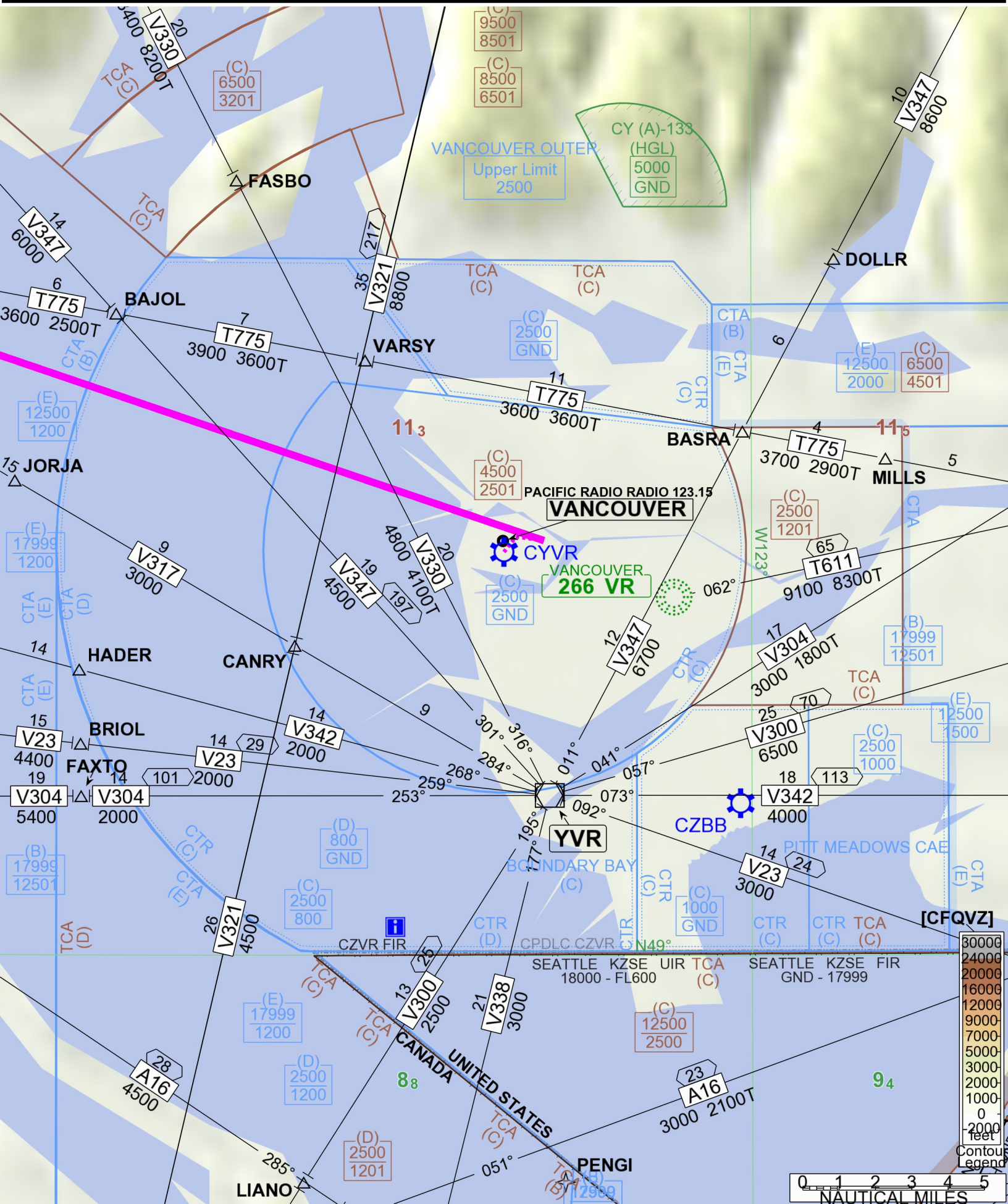
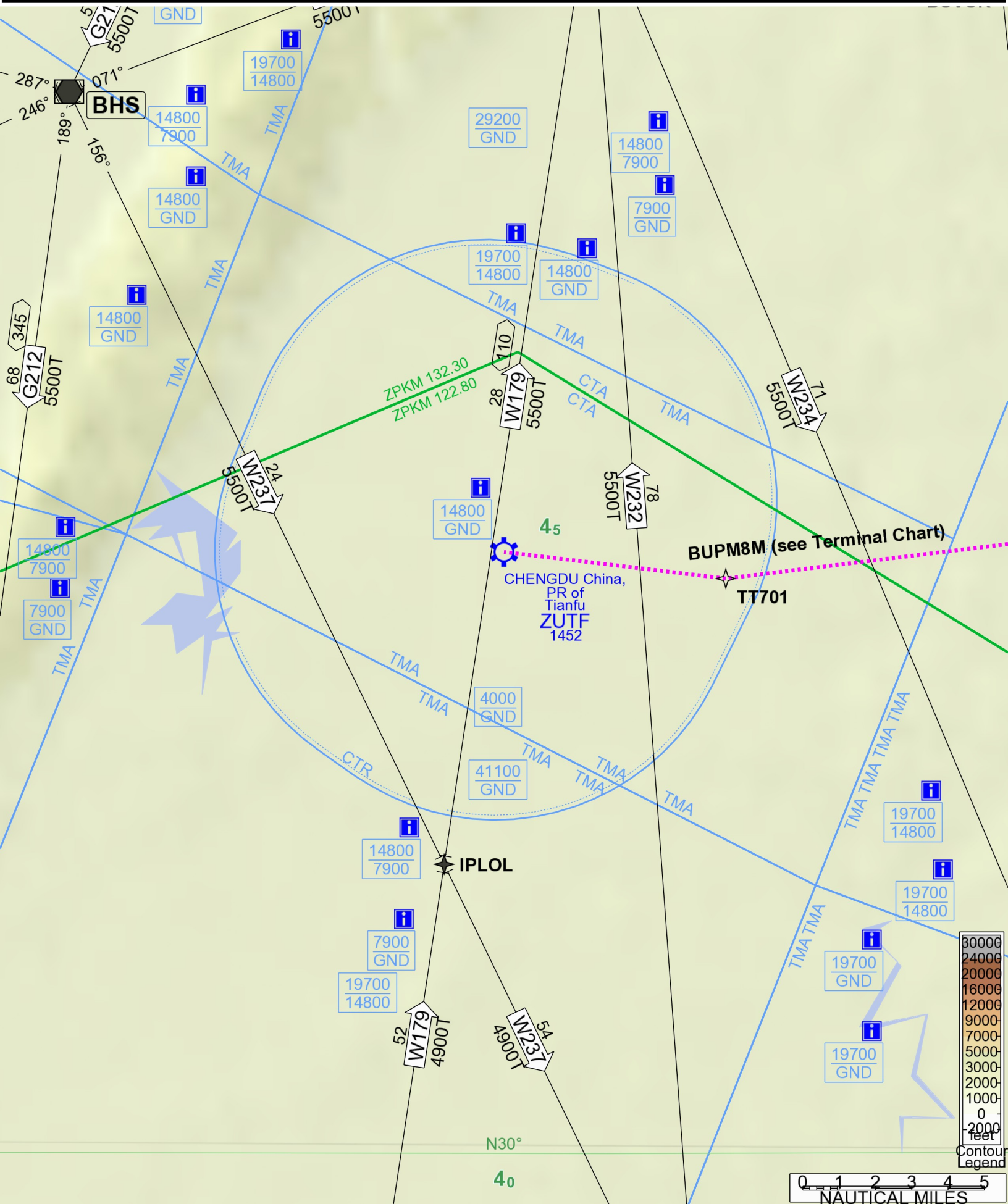
JEPPESEN
JeppView for Windows

List of pages in this Trip Kit

Enroute Chart - CYVR - ZUTF Departure
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



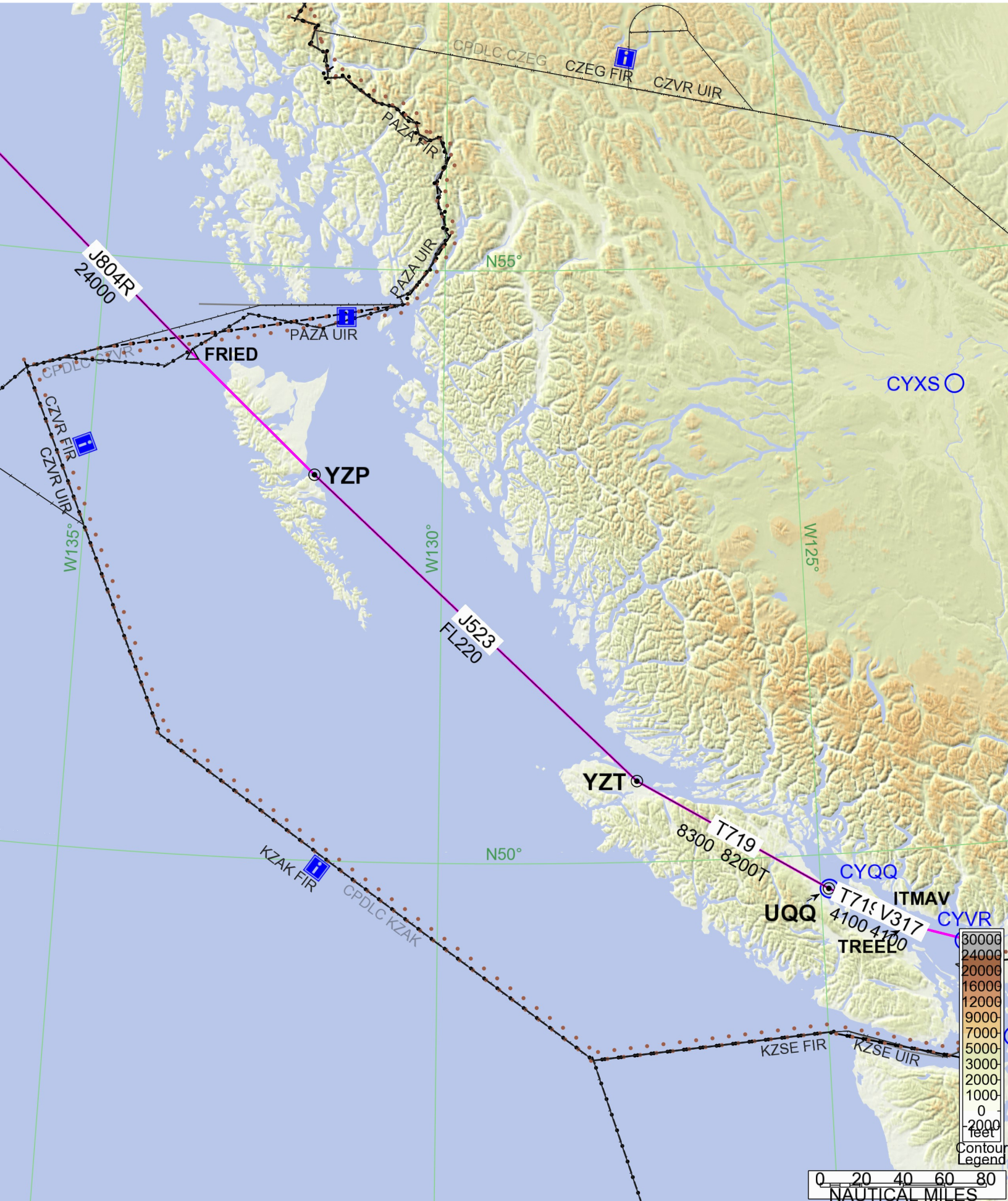


Enroute Chart - CYVR - ZUTF Full Route
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:55240096 (1 inch = 757.61 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows

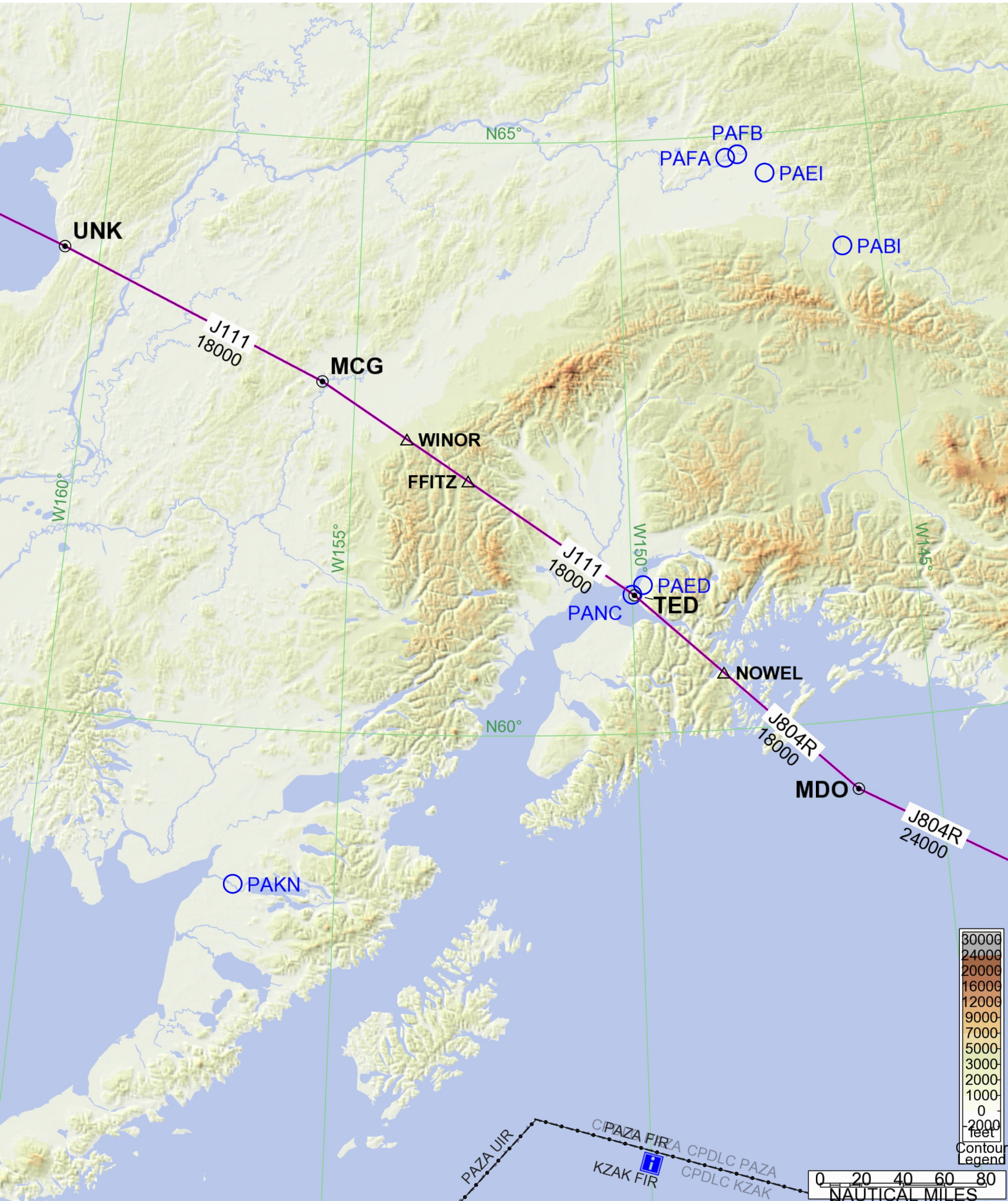
Enroute Chart - CYVR - ZUTF Strip Chart Page 1
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



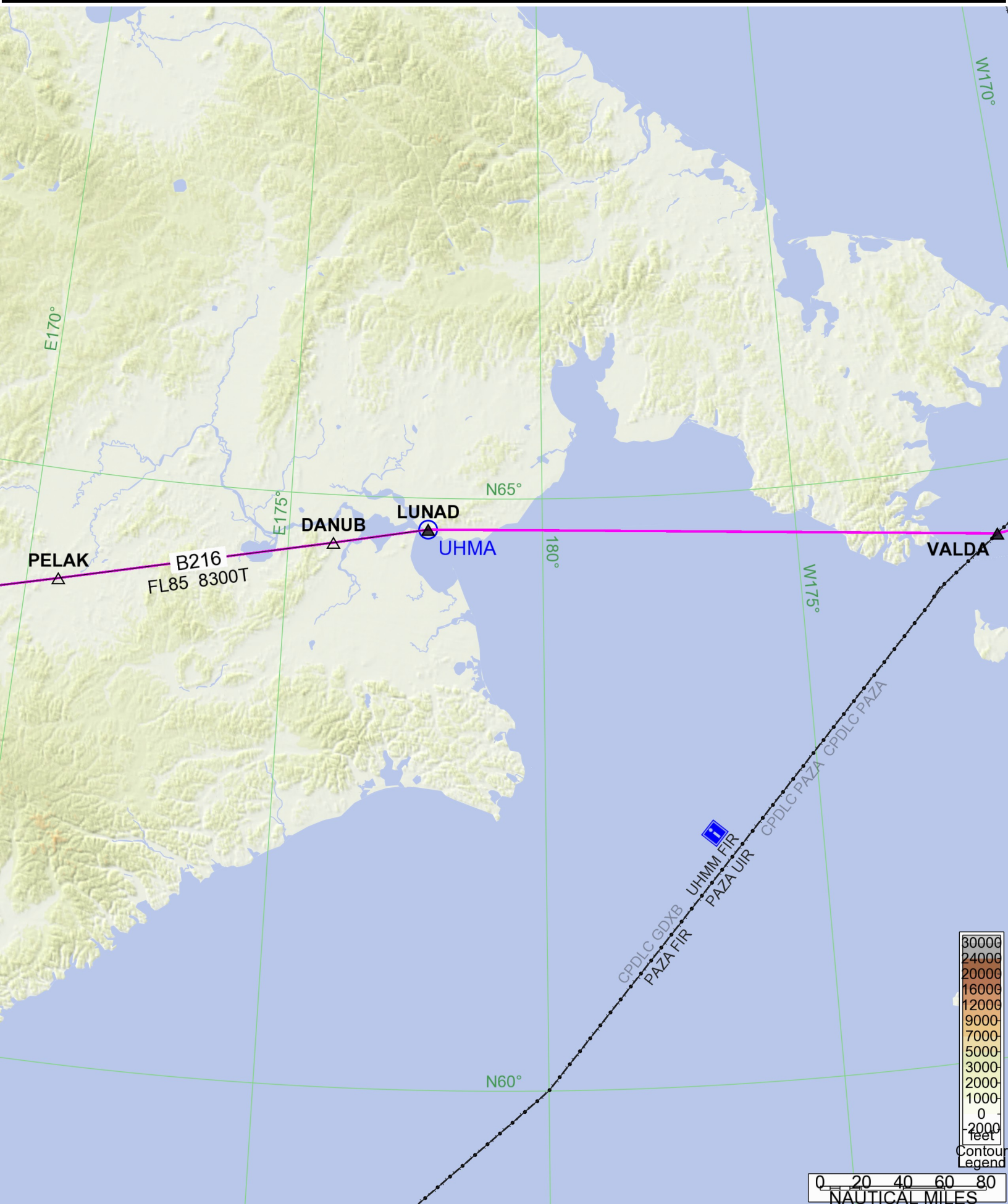
Enroute Chart - CYVR - ZUTF Strip Chart Page 2
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



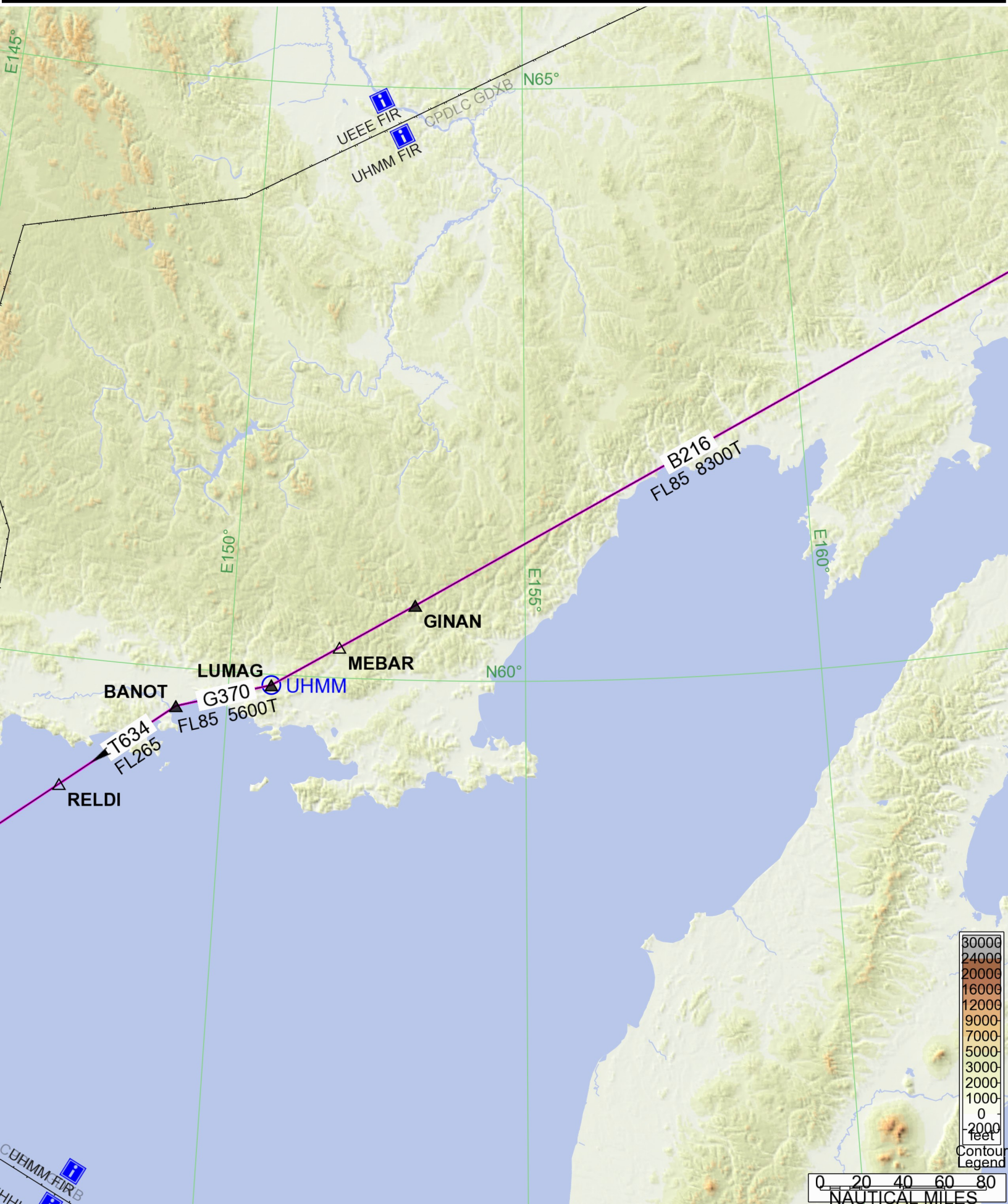
Enroute Chart - CYVR - ZUTF Strip Chart Page 3
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows

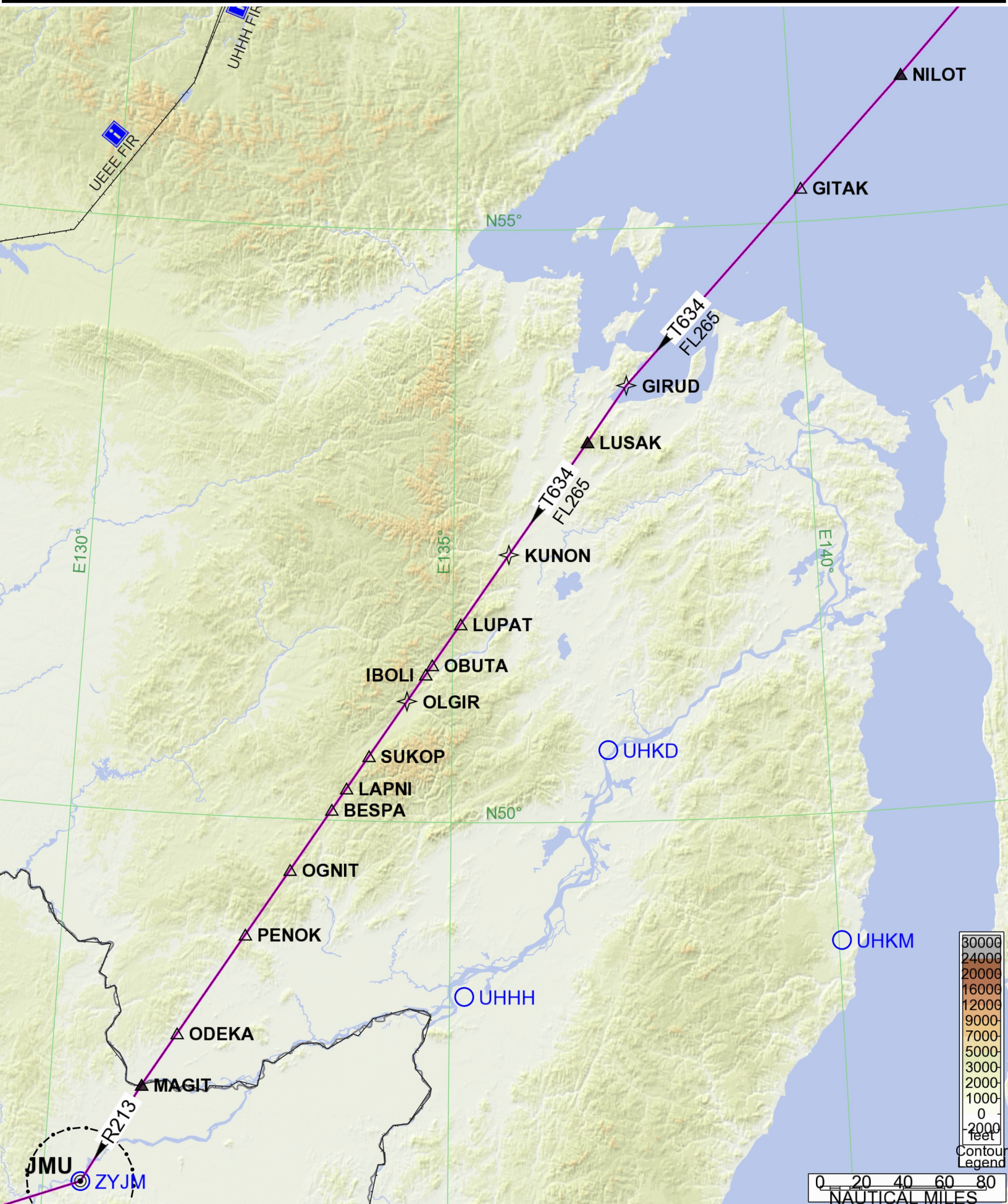


Enroute Chart - CYVR - ZUTF Strip Chart Page 4
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

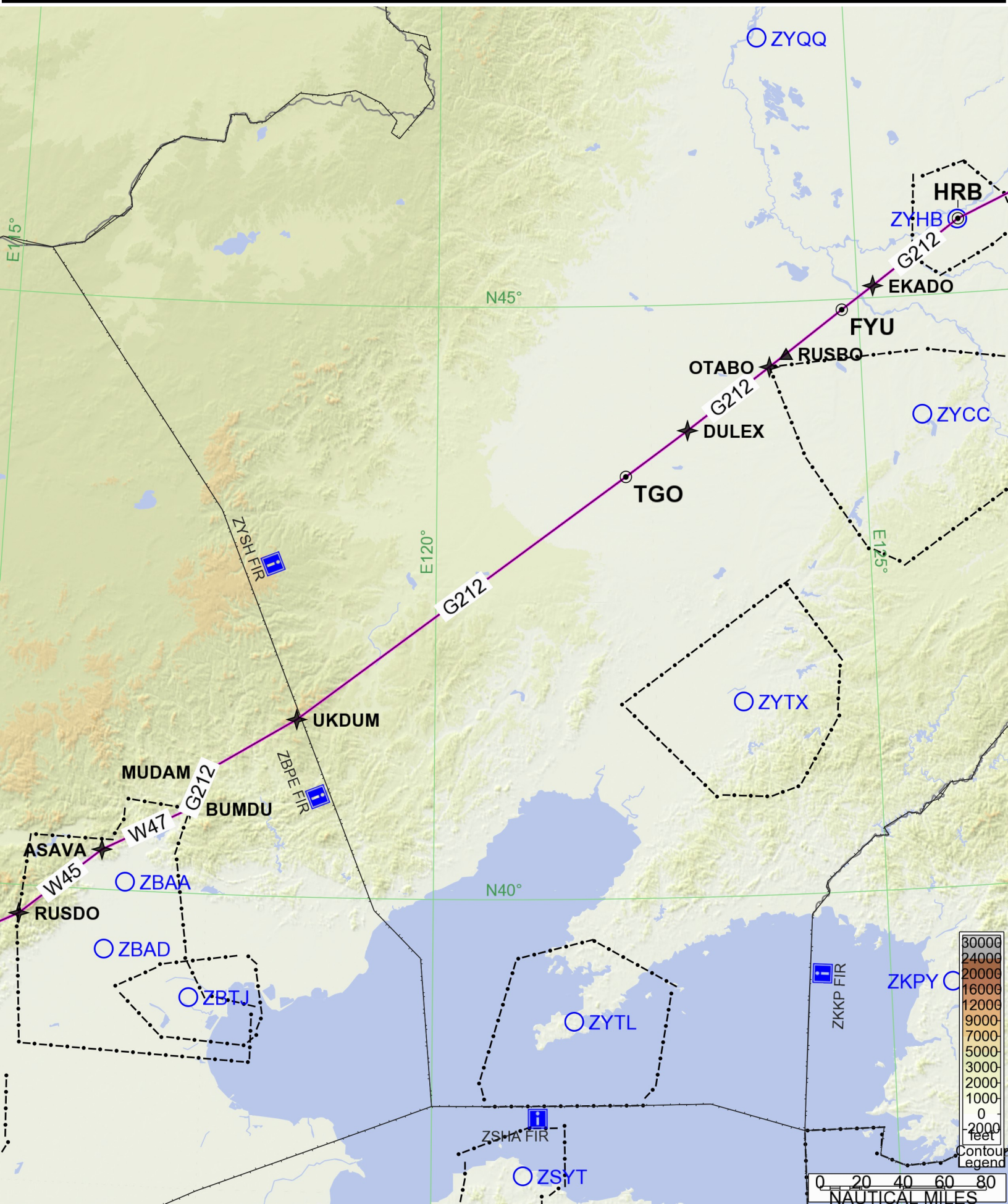
JEPPESEN
JeppView for Windows



JEPPESEN
JeppView for Windows

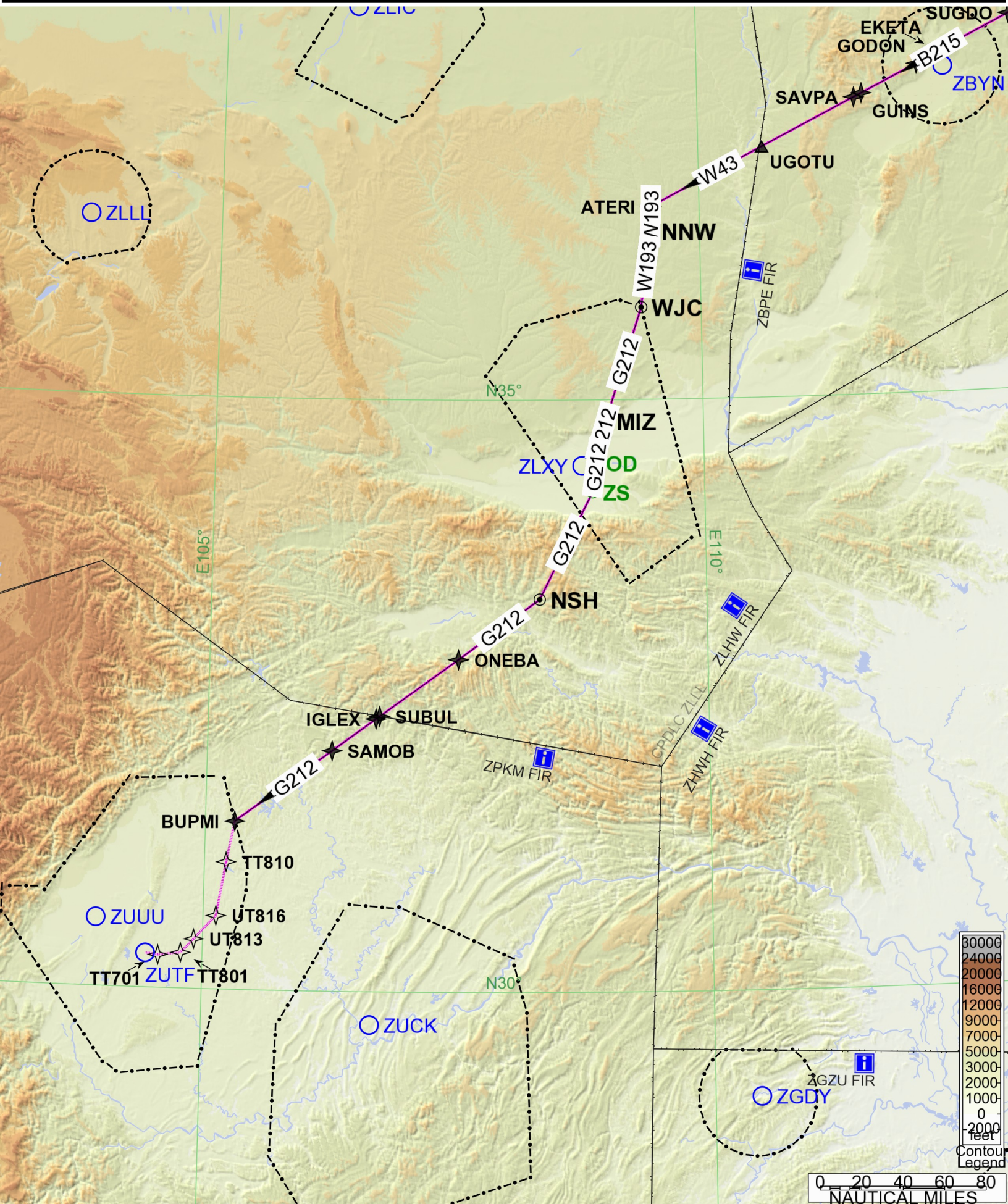


JEPPESEN
JeppView for Windows



Enroute Chart - CYVR - ZUTF Strip Chart Page 7
NavData cycle 2023-07 Expired: 19 Jul 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



General Information

Location: VANCOUVER BC CAN
ICAO/IATA: CYVR / YVR
Lat/Long: N49° 11.7', W123° 11.0'
Elevation: 13 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: +8:00 = UTC
Magnetic Variation: 17.0° E

Fuel Types: 100 Octane (LL), Jet A, Jet A-1
Oxygen Types: High Pressure, Low Pressure
Repair Types: Major Airframe, Major Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: No

Sunrise: 1332 Z
Sunset: 0257 Z

Runway Information

Runway: 08L
Length x Width: 9941 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 13 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 08R
Length x Width: 10803 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 9 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 13
Length x Width: 7300 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 8 ft
Lighting: Edge, ALS

Runway: 26L
Length x Width: 10803 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 7 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26R
Length x Width: 9941 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 9 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 31
Length x Width: 7300 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 8 ft
Lighting: Edge, ALS

Communication Information

ATIS: 124.600
Vancouver Tower: 118.700
Vancouver Tower: 119.550
Vancouver Tower: 124.025
Vancouver Tower: 125.650
Vancouver Ground: 121.700
Vancouver Ground: 127.150
Vancouver Clearance Delivery: 121.400
Vancouver Arrival: 128.175
Vancouver Arrival: 128.600
Vancouver Arrival: 133.100
Vancouver Arrival: 134.225
Vancouver Departure: 126.125
Vancouver Departure: 132.300
Pacific Radio Radio: 123.150 Flight Info Service RCO
Vancouver De-Ice Operations: 129.950
Pad Control Operations: 131.975
Vancouver Terminal Area: 125.200
Iceman Operations: 130.925
Iceman Operations: 130.700

CANUCK 5 ARRIVAL
(BOOTH.CANUC5)
(RWYS 08L/R, 13)

D-ATIS 124.6 | Apt Elev 13 | Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

BOOTH
227° 5.5
MHA 10200
040°
VITEV FL210
8
7347
STAVE
14
LANNE MAX 250 KT 14000 10000
239°
10.1
MILLS
264°
4.2
BASRA 10000
5
SEBOG 8000
8
125°
APLEX 5000
8.1
(DTW) VINLO MAX 210 KT 3000
(FACF) EMKAM 3000
(FACF) BUBUL 3000
083°
263°
MAX 200 KT
RWYS 08L/R, 13
RWØ8L

CONTOUR INTERVALS: 8000, 6000, 4000, 2000

ABBOTSFORD CYXX
PITT MEADOWS CYPK
LANGLEY Regl CYNJ
VANCOUVER Boundary Bay CZBB
CANADA
UNITED STATES

7800

CHANGES: None.

CANUCK 5 ARRIVAL
(BOOTH.CANUC5)
(RWYS 26L/R)

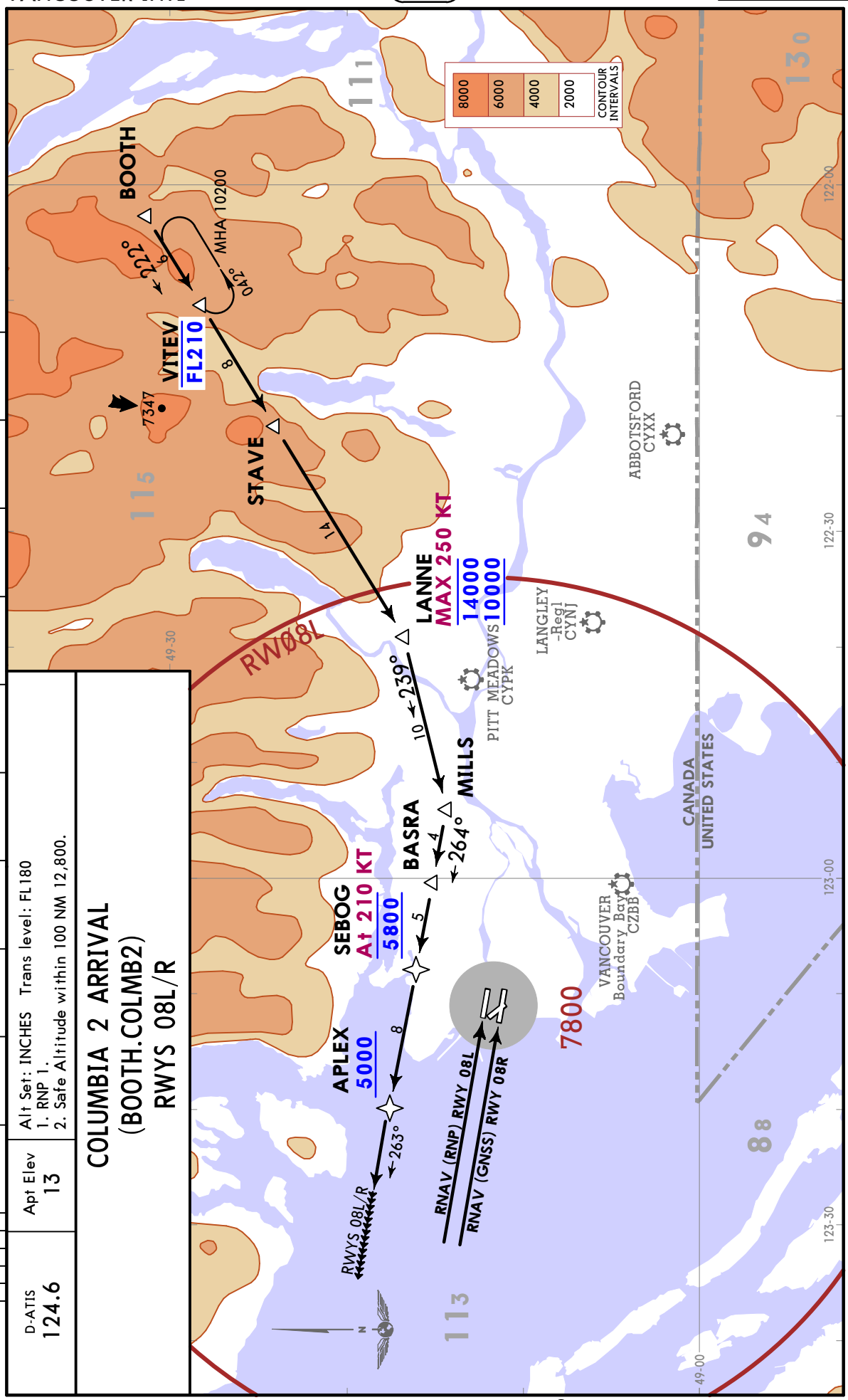
D-ATIS 124.6

Apt Elev 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

BOOTH
222°
5.9
MHA 10200
040°
VITEV
8
7347
STAVE
MAX 230 KT
12000
9200
212°
6.4
211°
4
GOPAD
9000
MOGUS
7000
1
OBTOT
5000
211°
7.2
MAX 200 KT
263°
263°
225°
5.8
4.9
083°
MAX 200 KT
083°
(FACF)
GOREG
3000
(FACF)
SAVED
3000
263°
263°
7800
RW26L
CONTOUR INTERVALS
8000
6000
4000
2000
111
115
113
ABBOTSFORD
CYXX
PITT MEADOWS
CYPK
LANGLEY
-Regl
CYNJ
VANCOUVER
Boundary Bay
CZBB
CANADA
UNITED STATES
122.00
122.30
123.00
49-00
49-30

CHANGES: MSA revised.



COLUMBIA 2 ARRIVAL
(BOOTH.COLMB2)
RWYS 08L/R

Alt Set: INCHES Trans level: FL180
1. RNP 1.
2. Safe Altitude within 100 NM 12,800.

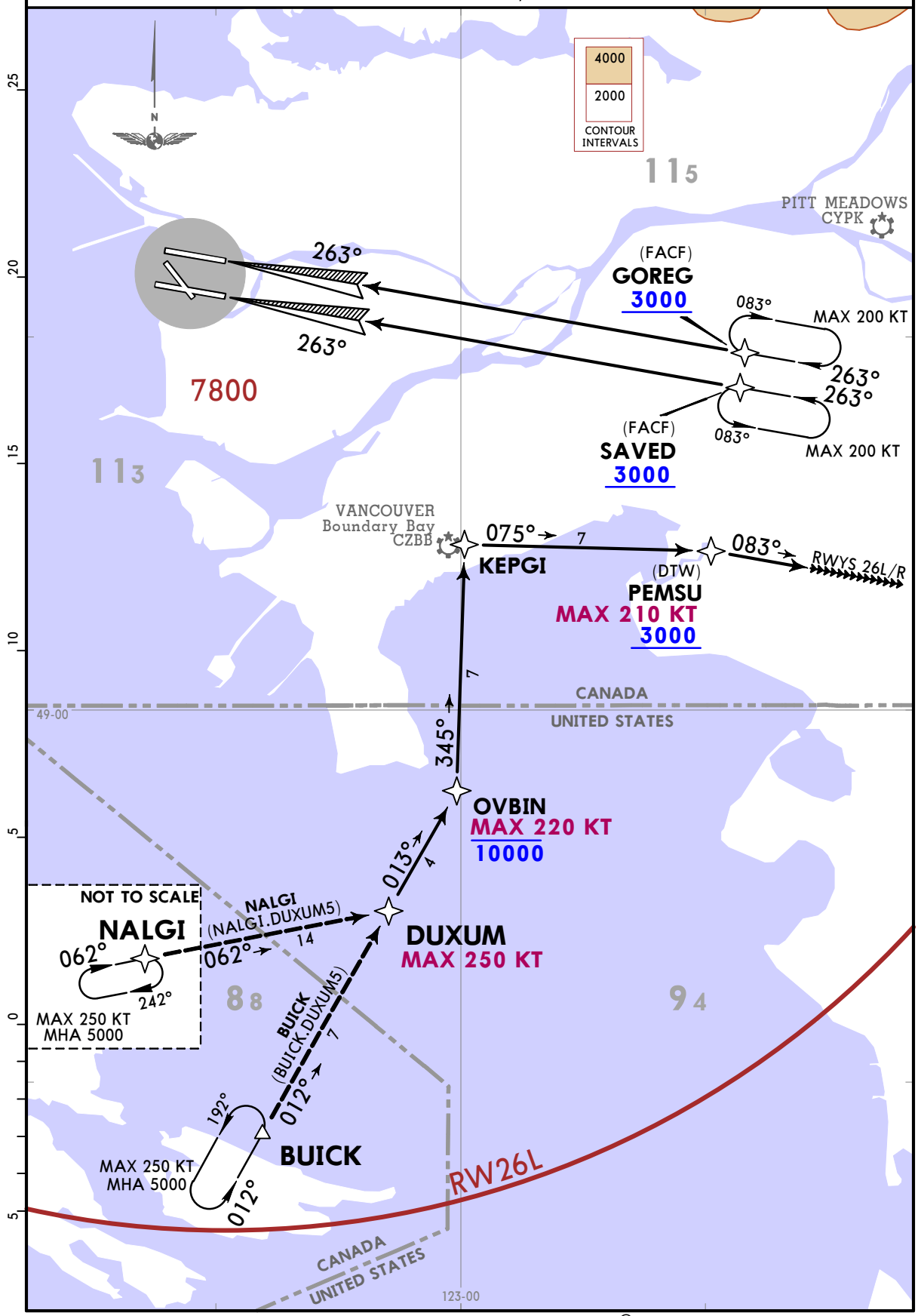
Apt Elev 13

D-ATIS 124.6

CHANGES: None.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

DUXUM 5 ARRIVAL
(DUXUM.DUXUM5)
RWYS 26L/R



CHANGES: MSA revised.

JEPPESEN
17 FEB 23 (10-2D) Eff 23 Feb

VANCOUVER, BC
RNAV STAR

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

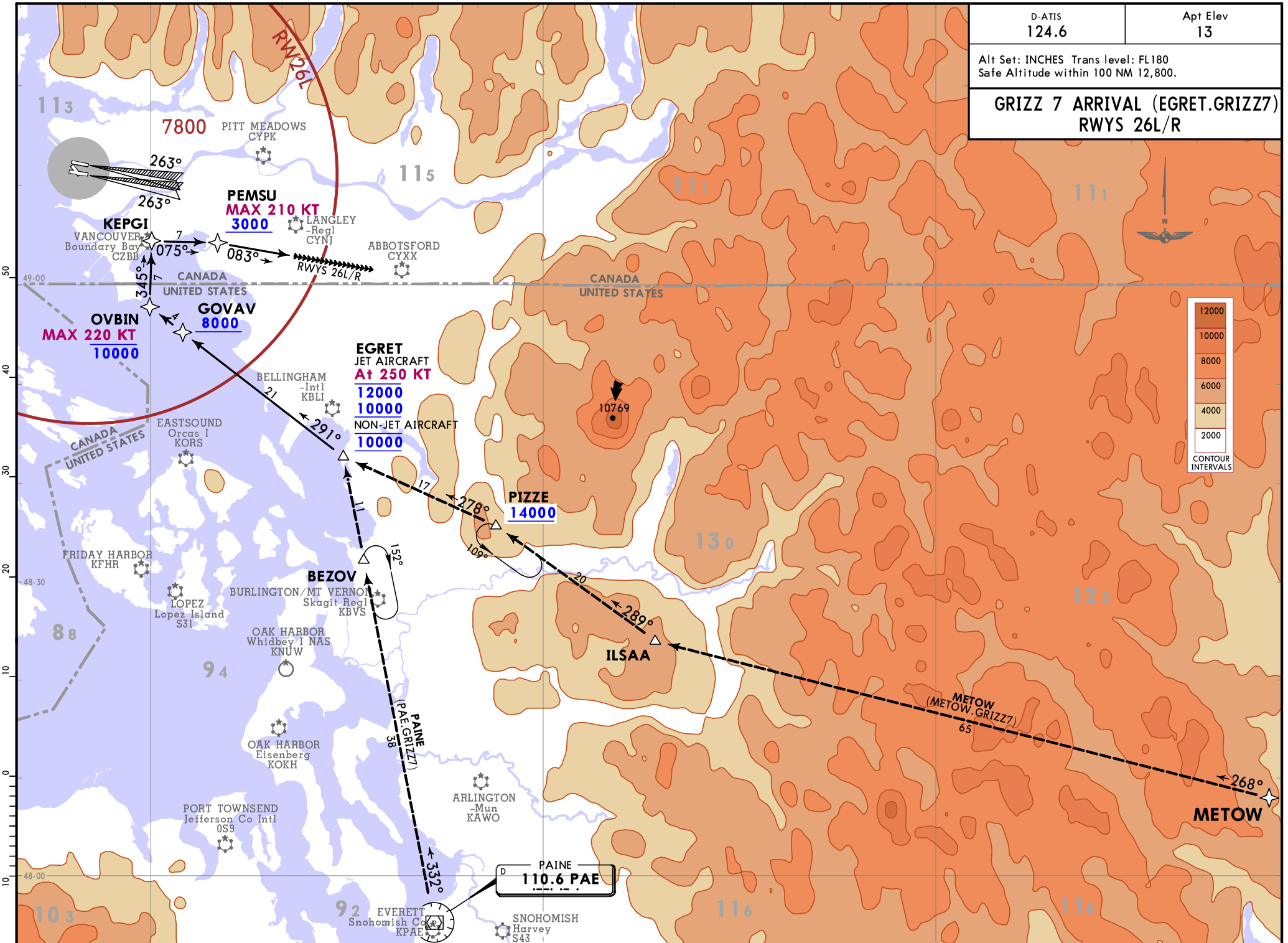
GRIZZ 7 ARRIVAL (EGRET.GRIZZ7)
RWYS 08L/R & 13

RWYS 08L/R & 13
263°
NAKMA
MAX 210 KT
3000
083°
083°
17
268°
VANCOUVER
115.9 YVR
8000
TATGO
10000
RWØ8L
29
295°
EGRET
JET AIRCRAFT
At 280 KT
12000
10000
NON-JET AIRCRAFT
10000
11
17
278°
PIZZE
14000
152°
109°
20
289°
ILSAA
METOW
(METOW.GRIZZ7)
65
NOT TO SCALE
268°
METOW
PAINE
(PAE.GRIZZ7)
58
332°
PAINE
110.6 PAE
BEZOV
7800
10769
12000
10000
8000
6000
4000
2000
CONTOUR INTERVALS
CANADA
UNITED STATES
PITT MEADOWS CYPK
LANGLEY -Regl CYNJ
VANCOUVER Boundary Bay CZBB
ABBOTSFORD CYXX
NANAIMO CYCD
BELLINGHAM -Intl KBLI
EASTSOUND Orcas I KORS
VICTORIA -Intl CYYJ
FRIDAY HARBOR KFHR
LOPEZ Lopez Island S31
BURLINGTON/MT VERNON Skagit Regl KBVS
OAK HARBOR Whidbey I NAS KNUW
OAK HARBOR Eisenberg KOKH
ARLINGTON -Mun KAWO
PORT ANGELES Port Angeles Cgas KNOW
PORT ANGELES William R Fairchild Intl KCLM
PORT TOWNSEND Jefferson Co Intl 0S9
EVERETT Snohomish Co KPAE
SNOHOMISH Harvey S43
49-00
48-30
48-00
124-00
123-30
123-00
122-30
122-00
121-30
121-00

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

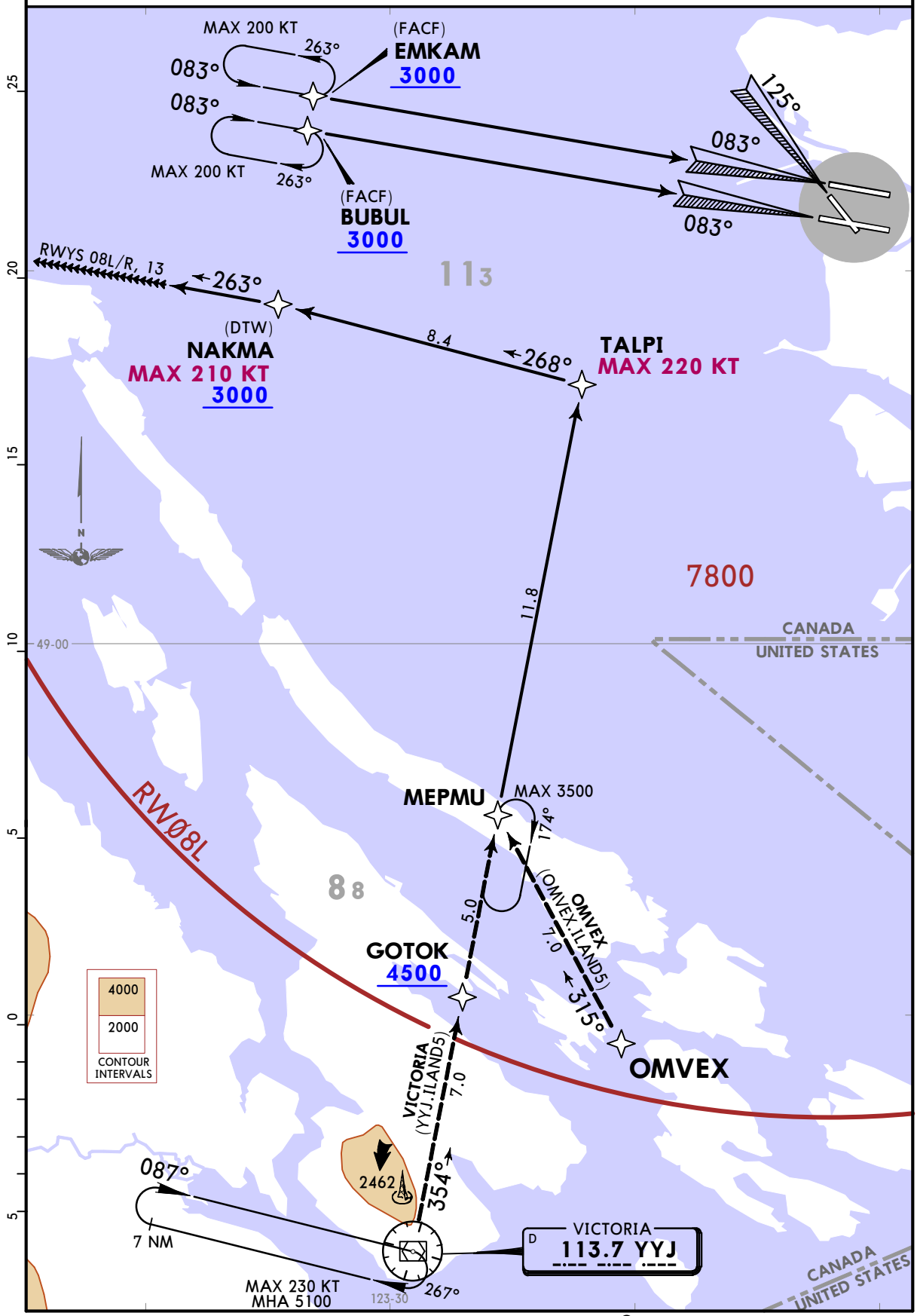
GRIZZ 7 ARRIVAL (EGRET.GRIZZ7)
RWYS 26L/R



CHANGES: MSA revised.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

ISLAND 5 ARRIVAL (MEPMU.ILAND5)
(RWYS 08L/R, 13)



CHANGES: Reissue.

JEPPESEN VANCOUVER, BC
2 SEP 22 (10-2H) Eff 8 Sep
STAR

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES
Trans level: FL180
Safe Altitude within 100 NM 12,800.

KEINN 2 ARRIVAL (KEINN.KEINN2)
RWYS 08L/R, 13, 26L/R

PORT HARDY
D 112.0 YZT
NOT TO SCALE
089°

TRENA
136°
D92
TRENA (TRENA.KEINN2) 17900 27

POWOL
D105
POWOL (POWOL.KEINN2) FL210 34

QUODY
14000
5
D65

MUZON
10
9400
D60

KEINN
MAX 250 KT
316°
5
9200
D50

AQUIN
RWYS 08L/R, 13
MAX 230 KT
12000
5
9200
D45

CEESE
RWYS 26L/R
NON-JET AIRCRAFT
10000
D40

OMSUV
RWYS 26L/R
JET AIRCRAFT
At 250 KT
14000
142° hdg
10
8200
D30

FASBO
10
8200
D20

CONTOUR INTERVALS
10000
8000
6000
4000
2000

9433

CAMPBELL RIVER
CYBL

POWELL RIVER
CYPW

COMOX
CYQQ

QUALICUM BEACH
CAT4

NANAIMO
CYCD

RWYS 08L/R
264°
RWYS 13
125°
083°
083°
084°
RWYS 26L/R
263°
263°
R264
R316
180°
090°
090°
270°
7000
6800
5100
3800

PITT MEADOWS
112.4 YPK
PITT MEADOWS
CYPK

VANCOUVER
115.9 YVR
YVR VOR

VANCOUVER
Boundary Bay
CZBB

LANGLEY
-Regl
CYNJ

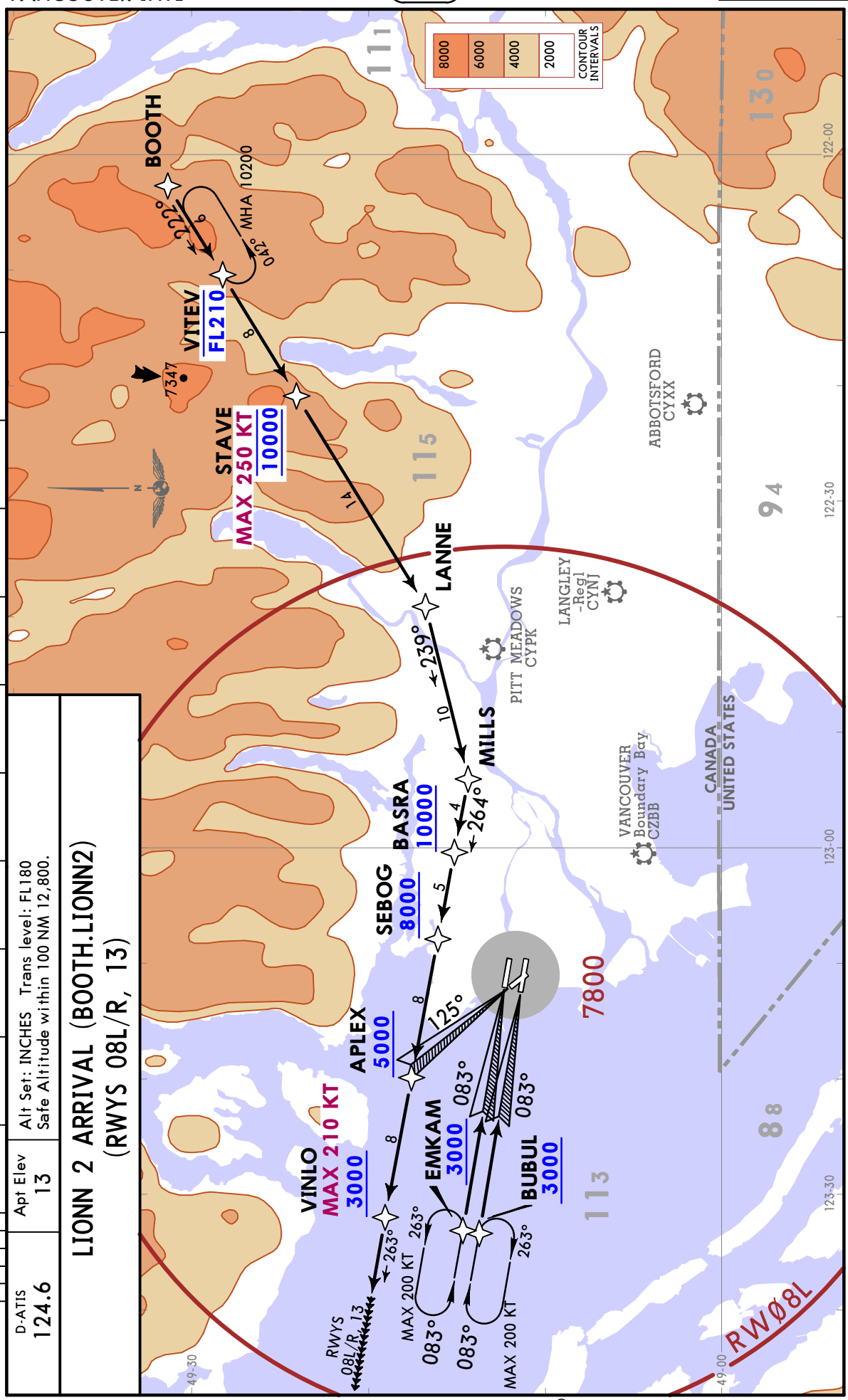
CANADA
UNITED STATES

CHANGES: MSA.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
2 SEP 22 (10-2J) Eff 8 Sep

VANCOUVER, BC
RNAV STAR



LIONN 2 ARRIVAL (BOOTH.LIONN2)
(RWYS 08L/R, 13)

Apt Elev	Alt Set: INCHES Trans level: FL180
13	Safe Altitude within 100 NM 12,800.

D-ATIS 124.6

CHANGES: None.

LIONN 2 ARRIVAL (BOOTH.LIONN2)
(RWYS 26L/R)

D-ATIS 124.6

Apt Elev 13

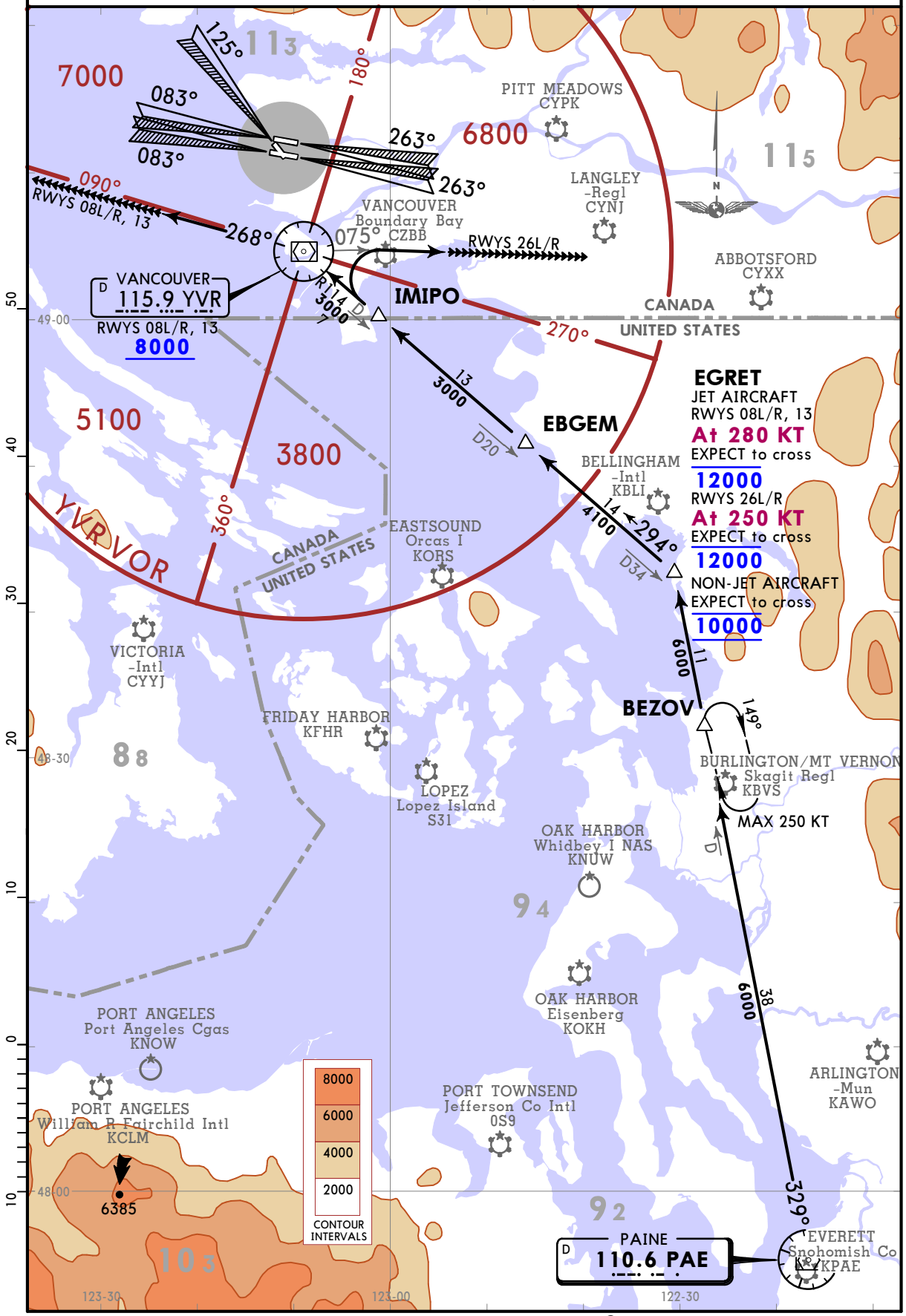
Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

BOOTH
222°
9
MHA 10200
040°
VITEV
8
212°
9
STAVE
MAX 230 KT
12000
9200
211°
4
GOPAD
9000
MOGUS
7000
7
OBTOT
5000
112°
6
223°
6
083°
MAX 200 KT
263°
263°
MAX 200 KT
083°
GOREG
3000
SAVED
3000
263°
263°
RW26L
7347
7800
111
115
113
CONTOUR INTERVALS
8000
6000
4000
2000
ABBOTSFORD
CYXX
PITT MEADOWS
CYPK
LANGLEY
-Regl
CYNJ
VANCOUVER
Boundary Bay
CZBB
CANADA
UNITED STATES
122.00
122.30
123.00
49-30
49-00

CHANGES: MSA revised.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

PAINE 4 ARRIVAL (PAE.PAINE4)
RWYS 08L/R, 13, 26L/R



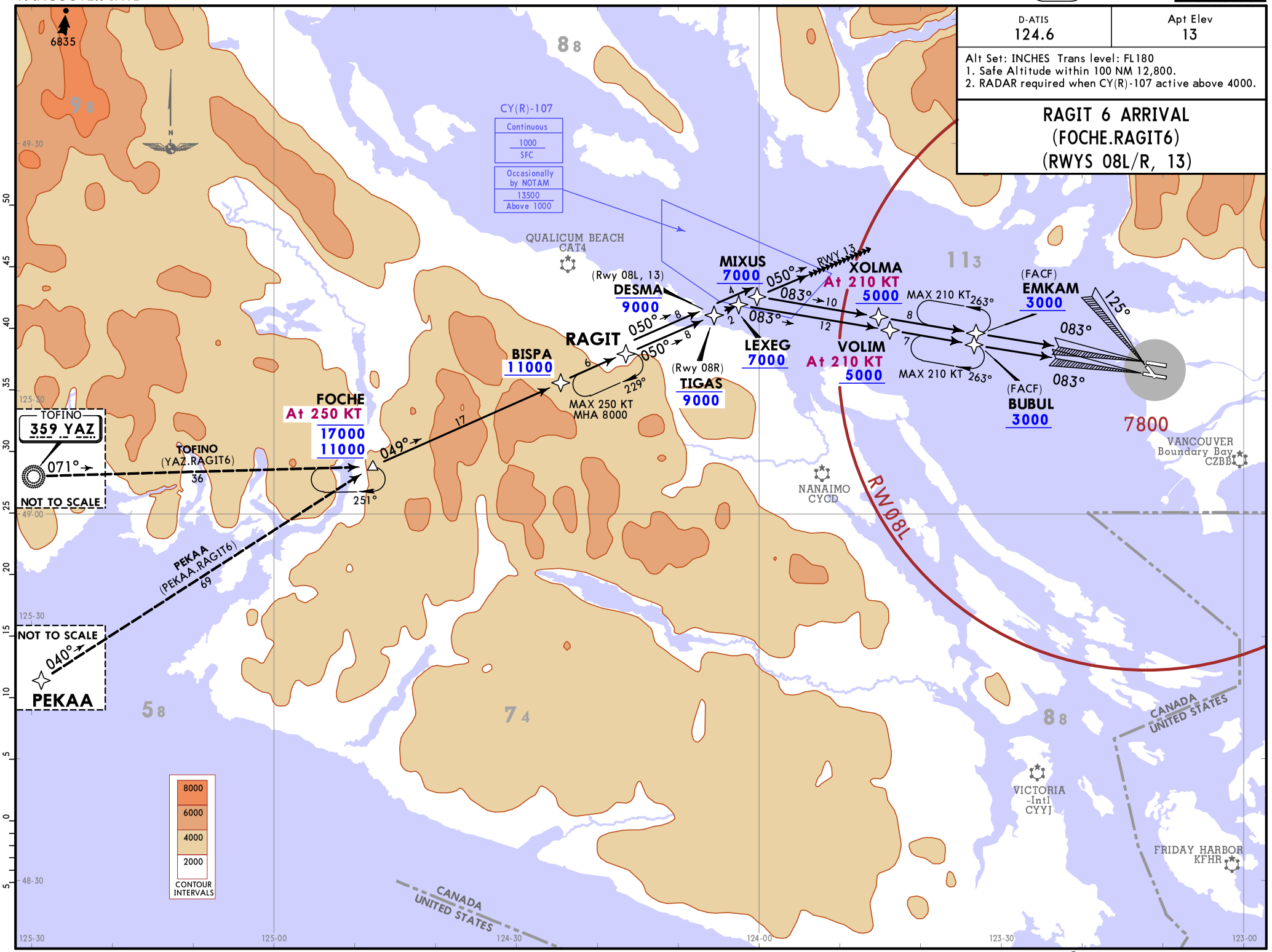
CHANGES: None.

JEPPESEN VANCOUVER, BC
17 FEB 23 (10-2M) Eff 23 Feb
RNAV STAR

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
1. Safe Altitude within 100 NM 12,800.
2. RADAR required when CY(R)-107 active above 4000.

RAGIT 6 ARRIVAL
(FOCHE.RAGIT6)
(RWYS 08L/R, 13)



CHANGES: None.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

SHARK 2 ARRIVAL
(CASDY.SHARK2)
(RWYS 26L/R)

7150

COMOX
CYQQ

QUALICUM BEACH
CAT4

TOFINO
359 YAZ

071°

TOFINO
(YAZ.SHARK2)
36

FOCHE

072°

20

251°

ANVAP
FL220
11000

073°

13

CASDY

073°

12.5

NANAIMO
CYCD

URMIX
MAX 250 KT
12000
10000

13

ATUKI
10000

7

075°

13

VANCOUVER
Boundary Bay
CZBB

(FACF)
SAVED
3000

(FACF)
GOREG
3000

263°

263°

263°

083°

PITT MEADOWS
CYPK
MAX 200 KT

263°

LANGLEY
-Regl
CYNJ

083°

083°
MAX 200 KT
RWYS 26L/R

(DTW)
PEMSU
MAX 210 KT
3000

VANCOUVER
115.9 YVR
8000

RW26L

PEKAA
(PEKAA.SHARK2)
69

NOT TO SCALE

040°

PEKAA

7800

8000
6000
4000
2000
CONTOUR INTERVALS

CANADA
UNITED STATES

VICTORIA
-Intl
CYYJ

EASTSOUND
Orcas I
KORS

BELLINGHAM
-Intl
KBLI

FRIDAY HARBOR
KFHR

LOPEZ
Lopez Island
S31

OAK HARBOR
Whidbey I NAS
KNUW

OAK HARBOR
Eisenberg
KOKH

PORT ANGELES
Port Angeles Cgas
KNOW

PORT ANGELES
William R Fairchild Intl
KCLM

49-30
49-00
48-30
125-30
125-00
124-30
124-00
123-00

CHANGES: MSA revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (10-2P) Eff 23 Feb

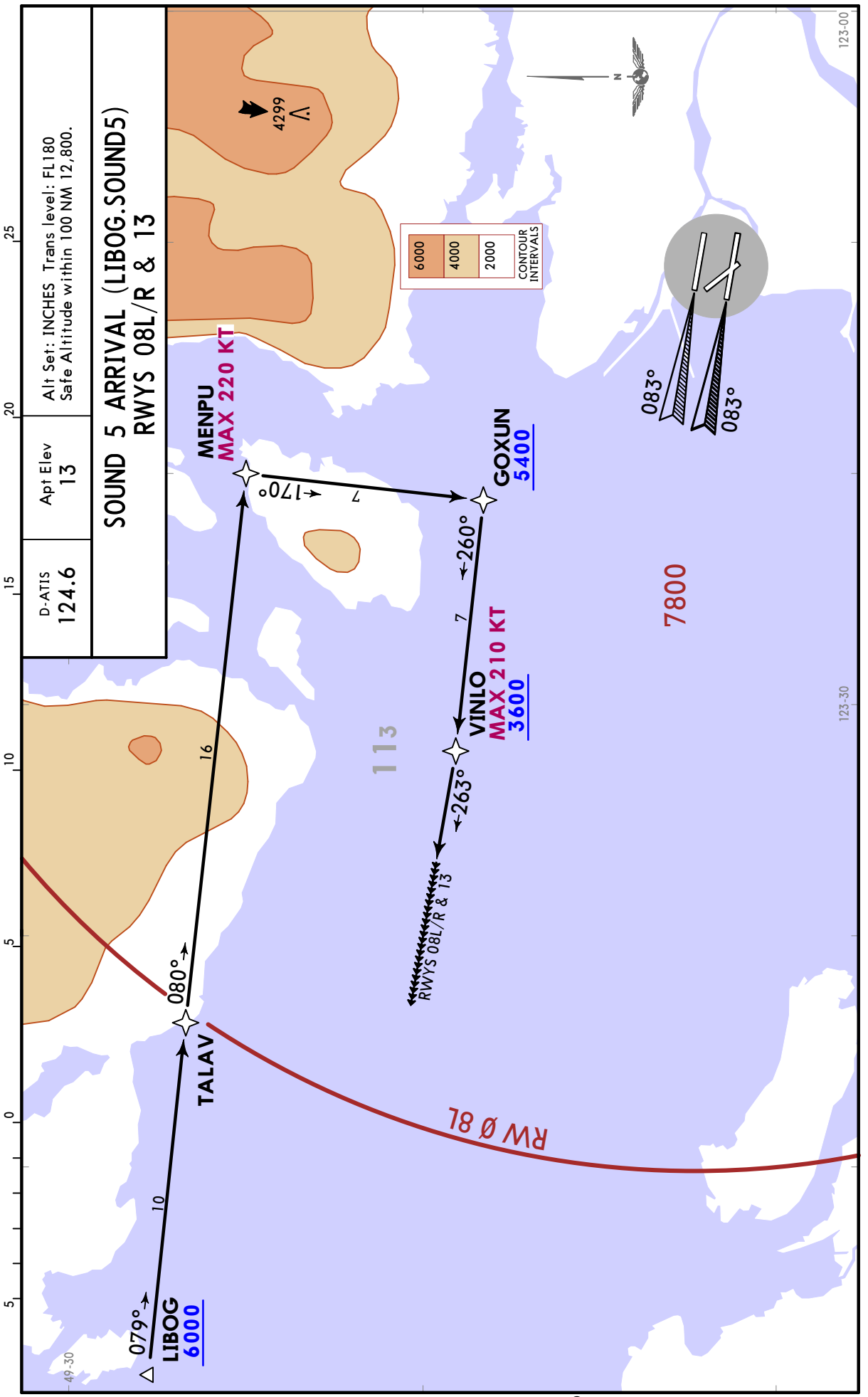
VANCOUVER, BC
RNAV STAR

SOUND 5 ARRIVAL (LIBOG.SOUND5)
RWYS 08L/R & 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

Apt Elev 13

D-ATIS 124.6



CHANGES: None.

SOUND 5 ARRIVAL (LIBOG.SOUND5)
RWYS 26L/R

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

Apt Elev 13

D-ATIS 124.6

CONTOUR INTERVALS: 8000 6000 4000 2000

LIBOG 6000
098° 10
IMOTI
12
BAJOL
084° 6
LESEM
6
IMESO
7
METPO 5000
8
SEDUS
MAX 210 KT 4000
083°

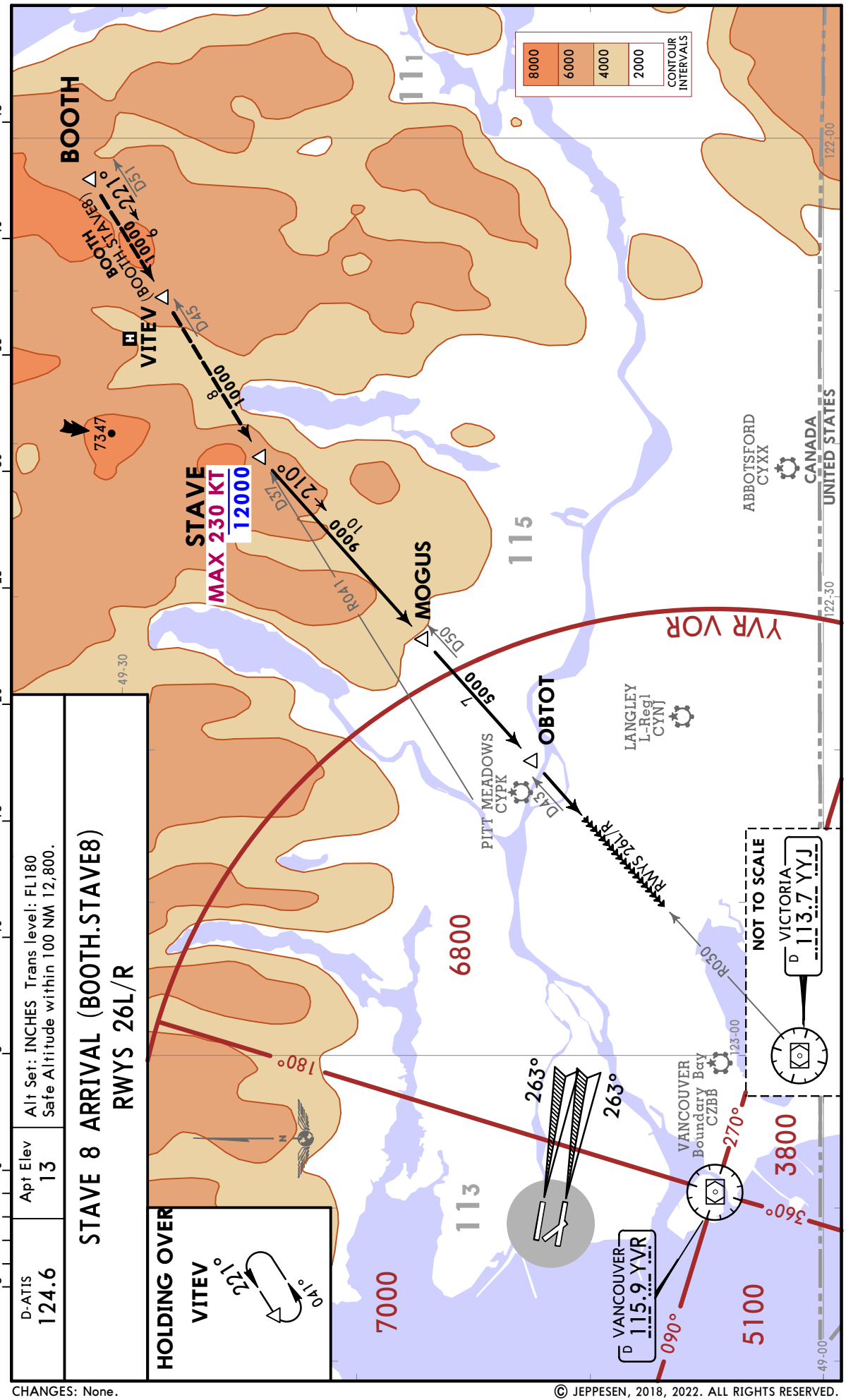
RW26L
263° 263°

113 115 7800

PITT MEADOWS CYPK
LANGLEY Regl CYNJ
VANCOUVER Boundary Bay CZBB
NANAIMO CYCD

123-00 123-30 124-00 49-30

CHANGES: MSA revised.



VITEV 4 ARRIVAL (BOOTH.VITEV4) RWYS 26L/R

D-ATIS 124.6

Apt Elev 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

CONTOUR INTERVALS 8000 6000 4000 2000

BOOTH

222° 6

VITEV

047° 8

STAVE
At 230 KT
12000
10000

7347

247° 8

GONIR
9500

246 9

PILGO

RW26L

9

157° 6

ILUXU
MAX 220 KT
6700

METPO
6100

084° 8

SEDUS
MAX 210 KT
4000

083°

PITT MEADOWS
CYPK

RWYS 26L/R

LANGLEY
-Regl
CYNJ

263° 263°

VANCOUVER
Boundary Bay
CZBB

111 115 113

7800

122-00 122-30 123-00 49-30

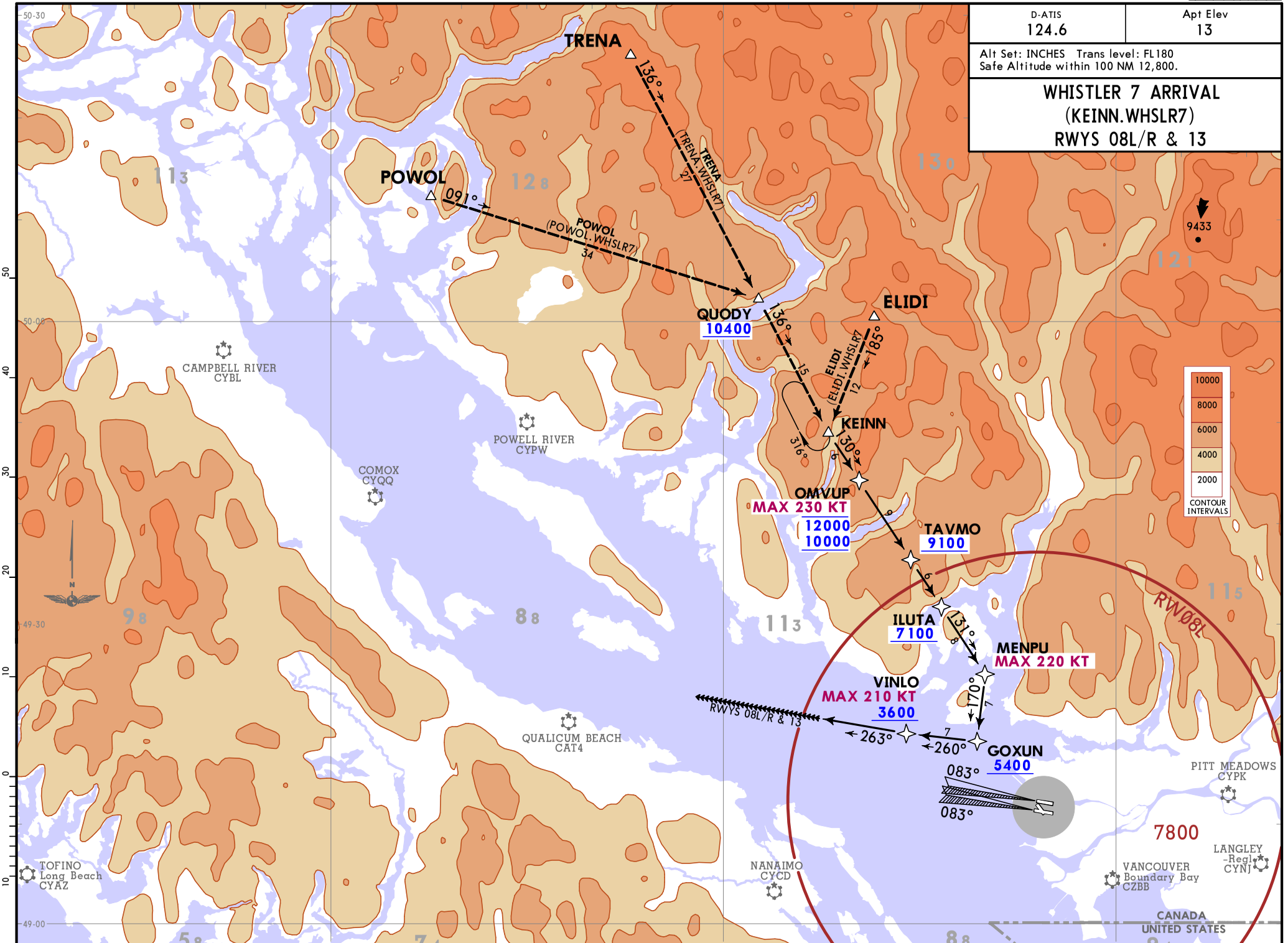
CHANGES: MSA revised.

JEPPESEN VANCOUVER, BC
17 FEB 23 (10-2U) Eff 23 Feb RNAV STAR

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

WHISTLER 7 ARRIVAL
(KEINN.WHSLR7)
RWYS 08L/R & 13



CHANGES: None.

JEPPESEN
17 FEB 23 (10-2V) Eff 23 Feb

VANCOUVER, BC
RNAV STAR

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

WHISTLER 7 ARRIVAL (KEINN.WHSLR7)
RWYS 26L/R

TRENA
136°
(TRENA.WHSLR7)
27
TRENA

POWOL
091°
POWOL
(POWOL.WHSLR7)
34

QUODY
10400
136°
15

ELIDI
185°
ELIDI
(ELIDI.WHSLR7)
12

KEINN
316°
10

CEESE
NON-JET AIRCRAFT
10000
10

OMSUV
JET AIRCRAFT
At 250 KT
14000
10000
135°
16

LESEM
10000
084°
6

IMESO
8000
7

METPO
5000
8

SEDUS
MAX 210 KT
4000

263°
263°
083°
RWYS 26L/R

RW26L

9433

CAMPBELL RIVER
CYBL

POWELL RIVER
CYPW

COMOX
CYQQ

QUALICUM BEACH
CAT4

NANAIMO
CYCD

PITT MEADOWS
CYPK

LANGLEY
-Regl
CYNJ

VANCOUVER
Boundary Bay
CZBB

7800

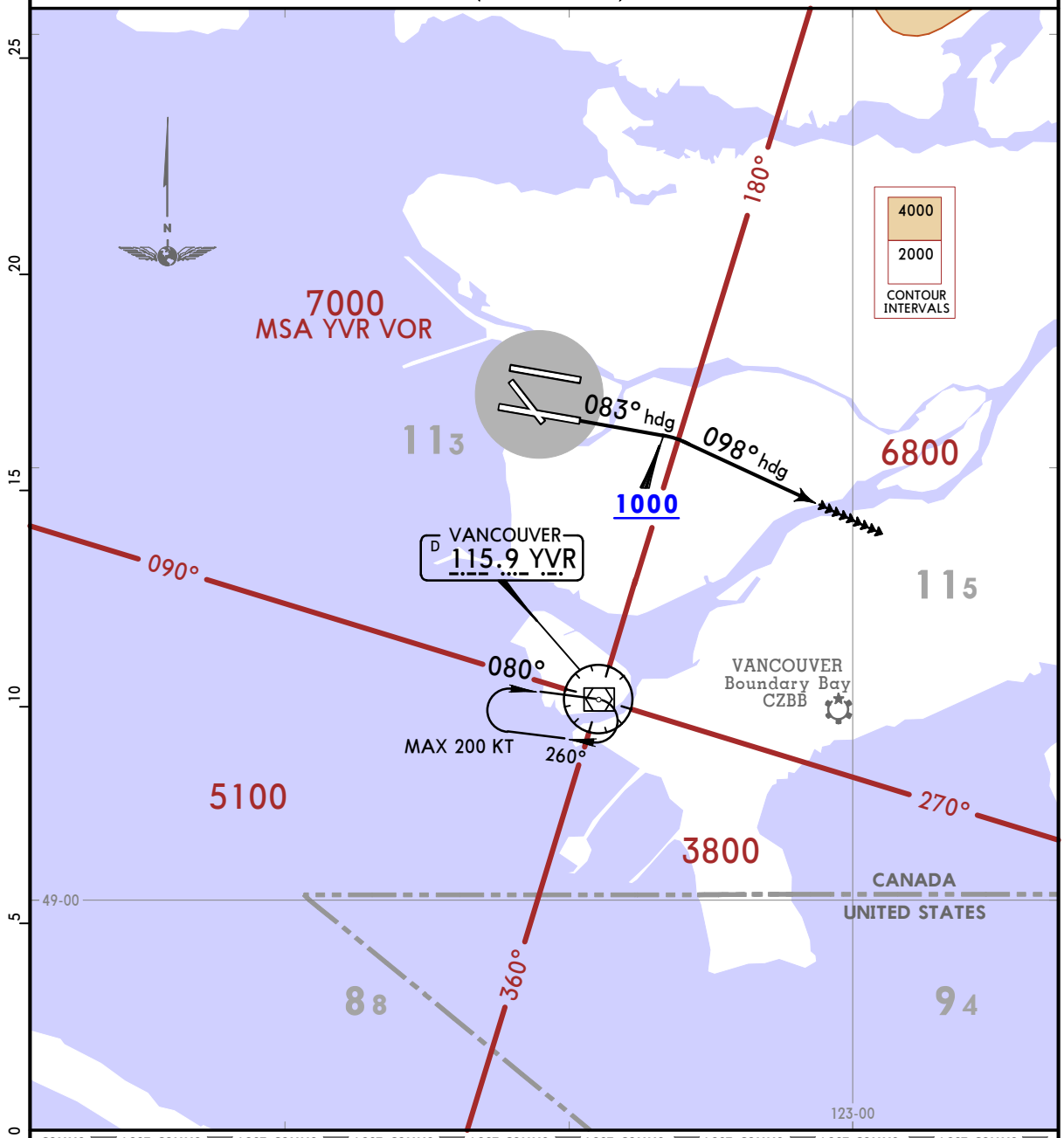
CANADA
UNITED STATES

CONTOUR INTERVALS
10000
8000
6000
4000
2000

CHANGES: MSA revised.

VANCOUVER Departure		Apt Elev	
NORTH	SOUTH	13	Trans alt: 18000 1. Safe Altitude within 100 NM 12,800. 2. Jet aircraft use Noise Abatement Departure Procedure 1 or 2. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.
126.12	132.3		

FRASER 7 DEPARTURE (FSR7.) (VECTOR)
(RWY 08R)



COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS

LOST COMMS

On recognition of failure 5 minutes or less after take-off, below 7000 and in IFR weather conditions, proceed as follows:
1. Select transponder code 7600.
2. Beyond D10.0 of YVR MAINTAIN last assigned altitude, RIGHT turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.

If communication failure occurs more than 5 minutes after take-off, comply with the appropriate procedure for communication failure enroute.

LOST COMMS

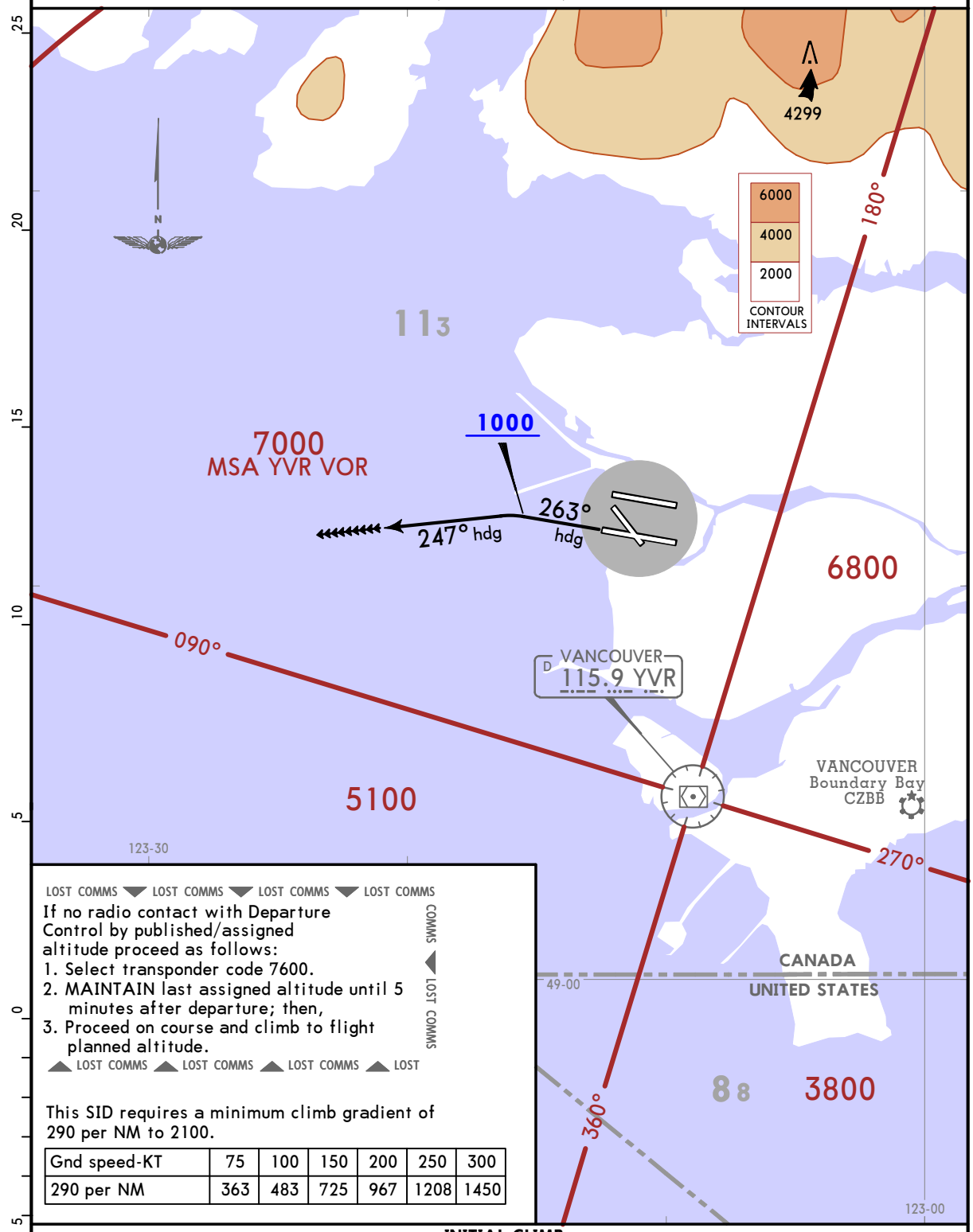
INITIAL CLIMB

Climb heading 083° to 1000. Then climbing RIGHT turn heading 098° or as assigned by ATC. MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure		Apt Elev	
NORTH	SOUTH	13	Trans alt: 18000 1. CAUTION: Simultaneous parallel departures may be in use. 2. Safe Altitude within 100 NM 12,800. 3. Jet aircraft use Noise Abatement Departure Procedure 1 or 2. 4. Refer to 10-4 Noise Abatement Procedures for additional requirements.
126.12	132.3		

GEORGIA 6 DEPARTURE (GRG6.) (VECTOR)
(RWY 26L)



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

If no radio contact with Departure Control by published/assigned altitude proceed as follows:
1. Select transponder code 7600.
2. MAINTAIN last assigned altitude until 5 minutes after departure; then,
3. Proceed on course and climb to flight planned altitude.

COMMS ◀ LOST COMMS

▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST

This SID requires a minimum climb gradient of 290 per NM to 2100.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

INITIAL CLIMB

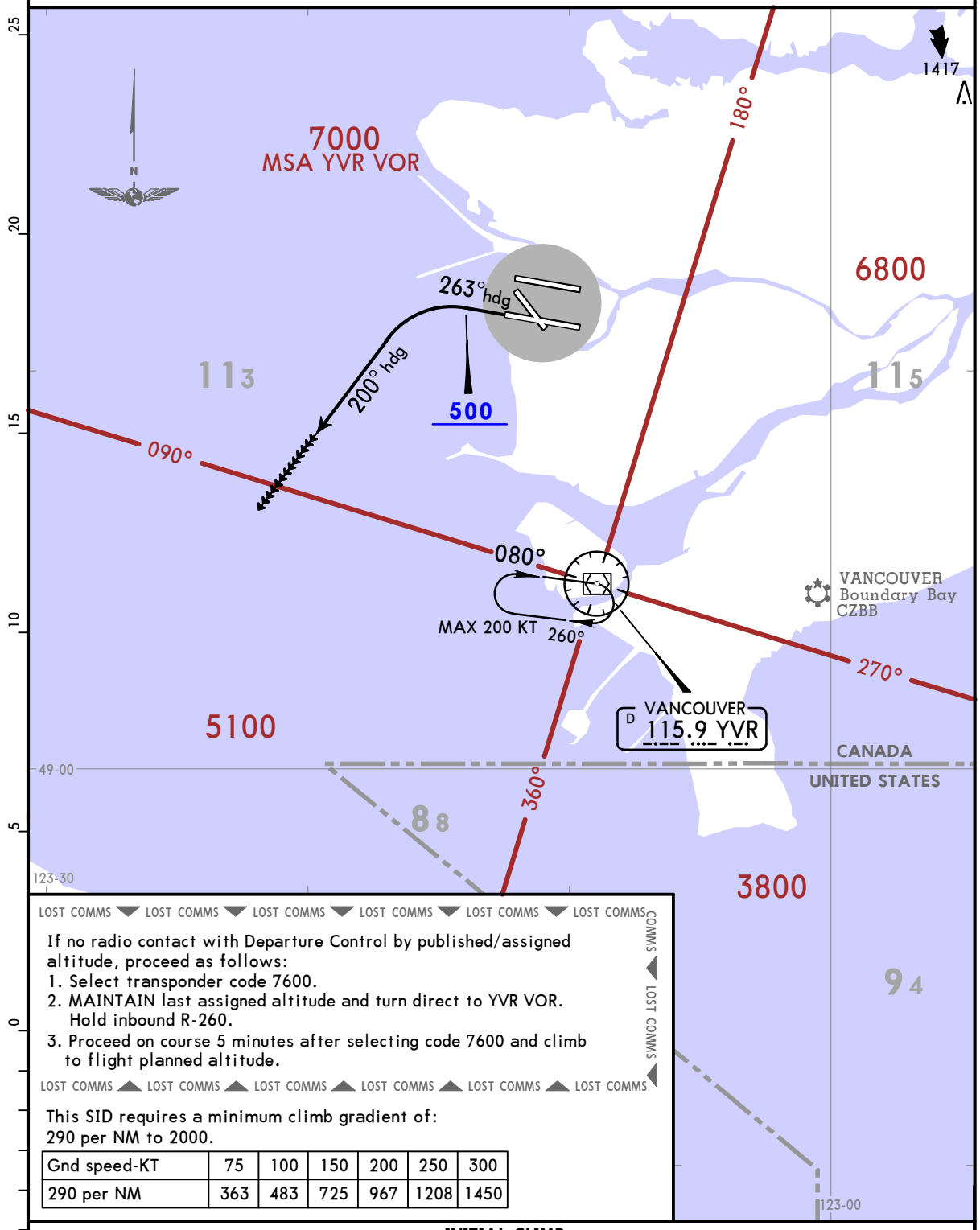
Climb heading 263° to 1000. Then climbing LEFT turn heading 247° or as assigned by ATC. MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route or depicted fix and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure (SOUTH) 132.3	Apt Elev 13	Trans alt: 18000 1. Safe altitude within 100 NM 12,800. 2. Non-Jet aircraft only. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

RICHMOND 7 DEPARTURE (RICHM7.) (VECTOR)
(RWY 26L)

SPEED: DO NOT EXCEED 165 KT IN CLIMB UNTIL IN CONTACT WITH DEPARTURE CONTROL AND PASSING 4000



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

If no radio contact with Departure Control by published/assigned altitude, proceed as follows:
1. Select transponder code 7600.
2. MAINTAIN last assigned altitude and turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting code 7600 and climb to flight planned altitude.

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

COMMS LOST COMMS

This SID requires a minimum climb gradient of:
290 per NM to 2000.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

INITIAL CLIMB

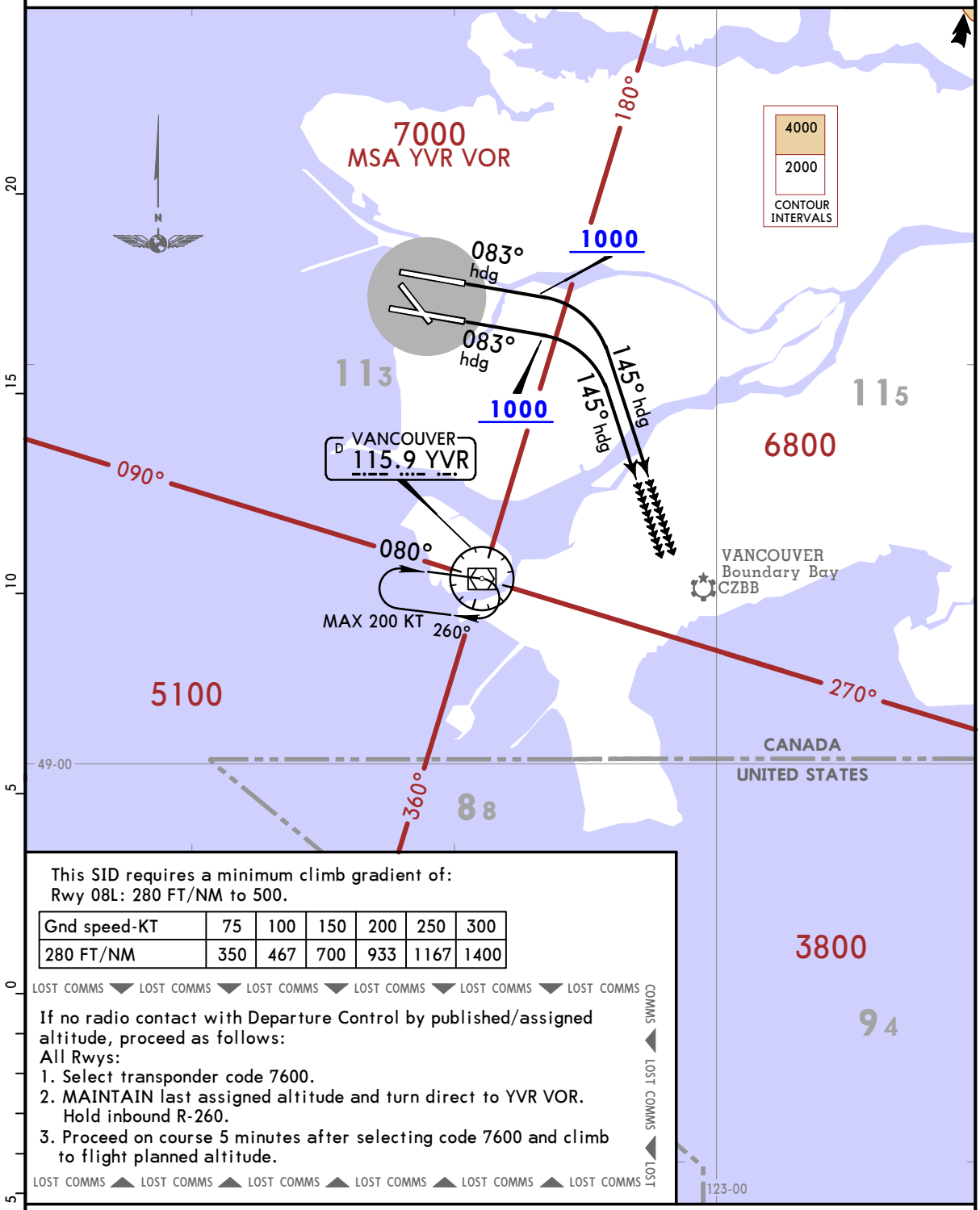
Climb heading 263° to 500. Then climbing LEFT turn heading 200° or as assigned by ATC.
Contact Departure Control after passing 1000 unless instructed otherwise by ATC. MAINTAIN 2000 or as assigned. EXPECT RADAR vectors to filed/assigned route or depicted fix and clearance to flight planned altitude/flight level 10 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure (SOUTH) 132.3	Apt Elev 13	Trans alt: 18000 1. Safe altitude within 100 NM 12,800. 2. Non-Jet aircraft only. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

STANLEY 5 DEPARTURE (STNLE5.)
(VECTOR)
(RWYS 08L/R)

SPEED: DO NOT EXCEED 165 KT IN CLIMB UNTIL IN CONTACT WITH DEPARTURE CONTROL AND PASSING 4000



This SID requires a minimum climb gradient of:
Rwy 08L: 280 FT/NM to 500.

Gnd speed-KT	75	100	150	200	250	300
280 FT/NM	350	467	700	933	1167	1400

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

If no radio contact with Departure Control by published/assigned altitude, proceed as follows:
All Rwys:
1. Select transponder code 7600.
2. MAINTAIN last assigned altitude and turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting code 7600 and climb to flight planned altitude.

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

LOST COMMS ▼ LOST COMMS ▲

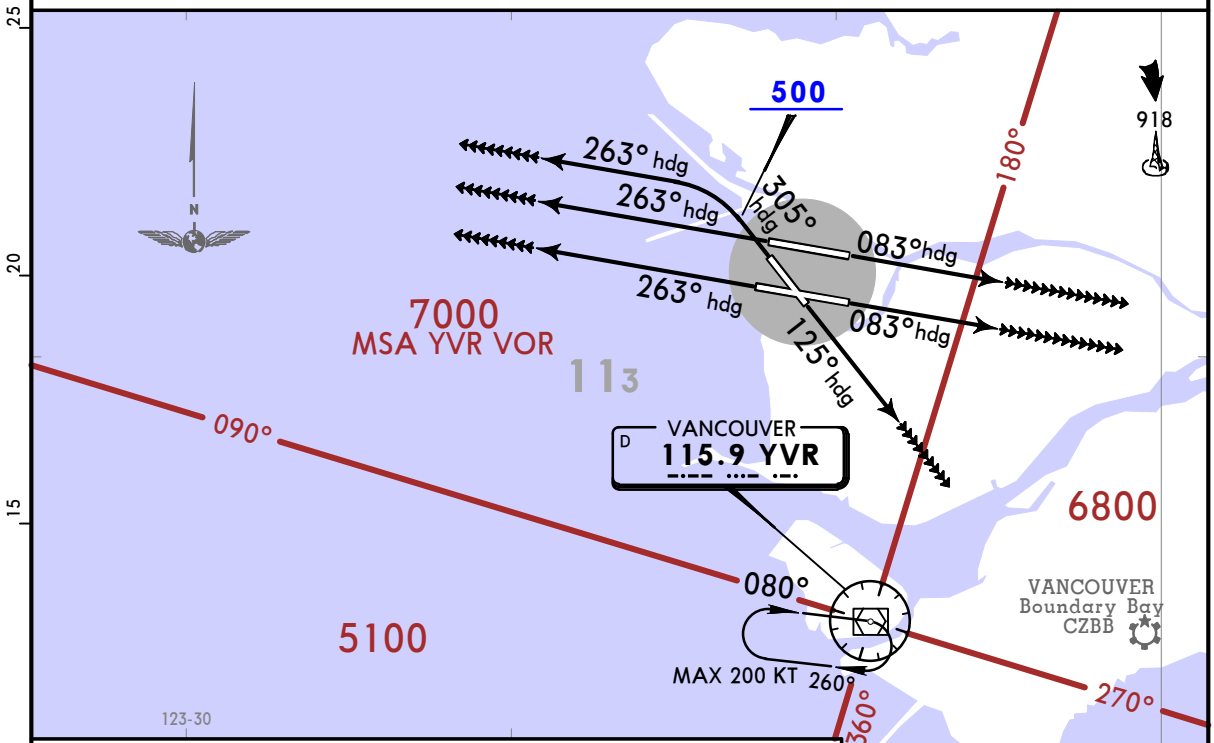
INITIAL CLIMB

Climb heading 083° to 1000. Then climbing RIGHT turn heading 145° or as assigned by ATC. MAINTAIN 2000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 10 minutes after departure.

CHANGES: Procedure renumbered, climb gradient, MSA.

VANCOUVER Departure		Apt Elev	Trans alt: 18000
NORTH	SOUTH	13	1. Safe altitude within 100 NM 12,800.
126.125	132.3		2. Non-Jet aircraft do not exceed 165 KT in climb until in contact with Departure Control and passing 4000.
			3. Jet aircraft use Noise Abatement Departure Procedure 1 or 2.
			4. Refer to 10-4 Noise Abatement Procedures for additional requirements.

VANCOUVER 2 DEPARTURE (YVR2.)
(VECTOR)
(ALL RWYS)



This SID requires a minimum climb gradients of:
Rwy 08L: 280 FT/NM to 500.
Rwys 26L/R: 290 FT/NM to 2100.

Gnd speed-KT	75	100	150	200	250	300
280 FT/NM	350	467	700	933	1167	1400
290 FT/NM	363	483	725	967	1208	1450

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

On recognition of failure 5 minutes or less after take-off, below 7000 and in IFR weather conditions, proceed as follows:
Rwys 08L/R:
1. Select transponder code 7600.
2. Beyond D10.0 of YVR VOR MAINTAIN last assigned altitude, RIGHT turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.

Rwys 13, 26L/R, 31:
1. Select transponder code 7600.
2. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.

If communication failure occurs more than 5 minutes after take-off, comply with appropriate procedures for communication failure enroute.

RWY	INITIAL CLIMB
08L/R	Climb heading 083° or as assigned by ATC.
13	Climb heading 125° or as assigned by ATC. NOTE: Building to 50 approximately 0.15 NM past DER, 685 LEFT of runway centerline. Tower to 50 approximately 0.2 NM past DER, 500 LEFT of runway centerline.
26L/R	Climb heading 263° or as assigned by ATC.
31	Climb heading 305° to 500. Then climbing LEFT turn heading 263° or as assigned by ATC.

ROUTING

MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: Procedure renumbered, climb gradient, MSA.

NOISE ABATEMENT PROCEDURES

APPLICATION

These procedures apply to JET AIRCRAFT unless noted otherwise.

DEPARTURE PROCEDURES

JET AIRCRAFT

1. Noise Abatement Departure Procedure 1 or 2 required for all runways. See Jeppesen Canada ATC para 7.6. Advise ATC CLNC DEL if using Noise Abatement Departure Procedure 1. Follow SID to 3000′ before proceeding on course.
2. Rwy 08R between 2300-0600 local time; aircraft on westerly routes follow assigned SID to 2000′ before proceeding on course.
3. ICAO Annex 16 Chapter 2 or FAA FAR Part 36 Stage 2 certified aircraft; departures on Rwys 08L and 26R not permitted.

ARRIVAL PROCEDURES

IFR APPROACHES & PUBLISHED VISUAL APPROACHES

Use low power/drag profiles consistent with safe operating procedures, conforming to published visual approaches and as directed by ATC.

VFR APPROACHES

Conform to published VTA routes and as directed by ATC.

REVERSE THRUST - LANDING

All Rwys: Use of reverse thrust is to be avoided or reduced when conditions permit.

NIGHT RESTRICTIONS

LOCAL TIME	Procedure
1. 0001-0600	Departure of ICAO Annex 16 Chapter 2 or FAA FAR Part 36 Stage 2 certified JET AIRCRAFT 34,000 kg (74,957 lbs) and over not permitted.
2. 0001-0600	Departure of JET AIRCRAFT rated over 34,000 kg (74,957 lbs) (MTOW), regardless of actual take-off weight, require prior approval from YVRAA OPERATIONS.
3. 2200-0700	Departure/Arrival of ALL AIRCRAFT on Rwys 08L & 26R not permitted.*
4. 2200-0700	Local training flights not permitted.

* See CONTACT and APPROVALS Section.

ALL AIRCRAFT (PRIORITY FLIGHTS EXEMPT)

LOCAL TIME	Preferencial Runway Usage
1. 0600-2300 One direction flow	Defer to westerly flow. Minimize departures on runway 13 and arrivals on runway 31.
2. 2300-0600 Two direction flow	Westerly flow for departures and easterly flow for arrivals. Minimize departures on runway 13 and arrivals on runway 31.
Subject to limiting factors including: physical condition of surfaces; irregular airfield operations; crosswind and tailwind conditions: and, traffic volume. (MEDEVACS EXEMPT).	

IT IS THE PILOT'S RESPONSIBILITY TO ADHERE TO PUBLISHED NOISE ABATEMENT PROCEDURES.

CHANGES: None.

NOISE ABATEMENT PROCEDURES

ENGINE RUN-UP RESTRICTIONS

Maintenance engine run-ups for ALL AIRCRAFT require prior approval from YVRAA OPERATIONS. Guidelines are contained in the Airport Operations Directive, Aircraft Engine Run-ups.

ENGINE START RESTRICTIONS

Prior permission required YVRAA OPERATIONS for all engine airstarts or crossbleed starts on Aprons 1, 2, 3, 4, 5, 6, 8.

ALTITUDE RESTRICTIONS

1. Exclusive of the Departure and Arrival procedures, no departing or arriving aircraft shall operate over the City at less than 5000′ MSL (8000′ between 2300 - 0700 local time- except aircraft operating on published RNAV STAR).

2. The City is defined as that area lying between the South Arm of the Fraser River and the North Shore of Burrard Inlet and from Point Gray to the eastern boundary of the Vancouver Control Zone.

CONTACT and APPROVALS

Night Restrictions #3: YVRAA OPERATIONS may permit exemptions for emergencies and airfield maintenance. **Tel: 604-207-7022; Fax: 604-276-6099 (24 hours)**

IT IS THE PILOT′S RESPONSIBILITY TO ADHERE TO PUBLISHED NOISE ABATEMENT PROCEDURES.

CODED TAXI ROUTES

READ BACK: "CODE ROUTE (name) AND ASSIGNED RUNWAY"

Monitor tower frequency approaching the hold line of the assigned runway, unless otherwise instructed by ATC.

Rwy 08R/26L - Tower 118.7 Rwy 08L/26R - Tower 119.55

CODE	TAXI ROUTE
Echo	Rwy 08R - E, D, H, hold short L. Rwy 08L - E, D, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - E, D, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - E, D.
Golf	Rwy 08R - G, H, hold short L. Rwy 08L - G, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - G, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - G, H, D.
❶ Juliet-Alpha	Rwy 08R - JA, J, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JA, J, M, M10. Rwy 26R - JA, J, M, M9. Rwy 26L - JA, J, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Juliet-Bravo	Rwy 08R - JB, J, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JB, J, M, M10. Rwy 26R - JB, J, M, M9. Rwy 26L - JB, J, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Juliet-Charlie	Rwy 08R - JC, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JC, J, M, M10. Rwy 26R - JC, J, M, M9. Rwy 26L - JC, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
Lima	Rwy 08L - L, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - L, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - L, J, H, D.
❶ Papa	Rwy 08R - P, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - P, M, M10. Rwy 26R - P, M, M9. Rwy 26L - P, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
Sierra	Rwy 08R - S, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - S, M, M10. Rwy 26R - S, M, M9. Rwy 26L - S, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Tango	Rwy 08R - T, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - T, M, M10. Rwy 26R - T, M, M9. Rwy 26L - T, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).

❶ Taxi routes for A340-600/B777-300/A350-900/A350-1000.

2023 SUMMER CONSTRUCTION AT CYVR: TAXIWAYS L, L2, L4 AND D3 REHABILITATION AND IMPROVEMENTS (SUP 15/23)

Introduction

From late March to Mid-December 2023, Vancouver International Airport (CYVR) will be conducting multiple airfield construction projects, impacting several surfaces on the south airfield. The following projects will take place between Late March 2023 to Late October 2023:

- Taxiway L Rehabilitation
- Taxiway L2 Improvements
- Taxiway L4 Improvements
- Taxiway D3 Improvements

Since all activities are subject to operational requirements and construction schedules, actual dates and times of surface closures relating to construction activities will be promulgated through briefing documents and NOTAM.

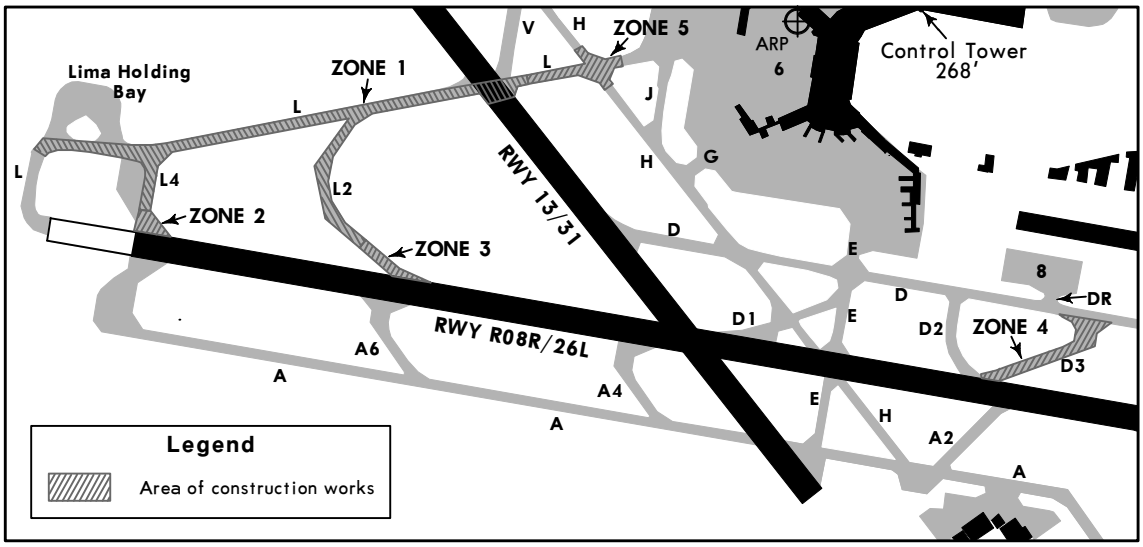


Figure 1: Work Zones

General Airfield Impacts During Construction

Date	Facility	Impact	Work Zone(s)
Late March - Late June	Twy L and Rwy 13/31 Intersection	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L between Rwy 13/31 and Twy L4	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L between Twy L4 and 08R Holding Position	**CLOSED** Daytime Work	Zone 1
Early July - Late July	Twy L between Twy J and Rwy 13/31	**CLOSED** Nighttime Work	Zone 5
Late March - Late October	Twy L2 within Rwy 08R/26L Strip	**CLOSED** Nighttime Work	Zone 3
	Twy L2 outside Rwy 08R/26L Strip	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L4 within Rwy 08R/26L Strip	**CLOSED** Nighttime Work	Zone 2
	Twy L4 outside Rwy 08R/26L Strip	**CLOSED** Daytime Work	Zone 1
Early July - Late October	Twy D3	**CLOSED** Nighttime Work	Zone 4

Details of any procedure or level of service changes implemented due to this construction activity will be promulgated via NOTAM.

CHANGES: None.

2023 SUMMER CONSTRUCTION AT CYVR: TAXIWAY C CLOSURE, TAXIWAY B INTERSECTION DEPARTURES (SUP 34/23)

Introduction

As part of the ongoing summer 2023 airside construction, CYVR will begin construction to extend Twy A and add a new entry point to Rwy 26L via Twy A7. Both the Twy A extension and Twy A7 will not be commissioned until 2025.

To accommodate this work, Twy C (North of F) will be NOTAM closed starting July 17, 2023. Once the work is complete in mid-September, Twy C will be returned to service.

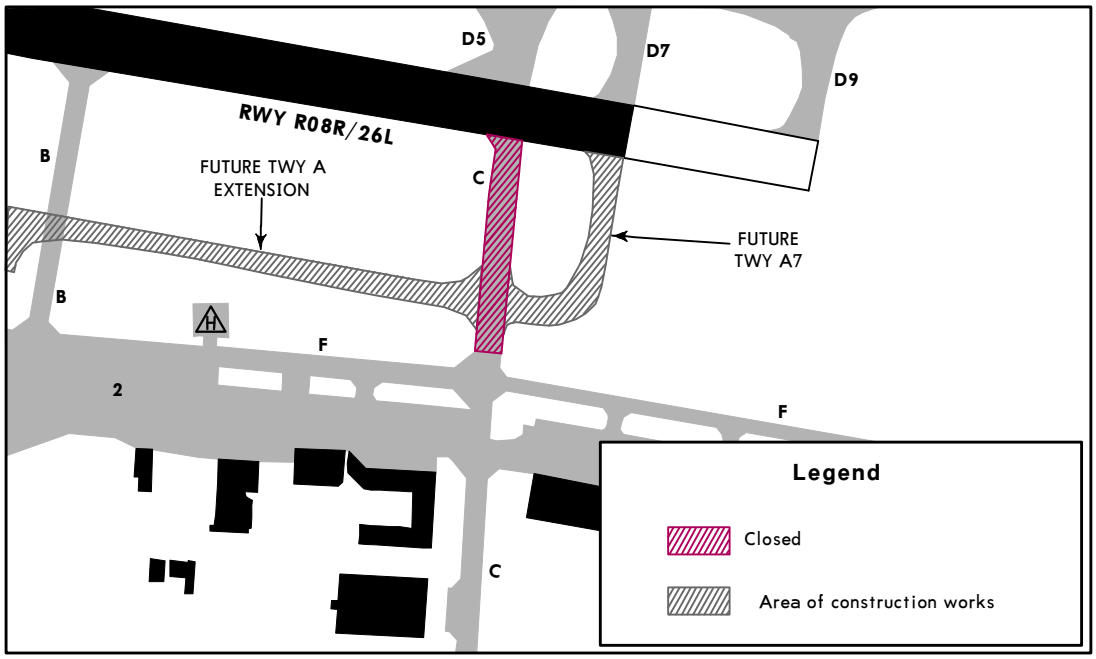


Figure 1: Construction Work

Impacts to Twy C and Twy F

Twy C (North of F) will be NOTAM closed starting July 17, 2023. Twy C will be returned to service in mid-September once the work in the vicinity of this taxiway is complete. Twy F will remain open during the closure, but some work may be required within the taxiway strip. Any impacts to the level of service of Twy F will be communicated via NOTAM.

Start Date	End Date	Facility	Impact
JULY 17, 2023	Mid-September, 2023	Twy C (North of F)	Closed
JULY 17, 2023	Mid-September, 2023	Twy F	See NOTAM

Twy B Intersection Departures

Intersection departures from Twy B will be available to southside operators departing Rwy 26L during the closure of Twy C. See declared distances below:

Rwy	Intersection	TORA in feet
26L	Twy B	8806′

Details of any procedure or level of service changes implemented due to this construction activity will be promulgate via NOTAM, publication amendment, or both.

CHANGES: New construction chart.

D-ATIS	Data Comm: D-ATIS PDC	VANCOUVER Clearance	Ground North	Ground South
124.6		121.4	127.15	121.7

Tower North	Tower South	Tower	Tower	PACIFIC Radio	VANCOUVER Departure North	VANCOUVER Departure South
119.55	118.7	124.0	125.65	123.15	126.125	132.3

RUNWAY INCURSION HOT SPOTS

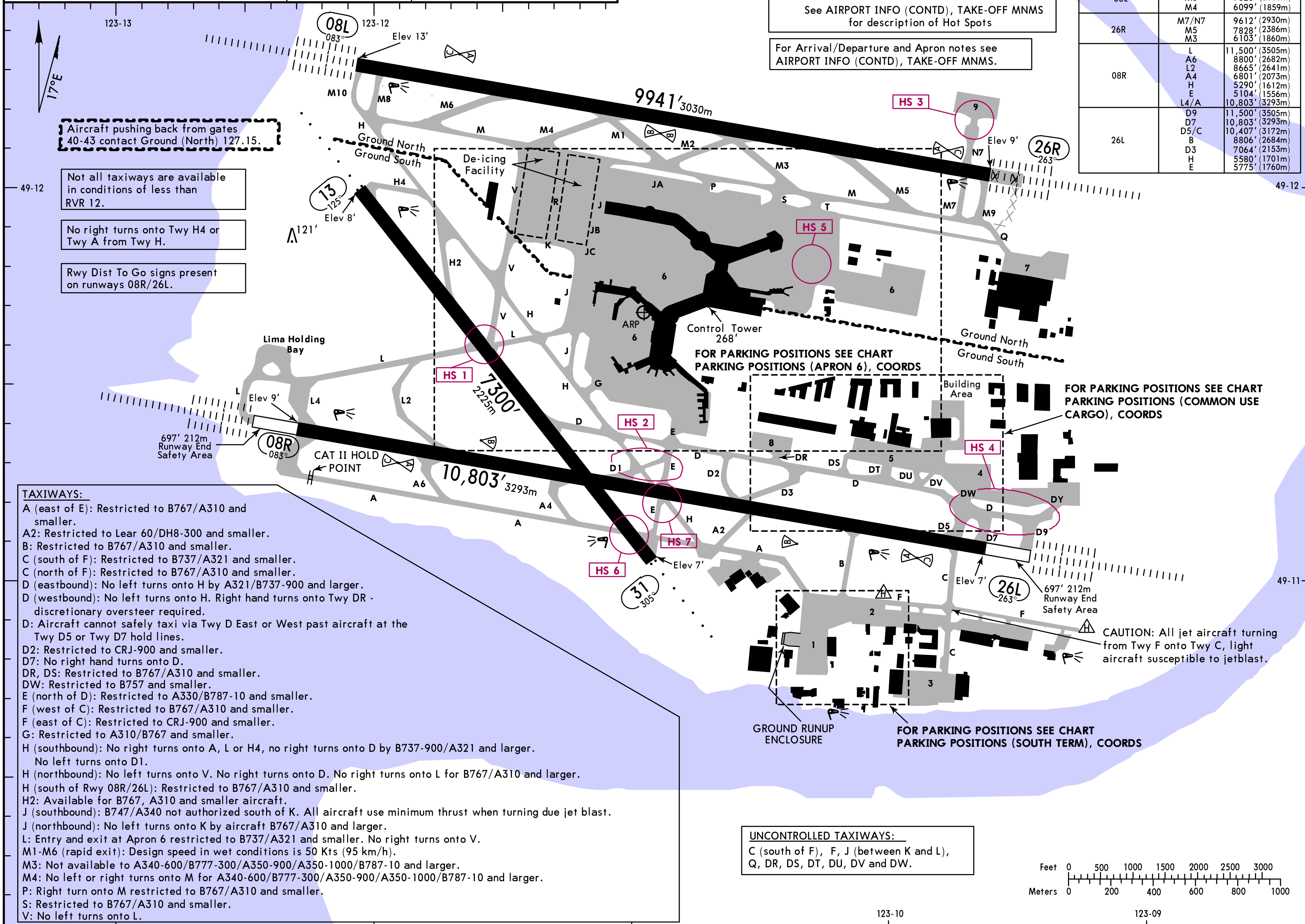
HS 1

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

For Arrival/Departure and Apron notes see AIRPORT INFO (CONTD), TAKE-OFF MNMS.

Take-off Run Available for Intersection Departures:

RUNWAY	INTERSECTION	RUNWAY REMAINING
08L	M8	9612′ (2930m)
	M6	7828′ (2386m)
	M4	6099′ (1859m)
26R	M7/N7	9612′ (2930m)
	M5	7828′ (2386m)
	M3	6103′ (1860m)
08R	L	11,500′ (3505m)
	A6	8800′ (2682m)
	L2	8665′ (2641m)
	A4	6801′ (2073m)
	H	5290′ (1612m)
	E	5104′ (1556m)
	L4/A	10,803′ (3293m)
26L	D9	11,500′ (3505m)
	D7	10,803′ (3293m)
	D5/C	10,407′ (3172m)
	B	8806′ (2684m)
	D3	7064′ (2153m)
	H	5580′ (1701m)
	E	5775′ (1760m)



Aircraft pushing back from gates 40-43 contact Ground (North) 127.15.

Not all taxiways are available in conditions of less than RVR 12.

No right turns onto Twy H4 or Twy A from Twy H.

Rwy Dist To Go signs present on runways 08R/26L.

TAXIWAYS:
- A (east of E): Restricted to B767/A310 and smaller.
- A2: Restricted to Lear 60/DH8-300 and smaller.
- B: Restricted to B767/A310 and smaller.
- C (south of F): Restricted to B737/A321 and smaller.
- C (north of F): Restricted to B767/A310 and smaller.
- D (eastbound): No left turns onto H by A321/B737-900 and larger.
- D (westbound): No left turns onto H. Right hand turns onto Twy DR - discretionary oversteer required.
- D: Aircraft cannot safely taxi via Twy D East or West past aircraft at the Twy D5 or Twy D7 hold lines.
- D2: Restricted to CRJ-900 and smaller.
- D7: No right hand turns onto D.
- DR, DS: Restricted to B767/A310 and smaller.
- DW: Restricted to B757 and smaller.
- E (north of D): Restricted to A330/B787-10 and smaller.
- F (west of C): Restricted to B767/A310 and smaller.
- F (east of C): Restricted to CRJ-900 and smaller.
- G: Restricted to A310/B767 and smaller.
- H (southbound): No right turns onto A, L or H4, no right turns onto D by B737-900/A321 and larger. No left turns onto D1.
- H (northbound): No left turns onto V. No right turns onto D. No right turns onto L for B767/A310 and larger.
- H (south of Rwy 08R/26L): Restricted to B767/A310 and smaller.
- H2: Available for B767, A310 and smaller aircraft.
- J (southbound): B747/A340 not authorized south of K. All aircraft use minimum thrust when turning due jet blast.
- J (northbound): No left turns onto K by aircraft B767/A310 and larger.
- L: Entry and exit at Apron 6 restricted to B737/A321 and smaller. No right turns onto V.
- M1-M6 (rapid exit): Design speed in wet conditions is 50 Kts (95 km/h).
- M3: Not available to A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.
- M4: No left or right turns onto M for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.
- P: Right turn onto M restricted to B767/A310 and smaller.
- S: Restricted to B767/A310 and smaller.
- V: No left turns onto L.

UNCONTROLLED TAXIWAYS:
C (south of F), F, J (between K and L), Q, DR, DS, DT, DU, DV and DW.

CHANGES: Twy DW note.

GENERAL

CAUTION: October - April migratory birds in vicinity of airport: Resident snow goose population, significant hazard at and below 400' AGL West of the threshold of Rwy 08R and Rwy 08L out to 1.9 NM.
CAUTION: Frequent VFR float aircraft activity on river south side of airport.
CAUTION: ALL JET AIRCRAFT: Light aircraft susceptable to jetblast when turning from twy F on to C.

Multilateration: Pilots must keep their transponder on at all times when maneuvering on the airport (turned on prior to brake release and on arrival, on until final engine shutdown). Pilots that do not have transponder code issued by ATC squawk 1000 when taxiing.

Rwy Arrivals & Departures:

Rwy 08L arrivals:
Use of reverse thrust is to be avoided or reduced when conditions permit.

Rwy 08R arrivals: Aircraft exiting onto Twy D1, turn North on Twy E.
Do not stop in rwy area. See HOT SPOT 2.

Rwy 26R arrivals:
Use of reverse thrust is to be avoided or reduced when conditions permit.

Rwy 26L arrivals: Turns onto Rwy 31 NOT AUTHORIZED without clearance. Aicraft exiting onto Rwy 13/31: Right hand turns onto Twy D restricted to B767/A310 & smaller, discretionary oversteer is required. Aircraft exiting onto Twy H, hold short of Twy D. Do not stop in rwy area. See HOT SPOT 2.

Rwy 13 departures: Not Authorized for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.

Rwy 31 arrivals: Not Authorized for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.

UNCONTROLLED VEHICLES CROSSINGS

Twys DS, DT, DU, DV, DY, F, H (north of H4), J, JA, JB, JC, K, N7, P, Q, R, S, T, V.

APU SHUTDOWN PROCEDURE

Aircraft Auxiliary Power Unit (APU) use shall be limited to 15 minutes or less in total between on-block time and departure of aircraft from stands supplied with Ground Power Unit (GPU) and/or preconditioned air, for environmental reasons, if the outside air temperature is between 0 degrees and 20 degrees Celsius.

Aircraft shall not need to comply with the above limitations on stands not equipped with serviceable GPU and/or preconditioned air or if there are overriding health & safety considerations.

APRON

Advise ATC if ground crew not present at gate.

Apron 1: Restricted to CRJ-900/SF34 and smaller.

Apron 3: Jets towed in and out.

Apron 4: Restricted to B757 and smaller. Aircraft stand taxilane east of DW restricted to Convair CV-580 and smaller.

Apron 1, 2, 3, 4, 5, 6, 8: Prior permission required Airport Operations.

Apron 6 (East): bypass (taxilane centerline amber lighting): Simultaneous use of dual taxilanes restricted to narrow body aircraft. Restricted to B737 and smaller.

Apron 6 (East): Pushbacks from remote parking positions E1-E3 to west taxilane.

Apron 6 (East): Pushbacks from remote parking positions E10-E19 to south taxilane.

Apron 6 (horseshoe): Taxilanes restricted to B737/A321 and smaller.

Apron 6: Traveling eastbound, turns onto P restricted to B767/A310 and smaller.

Apron 6: All aircraft use minimum thrust due to jet blast.

Prior permission required from YVR OPS for all engine airstarts or crossbleed starts on Aprons 1, 2, 3, 4, 5, 6, 8.

Apron 8: Restricted to B767/A310 and smaller.

WIDE BODY Aircraft

A380 ❶/B747-8/AN124 Available Twys: D, DT, D3, D5, D7, D9, H (north of Rwy 08R/26L), J (north of parking position W2), JA, K (west of R), L (west of 13/31), M, M5, M6, M7, M9, M10, P, R, V. Discretionary oversteer is required at every intersection.

A340-600/B777-300/A350-900/A350-1000/B787-10 Available Twys: D, D3, D5, D7, D9, DT, DY, E (south of Rwy 08R/26L), H (north of Rwy 08R/26L), J, JA, JB, JC, K, L (west of J), M, M4, M5, M6, M7, M8, M9, M10, P, T, R, V. Discretionary oversteer is required at every intersection.

Departing A340-600/B777-300 use the following coded taxi routes ONLY:

- Juliet - Alpha
- Juliet - Bravo
- Juliet - Charlie
- Papa
- Tango

❶ **A380:** When A380 is on Twy M between Twy J and Twy T, the taxilane between Gate 66 & Twy T is restricted to B757 & smaller (& vice versa).

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	LANDING BEYOND: Glide Slope	TAKE-OFF	WIDTH
08R 26L	HIRL CL ALSF-II TDZ ❷PAPI-L (angle 3.0°) RVR		9724' 2964m 9640' 2938m	11,500' 3505m	200' 61m
❷ For aircraft with eye-to-wheel height up to 45'.					
08L 26R	HIRL CL ALSF-II TDZ ❸PAPI-L (angle 3.0°) RVR		8887' 2709m 8935' 2723m		200' 61m
❸ For aircraft with eye-to-wheel height up to 45'.					
13 31	MIRL ODALS ❹PAPI-L (angle 3.0°)		6193' 1888m		200' 61m
❹ For aircraft with eye-to-wheel height up to 45'.					

RUNWAY INCURSION HOT SPOTS

For information only, not to be construed as ATC instuctions.

HS 1 Twy V holdline for Rwy 13/31 is 100' (30m) back due to intersection geometry.

HS 2 Aircraft taxiing H, southbound, holdline is located 100' (30m) back from the standard runway hold position. Aircraft exiting onto Twy D1, turn North on Twy E. Do not stop in runway area.

HS 3 Twy N7 hold line for Rwy 26R/08L at intersection Twy N7 and Apron IX. 702' (214m) from Rwy edge.

HS 4 Aircraft cannot safely taxi via Twy D East or West past aircraft at the Twy D5 or Twy D7 hold lines. Twy D9 commences beyond the runway holdshort line for Rwy 08R/26L on Twy D and Twy DY.

HS 5 Multiple taxilanes converge.

HS 6 Taxiing to Rwy 08R/26L, aircraft fail to hold short and incur on Rwy 13/31 on Twy A.

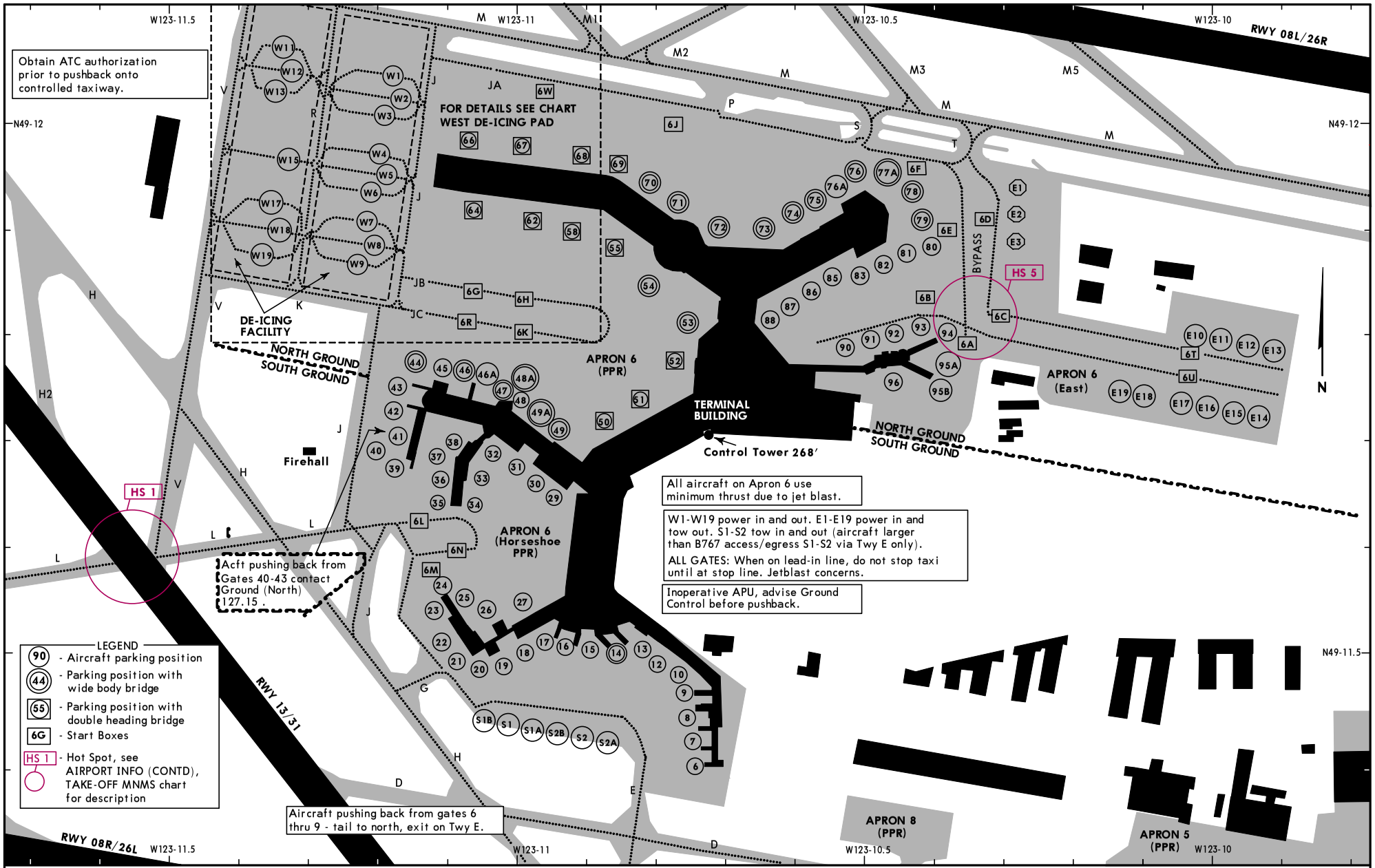
HS 7 Taxiing across Rwy 08R/26L, aircraft fail to hold short and incur on Rwy 13/31 on Twy E.

TAKE-OFF & DEPARTURE PROCEDURE

For departure procedure see Vancouver SID

	Rwys 08L/R, 26L/R			Rwys 13, 31
	Authorized Air Carriers		All Other Aircraft	
	HIRL & CL & RCLM	HIRL or CL or RCLM		
A B C D	TDZ RVR 6 Rollout or Mid RVR 6	❶ RVR 12 or 1/4	RVR 26 or 1/2	1/2

❶ RVR 10 required for start.

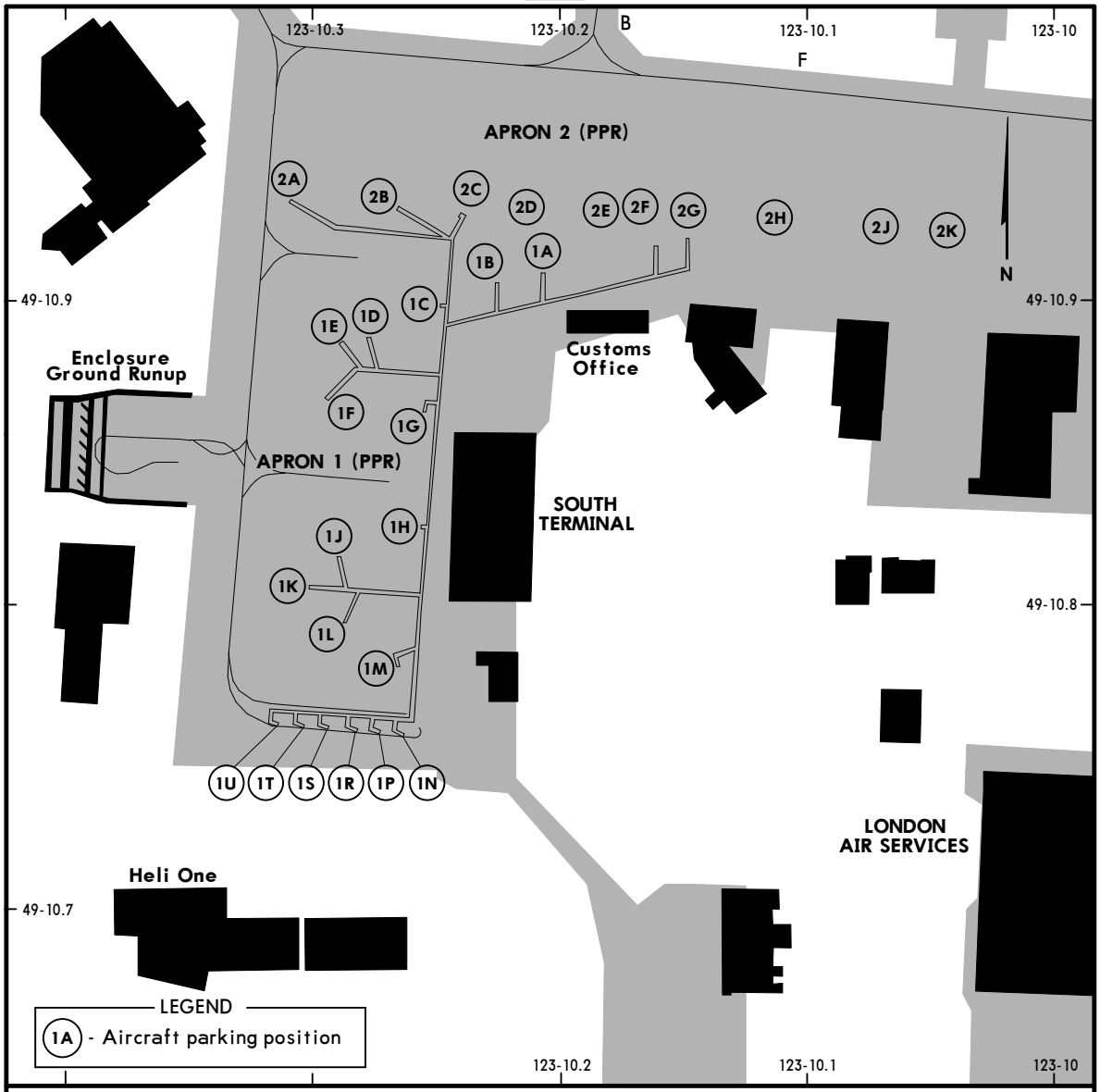


PARKING POSITION COORDINATES

POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES
6 thru 8	N49 11.4 W123 10.7	36 thru 38	N49 11.7 W123 11.1	66, 67	N49 12.0 W123 11.0	93, 94, 95A	N49 11.8 W123 10.4	S1, S1A, S1B	N49 11.4 W123 11.0
9, 10, 12, 13	N49 11.5 W123 10.8	39 thru 43	N49 11.7 W123 11.2	68, 69	N49 11.9 W123 10.9	95B	N49 11.7 W123 10.4	S2, S2A, S2B	N49 11.4 W123 10.9
14 thru 16	N49 11.5 W123 10.9	44 thru 46	N49 11.8 W123 11.1	70, 71	N49 11.9 W123 10.8	96	N49 11.7 W123 10.5	W1	N49 12.1 W123 11.2
17 thru 19	N49 11.5 W123 11.0	47	N49 11.8 W123 11.0	72, 73	N49 11.9 W123 10.7	E1 thru E3	N49 11.9 W123 10.3	W2 thru W4	N49 12.0 W123 11.2
20 thru 22	N49 11.5 W123 11.1	48, 49	N49 11.7 W123 11.0	74, 75	N49 11.9 W123 10.6	E10	N49 11.8 W123 10.0	W5, W6	N49 12.0 W123 11.3
23 thru 25	N49 11.6 W123 11.1	50	N49 11.7 W123 10.9	76, 77A, 78	N49 11.9 W123 10.5	E11 thru E13	N49 11.8 W123 09.9		
26, 27	N49 11.5 W123 11.0	51	N49 11.7 W123 10.8	79, 80	N49 11.9 W123 10.4	E14	N49 11.7 W123 09.8	W7 thru W9	N49 11.9 W123 11.3
29	N49 11.7 W123 10.9	52 thru 54	N49 11.8 W123 10.8	81 thru 83	N49 11.8 W123 10.5	E15	N49 11.7 W123 09.9	W11 thru W13	N49 12.0 W123 11.3
30 thru 33	N49 11.7 W123 11.0	55, 58	N49 11.9 W123 10.9	85, 86 thru 88, 90	N49 11.8 W123 10.6	E16 thru E18	N49 11.7 W123 10.0	W15	N49 12.0 W123 11.4
34, 35	N49 11.6 W123 11.1	62, 64	N49 11.9 W123 11.0	91, 92	N49 11.8 W123 10.5	E19	N49 11.7 W123 10.1	W17 thru W19	N49 11.9 W123 11.4

CHANGES: Parking positions 46A, 48A, 49A and 76A added, wide body bridge on position 46 added.

VANCOUVER, BC
VANCOUVER INTL



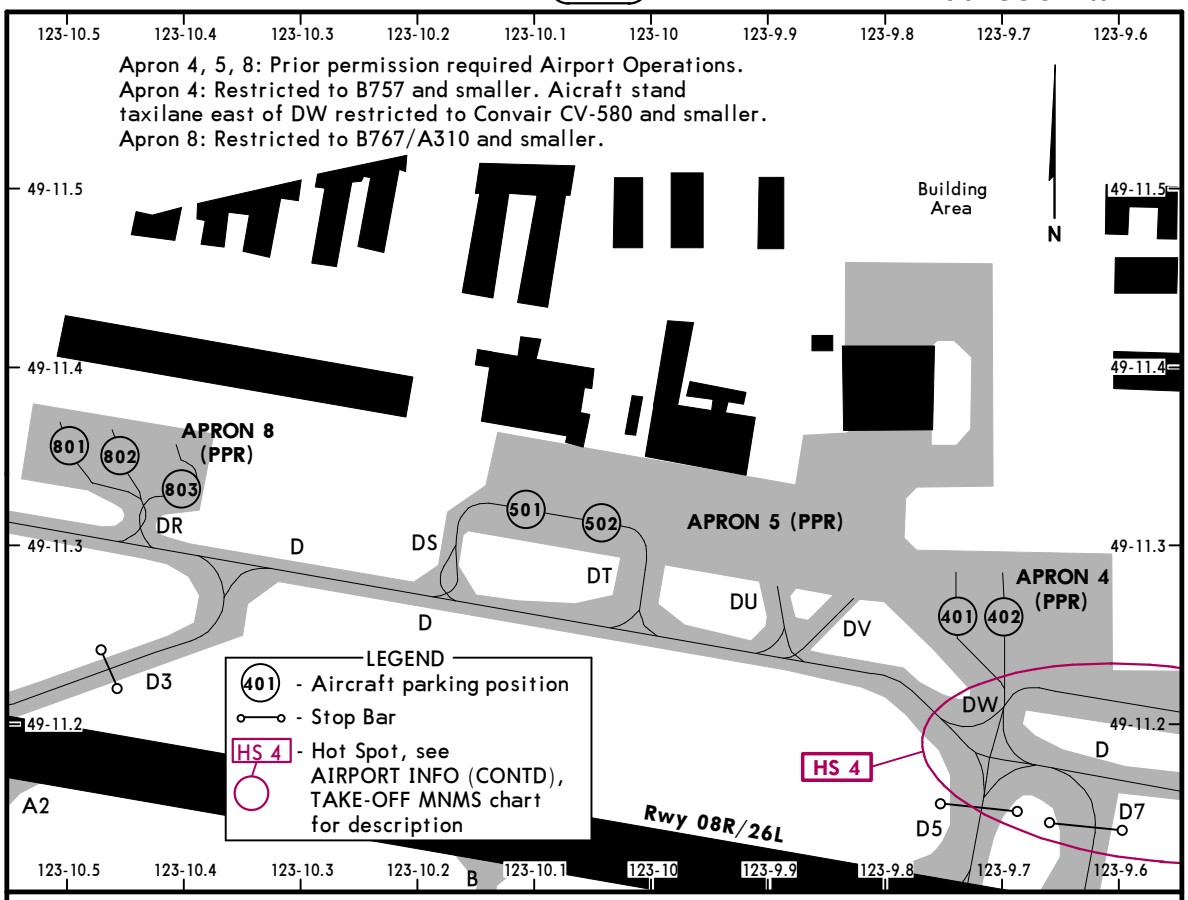
PARKING POSITION COORDINATES

POSITION No.	COORDINATES
1A, 1B, 1C	N49 10.9 W123 10.2
1D, 1E, 1F	N49 10.9 W123 10.3
1G	N49 10.9 W123 10.2
1H	N49 10.8 W123 10.2
1J, 1K, 1L, 1M, 1N	N49 10.8 W123 10.3
1P, 1R, 1S, 1T, 1U	N49 10.8 W123 10.3
2A	N49 10.9 W123 10.3
2B, 2C, 2D, 2E, 2F	N49 10.9 W123 10.2
2G, 2H, 2J	N49 10.9 W123 10.1
2K	N49 10.9 W123 10.0

CHANGES: None.

VANCOUVER, BC

VANCOUVER INTL



PARKING POSITION COORDINATES

POSITION No.	COORDINATES
401, 402	N49 11.3 W123 09.7
501	N49 11.3 W123 10.1
502	N49 11.3 W123 10.0
801, 802	N49 11.4 W123 10.5
803	N49 11.3 W123 10.4

CHANGES: Apron 4 note.

DE-ICING PROCEDURES

DE-ICING GENERAL:

1. De-icing at gates permitted for frost removal only, contact VANCOUVER DE-ICE on 129.95.
2. De-icing pad West is positively controlled when De-icing OPS are in effect, PAD CONTROL is providing control of all aircraft and vehicle movements on this surface.
3. 30 minutes prior to pushback or taxi, advise VANCOUVER DE-ICE on 129.95 that de-icing is required, the type(s) of fluids required and the aircraft type. VANCOUVER DE-ICE will designate de-ice pad.
4. When requesting pushback or taxi clearance, advise ATC that de-icing is required and designated de-ice pad.
5. When advised by ATC, contact PAD CONTROL on 131.975 for instructions in the de-icing center and assignment to a de-icing bay.
6. Follow PAD CONTROL instructions to de-icing bay.
7. When advised by PAD CONTROL, contact ICEMAN on 130.7 and confirm brakes set, aircraft configured, engines at idle, de-icing fluid requirements and any special de-icing instructions.
8. After de-icing is completed and the aircraft has been inspected, ICEMAN will confirm aircraft is clean, start time for HOLDOVER and types of fluids applied.
9. When advised by ICEMAN, contact PAD CONTROL on 131.975 for instructions.

UNDER NO CIRCUMSTANCES MAY THE AIRCRAFT BE MOVED BEFORE PAD CONTROL ADVISES THAT THE AIRCRAFT IS CLEARED TO TAXI OUT OF THE BAY.

WEST PAD:

1. Aircraft queuing is on Twy V at Twy K and on Twy M.
2. Narrow-body aircraft will use positions W1, W3, W4, W6, W7, W9, W17 and W19, indicated by yellow inset guidance lights.
3. When transferred from ATC, follow PAD CONTROL instructions to de-icing bays.

GROUND RUN-UP ENCLOSURE (GRE):

Operators must receive an orientation for the GRE facility prior to use. Crews may contact the Icehouse to schedule de-icing up to 120 minutes prior to departure. Information required:

- Aircraft type, flight number/call sign, and the type(s) of fluids required.

Parking position 2A, on Apron 1, is the only staging position for the facility.
Aircraft waiting to use the GRE must remain on their aprons until 2A becomes available.
All propeller aircraft and jet aircraft with a wingspan of 71' (21.6m) or less (Dassault Falcon 900 with winglets and smaller) may power in/out of the facility.
ICEMAN will advise if engines should be running during de-icing.

ENTRY PROCEDURE:

1. Before contacting ATC for taxi, contact ICEMAN 130.925 for position in de-icing queue.
2. When ICEMAN approves access to either the staging position (2A) or GRE, contact ATC 121.7 for taxi.
3. Proceed as instructed by ICEMAN. CAUTION: DO NOT enter GRE until instructed by ICEMAN.
4. Advise ICEMAN 130.925 when stopped in the GRE.

DE-ICING PROCEDURE:

5. Contact ICEMAN 130.925 to confirm brakes set, aircraft configured, engines idle, and provide fluid requirements.
6. After de-icing is complete and the aircraft has been inspected, ICEMAN will confirm aircraft is clean, start time for HOLDOVER and types of fluids applied.

EXIT PROCEDURE:

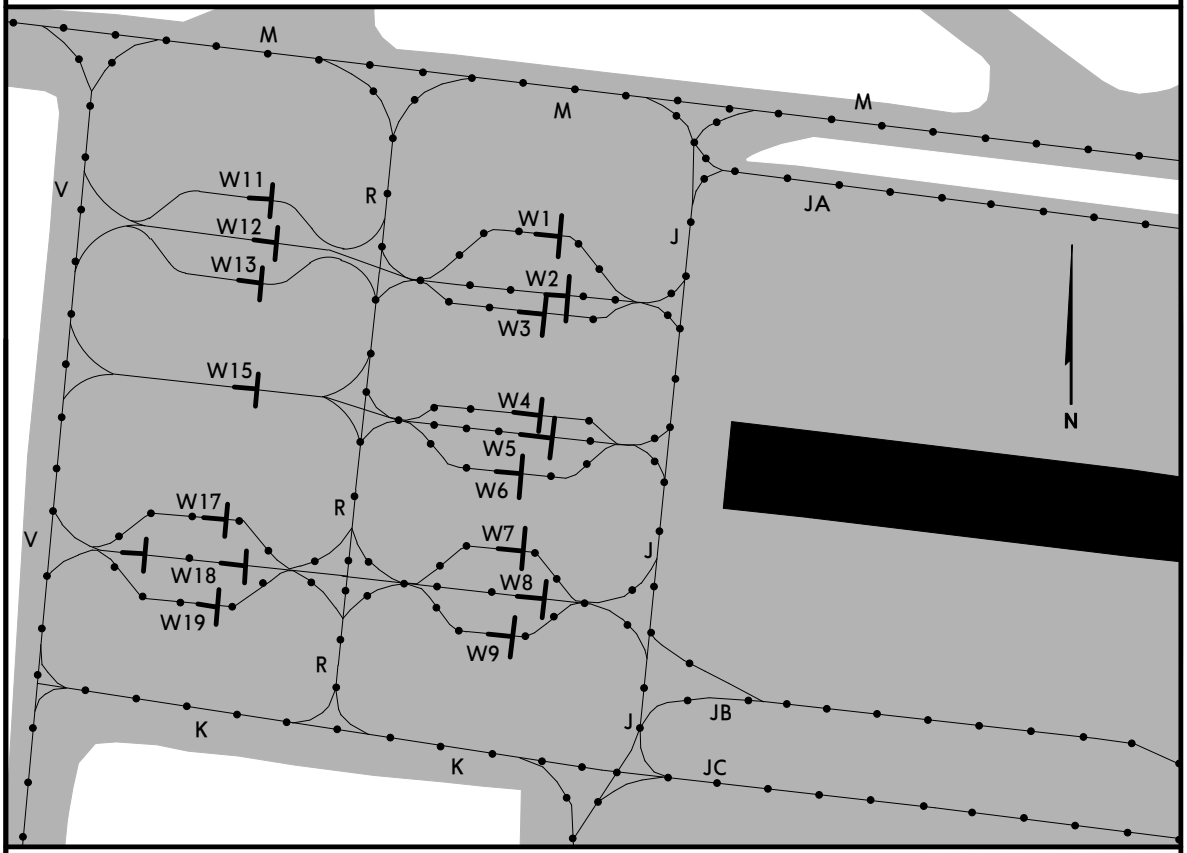
7. When ready to taxi contact ICEMAN 130.925 for instructions.

CHANGES: De-icing general note deleted.

VANCOUVER, BC
VANCOUVER INTL

WEST DE-ICING PAD

Vancouver De-ice	Pad Control	Iceman	South Ground	North Ground
129.95	131.975	130.7	121.7	127.15

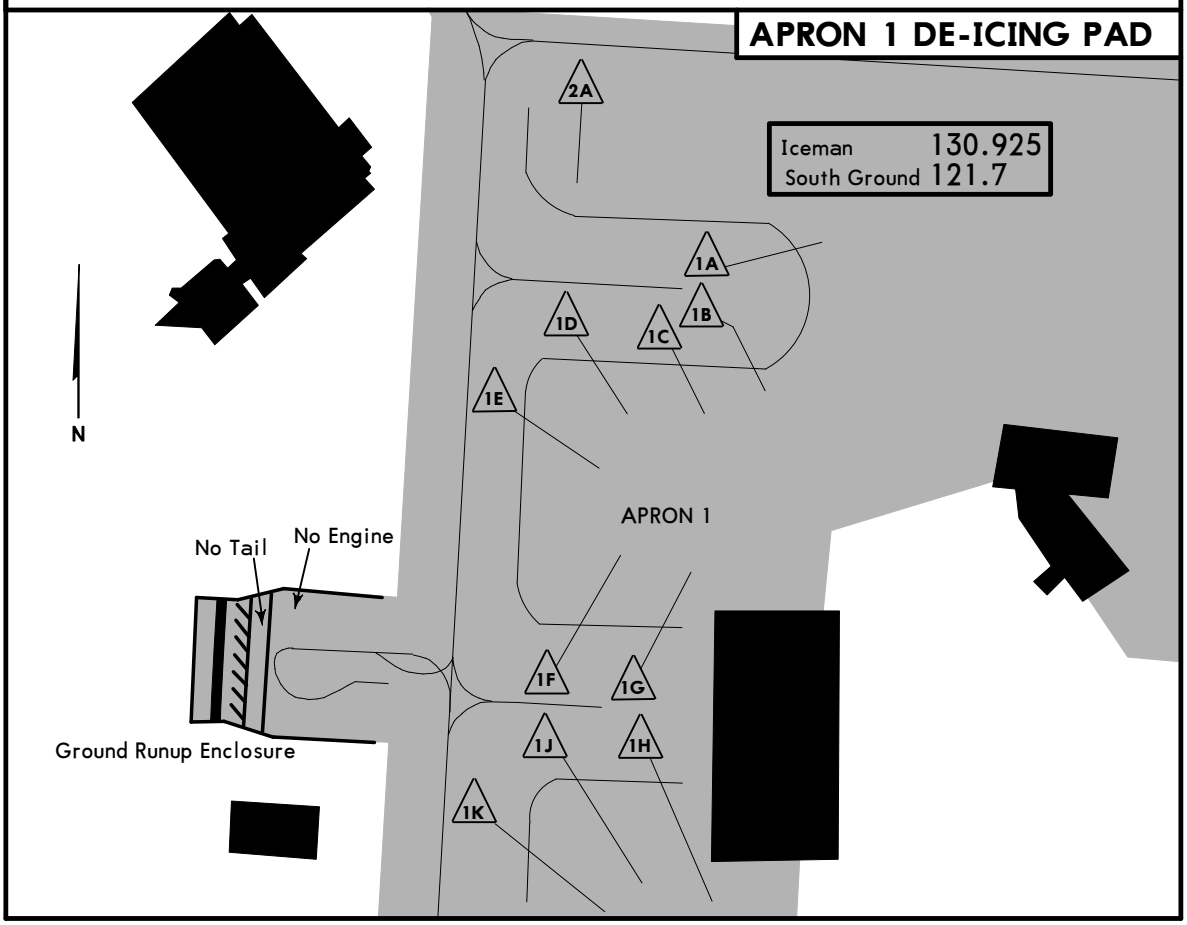


LEGEND

Hold line

Inset Guidance Lights

APRON 1 DE-ICING PAD



CHANGES: None.

LOW VISIBILITY PROCEDURES
(RVR LESS THAN 1200 TO 600 FT)

APPLICATION

These procedures apply to ground movements of aircraft arriving and departing under low visibility conditions. Arrivals and departures below RVR 600 are not authorized. When weather conditions indicate visibility below RVR 1200 is imminent, procedures will be implemented restricting aircraft and vehicle operations on the movement area. The following message will be added to the ATIS broadcast: Low visibility procedures in effect for (name of applicable runway).

GENERAL

Taxi Routes

Low Visibility Taxi Routes are equipped with green inset centerline lighting. Some taxiway/taxiway intersections have been indentified with three inset yellow centerline lights. Midfield crossings of 08R/26L are not permitted during low visibility operations.

Airport Surface Detection Equipment (ASDE)

Ground radar is used to monitor the position of aircraft operating on the maneuvering area. In the event of an ASDE failure, ATC may suspend, restrict or terminate low visibility operations.

DEPARTURES

The primary runways for departure are 08R/26L. Yellow flashing runway guard lights (wig-wags) and stop bars are installed abeam each hold line. Intersection take-offs are not permitted.

Sequencing of Aircraft Ground Movement for Take-off

Do not request start, push back or call for taxi clearance until the reported RVR is greater than:

Aircraft/Pilot Take-off Minima	Minimum RVR for Start
1200 RVR	1000 RVR
600 RVR	600 RVR

SMGCS Rwy 08L/26R and 08R/26L

Runway/taxiway intersections are equipped with yellow flashing runway guard lights and stop bars consisting of red inset lights and red elevated lights located at the taxi hold position. At runway entry points, M10, M8, M7, M9, N7, L, D, D5, D7, DY, C and A, when the red stop bar lights are illuminated, green lead-on lights beyond the stop bar are extinguished. When ATC issues a clearance to proceed onto the runway, the red stop bar lights will be extinguished and the green lead-on lights beyond the stop bar will be illuminated. The stop bar is reset automatically as the aircraft moves onto the runway.

"AT NO TIME SHALL A PILOT CROSS AN ILLUMINATED RED STOP BAR"

ARRIVALS

The primary runways for arrival are 08L/26R.

Plan to exit on the centerline lighted rapid exit taxiways and proceed beyond the alternating green and yellow centerline lights to the taxi intersection lights to ensure the aircraft is clear of the runway and the ILS sensitive area.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
10-9H

SMGCS

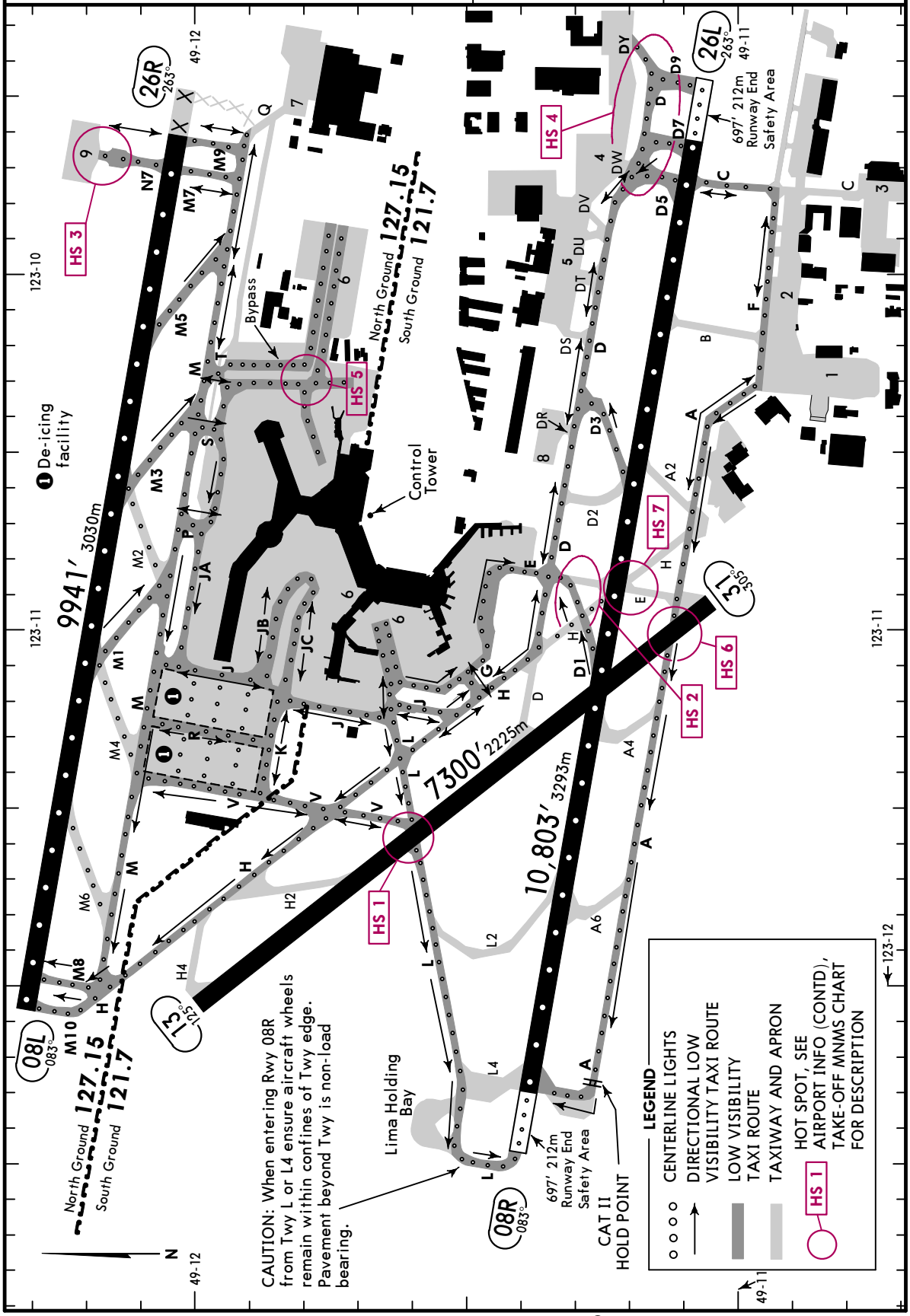
VANCOUVER, BC
LOW VISIBILITY TAXI CHART
LAND Rwy 08L/08R, DEPART Rwy 08L/08R

LESS THAN RVR 1200 to 600

For Low Visibilty Procedures See 10-9D

D-ATIS	Data Comm	VANCOUVER Clearance	Ground	
124.6	D-ATIS PDC	121.4	North 127.15	South 121.7

Tower				PACIFIC Radio	VANCOUVER Departure	
North 119.55	South 118.7	124.0	125.65	123.15	North 126.125	South 132.3



CHANGES: Hot Spots 6 & 7 added.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
10-9J

SMGCS

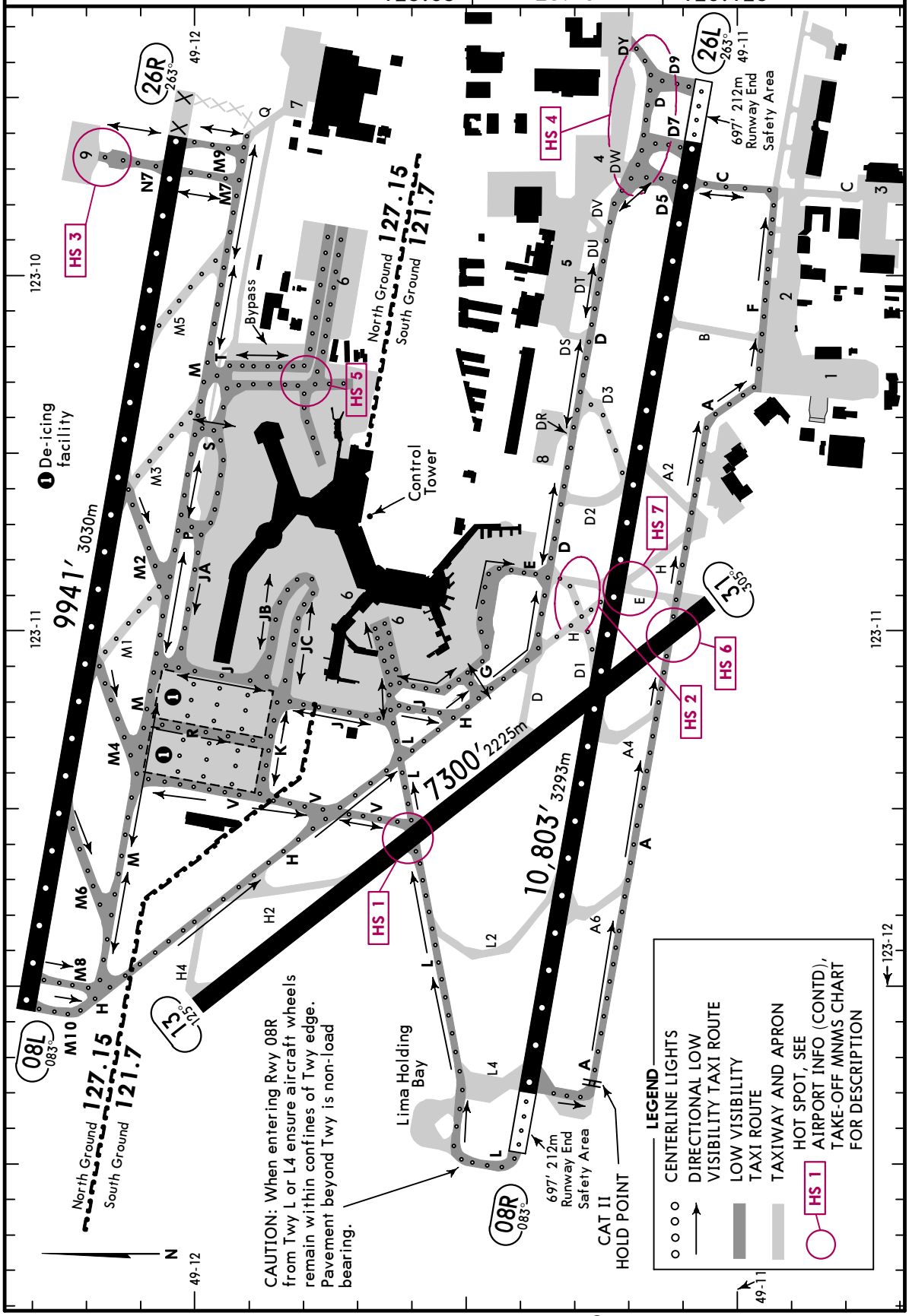
VANCOUVER, BC
LOW VISIBILITY TAXI CHART
LAND Rwy 26L/26R, DEPART Rwy 26L/26R

LESS THAN RVR 1200 to 600

For Low Visibilty Procedures See 10-9D

D-ATIS	Data Comm D-ATIS PDC	VANCOUVER Clearance	Ground	
124.6		121.4	North 127.15	South 121.7

Tower				PACIFIC Radio	VANCOUVER Departure	
North 119.55	South 118.7	124.0	125.65	123.15	North 126.125	South 132.3



CHANGES: Hot Spots 6 & 7 added.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-1) Eff 23 Feb

VANCOUVER, BC
ILS Z Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

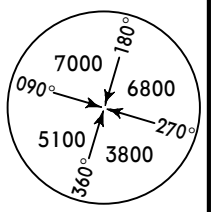
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC ITL	Final Apch Crs	GS	ILS DA(H)	Apt Elev 13′
110.55	083°	OMRAD 2030′ (2017′)	Refer to Minimums	TDZE 13′

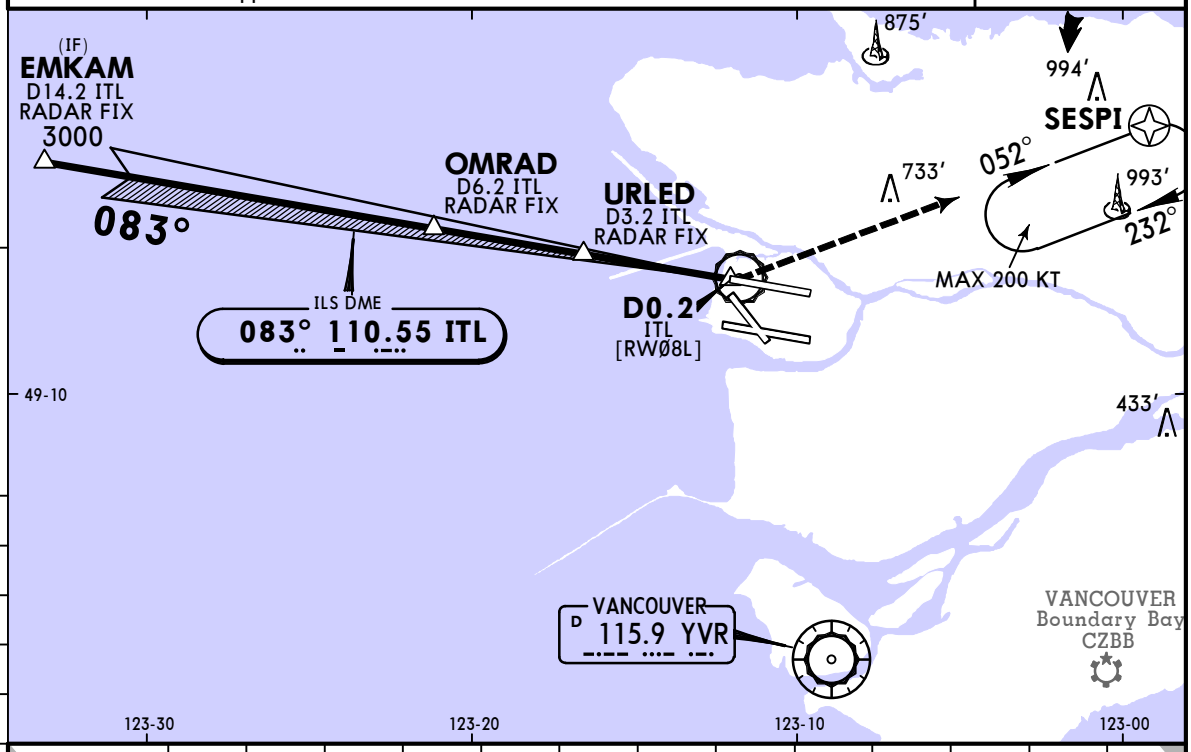
MISSED APCH: Do not exceed 230 KT until SESPI. Climbing LEFT turn to 3000′ direct to SESPI. As required shuttle climb.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

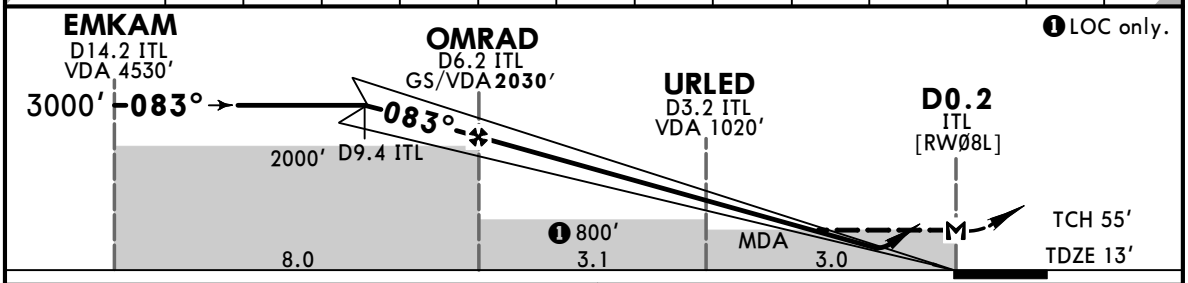
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 08R. 5. Localizer reliable only within 10° either side of centerline. 6. Non RNAV aircraft must obtain missed approach instructions from ATC.



MSA YVR VOR



NM to ITL DME	14.2	12.0	11.0	10.0	9.4	8.0	7.0	6.0	5.0	4.0	3.0	2.0	0.9
VDA ALTITUDE	4530′	3830′	3510′	3190′	3000′	2560′	2240′	1920′	1600′	1280′	970′	650′	300′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
MAP at D0.2 ITL							
OMRAD to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II PAPI | 230 KT MAX UNTIL SESPI | 3000′ LT | D | SESPI

STRAIGHT-IN LANDING RWY 08L

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) RADAR	
	DA(H) 213′ (200′)	DA(H) 263′ (250′)	MDA(H) 300′ (287′)	
	FULL	HIALS out		HIALS out
A	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	
B				
C				
D				

CHANGES: Note, missed apch, waypoints, altitudes, distances, LOC angle.

CYVR/YVR VANCOUVER INTL

JEPPESEN

17 FEB 23
Eff 23 Feb

(11-1A)

VANCOUVER, BC
ILS CAT II or III Y Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.17 128.6	133.1 134.225

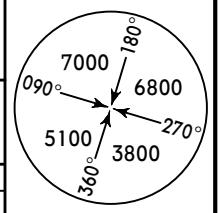
VANCOUVER Tower North	VANCOUVER Tower	VANCOUVER Tower South	Ground North	Ground South
119.55	124.0	118.7	127.15	121.7

LOC ITL	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
110.55	083°	OMRAD 2030′ (2017′)	NA	NA	Refer to Minimums	RA 113′ DA(H) 113′(100′)	13′ TDZE 13′

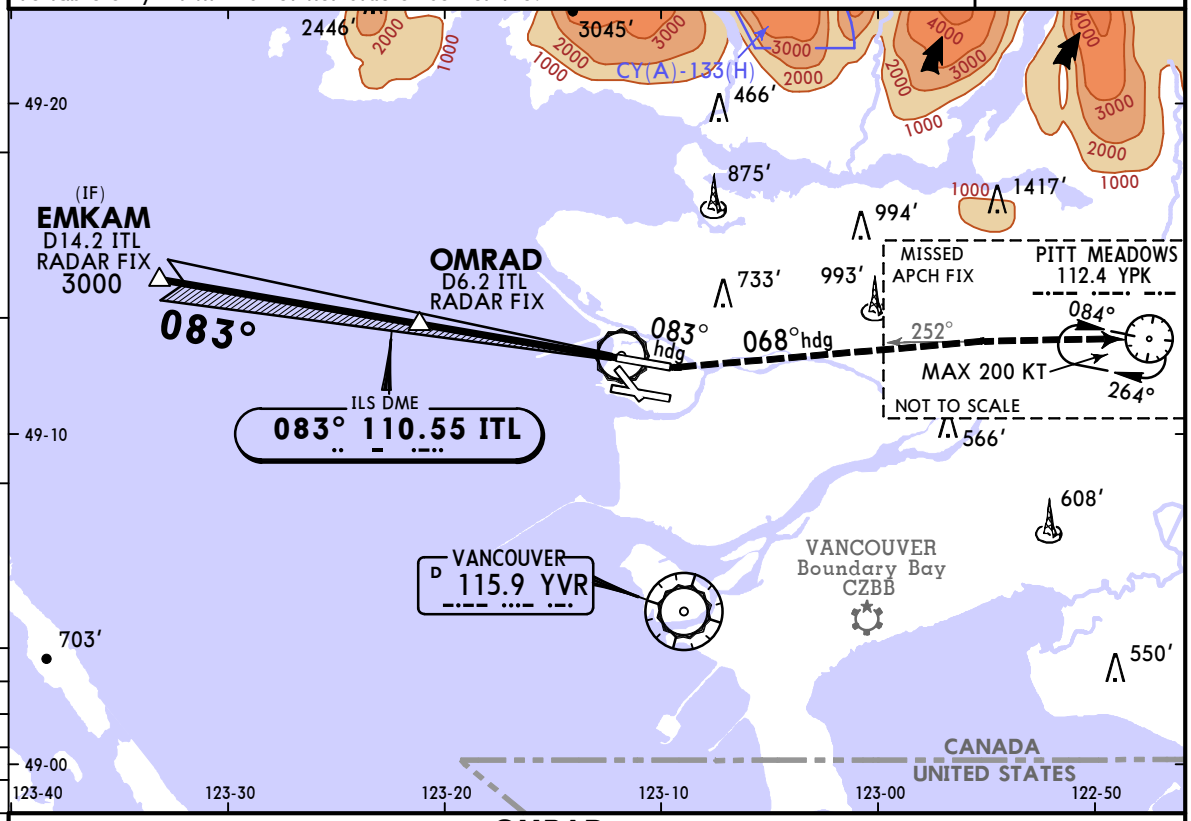
MISSED APCH: Climb to 420′ heading 083°. Then climbing LEFT turn to 3500′ heading 068°. Intercept inbound R-252 YPK to YPK VOR.

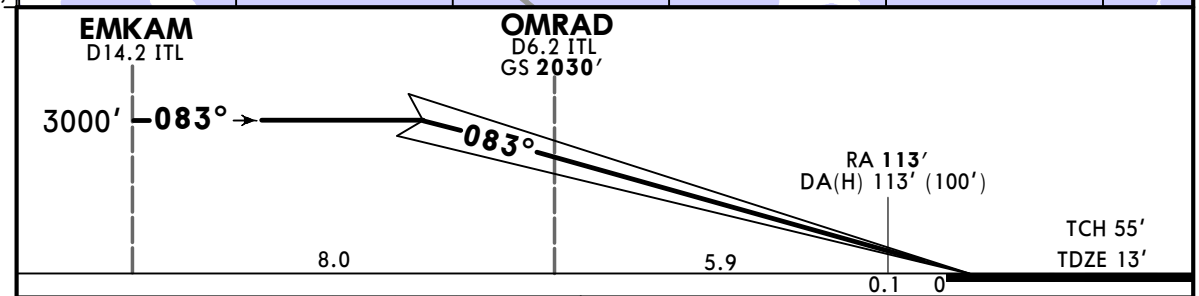
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 08R. 6. Localizer reliable only within 10° either side of centerline.



MSA YVR VOR





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

ALSF-II
PAPI

420′ | 083° hdg | 3500′ LT | 068° hdg

STRAIGHT-IN LANDING RWY 08L

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 113′ DA(H) 113′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Waypoints, GS altitude, distances.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-2) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 08R

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

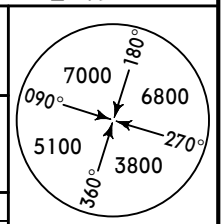
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC IVR	Final Apch Crs	GS	ILS DME DA(H)	Apt Elev 13′
109.5	083°	TAVPI 2030′ (2021′)	Refer to Minimums	TDZE 9′

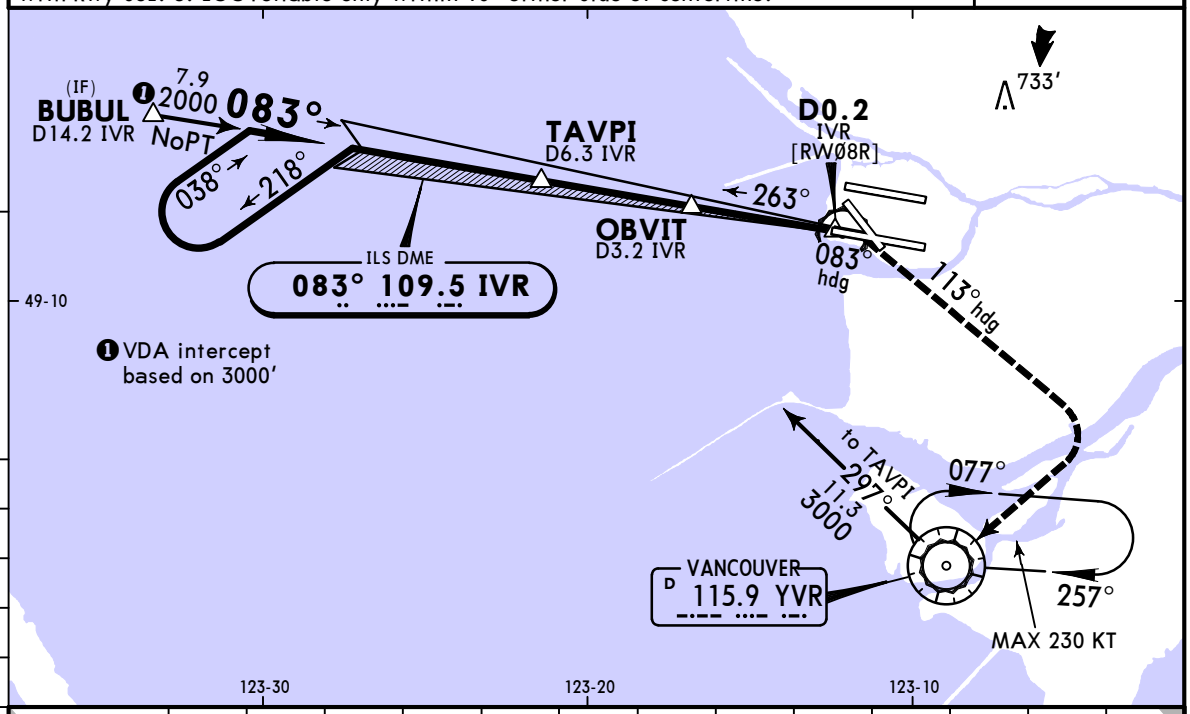
MISSED APCH: Climb to 420′ heading 083°. Then climbing RIGHT turn to 2000′ heading 113°. Then RIGHT turn direct to YVR VOR. Shuttle climb at YVR VOR to 5400′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

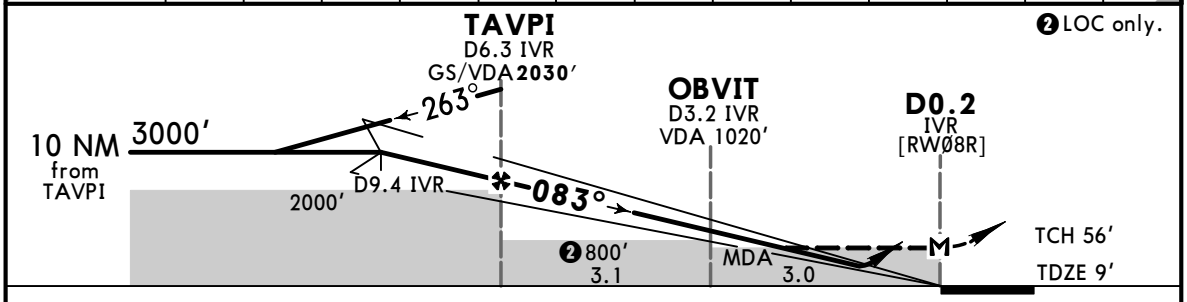
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08L. 3. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IVR DME	14.2	12.0	11.0	10.0	9.4	8.0	7.0	6.0	5.0	4.0	3.0	2.0	0.9
VDA ALTITUDE	4530′	3830′	3510′	3190′	3000′	2550′	2230′	1920′	1600′	1280′	960′	640′	280′



Gnd speed-Kts	70	90	100	120	140	160
GS/VDA 3.00°	372	478	531	637	743	849
MAP at D0.2 IVR						

ALSF-II
PAPI

420′	083° hdg	2000′ RT	113° hdg

STRAIGHT-IN LANDING RWY 08R

	ILS DME		LOC (GS out) DME	
	DA(H) 209′(200′)	DA(H) 259′(250′)	MDA(H) 280′(271′)	
	FULL	HIALS out		HIALS out
A B C D	RVR 26 or 1/2	RVR 50 or 1	RVR 50 or 1	

CHANGES: Missed apch, transition, waypoints, dist, alt, TCH, holding, LOC mnms.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
11-2A

VANCOUVER, BC
ILS CAT II or III Rwy 08R

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.17 128.6	133.1 134.225

VANCOUVER Tower North	VANCOUVER Tower	VANCOUVER Tower South	Ground North	Ground South
119.55	124.0	118.7	127.15	121.7

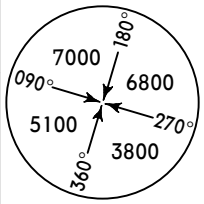
BRIEFING STRIP ™

LOC IVR	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
109.5	083°	TAVPI 2030′ (2021′)	NA	NA	Refer to Minimums	RA 99′ DA(H) 109′ (100′)	13′ TDZE 9′

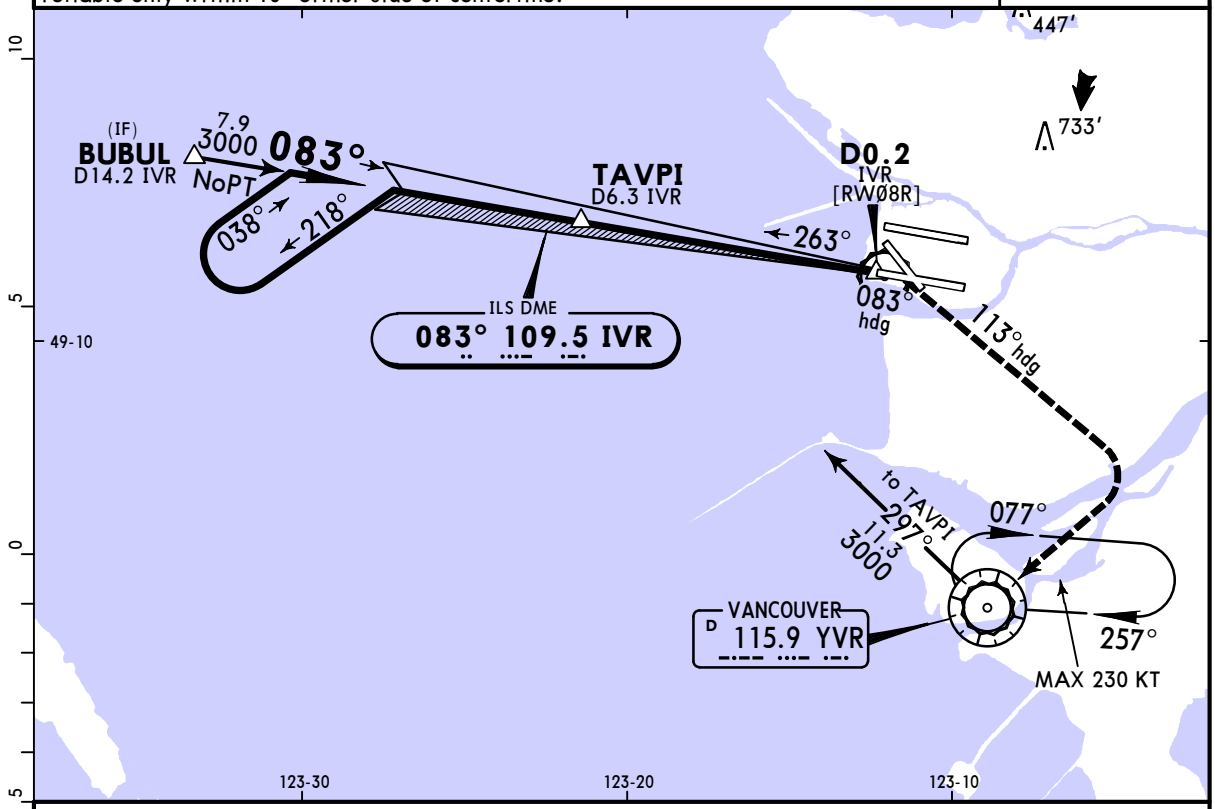
MISSED APCH: Climb to 420′ heading 083°. Then climbing RIGHT turn to 2000′ heading 113°. Then RIGHT turn direct to YVR VOR. Shuttle climb at YVR VOR to 5400′ before proceeding on course.

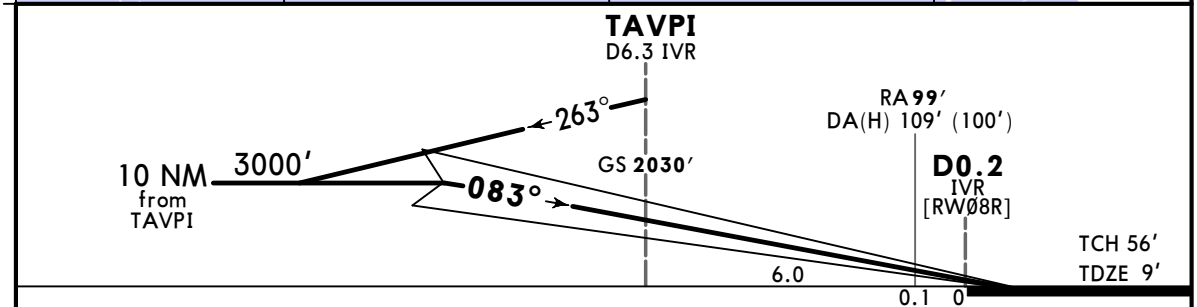
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Simultaneous approach AUTHORIZED with Rwy 08L. 4. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





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

ALSF-II
PAPI

420′	083° hdg	2000′ RT	113° hdg

STRAIGHT-IN LANDING RWY 08R

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 99′ DA(H) 109′ (100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Missed apch, transition, wpts, dist, alt, TCH, holding, CAT II mnm.

CYVR/YVR
VANCOUVER INTL

JEPPESEN

16 SEP 22 (11-3)

VANCOUVER, BC
ILS Rwy 13

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.17 128.6	133.1 134.225

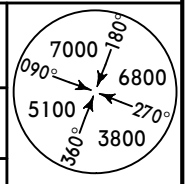
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC IMK	Final Apch Crs	GS DATSI	ILS DME DA(H)	Apt Elev 13′
111.1	125°	2690′ (2682′)	258′ (250′)	TDZE 8′

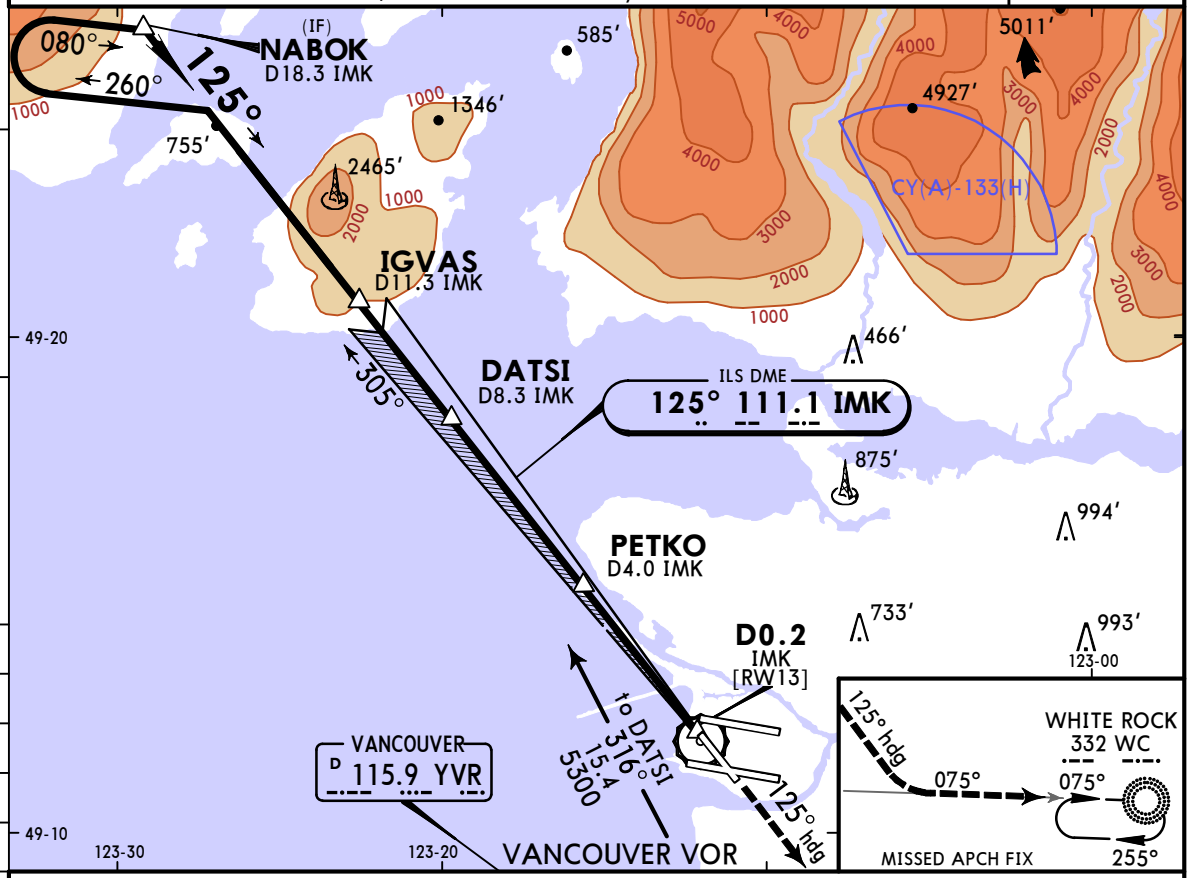
MISSED APCH: Climb to 3000′ heading 125°. Then LEFT turn direct to WC NDB. Shuttle to 7500′ before proceeding on course.

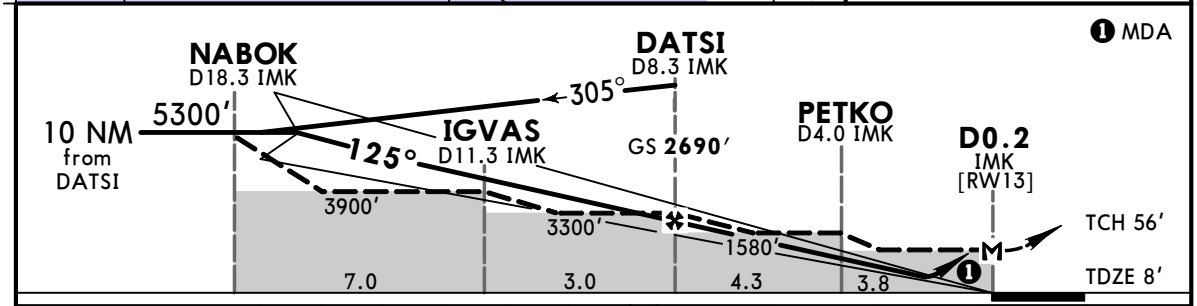
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849
LOC Descent Angle 3.75°	465	597	664	796	929	1062
MAP at D0.2 IMK						

ODALS / PAPI	3000′	125° hdg	LT	WC 332

STRAIGHT-IN LANDING RWY 13

	ILS DME	LOC (GS out) DME
	DA(H) 258′ (250′)	MDA(H) 440′ (432′)
	ALS out	ALS out
A	1	1¼
B		
C		
D		

CHANGES: LOC descent angle.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-4) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 26L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.17 128.6	133.1 134.225

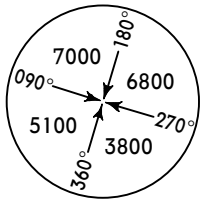
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC IFZ	Final Apch Crs	GS	ILS DA(H)	Apt Elev 13′
110.7	263°	DUTOM 2030′ (2023′)	Refer to Minimums	TDZE 7′

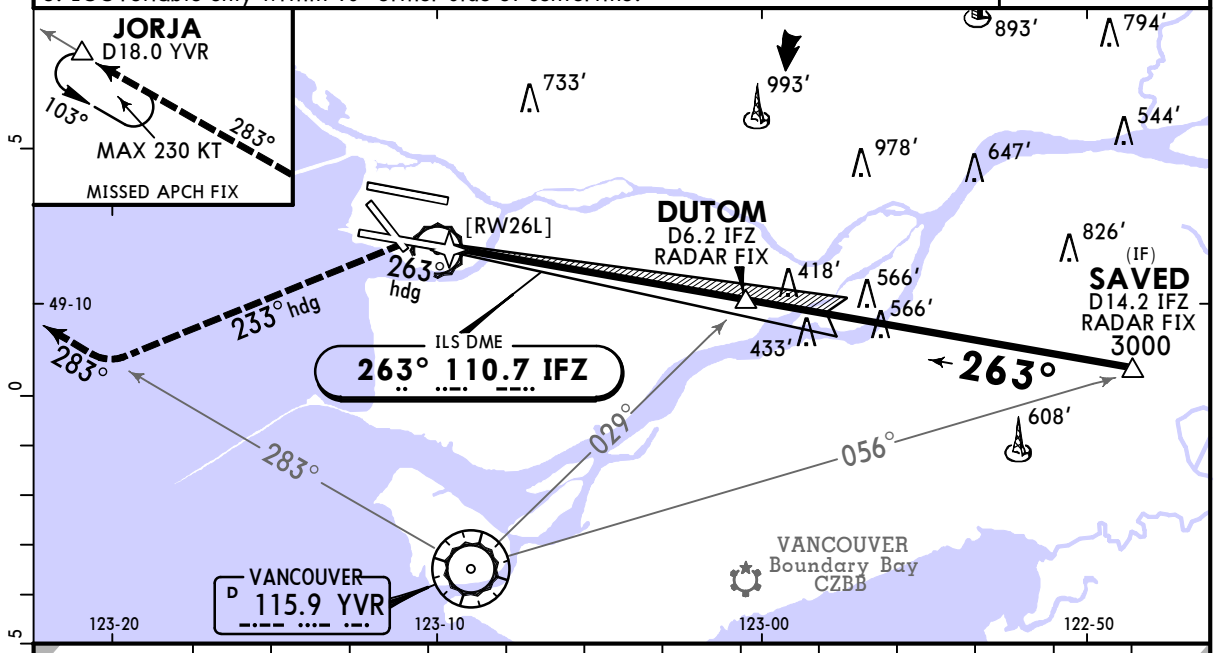
MISSED APCH: Climb to 420′ heading 263°. Then climbing LEFT turn to 2000′ heading 233°. Intercept outbound R-283 YVR VOR. Then climb to 3000′ to JORJA. Shuttle climb at JORJA to 4800′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

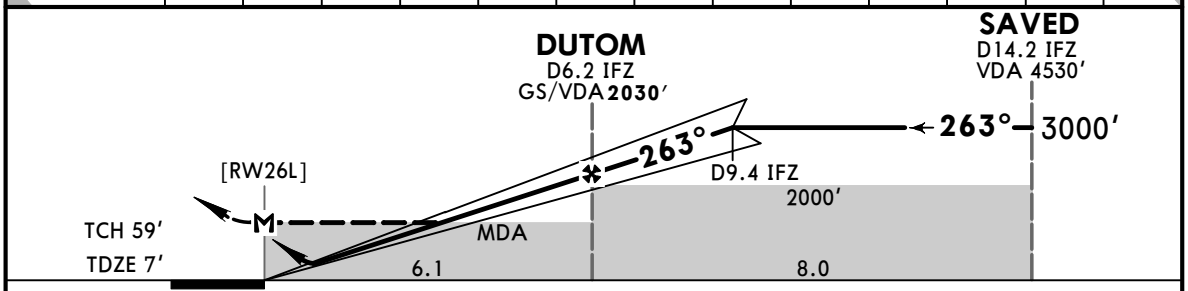
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 26R. 5. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IFZ DME	1.7	3.0	4.0	5.0	6.0	7.0	8.0	9.4	10.0	11.0	12.0	13.0	14.2
VDA ALTITUDE	540′	960′	1280′	1600′	1920′	2230′	2550′	3000′	3190′	3510′	3830′	4140′	4530′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
DUTOM to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II
PAPI

420′	263° hdg	2000′ LT	233° hdg

STRAIGHT-IN LANDING RWY 26L

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) VOR	
	DA(H) 207′ (200′)	DA(H) 257′ (250′)	MDA(H) 540′ (533′)	
	FULL	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	1¼	1¾

CHANGES: MSA, missed apch, wpts, distances, altitudes, holding, minimums.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
11-4A

VANCOUVER, BC
ILS CAT II or III Rwy 26L

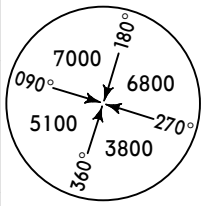
BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.17 128.6	133.1 134.225

VANCOUVER Tower North	VANCOUVER Tower	VANCOUVER Tower South	Ground North	Ground South
119.55	124.0	118.7	127.15	121.7

LOC IFZ	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
110.7	263°	DUTOM 2030′ (2023′)	NA	NA	Refer to Minimums	RA 103′ DA(H) 107′(100′)	13′ TDZE 7′

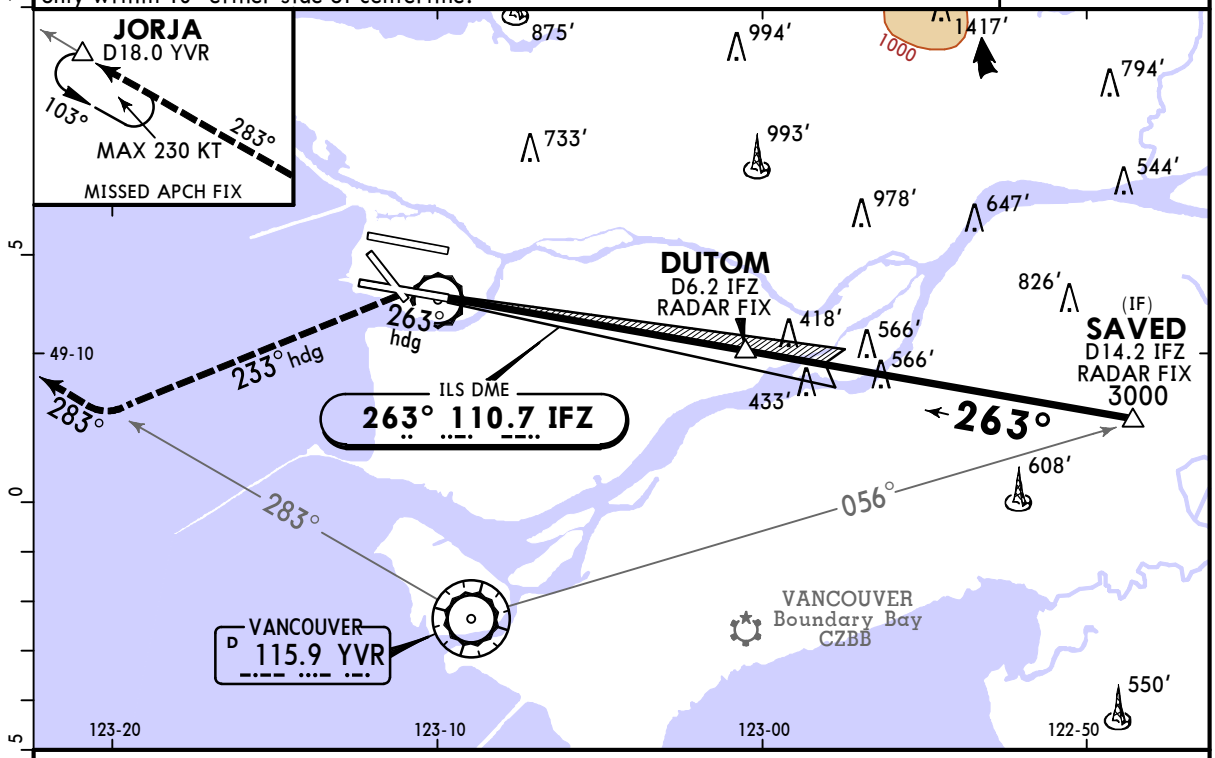
MISSED APCH: Climb to 420′ heading 263°. Then climbing LEFT turn to 2000′ heading 233°. Intercept outbound R-283 YVR VOR. Then climb to 3000′ to JORJA. Shuttle climb at JORJA to 4800′ before proceeding on course.

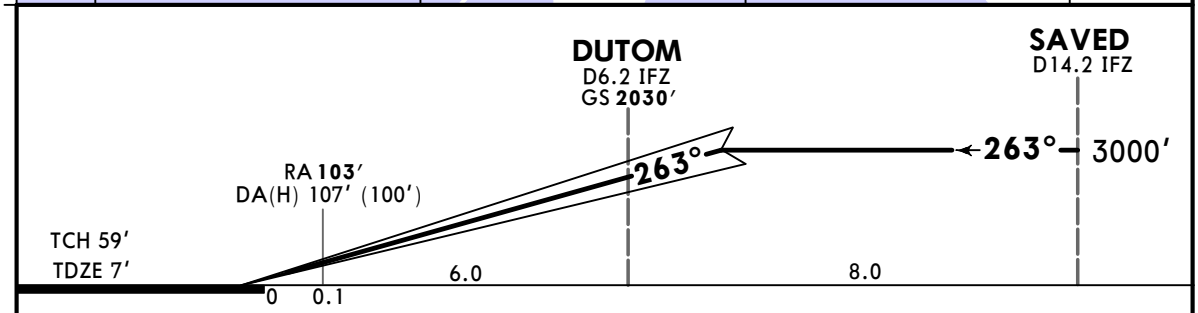


MSA YVR VOR

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 26R. 6. LOC reliable only within 10° either side of centerline.





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

ALSF-II
PAPI
420′
263° hdg
2000′ LT
233° hdg

STRAIGHT-IN LANDING RWY26L

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 103′ DA(H) 107′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: MSA, missed apch, wpts, distances, altitudes, holding, minimums.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-5) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 26R

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

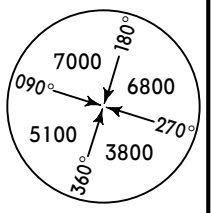
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

LOC IRD	Final Apch Crs	GS TOTIM	ILS DA(H)	Apt Elev 13′
111.95	263°	2030′ (2021′)	Refer to Minimums	TDZE 9′

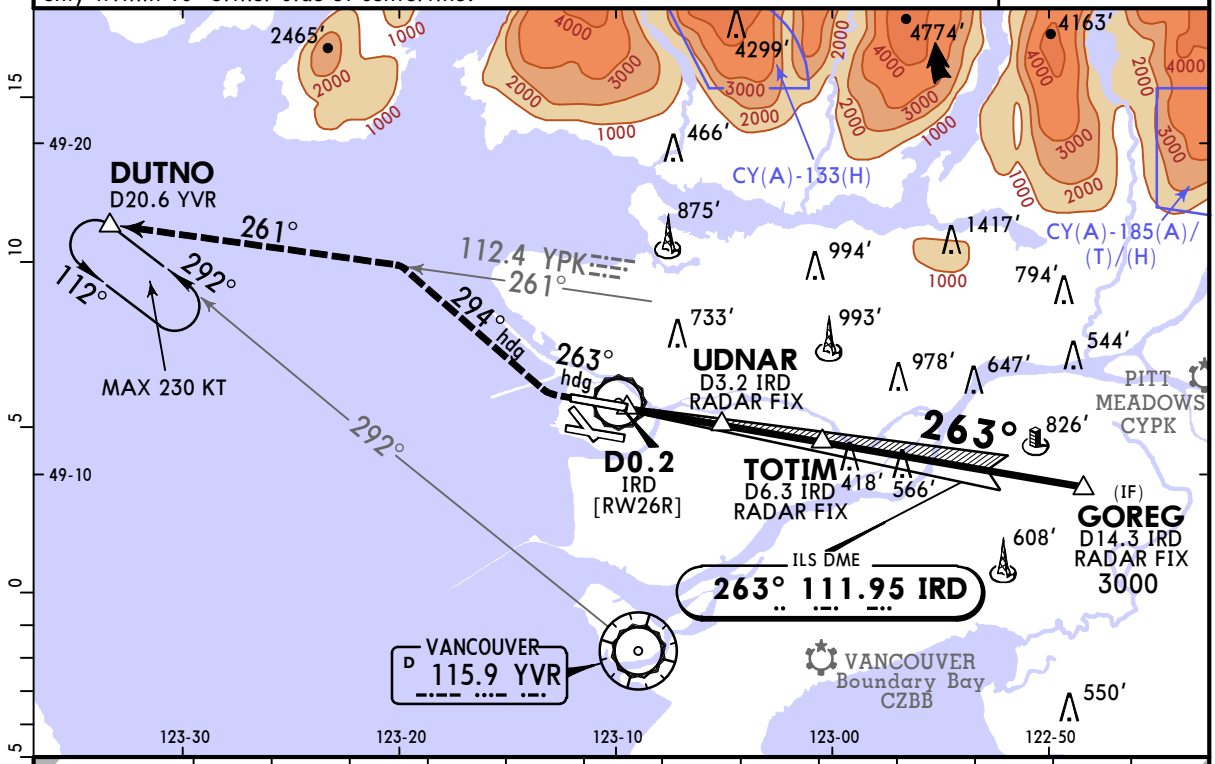
MISSED APCH: Climb to 420′ heading 263°. Then climbing RIGHT turn to 3000′ heading 294°. Intercept outbound YPK VOR R-261 to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

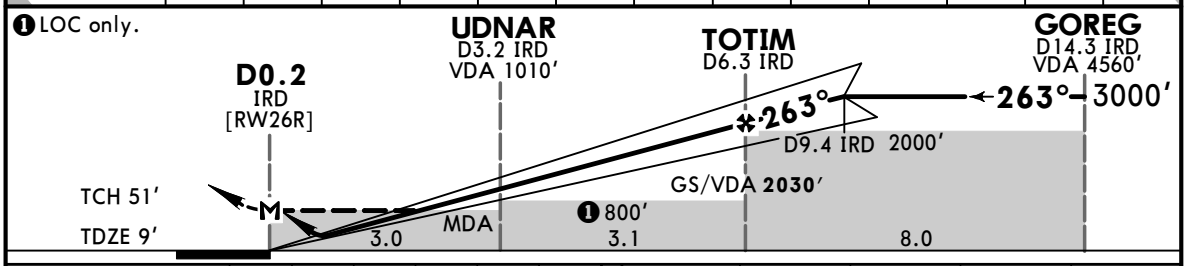
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 26L. 5. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IRD DME	1.9	3.0	4.0	5.0	6.0	7.0	8.0	9.4	10.0	11.0	12.0	13.0	14.3
VDA ALTITUDE	600′	960′	1280′	1600′	1920′	2230′	2550′	3000′	3190′	3510′	3830′	4140′	4560′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
MAP at D0.2 IRD							
TOTIM to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II
PAPI

420′	263° hdg	3000′ RT	294° hdg

STRAIGHT-IN LANDING RWY26R

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) RADAR	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	MDA(H) 600′ (591′)	
	FULL	HIALS out		HIALS out
A	RVR 26 or ½	RVR 50 or 1	1¼	1¾
B				
C				
D				

CHANGES: Missed approach, waypoints, distances, altitudes, TCH, LOC angle.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
(11-5A)

VANCOUVER, BC
ILS CAT II or III Rwy 26R

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.175 128.6	133.1 134.225

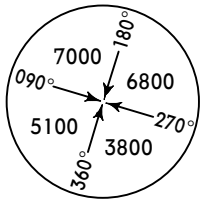
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

LOC IRD	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
111.95	263°	TOTIM 2030′ (2021′)	NA	NA	Refer to Minimums	RA 106′ DA(H) 109′(100′)	13′ TDZE 9′

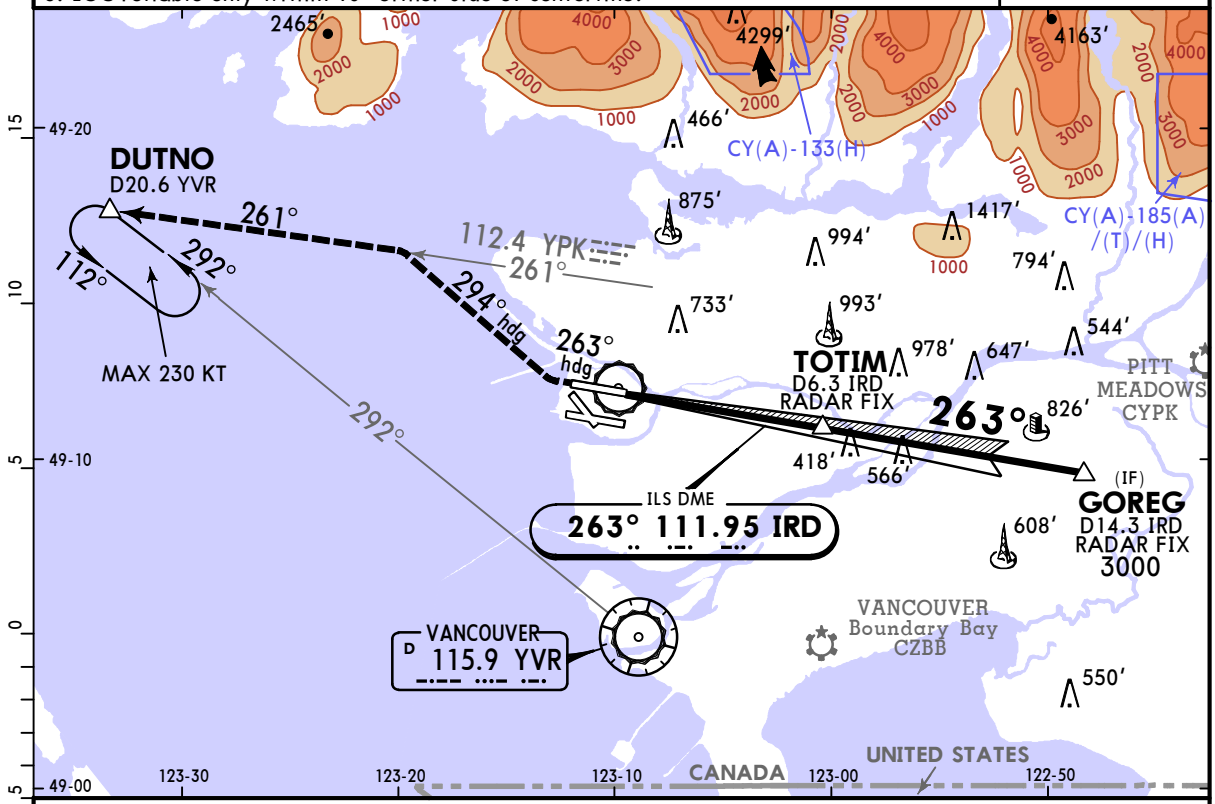
MISSED APCH: Climb to 420′ heading 263°. Then climbing RIGHT turn to 3000′ heading 294°. Intercept outbound R-261 YPK VOR to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

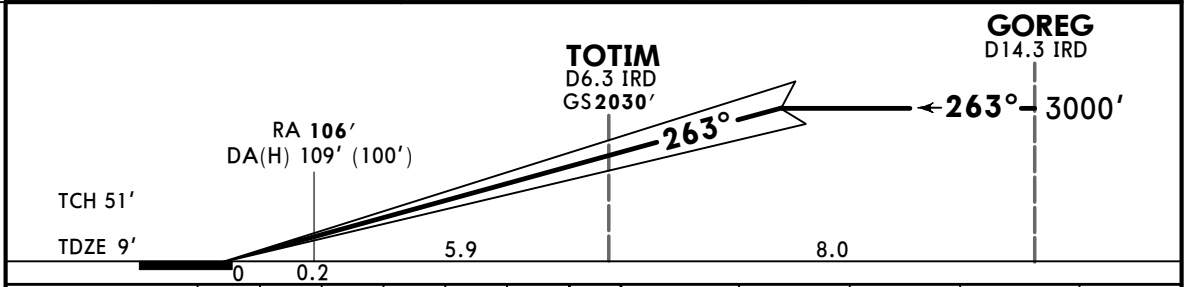
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 26L. 6. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





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

ALSF-II
PAPI

420′	263° hdg	3000′ RT	294° hdg

STRAIGHT-IN LANDING RWY 26R

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 106′ DA(H) 109′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Missed approach, waypoints, distances, altitudes, TCH.

CYVR/YVR
VANCOUVER INTL

17 FEB 23
Eff 23 Feb

JEPPESEN
12-1

VANCOUVER, BC
RNAV (GNSS) Z Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

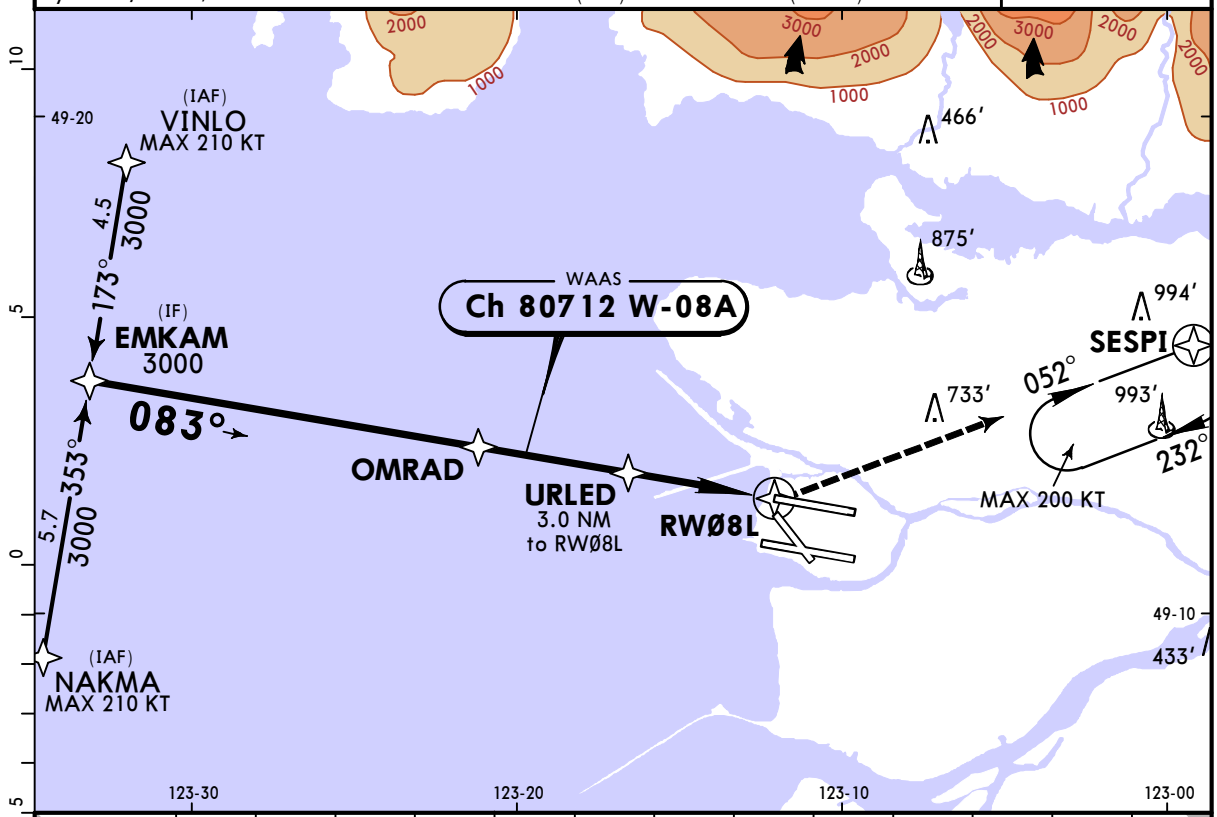
WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 13′ Rwy 13′
Ch 80712 W-08A	083°	OMRAD 2000′ (1987′)		

MISSED APCH: Do not exceed 230 KT until SESPI. Climbing LEFT turn to 3000′ direct to SESPI. As required shuttle climb.

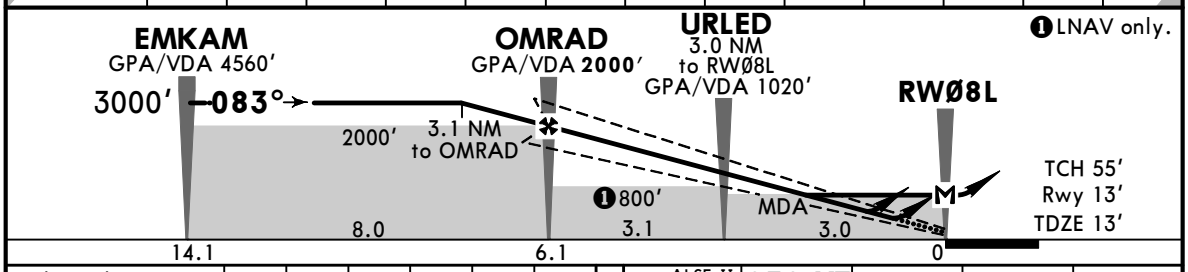
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08R. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800
MSA RW08L



NM to RW08L	14.1	12.0	11.0	10.0	9.2	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	4560′	3890′	3570′	3250′	3000′	2620′	2300′	1980′	1660′	1340′	1020′	700′	380′



Gnd speed-Kts	70	90	100	120	140	160
GPA/VDA 3.00°	372	478	531	637	743	849
MAP at RW08L						

ALSF-II
PAPI

230 KT MAX UNTIL SESPI

3000′ LT

SESPI

STRAIGHT-IN LANDING RWY **08L**

	LPV		LNAV/VNAV	LNAV	
	DA(H) 213′ (200′)	DA(H) 263′ (250′)	DA(H) 329′ (316′)	MDA(H) 380′ (367′)	
		HIALS out	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	RVR 50 or 1	1¼

CHANGES: Missed approach, temp limit, VOR del, wpts, distances, altitude.

CYVR/YVR VANCOUVER INTL

JEPPESEN 17 FEB 23 (12-2) Eff 23 Feb

VANCOUVER, BC RNAV (GNSS) Rwy 08R

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80922 W-08B	083°	TAVPI 2000′ (1991′)	Refer to Minimums	Rwy 9′

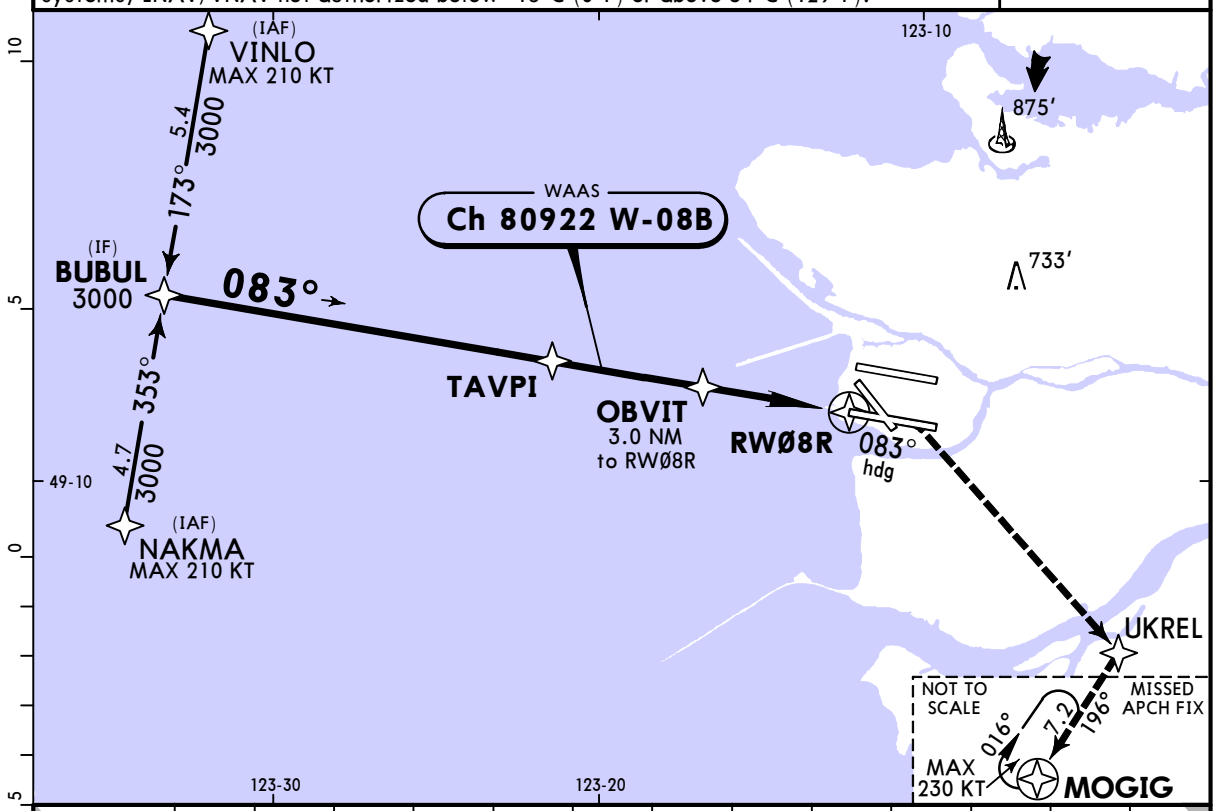
MISSED APCH: Do not exceed 200 KT until MOGIG. Climb to 600′ heading 083°. Climbing RIGHT turn to 2000′ direct to UKREL. Then track 196° to MOGIG. Shuttle climb at MOGIG to 5200′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

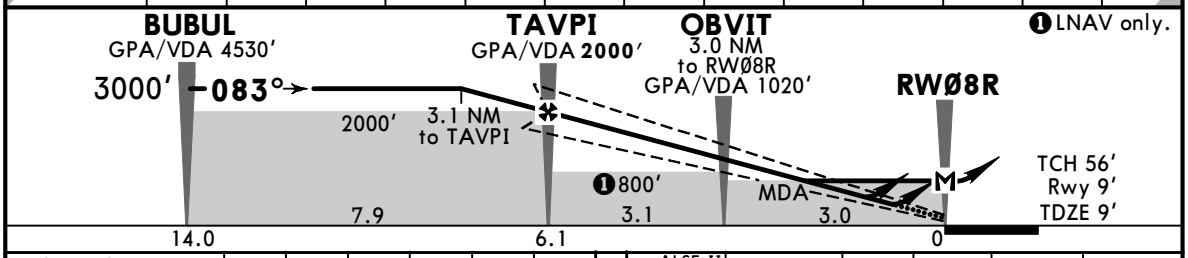
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08L. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800

MSA RWØ8R



NM to RWØ8R	14.0	12.0	11.0	10.0	9.2	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	4530′	3890′	3570′	3250′	3000′	2610′	2290′	1980′	1660′	1340′	1020′	700′	380′



Gnd speed-Kts	70	90	100	120	140	160
GPA/VDA 3.00°	372	478	531	637	743	849
MAP at RWØ8R						

ALSF-II PAPI | 200 KT MAX UNTIL MOGIG | 600′ | 083° hdg | 2000′ RT | UKREL

STRAIGHT-IN LANDING RWY 08R

	LPV		LNAV/VNAV	LNAV	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	DA(H) 283′ (274′)	MDA(H) 380′ (371′)	
		HIALS out	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	RVR 50 or 1	1¼

CHANGES: Procedure revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (12-3) Eff 23 Feb

VANCOUVER, BC
RNAV (GNSS) Rwy 13

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

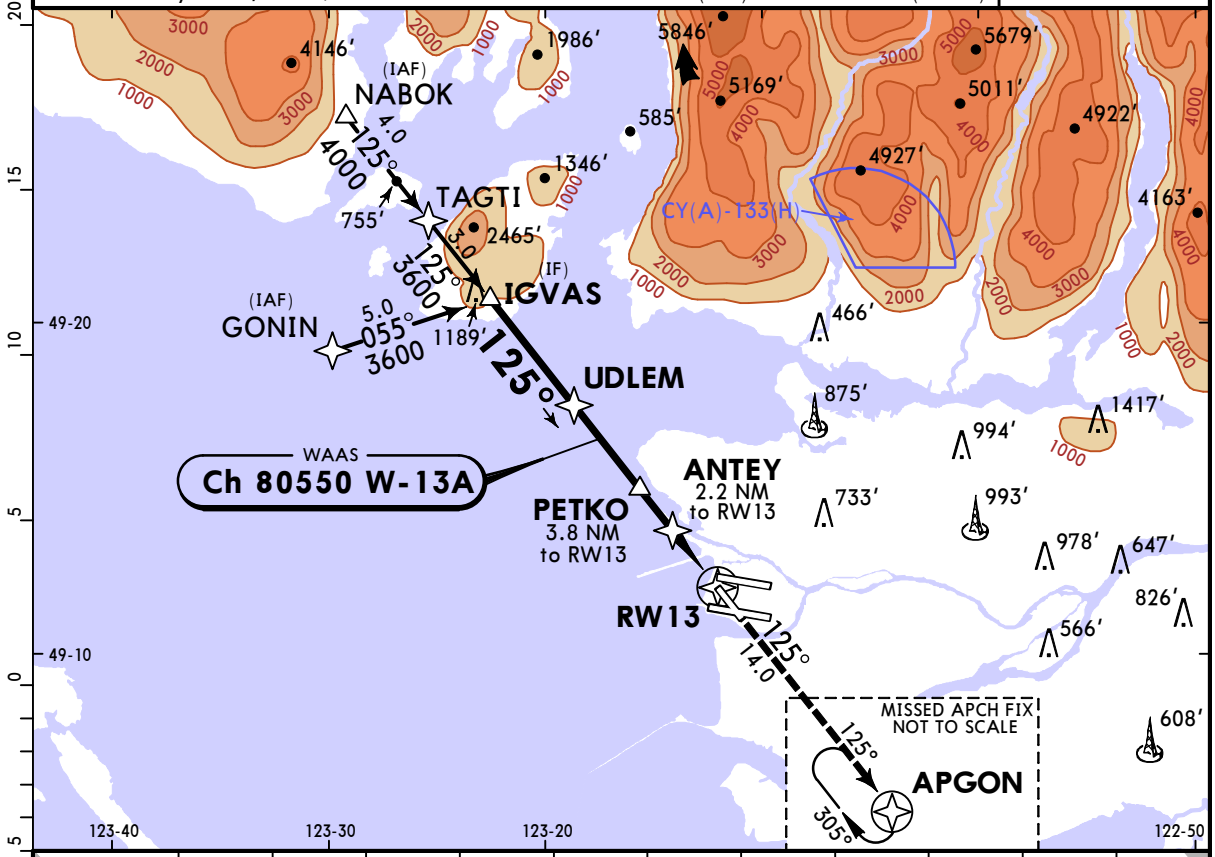
WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80550 W-13A	125°	UDLEM 2300′ (2292′)	258′ (250′)	Rwy 8′

MISSED APCH: Climb to 3000′ track 125° to APGON. Shuttle to 5800′ before proceeding on course.

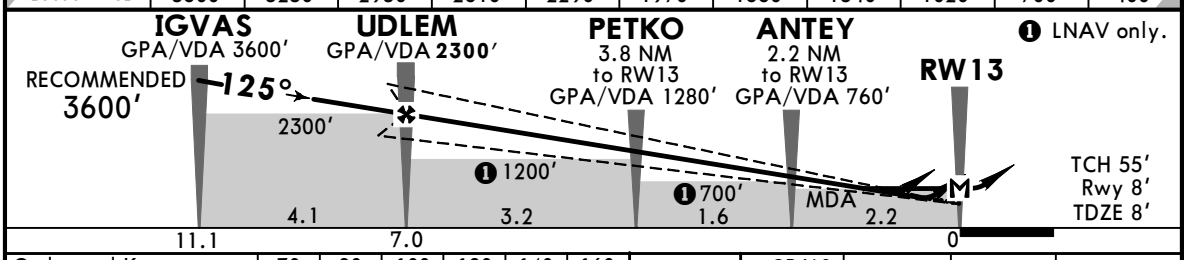
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. RADAR required. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800
MSA RW13



NM to RW13	11.1	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.1
VDA ALTITUDE	3600′	3250′	2930′	2610′	2290′	1970′	1660′	1340′	1020′	700′	400′



Gnd speed-Kts		70	90	100	120	140	160	ODALS	3000′	125°	APGON
GPA/VDA	3.00°	372	478	531	637	743	849	PAPI			
MAP at RW13											

STRAIGHT-IN LANDING RWY 13

	LPV	LNAV/VNAV	LNAV
	DA(H) 258′ (250′)	DA(H) 330′ (322′)	MDA(H) 400′ (392′)
	ALS out	ALS out	ALS out
A	1	1	1¼
B			
C			
D			

CHANGES: None.

CYVR/YVR VANCOUVER INTL

JEPPESEN 17 FEB 23 (12-4) Eff 23 Feb

VANCOUVER, BC RNAV (GNSS) Rwy 26L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

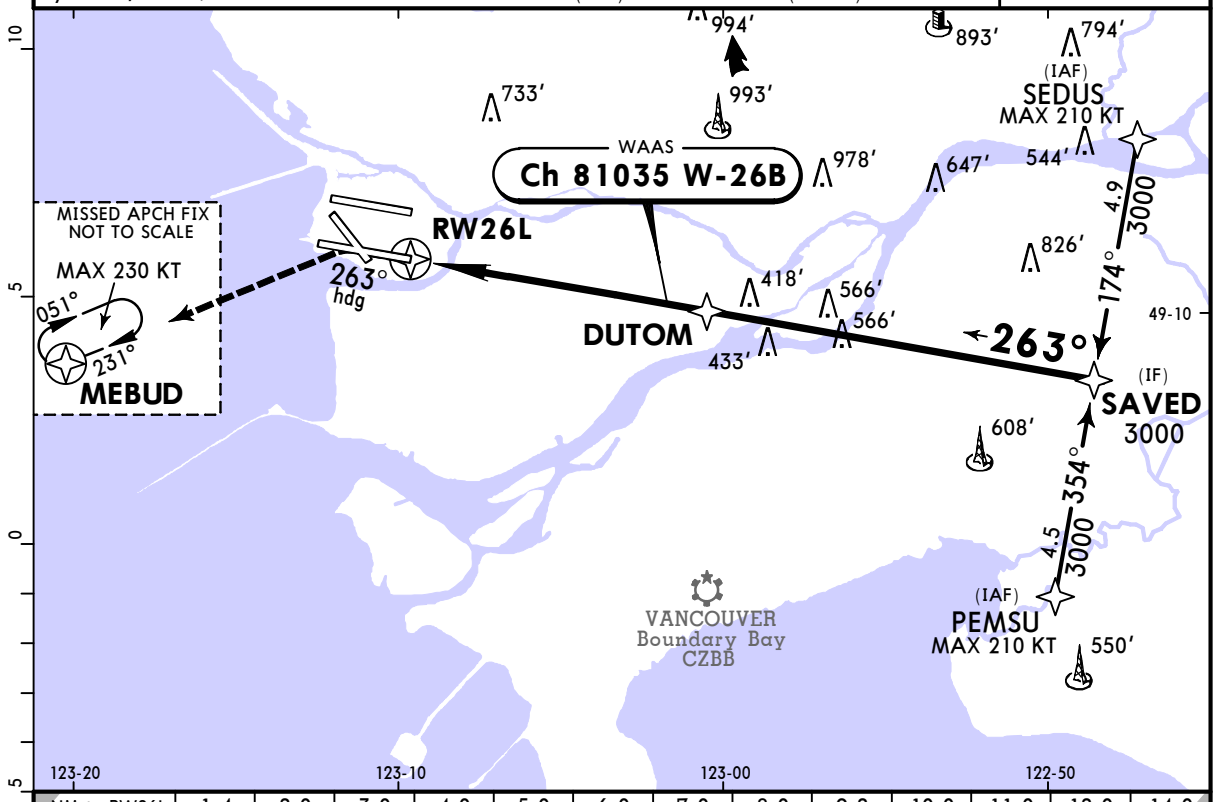
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 81035 W-26B	263°	DUTOM 2000′ (1993′)	Refer to Minimums	Rwy 7′

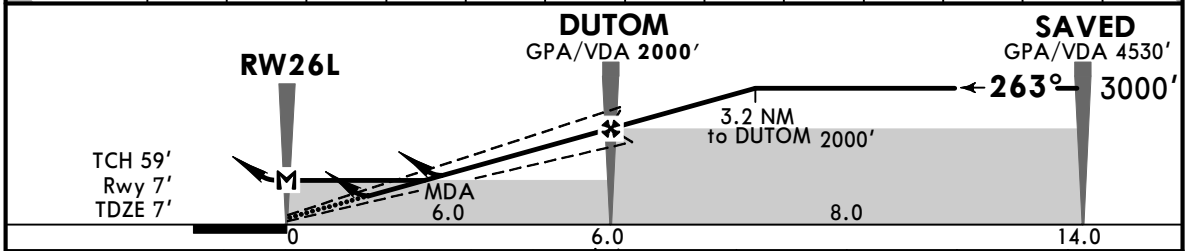
MISSED APCH: Climb to 600′ heading 263°. Then climbing LEFT turn to 2000′ direct to MEBUD. Shuttle climb at MEBUD to 5100′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 26R. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (1°F) or above 54°C (129°F).



NM to RW26L	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.2	10.0	11.0	12.0	14.0
VDA ALTITUDE	520′	700′	1020′	1340′	1660′	1980′	2300′	2610′	3000′	3250′	3570′	3890′	4530′



Gnd speed-Kts	70	90	100	120	140	160
GPA/VDA 3.00°	372	478	531	637	743	849
MAP at RW26L						

ALSF-II PAPI | 600′ | 263° hdg | 2000′ LT | MEBUD

STRAIGHT-IN LANDING RWY 26L

	LPV		LNAV/VNAV		LNAV	
	DA(H) 207′ (200′)	DA(H) 257′ (250′)	DA(H) 566′ (559′)		MDA(H) 520′ (513′)	
		HIALS out		HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	1½	1¾	RVR 50 or 1	1½

CHANGES: Procedure revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (12-5) Eff 23 Feb

VANCOUVER, BC
RNAV (GNSS) Rwy 26R

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

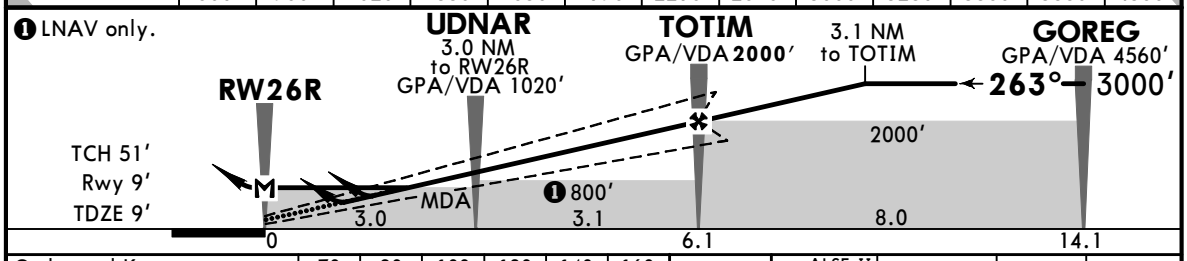
WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80687 W-26A	263°	TOTIM 2000′ (1991′)	Refer to Minimums	Rwy 9′

MISSED APCH: Do not exceed 230 KT until DUTNO. Climb to 700′ heading 263°. Climbing RIGHT turn to 3000′ direct to KEDGA. Then climb track 245° to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2.Simultaneous approach AUTHORIZED with Rwy 26L. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

NM to RW26R	1.7	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.2	10.0	11.0	12.0	14.1
VDA ALTITUDE	600′	700′	1020′	1330′	1650′	1970′	2290′	2610′	3000′	3250′	3560′	3880′	4560′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW26R							

ALSF-II
PAPI

230 KT MAX UNTIL DUTNO

700′

263° hdg

STRAIGHT-IN LANDING RWY 26R

	LPV		LNAV/VNAV		LNAV	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	DA(H) 567′ (558′)		MDA(H) 600′ (591′)	
		HIALS out		HIALS out		HIALS out
A B C D	RVR 26 or 1/2	RVR 50 or 1	1 1/2	1 3/4	1 1/4	1 3/4

CHANGES: Procedure revised.

CYVR/YVR VANCOUVER INTL

JEPPESEN 17 FEB 23 (12-6) Eff 23 Feb

VANCOUVER, BC RNAV (GNSS) Rwy 31

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80139 W-31A	305°	KEKTU 2000′ (1993′)	257′ (250′)	Rwy 7′

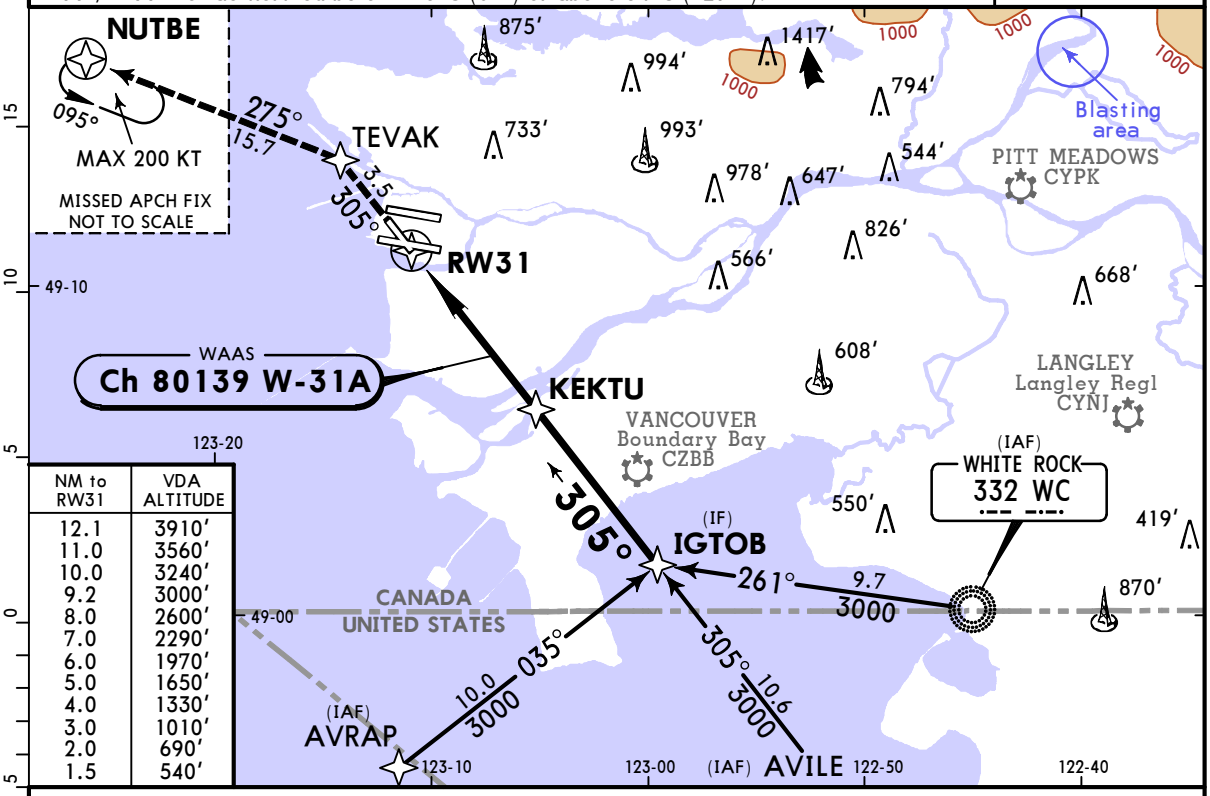
MISSED APCH: Climb track 305° to TEVAK, then climbing LEFT turn to 3000′ track 275° to NUTBE. Shuttle to 5600′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

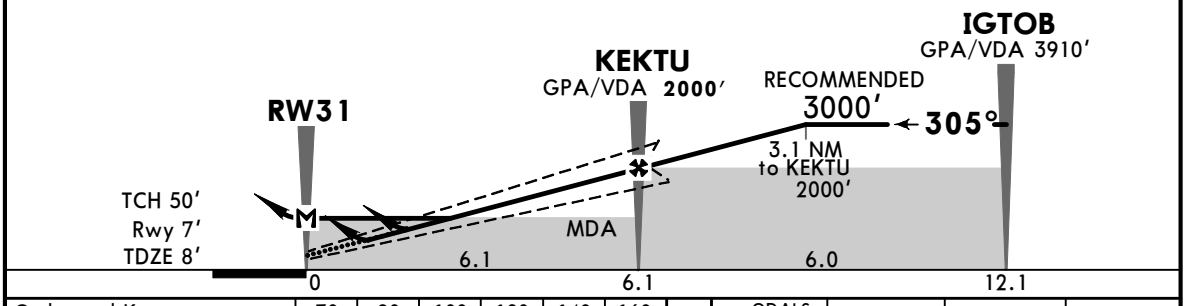
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800

MSA RW31



NM to RW31	VDA ALTITUDE
12.1	3910′
11.0	3560′
10.0	3240′
9.2	3000′
8.0	2600′
7.0	2290′
6.0	1970′
5.0	1650′
4.0	1330′
3.0	1010′
2.0	690′
1.5	540′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW31							

ODALS PAPI

305° TEVAK

STRAIGHT-IN LANDING RWY 31

	LPV	LNAV/VNAV	LNAV
	DA(H) 257′ (250′)	DA(H) 353′ (346′)	MDA(H) 540′ (533′)
	ALS out	ALS out	ALS out
A	1	1¼	1¾
B			
C			
D			

CHANGES: None.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
14 APR 23
Eff 20 Apr
12-20

VANCOUVER, BC
RNAV (RNP) Y Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

VANCOUVER Tower		Ground	
North	South	North	South
119.55	118.7	127.15	121.7

RNAV	Final Apch Crs	Minimum Alt	RNP 0.15 DA(H)	Apt Elev 13′
	083°	IMITU 1300′ (1287′)	302′ (289′)	TDZE 13′

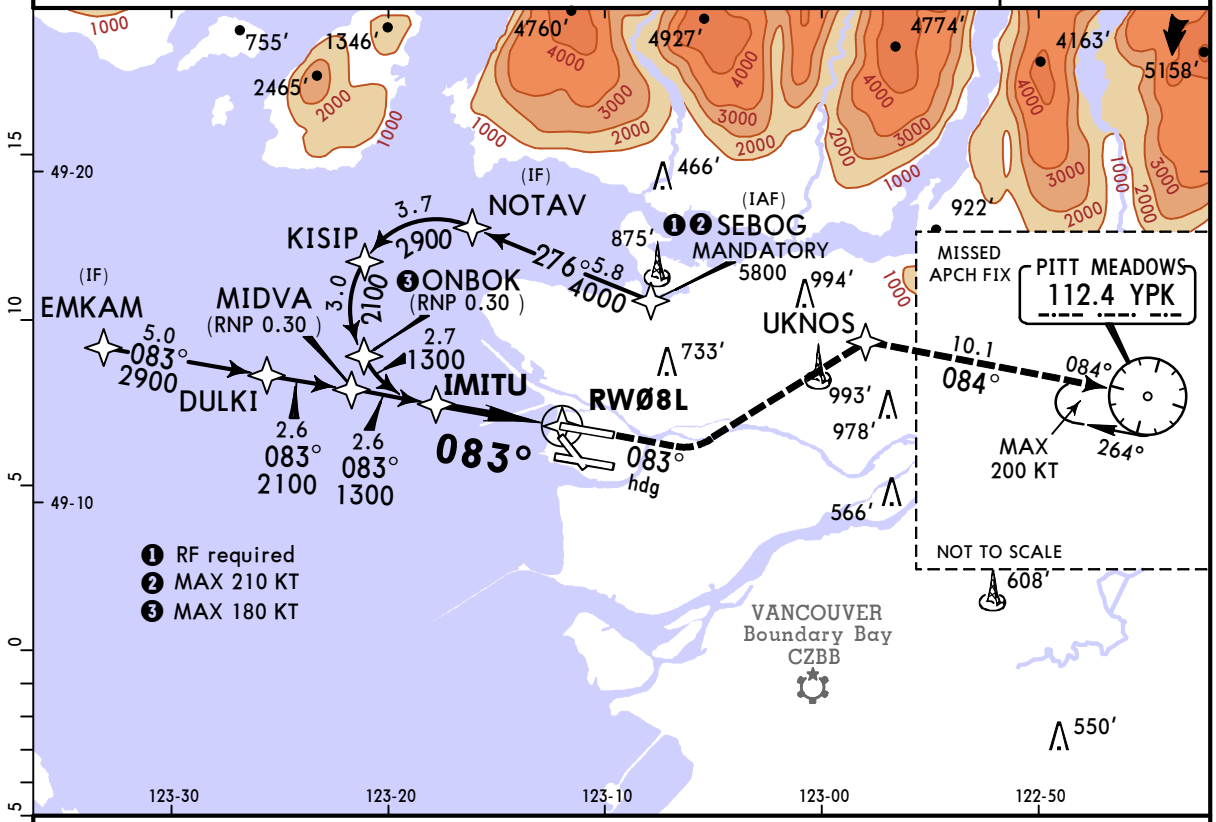
MISSED APCH: Climb to 420′ heading 083°. Then climbing LEFT turn to 3500′ direct to UKNOS.Then climb track 084° to YPK VOR.

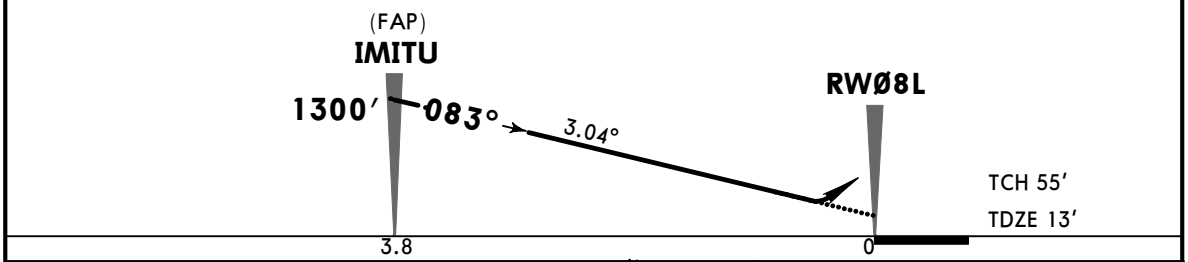
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′.
3. Simultaneous approach AUTHORIZED with Rwy 08R. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -20°C (-4°F) or above 54°C (129°F).

7800

MSA RWØ8L





Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.04°	376	484	538	645	753	861

ALSF-II | PAPI | 420′ | 083° hdg | 3500′ LT | UKNOS

STRAIGHT-IN LANDING RWY 08L

	RNP 0.15 DA(H) 302′ (289′)		RNP 0.30 DA(H) 334′ (321′)	
	HIALS out		HIALS out	
A	RVR 50 or 1		RVR 50 or 1	
B				
C				
D				

CHANGES: Waypoint ident, speed restriction changed.

General Information

Location: CHENGDU CHN
ICAO/IATA: ZUTF / TFU
Lat/Long: N30° 17.4', E104° 26.6'
Elevation: 1452 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -8:00 = UTC
Magnetic Variation: 2.0° W

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

Sunrise: 2242 Z
Sunset: 1126 Z

Runway Information

Runway: 01
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1442 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 02
Length x Width: 10499 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 1450 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 11
Length x Width: 12467 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 1434 ft
Lighting: Edge, Centerline

Runway: 19

Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1442 ft
Lighting: Edge, ALS, Centerline

Runway: 20
Length x Width: 10499 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 1450 ft
Lighting: Edge, ALS, Centerline

Communication Information

ATIS: 126.800 Non-English
ATIS: 127.075
Tianfu Tower: 130.500
Tianfu Tower: 124.375
Tianfu Tower: 118.800
Tianfu Tower: 118.150 Secondary
Tianfu Ground: 121.550 Secondary
Tianfu Ground: 121.775
Tianfu Ground: 121.925
Tianfu Ground: 122.600
Tianfu Apron Ramp/Taxi: 122.675
Tianfu Apron Ramp/Taxi: 122.150 Secondary
Tianfu Apron Ramp/Taxi: 122.700
Tianfu Apron Ramp/Taxi: 122.825
Tianfu Clearance Delivery: 121.550 Secondary
Tianfu Clearance Delivery: 122.200
Tianfu Clearance Delivery: 121.825
Chengdu Approach: 120.375
Chengdu Approach: 126.350
Chengdu Approach: 121.025
Chengdu Approach: 121.350
Chengdu Approach: 123.825 Secondary
Chengdu Approach: 124.750
Chengdu Approach: 125.250 Secondary
Chengdu Approach: 127.700 Secondary
Chengdu Approach: 119.700

1. GENERAL

1.1. ATIS

D-ATIS 127.075
126.8 (Chinese)

1.2. LOW VISIBILITY PROCEDURES (LVP)

1.2.1. GENERAL

When VIS descend to 1000m or RVR descend to 1000m and steady for 10 minutes, or ceiling descend to 90m and forecast shows a decreasing trend, ATC will instruct the preparation of LVP.

When VIS descend to 800m or RVR descend to 550m or ceiling descend to 60m, implementation of LVP will be issued by TWR after confirming aerodrome and ATC have the capabilities of LVP.

When RVR is equal or more than 550m and ceiling is equal or more than 60m and forecast shows an increasing trend, or aerodrome and ATC have no capability of LVP, TWR will terminate LVP.

ACFT operators conducting LVP shall be authorized by relative authorities.

Pilot shall obtain following information:

- weather forecasts;
- LVP is implementing.

1.2.2. USE OF RWYs

RWYs 01 and 02 are available for CAT II/III ILS.

RWYs 01, 02 and 11 are available for low visibility take-off with HUD (RVR equal or more than 150m and less than 400m).

RWYs 01/19, 02/20 and 11 are available for low visibility take-off (RVR equal or more than 200m and less than 400m).

RWYs 01, 02 and 11 - available for operation to North.

RWYs 19, 20 and 11 - available for operation to South.

1.2.3. TAXIING

All TWYs are available during LVP.

During ACFT on RWY01 implement CATII approach, entering vertical TWYs A1 thru A4 is forbidden.

During ACFT on RWY01 implement CATIII approach, entering vertical TWYs A1 thru A13 and TWY A (South of A11) is forbidden.

During conducting LVP, aerodrome can provide Follow-me vehicle guidance according to the agreement with airlines; otherwise, paid guidance shall be provided for ACFTs on demand.

1.3. RWY OPERATIONS

RWYs 01/19 and 02/20 can be used for take-off and landing.

RWY 11 can only be used for take-off from West to East.

When changing direction of RWY in use, if downwind speed is more than 3.5m/s (7 KT) and not exceeding 5m/s (10 KT) for short time, ATC shall inform flight crew. Pilot shall decide whether to take off or land on downwind RWY, then inform ATC.

Under certain adverse weather conditions (e.g. wind shear, turbulence, down drafts or strong crosswind) which might increase ILS LOC course deviations to the extent that safety may be impaired or departure of ACFT would be influenced, pilot shall report situation to ATC immediately.

Pilot shall get permission from ATC before changing RWY in use.

All RWYs not provided with TWY for crossing RWY. Chessboard-shaped references in red and white at 650m from RWY02 end, 118m West of RWY02 extended center line.

ACFT take-off or landing on RWY02, pilot shall strengthen observation and avoid visual errors caused by ACFT on TWYs D24,K,M,V1,V2,V3 or on stand 608 thru 617.

1. GENERAL

1.4. TAXI PROCEDURES

Listen carefully and repeat the taxiing instructions of ATC, verify any questions in time.

If fail to change to assigned frequency, flight crew shall wait at handover point and report by previous frequency.

Flight crew shall keep watching ATC-related activities and report unclear activities to ATC in time.

Taxi lights are forbidden to turn on unless ground personnel have evacuated from the front of the taxi lights.

Taxi lights are forbidden to turn on before taxiing into stands.

1.5. PARKING INFORMATION

Visual Docking Guidance System available at stands nearby the terminal.

All ACFT at stands connect ground unit and keep APU off. ACFT parking at boarding bridge stands and stands 161 thru 188,166L/R,167L/R,175L/R,176L/R,177L/R, 261 thru 293, 266L/R, 268L/R and 280L/R use ground air conditioning system.

ACFT parking on stands	Taxi-in	Taxi-out
101 and 102	C9-C10-C6	C7-C6-C10-C8
103	C9-C10-C6	C6-C10-C8
104	C9-C10	C10-C8
105	C5	C9-C5
106L and 182 thru 185	C5	C5
106	C5	C1-C5
106R and 108L/R	C5-C1	C1-C4
110, 111, 111L, 114, 115 and 119	C2	C1
111R and 113	C2-C22	C1
116 thru 118	C2-C21	C1
120	C	C1
121 and 122	C	C
123	C	L6
124	L7-L8	L6
125, 130, 132, 132R and 134	L7	L6
126 thru 129	L7-L57	L6
131 and 132L	L7-L56	L6
135, 135L/R, 137L/R and 161 thru 165	T3	T3
139 thru 145	L4	L5
166, 166L/R, 167 and 167L/R	L7-T3	T4
168 thru 174	L7	L8
175, 175L/R, 176, 176L/R, 177,177L/R, 178 and 179	L8	L8
180 and 181	C2	C2
186 thru 188	C9-C7	C7-C8
201 and 202	G9-G10-G6	G7-G6-G10-G8
203	G9-G10-G6	G6-G10-G8
204 and 205	G9-G10	G10-G8
206R, 289, 290, 292 and 293	G4-G1-G5	G5
206 and 291	G4-G1	G5
206L	G4-G1	G1-G5

1. GENERAL

ACFT parking on stands	Taxi-in	Taxi-out
208	G4	G4-G1-G5
209, 210, 214, 215, 219 and 219L/R	G-G2	G1
211, 212 and 212L/R	G-G2-G22	G1
216 thru 218	G-G2-G21	G1
221	G	G1
222, 223 and 224R	Y6	Y6
224	G-Y3	Y3
224L, 228, 229, 233L, 235, 236, 237L, 239, 239L/R and 241R	Y4	Y3
226 and 227	Y4-Y5	Y3
230, 230L/R, 232, 233 and 233R	Y4-Y22	Y3
237 and 237R	Y4-Y21	Y3
241, 241L, 243, 243L/R and 261 thru 265	T3	T3
245 thru 252	L4	Y2
266, 266L/R, 267, 268 and 268L/R	T3	T3
269 thru 275	Y4	Y5
276 thru 279, 280 and 280L/R	Y5	Y5
281 thru 285	G-G2	G2-G3
286	G-G2-G3	G3
287 and 288	G-G4	G5
294 thru 296	G9-G7	G7-G8
500 (ACFT with MAX wingspan 226'/69m)	B-B25	B25-J-B23
500 (ACFT with wingspan more than 226'/69m)	B-B25	B25-B
501, 501L/R, 502, 503, 504 (ACFT with MAX wingspan 226'/69m) and 504L/R	B	B-B25-J-B23
504 (ACFT with wingspan more than 226'/69m)	B	B25-B
505, 505L/R, 506, 506L/R and 507 thru 511 and 512 (ACFT with wingspan of MAX 226'/69m)	B-B25	B25-J-B23
512 (ACFT with wingspan more than 226'/69m)	B-B25	J-B25-B
513	B-B25	B25-J-B23
514, 515 and 515L/R	B-B25-J	J-B23
601 thru 604	D	V4-K
605, 606, 607 and 607L/R	D	V4-V1
608 thru 612	V3-V4	V4-V1
613-616 and 618 thru 622	V3-V5	V5-V1
623 thru 626	V3-V6	V6-V1
628, 629, 629L/R, 630, 630L/R and 631 thru 634	G	G-V2
635 and 636	G-V2-V4-V1	V1-D
637	G-V2-V4	V1-D
638 thru 640	G-V2-V5-V1	V1-D
641	G-V2-V5	V1-D
642 thru 644	G-V2-V6-V1	V1-D

1. GENERAL

1.6. OTHER

1.6.1. GENERAL

When flying into CHENGDU APP or TIANFU TWR control area, flight crew shall monitor the operating status of other ACFT in the vicinity by airborne equipment and establish visual separation as soon as possible, and report to ATC as required.

RWYs 02 and 19 right-hand circuit.

Birds.

1.6.2. RADAR PROCEDURES/SPEED

ACFT shall strictly follow the assigned speed by ATC.

ACFT shall adjust speed to 250-280 KT or IAS limitation of procedure chart at control transfer point.

2. ARRIVAL

2.1. COMMUNICATION FAILURE PROCEDURES

In case of communication failure when using radio frequency or emergency frequency, contact Chengdu terminal control office by satellite phone: 86-28-61612810, 86-28-61612811.

In case of communication failure due to equipment failure in ATC, contact the previous control unit.

ACFT communication failure:

If radio receiver is available but transmitter is not, follow ATC instruction.

If radio transmitter is available but receiver is not, notify flight intention to ATC immediately, report ACFT position and flight altitude.

ACFT two-way communication failure:

If ACFT has received information about arrival procedure, approach procedure and landing RWY, follow the relative RWY IAP to land by own navigation.

In other conditions, arrival ACFT from AKOPI, BUPMI or MEXAD shall climb/descend to 7880 or safety altitude (choose the higher of two) to ZYG and join right-turn holding pattern, then choose unclosed RWY according to NOTAM and decide landing direction based on ATIS or wind direction and speed. Fly to the closest IAF after exiting holding pattern and follow the relative RWY IAP to land by own navigation.

In other conditions, arrival ACFT from ELDUD, IGNAK or LADUP shall climb/descend to 7880 or safety altitude (choose the higher of two) to JYA and join left-turn holding pattern, then choose unclosed RWY according to NOTAM and decide landing direction based on ATIS or wind direction and speed. Fly to the closest IAF after exiting holding pattern and follow the relative RWY IAP to land by own navigation.

2.2. CAT II/III OPERATIONS

RWYs 01 and 02 are approved for CAT II/III operations. Special aircrew and ACFT certification required.

2.3. RWY OPERATIONS

After vacating RWY, report the RWY designation and TWY designation on initial contact with GND.

2. ARRIVAL

2.4. TAXI PROCEDURES

ACFT shall taxi along the routine taxiing route except receiving specific instruction from controller.

RWY 01: Route 02 (A-B14-T4-G) or Route 04 (A-B20-C2-C-T1).

RWY 02: Route 12 (E-D19-G-T2-B) or Route 14 (E-D17-T5).

RWY 19: Route 02 (A-B14-T4-G) or Route 22 (B17-L7-C-T1).

RWY 20: Route 14 (E-D17-T5) or Route 32 (D17-G-T2-B).

For APN control areas refer to 20-9 charts. TIANFU APN is responsible for taxiing, towing and other control issues related to ACFT operation within these areas. ACFT shall contact APN for further taxiing instructions and stand information when entering into apron.

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

A319, A320, A321 and B737 series ACFT available for engine idle de-icing, other ACFT shall deicing with engine-off.

Aircrew shall control throttle carefully, avoiding exhausted gas causing damage to support personnel and equipment when ACFT enter/exit the de-icing stands.

During engine-off de-icing, engine and collision avoidance lights shall be turned off, nose wheel chocks are positioned. De-icing controller shall monitor de-icing process.

Ground service staff shall confirm with flight crew to guarantee ACFT is in proper de-icing/anti-icing configuration, and notify the type of deicing fluid, the concentration ratio. Staff responsible for Delivery shall monitor the de-icing process to ensure the safety of ACFT.

The de-icing unit is responsible for the use and store of de-icing and anti-icing fluid, to prevent pollution.

3.1.2. DE-ICING STANDS

De-icing stands are 167, 167L, 167R, 601, 602, 603 and 604.

3.1.3. DE-ICING PROCEDURES

Aircrew shall apply for instruction to push-back and taxi to de-icing stand from TIANFU APN and follow controller's requirement.

After engine idle de-icing ACFT enter de-icing stand, de-icing controller contact air crew with VHF or service earphone, confirm de-icing requirements and preparation. After engine-off de-icing ACFT enter de-icing stand, maintenance crew contact air crew with VHF or service earphone, confirm engine and collision avoidance lights has been turned off, inform air crew after nose wheel chocks are positioned, confirm de-icing requirements and preparation.

Aircrew shall apply to TIANFU APN for start-up and taxiing after confirming with maintenance that de-icing is finished.

3. DEPARTURE

3.2. START-UP, PUSH-BACK AND TAXI PROCEDURES

For APN control areas refer to 20-9 charts. TIANFU APN is responsible for push-back, taxiing and other control issues related to ACFT operation within these areas.

Taxiing within APN control areas:

- Flight crew shall report parking stand number on initial contact with APN.
- ACFT shall be pushed back and start up engine within 3 minutes after getting APN clearance, or re-apply clearance if not fulfilled in time.
- ACFT shall apply for taxiing clearance from TIANFU APN after push-back and start-up.

All stands are push-back except 166, 166L/R, 167, 167L/R, 168 thru 174, 269 thru 275, 287, 288, 601 thru 607 and 607L/R.

ACFT shall taxi along the routine taxiing route except receiving specific instruction from controller.

RWY 01: Route 01 (T2-B-B1-A1) or Route 03 (T5-B-B1-A1).

RWY 02: Route 11 (B-T4-D18-D-D1-E1) or Route 13 (D-D1-E1).

RWY 11: Route 41 (C-T1-D-M) or Route 43 (G-G5-D-M).

RWY 19: Route 21 (G-T2-B-B18-A-A13).

RWY 20: Route 31 (C-T1-D-D20-E12).

3.3. COMMUNICATION FAILURE PROCEDURES

In case of communication failure when using radio frequency or emergency frequency, contact Chengdu terminal control office by satellite phone: 86-28-61612810, 86-28-61612811.

In case of communication failure due to equipment failure in ATC, contact the previous control unit.

ACFT communication failure:

If radio receiver is available but transmitter is not, follow ATC instruction.

If radio transmitter is available but receiver is not, notify flight intention to ATC immediately, report ACFT position and flight altitude.

3.4. RWY OPERATIONS

ACFT shall begin to take-off run within 10 seconds after aligning with RWY centerline and receiving take-off clearance from ATC. If flight crew considers they can not fulfil the process within the required time, they shall inform ATC before reaching RWY holding position.

ACFT taking off from RWY 02 shall follow ATC instruction strictly and pay attention to TWYs V1 thru V3, K, M and D24. There is no TWY crossing RWY 02.

ZUTF/TFU
TIANFU

JEPPESEN
21 MAY 21 (20-1R)

CHENGDU, PR OF CHINA
RADAR MINIMUM ALTITUDES

FT/METER CONVERSION QNH	
11650′	3550m
10830′	3300m
10670′	3250m
10340′	3150m
10180′	3100m
9850′	3000m
9360′	2850m
8860′	2700m
8700′	2650m
7550′	2300m
7390′	2250m
6890′	2100m
6570′	2000m
5250′	1600m
5090′	1550m
4930′	1500m
4760′	1450m
4600′	1400m
4270′	1300m
4110′	1250m
3940′	1200m
3780′	1150m
3610′	1100m
3290′	1000m

FL CONVERSION	
FL197	FL6000m
FL180	FL5500m
FL157	FL4800m
FL135	FL4100m
FL118	FL3600m

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

Apt Elev
1452

Alt Set: hPa
Trans level: FL118
Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
Chart only to be used for cross-checking of altitudes assigned while under RADAR control.

FL118
10340
5090
FL135
6570
MIANYANG
MYG VOR DME
FL180
DEXIN
CDX VOR DME
10180
3940
FL157
19864
10670
8700
3780
11650
JINTANG
JTG VOR DME
WUFENGXI
WFX VOR DME
4930
ZHUGAO
ZGA VOR DME
4110
4600
3610
FL197
3940
6890
4270
4600
5250
4760
CHENGDU
Tianfu
ZIYANG
ZYG VOR DME
9360
7550
4760
3290
3610
JINGYAN
JYA VOR DME
7390
3940
4270

23000
19000
15000
11000
7000
3000
CONTOUR INTERVALS

1 HUILONG HLC VOR DME
2 CHENGDU ZW NDB
3 BAIHESI BHS VOR DME
4 SHUANGLIU CTU VOR DME
5 CHONGZHOU CZH VOR DME

32-00 31-30 31-00 30-30 30-00 09-30
102-00 102-30 103-00 103-30 104-00 104-30 105-00 105-30 106-00

CHANGES: Reissue.

CHANGES: 9M STARs added.

D-ATIS	Apt Elev	Alt Set: hPa Trans level: FL118
127.075 (Chinese 126.8)	1452	RNAV 1 GNSS
		1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

BUPMI 6M [BUPM6M], BUPMI 8M [BUPM8M]
BUPMI 9M [BUPM9M]
MEXAD 6M [MEXA6M], MEXAD 8M [MEXA8M]
MEXAD 9M [MEXA9M]
RNAV ARRIVALS
(RWYS 01, 02)

STAR	ROUTING
BUPMI 6M	BUPMI - TT81Ø (FL118-) - UT816 - UT813 - UT812 - UT811 - TT9Ø3 - TT9Ø4 (K200-; 4930+).
BUPMI 8M	BUPMI - TT81Ø (FL118-) - UT816 - UT813 - TT8Ø1 - TT7Ø1 (7880+) - TT7Ø2 - TT7Ø3 (K200-; 4930+).
BUPMI 9M	BUPMI - UU8Ø2 (FL118-) - UU8Ø1 - TT9Ø3 - TT9Ø4 (K200-; 4930+).
MEXAD 6M	MEXAD - TT81Ø (FL118-) - UT816 - UT813 - UT812 - UT811 - TT9Ø3 - TT9Ø4 (K200-; 4930+).
MEXAD 8M	MEXAD - TT81Ø (FL118-) - UT816 - UT813 - TT8Ø1 - TT7Ø1 (7880+) - TT7Ø2 - TT7Ø3 (K200-; 4930+).
MEXAD 9M	MEXAD - UU8Ø3 - UU8Ø2 (FL118-) - UU8Ø1 - TT9Ø3 - TT9Ø4 (K200-; 4930+).

FL CONVERSION
FL118 FL3600m

FT/METER CONVERSION
QNH
9850′ - 3000m
7880′ - 2400m
4930′ - 1500m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲ LOST

MEXAD
UU8Ø3
UU8Ø2
FL118
UU8Ø1
BUPMI
TT81Ø
FL118
UT816
UT813
UT812
UT811
TT8Ø1
TT7Ø1
7880
TT7Ø2
TT7Ø3
MAX 200 KT
4930
TT9Ø3
TT9Ø4
MAX 200 KT
4930
(IAF)
MHA 9850
MHA 9850
MEXAD 9M
MEXAD 6M, 8M
BUPMI 6M, 8M
BUPMI 9M
BUPMI 9M
MEXAD 9M
BUPMI 6M
MEXAD 6M
20 BUPMI 6M MEXAD 6M
BUPMI 8M MEXAD 8M
ARP
4600
3300
CHENGDU
Shuangliu
ZUUU
CONTOUR INTERVALS
9000
7000
5000
3000

BUPMI 6M [BUPM6M]
BUPMI 8M [BUPM8M]
BUPMI 9M [BUPM9M]
MEXAD 6M [MEXA6M]
MEXAD 8M [MEXA8M]
MEXAD 9M [MEXA9M]
RNAV ARRIVALS
(RWYS 01, 02)

CHENGDU, PR OF CHINA
RNAV STAR

D-ATIS	Apt Elev	Alt Set: hPa Trans level: FL118
127.075 (Chinese 126.8)	1452	RNAV 1 GNSS
		1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

BUPMI 8V [BUPM8V]
MEXAD 8V [MEXA8V]
RNAV ARRIVALS
(RWYS 19, 20)

STAR	ROUTING
BUPMI 8V	BUPMI - TT810 (FL118-) - TT736 - TT733 - TT723 - TT724 (K200-; 4930+).
MEXAD 8V	MEXAD - TT810 (FL118-) - TT736 - TT733 - TT723 - TT724 (K200-; 4930+).

FL CONVERSION
FL118 FL3600m

FT/METER CONVERSION
QNH
9850′ - 3000m
4930′ - 1500m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

MEXAD
147°
MEXAD 8V
52
BUPMI
292°
BUPMI 8V
21
MHA 9850
TT810
FL118
210°
215°
26
TT736
205°
16
(IAF)
TT724
MAX 200 KT
4930
5
025°
TT723
8
295°
TT733
205°
ARP
025°
4600
3300
15000
13000
11000
9000
7000
5000
3000
CONTOUR INTERVALS
CHENGDU
Shuangliu
ZUUU
N
31-30
31-00
30-30
30-00
104-00
104-30
105-00
4 4
1 2 3
2 0 3
1 4 1
4 5
1 2 2
4 0
3 0
4 4

ZUTF/TFU
TIANFU

CHENGDU, PR OF CHINA
BUPMI 8V [BUPM8V]
MEXAD 8V [MEXA8V]
RNAV ARRIVALS
(RWYS 19, 20)

JEPPESEN
7 JUL 23
20-2A
Eff 12 Jul 1600Z
RNAV STAR

CHANGES: None.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23 (20-2B) Eff 19 Apr 1600Z

CHENGDU, PR OF CHINA
RNAV STAR

AKOPI 6M [AKOP6M], AKOPI 8M [AKOP8M]
RNAV ARRIVALS
(RWYS 01, 02)

Apt Elev 1452

D-ATIS 127.075 (Chinese 126.8)

Alt Set: hPa Trans level: FL118

RNAV 1 GNSS

1. RADAR required.
2. Under RADAR control actual flight altitude by ATC.

FL CONVERSION
FL118 FL3600m

FT/METER CONVERSION
QNH
9850' - 3000m
7880' - 2400m
4930' - 1500m

LOST COMMS ▶ LOST COMMS ▶ LOST
Refer to 20-1P pages.
LOST ◀ LOST COMMS ◀ LOST COMMS

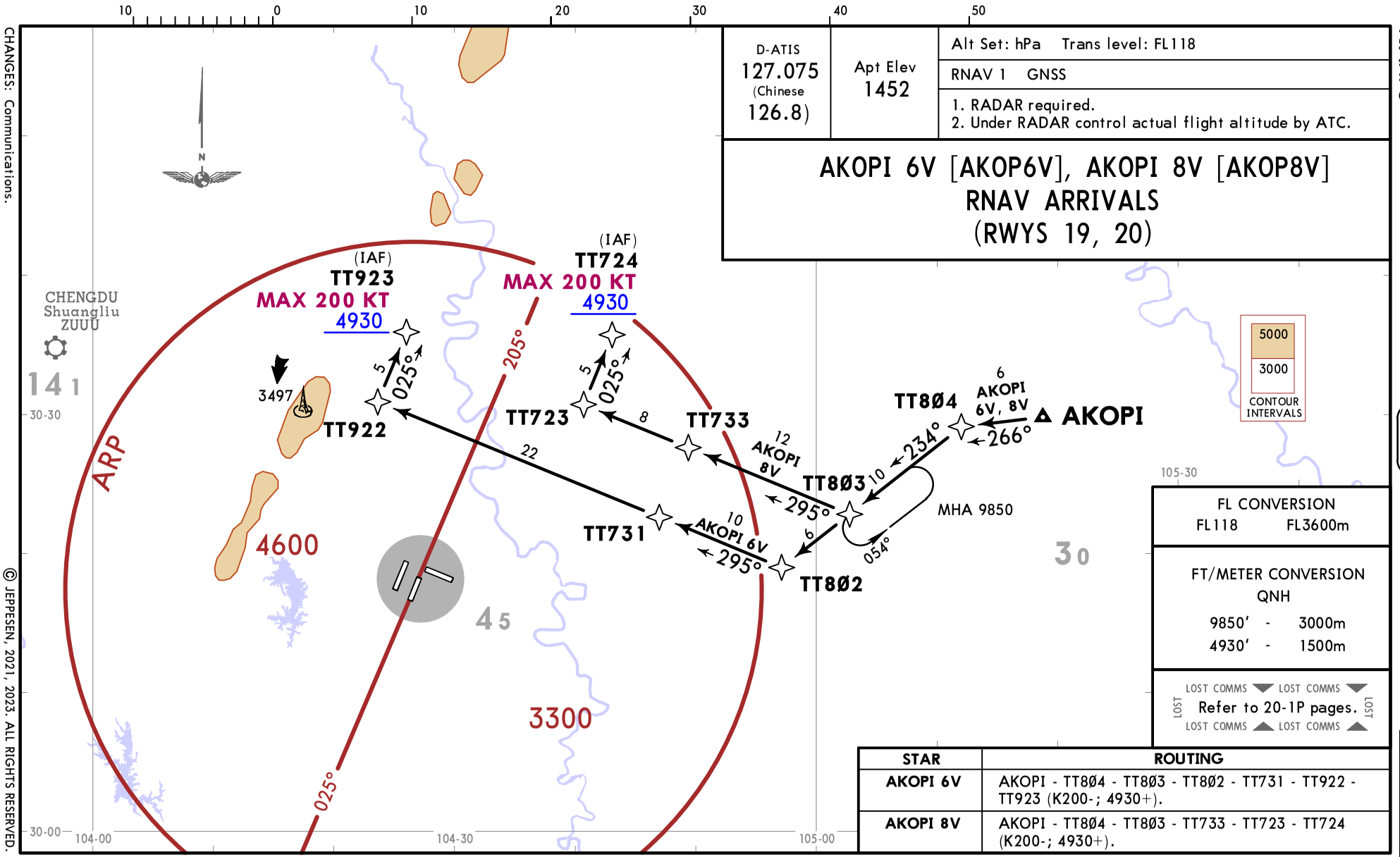
STAR	ROUTING
AKOPI 6M	AKOPI - TT804 - TT803 - TT802 - TT801 - TT701 (7880+) - TT903 - TT904 (K200-; 4930+).
AKOPI 8M	AKOPI - TT804 - TT803 - TT802 - TT801 - TT701 (7880+) - TT702 - TT703 (K200-; 4930+).

AKOPI
AKOPI 6M, 8M
TT804
TT803
TT802
TT801
TT701 7880
TT702
TT703 MAX 200 KT 4930
TT903
TT904 MAX 200 KT 4930
MHA 9850
CONTOUR INTERVALS 5000 3000
3300
4600
ARP
CHENGDU Shuangliu ZUUU

JEPPESEN CHENGDU, PR OF CHINA
14 APR 23 (20-2C) Eff 19 Apr 1600Z
RNAV STAR

D-ATIS	Apt Elev	
127.075 (Chinese 126.8)	1452	Alt Set: hPa Trans level: FL118
		RNAV 1 GNSS
		1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

AKOPI 6V [AKOP6V], AKOPI 8V [AKOP8V] RNAV ARRIVALS (RWYS 19, 20)



FL CONVERSION	
FL118	FL3600m

FT/METER CONVERSION QNH	
9850′	3000m
4930′	1500m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲ LOST

STAR	ROUTING
AKOPI 6V	AKOPI - TT8Ø4 - TT8Ø3 - TT8Ø2 - TT731 - TT922 - TT923 (K200-; 4930+).
AKOPI 8V	AKOPI - TT8Ø4 - TT8Ø3 - TT733 - TT723 - TT724 (K200-; 4930+).

CHANGES: Communications.

D-ATIS 127.075 (Chinese 126.8)	Alt Set: hPa Trans level: FL118
	RNAV 1 GNSS
Apt Elev 1452	1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

ELDUD 8M [ELDU8M]
IGNAK 8M [IGNA8M]
LADUP 8M [LADU8M]
RNAV ARRIVALS
(RWYS 01, 02)

STAR	ROUTING
ELDUD 8M	ELDUD - TT821 - TT715 (9850-) - TT713 - TT712 - TT7Ø2 - TT7Ø3 (K200-; 4930+).
IGNAK 8M	IGNAK - TT822 - TT715 (9850-) - TT713 - TT712 - TT7Ø2 - TT7Ø3 (K200-; 4930+).
LADUP 8M	LADUP - NONOV (FL157+) - CZH (FL128+) - UU9Ø1 - TT9Ø3 - TT9Ø4 (K200-; 4930+).

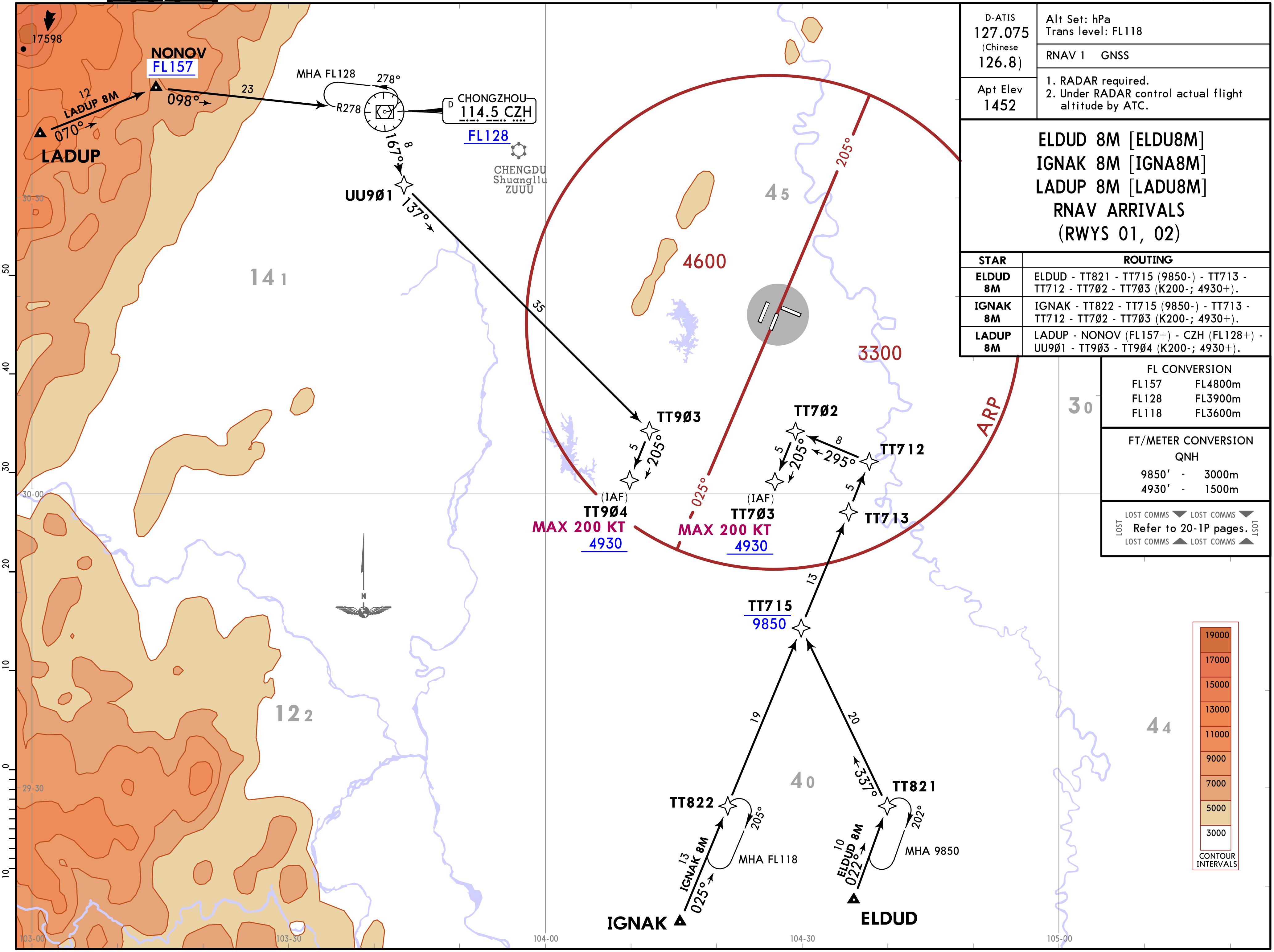
FL CONVERSION

FL157	FL4800m
FL128	FL3900m
FL118	FL3600m

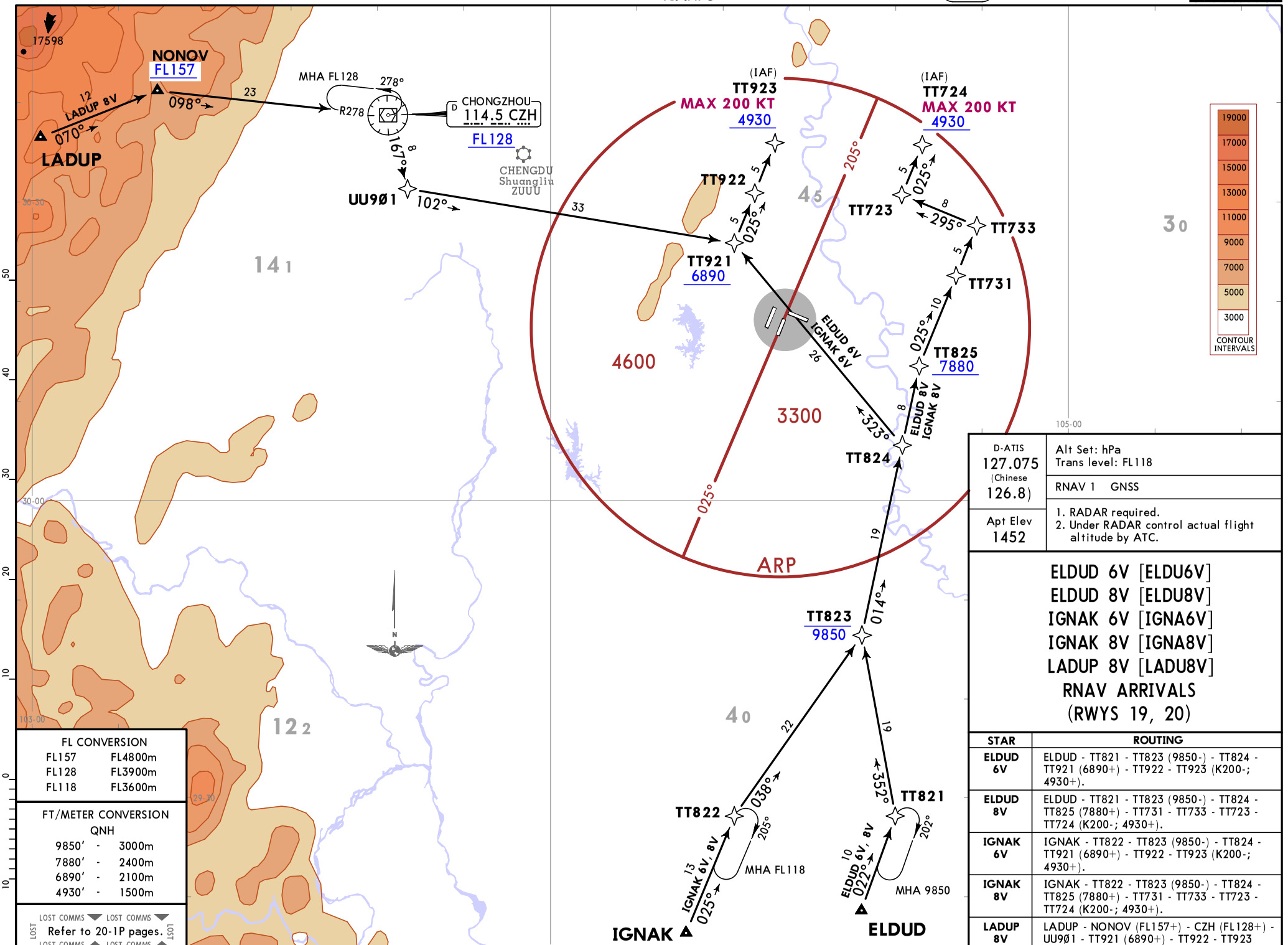
FT/METER CONVERSION
QNH

9850' -	3000m
4930' -	1500m

LOST COMMS Refer to 20-1P pages. LOST COMMS



CHANGES: Communications.



FL CONVERSION	
FL157	FL4800m
FL128	FL3900m
FL118	FL3600m

FT/METER CONVERSION QNH	
9850′ -	3000m
7880′ -	2400m
6890′ -	2100m
4930′ -	1500m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲

D-ATIS 127.075 (Chinese 126.8)	Alt Set: hPa Trans level: FL118
	RNAV 1 GNSS
Apt Elev 1452	1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

ELDUD 6V [ELDU6V]
ELDUD 8V [ELDU8V]
IGNAK 6V [IGNA6V]
IGNAK 8V [IGNA8V]
LADUP 8V [LADU8V]
RNAV ARRIVALS
(RWYS 19, 20)

STAR	ROUTING
ELDUD 6V	ELDUD - TT821 - TT823 (9850-) - TT824 - TT921 (6890+) - TT922 - TT923 (K200-; 4930+).
ELDUD 8V	ELDUD - TT821 - TT823 (9850-) - TT824 - TT825 (7880+) - TT731 - TT733 - TT723 - TT724 (K200-; 4930+).
IGNAK 6V	IGNAK - TT822 - TT823 (9850-) - TT824 - TT921 (6890+) - TT922 - TT923 (K200-; 4930+).
IGNAK 8V	IGNAK - TT822 - TT823 (9850-) - TT824 - TT825 (7880+) - TT731 - TT733 - TT723 - TT724 (K200-; 4930+).
LADUP 8V	LADUP - NONOV (FL157+) - CZH (FL128+) - UUØ1 - TT921 (6890+) - TT922 - TT923 (K200-; 4930+).

CHANGES: Communications.

D-ATIS	Apt Elev	
127.075 (Chinese 126.8)	1452	Alt Set: hPa Trans level: FL118 Under RADAR control actual flight altitude by ATC.

AKOPI Ø9A [AKOØ9A], BUPMI Ø9A [BUPØ9A]
MEXAD Ø9A [MEXØ9A]
ARRIVALS
(RWYS 01, 02)

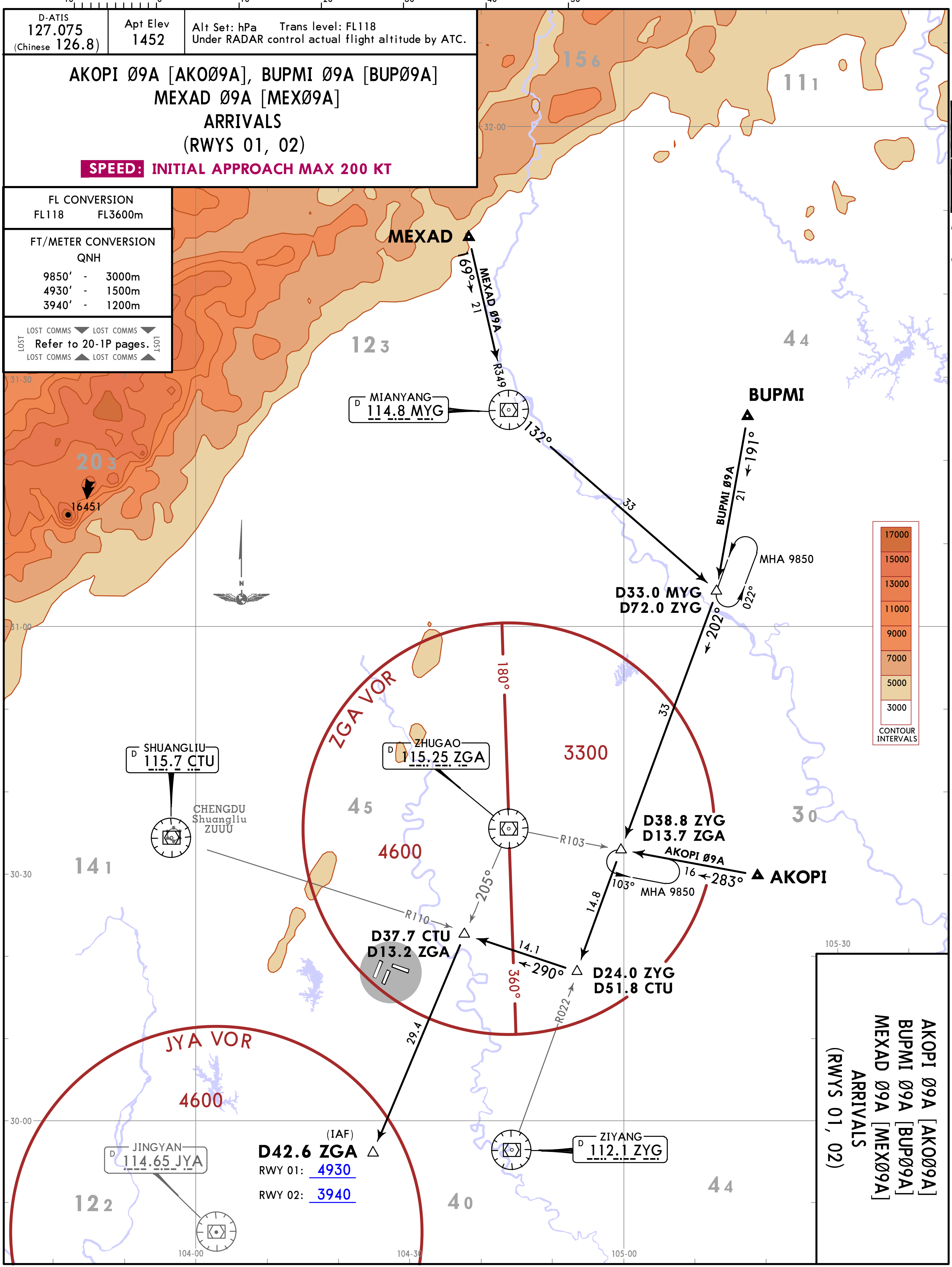
SPEED: INITIAL APPROACH MAX 200 KT

FL CONVERSION	
FL118	FL3600m

FT/METER CONVERSION
QNH

9850'	3000m
4930'	1500m
3940'	1200m

LOST COMMS Refer to 20-1P pages.


MEXAD
169°
21
MEXAD Ø9A
R349
MIANYANG
D 114.8 MYG
132°
33
BUPMI
191°
21
BUPMI Ø9A
MHA 9850
022°
D33.0 MYG
D72.0 ZYG
202°
33
ZGA VOR
180°
3300
ZHUGAO
D 115.25 ZGA
SHUANGLIU
D 115.7 CTU
CHENGDU
Shuangliu
ZUUU
4600
R103
D38.8 ZYG
D13.7 ZGA
AKOPI Ø9A
16
283°
AKOPI
103°
MHA 9850
14.8
205°
R110
D37.7 CTU
D13.2 ZGA
14.1
290°
360°
D24.0 ZYG
D51.8 CTU
R022
29.4
JYA VOR
4600
(IAF)
D42.6 ZGA
RWY 01: 4930
RWY 02: 3940
JINGYAN
D 114.65 JYA
ZIYANG
D 112.1 ZYG
16451
17000
15000
13000
11000
9000
7000
5000
3000
CONTOUR INTERVALS
156
111
123
44
203
45
30
141
122
40
44
31-30
31-00
30-30
30-00
32-00
104-00
104-30
105-00
105-30

AKOPI Ø9A [AKOØ9A]
BUPMI Ø9A [BUPØ9A]
MEXAD Ø9A [MEXØ9A]
ARRIVALS
(RWYS 01, 02)

CHANGES: Communications.

D-ATIS	Apt Elev	Alt Set: hPa Trans level: FL118
127.075 (Chinese 126.8)	1452	Under RADAR control actual flight altitude by ATC.

AKOPI 19A [AKO19A], BUPMI 19A [BUP19A] MEXAD 19A [MEX19A] ARRIVALS (RWYS 19, 20)

SPEED: INITIAL APPROACH MAX 200 KT

FL CONVERSION
FL118 FL3600m

FT/METER CONVERSION
QNH
9850′ - 3000m
4930′ - 1500m
3940′ - 1200m

LOST COMMS ▼ LOST COMMS ▼ Refer to 20-1P pages. LOST COMMS ▲ LOST COMMS ▲ LOST

MEXAD
169° 21 MEXAD 19A R349
MIANYANG D 114.8 MYG
132° 33
BUPMI
191° 21 BUPMI 19A
MHA 9850
D33.0 MYG
D72.0 ZYG
022° 202°
ZGA VOR
180° 360°
3300
4600
(IAF) ZHUGAO D 115.25 ZGA
RWY 19: 4930
RWY 20: 3940
R103 13.7
D38.8 ZYG
D13.7 ZGA
AKOPI 19A 16 283° AKOPI
103° MHA 9850
R022
JYA VOR
4600
JINGYAN D 114.65 JYA
ZIYANG D 112.1 ZYG
CHENGDU Shuangliu ZUUU
16451
CONTOUR INTERVALS: 17000, 15000, 13000, 11000, 9000, 7000, 5000, 3000

ZUTF/TFU TIANFU

JEPPESEN 14 APR 23 20-2G Eff 19 Apr 1600Z

CHENGDU, PR OF CHINA STAR

AKOPI 19A [AKO19A]
BUPMI 19A [BUP19A]
MEXAD 19A [MEX19A]
ARRIVALS
(RWYS 19, 20)

CHANGES: Communications.

D-ATIS	Apt Elev	
127.075 (Chinese 126.8)	1452	Alt Set: hPa Trans level: FL118 Under RADAR control actual flight altitude by ATC.

ELDUD Ø9A [ELDØ9A]
IGNAK Ø9A [IGNØ9A]
LADUP Ø9A [LADØ9A]
ARRIVALS
(RWYS 01, 02)

SPEED: INITIAL APPROACH MAX 200 KT

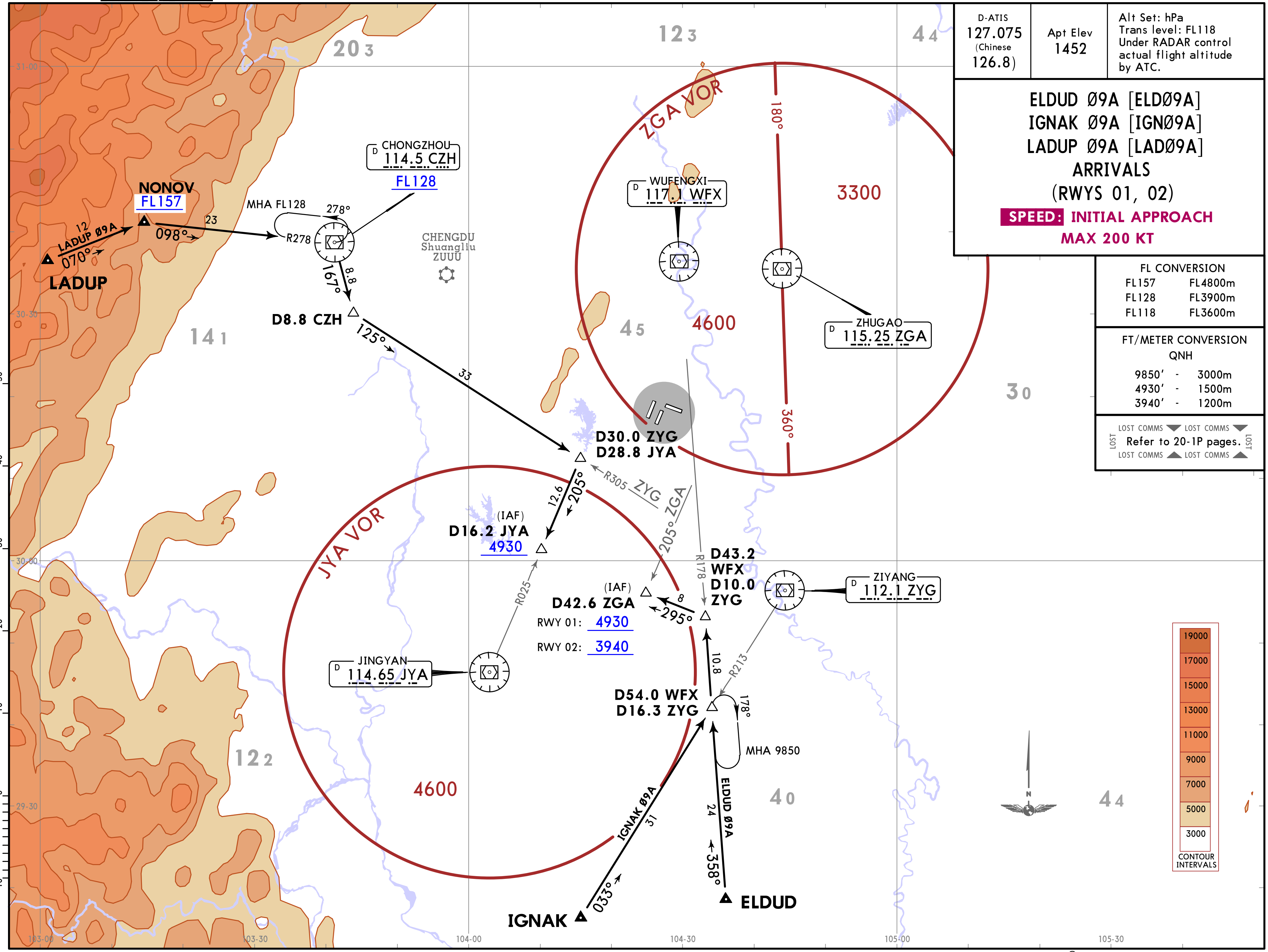
FL CONVERSION

FL157	FL4800m
FL128	FL3900m
FL118	FL3600m

FT/METER CONVERSION QNH

9850'	3000m
4930'	1500m
3940'	1200m

LOST COMMS Refer to 20-1P pages.


LADUP
LADUP Ø9A
12
070°
NONOV
FL157
098°
23
MHA FL128
278°
R278
CHONGZHOU
D 114.5 CZH
FL128
167°
8.8
D8.8 CZH
125°
33
CHENGDU
Shuangliu
ZUUU
ZGA VOR
WUFENGXI
D 117.1 WFX
180°
3300
4600
360°
ZHUGAO
D 115.25 ZGA
D30.0 ZYG
D28.8 JYA
R305 ZYG
205° ZGA
12.6
205°
(IAF)
D16.2 JYA
4930
JYA VOR
R025
JINGYAN
D 114.65 JYA
4600
(IAF)
D42.6 ZGA
RWY 01: 4930
RWY 02: 3940
295°
8
R178
D43.2
WFX
D10.0
ZYG
ZIYANG
D 112.1 ZYG
10.8
R213
178°
D54.0 WFX
D16.3 ZYG
MHA 9850
IGNAK Ø9A
31
033°
IGNAK
ELDUD Ø9A
24
358°
ELDUD
CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000
104-00
104-30
105-00
105-30
31-00
30-30
30-00
29-30

CHANGES: Communications.

D-ATIS	Apt Elev	
127.075 (Chinese 126.8)	1452	Alt Set: hPa Trans level: FL118 Under RADAR control actual flight altitude by ATC.

ELDUD 19A [ELD19A]
IGNAK 19A [IGN19A]
LADUP 19A [LAD19A]
ARRIVALS
(RWYS 19, 20)

SPEED: INITIAL APPROACH MAX 200 KT

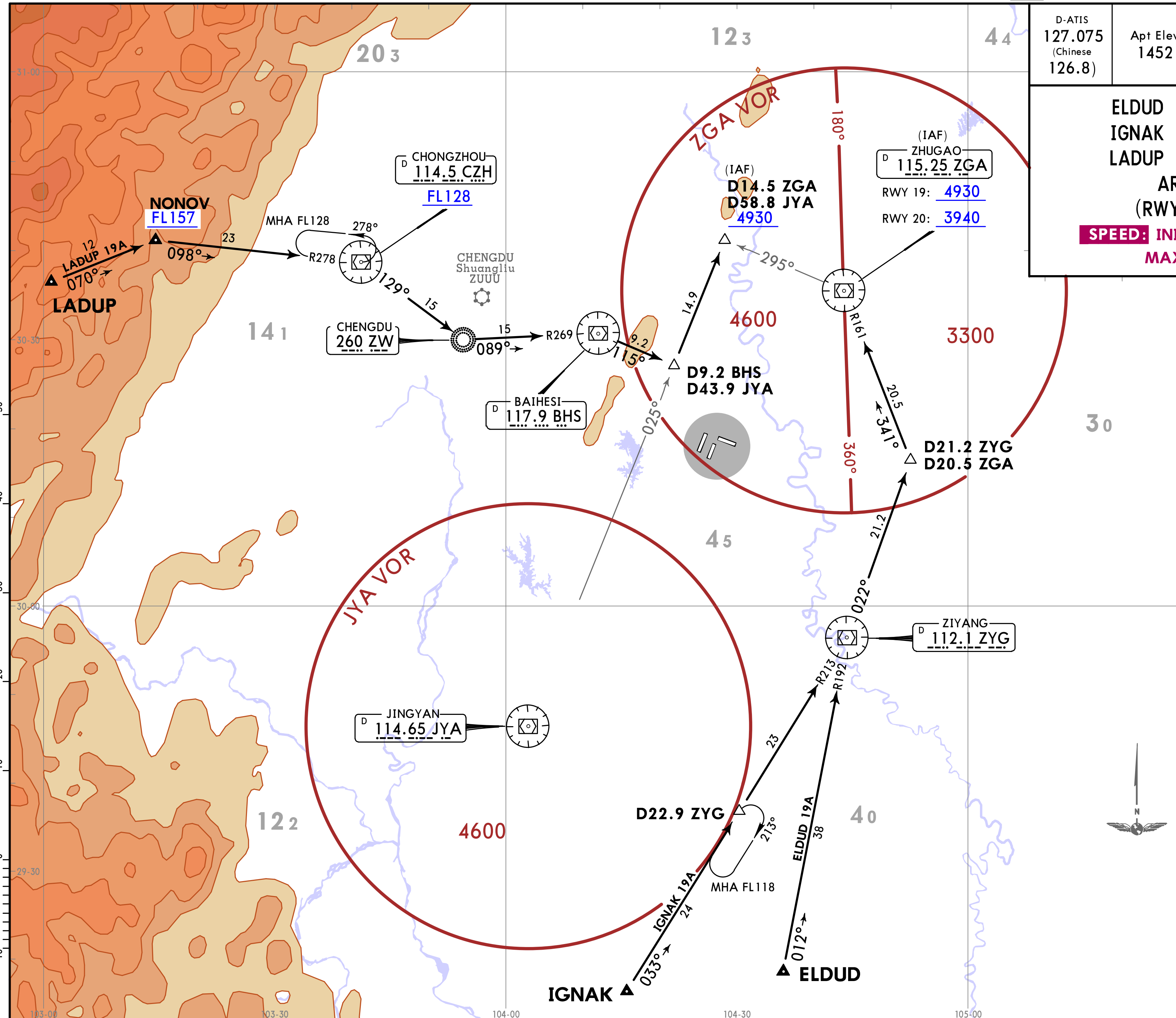
FL CONVERSION

FL157	FL4800m
FL128	FL3900m
FL118	FL3600m

FT/METER CONVERSION
QNH

4930'	1500m
3940'	1200m

LOST COMMS — Refer to 20-1P pages.


LADUP
12
LADUP 19A
070°
NONOV
FL157
098°
23
MHA FL128
278°
R278
CHONGZHOU
D 114.5 CZH
FL128
129°
15
CHENGDU Shuangliu ZUUU
CHENGDU
260 ZW
15
089°
R269
BAIHESI
D 117.9 BHS
9.2
115°
D9.2 BHS
D43.9 JYA
025°
14.9
(IAF)
D14.5 ZGA
D58.8 JYA
4930
295°
ZGA VOR
(IAF)
ZHUGAO
D 115.25 ZGA
RWY 19: 4930
RWY 20: 3940
180°
360°
R161
4600
3300
20.5
341°
D21.2 ZYG
D20.5 ZGA
21.2
022°
ZIYANG
D 112.1 ZYG
R213
R192
23
JYA VOR
JINGYAN
D 114.65 JYA
4600
D22.9 ZYG
213°
MHA FL118
IGNAK 19A
24
033°
IGNAK
ELDUD 19A
38
012°
ELDUD
CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

CHANGES: Communications.

CHANGES: TT401 position with adjacent tracks.

Apt Elev 1452	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
	RNAV 1 GNSS
	1. RADAR required. 2. Under RADAR control actual flight altitude by ATC. 3. No turns before DER.

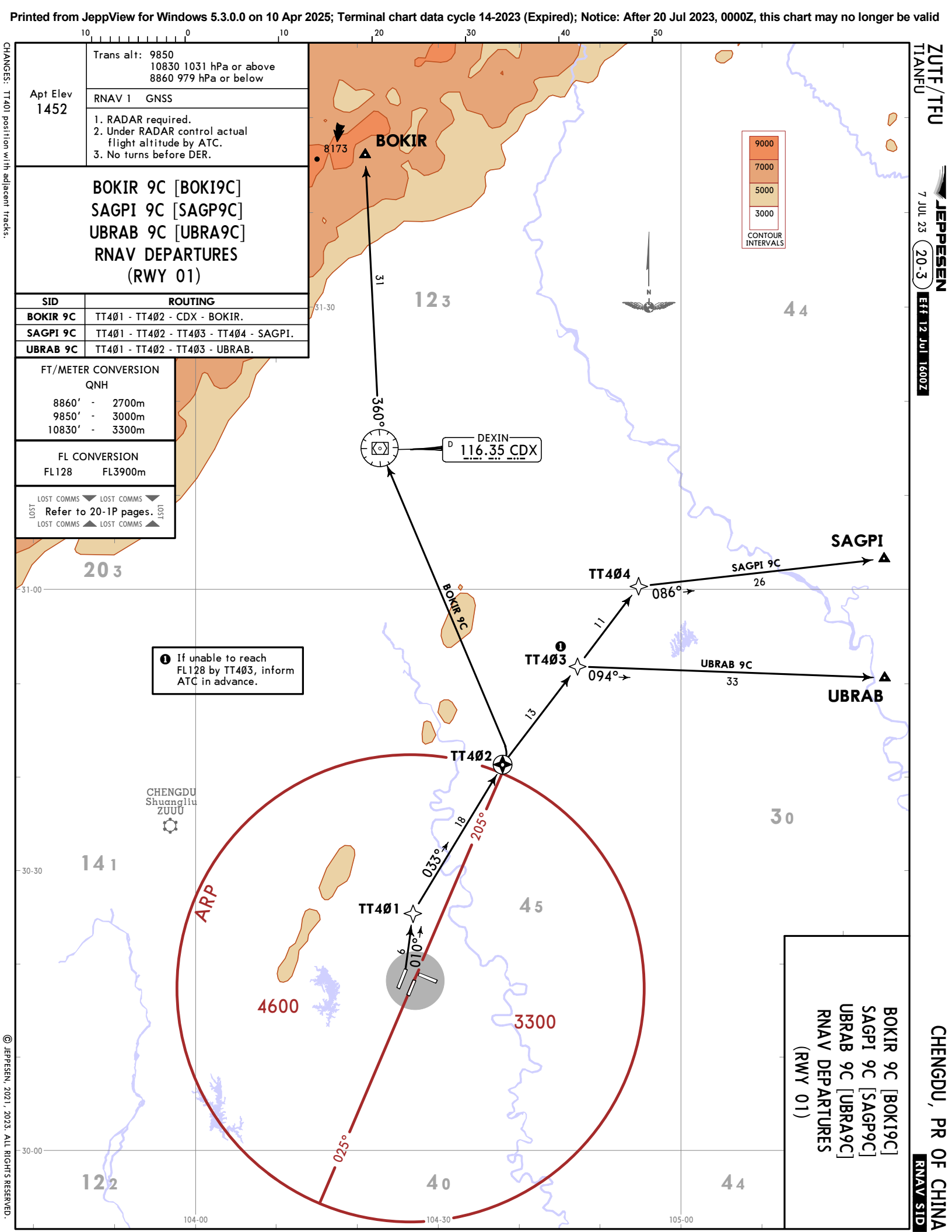
BOKIR 9C [BOKI9C]
SAGPI 9C [SAGP9C]
UBRAB 9C [UBRA9C]
RNAV DEPARTURES
(RWY 01)

SID	ROUTING
BOKIR 9C	TT401 - TT402 - CDX - BOKIR.
SAGPI 9C	TT401 - TT402 - TT403 - TT404 - SAGPI.
UBRAB 9C	TT401 - TT402 - TT403 - UBRAB.

FT/METER CONVERSION
QNH
8860′ - 2700m
9850′ - 3000m
10830′ - 3300m

FL CONVERSION
FL128 FL3900m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲



BOKIR 9C [BOKI9C]
SAGPI 9C [SAGP9C]
UBRAB 9C [UBRA9C]
RNAV DEPARTURES
(RWY 01)

CHENGDU, PR OF CHINA
RNAV SID

CHANGES: None.

Apt Elev 1452	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
	RNAV 1 GNSS
	1. RADAR required. 2. Under RADAR control actual flight altitude by ATC.

BOKIR 9E [BOKI9E]
SAGPI 9E [SAGP9E]
UBRAB 9E [UBRA9E]
RNAV DEPARTURES
(RWY 02)

SID	ROUTING
BOKIR 9E	TT41Ø - (2470+) - ZGA - CDX - BOKIR.
SAGPI 9E	TT41Ø - (2470+) - ZGA - TT413 - SAGPI.
UBRAB 9E	TT41Ø - (2470+) - ZGA - TT413 - UBRAB.

FT/METER CONVERSION
QNH

2470′	-	750m
8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL128	FL3900m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲

11000
9000
7000
5000
3000
CONTOUR INTERVALS

8173
BOKIR
31
360°
DEXIN
D 116.35 CDX
BOKIR 9E
SAGPI
SAGPI 9E
28
UBRAB
UBRAB 9E
23
TT413
081°
17
054°
ZHUGAO
D 115.25 ZGA
CHENGDU
Shuangliu
ZUUU
205°
025°
ARP
2470
TT41Ø
040°
025°
4600
3300

❶ If unable to reach FL128 by TT413, inform ATC in advance.

12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4
31-00
31-30
30-30
30-00
104-00
104-30
105-00

ZUTF/TFU
TIANFU

JEPPESEN
7 JUL 23
20-3A
Eff 12 Jul 1600Z

CHENGDU, PR OF CHINA
RNAV SID

BOKIR 9E [BOKI9E]
SAGPI 9E [SAGP9E]
UBRAB 9E [UBRA9E]
RNAV DEPARTURES
(RWY 02)

CHANGES: None.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
1452	1. RNAV 1. 2. GNSS required. 3. RADAR required. 4. Under RADAR control actual flight altitude by ATC. 5. No turns before DER.

BOKIR 9G [BOKI9G]
SAGPI 9G [SAGP9G]
UBRAB 9G [UBRA9G]
RNAV DEPARTURES
(RWY 20)

SID	ROUTING
BOKIR 9G	TT422 - TT426 - TT427 - WFX - CDX - BOKIR.
SAGPI 9G	TT422 - TT426 - TT427 - TT428 - SAGPI.
UBRAB 9G	TT422 - TT426 - TT427 - TT428 - UBRAB.

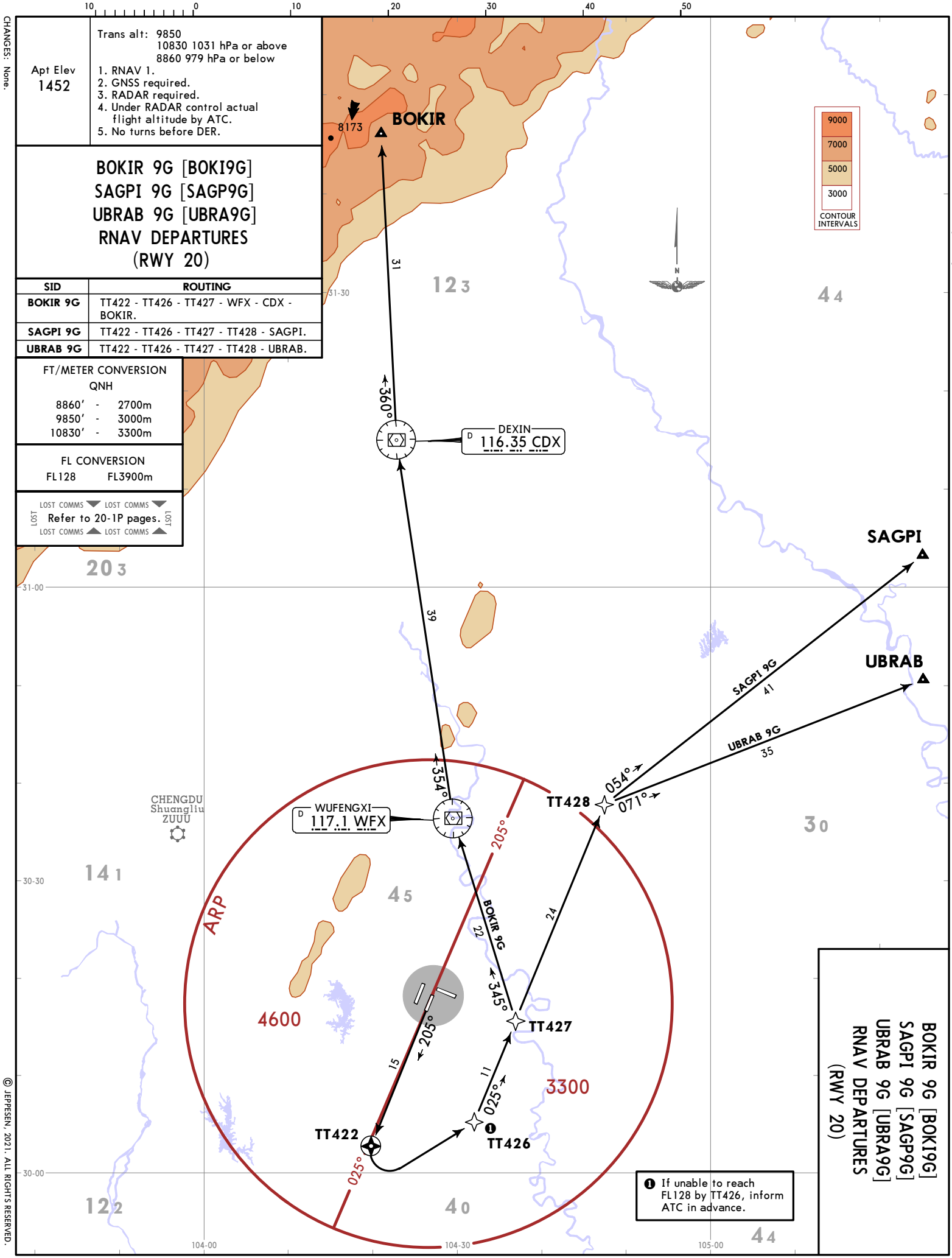
FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL128	FL3900m

LOST COMMS Refer to 20-1P pages. LOST COMMS



BOKIR 9G [BOKI9G]
SAGPI 9G [SAGP9G]
UBRAB 9G [UBRA9G]
RNAV DEPARTURES
(RWY 20)

CHENGDU, PR OF CHINA

RNAV SID

CHANGES: Reissue.

Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below

1. RNAV 1.
2. GNSS required.
3. RADAR required.
4. Under RADAR control actual flight altitude by ATC.
5. No turns before DER.

BOKIR 6H [BOKI6H]
BOKIR 9H [BOKI9H]
SAGPI 6H [SAGP6H]
SAGPI 9H [SAGP9H]
UBRAB 9H [UBRA9H]
RNAV DEPARTURES
(RWY 19)

SID	ROUTING
BOKIR 6H	TT431 - TT436 - TT438 - CDX - BOKIR.
BOKIR 9H	TT432 - TT426 - TT427 - WFX - TT438 - CDX - BOKIR.
SAGPI 6H	TT431 - TT436 - TT438 - SAGPI.
SAGPI 9H	TT432 - TT426 - TT427 - TT428 - SAGPI.
UBRAB 9H	TT432 - TT426 - TT427 - TT428 - UBRAB.

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL128	FL3900m

LOST COMMS LOST COMMS LOST
Refer to 20-1P pages.
LOST COMMS LOST COMMS

BOKIR
8173
9000
7000
5000
3000
CONTOUR INTERVALS
DEXIN
D 116.35 CDX
WUFENGXI
D 117.1 WFX
CHENGDU
Shuangliu
ZUUU
SAGPI
UBRAB
TT438
TT428
TT436
TT427
TT431
TT432
TT426
(BOKIR 6H, SAGPI 6H only)
ARP
4600
3300
360°
069°
354°
054°
071°
026°
345°
220°
025°
205°
BOKIR 6H, 9H
SAGPI 6H
SAGPI 9H
UBRAB 9H
BOKIR 6H SAGPI 6H
BOKIR 9H
SAGPI 9H UBRAB 9H
BOKIR 9H SAGPI 9H UBRAB 9H
31
33
53
41
35
20
22
24
6
9
11
31-30
31-00
30-30
30-00
104-00
104-30
105-00
123
44
141
45
30
122
40

❶ If unable to reach FL128 by TT426, inform ATC in advance.

ZUTF/TFU
TIANFU

JEPPESEN
5 AUG 22
20-3C

CHENGDU, PR OF CHINA
RNAV SID

BOKIR 6H [BOKI6H]
BOKIR 9H [BOKI9H]
SAGPI 6H [SAGP6H]
SAGPI 9H [SAGP9H]
UBRAB 9H [UBRA9H]
RNAV DEPARTURES
(RWY 19)

CHANGES: RNAV SIDs revised.

Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
1. RNAV 1.
2. GNSS required.
3. RADAR required.
4. Under RADAR control actual flight altitude by ATC.
5. No turns before DER.

BOKIR 6K [BOKI6K]
SAGPI 6K [SAGP6K]
UBRAB 6K [UBRA6K]
RNAV DEPARTURES
(RWY 11)

SID	ROUTING
BOKIR 6K	TT465 - TT467 - TT468 - WFX - CDX - BOKIR.
SAGPI 6K	TT465 - TT467 - TT468 - WFX - SAGPI.
UBRAB 6K	TT465 - TT467 - TT468 - WFX - UBRAB.

FT/METER CONVERSION
QNH
8860′ - 2700m
9850′ - 3000m
10830′ - 3300m

FL CONVERSION
FL138 FL4200m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲

9000
7000
5000
3000
CONTOUR INTERVALS

BOKIR
8173
DEXIN
D 116.35 CDX
WUFENGXI
D 117.1 WFX
SAGPI
UBRAB
TT468
TT465
TT467
ARP
4600
3300
CHENGDU
Shuangliu
ZUUU

360°
31
354°
39
BOKIR 6K
063°
075°
SAGPI 6K
55
UBRAB 6K
50
205°
025°
024°
15
115°
3

❶ If unable to reach FL138 by WFX, inform ATC in advance.

31-30
31-00
30-30
30-00
104-00
104-30
105-00

12 3
4 4
14 1
4 5
3 0
12 2
4 0
4 4

BOKIR 6K [BOKI6K]
SAGPI 6K [SAGP6K]
UBRAB 6K [UBRA6K]
RNAV DEPARTURES
(RWY 11)

CHENGDU, PR OF CHINA
RNAV SID

CHANGES: RNAV SIDs revised.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
1452	1. RNAV 1. 2. GNSS required. 3. RADAR required. 4. Under RADAR control actual flight altitude by ATC. 5. No turns before DER.

BOKIR 8K [BOKI8K]
SAGPI 8K [SAGP8K]
UBRAB 8K [UBRA8K]
RNAV DEPARTURES
(RWY 11)

SID	ROUTING
BOKIR 8K	TT465 - ZGA - CDX - BOKIR.
SAGPI 8K	TT465 - ZGA - TT413 - SAGPI.
UBRAB 8K	TT465 - ZGA - TT413 - UBRAB.

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL128	FL3900m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲

9000
7000
5000
3000
CONTOUR INTERVALS

BOKIR
8173
31
360°
DEXIN
D 116.35 CDX
BOKIR 8K
SAGPI
SAGPI 8K
28
UBRAB
UBRAB 8K
23
TT413
081°
17
054°
ZHUGAO
D 115.25 ZGA
205°
ARP
4600
115°
3
TT465
3300
025°
CHENGDU
Shuangliu
ZUUU

❶ If unable to reach FL128 by TT413, inform ATC in advance.

12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4
31-30
31-00
30-30
30-00
104-00
104-30
105-00

ZUTF/TFU
TIANFU

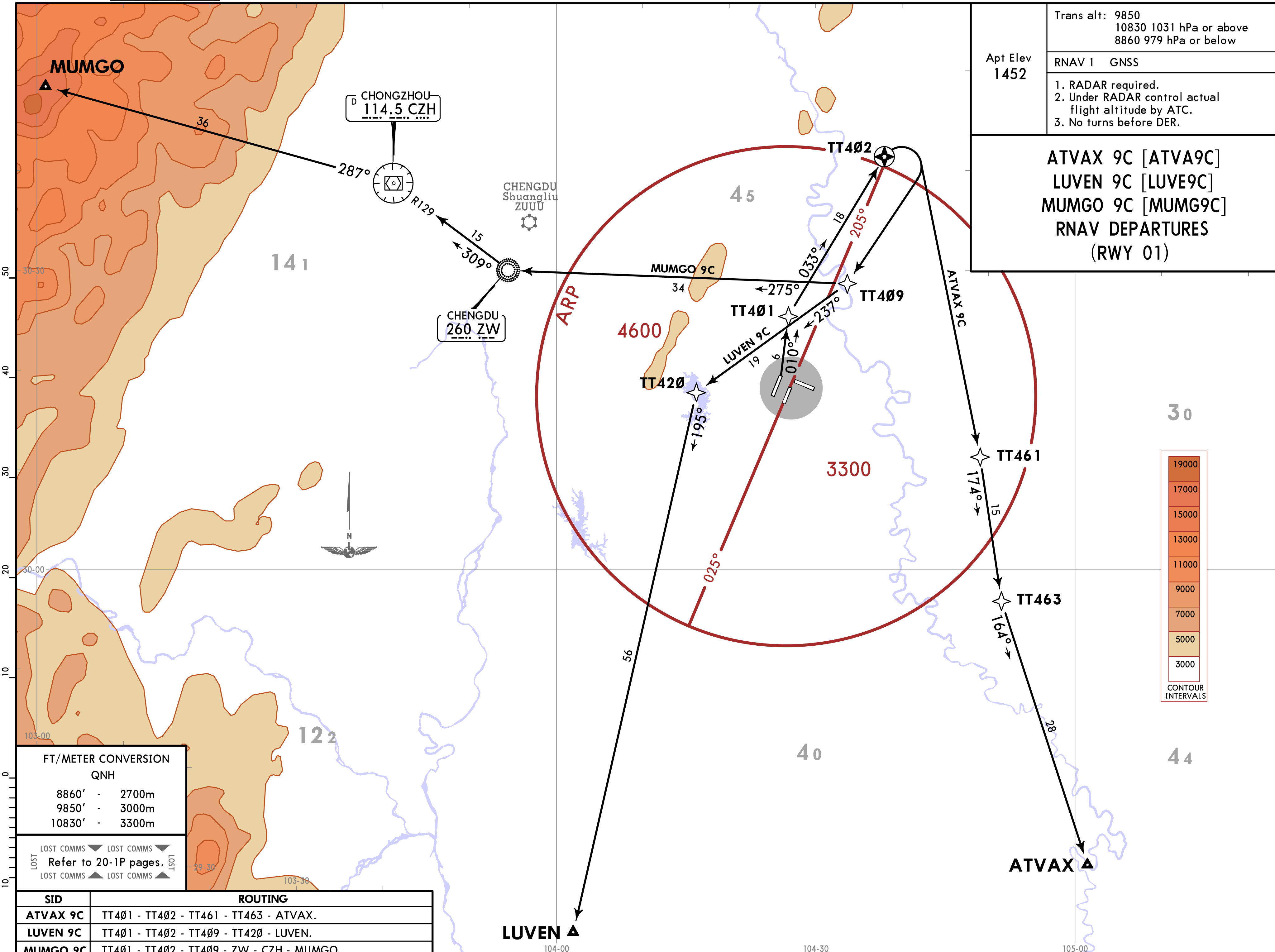
JEPPESEN
13 MAY 22
20-3E
Eff 18 May 1600Z

CHENGDU, PR OF CHINA
RNAV SID

BOKIR 8K [BOKI8K]
SAGPI 8K [SAGP8K]
UBRAB 8K [UBRA8K]
RNAV DEPARTURES
(RWY 11)

Apt Elev 1452	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
	RNAV 1 GNSS
	1. RADAR required. 2. Under RADAR control actual flight altitude by ATC. 3. No turns before DER.

ATVAX 9C [ATVA9C]
LUVEN 9C [LUVE9C]
MUMGO 9C [MUMG9C]
RNAV DEPARTURES
(RWY 01)



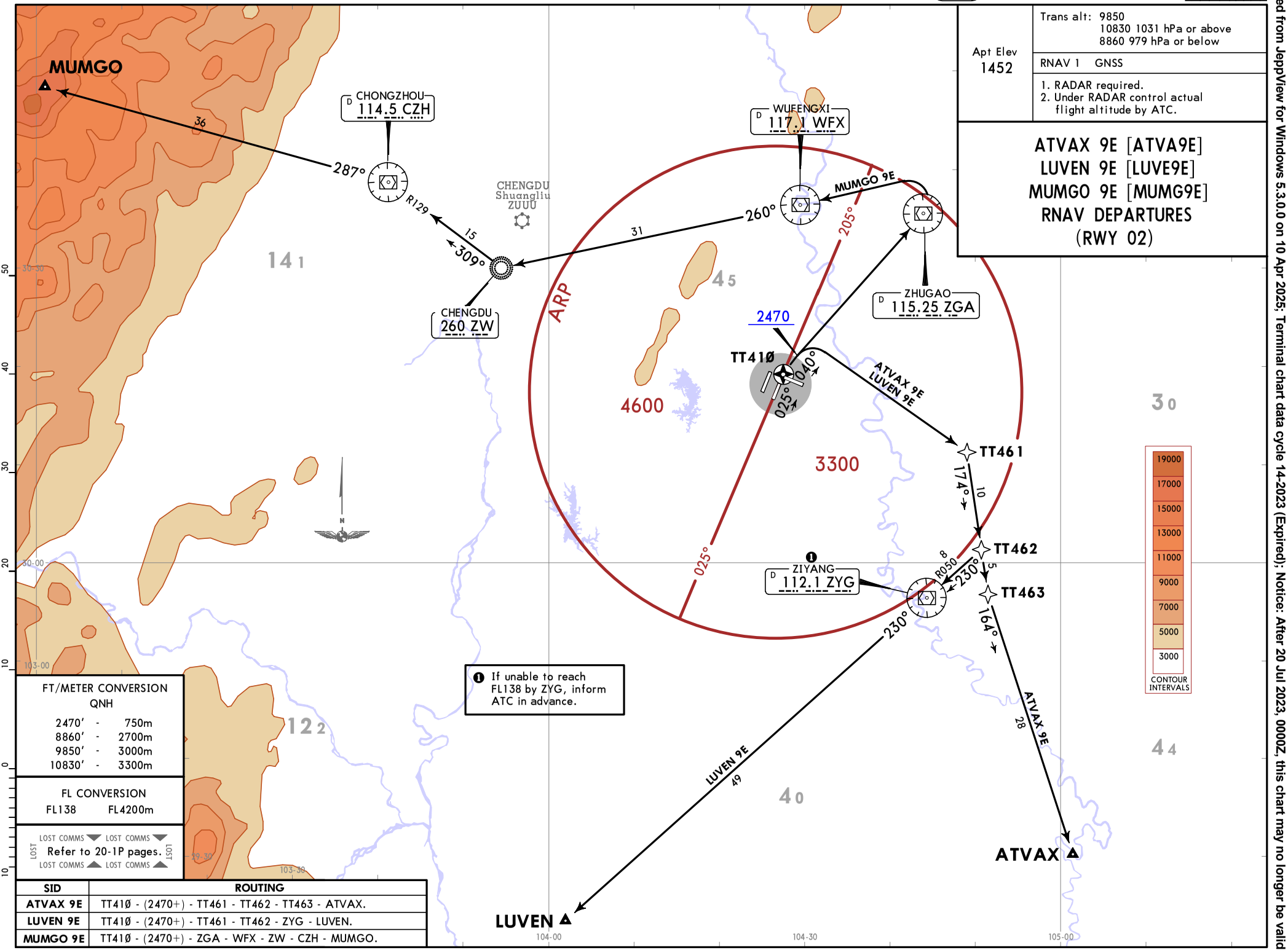
FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS Refer to 20-1P pages.

SID	ROUTING
ATVAX 9C	TT401 - TT402 - TT461 - TT463 - ATVAX.
LUVEN 9C	TT401 - TT402 - TT409 - TT420 - LUVEN.
MUMGO 9C	TT401 - TT402 - TT409 - ZW - CZH - MUMGO.

CHANGES: TT401 position with adjacent tracks.



Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below

RNAV 1 GNSS

1. RADAR required.
2. Under RADAR control actual flight altitude by ATC.

ATVAX 9E [ATVA9E]
LUVEN 9E [LUVE9E]
MUMGO 9E [MUMG9E]
RNAV DEPARTURES
(RWY 02)

❶ If unable to reach FL138 by ZYG, inform ATC in advance.

FT/METER CONVERSION
QNH

2470′	-	750m
8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL138	FL4200m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

SID	ROUTING
ATVAX 9E	TT41Ø - (2470+) - TT461 - TT462 - TT463 - ATVAX.
LUVEN 9E	TT41Ø - (2470+) - TT461 - TT462 - ZYG - LUVEN.
MUMGO 9E	TT41Ø - (2470+) - ZGA - WFX - ZW - CZH - MUMGO.

CHANGES: None.

CHENGDU, PR OF CHINA

RNAV SID

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
1452	1. RNAV 1. 2. GNSS required. 3. RADAR required. 4. Under RADAR control actual flight altitude by ATC. 5. No turns before DER.

ATVAX 9G [ATVA9G]
LUVEN 9G [LUVE9G]
MUMGO 9G [MUMG9G]
RNAV DEPARTURES
(RWY 20)

MUMGO
CHONGZHOU 114.5 CZH
SHUANGLIU 115.7 CTU
CHENGDU Shuangliu ZUUU
ARP
TT427
TT422
TT426
TT823
ATVAX
LUVEN
MUMGO 9G
ATVAX 9G
LUVEN 9G
287°
290°
300°
204°
025°
129°
205°
36
14
40
15
11
42
27
4600
3300

CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

❶ If unable to reach FL118 by TT426, inform ATC in advance.
❷ If unable to reach FL128 by TT823, inform ATC in advance.

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

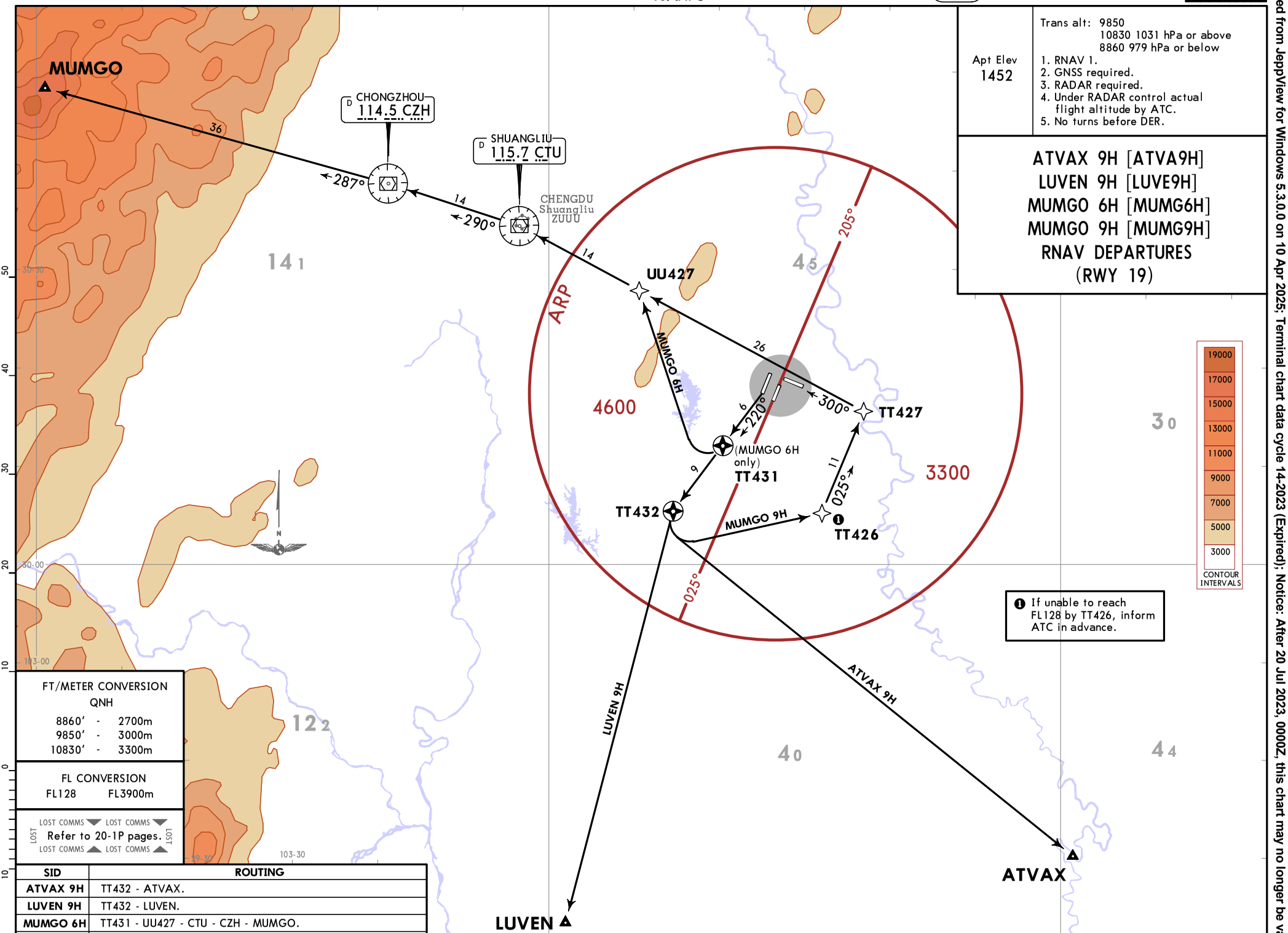
FL CONVERSION

FL118	FL3600m
FL128	FL3900m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

SID	ROUTING
ATVAX 9G	TT422 - TT823 - ATVAX.
LUVEN 9G	TT422 - LUVEN.
MUMGO 9G	TT422 - TT426 - TT427 - CTU - CZH - MUMGO.

CHANGES: None.



Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below

1. RNAV 1.
2. GNSS required.
3. RADAR required.
4. Under RADAR control actual flight altitude by ATC.
5. No turns before DER.

ATVAX 9H [ATVA9H]
LUVEN 9H [LUVE9H]
MUMGO 6H [MUMG6H]
MUMGO 9H [MUMG9H]
RNAV DEPARTURES
(RWY 19)

❶ If unable to reach FL128 by TT426, inform ATC in advance.

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL128	FL3900m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

SID	ROUTING
ATVAX 9H	TT432 - ATVAX.
LUVEN 9H	TT432 - LUVEN.
MUMGO 6H	TT431 - UU427 - CTU - CZH - MUMGO.
MUMGO 9H	TT432 - TT426 - TT427 - UU427 - CTU - CZH - MUMGO.

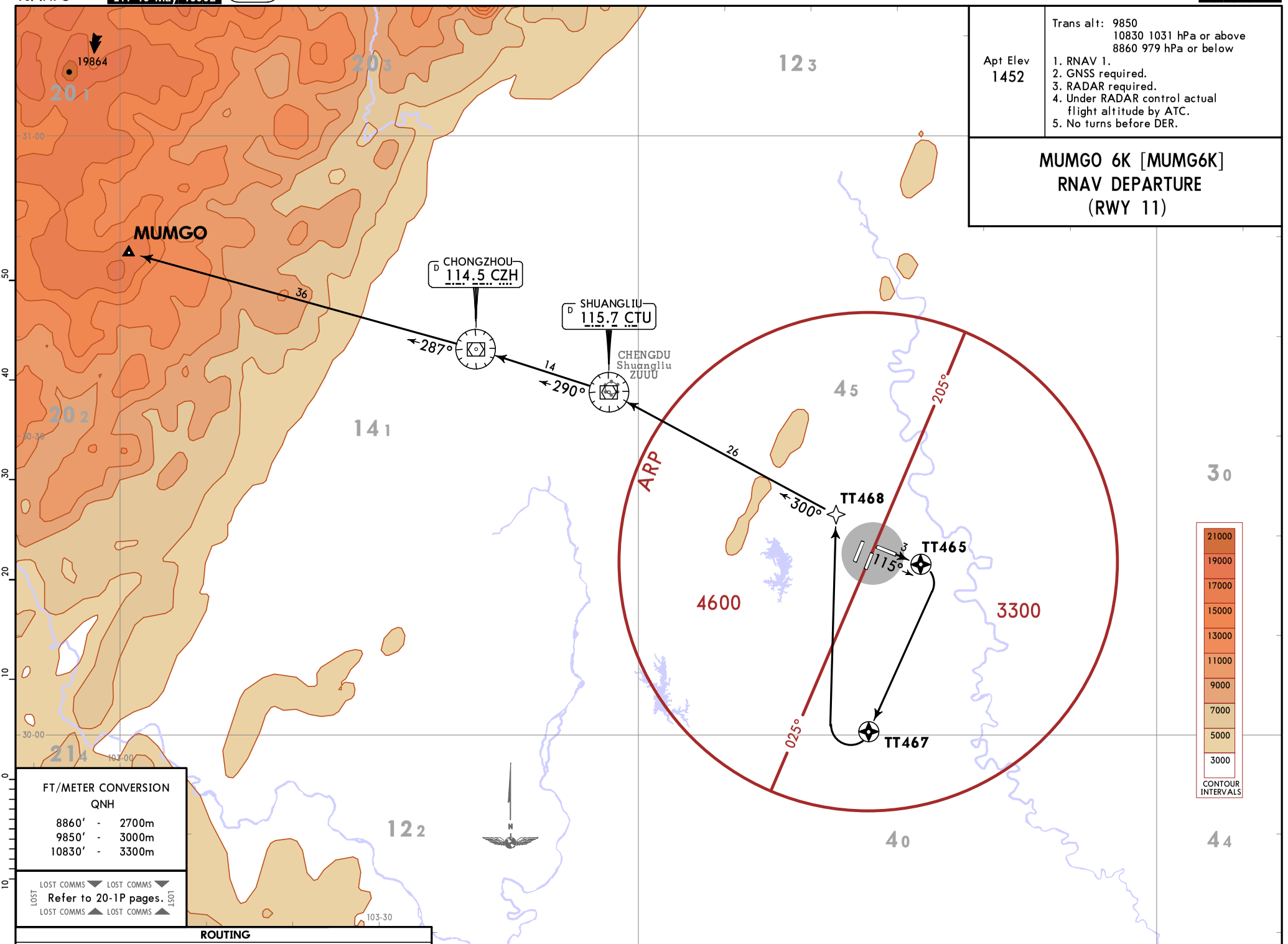
CHANGES: WP TT431 revised.

CHENGDU, PR OF CHINA

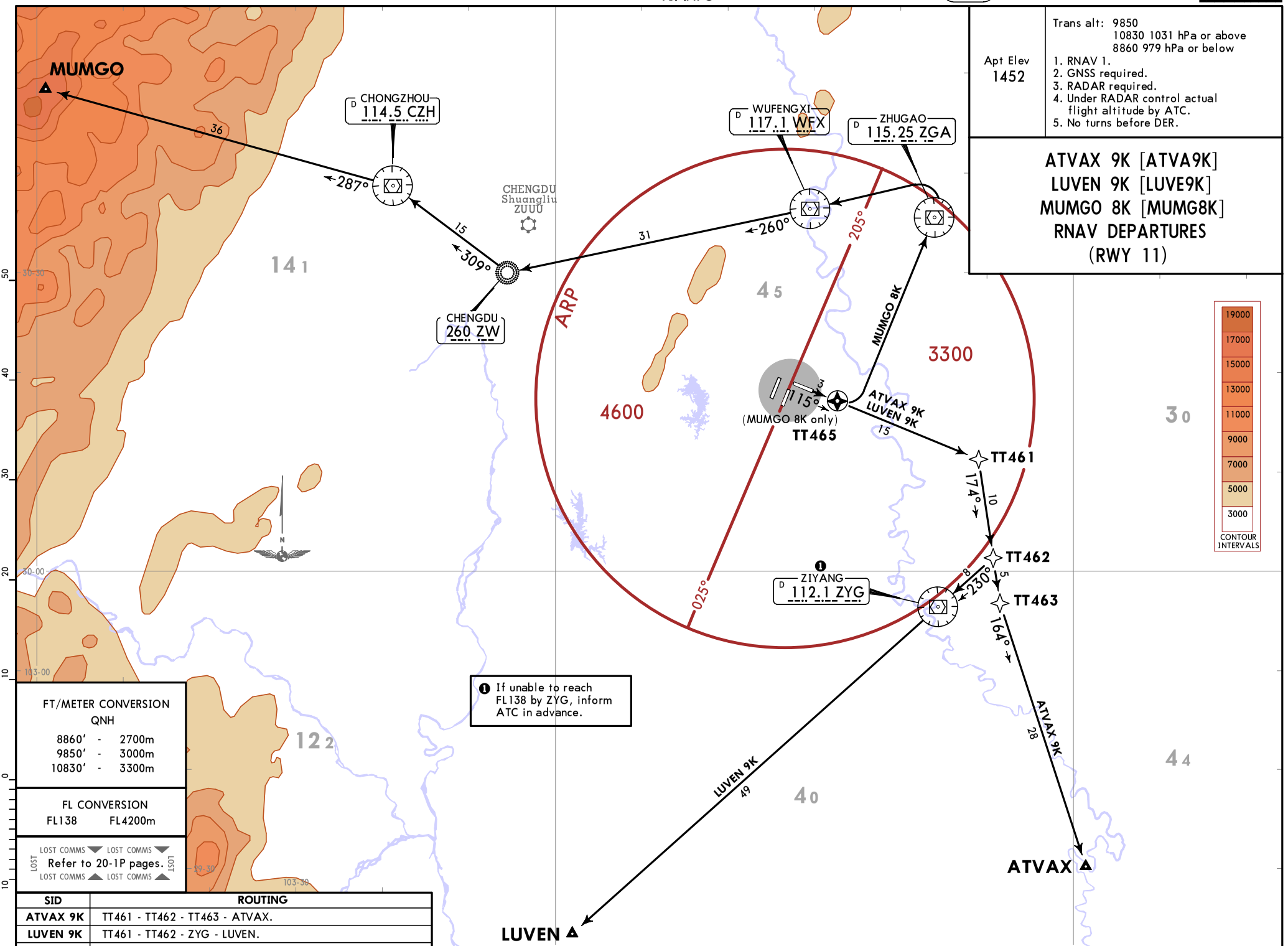
RNAV SID

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below
1452	1. RNAV 1. 2. GNSS required. 3. RADAR required. 4. Under RADAR control actual flight altitude by ATC. 5. No turns before DER.

MUMGO 6K [MUMG6K]
RNAV DEPARTURE
(RWY 11)



CHANGES: RNAV SID revised.



Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below

1. RNAV 1.
2. GNSS required.
3. RADAR required.
4. Under RADAR control actual flight altitude by ATC.
5. No turns before DER.

ATVAX 9K [ATVA9K]
LUVEN 9K [LUVE9K]
MUMGO 8K [MUMG8K]
RNAV DEPARTURES
(RWY 11)

❶ If unable to reach FL138 by ZYG, inform ATC in advance.

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

FL CONVERSION

FL138	FL4200m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

SID	ROUTING
ATVAX 9K	TT461 - TT462 - TT463 - ATVAX.
LUVEN 9K	TT461 - TT462 - ZYG - LUVEN.
MUMGO 8K	TT465 - ZGA - WFX - ZW - CZH - MUMGO.

CHANGES: RNAV SID MUMGO 8K revised.

ZUTF/TFU
TIANFU
Eff 19 May 1600Z
14 MAY 21
JEPPESEN
20-3M

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below 1. Under RADAR control actual flight altitude by ATC. 2. No turns before DER.
1452	

BOKIR Ø9D [BOKØ9D]
SAGPI Ø9D [SAGØ9D]
UBRAB Ø9D [UBRØ9D]
DEPARTURES
(RWY 01)

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS Refer to 20-1P pages. LOST COMMS

BOKIR
31
360°
DEXIN
D 116.35 CDX
16451
SAGPI
D37.5 WFX
D35.1 JTG
SAGPI Ø9D
19
080°
12.7
BOKIR Ø9D
JINTANG
D 115.4 JTG
D24.8 WFX
D24.5 JTG
094°
UBRAB Ø9D
29
UBRAB
15.8
D9.0 WFX
WFX VOR
053°
9.0
WUFENGXI
D 117.1 WFX
CHENGDU
Shuangliu
ZUUU
R193
013°
D8.9 WFX
010°
4600
ZYG VOR
220°
3300
ZIYANG
D 112.1 ZYG
330°

CONTOUR INTERVALS
17000
15000
13000
11000
9000
7000
5000
3000

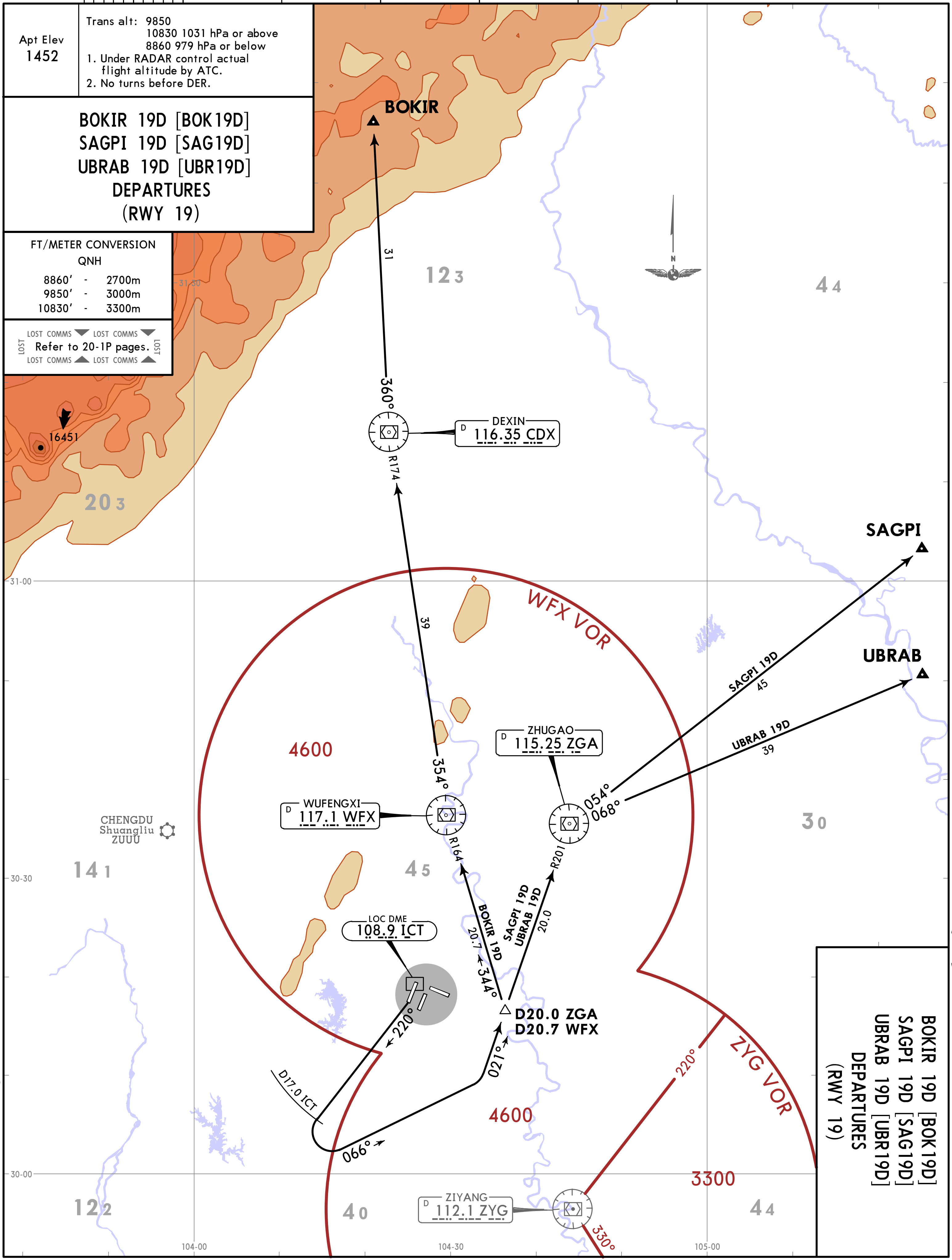
12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4

31-00
30-30
30-00
104-00
104-30
105-00

BOKIR Ø9D [BOKØ9D]
SAGPI Ø9D [SAGØ9D]
UBRAB Ø9D [UBRØ9D]
DEPARTURES
(RWY 01)

CHENGDU, PR OF CHINA
SID

CHANGES: New airport.


Apt Elev
1452
Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
1. Under RADAR control actual flight altitude by ATC.
2. No turns before DER.
BOKIR 19D [BOK19D]
SAGPI 19D [SAG19D]
UBRAB 19D [UBR19D]
DEPARTURES
(RWY 19)
FT/METER CONVERSION
QNH
8860′ - 2700m
9850′ - 3000m
10830′ - 3300m
LOST COMMS
Refer to 20-1P pages.
BOKIR
SAGPI
UBRAB
DEXIN
D 116.35 CDX
WUFENGXI
D 117.1 WFX
ZHUGAO
D 115.25 ZGA
LOC DME
108.9 ICT
ZIYANG
D 112.1 ZYG
CHENGDU
Shuangliu
ZUUU
WFX VOR
ZYG VOR
4600
3300
360°
354°
R174
R164
R201
054°
068°
SAGPI 19D
UBRAB 19D
BOKIR 19D
D20.0 ZGA
D20.7 WFX
D17.0 ICT
220°
066°
021°
344°
330°
16451
31-00
30-30
30-00
104-00
104-30
105-00

CHENGDU, PR OF CHINA
ZUTF/TFU
TIANFU
JEPPESEN
14 MAY 21 20-3N
Eff 19 May 1600Z
SID
BOKIR 19D [BOK19D]
SAGPI 19D [SAG19D]
UBRAB 19D [UBR19D]
DEPARTURES
(RWY 19)

CHANGES: New airport.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below Under RADAR control actual flight altitude by ATC.
1452	

BOKIR 29D [BOK29D]
SAGPI 29D [SAG29D]
UBRAB 29D [UBR29D]
DEPARTURES
(RWY 02)

FT/METER CONVERSION
QNH

2470′	-	750m
8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

17000
15000
13000
11000
9000
7000
5000
3000
CONTOUR INTERVALS

BOKIR
16451
31
360°
DEXIN
D 116.35 CDX
BOKIR 29D
SAGPI
SAGPI 29D
20
D25.4 ZGA
094°
UBRAB 29D
16
UBRAB
JINTANG
D 115.4 JTG
SAGPI 29D
UBRAB 29D
25.4
WFX VOR
WUFENGXI
D 117.1 WFX
CHENGDU
Shuangliu
ZUUU
054°
ZHUGAO
D 115.25 ZGA
2470
D2.6
ITV
040°
025°
LOC DME
111.3 ITV
4600
ZYG VOR
220°
3300
ZIYANG
D 112.1 ZYG
330°
12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4
31-00
30-30
30-00
104-00
104-30
105-00

BOKIR 29D [BOK29D]
SAGPI 29D [SAG29D]
UBRAB 29D [UBR29D]
DEPARTURES
(RWY 02)

CHENGDU, PR OF CHINA
SID

CHANGES: New airport.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below Under RADAR control actual flight altitude by ATC.
1452	

BOKIR 39D [BOK39D]
SAGPI 39D [SAG39D]
UBRAB 39D [UBR39D]
DEPARTURES
(RWY 20)

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS ▼ LOST COMMS ▼ LOST
Refer to 20-1P pages.
LOST COMMS ▲ LOST COMMS ▲ LOST

CONTOUR INTERVALS: 17000, 15000, 13000, 11000, 9000, 7000, 5000, 3000

BOKIR
SAGPI
UBRAB
DEXIN D 116.35 CDX
ZHUGAO D 115.25 ZGA
WUFENGXI D 117.1 WFX
BAIHESI D 117.9 BHS
LOC DME 111.3 IFM
ZIYANG D 112.1 ZYG
WFX VOR
ZYG VOR
CHENGDU Shuangliu ZUUU
16451
4600
3300
D20.0 ZGA
D25.3 BHS
D16.5 IFM
360° R174 31
354° R164 39
054° 068° R201 SAGPI 39D 45 UBRAB 39D 39
BOKIR 39D 20 344° SAGPI 39D UBRAB 39D 20.0
125° 205° 021° 220° 330°
12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4
31-00
30-30
30-00
104-00
104-30
105-00

ZUTF/TFU TIANFU

JEPPESEN 14 MAY 21 20-3Q Eff 19 May 16002

CHENGDU, PR OF CHINA

BOKIR 39D [BOK39D]
SAGPI 39D [SAG39D]
UBRAB 39D [UBR39D]
DEPARTURES
(RWY 20)

SID

CHANGES: SIDs revised.

Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
Under RADAR control actual flight altitude by ATC.

BOKIR 51D [BOK51D]
SAGPI 51D [SAG51D]
UBRAB 51D [UBR51D]
DEPARTURES
(RWY 11)

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

17000
15000
13000
11000
9000
7000
5000
3000
CONTOUR INTERVALS

BOKIR
31
360°
DEXIN
D 116.35 CDX
16451
SAGPI
SAGPI 51D
20
D25.4 ZGA
094°
UBRAB 51D
16
UBRAB
BOKIR 51D
JINTANG
D 115.4 JTG
SAGPI 51D
UBRAB 51D
25.4
WFX VOR
WUFENGXI
D 117.1 WFX
CHENGDU
Shuangliu
ZUUU
054°
ZHUGAO
D 115.25 ZGA
210°
115°
D20.7 ZGA
4600
ZYG VOR
220°
3300
ZIYANG
D 112.1 ZYG
330°

12 3
4 4
20 3
14 1
4 5
3 0
12 2
4 0
4 4

31-00
30-30
30-00
104-00
104-30
105-00

BOKIR 51D [BOK51D]
SAGPI 51D [SAG51D]
UBRAB 51D [UBR51D]
DEPARTURES
(RWY 11)

CHENGDU, PR OF CHINA
SID

CHANGES: SIDs revised.

Apt Elev 1452

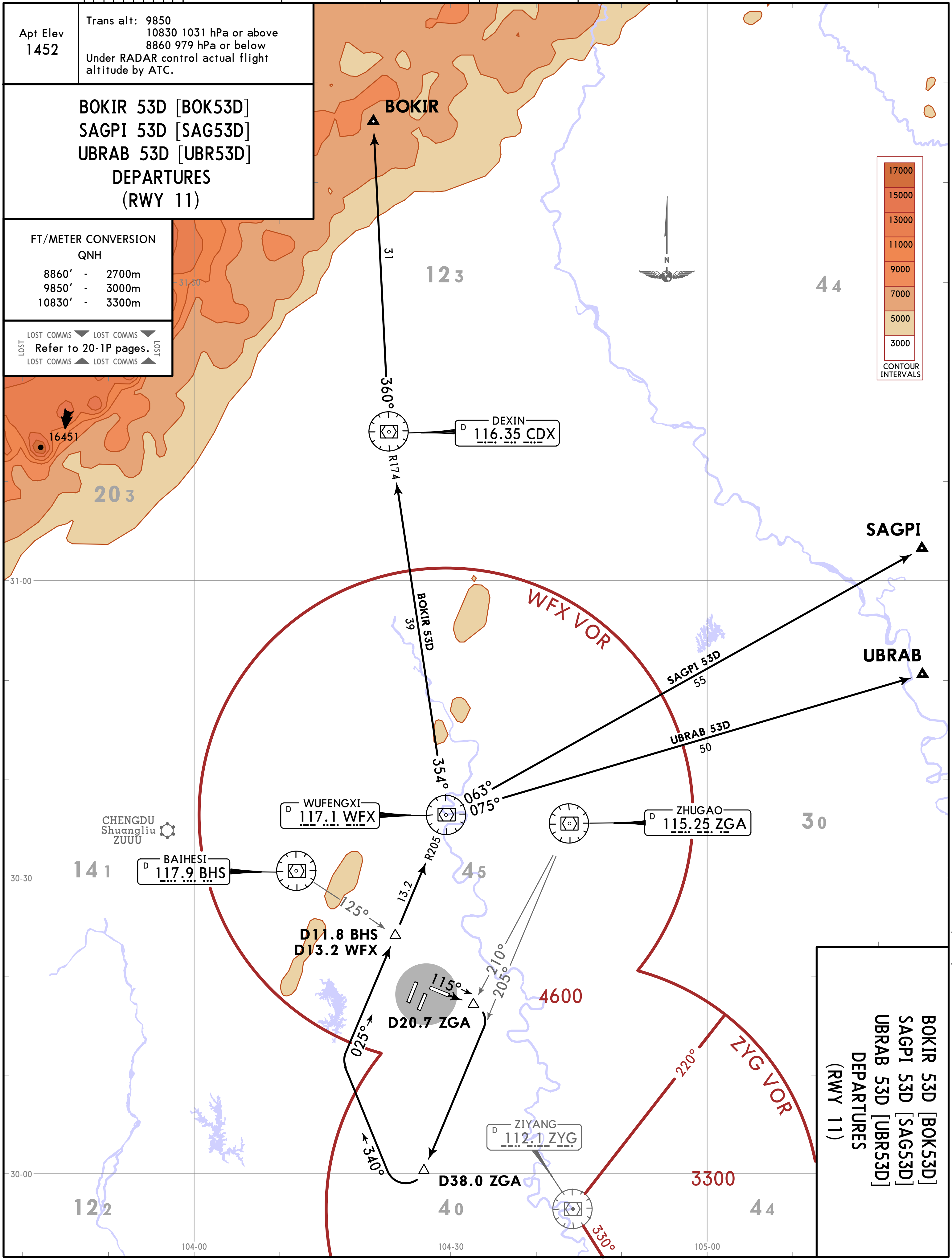
Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
Under RADAR control actual flight altitude by ATC.

BOKIR 53D [BOK53D]
SAGPI 53D [SAG53D]
UBRAB 53D [UBR53D]
DEPARTURES
(RWY 11)

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS Refer to 20-1P pages.



BOKIR
31
360°
DEXIN
D 116.35 CDX
R174
16451
123
203
44
SAGPI
UBRAB
WFX VOR
BOKIR 53D
39
SAGPI 53D
55
UBRAB 53D
50
354°
063°
075°
WUFENGXI
D 117.1 WFX
ZHUGAO
D 115.25 ZGA
CHENGDU Shuangliu ZUUU
BAIHESI
D 117.9 BHS
141
45
30
R205
13.2
125°
D11.8 BHS
D13.2 WFX
115°
210°
205°
4600
D20.7 ZGA
025°
ZYG VOR
220°
340°
ZIYANG
D 112.1 ZYG
D38.0 ZGA
3300
122
40
44
330°
31-00
30-30
30-00
104-00
104-30
105-00
17000
15000
13000
11000
9000
7000
5000
3000
CONTOUR INTERVALS

ZUTF/TFU
TIANFU

13 MAY 22 (20-3T) Eff 18 May 1600Z

JEPPESEN

CHENGDU, PR OF CHINA

SID

BOKIR 53D [BOK53D]
SAGPI 53D [SAG53D]
UBRAB 53D [UBR53D]
DEPARTURES
(RWY 11)

CHENGDU, PR OF CHINA

SID

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below 1. Under RADAR control actual flight altitude by ATC. 2. No turns before DER.
1452	

ATVAX Ø9D [ATVØ9D]
LUVEN Ø9D [LUVØ9D]
MUMGO Ø9D [MUMØ9D]
DEPARTURES
(RWY 01)

MUMGO

CHONGZHOU
D 114.5 CZH

WUFENGXI
D 117.1 WFX

BAIHESI
D 117.9 BHS

CHENGDU
260 ZW

CHENGDU
Shuangliu
ZUUU

D9.0 WFX

287° 36

R129 15

309° 15

269°

053° 9.0

MUMGO Ø9D

R193 013°

D8.9 WFX

010°

WFX VOR

ZYG VOR

ATVAX Ø9D
LUVEN Ø9D

4600

220°

ZIYANG
D 112.1 ZYG

230° 49

152° 30

330°

3300

LUVEN Ø9D

ATVAX Ø9D

LUVEN

ATVAX

14 1

12 2

4 5

4 0

3 0

4 4

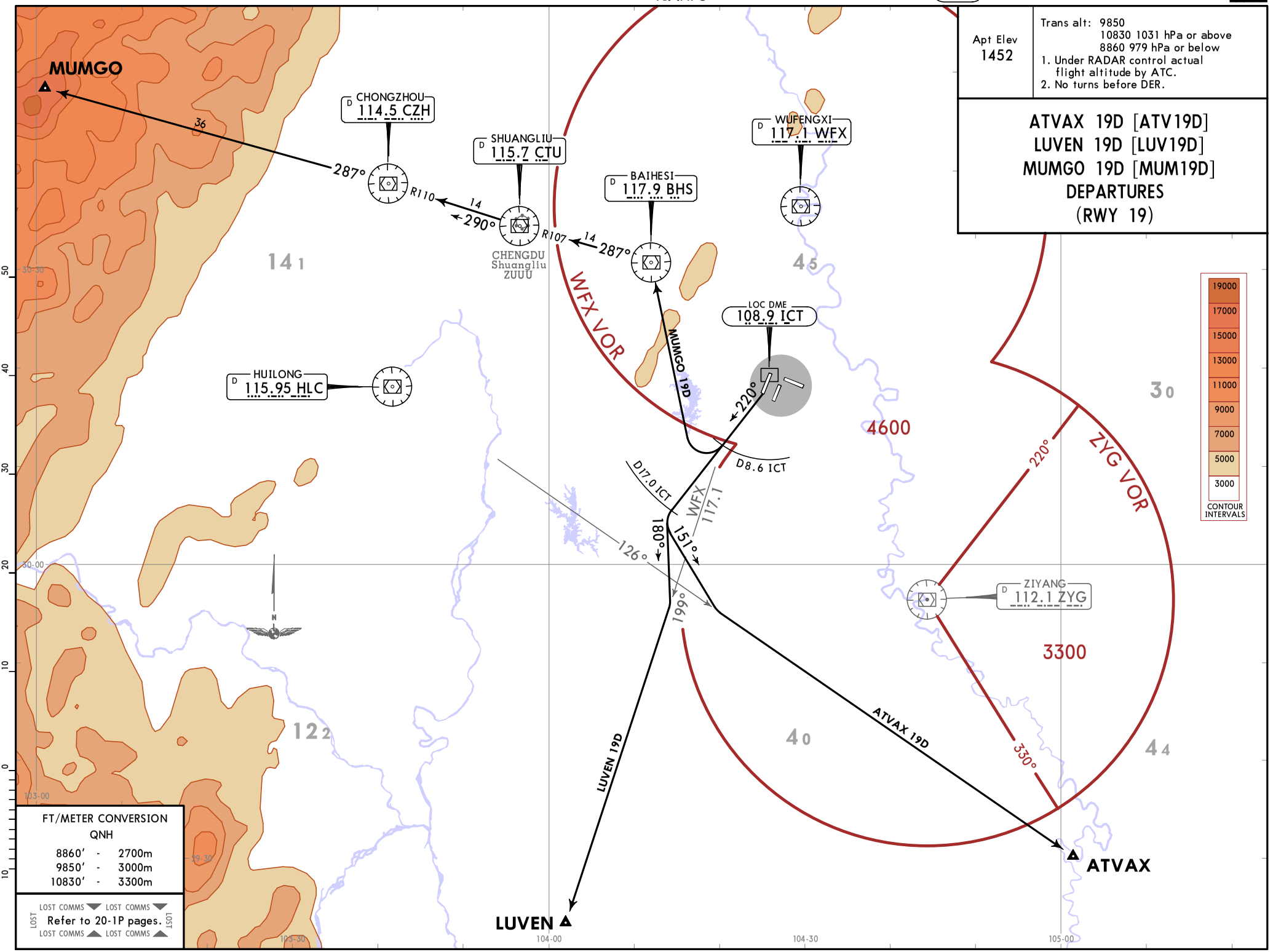
CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

CHANGES: None.



Apt Elev
1452

Trans alt: 9850
10830 1031 hPa or above
8860 979 hPa or below
1. Under RADAR control actual flight altitude by ATC.
2. No turns before DER.

ATVAX 19D [ATV19D]
LUVEN 19D [LUV19D]
MUMGO 19D [MUM19D]
DEPARTURES
(RWY 19)

FT/METER CONVERSION QNH	
8860′	2700m
9850′	3000m
10830′	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

CHANGES: SID MUMGO 19D revised.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below Under RADAR control actual flight altitude by ATC.
1452	

ATVAX 29D [ATV29D]
LUVEN 29D [LUV29D]
MUMGO 29D [MUM29D]
DEPARTURES
(RWY 02)

MUMGO
36
287°
CHONGZHOU
D 114.5 CZH
R129
15
309°
CHENGDU
260 ZW
CHENGDU
Shuangliu
ZUUU
31
260°
WUFENGXI
D 117.1 WFX
ZHUGAO
D 115.25 ZGA
WFX VOR
MUMGO 29D
2470
D2.6
ITV
LOC DME
111.3 ITV
025°
040°
135°
ATVAX 29D
LUVEN 29D
4600
185°
ZYG VOR
220°
R005
ZIYANG
D 112.1 ZYG
230°
152°
3300
LUVEN 29D
49
ATVAX 29D
30
330°
ATVAX
LUVEN
14 1
4 5
3 0
12 2
4 0
4 4

CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

FT/METER CONVERSION QNH	
2470′	750m
8860′	2700m
9850′	3000m
10830′	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

30-30
30-00
29-30
103-00
103-30
104-00
104-30
105-00

CHANGES: New airport.

Apt Elev	Trans alt: 9850 10830 1031 hPa or above 8860 979 hPa or below Under RADAR control actual flight altitude by ATC.
1452	

ATVAX 39D [ATV39D]
LUVEN 39D [LUV39D]
MUMGO 39D [MUM39D]
DEPARTURES
(RWY 20)

MUMGO

36

287°

CHONGZHOU
114.5 CZH

R110

14

290°

SHUANGLIU
115.7 CTU

CHENGDU
Shuangliu
ZUUU

R107

14

287°

BAIHESI
117.9 BHS

R125

25.3

WUFENGXI
117.1 WFX

WFX VOR

4600

ZHUGAO
115.25 ZGA

R201

305°

D20.0 ZGA
D25.3 BHS

HUILONG
115.95 HLC

LOC DME
111.3 IFM

205°

MUMGO 39D

199° WFX 117.1

D16.5 IFM

215°

151°

126°

021°

ZYG VOR

220°

330°

ZIYANG
112.1 ZYG

3300

ATVAX 39D

LUVEN 39D

ATVAX

LUVEN

14 1

4 5

3 0

12 2

4 0

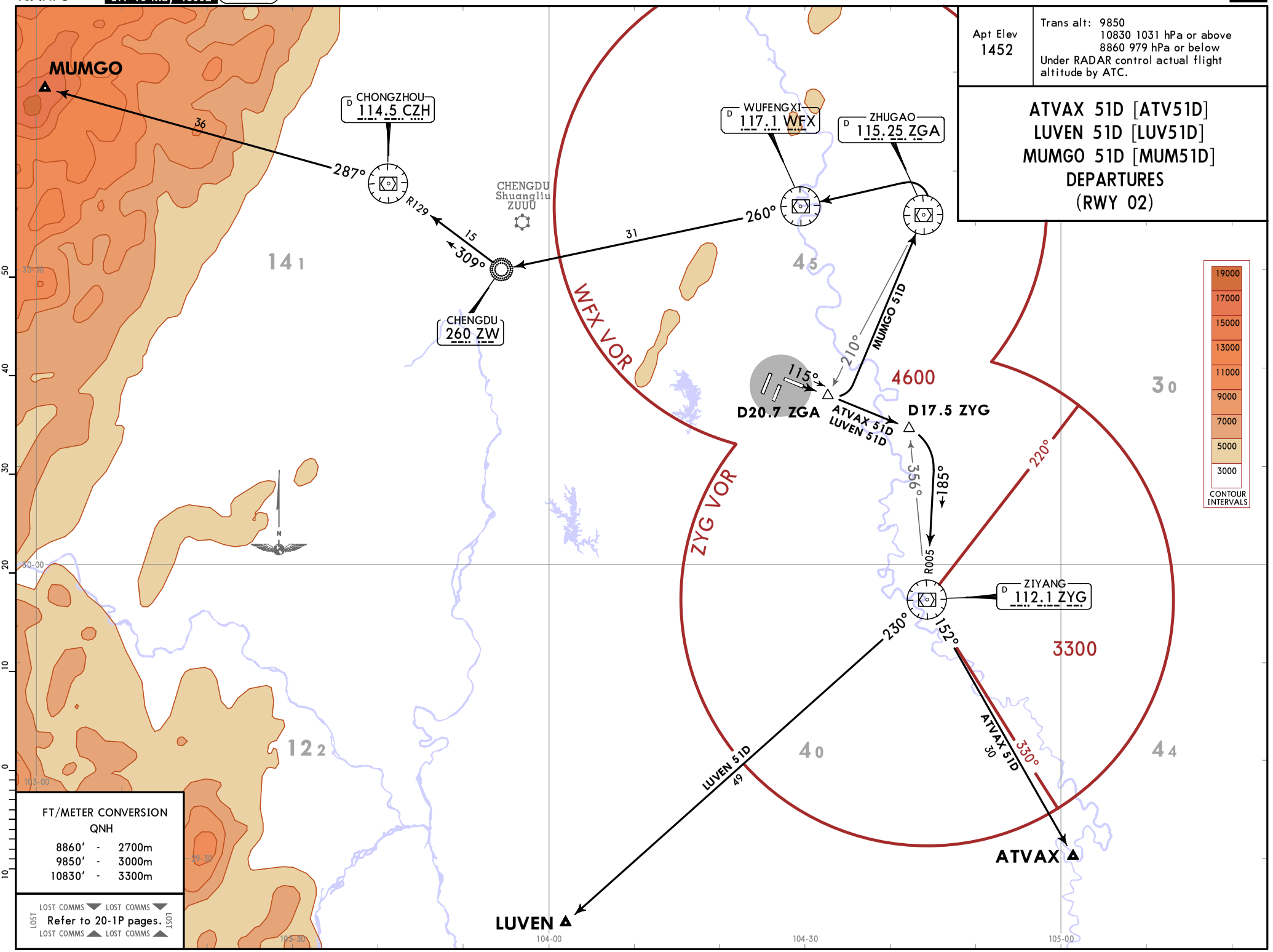
4 4

CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

FT/METER CONVERSION QNH	
8860′	2700m
9850′	3000m
10830′	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

CHANGES: New airport.



CHANGES: SIDs revised.

Apt Elev	Trans alt: 9850
1452	10830 1031 hPa or above 8860 979 hPa or below Under RADAR control actual flight altitude by ATC.

MUMGO 53D [MUM53D] DEPARTURE (RWY 11)

MUMGO

36

287°

CHONGZHOU
D 114.5 CZH

R110

14

290°

SHUANGLIU
D 115.7 CTU

CHENGDU
Shuangliu
ZUUU

R107

14

287°

BAIHESI
D 117.9 BHS

R125

13.2

305°

D11.8 BHS
D13.2 WFX

WUFENGXI
D 117.1 WFX

R205

ZHUGAO
D 115.25 ZGA

210°

205°

115°

D20.7 ZGA

025°

340°

D38.0 ZGA

WFX VOR

4600

220°

ZYG VOR

3300

330°

ZIYANG
D 112.1 ZYG

CONTOUR INTERVALS
19000
17000
15000
13000
11000
9000
7000
5000
3000

FT/METER CONVERSION
QNH

8860′	-	2700m
9850′	-	3000m
10830′	-	3300m

LOST COMMS ▼ LOST COMMS ▼
LOST Refer to 20-1P pages. LOST
LOST COMMS ▲ LOST COMMS ▲

CHANGES: SID revised.

ZUTF/TFU

Apt Elev **1452′**

N30 17.4 E104 26.6

D-ATIS	Data Comm	*TIANFU Delivery	Ground			Apron	Tower		
			GND01	GND02	*GND03	APN01	TWR01: Rwys 01/19	TWR02: Rwys 02/20	*TWR03: Rwy 11
127.075	D-ATIS	121.825	121.925	122.6	121.775	122.7	118.8	130.5	124.375
(Chinese 126.8)	DCL								

FOR DETAILS SEE PARKING STANDS

TWYs A1 thru A9, B1 thru B3, B7, B8, B10, B11, B13 and B14 MAX wingspan 262′/80m. TWYs D1, D2, D4, D6, D9, D12, E1, E2, E4 thru E7, K4 and K5 MAX wingspan 226′/69m.

APN01 122.7

GND03 121.775

TWR01 118.8

TWR03 124.375

GND01 121.925

GND02 122.6

TWR02 130.5

13,123′ 4000m

12,467′ 3800m

10,499′ 3200m

ARP

Control Tower 1

Control Tower 2

TML 1

TML 2

Elev 1441′

Elev 1449′

Elev 1434′

Elev 1448′

19 205°

20 205°

11 115° Elev 1434′

01 025°

02 025°

02°W

LEGEND

Area of TWR/GND competency & APN control area

Feet 0 1000 2000 3000 4000 5000

Meters 0 500 1000 1500

104-24 104-25 104-26 104-27 104-28 104-29 104-30

30-20 30-19 30-18 30-17

CHANGES: D-ATIS frequency added, taxiway designation added.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	Glide Slope	TAKE-OFF	WIDTH
01 ❶ 19	HIRL❷ CL❸ HIALS-II SFL TDZ PAPI-L(3.0°) RVR HIRL❷ CL❸ HIALS SFL PAPI-L(3.0°) RVR		12,090′ 3685m	❹	197′ 60m

❶ Rwy grooved.
❷ spacing 60m
❸ spacing 15m
❹ TAKE-OFF RUN AVAILABLE

RWY 01:
From rwy head 13,123′(4000m)
twy A2 int 12,631′(3850m)
twy A3 int 11,739′(3578m)
twy A4 int 9948′(3032m)

RWY 19:
From rwy head 13,123′(4000m)
twy A12 int 12,631′(3850m)
twy A11 int 11,644′(3549m)

02 ❺ 20	HIRL❻ CL❼ HIALS-II SFL TDZ PAPI-L(3.0°) RVR HIRL❻ CL❼ HIALS SFL PAPI-L(3.0°) RVR		9482′ 2890m 9466′ 2885m	❽	148′ 45m

❺ Rwy grooved.
❻ spacing 60m
❼ spacing 15m
❽ TAKE-OFF RUN AVAILABLE

RWY 02:
From rwy head 10,499′(3200m)
twy E2 int 10,007′(3050m)

RWY 20:
From rwy head 10,499′(3200m)
twy E11 int 9970′(3039m)

11 ❾	HIRL (60m) CL (15m) RVR	NA		❿	148′ 45m

❾ Rwy grooved.
❿ TAKE-OFF RUN AVAILABLE

RWY 11:
From rwy head 12,467′(3800m)
twy K2/M2 int 12,149′(3703m)
twy K3/M3 int 11,220′(3420m)

Standard TAKE-OFF

		LVP must be in force Rwys 01, 02, 11 RL and CL	LVP must be in force Rwys 19, 20 RL and CL	All Rwys RL	All Rwys NIL (DAY only)
2 TURB Eng or 3 & 4 Eng	A, B, C	RVR 200m 1	RVR 200m	RVR 400m	RVR 500m
	D	RVR 250m 1	RVR 250m		
Other 1 & 2 Eng		Minimums not established by CAAC		1600m	

1 With HUD: RVR 150m.

CHANGES: Landing beyond glide slope runway 20.

CHANGES: New airport.

TWYs A, A10 thru A13, B, B15 thru B22, B25, C (btn C2 and T1), C1 (btn B and C, btn C4 and C5), C2 (btn B and C), C3, C4, C5 (btn B and C1), C23, D17 thru D19, J, L5 (btn T3 and T5), L6 (btn T3 and T5), L7 (btn T3 and T5), T1 (btn B and C), T2 (btn B and C), T3 thru T5, Y2 (btn T3 and T5), Y3 (btn T3 and T5) and Y4 (btn T3 and T5) MAX wingspan 262'/80m.
TWYs B23, C1 (btn C and C23), C2 (btn C and C23), C5 (btn C1 and C9), C21, C22, D, D15, D20, D24, E, E8 and E9, E11, E12, G, G1 thru G5, G21 thru G23, K, K1 thru K3, L6 (btn B and T3), L7 (btn B and T3), L8, L56, L57, M, M1 thru M3, T1 (btn C and D), T2 (btn C and D), V1 thru V6, Y3 (btn D and T3), Y4 (btn D and T3), Y5, Y21 and Y22 MAX wingspan 226'/69m.
TWY C (btn C2 and L7) MAX wingspan 213'/65m.
TWYs C6 thru C10, G6 thru G10, L4, L5 (North of T3), Y2 (North of T3) and Y6 MAX wingspan 118'/36m.

TWR01
118.8

GND01
121.925

APN01
122.7

GND03
121.775

TWR03
124.375

GND02
122.6

TWR02
130.5

RWY 01/19

RWY 11

RWY 02/20

TML 1

TML 2

LEGEND

Area of TWR/GND competency & APN control area

JEPPESEN CHENGDU, PR OF CHINA

20-9B

14 MAY 21

Eff 19 May 1600Z

TIANFU

ZUTF/TFU
TIANFU

JEPPESEN
30 JUN 23
Eff 12 Jul 1600Z
21-1

CHENGDU, PR OF CHINA
RNAV ILS DME Z Rwy 01

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

LOC ITF	Final Apch Crs	D10.9 ITF	ILS DA(H)	Apt Elev / Rwy
108.9	025°	4930′ (3489′)	1641′ (200′)	1452′ / 1441′

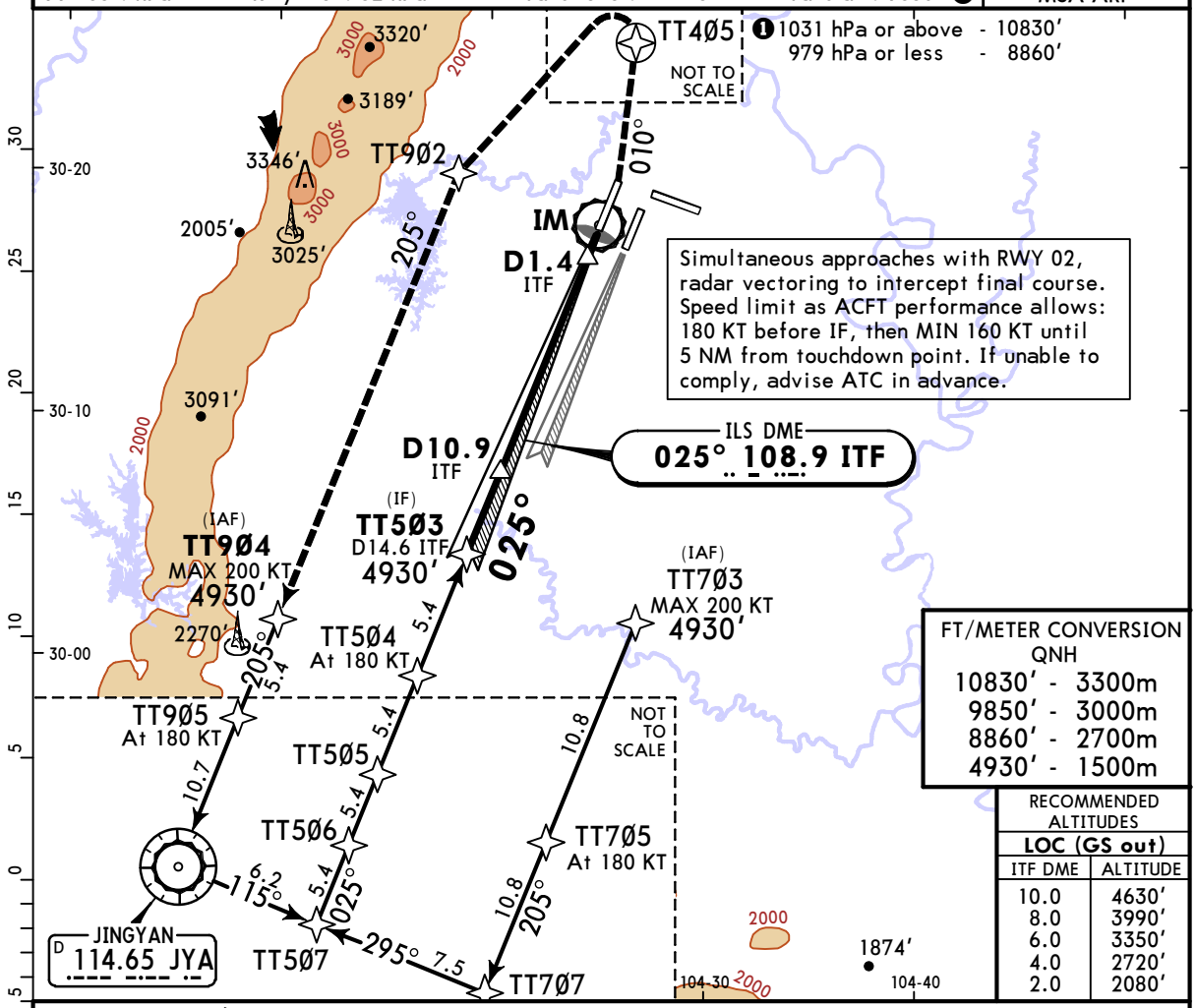
MISSED APCH: After DER on 010° to TT4Ø5 (MAX 200 KT), turn LEFT to TT9Ø2, then on 205° to TT9Ø4 at 4930′, contact ATC.
Do not turn before DER.

MSA ARP: 4600 (205°–025°), 3300

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

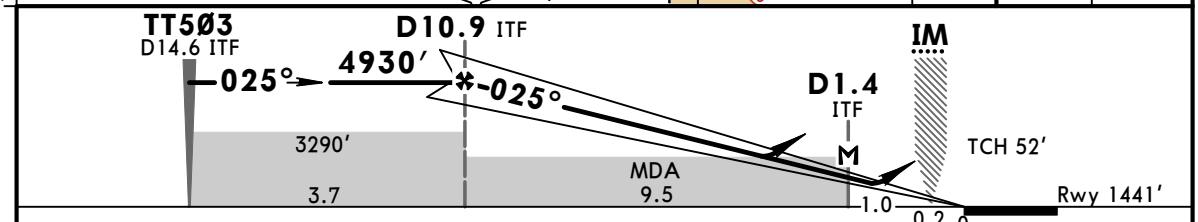
BRIEFING STRIP ™



FT/METER CONVERSION
QNH
10830′ - 3300m
9850′ - 3000m
8860′ - 2700m
4930′ - 1500m

RECOMMENDED ALTITUDES
LOC (GS out)

ITF DME	ALTITUDE
10.0	4630′
8.0	3990′
6.0	3350′
4.0	2720′
2.0	2080′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 ITF							

HIALS-II
PAPI
DER or later
010° LT
TT4Ø5
200 KT MAX

Standard STRAIGHT-IN LANDING RWY 01

ILS — DA(H) 1641′ (200′)

	FULL	TDZ or CL out	ALS out
A	RVR 550m VIS 800m	RVR 550m ❶ VIS 800m	1200m
B			
C			
D			

LOC (GS out) CDFA — MDA(H) 1890′ (449′)

	ALS out
	1700m
	1700m / 2100m

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2090′ (638′)	2000m
135		
180	2470′ (1018′)	4400m
205	2470′ (1018′)	5000m

PANS OPS

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Missed apch waypoint TT4Ø1 changed to TT4Ø5.

ZUTF/TFU TIANFU

30 JUN 23
Eff 12 Jul 1600Z

JEPPESEN 21-1A

CHENGDU, PR OF CHINA
CAT II/III RNAV ILS DME Z Rwy 01

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

BRIEFING STRIP™

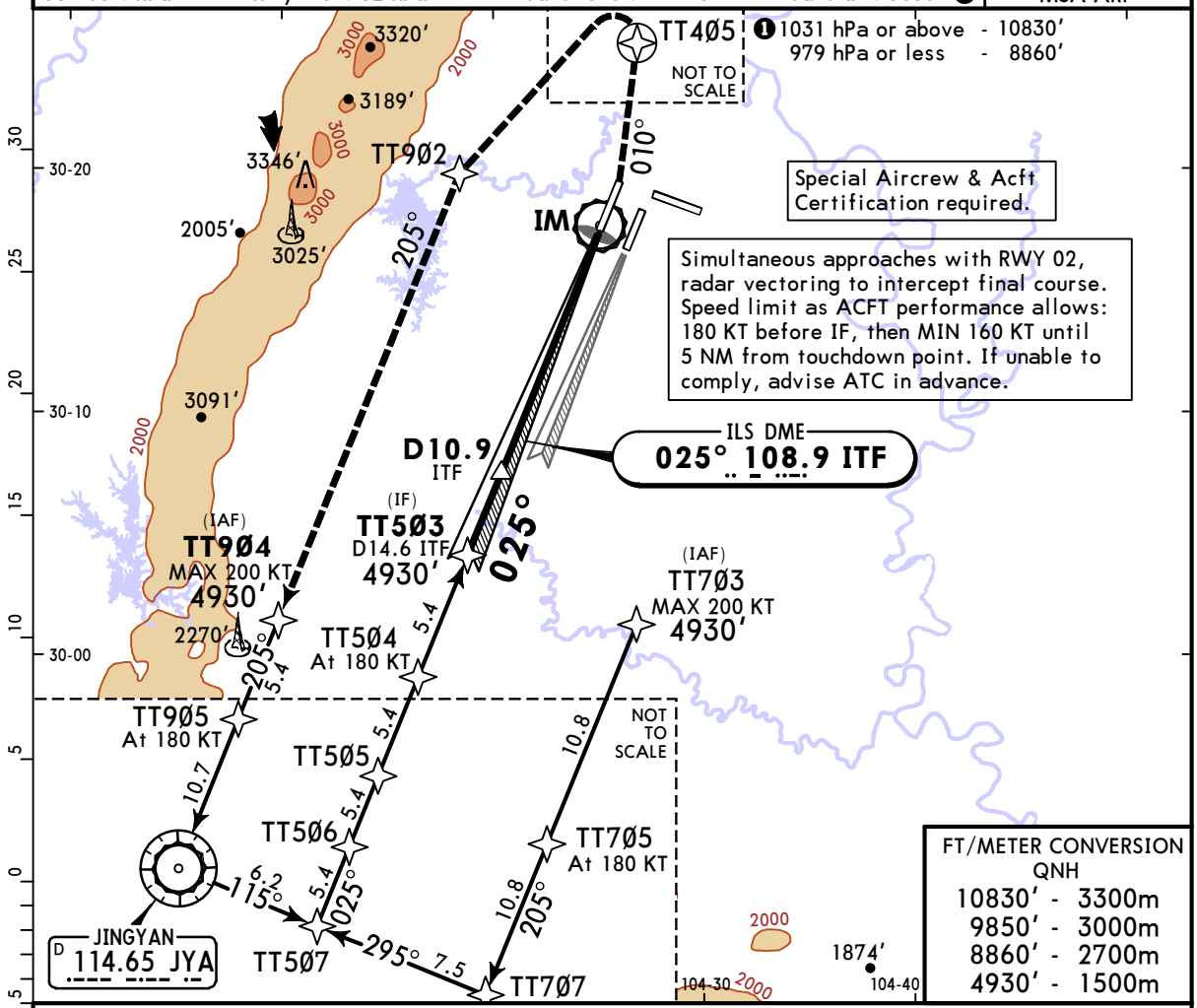
LOC ITF	Final Apch Crs	D10.9 ITF	CAT IIIA ILS Refer to Minimums	CAT II ILS RA 102′ DA(H) 1541′ (100′)	Apt Elev 1452′ Rwy 1441′
108.9	025°	4930′ (3489′)			

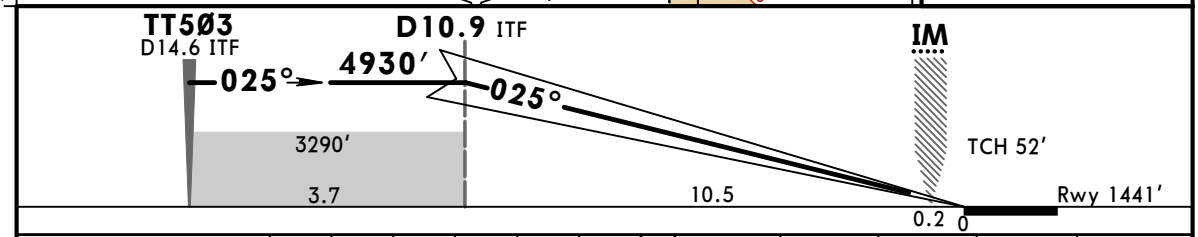
MISSED APCH: After DER on 010° to TT4Ø5 (MAX 200 KT), turn LEFT to TT9Ø2, then on 205° to TT9Ø4 at 4930′, contact ATC.
Do not turn before DER.

MSA ARP: 4600 (205°–025°), 3300

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′





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

HIALS-II PAPI | DER or later | 010° LT | TT4Ø5 | 200 KT MAX

Standard STRAIGHT-IN LANDING RWY 01

CAT IIIA ILS	CAT II ILS
DH RA 50′	RA 102′ DA(H) 1541′ (100′)
RVR 200m	RVR 300m ❶

❶ CAT D: RVR 350m for manual operation below DH.

PANS OPS

CHANGES: Missed apch waypoint TT4Ø1 changed to TT4Ø5.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-2

CHENGDU, PR OF CHINA
ILS DME Y Rwy 01

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

LOC ITF	Final Apch Crs	D10.9 ITF	ILS DA(H)	Apt Elev 1452′
108.9	025°	4930′ (3489′)	1641′ (200′)	Rwy 1441′

MISSED APCH: Climb STRAIGHT AHEAD to D2.0 ITF, turn LEFT on 010° to D10.0 ITF/D8.9 WFX, turn LEFT on 205° to D16.2/R-025 JYA at 4930′, contact ATC. Turns MAX 200 KT.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

BRIEFING STRIP ™

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

Initial apch MAX 200 KT.

WUFENGXI D 117.1 WFX

ZHUGAO D 115.25 ZGA

D10.0 ITF
D8.9 WFX

D2.0 ITF

IM

D1.4 ITF

D10.9 ITF

ILS DME 025° 108.9 ITF

(IF) D14.6 ITF 4930′

(IAF) D16.2/ R-025 JYA 4930′

(IAF) D42.6 ZGA 4930′

JINGYAN D 114.65 JYA

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

Simultaneous approaches with RWY 02, radar vectoring to intercept final course.

MSA JYA VOR: 4600

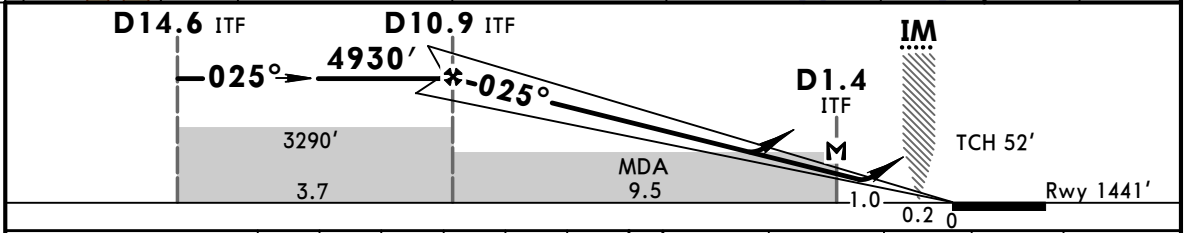
MSA ZGA VOR: 4600 / 3300 / 180° / 360°

FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m

RECOMMENDED ALTITUDES
LOC (GS out)

ITF DME	ALTITUDE
10.0	4630′
8.0	3990′
6.0	3350′
4.0	2720′
2.0	2080′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 ITF							

HIALS-II
PAPI

Turns 200 KT MAX

D2.0 ITF

010° LT

D10.0 ITF
D8.9 WFX

Standard STRAIGHT-IN LANDING RWY 01

	ILS DA(H) 1641′ (200′)			LOC (GS out) CDFA MDA(H) 1890′ (449′)		CIRCLE-TO-LAND		
	FULL	TDZ or CL out	ALS out		ALS out	Max Kts	MDA(H)	VIS
A	RVR 550m VIS 800m	RVR 550m ❶ VIS 800m	1200m	1700m		100 135	2090′ (638′)	2000m
B								
C				1700m	2100m	180	2470′ (1018′)	4400m
D						205	2470′ (1018′)	5000m

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

PANS OPS

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN

14 APR 23
Eff 19 Apr 1600Z

21-2A

CHENGDU, PR OF CHINA
CAT II/III ILS DME Y Rwy 01

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
127.075 (Chinese 126.8)	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

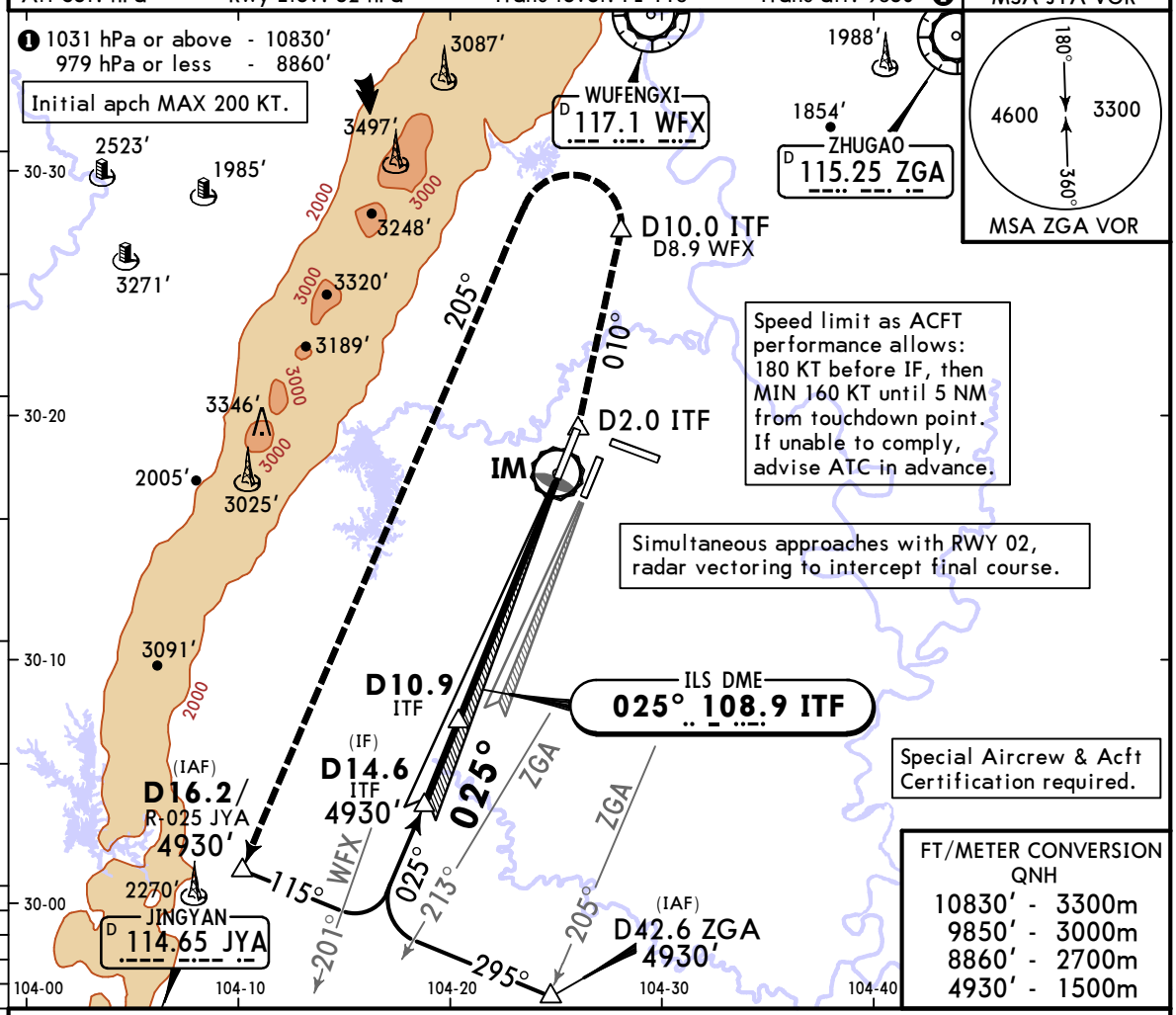
LOC ITF	Final Apch Crs	D10.9 ITF	CAT IIIA ILS Refer to Minimums	CAT II ILS	Apt Elev 1452′
108.9	025°	4930′ (3489′)		RA 102′ DA(H) 1541′ (100′)	Rwy 1441′

MISSED APCH: Climb STRAIGHT AHEAD to D2.0 ITF, turn LEFT on 010° to D10.0 ITF/D8.9 WFX, turn LEFT on 205° to D16.2/R-025 JYA at 4930′, contact ATC. Turns MAX 200 KT.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

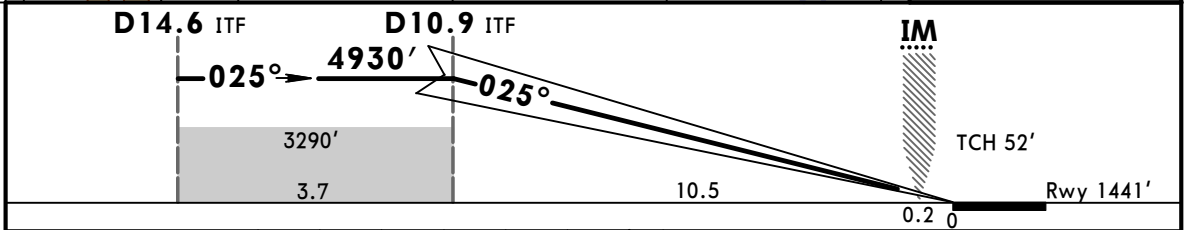
Initial apch MAX 200 KT.



Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

Simultaneous approaches with RWY 02, radar vectoring to intercept final course.

Special Aircrew & Acft Certification required.



FT/METER CONVERSION
QNH
10830′ - 3300m
9850′ - 3000m
8860′ - 2700m
4930′ - 1500m

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

HIALS-II
PAPI

Turns 200 KT MAX | D2.0 ITF | 010° LT | D10.0 ITF D8.9 WFX

Standard STRAIGHT-IN LANDING RWY 01

CAT IIIA ILS	CAT II ILS
DH RA 50′	RA 102′ DA(H) 1541′ (100′)
RVR 200m	RVR 300m ❶

❶ CAT D: RVR 350m for manual operation below DH.

PANS OPS

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-3

CHENGDU, PR OF CHINA
RNAV ILS DME Z Rwy 02

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

LOC ITV	Final Apch Crs	D7.8 ITV	ILS DA(H)	Apt Elev / Rwy
111.3	025°	3940′ (2492′)	1648′ (200′)	Apt Elev 1452′ / Rwy 1448′

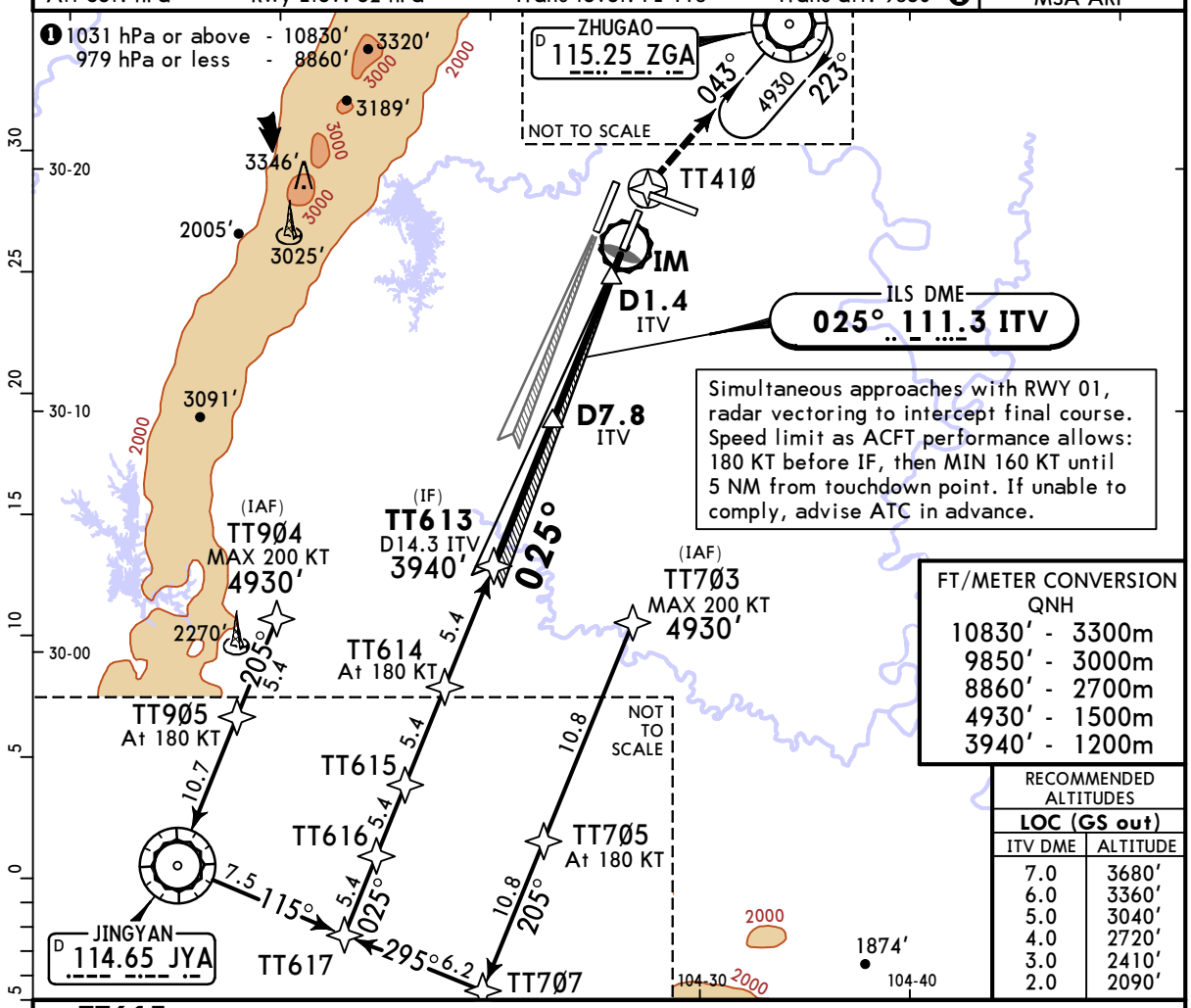
BRIEFING STRIP

MISSED APCH: Climb STRAIGHT AHEAD to TT41Ø (MAX 200 KT), turn RIGHT to ZGA VOR at 4930′, join holding or contact ATC.

MSA ARP: 4600 (205°–025°), 3300 (025°–205°)

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

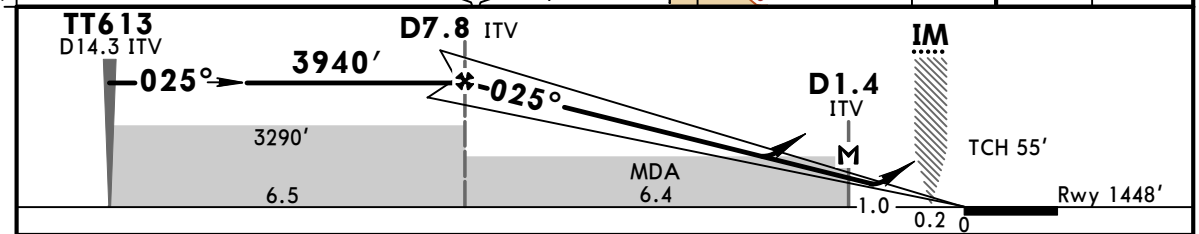


FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m

RECOMMENDED ALTITUDES
LOC (GS out)

ITV DME	ALTITUDE
7.0	3680′
6.0	3360′
5.0	3040′
4.0	2720′
3.0	2410′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 ITV							

HIALS-II
PAPI

TT41Ø | 200 KT MAX | 4930′ RT | ZGA 115.25

PANS OPS

Standard STRAIGHT-IN LANDING RWY 02

	ILS DA(H) 1648′ (200′)			LOC (GS out) CDFA MDA(H) 1890′ (442′)		CIRCLE-TO-LAND		
	FULL	TDZ or CL out	ALS out		ALS out	Max Kts	MDA(H)	VIS
A	RVR 550m VIS 800m	RVR 550m ❶ VIS 800m	1200m	1700m		100 135	2090′ (638′)	2000m
B								
C				1700m	2100m	180	2470′ (1018′)	4400m
D						205	2470′ (1018′)	5000m

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: D-ATIS frequency added.

ZUTF/TFU TIANFU — CHENGDU, PR OF CHINA

JEPPESEN 21-3A

14 APR 23
Eff 19 Apr 1600Z

CAT II/III RNAV ILS DME Z Rwy 02

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

LOC ITV	Final Apch Crs	D7.8 ITV	CAT IIIA ILS	CAT II ILS	Apt Elev 1452′
111.3	025°	3940′ (2492′)	Refer to Minimums	RA 98′ DA(H) 1548′ (100′)	Rwy 1448′

MISSED APCH: Climb STRAIGHT AHEAD to TT41Ø (MAX 200 KT), turn RIGHT to ZGA VOR at 4930′, join holding or contact ATC.

MSA ARP: 4600 (025°–205°), 3300 (205°–025°)

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

ZHUGAO D 115.25 ZGA

NOT TO SCALE

043° 4930 223°

TT41Ø

Special Aircrew & Acft Certification required.

IM

ILS DME 025° 111.3 ITV

D7.8 ITV

Simultaneous approaches with RWY 01, radar vectoring to intercept final course.

(IAF) TT9Ø4 MAX 200 KT 4930′

(IF) TT613 D14.3 ITV 3940′

025°

(IAF) TT7Ø3 MAX 200 KT 4930′

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

TT614 At 180 KT

TT9Ø5 At 180 KT

TT615

TT616

TT617

TT7Ø5 At 180 KT

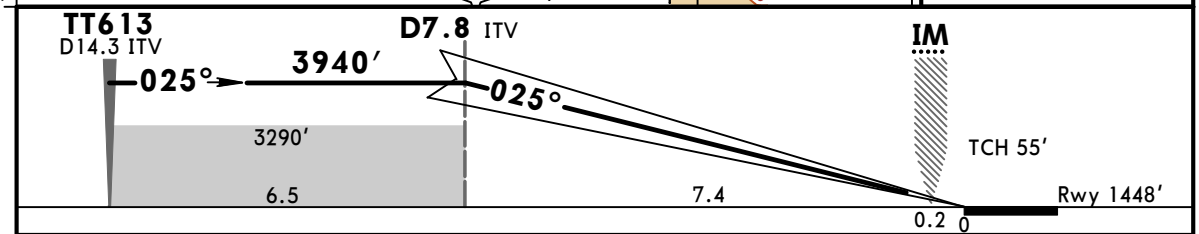
TT7Ø7

NOT TO SCALE

JINGYAN D 114.65 JYA

FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m



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

HIALS-II PAPI | TT41Ø | 200 KT MAX | 4930′ RT | ZGA 115.25

Standard STRAIGHT-IN LANDING RWY 02

CAT IIIA ILS	CAT II ILS
DH RA 50′	RA 98′ DA(H) 1548′ (100′)
RVR 200m	RVR 300m ❶

❶ CAT D: RVR 350m for manual operation below DH.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-4

CHENGDU, PR OF CHINA
ILS DME Y Rwy 02

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

LOC ITV	Final Apch Crs	D7.8 ITV	ILS DA(H)	Apt Elev / Rwy
111.3	025°	3940′ (2492′)	1648′ (200′)	1452′ / 1448′

MISSED APCH: Climb STRAIGHT AHEAD to D2.6 ITV, turn RIGHT (MAX 200 KT) to ZGA VOR at 4930′, join holding or contact ATC.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

Initial apch MAX 200 KT.

Simultaneous approaches with RWY 01, radar vectoring to intercept final course.

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

WUFENGXI D 117.1 WFX

ZHUGAO D 115.25 ZGA

NOT TO SCALE

MSA JYA VOR: 4600

MSA ZGA VOR: 4600 / 3300 / 180° / 360°

JINGYAN D 114.65 JYA

(IAF) D16.2/ R-025 JYA 4930′

(IF) D14.3 ITV 3940′

D2.6 ITV

D1.4 ITV

D7.8 ITV

IM

ILS DME 025° 111.3 ITV

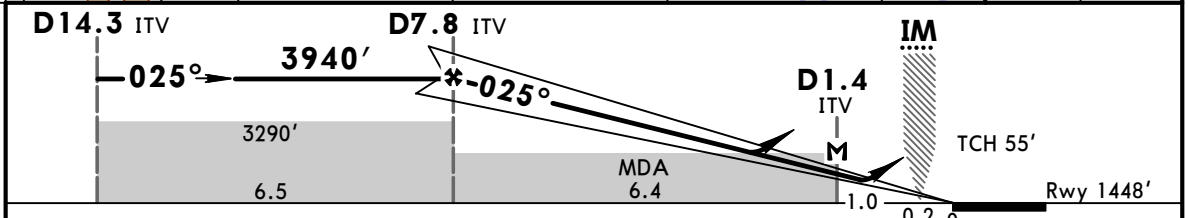
(IAF) D42.6 ZGA 3940′

FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m

RECOMMENDED ALTITUDES
LOC (GS out)

ITV DME	ALTITUDE
7.0	3680′
6.0	3360′
5.0	3040′
4.0	2720′
3.0	2410′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 ITV							

HIALS-II
PAPI

D2.6 ITV | 200 KT MAX RT | ZGA 115.25 | 4930′

Standard STRAIGHT-IN LANDING RWY 02

	ILS DA(H) 1648′ (200′)			LOC (GS out) CDFA MDA(H) 1890′ (442′)		CIRCLE-TO-LAND Max Kts	MDA(H)	VIS
	FULL	TDZ or CL out	ALS out		ALS out			
A	RVR 550m VIS 800m	RVR 550m ❶ VIS 800m	1200m	1700m		100 / 135	2090′ (638′)	2000m
B								
C				1700m	2100m	180	2470′ (1018′)	4400m
D						205	2470′ (1018′)	5000m

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

PANS OPS

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN

14 APR 23
Eff 19 Apr 1600Z

21-4A

CHENGDU, PR OF CHINA
CAT II/III ILS DME Y Rwy 02

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

LOC ITV	Final Apch Crs	D7.8 ITV	CAT IIIA ILS	CAT II ILS	Apt Elev 1452′
111.3	025°	3940′ (2492′)	Refer to Minimums	RA 98′ DA(H) 1548′ (100′)	Rwy 1448′

MISSED APCH: Climb STRAIGHT AHEAD to D2.6 ITV, turn RIGHT (MAX 200 KT) to ZGA VOR at 4930′, join holding or contact ATC.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

Initial apch MAX 200 KT.

Special Aircrew & Acft Certification required.

WUFENGXI D 117.1 WFX

ZHUGAO D 115.25 ZGA

NOT TO SCALE

MSA JYA VOR

4600

MSA ZGA VOR

4600 | 3300 | 180° | 360°

D2.6 ITV

IM

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

Simultaneous approaches with RWY 01, radar vectoring to intercept final course.

D7.8 ITV

ILS DME 025° 111.3 ITV

(IF) D14.3 ITV 3940′

(IAF) D16.2/ R-025 JYA 4930′

(IAF) D42.6 ZGA 3940′

JINGYAN D 114.65 JYA

025° | 115° | 199° | 211° | 295° | 205° | WFX | ZGA | ZGA

3087′ 3497′ 3248′ 3320′ 3189′ 3346′ 3025′ 3091′ 2523′ 1985′ 3271′ 2005′ 2270′

2000 3000

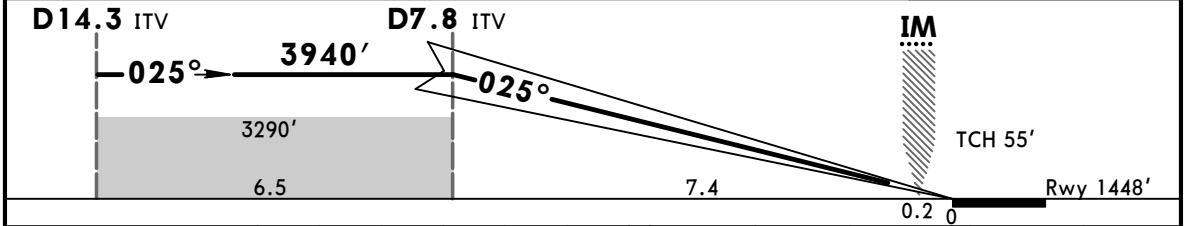
30 25 20 15 10 5 0 5

30-30 30-20 30-10 30-00

104-00 104-10 104-20 104-30 104-40

FT/METER CONVERSION
QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m



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

HIALS-II | PAPI

D2.6 ITV | 200 KT MAX RT | ZGA 115.25 | 4930′

Standard STRAIGHT-IN LANDING RWY 02

CAT IIIA ILS	CAT II ILS
DH RA 50′	RA 98′ DA(H) 1548′ (100′)
RVR 200m	RVR 300m ❶

❶ CAT D: RVR 350m for manual operation below DH.

CHANGES: D-ATIS frequency added.

BRIEFING STRIP ™

PANS OPS

ZUTF/TFU
TIANFU

JEPPESEN

14 APR 23
Eff 19 Apr 1600Z

21-5

CHENGDU, PR OF CHINA
RNAV ILS DME Z Rwy 19

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

BRIEFING STRIP™

LOC ICT	Final Apch Crs	D10.9 ICT	ILS DA(H)	Apt Elev / Rwy
108.9	205°	4930′ (3489′)	1641′ (200′)	1452′ / 1441′

MISSED APCH: Climb STRAIGHT AHEAD to 2300′ (MAX 200 KT), turn RIGHT to TT921, then on 025° to TT923 at 4930′, contact ATC.

MSA ARP: 205° 4600 3300 025°

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

TT926 At 180 KT
6.2 115°
TT516
295° 7.5
TT726 At 180 KT
205° 5.4
TT515
5.4
TT514 At 180 KT
5.4
TT513 (IF) D15.4 ICT 4930′
16.2 025°
TT923 (IAF) MAX 200 KT 4930′
10.8 025°
TT724 (IAF) MAX 200 KT 4930′
TT921
205°
025°
D10.9 ICT
D1.6 ICT
ILS DME 205° 108.9 ICT

3317′ 3127′ 2185′ 1942′ 2031′ 3435′ 2106′ 3264′ 2133′ 3087′ 3497′ 1985′ 3248′ 3320′ 3189′ 3346′ 3025′ 1936′ 1910′ 1929′ 1988′ 1959′ 1884′ 1854′

3000 2000

30-50 30-40 30-30 30-20

104-10 104-20 104-30 104-40 104-50

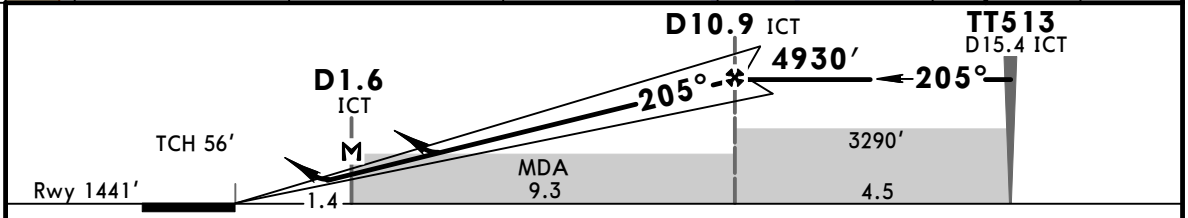
Simultaneous approaches with RWY 20, radar vectoring to intercept final course.

FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
2300′	700m

RECOMMENDED ALTITUDES
LOC (GS out)

ICT DME	ALTITUDE
10.0	4630′
8.0	3990′
6.0	3360′
4.0	2720′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.6 ICT							

HIALS PAPI 2300′ 200 KT MAX

Standard STRAIGHT-IN LANDING RWY 19

	ILS DA(H) 1641′ (200′)		LOC (GS out) CDFA MDA(H) 1940′ (499′)		CIRCLE-TO-LAND Max Kts	MDA(H)	VIS
	FULL	ALS out		ALS out			
A	RVR 550m ❶ VIS 800m	1200m	2000m		100 135	2090′ (638′)	2000m
B							
C			2000m	2300m	180	2470′ (1018′)	4400m
D					205	2470′ (1018′)	5000m

PANS OPS

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-6

CHENGDU, PR OF CHINA
ILS DME Y Rwy 19

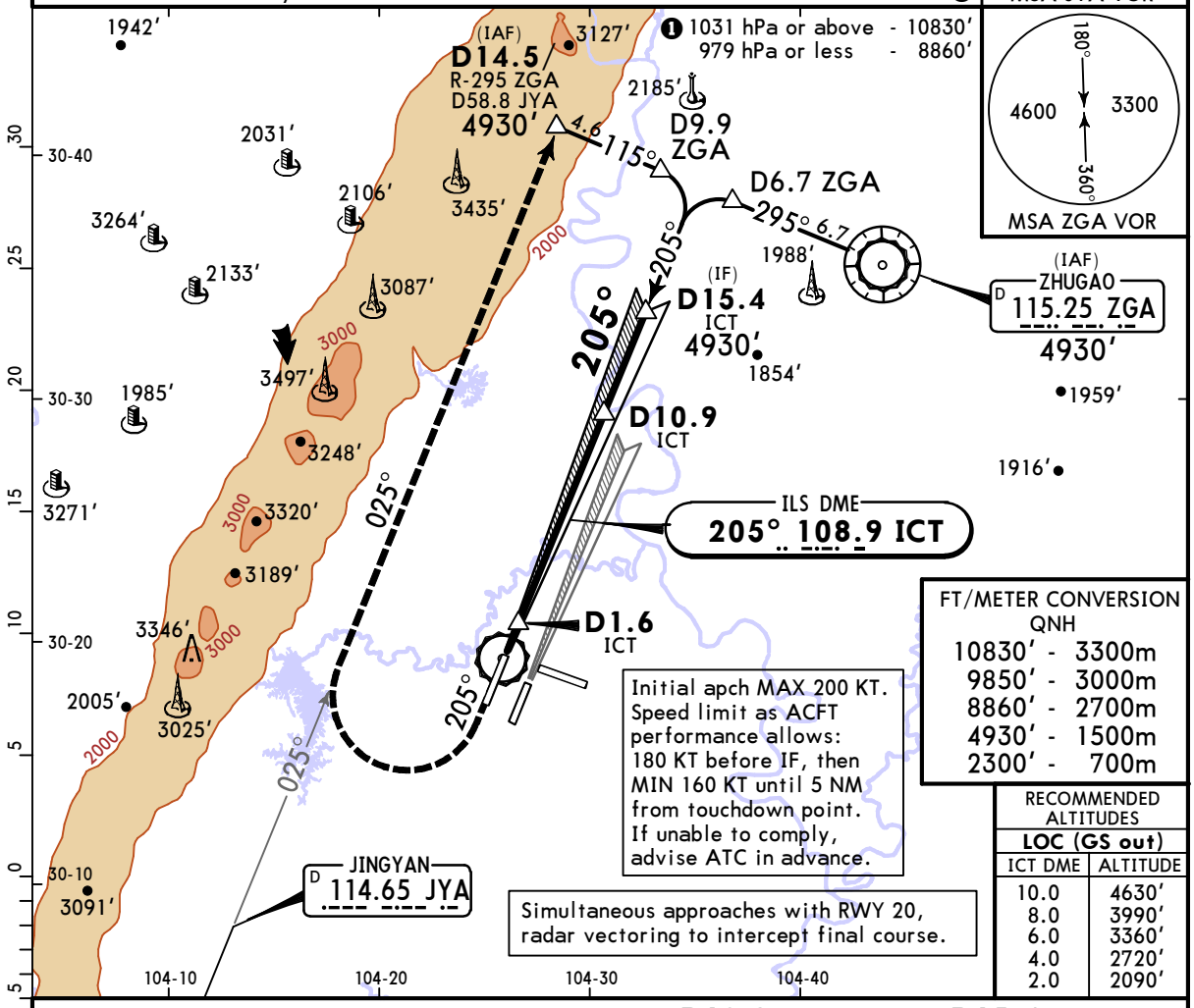
D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

BRIEFING STRIP™

LOC ICT	Final Apch Crs	D10.9 ICT	ILS DA(H)	Apt Elev 1452′
108.9	205°	4930′ (3489′)	1641′ (200′)	Rwy 1441′

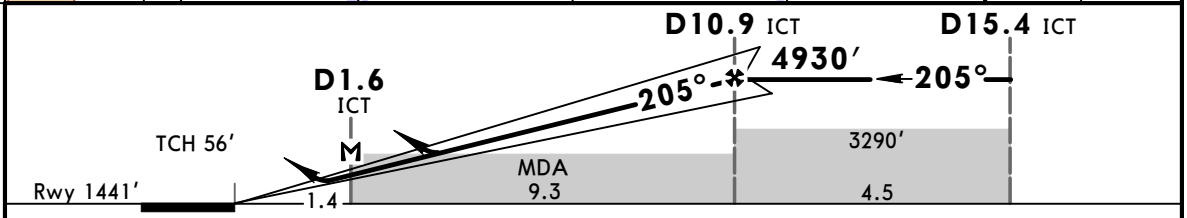
MISSED APCH: Climb STRAIGHT AHEAD to 2300′, turn RIGHT (MAX 200 KT) to intercept R-025 JYA to D14.5 ZGA/D58.8 JYA at 4930′, contact ATC.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶



FT/METER CONVERSION QNH	
10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
2300′	700m

RECOMMENDED ALTITUDES	
LOC (GS out)	
ICT DME	ALTITUDE
10.0	4630′
8.0	3990′
6.0	3360′
4.0	2720′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.6 ICT							

HIALS
PAPI
2300′

PANS OPS

Standard STRAIGHT-IN LANDING RWY 19

	ILS DA(H) 1641′ (200′)		LOC (GS out) CDFA MDA(H) 1940′ (499′)		CIRCLE-TO-LAND		
	FULL	ALS out		ALS out	Max Kts	MDA(H)	VIS
A	RVR 550m ❶ VIS 800m	1200m	2000m		100 135	2090′ (638′)	2000m
B							
C			2000m	2300m	180	2470′ (1018′)	4400m
D					205	2470′ (1018′)	5000m

❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN

14 APR 23
Eff 19 Apr 1600Z

21-6A

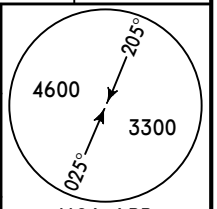
CHENGDU, PR OF CHINA
SA CAT I RNAV ILS DME Z Rwy 19

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

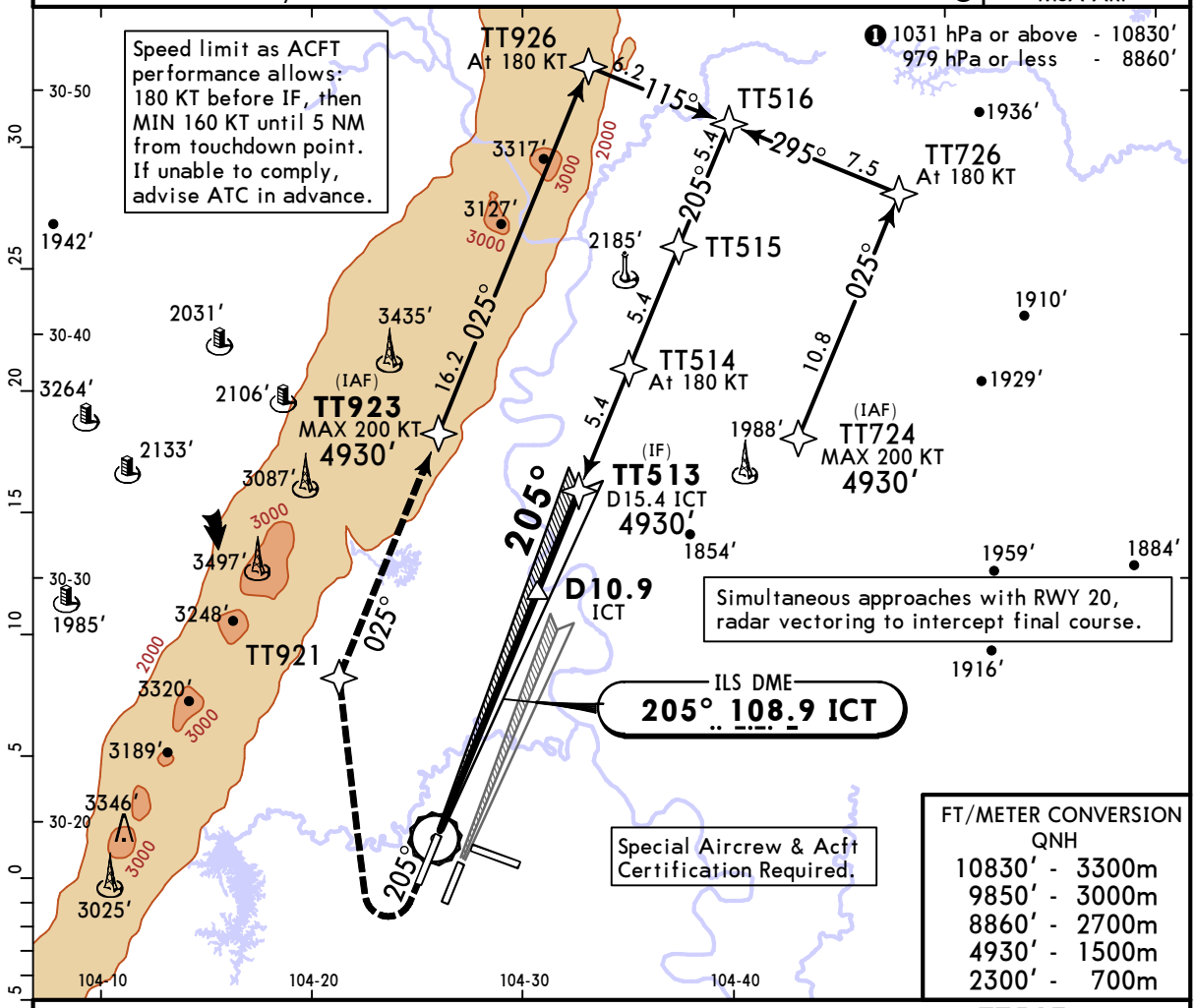
BRIEFING STRIP ™

LOC ICT	Final Apch Crs	D10.9 ICT	SA CAT I ILS	Apt Elev 1452′
108.9	205°	4930′ (3489′)	RA 161′ DA(H) 1591′ (150′)	Rwy 1441′

MISSED APCH: Climb STRAIGHT AHEAD to 2300′ (MAX 200 KT), turn RIGHT to TT921, then on 025° to TT923 at 4930′, contact ATC.

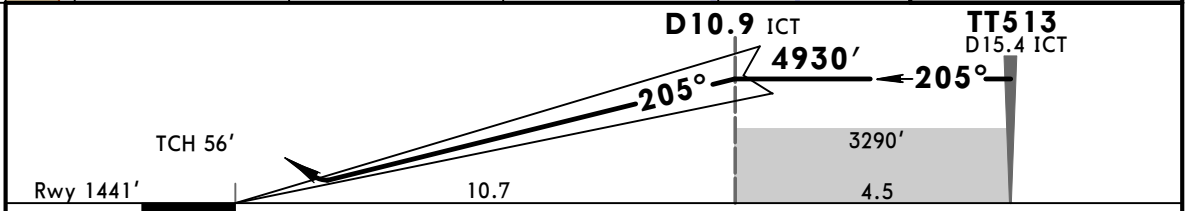


Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶



FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
2300′	700m



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

HIALS
PAPI

2300′

200 KT MAX

PANS OPS

Standard

STRAIGHT-IN LANDING RWY 19
SA CAT I ILS ❶

RA 161′
DA(H) 1591′ (150′)

RVR 450m

❶ HUD required.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN

14 APR 23
Eff 19 Apr 1600Z

21-6B

CHENGDU, PR OF CHINA
SA CAT I ILS DME Y Rwy 19

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR01	GND01
127.075 (Chinese126.8)	120.375	119.7	121.35	121.025	126.35	124.75	118.8	121.925

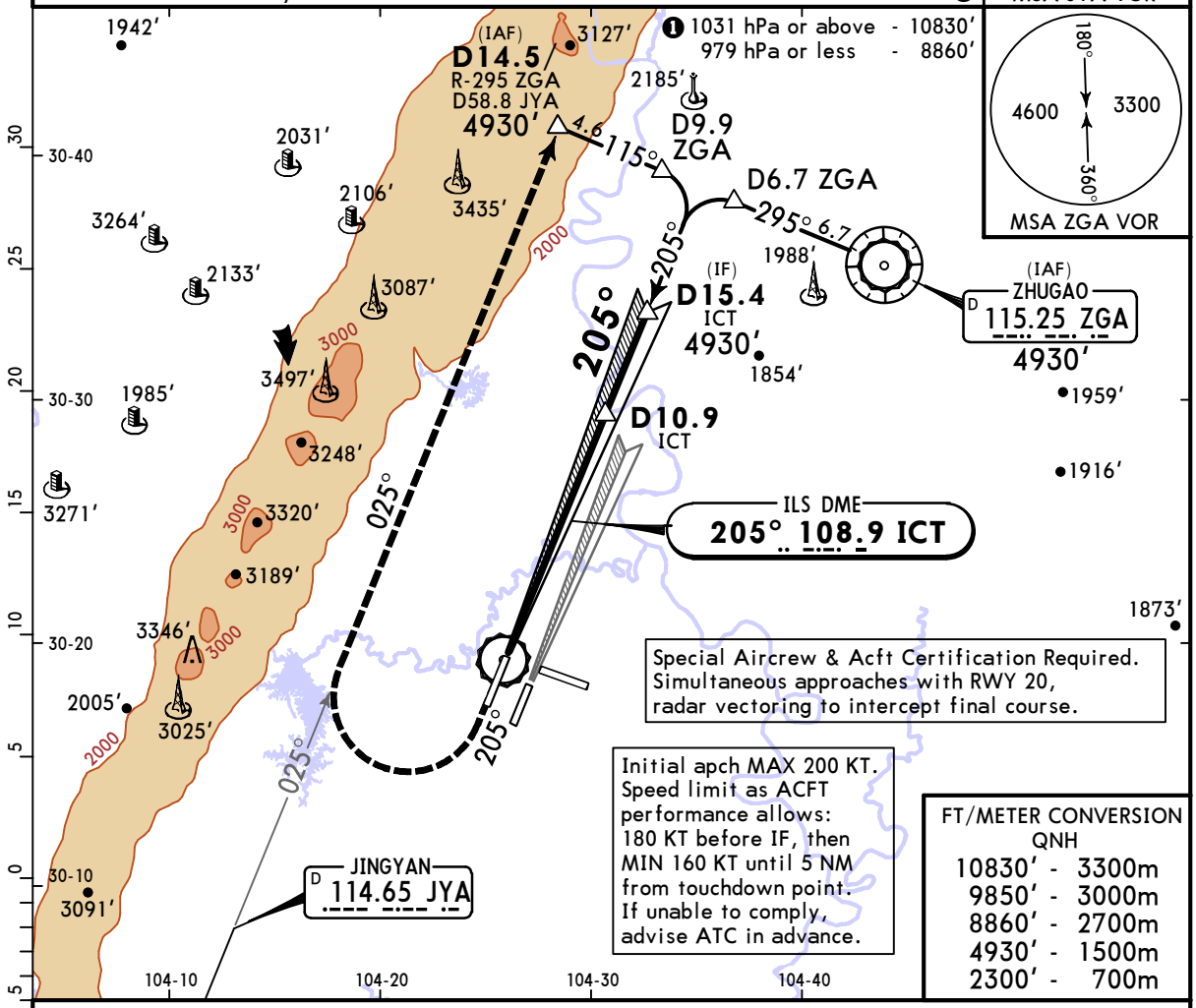
LOC ICT	Final Apch Crs	D10.9 ICT	SA CAT I ILS RA 161′ DA(H) 1591′(150′)	Apt Elev 1452′ Rwy 1441′
108.9	205°	4930′(3489′)		

BRIEFING STRIP™

MISSED APCH: Climb STRAIGHT AHEAD to 2300′, turn RIGHT (MAX 200 KT) to intercept R-025 JYA to D14.5 ZGA/D58.8 JYA at 4930′, contact ATC.

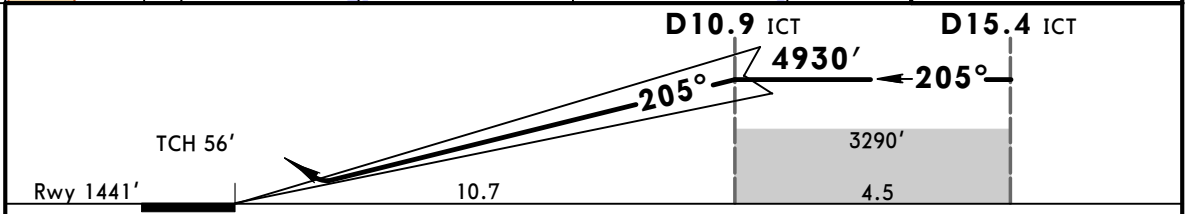
Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶

❶ 1031 hPa or above - 10830′
979 hPa or less - 8860′



FT/METER CONVERSION
QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
2300′	700m



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

HIALS
PAPI
2300′

PANS OPS

Standard

STRAIGHT-IN LANDING RWY 19
SA CAT I ILS ❶

RA 161′
DA(H) **1591′**(150′)

RVR 450m

❶ HUD required.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-7

CHENGDU, PR OF CHINA
RNAV ILS DME Z Rwy 20

D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese 126.8)	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

BRIEFING STRIP

LOC IFM	Final Apch Crs	D7.8 IFM	ILS DA(H)	Apt Elev 1452′
111.3	205°	3940′ (2491′)	1649′ (200′)	Rwy 1449′

MISSED APCH: Climb STRAIGHT AHEAD to 2300′ (MAX 200 KT), turn LEFT to ZYG VOR at 4930′, join holding or contact ATC.

MSA ARP: 205° 4600 3300 025°

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ (1)

(1) 1031 hPa or above - 10830′
979 hPa or less - 8860′

Speed limit as ACFT performance allows: 180 KT before IF, then MIN 160 KT until 5 NM from touchdown point. If unable to comply, advise ATC in advance.

TT926 At 180 KT 4930′ — 7.5 — 115° — TT626 — 5.4 — 205° — TT625 — 5.4 — TT624 At 180 KT — 5.4 — (IF) TT623 D16.1 IFM 3940′

TT626 — 6.2 — 295° — TT726 At 180 KT — 10.8 — 025° — (IAF) TT724 MAX 200 KT 4930′

(IAF) TT923 MAX 200 KT 4930′ — 16.2 — 025° — TT624

Simultaneous approaches with RWY 19, radar vectoring to intercept final course.

205° — D7.8 IFM — ILS DME 205° 111.3 IFM — D1.4 IFM — 205°

1942′ 2031′ 3435′ 3264′ 2106′ 3127′ 3317′ 2185′ 1910′ 1929′ 1988′ 1884′ 1854′ 2133′ 3087′ 3497′ 3248′ 3320′ 3189′ 1985′ 3346′ 3025′ 1936′

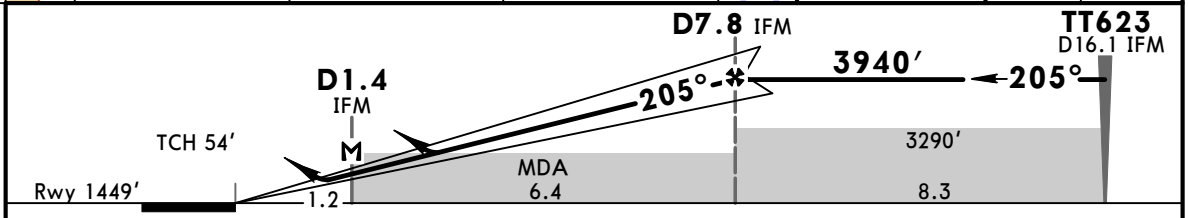
FT/METER CONVERSION QNH

10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m
2300′	700m

MISSED APCH FIX: ZIYANG D 112.1 ZYG — 022° 4930 202°

RECOMMENDED ALTITUDES — LOC (GS out)

IFM DME	ALTITUDE
7.0	3680′
6.0	3360′
5.0	3050′
4.0	2730′
3.0	2410′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 IFM							

HIALS — PAPI — 2300′ — 200 KT MAX

Standard — STRAIGHT-IN LANDING RWY 20

	ILS DA(H) 1649′ (200′)		LOC (GS out) CDFA MDA(H) 1910′ (461′)	
	FULL	ALS out		ALS out
A	RVR 550m (1) VIS 800m	1200m	1800m	
B				
C			1800m	2200m
D				

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2090′ (638′)	2000m
135		
180	2470′ (1018′)	4400m
205	2470′ (1018′)	5000m

PANS OPS

(1) RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: D-ATIS frequency added.

ZUTF/TFU
TIANFU

JEPPESEN
14 APR 23
Eff 19 Apr 1600Z
21-8

CHENGDU, PR OF CHINA
ILS DME Y Rwy 20

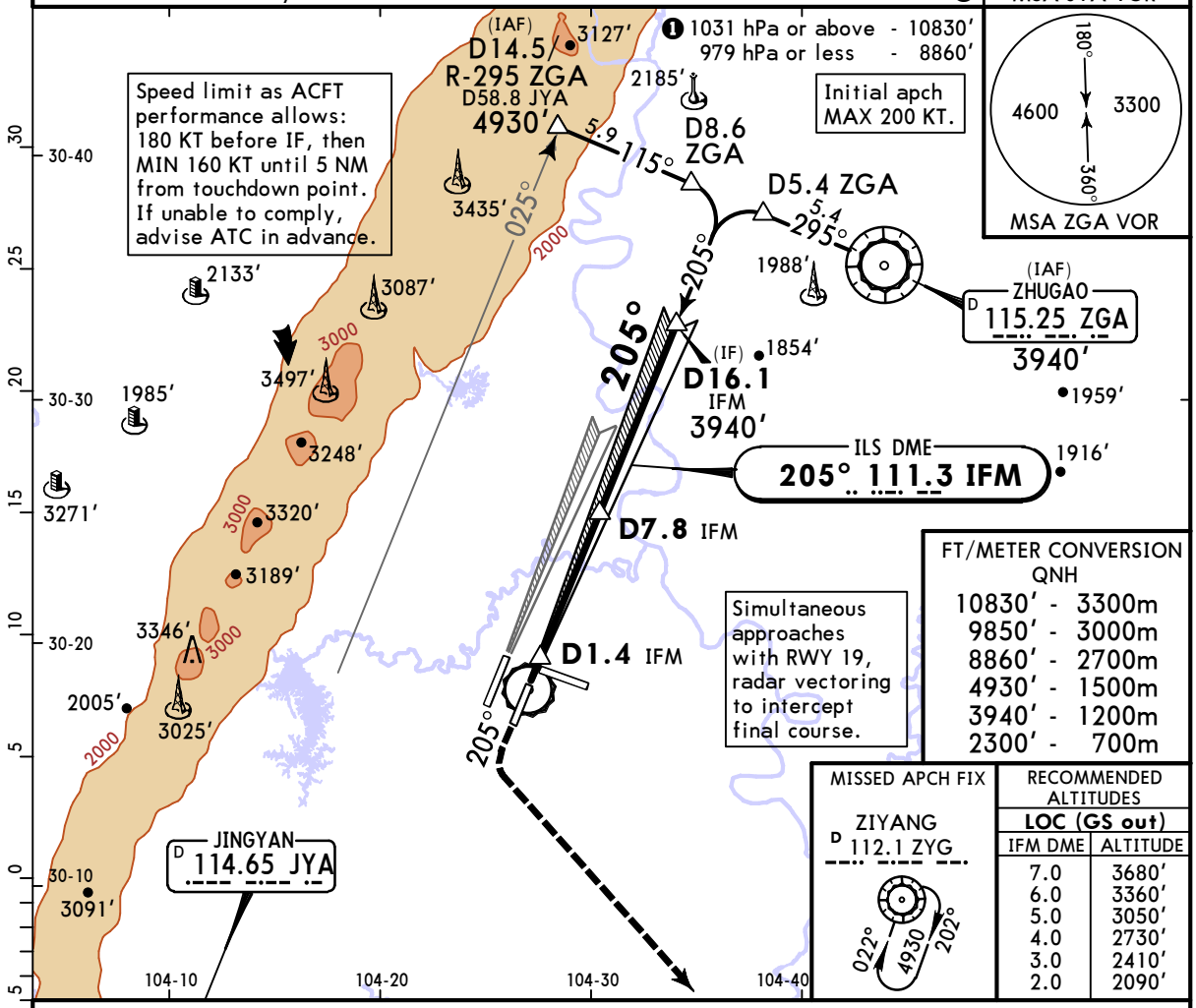
D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
127.075 (Chinese126.8)	APP02 120.375	*APP03 119.7	*APP04 121.35	*APP05 121.025	*APP06 126.35	*APP09 124.75	TWR02 130.5	GND02 122.6

BRIEFING STRIP™

LOC IFM	Final Apch Crs	D7.8 IFM	ILS DA(H)	Apt Elev / Rwy
111.3	205°	3940′ (2491′)	1649′ (200′)	1452′ / 1449′

MISSED APCH: Climb STRAIGHT AHEAD to 2300′, turn LEFT (MAX 200 KT) to ZYG VOR at 4930′, join holding or contact ATC.

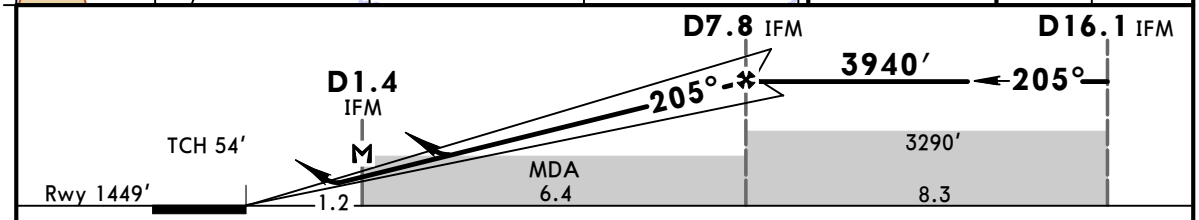
Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶



FT/METER CONVERSION QNH	
10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m
2300′	700m

MISSED APCH FIX: ZIYANG D 112.1 ZYG

RECOMMENDED ALTITUDES LOC (GS out)	
IFM DME	ALTITUDE
7.0	3680′
6.0	3360′
5.0	3050′
4.0	2730′
3.0	2410′
2.0	2090′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.4 IFM							

HIALS
PAPI
2300′

PANS OPS

Standard STRAIGHT-IN LANDING RWY 20

	ILS DA(H) 1649′ (200′) FULL	ILS DA(H) 1649′ (200′) ALS out	LOC (GS out) CDFA MDA(H) 1910′ (461′)	LOC (GS out) CDFA MDA(H) 1910′ (461′) ALS out
A	RVR 550m ❶ VIS 800m	1200m	1800m	
B				
C			1800m	2200m
D				

CIRCLE-TO-LAND			
Max Kts	MDA(H)	VIS
100	2090′ (638′)	2000m
135		
180	2470′ (1018′)	4400m
205	2470′ (1018′)	5000m

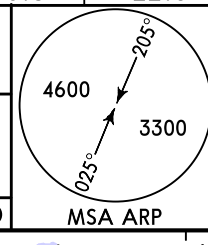
❶ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: D-ATIS frequency added.

D-ATIS	CHENGDU Approach (R) APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TIANFU Tower TWR02	Ground GND02
127.075 (Chinese 126.8)	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

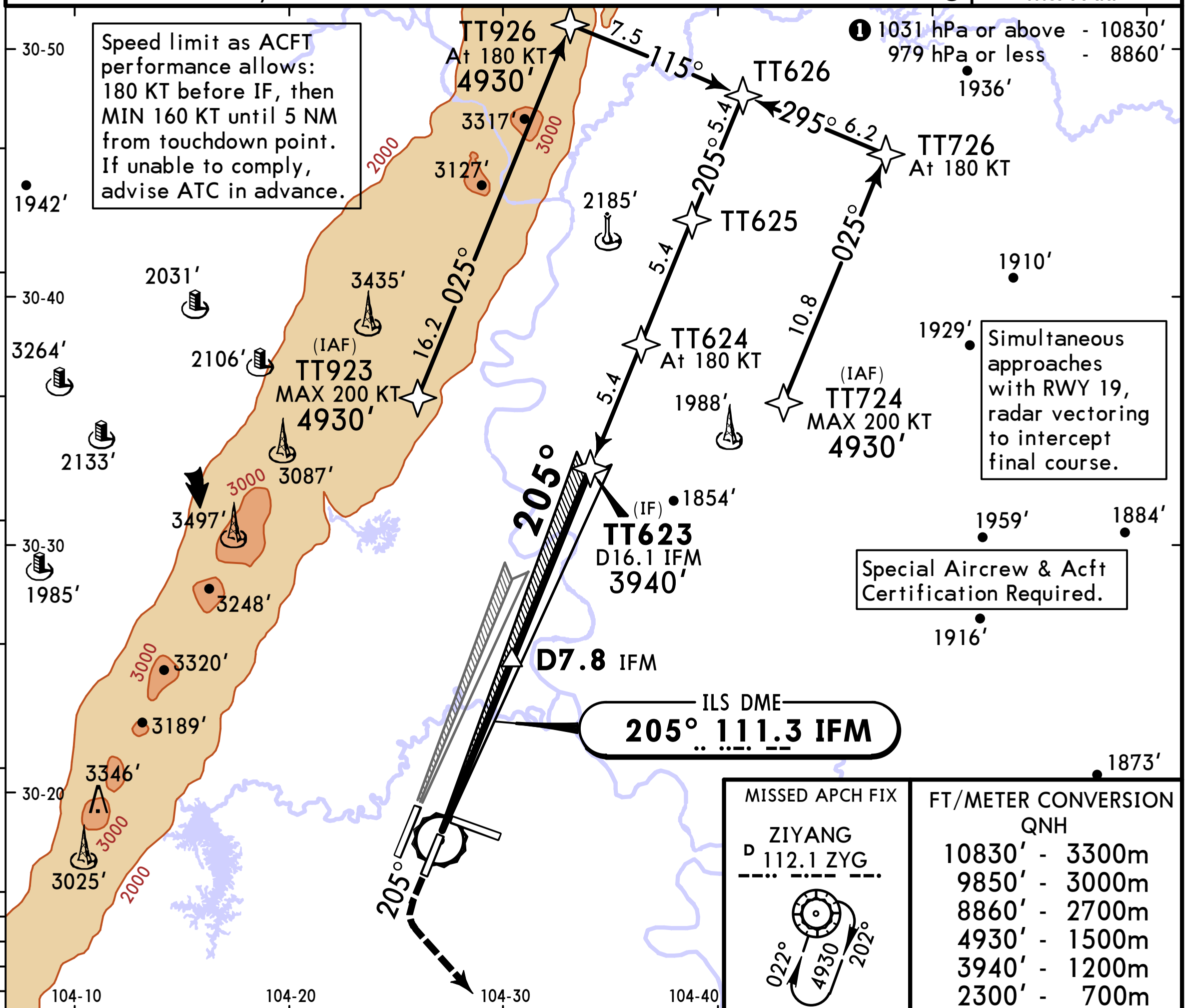
LOC IFM	Final Apch Crs	D7.8 IFM	SA CAT I ILS	Apt Elev 1452′
111.3	205°	3940′ (2491′)	RA 154′ DA(H) 1599′(150′)	Rwy 1449′

BRIEFING STRIP ™

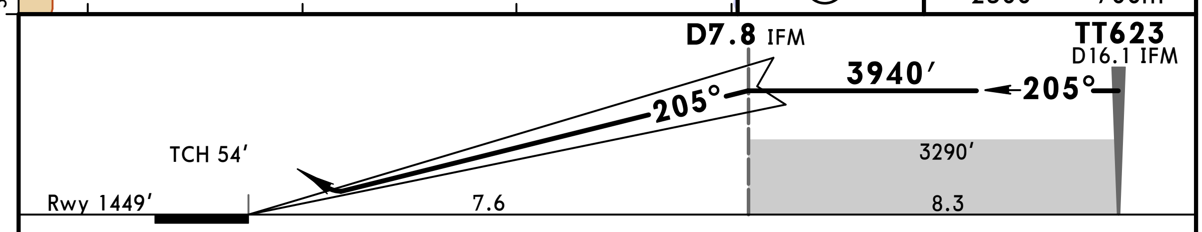


MISSED APCH: Climb STRAIGHT AHEAD to 2300′ (MAX 200 KT), turn LEFT to ZYG VOR at 4930′, join holding or contact ATC.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ ❶



FT/METER CONVERSION QNH	
10830′	3300m
9850′	3000m
8860′	2700m
4930′	1500m
3940′	1200m
2300′	700m



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

HIALS
PAPI

2300′ ↑ | 200 KT MAX

Standard

STRAIGHT-IN LANDING RWY 20
SA CAT I ILS ❶

RA 154′
DA(H) **1599′** (150′)

RVR 450m

PANS OPS

❶ HUD required.

CHANGES: D-ATIS frequency added.

ZUTF/TFU TIANFU — CHENGDU, PR OF CHINA

JEPPESEN 14 APR 23 Eff 19 Apr 1600Z (21-8B)

SA CAT I ILS DME Y Rwy 20

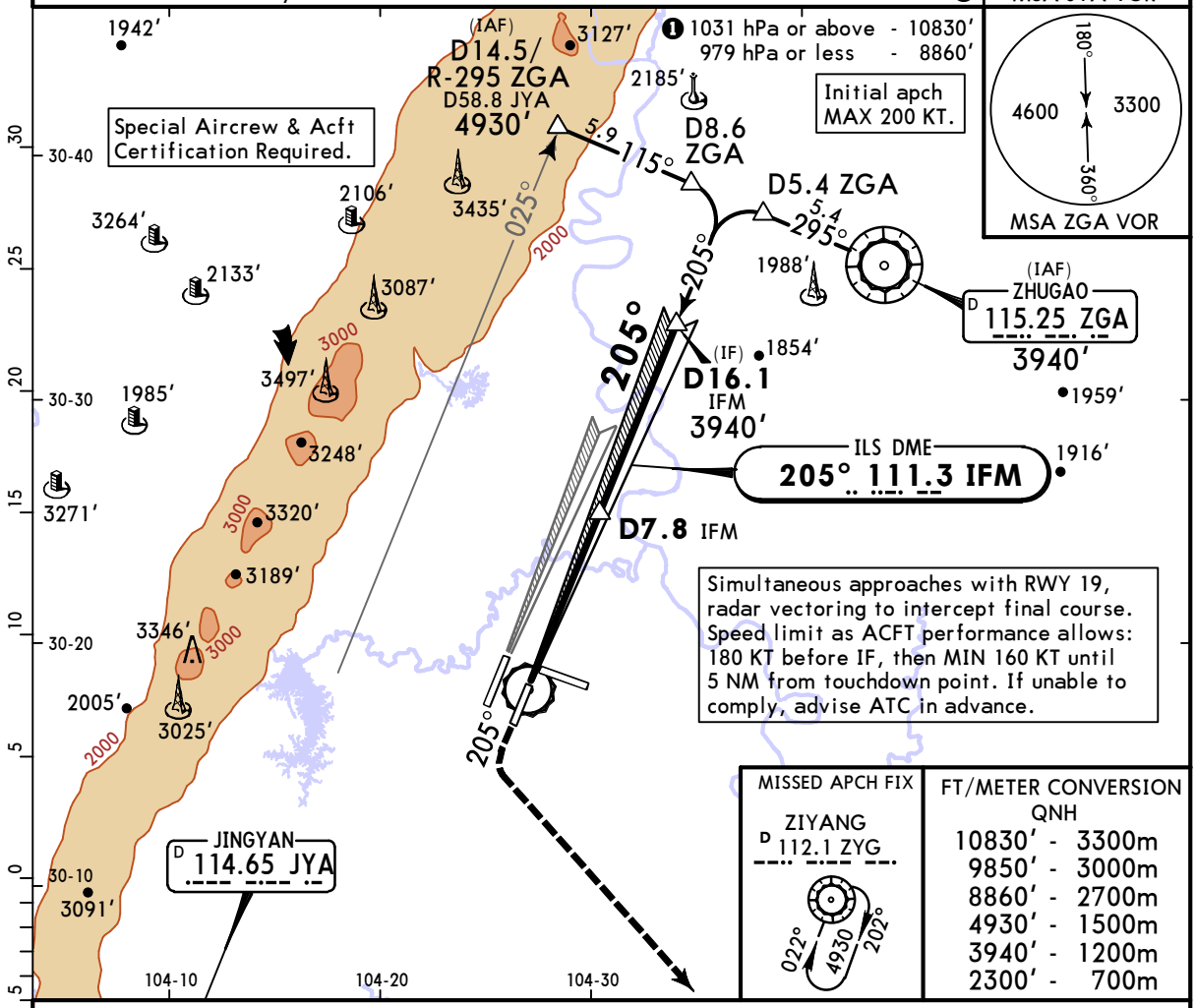
D-ATIS	CHENGDU Approach (R)						TIANFU Tower	Ground
	APP02	*APP03	*APP04	*APP05	*APP06	*APP09	TWR02	GND02
127.075 (Chinese 126.8)	120.375	119.7	121.35	121.025	126.35	124.75	130.5	122.6

LOC IFM	Final Apch Crs	D7.8 IFM	SA CAT I ILS RA 154′ DA(H)	Apt Elev 1452′
111.3	205°	3940′ (2491′)	1599′ (150′)	Rwy 1449′

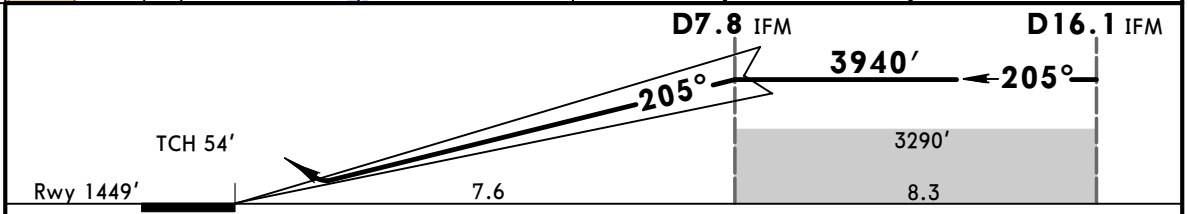
MISSED APCH: Climb STRAIGHT AHEAD to 2300′, turn LEFT (MAX 200 KT) to ZYG VOR at 4930′, join holding or contact ATC.

Alt Set: hPa | Rwy Elev: 52 hPa | Trans level: FL 118 | Trans alt: 9850′ (1)

BRIEFING STRIP™



MISSED APCH FIX	FT/METER CONVERSION QNH
ZIYANG D 112.1 ZYG	10830′ - 3300m
022° 4930 202°	9850′ - 3000m
	8860′ - 2700m
	4930′ - 1500m
	3940′ - 1200m
	2300′ - 700m



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

HIALS PAPI 2300′

PANS OPS

Standard

STRAIGHT-IN LANDING RWY 20
SA CAT I ILS (1)

RA 154′
DA(H) 1599′ (150′)

RVR 450m

(1) HUD required.

CHANGES: D-ATIS frequency added.

Chart changes since cycle 13-2023

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
VANCOUVER, BC (VANCOUVER INTL - CYVR)				
REV	CONSTRUCTION ACTIVITIES (...	10-8	07 Jul 2023	
ADD	CONSTRUCTION ACTIVITIES (...	10-8A	07 Jul 2023	
CHENGDU, (TIANFU - ZUTF)				
DEL	BUPMI & MEXAD 6M & 8M RNA...	20-2	07 Jul 2023	12 Jul 2023
ADD	BUPMI & MEXAD 6M, 8M & 9M...	20-2	07 Jul 2023	12 Jul 2023
REV	BUPMI & MEXAD 8V RNAV ARR...	20-2A	07 Jul 2023	12 Jul 2023
REV	BOKIR, SAGPI & UBRAB 9C R...	20-3	07 Jul 2023	12 Jul 2023
REV	BOKIR, SAGPI & UBRAB 9E R...	20-3A	07 Jul 2023	12 Jul 2023
REV	ATVAX, LUVEN & MUMGO 9C R...	20-3F	07 Jul 2023	12 Jul 2023
REV	ATVAX, LUVEN & MUMGO 9E R...	20-3G	07 Jul 2023	12 Jul 2023
REV	RNAV ILS DME Z RWY 01	21-1	30 Jun 2023	12 Jul 2023
REV	CAT II/III RNAV ILS DME Z...	21-1A	30 Jun 2023	12 Jul 2023

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport CYVR

No Chart Change Notices for Airport ZUTF

Chart Change Notices for Country CAN

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

At locations with approach charts depicting the Plan View Ball Flag Note: "Minimum VDA intercept [altitude]" or "Recommended VDA intercept [altitude]", it should read "VDA intercept based on [altitude]".

Communication Information For CZVR ACC

No communication information available

Communication Information For CZVR FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZVR IN VANCOUVER FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE.
SATCOM Service: SATCOM VOICE DIRECT DIAL IS 1-604-507-7875 CONTACT VANCOUVER CENTER ON THE NEAREST PERIPHERAL FREQUENCY AT THE TIME OF CROSSING FIR BOUNDARY. TRANSPONDER ADJUSTED TO REPLY ON MODE A-3 CODE 2000.
INMARSAT Service: INMARSAT SECURITY NUMBER IS 431607

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
VANCOUVER CENTRE:	123.87 MHz		
VANCOUVER CENTRE:	124.07 MHz		
VANCOUVER CENTRE:	128.4 MHz		
VANCOUVER CENTRE:	132.2 MHz		
VANCOUVER CENTRE:	132.35 MHz		
VANCOUVER CENTRE:	132.52 MHz		
VANCOUVER CENTRE:	132.9 MHz		
VANCOUVER CENTRE:	133.4 MHz		
VANCOUVER CENTRE:	133.5 MHz		
VANCOUVER CENTRE:	133.6 MHz		
VANCOUVER CENTRE:	133.67 MHz		
VANCOUVER CENTRE:	133.7 MHz		
VANCOUVER CENTRE:	133.77 MHz		
VANCOUVER CENTRE:	133.8 MHz		
VANCOUVER CENTRE:	134.0 MHz		
VANCOUVER CENTRE:	134.2 MHz		
VANCOUVER CENTRE:	134.4 MHz		
VANCOUVER CENTRE:	134.55 MHz		
VANCOUVER CENTRE:	134.6 MHz		
VANCOUVER CENTRE:	134.8 MHz		
VANCOUVER CENTRE:	135.0 MHz		
VANCOUVER CENTRE:	135.05 MHz		
VANCOUVER CENTRE:	135.5 MHz		

Communication Information For KZSE FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SEATTLE:	119.65 MHz	(R)	
SEATTLE:	120.3 MHz	(R)	
SEATTLE:	123.95 MHz	(R)	
SEATTLE:	124.2 MHz	(R)	
SEATTLE:	124.85 MHz	(R)	
SEATTLE:	125.1 MHz	(R)	
SEATTLE:	125.8 MHz	(R)	
SEATTLE:	126.1 MHz	(R)	
SEATTLE:	126.15 MHz	(R)	
SEATTLE:	126.6 MHz	(R)	
SEATTLE:	127.05 MHz	(R)	
SEATTLE:	127.55 MHz	(R)	
SEATTLE:	127.6 MHz	(R)	
SEATTLE:	128.15 MHz	(R)	
SEATTLE:	128.3 MHz	(R)	
SEATTLE:	132.6 MHz	(R)	
SEATTLE:	134.95 MHz	(R)	
SEATTLE:	306.3 MHz	(R)	MIL

Communication Information For KZSE UIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SEATTLE:	119.22 MHz	(R)	
SEATTLE:	120.3 MHz	(R)	
SEATTLE:	121.35 MHz	(R)	
SEATTLE:	124.75 MHz	(R)	
SEATTLE:	125.1 MHz	(R)	
SEATTLE:	126.6 MHz	(R)	
SEATTLE:	127.05 MHz	(R)	
SEATTLE:	128.3 MHz	(R)	
SEATTLE:	128.45 MHz	(R)	
SEATTLE:	132.07 MHz	(R)	
SEATTLE:	134.9 MHz	(R)	
SEATTLE:	134.95 MHz	(R)	
SEATTLE:	135.15 MHz	(R)	
SEATTLE:	135.35 MHz	(R)	
SEATTLE:	135.45 MHz	(R)	
SEATTLE:	360.7 MHz	(R)	MIL

Communication Information For PAZA ARTCC

No communication information available

Communication Information For PAZA FIR

CPDLC Service: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE.
SATCOM Service: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 907-269-1103.
INMARSAT Service: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602.

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
ANCHORAGE:	118.0 MHz	(R)	
ANCHORAGE:	118.15 MHz	(R)	
ANCHORAGE:	118.5 MHz	(R)	
ANCHORAGE:	118.8 MHz	(R)	
ANCHORAGE:	119.0 MHz	(R)	
ANCHORAGE:	119.1 MHz	(R)	
ANCHORAGE:	119.2 MHz	(R)	
ANCHORAGE:	119.3 MHz	(R)	
ANCHORAGE:	119.4 MHz	(R)	
ANCHORAGE:	119.5 MHz	(R)	
ANCHORAGE:	119.65 MHz	(R)	
ANCHORAGE:	119.7 MHz	(R)	
ANCHORAGE:	120.6 MHz	(R)	
ANCHORAGE:	120.9 MHz	(R)	
ANCHORAGE:	121.4 MHz	(R)	
ANCHORAGE:	124.0 MHz	(R)	
ANCHORAGE:	124.5 MHz	(R)	
ANCHORAGE:	124.6 MHz	(R)	
ANCHORAGE:	124.8 MHz	(R)	
ANCHORAGE:	125.1 MHz	(R)	

ANCHORAGE:	125.2 MHz	(R)	
ANCHORAGE:	125.55 MHz	(R)	
ANCHORAGE:	125.7 MHz	(R)	
ANCHORAGE:	125.9 MHz	(R)	
ANCHORAGE:	126.1 MHz	(R)	
ANCHORAGE:	126.55 MHz	(R)	
ANCHORAGE:	127.0 MHz	(R)	
ANCHORAGE:	127.9 MHz	(R)	
ANCHORAGE:	128.1 MHz	(R)	
ANCHORAGE:	128.2 MHz	(R)	
ANCHORAGE:	128.5 MHz	(R)	
ANCHORAGE:	132.17 MHz	(R)	
ANCHORAGE:	132.2 MHz	(R)	
ANCHORAGE:	132.9 MHz	(R)	
ANCHORAGE:	133.1 MHz	(R)	
ANCHORAGE:	133.2 MHz	(R)	
ANCHORAGE:	133.3 MHz	(R)	
ANCHORAGE:	133.6 MHz	(R)	
ANCHORAGE:	133.7 MHz	(R)	
ANCHORAGE:	133.9 MHz	(R)	
ANCHORAGE:	134.4 MHz	(R)	
ANCHORAGE:	134.6 MHz	(R)	
ANCHORAGE:	135.3 MHz	(R)	
ANCHORAGE:	135.7 MHz	(R)	
ANCHORAGE:	282.35 MHz	(R)	MIL

Communication Information For PAZA UIR

CPDLC Service: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE.
SATCOM Service: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 1-907-269-1103.
INMARSAT Service: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602.

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
ANCHORAGE:	118.0 MHz	(R)	
ANCHORAGE:	118.5 MHz	(R)	
ANCHORAGE:	119.1 MHz	(R)	
ANCHORAGE:	119.65 MHz	(R)	
ANCHORAGE:	119.7 MHz	(R)	
ANCHORAGE:	120.55 MHz	(R)	
ANCHORAGE:	120.9 MHz	(R)	
ANCHORAGE:	123.9 MHz	(R)	
ANCHORAGE:	124.05 MHz	(R)	
ANCHORAGE:	124.2 MHz	(R)	
ANCHORAGE:	124.5 MHz	(R)	
ANCHORAGE:	125.35 MHz	(R)	
ANCHORAGE:	125.7 MHz	(R)	
ANCHORAGE:	125.95 MHz	(R)	
ANCHORAGE:	126.4 MHz	(R)	
ANCHORAGE:	127.3 MHz	(R)	
ANCHORAGE:	127.5 MHz	(R)	
ANCHORAGE:	127.6 MHz	(R)	
ANCHORAGE:	128.2 MHz	(R)	
ANCHORAGE:	132.15 MHz	(R)	
ANCHORAGE:	132.17 MHz	(R)	
ANCHORAGE:	132.35 MHz	(R)	
ANCHORAGE:	132.5 MHz	(R)	
ANCHORAGE:	132.65 MHz	(R)	
ANCHORAGE:	132.7 MHz	(R)	
ANCHORAGE:	132.85 MHz		

ANCHORAGE:	133.1 MHz	(R)
ANCHORAGE:	133.7 MHz	(R)
ANCHORAGE:	133.8 MHz	(R)
ANCHORAGE:	133.9 MHz	(R)
ANCHORAGE:	134.3 MHz	(R)
ANCHORAGE:	135.0 MHz	(R)
ANCHORAGE:	135.6 MHz	(R)

Communication Information For UHHH ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
KHABAROVSK CONTROL:	10048 kHz		
KHABAROVSK CONTROL:	129.0 MHz		
KHABAROVSK CONTROL:	133.6 MHz		
KHABAROVSK CONTROL:	2932 kHz		
KHABAROVSK CONTROL:	3102 kHz		
KHABAROVSK CONTROL:	3461 kHz		
KHABAROVSK CONTROL:	4465 kHz		
KHABAROVSK CONTROL:	6589 kHz		
KHABAROVSK CONTROL:	6692 kHz		
KHABAROVSK CONTROL:	7870 kHz		

Communication Information For UHHH ACC Low (ACC Sector Low)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
KHABAROVSK CONTROL:	124.5 MHz		
KHABAROVSK CONTROL:	129.0 MHz		
KHABAROVSK CONTROL:	3102 kHz		
KHABAROVSK CONTROL:	3461 kHz		
KHABAROVSK CONTROL:	4465 kHz		
KHABAROVSK CONTROL:	6589 kHz		
KHABAROVSK CONTROL:	6692 kHz		
KHABAROVSK CONTROL:	7870 kHz		

Communication Information For UHHH FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR KHABAROVSK ACC IS 427324

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
KHABAROVSK CONTROL:	10048 kHz	(R)	
KHABAROVSK CONTROL:	11198 kHz	(R)	
KHABAROVSK CONTROL:	119.2 MHz	(R)	
KHABAROVSK CONTROL:	119.5 MHz	(R)	
KHABAROVSK CONTROL:	120.9 MHz	(R)	
KHABAROVSK CONTROL:	124.5 MHz	(R)	
KHABAROVSK CONTROL:	126.6 MHz	(R)	
KHABAROVSK CONTROL:	127.1 MHz	(R)	
KHABAROVSK CONTROL:	128.3 MHz	(R)	
KHABAROVSK CONTROL:	128.8 MHz	(R)	
KHABAROVSK CONTROL:	129.0 MHz	(R)	Secondary
KHABAROVSK CONTROL:	129.4 MHz	(R)	
KHABAROVSK CONTROL:	133.6 MHz	(R)	

KHABAROVSK CONTROL:	133.7 MHz	(R)	
KHABAROVSK CONTROL:	134.7 MHz	(R)	
KHABAROVSK CONTROL:	135.1 MHz	(R)	
KHABAROVSK CONTROL:	2932 kHz	(R)	
KHABAROVSK CONTROL:	3102 kHz	(R)	
KHABAROVSK CONTROL:	3140 kHz	(R)	
KHABAROVSK CONTROL:	3461 kHz	(R)	
KHABAROVSK CONTROL:	4465 kHz	(R)	Secondary
KHABAROVSK CONTROL:	5664 kHz	(R)	
KHABAROVSK CONTROL:	6589 kHz	(R)	
KHABAROVSK CONTROL:	6692 kHz	(R)	
KHABAROVSK CONTROL:	7870 kHz	(R)	Secondary
KHABAROVSK CONTROL:	8095 kHz	(R)	

Type: VOLMET:

VLADIVOSTOK:	126.4 MHz		
KHABAROVSK:	127.87 MHz		

Communication Information For UHMM ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:

MAGADAN CONTROL:	129.0 MHz		
MAGADAN CONTROL:	133.7 MHz		

Type: Radio:

MAGADAN:	2884 kHz		
MAGADAN:	5550 kHz		

Communication Information For UHMM FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR
SATCOM Service: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395
INMARSAT Service: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:

PETROPAVLOVSK:	10039 kHz	(R)	
PETROPAVLOVSK:	11285 kHz	(R)	
PETROPAVLOVSK:	11327 kHz	(R)	
MAGADAN CONTROL:	11390 kHz	(R)	
MAGADAN CONTROL:	122.0 MHz	(R)	
MAGADAN CONTROL:	126.5 MHz	(R)	Secondary
MAGADAN CONTROL:	129.0 MHz	(R)	Secondary
MAGADAN CONTROL:	13265 kHz	(R)	
MAGADAN CONTROL:	133.0 MHz	(R)	
MAGADAN CONTROL:	133.2 MHz	(R)	
MAGADAN CONTROL:	133.7 MHz	(R)	
MAGADAN CONTROL:	134.5 MHz	(R)	
PETROPAVLOVSK:	135.4 MHz	(R)	
MAGADAN CONTROL:	135.6 MHz	(R)	
MAGADAN CONTROL:	15030 kHz	(R)	
PETROPAVLOVSK:	2964 kHz	(R)	
PETROPAVLOVSK:	3413 kHz	(R)	
PETROPAVLOVSK:	3443 kHz	(R)	
MAGADAN CONTROL:	4712 kHz	(R)	
PETROPAVLOVSK:	6544 kHz	(R)	
MAGADAN CONTROL:	6585 kHz	(R)	
PETROPAVLOVSK:	6631 kHz	(R)	

PETROPAVLOVSK:	8822 kHz	(R)
MAGADAN CONTROL:	8837 kHz	(R)

Type: Radio:

MAGADAN:	2884 kHz
MAGADAN:	3102 kHz
MAGADAN:	5550 kHz
MAGADAN:	6692 kHz

Type: VOLMET:

MAGADAN:	126.2 MHz

Communication Information For ZBPE ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
BEIJING CONTROL:	125.9 MHz		
BEIJING CONTROL:	134.45 MHz		
BEIJING CONTROL:	3016 kHz		
BEIJING CONTROL:	6571 kHz		
BEIJING CONTROL:	8897 kHz		

Communication Information For ZBPE ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
BEIJING CONTROL:	120.7 MHz		
BEIJING CONTROL:	127.7 MHz		
BEIJING CONTROL:	3016 kHz		
BEIJING CONTROL:	6571 kHz		
BEIJING CONTROL:	8897 kHz		

Communication Information For ZBPE FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR BEIJING ACC IS 441201

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
BEIJING CONTROL:	118.92 MHz	(R)	
BEIJING CONTROL:	118.95 MHz	(R)	
HOHHOT CONTROL:	119.32 MHz	(R)	
BEIJING CONTROL:	120.35 MHz	(R)	
HOHHOT CONTROL:	120.5 MHz	(R)	Secondary
BEIJING CONTROL:	120.55 MHz	(R)	
BEIJING CONTROL:	120.7 MHz	(R)	Secondary
BEIJING CONTROL:	120.77 MHz	(R)	Secondary
BEIJING CONTROL:	123.22 MHz	(R)	Secondary
BEIJING CONTROL:	123.7 MHz	(R)	Secondary
BEIJING CONTROL:	123.77 MHz	(R)	Secondary
BEIJING CONTROL:	124.55 MHz	(R)	
BEIJING CONTROL:	125.35 MHz	(R)	
BEIJING CONTROL:	125.6 MHz	(R)	
BEIJING CONTROL:	125.9 MHz	(R)	
BEIJING CONTROL:	126.7 MHz	(R)	

BEIJING CONTROL:	126.95 MHz	(R)	
BEIJING CONTROL:	127.1 MHz	(R)	
BEIJING CONTROL:	127.35 MHz	(R)	
BEIJING CONTROL:	127.5 MHz	(R)	
BEIJING CONTROL:	127.7 MHz	(R)	
BEIJING CONTROL:	128.1 MHz	(R)	
BEIJING CONTROL:	128.3 MHz	(R)	
BEIJING CONTROL:	128.7 MHz	(R)	Secondary
BEIJING CONTROL:	132.1 MHz	(R)	
BEIJING CONTROL:	132.2 MHz	(R)	
BEIJING CONTROL:	132.22 MHz	(R)	Secondary
BEIJING CONTROL:	132.42 MHz	(R)	Secondary
BEIJING CONTROL:	132.47 MHz	(R)	
BEIJING CONTROL:	132.6 MHz	(R)	
BEIJING CONTROL:	132.65 MHz	(R)	
BEIJING CONTROL:	132.7 MHz	(R)	
HOHHOT CONTROL:	132.77 MHz	(R)	
BEIJING CONTROL:	132.97 MHz	(R)	Secondary
BEIJING CONTROL:	133.02 MHz	(R)	
BEIJING CONTROL:	133.1 MHz	(R)	
BEIJING CONTROL:	133.35 MHz	(R)	Secondary
BEIJING CONTROL:	133.52 MHz	(R)	
BEIJING CONTROL:	133.65 MHz	(R)	Secondary
HOHHOT CONTROL:	133.7 MHz	(R)	
BEIJING CONTROL:	133.77 MHz	(R)	
BEIJING CONTROL:	133.9 MHz	(R)	
BEIJING CONTROL:	134.0 MHz	(R)	Secondary
BEIJING CONTROL:	134.05 MHz	(R)	
BEIJING CONTROL:	134.15 MHz	(R)	
BEIJING CONTROL:	134.22 MHz	(R)	
BEIJING CONTROL:	134.25 MHz	(R)	
BEIJING CONTROL:	134.3 MHz	(R)	
BEIJING CONTROL:	134.45 MHz	(R)	Secondary
BEIJING CONTROL:	135.3 MHz	(R)	
BEIJING CONTROL:	135.35 MHz	(R)	
BEIJING CONTROL:	135.6 MHz	(R)	
BEIJING CONTROL:	3016 kHz	(R)	
BEIJING CONTROL:	6571 kHz	(R)	Secondary
BEIJING CONTROL:	8897 kHz	(R)	

Type: VOLMET:

BEIJING:	13285 kHz
BEIJING:	3458 kHz
BEIJING:	5673 kHz
BEIJING:	8849 kHz

Communication Information For ZHWH FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
GUANGZHOU CONTROL:	118.9 MHz	(R)	
WUHAN CONTROL:	119.3 MHz	(R)	
ZHENGZHOU CONTROL:	119.35 MHz	(R)	
WUHAN CONTROL:	119.7 MHz	(R)	
ZHENGZHOU CONTROL:	122.2 MHz	(R)	
ZHENGZHOU CONTROL:	125.72 MHz	(R)	
GUANGZHOU CONTROL:	132.15 MHz	(R)	Secondary
ZHENGZHOU CONTROL:	132.2 MHz	(R)	
ZHENGZHOU CONTROL:	132.85 MHz	(R)	
WUHAN CONTROL:	132.95 MHz	(R)	Secondary
ZHENGZHOU CONTROL:	133.2 MHz	(R)	Secondary
GUANGZHOU CONTROL:	133.5 MHz	(R)	Secondary
ZHENGZHOU CONTROL:	133.6 MHz	(R)	Secondary
GUANGZHOU CONTROL:	133.67 MHz	(R)	Secondary
WUHAN CONTROL:	133.75 MHz	(R)	Secondary

GUANGZHOU CONTROL:	134.1 MHz	(R)	
WUHAN CONTROL:	134.35 MHz	(R)	
GUANGZHOU CONTROL:	135.35 MHz	(R)	
WUHAN CONTROL:	3016 kHz	(R)	
WUHAN CONTROL:	6571 kHz	(R)	Secondary
WUHAN CONTROL:	8897 kHz	(R)	

Communication Information For ZLHW ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
XI'AN CONTROL:	120.95 MHz		
XI'AN CONTROL:	125.3 MHz		
XI'AN CONTROL:	125.97 MHz		
XI'AN CONTROL:	3016 kHz		
XI'AN CONTROL:	6571 kHz		
XI'AN CONTROL:	8897 kHz		

Communication Information For ZLHW ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
XI'AN CONTROL:	120.95 MHz		
XI'AN CONTROL:	125.3 MHz		
XI'AN CONTROL:	128.15 MHz		
XI'AN CONTROL:	3016 kHz		
XI'AN CONTROL:	6571 kHz		
XI'AN CONTROL:	8897 kHz		

Communication Information For ZLHW FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF ZLLL IN LANZHOU FIR. LOGON SHOULD BE ESTABLISHED 15 MINUTES PRIOR TO ENTERING THE DATA LINK AIRSPACE
INMARSAT Service: INMARSAT SECURITY NUMBER FOR LANZHOU ACC IS 441205 OR 441215

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
LANZHOU CONTROL:	118.9 MHz	(R)	
XI'AN CONTROL:	118.97 MHz	(R)	Secondary
LANZHOU CONTROL:	119.35 MHz	(R)	
XI'AN CONTROL:	120.05 MHz	(R)	
LANZHOU CONTROL:	120.52 MHz	(R)	
XI'AN CONTROL:	120.95 MHz	(R)	Secondary
LANZHOU CONTROL:	123.75 MHz	(R)	
XI'AN CONTROL:	124.1 MHz	(R)	
LANZHOU CONTROL:	124.52 MHz	(R)	
XI'AN CONTROL:	125.3 MHz	(R)	
LANZHOU CONTROL:	125.37 MHz	(R)	
LANZHOU CONTROL:	125.77 MHz	(R)	
XI'AN CONTROL:	125.9 MHz	(R)	
XI'AN CONTROL:	125.97 MHz	(R)	
XI'AN CONTROL:	126.1 MHz	(R)	
LANZHOU CONTROL:	126.17 MHz	(R)	Secondary
LANZHOU CONTROL:	127.35 MHz	(R)	
XI'AN CONTROL:	127.57 MHz	(R)	

XI'AN CONTROL:	128.15 MHz	(R)	
LANZHOU CONTROL:	128.72 MHz	(R)	
LANZHOU CONTROL:	132.2 MHz	(R)	Secondary
XI'AN CONTROL:	132.27 MHz	(R)	
LANZHOU CONTROL:	132.35 MHz	(R)	Secondary
XI'AN CONTROL:	132.72 MHz	(R)	
LANZHOU CONTROL:	132.8 MHz	(R)	
XI'AN CONTROL:	132.9 MHz	(R)	
XI'AN CONTROL:	133.05 MHz	(R)	
LANZHOU CONTROL:	133.35 MHz	(R)	
XI'AN CONTROL:	133.42 MHz	(R)	Secondary
LANZHOU CONTROL:	134.2 MHz	(R)	
XI'AN CONTROL:	134.4 MHz	(R)	Secondary
LANZHOU CONTROL:	134.7 MHz	(R)	
XI'AN CONTROL:	134.85 MHz	(R)	Secondary
XI'AN CONTROL:	3016 kHz	(R)	
XI'AN CONTROL:	6571 kHz	(R)	Secondary
XI'AN CONTROL:	8897 kHz	(R)	

Communication Information For ZPKM ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
CHENGDU CONTROL:	119.32 MHz		
CHENGDU CONTROL:	134.05 MHz		
CHENGDU CONTROL:	3016 kHz		
CHENGDU CONTROL:	6571 kHz		
CHENGDU CONTROL:	8897 kHz		

Communication Information For ZPKM ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
CHENGDU CONTROL:	120.52 MHz		
CHENGDU CONTROL:	120.9 MHz		
CHENGDU CONTROL:	3016 kHz		
CHENGDU CONTROL:	6571 kHz		
CHENGDU CONTROL:	8897 kHz		

Communication Information For ZPKM FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR KUNMING ACC IS 441204 INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
GUIYANG CONTROL:	10066 kHz	(R)	
CHENGDU CONTROL:	118.95 MHz	(R)	
KUNMING CONTROL:	119.3 MHz	(R)	Secondary
CHENGDU CONTROL:	119.32 MHz	(R)	
CHENGDU CONTROL:	120.52 MHz	(R)	Secondary
LHASA CONTROL:	120.7 MHz	(R)	Secondary
KUNMING CONTROL:	120.77 MHz	(R)	
CHENGDU CONTROL:	120.9 MHz	(R)	
GUIYANG CONTROL:	122.2 MHz	(R)	Secondary
CHENGDU CONTROL:	122.8 MHz	(R)	

CHENGDU CONTROL:	123.77 MHz	(R)	
KUNMING CONTROL:	124.55 MHz	(R)	
CHENGDU CONTROL:	124.57 MHz	(R)	
CHENGDU CONTROL:	124.95 MHz	(R)	
KUNMING CONTROL:	125.35 MHz	(R)	Secondary
CHENGDU CONTROL:	125.7 MHz	(R)	
KUNMING CONTROL:	125.75 MHz	(R)	
CHENGDU CONTROL:	125.95 MHz	(R)	
CHENGDU CONTROL:	126.15 MHz	(R)	Secondary
KUNMING CONTROL:	127.5 MHz	(R)	
CHENGDU CONTROL:	127.55 MHz	(R)	
GUIYANG CONTROL:	128.15 MHz	(R)	
CHENGDU CONTROL:	128.35 MHz	(R)	
CHENGDU CONTROL:	132.12 MHz	(R)	
KUNMING CONTROL:	132.17 MHz	(R)	
CHENGDU CONTROL:	132.25 MHz	(R)	
CHENGDU CONTROL:	132.3 MHz	(R)	
LHASA CONTROL:	132.35 MHz	(R)	
GUIYANG CONTROL:	132.37 MHz	(R)	
CHENGDU CONTROL:	132.47 MHz	(R)	
CHENGDU CONTROL:	132.6 MHz	(R)	
CHENGDU CONTROL:	132.67 MHz	(R)	
GUIYANG CONTROL:	132.85 MHz	(R)	
CHENGDU CONTROL:	133.0 MHz	(R)	
CHENGDU CONTROL:	133.07 MHz	(R)	Secondary
CHENGDU CONTROL:	133.12 MHz	(R)	
CHENGDU CONTROL:	133.22 MHz	(R)	
CHENGDU CONTROL:	133.3 MHz	(R)	Secondary
CHENGDU CONTROL:	133.45 MHz	(R)	Secondary
CHENGDU CONTROL:	133.65 MHz	(R)	
CHENGDU CONTROL:	133.8 MHz	(R)	
CHENGDU CONTROL:	133.87 MHz	(R)	
GUIYANG CONTROL:	133.92 MHz	(R)	Secondary
CHENGDU CONTROL:	134.0 MHz	(R)	
CHENGDU CONTROL:	134.05 MHz	(R)	Secondary
CHENGDU CONTROL:	134.22 MHz	(R)	
CHENGDU CONTROL:	134.3 MHz	(R)	
KUNMING CONTROL:	134.35 MHz	(R)	
CHENGDU CONTROL:	134.45 MHz	(R)	Secondary
CHENGDU CONTROL:	134.75 MHz	(R)	Secondary
CHENGDU CONTROL:	3016 kHz	(R)	
GUIYANG CONTROL:	3491 kHz	(R)	
GUIYANG CONTROL:	6556 kHz	(R)	Secondary
CHENGDU CONTROL:	6571 kHz	(R)	Secondary
CHENGDU CONTROL:	8897 kHz	(R)	

Communication Information For ZYSH ACC Both (ACC Sector)

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
HARBIN CONTROL:	120.75 MHz		
HARBIN CONTROL:	133.2 MHz		
HARBIN CONTROL:	3016 kHz		
HARBIN CONTROL:	6571 kHz		
HARBIN CONTROL:	8897 kHz		

Communication Information For ZYSH ACC High (ACC Sector High)

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:	
HARBIN CONTROL:	120.55 MHz
HARBIN CONTROL:	133.97 MHz
HARBIN CONTROL:	3016 kHz
HARBIN CONTROL:	6571 kHz
HARBIN CONTROL:	8897 kHz

Communication Information For ZYSH FIR

INMARSAT Service: INMARSAT SECURITY NUMBER FOR SHENYANG ACC IS 441207

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SHENYANG CONTROL:	118.9 MHz	(R)	
HARBIN CONTROL:	118.95 MHz	(R)	
SHENYANG CONTROL:	119.3 MHz	(R)	
SHENYANG CONTROL:	119.37 MHz	(R)	
HARBIN CONTROL:	120.55 MHz	(R)	
SHENYANG CONTROL:	120.57 MHz	(R)	
DALIAN CONTROL:	120.7 MHz	(R)	
HARBIN CONTROL:	120.75 MHz	(R)	Secondary
SHENYANG CONTROL:	120.97 MHz	(R)	
DALIAN CONTROL:	122.15 MHz	(R)	
DALIAN CONTROL:	123.2 MHz	(R)	
SHENYANG CONTROL:	123.77 MHz	(R)	
HARBIN CONTROL:	123.9 MHz	(R)	
HARBIN CONTROL:	124.55 MHz	(R)	Secondary
SHENYANG CONTROL:	124.85 MHz	(R)	Secondary
SHENYANG CONTROL:	125.32 MHz	(R)	
SHENYANG CONTROL:	125.72 MHz	(R)	Secondary
SHENYANG CONTROL:	125.95 MHz	(R)	
DALIAN CONTROL:	128.12 MHz	(R)	
SHENYANG CONTROL:	128.37 MHz	(R)	
HARBIN CONTROL:	128.75 MHz	(R)	
DALIAN CONTROL:	128.77 MHz	(R)	Secondary
SHENYANG CONTROL:	132.17 MHz	(R)	
DALIAN CONTROL:	132.3 MHz	(R)	Secondary
SHENYANG CONTROL:	132.35 MHz	(R)	
SHENYANG CONTROL:	132.45 MHz	(R)	Secondary
DALIAN CONTROL:	132.55 MHz	(R)	Secondary
SHENYANG CONTROL:	132.75 MHz	(R)	
SHENYANG CONTROL:	132.87 MHz	(R)	Secondary
DALIAN CONTROL:	132.95 MHz	(R)	
DALIAN CONTROL:	133.15 MHz	(R)	
HARBIN CONTROL:	133.2 MHz	(R)	
SHENYANG CONTROL:	133.25 MHz	(R)	
DALIAN CONTROL:	133.3 MHz	(R)	
HARBIN CONTROL:	133.97 MHz	(R)	Secondary
DALIAN CONTROL:	134.32 MHz	(R)	
HARBIN CONTROL:	134.45 MHz	(R)	Secondary
DALIAN CONTROL:	135.65 MHz	(R)	
HARBIN CONTROL:	3016 kHz	(R)	
HARBIN CONTROL:	6571 kHz	(R)	Secondary
HARBIN CONTROL:	8897 kHz	(R)	

Operational Notes

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CZVR Type: ACC
Notes: EXCLUDING FL255.

PAZA Type: ARTCC
Notes: CLASS G BELOW 14500 FT.

COLVILLE E6 Type: Class E5 Airspace
Notes: THAT AIRSPACE BELOW 1,200 FEET AGL IS EXCLUDED.

JOHNSON PETERSBURG Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE WRANGELL, AK, AND SITKA, AK, CLASS E AIRSPACE AREAS.

EXCLUDING THAT AIRSPACE WITHIN THE WRANGELL, AK, AND SITKA, AK, CLASS E AIRSPACE AREAS.

EXCLUDING THAT AIRSPACE WITHIN THE WRANGELL, AK, AND SITKA, AK, CLASS E AIRSPACE AREAS.

EXCLUDING THAT AIRSPACE WITHIN THE WRANGELL, AK, AND SITKA, AK, CLASS E AIRSPACE AREAS.

EXCLUDING THAT AIRSPACE WITHIN THE WRANGELL, AK, AND SITKA, AK, CLASS E AIRSPACE AREAS.

OLYMPIC PENINSULA E6 Type: Class E5 Airspace
Notes: THAT AIRSPACE BELOW 1,200 FEET AGL IS EXCLUDED.

SEATTLE-TACOMA INTL Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE WENATCHEE PANGBORN MEMORIAL AIRPORT, WA, CLASS E AIRSPACE AREA.

SOUTHEAST E6 Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE DESIGNATED FOR FEDERAL AIRWAYS AND EXCLUDING THAT AIRSPACE WITHIN KETCHIKAN, AK CLASS E5, THE KLAWOCK, AK CLASS E5, THE WRANGELL, AK CLASS E5, THE PETERSBURG, AK CLASS E5, THE KAKE, AK CLASS E5, THE SITKA, AK CLASS E5, AND THE JUNEAU, AK CLASS E5 AIRSPACE AREAS.

WRANGELL Type: Class E5 Airspace
Notes: EXCLUDES AIRSPACE WITHIN THE PETERSBURG, AK CLASS E AIRSPACE AREA.

CZEG Type: FIR
Notes: AIRSPACE-ZONES, AREAS, AND REGIONS 1. DOMESTIC CLEARANCE - NORTH ATLANTIC (NAT) WEST-BOUND TRAFFIC. A) PILOTS PROCEEDING WESTBOUND ACROSS THE NORTH ATLANTIC (NAT) AND ENTERING CDA WITHIN THE GANDER, MONCTON AND MONTREAL FIRS SHALL COMPLY WITH THE FOLLOWING PROCEDURES: I) FLIGHTS CLEARED BY ATC VIA THE FLIGHT PLANNED ROUTE PRIOR TO REACHING CDA WILL NOT BE ISSUED EN-ROUTE CLEARANCES UPON ENTERING DOMESTIC AIRSPACE, AND ARE TO FOLLOW THE FLIGHT PLANNED ROUTE AS CLEARED. DOMESTIC EN-ROUTE CLEARANCES WILL BE ISSUED: A) FOR FLIGHTS THAT HAVE BEEN REROUTED AND EXIT OCEANIC AIRSPACE AT OTHER THAN THE FLIGHT PLANNED EXIT FIX: B) AT A PILOT'S REQUEST FOR ANOTHER ROUTING OR C) IF A FLIGHT PLAN HAS NOT BEEN RECEIVED BY THE ACC. B) IF ENTERING CANADIAN DOMESTIC AIRSPACE WITHIN THE EDMONTON FLIGHT INFORMATION REGION (FIR) THE ONWARD DOMESTIC ROUTING WILL HAVE BEEN ESTABLISHED IN COORDINATION BETWEEN THE REYKJAVIK AND EDMONTON ACCS, AND ADDITIONAL DOMESTIC CLEARANCE IS NOT NORMALLY REQUIRED. HOWEVER, IF THERE HAS BEEN A CHANGE IN ROUTE FROM FILED FLIGHT PLAN, CLARIFICATION OF THE ONWARD ROUTING MAY BE OBTAINED FROM EDMONTON ACC ON REQUEST. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431601 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775 SATCOM: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610 INMARSAT:

CZVR Type: FIR
Notes: THE VANCOUVER FIR WEST OF TOFINO, CAPE SCOTT, PORT HARDY, AND SANDSPIT NDB IS UNCONTROLLED BELOW 6000' AGL. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZVR IN VANCOUVER FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431607 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-604-507-7875 SATCOM: SATCOM: CONTACT VANCOUVER CENTER ON THE NEAREST PERIPHERAL FREQUENCY AT THE TIME OF CROSSING FIR BOUNDARY. TRANSPONDER ADJUSTED TO REPLY ON MODE A-3 CODE 2000. SATCOM:

KZAK Type: FIR
Notes: CPDLC: USE LOGON ADDRESS KZAK FOR ALL CPDLC COMMUNICATIONS IN THE OAKLAND OCEANIC FIR. WHEN MAKING HF VOICE CHECK-IN WITH SAN FRANCISCO RADIO UPON TRANSFERRING DATA LINK CONTACT TO SAN FRANCISCO, SFO RADIO REQUESTS YOU INCLUDE; POINT OF DEPARTURE, DESTINATION, A/C REGISTRATION AND SELCAL CODE. FOR AIRCRAFT DEPARTING FROM AIRPORTS ALONG THE WEST COAST OF NORTH AMERICA, GUAM AND HAWAII, OAKLAND OCEANIC CONTROL REQUIRES THAT DATA-LINK AIRCRAFT NOT LOGON TO OAKLAND OCEANIC (KZAK) UNTIL AFTER LEAVING 10,000' MSL. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM NON-CPDLC AIRSPACE: LOG ON TO CPDLC AT LEAST 15 BUT NOT MORE THAN 45 MINUTES PRIOR TO ENTERING. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM ADJACENT CPDLC AIRSPACE: IF KZAK IS THE ACTIVE CENTER CONTACT SAN FRANCISCO RADIO. IF KZAK IS NOT THE ACTIVE CENTER, TERMINATE THE CPDLC CONNECTION WITHIN 5 MINUTES AFTER THE BOUNDARY IS CROSSED, THEN LOG ON TO KZAK AND CONTACT SAN FRANCISCO RADIO. FOR AIRCRAFT OVER-FLYING HONOLULU CERAP: AIRCRAFT WILL RECEIVE AN END SERVICE MESSAGE THAT WILL RESULT IN TERMINATION OF CPDLC. AIRCRAFT SHALL RE-LOG ON TO CPDLC PRIOR TO REENTERING OAKLAND OCEANIC FIR. FOR AIRCRAFT ENTERING GUAM CERAP: CONTACT GUAM CERAP 250 MILES OUT ON 118.7, SQUAWK 2100. FOR AIRCRAFT OVER-FLYING GUAM CERAP: CPDLC CONNECTION WITH OAKLAND MAY BE TERMINATED WITHIN THE GUAM CERAP. IF THE CPDLC CONNECTION WITH KZAK IS NOT TERMINATED, DO NOT USE CPDLC FOR ATC UNTIL GUAM CERAP ADVISES YOU TO TO AGAIN CONTACT ENROUTE COMMUNICATIONS OR SAN FRANCISCO RADIO. IT MAY BE NECESSARY TO LOG BACK ON TO CPDLC WITH KZAK 10-15 MINUTES PRIOR TO EXITING GUAM CERAP IF THE CPDLC CONNECTION WAS TERMINATED. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR OAKLAND CENTER IS 436697 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SAN FRANCISCO RADIO IS 436625 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR OAKLAND CENTER IS 1-510-745-3415 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR 120 W BOUNDARIES A. AIRCRAFT ENTERING THE OAKLAND OCA/FIR OVER 120 DEGREES WEST LONGITUDE WITHOUT A KZAK ADS-C CONNECTION ARE REQUESTED TO FORWARD BOUNDARY POSIT

PAZA Type: FIR
Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 907-269-1103. SATCOM:

113 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

116 Type: Special Use Airspace
Notes: RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

117 Type: Special Use Airspace
Notes: RULES FOR CLASS G AIRSPACE APPLY WHEN AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

118 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

184 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

186 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

187 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

188 Type: Special Use Airspace
Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

N961 Type: Special Use Airspace
Notes: Two-way radio contact required prior to entry and while operating within the SATR. CTC KETCHIKAN AFIS 134.450 MHz / ot KETCHIKAN FSS 123.600 MHz.

OLYMPIC Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE BELOW 1,200 FEET AGL.

PAZA Type: UIR

Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 1-907-269-1103. SATCOM:

JAWBN Type: Waypoint
Notes: MINIMUM TURNING ALTITUDE V495 SE TO V4 W 8000'.

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AKIAK Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE BETHEL, ALASKA CLASS E AIRSPACE AREA.

CHIGNIK Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE MORE THAN 12 NAUTICAL MILES FROM THE SHORELINE.

EMMONAK Type: Class E5 Airspace
Notes: EXCLUDING THAT AREA OUTSIDE 12 NM FROM THE SHORELINE THAT OVERLIES NORTON SOUND LOW.

FAIRBANKS INTL Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION WITHIN RESTRICTED AREAS R-220B AND R-2206.

KIPNUK Type: Class E5 Airspace
Notes: EXCLUDES THAT AREA OUTSIDE 12 MILES FROM THE SHORELINE WITHIN NORTON SOUND LOW AND CONTROL 1234L.

WASILLA Type: Class E5 Airspace
Notes: EXCLUDES BIG LAKE CLASS E AIRSPACE AREA.

MAGADAN CTA Type: Control Area (Airport)
Notes: CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CZEG Type: FIR
Notes: AIRSPACE-ZONES, AREAS, AND REGIONS 1. DOMESTIC CLEARANCE - NORTH ATLANTIC (NAT) WEST-BOUND TRAFFIC. A) PILOTS PROCEEDING WESTBOUND ACROSS THE NORTH ATLANTIC (NAT) AND ENTERING CDA WITHIN THE GANDER, MONCTON AND MONTREAL FIRS SHALL COMPLY WITH THE FOLLOWING PROCEDURES: I) FLIGHTS CLEARED BY ATC VIA THE FLIGHT PLANNED ROUTE PRIOR TO REACHING CDA WILL NOT BE ISSUED EN-ROUTE CLEARANCES UPON ENTERING DOMESTIC AIRSPACE, AND ARE TO FOLLOW THE FLIGHT PLANNED ROUTE AS CLEARED. DOMESTIC EN-ROUTE CLEARANCES WILL BE ISSUED: A) FOR FLIGHTS THAT HAVE BEEN REROUTED AND EXIT OCEANIC AIRSPACE AT OTHER THAN THE FLIGHT PLANNED EXIT FIX: B) AT A PILOT'S REQUEST FOR ANOTHER ROUTING OR C) IF A FLIGHT PLAN HAS NOT BEEN RECEIVED BY THE ACC. B) IF ENTERING CANADIAN DOMESTIC AIRSPACE WITHIN THE EDMONTON FLIGHT INFORMATION REGION (FIR) THE ONWARD DOMESTIC ROUTING WILL HAVE BEEN ESTABLISHED IN COORDINATION BETWEEN THE REYKJAVIK AND EDMONTON ACCS, AND ADDITIONAL DOMESTIC CLEARANCE IS NOT NORMALLY REQUIRED. HOWEVER, IF THERE HAS BEEN A CHANGE IN ROUTE FROM FILED FLIGHT PLAN, CLARIFICATION OF THE ONWARD ROUTING MAY BE OBTAINED FROM EDMONTON ACC ON REQUEST. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431601 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775 SATCOM: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610 INMARSAT:

KZAK Type: FIR
Notes: CPDLC: USE LOGON ADDRESS KZAK FOR ALL CPDLC COMMUNICATIONS IN THE OAKLAND OCEANIC FIR. WHEN MAKING HF VOICE CHECK-IN WITH SAN FRANCISCO RADIO UPON TRANSFERRING DATA LINK CONTACT TO SAN FRANCISCO, SFO RADIO REQUESTS YOU INCLUDE; POINT OF DEPARTURE, DESTINATION, A/C REGISTRATION AND SELCAL CODE. FOR AIRCRAFT DEPARTING FROM AIRPORTS ALONG THE WEST COAST OF NORTH AMERICA, GUAM AND HAWAII, OAKLAND OCEANIC CONTROL REQUIRES THAT DATA-LINK AIRCRAFT NOT LOGON TO OAKLAND OCEANIC (KZAK) UNTIL AFTER LEAVING 10,000' MSL. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM NON-CPDLC AIRSPACE: LOG ON TO CPDLC AT LEAST 15 BUT NOT MORE THAN 45 MINUTES PRIOR TO ENTERING. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM ADJACENT CPDLC AIRSPACE: IF KZAK IS THE ACTIVE CENTER CONTACT SAN FRANCISCO RADIO. IF KZAK IS NOT THE ACTIVE CENTER, TERMINATE THE CPDLC CONNECTION WITHIN 5 MINUTES AFTER THE BOUNDARY IS CROSSED, THEN LOG ON TO KZAK AND CONTACT SAN FRANCISCO RADIO. FOR AIRCRAFT OVER-FLYING HONOLULU CERAP: AIRCRAFT WILL RECEIVE AN END SERVICE MESSAGE THAT WILL RESULT IN TERMINATION OF CPDLC. AIRCRAFT SHALL RE-LOG ON TO CPDLC PRIOR TO REENTERING OAKLAND OCEANIC FIR. FOR AIRCRAFT ENTERING GUAM CERAP: CONTACT GUAM CERAP 250 MILES OUT ON 118.7, SQUAWK 2100. FOR AIRCRAFT OVER-FLYING GUAM CERAP: CPDLC CONNECTION WITH OAKLAND MAY BE TERMINATED WITHIN THE GUAM CERAP. IF THE CPDLC CONNECTION WITH KZAK IS NOT TERMINATED, DO NOT USE CPDLC FOR ATC UNTIL GUAM CERAP ADVISES YOU TO TO AGAIN CONTACT ENROUTE COMMUNICATIONS OR SAN FRANCISCO RADIO. IT MAY BE NECESSARY TO LOG BACK ON TO CPDLC WITH KZAK 10-15 MINUTES PRIOR TO EXITING GUAM CERAP IF THE CPDLC CONNECTION WAS TERMINATED. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR OAKLAND CENTER IS 436697 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SAN FRANCISCO RADIO IS 436625 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR OAKLAND CENTER IS 1-510-745-3415 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. POSITION REPORTS OVER OAKLAND OCEANIC

OCA/FIR 120 W BOUNDARIES A. AIRCRAFT ENTERING THE OAKLAND OCA/FIR OVER 120 DEGREES WEST LONGITUDE WITHOUT A KZAK ADS-C CONNECTION ARE REQUESTED TO FORWARD BOUNDARY POSIT

PAZA Type: FIR
Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 907-269-1103. SATCOM:

UHMM Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ULLL Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCHANGELSK ACC IS 427305 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MURMANSK ACC IS 427341 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SYKTYVKAR ACC IS 427366 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

1355 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT CARRYING OUT FLIGHTS FROM/TO UELEN LANDING SITE.

BIRCH Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE 500 FEET AGL TO 3000 FEET MSL FROM 1/2 NM NORTH OF THE ALASKA HIGHWAY TO THE SOUTH SIDE OF THE TANANA RIVER.

BUFFALO Type: Special Use Airspace
Notes: EXCLUDING AT OR BELOW 1500 FEET AGL WITHIN A 3 NM RADIUS OF THE BLACK RAPIDS AIRPORT.

EXCLUDING THAT AIRSPACE BELOW 3000 FEET MSL FROM 2 NM NORTH OF THE ALASKA HIGHWAY TO 2 NM SOUTH OF THE ALASKA HIGHWAY.

EXCLUDING THAT AIRSPACE BELOW 3500 FEET MSL FROM 1/2 NM EAST OF THE RICHARDSON HIGHWAY TO THE WEST SIDE OF THE DELTA RIVER SOUTH OF A LINE ESTABLISHED BETWEEN N63 41 14 W145 54 48 AND N63 42 01 W145 48 52.

EXCLUDING THAT AIRSPACE BELOW 3500 FEET MSL FROM 2 NM EAST OF THE RICHARDSON HIGHWAY TO 1/2 NM WEST OF THE RICHARDSON HIGHWAY OR THE ALASKA PIPELINE WHICHEVER IS FURTHER WEST, NORTH OF A LINE ESTABLISHED BETWEEN N63 41 14 W145 54 48 AND N63 42 01 W145 48 52, AND THAT PORTION WHOLLY CONTAINED IN R-2201B AND R-2201D WHEN ACTIVE.

EXCLUDING THAT AIRSPACE PORTION WHOLLY CONTAINED IN R-2201B AND R-2201D WHEN ACTIVE.

DELTA FOUR Type: Special Use Airspace
Notes: EXCLUDING THAT PORTION WHOLLY CONTAINED IN R-2201D WHEN ACTIVE.

DELTA THR* Type: Special Use Airspace
Notes: EXCLUDING THAT PORTION WHOLLY CONTAINED IN R-2201A, R-2201B, R-2201C, AND R-2201D WHEN ACTIVE.

MNPS Type: Special Use Airspace
Notes: NO AIRCRAFT SHOULD ENTER NAT MNPS AIRSPACE UNLESS IT IS MNPS EQUIPPED AND THE OPERATION IS SPECIFICALLY AUTHORIZED BY THE STATE OF REGISTRY OR STATE OF THE OPERATOR AS APPROPRIATE.

N962 Type: Special Use Airspace
Notes: ACFT operating within Bryant segment should self announce intentions on Bryant Airport CTAF.

Two-way radio contact required with ANCHORAGE APCH CTL.; ACFT entering to or from Lake Hood/Merrill segment BELOW 1200 shall CTC ATCT prior to entry and while operating within the area.

Two-way radio contact required with ATCT serving the segment containing the ARR or DEP APT prior to entry and while operating within the area.

Two-way radio contact required with ATCT serving the segment containing the ARR or DEP APT prior to entry and while operating within the area.; ACFT with speed > 105 kn fly ABOVE 1600, < 105 kn fly ABOVE 900, until landing requires further descent.

Two-way radio contact required with ATCT serving the segment containing the ARR or DEP APT prior to entry and while operating within the area.; Fly ABOVE 600, until landing requires further descent.

Two-way radio contact required with ATCT serving the segment containing the ARR or DEP APT prior to entry and while operating within the area.; Turbine powered ACFT fly ABOVE 1700, ACFT with speed > 105 kn fly ABOVE 1200, < 105 kn fly ABOVE 800, until landing requires further descent.

When MERRILL ATCT is not operating, CTC ANCHORAGE APP CTR for wake turbulence and other advisories. ACFT operating S of Mid-Channel should self announce intentions on MERRILL FIELD CTAF.; ACFT with speed > 105 kn fly ABOVE 1200, < 105 kn fly ABOVE 900, until landing requires further descent.

STONY A Type: Special Use Airspace
Notes: EXCLUDES THAT AIRSPACE 1,500' AGL AND BELOW WITHIN A 3NM RADIUS OF THE STONY RIVER AIRPORT (N61 47.4 W156 35.3).

SUSITNA Type: Special Use Airspace
Notes: VERTICAL LIMITS: 10,000' MSL OR 5,000' AGL, WHICHEVER IS HIGHER, TO BUT NOT INCLUDING FL180.

VIPER A Type: Special Use Airspace
Notes: EXCLUDING THE EIELSON AFB CLASS D AIRSPACE AREA, AND THAT PORTION WHOLLY CONTAINED IN R-2205A, R-2205B, AND R-2205D WHEN ACTIVE.

VIPER B Type: Special Use Airspace
Notes: EXCLUDING THAT PORTION WHOLLY CONTAINED IN R-2205F, R-2205G, AND R-2205J WHEN ACTIVE.

YUKON 1 Type: Special Use Airspace
Notes: EXCLUDING THAT PORTION WHOLLY CONTAINED IN R-2205B, R-2205C, R-2205D, R-2205E, R-2205G, R-2205H, R-2205J, AND R-2205K WHEN ACTIVE.

YUKON 2 Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE AT OR BELOW 1,500 FEET AGL WITHIN A 3 NM RADIUS OF THE COAL CREEK AIRPORT, AND THAT AIRSPACE AT OR BELOW 1,500 FEET AGL WITHIN A 3 NM RADIUS OF THE CHENA HOT SPRINGS AIRPORT.

YUKON 4 Type: Special Use Airspace
Notes: EXCLUDES THAT AIRSPACE SURFACE TO 2000' AGL 2 NM EITHER SIDE OF THE CENTER OF THE FOLLOWING YUKON-CHARLEY RIVER EXCLUSION AREAS FROM APRIL 15 THROUGH SEPTEMBER 15: (1) YUKON RIVER ENTIRE PORTION; (2) CHARLEY RIVER ENTIRE PORTION; (3) KANDICK RIVER EXTENDING FROM N65 44 00 W141 17 00 SW TO THE YUKON RIVER.

PAZA Type: UIR
Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 1-907-269-1103. SATCOM:

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EMMONAK Type: Class E5 Airspace
Notes: EXCLUDING THAT AREA OUTSIDE 12 NM FROM THE SHORELINE THAT OVERLIES NORTON SOUND LOW.

KIPNUK Type: Class E5 Airspace
Notes: EXCLUDES THAT AREA OUTSIDE 12 MILES FROM THE SHORELINE WITHIN NORTON SOUND LOW AND CONTROL 1234L.

MAGADAN CTA Type: Control Area (Airport)
Notes: CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

ST PETERSBURG CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

PAZA Type: FIR
Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING

VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 907-269-1103. SATCOM:

UEEE Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR TIKSI ACC IS 427368 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR CHULMAN ACC IS 427315 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MIRNY ACC IS 427339 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHMM Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ULLL Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCHANGELSK ACC IS 427305 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MURMANSK ACC IS 427341 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SYKTYVKAR ACC IS 427366 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

PAZA Type: FIR/UIR
Notes: HF SERVICE IN THE ANCHORAGE ARCTIC FIR IS PROVIDED VIA GANDER RADIO. PILOTS MUST MAINTAIN HF COMMUNICATIONS CAPABILITY WITH GANDER RADIO AT ALL TIMES WITHIN THE ANCHORAGE ARCTIC FIR. FLIGHT CREWS SHALL: REPORT CROSSING 141°W E-BND OR W-BND, OR CROSSING INTO PAZA FIR FROM ULLL OR UHMM FIR VIA GANDER RADIO ON 2971, 4675, 8891, 11279. REPORT CROSSING INTO ULLL FIR FROM PAZA FIR VIA PETERSBURG CONTROL ON 11390, 8950, 5694, 4672. REPORT CROSSING INTO UHMM FIR FROM PAZA FIR VIA MAGADAN CONTROL ON 15030, 13265, 11390, 8837, 6585, 4712. CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE ARCTIC FIR BETWEEN THE NORTH POLE AND 73N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ARCTIC FIR SOUTH OF 73N. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN OR EDMONTON FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN OR EDMONTON FIRS. NOTE: -THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. -AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. CPDLC: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 1-907-269-1103. SATCOM: WITHIN ANCHORAGE ARCTIC FIR THE LATERAL SEPARATION STANDARD APPLICABLE TO AIRCRAFT AUTHORIZED RNP 10 AND/OR 4 IS 50 NM, AIRCRAFT NOT AUTHORIZED RNP 10 AND/OR 4 WILL APPLY 90 NM. GANDER RADIO WILL RELAY COMMUNICATIONS TO ANCHORAGE CENTER FOR ENROUTE AIRCRAFT BEYOND THE RANGE OF ALASKAN VHF GROUND COMMUNICATIONS NETWORK. AIRCRAFT OPERATING WITHIN THE ANCHORAGE ARCTIC CTA/FIR SHOULD MAINTAIN COMMUNICATIONS WITH GANDER RADIO AND A LISTENING WATCH ON HF FREQUENCIES OF NORTH ATLANTIC DELTA (NAT D) NETWORK.

1352 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING

1354 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING

1355 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT CARRYING OUT FLIGHTS FROM/TO UELEN LANDING SITE.

1359 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING.

1361 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING.

1362 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING.

1364 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO PROVIDENIYA BAY AD ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING.

337 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT AT A DISTANCE OF MORE THAN 1 KM FROM AREA CENTER PERFORMING FLIGHTS AT ABOVE 700 M/2300 FT FROM/TO PEVEK AERODROME ALONG THE ESTABLISHED STAR, SID, APCH PROCEDURES AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY ATS UNIT BY RADAR VECTORING.

MNPS Type: Special Use Airspace
Notes: NO AIRCRAFT SHOULD ENTER NAT MNPS AIRSPACE UNLESS IT IS MNPS EQUIPPED AND THE OPERATION IS SPECIFICALLY AUTHORIZED BY THE STATE OF REGISTRY OR STATE OF THE OPERATOR AS APPROPRIATE.

PAZA Type: UIR
Notes: CPDLC: USE LOGON ADDRESS PAZN FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR WEST OF 165W AND SOUTH OF 63N. USE LOGON ADDRESS PAZA FOR ALL CPDLC COMMUNICATIONS IN THE ANCHORAGE DOMESTIC FIR FOR ALL OTHER AREAS. AIRCRAFT ENTERING ANCHORAGE FIR AIRSPACE FROM THE MAGADAN, EDMONTON, VANCOUVER, OR OAKLAND FIRS WILL BE PROVIDED AUTOMATIC FANS ADDRESS FORWARDING FROM THE ATC GROUND COMPUTER. AIRCRAFT DEPARTING ALASKAN AIRPORTS SHOULD LOGON AFTER DEPARTURE, BUT BEFORE LEAVING FL180. AFTER LOGON, ANCHORAGE ARTCC AUTOMATION WILL PROVIDE AUTOMATIC FANS ADDRESS FORWARDING FOR FLIGHTS ENTERING THE MAGADAN, EDMONTON, VANCOUVER AND OAKLAND FIRS. NOTE: - THE USE OF CPDLC DOES NOT REMOVE REQUIREMENTS FOR MONITORING VHF/HF FREQUENCIES. - AIRCRAFT WITHIN VHF COVERAGE MAY MAKE POSITION REPORTS VIA CPDLC. - WEST OF 165W, ALL REQUESTS TO ATC MAY BE MADE VIA CPDLC. - EAST OF 165W, REQUESTS TO ATC SHOULD BE MADE VIA VHF IF WITHIN VHF COVERAGE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR ANCHORAGE ATC IS 436602. INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR ANCHORAGE ATC IS 1-907-269-1103. SATCOM:

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KHABAROVSK/NOVY CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

MAGADAN CTA Type: Control Area (Airport)
Notes: CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

ST PETERSBURG CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

KZAK Type: FIR
Notes: CPDLC: USE LOGON ADDRESS KZAK FOR ALL CPDLC COMMUNICATIONS IN THE OAKLAND OCEANIC FIR. WHEN MAKING HF VOICE CHECK-IN WITH SAN FRANCISCO RADIO UPON TRANSFERRING DATA LINK CONTACT TO SAN FRANCISCO, SFO RADIO REQUESTS YOU INCLUDE; POINT OF DEPARTURE, DESTINATION, A/C REGISTRATION AND SELCAL CODE. FOR AIRCRAFT DEPARTING FROM AIRPORTS ALONG THE WEST COAST OF NORTH AMERICA, GUAM AND HAWAII, OAKLAND OCEANIC CONTROL REQUIRES THAT DATA-LINK AIRCRAFT NOT LOGON TO OAKLAND OCEANIC (KZAK) UNTIL AFTER LEAVING 10,000' MSL. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM NON-CPDLC AIRSPACE: LOG ON TO CPDLC AT LEAST 15 BUT NOT MORE THAN 45 MINUTES PRIOR TO ENTERING. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM ADJACENT CPDLC AIRSPACE: IF KZAK IS THE ACTIVE CENTER CONTACT SAN FRANCISCO RADIO. IF KZAK IS NOT THE ACTIVE CENTER, TERMINATE THE CPDLC CONNECTION WITHIN 5 MINUTES AFTER THE BOUNDARY IS CROSSED, THEN LOG ON TO KZAK AND CONTACT SAN FRANCISCO RADIO. FOR AIRCRAFT OVER-FLYING HONOLULU CERAP: AIRCRAFT WILL RECEIVE AN END SERVICE MESSAGE THAT WILL RESULT IN TERMINATION OF CPDLC. AIRCRAFT SHALL RE-LOG ON TO CPDLC PRIOR TO REENTERING OAKLAND OCEANIC FIR. FOR AIRCRAFT ENTERING GUAM CERAP: CONTACT GUAM CERAP 250 MILES OUT ON 118.7, SQUAWK 2100. FOR AIRCRAFT OVER-FLYING GUAM CERAP: CPDLC CONNECTION WITH OAKLAND MAY BE TERMINATED WITHIN THE GUAM CERAP. IF THE CPDLC CONNECTION WITH KZAK IS NOT TERMINATED, DO NOT USE CPDLC FOR ATC UNTIL GUAM CERAP ADVISES YOU TO TO AGAIN CONTACT ENROUTE COMMUNICATIONS OR SAN FRANCISCO RADIO. IT MAY BE NECESSARY TO LOG BACK ON TO CPDLC WITH KZAK 10-15 MINUTES PRIOR TO EXITING GUAM CERAP IF THE CPDLC CONNECTION WAS TERMINATED. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR OAKLAND CENTER IS 436697 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SAN FRANCISCO RADIO IS 436625 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR OAKLAND CENTER IS 1-510-745-3415 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR 120 W BOUNDARIES A. AIRCRAFT ENTERING THE OAKLAND OCA/FIR OVER 120 DEGREES WEST LONGITUDE WITHOUT A KZAK ADS-C CONNECTION ARE REQUESTED TO FORWARD BOUNDARY POSIT

UEEE Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR TIKSI ACC IS 427368 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR CHULMAN ACC IS

427315 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MIRNY ACC IS 427339 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHHH Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR KHABAROVSK ACC IS 427324 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHMM Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ULLL Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCHANGELSK ACC IS 427305 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MURMANSK ACC IS 427341 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SYKTYVKAR ACC IS 427366 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

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KHABAROVSK/NOVY CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

MAGADAN CTA Type: Control Area (Airport)
Notes: CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

SOVETSKAYA GAVAN CTA Type: Control Area (Airport)
Notes: OUTSIDE ATS OPERATIONAL HOURS CONTACT KHABAROVSK CONTROL 135.100 MHZ, 4680 KHZ, 4770 KHZ.

ST PETERSBURG CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

SOVETSKAYA GAVAN CTR Type: Control Zone (CTZ/CTR)
Notes: OUTSIDE ATS OPERATIONAL HOURS CONTACT KHABAROVSK RAYON 133.000 MHZ OR KHABAROVSK CONTROL 135.100 MHZ, 4680 KHZ, 4770 KHZ.

KZAK Type: FIR
Notes: CPDLC: USE LOGON ADDRESS KZAK FOR ALL CPDLC COMMUNICATIONS IN THE OAKLAND OCEANIC FIR. WHEN MAKING HF VOICE CHECK-IN WITH SAN FRANCISCO RADIO UPON TRANSFERRING DATA LINK CONTACT TO SAN FRANCISCO, SFO RADIO REQUESTS YOU INCLUDE; POINT OF DEPARTURE, DESTINATION, A/C REGISTRATION AND SELCAL CODE. FOR AIRCRAFT DEPARTING FROM AIRPORTS ALONG THE WEST COAST OF NORTH AMERICA, GUAM AND HAWAII, OAKLAND OCEANIC CONTROL REQUIRES THAT DATA-LINK AIRCRAFT NOT LOGON TO OAKLAND OCEANIC (KZAK) UNTIL AFTER LEAVING 10,000' MSL. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM NON-CPDLC AIRSPACE: LOG ON TO CPDLC AT LEAST 15 BUT NOT MORE THAN 45 MINUTES PRIOR TO ENTERING. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM ADJACENT CPDLC AIRSPACE: IF KZAK IS THE ACTIVE CENTER CONTACT SAN FRANCISCO RADIO. IF KZAK IS NOT THE ACTIVE CENTER, TERMINATE THE CPDLC CONNECTION WITHIN 5 MINUTES AFTER THE BOUNDARY IS CROSSED, THEN LOG ON TO KZAK AND CONTACT SAN FRANCISCO RADIO. FOR AIRCRAFT OVER-FLYING HONOLULU CERAP: AIRCRAFT WILL RECEIVE AN END SERVICE MESSAGE THAT WILL RESULT IN TERMINATION OF CPDLC. AIRCRAFT SHALL RE-LOG ON TO CPDLC PRIOR TO REENTERING OAKLAND OCEANIC FIR. FOR AIRCRAFT ENTERING GUAM CERAP: CONTACT GUAM CERAP 250 MILES OUT ON 118.7, SQUAWK 2100. FOR AIRCRAFT OVER-FLYING GUAM CERAP: CPDLC CONNECTION WITH OAKLAND MAY BE TERMINATED WITHIN THE GUAM CERAP. IF THE CPDLC CONNECTION WITH KZAK IS NOT TERMINATED, DO NOT USE CPDLC FOR ATC UNTIL GUAM CERAP ADVISES YOU TO TO AGAIN CONTACT ENROUTE COMMUNICATIONS OR SAN FRANCISCO RADIO. IT MAY BE NECESSARY TO LOG BACK ON TO CPDLC WITH KZAK 10-15 MINUTES PRIOR TO EXITING GUAM CERAP IF THE CPDLC CONNECTION WAS TERMINATED. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR OAKLAND CENTER IS 436697 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SAN FRANCISCO RADIO IS 436625 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR OAKLAND CENTER IS 1-510-745-3415 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR 120 W BOUNDARIES A. AIRCRAFT ENTERING THE OAKLAND OCA/FIR OVER 120 DEGREES WEST LONGITUDE WITHOUT A KZAK ADS-C CONNECTION ARE REQUESTED TO FORWARD BOUNDARY POSIT

RJJJ Type: FIR
Notes: SPEED RESTRICTIONS WITHIN JAPAN AIRSPACE MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC. WITHIN AN APPROACH CONTROL AREA AT OR BELOW 10000' MSL 250 KTS 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:

UEEE Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR TIKSI ACC IS 427368 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR CHULMAN ACC IS 427315 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MIRNY ACC IS 427339 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHHH Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR KHABAROVSK ACC IS 427324 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHMM Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ULLL Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCHANGELSK ACC IS 427305 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR MURMANSK ACC IS 427341 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SYKTYVKAR ACC IS 427366 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ZYSH Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR SHENYANG ACC IS 441207 INMARSAT: 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.

1301 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING FLIGHTS FROM/TO OKHOTNICHIY LANDING SITE

1303 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT CARRYING OUT FLIGHTS FROM/TO KOMSOMOLSK-NA-AMURE/KHURBA AD.

1349 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO STATE AVIATION ACFT, ACFT EXECUTING FLIGHTS ALONG ATS ROUTES, ALONG THE ESTABLISHED STAR, SID ROUTES, APCH PROCEDURES, AS WELL AS FLIGHTS ALONG THE TRACKS ASSIGNED BY THE ATS UNIT BY RADAR VECTORING, ACFT EXECUTING VISUAL APPROACHES TO KHABAROVSK/NOVY AD

1579 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO FLIGHTS CARRIED OUT ACCORDING TO SID AND APCH PROCEDURES OF ZEYA AD.

304 Type: Special Use Airspace
Notes: THE RESTRICTION IS NOT APPLICABLE TO ACFT EXECUTING DEPARTURE FROM/APPROACH TO KOMSOMOLSK-NA-AMURE/KHURBA AD.

323 Type: Special Use Airspace
Notes: FLIGHTS OF ACFT FROM/TO KOMSOMOLSK-NA-AMURE/KHURBA AD ARE PERMITTED.

326 Type: Special Use Airspace
Notes: FLIGHTS OF ACFT ARE ALLOWED ALONG THE COMMUTER ROUTES.

327 Type: Special Use Airspace
Notes: FLIGHTS OF ACFT ARE ALLOWED ALONG THE COMMUTER ROUTES.

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DALIAN CTA SECTOR ZYTLAR01 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR03 WHEN ZYTLAR01 U/S

DALIAN CTA SECTOR ZYTLAR02 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR03 WHEN ZYTLAR02 U/S

DALIAN CTA SECTOR ZYTLAR04 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR01 WHEN ZYTLAR04 U/S

DALIAN CTA SECTOR ZYTLAR05 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR02 WHEN ZYTLAR05 U/S

DALIAN CTA SECTOR ZYTLAR06 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR03 WHEN ZYTLAR06 U/S

DALIAN CTA SECTOR ZYTLAR07 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR02 WHEN ZYTLAR07 U/S

DALIAN CTA SECTOR ZYTLAR08 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR07 OR ZYTLAR05 OR ZYTLAR02 WHEN ZYTLAR08 U/S

DALIAN CTA SECTOR ZYTLAR09 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR07 OR ZYTLAR02 WHEN ZYTLAR09 U/S

KHABAROVSK/NOVY CTA Type: Control Area (Airport)
Notes: CLASS A AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

CLASS C AIRSPACE OUTSIDE THE TERRITORY OF THE RUSSIAN FEDERATION IS ON ATS ROUTES ONLY.

QINGDAO CTA SECTOR ZSQDAR05 Type: Control Area (Airport)
Notes: CONTACT ZYTLAR03 WHEN ZYTLAR05 U/S.

SHENYANG CTA ZYTXAR01 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR04 WHEN ZYTXAR01 U/S

SHENYANG CTA ZYTXAR03 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR02 WHEN ZYTXAR03 U/S

SHENYANG CTA ZYTXAR04 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR02 WHEN ZYTXAR04 U/S

SHENYANG CTA ZYTXAR05 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR04 WHEN ZYTXAR05 U/S

SHENYANG CTA ZYTXAR06 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR04 WHEN ZYTXAR06 U/S

SHENYANG CTA ZYTXAR07 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR01 WHEN ZYTXAR07 U/S

SHENYANG CTA ZYTXAR08 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR02 WHEN ZYTXAR08 U/S

SHENYANG CTA ZYTXAR09 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR01 WHEN ZYTXAR09 U/S

SHENYANG CTA ZYTXAR10 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR06 WHEN ZYTXAR10 U/S

SHENYANG CTA ZYTXAR11 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR04 WHEN ZYTXAR11 U/S

SHENYANG CTA ZYTXAR12 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR03 WHEN ZYTXAR12 U/S

SHENYANG CTA ZYTXAR13 Type: Control Area (Airport)
Notes: CONTACT ZYTXAR07 WHEN ZYTXAR13 U/S

XI'AN CTA ZLXYAR09 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR09 U/S.

XI'AN CTA ZLXYAR10 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR10 U/S.

RJJJ Type: FIR
Notes: SPEED RESTRICTIONS WITHIN JAPAN AIRSPACE MAXIMUM IAS UNLESS OTHERWISE AUTHORIZED BY ATC. WITHIN AN APPROACH CONTROL AREA AT OR BELOW 10000' MSL 250 KTS 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

UHHH Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR KHABAROVSK ACC IS 427324 INMARSAT: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

UHMM Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF GDXB IN MAGADAN FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR MAGADAN ACC IS 427336 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 427354 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR MAGADAN ACC IS 74-13-260-6719 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR PETROPAVLOVSK-KAMCHATSKY ACC IS 74-15-319-9395 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ZBPE 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. INMARSAT: INMARSAT SECURITY NUMBER FOR BEIJING ACC IS 441201 INMARSAT:

ZKKP Type: FIR
Notes: RVSM AIRSPACE FL290-FL410 INCLUSIVE.

ZLHW Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF ZLLL IN LANZHOU FIR. LOGON SHOULD BE ESTABLISHED 15 MINUTES PRIOR TO ENTERING THE DATA LINK AIRSPACE CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR LANZHOU ACC IS 441205 OR 441215 INMARSAT: EMERGENCY PROCEDURES FOR ROUTE L888: - THE AVAILABLE ALTERNATE AIRPORTS FOR ROUTE L888 ARE KUNMING, CHENGDU, URUMQI AND KASHI. - THE PILOT SHALL FLY VIA REGULATED WAYPOINTS TO EVACUATE FROM ROUTE L888 WHEN EVACUATING OR ALTERNATING IS DECIDED IN AN EMERGENT CONDITION. THE BREAKING POINTS ARE: BIDRU - DIRECT TO KUNMING AIRPORT; MAKUL - DIRECT TO KUNMING AIRPORT; NIVUX - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; LEVBA - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; PEXUN - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; SANLI - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; LUVAR - DIRECT TO MEPEP - LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; MUMAN - DIRECT TO LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; LEBAK - DIRECT TO LUSMA/DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; TONAX - DIRECT TO DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; - THE PILOT SHALL BE RESPONSIBLE FOR THE OBSTACLE CLEARANCE ALTITUDE AND MANEUVERING TRACK WHEN EMERGENCY DESCENT IS EXECUTED IN THE CONDITION OF AIR CABIN DEPRESSURIZING. - INMARSAT ACC PHONE NUMBERS: KUNMING - 441204; CHENGDU - 441202; LANZHOU - 441205 OR 441215;URUMQI - 441208. 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. RVSM AIRSPACE FL291-FL411 INCLUSIVE.

ZMUB Type: FIR
Notes: AIRCRAFT ENTERING ULAANBAATAR FIR MUST CONTACT ATC 5 MINUTES PRIOR TO FIR ENTRY. RVSM AIRSPACE 29100' - 41100'MSL INCLUSIVE. IT IS PROHIBITED TO OPERATE A FLIGHT WITHOUT PERMISSION IN THE AIRSPACE (STATE BORDER ZONE) WITHIN 16.2NM (30KM) FROM THE STATE BORDER.

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.

ZYSH Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR SHENYANG ACC IS 441207 INMARSAT: 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.

31 Type: Special Use Airspace
Notes: EXCEPT YANGYANG CTR

M808 Type: Special Use Airspace
Notes: UPPER LIMIT PROMULGATED BY NOTAM

CHANGCHUN APP CTL ZYCCAP01 Type: Terminal Area
Notes: EXCLUDE ZYCCAP02

CHANGCHUN APP CTL ZYCCAP02N Type: Terminal Area
Notes: RWY06 IN USE AT ZYCC CONTACT ZYCCAP01 WHEN ZYCCAP02 U/S.

CHANGCHUN APP CTL ZYCCAP02S Type: Terminal Area
Notes: CONTACT ZYCCAP01 WHEN ZYCCAP02 U/S. RWY24 IN USE AT ZYCC

CHANGCHUN APP CTL ZYCCAP03 Type: Terminal Area
Notes: CONTACT ZYCCAP02 WHEN ZYCCAP03 U/S. EXCLUDE ZYCCAP02

DALIAN APP CTL AREA ZYTLAP01 Type: Terminal Area
Notes: EXCLUDE ZYTLAP02

DALIAN APP CTL AREA ZYTLAP02 Type: Terminal Area
Notes: CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S RWY10 IN USE AT ZYTL

CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S RWY10 IN USE AT ZYTL

RWY10 IN USE AT ZYTL CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S

RWY28 IN USE AT ZYTL CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S

RWY28 IN USE AT ZYTL CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S

RWY28 IN USE AT ZYTL CONTACT ZYTLAP01 WHEN ZYTLAP02 U/S

DALIAN APP CTL AREA ZYTLAP03 Type: Terminal Area
Notes: CONTACT ZYTLAP01 WHEN ZYTLAP03 U/S EXCLUDE ZYTLAP02

HARBIN APP CTL AREA ZYHBAP01 Type: Terminal Area
Notes: RWY05 IN USE AT ZYHB EXCLUDE ZYHBAP02

RWY23 IN USE AT ZYHB EXCLUDE ZYHBAP02 AND ZYHBAP03

HARBIN APP CTL AREA ZYHBAP02 Type: Terminal Area
Notes: RWY05 IN USE AT ZYHB

RWY23 IN USE AT ZYHB EXCLUDE ZYHBAP03

HARBIN APP CTL AREA ZYHBAP03 Type: Terminal Area
Notes: RWY05 IN USE AT ZYHB EXCLUDE ZYHBAP02

RWY23 IN USE AT ZYHB

HOHHOT APP CTL ZBHHAP01 Type: Terminal Area
Notes: RWY08 IN USE AT ZBHH

RWY26 IN USE AT ZBHH

HOHHOT APP CTL ZBHHAP02 Type: Terminal Area
Notes: CONTACT ZBHHAP01 WHEN ZBHHAP02 U/S RWY08 IN USE AT ZBHH

RWY26 IN USE AT ZBHH CONTACT ZBHHAP01 WHEN ZBHHAP02 U/S

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 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

SHENYANG APP CTL ZYTXAP01 Type: Terminal Area
Notes: RWY06 IN USE AT ZYTX

RWY24 IN USE AT ZYTX

SHENYANG APP CTL ZYTXAP02 Type: Terminal Area
Notes: CONTACT ZYTXAP01 WHEN ZYTXAP02 U/S RWY24 IN USE AT ZYTX

RWY06 IN USE AT ZYTX CONTACT ZYTXAP01 WHEN ZYTXAP02 U/S

SHENYANG APP CTL ZYTXAP03 Type: Terminal Area
Notes: RWY06 IN USE AT ZYTX CONTACT ZYTXAP01 WHEN ZYTXAP03 U/S

RWY24 IN USE AT ZYTX CONTACT ZYTXAP01 WHEN ZYTXAP03 U/S

SHIJIAZHUANG APP CTL ZBSJAP02 Type: Terminal Area
Notes: RWY15 IN USE AT ZBSJ

RWY33 IN USE AT ZBSJ

TIANJIN APP CTL ZBTJAP01N Type: Terminal Area
Notes: RWY34L/34R IN USE AT ZBTJ

TIANJIN APP CTL ZBTJAP01S Type: Terminal Area
Notes: RWY16L/16R IN USE AT ZBTJ

TIANJIN APP CTL ZBTJAP02N Type: Terminal Area
Notes: RWY34L/34R IN USE AT ZBTJ

TIANJIN APP CTL ZBTJAP02S Type: Terminal Area
Notes: RWY16L/16R IN USE AT ZBTJ

WONJU TMA Type: Terminal Area
Notes: ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

ATS ROUTES ARE EXCLUDED.

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CHANGSHA CTA ZGHAAR01 Type: Control Area (Airport)
Notes: CONTACT ZGHAAR04 WHEN ZGHAAR01 U/S

CHANGSHA CTA ZGHAAR02 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

CHENGDU CTA Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR01 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR02 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR03 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR04 Type: Control Area (Airport)

Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR05 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR06 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR07 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR08 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR09 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR10 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR11 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR12 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR13 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR15 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR16 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR17 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR18 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR19 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR21 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR25 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR27 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

CHENGDU CTA ZUUUAR28 Type: Control Area (Airport)
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT:

LANZHOU CTA ZLLLAR02 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR01 WHEN ZLLLAR02 U/S.

LANZHOU CTA ZLLLAR03 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR04 WHEN ZLLLAR03 U/S.

LANZHOU CTA ZLLLAR05 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR01 WHEN ZLLLAR05 U/S.

LANZHOU CTA ZLLLAR06 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR05 WHEN ZLLLAR06 U/S.

LANZHOU CTA ZLLLAR07 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR04 WHEN ZLLLAR07 U/S.

LANZHOU CTA ZLLLAR08 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR01 WHEN ZLLLAR08 U/S.

LANZHOU CTA ZLLLAR11 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR02 WHEN ZLLLAR11 U/S.

LANZHOU CTA ZLLLAR14 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR15 WHEN ZLLLAR14 U/S.

LANZHOU CTA ZLLLAR15 Type: Control Area (Airport)
Notes: CONTACT ZLLLAR01 WHEN ZLLLAR15 U/S.

XI'AN CTA ZLXYAR02 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR02 U/S.

XI'AN CTA ZLXYAR03 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR03 U/S.

XI'AN CTA ZLXYAR04 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR04 U/S.

XI'AN CTA ZLXYAR05 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR03 WHEN ZLXYAR05 U/S.

XI'AN CTA ZLXYAR06 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR06 U/S.

XI'AN CTA ZLXYAR07 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR02 WHEN ZLXYAR07 U/S.

XI'AN CTA ZLXYAR08 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR05 WHEN ZLXYAR08 U/S.

XI'AN CTA ZLXYAR09 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR09 U/S.

XI'AN CTA ZLXYAR10 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR01 WHEN ZLXYAR10 U/S.

XI'AN CTA ZLXYAR11 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR02 WHEN ZLXYAR11 U/S.

XI'AN CTA ZLXYAR12 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR04 WHEN ZLXYAR12 U/S.

XI'AN CTA ZLXYAR13 Type: Control Area (Airport)
Notes: CONTACT ZLXYAR04 WHEN ZLXYAR13 U/S.

ZBPE 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. INMARSAT: INMARSAT SECURITY NUMBER FOR BEIJING ACC IS 441201 INMARSAT:

ZGZU 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.

ZHWH Type: FIR
Notes: RVSM AIRSPACE FL291-FL411 INCLUSIVE.

ZLHW Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF ZLLL IN LANZHOU FIR. LOGON SHOULD BE ESTABLISHED 15 MINUTES

PRIOR TO ENTERING THE DATA LINK AIRSPACE CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR LANZHOU ACC IS 441205 OR 441215 INMARSAT: EMERGENCY PROCEDURES FOR ROUTE L888: - THE AVAILABLE ALTERNATE AIRPORTS FOR ROUTE L888 ARE KUNMING, CHENGDU, URUMQI AND KASHI. - THE PILOT SHALL FLY VIA REGULATED WAYPOINTS TO EVACUATE FROM ROUTE L888 WHEN EVACUATING OR ALTERNATING IS DECIDED IN AN EMERGENT CONDITION. THE BREAKING POINTS ARE: BIDRU - DIRECT TO KUNMING AIRPORT; MAKUL - DIRECT TO KUNMING AIRPORT; NIVUX - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; LEVBA - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; PEXUN - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; SANLI - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; LUVAR - DIRECT TO MEPEP - LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; MUMAN - DIRECT TO LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; LEBAK - DIRECT TO LUSMA/DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; TONAX - DIRECT TO DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; - THE PILOT SHALL BE RESPONSIBLE FOR THE OBSTACLE CLEARANCE ALTITUDE AND MANEUVERING TRACK WHEN EMERGENCY DESCENT IS EXECUTED IN THE CONDITION OF AIR CABIN DEPRESSURIZING. - INMARSAT ACC PHONE NUMBERS: KUNMING - 441204; CHENGDU - 441202; LANZHOU - 441205 OR 441215;URUMQI - 441208. 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. RVSM AIRSPACE FL291-FL411 INCLUSIVE.

ZPKM Type: FIR
Notes: INMARSAT: INMARSAT SECURITY NUMBER FOR KUNMING ACC IS 441204 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR CHENGDU ACC IS 441202 INMARSAT: EMERGENCY PROCEDURES FOR ROUTE L888: - THE AVAILABLE ALTERNATE AIRPORTS FOR ROUTE L888 ARE KUNMING, CHENGDU, URUMQI AND KASHI. - THE PILOT SHALL FLY VIA REGULATED WAYPOINTS TO EVACUATE FROM ROUTE L888 WHEN EVACUATING OR ALTERNATING IS DECIDED IN AN EMERGENT CONDITION. THE BREAKING POINTS ARE: BIDRU - DIRECT TO KUNMING AIRPORT; MAKUL - DIRECT TO KUNMING AIRPORT; NIVUX - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; LEVBA - DIRECT TO XIC (VOR) - SB (NDB) - XFA (VOR) - KUNMING AIRPORT; PEXUN - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; SANLI - DIRECT TO JTG (VOR) - CHENGDU AIRPORT; LUVAR - DIRECT TO MEPEP - LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; MUMAN - DIRECT TO LUSMA - DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; LEBAK - DIRECT TO LUSMA/DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; TONAX - DIRECT TO DUMIN - TUSLI - HAM (VOR) - MIMAR - VIKOL - FKG (VOR) - URUMQI AIRPORT; - THE PILOT SHALL BE RESPONSIBLE FOR THE OBSTACLE CLEARANCE ALTITUDE AND MANEUVERING TRACK WHEN EMERGENCY DESCENT IS EXECUTED IN THE CONDITION OF AIR CABIN DEPRESSURIZING. - INMARSAT ACC PHONE NUMBERS: KUNMING - 441204; CHENGDU - 441202; LANZHOU - 441205 OR 441215;URUMQI - 441208. 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.

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.

CHENGDU Type: Special Use Airspace
Notes: AFTER APPROVAL, ENTER FROM JYA TO N290512 E1031759, EXIT FROM N290518 E1034238 TO JYA

CHENGDU APP CTL ZUUUAP01N Type: Terminal Area
Notes: RWY02L/02R IN USE AT ZUUU

RWY02L/02R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP01S Type: Terminal Area
Notes: RWY20L/20R IN USE AT ZUUU

RWY20L/20R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP02E Type: Terminal Area
Notes: RWY01/02/11 IN USE AT ZUTF

RWY01/02/11 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP02S Type: Terminal Area
Notes: RWY11/19/20 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP03E Type: Terminal Area
Notes: RWY01/02/11 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP03S Type: Terminal Area
Notes: RWY11/19/20 IN USE AT ZUTF

RWY11/19/20 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP04E Type: Terminal Area
Notes: RWY01/02/11 IN USE AT ZUTF

RWY01/02/11 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP04S Type: Terminal Area
Notes: RWY11/19/20 IN USE AT ZUTF

RWY11/19/20 IN USE AT ZUTF

RWY11/19/20 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP05E Type: Terminal Area
Notes: RWY01/02/11 IN USE AT ZUTF

RWY01/02/11 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP05S Type: Terminal Area
Notes: RWY11/19/20 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP07N Type: Terminal Area
Notes: RWY02L/02R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP07S Type: Terminal Area
Notes: RWY20L/20R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP08N Type: Terminal Area
Notes: RWY02L/02R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP08S Type: Terminal Area
Notes: RWY20L/20R IN USE AT ZUUU

CHENGDU APP CTL ZUUUAP09E Type: Terminal Area
Notes: RWY01/02/11 IN USE AT ZUTF

CHENGDU APP CTL ZUUUAP09S Type: Terminal Area
Notes: RWY11/19/20 IN USE AT ZUTF

CHONGQING APP CTL AP01N Type: Terminal Area
Notes: RWY02L/02R/03 IN USE AT ZUCK

CHONGQING APP CTL AP01S1 Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK

CHONGQING APP CTL AP01S2 Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK

CHONGQING APP CTL AP02N Type: Terminal Area
Notes: EXCLUDE ZUCKAP05/06 RWY02L/02R/03 IN USE AT ZUCK

CHONGQING APP CTL AP02S Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK EXCLUDE ZUCKAP01

CHONGQING APP CTL AP03N Type: Terminal Area
Notes: RWY02L/02R/03 IN USE AT ZUCK EXCLUDE ZUCKAP01/05/06

CHONGQING APP CTL AP03S Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK EXCLUDE ZUCKAP05

CHONGQING APP CTL AP04N Type: Terminal Area
Notes: RWY02L/02R/03 IN USE AT ZUCK EXCLUDE ZUCKAP06

CHONGQING APP CTL AP04S Type: Terminal Area
Notes: EXCLUDE ZUCKAP06 RWY20L/20R/21 IN USE AT ZUCK

CHONGQING APP CTL AP05N Type: Terminal Area
Notes: RWY02L/02R/03 IN USE AT ZUCK

CHONGQING APP CTL AP05S Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK

CHONGQING APP CTL AP06N Type: Terminal Area
Notes: RWY02L/02R/03 IN USE AT ZUCK

CHONGQING APP CTL AP06S Type: Terminal Area
Notes: RWY20L/20R/21 IN USE AT ZUCK

SHIJIAZHUANG APP CTL ZBSJAP02 Type: Terminal Area
Notes: RWY15 IN USE AT ZBSJ

WUHAN APP CTL ZHHH AP02 Type: Terminal Area
Notes: CONTACT ZHHH APP01 WHEN ZHHH APP02 U/S

CONTACT ZHHH APP01 WHEN ZHHH APP02 U/S

WUHAN APP CTL ZHHH AP03 Type: Terminal Area
Notes: CONTACT ZHHHAP01 WHEN ZHHHAP03 U/S RWY04L/04R IN USE AT ZHHH

CONTACT ZHHHAP02 WHEN ZHHHAP03 U/S RWY22L/22R IN USE AT ZHHH

XI'AN APP CTL AREA ZLXYAP01 Type: Terminal Area
Notes: CONTACT ZLXYAP03 WHEN ZLXYAP01 U/S RWY23L/23R IN USE AT ZLXY

RWY05L/05R IN USE AT ZLXY CONTACT ZLXYAP03 WHEN ZLXYAP01 U/S

XI'AN APP CTL AREA ZLXYAP02 Type: Terminal Area
Notes: CONTACT ZLXYAP03 WHEN ZLXYAP02 U/S

XI'AN APP CTL AREA ZLXYAP04 Type: Terminal Area
Notes: RWY05L/05R IN USE AT ZLXY CONTACT ZLXYAP01 WHEN ZLXYAP04 U/S

ZLXYAP01 WHEN ZLXYAP04 U/S RWY23L/23R IN USE AT ZLXY

XI'AN APP CTL AREA ZLXYAP05 Type: Terminal Area
Notes: RWY05L/05R IN USE AT ZLXY CONTACT ZLXYAP01 WHEN ZLXYAP05 U/S

RWY23L/23R IN USE AT ZLXY CONTACT ZLXYAP01 WHEN ZLXYAP05 U/S

Regional Notes

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CZEG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

KZAK Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON
Controller Pilot Data Link Communications (CPDLC) aircraft entering Guam ARTCC contact Guam CERAP 250NM out on 118.7, squawk 2100.

REGIONAL WARNINGS
All pilots should avoid the Kaena Point Satellite Tracking Station. Electromagnetic radiation will continuously exist 2800' above antenna systems along a 3 mile stretch of mountain ridge. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

REGIONAL WARNINGS
All pilots should avoid the Kokee NASA Telemetry Station. Electromagnetic radiation will continuously exist within a 2500' radius and 2500' above antenna. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

KZLC Type: FIR
MILITARY OPERATIONS
Military operations south of J-58-80 and west of J-9-107, direct routings normally unavailable.

FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZSE Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

MAGNETIC DISTURBANCE
VFR Operations: Magnetic disturbance of as much as 6Â° exists at ground level between Maple Valley and Cedar Grove.

PAZA Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON (Alaska)
Controller/Pilot Data Link Communications (CPDLC) service is operational throughout the Anchorage Oceanic and Domestic flight Information Regions (FIRs). Anchorage ARTCC utilizes two separate enroute automation systems each having a different CPDLC (FANS) logon address. Use logon address PAZN for all CPDLC communications In the Anchorage Oceanic FIR and in that portion of the Anchorage Domestic FIR west of W165Â° longitude and south of N63Â° latitude . Use logon address PAZA for all other areas of the Anchorage Domestic FIR and the Anchorage Arctic FIR. Aircraft entering Anchorage FIR airspace from Canadian or Russian airspace are requested to logon at or prior to crossing the FIR boundary. Aircraft entering Anchorage FIR airspace from the Oakland or Fukuoka FIR will be provided automatic FANS addressing. Aircraft departing Alaskan airports are requested to logon after departure, but before leaving Flight Level 180. Flight crews are reminded that use of CPDLC does not remove requirements to monitor VHF/ HF frequencies . Aircraft within VHF coverage may make position reports via CPDLC. Requests to ATC Should be made via VHF if within VHF coverage. After logon, Anchorage ARTCC automation will provide automatic FANS address forwarding for fights entering the Magadan, Fukuoka and Oakland FIRs.

FAA Q Routes (Alaska)
"Alaska Q routes require GNSS and radar surveillance. For CONUS DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft "

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CZEG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

KZAK Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON
Controller Pilot Data Link Communications (CPDLC) aircraft entering Guam ARTCC contact Guam CERAP 250NM out on 118.7, squawk 2100.

REGIONAL WARNINGS
All pilots should avoid the Kaena Point Satellite Tracking Station. Electromagnetic radiation will continuously exist 2800' above antenna systems along a 3 mile stretch of mountain ridge. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

REGIONAL WARNINGS
All pilots should avoid the Kokee NASA Telemetry Station. Electromagnetic radiation will continuously exist within a 2500' radius and 2500' above antenna. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

PAZA Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON (Alaska)
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FAA Q Routes (Alaska)
"Alaska Q routes require GNSS and radar surveillance. For CONUS DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft "

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PAZA Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON (Alaska)
Controller/Pilot Data Link Communications (CPDLC) service is operational throughout the Anchorage Oceanic and Domestic flight Information Regions (FIRs). Anchorage ARTCC utilizes two separate enroute automation systems each having a different CPDLC (FANS) logon address. Use logon address PAZN for all CPDLC communications In the Anchorage Oceanic FIR and in that portion of the Anchorage Domestic FIR west of W165Â° longitude and south of N63Â° latitude . Use logon address PAZA for all other areas of the Anchorage Domestic FIR and the Anchorage Arctic FIR. Aircraft entering Anchorage FIR airspace from Canadian or Russian airspace are requested to logon at or prior to crossing the FIR boundary. Aircraft entering Anchorage FIR airspace from the Oakland or Fukuoka FIR will be provided automatic FANS addressing. Aircraft departing Alaskan airports are requested to logon after departure, but before leaving Flight Level 180. Flight crews are reminded that use of CPDLC does not remove requirements to monitor VHF/ HF frequencies . Aircraft within VHF coverage may make position reports via CPDLC. Requests to ATC Should be made via VHF if within VHF coverage. After logon, Anchorage ARTCC automation will provide automatic FANS address forwarding for fights entering the

Magadan, Fukuoka and Oakland FIRs.

FAA Q Routes (Alaska)
"Alaska Q routes require GNSS and radar surveillance. For CONUS DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft "

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KZAK Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON
Controller Pilot Data Link Communications (CPDLC) aircraft entering Guam ARTCC contact Guam CERAP 250NM out on 118.7, squawk 2100.

REGIONAL WARNINGS
All pilots should avoid the Kaena Point Satellite Tracking Station. Electromagnetic radiation will continuously exist 2800' above antenna systems along a 3 mile stretch of mountain ridge. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

REGIONAL WARNINGS
All pilots should avoid the Kokee NASA Telemetry Station. Electromagnetic radiation will continuously exist within a 2500' radius and 2500' above antenna. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

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KZAK Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

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Controller Pilot Data Link Communications (CPDLC) aircraft entering Guam ARTCC contact Guam CERAP 250NM out on 118.7, squawk 2100.

REGIONAL WARNINGS
All pilots should avoid the Kaena Point Satellite Tracking Station. Electromagnetic radiation will continuously exist 2800' above antenna systems along a 3 mile stretch of mountain ridge. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

REGIONAL WARNINGS
All pilots should avoid the Kokee NASA Telemetry Station. Electromagnetic radiation will continuously exist within a 2500' radius and 2500' above antenna. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

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.

ZYSH 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.

ZBPE 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.

ZLHW 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.

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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.

ZYSH 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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ZBPE 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.

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.

ZHWH 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.

ZLHW 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.

ZPKM 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.

Reference Notes

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CZEG Type: FIR
USE OF DND AND CIVIL HIGH ARCTIC AERODROMES
USE OF DND and CIVIL HIGH ARCTIC AERODROMES: Civil operators must obtain permission from DND to use High Arctic Aerodromes in Canada. See Entry Requirements Tab.

CANADIAN DOMESTIC AIRSPACE (DOMESTIC CLEARANCE)
a. North Atlantic (NAT) West-bound Traffic.

1. Pilots proceeding westbound across the North Atlantic (NAT) and entering Canadian Domestic Airspace (CDA) within the Gander, Moncton and Montreal FIRs should comply with the following procedures:

(a) Flights cleared by ATC via the flight planned route prior to reaching CDA will not be issued en-route clearances upon entering domestic airspace, and are to follow the flight planned route as cleared.

(b) Domestic en-route clearances will be issued for flights that have been rerouted and exit oceanic airspace at other than the flight planned exit fix, at a pilot's request for another routing or if a flight plan has not been received by the ACC.

2. If entering Canadian Domestic Airspace within the Edmonton FIR, the onward domestic routing will have been established in coordination between the Reykjavik and Edmonton ACCs, and additional domestic clearance is not normally required. However, if there has been a change in route from the filed flight plan, clarification of the onward routing may be obtained from Edmonton ACC on request.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

CZVR Type: FIR
MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

KZAK Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

CENTRAL EAST PACIFIC ROUTE SYSTEM (HAWAII â€“ U.S. MAINLAND)

a. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R-463, R-464, R-465, R-585, R-576, R-577 and R-578 are the primary routes within the CEP.

b. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP-10) are required for aircraft operating within the CEP Route

System at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

c. Operators show approval for RVSM and RNP-10 by annotating block 10 of the ICAO flight plan (equipment) with the letter W and R respectively.

d. Flight Levels normally assigned in the CEP are in accordance with ICAO Appendix 3a (East odd, West even).

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

RNP-10 SEPARATION
RNP-10 lateral separation (50 NM) may be applied wthin the Oakland Oceanic FIR between RNP-10 approved aircraft. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-RNP approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

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.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make

voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:

1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

PAZA Type: FIR
EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs

a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

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.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2

Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or
2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or
2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;
2. advise the pilot of conflicting traffic; and
3. request the pilot's intentions.

The pilot should take the following actions:

1. comply with the ATC clearance issued; or
2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

1. if possible, deviate away from an organized track or ATS route system;
2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);
3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);
4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);
5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;
6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.
7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;
8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and
9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic

1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

Page 2 Strip Charts

CZEG Type: FIR
USE OF DND AND CIVIL HIGH ARCTIC AERODROMES
USE OF DND and CIVIL HIGH ARCTIC AERODROMES: Civil operators must obtain permission from DND to use High Arctic Aerodromes in Canada. See Entry Requirements Tab.

CANADIAN DOMESTIC AIRSPACE (DOMESTIC CLEARANCE)
a. North Atlantic (NAT) West-bound Traffic.

1. Pilots proceeding westbound across the North Atlantic (NAT) and entering Canadian Domestic Airspace (CDA) within the Gander, Moncton and Montreal FIRs should comply with the following procedures:

(a) Flights cleared by ATC via the flight planned route prior to reaching CDA will not be issued en-route clearances upon entering domestic airspace, and are to follow the flight planned route as cleared.

(b) Domestic en-route clearances will be issued for flights that have been rerouted and exit oceanic airspace at other than the flight planned exit fix, at a pilot's request for another routing or if a flight plan has not been received by the ACC.

2. If entering Canadian Domestic Airspace within the Edmonton FIR, the onward domestic routing will have been established in coordination between the Reykjavik and Edmonton ACCs, and additional domestic clearance is not normally required. However, if there has been a change in route from the filed flight plan, clarification of the onward routing may be obtained from Edmonton ACC on request.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

KZAK Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

CENTRAL EAST PACIFIC ROUTE SYSTEM (HAWAII â€“ U.S. MAINLAND)

a. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R-463, R-464, R-465, R-585, R-576, R-577 and R-578 are the primary routes within the CEP.

b. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP-10) are required for aircraft operating within the CEP Route System at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

c. Operators show approval for RVSM and RNP-10 by annotating block 10 of the ICAO flight plan (equipment) with the letter W and R respectively.

d. Flight Levels normally assigned in the CEP are in accordance with ICAO Appendix 3a (East odd, West even).

ATS ROUTE RESTRICTION NOTES
ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

RNP-10 SEPARATION
RNP-10 lateral separation (50 NM) may be applied wthin the Oakland Oceanic FIR between RNP-10 approved aircraft. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-RNP approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

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.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:

1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

PAZA Type: FIR
EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs

a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

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.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:

1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

UHMM Type: FIR
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.

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.

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs
a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

POSITION REPORTING PROCEDURES
a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

b. ATC may require any flight operating in a North/South direction to report its position at any intermediate parallel of latitude when deemed necessary.

c. In requiring aircraft to report their position at intermediate points, ATC is guided by the requirement to have positional information at approximately hourly intervals and also by the need to accommodate varying types of aircraft and varying traffic and MET conditions.

d. Unless providing position reports via ADS-C, if the Estimated Time for the "next position", as last reported to ATC has changed by 2 minutes or more, a revised Estimate must be transmitted to the ATS unit concerned as soon as possible.

e. Flight Crews must always report to ATC as soon as possible on reaching any new cruising level.

f. For flights outside domestic ATS route networks, positions should be expressed in terms of latitude and longitude except when flying over named reporting points. For flights whose tracks are predominantly east or west, latitude should be expressed in degrees and minutes, longitude in degrees only. For flights whose tracks are predominantly north or south, latitude should be expressed in degrees only, longitude in degrees and minutes. However, it should be noted that when such minutes are zero then the position report may refer solely to degrees.

ULLL Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

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.

Page 3 Strip Charts

PAZA Type: FIR

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR

1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs

a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

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.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2

Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:
1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:
1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

UEEE 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.

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.

UHMM 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.

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs
a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

POSITION REPORTING PROCEDURES
a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

b. ATC may require any flight operating in a North/South direction to report its position at any intermediate parallel of latitude when deemed necessary.

c. In requiring aircraft to report their position at intermediate points, ATC is guided by the requirement to have positional information at approximately hourly intervals and also by the need to accommodate varying types of aircraft and varying traffic and MET conditions.

d. Unless providing position reports via ADS-C, if the Estimated Time for the "next position", as last reported to ATC has changed by 2 minutes or more, a revised Estimate must be transmitted to the ATS unit concerned as soon as possible.

e. Flight Crews must always report to ATC as soon as possible on reaching any new cruising level.

f. For flights outside domestic ATS route networks, positions should be expressed in terms of latitude and longitude except when flying over named reporting points. For flights whose tracks are predominantly east or west, latitude should be expressed in degrees and minutes, longitude in degrees only. For flights whose tracks are predominantly north or south, latitude should be expressed in degrees only, longitude in degrees and minutes. However, it should be noted that when such minutes are zero then the position report may refer solely to degrees.

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.

ULLL Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

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.

Page 4 Strip Charts

KZAK Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

CENTRAL EAST PACIFIC ROUTE SYSTEM (HAWAII â€“ U.S. MAINLAND)

a. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R-463, R-464, R-465, R-585, R-576, R-577 and R-578 are the primary routes within the CEP.

b. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP-10) are required for aircraft operating within the CEP Route System at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

c. Operators show approval for RVSM and RNP-10 by annotating block 10 of the ICAO flight plan (equipment) with the letter W and R respectively.

d. Flight Levels normally assigned in the CEP are in accordance with ICAO Appendix 3a (East odd, West even).

ATS ROUTE RESTRICTION NOTES

ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

RNP-10 SEPARATION

RNP-10 lateral separation (50 NM) may be applied wthin the Oakland Oceanic FIR between RNP-10 approved aircraft. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-RNP approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

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.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2

Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:
1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:
1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

UEEE 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.

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.

UHHH Type: FIR
CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

POSITION REPORTING PROCEDURES
a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

b. ATC may require any flight operating in a North/South direction to report its position at any intermediate parallel of latitude when deemed necessary.

c. In requiring aircraft to report their position at intermediate points, ATC is guided by the requirement to have positional information at approximately hourly intervals and also by the need to accommodate varying types of aircraft and varying traffic and MET conditions.

d. Unless providing position reports via ADS-C, if the Estimated Time for the "next position", as last reported to ATC has changed by 2 minutes or more, a revised Estimate must be transmitted to the ATS unit concerned as soon as possible.

e. Flight Crews must always report to ATC as soon as possible on reaching any new cruising level.

f. For flights outside domestic ATS route networks, positions should be expressed in terms of latitude and longitude except when flying over named reporting points. For flights whose tracks are predominantly east or west, latitude should be expressed in degrees and minutes, longitude in degrees only. For flights whose tracks are predominantly north or south, latitude should be expressed in degrees only, longitude in degrees and minutes. However, it should be noted that when such minutes are zero then the position report may refer solely to degrees.

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.

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.

CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

UHMM Type: FIR

POSITION REPORTING PROCEDURES

a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

b. ATC may require any flight operating in a North/South direction to report its position at any intermediate parallel of latitude when deemed necessary.

c. In requiring aircraft to report their position at intermediate points, ATC is guided by the requirement to have positional information at approximately hourly intervals and also by the need to accommodate varying types of aircraft and varying traffic and MET conditions.

d. Unless providing position reports via ADS-C, if the Estimated Time for the "next position", as last reported to ATC has changed by 2 minutes or more, a revised Estimate must be transmitted to the ATS unit concerned as soon as possible.

e. Flight Crews must always report to ATC as soon as possible on reaching any new cruising level.

f. For flights outside domestic ATS route networks, positions should be expressed in terms of latitude and longitude except when flying over named reporting points. For flights whose tracks are predominantly east or west, latitude should be expressed in degrees and minutes, longitude in degrees only. For flights whose tracks are predominantly north or south, latitude should be expressed in degrees only, longitude in degrees and minutes. However, it should be noted that when such minutes are zero then the position report may refer solely to degrees.

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.

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.

TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs

a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

ULLL Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

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.

Page 5 Strip Charts

KZAK Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

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."

CENTRAL EAST PACIFIC ROUTE SYSTEM (HAWAII â€“ U.S. MAINLAND)

a. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R-463, R-464, R-465, R-585, R-576, R-577 and R-578 are the primary routes within the CEP.

b. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP-10) are required for aircraft operating within the CEP Route System at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

c. Operators show approval for RVSM and RNP-10 by annotating block 10 of the ICAO flight plan (equipment) with the letter W and R respectively.

d. Flight Levels normally assigned in the CEP are in accordance with ICAO Appendix 3a (East odd, West even).

ATS ROUTE RESTRICTION NOTES

ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

RNP-10 SEPARATION

RNP-10 lateral separation (50 NM) may be applied wthin the Oakland Oceanic FIR between RNP-10 approved aircraft. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-RNP approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

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.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:
1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:
1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:
1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:
1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)

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.

TRANSPONDER REQUIRED
Transponder (Mode A/3 & Mode C) required in Approach Control Area and Control Zones.

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.

UEEE Type: FIR
RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

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.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

UHHH Type: FIR
CRUISING LEVEL PROCEDURES
CRUISING LEVELS: For Flight Level Transition Procedures refer to Enroute section.

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.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

POSITION REPORTING PROCEDURES
a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

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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.

UHMM 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.

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RVSM PROCEDURES
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TRACK ADVISORY (TA) PROGRAM FOR FLIGHTS CROSSING ANCHORAGE ARTCC/RUSSIAN FIRs
a. The TA program is similar to that used by Oakland for PACOTS traffic. It is designed to assist ATC in sequencing same altitude aircraft proceeding westbound over the Russian FIR entry fixes. Flights participating in the TA program will receive preference over non-participants.

b. All Westbound flights crossing the Anchorage/Russian FIR boundary at or above FL 280 (8600 meters) shall participate in the TA program.

ULLL Type: FIR
ATS ROUTE RESTRICTIONS: For information regarding flight planning purposes refer to Enroute section.

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.

ZYSH Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

CRUISING LEVELS
Cruising levels for flight level transition procedures refer to ENROUTE CH-201 and consecutive pages.

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.

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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.

Page 6 Strip Charts

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
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 Tab.

ADIZ REQUIREMENTS
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CRUISING LEVEL PROCEDURES
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CRUISING LEVELS
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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.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (FL290 - FL410) For RVSM procedures and equipment requirements see AIR TRAFFIC CONTROL pages series.

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ZBPE Type: FIR
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ZBPE Type: FIR
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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 Tab.

ZGZU Type: FIR
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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.

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