

Airport information:

Country: Norway

City: TRONDHEIM

Coordinates: N 63° 27.5', E010 55.5

Elevation: 56

Customs: Customs: O/R 1 HR 30 MIN PN to TWR

Fuel: 100LL , Jet A1, JP4

RFF: CAT9

hours: TWR: H24.

Runways:

Runway 09

Takeoff length: 2699, Landing length: 2446

Runway 14

Takeoff length: 1035, Landing length: 1035

Runway 27

Takeoff length: 2564, Landing length: 2424

Runway 32

Takeoff length: 1035, Landing length: 1035

Aerodrome Briefing Card

Vaernes **TRONDHEIM****1. GEOGRAPHICAL DATA**

- 1.1 The AD is civil/military and situated 15nm E of the city at the end of the fjord by the river Stjørdalselven.

The adjacent terrain is flat and wide, however hills/mountains rise N and S of the valley running E-W, with spotheights up to 2000ft within 10nm.

- 1.2 Only one RWY is available. RWY 09 is protruding into the sea with railway and main road tunnel crossing.

2. WEATHER

- 2.1 The climate is of a maritime type with rather cool summers and relatively mild winters.

The mean MAX/MNM temperatures +19.7°/+11.4°C and +0.1°/-6.8°C in JUL/JAN respectively.

- 2.2 W winds prevail. In connection with frontal passages fog may develop in the fjord, but rarely affect the AD.
- 2.3 The hills in the circling area are often partly covered in cloud patches. With W winds weather often improves over the AD relative to the APCH area.
- 2.4 Severe turbulence is to be expected with winds from 090°-180°. During these conditions the weather is often clear and a fairly smooth APCH may be made by flying visually slightly N of the ILS LLZ beam.
- 2.5 Vertical windshear is a common occurrence.

3. TRAFFIC

Open.

4. MISCELLANEOUS

Open.

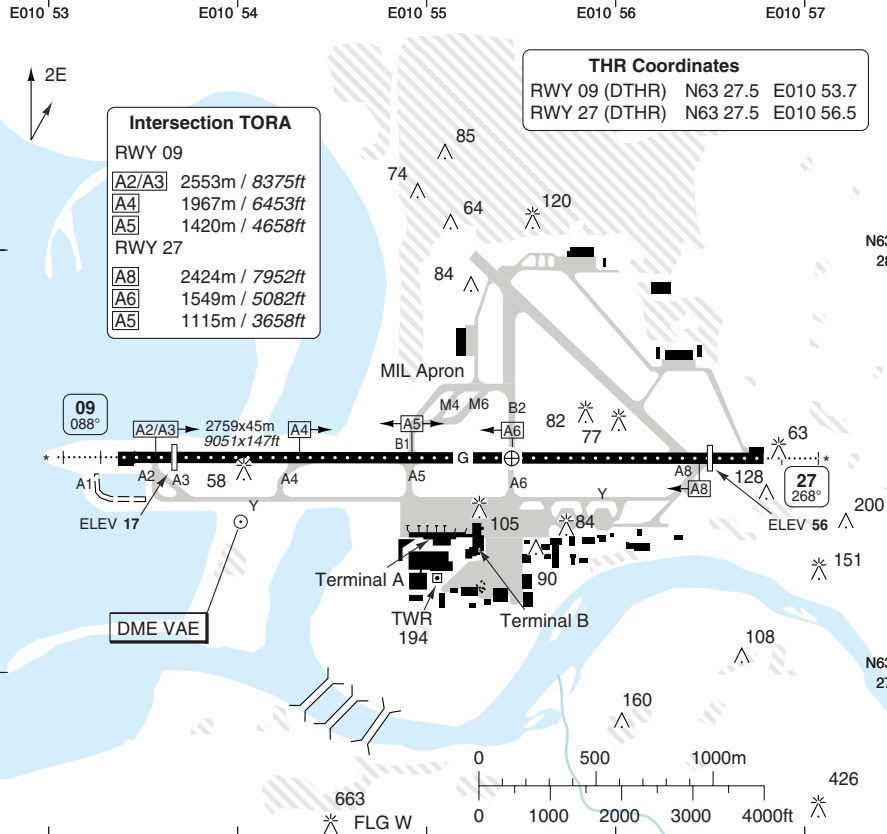
5. REPORTS

- 5.1 Braking action often changes rapidly due to temperature fluctuations.

AERODROME

Vaernes GND 121.6	TWR 119.4 133.75	ATIS 127.55
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AD Elev 56	ARP: N63 27.5 E10 55.5	RFF: CAT 9	AD HR: H24
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Intersection TORA

RWY 09	
A2/A3	2553m / 8375ft
A4	1967m / 6453ft
A5	1420m / 4658ft
RWY 27	
A8	2424m / 7952ft
A6	1549m / 5082ft
A5	1115m / 3658ft

THR Coordinates

RWY 09 (DTHR)	N63 27.5 E10 53.7
RWY 27 (DTHR)	N63 27.5 E10 56.5

RWY	Slope	TORA m/ft	LDA m/ft	ALS	REDL	RCLL	Additional
09	+0.5	2699 / 8854	2446 / 8024	H-E ①	H	60m	P 3°L/R (50)
27	-0.5	2564 / 8412	2424 / 7952	H-E ②	H	60m	P 3.4°L/R (39)

① 510m. ② 480m, EFAS.

STATE		TAKE OFF MINIMA	
RWY	Facilities	RVR A B C D	
09/27	RCL (day only) or RCL + REDL	Above 400m ③	
	NIL (day only)	500m	

③ RVR 400m or less ACFT operation stopped.

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Change: GND freq, TWY

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10 - 2 | 23 APR 12

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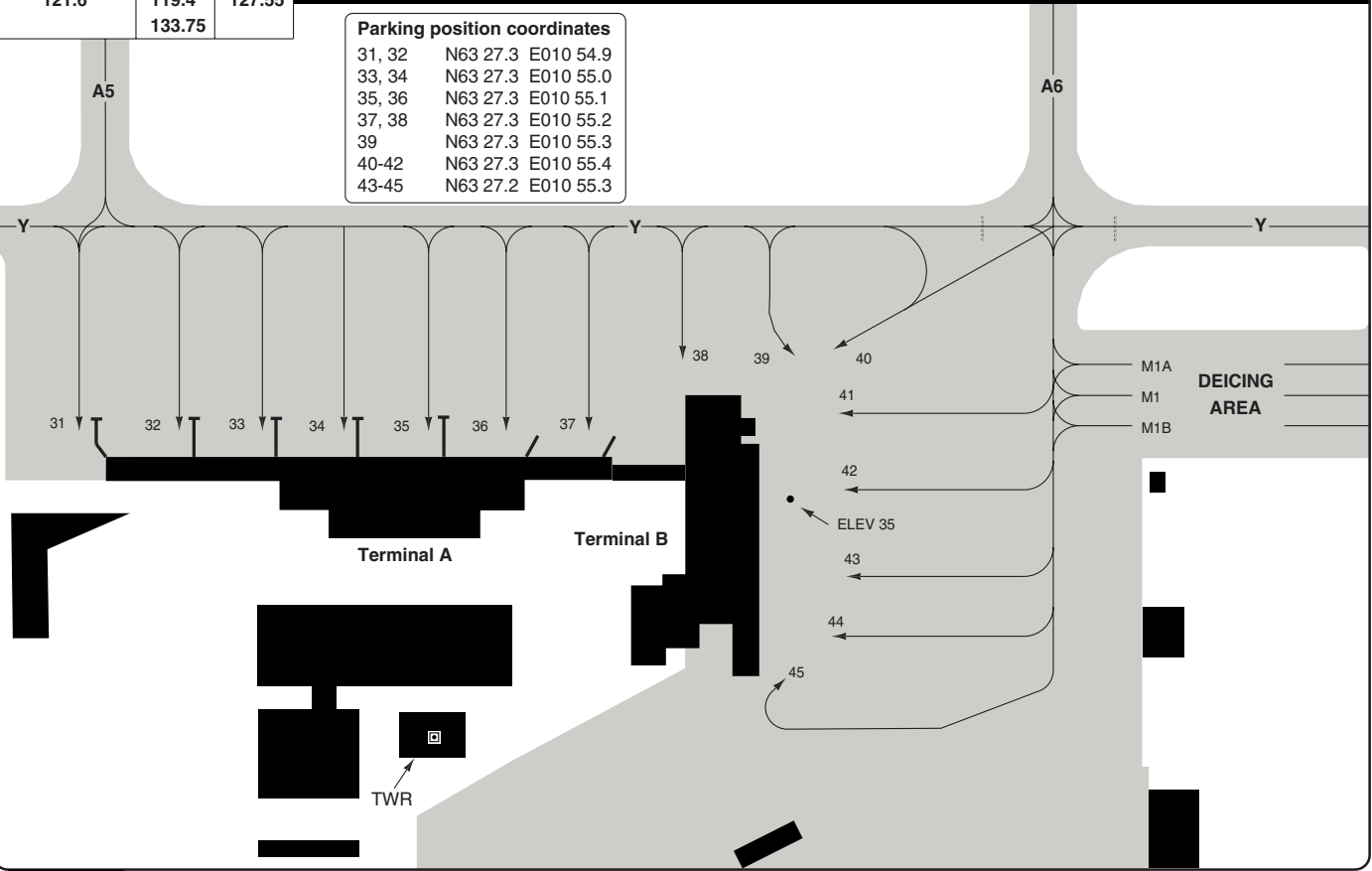
AERODROME Parking

TRONDHEIM
Vaernes

Vaernes GND 121.6	TWR 119.4 133.75	ATIS 127.55
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Parking position coordinates		
31, 32	N63 27.3	E010 54.9
33, 34	N63 27.3	E010 55.0
35, 36	N63 27.3	E010 55.1
37, 38	N63 27.3	E010 55.2
39	N63 27.3	E010 55.3
40-42	N63 27.3	E010 55.4
43-45	N63 27.2	E010 55.3

RWY 09/27



10 - 2

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GENERAL

GENERAL INFORMATION

10 - 3

1. **AERODROME RESTRICTION**

- 1.1 PPR for ACFT with higher code letter than D.
- 1.2 Special requirements for ACFT operators performing commercial transportation into Trondheim airport.
 - 1.2.1 The ACFT operator shall stipulate special crew qualification requirements.
 - 1.2.2 There will be a requirement of document fulfillment of the special requirements on request from the aerodrome operator or the Norwegian CAA.

2. **WARNING**

- 2.1 Wind shear/eddies may occur inside D6 TO and S of LOC RWY 09 when wind from SE-S above 25kt.
- 2.2 Loss of headwind may occur on short final RWY 27 at W wind above 20kt.

3. **SPEED**

MAX 250kt below FL100.

4. **RWY RESTRICTION**

180° turn on the asphalt part of the RWY is not allowed due to danger of asphalt breaking up.

5. **TWY RESTRICTION**

TWY B1 and B2 north of ARP width 20m/65ft.

6. **TURNAROUND RWY 09/27**

Widened area 60x15m avbl on left hand side at RWY ends.

- 7. Backtrack after LDG prohibited.

8. **INTERSECTION TKOF**

If a TKOF position outside position A2/A3 or A8 will be used inform ATC when cleared to line up.

9. **DE-ICING**

De-icing avbl on
SGH 121.775
Roros 121.825
MON-FRI, SUN 0445-2030, SAT 0445-1800.

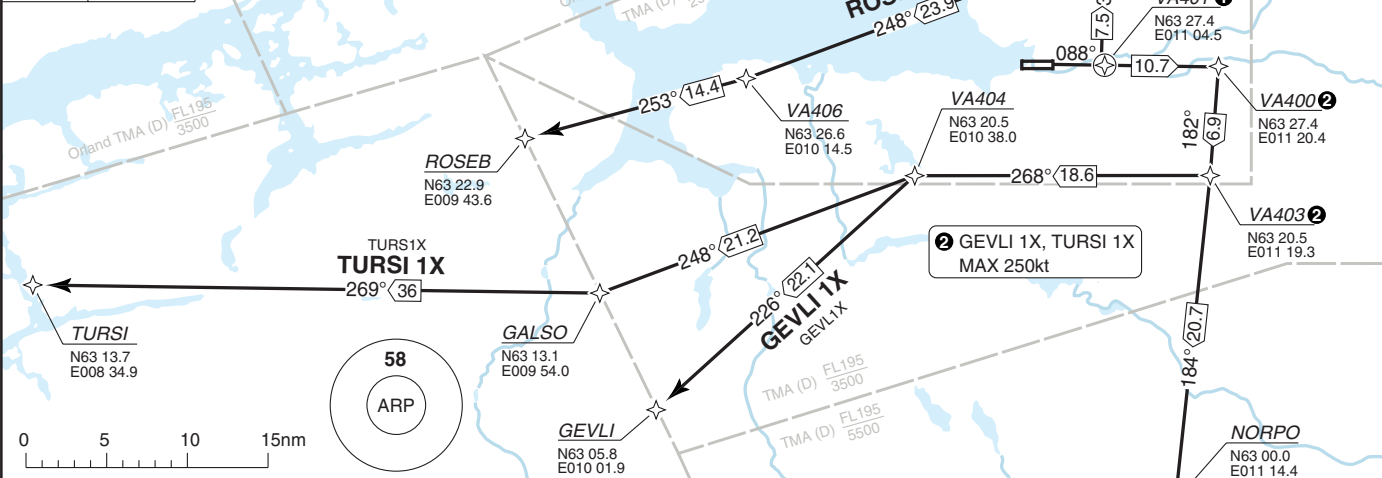
10. **OMNIDIRECTIONAL DEP PROC**

COM: Contact APP 118.6 after TKOF.
ALT RESTRICTION: Climb to 6000ft.
MNM CLIMB GRADIENT:
RWY 09: 7.5% to 4000ft.
RWY 27: 6.5% to 4000ft.
Climb straight ahead to 6000ft.
Start turn when cleared by ATC.
Expect radar vectoring to cleared ATS route.

Vaernes GND 121.6	TWR 119.4 133.75	APP 118.6 119.15	ATIS 127.55
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P-RNAV required

TA 7000 AD Elev 56



NOTE: Omni Directional departure avbl for non P-RNAV ACFT.

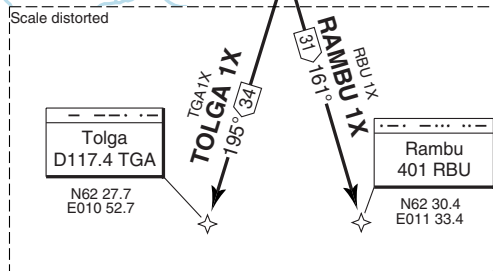
COM: Contact Vaernes APP 118.6 after TKOF.

SPEED: MAX 250kt below FL100.

ALT RESTRICTION: Climb to **6000**.

MNM CLIMB GRADIENT: 7.5% up to 4000.

SID	Routeing
GEVLI 1X	Climb on 088° - VA400 (MAX 250kt) - VA403 (MAX 250kt) - VA404 - GEVLI.
RAMBU 1X	Climb on 088° - VA400 - VA403 - NORPO - RBU.
ROSEB 1X	Climb on 088° - VA401 (MAX 210kt during turn) - VA405 - VA406 - ROSEB.
TOLGA 1X	Climb on 088° - VA400 - VA403 - NORPO - TGA.
TURS 1X	Climb on 088° - VA400 (MAX 250kt) - VA403 (MAX 250kt) - VA404 - GALSO - TURS.



WEF 31 MAY 12

30 - 3 | 23 APR 12

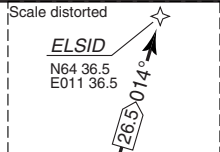
Norway - ENVA / TRD

SID RWY 27 **RNAV** GNSS North, East

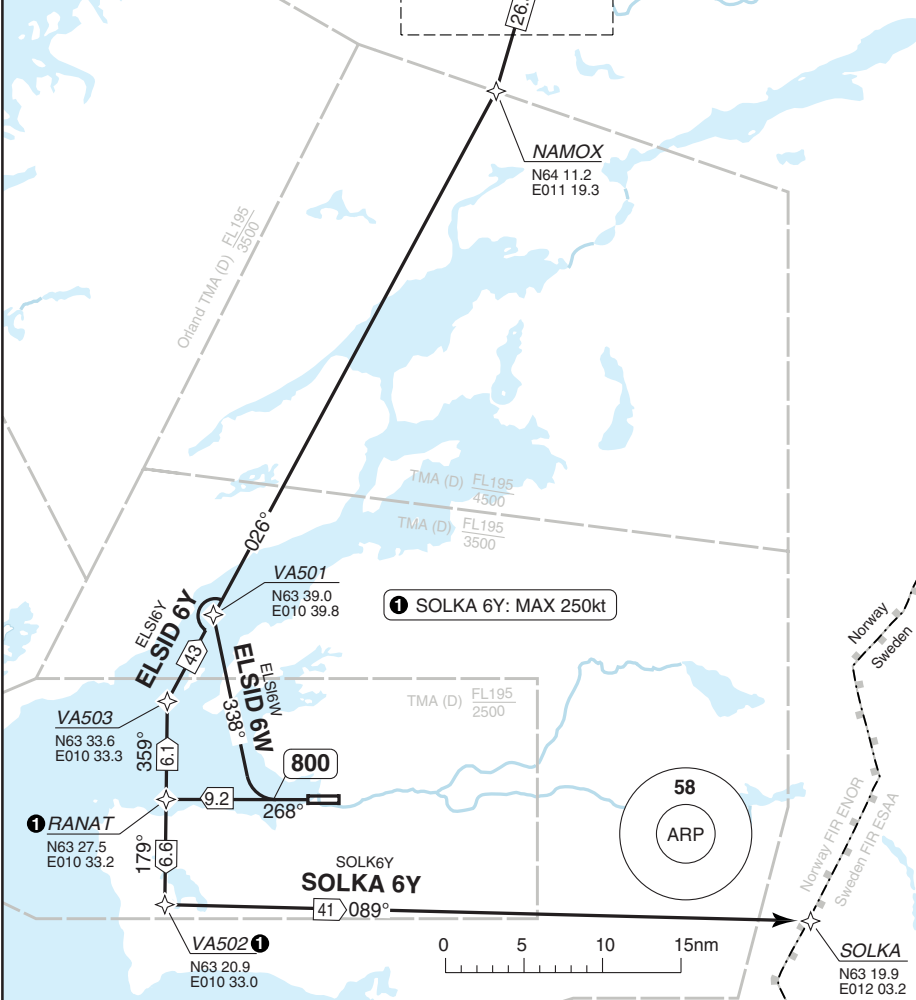
Vaernes TRONDHEIM

Vaernes GND 121.6	TWR 119.4 133.75	APP 118.6 119.15	ATIS 127.55
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TA 7000 AD Elev 56



P-RNAV required



30 - 3

NOTE: Omni Directional departure avbl for non P-RNAV ACFT.
COM: Contact APP 118.6 after TKOF.
SPEED: MAX 250kt below FL100.
ALT RESTRICTION: Climb to **6000**.
MNM CLIMB GRADIENT: 6.5% up to 4000.

SID	Routeing
ELSID 6W	Climb on 268° to 800 - turn right - 338° - VA501 - NAMOX - ELSID.
ELSID 6Y	Climb on 268° - RANAT - VA503 - NAMOX - ELSID.
SOLKA 6Y	Climb on 268° - RANAT (MAX 250kt) - VA502 (MAX 250kt) - SOLKA.

Change: GND freq

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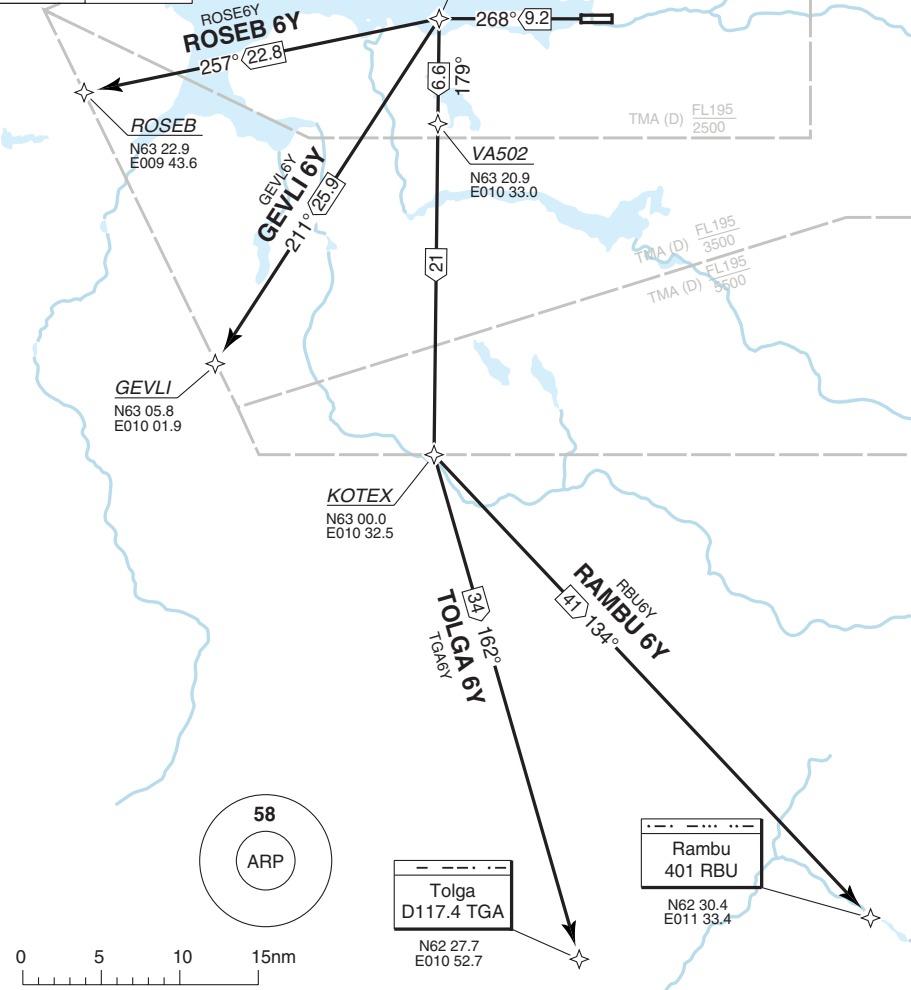
SID RWY 27 **RNAV** GNSS South, West

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Vaernes GND 121.6	TWR 119.4 133.75	APP 118.6 119.15	ATIS 127.55
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TA 7000 AD Elev 56

P-RNAV required



NOTE: Omni Directional departure avbl for non P-RNAV ACFT.

COM: Contact APP 118.6 after TKOF.

SPEED: MAX 250kt below FL100.

ALT RESTRICTION: Climb to **6000**.

MNM CLIMB GRADIENT: 6.5% up to 4000.

SID	Routeing
GEVLI 6Y	Climb on 268° - RANAT - GEVLI.
RAMBU 6Y	Climb on 268° - RANAT - VA502 - KOTEX - RBU.
ROSEB 6Y	Climb on 268° - RANAT - ROSEB.
TOLGA 6Y	Climb on 268° - RANAT - KOTEX - TGA.

Change: GND freq

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STAR RWY 09 RNAV GNSS 1

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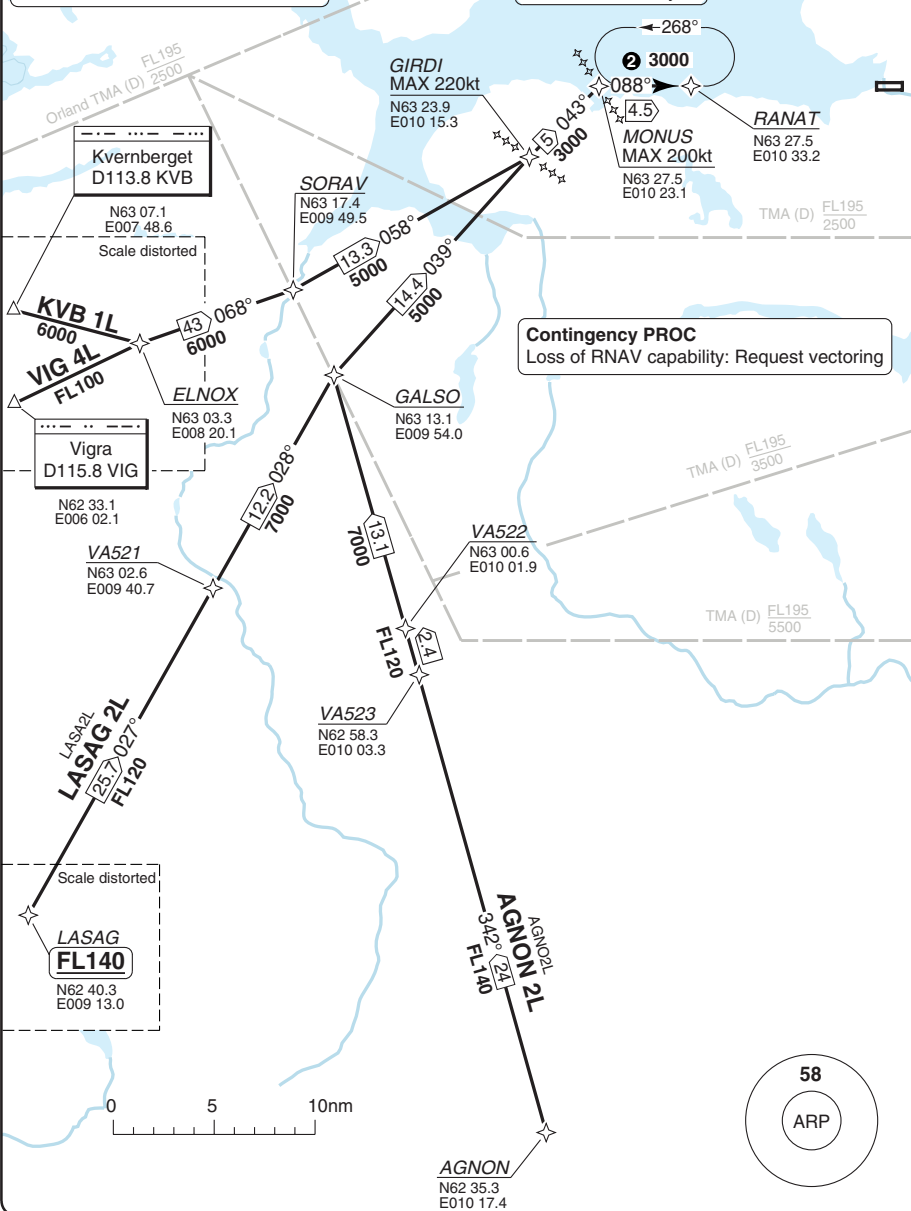
Vaernes APP	TWR	GND	ATIS
118.6	119.4	121.6	127.55
119.15	133.75		

1 AGNON 2L, KVB 1L, LASAG 2L, VIG 4L

TL ATC AD Elev 56

P-RNAV approval required in TMA. Class A GNSS shall not be used.

2 Enter HP via INBD STAR track only.



40 - 1

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Change: GND freq

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STAR RWY 09 RNAV GNSS RBU 3L, TGA 2L

Vaernes TRONDHEIM

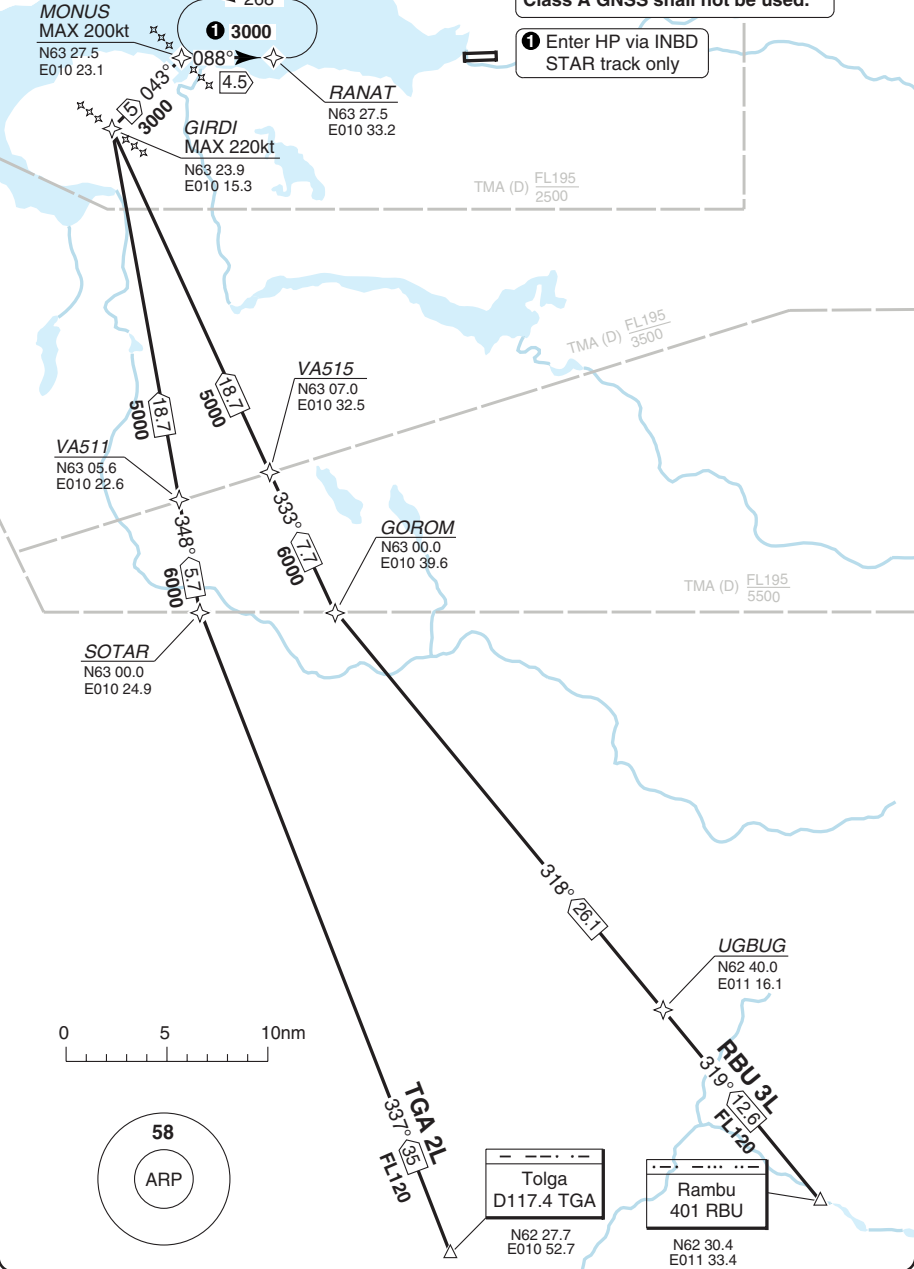
Vaernes APP	TWR	GND	ATIS
118.6	119.4	121.6	127.55
119.15	133.75		

Contingency PROC
Loss of RNAV capability: Request vectoring

P-RNAV approval required in TMA.
Class A GNSS shall not be used.

1 Enter HP via INBD
STAR track only

TL ATC AD Elev 56



Change: GND freq

WEF 31 MAY 12

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STAR RWY 27 RNAV GNSS 1

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Vaernes APP	TWR	GND	ATIS
118.6	119.4	121.6	127.55
119.15	133.75		

1 AGNON 3M, KVB 5M, VIG 5M, LASAG 3M

TL ATC AD Elev 56

Contingency PROC

Loss of RNAV capability: Request vectoring

P-RNAV approval required in TMA.

Class A GNSS shall not be used.

2 Enter HP via INBD STAR track only.

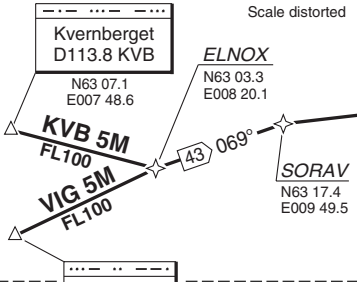
INTIR
MAX 210kt
N63 27.3
E011 34.8

089°
2
4700

269°
4.5
4700

NESGA
N63 27.4
E011 24.8

5000



Vigra
D115.8 VIG
N62 33.1
E006 02.1

50 082°
6000

TMA (D) FL195
2500

VEDOL
MAX 220kt
N63 23.0
E011 40.3

40 - 4

TMA (D) FL195
3500

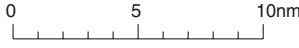
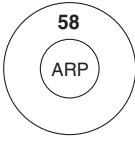
36 048°
6000

TMA (D) FL195
5500

LASAG 3M
LASAG 3M
44 061°
FL140

GOROM
N63 00.0
E010 39.6

AGNON 3M
AGNON 3M
28.8 020°
FL140



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Change: GND freq

WEF 31 MAY 12

40 - 5 | 23 APR 12

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STAR RWY 27 **RNAV** GNSS¹

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Vaernes APP	TWR	GND	ATIS
118.6	119.4	121.6	127.55
119.15	133.75		

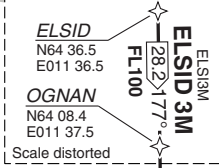
TL ATC AD Elev 56

1 ELSID 3M, RBU 3M, SOLKA 1M
TGA 3M

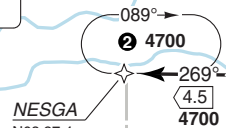
P-RNAV approval required in TMA.
Class A GNSS shall not be used.

Contingency PROC
Loss of RNAV capability: Request vectoring

2 Enter HP via INBD STAR
track only.



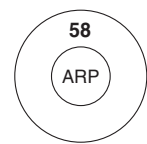
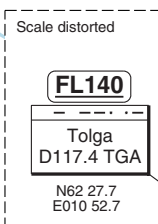
TMA (D) FL195
4500



TMA (D) FL195
2500

TMA (D) FL195
3500

TMA (D) FL195
5500



40 - 5

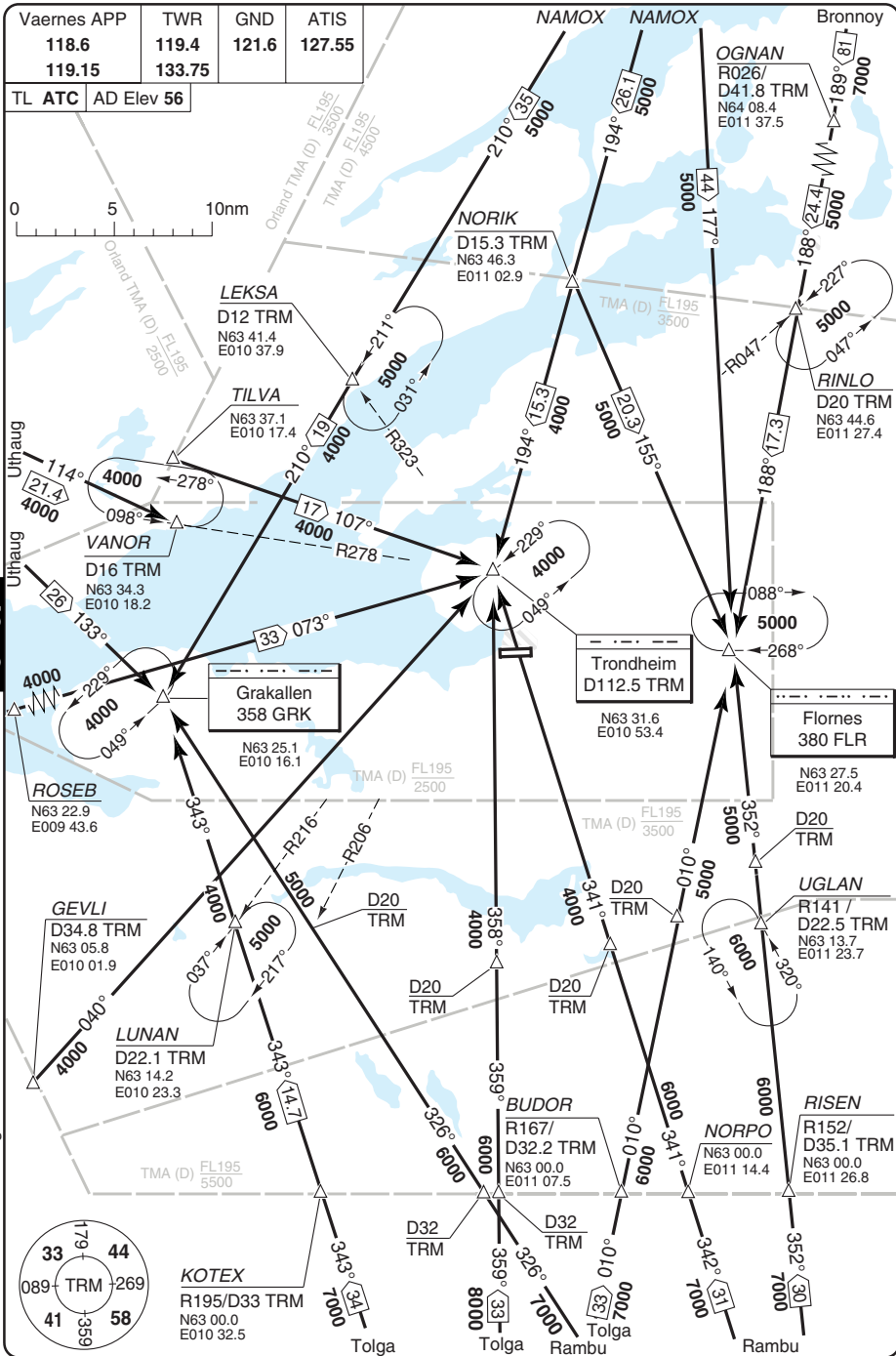
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ARRIVAL Routes

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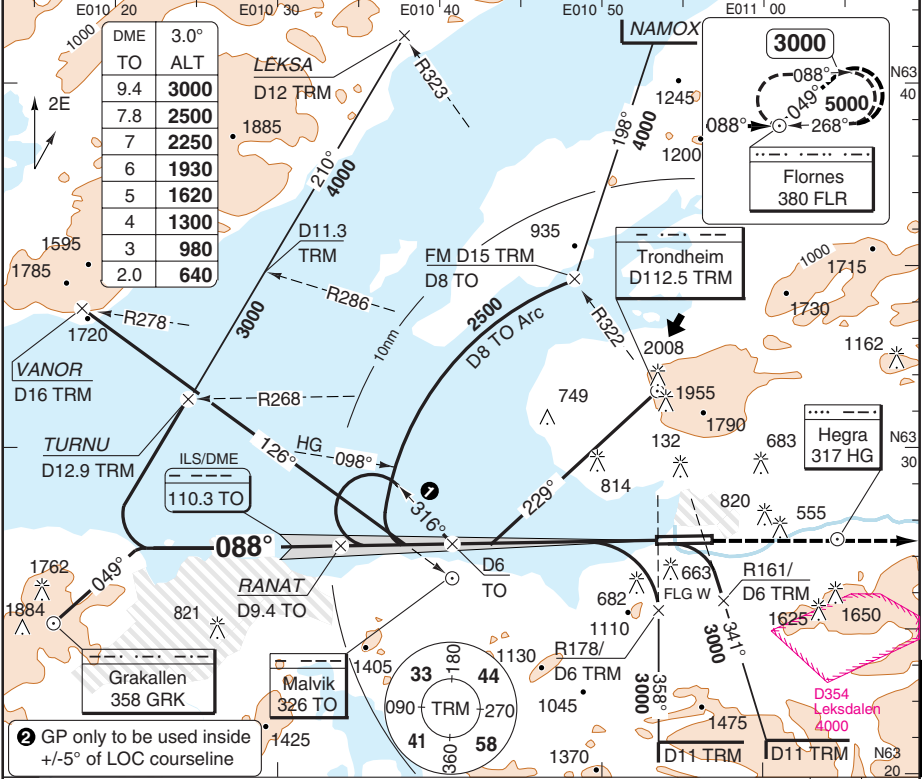
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ILS RWY 09

Vaernes APP 118.6 119.15	TWR 119.4 133.75	GND 121.6	ATIS 127.55
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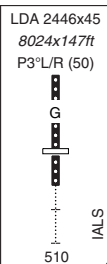
ILS/DME 110.3 TO	FAT 088°	DTHR Elev 17	AD Elev 56	TL ATC	TA 7000
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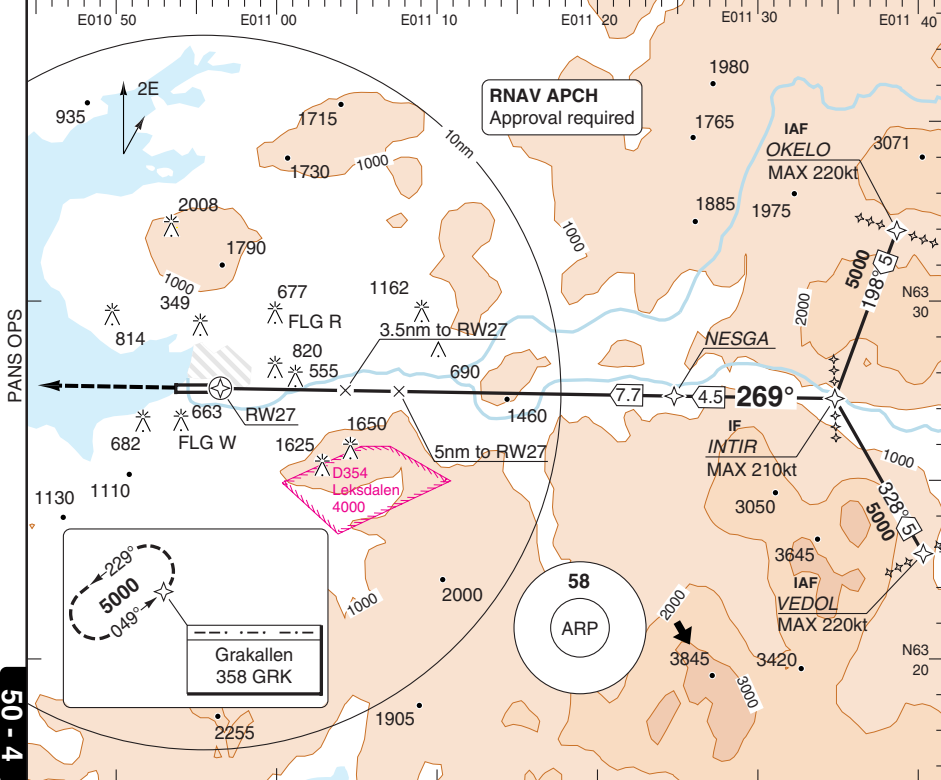


RNAV (GNSS) RWY 27

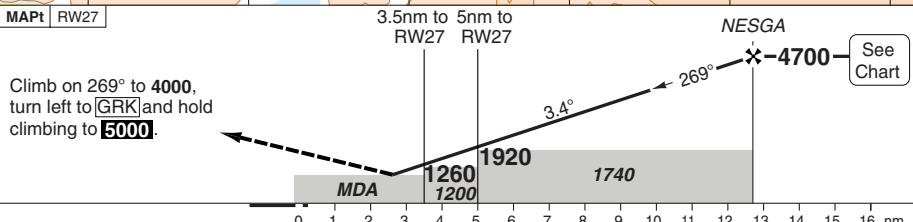
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Vaernes APP	TWR	GND	ATIS
118.6	119.4	121.6	127.55
119.15	133.75		

RNAV	FAT 269°	DTHR Elev 56	AD Elev 56	TL ATC	TA 7000
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50 - 4



ACFT	LNAV	Circling ^a	a South of AD only.					THR	3.4° ALT	LDA 2424x45 7952x147ft P3.4°L/R (39)
A	960 (904) 1500m	1320 (1264) 1.5km					27	4700		
B		1400 (1344) 1.6km					12.7	4090		
C	960 (904) 2400m	2050 (1994) 2.4km					9	3370		
D		2050 (1994) 3.6km					7	2650		
GS	80	100	120	140	160	6	2280			
ROD 3.4°	490	610	730	850	970	5	1920			
FAF-MAPt	9:31	7:37	6:21	5:26	4:46	4	1560			
						2.4	960			

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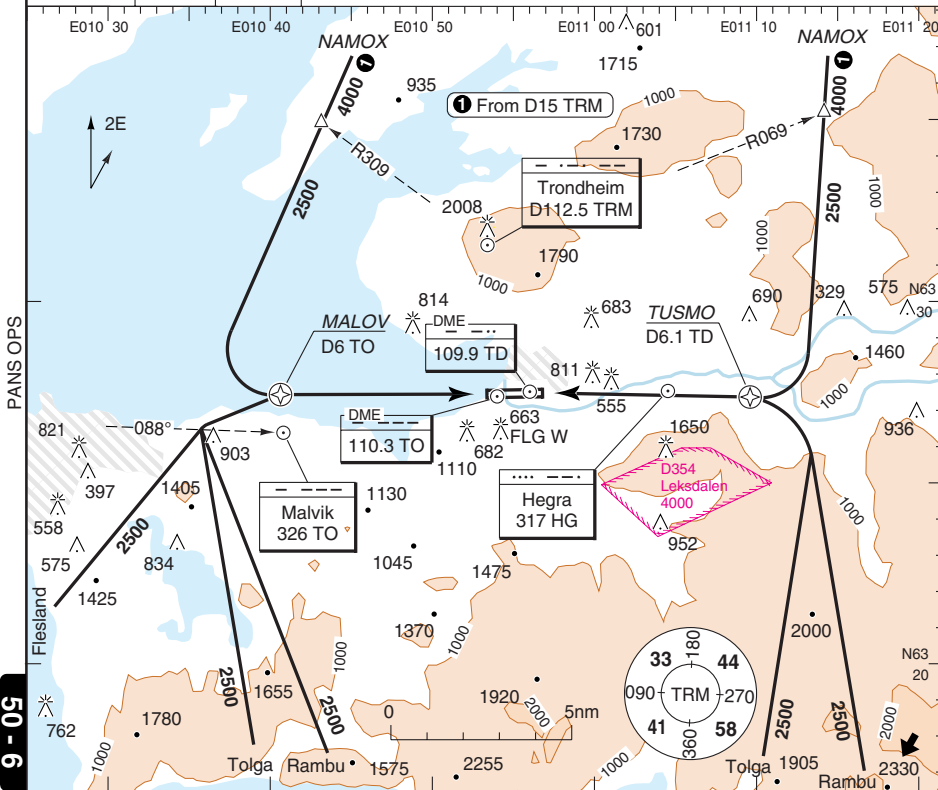
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VISUAL

Vaernes TRONDHEIM

Vaernes APP 118.6 119.15	TWR 119.4 133.75	GND 121.6	ATIS 127.55
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AD Elev 56 TL ATC TA 7000



50 - 6

RWY 09

Unless otherwise instructed by ATC:
 Established on final outside MALOV/D6 TO.
 Maintain 2500ft until turning on final,
 and descent not below ILS GP/PAPI.

RWY 27

Unless otherwise instructed by ATC:
 Established on final outside TUSMO/D6.1 TD.
 Maintain 2500ft until turning on final
 and descent not below ILS GP/PAPI.

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Change: GND freq, Renumbered

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JAR-OPS Landing Minima

Vaernes TRONDHEIM

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		C				D			
R/W	Procedure	DA/ MDA QNH ft	DH/ MDH QFE ft	RVR m	RVR No ALS m	DA/ MDA QNH ft	DH/ MDH QFE ft	RVR m	RVR No ALS m
09	ILS/DME	600	580	900	1200	610	590	900	1200
09	LOC/DME	610	590	1600	2000	640	620	1800	2000
09	NDB	1170	1150	1800	2000	1170	1150	2000	2000
27	ILS	260	200	700	1000	260	200	700	1000
27	LOC	710	650	1800	2000	710	650	2000	2000

Notes:

CIRCLING		C			D		
R/W	Procedure	MDA QNH ft	MDH QFE ft	Vis m	MDA QNH ft	MDH QFE ft	Vis m
	NDB 267° CIRC (1)	2050	1990	2400	2050	1990	3600
	09/27 All Other Procs (1)(2)	2050	1990	2400	2050	1990	3600

Notes:

- (1) South of aerodrome only.
- (2) Rwy 09: When following circling guidance lights to Rwy 27, Cat A aircraft are to use Cat B minima.

TAKE-OFF		C		D	
Runway	Facilities	RVR	Vis	RVR	Vis
09/27	REDL and/or RCL	400	-	400	-
09/27	Nil (Day only)	500	-	500	-

Notes:

JAR-OPS Landing Minima

Vaernes TRONDHEIM

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		A				B			
R/W	Procedure	DA/ MDA QNH ft	DH/ MDH QFE ft	RVR m	RVR No ALS m	DA/ MDA QNH ft	DH/ MDH QFE ft	RVR m	RVR No ALS m
09	ILS/DME	580	560	900	1200	590	570	900	1200
09	LOC/DME	580	560	1400	1500	590	570	1500	1500
09	NDB	1170	1150	1500	1500	1170	1150	1500	1500
27	ILS	260	200	700	1000	260	200	700	1000
27	LOC	710	650	1500	1500	710	650	1500	1500

Notes:

CIRCLING		A			B		
R/W	Procedure	MDA QNH ft	MDH QFE ft	Vis m	MDA QNH ft	MDH QFE ft	Vis m
	NDB 267° CIRC (1)	1320	1260	1500	1400	1340	1600
	09/27 All Other Procs (1)(2)	1320	1260	1500	1400	1340	1600

Notes:

(1) South of aerodrome only.

(2) Rwy 09: When following circling guidance lights to Rwy 27, Cat A aircraft are to use Cat B minima.

TAKE-OFF		A		B	
Runway	Facilities	RVR	Vis	RVR	Vis
09/27	REDL and/or RCL	400	-	400	-
09/27	Nil (Day only)	500	-	500	-

Notes: