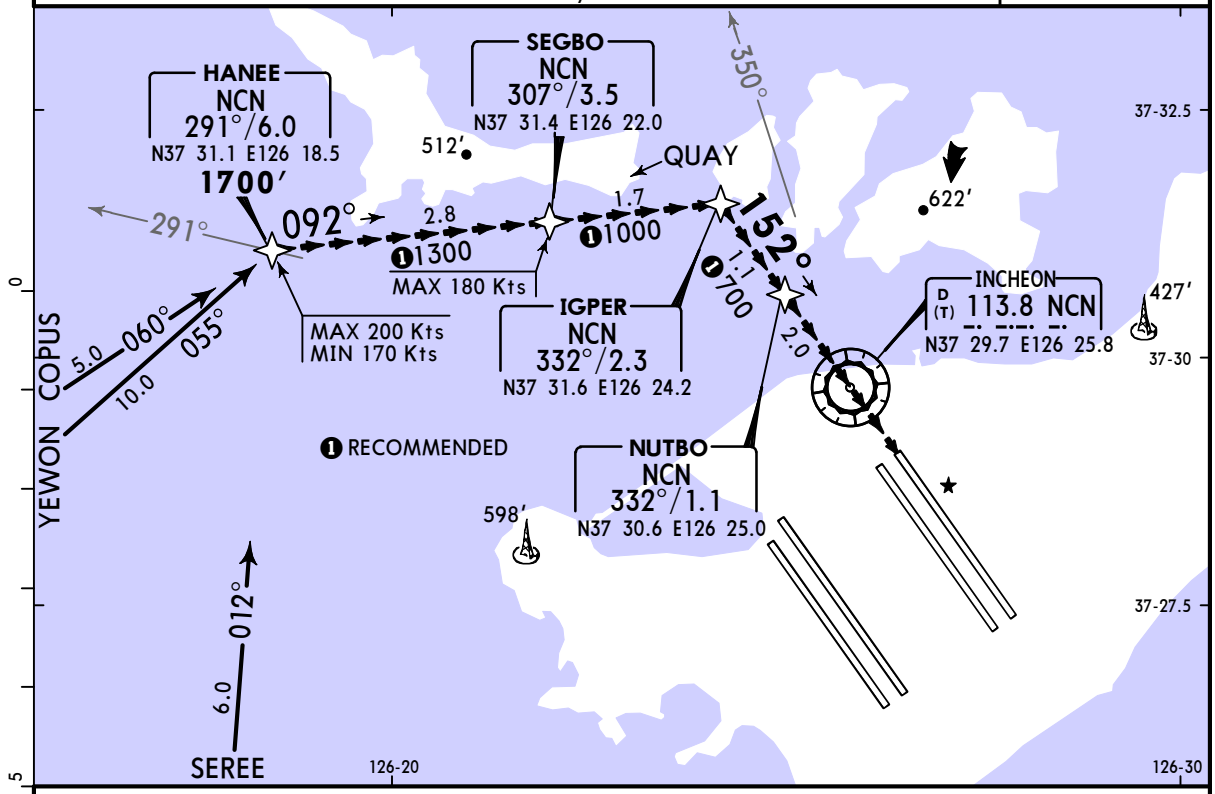
MISSED APCH: No missed approach procedure.

Alt Set: hPa | Apt Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. RADAR required. 2. Prior written authorization from ATC division required.
3. Aircraft shall use caution not to fly over islands and east of NCN R350 due to obstacles and aircraft noise. 4. Altitude at HANEE is minimum altitude and the others are recommended ones for aircraft noise and safety.



MSA NCN VOR



VISUAL APPROACH

GO-AROUND PROCEDURE: In the event of a go-around, after passing NUTBO climb on Rwy heading to 3000′ as practical as possible or as directed by ATC.

GENERAL INFORMATION

- RNAV is lateral guidance reference only and if unable to maintain visual contact with preceding aircraft or visual references, maintain 1700′ and report ATC as practical as possible.
  *For RNAV arrival procedure designed on the RNAV 1 Specification.
- NON-RNAV equipped aircraft may fly this procedure by referencing visual references.
- When closely spaced parallel visual approach is in progress, aircraft will not be authorized to overtake another aircraft flying on or onto the adjacent final approach course.

ALSF-II
PAPI

PANS OPS

WEATHER MINIMUMS

Ceiling **2500′**-VIS **8** km

CHANGES: Waypoint idents.

RKSI/ICN
INCHEON INTL

JEPPESEN
15 MAR 24
Eff 20 Mar 1600Z
29-2

SEOUL/INCHEON, KOREA
HANEE VISUAL Rwy 15R

BRIEFING STRIP ™

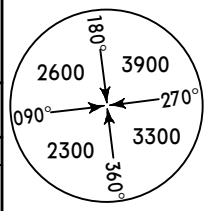
D-ATIS	SEOUL Approach (R)	INCHEON Tower		Ground	
	119.1	WEST Rwys 16L/R, 34L/R	EAST Rwys 15L/R, 33L/R	WEST Rwys 16L/R, 34L/R	EAST Rwys 15L/R, 33L/R
128.4 128.2	121.35 119.75	118.8	118.2	121.7	121.75

NAVAIDS- Refer to Planview	Final Apch Crs 152°	No FAF	CEIL-VIS 2500′-8km	Apt Elev 23′

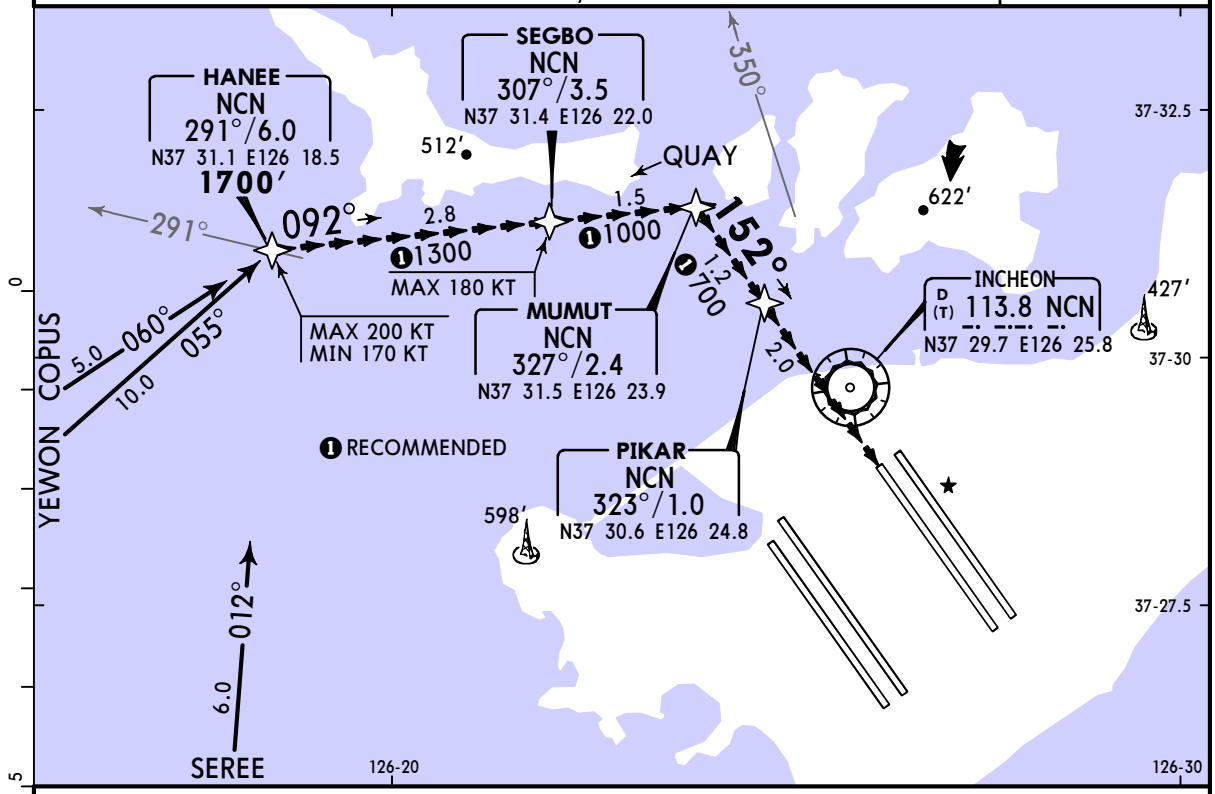
MISSED APCH: No missed approach procedure.

Alt Set: hPa | Apt Elev: 1 hPa | Trans level: FL140 | Trans alt: 14000′

1. RADAR required. 2. Prior written authorization from ATC division required. 3. Aircraft shall use caution not to fly over islands and east of NCN R350 due to obstacles and aircraft noise. 4. Altitude at HANEE is minimum altitude and the others are recommended ones for aircraft noise and safety.



MSA NCN VOR



VISUAL APPROACH

GO-AROUND PROCEDURE: In the event of a go-around, after passing PIKAR climb on Rwy heading to 3000′ as practical as possible or as directed by ATC.

GENERAL INFORMATION

- RNAV is lateral guidance reference only and if unable to maintain visual contact with preceding aircraft or visual references, maintain 1700′ and report ATC as practical as possible.
  *For RNAV arrival procedure designed on the RNAV 1 Specification.
- NON-RNAV equipped aircraft may fly this procedure by referencing visual references.
- When closely spaced parallel visual approach is in progress, aircraft will not be authorized to overtake another aircraft flying on or onto the adjacent final approach course.

ALSF-II
PAPI

PANS OPS

WEATHER MINIMUMS

Ceiling **2500′**-VIS **8** km

CHANGES: Waypoint idents.

General Information

Location: BANGKOK THA
ICAO/IATA: VTBS / BKK
Lat/Long: N13° 41.1', E100° 44.9'
Elevation: 4 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -7:00 = UTC
Magnetic Variation: 0.6° W

Fuel Types: Jet A-1
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: Yes
Beacon: Yes

Sunrise: 2307 Z
Sunset: 1130 Z

Runway Information

Runway: 01L
Length x Width: 12139 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 4 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 01R
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 4 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 19L
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 4 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 19R
Length x Width: 12139 ft x 197 ft

Surface Type: asphalt
TDZ-Elev: 4 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS: 133.600 Arrival Service
ATIS: 127.650 Departure Service
Suvarnabhumi Tower: 118.200
Suvarnabhumi Tower: 119.000
Suvarnabhumi Ground: 121.950
Suvarnabhumi Ground: 121.750
Suvarnabhumi Ground: 121.650
Suvarnabhumi Clearance Delivery: 133.800
Suvarnabhumi Clearance Delivery: 128.700
Bangkok Approach: 125.200
Bangkok Approach: 125.800
Bangkok Approach: 133.400
Bangkok Approach: 119.100
Bangkok Approach: 120.300
Bangkok Approach: 122.350
Bangkok Approach: 124.350
Suvarnabhumi Arrival: 121.100
Suvarnabhumi Arrival: 126.300
Suvarnabhumi Departure: 119.250

1. GENERAL

1.1. ATIS

Arrival D-ATIS 133.6 Departure D-ATIS 127.65

1.2. LOW VISIBILITY PROCEDURES (LVP)

1.2.1. GENERAL

- Low visibility procedures will be established for operation in a visibility of less than RVR 550 m or a cloud base of less than 200 ft.
- Special ATC procedures and safeguarding will be applied during CAT II operations to protect ACFT operating in low visibility and to avoid interference to the ILS signals in accordance with ICAO Doc 9365: Manual of all-weather operations. Pilots will be informed when these procedures are in operation by ATIS or RTF.
- Runway 19L/01R and runway 19R/01L, subject to serviceability of the required facilities, are suitable for CAT II operations by operators whose minima have been accepted by the Department of Civil Aviation (DCA).

1.2.2. ARRIVAL

- CAT II Approach and Landing: Pilots who wish to carry out an ILS CAT II approach shall inform Bangkok Approach on initial contact.
- Pilots may carry out a practice ILS CAT II approach at any time. But the full safeguarding procedures will not be applied and pilots should anticipate the possibility of ILS signal interference.
- When Low Visibility Procedures are in operation, a much reduced landing rate can be expected due to the requirement for increased spacing between arriving ACFT.
- ACFT will be vectored to intercept the ILS localizer at least 10 NM from touchdown.
- All runway exits are equipped with green/yellow coded taxiway center line lights to indicate the boundary of the localizer sensitive area.
- Pilots are required to make a "RUNWAY VACATED" call giving due allowance for the size of the ACFT to ensure that the entire ACFT has vacated the localizer sensitive area.
- ACFT shall vacate the runway via the first convenient exit taxiways which are designated as follows:
  - Runway 19L via B8, B10, B11, B12, B13
  - Runway 01R via B7, B5, B3, B2, B1
  - Runway 19R via E9, E13, E15, E17, E19, E21
  - Runway 01L via E12, E7, E5, E2, E1
- Pilots not able to comply with these requirements should notify ATC immediately.

1.2.3. DEPARTURE

- ATC will require departing ACFT to use the CAT II holding positions listed below:
  - Runway 19L: B1, B2
  - Runway 01R: B13, B12
  - Runway 19R: E1, E2
  - Runway 01L: E21, E19
- Except as described above, other intersection take-offs are not permitted.
- Pilots wishing to conduct an ILS guided take-off shall inform ATC on start up in order to ensure that the protection of the localizer sensitive area is provided.

1.2.4. TAXIING ACFT

- Taxiing ACFT must follow the lighted taxiway center line in relation to the standard taxi route provided by ATC. Deviation from the standard taxi route may be approved for traffic reasons.
- When low visibility operating procedures are in operation pilots-in-command shall adjust ACFT taxiing speeds to ensure that they are able to comply with ATC instructions.

1.2.5. TOWING OF ACFT

- ACFT towing will be restricted when the RVR is less than 550m.

1. GENERAL

1.2.6. ACFT GUIDANCE UNDER ALL-WEATHER OPERATIONS CATEGORY II

- Taxiway center line lights.
- As soon as the operation of Category II low visibility procedures is announced, ACFT will only be permitted to taxi on taxiways with operating center line lights.
- Taxiway center line lights within the ILS sensitive area are color-coded (Green/Yellow) from runway 19L/01R to taxiway B and from runway 19R/01L to taxiway E. To indicate that the ACFT has vacated the ILS sensitive area, pilots are to delay the call "RUNWAY VACATED" until the ACFT has completely passed the end of the Green/Yellow color-coded taxiway center line lights.

1.2.7. STOP BARS

- Taxiing across stop bars is strictly prohibited as long as they are in operation. No kind of clearance includes permission to taxi across a stop bar in operation.
- Stop bar is provided to assist in preventing inadvertent incursions of aircraft and vehicles onto the runway.
- Stop bars are installed at following locations:
  - Taxiway B1, B2, B3, B11, B12, B13
  - Taxiway E1, E2, E5, E15, E19, E21

1.2.8. NO-ENTRY BAR

- No-entry bar is provided across a taxiway which is intended to be used as an exit only taxiway to assist in preventing inadvertent access of traffic to that taxiway.
- No-entry bar is provided to prevent traffic from entering the taxiway in the wrong direction.
- No-entry bars are installed at following locations:
  - Taxiway B5, B7, B8, B10
  - Taxiway E7, E9, E12, E13

1.2.9. INTERMEDIATE HOLDING POSITION LIGHTS

- Taxiing across intermediate holding position lights is allowed.
- Intermediate holding position lights are installed at some intermediate holding position.
- Intermediate holding position lights consist of three fixed unidirectional lights showing yellow in the direction of approach to intermediate holding position.

1.2.10. ADVERSE WEATHER WARNING

- Aircraft will not be refused permission to land or take off at Suvarnabhumi International airport solely because of adverse weather conditions. The pilot-in-command of a commercial air transport aircraft shall be responsible for operation in accordance with applicable company weather minima.

1.3. ADVERSE WEATHER CONDITION & PROCEDURES

Adverse Weather Condition Warning at Suvarnabhumi International airport: Adverse weather condition that causes thunderstorms and/or strong wind and even lightning may endanger airside operation to a large extent. Therefore, when it is predicted to occur, the effective warning system shall be deployed for airside workers and vehicle operators. The objective of this warning is to elaborate how the situations of each phase are and to alert all the airside personnel to work more carefully and safely in the airfield. Adverse Weather Condition Warning at Suvarnabhumi International airport can be defined into 3 levels;

Level 1 Thunderstorms Observations Reporting: The report is used when thunderstorms are detected within 50 kilometers from Aerodrome Reference Point (ARP) and their directions are heading Suvarnabhumi International airport.

Level 2 Thunderstorms and/or Strong Wind Warning: This warning is used when thunderstorms and/or strong wind are more than 25 knots within 16 kilometers from Aerodrome Reference Point (ARP) and their directions are towards or over Suvarnabhumi International airport.

Level 3 Lightning Warning: The warning is employed when thunderstorms are over Suvarnabhumi International airport and lightning characteristic is obviously detected.

1.3.1. LEVEL 1: THUNDERSTORMS OBSERVATION REPORTING

- Suvarnbhumi International airport will notify all concerned units by announcing "Thunderstorms Warning" when adverse weather condition level 1 takes place.

1. GENERAL

1.3.1. Level 1: Thunderstorms Observation Reporting (Cont):

The details how the announcement is made has already distributed to the operators concerned by means of official letter.

-When the condition of adverse weather condition level 1 terminates, Suvarnabhumi International airport will announce "Thunderstorms Warning Terminated".

Airlines, Ground Service Providers, and Airside Operator's Procedures

When receive the adverse weather condition level 1;
-Report the situation to their staff.
- Operate with carefulness, be alert of the aircraft and vehicle' safety and tightly secure all ground service equipments.

1.3.2. Level 2: Thunderstorms and/or strong wind warning

- When thunderstorms and/or strong wind are more than 25 knots within 16 kilometers from Aerodrome Reference Point (ARP) and their direction are towards or over the aerodrome, Suvarnabhumi International airport will notify all concerned units by announcing "Thunderstorms and Strong Wind Warning".
- And when receive the cancellation of adverse weather condition, Suvarnabhumi International airport will announce as "Thunderstorms and Strong Wind Warning Terminated".

Airlines, Ground Service providers, and Airside Operator's Procedures

When receive the adverse weather condition level 2;
- Report the situation to their staff.
- Remove the stair from the aircraft and tie the gantry securely to the ground and also close the front part of stair.
- Ensure aircraft parking brake is applied during on the parking stand.
- Ensure aerobridge is parked on the assigned markings and close the front part of it.
- Bond the aircraft ground receptacle.
- Ensure that light aircraft are parked facing head wind and secured to the ground.

1.3.3. Level 3: Lightning warning

- When thunderstorms are over Suvarnabhumi International airport and may likely cause lightning, Suvarnabhumi International airport will notify all concerned units by announcing "Lightning Warning" and instantly turn on the red warning light and siren.

- And when receive the cancellation of adverse weather condition, turn off the red warning light and siren and announce as "Lightning Warning Terminated".

Suvarnabhumi Air Traffic Control Center's Procedures
When receive the adverse weather condition warning level 3 from Airside Operations Control Center (AOCC), keep monitoring the situation and inform Flight Operation of the airlines concerned about the adverse weather condition warning level 3 at Suvarnabhumi International airport and/or announce through Automatic Terminal Information Service (ATIS).

Airlines, Ground Service providers, and Airside Operator's Procedures

When receive the adverse weather condition level 3;
- Restrain from operating and stay in the nearby buildings, or vehicles, or lightning shelters, or high mass light poles within 22.60 meters, or under aircraft with ground receptacle bonded and monitor the weather conditions outside periodically.
- Avoid contacting or staying near the aircraft without ground receptacle connected.
- When receive the lightning warning while being outside the building, do not lie down on the floor. Do sit on feet together with knees up in order to least contact with the ground and decrease the overall body height which might induce electricity through the body from the lightning currents.
- Refrain from refueling the aircraft.
- Airlines informs ground service providers the adverse weather condition warning level 3 and recommend them the temporary suspension of ground operations and cease the communication with pilot.

Arrival Aircraft

- Aircraft designated to park at parking bay with Visual Docking Guidance System: VDGS;
  1.) While the aircraft is approaching to the parking bay, the License Mechanic who is responsible for aircraft conveyance shall monitor the aircraft movement in order to make sure the moving aircraft is safe. This should be done while he/she is in the safe area.

1. GENERAL

1.3.3. Level 3: Lightning warning (Cont):

2.) When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft's nose gear and aircraft ground receptacle. Also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations could be done as normal.

- Aircraft arranged to park at parking bay without Visual Docking Guidance System: VDGS;

1.) Airlines and ground service providers must provide the License Mechanic who is responsible for aircraft conveyance to perform as Marshaller leading the aircraft to its parking bay.

2.) When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft's nose gear and aircraft ground receptacle. And also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations should be done as normal.

Departure Aircraft

Departure aircraft operating at parking bay should be done as follows;

1.) While the aircraft is being pushed back from parking bay and/or being on the taxilane ready to take off with all engines started, operate a normal procedures until they are completed and the aircraft has taken off.

2.) In case the aircraft is being pushed back but the engine is not started yet. If the ground service providers consider bringing the aircraft back to its parking bay and wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport, airline or ground service providers must inform AOCC of that decision. This is because the airport is needed to rearrange the parking bay for another arriving aircraft.

3.) For the aircraft in no.2 which arranged to park at the Contact Gate that has passenger loading bridges, while waiting for the adverse weather condition warning to be cancelled and airline or ground service provider considers that the aircraft bridge is needed again, inform the Airside Operations Control Center (AOCC) accordingly. Also, follow the procedures for facility request from Suvarnabhumi International airport properly.

Suspending the operations of airlines and/or ground service providers is conducted solely for the sake of safety of all operators which was mutually decided between airline members/ ground service providers and the airport operator. Therefore, in case of flight delays, airlines and ground service providers shall not claim any compensation from Suvarnabhumi International airport or concerned units.

1.4. GROUND MOVEMENT

1.4.1. TAXI PROCEDURES

- All surface movement of aircraft, vehicles and personnel on the maneuvering area is subject to prior permission from ATC.
- Within the movement area, pilots will be cleared to and from the aircraft stands under general direction from Ground Control. Pilots are reminded of the extreme importance of maintaining a careful look out at all times.
- Directions issued by ATC should be followed specifically. RTF transmissions must be brief, concise and kept to the minimum number.

1.4.2. OPERATION OF MODE S TRANSPONDERS ON THE GROUND

- Suvarnabhumi International Airport is equipped with an Advanced Surface Movement Radar utilizing mode S multilateration. Aircraft operators intending to use Suvarnabhumi International Airport should ensure that mode S transponders are able to operate when the aircraft is on the ground.
- For aircraft that are capable of reporting aircraft identification (i.e. call signs used in flight) the aircraft identification should also be entered via FMS or control panel. The ICAO defined format for aircraft identification (i.e. same format as used in ICAO plan e.g. THA640, CPA701, SIA068) shall be used.

1. GENERAL

1.4.2. OPERATION OF MODE S TRANSPONDERS ON THE GROUND (CONT)

- Flight crew should select XPDR or the equivalent according to specific installation. It must also be ensured that the transponder is operating (i.e. OUT OF STAND-BY or OFF POSITION) and the assigned mode A code is selected in accordance with the following:
  - a) for a departing flight, upon received airway clearance; except that subject to ATFM measures or departure time restrictions, the action should be done when starting up engine.
  - b) for an arriving flight, continuously until the aircraft is fully parked at the stand.
- To prevent possible interference to radar surveillance systems, TCAS should be functioned;
  - a) for departure, when ACFT are entering the runway or line up clearance is received;
  - b) for arrival, until ACFT have vacated the runway.
- While on the ground, pilots of ACFT not equipped with mode S transponder shall operate the transponder and select mode A code as individually directed by the ATC unit:
  - a) for departure, when starting up engine;
  - b) for arrival, until ACFT have completely parked.

1.4.3. TRACKING AND IDENTIFICATION OF AIRPORT SURFACE VEHICLES

- To provide tracking and identification of authorized movements, any authorized vehicle intended to be used on the maneuvering area at Suvarnabhumi International Airport shall be equipped with mode S squitter box to inform mode S multilateration system of its position.

1.5. RADIO COMMUNICATION FAILURE PROCEDURE

1.5.1. GENERAL

- Radio communication is considered to be failed, if during two minutes that the pilot or the ATC unit does not answer the repeated calls through all available communication channels.
- The transponder is set to be Mode A code 7600 as soon as the pilot has detected communication failure.
- The pilot shall use all available facilities to re-establish communication with ATC unit directly or by means of the other aircraft. If necessary, the emergency frequency 121.5 MHz may be used.
- In any case of radio communication failure, the pilot shall continue listening on the appropriate radio frequency and transmitting the position reports, actions and flight conditions. The pilot shall comply with one of the following procedures: ARRIVAL paragraph 2.2., DEPARTURE paragraph 3.3. below.

1.6. AIRCRAFT TRANSPORDER FAILURE PROCEDURES

1.6.1. CONTROL OF AIRCRAFT EXPERIENCING TRANSPONDER FAILURE PROCEDURE

- When a transponder failure is detected to be unserviceable prior to departure, ATC shall confirm with the pilot of his transponder operations using the following phraseologies.

  Phraseologies

  'C/S, CONFIRM TRANSPONDER ON', or
  'C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY', or
  'C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY'

  When it has been confirmed that aircraft transponder fails, ATC shall advise the pilot to repair it before departure. However, the surface radar blind spot, where the transponder might not be easily detected, should be taken into consideration.

  Phraseologies

  'C/S, ADVISE TRANSPONDER REPAIRED BEFORE DEPARTURE', or
  'C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING'

1. GENERAL

1.6.1. CONTROL OF AIRCRAFT EXPERIENCING TRANSPONDER FAILURE PROCEDURE (CONT)

- When transponder appears to be unserviceable after the aircraft is airborne, ATC must inform the pilot of his transponder failure using the following phraseologies.

  Phraseologies

  'C/S, CONFIRM TRANSPONDER ON', or
  'C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY', or
  'C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY'

  When it has been confirmed that the aircraft transponder fails, ATC shall advise the pilot to return to his departure airport as well as relay all necessary information to Aerodrome Control Tower and all concerned units.

  Phraseologies

  'C/S, ADVISE RETURN TO LAND AT (DEPARTURE AERODROME) FOR TRANSPONDER REPAIRING, REQUEST YOUR INTENTION',
  'C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING'

  In case pilot decide to proceed to first intended landing or nearest suitable aerodrome, primary radar separation shall be provided. However, the pilot shall be reminded that delays can be expected and some requests might not be granted e.g. route to be flown, cruising altitude/level.

1.6.2. CONTROL OF AIRCRAFT OVERFLYING BANGKOK FIR OR AIRCRAFT INTENDING TO LAND AT SUVARNABHUMI INTERNATIONAL AIRPORT WITH ITS FAILED TRANSPONDER PROCEDURE

- ATC must immediately inform the pilot of his transponder failure so that he could check its operations and repair it.
- ATC shall control, according to the filed flight plan, the aircraft experiencing transponder failure to land safely at Suvarnabhumi International Airport.
- ATC shall control, according to the filed flight plan, the over-fly aircraft experiencing transponder failure to land safely at the destination aerodrome.
- Approach Control shall coordinate closely with Suvarnabhumi Tower and/or other concerned units regarding the problem.
- The above procedures shall be applied to all aircraft except state aircraft and military aircraft.
- Aircraft intending to land at Suvarnabhumi International Airport with its failed transponder might be assigned to fly along an RNAV STAR and controlled solely by Suvarnabhumi PSR which normally covers up to 80NM.

1.7. LOCAL TRAFFIC REGULATIONS

1.7.1. AIRPORT REGULATIONS

- Suvarnabhumi Aerodrome Traffic Zone (ATZ) airspace is classified as class C.
- IFR and only authorized VFR flights are permitted. All flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.
- For air traffic management and effective traffic flow, runway 01L and 19L shall be mainly used for departure while Runway 01R and 19R shall be used for arrival. The use of runways different from this requirement may be possible as considered necessary under special circumstances, such as adverse weather conditions or operational necessity. In normal situations, only when traffic permits, ATC may initiate pilots to depart or land on the appropriate runway.
- To retain the defined value of runway capacity at Suvarnabhumi International Airport, and to provide efficient separation between ACFT for the safety of flight and orderly flow of air traffic, only ACFT category B or above with the minimum final approach speed of 110 kt. are permitted to use Suvarnabhumi International Airport. However, other ACFT may be authorized to operate within Suvarnabhumi ATZ if:
  - The ACFT is being used for or in connection with:

1. GENERAL

1.7.1. AIRPORT REGULATIONS (CONT)

a) a search and rescue operation;
b) a medical emergency; or
c) a flight inspection of air navigation facilities.

- The pilot of the ACFT has declared an in-flight emergency.
- The ACFT constitutes VIP flight.
- The ACFT is as may be determined by the appropriate authority.

- The following school and training flights are not permitted:
  a) school and training flights;
  b) continuous take-off and landing exercises;
  c) solo flight during basic flight training.

1.8. FUEL DUMPING PROCEDURE AND IN-FLIGHT MANAGEMENT PROCEDURES

1.8.1. INTRODUCTION

An aircraft in emergency or other urgent situations may need to dump fuel so as to reduce to maximum landing mass in order to affect a safe landing.

1.8.2. FUEL DUMPING AREAS

- North fuel dumping area: between R-335 and R-355, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500'.
- East fuel dumping area: between R-090 and R-110, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500'.
- South fuel dumping area: between R-190 and R-210, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500'.

1.8.3. IN-FLIGHT FUEL MANAGEMENT PROCEDURES

- Definition

  Minimum fuel: The term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted.

  Mayday fuel: Describes the nature of the distress conditions when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

- Actions taken by pilot
  - The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.
  - The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus the fuel required either to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.
  - The pilot-in-command shall advise ATC of a minimum fuel state by declaring 'MINIMUM FUEL' when, having committed to land at a specific aerodrome, the pilot calculates that any changes to the existing clearance to that aerodrome may result in landing with less than planned final reserve fuel.

    Note 1: The declaration of 'MINIMUM FUEL' informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any changes to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delays occur.

    Note 2: It should be noted that Pilots should not expect any form of priority handling as a result of a 'MINIMUM FUEL' declaration. ATC will, however, advise the flight crew of any additional expected delays as well as coordinate when transferring control of the aircraft to ensure that other ATC units are aware of the flight's fuel state.

1. GENERAL

1.8.3. IN-FLIGHT FUEL MANAGEMENT PROCEDURES (CONT)

- The pilot-in-command shall declare a situation of distress related to the amount of fuel available on board the aircraft by broadcasting 'MAYDAY, MAYDAY, MAYDAY, FUEL' when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

- Actions taken by ATC
  - When a pilot reports a state of 'MINIMUM FUEL', ATC shall respond to the pilot who indicates or suggests that he is becoming short of fuel or who has declared 'MINIMIM FUEL' as follows:
    - Inform the pilot of either:
      a. The estimated delay, if pilots are en-route to, joining or are established in holding point such as IAWPs; or
      b. The estimated track mileage, if pilots are being vectored to an instrument approach; or
    - Coordinate when transferring control of the aircraft to ensure other ATC units to be aware of the flight's fuel state.
    - Standard phraseology
      Pilot transmission: (C/S), MINIMUM FUEL
      Controller transmission: (C/S), ROGER [NO DELAY EXPECTED or EXPECT (delay information)]
  - When a pilot reports a state of 'MAYDAY, MAYDAY, MAYDAY FUEL', this is an emergency and the aircraft shall be given priority over other traffic in the landing sequence. The aircraft will be committed to a landing, as in the event of any delay or a go-around, there may be insufficient fuel remaining for a safe landing.
    - Standard phraseology
      Pilot transmission: (C/S) MAYDAY, MAYDAY, MAYDAY FUEL
      Controller transmission: (C/S) ROGER MAYDAY

2. ARRIVAL

2.1. SPEED CONTROL AND ALTITUDE RESTRICTIONS IN BANGKOK TMA

In order to facilitate the air traffic flow procedure of arriving aircraft within Bangkok TMA, speed control procedures and altitude restricted must be applied to optimize the spacing between aircraft and reduce the overall delay of traffic.

2.1.1. SPEED CONTROL

- Speed control shall be in force at all times unless otherwise instructed. Pilots will be individually advised by ATC when speed control is cancelled.
- All arriving aircraft are to apply speed of not more than 250 KT when flying at or below altitude of 10,000'.
- Arriving aircraft shall comply with speed control restrictions as published on the RNAV STARs Charts and Instrument Approach Procedures unless otherwise advised by ATC.
- En route and terminal holding speed shall be in accordance with ICAO standard holding speeds requirement. Pilots shall resume speed control procedures when leaving the holding fix.
- ATC may issue further speed adjustment instructions during various flight phases or/and when required by traffic situation.
- All speed restrictions are to be flown as accurately as possible. If unable to conform to these procedures, pilots should immediately inform ATC and state the speed to be used so that an alternative action can be taken.

2.1.2. ALTITUDE RESTRICTIONS

- When an arriving aircraft on a STAR is cleared to descend to a level lower than the level or the level(s) specified in the STAR, the aircraft shall nevertheless follow the published vertical, unless such restrictions are explicitly cancelled by ATC. Published minimum levels based on terrain clearance shall always be strictly applied.
- To facilitate safe traffic integration and provide vertical separation between converging traffic in Bangkok TMA, pilots shall plan their descent profile in accordance with the published STAR procedures or their descent profile against distance to touchdown.
- All altitude restrictions are to be flown as accurately as possible. If unable to conform to these restrictions, pilots should immediately inform ATC so that an alternative action can be taken.

2.2. RADIO COMMUNICATION FAILURE PROCEDURE

2.2.1. TOTAL RADIO COMMUNICATION FAILURE FOR ARRIVING AIRCRAFT

2.2.1.1. If in VMC, continue to fly in VMC and land at the nearest suitable aerodrome.

2.2.1.2. If in IMC or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with paragraph 2.2.1.1. above, the pilot shall:

- If a specific STAR procedure has been designated and acknowledged prior to the occurrence of radio communication failure, comply with the radio communication failure procedures.

  Proceed according to the STAR route to the termination point (WALTZ/EKCHO for Rwy 19L/R or WOCAL/ENKAA for Rwy 01L/R) and descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, thence:

  a. For Rwy 19L/R: After passing WALTZ/EKCHO, the pilot shall fly heading 015° and maintain altitude 6000' for next 10 NM, then turn right/left and descend to 2000' and carry out the appropriate ILS approach procedure.

  b. For Rwy 01L/R: After passing WOCAL/ENKAA, the pilot shall fly heading 195° and maintain altitude 6000' for next 10 NM, then turn right/left and descend to 2000' and carry out the appropriate ILS approach procedure.

2. ARRIVAL

2.2.1. TOTAL RADIO COMMUNICATION FAILURE FOR ARRIVING AIRCRAFT (CONT)

- If no specific STAR procedure has been designated or acknowledged prior to the occurrence of radio communication failure, endeavor to ascertain the landing direction from any available means in paragraph 2.2.4. below. The pilot then should proceed in accordance with the STAR procedure appropriate to its ATS route and landing direction and comply with the radio communication failure procedures.

2.2.1.3. When an arriving aircraft is being radar vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction.

2.2.1.4. Pilots should ensure that they remain at or above the minimum sector altitude. If the aircraft is below the minimum sector altitude, pilots shall immediately climb to the minimum sector altitude.

2.2.2. TOTAL RADIO COMMUNICATION FAILURE FOR MISSED APPROACH AIRCRAFT

2.2.2.1.The pilot shall set the aircraft transponder to Mode A code 7600 and fly to or proceed direct to (in case of radar vector) the appropriate approach holding point at 3000' and hold.

2.2.2.2. The pilot then shall climb and maintain 4000' in the holding pattern and complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with paragraph 2.2.4. below, or

2.2.2.3. The pilot shall maintain altitude 4000' and proceed to SVB VOR then transition to IAF and commence an appropriate approach procedure.

2.2.3. PARTIAL RADIO COMMUNICATION FAILURE FOR ARRIVING AIRCRAFT

2.2.3.1. Aircraft unable to receive: pilots shall adopt the total radio communication failure procedures specified in paragraph 2.2.1 above.

2.2.3.2. Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instruction and/or clearance to the pilot.

2.2.4 IDENTIFICATION OF RUNWAY IN USE

2.2.4.1. A pilot endeavors to obtain information on the landing runway from the following sources: ATIS, D-ATIS, ACARS, satellite phone, etc. If unable, the pilot should rely on the best available information such as aerodrome weather forecasts, meteorological reports or any other relevant information obtained prior to the communication failure and should decide on the most appropriate landing direction.

2.2.4.2. To assist the pilot in ascertaining the landing direction, the ILS and approach lighting for the runway in use will be switched on. If the approach lights for the runway-in-use are sighted but the ILS signal is not received, the pilot shall assume that the ILS is inoperative and shall proceed to land on the runway on which the approach lights have been sighted.

2.3. NOISE ABATEMENT PROCEDURES

2.3.1. FLAP SETTING

- Set minimum certified landing flaps according to the airplane flight manual for the applicable conditions.

2.3.2. THRUST REVERSER

- After landing, limit the use of reverse thrust to idle between 1900 and 2300 UTC, unless it adversely affects the safety of aircraft operations.

2. ARRIVAL

2.4. RWY OPERATIONS

2.4.1. MINIMUM RUNWAY OCCUPANCY TIME

- Shall be strictly applied in order to achieve the highest possible rate for arrivals and departures.
- Pilots are reminded that rapid exit from the landing runway enables ATC to apply minimum spacing on final approach that will achieve maximum runway utilization and will minimize the occurrence of 'go-arounds'.

2.4.2. REDUCE COMMUNICATION WORKLOAD

- To reduce communication workload, additional Arrival Control frequency 126.3 shall be established and used during the congested traffic periods. The control of arriving aircraft shall be transferred from Arrival Control frequency 121.1 to Arrival Control frequency 126.3.

2.4.3. HIGH INTENSITY RUNWAY OPERATION

- Shall be strictly applied in order to achieve the highest possible rate for arrivals and departures.
- To achieve the highest possible rate/hour for arrivals and departures, runway occupancy times are to be reduced to a minimum, as a rule. Runway shall be vacated via high speed turn-offs.
- Whenever runway conditions permit, pilots should prepare their landing so as to vacate the runways via the following high speed turn-offs:

REMARK:
Distance to turn off is the distance of the respective runway to turn-off intersection.

RUNWAY 19L	DISTANCE TO TURN OFF
B8	5381' (1640m)
B10	6726' (2050m)
B11	8399' (2560m)

RUNWAY 19R	DISTANCE TO TURN OFF
E9	4823' (1470m)
E13	6726' (2050m)
E15	8005' (2440m)

RUNWAY 01R	DISTANCE TO TURN OFF
B7	5807' (1770m)
B5	7710' (2350m)
B3	8990' (2740m)

RUNWAY 01L	DISTANCE TO TURN OFF
E12	4462' (1360m)
E7	6726' (2050m)
E5	8399' (2560m)

2.5. FLIGHT PROCEDURES

2.5.1. APPROACH PROCEDURES WITH RADAR CONTROL

- All procedures are designed to maximize departure and arrival capacity in Bangkok TMA and to minimize noise disturbance in areas overflown.
- The final approach may be carried out by means of ILS or other available instrument approach system at the discretion of the pilot.
- The spacing provided between aircraft will be designed to achieve maximum runway utilization within the parameters of safe separation minima including vortex effect and runway occupancy. It is important to validate the separation provided to achieve the optimum runway capacity, that runway occupancy time is kept to a minimum consistent with the prevailing conditions.
- The horizontal radar separation minimum shall be 5NM except within Bangkok TMA, Bangkok CTR and Suvarnabhumi ATZ a reduced separation of 3NM may be applied.

2.5.2. MISSED APPROACH

- As directed by ATC.
- In the absence of instructions from ATC, aircraft shall follow the missed approach procedures contained on the Instrument Approach Charts.

3. DEPARTURE

3.1. NOISE ABATEMENT PROCEDURES.

- All departing aircraft are required to apply noise abatement procedure with thrust reduction at 1500' AGL and acceleration at 3000' AGL.

3.2. SPEED CONTROL AND ALTITUDE RESTRICTIONS IN BANGKOK TMA

In order to facilitate the air traffic flow procedure of departing aircraft within Bangkok TMA, speed control procedures and altitude restricted must be applied to optimize the spacing between aircraft and reduce the overall delay of traffic.

3.2.1. SPEED CONTROL

- Speed control shall be in force at all times unless otherwise instructed. Pilots will be individually advised by ATC when speed control is cancelled.
- All departing aircraft are to apply speed of not more than 250 KT when flying at or below altitude of 10,000'.
- Departing aircraft shall comply with speed control restrictions as published in the RNAV SIDs Procedures unless otherwise advised by ATC.
- ATC may issue further speed adjustment instructions during various flight phases or/and when required by traffic situation.
- All speed restrictions are to be flown as accurately as possible. If unable to conform to these procedures, pilots should immediately inform ATC and state the speed to be used so that an alternative action can be taken.

3.2.2. ALTITUDE RESTRICTION

- When a departing aircraft on a SID is cleared to climb to a level higher than the initially cleared level or the level(s) specified in the SID, the aircraft shall nevertheless follow the published vertical profile, unless such restrictions are explicitly cancelled by ATC.
- Departing aircraft intending to cruise below the transition level shall follow an appropriate SID track and comply with individual ATC climb instructions.
- All altitude restrictions are to be flown as accurately as possible. If unable to conform to these restrictions, pilots should immediately inform ATC so that an alternative action can be taken.

3.3. RADIO COMMUNICATION FAILURE PROCEDURE

3.3.1. TOTAL RADIO COMMUNICATION FAILURE FOR DEPARTURING AIRCRAFT

3.3.1.1. The pilot shall set the aircraft transponder to Mode A Code 7600 and comply with the last acknowledged clearance up to the next reporting point on the SID, then climb to the planned cruising level in accordance with the published speed and altitude restrictions of the relevant SID procedure. Thereafter, the pilot shall comply with the flight planned routing.

3.3.1.2. Whenever a pilot experiences total radio communication failure immediately after departure and it is deemed unsafe for the flight to continue to its destination, the pilot shall adhere to the procedures below:

- The pilot shall set the aircraft transponder to Mode A Code 7600.
- The pilot shall comply with the last assigned altitude in accordance with the published speed and altitude restrictions of the relevant SID procedure.
- The pilot shall climb/descend to maintain 8500' for 2 minutes then proceed direct to BKK VOR and hold. If fuel dumping is necessarily required before making an approach to land, after maintaining altitude at 8500' for 2 minutes, the pilot shall proceed to the nearest suitable fuel dumping area and start dumping fuel. When it is completed, the pilot must fly direct to BKK VOR and hold.
- The pilot is required to make a left holding pattern over BKK VOR with inbound course 120° and one minute leg to complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with paragraph 2.2.4. ARRIVAL.

3. DEPARTURE

3.3.2. PARTIAL RADIO COMMUNICATION FAILURE FOR DEPARTING AIRCRAFT

3.3.2.1 Aircraft unable to receive: pilots shall adopt the total radio failure procedures specified in paragraph 3.3.1.2. above.

3.3.2.2. Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearances to the pilot.

3.3.3. AIRCRAFT OVERFLYING BANGKOK TMA

3.3.3.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

3.3.3.2. If in VMC, the pilot shall continue to fly in VMC and land at the nearest suitable aerodrome.

3.3.3.3. If in IMC, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with pararagraph 3.3.3.2. above, the pilot shall maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of ten minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan.

3.3.4. DEPARTING OR OVERFLYING UNDER RADAR CONTROL

3.3.4.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

3.3.4.2. The pilot shall maintain the last assigned heading, speed and level, or minimum flight altitude if higher, for a period of two minutes following:

- The time the last assigned level or minimum flight altitude is reached; or
- The time the transponder is set to 7600; or
- The aircraft's failure to report its position over a compulsory reporting point, whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.

3.3.4.3. After a period of two minutes, the pilot shall proceed in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight planned route no later than the next significant point, taking into consideration to the applicable minimum flight altitude.

3.4. RWY OPERATIONS

3.4.1. HANDLING SERVICES AND FACILITIES

- For the purpose of noise and emission on the apron area, any aircraft that is designated to park at the stands served with passenger loading bridges shall utilize the fixed ground power supply (400Hz) and the fixed pre-conditioned air supply provided by the airport if in service.
- Fixed ground power supply (400Hz) - Operators are recommended to reduce electric load immediately after parking. If fixed ground power supply is out of service, mobile GPU may be used. APU shall not be used more than 10 minutes before off-block time and 5 minutes after parking. If the operators request to operate the APU, the aircrafts shall be allocated to the remote stand.
- Fixed pre-conditioned air supply: Operators are recommended to turn off the cabin air re-circulation system to prevent outside air mixing with PC-Air, if fixed PCA is out of service, mobile ACU may be used.
- Visual Docking Guidance System is provided at all stands. If VDGS is out of service, a marshaller shall guide the aircraft from the taxilane to the parking position on the stand.

| 3.4.2. ACTION TO BE TAKEN BY THE PILOT IN COMMAND

When the aircraft is fully ready the pilot-in-command shall :

- Ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or pushback of aircraft commences. This is to be done using standard phraseology in communication with the ground operations headset operator.

3. DEPARTURE

3.4.2. ACTION TO BE TAKEN BY THE PILOT IN COMMAND (CONT)

- Ensure that prior to start-up, the pilot must be certain that the propellers or the air flows caused by the engine cannot cause injuries or damage to persons or property on ground. This is to be done using standard phraseology in communication with the operations headset operator.
- Contact Ground Control for permission to start up the engines.
  In normal operations, the engine start-up at the aircraft parking position is not allowed.
- Ensure that the ground engineer, or the person responsible for ground to cockpit communications who is in direct intercom-radio contact with the pilot-in-command, acknowledges the start up permission. In the event intercom-radio contact is not available, the use of standard hand signals will be used.
- Ensure that the anti-collision beacons of the aircraft have been switched on before pushing back or starting the engine. Ensure to obtain an "all-clear" signal from the ground operations headset operator.
- During pushback operations, all aircraft shall be pushed back with its fuselage longitudinally centered over, and parallel to, a taxiway centerline before commencing engine start. Should the engine start be performed at the aircraft parking positions, ensure that the requirements for such engine start up conditions are met.
- Ensure that the ground engineer or ground operations headset operator acknowledges the permission.
- Ensure that the aircraft is being pushed back in the right direction onto the taxilane.
- Request permission from Ground Control to taxi when the tug has been disconnected as confirmed by the ground engineer and the ground engineer or ground operations headset operator has given the "all clear" signal.

3.4.3. PUSH BACK PROCEDURES

- Aircraft which are parked either nose in to the terminal building on a stand attached to a PASSENGER LOADING BRIDGE or nose in on a remote stand will need to be pushed back from the stand towards the taxilane center line taking into account the standard taxiway routing.
- Once the pilot-in-command of an aircraft has decided that the aircraft is fully ready for departure he/she will contact Ground Control for start up, stating the parking position, and after that for push back permission.
- Note- Fully ready in this sense means all passengers, hold and cargo doors are closed, the Passenger Loading Bridge is disconnected and back in its rest position, the tug is connected to the aircraft and the ground engineer is in position and in contact with the pilot in command.
- When the anti-collision beacons of the aircraft have been switched on no vehicular movement is permitted behind the aircraft.
- ATC may deviate from the standard push back procedure as stated below for reasons such as traffic or work in progress. The deviation will be given in the push back permission and the pilot-in-command has to make sure that the ground engineer fully understands the deviation.
- The PIC shall use minimum break away power and minimum taxi power when operating on the aprons and taxi lanes.
- Nose wheel positions have been marked on the taxilane center line to indicate to the tug/tractor driver where the push or pull maneuver has to be stopped and the tug can be disconnected.
- A 340-600 aircraft may only be pushed back using a towbarless tow tractor.
  This is to avoid blocking the road in front of the aircraft by a tractor with towbar.
- While the aircraft is being pushed back from parking bay and/or being on the taxilane ready to take off with all engines started, operate normal procedures until they are completed and the aircraft has taken off.

3. DEPARTURE

AIRCRAFT PARKING AT MAIN APRON (26 STANDS)

Aircraft stands	Frequency Ground Control	Push Back Instructions
C2	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 1.
C4, C6	121.75	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T8 and then towed forward until aircraft nose wheel is on marking 2.
C8, C10	121.75	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T8 and then towed forward until aircraft nose wheel is on marking 1.
301	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 until aircraft nose wheel is on marking 1.
302	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 and then towed forward until aircraft nose wheel is on marking 1.
303	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 until aircraft nose wheel is on marking 2.
304	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 and then towed forward until aircraft nose wheel is on marking 2.
305	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T10 until aircraft nose wheel is on marking 1.
306	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T10 and then towed forward until aircraft nose wheel is on marking 1.
307	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T10 until aircraft nose wheel is on marking 2.
308	121.75	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T10 and then towed forward until aircraft nose wheel is on marking 2.
D1	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 1.
D2	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 and then towed forward until aircraft nose wheel is on marking 1.
D3	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 2.
D4	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 and then towed forward until aircraft nose wheel is on marking 2.
D5	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 and then towed forward until aircraft nose wheel is on marking 3.
D6	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 3.
D7	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 and then towed forward until aircraft nose wheel is on marking 4.
D8	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 4.
E1	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until aircraft nose wheel is on marking 4.
E3, E5	121.75	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T11 and then towed forward until aircraft nose wheel is on marking 2.
E7, E9	121.75	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T11 and then towed forward until aircraft nose wheel is on marking 1.

3. DEPARTURE

AIRCRAFT PARKING AT EAST APRON (54 STANDS)

Aircraft stands	Frequency Ground Control	Push Back Instructions
A1, A2	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 until aircraft nose wheel is on marking 1.
A3, A4, A5, A6	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5.
101	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 and then towed forward until aircraft nose wheel is on marking 2.
102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5.
115, 116, 117	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5.
118	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 and then towed forward until aircraft nose wheel is on marking 2.
119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5.
130	121.65	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T1.
131, 132, 133	121.65	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T1, towed forward until abeam stand 131.
134	121.65	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5.
B1, B3	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 until aircraft nose wheel is on marking 1.
B2, B4	121.65	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T6 until aircraft nose wheel is on marking on taxi lane.
B5	121.65	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T4 then towed forward until aircraft nose wheel is on marking on taxi lane..
B6	121.65	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T6 and then towed forward until aircraft nose wheel is on marking on taxi lane.
C1	121.65	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T6 then towed forward until aircraft nose wheel is on marking on taxi lane.
C3, C5	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 then towed forward until aircraft nose wheel is on marking 2.
C7, C9	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 and then towed forward until aircraft nose wheel is on marking 1.
201, 202	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 and then towed forward until aircraft nose wheel is on marking 2.
203	121.65	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 and then towed forward until aircraft nose wheel is on marking 1.

3. DEPARTURE

AIRCRAFT PARKING AT WEST APRON (44 STANDS)

Aircraft stands	Frequency Ground Control	Push Back Instructions
E2	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T14 until aircraft nose wheel is on marking on taxilane.
E4, E6	121.95	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T13 and then towed forward until aircraft nose wheel is on marking 2.
E8, E10	121.95	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T13 and then towed forward until aircraft nose wheel is on marking 1.
401, 402	121.95	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T13 until aircraft nose wheel is on marking 2.
403	121.95	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T13 and then towed forward until aircraft nose wheel is on marking 1.
F1, F3	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T14 until aircraft nose wheel is on marking on taxi lane.
F2, F4	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T15 until aircraft nose wheel is on marking on taxi lane.
F5	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T14 and then towed forward until aircraft nose wheel is on marking on taxi lane.
F6	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T15 and then towed forward until nose wheel is on marking on taxilane.
G1, G2	121.95	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T15 until aircraft nose wheel is on marking on taxi lane.
G3, G4	121.95	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T17 and then towed forward until aircraft nose wheel is on marking 2.
G5	121.95	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T17 and then towed forward until aircraft nose wheel is on marking 1.
501	121.95	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T17 and then towed forward until aircraft nose wheel is on marking 1.
502, 503	121.95	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T17 and then towed forward until aircraft nose wheel is on marking 2.
504, 505	121.95	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T17 and then towed forward until aircraft nose wheel is on marking 1.
506 - 521	121.95	Aircraft shall be pushed back to face south onto taxiway D.
522 - 525	121.95	Aircraft shall be pushed back to face south onto taxiway D, then towed forward until abeam stand 522 with nose wheel on marking on taxiway.

3. DEPARTURE

AIRCRAFT PARKING AT SAT-1 APRON (28 STANDS)

Aircraft stands	Frequency Ground Control	Push Back Instructions
S101	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S102	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S103	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S104	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S105	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S106	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S107	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S108	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S109	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S110	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S111	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S112	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S113	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S114	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S115	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S116	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S117	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S118	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S119	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T18.
S120	121.75	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T19.
S121	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S122	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S123	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S124	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S125	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S126	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.
S127	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T18.
S128	121.75	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T19.

3. DEPARTURE

3.5. ATC CLEARANCE PROCEDURES

3.5.1. ISSUANCE OF ATC CLEARANCE

- When flight formalities have been completed and aircraft is ready for departure (all doors are closed), all aircraft are to call Suvarnabhumi Clearance Delivery Control (CDC) for ATC clearance including the aircraft call sign, aircraft type, destination, route, proposed flight level, if different from the filed flight plan and, when applicable, special requirements (e.g. inability to comply with SID climb profile), on the clearance delivery frequencies as depicted on the 20-9 chart.
  (Except : IFR aircraft departing to VTBD, VTBU, VTBK, VTBL, VTPI and VTPH at or below FL160 are to call Bangkok Approach on 125.8 MHZ)
- To improve tactical management of air traffic, minimize delay as well as reduce controllers and pilots workload, the following procedure will be applied:
  a) Under normal circumstances, altitude 6000' shall be initially assigned.
  b) First airborne first flight level selection principle.
  c) No one ground flight level negotiation and reservations.
  d) Cruising level shall be assigned by Bangkok Control after airborne.

3.5.2. DEPARTURE TIME RESTRICTION

- Departure time restrictions may be imposed for Air Traffic Management when so required.
- When ATC clearance includes departure time restrictions, pilots shall:
  a) keep listening watch on relevant Suvarnabhumi Ground Control frequency at all times for additional or revised ATC clearance and in readiness for push back; and
  b) call Ground Control in the appropriate time with the departure time restriction.

3.5.3. CANCELLATION OF ATC CLEARANCE

- Once ATC clearance has been received, unless there is a departure time restriction included in ATC clearance or other restriction resulting from Air Traffic Management, the aircraft must be pushed back within 5 minutes from the time ATC clearance is received, otherwise ATC clearance will be cancelled.
- Additionally, in order to provide a more flexible ground traffic movement, all domestic departures shall no longer be required to push back within 5 minutes after clearance received.

After ATC clearance is received, pilot shall contact defined ground control frequency according to the parking stand for start up and push back.

3.6. DEPARTURE PROCEDURES

3.6.1. OPERATIONAL FOR SAFETY AND MORE EFFECTIVE AIR TRAFFIC MANAGEMENT IN BANGKOK TMA

Suvarnabhumi Departure shall be established to provide Air Traffic Control Service at Suvarnabhumi International Airport, the operational procedures shall be as follows:

- All departing aircraft, before transferring to relevant approach sectors (East, West, South and North), are strictly required to contact Suvarnabhumi Departure on frequency 119.25 immediately after airborne unless otherwise instructed by ATC.
- Pilots shall be reminded that, to reduce communication workload, the departure frequency shall not be included in take-off clearance.
- Air Traffic Management for flight operating on ATS route A202, departure aircraft shall flight plan via A1 SELKA DCT RAMEI A202.

3.6.2. RUNWAY-IN-USE

- The runway-in-use is selected by Suvarnabhumi Control Tower as the best for general purpose. If it is unsuitable for a particular operation, the pilot can obtain permission from ATC to use another but must accept that he may thereby incur a delay.

3. DEPARTURE

3.6.3. DEPARTURE SEQUENCE

- Departure shall normally be cleared in the order in which they are ready for take-off, except that deviations may be made from this order of priority to facilitate the maximum number of departures with the least average delay.
- To increase runway capacity and to comply with slot times if required, ATC may re-order departure sequence at any time. In addition, intersections will be assigned for departure. Pilots unable to accept the reduced take-off run available for the assigned intersection, shall inform ATC directly.

3.6.4. DEPARTURE CLEARANCE

- The order in which aircraft are given take-off clearances will be determined on the basis of normal traffic priorities, the application of wake turbulence standard separation and departure slot allocations and management.
- Under normal circumstances all departing aircraft will be issued with SIDs. If, for traffic management reasons, a SID has to be cancelled, the pilot will be given a specific departure instruction.
- If, after take-off, a pilot experiences radio failure, he/she shall comply with communication failure procedures as published in the RNAV SID Charts.

3.6.5. INTERSECTION DEPARTURE

- Departing aircraft will normally be directed by ATC to use the full length of the runway for take-off. Pilots-in-command may request or ATC may propose an intersection departure to resolve a particular runway or maneuvering area conflict. The final decision whether to make an intersection departure rests with the pilot-in-command.

3.6.6. CLEARANCE FOR IMMEDIATE TAKE-OFF

- A pilot receiving an immediate take-off instruction is required to act as follows:
  a) if waiting clear of the runway, taxi immediately to runway and begin take-off run without stopping aircraft;
  b) if already lined up on the runway, take-off without delay;
  c) if unable to comply with the instruction, inform ATC immediately.

3.6.7. MINIMUM RUNWAY OCCUPANCY TIME

- On receipt of line-up clearance pilots should ensure, commensurate with safety and standard operation procedures, that they are able to taxi into the correct position at the hold and line up on the runway as soon as the preceding aircraft has commenced its take-off roll.
- Whenever possible, cockpit checks should be completed prior to line up and any checks requiring completion while on the runway should be kept to the minimum required. Pilots should ensure that they are able to commence the take-off roll immediately after take-off clearance is issued.
  - Pilots not able to comply with these requirements should notify ATC as soon as possible.
  - Pilots shall prepare for the following take-off run available (TORA):

RUNWAY 19L	TORA
B1	13123′ (4000m)
B2	12697′ (3870m)

RUNWAY 19R	TORA
E1	12139′ (3700m)
E2	11778′ (3590m)

RUNWAY 01R	TORA
B13	13123′ (4000m)
B12	12762′ (3890m)

RUNWAY 01L	TORA
E21	12139′ (3700m)
E19	11778′ (3590m)

3. DEPARTURE

3.6.7. MINIMUM RUNWAY OCCUPANCY TIME (CONTD)

- In order to expedite departure traffic, the runway declared distance at each additional available departing point when entering from taxiway, are as follows:

RUNWAY 19L	TORA
B3	9744'(2970m)

RUNWAY 19R	TORA
E5	9121'(2780m)

RUNWAY 01L	TORA
E15	9760'(2670m)

RUNWAY 01R	TORA
B11	9121'(2780m)

Remarks: The aircraft take-off from these points shall be approved when traffic permitted in VMC only.

4. PRE-DEPARTURE CLEARANCE (PDC)

4.1. Introduction

4.1.1 Bangkok Area Control Center (BACC) has implemented a Pre-Departure Clearance (PDC) over Data Link service at Suvarnabhumi Airport. This procedure provides advance notification to operators for their necessary planning and preparation.

4.1.2 Implementation of the PDC over Data Link service is effective 24 hr.

4.1.3 The PDC service aims to further improve the accuracy and reliability in PDC operations, reduce the workload of pilots and ATC and reduce congestion on the Clearance Delivery Control radio frequency.

4.2. Data Link Service

4.2.1 The PDC data link procedure will be applied to flights departing from Suvarnabhumi Airport on the following ATS Routes:

a. Southbound: A464 / M751 / W19 / G458
b. Eastbound: A1 / A202 / W1
c. Eastbound: G474 / R468 / N891 RYN M644 OR N891 RYN R334 EXCEPT ROUTING N891 RYN N891 BENSA
d. Northbound: A464 / R474 / W9 / W21 / B346

4.2.2 The PDC data link will be applied under the following principles:

a. Under normal circumstances, initial level of FL160 shall be assigned
b. First airborne first flight level selection principle
c. No on-ground flight level negotiation and reservations
d. Final cruising level shall be assigned by Bangkok Control after airborne
e. Flight requesting level lower than FL160 shall be cleared accordingly

4.2.3 With PDC operations, request for departure clearance will be initiated by the pilot. After satisfactory verification of the request, the BACC PDC system will respond with the departure clearance message.

4.2.4 All PDC messages (such as departure request, departure clearance and read back) between aircraft and PDC system will be exchanged in accordance with the Airlines Electronic Engineering Committee (AEEC) Specification 623 (AEEC623: Character-Oriented Air Traffic Service (ATS) Applications) for departure clearance and transmitted via data link service providers, between the aircraft and the PDC system directly.

4.3 Operators' Equipment Requirements

4.3.1 Aircraft equipped with Aircraft Communications Addressing and Reporting System (ACARS) equipment and compliant with AEEC623 may utilize the PDC over data link.

(continued)

4. PRE-DEPARTURE CLEARANCE (PDC)

(Contd)

4.4 PDC Pilots' Procedures

1. Pilot should initiate a PDC request within 20 minutes prior to aircraft being ready for departure (all doors closed) using appropriate ICAO call sign and departure airport ("VTBS").
2. Pilot will receive a message ("RCD RECEIVED, REQUEST BEING PROCESSED, STANDBY") to inform that PDC uplink message (CLD) will be delivered shortly. Sample CLD message format is provided in Attachment.
3. Within 5 minutes after receiving the PDC uplink message (CLD), pilot shall select the "ACCEPT" function on the flight deck to acknowledge the clearance over data link.
4. Upon reception of clearance acceptance, pilot will receive a confirmation message ("CDA RECEIVED CLEARANCE CONFIRMED") completing en route clearance, waiving the requirement that "the aircraft must be pushed back within 5 minutes".
5. When flight formalities have been completed and aircraft is ready for departure (all doors are closed), pilot shall call the relevant Ground Control frequency for push back and start up.

4.5. Contingency Procedure

4.5.1 If there is any problem with the data link exchanges, pilot shall request the clearance via voice using the following frequencies:

Frequency	Direction	ATS Route
120.8	Southbound	A464 / M751 / W19 / G458
133.8	Eastbound	A1 / A202 / W1
135.8	Eastbound	G474 / R468 / N891
128.7	Northbound	A464 / R474 / W9 / W21 / B346

Table 1 - PDC Message Format

Line Number	Message Format
1	"PDC", Clearance Number
2	Flight ID "CLRD TO" Destination Airport "OFF" Runway "VIA" SID Transition "TRANSITION" Route Flight Level
3	"SQUAWK" Ssr Code

Notes:

1. Fields in Bold will be generated by the PDC system or manually input by ATC controller.
2. Each line is ended by CR LF ASCII characters.

Figure 1 - Sample PDC Message

PDC 001
THA281 CLRD TO VTSM OFF 19L VIA SEESA1C REGOS
TRANSITION W32 FL160 SQUAWK 7211

OPERATIONAL PROCEDURES FOR STARTING AND RUNNING OF AIRCRAFT ENGINES

INTRODUCTION

Suvarnabhumi International Airport has developed the following procedures in regards to starting and running of aircraft engines. It is important for aircraft operators and related stakeholders to strictly adhere to the below mentioned procedures. This is in order to ensure a maximum level of safety in the airside operations area for all related parties.

STARTING OR RUNNING OF AIRCRAFT ENGINES

1. In normal operations, engine start-up at the aircraft parking position is not allowed. Aircraft operators wishing to start or run aircraft engines at the aircraft parking positions, shall ensure that the following conditions are met:

   - The aircrafts engine(s) are running at minimum idle power.
   - The aircraft is properly parked with its fuselage longitudinally centered over the lead line and nose gear on top of the parking position painted nose block marking.
   - The aircraft operator shall provide additional ground staff as wing walkers to lookout on both sides of the aircraft; he/she must keep an eye on specific parts of the aircraft when it is moving and safeguard the rear movement of the aircraft to ensure safe clearance and to prevent collision. He/she must be in constant communications with the person in charge of the operation.
   - The aircraft operator seeks permission from the Ground Control prior to starting the engine(s).
   - No other aircraft with ground crew in attendance is on the taxiway centerline or about to pushback from an adjacent stand on to the centerline behind the aircraft waiting to start.
   - The PIC receives an "all-clear" visual and audible signal from the ground engineer or the ground operations headset operator that it is safe to start the engine(s). The PIC must bear in mind that even though the start engine's permission is received from the Ground Control, the ground engineer or the ground operations headset operator has the final authority that the environment around the aircraft is safe for the engine(s) to be started.
   - The ground crew must ensure that the area behind the aircraft is clear of vehicles, equipment and other obstructions before the start-up or pushback of aircraft commences.
   - Minimum power idle engine runs are limited to ten (10) minutes in duration. Otherwise, the operations much be done at the run up area or aircraft parking position with no operations conducted in the adajcent area, or as stipulated/directed by the Airside Operations Control Center (AOCC) Tel: +66 2 132 4110.

2. For the purpose of noise and carbon emission reduction on the apron area, any aircraft that is designated to park at the stand served with passenger loading bridges shall utilize the fixed ground power supply (400Hz) and fixed pre-conditioned air supply provided by the airport if serviceable.

   - Fixed ground power supply (400Hz): Operators are recommended to reduce electric load immediately after parking. If fixed ground power supply is out of service, mobile GPU or APU may be used with consent from AOCC.
   - APU shall not be used more than 10 minutes before off-block time and 5 minutes after parking.
   - If the operator needs to run an APU more than the mentioned time length, they must seek approval from the AOCC. Any acts of non-compliance by the aircraft operator will result in actions being taken by the airport authority, including the assignment of parking stand to a remote area.
   - Aircraft operators that would like to run the APU for an extended period of time shall notify the ground staff to ensure that they are prepared for the effect of extra ground noise or exhaust fumes.
   - Fixed Pre-Conditioned Air (PCA) supply: Operators are recommended to turn off the cabin air re-circulation system to prevent outside air mixing with PC-Air. If fixed PCA is out of service, mobile ACU may be used with consent from AOCC.

OPERATIONAL PROCEDURES FOR STARTING AND RUNNING OF AIRCRAFT ENGINES

(Contd)

3. No aircraft engine shall be started or run unless a licensed pilot or certified mechanic is attending the aircraft controls. Wheel blocks equipped with ropes or other suitable means of chocking the wheels of an aircraft to deter movement shall always be placed in front of the main landing wheels before starting the engine(s), unless the aircraft is locked into position by functioning locking brakes.

4. All aircraft shall be started and run-up in locations, including leased premises, designated for such purposes by the AOCC (Tel. +66 2 132 4110). Maintenance run of aircraft engines shall not be performed in the passenger ramp, apron, cargo and public parking areas.

5. During pushback operations, all aircraft should be pushed back with its fuselage longitudinally centered over, and parallel to a taxiway centerline before commencing engine start. If the PIC wishes to start the engine(s) during push-back, he/she shall coordinate with the ground crew.

6. Running an aircraft engine is prohibited unless reasonably necessary for maintenance purposes, testing or repairing of such engine. The instruction of mechanics or pilots, or the movement/flight operation of such aircraft must be done with strict compliance to Suvarnabhumi Airport Noise Abatement procedures.

7. Turbo jet and turbo fan cross-bleed engine air-start of multi-engine jet aircraft may be conducted on taxiways, provided that the following conditions are met:
   - The aircraft Auxillary Power Units (APU) is inoperative.
   - The aircraft operator seeks permission from the Ground Control prior to starting engines.
   - Cross-bleed engine start procedure is conducted while the aircraft is longitudinally centered over and parallel to a taxiway centerline while the engine start is being performed.

8. Aircraft of departing flights on aircraft parking positions that are subject to delay are prohibited from running the engine(s). Aircraft power supply must be provided by either: the Passenger Boarding Bridge, APU, or other Ground Power Unit (GPU).

9. The starting or operating of aircraft engines inside any hangar or within 7.5 m radius of any building or other structure is prohibited.

10. No aircraft engine exhaust, blast, and/or propeller wash shall be directed in such a manner as to cause injury, damage, or hazard to any person, aircraft, vehicles, equipment, or structure. If it is impossible to taxi the aircraft without compliance with the above, the engine(s) must be shut off and the aircraft must be towed.

11. Aircraft engines shall not be operated during refueling or defueling operations; or, during a fuel spill unless otherwise approved by the Aircraft Rescue and Fire Fighting (ARFF) Officer in Charge.

RUN-UP OF AIRCRAFT ENGINES

1. High power run of aircraft engines is prohibited at all aircraft parking positions.

2. All preflight engine run-ups shall be conducted during the hours of 0700 - 2200 local time at the run up area located at the north end of Taxiway E, between D1 - D2.

3. Aircraft engines shall not be run in hangars, except in approved engine test areas. Aircraft engines shall be run-up only in designated areas. At no times shall engines be run-up when aircraft is inside any hangar or within 7.5 m radius of any building or other structures, or when persons in observation areas are in the proximity of the propeller slipstream or jet blast.

OPERATIONAL PROCEDURES FOR STARTING AND RUNNING OF AIRCRAFT ENGINES

(Contd)

4. Aircraft operators must obtain location approval and instructions from AOCC (Tel. +66 2 132 4110), before conducting an extended run of any aircraft engine above minimum idle power; high power engine operation, or engine run.

5. Leak checks, one (1) engines power at idle thrust only per start, may be performed at aircraft parking areas that is limited to ten (10) minutes, provided that the operator provides adequate measures to protect personnel and equipment operating behind the aircraft, and the leak check does not interfere with the use of adjacent gate operations.

6. Idle engine checks and auxiliary power units are to be operated at the minimum time required to accomplish the necessary maintenance or preflight check.

AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) AT SUVARNABHUMI INTL AIRPORT

1. DEFINITION OF TERMS COMMONLY USED IN A-CDM

1.1 Target Off-Block Time (TOBT) - The time that an Aircraft Operator (AO) or Ground Handler (GH) estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start-up and push back immediately upon reception of clearance from the Aerodrome Control Tower (TWR).

1.2 Target Start-Up Approval Time (TSAT) - The time provided by ATC taking into account TOBT, CTOT and/or the traffic situation that an aircraft can expect start-up/push back approval.

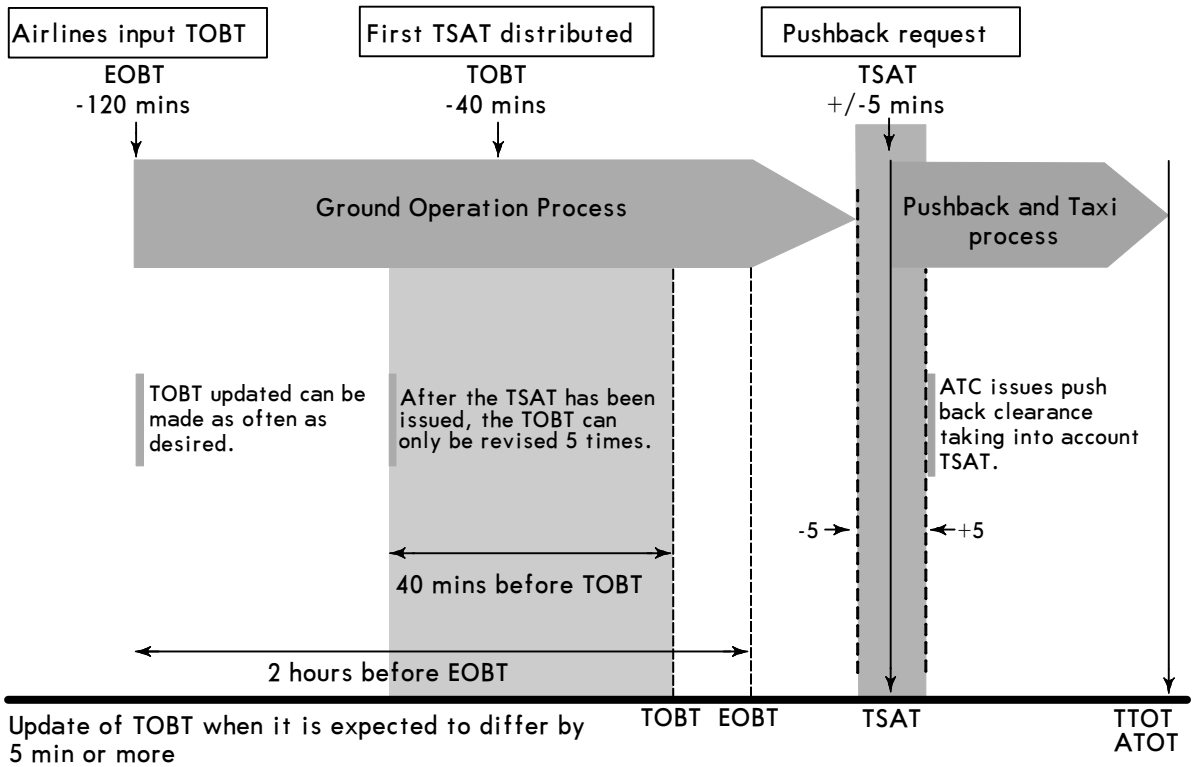
1.3 Calculated Take-Off Time (CTOT) - A time calculated and issued by the appropriate Central Management unit, as a result of tactical slot allocation, at which a flight is expected to become airborne.

2. SUVARNABHUMI A-CDM PROCEDURES

Note: Detailed procedures for A-CDM are contained in A-CDM Manual, https://acdm.airportthai.co.th/

2.1 Suvarnabhumi A-CDM Procedure Overview

The chart below describes the simple overview of the A-CDM process at Suvarnabhumi International Airport from the time that airlines input the TOBT to the time that aircraft is airborne. It includes the responsibilities and procedures in brief, as described below.



AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) AT SUVARNABHUMI INTL AIRPORT (CONTD)

2.2 Target Off-Block Time (TOBT) Procedures

2.2.1 General

Airlines or person responsible for the TOBT are required to access and manually input the TOBT into the A-CDM system in order that the start-up approval time (TSAT) can be expected.

2.2.2 Person Responsible for TOBT

-Airline operator (AO) is responsible for the input of and adherence to the TOBT. However, AO may prefer to delegate this function to ground handler (GH). It is the responsibility of the AO/GH to communicate and ensure that the pilot of a flight has the correct TOBT and TSAT prior to requesting ATC clearance.

-AO need to ensure that a timely, accurate and stable TOBT is provided. If it becomes obvious that the TOBT cannot be respected, it shall be updated by the person responsible for the TOBT as early as possible.

2.2.3 TOBT Input and Revision

The following has to be taken into account for the input and/or revision of the TOBT:

a) The first TOBT can be input at 120 minutes (2 hours) prior to EOBT.

b) A TOBT input must be at least the present time.

c) The TOBT revision can be made as often as desired until the TSAT has been issued (40 minutes prior to TOBT).

d) After the TSAT has been issued, the TOBT can only be revised not more than 5 times to ensure a stable operation.

e) New TOBT must differ by at least 5 minutes (+/-5 minutes) from the latest input TOBT to protect a stable Pre-Departure Sequence.

2.2.4 Flights with Calculated Take-Off Time (CTOT)

Flights with CTOT will usually take priority when calculating TSATs in order to minimize potential CTOT delay.

2.2.5 TOBT Deletion

a) TOBT can be deleted by users with permission to input/revise the TOBT.

b) If the TOBT is deleted, the TSAT is automatically deleted.

c) The TOBT has to be deleted in the following cases:

- TOBT is unknown (e.g. technical problems with the aircraft), or
- The permitted number of TOBT revision (5 times) after the generation of the TSAT has been exceeded.

d) If a new TOBT is known, the process shall continue and the person responsible for the the TOBT has to enter a new TOBT.

2.2.6 TOBT Reporting Channels

The TOBT is reported or updated by the following ways:

- A-CDM Portal Web Based Application (https://acdm.airportthai.co.th/)
- A-CDM Portal Mobile Application

2.3 Target Start-Up Approval Time (TSAT) Procedures

2.3.1 General

The TSAT is the target time for start-up approval calculated by iDEP system based on the TOBT input from the airlines and operational constraints. The TSAT is calculated based on the following key parameters:

- Target Off-Block Time (TOBT)
- Calculated Take-Off Time (CTOT)
- Operational Capacity
- Variable Taxi Time (VTT)
- Parking Stand
- Departure Runway

AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) AT SUVARNABHUMI INTL AIRPORT (CONTD)

2.3.2 TSAT Distribution

2.3.2.1 The TSAT is displayed/distributed 40 minutes prior to the TOBT.

2.3.2.2 After TSAT has been distributed, the TOBT can only be revised not more than 5 times to ensure a stable sequence and CTOT allocation.

2.3.2.3 Subsequent TOBT revision triggers a recalculation of TSAT. It should therefore be noted that an incorrect TOBT leads to disadvantages for further sequencing and/or CTOT allocation of regulated flights.

2.3.2.4 The TSAT may not be final and can be revised due to air traffic management.

2.3.3. TSAT Reporting Channels

2.3.3.1 The TSAT will be issued to airlines or person responsible for TOBT via:

- A-CDM Portal Web Based Application (https://acdm.airportthai.co.th/)
- SMS via digital trunked radio system
- A-CDM Portal Mobile Application

2.3.3.2 The AO/GH is responsible for updating and ensuring that the pilot of a flight has the correct TOBT and TSAT prior to requesting ATC clearance.

2.4 Start-Up and Push Back Procedures

2.4.1 General

Start-up and push back approval are issued taking into account the TOBT and TSAT. The sequence of the start-up and push back request is no longer a factor. The following rules apply:

2.4.2 Start-Up and Push Back Procedures

2.4.2.1 Pilot shall ensure that aircraft is ready for push back at TOBT.

2.4.2.2 After obtaining ATC clearance, pilot shall monitor defined ground control frequency in accordance with aircraft parking stand. If there is any change of TSAT, Ground Control will update the pilot as soon as possible.

2.4.2.3 Pilot shall contact Ground Control for start-up and push back within window (TSAT +/- 5 minutes). These three scenarios may occur:

1. Before TSAT window: Flight will be requested to call again when it is within the TSAT window.
2. Within TSAT window: Flight will be planned for outbound sequence and may expect start-up approval directly or within a few minutes depending on actual operational situation.
3. After TSAT window: The TSAT of the flight has expired. Flight will be denied start-up approval. Pilot has to contact its AO/GH to update the TOBT and shall contact ATC again when TOBT update has resulted in an updated TSAT.

2.4.2.4 Ground Control will issue start-up and push back clearance taking TSAT into account.

2.4.2.5 If a flight is unable to push back due to the aircraft being unready, TSAT will be will be cancelled. Pilot must notify the AO/GH to update the TOBT for a new TSAT.

Note: When a departing aircraft is occupying a gate that has been assigned to an arriving aircraft, the departing aircraft may be instructed by ground control to push back onto the taxiway without engine start-up to allow the arriving aircraft to taxi in. An Expected Taxi Time will be provided accordingly.

AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) AT SUVARNABHUMI INTL AIRPORT (CONTD)

3. A-CDM IN ADVERSE CONDITION

3.1 Adverse Conditions consist of collaborative management of the capacity of an airport during periods of predicted or unpredicted reduction of airport capacity. The aim is to achieve a common situation awareness for the A-CDM partners, including better information for the passengers, in anticipation of a disruption and expeditious recovery after the disruption.

3.2 In case of adverse conditions or any circumstances where predicted or unpredicted reduction of airport capacity may be expected, the following procedures shall be applied:

3.2.1 The pilot shall contact Ground Control for start-up and push back at TSAT +/- 5 minutes.

3.2.2 If there is any change of TSAT, Ground control will update the pilot accordingly.

4. NON A-CDM Operation

4.1 In case of unavailability or maintenance of A-CDM system, TSAT will not be provided and Non A-CDM Operation shall be performed.

4.2 During period of Non A-CDM Operation, pilot shall request for ATC clearance when the aircraft is ready for pushback. ATC will then issue start-up/pushback clearance on a first-come-first-serve basis.

4.3 To minimize taxi-out delay and reduce fuel consumption, Gate Hold Procedures for departing aircraft may be implemented. Details are as follows:

4.3.1 When the occurrence of more than four departing aircraft bunching at the runway holding position is anticipated, an Expected Pushback Time (EPT) will be issued.

4.3.2 An EPT is issued to subsequent departing aircraft which is ready for pushback.

4.3.3 The determination of EPT will take into account an aircraft parking stand as well as taxi time to runway-in-use holding position.

4.3.4 When an EPT is issued, pilots are required to monitor on a relevant ground control frequency for possible updates of EPT.

VTBS/BKK
SUVARNABHUMI INTL

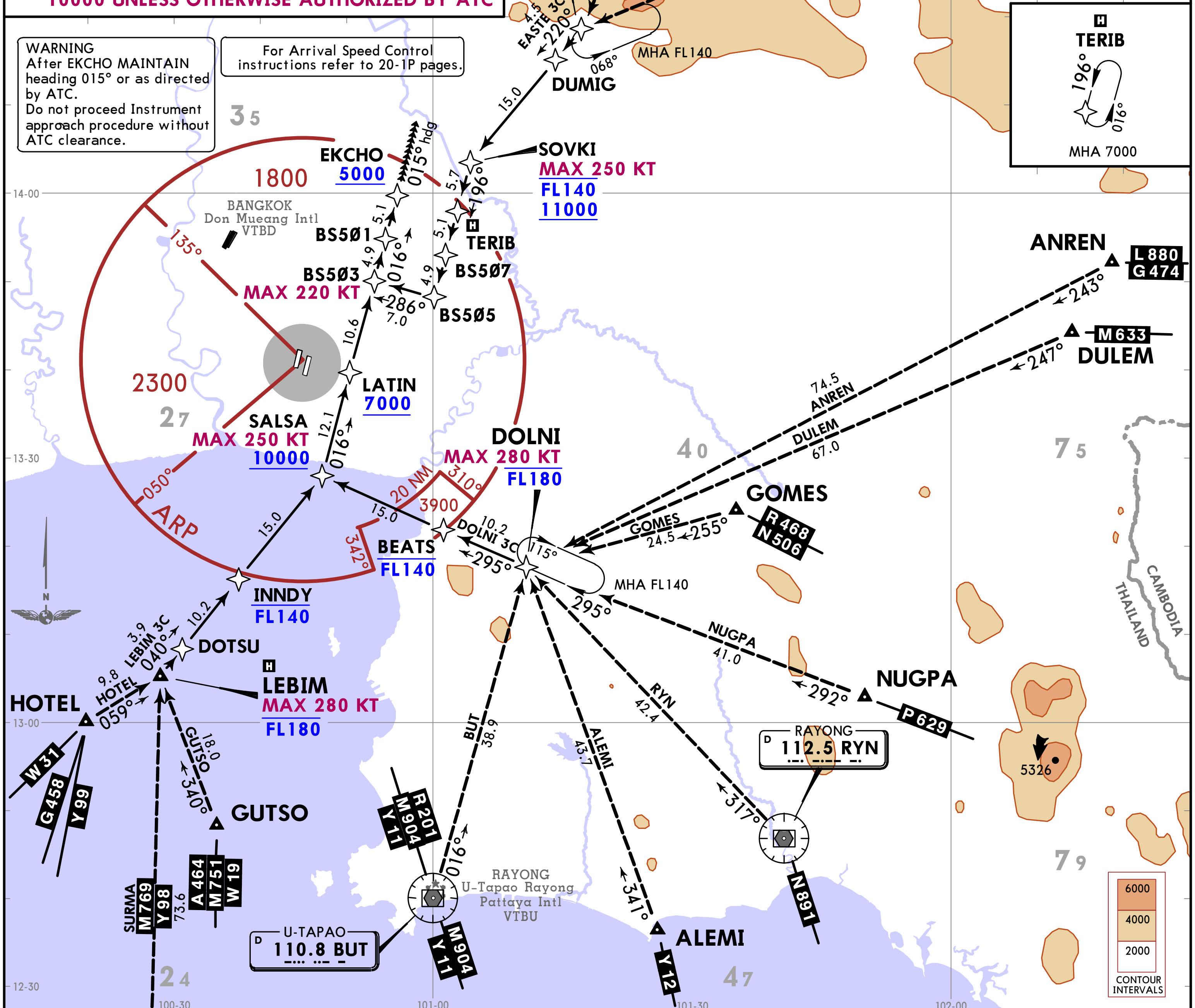
D-ATIS	Alt Set: hPa Trans level: FL130
133.6	RNAV1 required GNSS or DME/DME/IRU required
Apt Elev 4	1. RADAR required. 2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance. 3. Pilot should plan for possible descent as depicted on STAR, actual descent clearance will be given by ATC. 4. If unable to comply with flight restrictions, advise ATC immediately.

DOLNI 3C [DOLN3C]
EASTE 3C [EAST3C]
LEBIM 3C [LEBI3C]
RNAV ARRIVALS
(RWYS 19L/R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

WARNING
After EKCHO MAINTAIN heading 015° or as directed by ATC.
Do not proceed Instrument approach procedure without ATC clearance.

For Arrival Speed Control instructions refer to 20-1P pages.



NOT TO SCALE

SURMA 002°
W42 Y5 Y98 M769

LEBIM
180° 360°
MHA FL140

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Proceed according to the STAR route to the termination point EKCHO, descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, then, after passing EKCHO fly heading 015° and MAINTAIN altitude 6000 for the next 10 NM, then turn LEFT and descend to 2000 and carry out the appropriate ILS approach procedure.
3. When an arriving aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction and then comply with the procedures in item 2. above.

BANGKOK, THAILAND
DOLNI 3C [DOLN3C]
EASTE 3C [EAST3C]
LEBIM 3C [LEBI3C]
RNAV ARRIVALS
(RWYS 19L/R)
RNAV STAR
27 OCT 23 20-2 Eff 2 Nov
JEPPESEN

CHANGES: Airport elevation, MSA revised.

D-ATIS 133.6

Alt Set: hPa Trans level: FL130

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required. 2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance. 3. Pilot should plan for possible descent as depicted on STAR, actual descent clearance will be given by ATC. 4. If unable to comply with flight restrictions, advise ATC immediately.

Apt Elev 4

DOLNI 3D [DOLN3D]
EASTE 3D [EAST3D]
LEBIM 3D [LEBI3D]
RNAV ARRIVALS
(RWYS 01L/R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

WARNING
Depart ENKAA MAINTAIN heading 195° or as directed by ATC.
Do not proceed instrument approach procedure without ATC clearance.

For Arrival Speed Control instructions refer to 20-1P pages.

NAKHON RATCHASIMA Khorat VTUN

NAKHON RATCHASIMA VTUQ

UBLOD Y1 Y2

EASTE MAX 280 KT FL180

MHA FL140

RUKSA Y13

DABTA

BS407 MAX 250 KT 11000

BANGKOK Don Mueang Intl VTBD

LATIN MAX 220 KT 9000 7000

SANJO

BS401

BS403

BS405 MAX 250 KT

SALSA

ENKAA 3000

ARP

20 NM 3900

DOLNI MAX 280 KT FL180

GOMES R468 N506

ANREN G474 L880

DULEM M633

FUNKY FL140

BEATS FL140 FL130

LEBIM MAX 280 KT FL180

HOTEL

GUTSO

NUGPA P629

RAYONG 112.5 RYN

U-TAPAO 110.8 BUT

ALEMI Y12

RAYONG U-Tapao Rayong Pattaya Intl VTBU

THAILAND CAMBODIA

5326

CONTOUR INTERVALS 6000 4000 2000

VTBS/BKK SUVARNABHUMI INTL

DOLNI MHA FL140

27 OCT 23 20-2A Eff 2 Nov

JEPPESEN

BANGKOK, THAILAND RNAV STAR

DOLNI 3D [DOLN3D]
EASTE 3D [EAST3D]
LEBIM 3D [LEBI3D]
RNAV ARRIVALS
(RWYS 01L/R)

NOT TO SCALE

SURMA

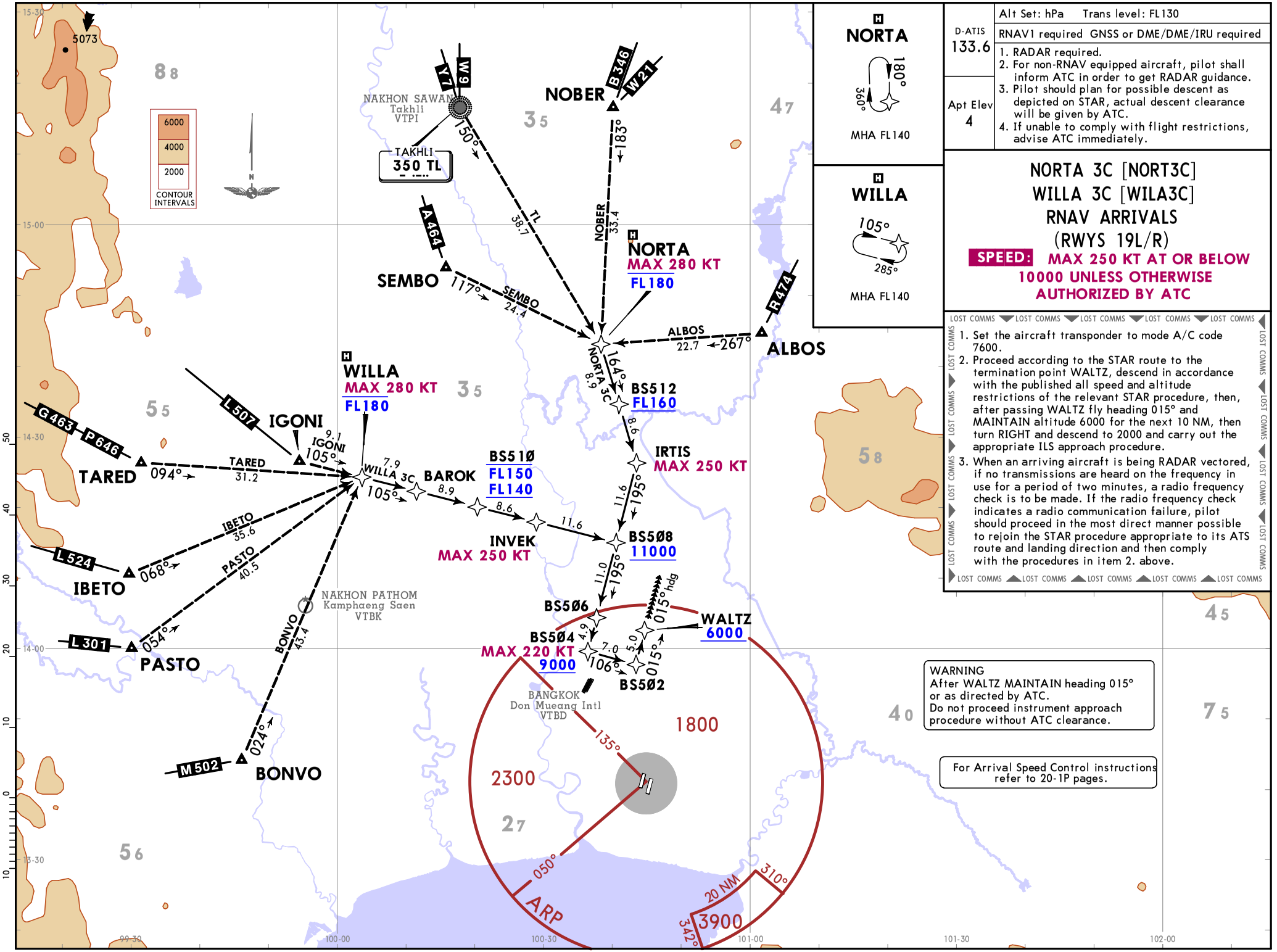
LEBIM MHA FL140

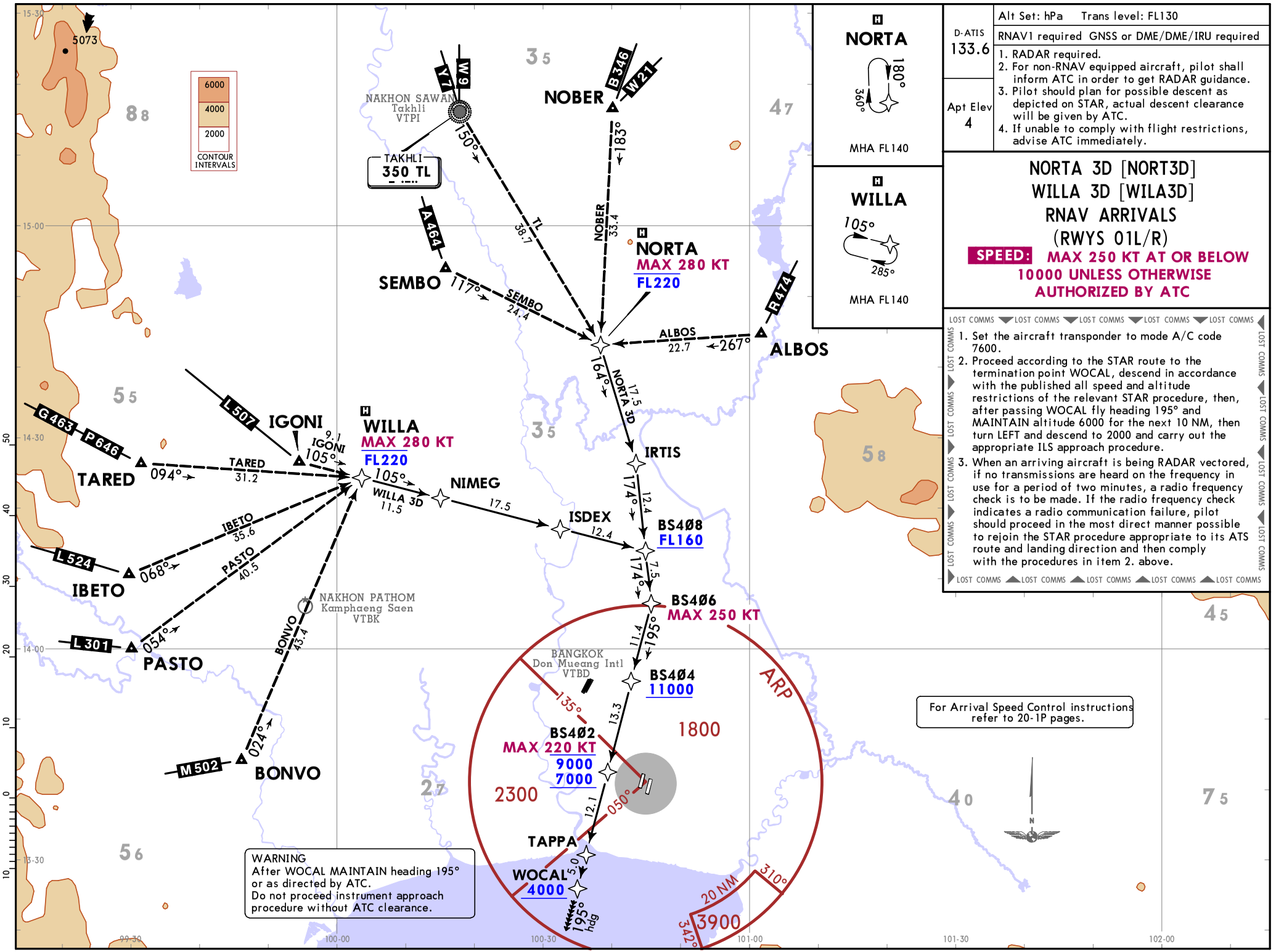
LOST COMMS

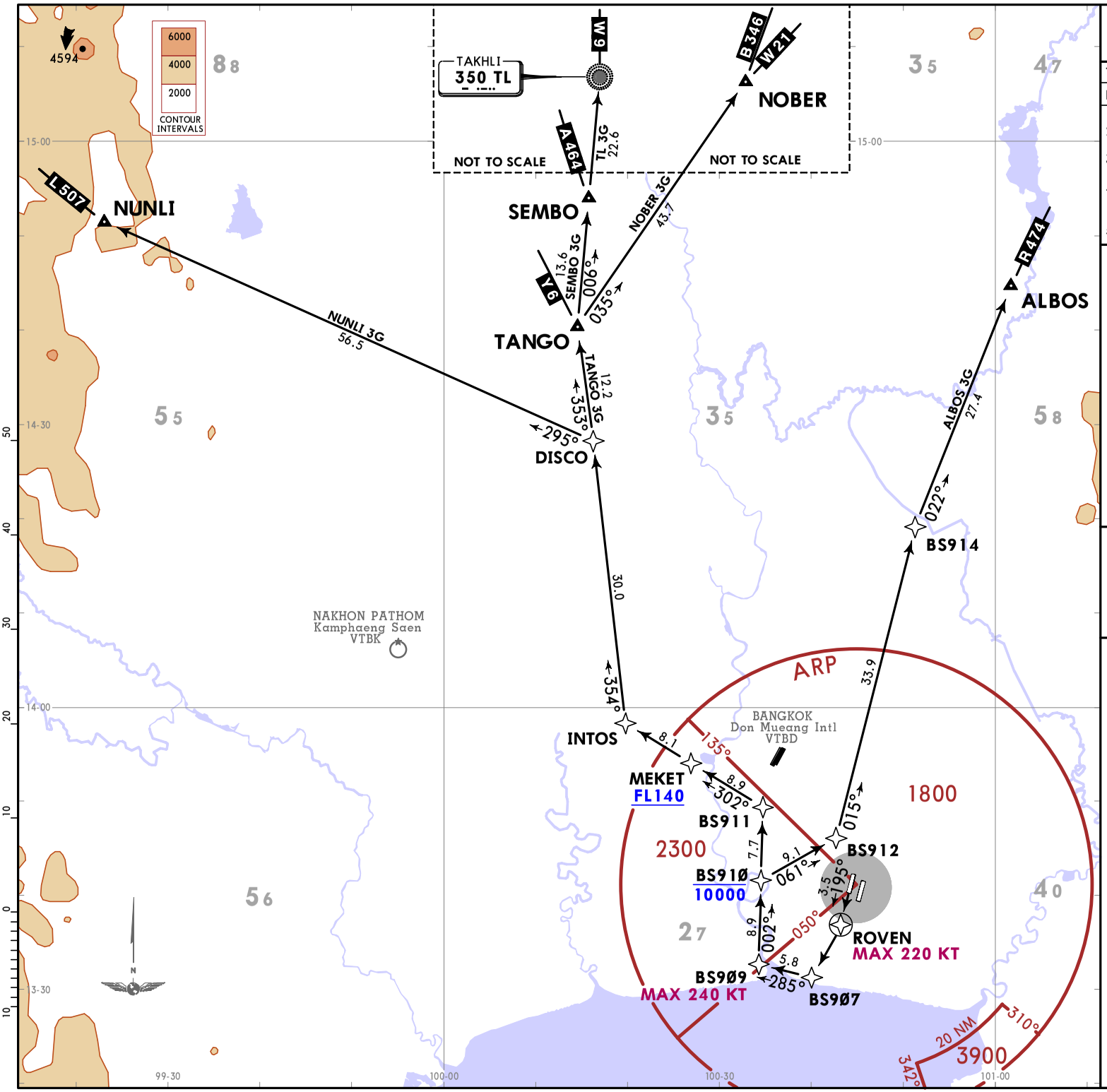
1. Set the aircraft transponder to mode A/C code 7600.
2. Proceed according to the STAR route to the termination point ENKAA, descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, then, after passing ENKAA fly heading 195° and MAINTAIN altitude 6000 for the next 10 NM, then turn RIGHT and descend to 2000 and carry out the appropriate ILS approach procedure.
3. When an arriving aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction and then comply with the procedures in item 2. above.

CHANGES: Airport elevation, MSA revised.

JEPPESEN BANGKOK, THAILAND
27 OCT 23 (20-2B) Eff 2 Nov
RNAV STAR







SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

ALBOS 3G [ALBO3G]
NOBER 3G [NOBE3G]
NUNLI 3G [NUNL3G]
SEMBO 3G [SEMB3G]
TANGO 3G [TANG3G]
TL 3G [TL3G]
RNAV DEPARTURES
(RWY 19R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

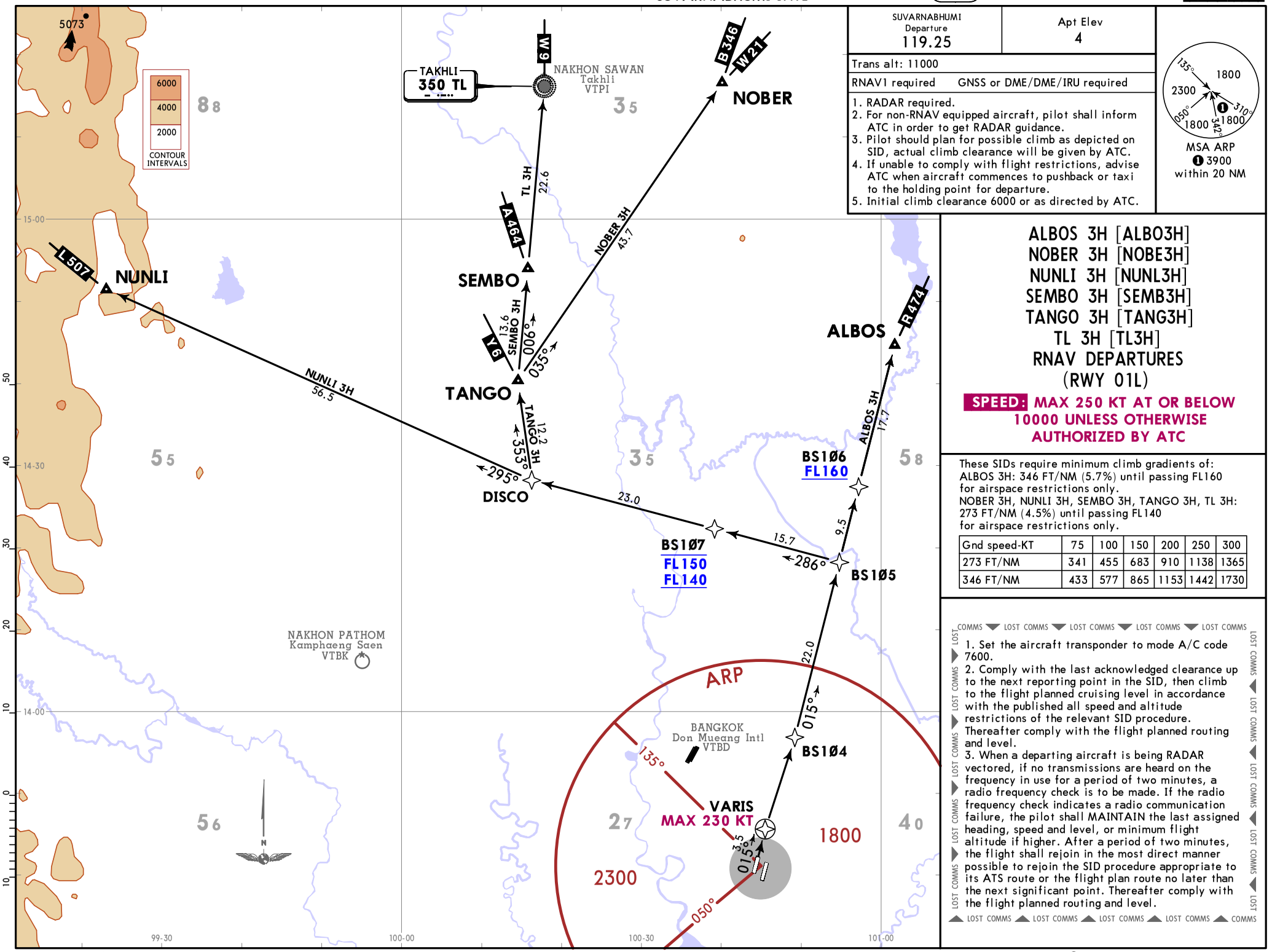
These SIDs require a minimum climb gradient of: NOBER 3G, NUNLI 3G, SEMBO 3G, TANGO 3G, TL 3G: 340 FT/NM (5.6%) until passing FL140 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
340 FT/NM	425	567	850	1133	1417	1700

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

MSA ARP
3900
within 20 NM

ALBOS 3H [ALBO3H]
NOBER 3H [NOBE3H]
NUNLI 3H [NUNL3H]
SEMBO 3H [SEMB3H]
TANGO 3H [TANG3H]
TL 3H [TL3H]
RNAV DEPARTURES
(RWY 01L)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require minimum climb gradients of:
ALBOS 3H: 346 FT/NM (5.7%) until passing FL160 for airspace restrictions only.
NOBER 3H, NUNLI 3H, SEMBO 3H, TANGO 3H, TL 3H: 273 FT/NM (4.5%) until passing FL140 for airspace restrictions only.

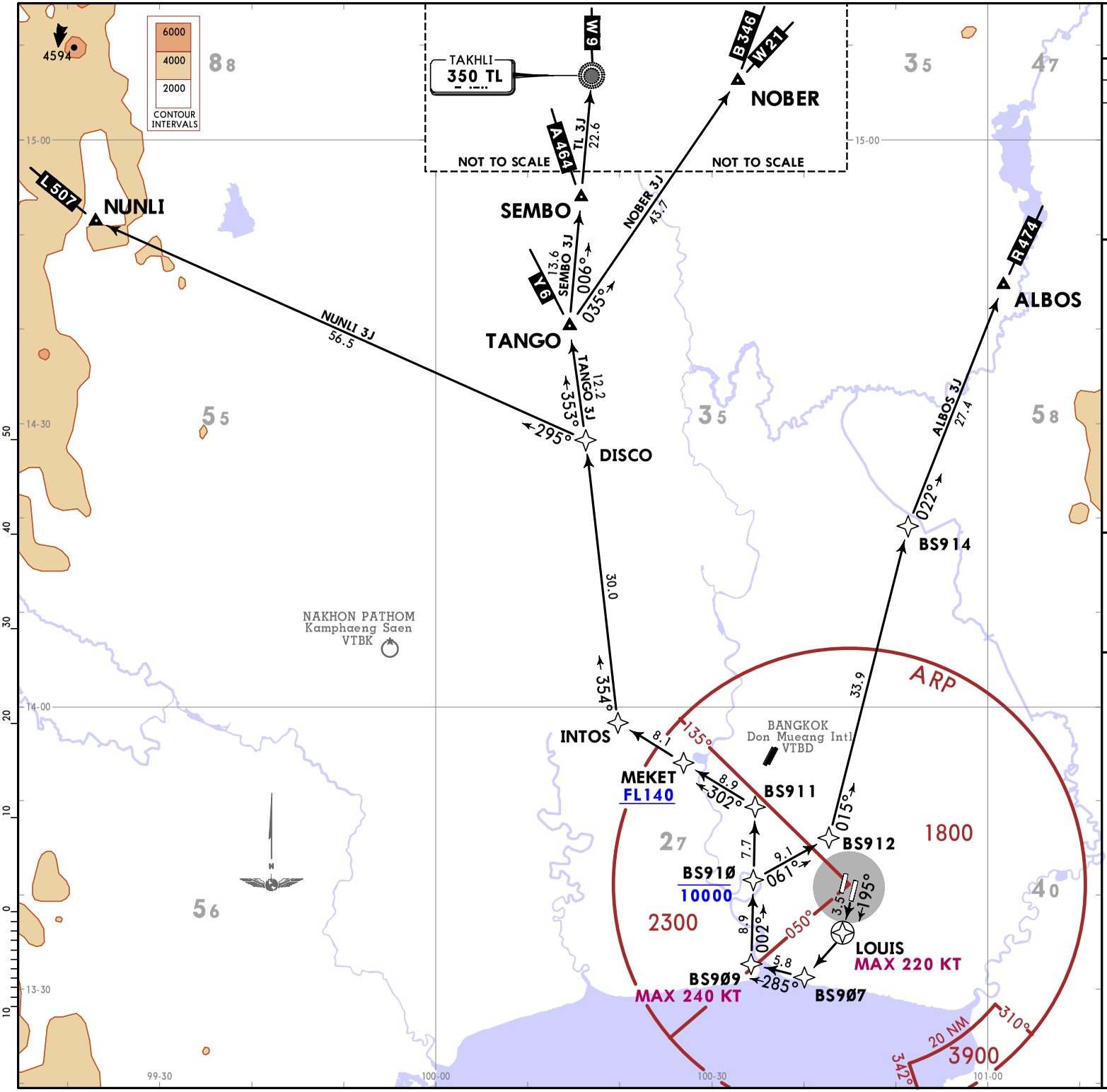
Gnd speed-KT	75	100	150	200	250	300
273 FT/NM	341	455	683	910	1138	1365
346 FT/NM	433	577	865	1153	1442	1730

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure 119.25	Apt Elev 4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

ALBOS 3J [ALBO3J]
NOBER 3J [NOBE3J]
NUNLI 3J [NUNL3J]
SEMBO 3J [SEMB3J]
TANGO 3J [TANG3J]
TL 3J [TL3J]
RNAV DEPARTURES
(RWY 19L)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require a minimum climb gradient of: NOBER 3J, NUNLI 3J, SEMBO 3J, TANGO 3J, TL 3J: 340 FT/NM (5.6%) until passing FL140 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
340 FT/NM	425	567	850	1133	1417	1700

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

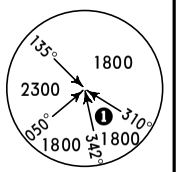
CHANGES: Airport elevation, MSA revised.

SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.



MSA ARP
3900
within 20 NM

ALBOS 3K [ALBO3K]
NOBER 3K [NOBE3K]
NUNLI 3K [NUNL3K]
SEMBO 3K [SEMB3K]
TANGO 3K [TANG3K]
TL 3K [TL3K]
RNAV DEPARTURES
(RWY 01R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require minimum climb gradients of:
ALBOS 3K: 346 FT/NM (5.7%) until passing FL160 for airspace restrictions only.
NOBER 3K, NUNLI 3K, SEMBO 3K, TANGO 3K, TL 3K: 273 FT/NM (4.5%) until passing FL140 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
273 FT/NM	341	455	683	910	1138	1365
346 FT/NM	433	577	865	1153	1442	1730

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

CHANGES: Airport elevation, MSA revised.

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

These SIDs require a minimum climb gradient of: BONVO 3G, PASTO 3G, TARED 3G: 340 FT/NM (5.6%) until passing FL140 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
340 FT/NM	425	567	850	1133	1417	1700

SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

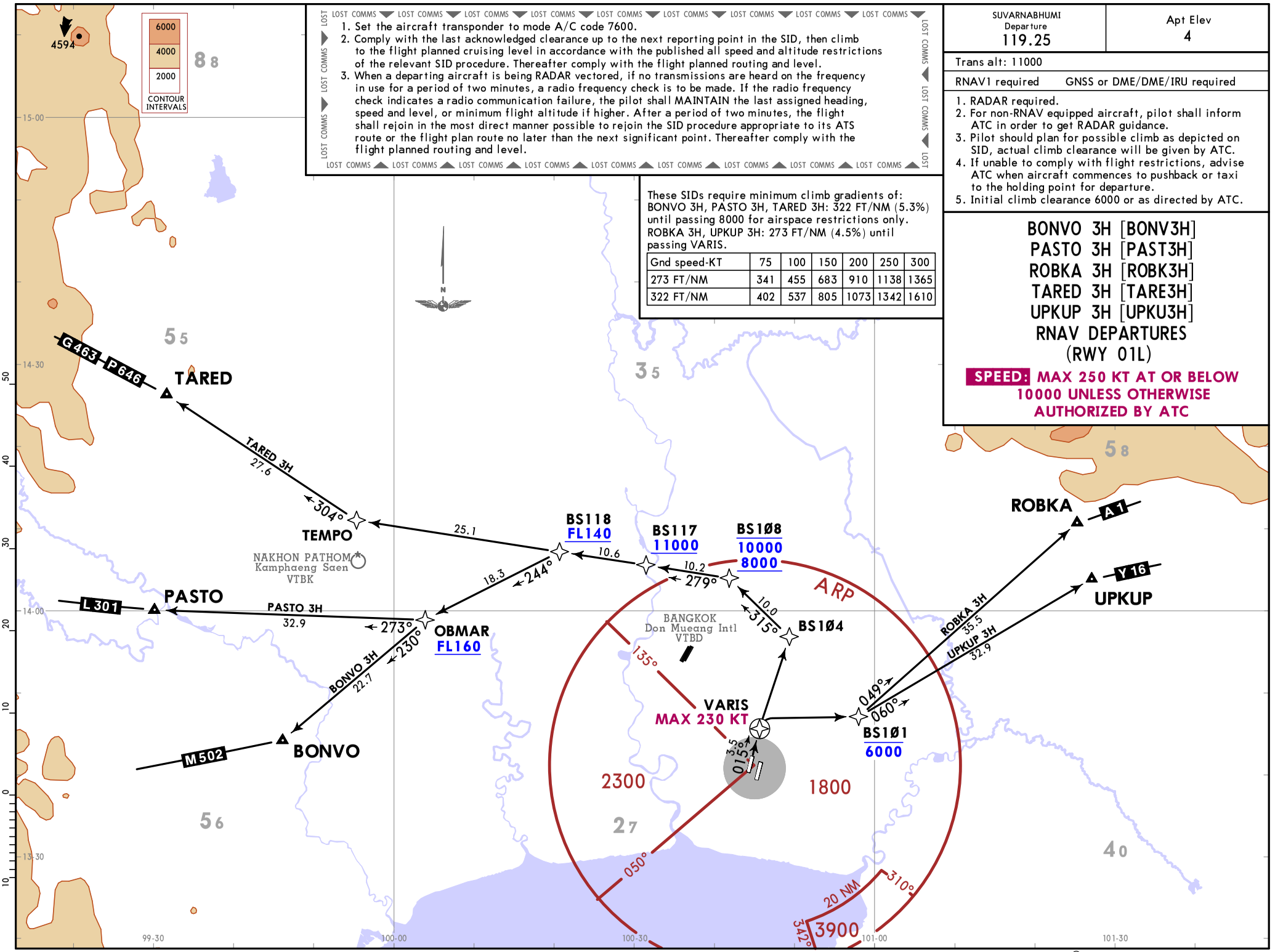
1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

BONVO 3G [BONV3G]
PASTO 3G [PAST3G]
ROBKA 3G [ROBK3G]
TARED 3G [TARE3G]
UPKUP 3G [UPKU3G]
RNAV DEPARTURES
(RWY 19R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

4112
G463 P646
TARED
TARED 3G
27.6
304°
TEMPO
27.0
299°
INTOS
8.1
135°
MEKET
FL140
8.9
302°
BS911
1800
BS91Ø
10000
7.7
2300
8.9
002°
3.5
195°
ROVEN
MAX 220 KT
BS9Ø9
MAX 240 KT
5.8
285°
BS9Ø7
BS9Ø1
087°
5.8
9.2
BS9Ø2
6000
MEZZO
029°
036°
310°
050°
20 NM
3900
342°
ARP
ROBKA
A1
Y16
UPKUP
44.4
ROBKA 3G
UPKUP 3G
39.6
PASTO
L301
PASTO 3G
32.9
15.4
273°
OBMAR
FL160
230°
BONVO 3G
22.7
BONVO
M502
NAKHON PATHOM
Kamphaeng Saen
VTBK
BANGKOK
Don Mueang Intl
VTBD
6000
4000
2000
CONTOUR INTERVALS

CHANGES: Airport elevation, MSA revised.



CHANGES: Airport elevation, MSA revised.

LOST COMMS
1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

These SIDs require a minimum climb gradient of: BONVO 3J, PASTO 3J, TARED 3J: 340 FT/NM (5.6%) until passing FL140 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
340 FT/NM	425	567	850	1133	1417	1700

SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

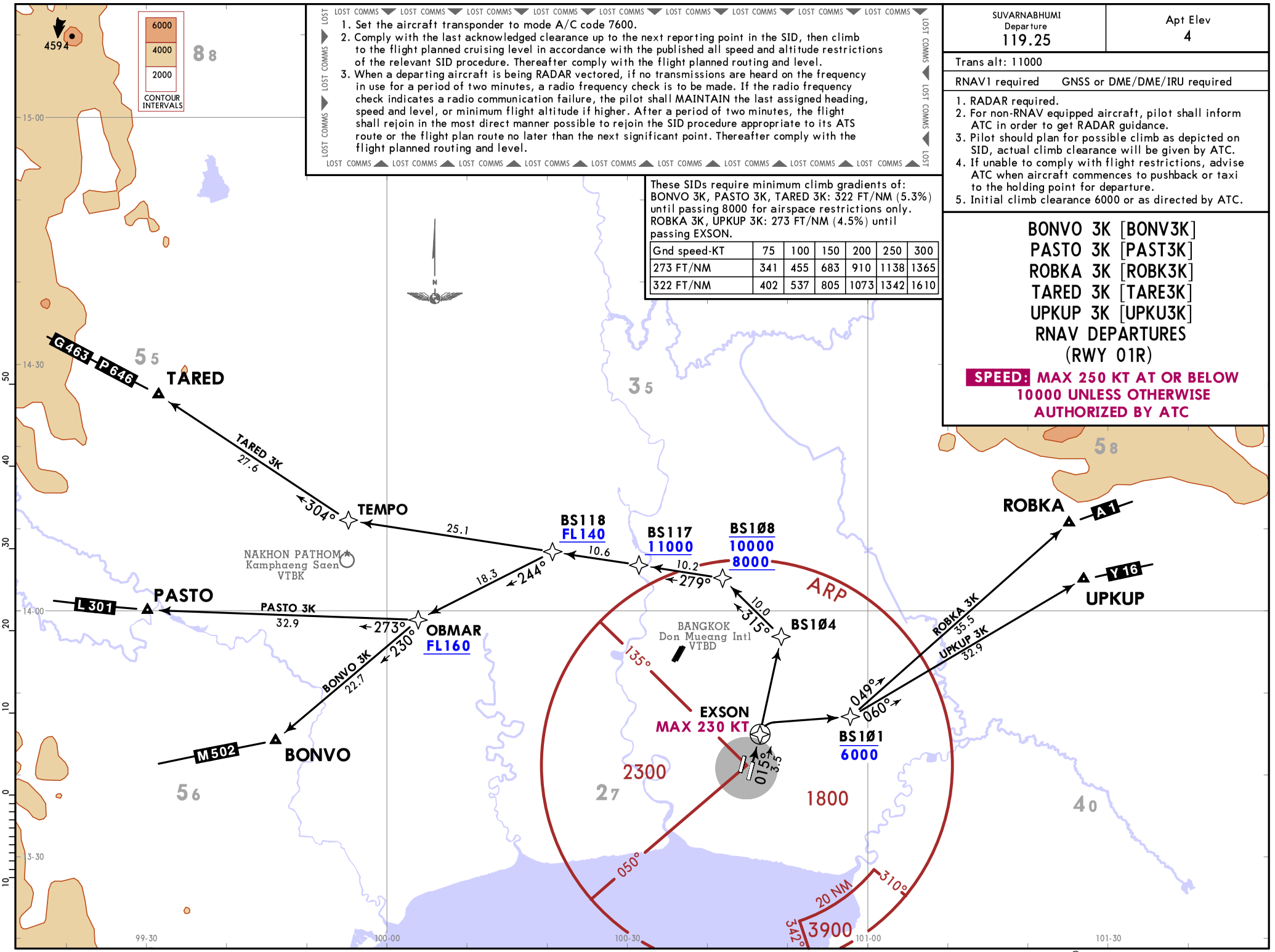
RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

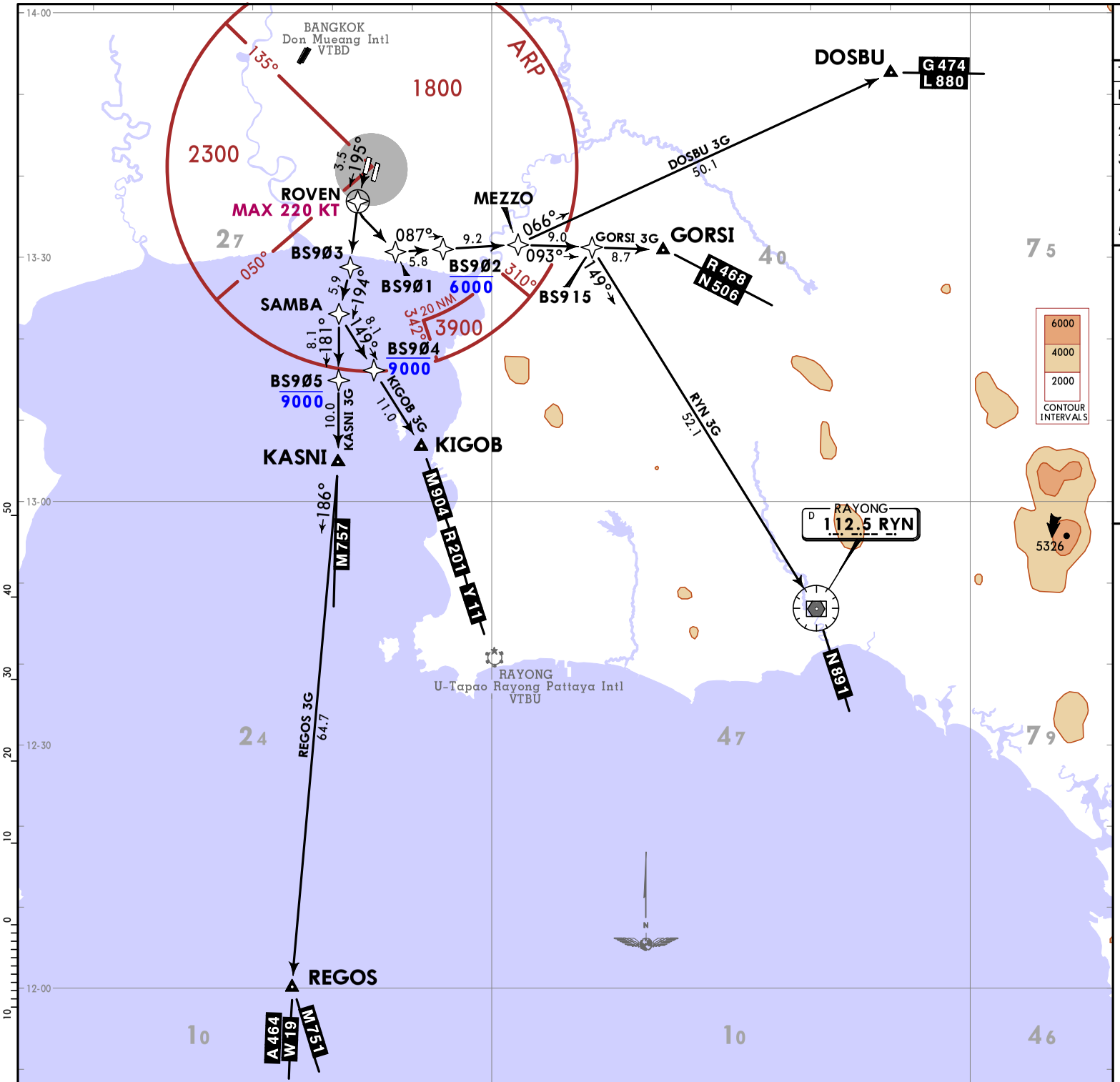
BONVO 3J [BONV3J]
PASTO 3J [PAST3J]
ROBKA 3J [ROBK3J]
TARED 3J [TARE3J]
UPKUP 3J [UPKU3J]
RNAV DEPARTURES
(RWY 19L)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

4112
G463 P646
TARED
TARED 3J 27.6 304°
TEMPO
NAKHON PATHOM Kamphaeng Saen VTBK
27.0 299°
INTOS
PASTO
L301
PASTO 3J 32.9
15.4 273°
OBMAR FL160
8.1 135°
MEKET FL140
BONVO 3J 22.7 230°
BONVO
M502
BANGKOK Don Mueang Intl VTBD
8.9 302°
BS911
BS910 10000
7.7
8.9 002°
BS909 MAX 240 KT
5.8 285°
BS907
BS901
5.8 087°
BS902 6000
9.2
LOUIS MAX 220 KT
3.5 195°
029°
036°
MEZZO
ROBKA A1
ROBKA 3J 44.4
UPKUP 3J 39.6
Y16
UPKUP
1800
2300
050°
310°
20 NM
3900
342°
ARP
6000
4000
2000
CONTOUR INTERVALS



CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

DOSBU 3G [DOSB3G]
GORSI 3G [GORS3G]
KASNI 3G [KASN3G]
KIGOB 3G [KIGO3G]
REGOS 3G [REGO3G]
RYN 3G [RYN3G]
RNAV DEPARTURES
(RWY 19R)

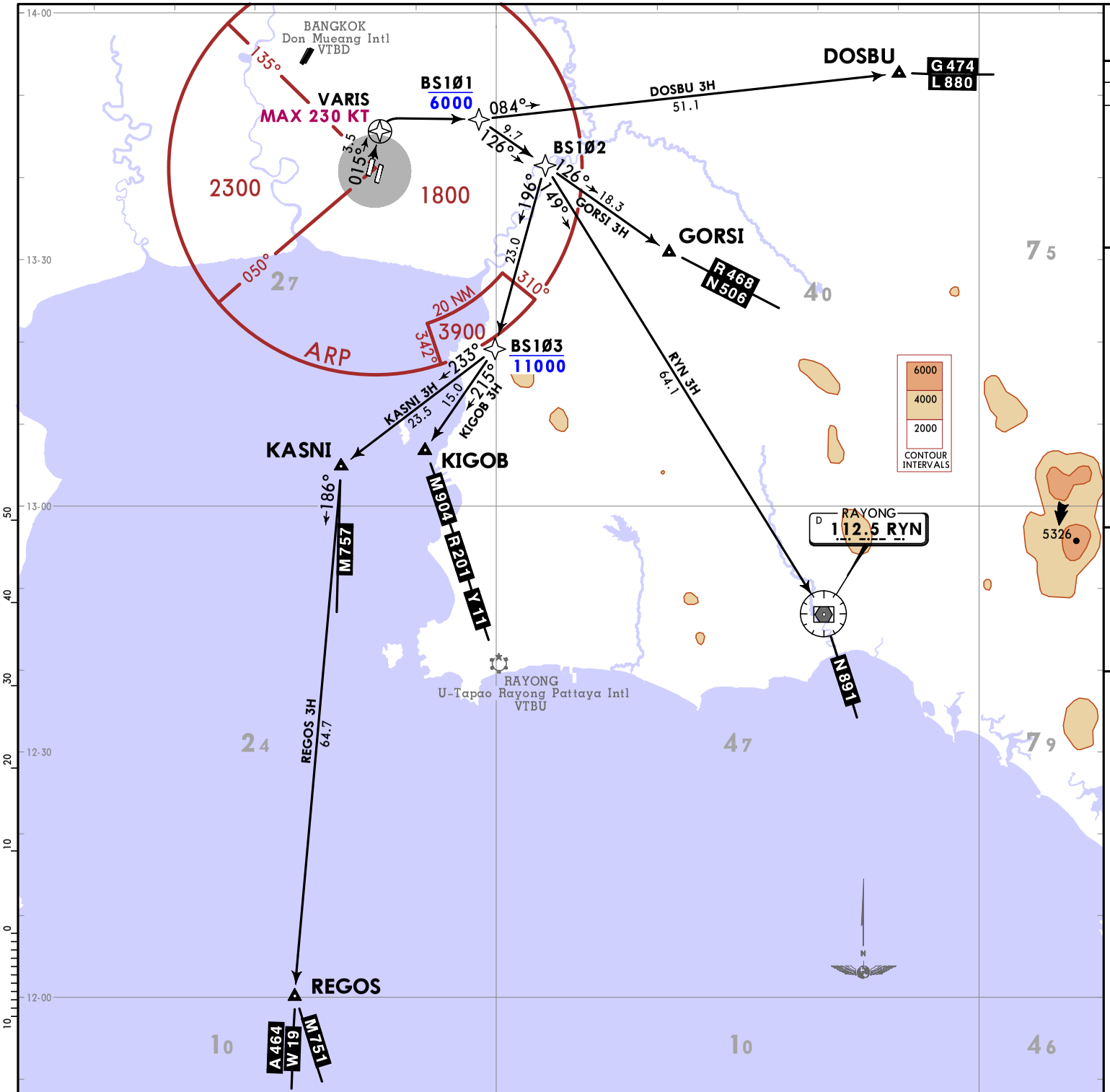
SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

DOSBU 3H [DOSB3H]
GORSI 3H [GORS3H]
KASNI 3H [KASN3H]
KIGOB 3H [KIGO3H]
REGOS 3H [REGO3H]
RYN 3H [RYN3H]
RNAV DEPARTURES
(RWY 01L)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require a minimum climb gradient of 273 FT/NM (4.5%) until passing VARIS.

Gnd speed-KT	75	100	150	200	250	300
273 FT/NM	341	455	683	910	1138	1365

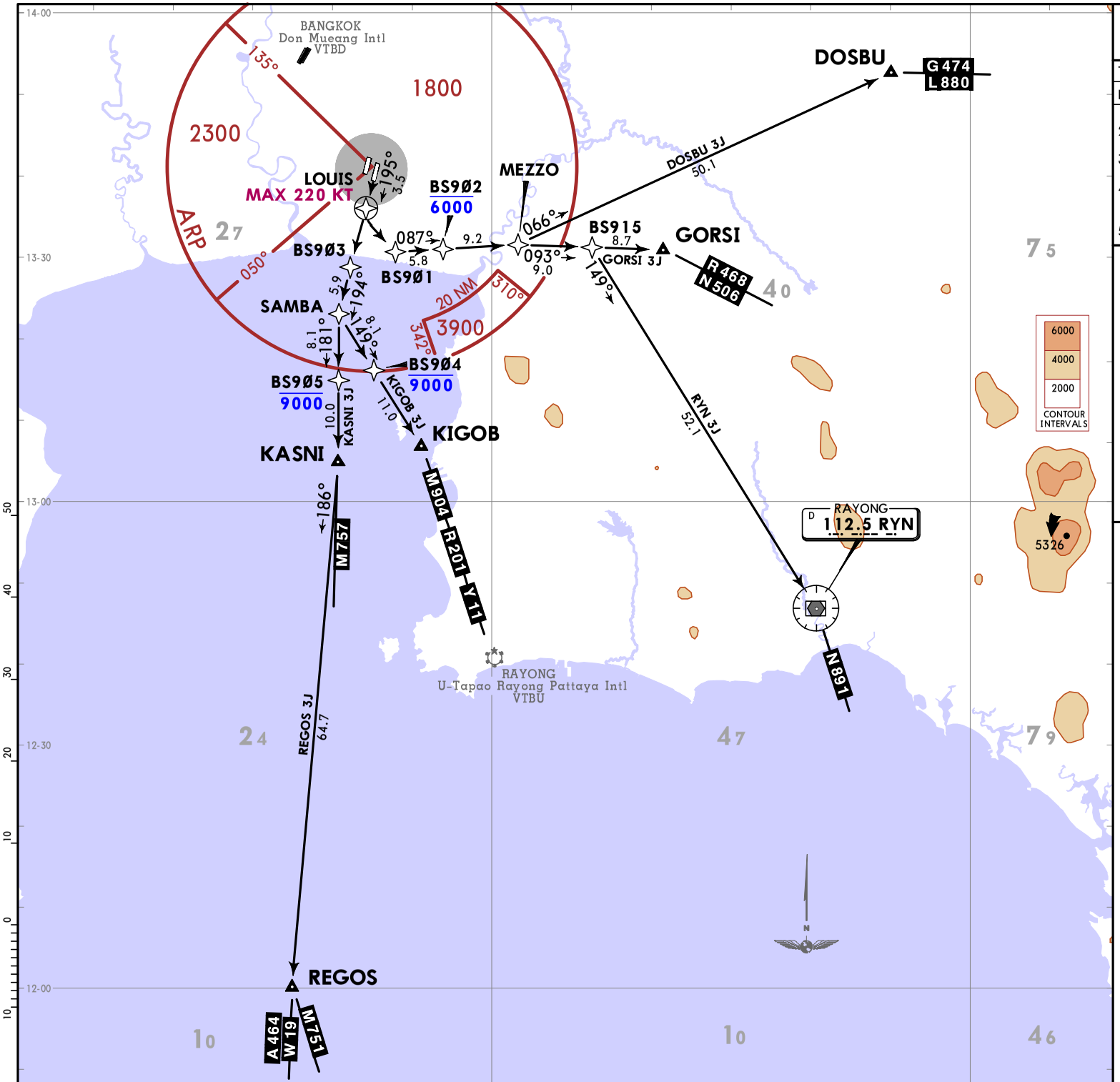
COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

CHANGES: Airport elevation, MSA revised.

JEPPESEN BANGKOK, THAILAND
27 OCT 23 (20-3K) Eff 2 Nov
RNAV SID



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

DOSBU 3J [DOSB3J]
GORSI 3J [GORS3J]
KASNI 3J [KASN3J]
KIGOB 3J [KIGO3J]
REGOS 3J [REGO3J]
RYN 3J [RYN3J]
RNAV DEPARTURES
(RWY 19L)

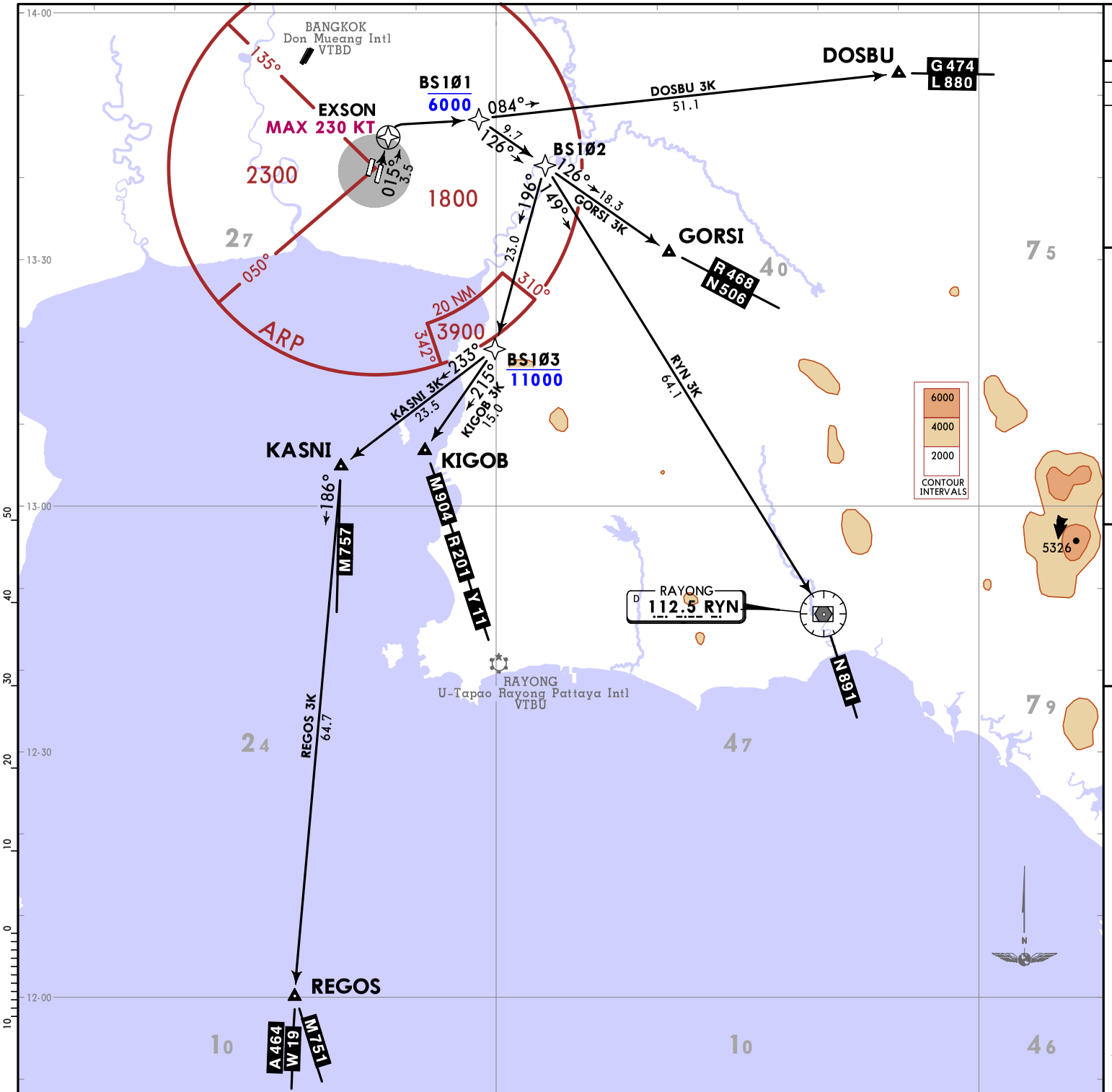
SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

DOSBU 3K [DOSB3K]
GORSI 3K [GORS3K]
KASNI 3K [KASN3K]
KIGOB 3K [KIGO3K]
REGOS 3K [REGO3K]
RYN 3K [RYN3K]
RNAV DEPARTURES
(RWY 01R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require a minimum climb gradient of 273 FT/NM (4.5%) until passing EXSON.

Gnd speed-KT	75	100	150	200	250	300
273 FT/NM	341	455	683	910	1138	1365

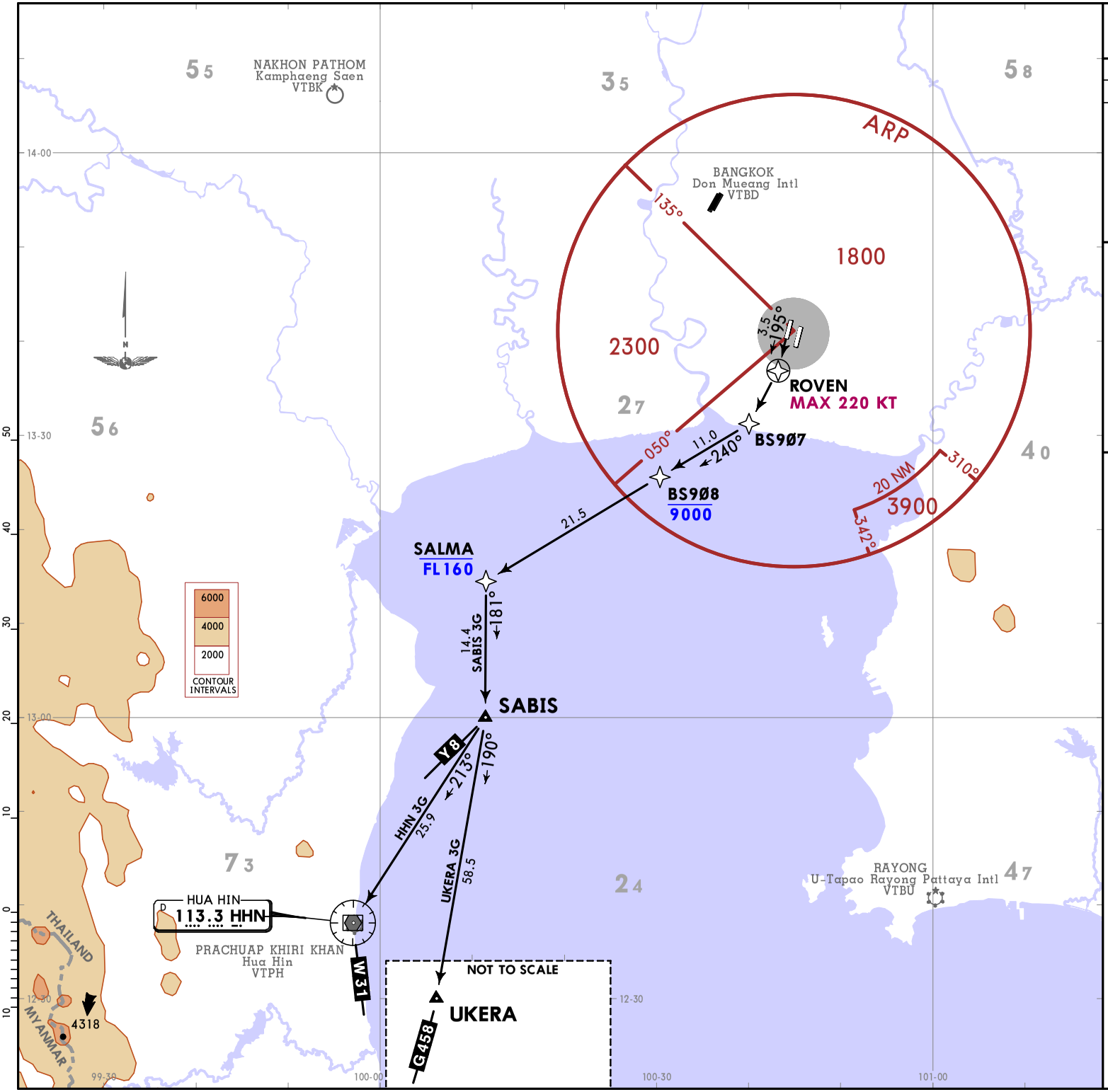
LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.

JEPPESEN BANGKOK, THAILAND
27 OCT 23 20-3M Eff 2 Nov
RNAV SID



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

HHN 3G [HHN3G]
SABIS 3G [SABI3G]
UKERA 3G [UKER3G]
RNAV DEPARTURES
(RWY 19R)

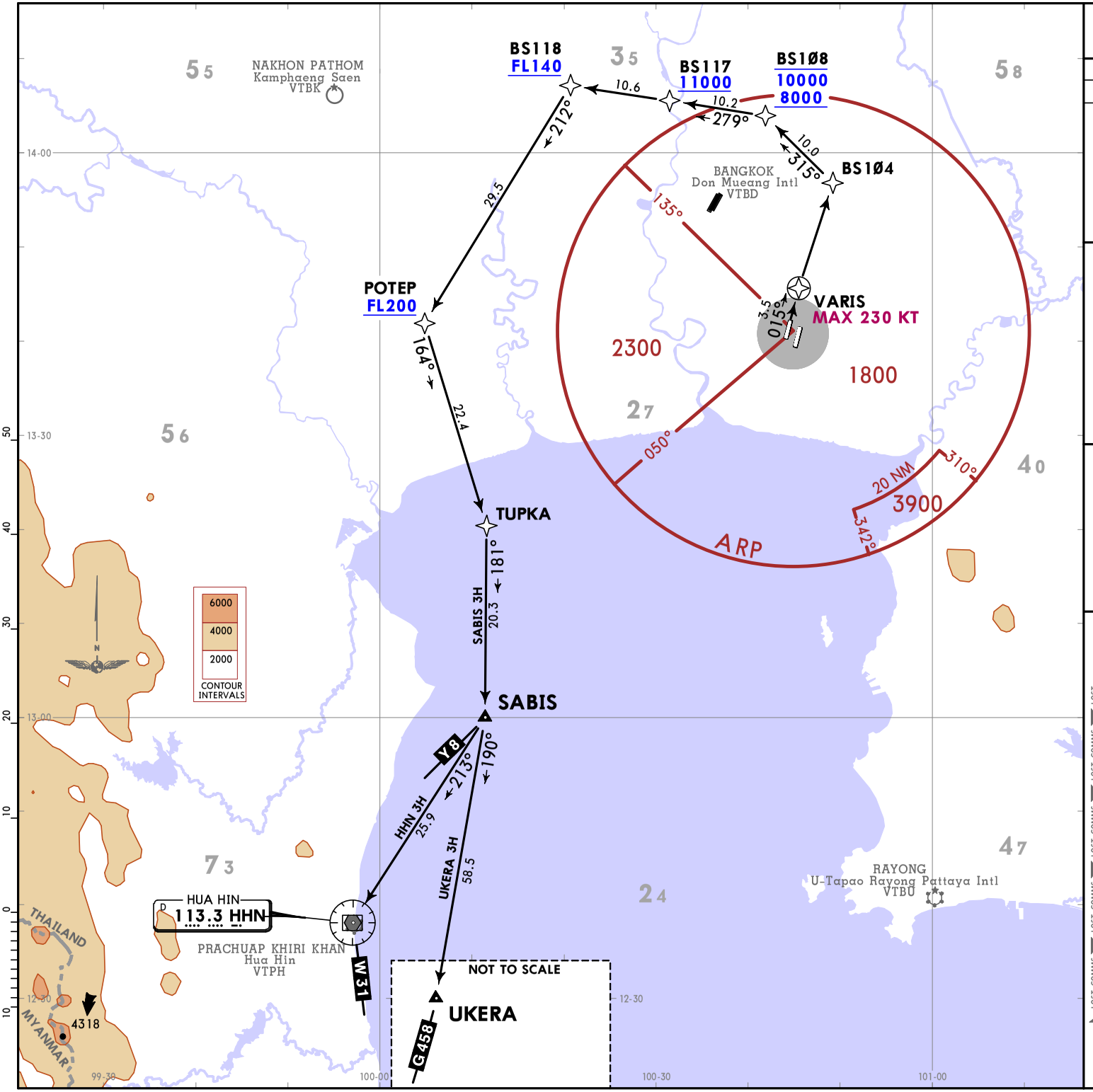
SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

HHN 3H [HHN3H]
SABIS 3H [SABI3H]
UKERA 3H [UKER3H]
RNAV DEPARTURES
(RWY 01L)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require a minimum climb gradient of 322 FT/NM (5.3%) until passing 8000 for airspace restrictions only.

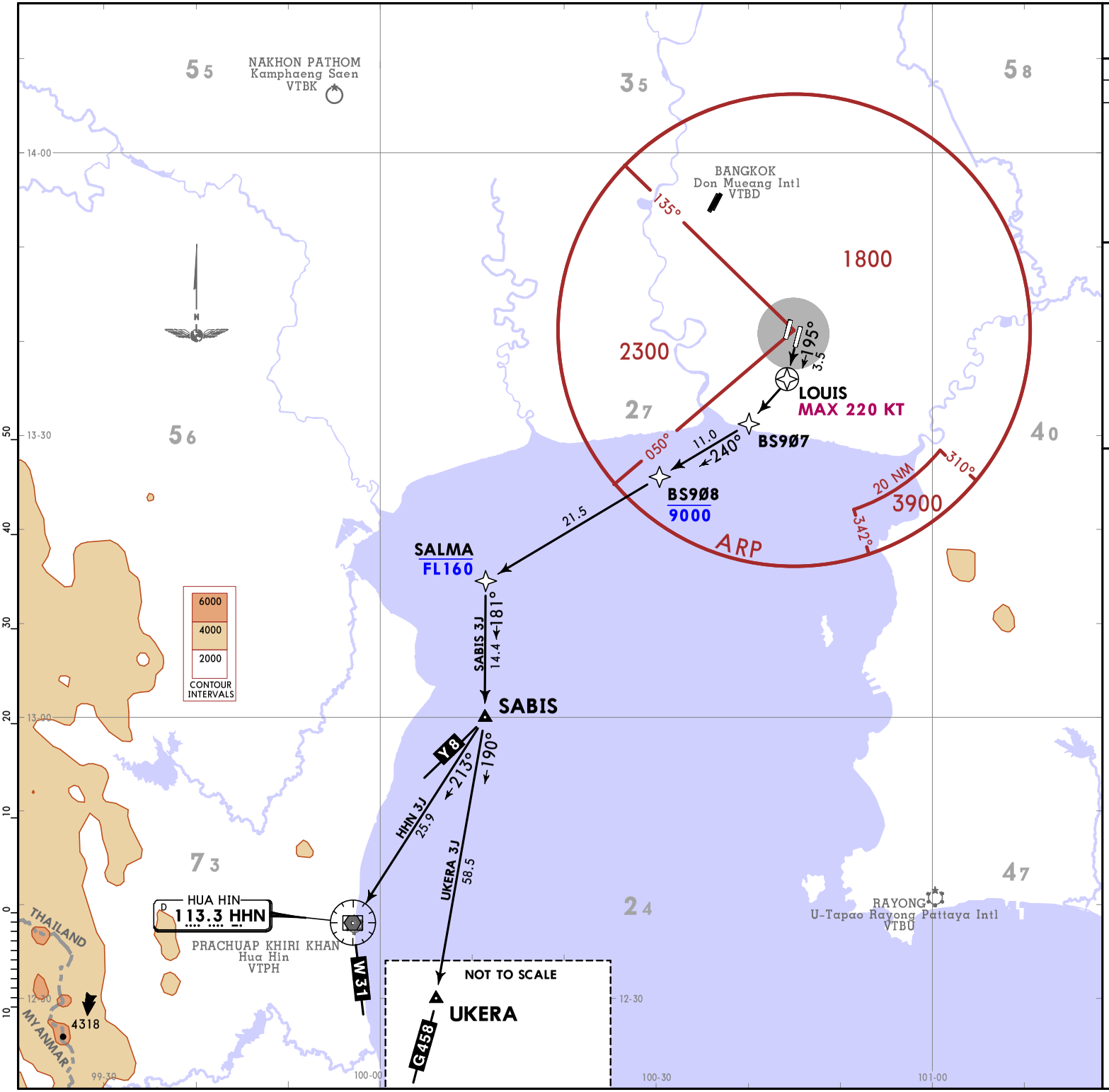
Gnd speed-KT	75	100	150	200	250	300
322 FT/NM	402	537	805	1073	1342	1610

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

HHN 3J [HHN3J]
SABIS 3J [SABI3J]
UKERA 3J [UKER3J]
RNAV DEPARTURES
(RWY 19L)

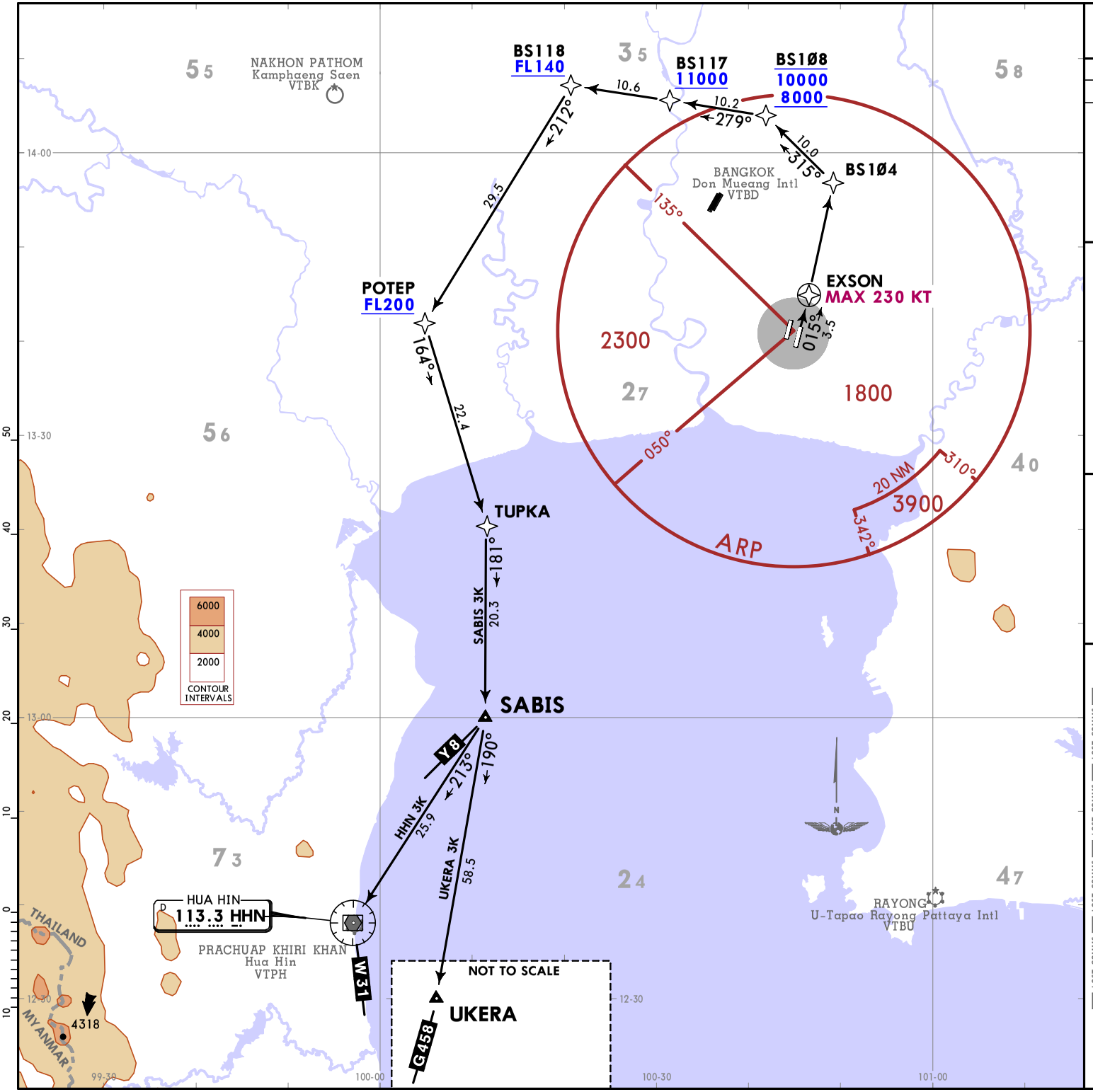
SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

CHANGES: Airport elevation, MSA revised.



SUVARNABHUMI Departure	Apt Elev
119.25	4

Trans alt: 11000

RNAV1 required GNSS or DME/DME/IRU required

1. RADAR required.
2. For non-RNAV equipped aircraft, pilot shall inform ATC in order to get RADAR guidance.
3. Pilot should plan for possible climb as depicted on SID, actual climb clearance will be given by ATC.
4. If unable to comply with flight restrictions, advise ATC when aircraft commences to pushback or taxi to the holding point for departure.
5. Initial climb clearance 6000 or as directed by ATC.

HHN 3K [HHN3K]
SABIS 3K [SABI3K]
UKERA 3K [UKER3K]
RNAV DEPARTURES
(RWY 01R)

SPEED: MAX 250 KT AT OR BELOW 10000 UNLESS OTHERWISE AUTHORIZED BY ATC

These SIDs require a minimum climb gradient of 322 FT/NM (5.3%) until passing 8000 for airspace restrictions only.

Gnd speed-KT	75	100	150	200	250	300
322 FT/NM	402	537	805	1073	1342	1610

LOST COMMS

1. Set the aircraft transponder to mode A/C code 7600.
2. Comply with the last acknowledged clearance up to the next reporting point in the SID, then climb to the flight planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter comply with the flight planned routing and level.
3. When a departing aircraft is being RADAR vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure, the pilot shall MAINTAIN the last assigned heading, speed and level, or minimum flight altitude if higher. After a period of two minutes, the flight shall rejoin in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight plan route no later than the next significant point. Thereafter comply with the flight planned routing and level.

LOST COMMS

STANDARD TAXI ROUTES

For arriving aircraft, the standard taxi routes to aircraft parking stand are provided in relation to landing runway followed by series of relevant taxiways, and parking area.

For example:

'...C/S... TAXI VIA ROUTE ONE NINE RIGHT, MIKE TANGO ONE ZERO, YOUR STAND DELTA SIX.'

For departing aircraft, the standard taxi routes to the runway holding position are provided in relation to the relevant parking area, the taxi-out position of an aircraft and runway-in-use. The clearance limit shall be at the holding position of runway-in-use.

For example:

'...C/S... TAXI VIA ROUTE ECHO TANGO FOUR, RUNWAY ONE NINE LEFT.'

ARRIVALS RUNWAY 19R

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	19R/ET3	Exit onto E, D8, H, C, T3, T5	A1-A6, 101-129
		Exit onto E, D8, H, C, T3, T5, T4	B1, B3, B5
		Exit onto E, D8, H, C, T3, T5, T1	130-134
	19R/ET6	Exit onto E, D8, H, C, T6	B2, B4, B6
		Exit onto E, D8, H, C, T6, T7	C1, C3, C5, C7, C9, 201-203
Main Apron	19R/MT9	Exit onto E, D7, G, T9	301-304
		Exit onto E, D7, G, T9, T12	D1-D4
		Exit onto E, D7, G, T9, T12, T8	C2, C4, C6, C8, C10
	19R/MT10	Exit onto E, D7, G, T10	305-308
		Exit onto E, D7, G, T10, T12	D5-D8
		Exit onto E, D7, G, T10, T12, T11	E1, E3, E5, E7, E9
West Apron	19R/WD1	Exit onto E, D1, D	510-525
	19R/WD3	Exit onto E, D3, D	506-509
	19R/WT14	Exit onto E, D6, T14, T13	E2, E4, E6, E8, E10, 401-403
		Exit onto E, D6, T14	F1, F3, F5
	19R/WT15	Exit onto E, D5, T15	F2, F4, F6
		Exit onto E, D5, T15, T17	G1-G5, 501-505
SAT-1	19R/SH5	Exit onto E, D8, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
	19R/SH6	Exit onto E, D8, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
	19R/SJ1	Exit onto E, D11, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
	19R/SJ2	Exit onto E, D11, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

ARRIVALS RUNWAY 19L			
Apron	**Taxi Route Designator**	**Taxi Route Detail**	**Aircraft Stands**
East Apron	19L/ET3	Exit onto B, C7, C, T3, T5	A1-A6, 101-129
		Exit onto B, C7, C, T3, T5, T4	B1, B3, B5
		Exit onto B, C7, C, T3, T5, T1	130-134
	19L/ET6	Exit onto B, C7, C, T6	B2, B4, B6
		Exit onto B, C7, C, T6, T7	C1, C3, C5, C7, C9, 201-203
Main Apron	19L/MT9	Exit onto B, C6, G, T9	301-304
		Exit onto B, C6, G, T9, T12	D1-D4
		Exit onto B, C6, G, T9, T12, T8	C2, C4, C6, C8, C10
	19L/MT10	Exit onto B, C6, G, T10	305-308
		Exit onto B, C6, G, T10, T12	D5-D8
		Exit onto B, C6, G, T10, T12, T11	E1, E3, E5, E7, E9
West Apron	19L/WD1	Exit onto B, C7, H, D8, E, D1, D	510-525
	19L/WD3	Exit onto B, C7, H, D8, E, D3, D	506-509
	19L/WT14	Exit onto B, C7, H, D8, E, D6, T14, T13	E2, E4, E6, E8, E10, 401-403
		Exit onto B, C7, H, D8, E, D6, T14	F1, F3, F5
	19L/WT15	Exit onto B, C7, H, D8, E, D5, T15	F2, F4, F6
		Exit onto B, C7, H, D8, E, D5, T15, T17	G1-G5, 501-505
SAT-1	19L/SH5	Exit onto B, C10, C, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
	19L/SH6	Exit onto B, C10, C, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
	19L/SJ1	Exit onto B, C10, C, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
	19L/SJ2	Exit onto B, C10, C, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

ARRIVALS RUNWAY 01R

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	01R/ET3	Exit onto B, C2, T3, T5	A1-A6, 101-129
		Exit onto B, C2, T3, T5, T4	B1, B3, B5
		Exit onto B, C2, T3, T5, T1	130-134
	01R/ET6	Exit onto B, C5, T6	B2, B4, B6
		Exit onto B, C5, T6, T7	C1, C3, C5, C7, C9, 201-203
Main Apron	01R/MT9	Exit onto B, C6, G, T9, T12, T8	C2, C4, C6, C8, C10
		Exit onto B, C6, G, T9, T12	D1-D4
		Exit onto B, C6, G, T9	301-304
	01R/MT10	Exit onto B, C6, G, T10, T12, T11	E1, E3, E5, E7, E9
		Exit onto B, C6, G, T10, T12	D5-D8
		Exit onto B, C6, G, T10	305-308
West Apron	01R/WD1	Exit onto B, C7, H, D8, E, D1, D	510-525
	01R/WD3	Exit onto B, C7, H, D8, E, D3, D	506-509
	01R/WT14	Exit onto B, C7, H, D8, E, D6, T14, T13	E2, E4, E6, E8, E10, 401-403
		Exit onto B, C7, H, D8, E, D6, T14	F1, F3, F5
	01R/WT15	Exit onto B, C7, H, D8, E, D5, T15	F2, F4, F6
		Exit onto B, C7, H, D8, E, D5, T15, T17	G1-G5, 501-505
SAT-1	01R/SH5	Exit onto B, C7, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
	01R/SH6	Exit onto B, C7, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
	01R/SJ1	Exit onto B, C7, C, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
	01R/SJ2	Exit onto B, C7, C, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

ARRIVALS RUNWAY 01L

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	01L/ET3	Exit onto E, D8, H, C, T3, T5	A1-A6, 101-129
		Exit onto E, D8, H, C, T3, T5, T4	B1, B3, B5
		Exit onto E, D8, H, C, T3, T5, T1	130-134
	01L/ET6	Exit onto E, D8, H, C, T6	B2, B4, B6
		Exit onto E, D8, H, C, T6, T7	C1, C3, C5, C7, C9, 201-203
Main Apron	01L/MT9	Exit onto E, D7, G, T9, T12, T8	C2, C4, C6, C8, C10
		Exit onto E, D7, G, T9, T12	D1-D4
		Exit onto E, D7, G, T9	301-304
	01L/MT10	Exit onto E, D7, G, T10, T12, T11	E1, E3, E5, E7, E9
		Exit onto E, D7, G, T10, T12	D5-D8
		Exit onto E, D7, G, T10	305-308
West Apron	01L/WD1	Exit onto E, D1, D	510-525
	01L/WD3	Exit onto E, D3, D	506-509
	01L/WT14	Exit onto E, D6, T14, T13	E2, E4, E6, E8, E10, 401-403
		Exit onto E, D6, T14	F1, F3, F5
	01L/WT15	Exit onto E, D5, T15	F2, F4, F6
		Exit onto E, D5, T15, T17	G1-G5, 501-505
SAT-1	01L/SH5	Exit onto E, D8, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
	01L/SH6	Exit onto E, D8, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
	01L/SJ1	Exit onto E, D11, K, J3, J1, T19 (for aircraft exit via E1, E2, E5, E7)	S116, S118, S120, S122, S124, S126, S128
		Exit onto E, D8, D, K, J3, J1, T19 (for aircraft exit via E12)	
	01L/SJ2	Exit onto E, D11, K, J4, J2, T19 (for aircraft exit via E1, E2, E5, E7)	S102, S104, S106, S108, S110, S112, S114
		Exit onto E, D8, D, K, J4, J2, T19 (for aircraft exit via E12)	

STANDARD TAXI ROUTES (CONTD)

DEPARTURES RUNWAY 19R

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	ET1/19R	T1, C, H, D8, E to holding position E1	130-134
	ET2/19R	T5, T2, C, H, D8, E to holding postion E1	108-114, 124-129
	ET4/19R	T4, C, H, D8, E to holding postion E1	B1, B3, B5
		T5, T4, C, H, D8, E to holding postion E1	A1-A6, 101-107, 115-123
	ET7/19R	T6, T7, H4, H, D8, E to holding position E1	B2, B4, B6
		T7, H4, H, D8, E to holding position E1	C1, C3, C5, C7, C9, 201-203
Main Apron	MT8/19R	T8, G, D7, E to holding position E1	C2, C4, C6, C8, C10
		T12, T8, G, D7, E to holding position E1	D1-D4
		T9, T12, T8, G, D7, E to holding position E1	301-304
	MT11/19R	T11, G, D7, E to holding position E1	E1, E3, E5, E7, E9
		T12, T11, G, D7, E to holding position E1	D5-D8
		T10, T12, T11, G, D7, E to holding position E1	305-308
West Apron	WD2/19R	D, D2 to holding position E1	511-525
	WD4/19R	D, D4, E to holding position E1	506-510
	WT13/19R	T13, G, D7, E to holding position E1	E2, E4, E6, E8, E10, 401-403
		T14, T13, G, D7, E to holding position E1	F1, F3, F5
	WT16/19R	T15, T17, T16, D4, E to holding position E1	F2, F4, F6
		T17, T16, D4, E to holding position E1	G1-G5, 501-505
SAT-1	SH5/19R	T18, H5, H, D8, E to holding position E1	S115, S117, S119, S121, S123, S125, S127
	SH6/19R	T18, H6, H, D8, E to holding position E1	S101, S103, S105, S107, S109, S111, S113
	SJ1/19R	T19, J1, J, D10, E to holding position E1	S116, S118, S120, S122, S124, S126, S128
	SJ2/19R	T19, J2, J, D10, E to holding position E1	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

DEPARTURES RUNWAY 19L

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	ET1/19L	T1, C, C2, B to holding position B1	130-134
	ET2/19L	T5, T2, C, C2, B to holding postion B1	108-114, 124-129
	ET4/19L	T4, C, C3 to holding postion B1	B1, B3, B5
		T5, T4, C, C3 to holding postion B1	A1-A6, 101-107, 115-123
	ET7/19L	T6, T7, G, C6, B to holding position B1	B2, B4, B6
		T7, G, C6, B to holding position B1	C1, C3, C5, C7, C9, 201-203
Main Apron	MT8/19L	T8, G, C6, B to holding position B1	C2, C4, C6, C8, C10
		T12, T8, G, C6, B to holding position B1	D1-D4
		T9, T12, T8, G, C6, B to holding position B1	301-304
	MT11/19L	T11, G, C6, B to holding position B1	E1, E3, E5, E7, E9
		T12, T11, G, C6, B to holding position B1	D5-D8
		T10, T12, T11, G, C6, B to holding position B1	305-308
West Apron	WD/19L	D, H, C7, B to holding position B1	506-525
	WT13/19L	T13, H1, H, C7, B to holding position B1	E2, E4, E6, E8, E10, 401-403
		T14, T13, H1, H, C7, B to holding position B1	F1, F3, F5
	WT16/19L	T15, T17, T16, D, H, C7, B to holding position B1	F2, F4, F6
		T17, T16, D, H, C7, B to holding position B1	G1-G5, 501-505
SAT-1	SH5/19L	T18, H5, H, C7, B to holding position B1	S115, S117, S119, S121, S123, S125, S127
	SH6/19L	T18, H6, H, C7, B to holding position B1	S101, S103, S105, S107, S109, S111, S113
	SJ1/19L	T19, J1, J, C9, B to holding position B1	S116, S118, S120, S122, S124, S126, S128
	SJ2/19L	T19, J2, J, C9, B to holding position B1	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

DEPARTURES RUNWAY 01R

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	ET1/01R	T1, C, C10, B to holding position B13	130-134
	ET2/01R	T5, T2, C, C10, B to holding postion B13	108-114, 124-129
	ET4/01R	T4, C, C10, B to holding postion B13	B1, B3, B5
		T5, T4, C, C10, B to holding postion B13	A1-A6, 101-107, 115-123
	ET7/01R	T6, T7, G, C, C10, B to holding position B13	B2, B4, B6
		T7, G, C, C10, B to holding position B13	C1, C3, C5, C7, C9, 201-203
Main Apron	MT8/01R	T8, G, C, C10, B to holding position B13	C2, C4, C6, C8, C10
		T12, T8, G, C, C10, B to holding position B13	D1-D4
		T9, T12, T8, G, C, C10, B to holding position B13	301-304
	MT11/01R	T11, G, C, C10, B to holding position B13	E1, E3, E5, E7, E9
		T12, T11, G, C, C10, B to holding position B13	D5-D8
		T10, T12, T11, G, C, C10, B to holding position B13	305-308
West Apron	WD/01R	D, H, C, C10, B to holding position B13	506-525
	WT13/01R	T13, H1, H, C, C10, B to holding position B13	E2, E4, E6, E8, E10, 401-403
		T14, T13, H1, H, C, C10, B to holding position B13	F1, F3, F5
	WT16/01R	T15, T17, T16, D, H, C, C10, B to holding position B13	F2, F4, F6
		T17, T16, D, H, C, C10, B to holding position B13	G1-G5, 501-505
SAT-1	SH5/01R	T18, H5, H, C, C10, B to holding position B13	S115, S117, S119, S121, S123, S125, S127
	SH6/01R	T18, H6, H, C, C10, B to holding position B13	S101, S103, S105, S107, S109, S111, S113
	SJ1/01R	T19, J1, J, C, C10, B to holding position B13	S116, S118, S120, S122, S124, S126, S128
	SJ2/01R	T19, J2, J, C, C10, B to holding position B13	S102, S104, S106, S108, S110, S112, S114

STANDARD TAXI ROUTES (CONTD)

DEPARTURES RUNWAY 01L

Apron	Taxi Route Designator	Taxi Route Detail	Aircraft Stands
East Apron	ET1/01L	T1, C, H, D8, E to holding position E21	130-134
	ET2/01L	T5, T2, C, H, D8, E to holding postion E21	108-114, 124-129
	ET4/01L	T4, C, H, D8, E to holding postion E21	B1, B3, B5
		T5, T4, C, H, D8, E to holding postion E21	A1-A6, 101-107, 115-123
	ET7/01L	T6, T7, H4, H, D8, E to holding position E21	B2, B4, B6
		T7, H4, H, D8, E to holding position E21	C1, C3, C5, C7, C9, 201-203
Main Apron	MT8/01L	T8, G, D7, E to holding position E21	C2, C4, C6, C8, C10
		T12, T8, G, D7, E to holding position E21	D1-D4
		T9, T12, T8, G, D7, E to holding position E21	301-304
	MT11/01L	T11, G, D7, E to holding position E21	E1, E3, E5, E7, E9
		T12, T11, G, D7, E to holding position E21	D5-D8
		T10, T12, T11, G, D7, E to holding position E21	305-308
West Apron	WD/01L	D, D7, E to holding position E21	506-525
	WT13/01L	T13, G, D7, E to holding position E21	E2, E4, E6, E8, E10, 401-403
		T14, T13, G, D7, E to holding position E21	F1, F3, F5
	WT16/01L	T15, T17, T16, D, D7, E to holding position E21	F2, F4, F6
		T17, T16, D, D7, E to holding position E21	G1-G5, 501-505
SAT-1	SH5/01L	T18, H5, H, D8, E to holding position E21	S115, S117, S119, S121, S123, S125, S127
	SH6/01L	T18, H6, H, D8, E to holding position E21	S101, S103, S105, S107, S109, S111, S113
	SJ1/01L	T19, J1, J, D10, E to holding position E21	S116, S118, S120, S122, S124, S126, S128
	SJ2/01L	T19, J2, J, D10, E to holding position E21	S102, S104, S106, S108, S110, S112, S114

THE RUNWAY PREVENTIVE MAINTENANCE PROGRAM AT SUVARNABHUMI INTERNATIONAL AIRPORT (SUP A50/23)

1. INTRODUCTION

With effect from 30 November 2023 at 0000 UTC to 22 March 2024 at 2300 UTC, the purpose of this chart is to inform all concerned of the runway preventive maintenance program at Suvarnabhumi International Airport, to keep the runways in the optimal conditions and enhance the safety of flight operations.

2. RUNWAY PREVENTIVE MAINTENANCE PROGRAM

Runway 01R/19L and 01L/19R will be closed for preventive maintenance 2 days per week for each runway. The details are given below:

MONTH/YEAR	RUNWAY	DATE	CLOSURE PERIOD (UTC)
December 2023	01L/19R	1, 5, 8, 12, 15, 19, 22, 26, 29	1800 - 2300
	01R/19L	3, 6, 10, 13, 17, 20, 24, 27, 31	1830 - 2300
January 2024	01L/19R	2, 5, 9, 12, 16, 19, 23, 26, 30	1800 - 2300
	01R/19L	3, 7, 10, 14, 17, 21, 24, 28, 31	1830 - 2300
February 2024	01L/19R	2, 6, 9, 13, 16, 20, 23, 27	1800 - 2300
	01R/19L	4, 7, 11, 14, 18, 21, 25, 28	1830 - 2300
March 2024	01L/19R	1, 5, 8, 12, 15, 19, 22	1800 - 2300
	01R/19L	3, 6, 10, 13, 17, 20	1830 - 2300

3. RUNWAY AVAILABILITY DURING PREVENTIVE MAINTENANCE PERIODS

If the operational runway becomes unavailable or tends to be unusable, the maintenance work on the closed runway will be terminated as soon as possible to facilitate its return to services. Dependent on the work being carried out at the time, there may be a period of up to 2 hours before the closed runway is available.

4. OTHERS

4.1 Due to expected congestions and high possibilities of airborne delay, aircraft operators are advised to avoid using Suvarnabhumi International Airport (VTBS) as an alternate aerodrome and extra fuel should be taken into account when Runway 01R/19L is closed.

4.2 The runway preventive maintenance schedule may be revised in the event of forecast or actual adverse weather conditions or other extenuating circumstances.

5. VALIDITY

This chart will remain current until 22 March 2024 at 2300 UTC. Any changes to this chart will be notified through NOTAM.

THE TEMPORARY HELICOPTER LANDING AREA AT SUVARNABHUMI INTERNATIONAL AIRPORT (AIRAC SUP A34/23)

1. INTRODUCTION

The purpose of this chart is to inform all concerned of Suvarnabhumi airport has defined the area for the temporary helicopter landing area. The details are as follows:

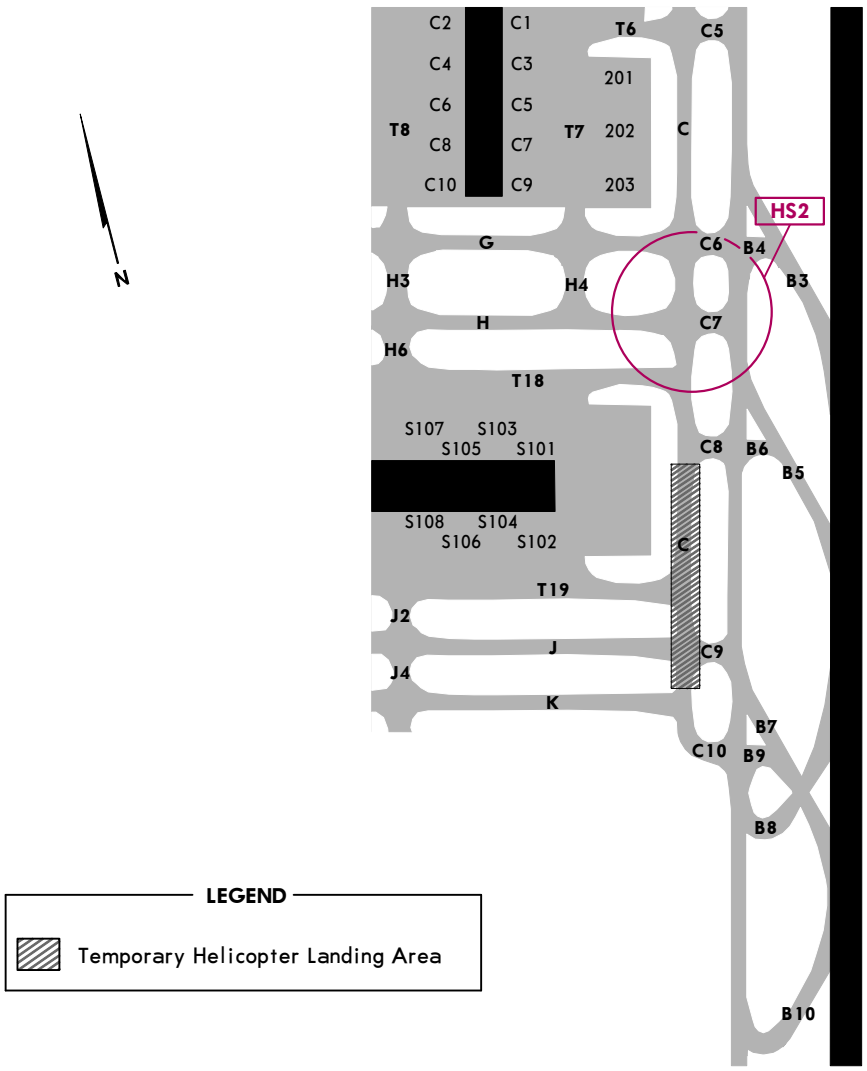
2. THE TEMPORARY HELICOPTER LANDING AREA

The temporary helicopter landing area is defined on the portion of Taxiway C between Taxiway C8 and Taxiway C10. It is intended to be used by the occasional emergency and medical traffic only. The procedures and conditions are as following.

2.1. FATO: on the middle of Rwy 01R/19L.
2.2. TLOF: on the portion of Taxiway C between Taxiway C8 and Taxiway C10.
2.3. Type of Traffic Permitted: VFR.
2.4. Operational Hours: during sunrise to sunset with minimum ground time not over 60 min.
2.5. Flight Plan Submission: prior to the flight arrival at least 2 hours.
2.6. General Conditions: Pilot must strictly follow ATC's instruction and comply with airport's safety and security measures.

3. VALIDITY

This chart will remain in force until its contents have been incorporated in AIP Thailand. Any changes of this chart will be notified by NOTAM.



THE CONSTRUCTION OF NEW TAXIWAYS AT SUVARNABHUMI INTERNATIONAL AIRPORT (SUP A22/23)

1. INTRODUCTION

With effect from 6 June 2023 at 0000 UTC to 5 May 2024 at 2359 UTC, the purpose of these charts is to inform all concerned regarding the construction of new Taxiways and work activities nearby Runway 01L/19R at Suvarnabhumi International Airport. (See Figure 1 - 2)

2. THE CONSTRUCTION OF NEW TAXIWAY F1, F4 AND F8

2.1. Location of construction areas

2.1.1. New Taxiway F1

2.1.1.1. Location: 1611'(491m) from Threshold Runway 19R and 282'(86m) west side of Runway centerline.

2.1.1.2. Construction area coordinates:

1st: 134157.42N 1004427.33E
2nd: 134159.72N 1004427.93E
3rd: 134159.96N 1004428.93E
4th: 134157.04N 1004428.13E

2.1.2. New Taxiway F4

2.1.2.1. Location: 6037'(1840m) from Threshold Runway 19R and 282'(86m) west side of Runway centerline.

2.1.2.2. Construction area coordinates:

1st: 134114.88N 1004416.15E
2nd: 134117.48N 1004416.83E
3rd: 134117.26N 1004417.84E
4th: 134114.43N 1004417.11E

2.1.3. New Taxiway F8

2.1.3.1. Location: 10515'(3205m) from Threshold Runway 19R and 282'(86m) west side of Runway centerline.

2.1.3.2. Construction area coordinates:

1st: 134031.24N 1004403.90E
2nd: 134035.39N 1004404.90E
3rd: 134034.97N 1004406.64E
4th: 134030.83N 1004405.52E

2.2. Working details

2.2.1. All construction areas will be blocked off by 3'(1m) high frangible barricades painted in alternate band of red and white, barricades will be lighted by omni-directional fixed red lights spacing every 10'(3m) at night and during limited visibility conditions.

2.2.2. There is a presence of machinery operating in the construction area with the heights that do not exceed the Obstacle Free Zone (OFZ).

3. THE CONSTRUCTION AND INSTALLATION OF ELECTRICAL SYSTEMS, COMMUNICATION SYSTEMS AND UTILITIES

3.1. Location of construction areas

3.1.1. Area A

3.1.1.1. Location: 1040'(317m) before Threshold Runway 19R and 492'(150m) west side of extended Runway centerline.

3.1.1.2. Construction area coordinates:

1st: 134224.37N 1004431.00E
2nd: 134225.24N 1004431.20E
3rd: 134224.77N 1004433.16E
4th: 134223.88N 1004432.94E

3.1.2. Area B

3.1.2.1. Location: 1211'(369m) before Threshold Runway 19R and 262'(80m) east side of extended Runway centerline.

3.1.2.2. Construction area coordinates:

1st: 134224.10N 1004440.99E
2nd: 134235.58N 1004444.04E
3rd: 134234.62N 1004447.87E
4th: 134233.68N 1004447.61E
5th: 134234.31N 1004445.03E
6th: 134223.76N 1004442.19E

3.2. Working details

3.2.1. There is a presence of machinery operating in the construction area with the heights that do not exceed the Obstacle Free Zone (OFZ).

3.2.2. Construction area A and B are outside the boundary of Clearway Runway 01L.

4. VALIDITY

These charts will remain current until 5 May 2024 at 2359 UTC. Any changes to these charts will be notified by NOTAM.

THE CONSTRUCTION OF NEW TAXIWAYS AT SUVARNABHUMI INTERNATIONAL AIRPORT (CONTD)

Figure 1

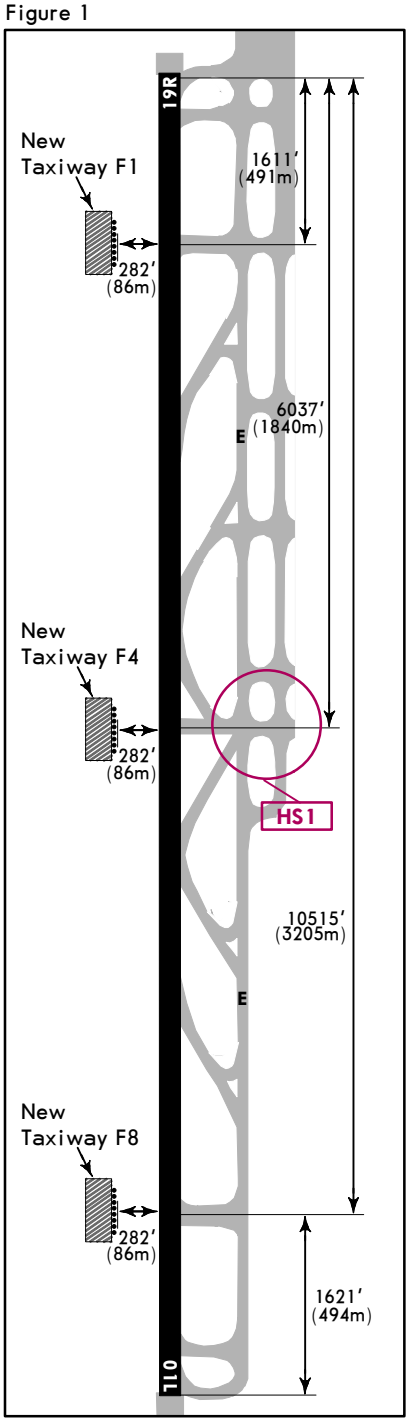
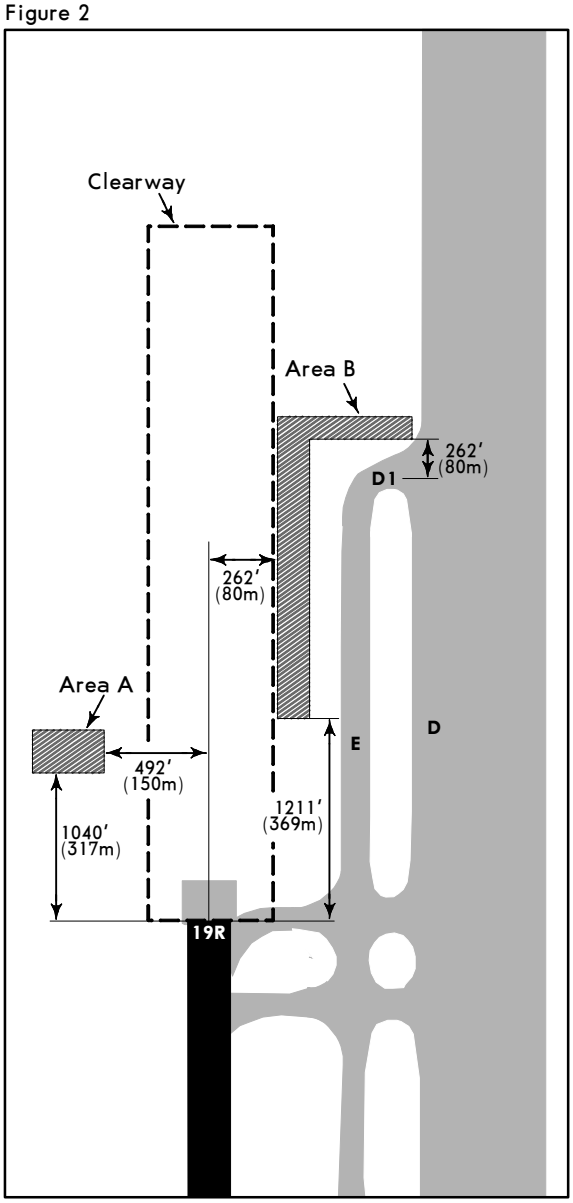


Figure 2



LEGEND

Working Area

Barricades and fixed red light

RUNWAY INCURSION HOT SPOTS

HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

N

CHANGES: Reindex.

THE CLOSURE OF TAXIWAYS FOR TEMPORARY AIRCRAFT PARKING AT SUVARNABHUMI INTERNATIONAL AIRPORT (SUP A08-24 and A09-24)

1. INTRODUCTION

With effect from 22 FEB 2024 at 0000 UTC, the purpose of these charts is to inform all concerned regarding the closure areas for temporary aircraft parking at Suvarnabhumi International Airport.

2. THE TEMPORARY CLOSURE AREAS AND PERIODS

Area	Location	Period (Time in UTC)
1	- Twy C between taxilane T1 and taxilane T2 - Taxiway C1	22 FEB 2024 at 0000 UTC - UFN
2	- Taxiway D11, Taxiway J3, Taxiway J4, Taxiway K	

3. MARKING AND LIGHTING FOR CLOSURE AREA

3.1. The closure area is blocked off by 1′ (0.3m) - high frangible barricades painted in alternate bands of red and white and lighted by omnidirectional fixed red lights along the closed area.

3.2. The closure markings are displayed on entrances of each closed taxiway (yellow crosses).

3.3. Taxiway Center Line Lights and the signage leading to and on the closed area are unserviceable.

3.4. The temporary fences are installed along the south side of Taxiway K and Taxiway D11 with distance 143′ (43.5m), 148′ (45m) and 167′ (51m) from taxiway centerline.

3.5. The dimension of fences is 10′ (3m) high painted in alternate band of red and white, fences will be lighted by omni-directional fixed red lights spacing every 25′ (7.5m) at night and during limited visibility conditions.

4. OPERATING CONDITIONS

The starting of operating of aircraft engines at the closure areas is not allowed except running at minimum idle power to maintain serviceable condition, but with prior permission from AOT before the commencement of such operation.

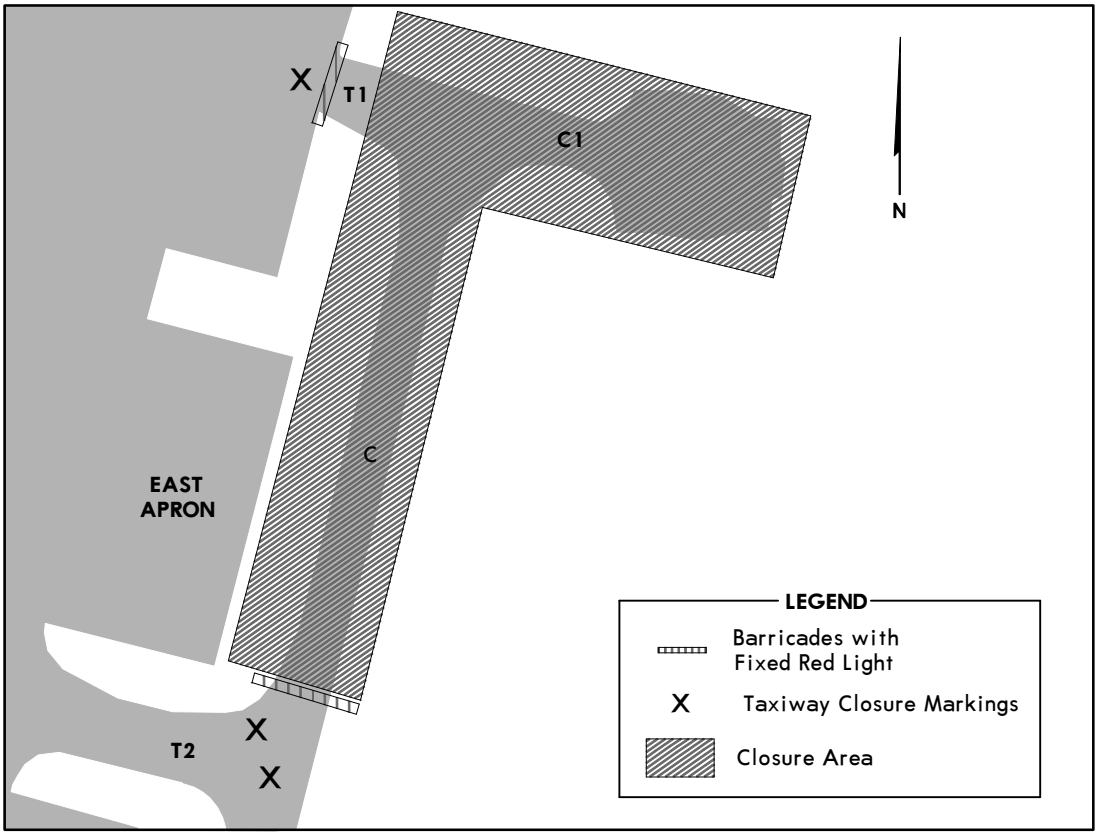
Taxiway K and Taxiway D11, if available for traffic, can accommodate aircraft up to code E.

5. VALIDITY

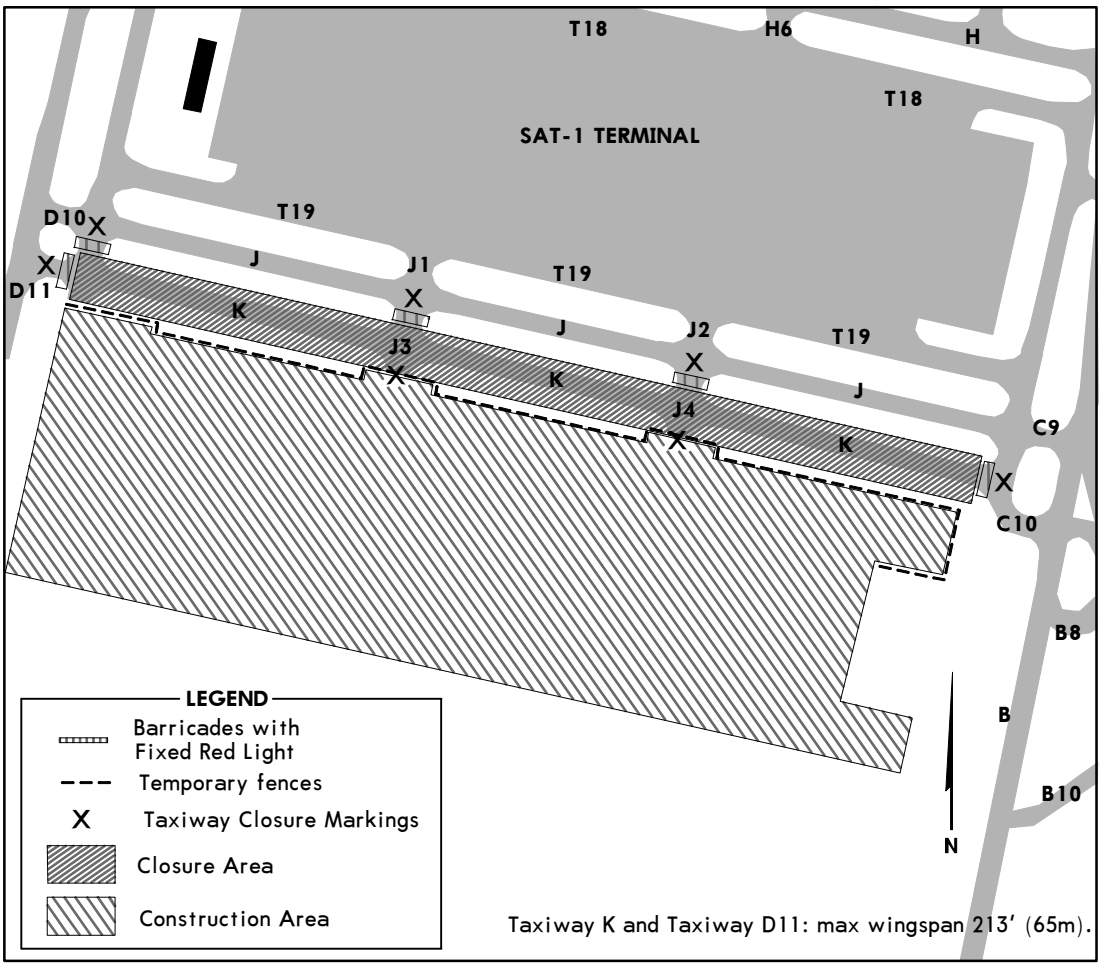
These charts will remain current until further advised. Any changes of these charts will be notified by NOTAM.

THE CLOSURE OF TAXIWAYS FOR TEMPORARY AIRCRAFT PARKING AT SUVARNABHUMI INTERNATIONAL AIRPORT

Area 1



Area 2



Taxiway K and Taxiway D11: max wingspan 213' (65m).

CHANGES: New temporary chart.

THE PARTIAL CLOSURE OF TAXIWAY E AND OPERATIONAL RESTRICTIONS OF RUNWAY 01L/19R AT SUVARNABHUMI INTERNATIONAL AIRPORT (SUP A52/23 AIRAC)

1. INTRODUCTION

With effect from 30 November 2023 at 0000 UTC to 30 November 2024 at 2359 UTC, the purpose of these charts is to inform all concerned regarding the closure of Taxiway E between Taxiway E17 and Taxiway E21, Taxiway E19, taxiway E21 and operational restrictions of Runway 01L/19R during the construction of Taxiway D extension at Suvarnabhumi International Airport.

2. DETAILS

2.1 THE CLOSURE OF TAXIWAYS

As a result of the construction of Taxiway D extension, the following taxiways will be closed:
- Taxiway E between Taxiway E17 and Taxiway E21.
- Taxiway E19.
- Taxiway E21.

2.2 MARKINGS AND LIGHTING

The details of markings and lighting on associated areas are as follows:
- Closure markings (yellow crosses) are displayed on a closed portion of taxiways.
- Taxiway centre line lights, taxiway edge lights and taxiway signage leading to and on Taxiway E between Taxiway E17 and Taxiway E21, Taxiway E19 and Taxiway E21 will be unserviceable.
- The closure area will be blocked off by 3′(1m) frangible barricades painted in alternate band of red and white, barricades will be lighted by omni-directional fixed red lights spacing every 10′(3m) at night and during limited visibility conditions.

Construction Area
- All construction areas will be blocked off by construction fences.
- The distance between taxiway centre line and the objects (fences with fixed red lights) near Taxiway E between Taxiway E13 and Taxiway E17 is 167′(51m).
- The dimension of fences is 10′(3m) high painted in alternate band of red and white, fences will be lighted by omni-directional fixed red lights spacing every 25′(7.5m) at night and during limited visibility condition.
- Jet blast fences are installed parallel to the construction fences at Taxiway E17. The dimension of fences is 8′(2.45m) high painted in alternate band of red and white.
- Stop bar Taxiway E17 will be unserviceable.

2.3 OPERATIONAL RESTRICTIONS

During the closure of Taxiway E between Taxiway E17 and Taxiway E21, all aircraft shall use Runway 19R or Runway 01L under restrictions, as follows:

2.3.1 Runway 19R:
- Arriving aircraft shall exit the runway via Taxiway E9, E13, E15 or E17.
- Pilot shall be reminded that Taxiway E17 is the ″last exit taxiway″ of Runway 19R, distance to turn off from threshold Runway 19R to intersection taxiway E17 is 10515′(3205m).
- In case of arriving aircraft passing the last exit taxiway E17, pilot will be instructed to hold on runway and pushback tug is required to tow out of runway.

2.3.2 Runway 01L:
- Departure from intersection E17 with distance available detail as follow:

Rwy designator	TORA	TODA	ASDA	LDA
01L	10564′(3220m)	14173′(4320m)	10564′(3220m)	12139′(3700m)

- During low visibility operation (RVR less than 550m), Runway 01L shall be used for arriving only.

3. OTHERS

3.1 During construction period, pilots are advised to take precautions when operating near the construction areas.

3.2 There is a presence of machineries operating in the construction area which heights do not exceed the Obstacle Free Zone (OFZ).

3.3 Runway Preventive Maintenance Program will be notified by either NOTAM or chart.

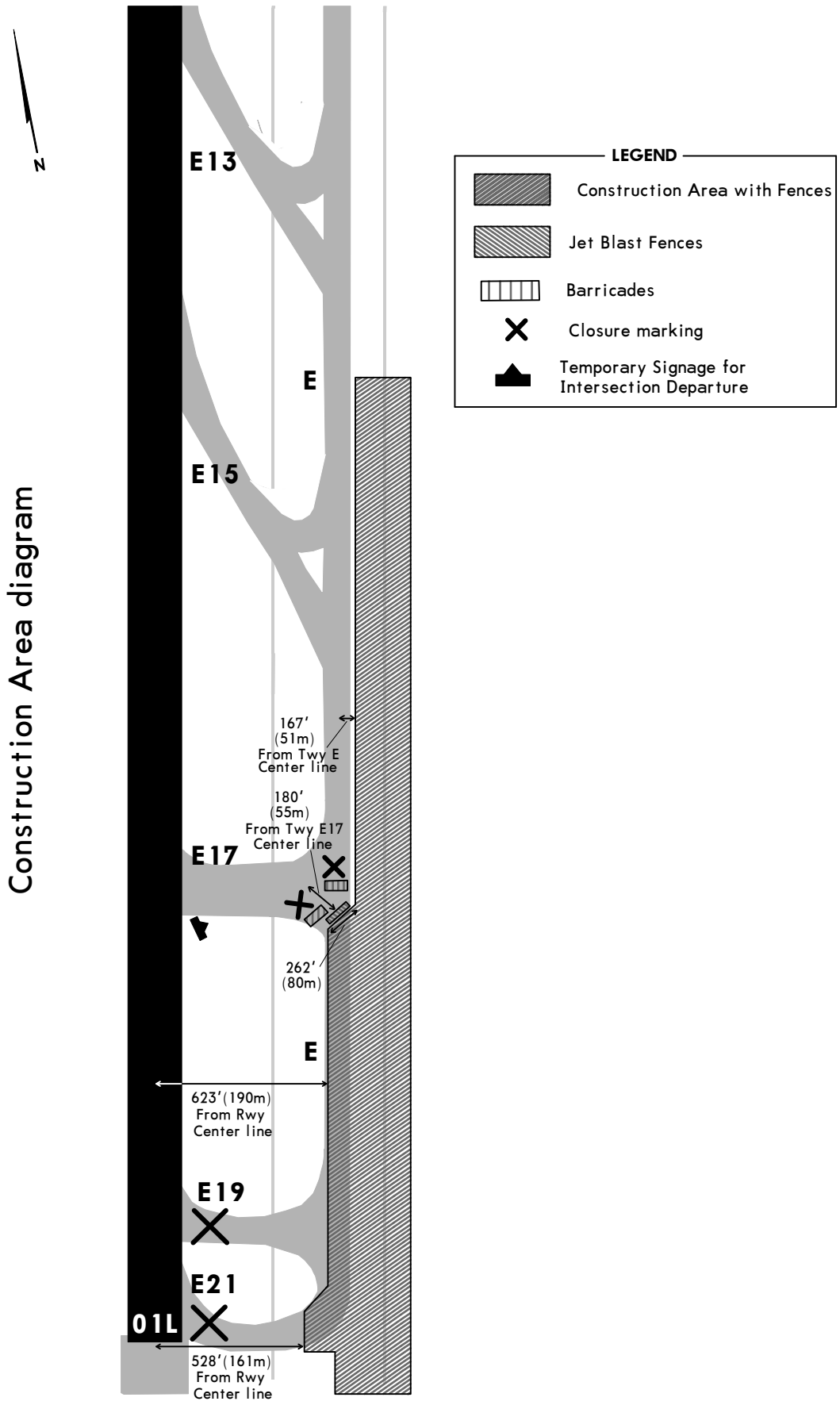
3.4 Due to expected congestions and high possibilities of airborne delay, airlines are advised to avoid using Suvarnabhumi International Airport (VTBS) as an alternate aerodrome and extra fuel should be considered during construction period when Runway 01R/19L is closed.

4. VALIDITY

These charts will remain current until 30 November 2024 at 2359 UTC. Any changes of these charts will be notified by NOTAM.

THE PARTIAL CLOSURE OF TAXIWAY E AND OPERATIONAL RESTRICTIONS OF RUNWAY 01L/19R AT SUVARNABHUMI INTERNATIONAL AIRPORT (CONTD)

Construction Area diagram



CHANGES: Reindex.

VTBS/BKK

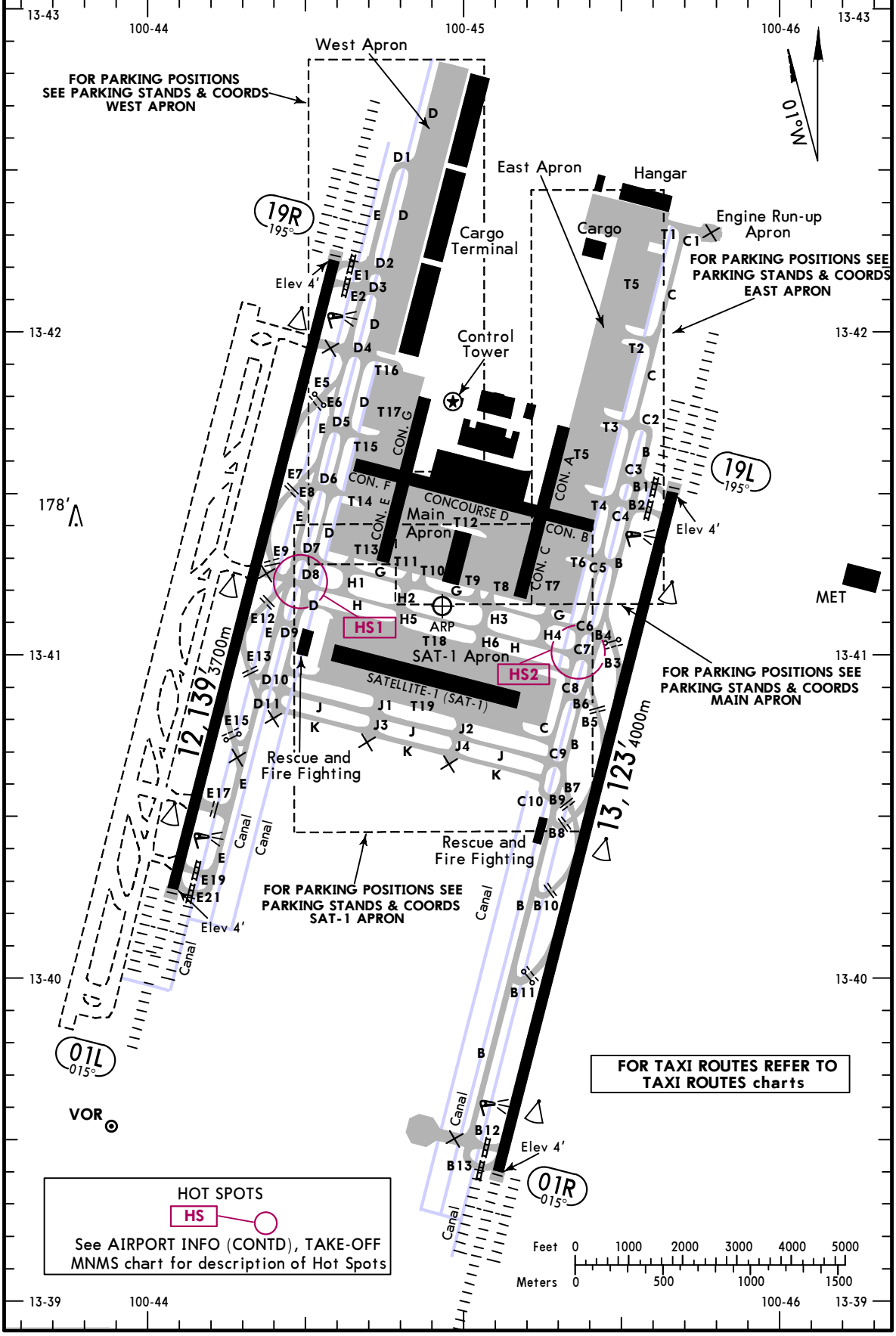
Apt Elev 4′
N13 41.2 E100 44.9

JEPPESEN
24 NOV 23 (20-9) Eff 30 Nov

BANGKOK, THAILAND
SUVARNABHUMI INTL

D-ATIS	Data Comm	SUVARNABHUMI Clearance	
Departure	ACARS:	A464 (Northbound), A464 (Southbound) B346, G458, G463, L301, L507, M502, M751, M757, P646, R474, W9, W19, W21, W31, Y6, Y8	A1, G474, M904, N891, R201, R468, Y11, Y16
127.65	PDC	128.7	133.8

Ground			Tower		SUVARNABHUMI Departure
West Apron	Main & SAT-1 Apron	East Apron	Rwy 01R/19L	Rwy 01L/19R	
121.95	121.75	121.65	118.2	119.0	119.25



CHANGES: Twy E17 opened.

GENERAL

Birds in vicinity of airport.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
01L 19R	HIRL(60m) CL(30m) ❶ ALSF-II grooved OFZ RVR TDZ ❷ PAPI-L		11,075' 3376m 11,069' 3374m		197' 60m
01R 19L	HIRL(60m) CL(30m) ❶ ALSF-II RVR TDZ ❷ PAPI-L		12,056' 3675m 12,061' 3676m		197' 60m

❶ Length 900m
❷ Angle 3.0°

HOT SPOTS HS

For information only, not to be construed as ATC instructions.

HS1 Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking/lights. Taxiing from Twy D8 to E for Rwy 01L requires a 90 degree turn, pilots should be aware of unintentionally executing a runway incursion through Twy E12.

HS2 Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking/lights. Taxiing from Twy C7 to B for Rwy 01R requires a 90 degree turn, pilots should be aware of unintentionally executing a runway incursion through Twy B5.

Std TAKE-OFF

RL & CL & relevant RVR	RL & CL	RL & RCLM	RL or CL	RL or RCLM	Adequate Vis Ref	
		DAY	NIGHT	DAY	DAY	NIGHT
TDZ R150m Mid R150m Rollout R150m	R200m	R300m		R400m	R/V500m	NA

CHANGES: None.

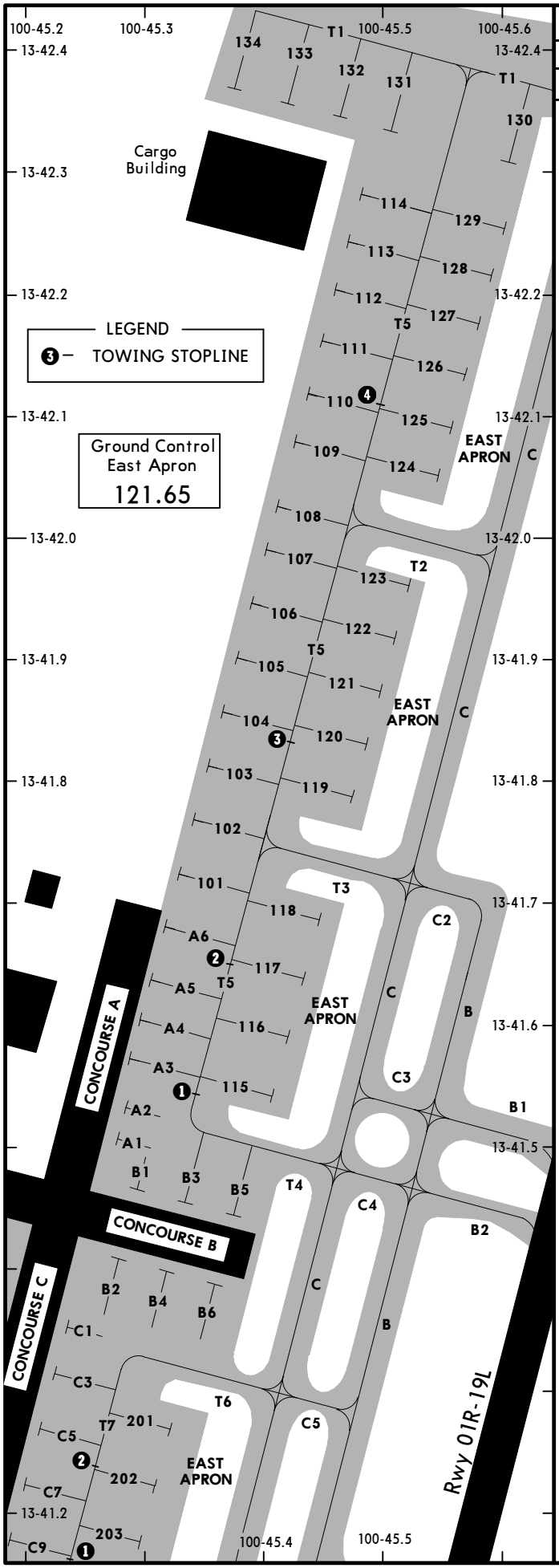
VTBS/BKK

JEPPESEN

15 SEP 23 (20-9B)

BANGKOK, THAILAND

SUVARNABHUMI INTL



PARKING BAY COORDINATES

EAST APRON

STAND No.	COORDINATES
A1, A2	N13 41.5 E100 45.3
A3L thru A5R	N13 41.6 E100 45.3
A6L, A6, A6R	N13 41.7 E100 45.3
B1, B2	N13 41.4 E100 45.3
B3	N13 41.4 E100 45.4
B4	N13 41.4 E100 45.3
B5L, B5, B5R	N13 41.4 E100 45.4
B6L, B6, B6R	N13 41.4 E100 45.4
C1L, C1	N13 41.3 E100 45.3
C1R	N13 41.4 E100 45.3
C3L	N13 41.3 E100 45.3
C3 thru C5R	N13 41.3 E100 45.2
C7L thru C9R	N13 41.2 E100 45.2
101L	N13 41.7 E100 45.4
101	N13 41.7 E100 45.3
101R, 102L	N13 41.7 E100 45.4
102 thru 104R	N13 41.8 E100 45.4
105L thru 106R	N13 41.9 E100 45.4
107L thru 109	N13 42.0 E100 45.4
109R, 110L	N13 42.1 E100 45.4
110 thru 111R	N13 42.1 E100 45.5
112L thru 114	N13 42.2 E100 45.5
114R	N13 42.3 E100 45.5
115L, 115, 115R	N13 41.5 E100 45.4
116L thru 117R	N13 41.6 E100 45.5
118L, 118	N13 41.7 E100 45.5
118R	N13 41.6 E100 45.5
119L thru 120R	N13 41.8 E100 45.5
121L	N13 41.9 E100 45.5
121, 121R	N13 41.8 E100 45.5
122L, 122, 122R	N13 41.9 E100 45.5
123L	N13 41.9 E100 45.6
123, 123R	N13 41.9 E100 45.5
124	N13 42.0 E100 45.6
125L, 125	N13 42.1 E100 45.6
125R	N13 42.0 E100 45.6
126L thru 127R	N13 42.1 E100 45.6
128L thru 129R	N13 42.2 E100 45.6
130	N13 42.3 E100 45.6
131, 132, 133	N13 42.3 E100 45.5
134	N13 42.3 E100 45.4
201L, 201	N13 41.3 E100 45.4
201R thru 203L	N13 41.2 E100 45.4
203, 203R	N13 41.2 E100 45.3

CHANGES: None.

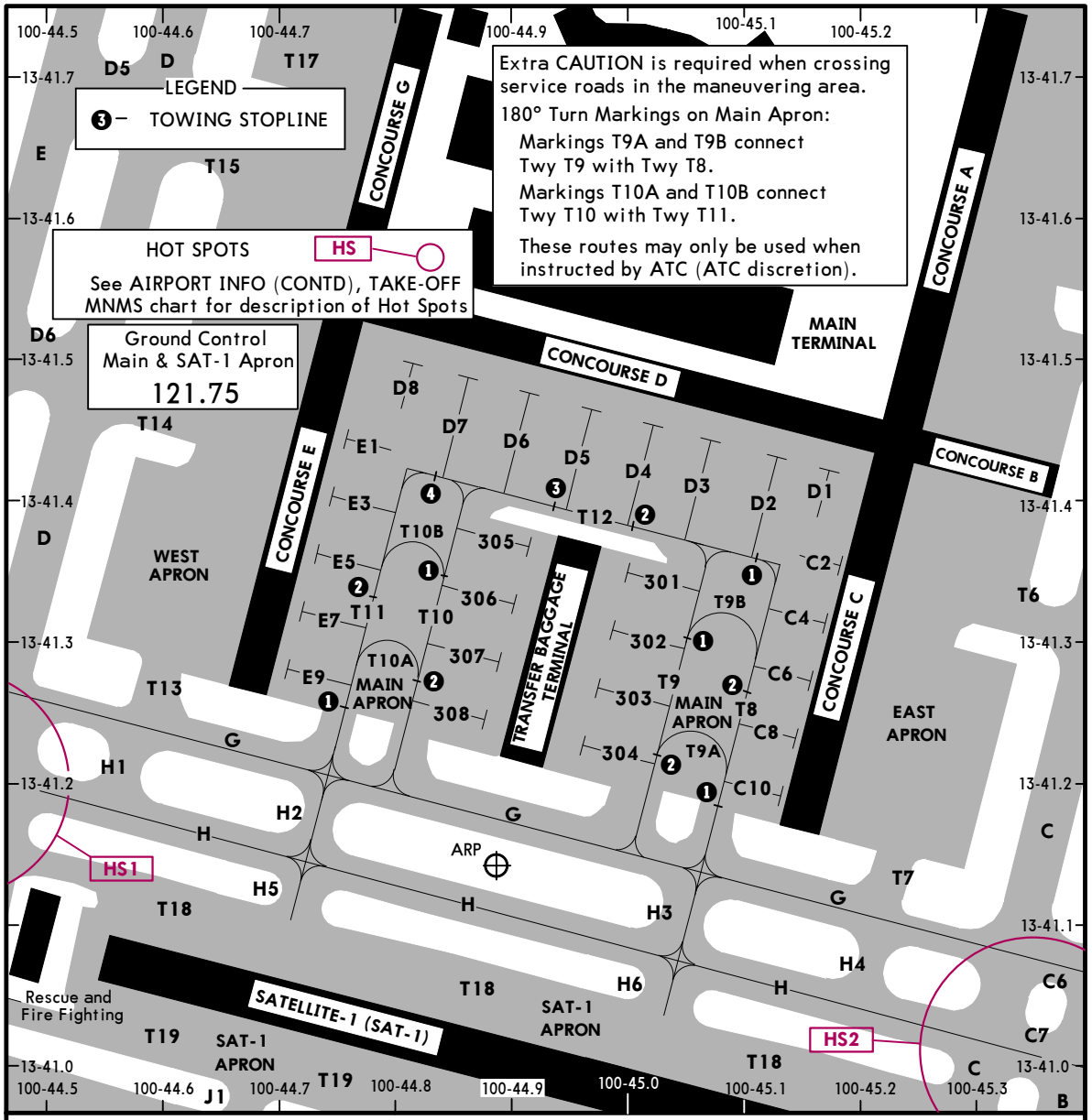
VTBS/BKK

JEPPESEN

15 SEP 23 (20-9C)

BANGKOK, THAILAND

SUVARNABHUMI INTL



PARKING BAY COORDINATES

MAIN APRON

STAND No.	COORDINATES	STAND No.	COORDINATES
C2L, C2, C2R	N13 41.4 E100 45.2	E3, E5	N13 41.4 E100 44.8
C4L thru C8L	N13 41.3 E100 45.2	E7, E9	N13 41.3 E100 44.8
C8, C8R	N13 41.2 E100 45.2	301	N13 41.4 E100 45.0
C10L	N13 41.2 E100 45.1	302, 303	N13 41.3 E100 45.0
C10, C10R	N13 41.2 E100 45.2	304	N13 41.2 E100 45.0
D1	N13 41.4 E100 45.2	305	N13 41.4 E100 45.0
D2L thru D3R	N13 41.4 E100 45.1	306	N13 41.3 E100 45.0
D4L	N13 41.4 E100 45.0	307, 308	N13 41.3 E100 44.9
D4	N13 41.5 E100 45.0		
D4R	N13 41.5 E100 45.1		
D5	N13 41.5 E100 45.0		
D6L	N13 41.5 E100 44.9		
D6, D6R	N13 41.5 E100 45.0		
D7L thru D8	N13 41.5 E100 44.9		
E1	N13 41.5 E100 44.8		

CHANGES: SAT-1 apron added.

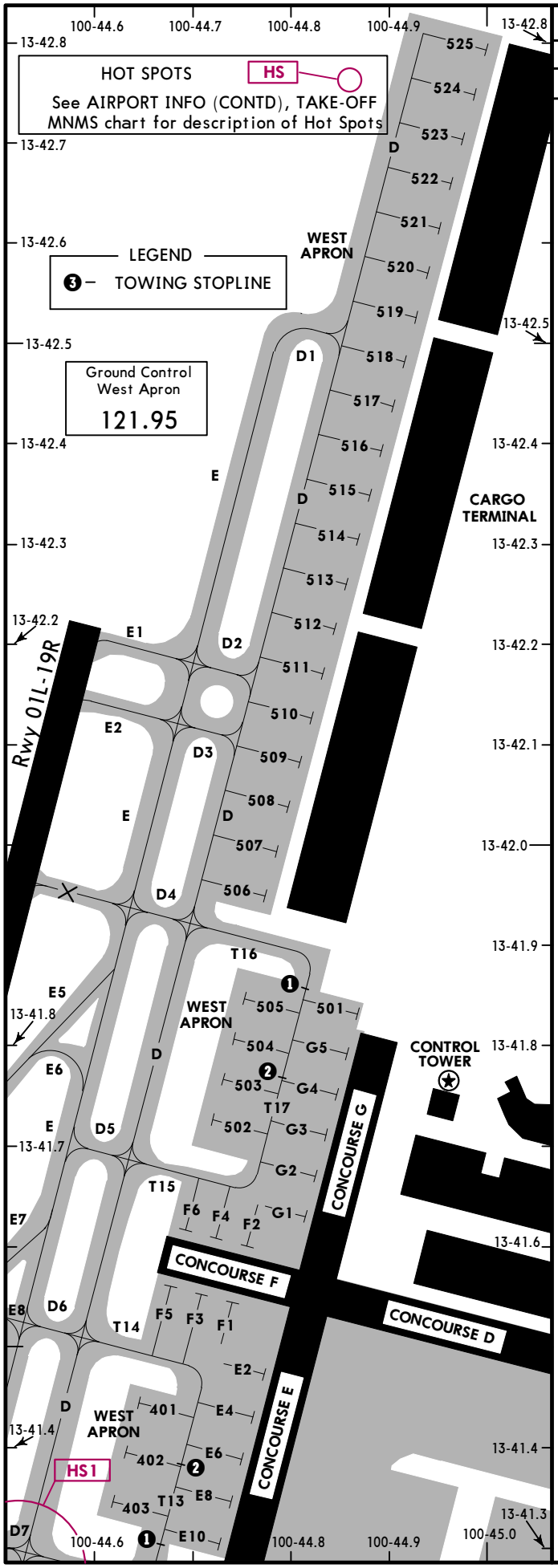
VTBS/BKK

JEPPESEN

8 DEC 23 (20-9D)

BANGKOK, THAILAND

SUVARNABHUMI INTL



PARKING BAY COORDINATES

WEST APRON

STAND No.	COORDINATES
E2	N13 41.5 E100 44.8
E4	N13 41.4 E100 44.8
E6, E8	N13 41.4 E100 44.7
E10	N13 41.3 E100 44.7
F1	N13 41.5 E100 44.7
F2	N13 41.6 E100 44.7
F3	N13 41.5 E100 44.7
F4, F5, F6	N13 41.6 E100 44.7
G1	N13 41.6 E100 44.8
G2, G3, G4	N13 41.7 E100 44.8
G5	N13 41.8 E100 44.8
401, 402, 403	N13 41.4 E100 44.6
501	N13 41.8 E100 44.9
502	N13 41.7 E100 44.7
503, 504, 505	N13 41.8 E100 44.7
506L, 506	N13 42.0 E100 44.8
506R	N13 41.9 E100 44.8
507L, 507, 507R	N13 42.0 E100 44.8
508L	N13 42.1 E100 44.8
508, 508R	N13 42.0 E100 44.8
509L thru 510R	N13 42.1 E100 44.8
511L thru 512R	N13 42.2 E100 44.8
513L, 513, 513R	N13 42.3 E100 44.8
514L, 514	N13 42.3 E100 44.9
514R	N13 42.3 E100 44.8
515L, 515	N13 42.4 E100 44.9
515R	N13 42.3 E100 44.9
516L, 516, 516R	N13 42.4 E100 44.9
517L	N13 42.5 E100 44.9
517, 517R	N13 42.4 E100 44.9
518L thru 519R	N13 42.5 E100 44.9
520L thru 521R	N13 42.6 E100 44.9
522L	N13 42.7 E100 44.9
522	N13 42.7 E100 45.0
522R	N13 42.7 E100 44.9
523	N13 42.7 E100 45.0
524, 525	N13 42.8 E100 45.0

CHANGES: None.

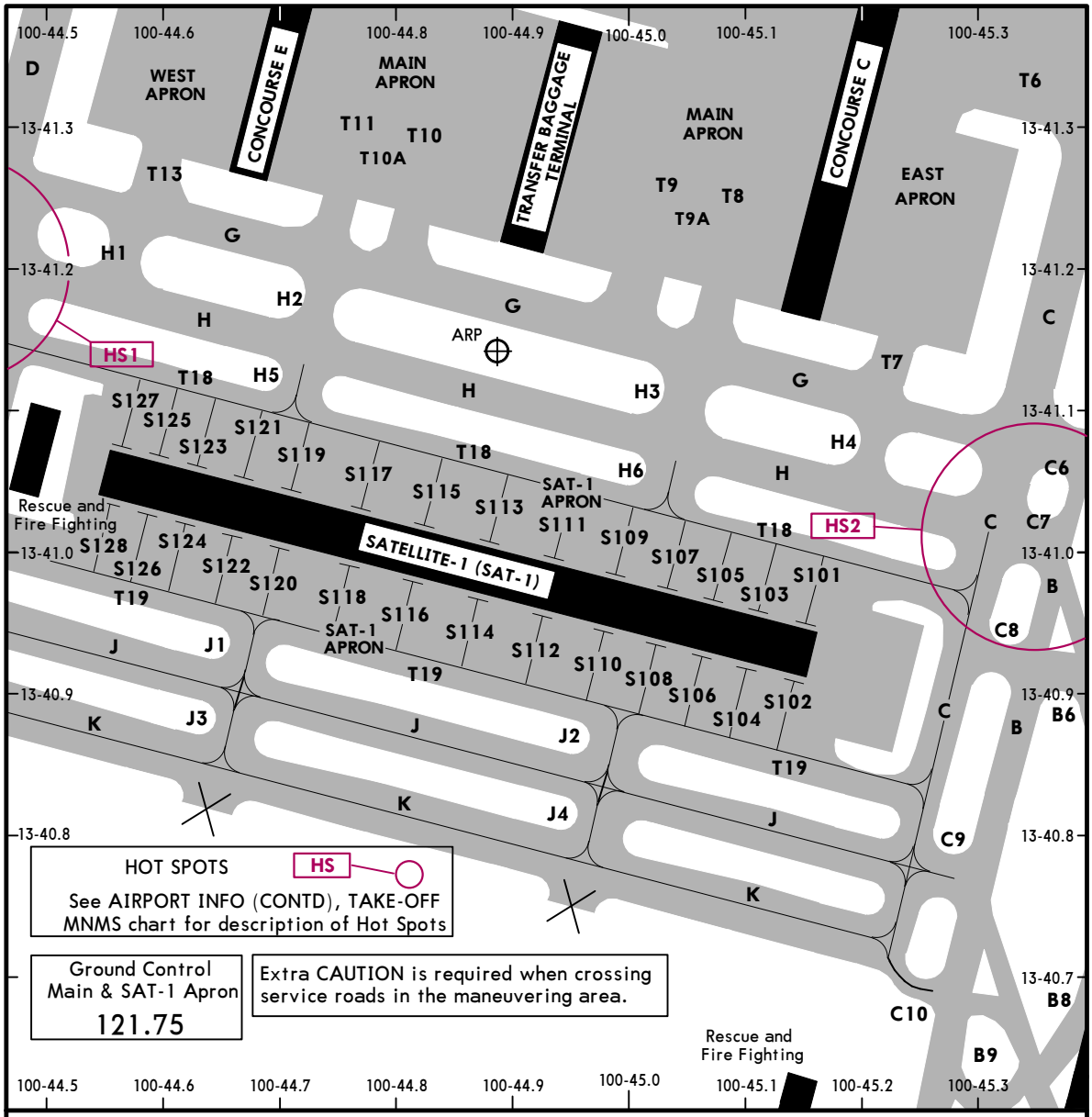
VTBS/BKK

JEPPESEN

8 DEC 23 (20-9D1)

BANGKOK, THAILAND

SUVARNABHUMI INTL



PARKING BAY COORDINATES

SAT-1 APRON

STAND No.	COORDINATES	STAND No.	COORDINATES
S101	N13 40.9 E100 45.2	S117	N13 41.0 E100 44.8
S102	N13 40.8 E100 45.1	S118	N13 40.9 E100 44.8
S103	N13 40.9 E100 45.1	S119	N13 41.0 E100 44.8
S104	N13 40.8 E100 45.1	S120	N13 40.9 E100 44.8
S105, S106	N13 40.9 E100 45.1	S121	N13 41.0 E100 44.7
S107, S108	N13 40.9 E100 45.0	S122	N13 40.9 E100 44.7
S109	N13 41.0 E100 45.0	S123	N13 41.0 E100 44.7
S110	N13 40.9 E100 45.0	S124	N13 40.9 E100 44.7
S111	N13 41.0 E100 45.0	S125	N13 41.0 E100 44.7
S112	N13 40.9 E100 44.9	S126, S127, S128	N13 41.0 E100 44.6
S113	N13 41.0 E100 44.9		
S114	N13 40.9 E100 44.9		
S115	N13 41.0 E100 44.9		
S116L, S116	N13 40.9 E100 44.8		
S116R	N13 40.9 E100 44.9		

CHANGES: Reissue.

VTBS/BKK

JEPPESEN

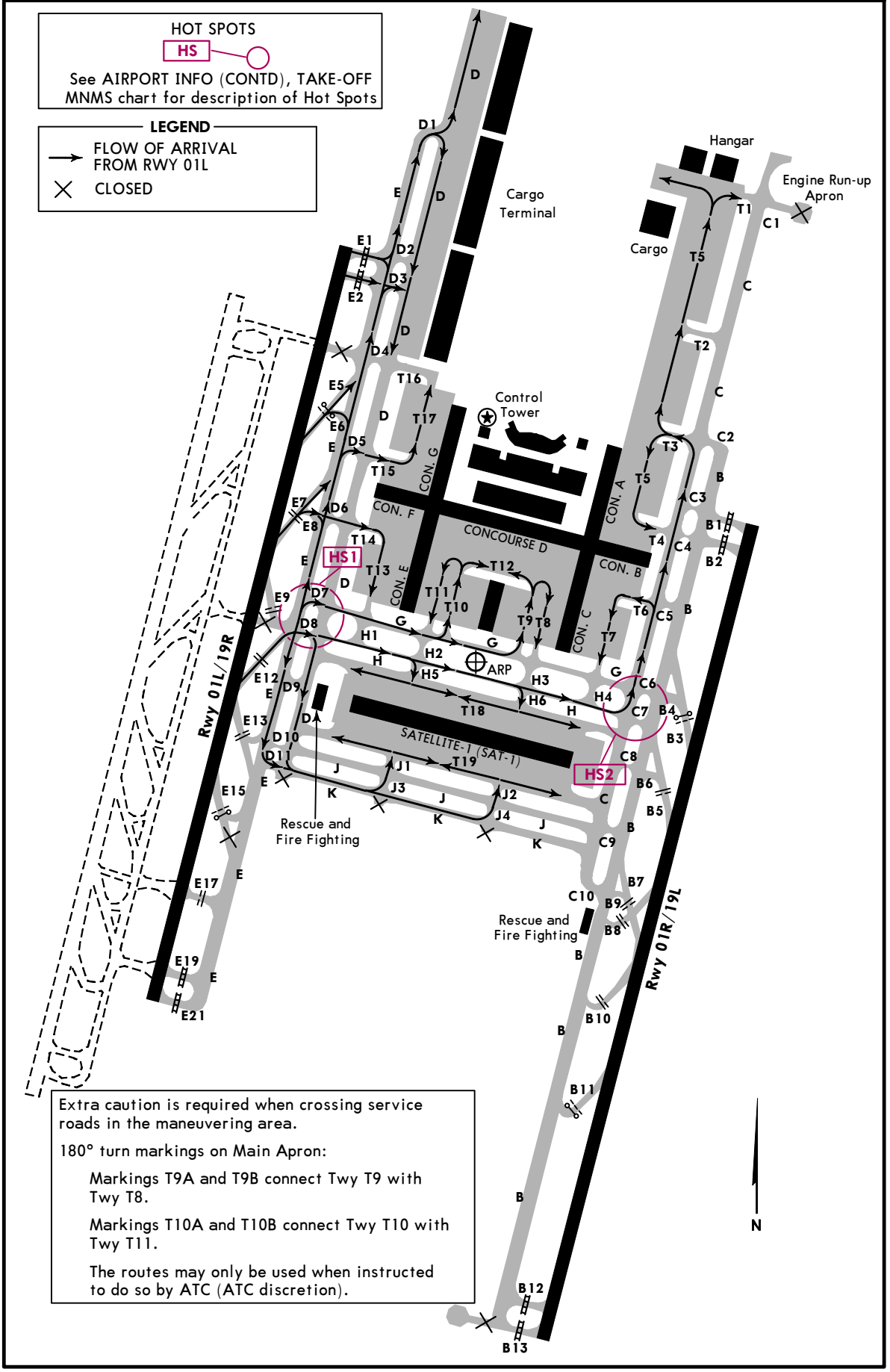
22 DEC 23 (20-9E)

BANGKOK, THAILAND

SUVARNABHUMI INTL

TAXI ROUTES ARRIVALS Rwy 01L

D-ATIS	SUVARNABHUMI Tower		Ground		
	Rwy 01L/19R	Rwy 01R/19L	West Apron	Main & SAT-1 Apron	East Apron
133.6	119.0	118.2	121.95	121.75	121.65



CHANGES: Taxiway C9 depiction.

VTBS/BKK

JEPPESEN

22 DEC 23 (20-9F)

BANGKOK, THAILAND

SUVARNABHUMI INTL

TAXI ROUTES DEPARTURES Rwy 01L

D-ATIS	SUVARNABHUMI Ground			Tower	
	West Apron	Main & SAT-1 Apron	East Apron	Rwy 01L/19R	Rwy 01R/19L
133.6	121.95	121.75	121.65	119.0	118.2

HOT SPOTS

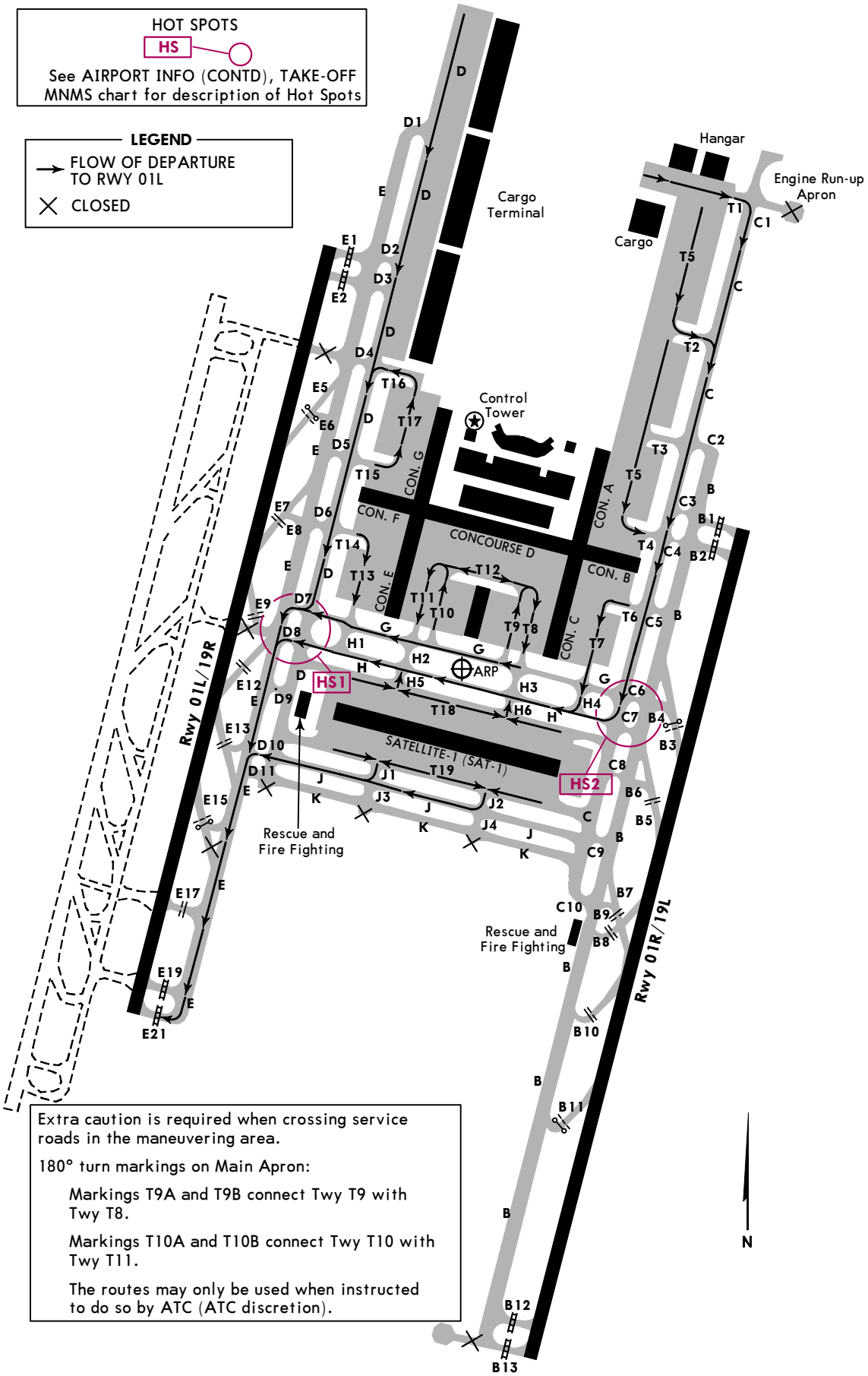
HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND

FLOW OF DEPARTURE TO RWY 01L

CLOSED



Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Taxiway C9 depiction.

VTBS/BKK

JEPPESEN

24 NOV 23 (20-9G) Eff 30 Nov

BANGKOK, THAILAND

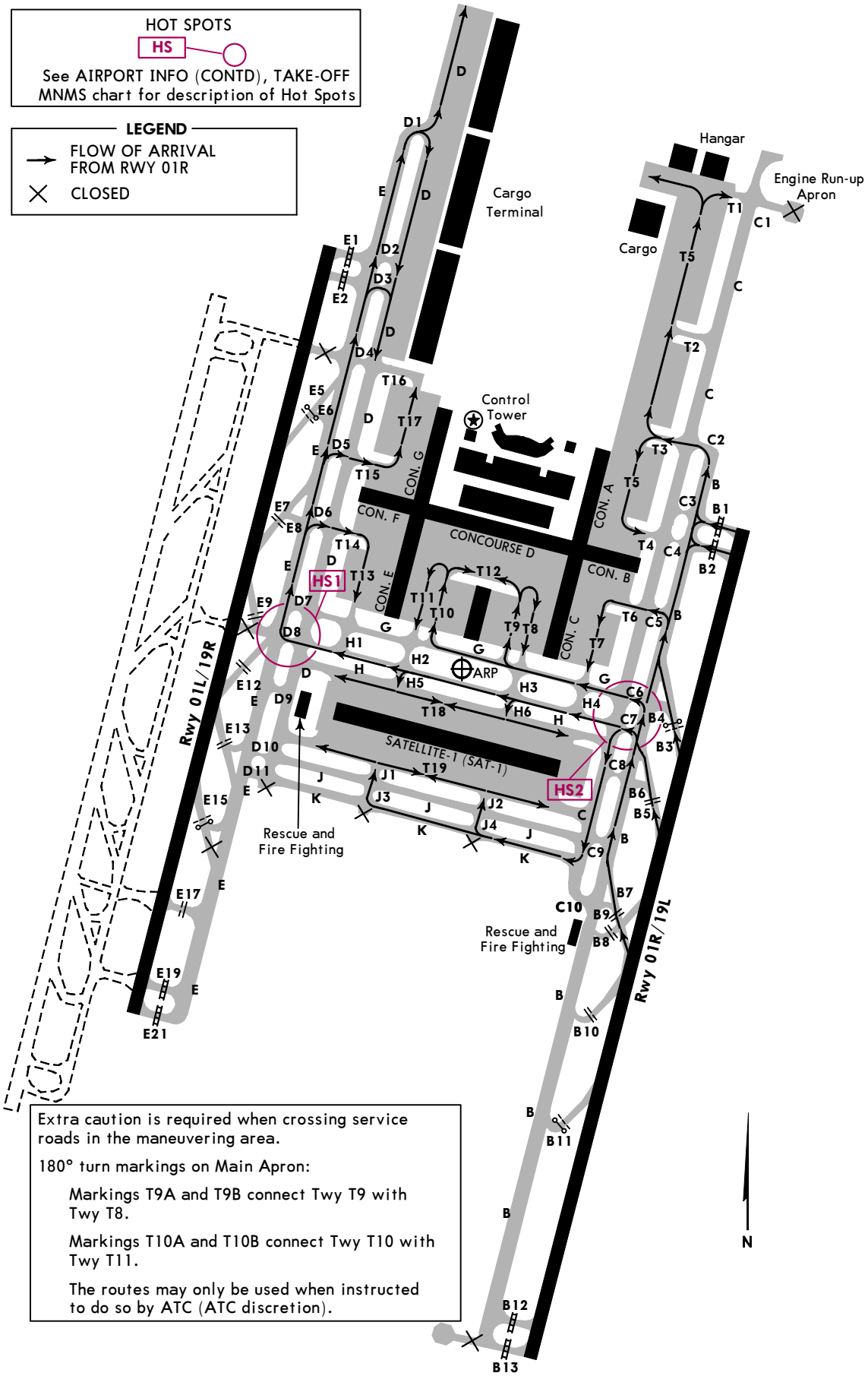
SUVARNABHUMI INTL

TAXI ROUTES ARRIVALS Rwy 01R

D-ATIS	SUVARNABHUMI Tower		Ground		
	Rwy 01R/19L	Rwy 01L/19R	West Apron	Main & SAT-1 Apron	East Apron
133.6	118.2	119.0	121.95	121.75	121.65

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND
FLOW OF ARRIVAL FROM RWY 01R
CLOSED



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Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Twy E17 opened.

VTBS/BKK

JEPPESEN

24 NOV 23 (20-9H) Eff 30 Nov

BANGKOK, THAILAND

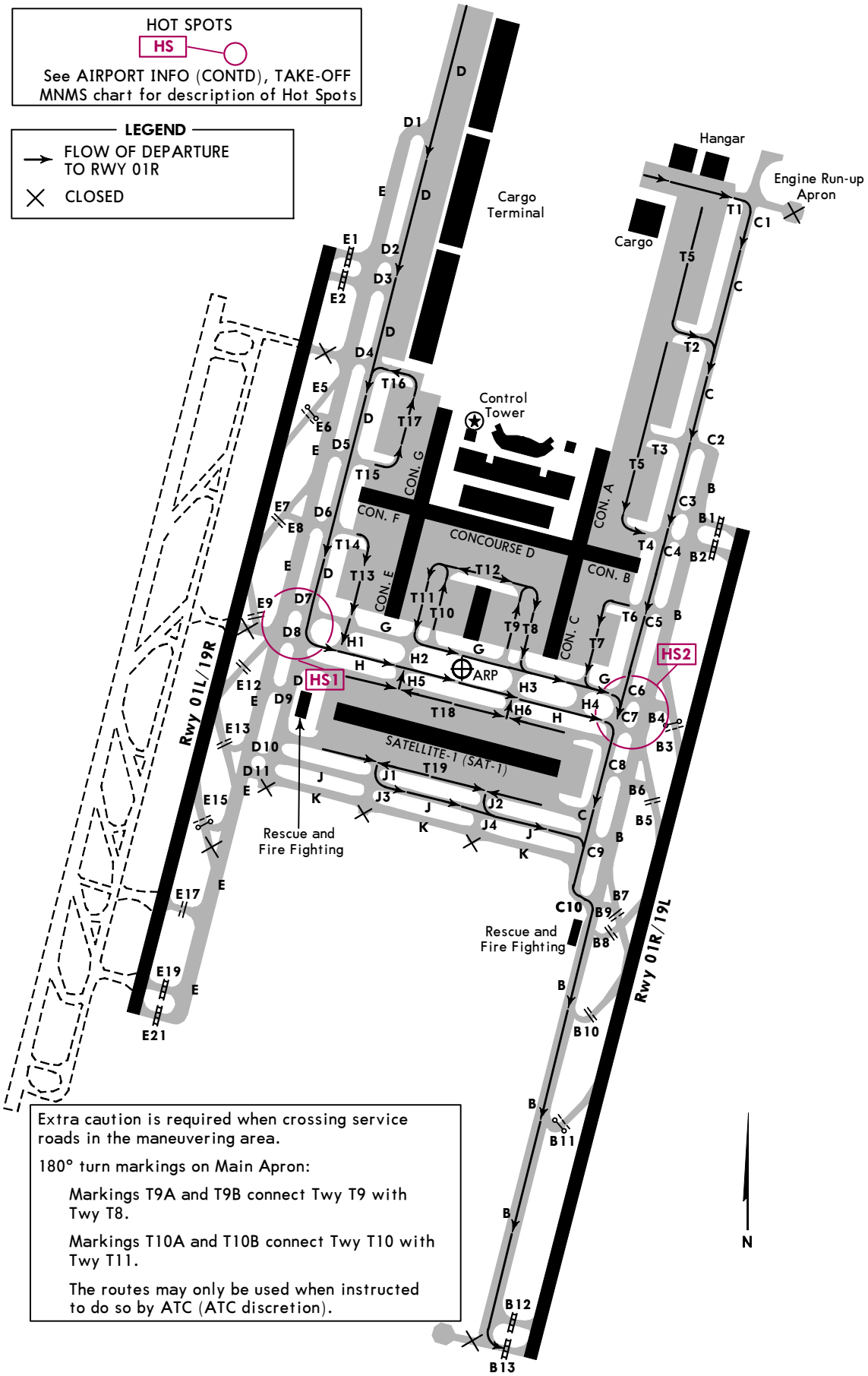
SUVARNABHUMI INTL

TAXI ROUTES DEPARTURES Rwy 01R

D-ATIS	SUVARNABHUMI Ground			Tower	
	West Apron	Main & SAT-1 Apron	East Apron	Rwy 01R/19L	Rwy 01L/19R
133.6	121.95	121.75	121.65	118.2	119.0

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND
FLOW OF DEPARTURE TO RWY 01R
CLOSED



Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Twy E17 opened.

VTBS/BKK

JEPPESEN

24 NOV 23 (20-9J) Eff 30 Nov

BANGKOK, THAILAND

SUVARNABHUMI INTL

TAXI ROUTES ARRIVALS Rwy 19L

D-ATIS	SUVARNABHUMI Tower		Ground		
	Rwy 01R/19L	Rwy 01L/19R	West Apron	Main & SAT-1 Apron	East Apron
133.6	118.2	119.0	121.95	121.75	121.65

HOT SPOTS

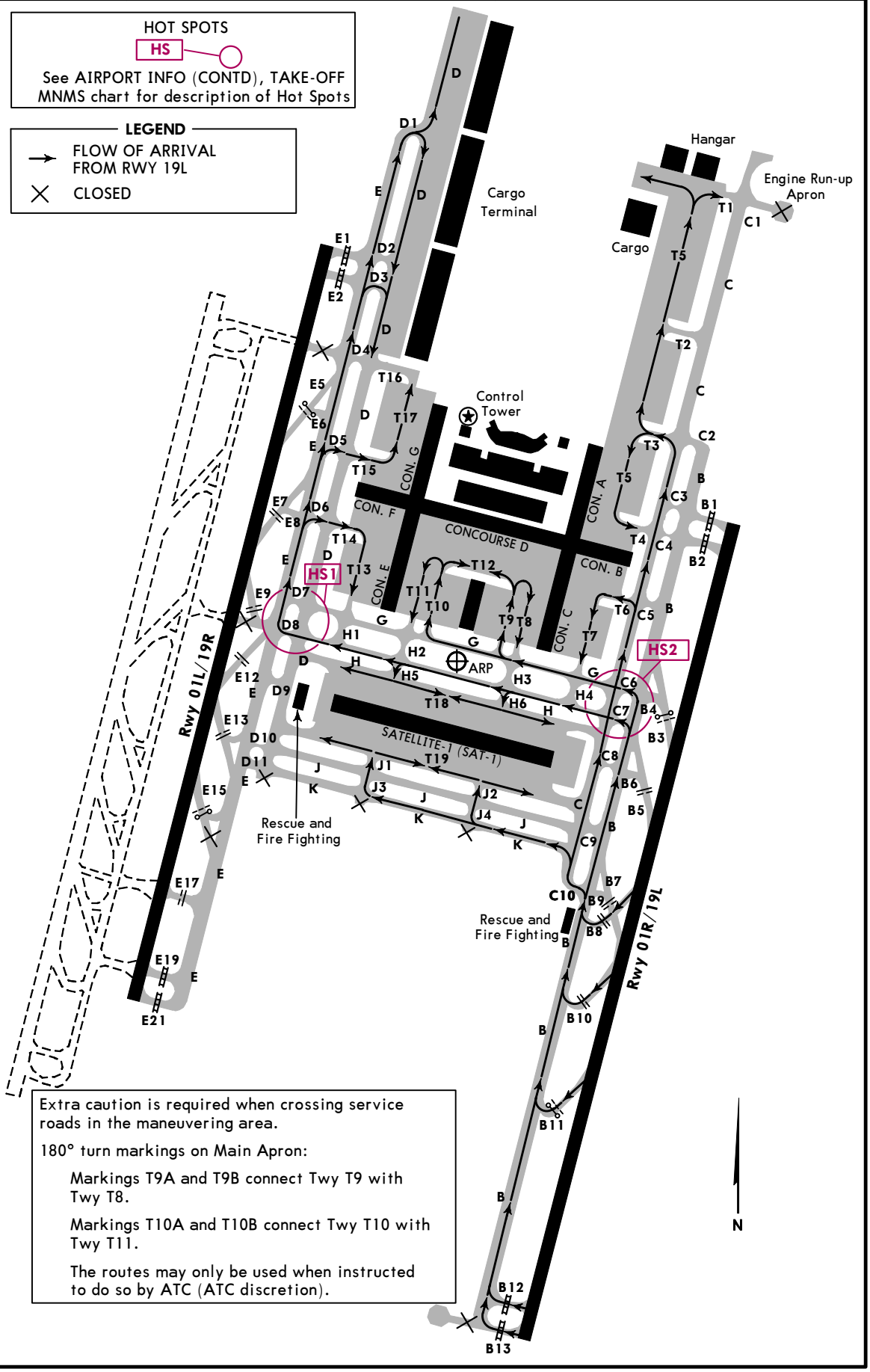
HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND

FLOW OF ARRIVAL FROM RWY 19L

CLOSED



Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Twy E17 opened.

VTBS/BKK

JEPPESEN
24 NOV 23 (20-9K) Eff 30 Nov

BANGKOK, THAILAND
SUVARNABHUMI INTL
TAXI ROUTES DEPARTURES Rwy 19L

D-ATIS	SUVARNABHUMI Ground			Tower	
	West Apron	Main & SAT-1 Apron	East Apron	Rwy 01R/19L	Rwy 01L/19R
133.6	121.95	121.75	121.65	118.2	119.0

HOT SPOTS
HS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND
- FLOW OF DEPARTURE TO RWY 19L
- CLOSED

Hangar
Engine Run-up Apron
Cargo
Cargo Terminal
Control Tower
CON. A
CON. B
CON. C
CON. E
CON. F
CON. G
CONCOURSE D
ARP
HS1
HS2
SATELLITE-1 (SAT-1)
Rescue and Fire Fighting
Rescue and Fire Fighting
Rwy 01L/19R
Rwy 01R/19L
N

Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Twy E17 opened.

VTBS/BKK

JEPPESEN

22 DEC 23 (20-9L)

BANGKOK, THAILAND

SUVARNABHUMI INTL

TAXI ROUTES ARRIVALS Rwy 19R

D-ATIS	SUVARNABHUMI Tower		Ground		
	Rwy 01L/19R	Rwy 01R/19L	West Apron	Main & SAT-1 Apron	East Apron
133.6	119.0	118.2	121.95	121.75	121.65

HOT SPOTS

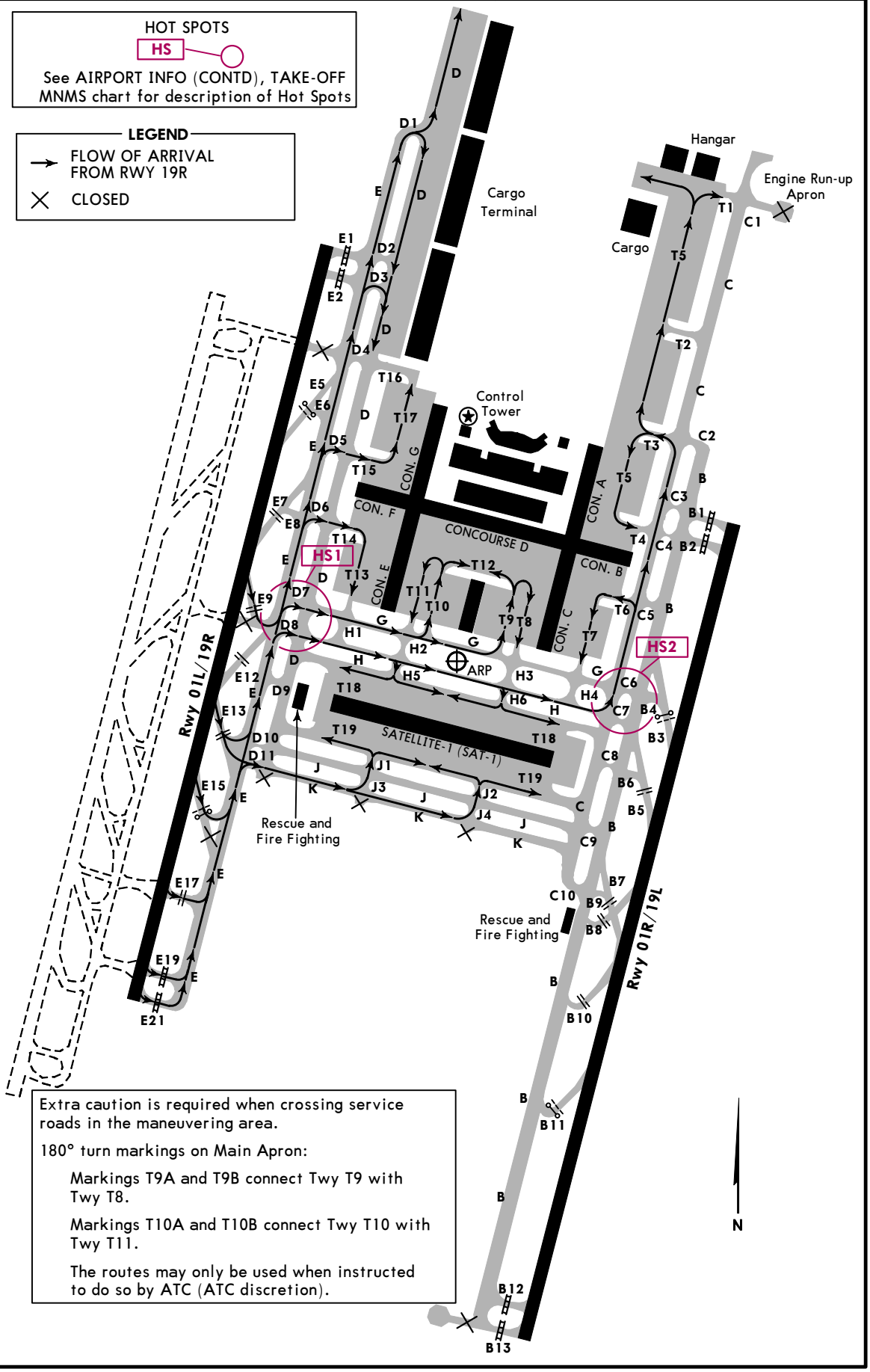
HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND

FLOW OF ARRIVAL FROM RWY 19R

CLOSED



Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Taxiway C9 depiction.

VTBS/BKK

JEPPESEN

22 DEC 23 (20-9M)

BANGKOK, THAILAND

SUVARNABHUMI INTL

TAXI ROUTES DEPARTURES Rwy 19R

D-ATIS	SUVARNABHUMI Ground			Tower	
	West Apron	Main & SAT-1 Apron	East Apron	Rwy 01L/19R	Rwy 01R/19L
133.6	121.95	121.75	121.65	119.0	118.2

HOT SPOTS

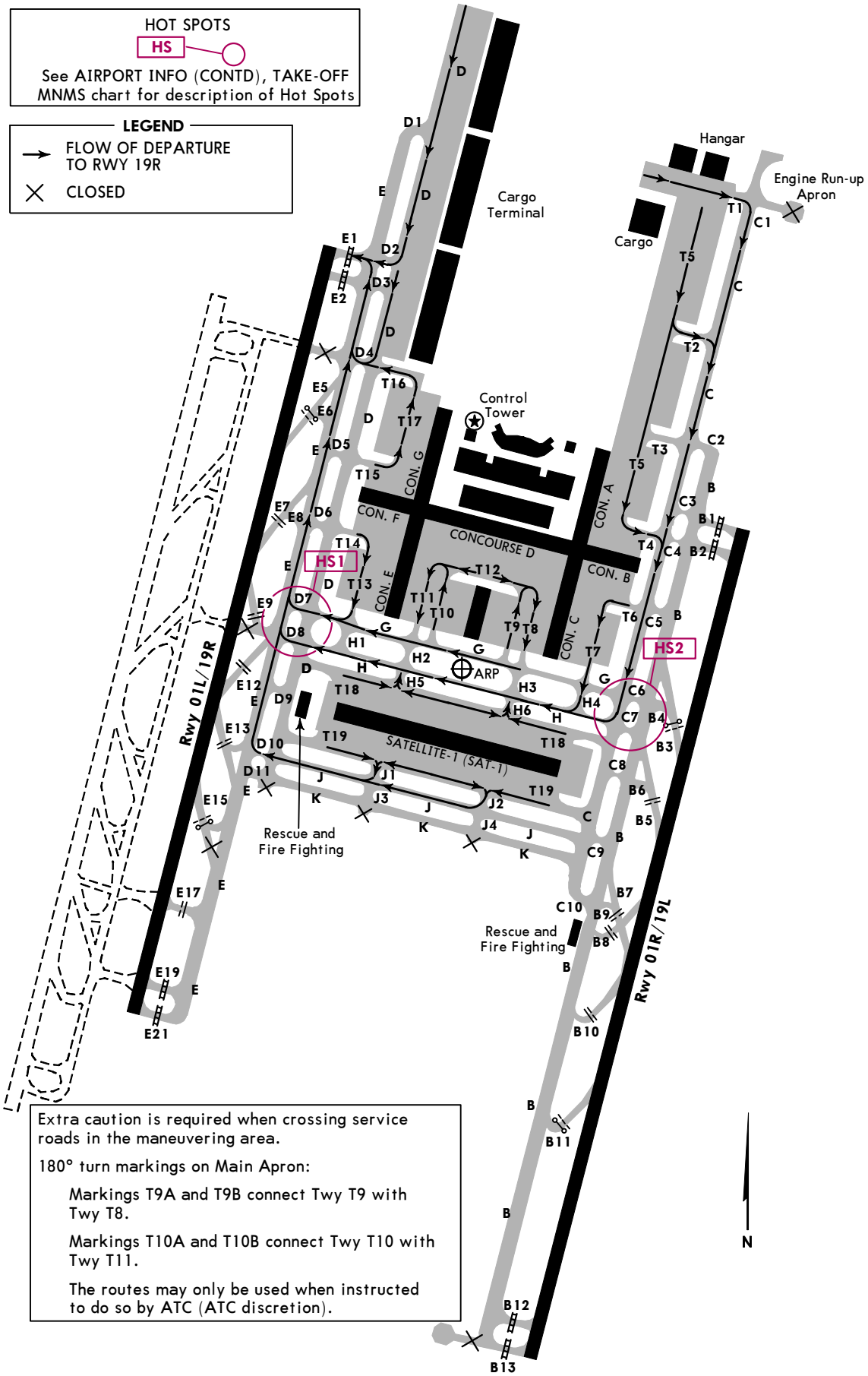
HS

See AIRPORT INFO (CONTD), TAKE-OFF MNMS chart for description of Hot Spots

LEGEND

FLOW OF DEPARTURE TO RWY 19R

CLOSED



Extra caution is required when crossing service roads in the maneuvering area.

180° turn markings on Main Apron:

Markings T9A and T9B connect Twy T9 with Twy T8.

Markings T10A and T10B connect Twy T10 with Twy T11.

The routes may only be used when instructed to do so by ATC (ATC discretion).

CHANGES: Taxiway C9 depiction.

VISUAL DOCKING GUIDANCE SYSTEMS

THE VISUAL DOCKING GUIDANCE SYSTEM (VDGS) IS PROVIDED AT AIRCRAFT PARKING STANDS 101-114.

1. SYSTEM OVERVIEW

1.1 GENERAL WARNING

The VDGS System has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

WARNING: IF THE PILOT IS UNSURE OF THE INFORMATION BEING SHOWN ON THE VDGS DISPLAY UNIT, HE MUST IMMEDIATELY STOP THE AIRCRAFT AND OBTAIN FURTHER INFORMATION FOR CLEARANCE.

1.2 ITEMS TO CHECK BEFORE ENTERING THE STAND AREA

WARNING: THE PILOT SHALL NOT ENTER THE STAND AREA UNLESS THE DOCKING SYSTEM FIRST IS SHOWING THE VERTICAL RUNNING ARROWS. THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THESE ARROWS HAVE BEEN SUPERSEDED BY THE CLOSING RATE BAR.

WARNING: THE PILOT SHALL NOT ENTER THE STAND AREA UNLESS THE AIRCRAFT TYPE DISPLAYED IS EQUAL TO THE APPROACHING AIRCRAFT. THE CORRECTNESS OF OTHER INFORMATION, SUCH AS "DOOR 2," SHALL ALSO BE CHECKED.

1.3 THE SBU MESSAGE

The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance.

WARNING: DO NOT TRY TO RESUME DOCKING WITHOUT MANUAL GUIDANCE.

1.4 OVERSHOOT PROCEDURES

Passenger loading bridges will be activated in the range as follows:

a) between 0.01-1.50 meters are normally serviceable.

b) between 1.51-2.00 meters, passenger loading bridge called "L1" is only serviceable, if the PLB called "L2" is required, the aircraft shall push back to correct stop-position.

c) the distance over 2.00 meters, passenger loading bridges are unserviceable, if required the aircraft shall push back to correct stop-position.

d) ANY OVERSHOOT DISTANCE IS MADE BY A380, PUSH BACK TO CORRECT STOP POSITION IS NEEDED WHEN PASSENGER LOADING BRIDGES ARE REQUIRED.

Remark: The identification of passenger loading bridge (L1 or L2) is followed by aircraft door positions.

1.5 EMERGENCY STOP BUTTON INFORMATION

Emergency stop buttons are available at both of contact gates and remote parking stand. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent. Emergency stop buttons are installed in the locations as follows:

a) at the control panel in the bridge cab.

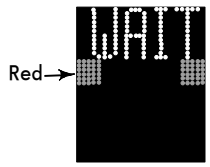
b) at the bridge rotunda.

c) at the stand identification posts.

2. DOCKING PROCEDURE

START-OF-DOCKING

Pressing one of the aircraft type buttons on the Operator Panel starts the system. When the button has been pressed, WAIT will be displayed.

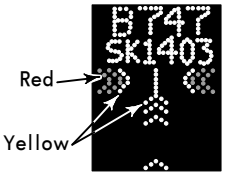


CAPTURE

The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.

Pilot shall check that the correct aircraft type is displayed. The lead-in line shall be followed.

The flight number for the approaching aircraft is displayed on the second line of the display if the information is available.



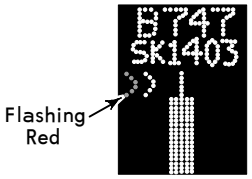
THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE ARROWS HAVE BEEN SUPERSEDED BY THE CLOSING RATE BAR.

TRACKING

When the laser has caught the aircraft, the floating arrows are replaced by the yellow center line indicator.

A flashing red arrow indicates the direction to turn.

The vertical yellow arrow shows position in relation to the center line. This indicator gives correct position and azimuth guidance.



VISUAL DOCKING GUIDANCE SYSTEMS

DOCKING PROCEDURE (CONTD.)

CLOSING RATE

Display of digital countdown will start when the aircraft is 20 meters from stop position. This information is shown instead of the flight number.

When the aircraft is less than 12 meters from the stop position, the closing rate is indicated by turning off one row of the center line symbol per 0.5 meters of the remaining distance, covered by the aircraft toward the stop position of the stand.

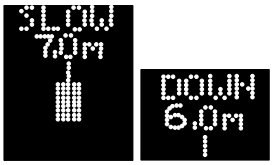
The picture illustrates the aircraft 10 meters from stop position, slightly left of the centre line. The red arrow indicates the direction to steer.

ALIGNED TO CENTER

The aircraft is 8 meters from the stop position. The absence of direction arrow indicates an aircraft on the center line.

SLOW DOWN

If the aircraft is approaching faster than the accepted speed, the system will show SLOW DOWN as a warning to the pilot.



AZIMUTH GUIDANCE

The yellow arrow indicates an aircraft to the right of the center line and the red flashing arrow indicates the direction to turn. The aircraft is 4 meters from the stop position in this example.

STOP POSITION REACHED

When the correct stop-position is reached, the display will show STOP and red lights will be lit.

DOCKING COMPLETED

When the aircraft has parked, OK will be displayed.

OVERSHOOT

If the aircraft has overshot the stop-position, TOO FAR will be displayed.

STOP SHORT

If the aircraft is found standing still but has not reached the intended stop position, the message STOP OK will be shown after a while.

Also the red lights are lit.

CHANGES: Chart reindexed, notes.

VISUAL DOCKING GUIDANCE SYSTEMS

DOCKING PROCEDURE (CONTD.)

WAIT

If the detected aircraft is lost during docking, before 12 meters to STOP, the display will show WAIT. The docking will continue as soon as the system detects the aircraft again and the closing-rate bar is shown.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE "WAIT" MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

BAD WEATHER CONDITION

During heavy fog, rain or snow, the visibility for the docking system can be reduced.

When the system is activated and in capture mode, and a downgrade condition is detected, the pilot display will start flashing the Aircraft Type, show a DOWN GRADE message and replace the rolling arrows with a blank lead-in display.

The blank lead-in display will be replaced with the normal lead-in bar, once Safedock has been able to acquire a lock onto the aircraft. The DOWN GRADE message and the flashing aircraft type will remain in the display throughout the docking procedure.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE CLOSING RATE BAR IS SHOWN.

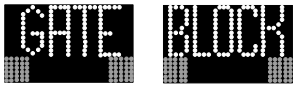
AIRCRAFT VERIFICATION FAILURE

During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 meters before the stop-position, the display will first show WAIT and make a second verification check. If this fails STOP and ID FAIL will be displayed. The text will be alternating on the upper two rows of the display.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

GATE BLOCKED

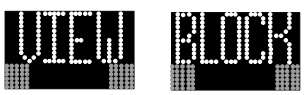
If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the docking procedure will be halted with a WAIT and GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed.



THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

VIEW BLOCKED

If the view towards the approaching aircraft is hindered, for instance by dirt on the window, the VDGS will report a View block condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display.



THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

VISUAL DOCKING GUIDANCE SYSTEMS

DOCKING PROCEDURE (CONTD.)

SBU-STOP

Any unrecoverable error during the docking procedure will generate an SBU (safety back-up) condition. The display will show red stop bar and the text STOP SBU.

A MANUAL BACKUP PROCEDURE MUST BE USED FOR DOCKING GUIDANCE.

TOO FAST

If the aircraft approaches with a speed higher than the docking system can handle, the message STOP (with red squares) and TOO FAST will be displayed.

THE DOCKING SYSTEM MUST BE RE-STARTED OR THE DOCKING PROCEDURE COMPLETED BY MANUAL GUIDANCE.

EMERGENCY STOP

When the Emergency Stop button is pressed, STOP is displayed with red squares.

CHOCK ON

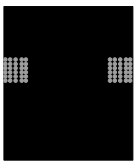
CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the ″Chocks On″ button on the Operator Panel.

ERROR

If a system error occurs, the message ERROR is displayed with an error code. The code is used for maintenance purposes and explained elsewhere.

SYSTEM BREAKDOWN

In case of a severe system failure, the display will go black, except for a red stop indicator. A manual backup procedure must be used for docking guidance.



POWER FAILURE

In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance.

3. EMERGENCY STOP BUTTON INFORMATION

Emergency stop buttons are available at both of contact gates and remote parking stands. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent. Emergency stop buttons are installed in the locations as follows:

a) at the control panel in the bridge cab
b) at the bridge rotunda
c) at the stand identification posts

REMARK: the identification of passenger loading bridge (L1 or L2) is followed by the aircraft door positions.

ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS)

1. INTRODUCTION

The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands A1 thru A6, B1 thru B6, C1 thru C10, D1 thru D8, E1 thru E10, F1 thru F6, G1 thru G5, 115 thru 129, 201 thru 203, 301 thru 308, 401 thru 403 and 501 thru 525.

2. OPERATING INSTRUCTIONS

System overview

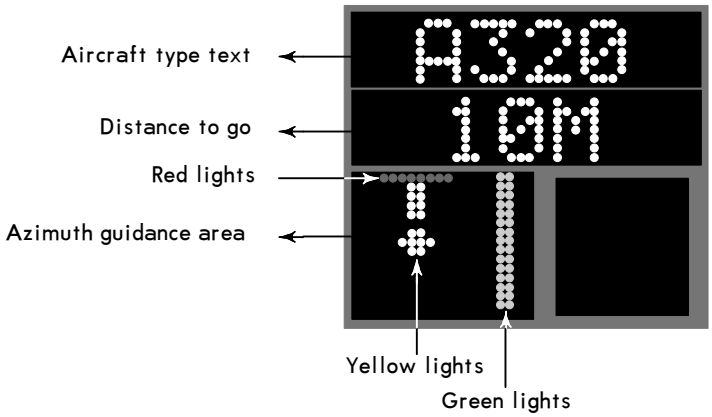
The RLG GIS206-2 Laser Guided Docking System is a fully automatic aircraft docking guidance system for various types of modern aircraft.

The system utilizes 2-axis laser scanning technique to track both the lateral and longitudal positions of the incoming aircraft and guide the aircraft to the programmed stopping position. In addition, the system also has aircraft ID verification feature to identify the incoming aircraft and check it against the one selected by the operator. If the incoming aircraft fails to match the expected aircraft, an 'ID FAIL' indication is immediately issued via display information console to both the pilot and the co-pilot.

Aircraft type, continuous closing distance, and azimuth guidance, etc., are presented on a single console clearly visible to both the pilot and copilot, simultaneously.
Figure A shows the Aircraft Display console, mounted on the terminal in front of the aircraft stand.

The system is operated only in the automatic mode. If the system fails, the aircraft must then be marshalled into the stand manually.

Figure A



3. GENERAL WARNING

Pilot must stop the aircraft immediately if:

a) The docking system is not activated.
b) A wrong aircraft type is display.
c) The word STOP is displayed.
d) A wrong type of aircraft indicates 'ID FAIL' is displayed.

4. OVERSHOOT PROCEDURE

Passenger loading bridges will be activated in the range as follows:

a) between 0.01-1.50 meters are normally serviceable.
b) between 1.51-2.00 meters, passenger loading bridge (PLB) called 'L1' is only serviceable, if the PLB called 'L2' is required, the aircraft shall push back to correct stop-position.
c) the distance over 2.00 meters, passenger loading bridges are unserviceable, if required the aircraft shall pushed back to correct stop-position.
d) Any overshoot distance is made by A380, push back to correct stop position is needed when passenger loading bridges are required.

Remark: The identification of passenger loading bridge (L1 or L2) is followed by aircraft door positions.

ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS) (contd)

5. EMERGENCY STOP BUTTON INFORMATION

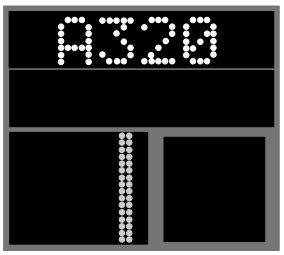
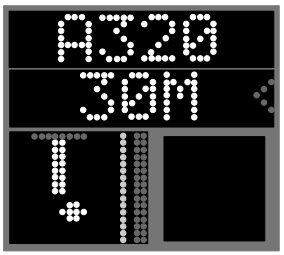
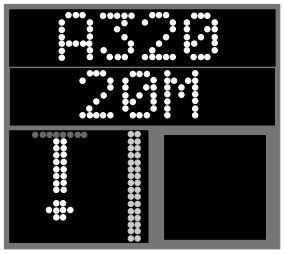
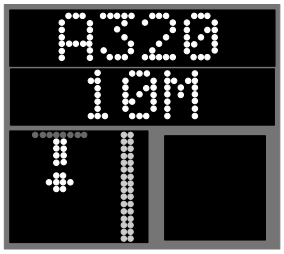
Emergency stop buttons are available at both of contact gates and remote parking stand. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent. Emergency stop buttons are installed in the locations as follows:

a) At the control panel in the bridge cab.
b) At the bridge rotunda.
c) At the stand identification posts.

6. DOCKING PROCEDURE

The pilot display of a new Advanced Visual Docking Guidance System (A-VDGS) is shown below:

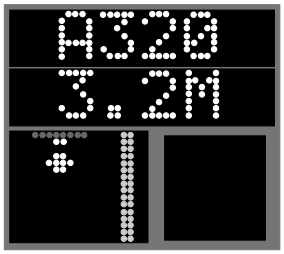
PARKING SEQUENCE:

	In this picture the aircraft is at a distance greater than 30 metres from the parking position and is directly at the centre line. Note that the progress bar and digital close-in distance are not displayed when the aircraft is greater than 30 metres away from the docking position. An Airbus 320 aircraft is expected.
	In this picture the aircraft is at exactly 30 metres from the docking position, but is off to the right of the centre line. Starting at 30 metres, the digital close-in distance (second line of display) is displayed, in 1 metre decrements. The progress meter (lower left) will also be activated at this distance.
	The aircraft is at 20 metres from the docking position and has returned to the centre line. Note the position of progress meter. The arrow will advance one position every 2.5 metres.
	In this picture the aircraft is at 10 metres and is on the centre line

CHANGES: Chart reindexed and revised.

ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS) (contd1)

DOCKING PROCEDURE (contd)



The aircraft is now at 3.2 metres from the stop position and is on the centre line.

Note that at below 5 metres, the close-in distance is displayed in 0.2 metre decrements.

Finally the aircraft is perfectly parked at the stop position, and perfectly centred.

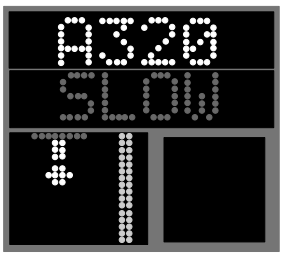
The word "STOP" is displayed in red.

Note also the merging of the arrow and the stop line on the progress meter.

The word "OK" is displayed in yellow.

Docking is successful

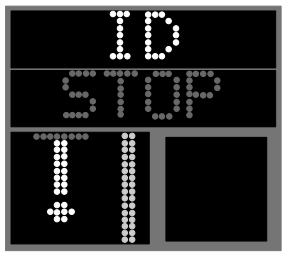
SLOW:

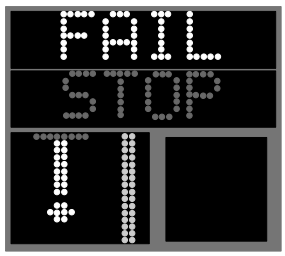


During the docking process, the pilot must taxi into the aircraft stand at minimum speed. The system will display "SLOW" alternating SLOW message if the system detects the aircraft taxi speed is beyond the range of the preset speed and causing too fast for reliable detection.

The "SLOW" message will return to close-in distance information once the aircraft speed is back to normal speed range.

ID FAIL:





For this aircraft type ID verification features, the incoming aircraft must be identified and verified at least 12 metres before the stopping position or otherwise, the system will display "ID FAIL" alternating ID/FAIL in the first row of the display.

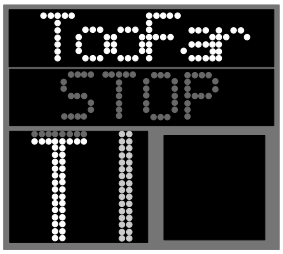
The second row of the docking screen will indicate "STOP". At this point, the aircraft must be manually guided in by a marshaller.

CHANGES: Chart reindexed and revised.

ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS) (contd2)

DOCKING PROCEDURE (contd)

TOO FAR:

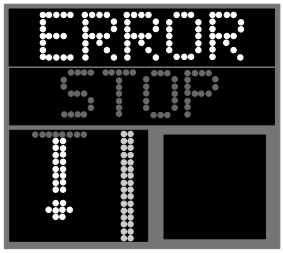


If the aircraft overshoots the preset range, the word "TooFar" will be displayed.

The second row of the docking screen will indicate "STOP".

The aircraft shall stop immediately

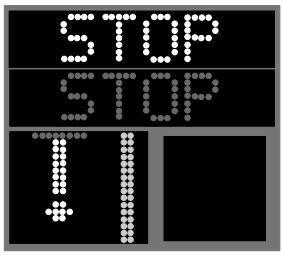
ERROR STOP:



The system will display "Error" message as indicated if the system detects any hardware error that might affect the normal docking process.

The second row of the display will indicate "STOP" and no aircraft is to be allowed to march in until the maintenance personnel has rectified the issue.

EMERGENCY STOP:



The first and second row of the display will show "STOP". The docking is aborted and aircraft must be manually guided in by a marshaller.

APIS ADVANCED VISUAL DOCKING GUIDANCE SYSTEM

The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands S101-S128.

System overview

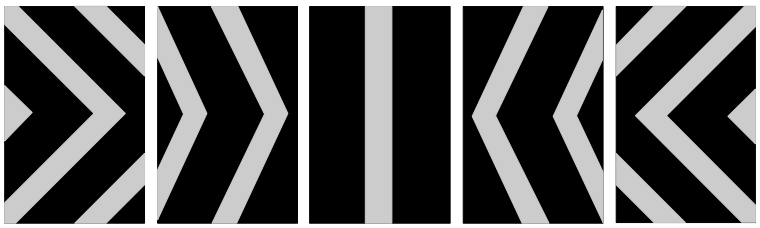
Text row

Displays aircraft type, STOP/OK, TOO FAR, and can (as additional information) display flight number, stand number, and digital countdown. Origin, destination, STA/ETA and STD/ETD information can be displayed when not used for docking. STOP with corresponding information is always displayed in red.

Closing rate thermometer

Displays the actual distance between the aircraft and the parking position the last 15 meters (changable parameter).

The closing rate thermometer is in the beginning green and change over to yellow 4m remain to the stop position.

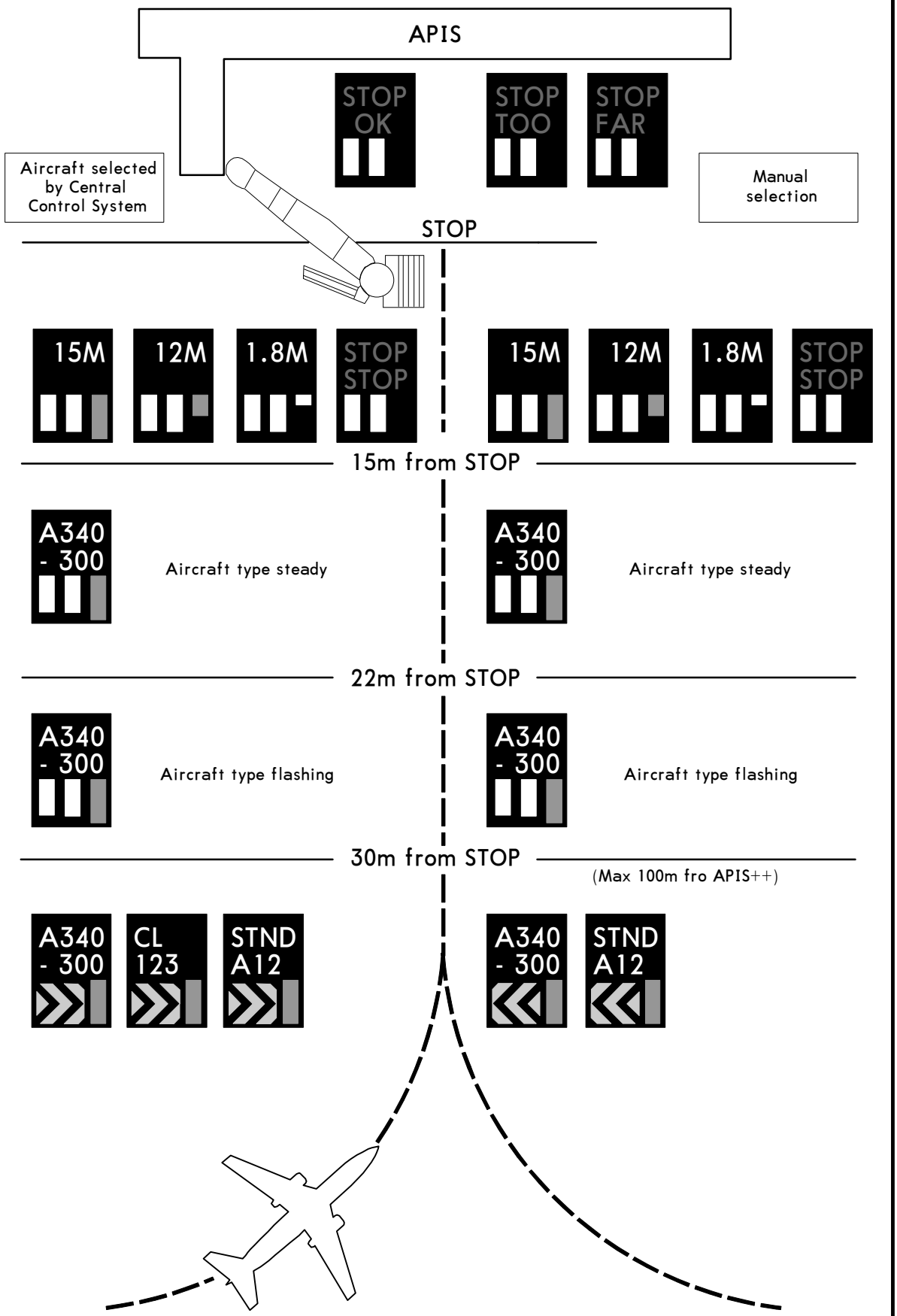


Azimuth guidance

Displays an arrow when viewed from either side (left or right). The arrow pattern will become a straight line when viewed directly in front of the APIS display unit and First Officer azimuth guidance, respectively.

APIS ADNANCED VISUAL DOCKING GUIDANCE SYSTEMS (CONTD)

Docking procedures



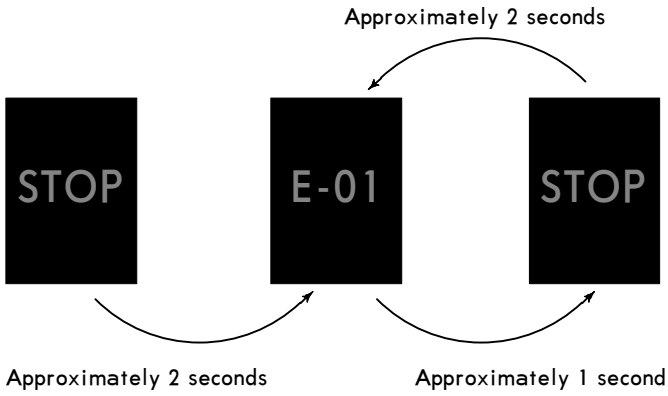
CHANGES: Chart revised.

APIS ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (CONTD)

System detections

The internal computer in the APIS continously checks for faults and errors. If a fault or error is detected, the text row will display STOP and the error code and the operator panel will display the error message.

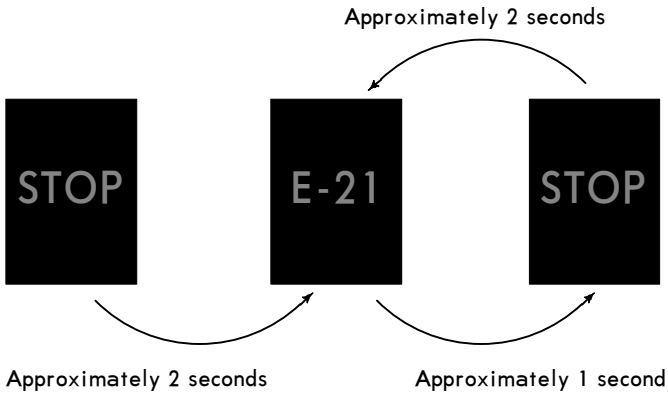
If there is more than one fault, the one with the highest priority will be displayed. The other faults will also be stored in the control computer's error log. If the APIS is configured with dual colour LEDs it will display STOP and all other error messages in RED colour.



Continous check during docking

During aircraft docking the internal computer is monitoring LADAR, and if there is any fault or error it will stop the docking and the APIS will display the corresponding error code, see picture below.

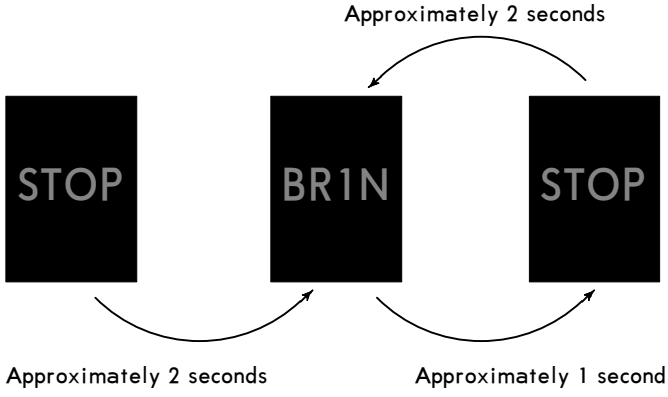
The communication with the LED displays is also continously checked by a watch-dog message and if a display panel does not receive information from the internal computer within a specified time, the text row will automatically display STOP, the closing rate and azimuth guidance will be turned off.



Brige in stop

Safety interlocks

If interfaced to a Passenger Boarding Bridge the APIS does not allow docking unless the bridge is at its parked safe position. If the bridge is not in a safe position the APIS display will show a message indicating which bridge that is out of safe position, STOP BR 1 (Bridge 1). The operator panel will show the same information. There can be up to three separate bridges interlocked to each APIS at the same time.



CHANGES: New chart.

APIS ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (CONTD)

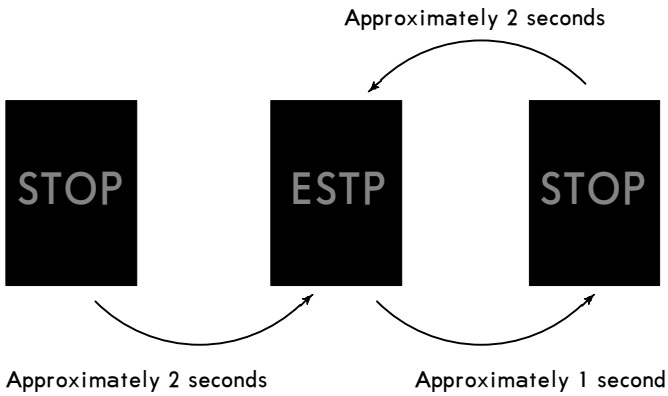
Emergency stop

The emergency stop button is used when the approaching aircraft is in danger. When the emergency stop is activated, the text row will display STOP. After a while the text row displays ESTP and STOP until the emergency stop button is released.

During the time the emergency stop is activated all interlocks to other stand equipment are normally released. When the emergency stop button is released the APIS will revert to the status it had before the emergency stop was activated.

If a docking is active the sequence will proceed at the point it is at the moment of release.

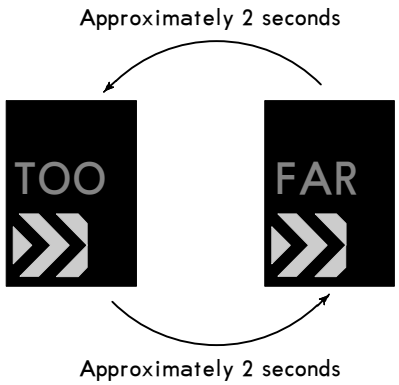
If the APIS is configured with dual colour LEDs it will display STOP in RED colour.



Too far

Docking

When the APIS detects that the aircraft has passed the programmable tolerance of the stopping position it will display: TOO FAR.



For the aircraft parking stands where VDGS are not available or unserviceable, Airlines or Ground service providers shall provide a License Mechanic performed as Marshaller to guide the aircraft from taxilane to the parking position (on stand).

No pilot shall taxi an aircraft on its own into the parking bay without aid of docking system or Marshaller.

CHANGES: New chart.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (21-1) Eff 2 Nov

BANGKOK, THAILAND
ILS or LOC Z Rwy 01L

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

BRIEFING STRIP ™

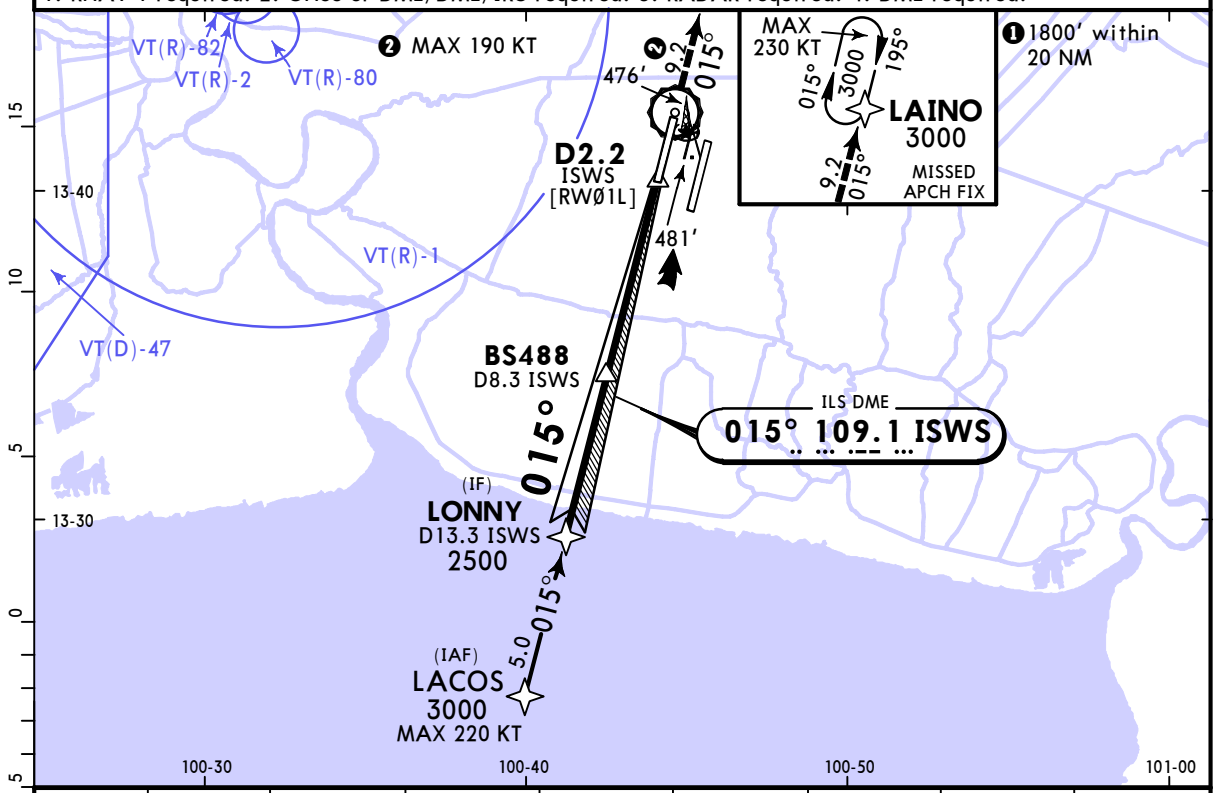
LOC ISWS	Final Apch Crs	BS488	ILS DA(H) Refer to Minimums	Apt Elev 4′ Rwy 4′
109.1	015°	2000′ (1996′)		

MISSED APCH: Climb to 3000′ on course 015° to LAINO and hold or as directed by ATC. If unable to reach 3000′ at LAINO, continue climb in the holding pattern. No turn before MAP (for LOC only).
Speed restricted to MAX 190 KT. Refer to minimums for missed apch climb gradient.

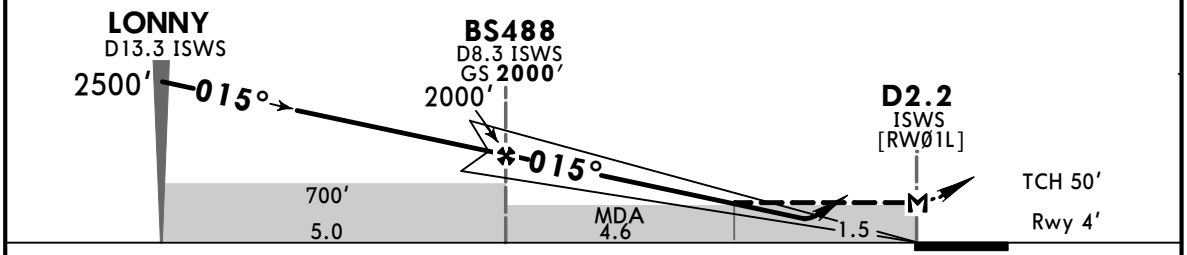
MSA ARP

Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

1. RNAV 1 required. 2. GNSS or DME/DME/IRU required. 3. RADAR required. 4. DME required.



LOC (GS out)	ISWS DME	BS488	8.0	7.0	6.0	5.0	4.0	3.7
	ALTITUDE	2000′	1890′	1570′	1255′	940′	625′	530′



Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849
MAP at D2.2 ISWS							

ALSF-II
PAPI
3000′ on 015° course
LAINO

Std STRAIGHT-IN LANDING

ILS
Missed approach requires a minimum climb of 5.0% (304′/NM) to 1000′
1 DA(H) **230′** (226′)

LOC (GS out)
CDFA
3 DA/MDA(H) **530′** (526′)

CIRCLE-TO-LAND

	TDZ or CL out	ALS out	ALS out	Max Kts	MDA(H)
A	R550m	2 R550m	R1200m	R1500m	100	800′ (796′) V1500m
B					135	800′ (796′) V1600m
C			R1700m	R2400m	180	900′ (896′) V2400m
D					205	900′ (896′) V3600m

PANS OPS

1 For aircraft which only achieve a 2.5% (152′/NM) climb gradient, the CAT I DA(H) is 370′ (366′), ALL CATS: with lights R1000m, ALS out AB: R1500m, CD: R1700m. 2 R750m when a Flight Director or Autopilot or HUD to DA is not used. 3 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN 27 OCT 23 (21-1A) Eff 2 Nov

BANGKOK, THAILAND
ILS Z Rwy 01L CAT II

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

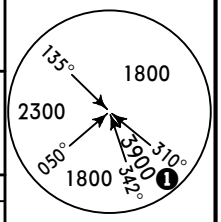
BRIEFING STRIP ™

LOC ISWS	Final Apch Crs	BS488	CAT II ILS Refer to Minimums	Apt Elev 4′ Rwy 4′
109.1	015°	2000′ (1996′)		

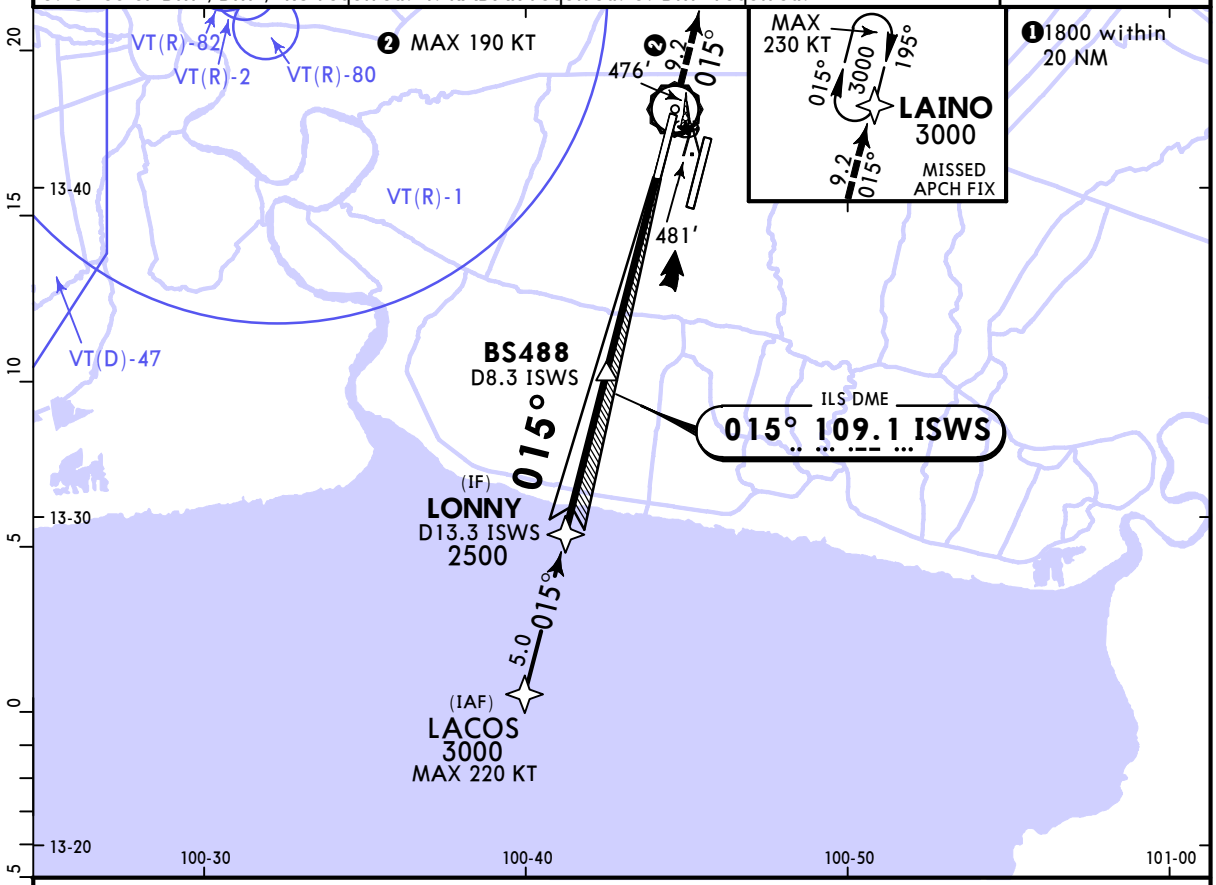
MISSED APCH: Climb to 3000′ on course 015° to LAINO and hold or as directed by ATC. If unable to reach 3000′ at LAINO, continue climb in the holding pattern. Speed restricted to MAX 190 KT.
Refer to minimums for missed apch climb gradient.

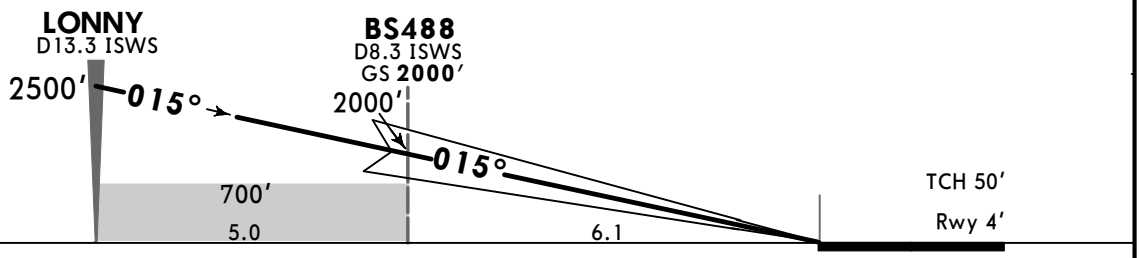
Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

1. Special Aircrew and Aircraft Certification required. 2. RNAV 1 required.
3. GNSS or DME/DME/IRU required. 4. RADAR required. 5. DME required.



MSA ARP





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II PAPI 3000′ on 015° course LAINO

Std

STRAIGHT-IN LANDING
Missed approach requires a minimum climb of 4.0% (244′/NM) to 1000′

CAT II ILS
RA 99′
1 DA(H) **105′** (101′)

2 R300m

PANS OPS

1 For aircraft which only achieve a 2.5% (152′/NM) climb gradient, the CAT II DA(H) is 295′ (291′), R450m.
2 CAT D without autoland: R350m.

CHANGES: Airport and Rwy elevation, MSA, RA, DH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (21-2) Eff 2 Nov

BANGKOK, THAILAND
ILS or LOC Z Rwy 01R

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

BRIEFING STRIP ™

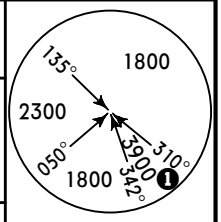
LOC ISES	Final Apch Crs	BS499	ILS DA(H)	Apt Elev 4′ Rwy 4′
110.1	015°	2000′ (1996′)	205′ (201′)	

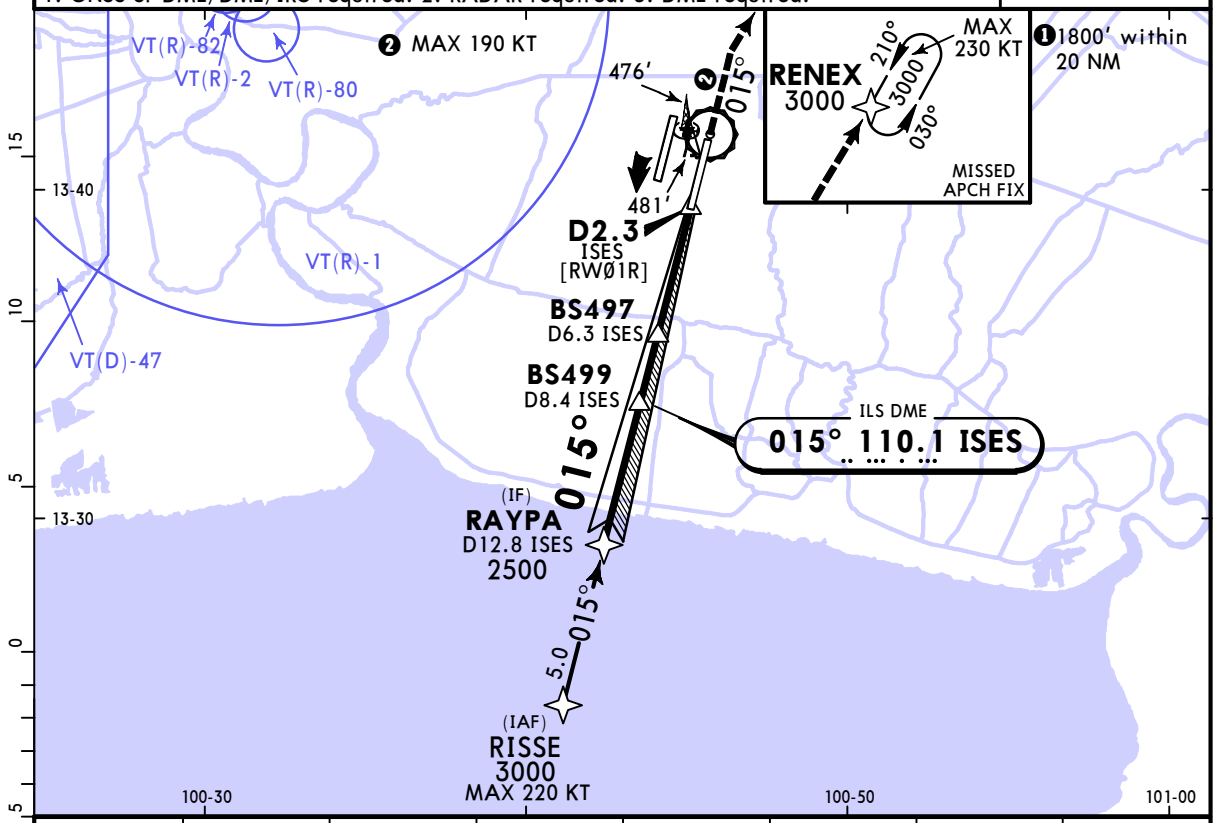
MISSED APCH: Climb to 1000′ on track 015°, then climbing RIGHT turn direct to RENEX at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RENEX, continue climb in the holding pattern.
No turn before MAP (for LOC only). Speed restricted to MAX 190 KT until after turn.

Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

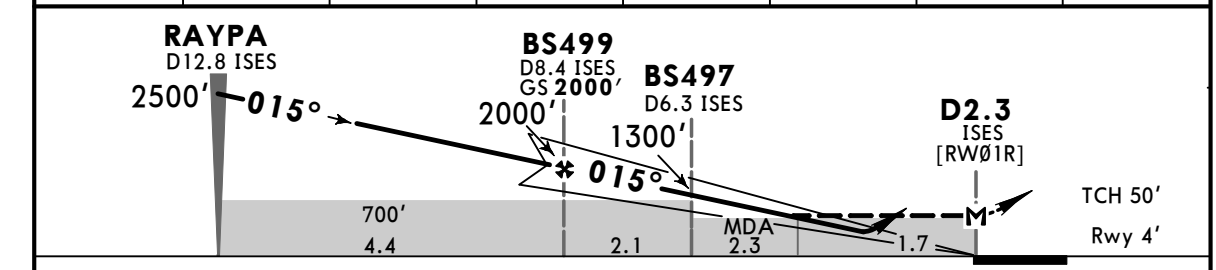
RNAV 1 required

1. GNSS or DME/DME/IRU required. 2. RADAR required. 3. DME required.





LOC (GS out)	ISES DME	BS499	8.0	7.0	6.0	5.0	4.0
	ALTITUDE	2000′	1855′	1540′	1225′	910′	600′



Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849
MAP at D2.3 ISES							

ALSF-II | PAPI | 1000′ on 015° track | RT | RENEX

Std STRAIGHT-IN LANDING

	ILS DA(H) 205′ (201′) TDZ or CL out	ILS DA(H) 205′ (201′) ALS out	LOC (GS out) CDFA 2 DA/MDA(H) 600′ (596′)	LOC (GS out) CDFA 2 DA/MDA(H) 600′ (596′) ALS out
A	R550m	1 R550m	R1500m	
B				
C			R2000m	R2400m
D				

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	800′ (796′)	V1500m
135	800′ (796′)	V1600m
180	900′ (896′)	V2400m
205	900′ (896′)	V3600m

PANS OPS

1 R750m when a Flight Director or Autopilot or HUD to DA is not used.
2 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (21-2A) Eff 2 Nov

BANGKOK, THAILAND
ILS Z Rwy 01R CAT II

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

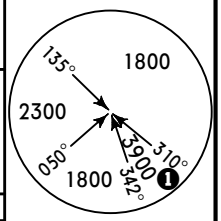
BRIEFING STRIP

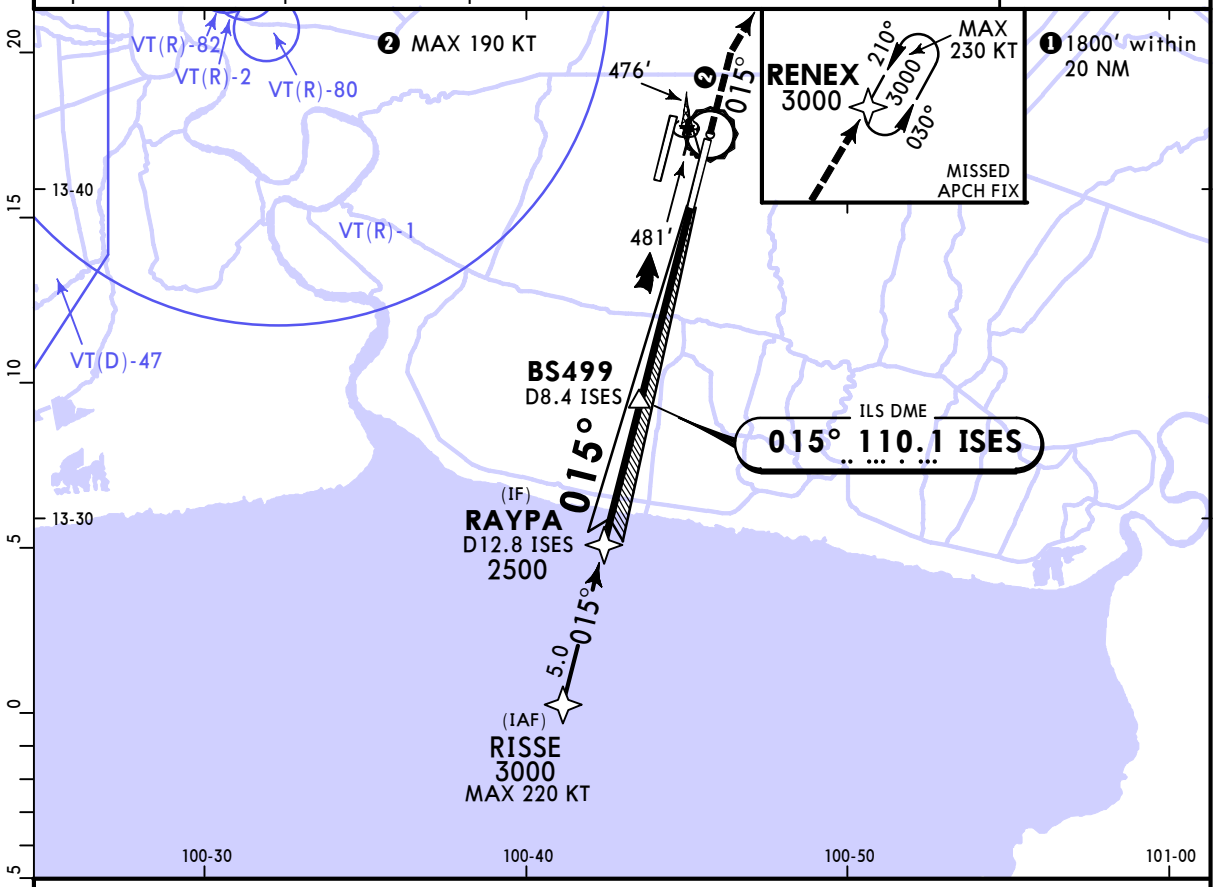
LOC ISES	Final Apch Crs	BS499	CAT II ILS	Apt Elev 4′
110.1	015°	2000′ (1996′)	RA 100′ DA(H) 105′ (101′)	Rwy 4′

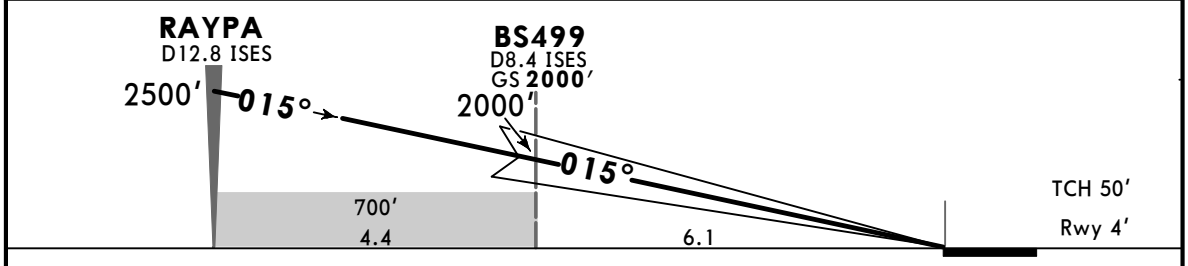
MISSED APCH: Climb to 1000′ on track 015°, then climbing RIGHT turn direct to RENEX at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RENEX, continue climb in the holding pattern.
Speed restricted to MAX 190 KT until after turn.

RNAV 1 required | Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL130 Trans alt: 11000′

1. Special Aircrew and Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. RADAR required. 4. DME required.







Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI
1000′ on 015° track
RT
RENEX

Std STRAIGHT-IN LANDING

CAT II ILS
RA 100′
DA(H) **105′** (101′)

1 R300m

PANS OPS

1 CAT D without autoland: R350m.

CHANGES: Airport and Rwy elevation, MSA, DH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (21-3) Eff 2 Nov

BANGKOK, THAILAND
ILS or LOC Z Rwy 19L

BRIEFING STRIP ™

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

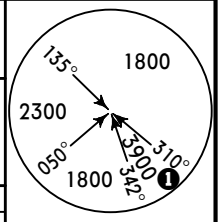
LOC ISEN	Final Apch Crs	BS599	ILS DA(H)	Apt Elev 4′ Rwy 4′
110.5	195°	2000′ (1996′)	205′ (201′)	

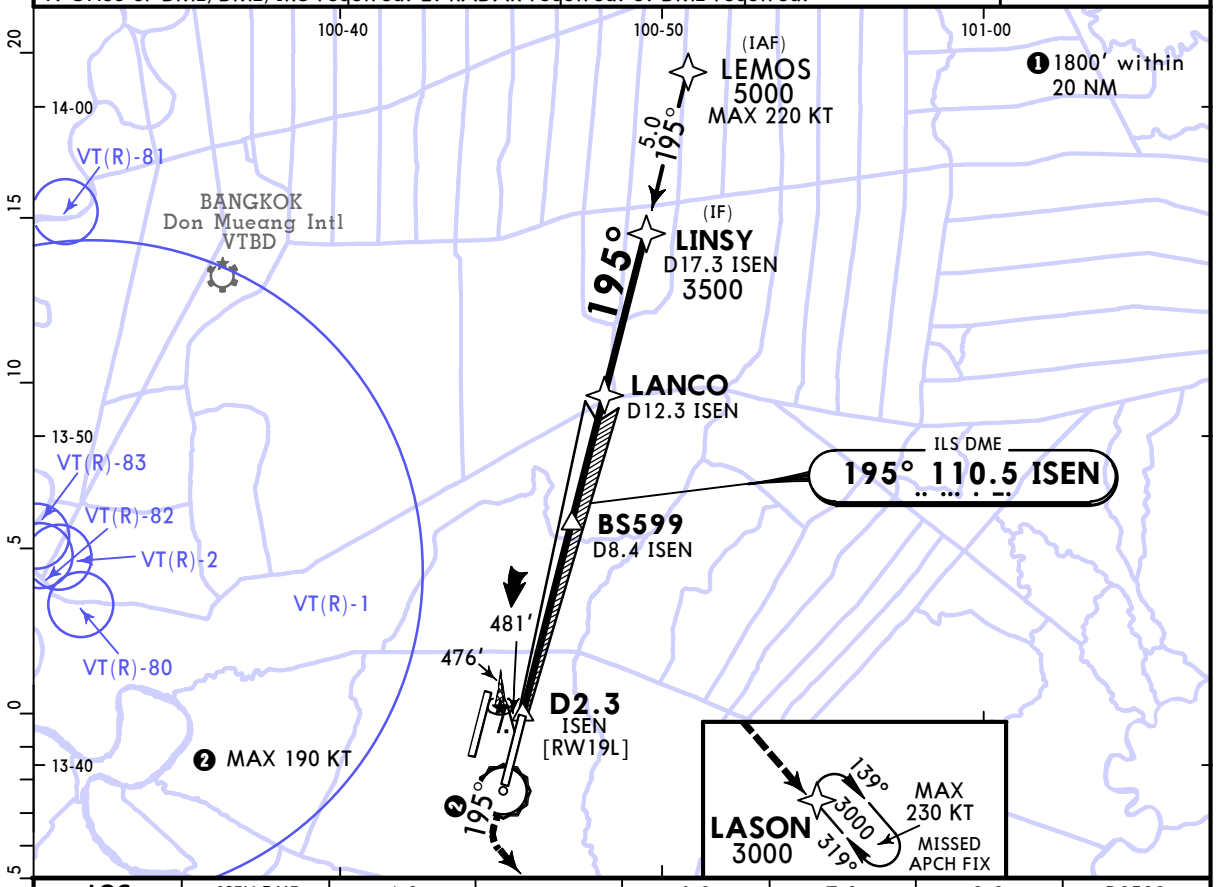
MISSED APCH: Climb to 1000′ on track 195°, then climbing LEFT turn direct to LASON at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at LASON, continue climb in the holding pattern.
No turn before MAP (for LOC only). Speed restricted to MAX 190 KT until after turn.

Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

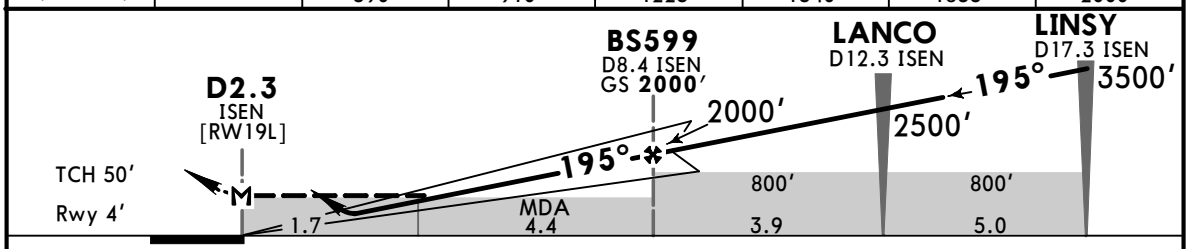
RNAV 1 required

1. GNSS or DME/DME/IRU required. 2. RADAR required. 3. DME required.





LOC (GS out)	ISEN DME	4.0	5.0	6.0	7.0	8.0	BS599
	ALTITUDE	590′	910′	1225′	1540′	1855′	2000′



Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849
MAP at D2.3 ISEN							
FAF to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II PAPI | 1000′ on 195° track | LT | D LASON

PANS OPS

Std | STRAIGHT-IN LANDING | ILS | LOC (GS out) | CIRCLE-TO-LAND

	ILS DA(H) 205′ (201′)			LOC (GS out) CDFA 2 DA/MDA(H) 590′ (586′)		CIRCLE-TO-LAND Max Kts	MDA(H)
		TDZ or CL out	ALS out		ALS out		
A	R550m	1R550m	R1200m	R1500m		100	800′ (796′) V1500m
B						135	800′ (796′) V1600m
C				R2000m	R2400m	180	900′ (896′) V2400m
D						205	900′ (896′) V3600m

1 R750m when a Flight Director or Autopilot or HUD or DA is not used.
2 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (21-3A) Eff 2 Nov

BANGKOK, THAILAND
ILS Z Rwy 19L CAT II

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R Rwy 01R/19L	Ground West Apron Main Apron East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0 118.2	121.95 121.75 121.65

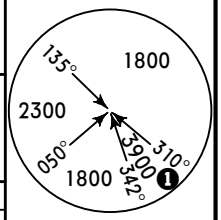
BRIEFING STRIP ™

LOC ISEN	Final Apch Crs	BS599	CAT II ILS	Apt Elev 4′
110.5	195°	2000′ (1996′)	RA 99′ DA(H) 105′ (101′)	Rwy 4′

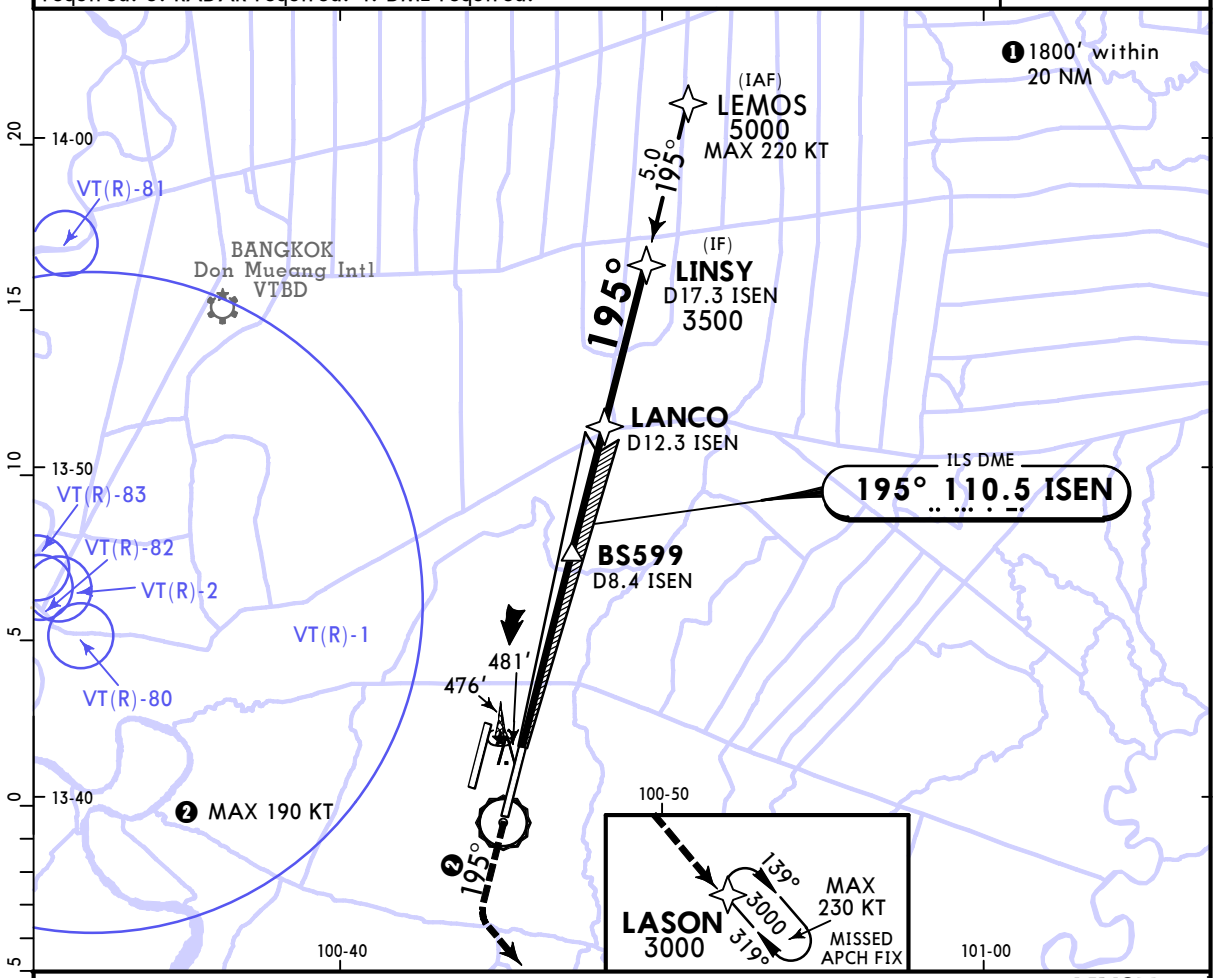
MISSED APCH: Climb to 1000′ on track 195°, then climbing LEFT turn direct to LASON at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at LASON, continue climb in the holding pattern.
Speed restricted to MAX 190 KT until after turn.

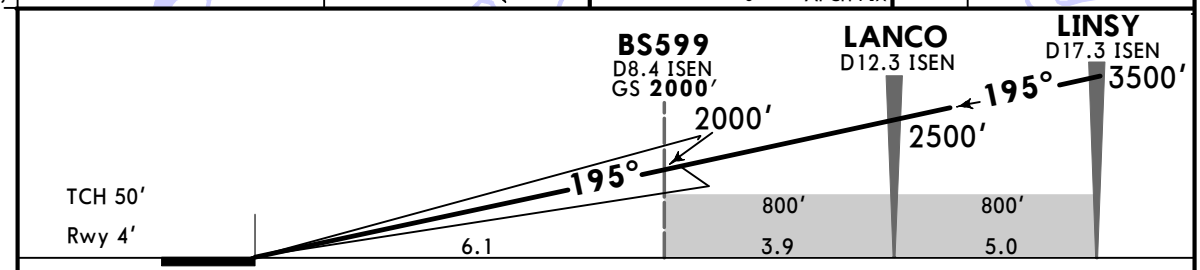
RNAV 1 required | Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL130 Trans alt: 11000′

1. Special Aircrew and Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 3. RADAR required. 4. DME required.



MSA ARP





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II PAPI 1000′ on 195° track LT D LASON

Std STRAIGHT-IN LANDING

CAT II ILS
RA 99′
DA(H) **105′** (101′)

PANS OPS

1 R300m

1 CAT D without autoland: R350m.

CHANGES: Airport and Runway elevation, MSA, RA, DH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23
Eff 2 Nov
21-4

BANGKOK, THAILAND
ILS or LOC Z Rwy 19R

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

BRIEFING STRIP ™

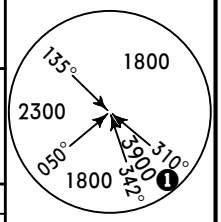
LOC ISWN	Final Apch Crs	BS588	ILS DA(H)	Apt Elev 4′ Rwy 4′
109.5	195°	2000′ (1996′)	205′ (201′)	

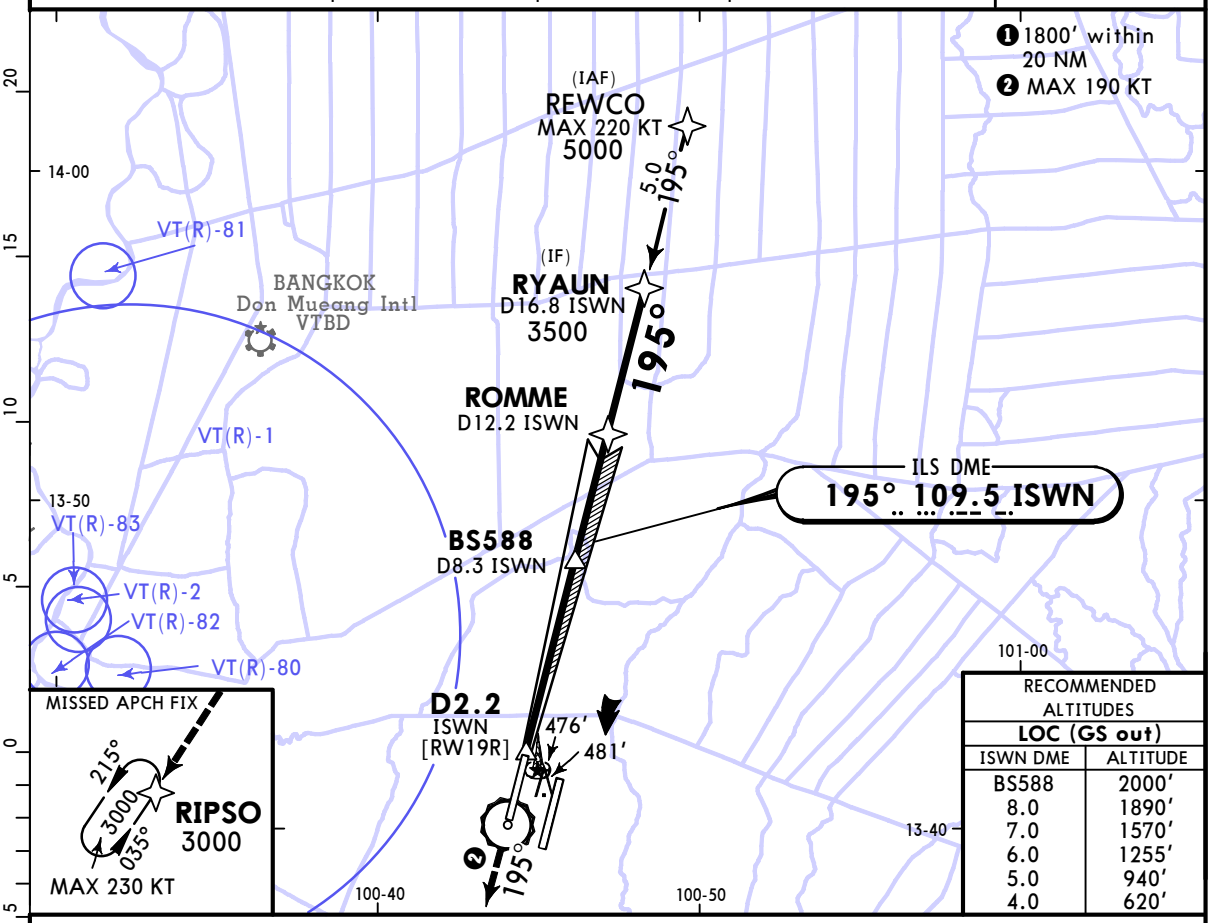
MISSED APCH: Climb to 1000′ on track 195°, then climbing RIGHT turn direct to RIPSO at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RIPSO, continue climb in the holding pattern.
No turn before MAP (for LOC only). Speed restricted to MAX 190 KT until after turn.

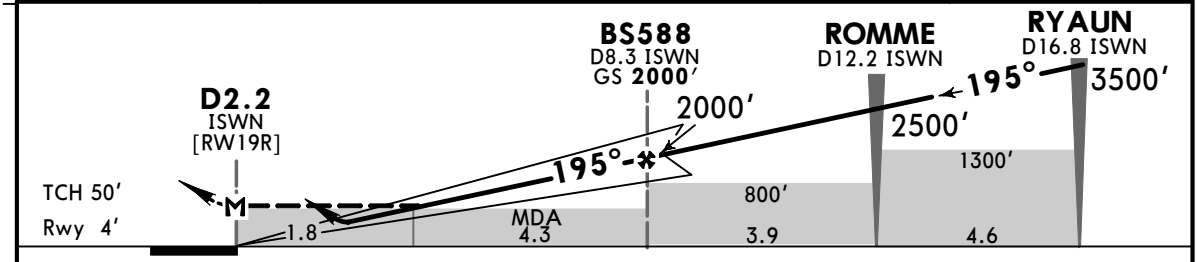
Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

RNAV 1 Required

1.GNSS or DME/DME/IRU required. 2. Radar required. 3. DME required.







Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849
MAP at D2.2 ISWN							
FAF to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II
PAPI
1000′ on track 195°

PANS OPS

Std STRAIGHT-IN LANDING

	ILS DA(H) 205′ (201′)			LOC (GS out) CDFA 2 DA/MDA(H) 620′ (616′)		CIRCLE-TO-LAND Max Kts	MDA(H)
		TDZ or CL out	ALS out		ALS out		
A	R550m	1 R550m	R1200m	R1500m		100	800′ (796′) V1500m
B						135	800′ (796′) V1600m
C				R2100m	R2400m	180	900′ (896′) V2400m
D						205	900′ (896′) V3600m

1 R750m when a Flight Director or Autopilot or HUD or DA is not used.
2 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23
Eff 2 Nov
21-4A

BANGKOK, THAILAND
ILS Z Rwy 19R CAT II

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)	SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	121.1 126.3	119.1 120.3 133.4 122.35 124.35 125.2	119.0	118.2	121.95	121.75	121.65

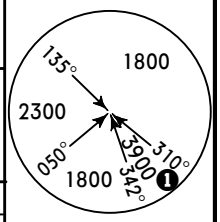
BRIEFING STRIP ™

LOC ISWN	Final Apch Crs	BS588	CAT II ILS	Apt Elev 4′
109.5	195°	2000′ (1996′)	RA 100′ DA(H) 105′ (101′)	Rwy 4′

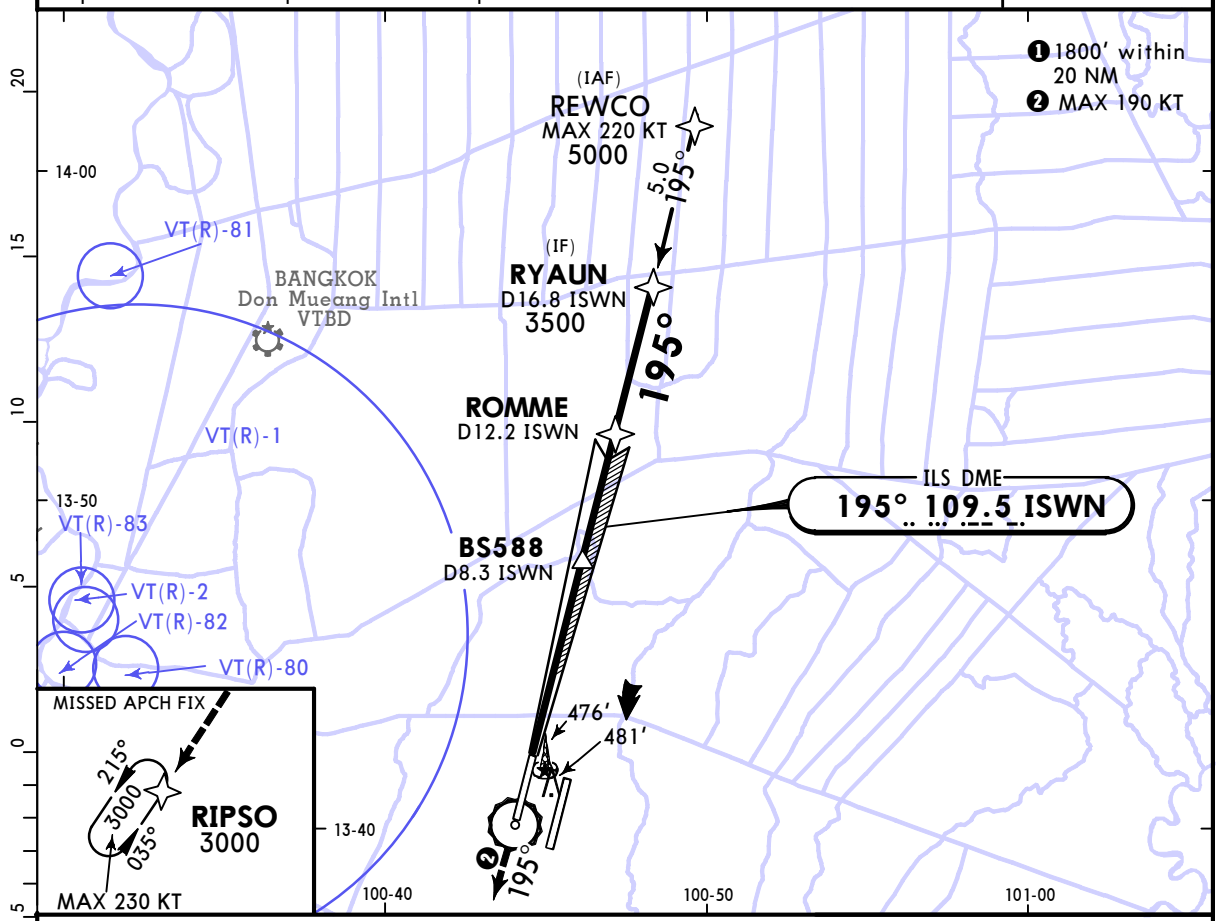
MISSED APCH: Climb to 1000′ on track 195°, then climbing RIGHT turn direct to RIPSO at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RIPSO, continue climb in the holding pattern.
Speed restricted to MAX 190 KT until after turn.

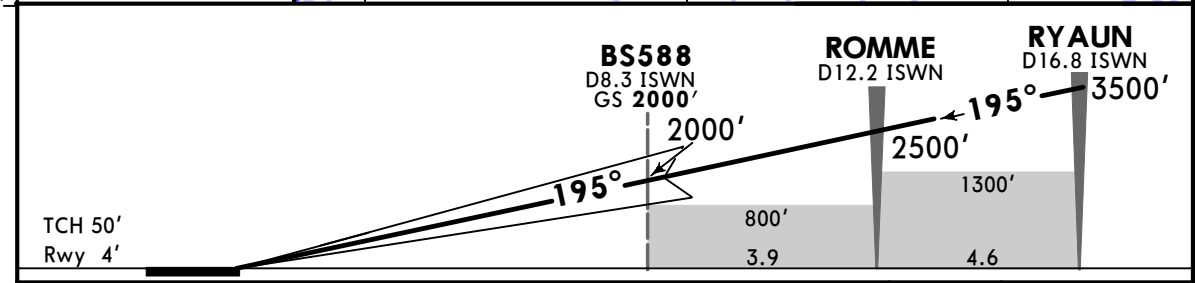
RNAV 1 Required | Alt Set: hPa | Rwy Elev: 0 hPa | Trans level: FL130 | Trans alt: 11000′

1. Special Aircrew and Aircraft Certification required. 2. GNSS or DME/DME/IRU required. 2. Radar required. 3. DME required.



MSA ARP





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI
1000′ on 195° track

Std

STRAIGHT-IN LANDING

CAT II ILS

RA 100′

DA(H) **105′** (101′)

1 R300m

PANS OPS

1 CAT D without autoland: R350m.

CHANGES: Airport and Rwy elevation, MSA, DH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (22-1) Eff 2 Nov

BANGKOK, THAILAND
RNP Rwy 01L

D-ATIS	SUVARNABHUMI	BANGKOK Approach (R)			SUVARNABHUMI Tower		Ground		
Arrival	Arrival (R)				Rwy 01L/19R	Rwy 01R/19L	West Apron	Main Apron	East Apron
133.6	126.3 121.1	119.1 122.35	120.3 124.35	133.4 125.2	119.0	118.2	121.95	121.75	121.65

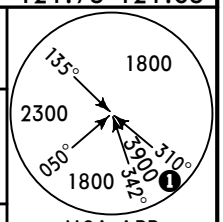
BRIEFING STRIP™

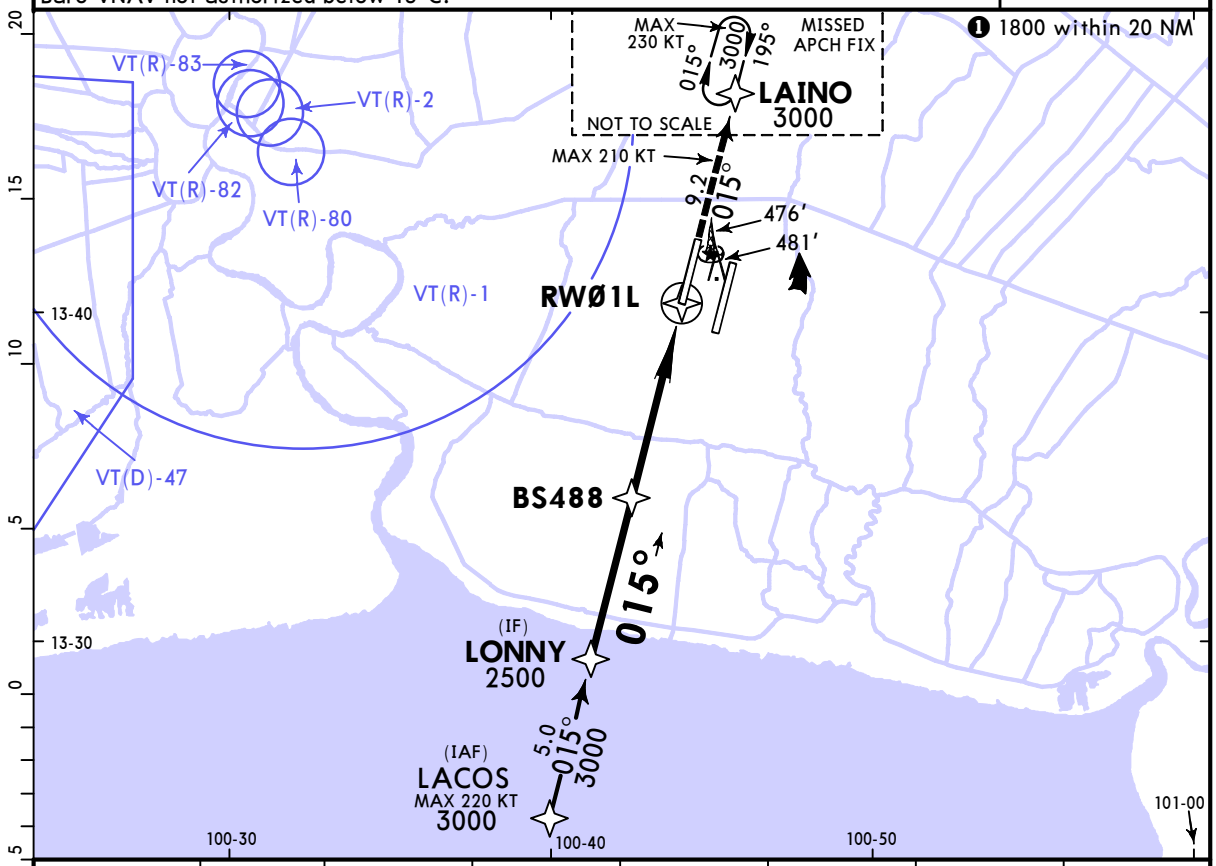
RNAV	Final Apch Crs	BS488	LNAV/VNAV DA(H)	Apt Elev 4′ Rwy 4′
	015°	2000′ (1996′)	400′ (396′)	

MISSED APCH: Climb to 3000′ on course 015° to LAINO and hold, or as directed by ATC. If unable to reach 3000′ at LAINO, continue climb in the holding pattern.
No turn before MAP. Speed restricted to MAX 210 KT.

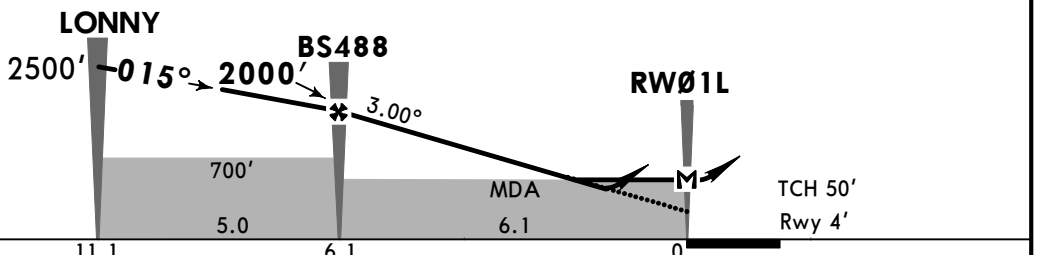
RNP Apch	Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL130	Trans alt: 11000′

Baro-VNAV not authorized below 15°C.





DIST to RWØ1L	BS488	6.0	5.0	4.0	3.0	2.0	1.7
ALTITUDE	2000′	1950′	1635′	1320′	1005′	690′	600′



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849
MAP at RWØ1L							

ALSF-II
PAPI

3000′ on 015° LAINO

Std STRAIGHT-IN LANDING

	LNAV/VNAV DA(H) 400′ (396′)		LNAV CDFA 1 DA/MDA(H) 600′ (596′)		CIRCLE-TO-LAND Max Kts	MDA(H)
		ALS out		ALS out		
A	R1100m	R1500m	R1500m		100	800′ (796′) V1500m
B					135	800′ (796′) V1600m
C		R1800m	R2000m	R2400m	180	900′ (896′) V2400m
D					205	900′ (896′) V3600m

PANS OPS

1 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (22-2) Eff 2 Nov

BANGKOK, THAILAND
RNP Rwy 01R

D-ATIS	SUVARNABHUMI	BANGKOK Approach (R)			SUVARNABHUMI Tower		Ground		
Arrival	Arrival (R)				Rwy 01L/19R	Rwy 01R/19L	West Apron	Main Apron	East Apron
133.6	126.3 121.1	119.1 122.35	120.3 124.35	133.4 125.2	119.0	118.2	121.95	121.75	121.65

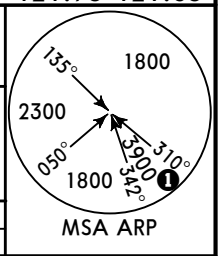
BRIEFING STRIP™

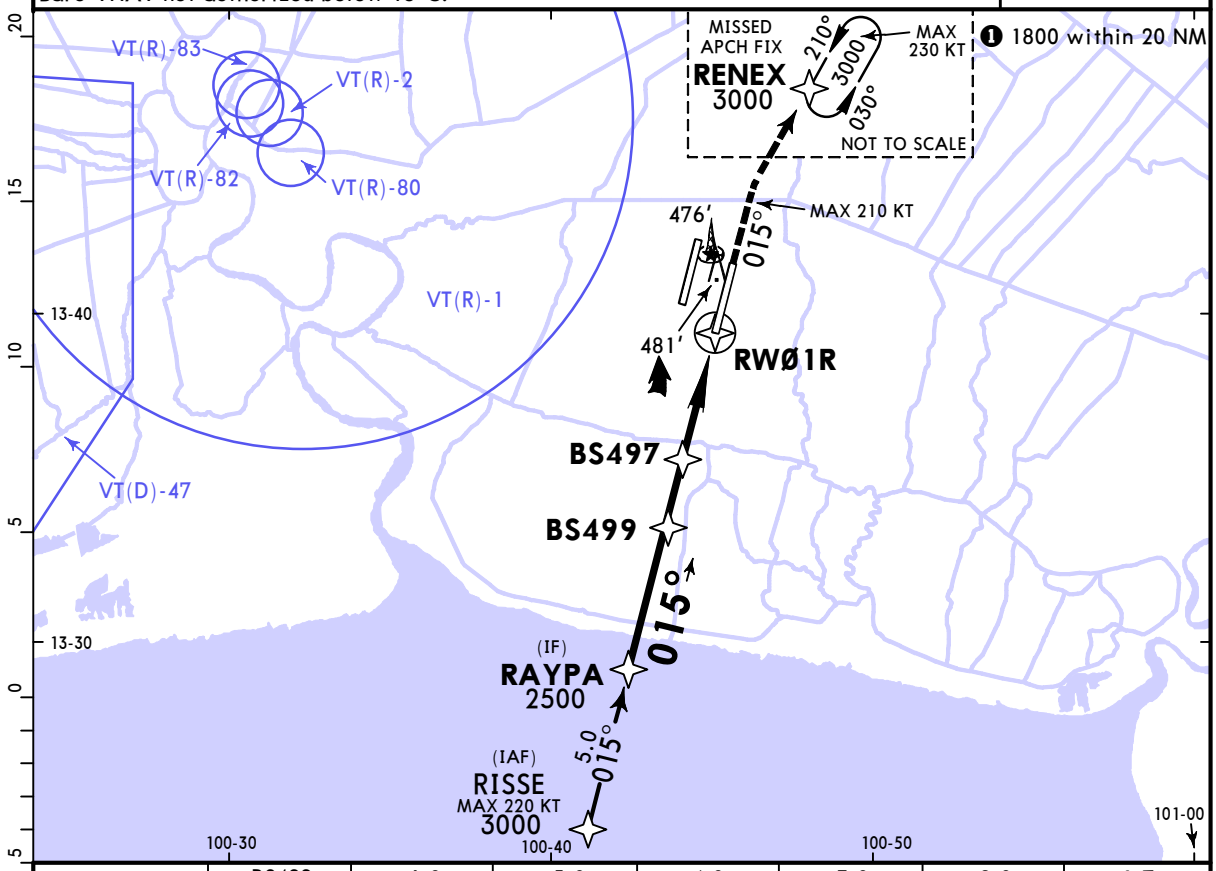
RNAV	Final Apch Crs	BS499	LNAV/VNAV DA(H)	Apt Elev 4′
	015°	2000′ (1996′)	540′ (536′)	Rwy 4′

MISSED APCH: Climb to 1500′ on track 015°, then climbing turn RIGHT direct to RENEX at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RENEX, continue climb in the holding pattern.
No turn before MAP. Speed restricted to MAX 210 KT until after turn.

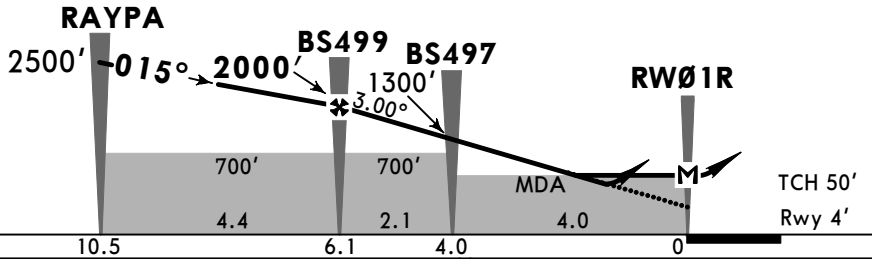
RNP Apch	Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL130	Trans alt: 11000′

Baro-VNAV not authorized below 15°C.





DIST to RWØ1R	BS499	6.0	5.0	4.0	3.0	2.0	1.7
ALTITUDE	2000′	1950′	1635′	1320′	1005′	690′	600′



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849
MAP at RWØ1R							

ALSF-II
PAPI
1500′ on 015° track
3000′ RT
D RENEX

PANS OPS

Std STRAIGHT-IN LANDING

	LNAV/VNAV		LNAV CDFA		CIRCLE-TO-LAND
	DA(H) 540′ (536′)		1 DA/MDA(H) 600′ (596′)		
	ALS out		ALS out		Max Kts / MDA(H)
A	R1500m		R1500m		100 800′ (796′) V1500m
B					135 800′ (796′) V1600m
C	R1700m	R2400m	R2000m	R2400m	180 900′ (896′) V2400m
D					205 900′ (896′) V3600m

1 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (22-3) Eff 2 Nov

BANGKOK, THAILAND
RNP Rwy 19L

D-ATIS	SUVARNABHUMI	BANGKOK Approach (R)			SUVARNABHUMI Tower		Ground		
Arrival	Arrival (R)				Rwy 01L/19R	Rwy 01R/19L	West Apron	Main Apron	East Apron
133.6	126.3 121.1	119.1 122.35	120.3 124.35	133.4 125.2	119.0	118.2	121.95	121.75	121.65

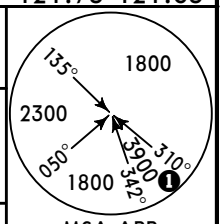
BRIEFING STRIP™

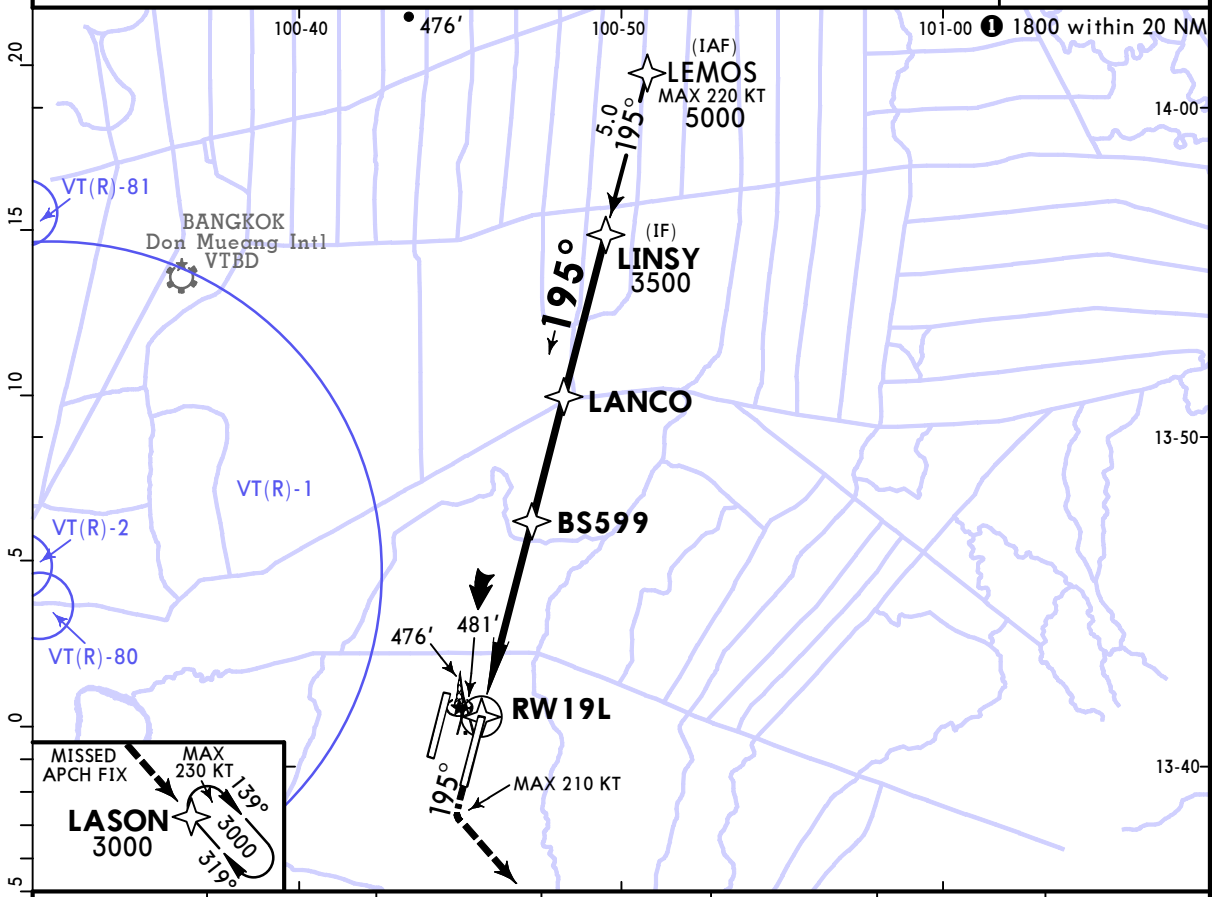
RNAV	Final Apch Crs	BS599	LNAV/VNAV DA(H)	Apt Elev 4′ Rwy 4′
	195°	2000′ (1996′)	600′ (596′)	

MISSED APCH: Climb to 1500′ on track 195°, then climbing turn LEFT direct to LASON at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at LASON, continue climb in the holding pattern.
No turn before MAP. Speed restricted to MAX 210 KT until after turn.

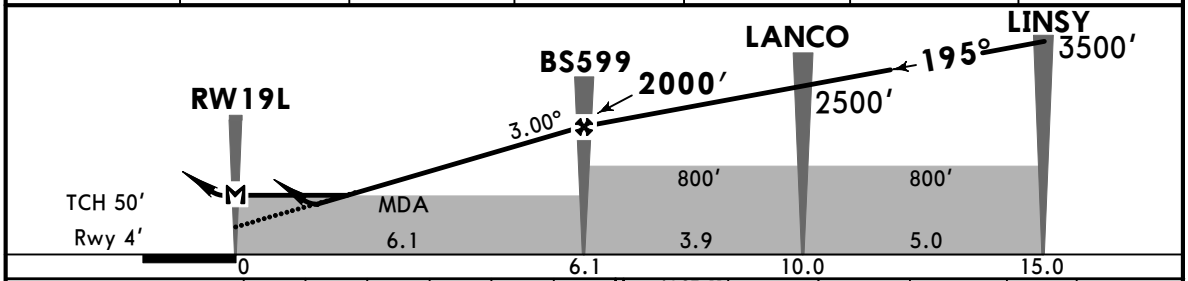
RNP Apch	Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL130	Trans alt: 11000′

Baro-VNAV not authorized below 15°C.





DIST to RW19L	2.1	3.0	4.0	5.0	6.0	BS599
ALTITUDE	730′	1005′	1320′	1635′	1950′	2000′



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849
MAP at RW19L							

ALSF-II
PAPI
1500′ on 195° track
3000′ LT
D → LASON

Std STRAIGHT-IN LANDING

	LNAV/VNAV DA(H) 600′ (596′)		LNAV CDFA [1] DA/MDA(H) 730′ (726′)	
		ALS out		ALS out
A	R1500m		R1500m	
B				
C	R2000m	R2400m	R2400m	
D				

CIRCLE-TO-LAND

Max Kts	MDA(H)	
100	800′ (796′)	V1500m
135	800′ (796′)	V1600m
180	900′ (896′)	V2400m
205	900′ (896′)	V3600m

PANS OPS

[1] VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

VTBS/BKK
SUVARNABHUMI INTL

JEPPESEN
27 OCT 23 (22-4) Eff 2 Nov

BANGKOK, THAILAND
RNP Rwy 19R

D-ATIS Arrival	SUVARNABHUMI Arrival (R)	BANGKOK Approach (R)			SUVARNABHUMI Tower Rwy 01L/19R	Rwy 01R/19L	Ground West Apron	Main Apron	East Apron
133.6	126.3 121.1	119.1 122.35	120.3 124.35	133.4 125.2	119.0	118.2	121.95	121.75	121.65

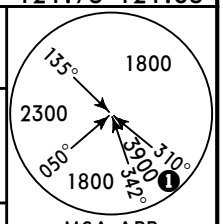
BRIEFING STRIP™

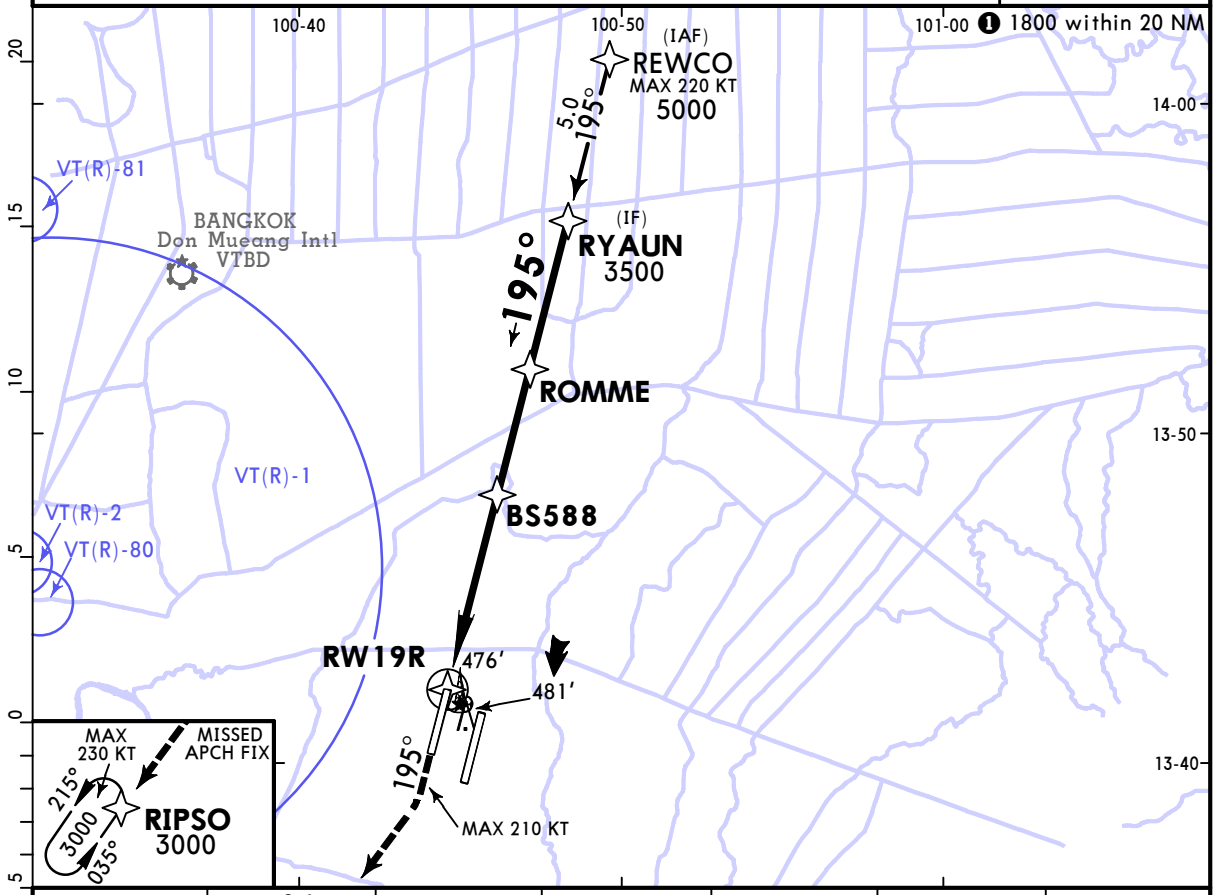
RNAV	Final Apch Crs 195°	BS588 2000′ (1996′)	LNAV/VNAV DA(H) 600′ (596′)	Apt Elev 4′ Rwy 4′

MISSED APCH: Climb to 1500′ on track 195°, then climbing turn RIGHT direct to RIPSO at 3000′ and hold or as directed by ATC. If unable to reach 3000′ at RIPSO, continue climb in the holding pattern.
No turn before MAP. Speed restricted to MAX 210 KT until after turn.

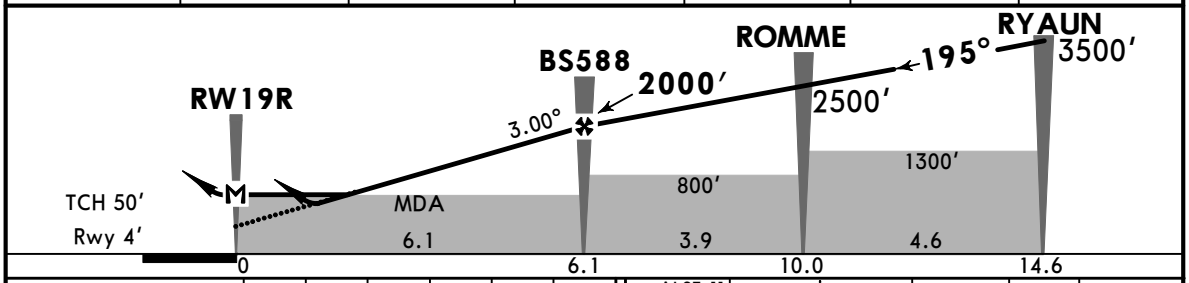
RNP Apch	Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL130	Trans alt: 11000′

Baro-VNAV not authorized below 15°C.





DIST to RW19R	2.1	3.0	4.0	5.0	6.0	BS588
ALTITUDE	730′	1005′	1320′	1635′	1950′	2000′



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849
MAP at RW19R							

ALSF-II
PAPI
1500′ on 195° track
3000′ RT
D
RIPSO

Std

STRAIGHT-IN LANDING			CIRCLE-TO-LAND	
	LNAV/VNAV DA(H) 600′ (596′)	LNAV CDFA 1 DA/MDA(H) 730′ (726′)	Max Kts	MDA(H)
	ALS out	ALS out		
A	R1500m	R1500m	100	800′ (796′) V1500m
B			135	800′ (796′) V1600m
C	R2000m	R2400m	180	900′ (896′) V2400m
D		R2400m	205	900′ (896′) V3600m

PANS OPS

1 VNAV DA(H) in lieu of MDA(H) depends on operator policy.

CHANGES: Airport and Rwy elevation, MSA, DH, MDH.

Chart changes since cycle 09-2024

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE

SEOUL/INCHEON, (INCHEON INTL - RKSI)

BANGKOK, (SUVARNABHUMI INTL - VTBS)

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport RKSI

Type: Terminal
Effectivity: Temporary
Begin Date: 20231129
End Date: 20240731

The PAPI/ALS for RWY 16L/34R at Incheon INTL Airport will be unserviceable due to replacement from 1600 UTC 29 NOV 2023 To 1600 UTC 31 JUL 2024. RWY 16L/34R will be available only for departure.

Type: Terminal
Effectivity: Temporary
Begin Date: 20230809
End Date: 20241127

(20-9A) Rwy 16L/34R available only for departure under low visibility condition, take-off weather minima with certified TGS(Take-off Guidance System) for Rwy 16L/34R not available, take-off from Rwy 16L/34R not available in a visibility of less than RVR 150m due to unserviceability of Rwy 16L/34R ILS/DME (IKRS and IRKN) from 1600 UTC 9 AUG 2023 to 1600 UTC 27 NOV 2024.

Type: Terminal
Effectivity: Temporary
Begin Date: 20230809
End Date: 20241127

(21-5) ILS or LOC Rwy 16L, (21-5A) ILS RWY 16 CAT II & III, (21-10) ILS or LOC Rwy 34R, (21-10A) ILS Rwy 34R CAT II & III procedures not available due to unserviceability of Rwy 16L/34R ILS/DME (IKRS and IKRN) from 1600 UTC 9 AUG 2023 to 1600 UTC 27 NOV 2024.

Chart Change Notices for Airport VTBS

Type: Terminal
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

Rapid exit taxiway indicator lights (RETILs) for rapid exit Taxiway E5, E7, E9, E12, E13 and E15 (Runway 01L/19R) are unserviceable.

Type: Terminal
Effectivity: Temporary
Begin Date: 20230907
End Date: 20251002

Suvarnabhumi SVB DVOR/DME not available due to relocation.

Chart Change Notices for Country THA

Type: Gen Tmnl
Effectivity: Temporary
Begin Date: 20230615
End Date: 20240715

STN VOR is temporarily suspended. Waypoint SAPUD (090746.24N 0990805.09E) is established at the same coordinates of STN VOR.

Communication Information For RCAA ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
TAIPEI:	125.5 MHz		

Communication Information For RCAA FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
TAIPEI:	122.65 MHz	(R)	Secondary
TAIPEI:	123.0 MHz	(R)	Secondary
TAIPEI:	123.6 MHz	(R)	
TAIPEI:	125.5 MHz	(R)	
TAIPEI:	125.8 MHz	(R)	Secondary
TAIPEI:	126.5 MHz	(R)	Secondary
TAIPEI:	126.7 MHz	(R)	
TAIPEI:	126.9 MHz	(R)	
TAIPEI:	127.9 MHz	(R)	
TAIPEI:	128.7 MHz	(R)	Secondary
TAIPEI:	129.1 MHz	(R)	
TAIPEI:	130.3 MHz	(R)	
TAIPEI:	130.6 MHz	(R)	
Type: Radio:			
TAIPEI:	127.3 MHz		
TAIPEI:	13300 kHz		
TAIPEI:	6532 kHz		
TAIPEI:	8903 kHz		
Type: VOLMET:			
TAIPEI:	124.4 MHz		

Communication Information For RJJJ ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
KOBE CONTROL:	118.9 MHz		
KOBE CONTROL:	134.25 MHz		
Type: Approach:			
KOBE CONTROL:	118.9 MHz		
KOBE CONTROL:	134.25 MHz		

Communication Information For RJJJ ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:	
FUKUOKA CONTROL:	126.4 MHz
FUKUOKA CONTROL:	132.9 MHz
FUKUOKA CONTROL:	133.15 MHz

Communication Information For RJJJ FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF RJJJ IN FUKUOKA FIR
SATCOM Service: SATCOM VOICE DIRECT DIAL IS 81-78-99-36-501
INMARSAT Service: INMARSAT SECURITY NUMBER IS 443101

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
KOBE CONTROL:	118.9 MHz	(R)	
KOBE CONTROL:	119.3 MHz	(R)	
FUKUOKA CONTROL:	119.35 MHz	(R)	
TOKYO CONTROL:	120.5 MHz	(R)	
SAPPORO CONTROL:	120.57 MHz	(R)	Secondary
SAPPORO CONTROL:	120.75 MHz	(R)	
TOKYO CONTROL:	120.97 MHz	(R)	
TOKYO CONTROL:	123.7 MHz	(R)	
SAPPORO CONTROL:	123.77 MHz	(R)	Secondary
FUKUOKA CONTROL:	123.9 MHz	(R)	
TOKYO CONTROL:	124.1 MHz	(R)	
FUKUOKA CONTROL:	124.15 MHz	(R)	
FUKUOKA CONTROL:	124.5 MHz	(R)	
FUKUOKA CONTROL:	124.95 MHz	(R)	
KOBE CONTROL:	125.6 MHz	(R)	
TOKYO CONTROL:	125.7 MHz	(R)	
TOKYO CONTROL:	125.9 MHz	(R)	
KOBE CONTROL:	126.1 MHz	(R)	Secondary
FUKUOKA CONTROL:	126.4 MHz	(R)	
KOBE CONTROL:	127.15 MHz	(R)	
TOKYO CONTROL:	127.4 MHz	(R)	Secondary
FUKUOKA CONTROL:	127.5 MHz	(R)	
SAPPORO CONTROL:	127.57 MHz	(R)	
TOKYO CONTROL:	128.12 MHz	(R)	Secondary
TOKYO CONTROL:	128.2 MHz	(R)	
TOKYO CONTROL:	128.32 MHz	(R)	Secondary
FUKUOKA CONTROL:	132.1 MHz	(R)	Secondary
TOKYO CONTROL:	132.25 MHz	(R)	
FUKUOKA CONTROL:	132.3 MHz	(R)	
KOBE CONTROL:	132.35 MHz	(R)	
KOBE CONTROL:	132.45 MHz	(R)	
KOBE CONTROL:	132.5 MHz	(R)	
SAPPORO CONTROL:	132.6 MHz	(R)	
KOBE CONTROL:	132.7 MHz	(R)	
FUKUOKA CONTROL:	132.9 MHz	(R)	Secondary
FUKUOKA CONTROL:	133.02 MHz	(R)	
FUKUOKA CONTROL:	133.15 MHz	(R)	
FUKUOKA CONTROL:	133.3 MHz	(R)	Secondary
TOKYO CONTROL:	133.35 MHz	(R)	
SAPPORO CONTROL:	133.5 MHz	(R)	
KOBE CONTROL:	133.55 MHz	(R)	
FUKUOKA CONTROL:	133.6 MHz	(R)	
TOKYO CONTROL:	133.7 MHz	(R)	
KOBE CONTROL:	133.8 MHz	(R)	
KOBE CONTROL:	133.85 MHz	(R)	
TOKYO CONTROL:	134.0 MHz	(R)	Secondary
TOKYO CONTROL:	134.15 MHz	(R)	Secondary
KOBE CONTROL:	134.25 MHz	(R)	Secondary
FUKUOKA CONTROL:	134.35 MHz	(R)	
FUKUOKA CONTROL:	134.4 MHz	(R)	Secondary
KOBE CONTROL:	134.6 MHz	(R)	Secondary
FUKUOKA CONTROL:	135.3 MHz	(R)	
KOBE CONTROL:	135.65 MHz	(R)	

TOKYO CONTROL:	135.9 MHz	(R)	Secondary

Type: Radio:

TOKYO:	10048 kHz
TOKYO:	11330 kHz
TOKYO:	11384 kHz
TOKYO:	13273 kHz
TOKYO:	13300 kHz
TOKYO:	17904 kHz
TOKYO:	17946 kHz
TOKYO:	21925 kHz
TOKYO:	2932 kHz
TOKYO:	2998 kHz
TOKYO:	3455 kHz
TOKYO:	4666 kHz
TOKYO:	5628 kHz
TOKYO:	5667 kHz
TOKYO:	6532 kHz
TOKYO:	6655 kHz
TOKYO:	8903 kHz
TOKYO:	8915 kHz
TOKYO:	8951 kHz

Communication Information For RKRR ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:

DAEGU:	122.75 MHz		
DAEGU:	123.65 MHz		
DAEGU:	134.17 MHz		

Communication Information For RKRR ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:

DAEGU:	122.25 MHz		
DAEGU:	122.75 MHz		
DAEGU:	125.92 MHz		

Communication Information For RKRR FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR INCHEON ACC IS 444001 INMARSAT SECURITY NUMBER FOR DAEGU ACC IS 444002

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:

DAEGU:	118.92 MHz	(R)	Secondary
DAEGU:	119.32 MHz	(R)	Secondary
DAEGU:	119.37 MHz	(R)	Secondary
DAEGU:	120.52 MHz	(R)	Secondary
DAEGU:	120.57 MHz	(R)	
INCHEON:	120.72 MHz	(R)	
DAEGU:	122.25 MHz	(R)	
DAEGU:	122.75 MHz	(R)	
INCHEON:	123.55 MHz	(R)	Secondary
DAEGU:	123.65 MHz	(R)	Secondary

INCHEON:	123.72 MHz	(R)	
INCHEON:	124.5 MHz	(R)	Secondary
INCHEON:	124.52 MHz	(R)	
DAEGU:	124.57 MHz	(R)	Secondary
DAEGU:	125.37 MHz	(R)	
INCHEON:	125.72 MHz	(R)	
DAEGU:	125.77 MHz	(R)	Secondary
DAEGU:	125.92 MHz	(R)	Secondary
INCHEON:	126.17 MHz	(R)	
DAEGU:	128.17 MHz	(R)	
INCHEON:	128.3 MHz	(R)	Secondary
DAEGU:	128.32 MHz	(R)	Secondary
INCHEON:	128.37 MHz	(R)	Secondary
DAEGU:	128.7 MHz	(R)	
INCHEON:	132.15 MHz	(R)	
INCHEON:	132.2 MHz	(R)	
INCHEON:	132.42 MHz	(R)	Secondary
DAEGU:	132.8 MHz	(R)	
INCHEON:	132.82 MHz	(R)	Secondary
INCHEON:	133.42 MHz	(R)	
INCHEON:	134.15 MHz	(R)	Secondary
DAEGU:	134.17 MHz	(R)	
DAEGU:	134.37 MHz	(R)	Secondary

Type: Information:	
DAEGU:	126.9 MHz
DAEGU:	135.72 MHz

Type: Radio:	
SEOUL:	127.1 MHz
SEOUL:	13300 kHz
SEOUL:	13303 kHz
SEOUL:	17904 kHz
SEOUL:	3004 kHz
SEOUL:	6532 kHz
SEOUL:	8903 kHz

Communication Information For RPHI ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
MANILA:	119.3 MHz		
MANILA:	128.7 MHz		
Type: Radio:			
MANILA:	5655 kHz		
MANILA:	8942 kHz		

Communication Information For RPHI FIR

INMARSAT Service: INMARSAT SECURITY NUMBERS FOR MANILLA ACC ARE 454801, 454802, AND 454803

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
MANILA:	118.9 MHz	(R)	
MANILA:	119.3 MHz	(R)	Secondary
MANILA:	120.5 MHz	(R)	
MANILA:	124.9 MHz	(R)	
MANILA:	125.7 MHz	(R)	
MANILA:	127.5 MHz	(R)	
MANILA:	128.3 MHz	(R)	Secondary

MANILA:	128.7 MHz	(R)	
MANILA:	132.2 MHz	(R)	
MANILA:	132.5 MHz	(R)	
MANILA:	132.7 MHz	(R)	
Type: Radio:			
MANILA:	11297 kHz		
MANILA:	11396 kHz		
MANILA:	13300 kHz		
MANILA:	13309 kHz		
MANILA:	17904 kHz		
MANILA:	2998 kHz		
MANILA:	3485 kHz		
MANILA:	5655 kHz		
LIPA:	6525 kHz		A/G
MANILA:	6532 kHz		
MANILA:	6562 kHz		
MANILA:	8903 kHz		
MANILA:	8942 kHz		

Communication Information For VDPF ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
PHNOM PENH:	127.5 MHz		

Communication Information For VDPF FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
PHNOM PENH:	127.5 MHz	(R)	
PHNOM PENH:	132.4 MHz	(R)	

Communication Information For VHHK FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR HONG KONG ATC IS 441299

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HONG KONG RADAR:	118.92 MHz	(R)	
HONG KONG RADAR:	121.3 MHz	(R)	
HONG KONG RADAR:	122.95 MHz	(R)	
HONG KONG RADAR:	123.47 MHz	(R)	
HONG KONG RADAR:	123.7 MHz	(R)	Secondary
HONG KONG RADAR:	123.95 MHz	(R)	
HONG KONG RADAR:	125.17 MHz	(R)	
HONG KONG RADAR:	125.32 MHz	(R)	
HONG KONG RADAR:	125.8 MHz	(R)	
HONG KONG RADAR:	126.3 MHz	(R)	
HONG KONG RADAR:	126.5 MHz	(R)	
HONG KONG RADAR:	127.1 MHz	(R)	
HONG KONG RADAR:	127.55 MHz	(R)	
HONG KONG RADAR:	128.12 MHz	(R)	
HONG KONG RADAR:	128.75 MHz	(R)	Secondary
HONG KONG RADAR:	132.15 MHz	(R)	

HONG KONG RADAR:	132.52 MHz	(R)	Secondary
HONG KONG RADAR:	132.6 MHz	(R)	Secondary
HONG KONG RADAR:	132.77 MHz	(R)	Secondary
HONG KONG RADAR:	132.8 MHz	(R)	Secondary
HONG KONG RADAR:	134.3 MHz	(R)	Secondary
HONG KONG RADAR:	135.6 MHz	(R)	Secondary
Type: Information:			
HONG KONG:	121.0 MHz		FIS
HONG KONG:	122.07 MHz		FIS, Secondary
HONG KONG:	122.4 MHz		FIS
Type: Radar:			
HONG KONG:	126.3 MHz	(R)	
Type: Radio:			
HONG KONG:	13309 kHz		Secondary
HONG KONG:	5655 kHz		Secondary
HONG KONG:	8942 kHz		Secondary
Type: VOLMET:			
HONG KONG:	128.87 MHz		
HONG KONG:	13282 kHz		
HONG KONG:	6679 kHz		
HONG KONG:	8828 kHz		

Communication Information For VLVT FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
VIENTIANE:	124.1 MHz	(R)	
VIENTIANE:	128.3 MHz	(R)	

Communication Information For VTBB ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
BANGKOK CONTROL:	126.5 MHz		

Communication Information For VTBB FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR BANGKOK ACC IS 456702

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
BANGKOK CONTROL:	118.35 MHz	(R)	
BANGKOK CONTROL:	120.5 MHz	(R)	
BANGKOK CONTROL:	120.95 MHz	(R)	
BANGKOK CONTROL:	123.95 MHz	(R)	
BANGKOK CONTROL:	124.5 MHz	(R)	
BANGKOK CONTROL:	125.7 MHz	(R)	
BANGKOK CONTROL:	126.5 MHz	(R)	
BANGKOK CONTROL:	128.1 MHz	(R)	
BANGKOK CONTROL:	132.1 MHz	(R)	

BANGKOK CONTROL:	133.1 MHz	(R)
BANGKOK CONTROL:	133.9 MHz	(R)
BANGKOK CONTROL:	135.5 MHz	(R)
Type: VOLMET:		
BANGKOK:	11387 kHz	
BANGKOK:	2965 kHz	
BANGKOK:	6676 kHz	

Communication Information For VVHM ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HO CHI MINH CONTROL:	125.37 MHz		
HO CHI MINH CONTROL:	134.05 MHz		

Communication Information For VVHM ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HO CHI MINH CONTROL:	125.37 MHz		
HO CHI MINH CONTROL:	134.05 MHz		

Communication Information For VVHM FIR

CPDLC Service: CPDLC SERVICES FOR FANS-1/A EQUIPPED AIRCRAFT ARE AVAILABLE WITH LOGON ADDRESS OF VVHM IN HO CHI MINH FIR. LOGON SHOULD BE ESTABLISHED 15 TO 45 MINUTES PRIOR TO ENTERING THE DATA LINK AIRSPACE. DATA LINK ROUTES: L625, L628, L642, M765, M768, M771, N500, N892
INMARSAT Service: INMARSAT SECURITY NUMBER FOR HO CHI MINH ACC IS 457402

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HO CHI MINH CONTROL:	120.1 MHz	(R)	
HO CHI MINH CONTROL:	120.7 MHz	(R)	
HO CHI MINH CONTROL:	120.9 MHz	(R)	
HO CHI MINH CONTROL:	125.37 MHz	(R)	Secondary
HO CHI MINH CONTROL:	132.35 MHz	(R)	
HO CHI MINH CONTROL:	133.05 MHz	(R)	
HO CHI MINH CONTROL:	134.05 MHz	(R)	
Type: Radio:			
HO CHI MINH:	11297 kHz		A/G
HO CHI MINH:	11396 kHz		A/G
HO CHI MINH:	13300 kHz		A/G
HO CHI MINH:	5655 kHz		A/G
HO CHI MINH:	8942 kHz		A/G

Communication Information For VVHN ACC

No communication information available

Communication Information For VVHN ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HA NOI:	125.9 MHz		
HA NOI:	134.42 MHz		

Communication Information For VVHN FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HA NOI:	123.3 MHz	(R)	
HA NOI:	124.55 MHz	(R)	Secondary
HA NOI:	125.9 MHz	(R)	
HA NOI:	128.15 MHz	(R)	Secondary
HA NOI:	132.3 MHz	(R)	
HA NOI:	132.92 MHz	(R)	Secondary
HA NOI:	133.65 MHz	(R)	
HA NOI:	134.42 MHz	(R)	Secondary

Communication Information For VYYF ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
YANGON:	124.75 MHz		

Communication Information For VYYF FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF VYYF IN YANGON FIR CPDLC. SUITABLY EQUIPPED AIRCRAFT SHOULD LOG ON TO YANGON AFN LOGON ADDRESS AT LEAST 10 MINUTES PRIOR TO ENTER YANGON FIR.
INMARSAT Service: INMARSAT SECURITY NUMBER FOR YANGON ACC IS 450601

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
YANGON:	124.75 MHz	(R)	
YANGON:	126.75 MHz	(R)	
YANGON:	127.75 MHz	(R)	
YANGON:	128.75 MHz	(R)	
Type: Radio:			
YANGON:	10066 kHz		
YANGON:	5526 kHz		Secondary
YANGON:	6556 kHz		Secondary
YANGON:	6659 kHz		Secondary
YANGON:	8960 kHz		Secondary

Communication Information For ZJSA ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SANYA CONTROL:	11396 kHz		
SANYA CONTROL:	120.5 MHz		
SANYA CONTROL:	122.9 MHz		
SANYA CONTROL:	133.2 MHz		
SANYA CONTROL:	3485 kHz		
SANYA CONTROL:	5655 kHz		

Communication Information For ZJSA FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SANYA CONTROL:	11396 kHz	(R)	
SANYA CONTROL:	120.5 MHz	(R)	
SANYA CONTROL:	122.6 MHz	(R)	
SANYA CONTROL:	122.9 MHz	(R)	Secondary
SANYA CONTROL:	123.65 MHz	(R)	Secondary
SANYA CONTROL:	126.95 MHz	(R)	Secondary
SANYA CONTROL:	130.2 MHz	(R)	
SANYA CONTROL:	133.2 MHz	(R)	
SANYA CONTROL:	133.35 MHz	(R)	
SANYA CONTROL:	13309 kHz	(R)	Secondary
SANYA CONTROL:	134.4 MHz	(R)	Secondary
SANYA CONTROL:	134.45 MHz	(R)	
SANYA CONTROL:	3485 kHz	(R)	
SANYA CONTROL:	5649 kHz	(R)	
SANYA CONTROL:	5655 kHz	(R)	Secondary
SANYA CONTROL:	8942 kHz	(R)	

Communication Information For ZKKP ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
PYONGYANG CONTROL:	133.9 MHz		

Communication Information For ZKKP FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
PYONGYANG CONTROL:	120.9 MHz	(R)	
PYONGYANG CONTROL:	133.9 MHz	(R)	
Type: Radio:			
PYONGYANG:	10039 kHz		
PYONGYANG:	5664 kHz		

Communication Information For ZSHA ACC No communication information available

Communication Information For ZSHA ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SHANGHAI CONTROL:	127.55 MHz		
SHANGHAI CONTROL:	135.0 MHz		
SHANGHAI CONTROL:	3016 kHz		
SHANGHAI CONTROL:	6571 kHz		
SHANGHAI CONTROL:	8897 kHz		

Communication Information For ZSHA ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SHANGHAI CONTROL:	133.22 MHz		
SHANGHAI CONTROL:	134.4 MHz		
SHANGHAI CONTROL:	3016 kHz		
SHANGHAI CONTROL:	6571 kHz		
SHANGHAI CONTROL:	8897 kHz		

Communication Information For ZSHA FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SHANGHAI CONTROL:	118.97 MHz	(R)	
SHANGHAI CONTROL:	119.3 MHz	(R)	Secondary
SHANGHAI CONTROL:	120.1 MHz	(R)	
NANCHANG CONTROL:	120.5 MHz	(R)	
XIAMEN CONTROL:	120.52 MHz	(R)	
SHANGHAI CONTROL:	120.55 MHz	(R)	
SHANGHAI CONTROL:	120.7 MHz	(R)	
SHANGHAI CONTROL:	120.75 MHz	(R)	
SHANGHAI CONTROL:	120.9 MHz	(R)	
SHANGHAI CONTROL:	120.95 MHz	(R)	
JINAN CONTROL:	122.9 MHz	(R)	
XIAMEN CONTROL:	123.22 MHz	(R)	
SHANGHAI CONTROL:	123.27 MHz	(R)	Secondary
SHANGHAI CONTROL:	123.37 MHz	(R)	
SHANGHAI CONTROL:	123.7 MHz	(R)	Secondary
SHANGHAI CONTROL:	123.77 MHz	(R)	
SHANGHAI CONTROL:	123.95 MHz	(R)	
SHANGHAI CONTROL:	124.1 MHz	(R)	
NANCHANG CONTROL:	124.15 MHz	(R)	
XIAMEN CONTROL:	124.55 MHz	(R)	
SHANGHAI CONTROL:	124.57 MHz	(R)	Secondary
SHANGHAI CONTROL:	124.95 MHz	(R)	
XIAMEN CONTROL:	125.3 MHz	(R)	Secondary
SHANGHAI CONTROL:	125.32 MHz	(R)	
NANCHANG CONTROL:	125.37 MHz	(R)	
JINAN CONTROL:	125.7 MHz	(R)	

HEFEI CONTROL:	125.77 MHz	(R)	
NANCHANG CONTROL:	125.9 MHz	(R)	
SHANGHAI CONTROL:	125.95 MHz	(R)	
SHANGHAI CONTROL:	125.97 MHz	(R)	
HEFEI CONTROL:	126.12 MHz	(R)	
QINGDAO CONTROL:	126.15 MHz	(R)	Secondary
SHANGHAI CONTROL:	126.17 MHz	(R)	
SHANGHAI CONTROL:	126.9 MHz	(R)	
NANCHANG CONTROL:	127.52 MHz	(R)	
SHANGHAI CONTROL:	127.55 MHz	(R)	Secondary
SHANGHAI CONTROL:	128.12 MHz	(R)	
QINGDAO CONTROL:	128.15 MHz	(R)	
HEFEI CONTROL:	128.17 MHz	(R)	Secondary
SHANGHAI CONTROL:	128.32 MHz	(R)	
JINAN CONTROL:	128.35 MHz	(R)	
QINGDAO CONTROL:	128.55 MHz	(R)	
SHANGHAI CONTROL:	128.7 MHz	(R)	
SHANGHAI CONTROL:	128.75 MHz	(R)	
NANCHANG CONTROL:	130.3 MHz	(R)	Secondary
SHANGHAI CONTROL:	132.05 MHz	(R)	
SHANGHAI CONTROL:	132.1 MHz	(R)	Secondary
QINGDAO CONTROL:	132.12 MHz	(R)	
SHANGHAI CONTROL:	132.27 MHz	(R)	Secondary
QINGDAO CONTROL:	132.3 MHz	(R)	Secondary
SHANGHAI CONTROL:	132.32 MHz	(R)	
JINAN CONTROL:	132.37 MHz	(R)	
SHANGHAI CONTROL:	132.4 MHz	(R)	
SHANGHAI CONTROL:	132.45 MHz	(R)	
SHANGHAI CONTROL:	132.5 MHz	(R)	
SHANGHAI CONTROL:	132.62 MHz	(R)	
XIAMEN CONTROL:	132.72 MHz	(R)	Secondary
SHANGHAI CONTROL:	132.75 MHz	(R)	Secondary
QINGDAO CONTROL:	132.82 MHz	(R)	Secondary
SHANGHAI CONTROL:	132.9 MHz	(R)	Secondary
QINGDAO CONTROL:	132.95 MHz	(R)	
SHANGHAI CONTROL:	133.0 MHz	(R)	
QINGDAO CONTROL:	133.05 MHz	(R)	
SHANGHAI CONTROL:	133.07 MHz	(R)	
QINGDAO CONTROL:	133.15 MHz	(R)	
XIAMEN CONTROL:	133.17 MHz	(R)	
SHANGHAI CONTROL:	133.22 MHz	(R)	
SHANGHAI CONTROL:	133.27 MHz	(R)	
SHANGHAI CONTROL:	133.32 MHz	(R)	Secondary
SHANGHAI CONTROL:	133.4 MHz	(R)	Secondary
JINAN CONTROL:	133.45 MHz	(R)	Secondary
GUANGZHOU CONTROL:	133.47 MHz	(R)	
HEFEI CONTROL:	133.55 MHz	(R)	Secondary
XIAMEN CONTROL:	133.65 MHz	(R)	
SHANGHAI CONTROL:	133.7 MHz	(R)	Secondary
QINGDAO CONTROL:	133.72 MHz	(R)	
SHANGHAI CONTROL:	133.8 MHz	(R)	
NANCHANG CONTROL:	133.82 MHz	(R)	
JINAN CONTROL:	133.85 MHz	(R)	Secondary
SHANGHAI CONTROL:	133.87 MHz	(R)	
QINGDAO CONTROL:	133.95 MHz	(R)	Secondary
SHANGHAI CONTROL:	133.97 MHz	(R)	
SHANGHAI CONTROL:	134.0 MHz	(R)	Secondary
SHANGHAI CONTROL:	134.05 MHz	(R)	Secondary
QINGDAO CONTROL:	134.12 MHz	(R)	
SHANGHAI CONTROL:	134.2 MHz	(R)	Secondary
GUANGZHOU CONTROL:	134.25 MHz	(R)	Secondary
SHANGHAI CONTROL:	134.3 MHz	(R)	
JINAN CONTROL:	134.37 MHz	(R)	
SHANGHAI CONTROL:	134.4 MHz	(R)	Secondary
HEFEI CONTROL:	134.42 MHz	(R)	
SHANGHAI CONTROL:	134.47 MHz	(R)	
SHANGHAI CONTROL:	134.55 MHz	(R)	
HEFEI CONTROL:	134.7 MHz	(R)	
QINGDAO CONTROL:	134.85 MHz	(R)	
SHANGHAI CONTROL:	134.9 MHz	(R)	
SHANGHAI CONTROL:	135.0 MHz	(R)	
SHANGHAI CONTROL:	135.05 MHz	(R)	

HEFEI CONTROL:	135.4 MHz	(R)	
SHANGHAI CONTROL:	135.5 MHz	(R)	Secondary
HEFEI CONTROL:	135.65 MHz	(R)	
SHANGHAI CONTROL:	135.7 MHz	(R)	Secondary
NANCHANG CONTROL:	135.72 MHz	(R)	Secondary
SHANGHAI CONTROL:	135.75 MHz	(R)	
HEFEI CONTROL:	3016 kHz	(R)	
HEFEI CONTROL:	6571 kHz	(R)	Secondary
HEFEI CONTROL:	8897 kHz	(R)	

Operational Notes

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QINGDAO CTA SECTOR ZSQDAR05 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR03 WHEN ZYTLAR05 U/S.

SHANGHAI CTA ZSSSAR43 Type: Control Area (Airport)
Notes: CONTACT ZSSSAR15 WHEN ZSSSAR43 U/S.

XIAMEN CTA ZSAMAR03 Type: Control Area (Airport)
Notes: CONTACT ZSAMAR04 WHEN ZSAMAR03 U/S.

RCAA Type: FIR
Notes: TAIPEI RCTP FIR: UNLESS APPLIED IN ADVANCE WITH RELATED DOCUMENTS AND AUTHORIZED BY CAA, NO PERSON MAY OPERATE A CIVIL AIRCRAFT WHILE IN CONTROLLED AIRSPACE BELOW 10,000' FEET [MSL] AT AN INDICATED AIRSPEED OF MORE THAN 250 KNOTS. R-583 AUTHORIZED ONLY W-BND FL380 OR ABOVE WITHIN TAIPEI (RCAA) FIR. UNLESS OTHERWISE APPROVED BY ATC ARRIVAL AIRCRAFT INTO TAIPEI ARE PROHIBITED.

RJJJ Type: FIR
Notes: SPEED RESTRICTIONS WITHIN JAPAN AIRSPACE MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC. WITHIN AN APPROACH CONTROL AREA BELOW 10000' MSL 250 KIAS WITHIN A CONTROL ZONE 250 KTS PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF RJJJ IN FUKUOKA FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 443101 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 81-78-99-36-501 SATCOM:

RKRR Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR INCHEON ACC IS 444001 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR DAEGU ACC IS 444002 INMARSAT: ALL AIRWAYS WITHIN INCHEON FIR FROM MEA TO FL200 ARE CLASS D, FROM ABOVE FL200 TO FL600 ARE CLASS A, AND ABOVE FL600 ARE CLASS G. SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS CLASS C AND D AIRSPACE: AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

ZSHA Type: FIR
Notes: RVSM AIRSPACE FL291-FL411 INCLUSIVE. ALL AIRCRAFT ENTERING OR EXITING PR OF CHINA SHALL CONTACT ATC 15-20 MINUTES PRIOR TO FIR ENTRY OR EXIT AND OBTAIN A CLEARANCE TO CROSS THE FIR BOUNDARIES. ABOVE 19700' (6000M) THERE ARE FOLLOWING AIRSPACE CLASSES: 19700' (6000M)-65700'(20000M) CLASS A AIRSPACE 65700'(20000M)-UNLTD CLASS D AIRSPACE AIRSPACE CLASS B DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE TRANSPORT AIRPORTS. FOR TRANSPORT AIRPORTS WITH THREE RUNWAYS (INCLUSIVE) OR MORE, THREE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 10.8NM (20KM), 21.6NM (40KM), AND 32.4NM (60KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 3000' (900M) ABOVE THE AIRPORT ELEVATION, FROM 3000' (900M) ABOVE THE AIRPORT ELEVATION TO 6000' (1800M) ABOVE THE AIRPORT ELEVATION, FROM 6000' (1800M) ABOVE THE AIRPORT ELEVATION TO QNE 19700' (6000M). FOR TRANSPORT AIRPORTS WITH TWO RUNWAYS, TWO-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 8.1NM (15KM) AND 16.2NM (30KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION, FROM 2000' (600M) ABOVE THE AIRPORT ELEVATION TO 11900' (3600M) ABOVE THE AIRPORT ELEVATION, MAXIMUM TO THE LOWER LIMIT OF CLASS A AIRSPACE. FOR TRANSPORT AIRPORTS WITH ONE RUNWAY, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 6.5NM (12KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS C DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE GENERAL AVIATION AIRPORTS WITH TOWER, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 2.7NM (5KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS D AND E DESIGNATED AS FOLLOWING: OUTSIDE OF CLASS A, B, C AND G AIRSPACE, IT CAN BE DESIGNATED AS CLASS D OR E AIRSPACE BASED ON OPERATION AND SAFETY REQUIREMENTS. AIRSPACE CLASS G DESIGNATED AS FOLLOWING: - THE AIRSPACE OUTSIDE OF CLASS B AND C AIRSPACE(CLASS W AIRSPACE EXCLUDED) AND BELOW 1000' (300M) AGL - AIRSPACE BELOW 19700' (6000M) MSL THAT DOES NOT AFFECT CIVIL AVIATION TRANSPORT FLIGHTS. AIRSPACE CLASS W DESIGNATED AS

FOLLOWING: PART OF THE CLASS G AIRSPACE BELOW 400' (120M) AGL.

12E Type: Special Use Airspace
Notes: EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

13E Type: Special Use Airspace
Notes: EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

13W Type: Special Use Airspace
Notes: EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

EXCLUDE A586/Y579 ATS ROUTES AREA DURING IT'S OPERATIONAL HOURS

179 Type: Special Use Airspace
Notes: THE EXERCISE ARE CONDUCTED ONLY UNDER RADAR CONFIRMATION THAT NO ACFT IS APPROACHING OR PENETRATING THE AIRSPACE MENTIONED ABOVE.

32 Type: Special Use Airspace
Notes: EXCLUDE A586/Y579 ROUTES AREA DURING IT'S OPERATIONAL HOURS

63B Type: Special Use Airspace
Notes: EXC RK P 63A AREA EXC SKED AND NON SKED CIVIL AIRLINES, AUTHORIZED BY ATC, OTHER ACFT AUTHORIZED BY MOLIT, LIFE GUARD, POLICE, SAR, MILITARY OPERATION FLIGHT AND FIRE FIGHTING ACFT.

64B Type: Special Use Airspace
Notes: EXC RK P-64A AREA EXC SKED AND NON SKED CIVIL AIRLINES, AUTHORIZED BY ATC, OTHER ACFT AUTHORIZED BY MOLIT, LIFE GUARD, POLICE, SAR, MILITARY OPERATION FLIGHT AND FIRE FIGHTING ACFT.

65A Type: Special Use Airspace
Notes: EXC ONLY ROKAF OPERATION ACFT WARNING RK(P)-61B, RK(P)-62B, RK(P)-63B, RK(P)-64B, RK(P)-65A, RK(P)-65B EXCLUDED SCHEDULED AND NON-SCHEDULED CIVIL AIRLINES, AUTHORIZED BY ATC, OTHER AIRCRAFT AUTHORIZED BY MLTM, LIFE GUARD, POLICE, SAR, MILITARY OPERATION FLIGHT AND FIRE FIGHTING AIRCRAFT.

65B Type: Special Use Airspace
Notes: EXC RK(P)-65A AREA EXC SKED AND NON SKED CIVIL AIRLINES, AUTHORIZED BY ATC, OTHER ACFT AUTHORIZED BY MOLIT, LIFE GUARD, POLICE, SAR, MILITARY OPERATION FLIGHT AND FIRE FIGHTING ACFT.

B1 Type: Special Use Airspace
Notes: BETWEEN ALTITUDE 10000' & FL250 CONTACT NAHA APP ON 119.100MHZ. EXCLUDING W-178 AND W-178A.

NINGBO Type: Special Use Airspace
Notes: 9900' (3000M) QNH OR BELOW: BY ATC

UA33 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA34 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA35 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA36 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA37 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA38 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA39 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA40 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA41 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA42 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA43 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA47 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA48 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA49 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA51 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA52 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA53 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA54 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA55 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA56 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA57 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

UA58 Type: Special Use Airspace
Notes: UNMANNED AERIAL VEHICLES ONLY.

YOUNGWEOL Type: Special Use Airspace
Notes: EXC UA43 WHEN ACTIVE

DAEGU TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

HAEMI TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

HANGZHOU APP CTL ZSHCAP01 Type: Terminal Area
Notes: CONTACT ZSHCAP04 WHEN ZSHCAP01 U/S EXCLUDE ZSHCAP02/04

HANGZHOU APP CTL ZSHCAP02 Type: Terminal Area
Notes: CONTACT ZSHCAP04 WHEN ZSHCAP02 U/S

HANGZHOU APP CTL ZSHCAP03 Type: Terminal Area
Notes: EXCLUDE ZSHCAP02/06/07

HANGZHOU APP CTL ZSHCAP04 Type: Terminal Area
Notes: CONTACT ZSHCAP03 WHEN ZSHCAP04 U/S

HANGZHOU APP CTL ZSHCAP05 Type: Terminal Area
Notes: CONTACT ZSHCAP03 WHEN ZSHCAP05 U/S EXCLUDE ZSHCAP06/08 AND NINGBO APP

HANGZHOU APP CTL ZSHCAP06 Type: Terminal Area
Notes: CONTACT ZSHCAP02 WHEN ZSHCAP006 U/S

HANGZHOU APP CTL ZSHCAP07 Type: Terminal Area
Notes: CONTACT ZSHCAP03 WHEN ZSHCAP07 U/S

HANGZHOU APP CTL ZSHCAP08 Type: Terminal Area
Notes: CONTACT ZSHCAP04 WHEN ZSHCAP08 U/S

JEJU TMA Type: Terminal Area
Notes: 1000 FT MSL IS APPLIED OVER THE TERRITORIAL WATERS. 5500 FT MSL IS APPLIED OVER THE HIGH SEAS.

NANJING APP CTL AREA ZSNJ AP04 Type: Terminal Area
Notes: CONTACT ZSNJAP01 WHEN ZSNJAP04 U/S

CONTACT ZSNJAP01 WHEN ZSNJAP04 U/S

NINGBO APP CTL ZSNBAP01N Type: Terminal Area
Notes: RWY31 IN USE AT ZSNB

NINGBO APP CTL ZSNBAP01S Type: Terminal Area
Notes: RWY13 IN USE AT ZSNB

NINGBO APP CTL ZSNBAP02N Type: Terminal Area
Notes: RWY31 IN USE AT ZSNB

NINGBO APP CTL ZSNBAP02S Type: Terminal Area
Notes: RWY13 IN USE AT ZSNB

POHANG TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

QINGDAO APP CTL ZSQDAP03 Type: Terminal Area
Notes: EXCLUDE ZSQDAP05.

EXCLUDE ZSQDAP05.

EXCLUDE ZSQDAP05.

SACHEON TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

SEOUL APPROACH EAST Type: Terminal Area

Notes: SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SEOUL APPROACH WEST Type: Terminal Area
Notes: SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SEOUL TMA Type: Terminal Area
Notes: SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' .... 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT ...... 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SPEED RESTRICTIONS WITHIN KOREAN AIRSPACE ALL ARRIVALS INTO RKSS AND RKSI SHALL OPERATE IN ACCORDANCE WITH THE FLIGHT PROCEDURES FOR THAT AIRPORT. MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC: BELOW 10000' 250 KTS AT OR BELOW 2500' AGL WITHIN 4NM OF AN AIRPORT 200 KTS

SHANGHAI APP CTL ZSSSAP01 Type: Terminal Area
Notes: EXCLUDE ZSSSAP05/07

SHANGHAI APP CTL ZSSSAP02N Type: Terminal Area
Notes: RWY34L/34R/35L/35R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP02S Type: Terminal Area
Notes: RWY16L/16R/17L/17R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP03 Type: Terminal Area
Notes: EXCLUDE ZSSSAP02/04/06/07

SHANGHAI APP CTL ZSSSAP04N Type: Terminal Area
Notes: RWY34L/34R/35L/35R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP04S Type: Terminal Area
Notes: RWY16L/16R/17L/17R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP06N Type: Terminal Area
Notes: RWY34L/34R/35L/35R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP06S Type: Terminal Area

Notes: RWY16L/16R/17L/17R IN USE AT ZSPD

SHANGHAI APP CTL ZSSSAP08 Type: Terminal Area
Notes: EXCLUDE ZSSSAP02/04/06

SHANGHAI APP CTL ZSSSAP09 Type: Terminal Area
Notes: EXCLUDE NANTONG TWR AND WUXI APP

SHANGHAI APP CTL ZSSSAP10 Type: Terminal Area
Notes: EXCLUDE ZSSSAP02/04/06

SHANGHAI APP CTL ZSSSAP11 Type: Terminal Area
Notes: EXCLUDE WUXI APP

WENZHOU APP CTL AREA ZSWZAP01 Type: Terminal Area
Notes: EXCLUDE ZSWZAP02

WONJU TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

WUXI APPROACH CONTROL AREA Type: Terminal Area
Notes: CONTACT WUXI TOWER WHEN WUXI APP U/S

YANTAI APP CTL AREA ZSYTAP02 Type: Terminal Area
Notes: CONTACT ZSYTAP01 WHEN ZSYTAP02 U/S

ELAGO Type: Waypoint
Notes: AIRCRAFT FROM ZSHC IN DIRECTION OF ZSQD OR RJTG FIR AND VICE VERSA ROUTE W36 AND CROSS ELAGO AT FL197/FL6000M OR ABOVE. EXPECT REROUTING VIA W-37 BY ATC.

LAMEN Type: Waypoint
Notes: EASTBOUND TRAFFIC DEPARTING FROM SHANGHAI PUDONG AND HONGQIAO AIRPORTS UNABLE TO REACH LAMEN OR 124E LONGITUDE AT FL250 MAY BE INSTRUCTED TO CROSS LAMEN OR 124E LONGITUDE AT OR ABOVE FL230 IN ORDER TO REACH AND MAINTAIN FL250 OR ABOVE BY 20NM WEST OF SADLI OR 125E LONGITUDE.

ONIKU Type: Waypoint
Notes: AKARA - FUKUE CORRIDOR: WESTBOUND FLIGHTS SHALL FLIGHT PLAN FL240, FL280, FL300 OR FL400. REQUEST ATC CLEARANCE TO CROSS ONIKU INT AT THESE FLIGHT LEVELS WELL BEFORE CROSSING ONIKU INT.

SADLI Type: Waypoint
Notes: ATC SERVICE FOR WESTBOUND TRAFFIC WILL BE TRANSFERRED FROM INCHEON ACC TO SHANGHAI ACC AT FIX SADLI ON FREQUENCY 120.95MHZ (PRIMARY) OR 134.00MHZ (SECONDARY). ATC SERVICE FOR EASTBOUND TRAFFIC WILL BE TRANSFERRED FROM SHANGHAI ACC TO INCHEON ACC AT FIX SADLI OR 125E LONGITUDE ON FREQUENCY 125.725MHZ (PRIMARY) OR 132.825MHZ (SECONDARY).

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CAUAYAN ATZ Type: Air Traffic Zone
Notes: FOR EXTENSION OF SERVICE ONE DAY PRIOR NOTICE IS REQUIRED.

VHHH Type: Airport
Notes: FLIGHTS WITHIN 50NM OF HONG KONG INTL AIRPORT SHALL NOT FLIGHT PLAN TO CRUISE AT LEVELS BETWEEN 9000' AND FL120.

GUEIREN Type: Class E Airspace
Notes: EAST TRAFFIC PATTERN IS USED FOR RCXY AD.

SINSHE Type: Class E Airspace
Notes: EAST TRAFFIC PATTERN IS USED FOR RCWK AD.

AIRSPACE BENEATH HONG KONG TMA Type: Class G Airspace
Notes: REQUIRES AIRCRAFT OPERATING IN SUCH CLASS G AIRSPACE TO HAVE EQUIPMENT CAPABLE OF MAINTAINING DIRECT TWO-WAY

COMMUNICATION WITH ATC.

REQUIRES AIRCRAFT OPERATING IN SUCH CLASS G AIRSPACE TO HAVE EQUIPMENT CAPABLE OF MAINTAINING DIRECT TWO-WAY COMMUNICATION WITH ATC.

CHANGSHA CTA ZGHAAR01 Type: Control Area (Airport)
Notes: CONTACT ZGHAAR04 WHEN ZGHAAR01 U/S

CHANGSHA CTA ZGHAAR05 Type: Control Area (Airport)
Notes: CONTACT ZGHAAR01 WHEN ZGHAAR05 U/S

GUANGZHOU CTA ZGGGAR20 Type: Control Area (Airport)
Notes: EXCLUDE SECTOR ZGHAAR03

GUANGZHOU CTA ZGGGAR22 Type: Control Area (Airport)
Notes: CONTACT ZGGGAR11 WHEN ZGGGAR22 U/S

NANNING CTA ZGNNAR12 Type: Control Area (Airport)
Notes: CONTACT ZGNNAR10 WHEN ZGNNAR12 U/S

SANYA CTA ZJSYAR01 Type: Control Area (Airport)
Notes: EXCLUDE ZJSYAR04

SANYA CTA ZJSYAR04 Type: Control Area (Airport)
Notes: CONTACT ZJSYAR01 WHEN ZJSYAR04 U/S.

XIAMEN CTA ZSAMAR02 Type: Control Area (Airport)
Notes: CONTACT ZSAMAR04 WHEN ZSAMAR02 U/S.

XIAMEN CTA ZSAMAR03 Type: Control Area (Airport)
Notes: CONTACT ZSAMAR04 WHEN ZSAMAR03 U/S.

XIAMEN CTA ZSAMAR05 Type: Control Area (Airport)
Notes: CONTACT ZSAMAR01 WHEN ZSAMAR05 U/S.

XIAMEN CTA ZSAMAR06 Type: Control Area (Airport)
Notes: CONTACT ZSAMAR01 WHEN ZSAMAR06 U/S.

RCAA Type: FIR
Notes: TAIPEI RCTP FIR: UNLESS APPLIED IN ADVANCE WITH RELATED DOCUMENTS AND AUTHORIZED BY CAA, NO PERSON MAY OPERATE A CIVIL AIRCRAFT WHILE IN CONTROLLED AIRSPACE BELOW 10,000' FEET [MSL] AT AN INDICATED AIRSPEED OF MORE THAN 250 KNOTS. R-583 AUTHORIZED ONLY W-BND FL380 OR ABOVE WITHIN TAIPEI (RCAA) FIR. UNLESS OTHERWISE APPROVED BY ATC ARRIVAL AIRCRAFT INTO TAIPEI ARE PROHIBITED.

RJJJ Type: FIR
Notes: SPEED RESTRICTIONS WITHIN JAPAN AIRSPACE MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC. WITHIN AN APPROACH CONTROL AREA BELOW 10000' MSL 250 KIAS WITHIN A CONTROL ZONE 250 KTS PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF RJJJ IN FUKUOKA FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 443101 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 81-78-99-36-501 SATCOM:

RPHI Type: FIR
Notes: CPDLC: CPDLC: SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF RPHI IN MANILA FIR. AIRCRAFT SHOULD LOG ON TO "RPHI" PRIOR TO DEPARTING FROM NINOY AQUINO INTERNATIONAL AIRPORT OR BETWEEN 10 - 25 MINUTES PRIOR TO ENTERING THE MANILA FIR. DATA LINK SERVICES ARE AVAILABLE TO FANS 1/A CAPABLE AIRCRAFT IN THE EAST SECTOR OF MANILA FIR ON THE FOLLOWING AIR ROUTES: 1. A582 2. A590 3. G578 4. M501 5. G467 INMARSAT: INMARSAT SECURITY NUMBERS FOR MANILLA ACC ARE 454801, 454802, AND 454803 INMARSAT: WITHIN THE MANILA FIR, THE AIRSPACE IS DIVIDED INTO THE FOLLOWING CLASSES: CLASS A FL200-UNL (MANILA FIR UPPER CONTROL AREA, EXCEPT SPECIAL USE AIRSPACE) CLASS A LOWER LIMIT - UNL (OCEANIC) CLASS A MEA - UNL (ATS ROUTES OUTSIDE TMA) CLASS E 1500' TO FL200 (TMA, EXCLUDING ATS ROUTES AT FL130 AND ABOVE)

VHHK Type: FIR
Notes: AIRCRAFT SHALL ESTABLISH TWO-WAY RADIO COMMUNICATION WITH HONG KONG RADAR WHEN SO PRESCRIBED BY THE RESPECTIVE ATC UNIT, AND MAINTAIN A LISTENING WATCH. SUCH AIRCRAFT SHALL MAKE POSITION REPORTS WHEN ENTERING AND LEAVING HONG KONG AIRSPACE, AND AT SUCH OTHER TIMES AND/OR POSITIONS AS DIRECTED BY HONG KONG ACC. PILOT SHALL REPORT THE AIRCRAFT CALL SIGN, POSITION (WITH REFERENCE TO A REPORTING POINT), LEVEL (INCLUDING PASSING AND CLEARED LEVELS IF NOT MAINTAINING THE CLEARED LEVEL), TRANSPONDER CODE AND OTHER PERTINENT INFORMATION (E.G. SPEED ASSIGNED BY LAST ATC, TRACKING IF IT DIFFERS FROM THE FLIGHT PLAN ROUTE) IN THE INITIAL CALL BEFORE ENTERING HONG KONG FIR. AIRCRAFT ENTERING HONG KONG FIR OUTSIDE CONTROLLED AIRSPACE, BUT WISHING TO JOIN CONTROLLED AIRSPACE, SHALL REQUEST CLEARANCE FROM HONG KONG ACC STATING FLIGHT LEVEL AND ESTIMATED TIME/POSITION OF JOINING, IN RELATION TO A REPORTING POINT. UNTIL SPECIFIC CLEARANCE IS RECEIVED FROM HONG KONG ACC, THE AIRCRAFT SHALL REMAIN CLEAR OF CONTROLLED AIRSPACE. WITHIN VHHK FIR ALL NON-COMPULSORY REPORTING POINTS ON CONVENTIONAL AND VICTOR ATS-ROUTES ARE COMPULSORY FOR NON-JET AIRCRAFT. RVSM AIRSPACE FL290-FL410 INCLUSIVE. INMARSAT: INMARSAT SECURITY NUMBER FOR HONG KONG ATC IS 441299 INMARSAT:

VVHM Type: FIR
Notes: CPDLC: CPDLC SERVICES FOR FANS-1/A EQUIPPED AIRCRAFT ARE AVAILABLE WITH LOGON ADDRESS OF VVHM IN HO CHI MINH FIR. LOGON SHOULD BE ESTABLISHED 15 TO 45 MINUTES PRIOR TO ENTERING THE DATA LINK AIRSPACE. DATA LINK ROUTES: L625, L628, L642, M765, M768, M771, N500, N892 CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR HO CHI MINH ACC IS 457402 INMARSAT:

ZGZU Type: FIR
Notes: ABOVE 19700' (6000M) THERE ARE FOLLOWING AIRSPACE CLASSES: 19700' (6000M)- 65700'(20000M) CLASS A AIRSPACE 65700'(20000M)-UNLTD CLASS D AIRSPACE AIRSPACE CLASS B DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE TRANSPORT AIRPORTS. FOR TRANSPORT AIRPORTS WITH THREE RUNWAYS (INCLUSIVE) OR MORE, THREE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 10.8NM (20KM), 21.6NM (40KM), AND 32.4NM (60KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 3000' (900M) ABOVE THE AIRPORT ELEVATION, FROM 3000' (900M) ABOVE THE AIRPORT ELEVATION TO 6000' (1800M) ABOVE THE AIRPORT ELEVATION, FROM 6000' (1800M) ABOVE THE AIRPORT ELEVATION TO QNE 19700' (6000M). FOR TRANSPORT AIRPORTS WITH TWO RUNWAYS, TWO-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 8.1NM (15KM) AND 16.2NM (30KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION, FROM 2000' (600M) ABOVE THE AIRPORT ELEVATION TO 11900' (3600M) ABOVE THE AIRPORT ELEVATION, MAXIMUM TO THE LOWER LIMIT OF CLASS A AIRSPACE. FOR TRANSPORT AIRPORTS WITH ONE RUNWAY, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 6.5NM (12KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS C DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE GENERAL AVIATION AIRPORTS WITH TOWER, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 2.7NM (5KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS D AND E DESIGNATED AS FOLLOWING: OUTSIDE OF CLASS A, B, C AND G AIRSPACE, IT CAN BE DESIGNATED AS CLASS D OR E AIRSPACE BASED ON OPERATION AND SAFETY REQUIREMENTS. AIRSPACE CLASS G DESIGNATED AS FOLLOWING: - THE AIRSPACE OUTSIDE OF CLASS B AND C AIRSPACE(CLASS W AIRSPACE EXCLUDED) AND BELOW 1000' (300M) AGL - AIRSPACE BELOW 19700' (6000M) MSL THAT DOES NOT AFFECT CIVIL AVIATION TRANSPORT FLIGHTS. AIRSPACE CLASS W DESIGNATED AS FOLLOWING: PART OF THE CLASS G AIRSPACE BELOW 400' (120M) AGL. RVSM AIRSPACE FL291-FL411 INCLUSIVE. ALL AIRCRAFT ENTERING OR EXITING PR OF CHINA SHALL CONTACT ATC 15-20 MINUTES PRIOR TO FIR ENTRY OR EXIT AND OBTAIN A CLEARANCE TO CROSS THE FIR BOUNDARIES.

ZJSA Type: FIR
Notes: ALL FLIGHTS ENTERING THE SANYA FIR SHOULD ESTABLISH TWO-WAY RADIO COMMUNICATION WITH SANYA ACC WITHIN FIVE MINUTES BEFORE DESIGNATED REPORTING POINTS. ABOVE 19700' (6000M) THERE ARE FOLLOWING AIRSPACE CLASSES: 19700' (6000M)- 65700'(20000M) CLASS A AIRSPACE 65700'(20000M)-UNLTD CLASS D AIRSPACE AIRSPACE CLASS B DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE TRANSPORT AIRPORTS. FOR TRANSPORT AIRPORTS WITH THREE RUNWAYS (INCLUSIVE) OR MORE, THREE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 10.8NM (20KM), 21.6NM (40KM), AND 32.4NM (60KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 3000' (900M) ABOVE THE AIRPORT ELEVATION, FROM 3000' (900M) ABOVE THE AIRPORT ELEVATION TO 6000' (1800M) ABOVE THE AIRPORT ELEVATION, FROM 6000' (1800M) ABOVE THE AIRPORT ELEVATION TO QNE 19700' (6000M). FOR TRANSPORT AIRPORTS WITH TWO RUNWAYS, TWO-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 8.1NM (15KM) AND 16.2NM (30KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION, FROM 2000' (600M) ABOVE THE AIRPORT ELEVATION TO 11900' (3600M) ABOVE THE AIRPORT ELEVATION, MAXIMUM TO THE LOWER LIMIT OF CLASS A AIRSPACE. FOR TRANSPORT AIRPORTS WITH ONE RUNWAY, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 6.5NM (12KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS C DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE GENERAL AVIATION AIRPORTS WITH TOWER, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 2.7NM (5KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS D AND E DESIGNATED AS FOLLOWING: OUTSIDE OF CLASS A, B, C AND G AIRSPACE, IT CAN BE DESIGNATED AS CLASS D OR E AIRSPACE BASED ON OPERATION AND SAFETY REQUIREMENTS. AIRSPACE CLASS G DESIGNATED AS FOLLOWING: - THE AIRSPACE OUTSIDE OF CLASS B AND C AIRSPACE(CLASS W AIRSPACE EXCLUDED) AND BELOW 1000' (300M) AGL - AIRSPACE BELOW 19700' (6000M) MSL THAT DOES NOT AFFECT CIVIL AVIATION TRANSPORT FLIGHTS. AIRSPACE CLASS W DESIGNATED AS FOLLOWING: PART OF THE CLASS G AIRSPACE BELOW 400' (120M) AGL. ALL AIRCRAFT ENTERING OR EXITING PR OF CHINA SHALL CONTACT ATC 15-20

ZSHA Type: FIR
Notes: RVSM AIRSPACE FL291-FL411 INCLUSIVE. ALL AIRCRAFT ENTERING OR EXITING PR OF CHINA SHALL CONTACT ATC 15-20 MINUTES PRIOR TO FIR ENTRY OR EXIT AND OBTAIN A CLEARANCE TO CROSS THE FIR BOUNDARIES. ABOVE 19700' (6000M) THERE ARE FOLLOWING AIRSPACE CLASSES: 19700' (6000M)-65700'(20000M) CLASS A AIRSPACE 65700'(20000M)-UNLTD CLASS D AIRSPACE AIRSPACE CLASS B DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE TRANSPORT AIRPORTS. FOR TRANSPORT AIRPORTS WITH THREE RUNWAYS (INCLUSIVE) OR MORE, THREE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 10.8NM (20KM), 21.6NM (40KM), AND 32.4NM (60KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 3000' (900M) ABOVE THE AIRPORT

ELEVATION, FROM 3000' (900M) ABOVE THE AIRPORT ELEVATION TO 6000' (1800M) ABOVE THE AIRPORT ELEVATION, FROM 6000' (1800M) ABOVE THE AIRPORT ELEVATION TO QNE 19700' (6000M). FOR TRANSPORT AIRPORTS WITH TWO RUNWAYS, TWO-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 8.1NM (15KM) AND 16.2NM (30KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION, FROM 2000' (600M) ABOVE THE AIRPORT ELEVATION TO 11900' (3600M) ABOVE THE AIRPORT ELEVATION, MAXIMUM TO THE LOWER LIMIT OF CLASS A AIRSPACE. FOR TRANSPORT AIRPORTS WITH ONE RUNWAY, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 6.5NM (12KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS C DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE GENERAL AVIATION AIRPORTS WITH TOWER, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 2.7NM (5KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS D AND E DESIGNATED AS FOLLOWING: OUTSIDE OF CLASS A, B, C AND G AIRSPACE, IT CAN BE DESIGNATED AS CLASS D OR E AIRSPACE BASED ON OPERATION AND SAFETY REQUIREMENTS. AIRSPACE CLASS G DESIGNATED AS FOLLOWING: - THE AIRSPACE OUTSIDE OF CLASS B AND C AIRSPACE(CLASS W AIRSPACE EXCLUDED) AND BELOW 1000' (300M) AGL - AIRSPACE BELOW 19700' (6000M) MSL THAT DOES NOT AFFECT CIVIL AVIATION TRANSPORT FLIGHTS. AIRSPACE CLASS W DESIGNATED AS FOLLOWING: PART OF THE CLASS G AIRSPACE BELOW 400' (120M) AGL.

16 Type: Special Use Airspace
Notes: NO FLIGHT IS PERMITTED BELOW 4000 FEET IN R16 UNLESS PERMISSION FROM AOC HAS BEEN OBTAINED. HELICOPTERS ON MEDICAL SERVICES MAY OPERATE IN THIS AREA WITH PERMISSION FROM SUNGSHAN TOWER. IFR AIRCRAFT APPROACHING TAIPEI/SUNGSHAN AIRPORT ARE RESTRICTED TO AN ALTITUDE WHILE CROSSING (APU) VOR AND (LK) LOCATOR NOT LOWER THAN 5000 FEET.

20 Type: Special Use Airspace
Notes: EXCLUSIVELY FOR AIRCRAFT WITH SPEED OF 150 MPH OR LESS. CAUTION ADVISED TO OTHER AIRCRAFT FLYING OVER THE AREA.

30 Type: Special Use Airspace
Notes: IF PRIOR COORDINATION WITH TAFU PROVING GROUND HAS BEEN COMPLETED, CIVIL AIRCRAFT OPERATIONS IN R30 MAY BE APPROVED BY ATC DURING ACTIVE HOURS.

41 Type: Special Use Airspace
Notes: TAITUNG TMA EXCLUDES RC(R)-41 AND RC(R)-42.

48 Type: Special Use Airspace
Notes: NO AIRCRAFT MAY ENTER THIS AREA WITHOUT PRIOR PERMISSION FROM APPROPRIATE AUTHORITY.

BEIDOU EA* Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

BULAO HOT* Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

DAHAN RIV* Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

DALI Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL. FOR ENTERING AND EXITING AREA B. OTHER ACT PROHIBITED.

GAOSHU Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

HUALIEN M* Type: Special Use Airspace
Notes: FOR ENTERING AND EXITING ULM HUATUNG AIRSPACE. OTHER ACT PROHIBITED.

HUATUNG Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 1000 FT AGL.

IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 1000 FT AGL.

LUODONG Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

MAOLUO RI* Type: Special Use Airspace
Notes: FOR ENTERING AND EXITING BEIDOU EAST. OTHER ACT PROHIBITED. IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL. FOR ENTERING AND EXITING BEIDOU EAST. OTHER ACT PROHIBITED.

MIAOLI Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

NANHUA Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

RUEIFANG Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

SAIJIA Type: Special Use Airspace
Notes: IN THOSE PARTS WITH HIGH TERRAIN, THE UPPER LIMIT IS 500 FT AGL.

CLARK TMA Type: Terminal Area
Notes: WITHIN THE TMA AIRWAYS ARE CLASS (A) FL130 AND ABOVE. NO AIRCRAFT WITHOUT A FUNCTIONING ATC TRANSPONDER WITH A MODE C CAPABILITY SHALL BE AUTHORIZED TO OPERATE WITHIN THE TMA, EXCEPT HELICOPTERS FLYING BELOW 304M (1000FT AMSL).

GUANGZHOU APP CTL ZGGGAP01N Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP01S Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP02N Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP02S Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03N1 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG EXCLUDE ZGGGAP02

GUANGZHOU APP CTL ZGGGAP03N2 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG EXCLUDE ZGGGAP02

GUANGZHOU APP CTL ZGGGAP03N3 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG EXCLUDE ZGGGAP02

GUANGZHOU APP CTL ZGGGAP03N4 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03N5 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03N6 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03S1 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG EXCLUDE ZGGGAP01 AND ZGGGAP06

GUANGZHOU APP CTL ZGGGAP03S2 Type: Terminal Area
Notes: EXCLUDE ZGGGAP01 AND ZGGGAP06 RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03S3 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG EXCLUDE ZGGGAP01 AND ZGGG06

GUANGZHOU APP CTL ZGGGAP03S4 Type: Terminal Area
Notes: EXCLUDE ZGGGAP02 RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03S5 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03S6 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP03S7 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP04N1 Type: Terminal Area
Notes: EXCLUDE ZHUHAI TMA RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP04N2 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP04S1 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG EXCLUDE ZHUHAI TMA

GUANGZHOU APP CTL ZGGGAP04S2 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05N1 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05N2 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05N3 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG EXCLUDE ZGGGAP01, ZGGGAP04, ZGGGAP06 AND ZHUHAI TMA

GUANGZHOU APP CTL ZGGGAP05N4 Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05S1 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05S2 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05S3 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05S4 Type: Terminal Area
Notes: EXCLUDE ZGGGAP04 AND ZHUHAI TMA RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP05S5 Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP06N Type: Terminal Area
Notes: RWY01/02L/02R IN USE AT ZGGG

GUANGZHOU APP CTL ZGGGAP06S Type: Terminal Area
Notes: RWY19/20L/20R IN USE AT ZGGG

JINJIANG APP CONTROL AREA Type: Terminal Area
Notes: CONTACT JINJIANG TWR WHEN JINJIANG APP U/S.

LAOAG TMA Type: Terminal Area
Notes: WITHIN THE TMA AIRWAYS ARE CLASS (A) FL130 AND ABOVE.

MANILA TMA Type: Terminal Area
Notes: WITHIN THE TMA AIRWAYS ARE CLASS (A) FL130 AND ABOVE. EXCLUDING MANILA ATZ. SPEED RESTRICTIONS WITHIN MANILA TMA MANDATORY IAS UNLESS OTHERWISE AUTHORIZED BY ATC. (FOR ARRIVING AIRCRAFT): ENTERING TMA 250 KTS. AT 20NM OF NINOY AQUINO INTL AIRPORT 210 KTS. AT 10NM NINOY AQUINO

INTL AIRPORT 180 KTS. AT 5NM NINOY AQUINO INTL AIRPORT 150 KTS.

SANYA APP CTL AREA ZJSYAP02 Type: Terminal Area
Notes: EXCLUDE ZJSYAP01

TAITUNG TMA Type: Terminal Area
Notes: EXCLUDING RC(R)-41

XIAMEN APP CTL AREA ZSAMAP01 Type: Terminal Area
Notes: EXCLUDE JINJIANG APP CONTROL AREA

ZHUHAI TMA ZGJDTM01N1 Type: Terminal Area
Notes: CONTACT APP04 WHEN APP01 U/S RWY33/34 IN USE AT ZGSZ

ZHUHAI TMA ZGJDTM01N2 Type: Terminal Area
Notes: CONTACT APP04 WHEN APP01 U/S RWY33/34 IN USE AT ZGSZ

ZHUHAI TMA ZGJDTM01S1 Type: Terminal Area
Notes: RWY15/16 IN USE AT ZGSZ CONTACT APP04 WHEN APP01 U/S

ZHUHAI TMA ZGJDTM01S2 Type: Terminal Area
Notes: CONTACT APP04 WHEN APP01 U/S RWY15/16 IN USE AT ZGSZ

ZHUHAI TMA ZGJDTM03N1 Type: Terminal Area
Notes: CONTACT APP02 WHEN APP03 U/S RWY33/34 IN USE AT ZGSZ

ZHUHAI TMA ZGJDTM03N2 Type: Terminal Area
Notes: RWY33/34 IN USE AT ZGSZ CONTACT APP02 WHEN APP03 U/S

ZHUHAI TMA ZGJDTM03S Type: Terminal Area
Notes: RWY15/16 IN USE AT ZGSZ CONTACT APP02 WHEN APP03 U/S

ZHUHAI TMA ZGJDTM04N1 Type: Terminal Area
Notes: RWY33/34 IN USE AT ZGSZ CONTACT APP02 WHEN APP04 U/S

ZHUHAI TMA ZGJDTM04N2 Type: Terminal Area
Notes: RWY33/34 IN USE AT ZGSZ CONTACT APP02 WHEN APP04 U/S

ZHUHAI TMA ZGJDTM04S1 Type: Terminal Area
Notes: RWY15/16 IN USE AT ZGSZ

ZHUHAI TMA ZGJDTM04S2 Type: Terminal Area
Notes: RWY15/16 IN USE AT ZGSZ CONTACT APP02 WHEN APP04 U/S

ZHUHAI TMA ZGJDTM05N Type: Terminal Area
Notes: RWY33/34 IN USE AT ZGSZ CONTACT APP03 WHEN APP05 U/S

ZHUHAI TMA ZGJDTM05S Type: Terminal Area
Notes: CONTACT APP03 WHEN APP05 U/S RWY15/16 IN USE AT ZGSZ

ASOBA Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 122.950 AT LEAST 10NM PRIOR TO ASOBA.

BEKOL Type: Waypoint
Notes: CONTACT NEXT ATC UNIT AT LEAST 3 MINUTES PRIOR TO BEKOL.

DOSUT Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 122.950 AT LEAST 10NM PRIOR TO DOSUT.

DOTMI Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 121.300 AT LEAST 10NM PRIOR TO DOTMI.

DUMOL Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 128.125 AT DUMOL.

ELATO Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 121.300 AT LEAST 10NM PRIOR TO ELATO.

IKELA Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 125.325 AT LEAST 10NM PRIOR TO IKELA.

KABAM Type: Waypoint
Notes: DURING 2200-1600, TRANSIT FLIGHTS VIA KABAM SHALL FILE AIRWAY W4 FOR N-BND FLIGHTS & AWY B591/Q11 FOR S-BND FLIGHTS.

KAPLI Type: Waypoint
Notes: DURING 2200-1600, TRANSIT FLIGHTS VIA KAPLI SHALL FILE AIRWAY W4 FOR N-BND FLIGHTS & AWY B591/Q11 FOR S-BND FLIGHTS.
CONTACT HONG KONG RADAR ON 132.150 AT LEAST 10NM PRIOR TO KAPLI.

LELIM Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 121.300 AT LEAST 10NM PRIOR TO LELIM.

NOMAN Type: Waypoint
Notes: AIRCRAFT INBOUND MANILA FIR HAVE TO REACH CRUISING LEVEL 20 NM PRIOR TO NOMAN. CONTACT HONG KONG RADAR ON 132.150 AT LEAST 10NM PRIOR TO NOMAN.

POTIB Type: Waypoint
Notes: DURING 2200-1600, TRANSIT FLIGHTS VIA POTIB SHALL FILE AIRWAY W4 FOR N-BND FLIGHTS & AWY B591/Q11 FOR S-BND FLIGHTS.

ROMEO Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 123.950 AT LEAST 3 MINUTES PRIOR TO ROMEO.

SABNO Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 128.125 AT LEAST 10NM PRIOR TO SABNO. AIRCRAFT INBOUND MANILA FIR HAVE TO REACH CRUISING LEVEL 20 NM PRIOR TO SABNO.

SIERA Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 127.550 AT LEAST 3 MINUTES PRIOR TO SIERA.

SIKOU Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 127.100 AT LEAST 10NM PRIOR TO SIKOU.

TAMOT Type: Waypoint
Notes: CONTACT HONG KONG RADAR ON 127.100 AT LEAST 10 NM PRIOR TO TAMOT.

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HUA HIN Type: Class D Airspace
Notes: EXCLUDING VTR3.

ALFA CONTROL AREA Type: Control Area (Airport)
Notes: ALFA CTA (B), PRIOR TO ENTERING, VFR AIRCRAFT MUST CONTACT BANGKOK ACC AND REPORT POSITION. EXCLUDES VT(D) 16, 19 AND 47.

ALFA CTA (B), PRIOR TO ENTERING, VFR AIRCRAFT MUST CONTACT BANGKOK ACC AND REPORT POSITION. EXCLUDES VT(D) 16, 19 AND 47.

SANYA CTA ZJSYAR01 Type: Control Area (Airport)
Notes: EXCLUDE ZJSYAR04

SANYA CTA ZJSYAR04 Type: Control Area (Airport)
Notes: CONTACT ZJSYAR01 WHEN ZJSYAR04 U/S.

BANGKOK CTR Type: Control Zone (CTZ/CTR)
Notes: EXCLUDING KAMPHAENG SAEN CTR, VT(D)-16, (D)-17, (D)-18, (D)-72.

CAM RANH Type: Control Zone (CTZ/CTR)
Notes: EXCEPT RESPONSIBILITY AREA OF CAM RANH GCU

KAMPHAENG SAEN CTR Type: Control Zone (CTZ/CTR)
Notes: EXCLUDING BANGKOK CONTROL ZONE

KHORAT CTR Type: Control Zone (CTZ/CTR)

Notes: KHORAT CTR (C) ALL INBOUND TRAFFIC CONTACT KHORAT APP ON 129.75 OR 349.0 MHZ PRIOR TO ENTERING.

PHU BAI CTR Type: Control Zone (CTZ/CTR)
Notes: VERTICAL LIMIT IS 5000' FOR AIRSPACE OVERLAP DA NANG TWR AND PHU BAI TWR.

PHU QUOC Type: Control Zone (CTZ/CTR)
Notes: EXCEPT RESPONSIBILITY AREA OF PHU QUOC GCU

SUKHOTHAI CTR Type: Control Zone (CTZ/CTR)
Notes: EXCLUDING PHITSANULOK TMA

TAKHLI CTR Type: Control Zone (CTZ/CTR)
Notes: EXCLUDING ALFA CONTROL AREA, VT D31 AND NAKHON SWAN AD TRAFFIC ZONE.

VDPF Type: FIR
Notes: ALL AIRCRAFT IN THE PHNOM PENH FIR ARE UNDER THE CONTROL OF PHNOM PENH ACC ON FREQUENCY 127.5 MHZ.

VTBB Type: FIR
Notes: RVSM AIRSPACE FL290-FL410 INCLUSIVE. AIRSPACE CLASSIFICATION IS DEFINED ALL ATS ROUTES WITHIN BANGKOK FIR ARE AS FOLLOWS: CLASS A FROM FL290 AND ABOVE CLASS B FROM FL280 AND BELOW AIRWAY USABLE ONLY FOR AIRCRAFT WITH AUTOMATED NAVIGATION SYSTEMS. INMARSAT: INMARSAT SECURITY NUMBER FOR BANGKOK ACC IS 456702 INMARSAT: EASTBOUND FROM YANGON {VYYF} FIR CONTACT BANGKOK CONTROL FREQ 128.1 OR 120.5 AT LEAST 15 MINUTES PRIOR TO ENTERING BANGKOK FIR.

VVHM Type: FIR
Notes: CPDLC: CPDLC SERVICES FOR FANS-1/A EQUIPPED AIRCRAFT ARE AVAILABLE WITH LOGON ADDRESS OF VVHM IN HO CHI MINH FIR. LOGON SHOULD BE ESTABLISHED 15 TO 45 MINUTES PRIOR TO ENTERING THE DATA LINK AIRSPACE. DATA LINK ROUTES: L625, L628, L642, M765, M768, M771, N500, N892 CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR HO CHI MINH ACC IS 457402 INMARSAT:

VYYF Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF VYYF IN YANGON FIR CPDLC. SUITABLY EQUIPPED AIRCRAFT SHOULD LOG ON TO YANGON AFN LOGON ADDRESS AT LEAST 10 MINUTES PRIOR TO ENTER YANGON FIR. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR YANGON ACC IS 450601 INMARSAT:

WMFC Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF WMFC IN KUALA LUMPUR FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR KUALA LUMPUR ACC IS 453302 INMARSAT:

WSJC Type: FIR
Notes: CPDLC: SINGAPORE CONTROL SOUTH CHINA SEA AFN LOGON WSJC AIRCRAFT REQUESTING DATA LINK SERVICES INBOUND TO SINGAPORE FIR ARE REQUIRED TO MANUALLY LOGON ONTO WSJC AT LEAST 10 MINUTES PRIOR TO THE ESTIMATED TIME FOR ENTERING SINGAPORE FIR. DATA LINK EQUIPPED AIRCRAFT DEPARTING FROM AERODROMES WITHIN THE SINGAPORE FIR AND REQUESTING DATA LINK MAY LOGON TO WSJC PRIOR TO DEPARTURE. PILOTS WHO ARE UNABLE TO ESTABLISH A DATA LINK CONNECTION ARE TO INFORM ATC ON VHF OR HF RTF. PILOTS ARE REMINDED TO PROVIDE THE FLIGHT LEVEL ON FIRST CONTACT WITH HF, INCLUDING WHEN ESTABLISHED ON DATA LINK. INMARSAT: INMARSAT SECURITY NUMBER FOR SINGAPORE ATC IS 456301 INMARSAT: G-579, B-470 ARE BI-DIRECTIONAL BELOW FL 200. SPECIAL LEVEL ASSIGNMENTS WITHIN SINGAPORE AND JAKARTA FIRS ARE AS FOLLOWS: SINGAPORE ACC SHALL UTILIZE: A) ALL ODD FLIGHT LEVELS PLUS 500' UP TO AND INCLUDING FL 195. {QUADRANTAL} B) ABOVE FL 195 STARTING AT FL 210 ALL ODD FLIGHT LEVELS UP TO AND INCLUDING FL 290. {SEMICIRCULAR} C) ABOVE FL 290, ALL FLIGHT LEVELS AT 1000' INTERVALS STARTING AT FL 310 AND UP TO FL 410, EXCEPT FOR FLIGHTS BEYOND JAKARATA WHERE ONLY ODD-FLIGHT LEVELS SHALL BE ASSIGNED. CONTROLLED AIRSPACE WITHIN SINGAPORE FIR: 1. WITHIN 100NM OF SHORELINE FL150-FL460 CLASS (A), GND-FL150 CLASS (B) 2. BEYOND 100NM OF SHORELINE: LOWER LIMIT-FL460 CLASS (A) INSTRUMENT VISUAL [I/V] CONTROLLED AIRSPACE WITHIN WHICH ONLY IFR AND CONTROLLED VFR FLIGHTS ARE PERMITTED.

ZJSA Type: FIR
Notes: ALL FLIGHTS ENTERING THE SANYA FIR SHOULD ESTABLISH TWO-WAY RADIO COMMUNICATION WITH SANYA ACC WITHIN FIVE MINUTES BEFORE DESIGNATED REPORTING POINTS. ABOVE 19700' (6000M) THERE ARE FOLLOWING AIRSPACE CLASSES: 19700' (6000M)- 65700'(20000M) CLASS A AIRSPACE 65700'(20000M)-UNLTD CLASS D AIRSPACE AIRSPACE CLASS B DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE TRANSPORT AIRPORTS. FOR TRANSPORT AIRPORTS WITH THREE RUNWAYS (INCLUSIVE) OR MORE, THREE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 10.8NM (20KM), 21.6NM (40KM), AND 32.4NM (60KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 3000' (900M) ABOVE THE AIRPORT ELEVATION, FROM 3000' (900M) ABOVE THE AIRPORT ELEVATION TO 6000' (1800M) ABOVE THE AIRPORT ELEVATION, FROM 6000' (1800M) ABOVE THE AIRPORT ELEVATION TO QNE 19700' (6000M). FOR TRANSPORT AIRPORTS WITH TWO RUNWAYS, TWO-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 8.1NM (15KM) AND 16.2NM (30KM), ALTITUDES RESPECTIVELY FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION, FROM 2000' (600M) ABOVE THE AIRPORT ELEVATION TO 11900' (3600M) ABOVE THE AIRPORT ELEVATION, MAXIMUM TO THE LOWER

LIMIT OF CLASS A AIRSPACE. FOR TRANSPORT AIRPORTS WITH ONE RUNWAY, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 6.5NM (12KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS C DESIGNATED AS FOLLOWING: THE AIRSPACE DESIGNATED ABOVE GENERAL AVIATION AIRPORTS WITH TOWER, ONE-TIERED STRUCTURE IS USUALLY ESTABLISHED WITH RADIUS OF 2.7NM (5KM), ALTITUDE FROM RUNWAY SURFACE TO 2000' (600M) ABOVE THE AIRPORT ELEVATION. AIRSPACE CLASS D AND E DESIGNATED AS FOLLOWING: OUTSIDE OF CLASS A, B, C AND G AIRSPACE, IT CAN BE DESIGNATED AS CLASS D OR E AIRSPACE BASED ON OPERATION AND SAFETY REQUIREMENTS. AIRSPACE CLASS G DESIGNATED AS FOLLOWING: - THE AIRSPACE OUTSIDE OF CLASS B AND C AIRSPACE(CLASS W AIRSPACE EXCLUDED) AND BELOW 1000' (300M) AGL - AIRSPACE BELOW 19700' (6000M) MSL THAT DOES NOT AFFECT CIVIL AVIATION TRANSPORT FLIGHTS. AIRSPACE CLASS W DESIGNATED AS FOLLOWING: PART OF THE CLASS G AIRSPACE BELOW 400' (120M) AGL. ALL AIRCRAFT ENTERING OR EXITING PR OF CHINA SHALL CONTACT ATC 15-20

18 Type: Special Use Airspace
Notes: TRAINING AIRCRAFT AT FL200 AND ABOVE WILL BE AUTHORIZED BY BANGKOK ACC.

TRAINING AIRCRAFT AT FL200 AND ABOVE WILL BE AUTHORIZED BY BANGKOK ACC.

20 Type: Special Use Airspace
Notes: EXCLUDING HUA HIN CTR, TMA, AND G458.

32 Type: Special Use Airspace
Notes: EXCLUDING KHORAT CONTROL ZONE AND BURI RAM TERMINAL CONTROL AREA.

34 Type: Special Use Airspace
Notes: EXCLUDING AIRWAY W21.

35 Type: Special Use Airspace
Notes: EXCLUDING CHUMPHON TMA.

36 Type: Special Use Airspace
Notes: UPPER LIMIT WILL BE PROVIDED BY ATC UNIT

41 Type: Special Use Airspace
Notes: EXCLUDING AIRWAY W20 BETWEEN FL75-FL200 CHIANG MAI TMA AND CHIANG RAI TMA.

47 Type: Special Use Airspace
Notes: AIRCRAFT DEPARTING FROM DON MUEANG INTERNATIONAL AIRPORT MUST CONTACT DON MUEANG APPROACH. BEFORE LEAVING VT D47 THE PILOT MUST REPORT HIS POSITION, DISTANCE AND HEADING TO BANGKOK APPROACH.

57 Type: Special Use Airspace
Notes: EXCLUDES AIRWAY W-9.

EXCLUDES AIRWAY W-9.

59 Type: Special Use Airspace
Notes: EXCLUDING CHUMPON TMA AND RANONG TMA AND CTR.

72 Type: Special Use Airspace
Notes: AIRCRAFT DEPARTING FROM DON MUEANG INTERNATIONAL AIRPORT MUST CONTACT DON MUEANG APPROACH, THE CONTROLLER WILL INSTRUCT THE PILOT TO REPORT OVER BANG BUA THONG (N13 56 10 E100 25 40) AT ALTITUDE NOT ABOVE 1,500 FEET BEFORE ENTERING VT D72. BEFORE LEAVING VT D72 THE PILOT MUST REPORT HIS POSITION, DISTANCE AND HEADING TO DON MUEANG APPROACH, THE CONTROLLER WILL INSTRUCT THE PILOT TO REPORT OVER PATHUMTHANI (N14 01 56 E100 32 55) AT ALTITUDE NOT ABOVE 1,000 FEET, THEN REPORT 3 NM WEST (N13 55 56 E100 33 35) AND THEN REPORT ENTERING DOWNWIND FOR LANDING RUNWAY 21L/21R OR RUNWAY 03R/03L.

AIRCRAFT DEPARTING FROM DON MUEANG INTERNATIONAL AIRPORT MUST CONTACT DON MUEANG APPROACH, THE CONTROLLER WILL INSTRUCT THE PILOT TO REPORT OVER BANG BUA THONG (N13 56 10 E100 25 40) AT ALTITUDE NOT ABOVE 1,500 FEET BEFORE ENTERING VT D72. BEFORE LEAVING VT D72 THE PILOT MUST REPORT HIS POSITION, DISTANCE AND HEADING TO DON MUEANG APPROACH, THE CONTROLLER WILL INSTRUCT THE PILOT TO REPORT OVER PATHUMTHANI (N14 01 56 E100 32 55) AT ALTITUDE NOT ABOVE 1,000 FEET, THEN REPORT 3 NM WEST (N13 55 56 E100 33 35) AND THEN REPORT ENTERING DOWNWIND FOR LANDING RUNWAY 21L/21R OR RUNWAY 03R/03L.

SANYA APP CTL AREA ZJSYAP02 Type: Terminal Area
Notes: EXCLUDE ZJSYAP01

BANGKOK TMA EAST Type: Terminal Control Area
Notes: SPEED RESTRICTIONS WITHIN BANGKOK TMA BELOW 10000' 250KTS UNLESS PREVIOUSLY REMOVED BY ATC. VTBD ARRIVALS INTERMEDIATE

APPROACH PHASE 210 KTS. FINAL APPROACH PHASE ON OR SHORTLY BEFORE THE CLOSING HEADING ON THE ILS 160KTS TO 180KTS. WHEN ESTABLISHED ON THE ILS 160KTS. EXCLUDING BANGKOK CONTROL ZONE.

BANGKOK TMA NORTH Type: Terminal Control Area
Notes: EXCLUDING BANGKOK CONTROL ZONE. SPEED RESTRICTIONS WITHIN BANGKOK TMA BELOW 10000' 250KTS UNLESS PREVIOUSLY REMOVED BY ATC. VTBD ARRIVALS INTERMEDIATE APPROACH PHASE 210 KTS. FINAL APPROACH PHASE ON OR SHORTLY BEFORE THE CLOSING HEADING ON THE ILS 160KTS TO 180KTS. WHEN ESTABLISHED ON THE ILS 160KTS.

BANGKOK TMA SOUTH Type: Terminal Control Area
Notes: EXCLUDING BANGKOK CONTROL ZONE, VT(D)-19. SPEED RESTRICTIONS WITHIN BANGKOK TMA BELOW 10000' 250KTS UNLESS PREVIOUSLY REMOVED BY ATC. VTBD ARRIVALS INTERMEDIATE APPROACH PHASE 210 KTS. FINAL APPROACH PHASE ON OR SHORTLY BEFORE THE CLOSING HEADING ON THE ILS 160KTS TO 180KTS. WHEN ESTABLISHED ON THE ILS 160KTS.

BANGKOK TMA WEST Type: Terminal Control Area
Notes: SPEED RESTRICTIONS WITHIN BANGKOK TMA BELOW 10000' 250KTS UNLESS PREVIOUSLY REMOVED BY ATC. VTBD ARRIVALS INTERMEDIATE APPROACH PHASE 210 KTS. FINAL APPROACH PHASE ON OR SHORTLY BEFORE THE CLOSING HEADING ON THE ILS 160KTS TO 180KTS. WHEN ESTABLISHED ON THE ILS 160KTS. EXCLUDING BANGKOK CONTROL ZONE.

HUA HIN TMA Type: Terminal Control Area
Notes: HUA HIN TMA EXCLUDES VT(R)3, VT(R)8, AND G458 AIRWAY GND-11000'.

SAKON NAKHON TMA Type: Terminal Control Area
Notes: EXCLUDING NAKHON PHANOM CONTROL ZONE.

TAK TMA Type: Terminal Control Area
Notes: EXCLUDING A464, G473, VT D33 AND VT D56.

U-TAPAO Type: Terminal Control Area
Notes: EXCLUDES A. U-TAPAO CONTROL ZONE B. THAT PORTION OVERLAPPED BY BANGKOK ALFA CONTROL AREA AND HUA HIN TERMINAL CONTROL AREA. C. EXCLUDES ALL AIRSPACE ON AIRWAYS A464, R468, G463, AND G458 FROM FL65 TO FL460

U-TAPAO TMA Type: Terminal Control Area
Notes: EXCLUDES A. U-TAPAO CONTROL ZONE B. THAT PORTION OVERLAPPED BY BANGKOK ALFA CONTROL AREA AND HUA HIN TERMINAL CONTROL AREA. C. EXCLUDES ALL AIRSPACE ON AIRWAYS A464, R468, G463, AND G458 FROM FL65 TO FL460

EXCLUDES A. U-TAPAO CONTROL ZONE B. THAT PORTION OVERLAPPED BY BANGKOK ALFA CONTROL AREA AND HUA HIN TERMINAL CONTROL AREA. C. EXCLUDES ALL AIRSPACE ON AIRWAYS A464, R468, G463, AND G458 FROM FL65 TO FL460

EXCLUDES A. U-TAPAO CONTROL ZONE B. THAT PORTION OVERLAPPED BY BANGKOK ALFA CONTROL AREA AND HUA HIN TERMINAL CONTROL AREA. C. EXCLUDES ALL AIRSPACE ON AIRWAYS A464, R468, G463, AND G458 FROM FL65 TO FL460

ENBIL Type: Waypoint
Notes: A202 ON REQUEST.

LEKOB Type: Waypoint
Notes: ALL TRAFFIC ENTERING THE VIENTIANE FIR SHOULD ESTABLISH AND MAINTAIN TWO-WAY RADIO COMMUNICATION WITH VIENTIANE ACC AT LEAST THREE (3) MINUTES BEFORE DESIGNATED REPORTING POINT LEKOB INT

Regional Notes

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RJJJ Type: FIR
JDA AREAS, JDA CORRIDORS, AND JAPAN TRAINING AND TESTING AREAS
JDA AREAS Aircraft flying for purposes other than training/testing should not enter this airspace without prior coordination with Controlling Unit. Aircraft entering airspace inevitably for emergencies or avoidance of thunderclouds etc., should make a report to Controlling Unit on 121.5 MHz or 243.0 MHz (emergencies) or on the published frequency of the Controlling Unit (all other situations).
JDA CORRIDORS Aircraft should not penetrate corridors without permission by ACC controlling corridors.
JAPAN TRAINING AND TESTING AREAS EXCLUDES: Airways, ATS routes, SIDs, STARs, instrument approach routes, radar vectoring routes and holding areas and their protective airspace.

ZSHA Type: FIR
ALTIMETER SETTING Use QNH (where transition altitude established) for Take-off and climb until passing transition altitude. Use QFE (where transition height established) for Take-off and climb until passing transition height. Use QFE (where no transition altitude or transition height established) for Take-off and climb until passing 600m/1970'. Descent and landing as soon as passing transition level where established or after crossing ACA boundary or as instructed by ATC.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS CHINA ATC will issue the Flight Level clearance in meters. Pilots shall use the PR of China RVSM FLAS Diagram to determine the corresponding Flight Level in feet. The aircraft shall be flown using the Flight Level in FEET. Pilots should be aware that due to the rounding differences, the metric readout of the onboard avionics will not necessarily correspond to the cleared Flight Level in meters however the difference will never be more than 30 meters.

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RJJJ Type: FIR
JDA AREAS, JDA CORRIDORS, AND JAPAN TRAINING AND TESTING AREAS
JDA AREAS Aircraft flying for purposes other than training/testing should not enter this airspace without prior coordination with Controlling Unit. Aircraft entering airspace inevitably for emergencies or avoidance of thunderclouds etc., should make a report to Controlling Unit on 121.5 MHz or 243.0 MHz (emergencies) or on the published frequency of the Controlling Unit (all other situations).
JDA CORRIDORS Aircraft should not penetrate corridors without permission by ACC controlling corridors.
JAPAN TRAINING AND TESTING AREAS EXCLUDES: Airways, ATS routes, SIDs, STARs, instrument approach routes, radar vectoring routes and holding areas and their protective airspace.

ZGZU Type: FIR
ALTIMETER SETTING Use QNH (where transition altitude established) for Take-off and climb until passing transition altitude. Use QFE (where transition height established) for Take-off and climb until passing transition height. Use QFE (where no transition altitude or transition height established) for Take-off and climb until passing 600m/1970'. Descent and landing as soon as passing transition level where established or after crossing ACA boundary or as instructed by ATC.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS CHINA ATC will issue the Flight Level clearance in meters. Pilots shall use the PR of China RVSM FLAS Diagram to determine the corresponding Flight Level in feet. The aircraft shall be flown using the Flight Level in FEET. Pilots should be aware that due to the rounding differences, the metric readout of the onboard avionics will not necessarily correspond to the cleared Flight Level in meters however the difference will never be more than 30 meters.

ZJSA Type: FIR
ALTIMETER SETTING Use QNH (where transition altitude established) for Take-off and climb until passing transition altitude. Use QFE (where transition height established) for Take-off and climb until passing transition height. Use QFE (where no transition altitude or transition height established) for Take-off and climb until passing 600m/1970'. Descent and landing as soon as passing transition level where established or after crossing ACA boundary or as instructed by ATC.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS CHINA ATC will issue the Flight Level clearance in meters. Pilots shall use the PR of China RVSM FLAS Diagram to determine the corresponding Flight Level in feet. The aircraft shall be flown using the Flight Level in FEET. Pilots should be aware that due to the rounding differences, the metric readout of the onboard avionics will not necessarily correspond to the cleared Flight Level in meters however the difference will never be more than 30 meters.

ZSHA Type: FIR
ALTIMETER SETTING Use QNH (where transition altitude established) for Take-off and climb until passing transition altitude. Use QFE (where transition height established) for Take-off and climb until passing transition height. Use QFE (where no transition altitude or transition height established) for Take-off and climb until passing 600m/1970'. Descent and landing as soon as passing transition level where established or after crossing ACA boundary or as instructed by ATC.

CRUISING LEVEL PROCEDURES

CRUISING LEVELS CHINA ATC will issue the Flight Level clearance in meters. Pilots shall use the PR of China RVSM FLAS Diagram to determine the corresponding Flight Level in feet. The aircraft shall be flown using the Flight Level in FEET. Pilots should be aware that due to the rounding differences, the metric readout of the onboard avionics will not necessarily correspond to the cleared Flight Level in meters however the difference will never be more than 30 meters.

Page 3 Strip Charts

VLVT Type: FIR
REGIONAL COMMUNICATIONS
Flights to or from Vientiane crossing Thailand Territory must submit flight plan 24 hours in advance.

ZJSA Type: FIR
ALTIMETER SETTING Use QNH (where transition altitude established) for Take-off and climb until passing transition altitude. Use QFE (where transition height established) for Take-off and climb until passing transition height. Use QFE (where no transition altitude or transition height established) for Take-off and climb until passing 600m/1970'. Descent and landing as soon as passing transition level where established or after crossing ACA boundary or as instructed by ATC.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS CHINA ATC will issue the Flight Level clearance in meters. Pilots shall use the PR of China RVSM FLAS Diagram to determine the corresponding Flight Level in feet. The aircraft shall be flown using the Flight Level in FEET. Pilots should be aware that due to the rounding differences, the metric readout of the onboard avionics will not necessarily correspond to the cleared Flight Level in meters however the difference will never be more than 30 meters.

Reference Notes

Page 1 Strip Charts

RCAA Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RJJJ Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

NORTH PACIFIC (NOPAC) ROUTE PROCEDURES

a. The NOPAC Route System is comprised of five Air Traffic Service (ATS) routes which transit the North Pacific between Alaska and Japan. The two northern routes are used for westbound traffic. The three southern routes are used for eastbound traffic, except that R-591 or G-344 may be used for westbound aircraft crossing the Fukuoka/Anchorage FIR between 0000UTC and 0600UTC. The routes are as follows: R-220, R-580, A-590, R-591 and G-344.

b. Transition Routes

1. Within the Fukuoka FIR, Oceanic Transition Routes (OTRs) and, in one case, a Victor route, have been established for aircraft transitioning to or from the NOPAC Route System.

2. Within the Anchorage FIR, certain ATS routes are used for the same purpose. They are as follows: B-327 (For Westbound use only between BAMOK and SELDM), R-341, G-469, A-342, G-215, R-330, R-451, R-336, R-338, G-583 and G-349.

c. Separation Standards

1. The primary form of lateral separation within the NOPAC Route System is 25NM lateral either side of the centerline, based on Required Navigation Performance 10 (RNP-10) and 1000' vertical separation (FL290 - FL410) based on Reduced Vertical Separation Minimums (RVSM).

2. Lateral separation for Non-RNP10 aircraft and aircraft operating below FL180 is 50NM lateral either side of the centerline.

3. Standard longitudinal separation within the Anchorage Oceanic FIR is 15 minutes "in trail".

d. Flight Plans

1. Aircraft shall enter "R" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RNP 10 operations for the route of flight.

2. Aircraft shall enter "W" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RVSM.

3. Aircraft not approved for RNP 10 and/or RVSM shall not enter "R" and/or "W" in item 10.

4. Aircraft approved for both RNP 10 and RVSM may flight plan any of the NOPAC routes with the following altitude restrictions:

(a) R-220: Even Altitudes FL180 to FL400, also FL330, FL350, FL370, FL390, FL410

(b) R-580: Even Altitudes FL180 to FL400, also FL350, FL370

(c) A-590: Odd Altitudes FL190 to FL410, also FL300, FL320, FL340

(d) R-591: Eastbound, Odd Altitudes FL190 to FL410

(e) R-591: Westbound, Even Altitudes FL300 to FL400

(f) G-344: Eastbound, Odd Altitudes FL190 to FL410

(g) G-344: Westbound, Even Altitudes FL300 to FL400

(h) R-591 and G-344 are Eastbound routes unless designated as Westbound PACOTS. Traffic flows are either Eastbound or Westbound with the tracks being emptied of traffic before changing direction.

5. Non-RNP-10 aircraft shall flight plan as follows:

(a) Westbound: R-220 at all times.

(b) Eastbound: A-590 at all times.

(c) Eastbound: G-344 when available for eastbound flights.

(d) The altitudes available on these routes are at or below FL280 and at or above FL430.

e. Procedures

1. Peak traffic periods:

(a) Eastbound - 0700UTC to 2100UTC

(b) Westbound - 1200UTC to 1900UTC and 2200UTC to 0800UTC

(c) Due to traffic volume, flights desiring to operate contrary to the predominant traffic flow can expect to be rerouted or assigned less than optimum flight levels. If feasible, users planning to operate in the NOPAC Route System at airspeeds below MACH 0.78 should use other than the peak hours for their flights. This will reduce congestion and expedite traffic.

f. Aircraft cannot always be accommodated on their flight planned NOPAC route. In an effort to reduce coordination time and errors between ATC and flight crews, JCAB (Fukuoka ATMC) and FAA (Anchorage ARTCC) have agreed on a common procedure to accommodate most reroutes. Aircraft rerouted from one NOPAC ATC route to another NOPAC ATC route will be given short range clearances into the adjoining FIR's RADAR coverage airspace. The receiving ATC facility will then issue further routing to the aircraft prior to the aircraft reaching the clearance limit.

1. Example 1: aircraft ABC101 is routed via R-220 to RJTT but can not be accommodated on R-220. The aircraft may be re-cleared as follows: "ABC101 cleared to OATIS via R-580, expect further clearance from ATMC after OMOTO."

2. Example 2: aircraft ABC102 is routed via A-590 to PAFA but can not be accommodated on A-590. The aircraft may be re-cleared as follows: "ABC102 cleared to SYA via R-591, expect further routing from Anchorage ARTCC after AKISU."

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

TRANSPONDER REQUIRED
Transponder (Mode A/3 & Mode C) required in Approach Control Area and Control Zones.

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FLIGHT PROCEDURES Okinawa Approach Control provides full time Stage III Service (RADAR sequencing and separation service for VFR aircraft) within the Okinawa TCA. No aircraft may operate within the TCA unless appropriate authorization is received from TAC prior to the operation.

a. VFR aircraft enroute to destination airports within the Okinawa TCA, should contact Okinawa Approach Control 50NM from the Kadena VORTAC.

1. Aircraft operating southeast of Kadena 050/230 radials use 258.3/126.5 MHz.

2. Aircraft operating northwest of Kadena 230/050 radials use 335.8/119.1 MHz.

3. Monitor ATIS broadcasts of destination airport prior to contacting Approach Control and advise ATIS code received on initial contact.

b. VFR aircraft departing Kadena AB will advise Ground Control prior to taxi, of intended direction of flight and proposed altitude to depart the TCA. VFR aircraft departing other airports that desire ATC service, will advise the appropriate tower prior to departure. The tower will then advise when to contact Departure Control and assign a frequency and beacon code.

c. The procedures used in this program are not to be interpreted as relieving pilots of their responsibilities to:

1. See, and avoid other traffic operating in VFR conditions,
2. Maintain appropriate terrain and obstruction clearance,
3. Remain in weather conditions equal to, or better than, the minimum required by pertinent regulations, and
4. Whenever compliance with an assigned route or heading is likely to compromise any of the above, Okinawa Approach Control shall be so advised.

d. Except in the case of inflight failure, no person may operate an aircraft within the TCA unless equipped with the following:

1. VOR or TACAN receiver (except helicopters),
2. Two-way radio capable of communicating with ATC on the appropriate frequencies for the TCA, or
3. Coded RADAR Beacon Transponder having at least a Mode A/3 & Mode C, 64 code capability, replying to A/3 interrogation with the code specfied by ATC.

RKRR Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ZSHA Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

Page 2 Strip Charts

RCAA Type: FIR
ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

RJJJ Type: FIR
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Transponder (Mode A/3 & Mode C) required in Approach Control Area and Control Zones.

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For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

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a. The NOPAC Route System is comprised of five Air Traffic Service (ATS) routes which transit the North Pacific between Alaska and Japan. The two northern routes are used for westbound traffic. The three southern routes are used for eastbound traffic, except that R-591 or G-344 may be used for westbound aircraft crossing the Fukuoka/Anchorage FIR between 0000UTC and 0600UTC. The routes are as follows: R-220, R-580, A-590, R-591 and G-344.

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1. Within the Fukuoka FIR, Oceanic Transition Routes (OTRs) and, in one case, a Victor route, have been established for aircraft transitioning to or from the NOPAC Route System.

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c. Separation Standards

1. The primary form of lateral separation within the NOPAC Route System is 25NM lateral either side of the centerline, based on Required Navigation Performance 10 (RNP-10) and 1000' vertical separation (FL290 - FL410) based on Reduced Vertical Separation Minimums (RVSM).

2. Lateral separation for Non-RNP10 aircraft and aircraft operating below FL180 is 50NM lateral either side of the centerline.

3. Standard longitudinal separation within the Anchorage Oceanic FIR is 15 minutes "in trail".

d. Flight Plans

1. Aircraft shall enter "R" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RNP 10 operations for the route of flight.

2. Aircraft shall enter "W" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RVSM.

3. Aircraft not approved for RNP 10 and/or RVSM shall not enter "R" and/or "W" in item 10.

4. Aircraft approved for both RNP 10 and RVSM may flight plan any of the NOPAC routes with the following altitude restrictions:

(a) R-220: Even Altitudes FL180 to FL400, also FL330, FL350, FL370, FL390, FL410

(b) R-580: Even Altitudes FL180 to FL400, also FL350, FL370

(c) A-590: Odd Altitudes FL190 to FL410, also FL300, FL320, FL340

(d) R-591: Eastbound, Odd Altitudes FL190 to FL410

(e) R-591: Westbound, Even Altitudes FL300 to FL400

(f) G-344: Eastbound, Odd Altitudes FL190 to FL410

(g) G-344: Westbound, Even Altitudes FL300 to FL400

(h) R-591 and G-344 are Eastbound routes unless designated as Westbound PACOTS. Traffic flows are either Eastbound or Westbound with the tracks being emptied of traffic before changing direction.

5. Non-RNP-10 aircraft shall flight plan as follows:

(a) Westbound: R-220 at all times.

(b) Eastbound: A-590 at all times.

(c) Eastbound: G-344 when available for eastbound flights.

(d) The altitudes available on these routes are at or below FL280 and at or above FL430.

e. Procedures

1. Peak traffic periods:

(a) Eastbound - 0700UTC to 2100UTC

(b) Westbound - 1200UTC to 1900UTC and 2200UTC to 0800UTC

(c) Due to traffic volume, flights desiring to operate contrary to the predominant traffic flow can expect to be rerouted or assigned less than optimum flight levels. If feasible, users planning to operate in the NOPAC Route System at airspeeds below MACH 0.78 should use other than the peak hours for their flights. This will reduce congestion and expedite traffic.

f. Aircraft cannot always be accommodated on their flight planned NOPAC route. In an effort to reduce coordination time and errors between ATC and flight crews, JCAB (Fukuoka ATMC) and FAA (Anchorage ARTCC) have agreed on a common procedure to accommodate most reroutes. Aircraft rerouted from one NOPAC ATC route to another NOPAC ATC route will be given short range clearances into the adjoining FIR's RADAR coverage airspace. The receiving ATC facility will then issue further routing to the aircraft prior to the aircraft reaching the clearance limit.

1. Example 1: aircraft ABC101 is routed via R-220 to RJTT but can not be accommodated on R-220. The aircraft may be re-cleared as follows: "ABC101 cleared to OATIS via R-580, expect further clearance from ATMC after OMOTO."

2. Example 2: aircraft ABC102 is routed via A-590 to PAFA but can not be accommodated on A-590. The aircraft may be re-cleared as follows: "ABC102 cleared to SYA via R-591, expect further routing from Anchorage ARTCC after AKISU."

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

FLIGHT PROCEDURES Okinawa Approach Control provides full time Stage III Service (RADAR sequencing and separation service for VFR aircraft) within the Okinawa TCA. No aircraft may operate within the TCA unless appropriate authorization is received from TAC prior to the operation.

a. VFR aircraft enroute to destination airports within the Okinawa TCA, should contact Okinawa Approach Control 50NM from the Kadena VORTAC.

1. Aircraft operating southeast of Kadena 050/230 radials use 258.3/126.5 MHz.

2. Aircraft operating northwest of Kadena 230/050 radials use 335.8/119.1 MHz.

3. Monitor ATIS broadcasts of destination airport prior to contacting Approach Control and advise ATIS code received on initial contact.

b. VFR aircraft departing Kadena AB will advise Ground Control prior to taxi, of intended direction of flight and proposed altitude to depart the TCA. VFR aircraft departing other airports that desire ATC service, will advise the appropriate tower prior to departure. The tower will then advise when to contact Departure Control and assign a frequency and beacon code.

c. The procedures used in this program are not to be interpreted as relieving pilots of their responsibilities to:

1. See, and avoid other traffic operating in VFR conditions,

2. Maintain appropriate terrain and obstruction clearance,

3. Remain in weather conditions equal to, or better than, the minimum required by pertinent regulations, and

4. Whenever compliance with an assigned route or heading is likely to compromise any of the above, Okinawa Approach Control shall be so advised.

d. Except in the case of inflight failure, no person may operate an aircraft within the TCA unless equipped with the following:

1. VOR or TACAN receiver (except helicopters),

2. Two-way radio capable of communicating with ATC on the appropriate frequencies for the TCA, or

3. Coded RADAR Beacon Transponder having at least a Mode A/3 & Mode C, 64 code capability, replying to A/3 interrogation with the code specfied by ATC.

RPHI Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

FLIGHT PROCEDURES AIRCRAFT SPEED CONTROL PROCEDURES Maximum IAS unless otherwise authorized by ATC. For arriving aircraft: 250KTS.
VFR OPERATIONS:

a. Be equipped with 118.1 MHz transceivers and approach frequency 119.7 MHz.

b. Prior to entering the designated VFR areas, contact Manila Tower on 118.1 MHz.

c. Adhere to the established MIA VFR arrival/departure routings.

d. 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.

e. When intending to transit the IFR climb/descend areas, contact Manila Approach on 119.7 MHz for the necessary clearance.

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

IFR OPERATIONS:

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

b. IFR traffic radar vector to final approach of runways 06/24 shall maintain 3500FT prior to entering the IFR climb/descend area. Descent shall be made without violating the radar minimum vectoring altitude.

c. In the event of radar and/or 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.

d. All arriving IFR flights shall maintain an indicated airspeed (IAS) of 150KTS or more up to 5 DME final of Rwy 06/24.

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

VHHK Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete information see Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

ATS ROUTE RESTRICTION NOTES
ATS ROUTE RESTRICTIONS For information regarding flight planning purposes refer to Enroute EE-101 and consecutive pages.

VHHK Transition Routes
For complete information of Terminal Transition Routes within VHHK FIR see VHHH Terminal charts.

VVHM Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

VVHN Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

ZGZU Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

ZJSA Type: FIR
RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

ZSHA Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

Page 3 Strip Charts

VLVT Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

VTBB Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

ADIZ REQUIREMENTS
THAILAND ADIZ REQUIREMENTS see Enroute section.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

VVHM Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

VVHN Type: FIR
RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

VYYF Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
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TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

MACH NUMBER TECHNIQUE: For information about routes and/or areas affected, see AIR TRAFFIC CONTROL section.

ADIZ REQUIREMENTS
MYANMAR ADIZ REQUIREMENTS see Enroute section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

WMFC Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

WSJC Type: FIR
REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

FLIGHT PLANNING PROCEDURES
See Enroute Page P-11 for Flight Planning Procedures

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

ZJSA Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR): For Beacon Code procedures see ENROUTE section.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.