



Operation Deep Freeze 2019\2020

Inflight Guide

Aeronautical Charts and Facilities

Table of Contents

A.	Introduction.....	3
B.	Hickam AFB.....	4
	a. Parking Diagram.....	4
	b. Departure SIDS.....	5
	c. Arrival STARS.....	7
	d. Approach Plates.....	9
C.	Pago Pago international.....	20
	a. Approach Plates.....	21
D.	ChristChurch International.....	25
	a. Parking Diagram.....	25
	b. Airport Diagram.....	26
	c. Departure Procedures.....	27
	d. Departure SIDS.....	28
	e. Arrival STARS.....	38
	f. Approach Plates.....	49
E.	Primary Ice Stations.....	56
	a. McMurdo Ice Runway.....	58
	b. Pegasus Ice Runway.....	59
	c. Byrd Ice Station.....	60
	d. WAISE Divide.....	61
	e. Wilkins Ice Runway.....	62
	f. Ice Station Marambia.....	63
	g. Rothera Research Station.....	64

Operation Overview

Operation Deep Freeze 2019 Overview

Dates:

Winfly 1 Dec – 20 Dec

Mainbody 21 Dec – 12 Jan

Redeployment 12 Jan – 19 Jan

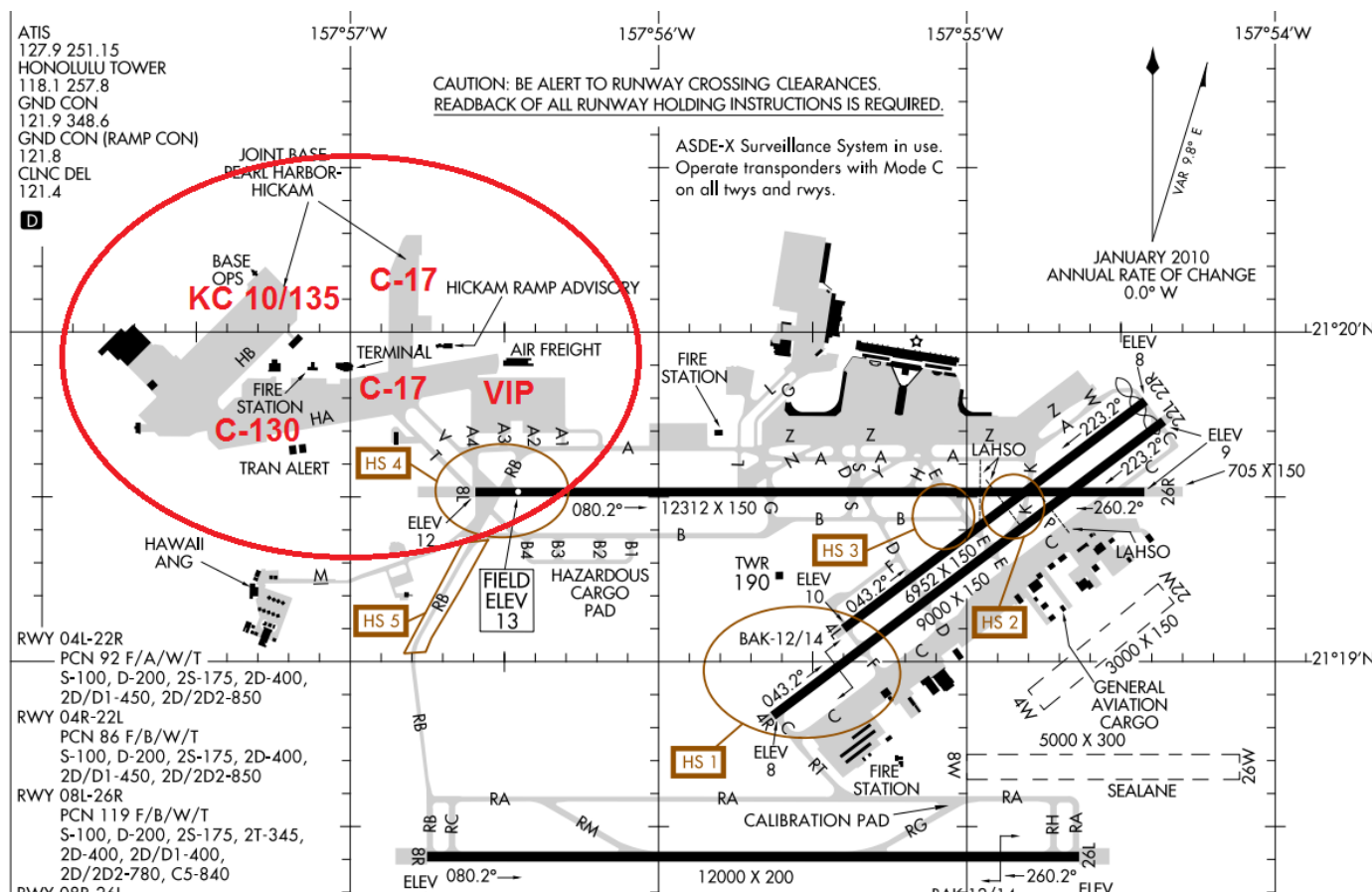
Operation Deep Freeze is a real world Operation supporting scientific research in Antarctica. It is a multinational contribution. VUSAF base operations are at Christchurch International New Zealand. Winfly Ops is a time where initial supplies are transported from Hickam AFB Hawaii to Christchurch. C5 and C17 crews along with CRAF and Tanker crews support this mission. Mainbody is the time period where weather conditions are optimum for resupply on the ice. Heavy Cargo crews will transport research teams and supplies to McMurdo Ice Station which is the main ops station on the Ice. C130, C17, C5M, KC10/135/46 will fly cargo from Christchurch to McMurdo. C130 and C17 crews fly supply and personnel missions to the Ice Stations located around Antarctica.

Though weather is at its prime, it is known to turn at a drop of a dime. Crews inbound for an Ice Station have been stranded for days while a storm blows through. This mission takes planning timing and most of all pure skill. The best of the best fly the ice and I am very confident of our AMC who answer this call.

C130 will complete airlift missions while C17 fly Airdrop missions from McMurdo , phoenix, and Pegasus Ice stations. (depending on your scenery)

Hickam AFB Honolulu HI

Parking Diagram



Hickam AFB is located at Honolulu International Airport and uses its ICAO during flight planning. Hickam AFB is a VUSAF Supply Depot. AMC and CRAF Aircraft will utilize this base to supply Christchurch International.

Primary Departures

PHNL/HNL
INOUEY INTL

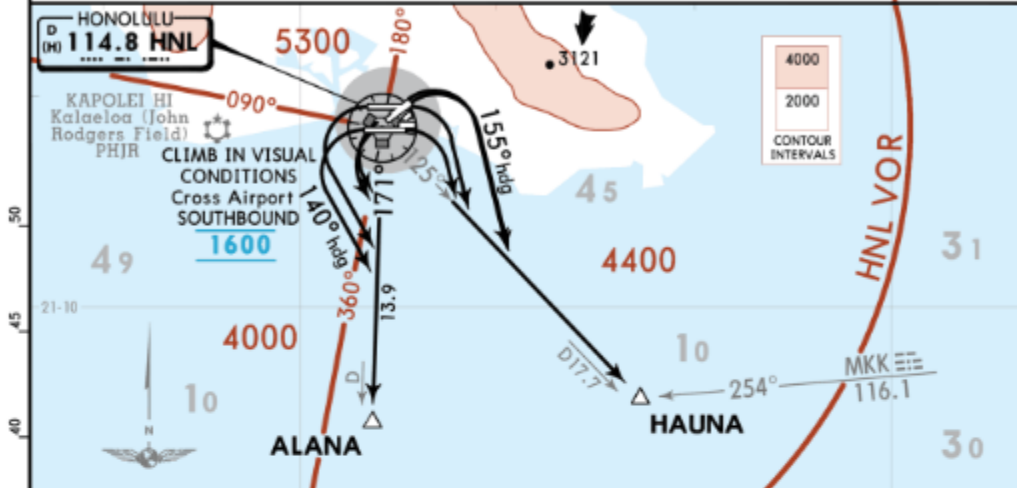
JEPPESEN
2 NOV 18 10-3 Eff 8 Nov

HONOLULU, HAWAII
DP

HCF Approach (R) (DEP)		Apt Elev	Trans alt: 18000
West	East	13	
118.3	124.8		

OBSTACLE

HONOLULU 2 DEPARTURE (HNL2.HNL)



TAKEOFF OBSTACLE NOTES

Rwy 4L: Multiple lights beginning 630 from DER, 236 LEFT of centerline, 102 RIGHT of centerline, up to 84 AGL/92 MSL. Light on building 669 from DER, 394 LEFT of centerline, 29 AGL/37 MSL. Stack on building 2488 from DER, 219 RIGHT of centerline 72 AGL/80 MSL. Multiple trees beginning 1253 from DER, 209 LEFT of centerline, 935 RIGHT of centerline, up to 64 AGL/72 MSL. Bush 450 from DER, 234 LEFT of centerline, 14 AGL/22 MSL.

Rwy 4R: Stack on building, 2442 from DER, 283 LEFT of centerline, 72 AGL/80 MSL. Multiple trees beginning 1206 from DER, 711 LEFT of centerline, 433 RIGHT of centerline, up to 64 AGL/72 MSL. Multiple lights beginning 1072 from DER, 399 LEFT of centerline, 504 RIGHT of centerline, up to 36 AGL/44 MSL. Pole 2110 from DER, 951 LEFT of centerline, 59 AGL/67 MSL.

Rwy 22L: Multiple bushes beginning 265 from DER, 396 RIGHT of centerline, up to 17 AGL/31 MSL. Tree 1065 from DER, 499 RIGHT of centerline, 30 AGL/38 MSL.

Rwy 22R: Rod on obstacle light ASR, 1451 from DER, 827 RIGHT of centerline, 76 AGL/84 MSL. Tree 853 from DER, 308 RIGHT of centerline, 43 AGL/51 MSL.

Rwy 26L: Ship 1.1 NM from DER, on centerline, 208 AGL/208 MSL.

Rwy 26R: Multiple light poles beginning 2120 from DER, 813 RIGHT of centerline, up to 105 AGL/111 MSL.

This DP requires take-off minimums:
 Waterways 4W, 8W, 22W, 26W: Not Authorized-ATC.
 Rwys 4L/R: Standard (or lower than standard, if authorized) with minimum climb of 425 per NM to 1900, do not exceed 180 KT until SOUTHEAST bound on 155° heading, or 1700-2 1/2 for VCOA.
 Rwy 8L: Standard (or lower than standard, if authorized) with minimum climb of 310 per NM to 1000, or 1700-2 1/2 for VCOA.
 Rwy 8R: Standard (or lower than standard, if authorized) with minimum climb of 270 per NM to 1000, or 1700-2 1/2 for VCOA.
 Rwys 22L/R, 26R: Standard (or lower than standard, if authorized).
 Rwy 26L: Standard (or lower than standard, if authorized) with minimum climb of 237 per NM to 300, or 1700-2 1/2 for VCOA.

Standard Take-off Minimums

	Adequate Vis Ref	STD					
1 & 2 Eng	1/4	1					
3 & 4 Eng		1/2					
Gnd speed-KT		75	100	150	200	250	300
237 per NM		296	395	593	790	988	1185
270 per NM		338	450	675	900	1125	1350
310 per NM		388	517	775	1033	1292	1550
425 per NM		531	708	1063	1417	1771	2125

RWY

INITIAL CLIMB

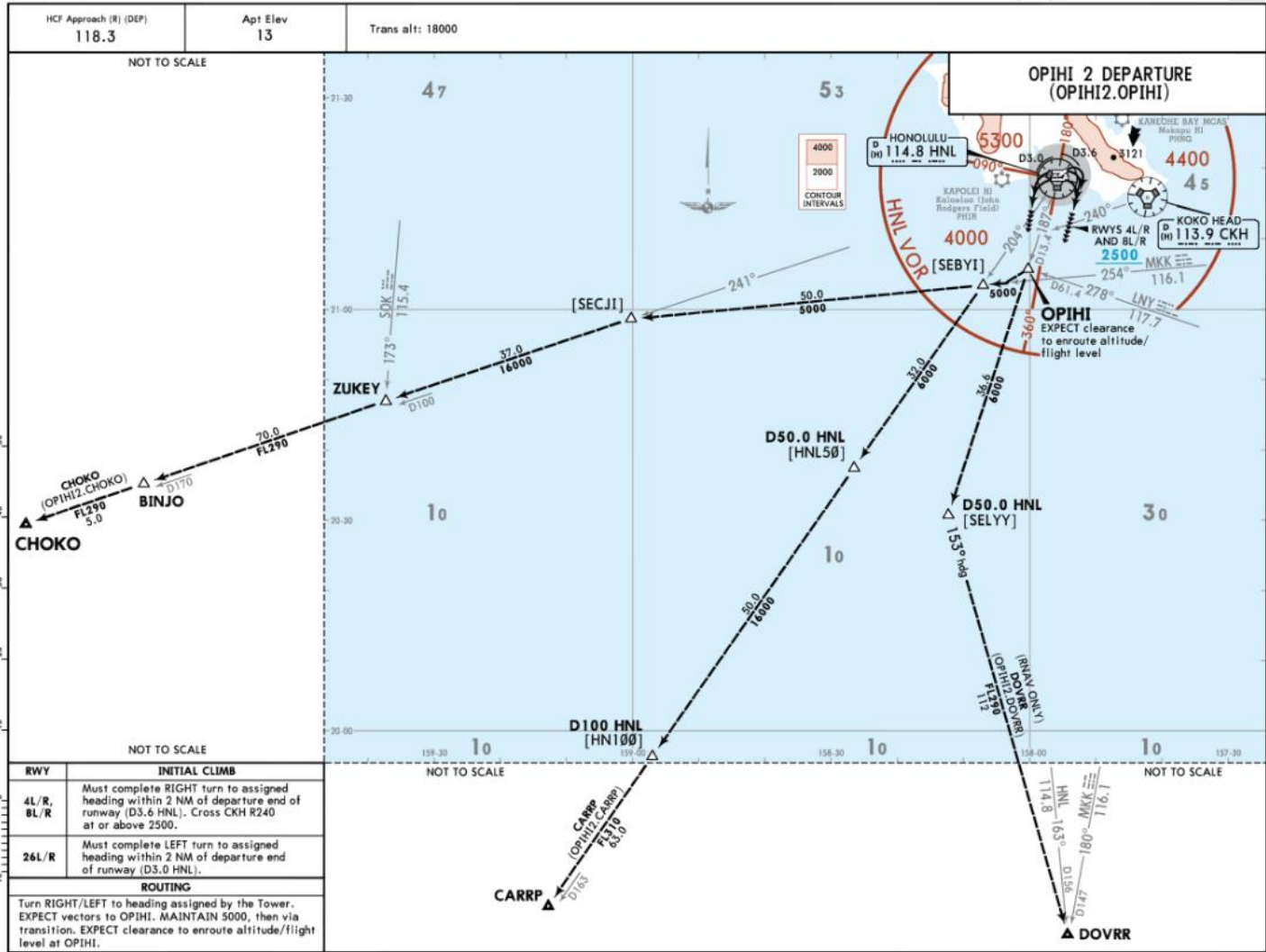
4L/R, 8L/R	Climbing RIGHT turn to 3000 on heading 155° to intercept HNL R125 to HAUNA before proceeding on course. OR,
22L/R, 26L/R	Climbing LEFT turn to 3000 on heading 140° to intercept HNL R171 to ALANA before proceeding on course. OR,

VISUAL CLIMB OVER AIRPORT

Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Inouye Intl airport southbound at 1600, continue climb to 3000 on HNL R171 to ALANA before proceeding on course.

CHANGES: Procedure renumbered, take-off minimums, VCOA.

© JEPPESEN, 2017, 2018. ALL RIGHTS RESERVED.



CHANGES: New format.

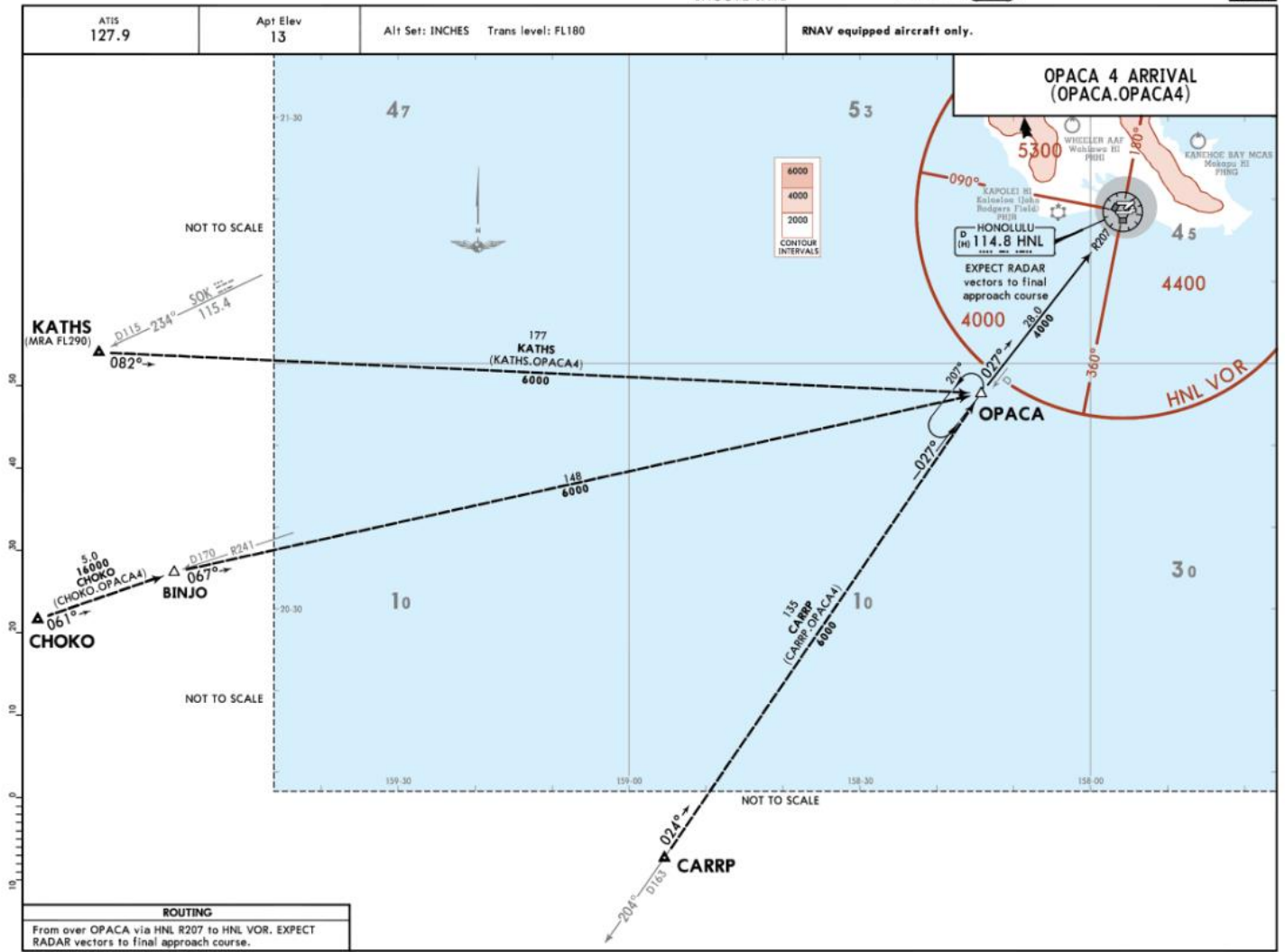
© JEPPESEN, 2017. ALL RIGHTS RESERVED.

Primary Arrivals

PHNL/HNL
INOUEYE INTL

JEPPESSEN
23 AUG 19 (10-2E)

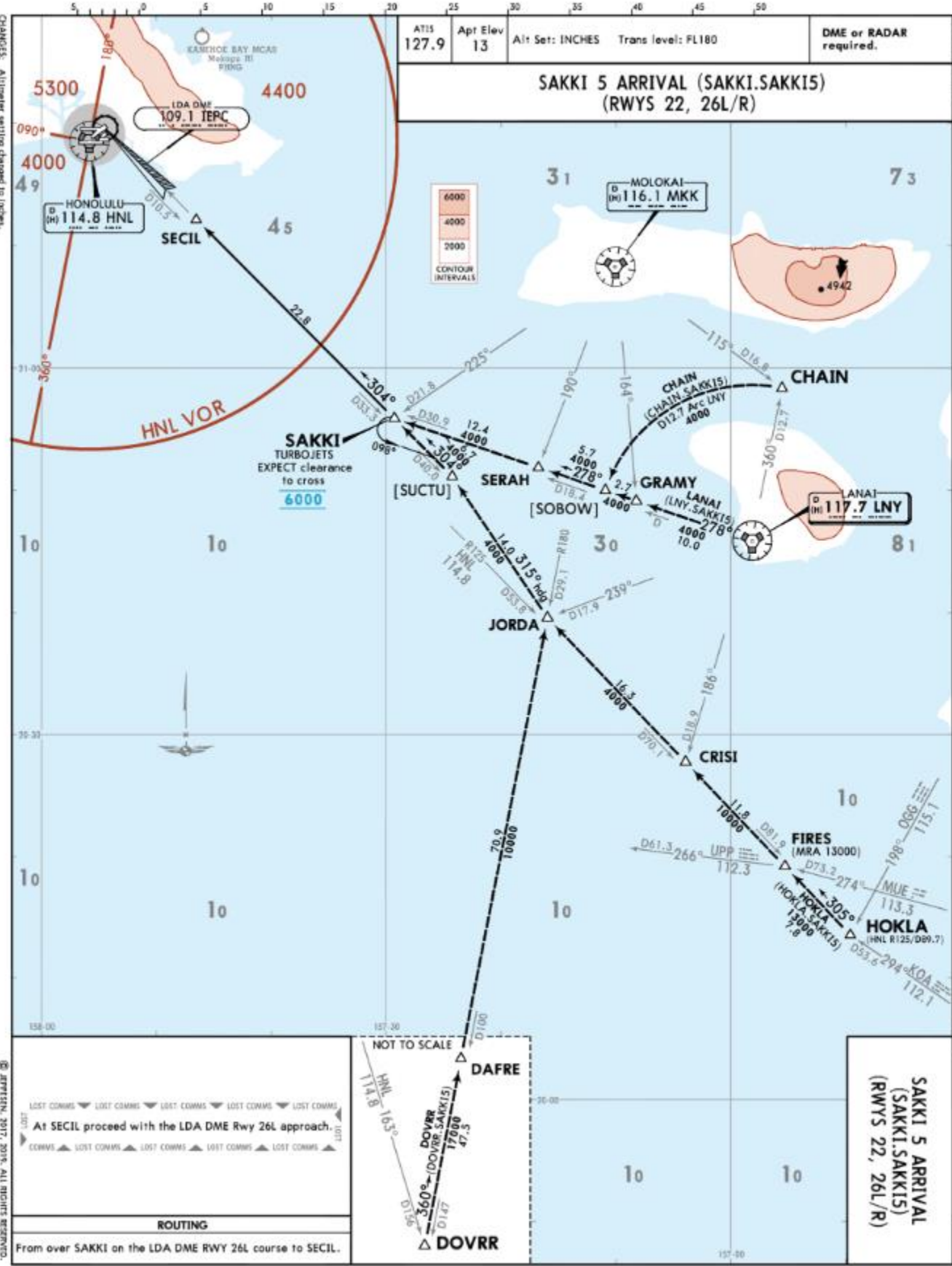
HONOLULU, HAWAII
STAR



© JEPPESSEN, 2017, 2019. ALL RIGHTS RESERVED.

ATIS 127.9	Apt Elev 13	Alt Set: INCHES	Trans level: FL180	DME or RADAR required.
---------------	----------------	-----------------	--------------------	---------------------------

SAKKI 5 ARRIVAL (SAKKI.SAKK15) (RWYS 22, 26L/R)



CHANGES: Altimeter setting changed to inches.

© JEPPESEN, 2017, 2018. ALL RIGHTS RESERVED.

Approach Plates

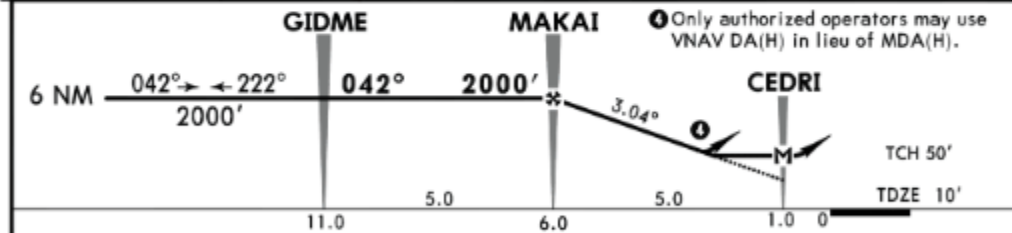
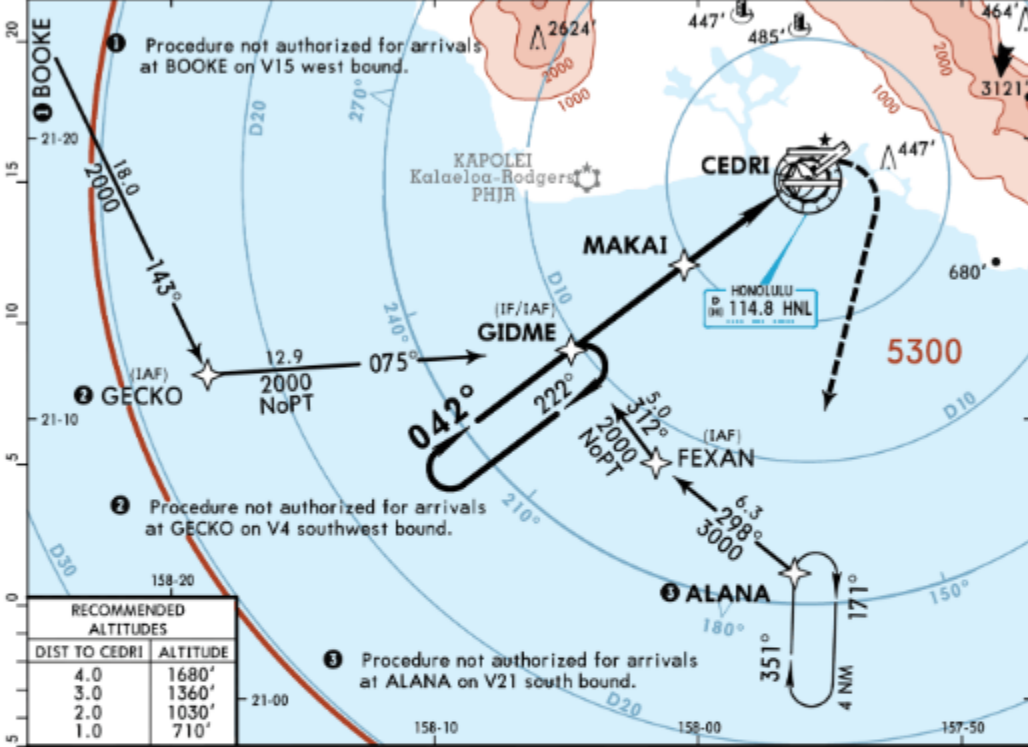
PHNL/HNL
INOUEY INTL



JEPPESEN
23 AUG 19 (12-1)

HONOLULU, HAWAII
RNAV (GPS) Rwy 4L

ATIS 127.9	HCF Approach (R) 118.3	HONOLULU Tower Rwys 8R/26L 118.1	Ground 123.9	HICKAM COMMAND POST 121.9	125.3
RNAV	Final Apch Crs 042°	Minimum Alt MAKAI 2000' (1990')	LNAV MDA(H) 460' (450')	Appt Elev 13' TDZE 10'	<p>5300 MSA CEDRI</p>
MISSED APCH: Climb to 500' then climbing RIGHT turn to 3000' direct ALANA and hold.					
Alt Set: INCHES			Trans level: FL 180		
RNP Apch					
1. Circling Rwy 22R not authorized at night.					



Gnd speed-Kts	120	140	160	180	REIL PAPI-L	500'	3000'	ALANA
Descent angle	3.04°	645	753	861	968	↑	RT	→
MAP at CEDRI								

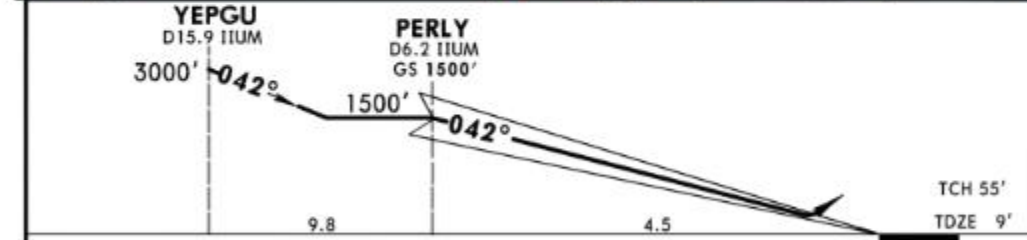
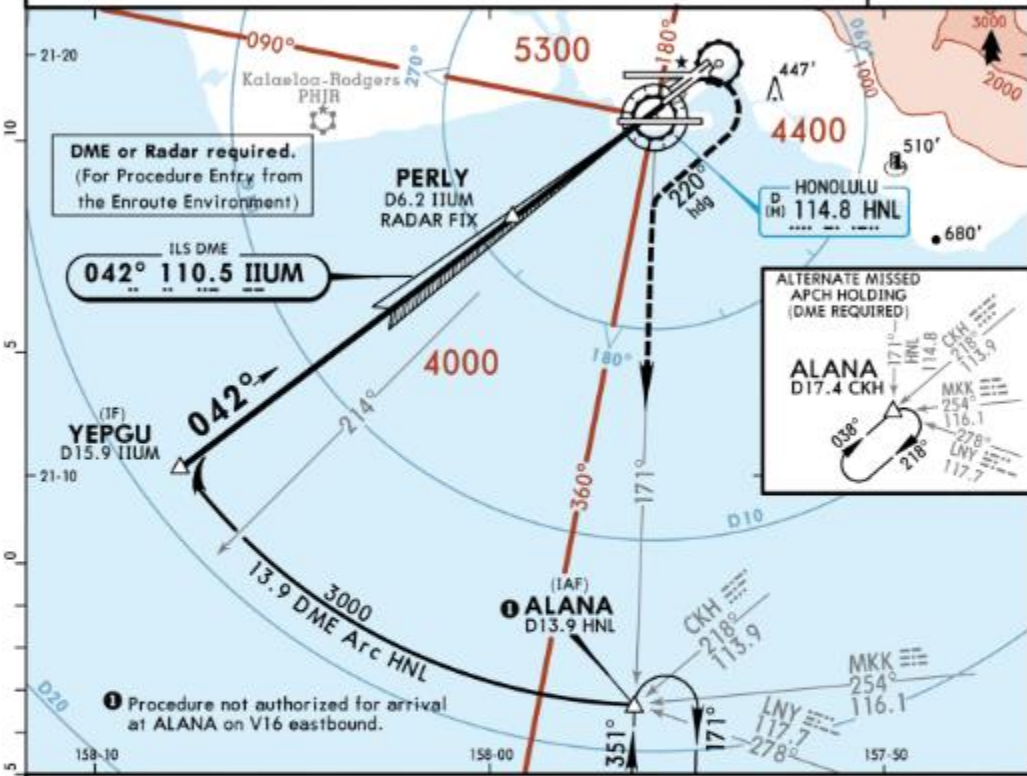
TERPS	STRAIGHT-IN LANDING RWY 4L		CIRCLE-TO-LAND	
	LNAV		Not Authorized to Sea Lanes 4W, 8W, 22W, and 26 W.	
	MDA(H) 460' (450')		MDA(H)	
C	1 3/8	140	1 760' (747') - 2 1/4	
D	1 1/2	165	1 1400' (1387') - 3	

1 Circling not authorized north of Rwy 8L/26R.

CHANGES: GIDME holding length, chart format. © JEPPESEN, 2010, 2019. ALL RIGHTS RESERVED.



ATTIS	HCF Approach (R)	HONOLULU Tower		Ground	HICKAM COMMAND POST
127.9	118.3	118.1	Rwys BR/26L 123.9	121.9	125.3
LOC IIUM 110.5	Final Apch Crs 042°	GS PERLY 1500' (1491')	ILS DA(H) (CONDITIONAL) 209' (200')	Apt Elev 13' TDZE 9'	<p>MSA HNL VOR</p>
<p>MISSED APCH: Climb to 480' then climbing RIGHT turn to 3000' on heading 220° and HNL VOR R-171 to ALANA INT/D13.9 HNL and hold.</p> <p>Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'</p> <p>1. VGS1 and ILS glidepath not coincident (VGS1 angle 3.00°/TCH 71').</p>					



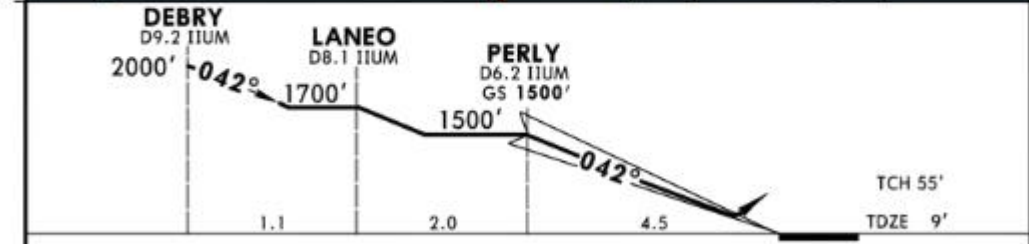
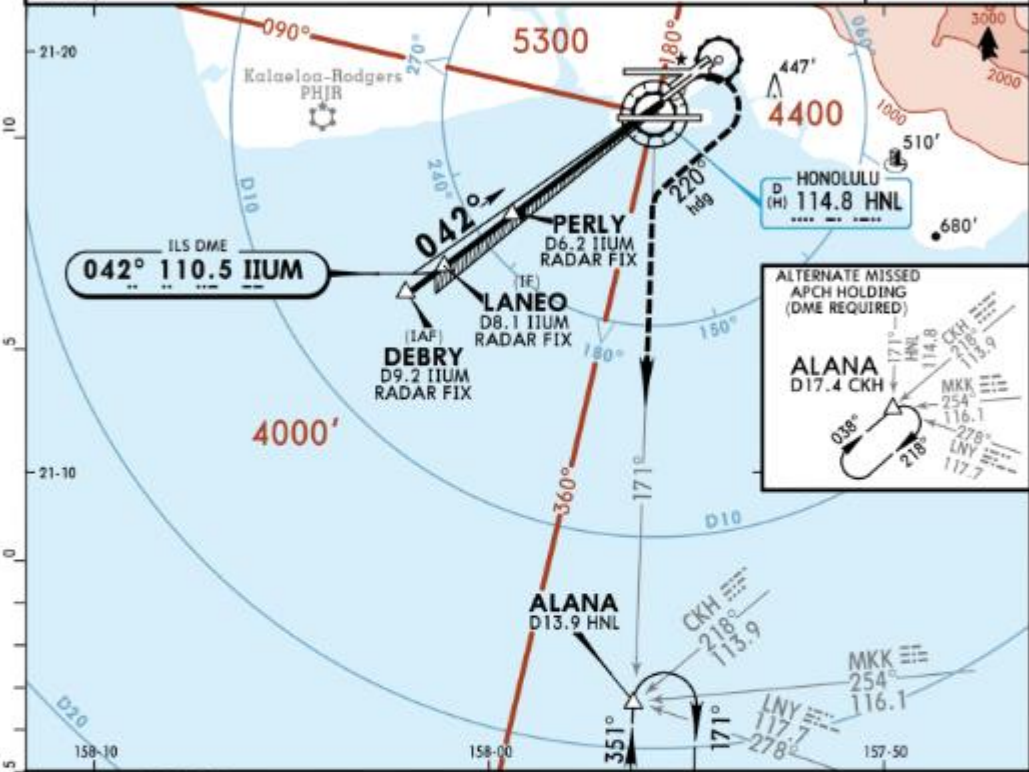
Gnd speed-Kts	120	140	160	180		480'	3000'	220°
GS	3.00°	637	743	849		955	↑	RT
MAP at DA								

TERPS				STRAIGHT-IN LANDING RWY 4R			
Missed approach requires a minimum climb gradient of 335'/NM to 2000'				ILS			
DA(H) 209' (200')				DA(H) 281' (272')			
FULL		RAIL/ALS out		FULL		RAIL/ALS out	
C	1/2	7/8		1/2	7/8		
D							

TERPS AMEND IC 27 APR 2117 CHANGES: Procedure. © JEPPESEN, 2010, 2017. ALL RIGHTS RESERVED.



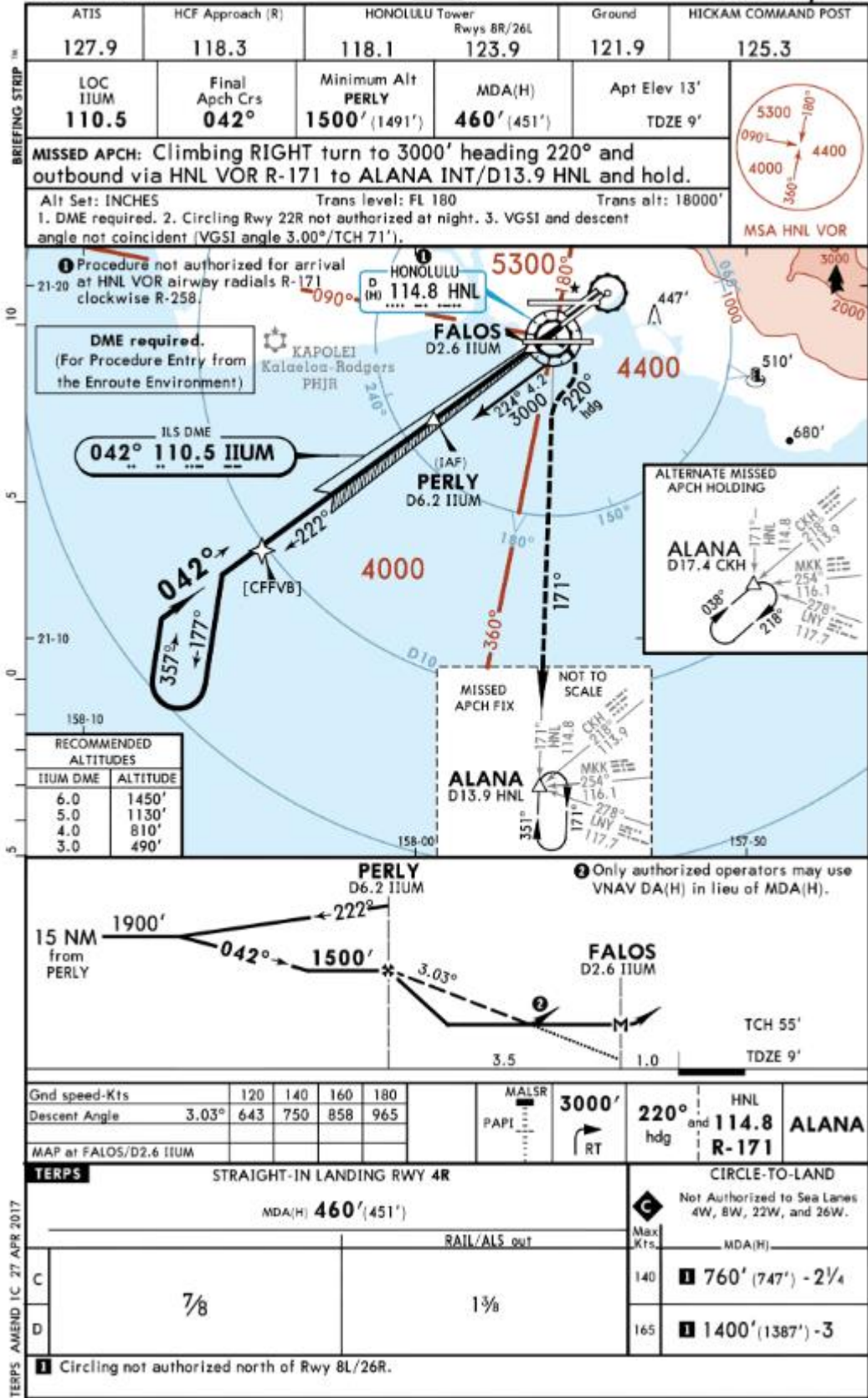
ATIS 127.9	HCF Approach (R) 118.3	HONOLULU Tower 118.1	Rwys BR/26L 123.9	Ground 121.9	HICKAM COMMAND POST 125.3
LOC IUM 110.5	Final Apch Crs 042°	GS PERLY 1500' (1491')	ILS DA(H) (CONDITIONAL) 209' (200')	Apt Elev 13' TDZE 9'	<p>MSA HNL VOR</p>
<p>MISSED APCH: Climb to 480' then climbing RIGHT turn to 3000' on heading 220° and outbound via HNL VOR R-171 to ALANA INT/D13.9 HNL and hold.</p> <p>Alt Set: INCHES Trans level: FL 180 Trans alt: 18000' 1. DME or RADAR Required. 1. VGSI and ILS glidepath not coincident (VGSI angle 3.00°) TCH 71'.</p>					



Gnd speed-Kts	120	140	160	180		480'	3000'	220°
GS	3.00°	637	743	849		955	↑	↻
MAP at DA								

TERPS				STRAIGHT-IN LANDING RWY 4R				
Missed approach requires a minimum climb gradient of 335'/NM to 2000'								
ILS DA(H) 209' (200')				ILS DA(H) 281' (272')				
FULL		RAIL/ALS out		FULL		RAIL/ALS out		
C	1/2		7/8		1/2		7/8	
D	1/2		7/8		1/2		7/8	

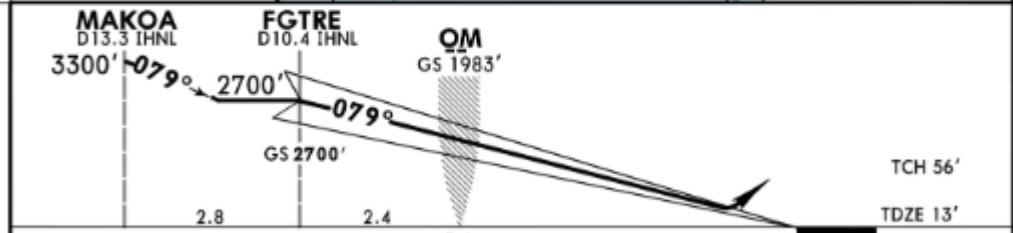
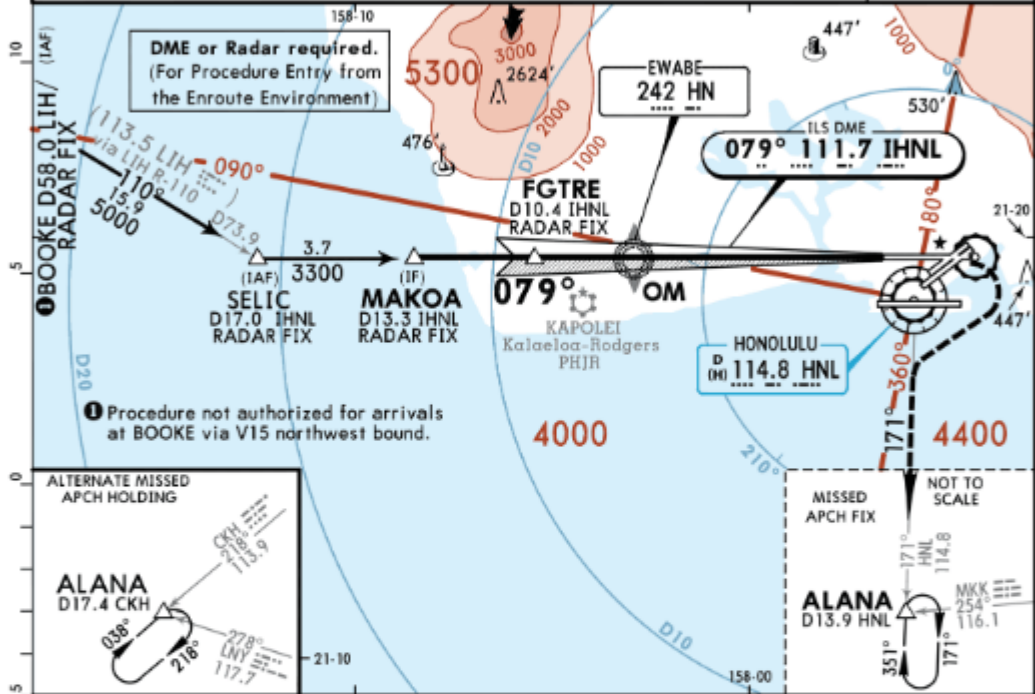
CHANGES: Procedure. © JEPPESEN, 2010, 2017. ALL RIGHTS RESERVED.



TERPS AMEND 1C 27 APR 2017



ATIS 127.9	HCF Approach (R) 118.3	HONOLULU Tower Rwys 8R/26L 118.1 123.9		Ground 121.9	HICKAM COMMAND POST 125.3
LOC IHNL 111.7	Final Apch Crs 079°	GS FGTRE 2700' (2687')	ILS DA(H) 213' (200')	Apt Elev 13' TDZE 13'	
<p>MISSED APCH: Climb to 500' then climbing RIGHT turn to 5000' outbound via HNL VOR R-171 to ALANA INT/D13.9 HNL and hold, continue climb-in-hold to 5000'.</p> <p>Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'</p> <p>1. VGS1 and ILS glidepath not coincident (VGS1 angle 3.00°/TCH 80'). 2. Use IHNL DME when on the LOC course. 3. When glideslope not used, use LOC Rwy 8L procedure.</p>					



Gnd speed-Kts	120	140	160	180	MALSR	500'	5000'	HNL	ALANA
GS	3.00°	637	743	849	PAPI	↑	RT	via 114.8 R-171	

TERPS		STRAIGHT-IN LANDING RWY 8L	
		ILS	
		DA(H) 213' (200')	
FULL		RAIL/ALS out	
C	1/2	3/4	
D			

TERPS AMEND 23 27 APR 2017

CHANGES: Chart format.

© JEPPESEN, 2010, 2018. ALL RIGHTS RESERVED.



ATIS 127.9	HCF Approach (R) 118.3	HONOLULU Tower Rwys 8R/26L 118.1	123.9	Ground 121.9	HICKAM COMMAND POST 125.3
LOC IHNL 111.7	Final Apch Crs 079°	Minimum Alt EWABE 2000' (1987')	MDA(H) 460' (447')	Apt Elev 13' TDZE 13'	<p>MSA HNL VOR</p>
<p>MISSED APCH: Climbing RIGHT turn to 5000' via heading 200° and outbound HNL VOR R-171 to ALANA INT/D13.9 HNL and hold, continue climb-in-hold to 5000'.</p> <p>Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'</p> <p>1. Circling Rwy 22R not authorized at night. 2. Use IHNL DME when on the LOC course.</p>					

RECOMMENDED ALTITUDES

IHNL DME	ALTITUDE
8.0	1970'
7.0	1640'
6.0	1310'
5.0	990'
4.0	660'

ALTERNATE MISSED APCH HOLDING

ALANA D17.4 CKH

ALANA D13.9 HNL

ALANA D13.9 R-171 HNL (IAF)

EWABE D8.1 IHNL D6.7 HNL

FEGTU D9.2 IHNL

D2.2 IHNL [RW08L]

D3.3 IHNL

HONOLULU D (H) 114.8 HNL

Procedure not authorized for arrivals at ALANA via V16 eastbound.

Only authorized operators may use VNAV DA(H) in lieu of MDA(H).

Gnd speed-Kts	120	140	160	180	MALS R 5000' 	
Descent Angle	3.08°	654	763	872		981
MAP at D2.2 IHNL or EWABE to MAP	5.9	2:57	2:32	2:13		1:58

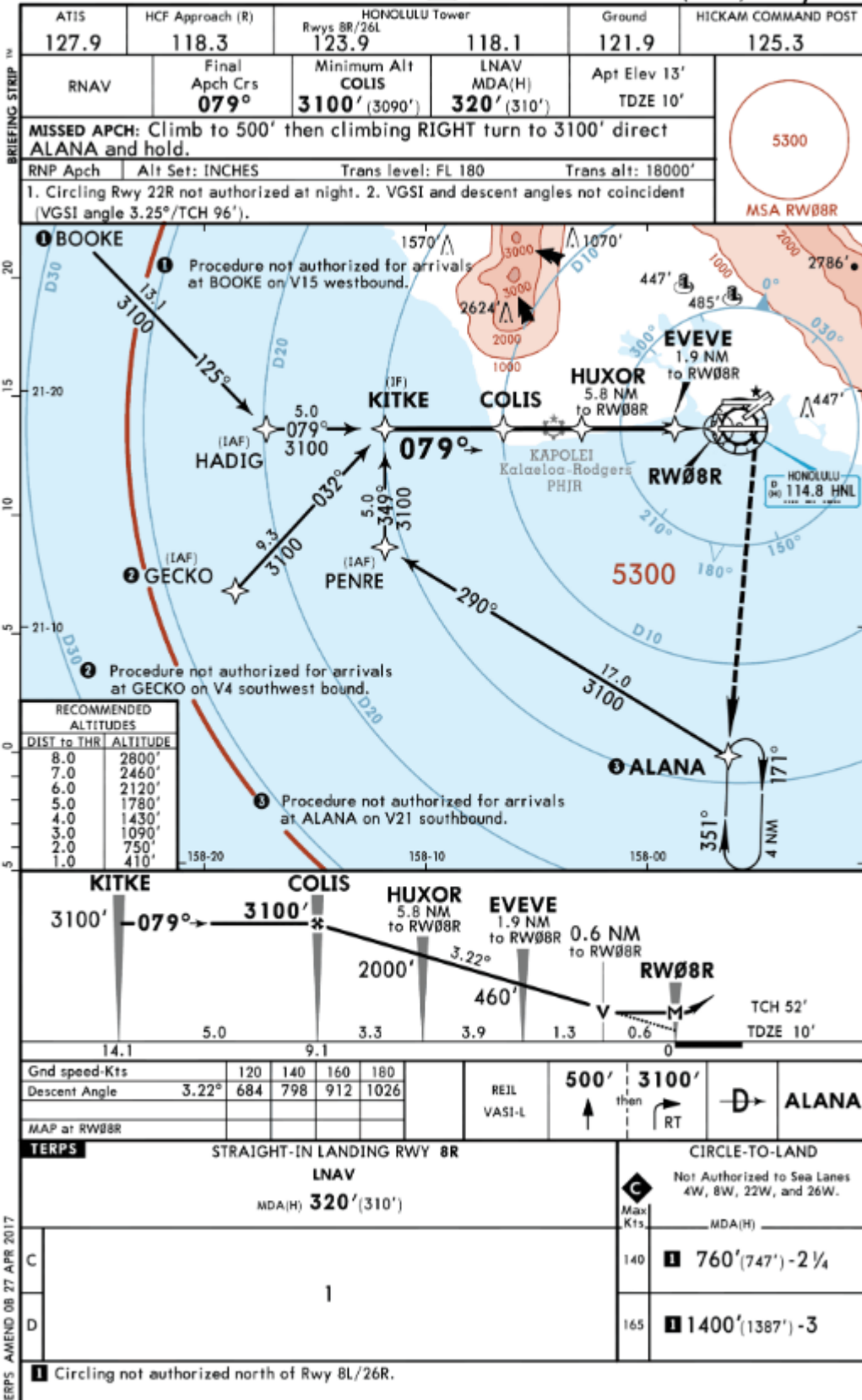
TERPS STRAIGHT-IN LANDING RWY 8L MDA(H) 460' (447') RAIL/ALS out	CIRCLE-TO-LAND Not Authorized to Sea Lanes 4W, 8W, 22W, and 26W. Max Kts. MDA(H)
C	140
D	165

1 Circling not authorized north of Rwy 8L/26R.

TERPS AMEND 1A 27 APR 2017

CHANGES: Circling note.

© JEPPESSEN, 2010, 2018. ALL RIGHTS RESERVED.

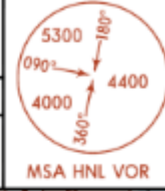


TERPS AMEND 08 27 APR 2017

CHANGES: Notes, profile note deleted, circling note, chart format.

© JEPPESEN, 2010, 2018. ALL RIGHTS RESERVED.

BRIEFING STRIP™	ATIS	HCF Approach (R)	HONOLULU Tower	Ground	HICKAM COMMAND POST
	127.9	119.1	Rwys BR/26L 118.1 123.9	121.9	125.3
	NAVAIDS- See Planview	Final Apch Crs See Planview	No FAF	CEIL-VIS 5100'-3	Apt Elev 13'



MISSED APCH: No Missed Approach procedure.
 Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'
1. Radar Required. 2. Restricted to CAT I and II aircraft only. 3. Procedure not authorized at night. 4. Pilots may expect Runway 22R.




KAHE POWER PLANT VISUAL RWY 22L

From west of Oahu, proceed direct to Kahe Power Plant, then follow the H-1 Freeway eastbound to H1/H2 interchange. From H1/H2 interchange, proceed direct to Ford Island, then to the Navy/Marine Golf Course. Enter right downwind to runway 22L.

REIL
PAPI-L

WEATHER MINIMUMS
 Ceiling **5100'** - VIS **3**

TERPS AMEND 1 27 APR 2017

BRIEFING STRIP	ATIS	HCF Approach (R)	HONOLULU Tower	Ground	HICKAM COMMAND POST	
	127.9	118.3	118.1	Rwys BR/26L 123.9	121.9	
	NAVAIDS- See Planview	Final Apch Crs See Planview	No FAF	CEIL-VIS 5100'-3	Apt Elev 13'	
MISSED APCH: No Missed Approach procedure.					 <p>MSA HNL VOR</p>	
Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'						
1. Radar Required. 2. Restricted to CAT I and II aircraft only. 3. Procedure not authorized at night. 4. Pilots may expect landing Rwy 22R.						



WAIALAE GOLF COURSE VISUAL RUNWAY 22L
 From east of Oahu, proceed direct to Wai'alae Golf Course, then follow the H-1 Freeway westbound to Fort Shafter. Turn final to Runway 22L over Fort Shafter.

REIL PAPI-L

WEATHER MINIMUMS
 Ceiling **5100'**- VIS **3**

TERPS AMEND 1 27 APR 2017

CHANGES: Procedure.

© JEPPESSEN, 2012, 2017. ALL RIGHTS RESERVED.

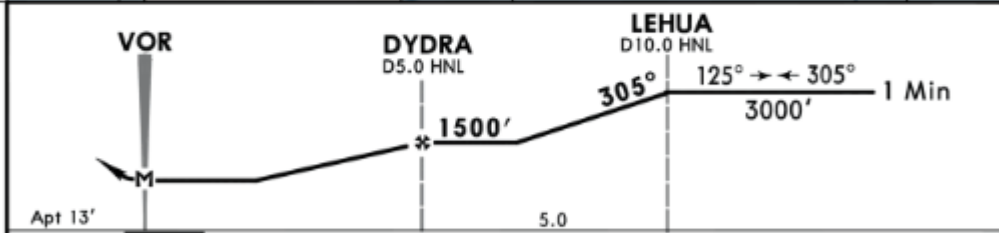
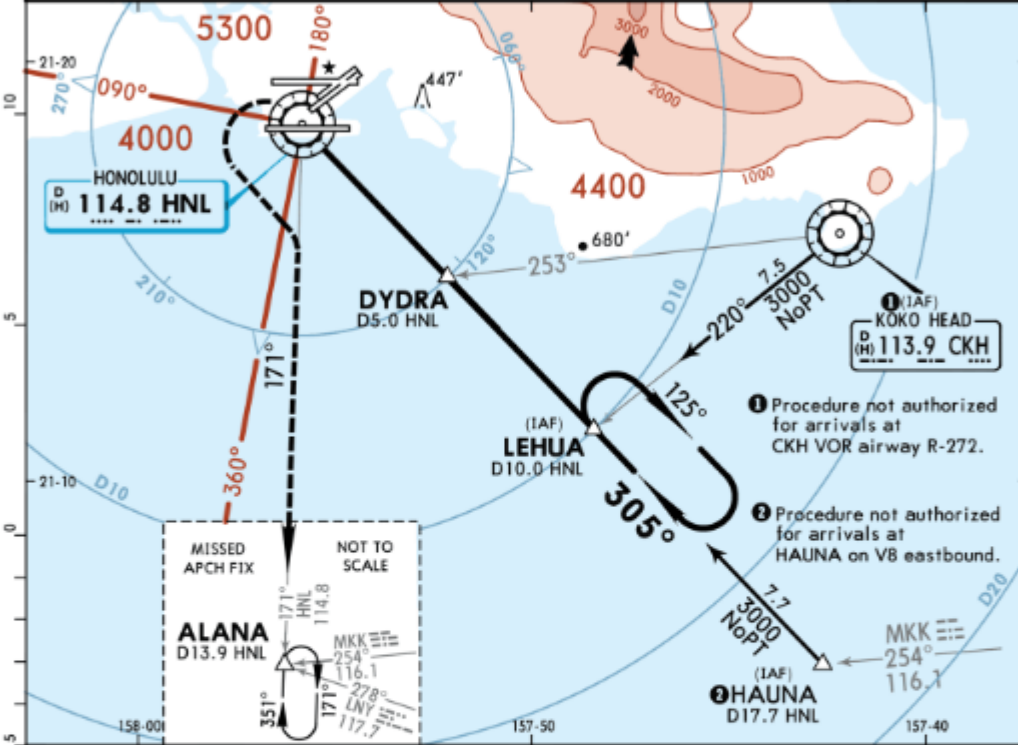


ATIS 127.9	HCF Approach (R) 118.3	HONOLULU Tower Rwys BR/26L 118.1 123.9	Ground 121.9	HICKAM COMMAND POST 125.3
VOR HNL 114.8	Final Apch Crs 305°	Minimum Alt DYDRA 1500' (1487')	MDA(H) Refer to Minimums	Apt Elev 13'

MISSED APCH: Climbing LEFT turn to 3000' outbound on HNL VOR R-171 to ALANA INT/D13.9 HNL and hold.

Alt Set: INCHES Trans level: FL 180 Trans alt: 18000'

I. Circling Rwy 22R not authorized at night.



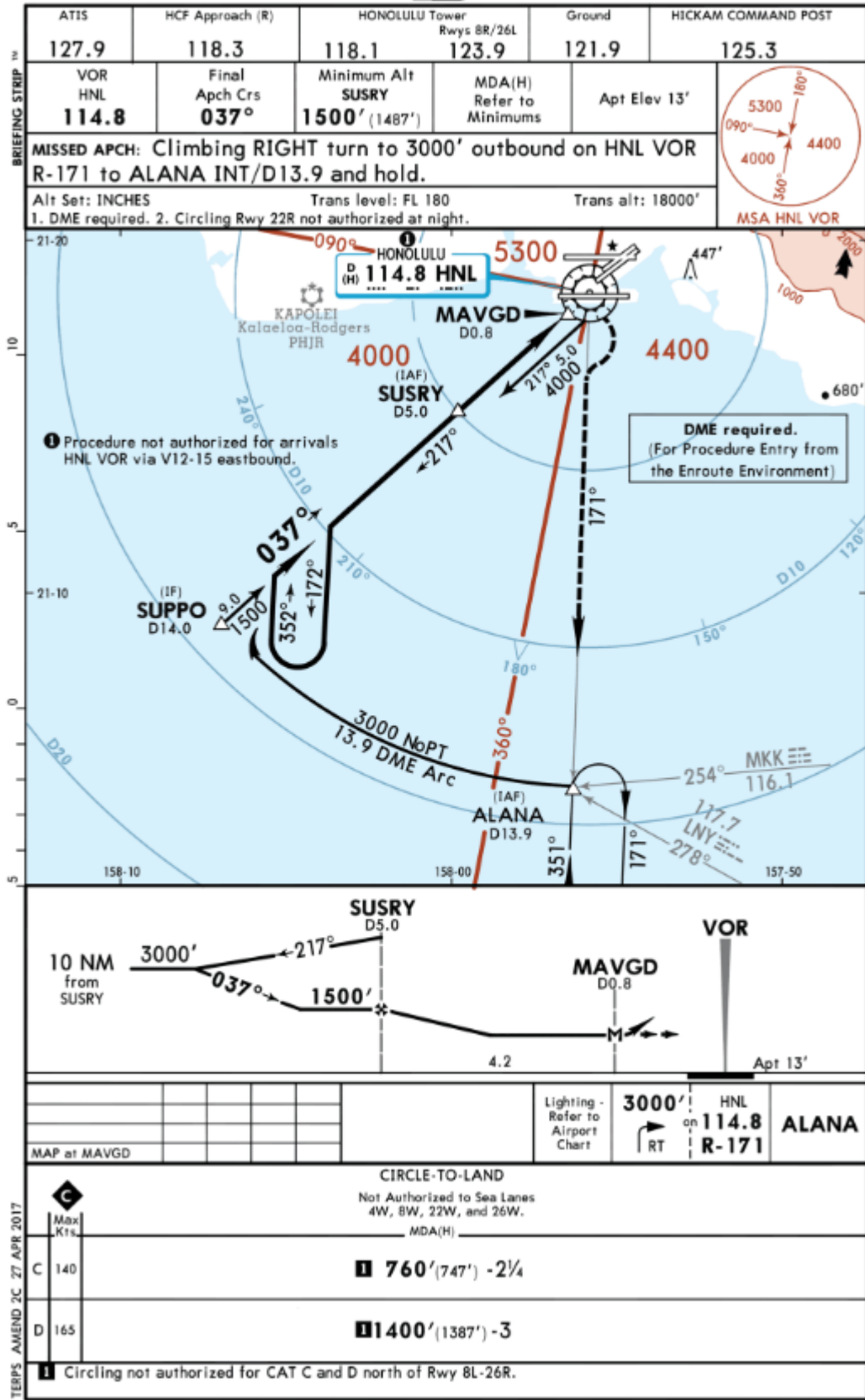
MAP at VOR	Lighting - Refer to Airport Chart	3000' HNL on 114.8 R-171	ALANA
------------	-----------------------------------	--------------------------	-------

CIRCLE-TO-LAND	
Not Authorized to Sea Lanes 4W, 8W, 22W, and 26W.	
Max Kts	MDA(H)
C 140	760' (747') - 2 1/4
D 165	1400' (1387') - 3
Circling not authorized for CAT C and D north of Rwy 8L-26R.	

TERPS AMEND 1C 27 APR 2017

CHANGES: Circling note, chart format.

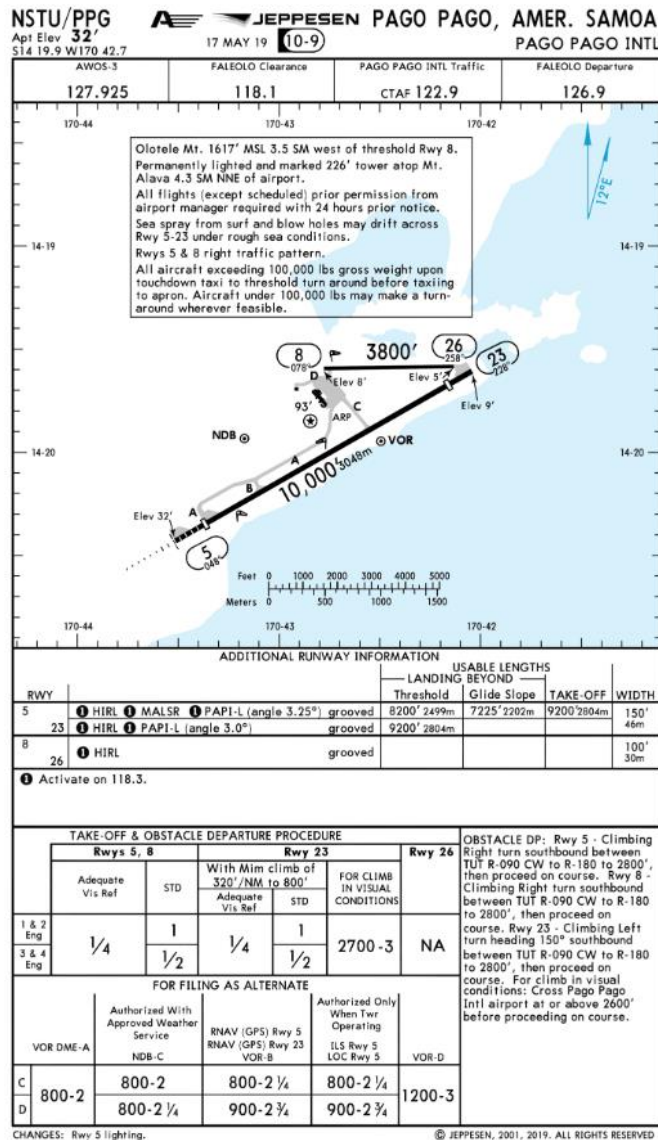
© JEPPESEN, 2010, 2018. ALL RIGHTS RESERVED.



CHANGES: Circling notes, chart format.

© JEPPESSEN, 2010, 2018. ALL RIGHTS RESERVED.

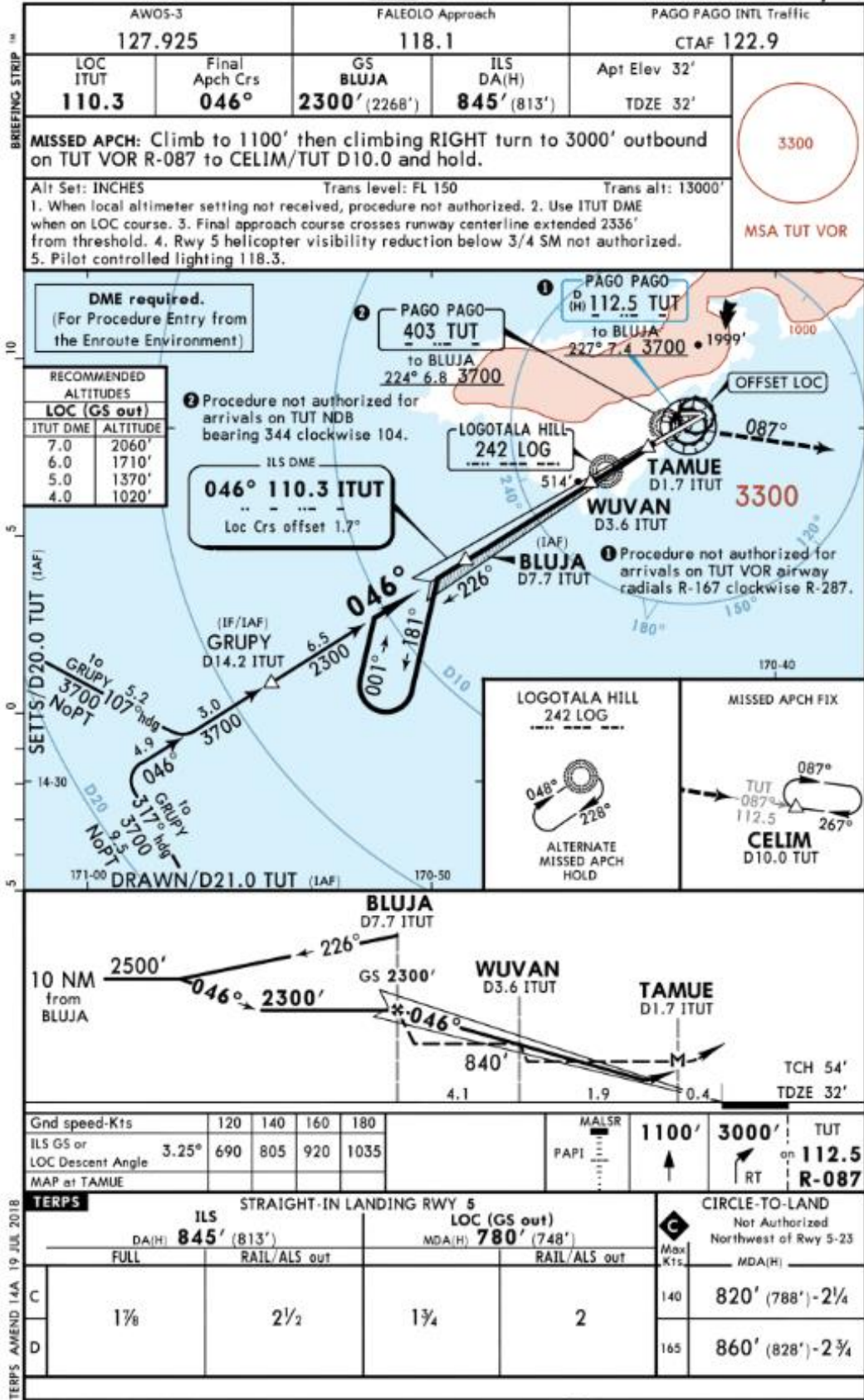
Pago Pago



Pago Pago is a fuel stop airport between Hickam AFB and Christchurch International. No supplies should be left at this island airport. There is not a parking plan for this Airport because of the limited Ramp space. RON is allowed but not encouraged. Pilots who overnight at this base should be wheels up within 24 hours.

Approach Plates

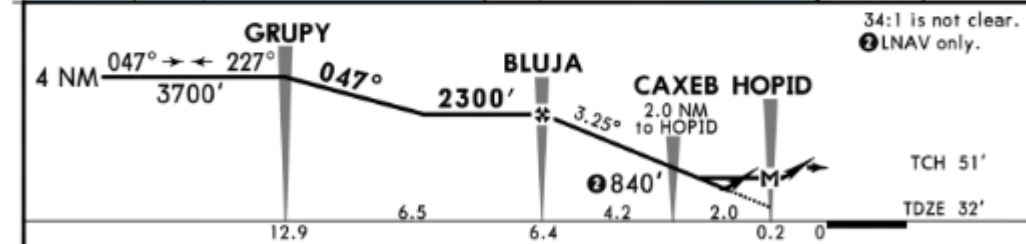
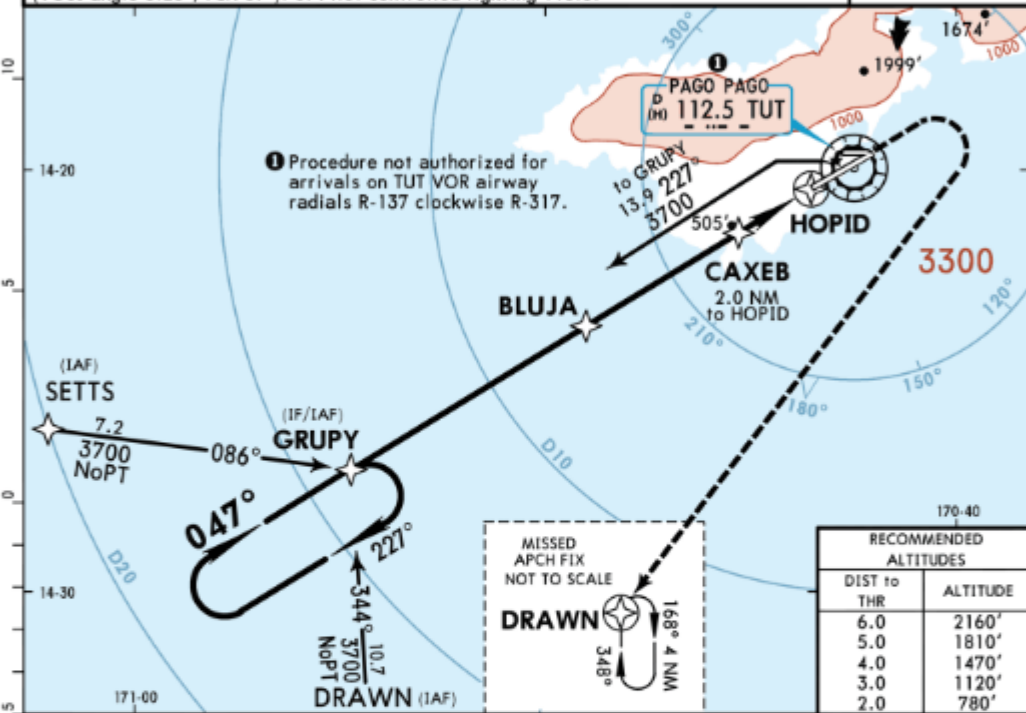
NSTU/PPG **JEPPESSEN** PAGO PAGO, AMER. SAMOA
PAGO PAGO INTL 17 MAY 19 **(11-1)** **ILS or LOC Rwy 5**



CHANGES: Lighting, chart format.

© JEPPESSEN, 2001, 2019. ALL RIGHTS RESERVED.

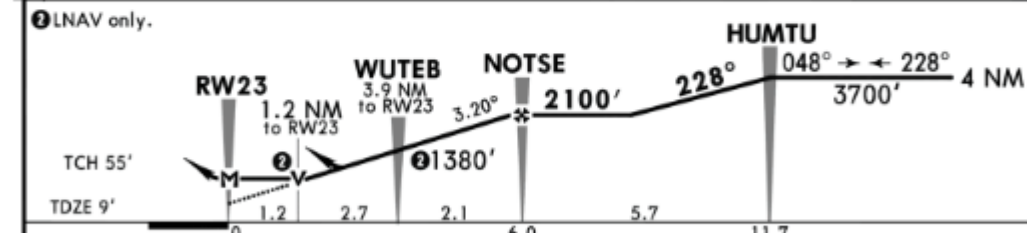
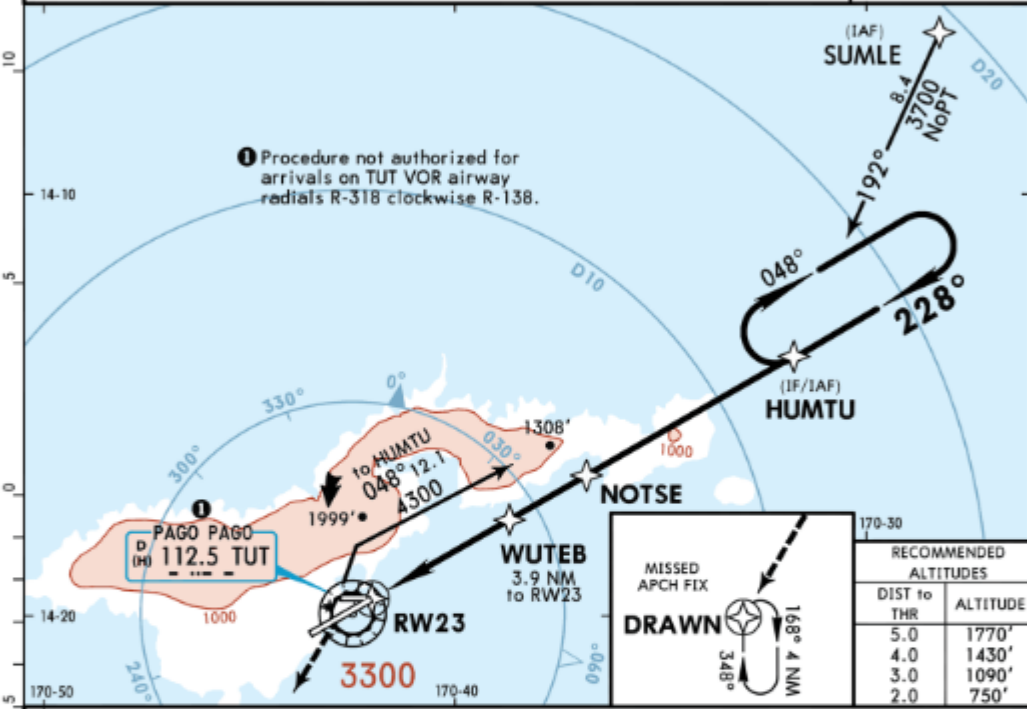
AWOS-3 127.925		FALEOLO Approach 118.1		PAGO PAGO INTL Traffic CTAF 122.9		
RNAV	Final Apch Crs 047°	Minimum Alt BLUJA 2300' (2268')	LNAV/VNAV DA(H) 551' (519')	Apt Elev 32'		
MISSED APCH: (Maintain 185 KT max until 760') Climb to 760' then climbing RIGHT turn to 4000' direct DRAWN and hold.						
RNP Apch	Alt Set: INCHES	Trans level: FL 150	Trans alt: 13000'			



Gnd speed-Kts	120	140	160	180	MALS	760'	4000'	DRAWN
Descent Angle	3.25°	690	805	920	1035	↑	RT	

	STRAIGHT-IN LANDING RWY 5				CIRCLE-TO-LAND Not Authorized Northwest of Rwy 5-23
	LNAV/VNAV		LNAV		
	DA(H)	RAIL/ALS out	MDA(H)	RAIL/ALS out	Max Kts
C	551' (519')	1 3/8	760' (728')	2	140
D					165

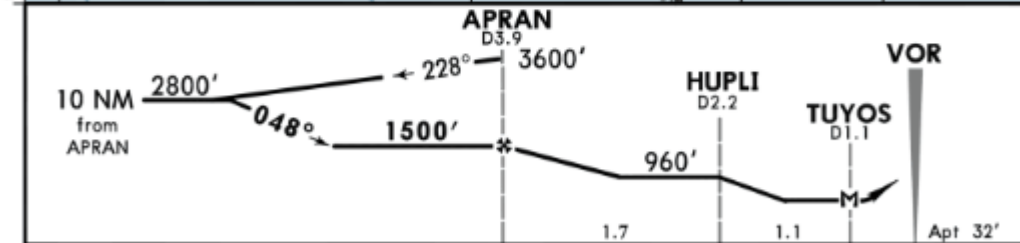
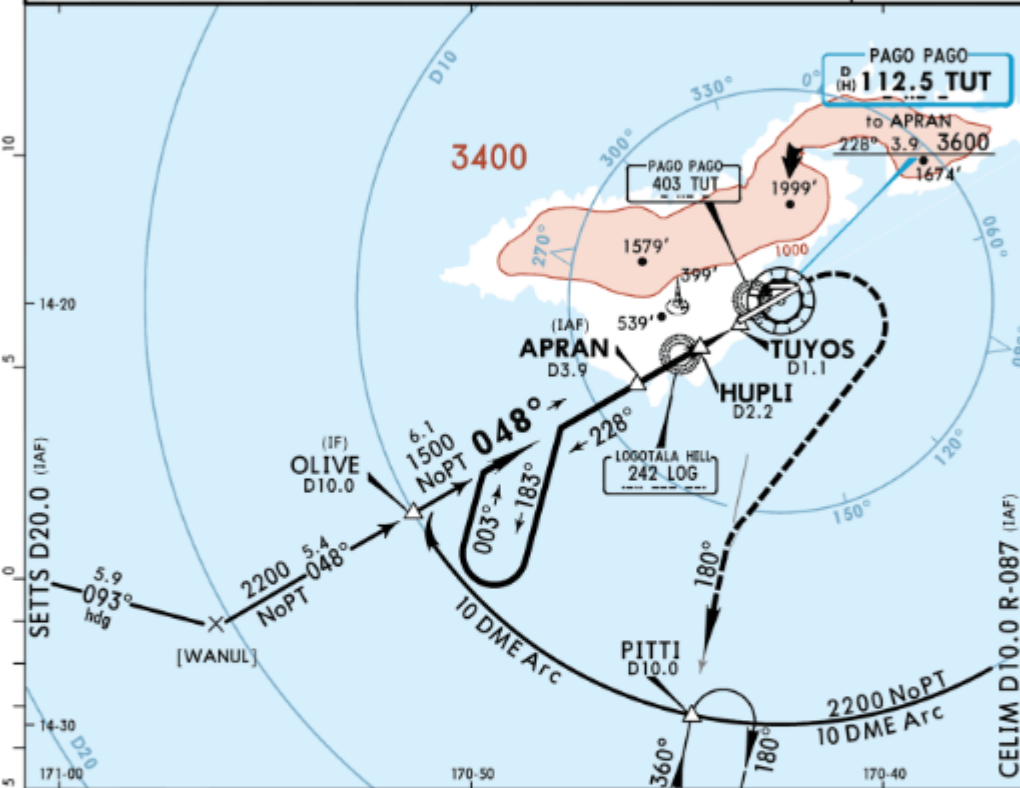
AWOS-3 127.925		FALEOLO Approach 118.1		PAGO PAGO INTL Traffic CTAF 122.9	
RNAV	Final Apch Crs 228°	Minimum Alt NOTSE 2100' (2091')	LNAV MDA(H) 460' (451')	Apt Elev 32'	TDZE 9'
MISSED APCH: Climb to 500' then climbing LEFT turn to 4000' direct DRAWN and hold.					
RNP Apch	Alt Set: INCHES	Trans level: FL 150	Trans alt: 13000'		
1. When local altimeter setting not received, procedure not authorized. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below 22°C or above 54°C. 3. VGSI and RNAV glidepath not coincident (VGSI angle 3.00°/TCH 75'). 4. Pilot controlled lighting 118.3.					



Gnd speed-Kts	120	140	160	180				
Descent Angle	3.20°	679	793	906	1019			
LNAV/VNAV: MAP at DA								
LNAV: MAP at RW23								

TERPS		STRAIGHT-IN LANDING RWY 23			CIRCLE-TO-LAND	
LNAV/VNAV		LNAV			Not Authorized Northwest of Rwy 5-23	
DA(H) 489' (480')		MDA(H) 460' (451')			Max Kts	
					MDA(H)	
C	1 3/8	1 3/8			140	820' (788') - 2 1/4
D					165	860' (828') - 2 3/4

AWOS-3 127.925		FALEOLO Approach 118.1		PAGO PAGO INTL Traffic CTAF 122.9	
VOR TUT 112.5	Final Apch Crs 048°	Minimum Alt APRAN 1500' (1468')	MDA(H) Refer to Minimums	Apt Elev 32'	
MISSED APCH: Climbing RIGHT turn to 3000' outbound via TUT VOR R-180 to PITTI D10.0 and hold. Continue climb in hold 3000'.					
Alt Set: INCHES		Trans level: FL 180		Trans alt: 18000'	
DME required.					
1. When local altimeter setting not received, procedure not authorized. 2. Pilot controlled lighting 118.3.					

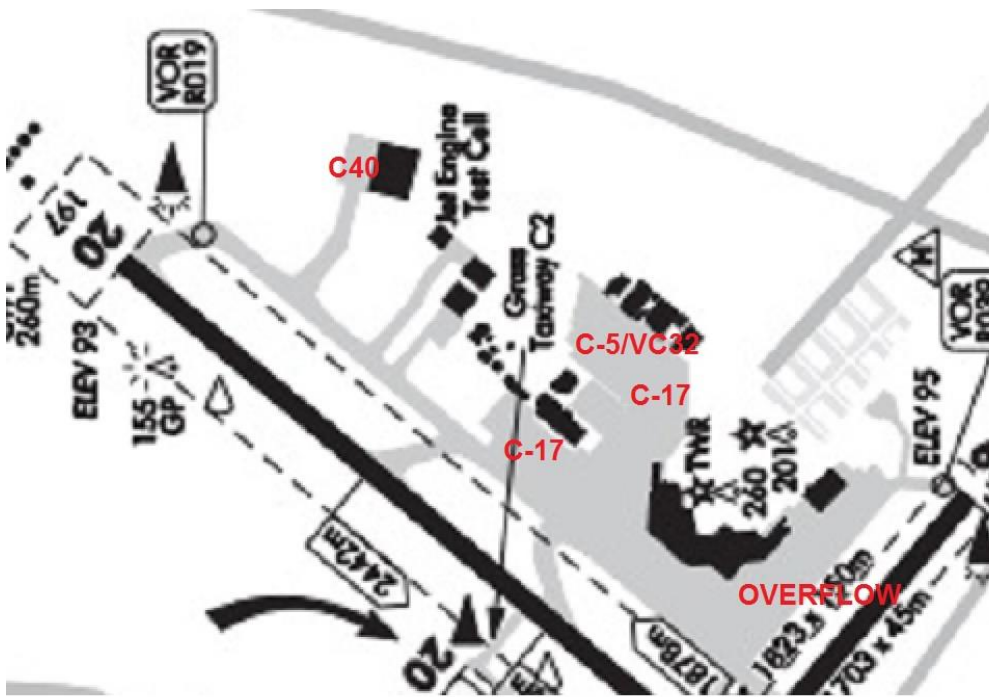


MAP at TUYOS D1.1	Lighting - Refer to Airport Chart	3000' via TUT R-180	PITTI
-------------------	-----------------------------------	---------------------	-------

CIRCLE-TO-LAND		MDA(H)
Not Authorized Northwest of Rwy 5-23		
C	140	700' (668') - 1 3/4
D	165	700' (668') - 2

CHANGES: Notes, chart format. © JEPPESSEN, 2001, 2018. ALL RIGHTS RESERVED.

Christchurch International Parking Diagram



Christchurch International is the Command Station of Operation Deep Freeze. Supplies from Hickam is stored here during Winfly and is shipped to the Ice during Mainbody. This Airport can become very busy with aircraft so adhering to the parking diagram is heavily enforced.

ELEV 123

NZCH

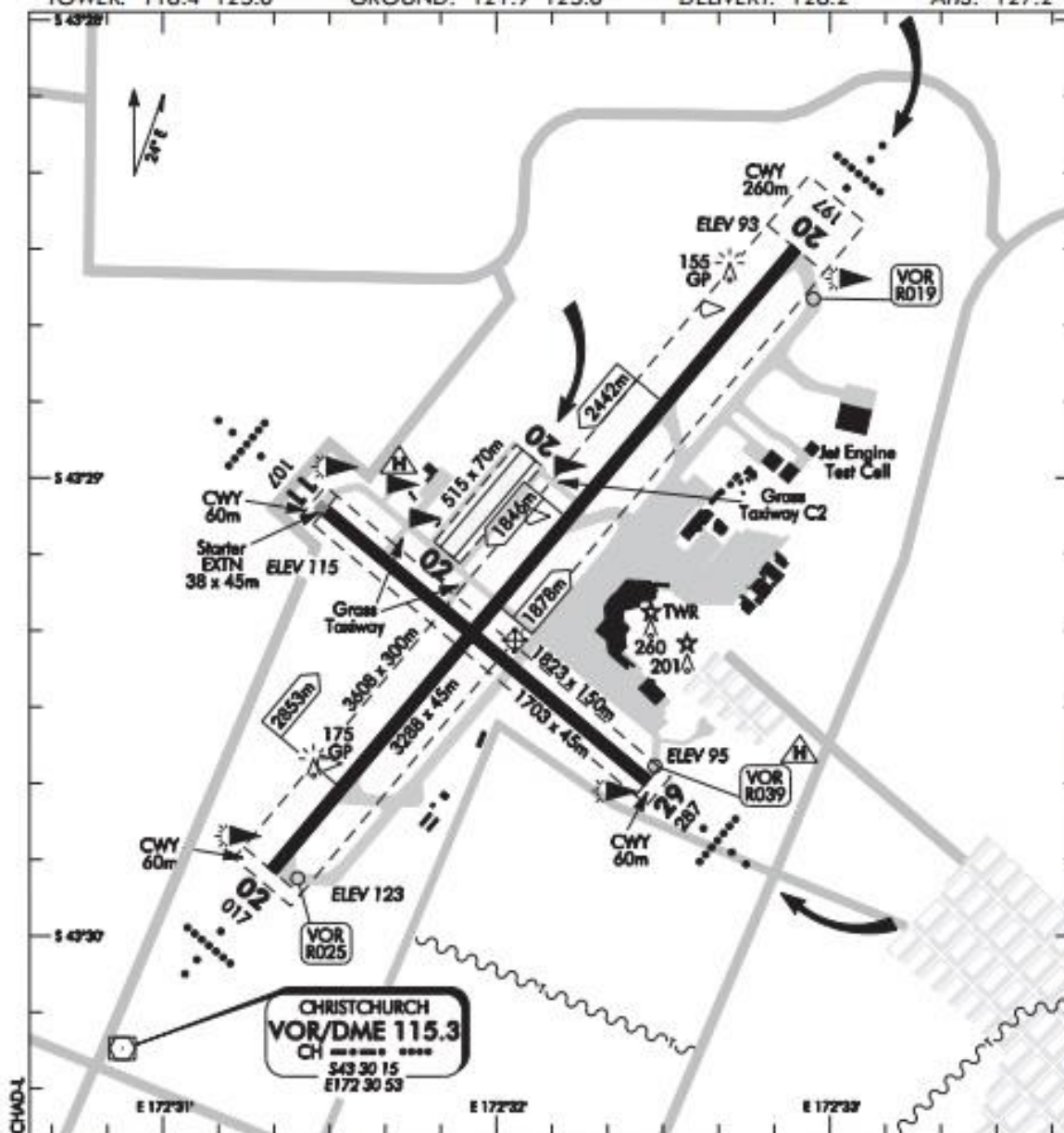
**CHRISTCHURCH
AERODROME (1)**

TOWER: 118.4 125.0

GROUND: 121.9 125.0

DELIVERY: 128.2

ATIS: 127.2



Changes from 4 APR 13: RVR sensors added.

1. Circuit: RWY 02, 11 — Left hand
RWY 20, 29 — Right hand
2. Circuit altitudes unless otherwise instructed by ATC:
 - (a) Using grass runway — 900ft AMSL.
 - (b) Using sealed runways — 1500ft AMSL.
3. ATC Speed Requirements:

Arriving IFR: on instrument approach not less than 160kt IAS to 5NM from touchdown

VFR in circuit (except Grass RWY 02/20):
approach speed of not less than 90kt IAS when above 400ft AMSL.
4. RWY 11/29 not available to Code E or F ACFT (except for emergency use) due to lack of sealed shoulders and incompatible TWY access and egress.

(continued)

S 43 29 22 E 172 32 04

Effective: 18 SEP 14

© Civil Aviation Authority

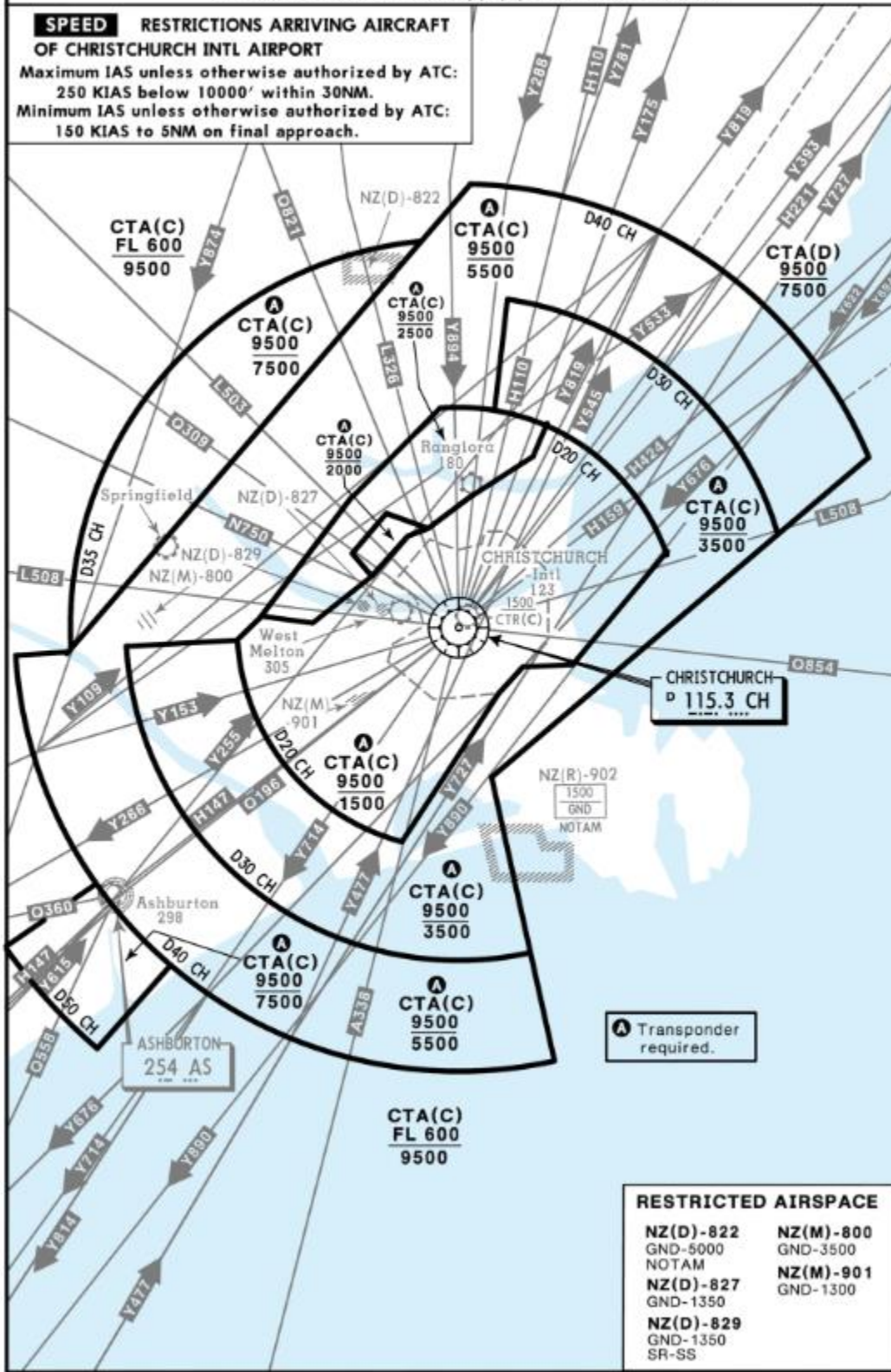
**CHRISTCHURCH
AERODROME (1)**

CHRISTCHURCH CONTROL AREA

CHRISTCHURCH Control App (R) 120.9 126.1 128.75

SPEED RESTRICTIONS ARRIVING AIRCRAFT OF CHRISTCHURCH INTL AIRPORT

Maximum IAS unless otherwise authorized by ATC:
250 KIAS below 10000' within 30NM.
Minimum IAS unless otherwise authorized by ATC:
150 KIAS to 5NM on final approach.



A Transponder required.

RESTRICTED AIRSPACE

- NZ(D)-822**
GND-5000
NOTAM
- NZ(D)-827**
GND-1350
- NZ(D)-829**
GND-1350
SR-SS
- NZ(M)-800**
GND-3500
- NZ(M)-901**
GND-1300

CHANGES: CTA/CTR limits.

© JEPPESEN, 1985, 2018. ALL RIGHTS RESERVED.

Departures

NZCH AD 2 - 64.2

AIP New Zealand

ELEV 123

NZCH

TOWER: 118.4 125.0

CHRISTCHURCH

VFR DEPARTURE PROCEDURES RWY 02/20 (2)

ATIS: 127.2

Listen to ATIS for conditions at Christchurch Airport.

Communications Failure

Vacate the Christchurch CTR/C via the assigned departure procedure. **Squawk 7600.**

REFER TO DIAGRAM ON PREVIOUS PAGE AND VNC.

- 11 West Junction Dep (RWY 02/20) From crosswind leg intercept the track Coringa direct to West Junction, thence leave the CTR tracking **west** of a line from West Junction to Burnham Camp, 1500ft or below.
- 12 Southbrook Dep (RWY 02/20) From crosswind leg, track **west** of a line Pylons to Southbrook 1500ft or below.
- 13 Spencer Park Dep (RWY 02/20) Track to Northlands Mall, thence to Spencer Park, 1500 ft or below. Leave the CTR at Spencer Park.
- 14 Pier Dep (RWY 02 only) Track direct to The Pier, 1500ft or below until inside the City Sector, thence 2500ft or below. Report entering the New Brighton GAA.
- 15 Estuary Dep (RWY 20 only) Track direct to Southshore, 1500ft or below until inside the City Sector, thence 2500ft or below. Report entering the New Brighton GAA.
- 16 Addington Dep (RWY 02 only) Track to Addington Racecourse thence to Tai Tapu, 1500ft or below.
- 17 Riccarton Dep (RWY 20 only) Track to Riccarton Racecourse then direct to Lincoln, 1500ft or below.
- 18 Two Chain Dep (RWY 02 only) From crosswind leg track via Pylons direct to Two Chain, thence leave the CTR tracking **west**, 1500ft or below. Caution Forest Field circuit traffic.
- 19 Pine Dep (RWY 20 only) From crosswind leg track direct to Pine, thence leave the CTR tracking **west**, 1500ft or below.

Effective: 3 APR 14

© Civil Aviation Authority

CHRISTCHURCH

VFR DEPARTURE PROCEDURES RWY 02/20 (2)

SID OVERVIEW ALL RWYS (EAST)



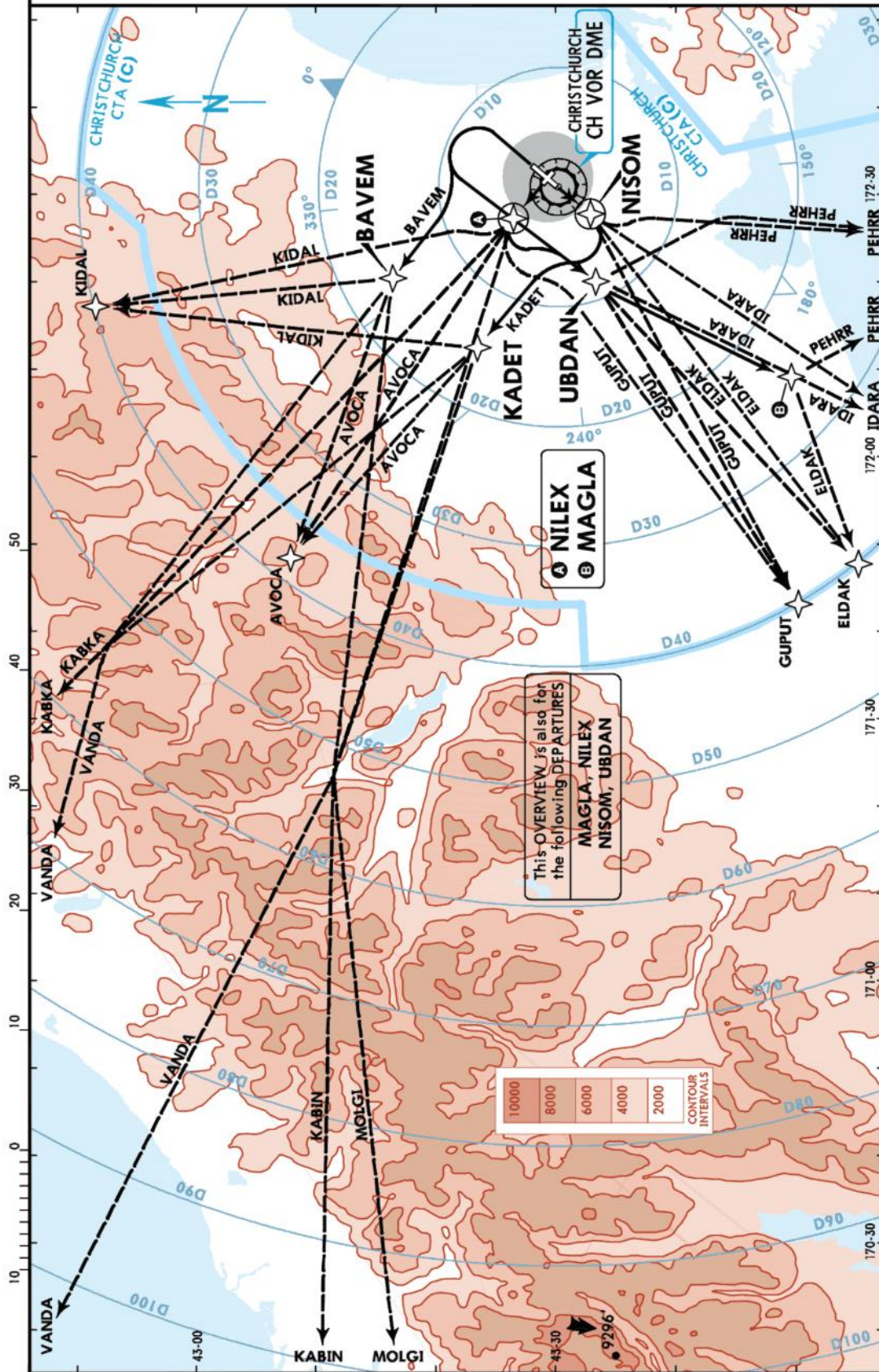
This OVERVIEW is also for the following DEPARTURES
CHRISTCHURCH,
NUBKA

Ⓐ BIDEV
Ⓑ KABOD
Ⓒ NUBKA

CHANGES: MUPAN waypoint & transitions renamed PORAM.

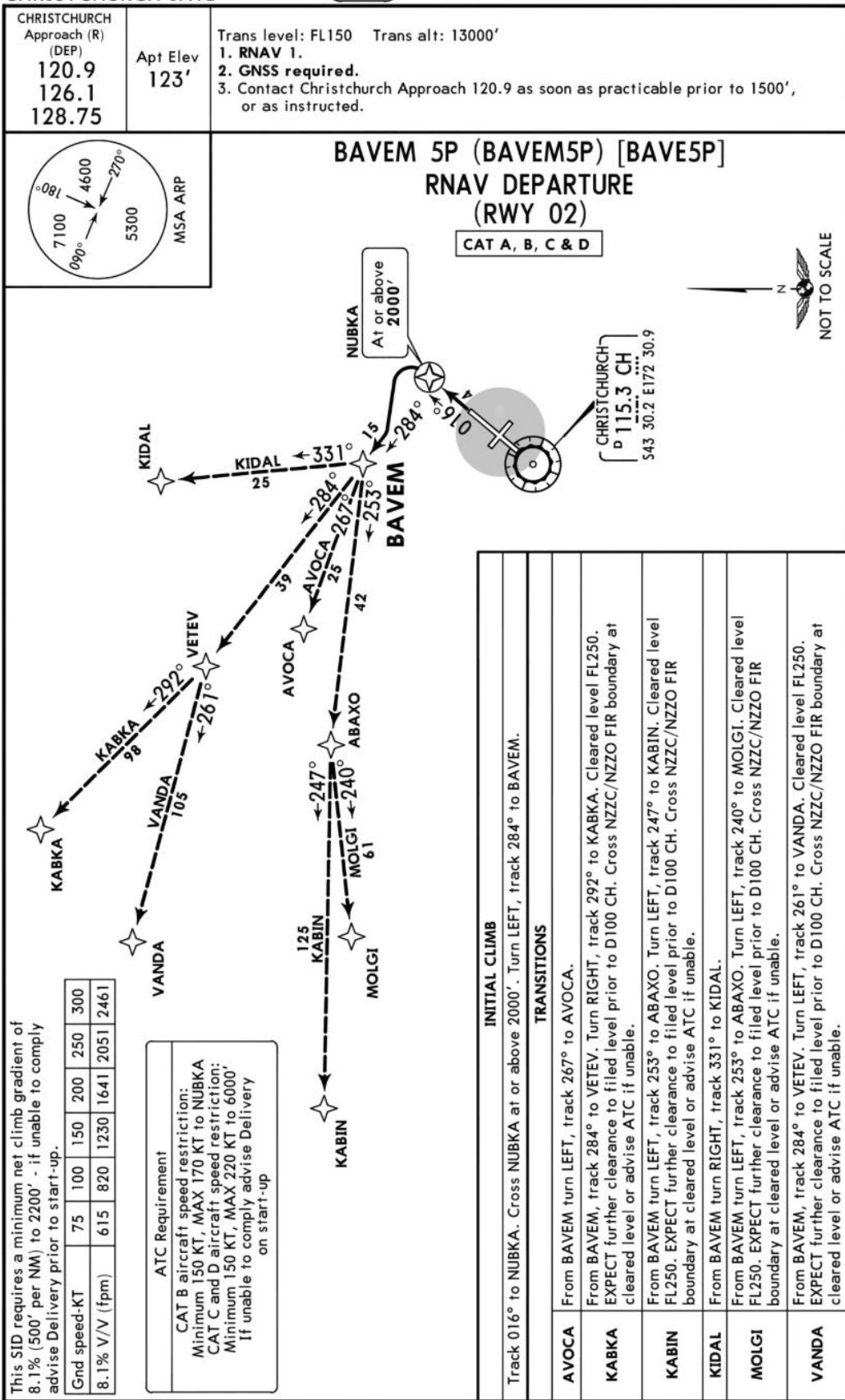
© JEPPESEN, 2015, 2017. ALL RIGHTS RESERVED.

SID OVERVIEW ALL RWYS (WEST)



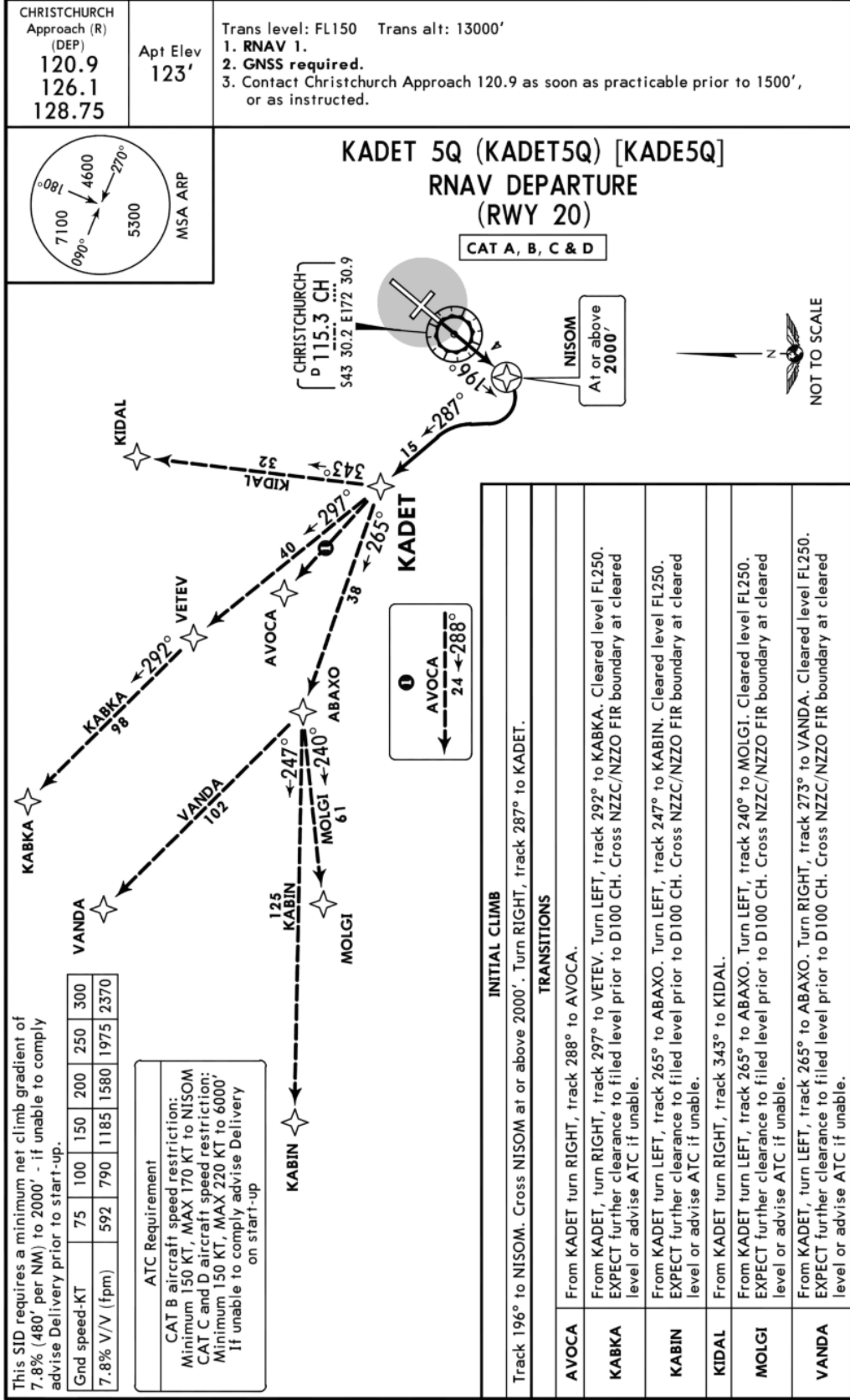
CHANGES: None.

© JEPPESEN, 2015. ALL RIGHTS RESERVED.




CHANGES: Climb sector note withdrawn.

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

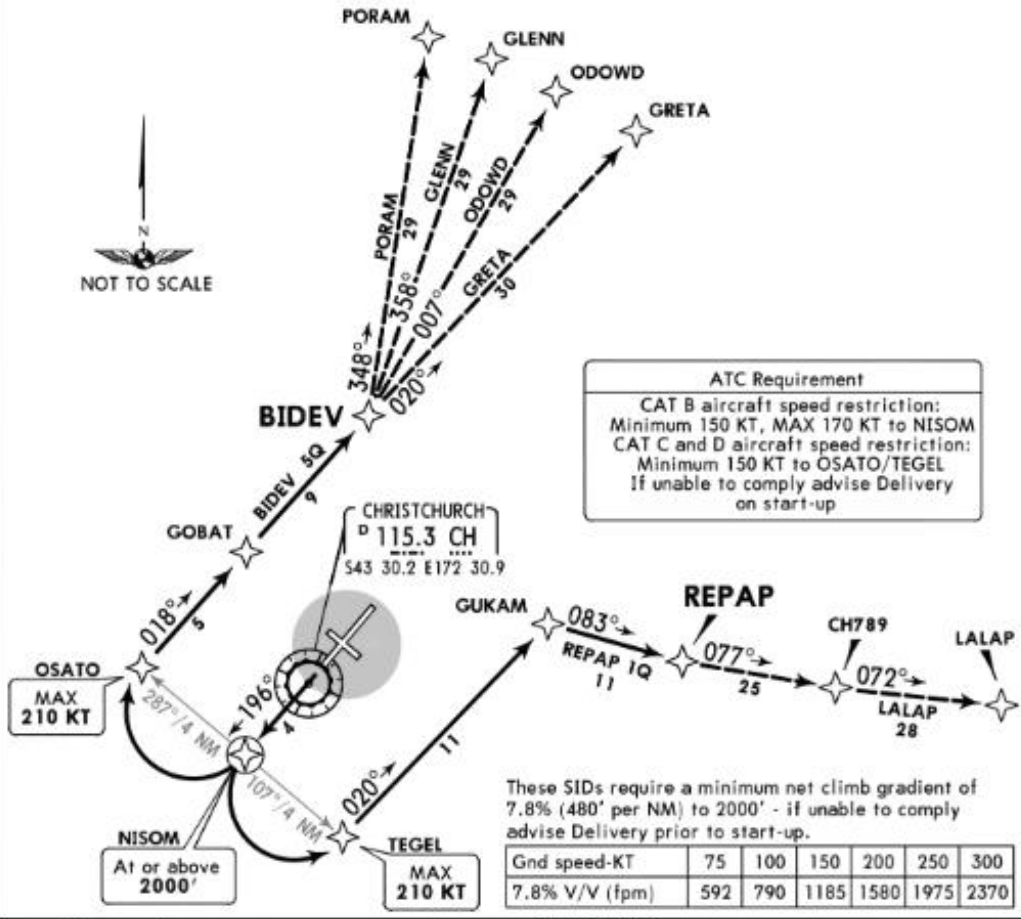


CHANGES: Chart reindexed, climb sector note withdrawn.

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHRISTCHURCH Approach (R) (DEP) 120.9 126.1 128.75	Apt Elev 123'	Trans level: FL150 Trans alt: 13000' 1. RNAV 1. 2. GNSS required. 3. Contact Christchurch Approach 120.9 as soon as practicable prior to 1500', or as instructed.	 <p>MSA ARP</p>
---	------------------	--	---

**BIDEV 5Q (BIDEV5Q) [BIDE5Q]
REPAP 1Q (REPAP1Q) [REPA1Q]
RNAV DEPARTURES
(RWY 20)
CAT A, B, C & D**



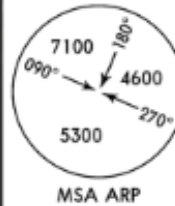
SID	INITIAL CLIMB
BIDEV 5Q	Track 196° to NISOM. Cross NISOM at or above 2000'. Turn RIGHT, direct to OSATO. Track 018° via GUBAT to BIDEV, MAX 210 KT until turn complete.
TRANSITIONS	
GLENN	From BIDEV turn LEFT, track 358° to GLENN.
GRETA	From BIDEV turn RIGHT, track 020° to GRETA.
ODO	From BIDEV turn LEFT, track 007° to ODO.
PORAM	From BIDEV turn LEFT, track 348° to PORAM.
SID	INITIAL CLIMB
REPAP 1Q	Track 196° to NISOM. Cross NISOM at or above 2000'. Turn LEFT, direct to TEGEL. Track 020° to GUKAM, MAX 210 KT until turn complete. Turn RIGHT, track 083° to REPAP.
TRANSITION	
LALAP	From REPAP turn LEFT, track 077° to CH789. Turn LEFT, track 072° to LALAP.

CHANGES: Climb sector note withdrawn. © JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHRISTCHURCH
Approach (R)
(DEP)
120.9
126.1
128.75

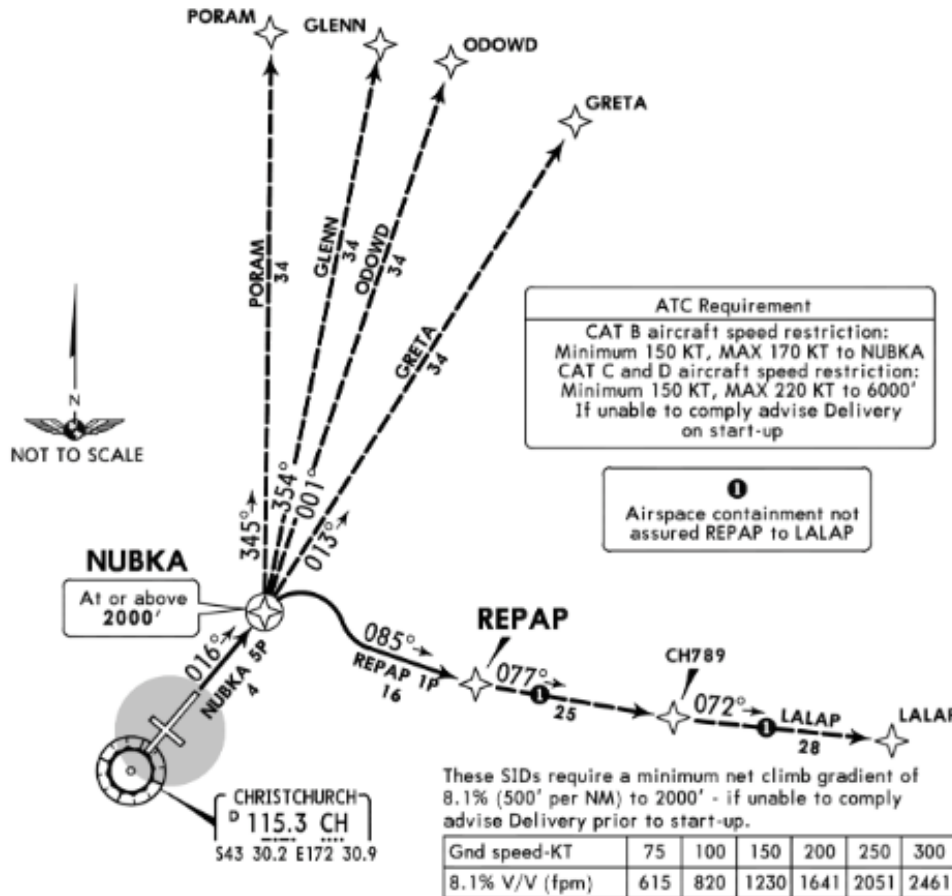
Apt Elev
123'

Trans level: FL150 Trans alt: 13000'
1. RNAV 1.
2. GNSS required.
3. Contact Christchurch Approach 120.9 as soon as practicable prior to 1500', or as instructed.



NUBKA 5P (NUBKA5P) [NUBK5P]
REPAP 1P (REPAP1P) [REPA1P]
RNAV DEPARTURES
(RWY 02)

CAT A, B, C & D



SID	INITIAL CLIMB
NUBKA 5P	Track 016° to NUBKA. Cross NUBKA at or above 2000'.
TRANSITIONS	
GLENN	From NUBKA turn LEFT, track 354° to GLENN.
GRETA	From NUBKA turn LEFT, track 013° to GRETA.
ODOWD	From NUBKA turn LEFT, track 001° to ODOWD.
PORAM	From NUBKA turn LEFT, track 345° to PORAM.
SID	INITIAL CLIMB
REPAP 1P	Track 016° to NUBKA. Cross NUBKA at or above 2000'. Turn RIGHT, track 085° to REPAP.
TRANSITION	
LALAP	From REPAP turn LEFT, track 077° to CH789. Turn LEFT, track 072° LALAP.

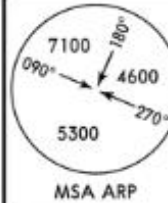
CHANGES: Chart reindexed, climb sector note withdrawn.

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHRISTCHURCH
Approach (R)
(DEP)
120.9
126.1
128.75

Apt Elev
123'

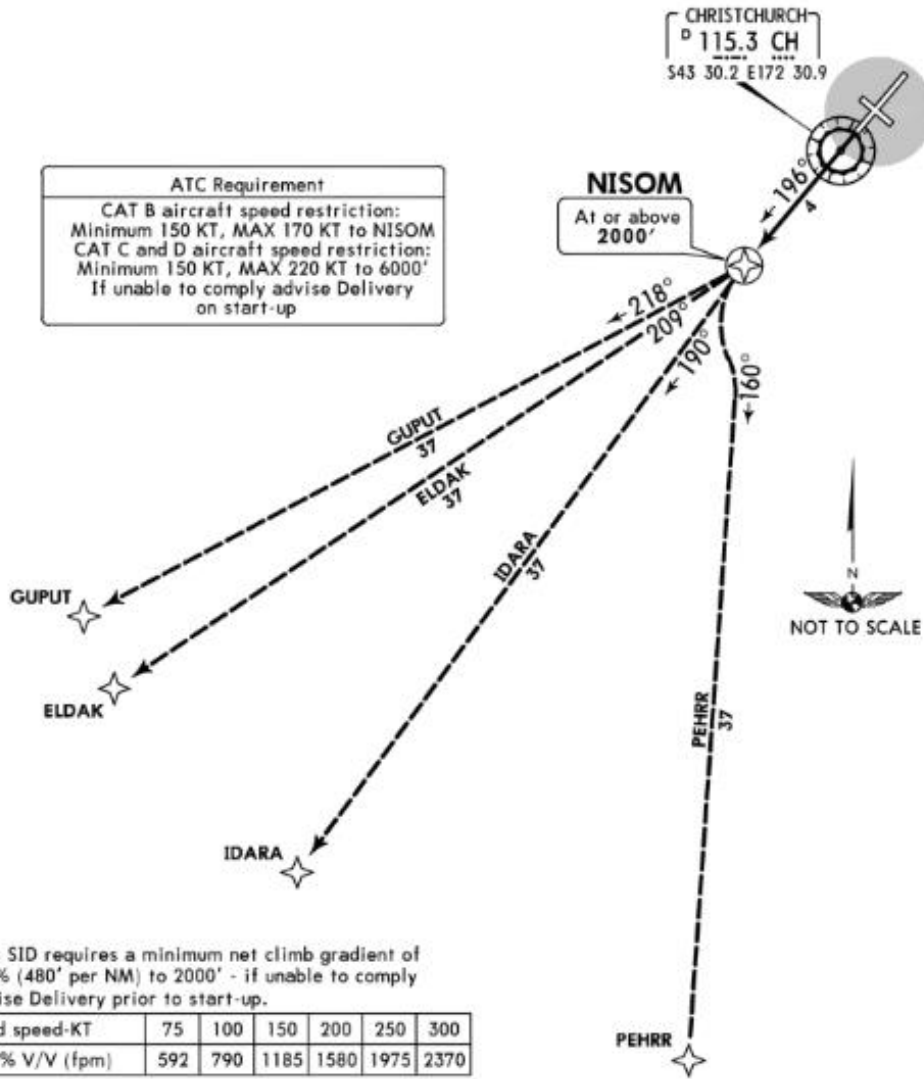
Trans level: FL150 Trans alt: 13000'
1. RNAV 1.
2. GNSS required.
3. Contact Christchurch Approach 120.9 as soon as practicable prior to 1500', or as instructed.



NISOM 4Q (NISOM4Q) [NIS04Q]
RNAV DEPARTURE
(RWY 20)

CAT A, B, C & D

ATC Requirement
CAT B aircraft speed restriction:
Minimum 150 KT, MAX 170 KT to NISOM
CAT C and D aircraft speed restriction:
Minimum 150 KT, MAX 220 KT to 6000'
If unable to comply advise Delivery
on start-up



This SID requires a minimum net climb gradient of 7.8% (480' per NM) to 2000' - if unable to comply advise Delivery prior to start-up.

Gnd speed-KT	75	100	150	200	250	300
7.8% V/V (fpm)	592	790	1185	1580	1975	2370

INITIAL CLIMB

Track 196° to NISOM. Cross NISOM at or above 2000'.

TRANSITIONS

ELDAK	From NISOM turn RIGHT, track 209° to ELDAK.
GUPUT	From NISOM turn RIGHT, track 218° to GUPUT.
IDARA	From NISOM turn LEFT, track 190° to IDARA.
PEHRR	From NISOM turn LEFT, track 160° to PEHRR.

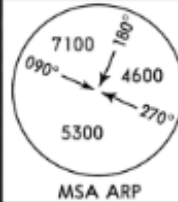
CHANGES: Chart reindexed, climb sector note withdrawn.

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHRISTCHURCH
Approach (R)
(DEP)
120.9
126.1
128.75

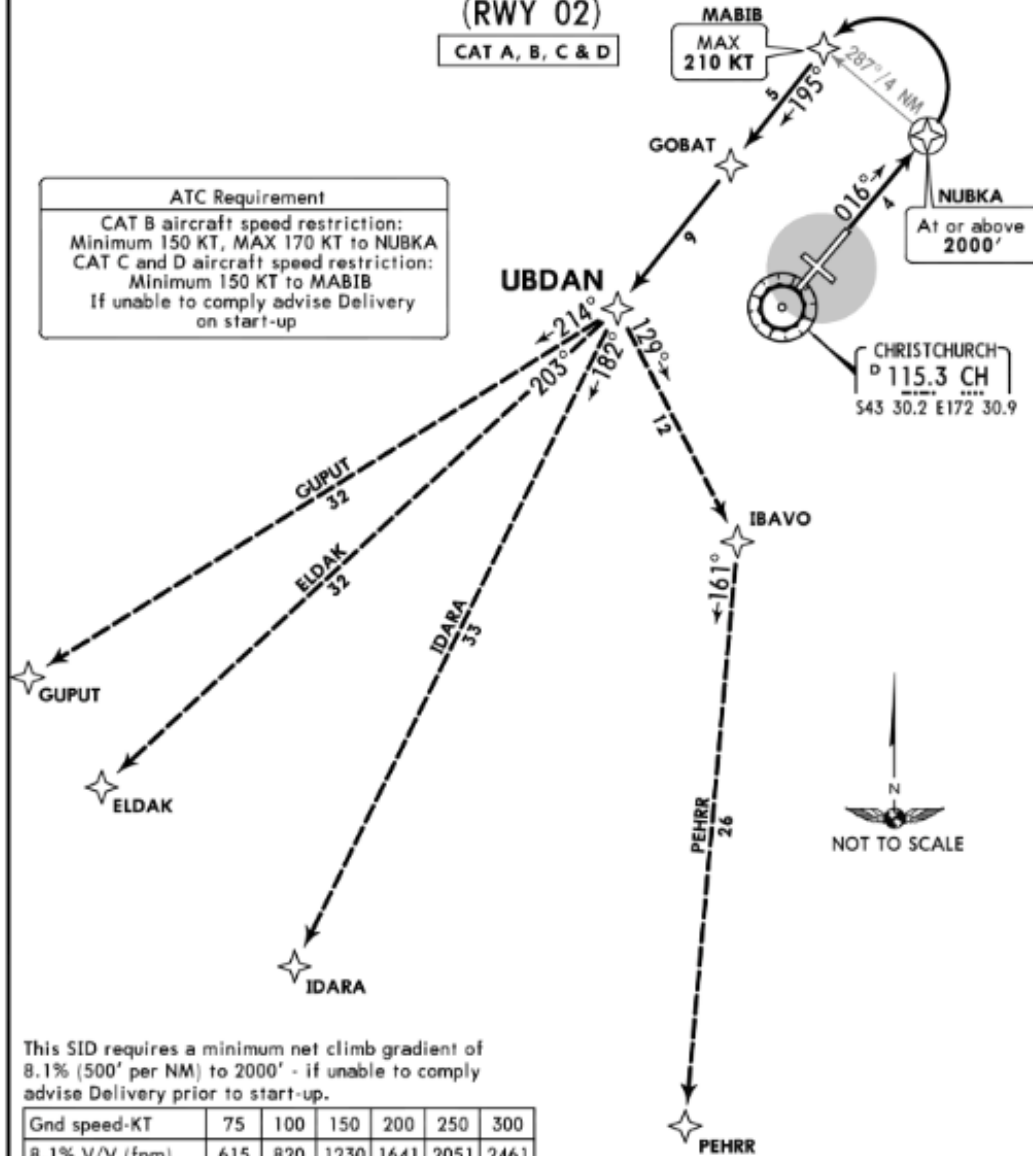
Apt Elev
123'

Trans level: FL150 Trans alt: 13000'
1. RNAV 1.
2. GNS required.
3. Contact Christchurch Approach 120.9 as soon as practicable prior to 1500', or as instructed.



UBDAN 4P (UBDAN4P) [UBDA4P]
RNAV DEPARTURE
(RWY 02)
CAT A, B, C & D

ATC Requirement
CAT B aircraft speed restriction:
Minimum 150 KT, MAX 170 KT to NUBKA
CAT C and D aircraft speed restriction:
Minimum 150 KT to MABIB
If unable to comply advise Delivery on start-up



This SID requires a minimum net climb gradient of 8.1% (500' per NM) to 2000' - if unable to comply advise Delivery prior to start-up.

Gnd speed-KT	75	100	150	200	250	300
8.1% V/V (fpm)	615	820	1230	1641	2051	2461

INITIAL CLIMB


Track 016° to NUBKA. Cross NUBKA at or above 2000'. Turn LEFT, direct to MABIB. Track 195° via GOBAT to UBDAN, MAX 210 KT until turn complete.

TRANSITIONS

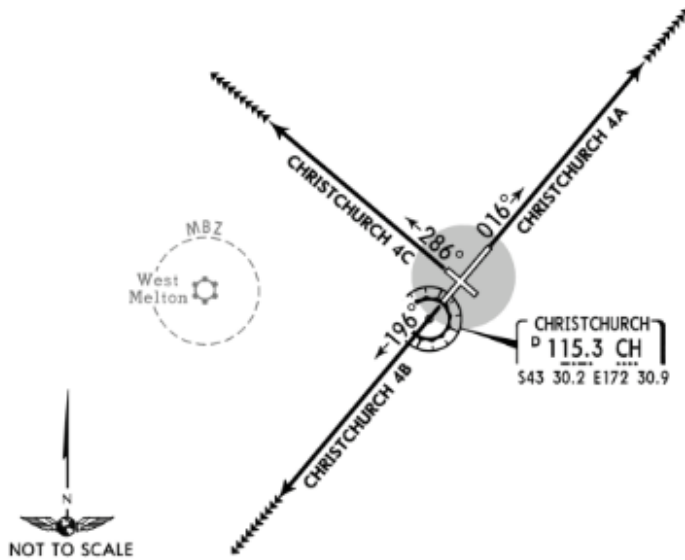
ELDAK	From UBDAN turn RIGHT, track 203° to ELDAK.
GUPUT	From UBDAN turn RIGHT, track 214° to GUPUT.
IDARA	From UBDAN turn LEFT, track 182° to IDARA.
PEHRR	From UBDAN turn LEFT, track 129° to IBAVO. Turn RIGHT, track 161° to PEHRR.

CHANGES: Chart reindexed, climb sector note withdrawn.

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHRISTCHURCH Approach (R) (DEP) 120.9 126.1 128.75	Apt Elev 123'	Trans level: FL150 Trans alt: 13000' Contact Christchurch Approach 120.9 as soon as practicable prior to 1500', or as instructed.	 <p>MSA CH VOR</p>
--	------------------	--	--

**CHRISTCHURCH 4A RADAR (NZCH4A)
CHRISTCHURCH 4B RADAR (NZCH4B)
CHRISTCHURCH 4C RADAR (NZCH4C)
DEPARTURES**



These SIDs require the following minimum net climb gradients:
 CHRISTCHURCH 4A: 4.7% (290' per NM) to 2000'.
 CHRISTCHURCH 4B: 4.4% (270' per NM) to 2000'.
 CHRISTCHURCH 4C: 5.0% (310' per NM) to 3000'.

Gnd speed-KT	75	100	150	200	250	300
4.4% V/V (fpm)	334	446	668	891	1114	1337
4.7% V/V (fpm)	357	476	714	952	1190	1428
5.0% V/V (fpm)	380	506	760	1013	1266	1519

ATC Requirement
CAT B aircraft speed restriction: Minimum 150 KT, MAX 170 KT to D8.0 CH CAT C and D aircraft speed restriction: Minimum 150 KT, MAX 220 KT to D8.0 CH If unable to comply advise Delivery on start-up

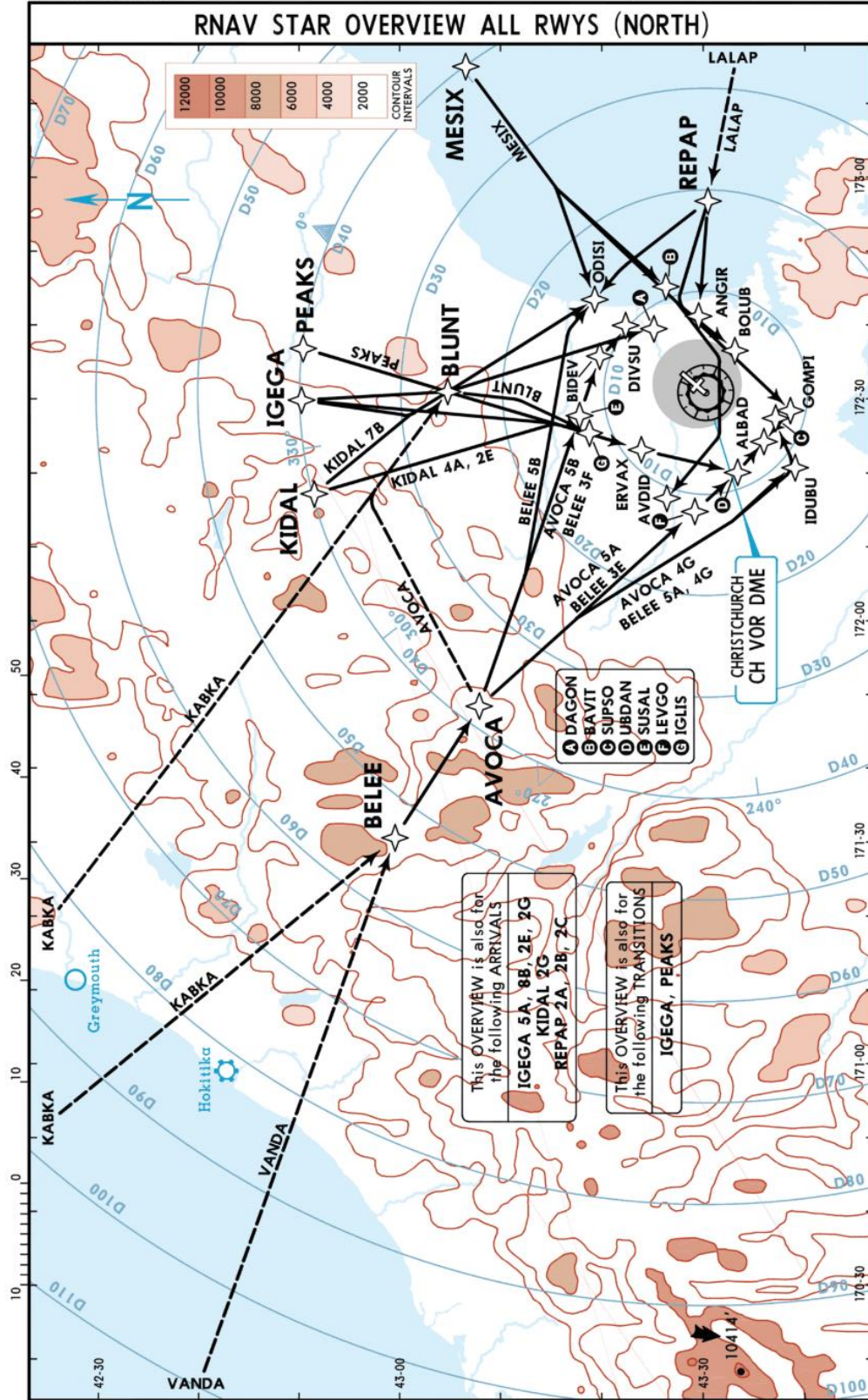
SID	RWY	INITIAL CLIMB
CHRISTCHURCH 4A	02	Track 016° (runway centerline). EXPECT RADAR vectors.
CHRISTCHURCH 4B	20	Track 196° (runway centerline). EXPECT RADAR vectors.
CHRISTCHURCH 4C	29	Track 287° (runway centerline). EXPECT RADAR vectors.

TRANSITION	
OCEANIC	For flights that will cross the NZCC/NZZO FIR boundary on any track from KABKA SOUTH to LIBLA - FL260 or above. At completion of SID track direct to Oceanic boundary point (traffic that crosses FIR boundary SOUTH of KABIN are to track via MOLGI) or as directed by RADAR. Cleared level FL250. EXPECT further clearance to filed level prior to D100 CH. Cross NZCC/NZZO FIR boundary at cleared level or advise ATC if unable.

CHANGES: Chart reindexed, procedures renumbered, revised.

© JEPPESEN, 2011, 2019. ALL RIGHTS RESERVED.

Arrivals



ELEV 123

NZCH

CONTROL: 120.9 126.1 128.75

TOWER: 118.4 125.0

ATIS: 127.2

CHRISTCHURCH**ARRIVAL/DEPARTURE (1)****Arrival Procedures****ATC Speed Requirements**

Approach Control Unless otherwise approved by ATC, arriving aircraft must not exceed 250kt IAS below 10,000ft within 30NM of Christchurch International Airport.

Final Approach Unless otherwise approved by ATC, aircraft on final must fly an instrument approach at not less than 160kt IAS to 5NM from touchdown. If unable to comply advise ATC with pilot preferred speed.

Aircraft unable to follow promulgated RNAV STAR procedures will be given radar vectors or alternative routing by ATC.

ILS/DME or LOC/DME RWY 02 and ILS/DME or LOC/DME RWY 20

Missed approach tracking by non RNAV aircraft requires use of Christchurch VOR and DME, Ident CH Freq 115.3.

If unavailable non RNAV aircraft are to fly the published missed approach track (DR), climb to 3000ft, expect radar control.

Visual Approach Procedures**RWY 02/20**

IFR aircraft (CAT A, B, C) on a visual approach or visual arrival procedure that are unable to land are to enter the aerodrome traffic circuit unless otherwise advised by ATC. If MET conditions prevent entering the circuit, then expect ATC to issue an instruction to fly the published missed approach for the approach nominated on ATIS.

It is expected that CAT D aircraft will fly a missed approach unless the crew request otherwise.

RWY 11/29

IFR aircraft on a visual approach or visual arrival procedure that are unable to land are to enter the aerodrome traffic circuit unless otherwise advised by ATC.

Maximum Speed on Missed Approach

Unless otherwise approved by ATC maximum speed on the missed approach is 185kt IAS.

Practice Auto-lands

Practice auto-lands to RWY 02 or RWY 20 are available on request to ATC in MET conditions equal to or better than Category I ILS/DME minima.

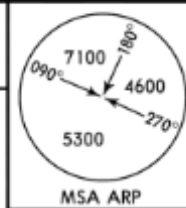
Approval from ATC will be subject to traffic and may contain conditions i.e. the LOC sensitive area is not protected.

Effective: 4 APR 13

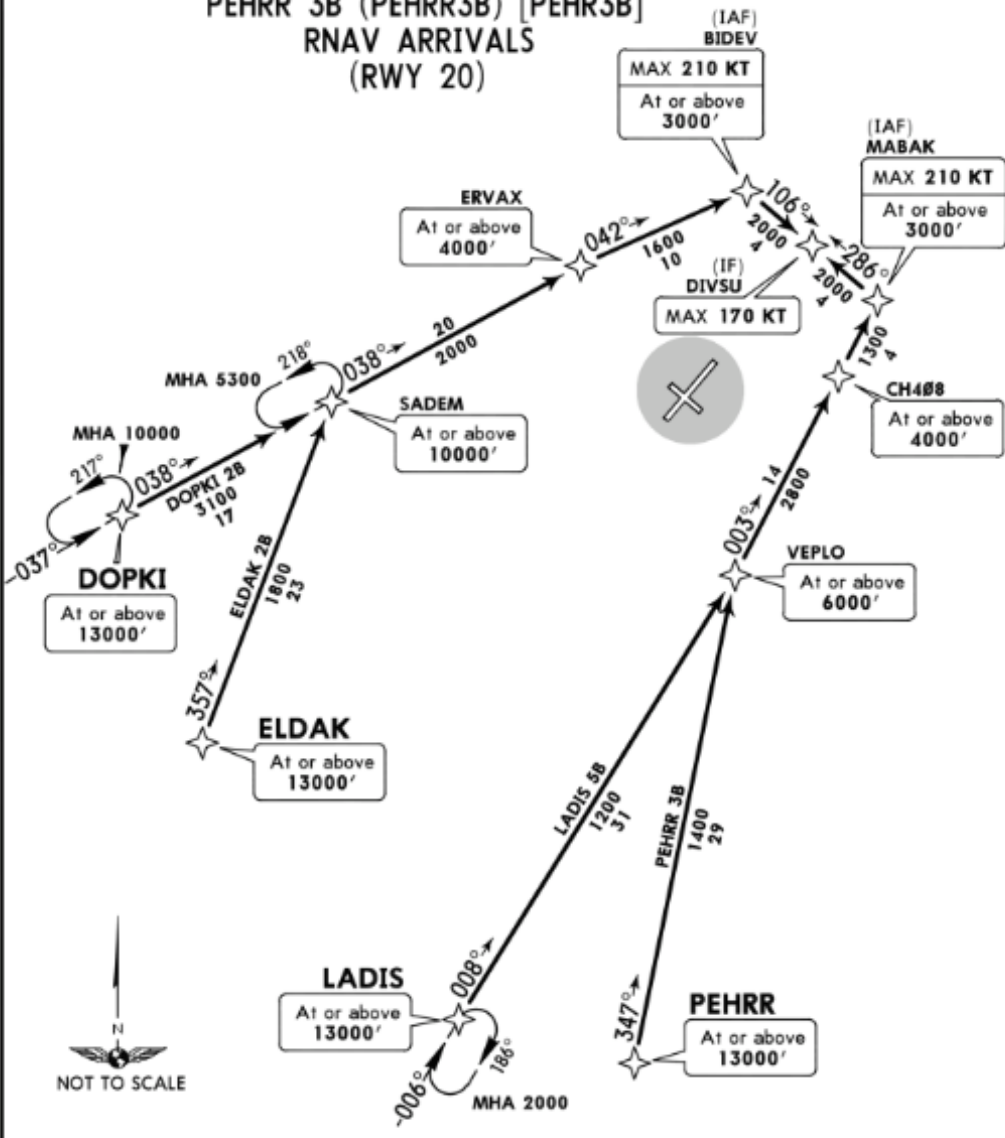
© Civil Aviation Authority

**CHRISTCHURCH
ARRIVAL/DEPARTURE (1)**

#D-ATIS 127.2 Apt Elev 123' Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000'
1. Navigation requirement: RNAV 1. 2. GNSS required.
3. All arrivals: Descend to ATC cleared level via published profile.



DOPKI 2B (DOPKI2B) [DOPK2B]
ELDAK 2B (ELDAK2B) [ELDA2B]
LADIS 5B (LADIS5B) [LADI5B]
PEHRR 3B (PEHRR3B) [PEHR3B]
RNAV ARRIVALS
(RWY 20)

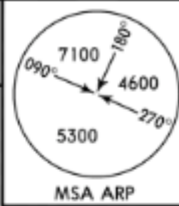


STAR	ROUTING
DOPKI 2B	Cross DOPKI at or above 13000'. Track 038° via SADEM to ERVAX. Cross SADEM at or above 10000'. Cross ERVAX at or above 4000'. Track 042° to BIDEV at or above 3000', MAX 210 KT. Track 106° to DIVSU, MAX 170 KT.
ELDAK 2B	Cross ELDAK at or above 13000'. Track 357° to SADEM at or above 10000'. Track 038° to ERVAX at or above 4000'. Track 042° to BIDEV at or above 3000', MAX 210 KT. Track 106° to DIVSU, MAX 170 KT.
LADIS 5B	Cross LADIS at or above 13000'. Track 008° to VEPLO at or above 6000'. Track 003° via CH488 to MABAK. Cross CH488 at or above 4000'. Cross MABAK at or above 3000', MAX 210 KT. Track 286° to DIVSU, MAX 170 KT.
PEHRR 3B	Cross PEHRR at or above 13000'. Track 347° to VEPLO at or above 6000'. Track 003° via CH488 to MABAK. Cross CH488 at or above 4000'. Cross MABAK at or above 3000', MAX 210 KT. Track 286° to DIVSU, MAX 170 KT.

CHANGES: D-ATIS established.

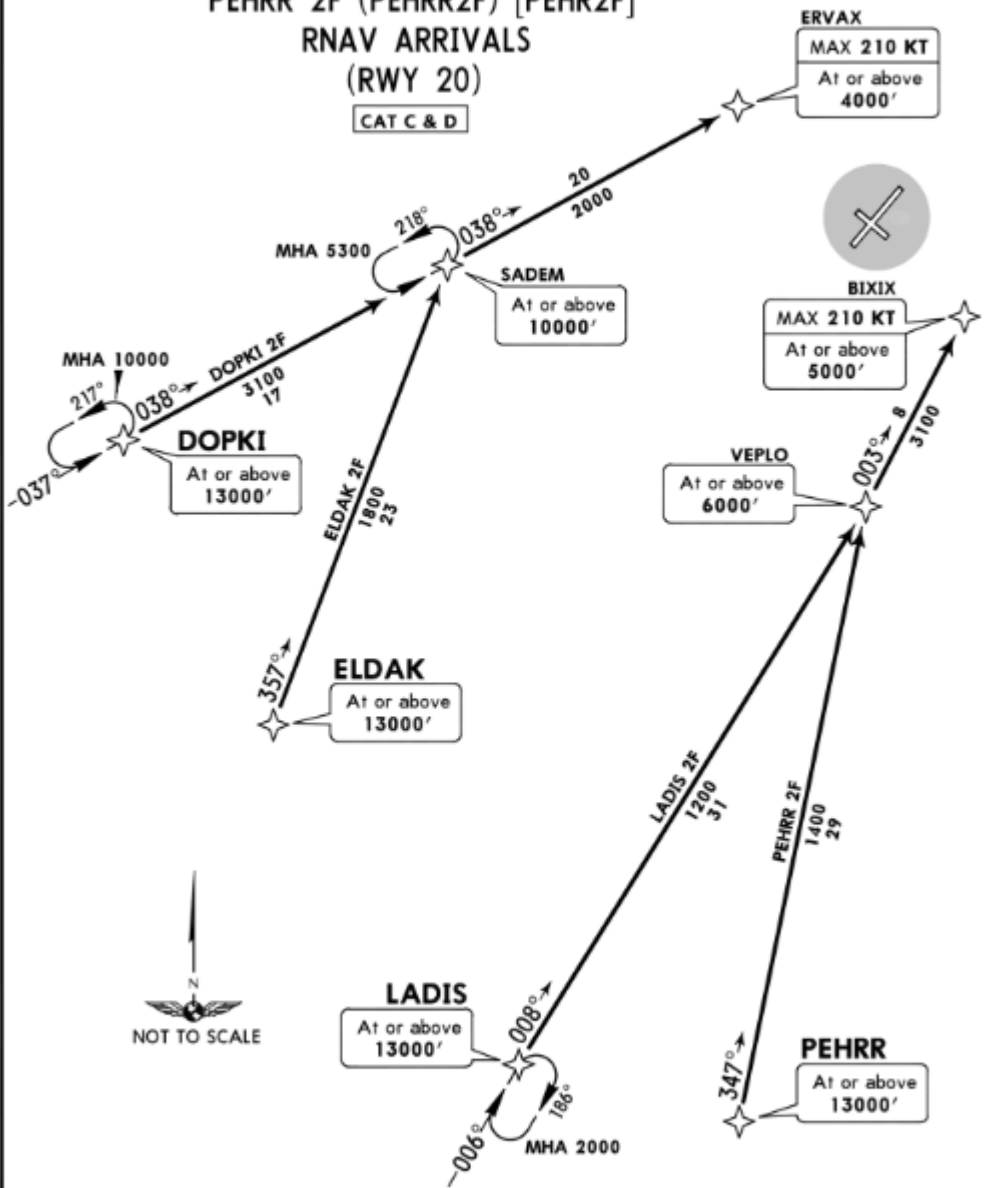
© JEPPESEN, 2018, 2019. ALL RIGHTS RESERVED.

#D-ATIS 127.2 Apt Elev 123' Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000'
1. Navigation requirement: RNAV 1. 2. GNSS required.
3. All arrivals: Descend to ATC cleared level via published profile.



DOPKI 2F (DOPKI2F) [DOPK2F]
ELDAK 2F (ELDAK2F) [ELDA2F]
LADIS 2F (LADIS2F) [LADI2F]
PEHRR 2F (PEHRR2F) [PEHR2F]

RNAV ARRIVALS
(RWY 20)
CAT C & D

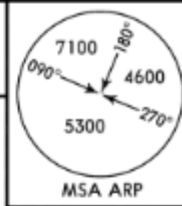


STAR	ROUTING
DOPKI 2F	Cross DOPKI at or above 13000'. Track 038° via SADEM to ERVAX. Cross SADEM at or above 10000'. Cross ERVAX at or above 4000', MAX 210 KT.
ELDAK 2F	Cross ELDAK at or above 13000'. Track 357° to SADEM at or above 10000'. Track 038° to ERVAX at or above 4000', MAX 210 KT.
LADIS 2F	Cross LADIS at or above 13000'. Track 008° to VEPL0 at or above 6000'. Track 003° to BIXIX at or above 5000', MAX 210 KT.
PEHRR 2F	Cross PEHRR at or above 13000'. Track 347° to VEPL0 at or above 6000'. Track 003° to BIXIX at or above 5000', MAX 210 KT.

CHANGES: Chart reindexed.

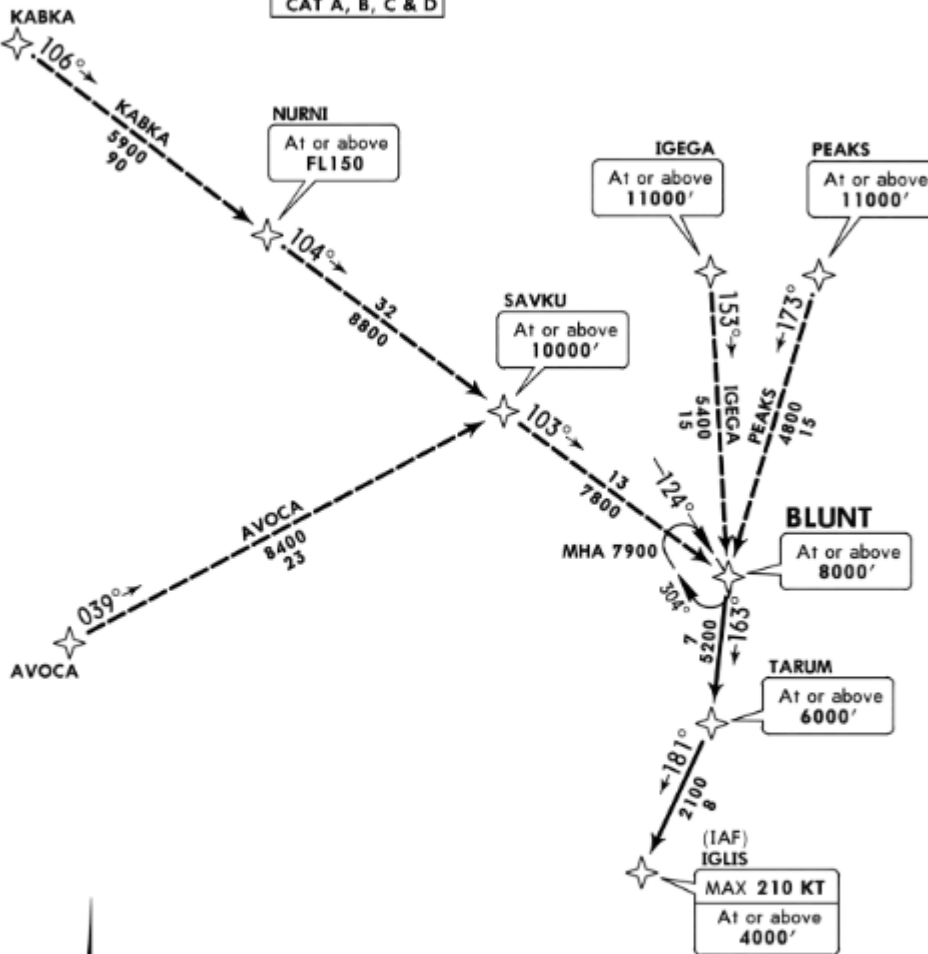
© JEPPESEN, 2017, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2 Apt Elev 123'
Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000'
1. Navigation requirement: RNAV 1. 2. GNSS required.
3. All arrivals: Descend to ATC cleared level via published profile.



BLUNT 1D RNAV ARRIVAL
(BLUNT1D) [BLUN1D]
(RWY 11)

CAT A, B, C & D



TRANSITIONS

AVOCA	From AVOCA track 039° to SAVKU at or above 10000'. Track 103° to BLUNT at or above 8000'.
IGEGA	Cross IGEGA at or above 11000'. Track 153° to BLUNT at or above 8000'.
KABKA	From KABKA track 106° to NURNI at or above FL150. Track 104° to SAVKU at or above 10000'. Track 103° to BLUNT at or above 8000'.
PEAKS	Cross PEAKS at or above 11000'. Track 173° to BLUNT at or above 8000'.

ROUTING

From BLUNT track 163° to TARUM at or above 6000'. Track 181° to IGLIS at or above 4000', MAX 210 KT.

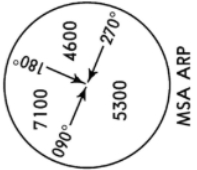
CHANGES: Chart reindexed.

© JEPPESEN, 2019. ALL RIGHTS RESERVED.

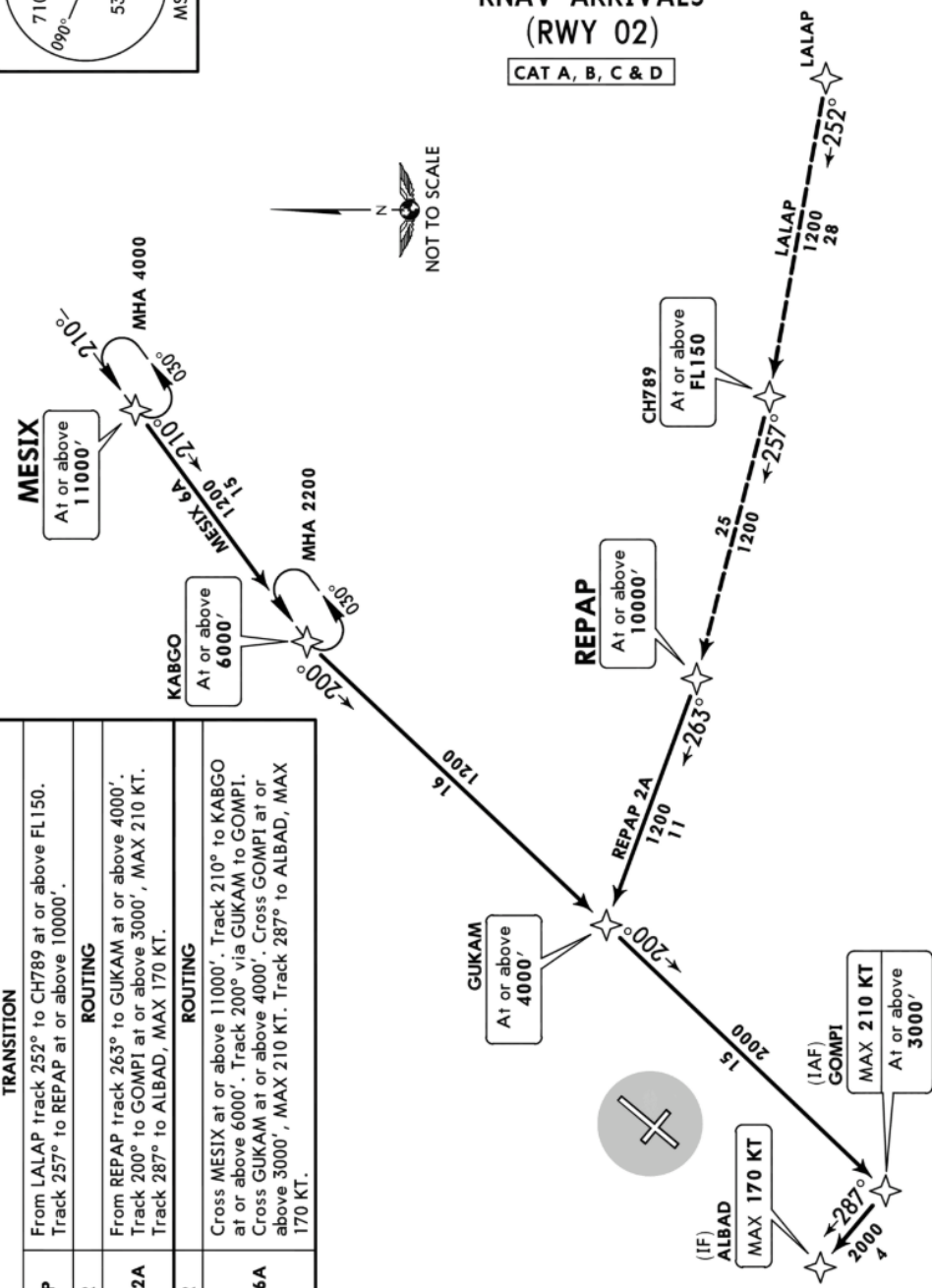
*D-ATIS 127.2 Apt Elev 123'

Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000'

1. Navigation requirement: RNAV 1. 2. GNSS required.
3. 2 minutes prior to the NZZO/NZTC FIR boundary, contact Christchurch Control 129.4 reporting position and level.
4. ATC will issue appropriate STAR/Transition. Descend via STAR/Transition to ATC cleared level.
5. If unable RNAV, EXPECT RADAR vectors or alternative routing.



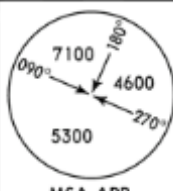
MESIX 6A (MESIX6A) [MESI6A]
REPAP 2A (REPAP2A) [REPA2A]
RNAV ARRIVALS
(RWY 02)
CAT A, B, C & D



TRANSITION	
LALAP	From LALAP track 252° to CH789 at or above FL150. Track 257° to REPAP at or above 10000'.
ROUTING	
REPAP 2A	From REPAP track 263° to GUKAM at or above 4000'. Track 200° to GOMPI at or above 3000', MAX 210 KT. Track 287° to ALBAD, MAX 170 KT.
ROUTING	
MESIX 6A	Cross MESIX at or above 11000'. Track 210° to KABGO at or above 6000'. Track 200° via GUKAM to GOMPI. Cross GUKAM at or above 4000'. Cross GOMPI at or above 3000', MAX 210 KT. Track 287° to ALBAD, MAX 170 KT.

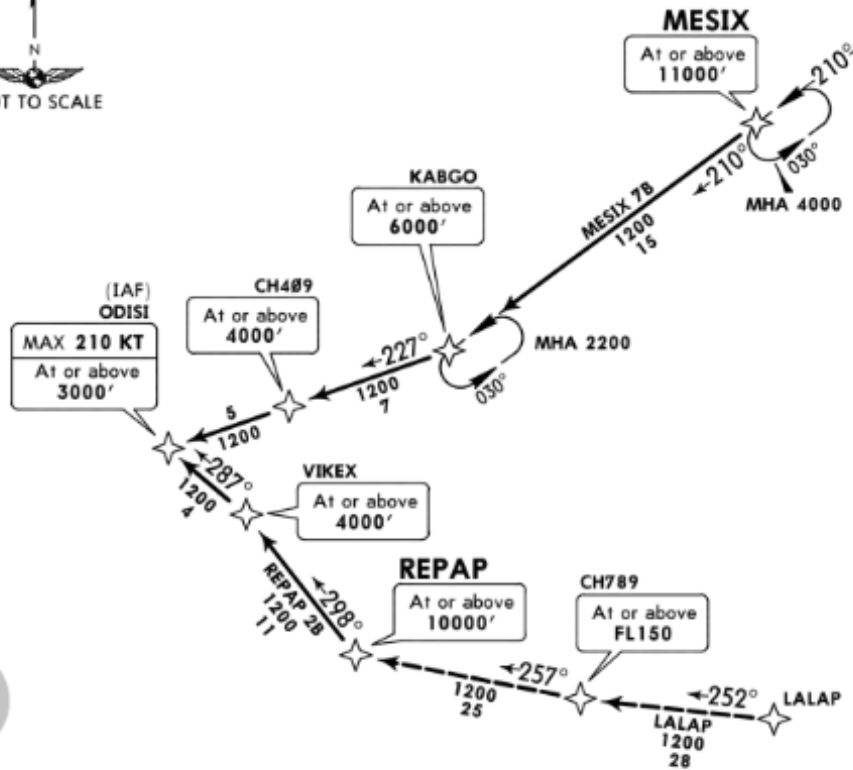
CHANGES: Chart reindexed.

© JEPPESEN, 2018, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2	Apt Elev 123'	Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000' 1. Navigation requirement: RNAV 1. 2. GNSS required. 3. 2 minutes prior to the NZZO/NZZC FIR boundary, contact Christchurch Control 129.4 reporting position and level. 4. ATC will issue appropriate STAR/Transition. Descend via STAR/Transition to ATC cleared level. 5. If unable RNAV, EXPECT RADAR vectors or alternative routing.	 <p>MSA ARP</p>
------------------	------------------	---	---

MESIX 7B (MESIX7B) [MESI7B]
REPAP 2B (REPAP2B) [REPA2B]
RNAV ARRIVALS
(RWY 20)

CAT A, B, C & D



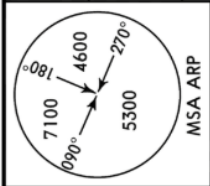
TRANSITION

LALAP	From LALAP track 252° to CH789 at or above FL150. Track 257° to REPAP at or above 10000'.
STAR	ROUTING
REPAP 2B	From REPAP track 298° to VIKEX at or above 4000'. Track 287° to ODISI at or above 3000', MAX 210 KT.
STAR	ROUTING
MESIX 7B	Cross MESIX at or above 11000'. Track 210° to KABGO at or above 6000'. Track 227° via CH489 to ODISI. Cross CH489 at or above 4000'. Cross ODISI at or above 3000', MAX 210 KT.

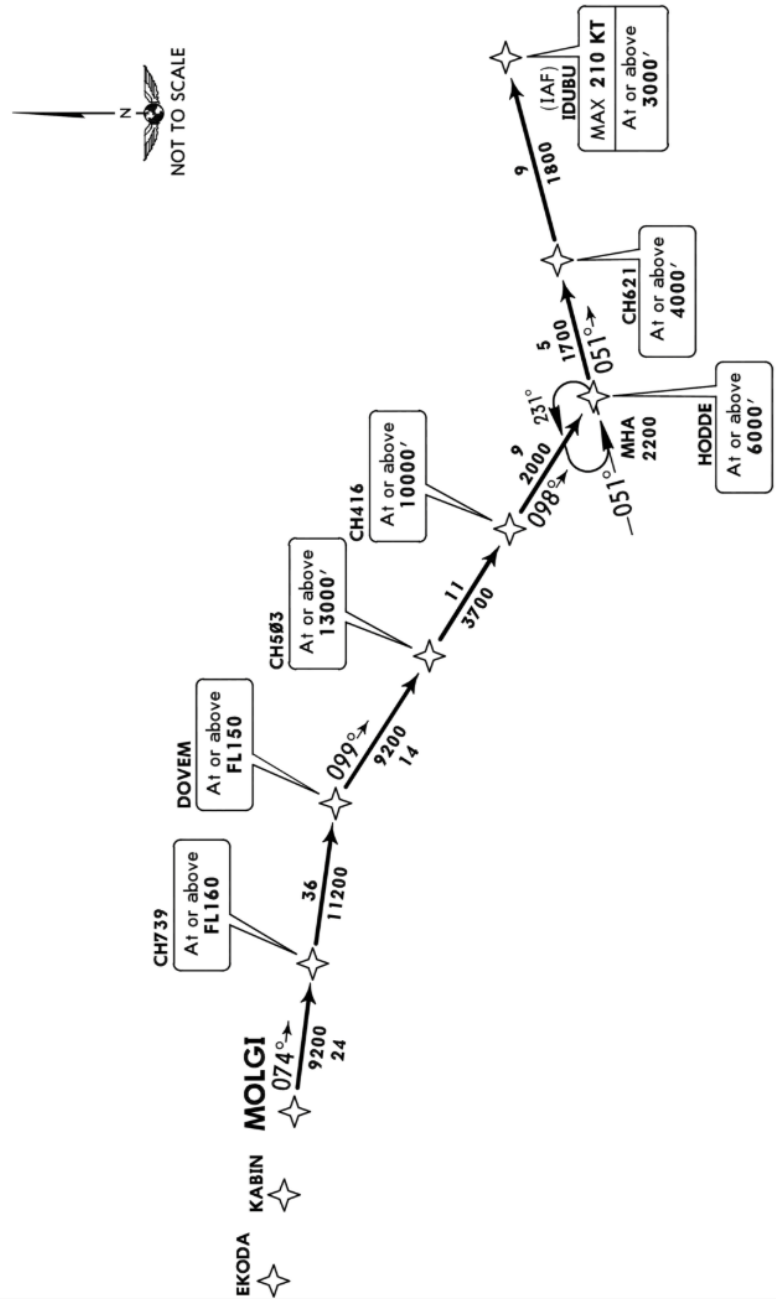
CHANGES: Chart reindexed.

© JEPPESEN, 2018, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2	Apt Elev 123'	Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000' 1. Navigation requirement: RNAV 1. 2. GNSS required. 3. At EKODA contact Christchurch Control 129.3 reporting position and level. 4. ATC will issue appropriate STAR/Transition. Descend via STAR/Transition to ATC cleared level. 5. If unable RNAV, EXPECT RADAR vectors or alternative routing.
------------------	------------------	---



MOLGI 4A RNAV ARRIVAL
(MOLGI4A) [MOLG4A]
(RWY 02)
CAT A, B, C & D

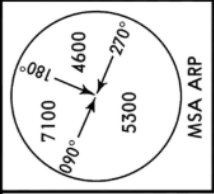


ROUTING
Track 074° via CH739 to DOVEM. Cross CH739 at or above FL160. Cross DOVEM at or above FL150. Track 099° via CH503 to CH416. Cross CH503 at or above 13000'. Cross CH416 at or above 10000'. Track 098° to HODDE at or above 6000'. Track 051° via CH621 to IDUBU. Cross CH621 at or above 4000'. Cross IDUBU at or above 3000'. MAX 210 KT.

CHANGES: Chart reindexed.

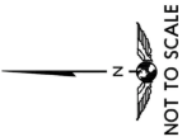
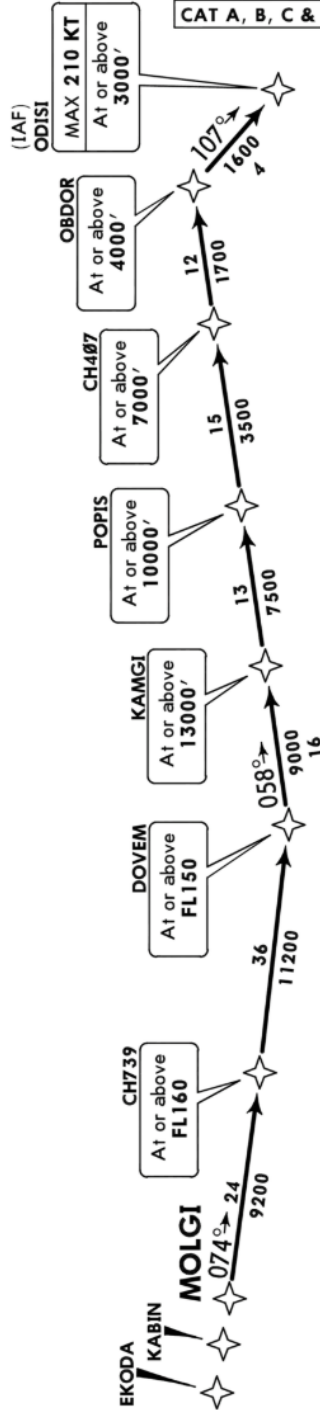
© JEPPESEN, 2018, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2	Apt Elev 123'	Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000' 1. Navigation requirement: RNAV 1. 2. GNSS required. 3. At EKODA contact Christchurch Control 129.3 reporting position and level. 4. ATC will issue appropriate STAR/Transition. Descend via STAR/Transition to ATC cleared level. 5. If unable RNAV, EXPECT RADAR vectors or alternative routing.
------------------	------------------	---



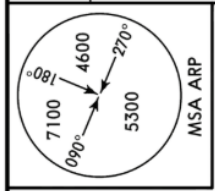
MOLGI 6B RNAV ARRIVAL
(MOLGI6B) [MOLG6B]
(RWY 20)

CAT A, B, C & D



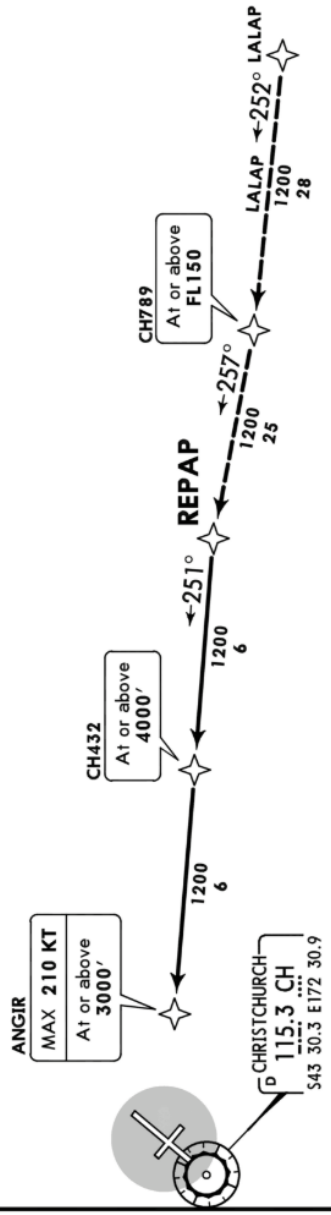
ROUTING
From MOLGI track 074° via CH739 to DOVEM. Cross CH739 at or above FL160. Cross DOVEM at or above FL150. Track 058° via KAMGI, POPIS and CH407 to OBDOR. Cross KAMGI at or above 13000'. Cross POPIS at or above 10000'. Cross CH407 at or above 7000'. Cross OBDOR at or above 4000'. Track 107° to ODISI at or above 3000', MAX 210 KT.

*D-ATIS 127.2	CHRISTCHURCH Approach 120.9 126.1 128.75	Apt Elev 123'	Alt Set: hPa (IN on req) Trans level: FL150 Trans alt: 13000' 1. Navigation requirement: RNAV 1. 2. GNSS required. 3. 2 minutes prior to the NZCO/NZZC FIR boundary, contact Christchurch Control 129.4 reporting position and level. 4. ATC will issue appropriate STAR/Transition. Descend via STAR/Transition to ATC cleared level. 5. If unable RNAV, EXPECT RADAR vectors or alternative routing. 6. Airspace containment not assured CH789 to REPAP. 7. Request visual approach with CHRISTCHURCH Approach. If not cleared for a visual approach by ANGIR, turn LEFT, track direct to CH VOR at or above 3000' or as directed by RADAR.
------------------	--	------------------	---



REPAP 2C RNAV ARRIVAL
(REPAP2C) [REPA2C]
(RWY 29)

CAT A, B, C & D



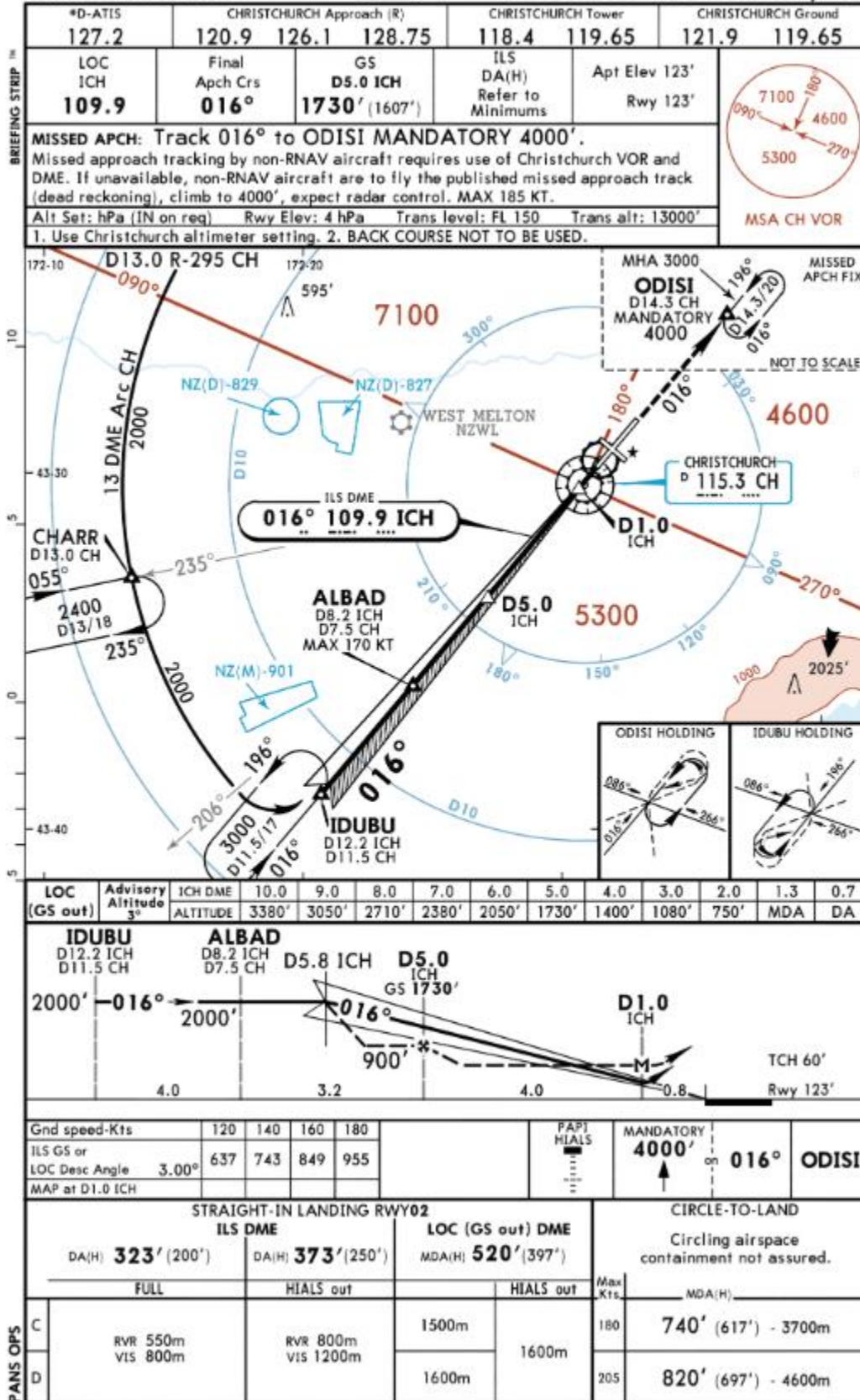
TRANSITION	
LALAP	From LALAP track 252° to CH789 at or above FL150. Track 257° to REPAP.
ROUTING	
From REPAP track 251° via CH432 to ANGIR. Cross CH432 at or above 4000'. Cross ANGIR at or above 3000', MAX 210 KT.	

CHANGES: MESIX 8C withdrawn, general note nr 7 added, chart reindexed.

© JEPPESEN, 2018, 2019. ALL RIGHTS RESERVED.

Approach Plates

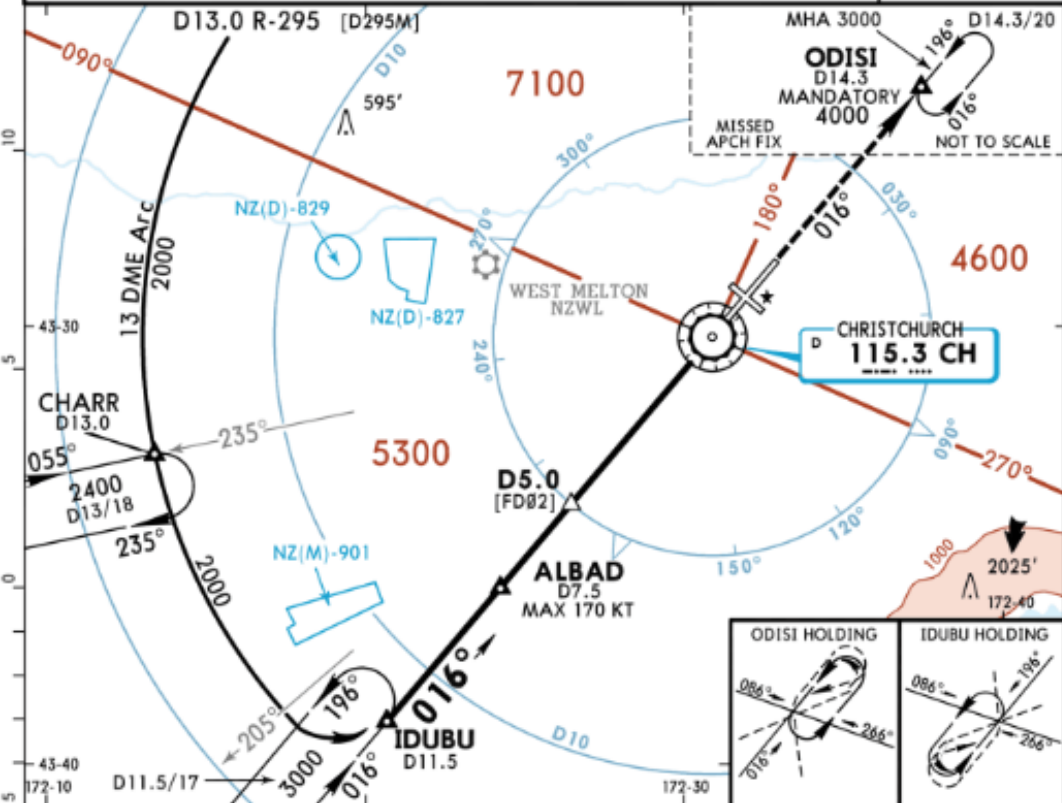
NZCH/CHC **A** **JEPPESEN** CHRISTCHURCH, NEW ZEALAND
 CHRISTCHURCH INTL 19 APR 19 **(11-1)** ILS DME or LOC DME Rwy 02



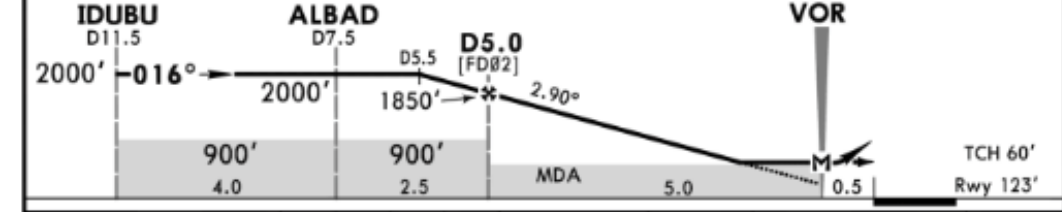
CHANGES: Ground comms.

© JEPPESEN, 1998, 2019. ALL RIGHTS RESERVED.

BRIEFING STRIP	*D-ATIS	CHRISTCHURCH Approach (R)			CHRISTCHURCH Tower		CHRISTCHURCH Ground	
	127.2	120.9	126.1	128.75	118.4	119.65	121.9	119.65
VOR CH	Final Apch Crs	Procedure Alt	MDA(H)	Apt Elev				
115.3	016°	D5.0 1850' (1727')	620' (497')	123'				
MISSED APCH: Track 016° to ODISI MANDATORY 4000'. MAX 185 KT.								
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: FL 150 Trans alt: 13000'								
1. Use Christchurch altimeter setting.								



Advisory Altitude 5%	CH DME	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0	0.8
	ALTITUDE	3350'	3050'	2750'	2450'	2150'	1850'	1550'	1250'	950'	650'	MDA



Gnd speed-Kts	120	140	160	180	PAPI	MANDATORY 4000' on 016°	ODISI
Descent Angle	2.90°	616	718	923			
MAP at VOR							

PANS OPS	STRAIGHT-IN LANDING RWY 02		Max Kts	CIRCLE-TO-LAND
	VOR DME			Circling airspace containment not assured.
	MDA(H) 620' (497')			MDA(H)
C	HIALS out		180	740' (617') -3700m
D	1900m		205	820' (697') -4600m

CHANGES: Ground comms, CNF ident. © JEPPESEN, 2003, 2019. ALL RIGHTS RESERVED.

NZCH/CHC **A** **JEPPESSEN CHRISTCHURCH, NEW ZEALAND**
 CHRISTCHURCH INTL 6 SEP 19 (19-1) Eff 12 Sep VISUAL ARRIVALS Rwy 02

*D-ATIS 127.2	CHRISTCHURCH Approach (R) 120.9 126.1 128.75			CHRISTCHURCH Tower 118.4 119.65		CHRISTCHURCH Ground 121.9 119.65	
NAVAIDS- See Planview	Final Apch Crs 016°	No FAF	CEIL-VIS (CONDITIONAL) 3000' - 8	Apt Elev 123'	Rwy 123'		
MISSED APCH: No Missed Approach procedure.							
Alt Set : hPa (IN on req) Rwy Elev: 4 hPa Trans level: FL 150 Trans alt: 13000'							



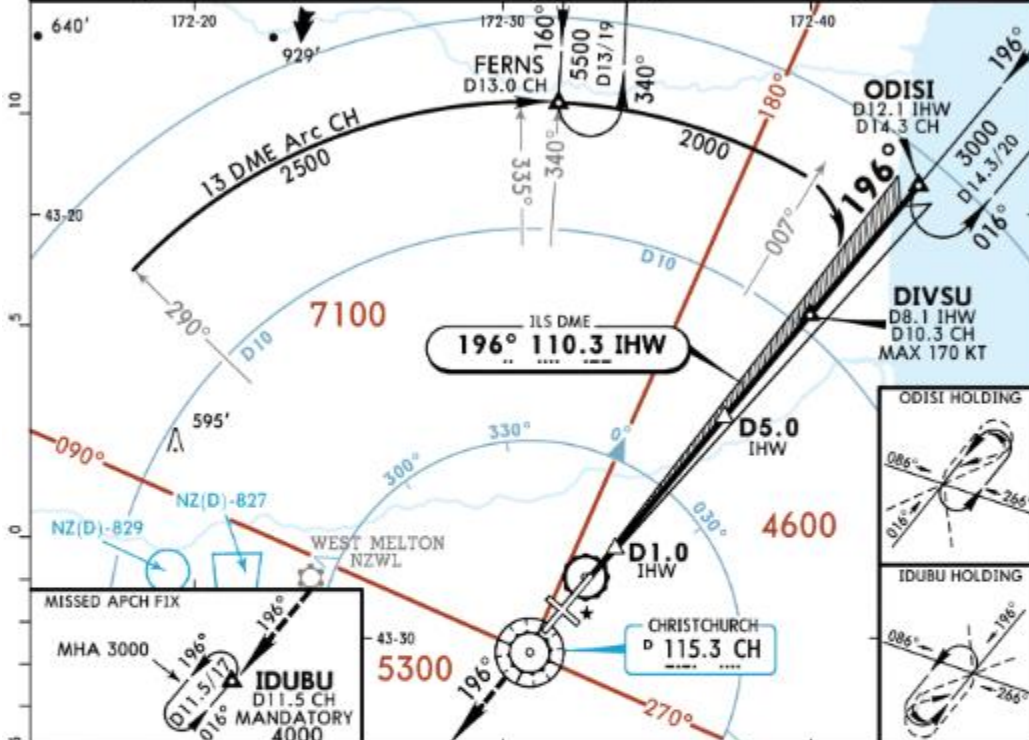
Available by DAY only, aircraft must maintain continuous visual reference to the surface.
 Altitude requirements may be amended by ATC.
 IFR aircraft on a visual approach or visual arrival procedure that are unable to land are to enter the airport traffic circuit unless otherwise advised by ATC.

- MINERS VISUAL ARRIVAL RWY 02:** Track WEST of MINERS Visual Reporting Point (VRP) to NISOM or 4 ICH DME. Not below 2000' until cleared by ATC. Max 170 KT 6 NM from touchdown.
- WIGRAM VISUAL ARRIVAL RWY 02:** Track EAST of WIGRAM VRP to NISOM or 4 ICH DME. Not below 3000' until cleared by ATC. Max 170 KT 6 NM from touchdown.

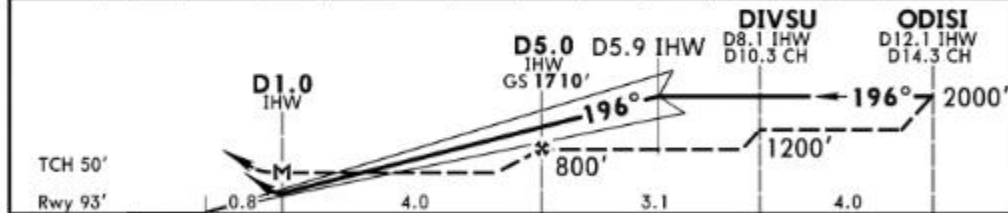
WEATHER MINIMUMS	
DAY	NIGHT
Ceiling 3000' - Vis 8 km	NA

CHANGES: VFR arrival tracks, visual reporting points. © JEPPESSEN, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2	CHRISTCHURCH Approach (R) 120.9 126.1 128.75			CHRISTCHURCH Tower 118.4 119.65		CHRISTCHURCH Ground 121.9 119.65	
LOC IHW 110.3	Final Apch Crs 196°	GS D5.0 IHW 1710' (1617')	ILS DA(H) Refer to Minimums	Apt Elev 123' Rwy 93'			
MISSED APCH: Track 196° to IDUBU MANDATORY 4000'. Missed approach tracking by non-RNAV aircraft requires use of Christchurch VOR and DME. If unavailable, non-RNAV aircraft are to fly the published missed approach track (dead reckoning), climb to 4000', expect radar control. MAX 185 KT.							<p>MSA CH VOR</p>
Alt Set: hPa (IN on req) Rwy Elev: 3 hPa Trans level: FL 150 Trans alt: 13000' 1. Use Christchurch altimeter setting. 2. BACK COURSE NOT TO BE USED. 3. Holding aircraft may descend to 2000' when established inbound for final approach.							



LOC (GS out)	Advisory Altitude 3'	IHW DME ALTITUDE	0.6 DA	1.0 410'	1.1 MDA	2.0 730'	3.0 1060'	4.0 1380'	5.0 1710'	6.0 2040'	7.0 2370'	8.0 2700'	9.0 3030'	10.0 3370'
--------------	----------------------	------------------	--------	----------	---------	----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	------------



Gnd speed-Kts	120	140	160	180	PAPI HIALS	MANDATORY 4000'	↑	196°	IDUBU
ILS GS or LOC Desc Angle 3.00°	637	743	849	955					
MAP at D1.0 IHW									

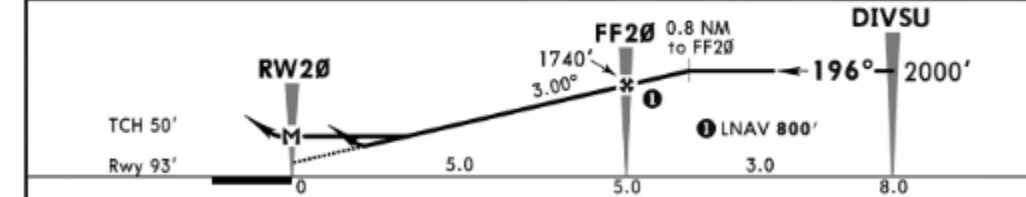
STRAIGHT-IN LANDING RWY 20 ILS DME				CIRCLE-TO-LAND	
DA(H) 293' (200')		DA(H) 343' (250')		LOC (GS out) DME MDA(H) 450' (357')	
FULL		HIALS out		Circling airspace containment not assured.	
RVR 550m VIS 800m		RVR 800m VIS 1200m		Max Kts	MDA(H)
1500m		1600m		180	740' (617') - 3700m
1600m				205	820' (697') - 4600m

CHANGES: Ground comms. © JEPPESEN, 1998, 2019. ALL RIGHTS RESERVED.

BRIEFING STRIP™	*D-ATIS	CHRISTCHURCH Approach (R)			CHRISTCHURCH Tower		CHRISTCHURCH Ground	
	127.2	120.9	126.1	128.75	118.4	119.65	121.9	119.65
	RNAV	Final Apch Crs 196°	Procedure Alt FF20		LNAV/VNAV DA(H) 380' (287')	Apt Elev 123'	Rwy 93'	
	MISSED APCH: Track 196° to IDUBU MANDATORY 4000'. MAX 185 KT.							
Alt Set: hPa (IN on req)		Rwy Elev: 3 hPa	Trans level: FL 150	Trans alt: 13000'				
Use Christchurch altimeter setting.								



Advisory Altitude 3'	DIST to NEXT WPT	RW20	0.7	1.2	2.0	3.0	4.0	FF20	1.0	2.0	DIVSU
	ALTITUDE	MDA	DA/MDA	MDA	780'	1100'	1420'	1740'	2060'	2380'	2700'

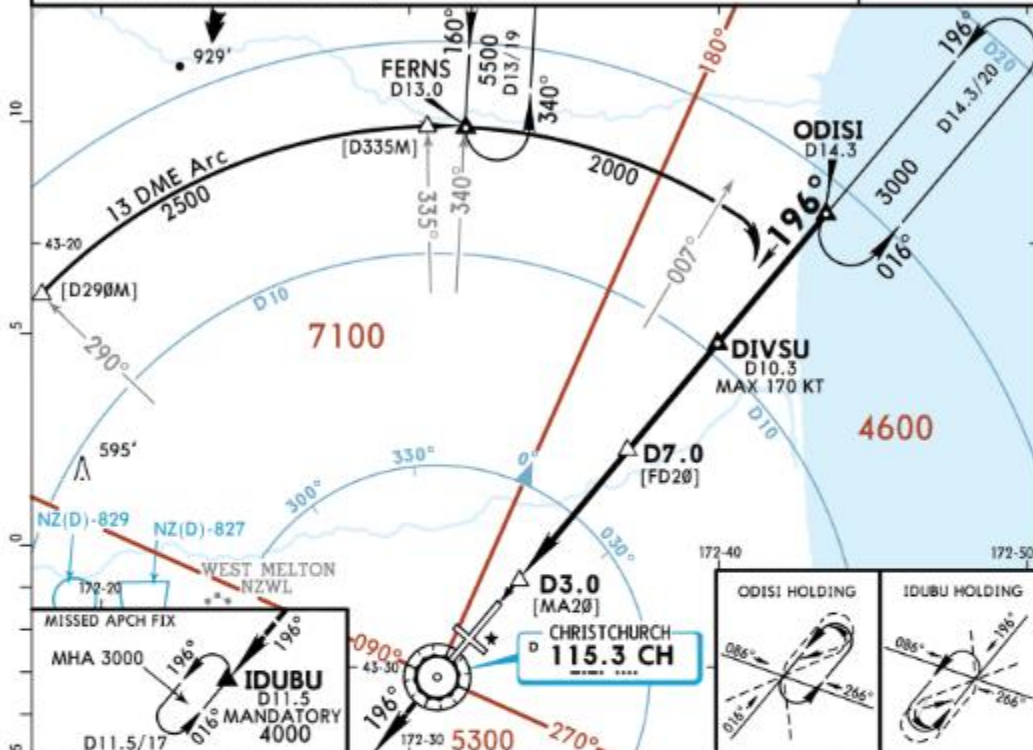


Gnd speed-Kts	120	140	160	180	PAPI HIALS	MANDATORY 4000' on 196° IDUBU	
Descent Angle	3.00°	637	743	849			955
LNAV/VNAV: MAP at DA							

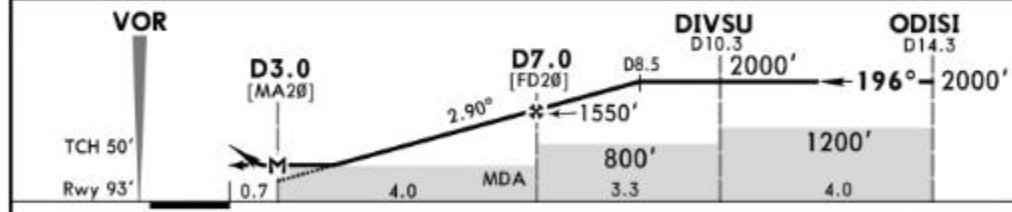
PANS OPS	STRAIGHT-IN LANDING RWY 20				CIRCLE-TO-LAND	
	LNAV/VNAV DA(H) 380' (287')		LNAV MDA(H) 510' (417')		Circling airspace containment not assured.	
	ALS out		ALS out		Max Kts	MDA(H)
	C	1500m	1500m	1600m	180	740' (617') -3700m
D	1500m	1600m	1600m	205	820' (697') -4600m	

I Valid to aerodrome temperature -10°C (14°F). Use of remote altimeter setting not authorized.
 CHANGES: Ground comms. © JEPPESEN, 2010, 2019. ALL RIGHTS RESERVED.

*D-ATIS 127.2	CHRISTCHURCH Approach (R) 120.9 126.1 128.75		CHRISTCHURCH Tower 118.4 119.65		CHRISTCHURCH Ground 121.9 119.65
VOR CH 115.3	Final Apch Crs 196°	Procedure Alt D7.0 1550' (1457')	MDA(H) 480' (387')	Apt Elev 123' Rwy 93'	
MISSED APCH: Track 196° to IDUBU MANDATORY 4000'. MAX 185 KT.					<p>MSA CH VOR</p>
Alt Set: hPa (IN on req) Rwy Elev: 3 hPa Trans level: FL 150 Trans alt: 13000'					
1. Use Christchurch altimeter setting.					



Advisory Altitude 5%	CH DME	3.4	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	MDA	650'	950'	1250'	1550'	1850'	2150'	2450'



Gnd speed-Kts	120	140	160	180	PAPI HIALS	MANDATORY 4000'	↑	196°	IDUBU
Descent Angle	2.90°	616	718	821					

STRAIGHT-IN LANDING RWY20 VOR DME MDA(H) 480' (387')			CIRCLE-TO-LAND Circling airspace containment not assured.		
C	1500m	HIALS out	Max Kts	MDA(H)	
	1600m			180	740' (617') -3700m
D	1600m		205	820' (697') -4600m	

CHANGES: Ground comms, CNFs Idents. © JEPPESEN, 2003, 2019. ALL RIGHTS RESERVED.

NZCH/CHC **A** **JEPPESEN CHRISTCHURCH, NEW ZEALAND**
 CHRISTCHURCH INTL 6 SEP 19 **(19-2)** Eff 12 Sep **VISUAL ARRIVALS Rwy 20**

BRIEFING STRIP	*D-ATIS 127.2	CHRISTCHURCH Approach (R) 120.9 126.1 128.75		CHRISTCHURCH Tower 118.4 119.65	CHRISTCHURCH Ground 121.9 119.65
	NAVAIDS- See Planview	Final Apch Crs 196°	No FAF	CEIL-VIS (CONDITIONAL) 3000' - 8	Apt Elev 123' Rwy 93'
MISSED APCH: No Missed Approach procedure.					
Alt Set : hPa (IN on req) Rwy Elev: 3 hPa Trans level: FL 150 Trans alt: 13000'					



LEGEND:
 VISUAL REPORTING POINT

Available by **DAY** only, aircraft must maintain continuous visual reference to the surface.
 Altitude requirements may be amended by ATC.
 IFR aircraft on a visual approach or visual arrival procedure that are unable to land are to enter the airport traffic circuit unless otherwise advised by ATC.

BRIDGE VISUAL ARRIVAL RWY 20: Track WEST of Bridge Visual Reporting Point (VRP) to NUBKA or 4 IHW DME. Not below 2000' until cleared by ATC. Max 170 KT 6 NM from touchdown.

BELFAST VISUAL ARRIVAL RWY 20: Track EAST of Belfast Visual Reporting Point (VRP) to NUBKA or 4 IHW DME. Not below 3000' until cleared by ATC. Max 170 KT 6 NM from touchdown.

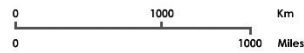
WEATHER MINIMUMS	
DAY	NIGHT
Ceiling 3000' - Vis 8 km	NA

CHANGES: VFR arrival tracks, visual reporting points, procedure text. © JEPPESEN, 2019. ALL RIGHTS RESERVED.

Primary Ice Stations

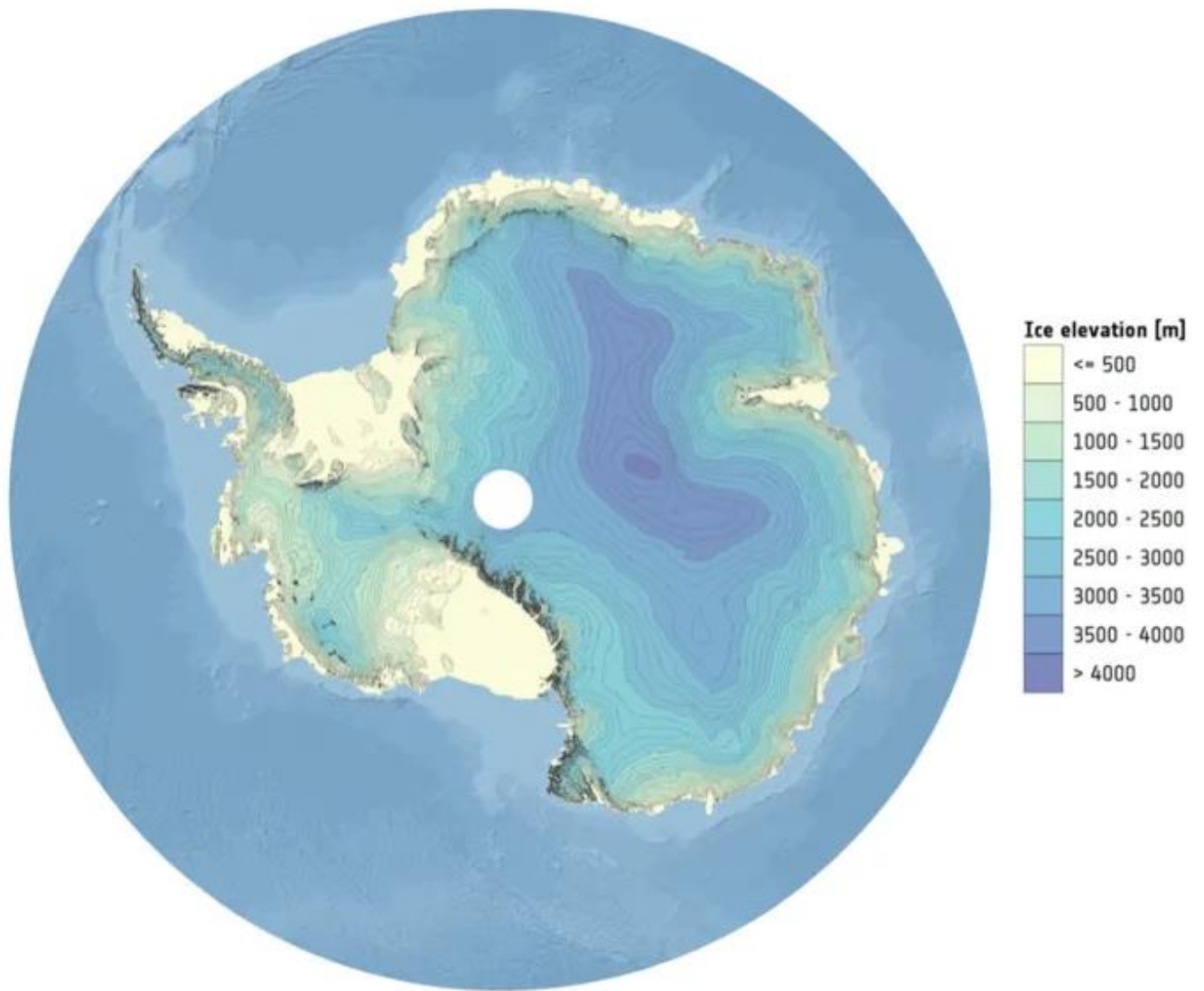


- ⊗ High detail level
- ⊗ Medium detail level
- ⊗ Low detail level



⊗ SOUTH MAGNETIC POLE
 64°31'48"S 137°51'36"E as at 2005
 (moving north west at 10 to 15km per year)

Design by CustomDigitalMaps.com Copyright © 2012 Aerosoft GmbH



ICE HEIGHT IN ANTARCTICA. SOURCE: CPOM

McMurdo Ice Runway NZIR



Located 8.6 Miles E of McMurdo Ice Station
NAVAID Pegasus Ice Runway 7.6 Miles South
Runways 16 (304 true)
 34 (124 true)
Primary Station for Supply

Pegasus Ice Runway - NZPG



Located 7.6 Miles North of McMurdo Ice Station

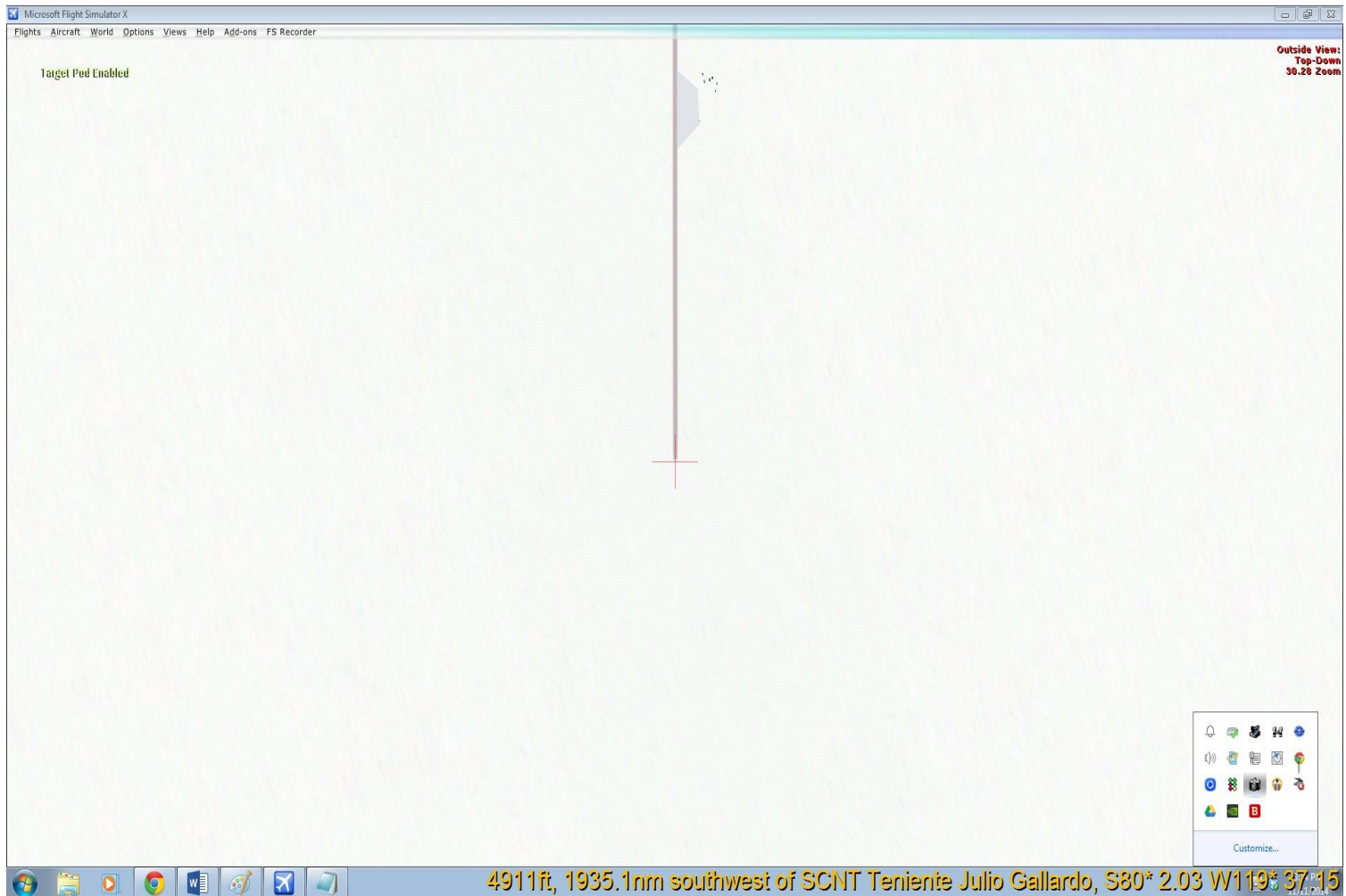
NAVAID – McMurdo Station/Pegasus TACON Identifier ZPG

Runways 15 (294 True)

33 (114 True)

Activated midway through Mainbody as primary supply

Byrd Station – AQ89



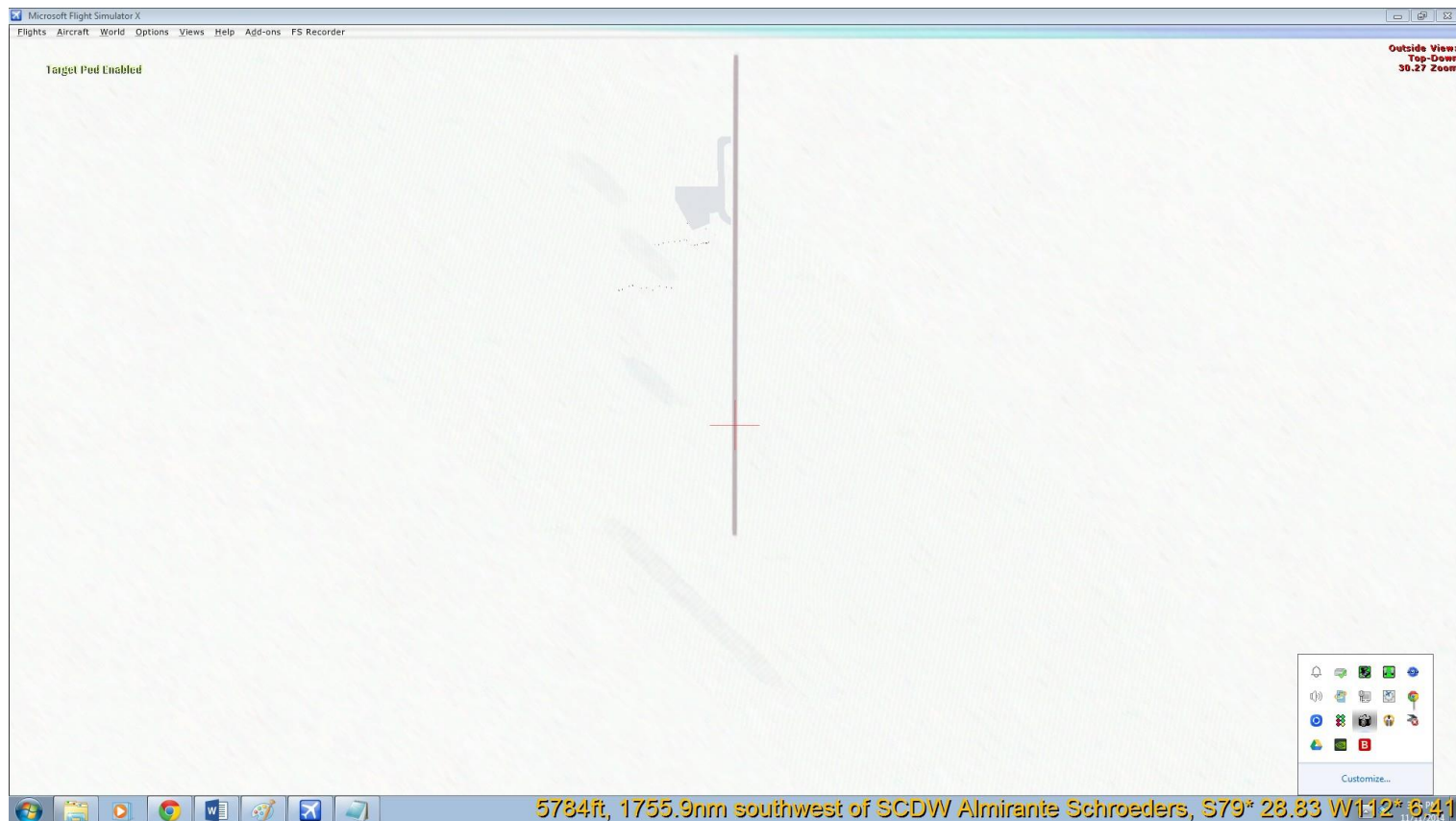
Location – S80*2 W119*37

Runways – 310 True
130 True

Resupply Station

Parking – Low Traffic is planned, ensure you are parking off the Ice

WAISE Divide – AQ97



Location S79*29 W112*6 (Northeast of Byrd)

Runways 344 True

176 True

Major Ice Core Research Facility

Parking – Aircraft must park in designated parking. Aircraft will be removed if not.

Wilkins Ice Runway – YWKS



Location – 25 Miles SE Antarctic Coast 30 Miles from Casey Station

Runways – 09 (094 True)

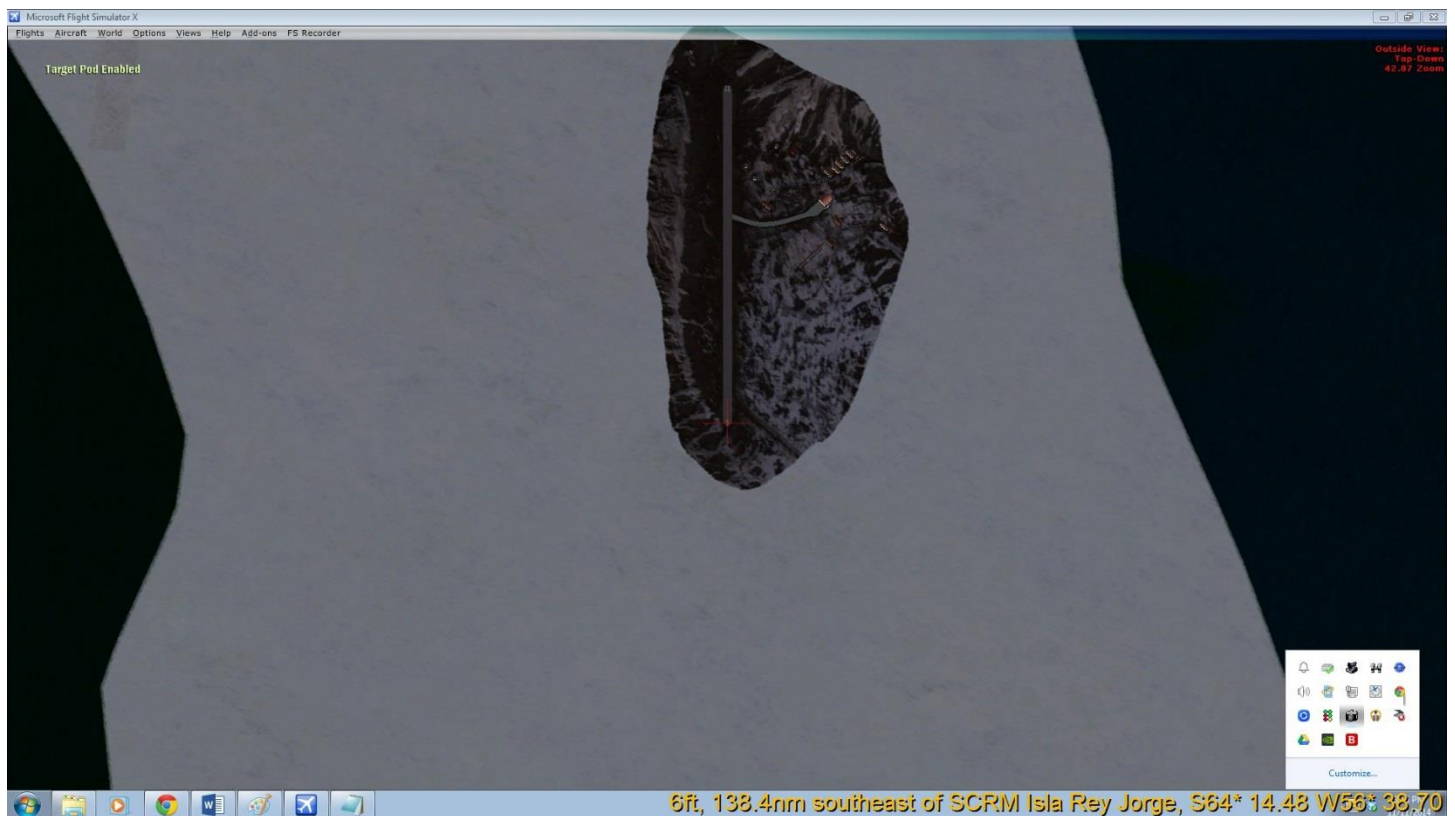
27 (274 True)

Australian Ice Research Facility

Parking – Aircraft must park in designated parking area.

Aircraft not in this area will be removed

Ice Station Marambio SAWB



Location S64*14 W56*37

Runway 06 (071 True)

24 (251 True)

Argentine Arctic research Facility used year round. It is also called the Antarctic Entrance Door.

Parking – Ensure all Aircraft are parking in designated parking areas. If aircraft are not properly parked they will be removed.

Rothera Station – EGAR



Location – Southern Point

Runways 36

18

British ran Laboratory specializing in Biologoical research and Rocket Science

Parking – Aircraft are to utilize the parking facilities. If they fail to do so, they will be removed.