

List of pages in this Trip Kit

Trip Kit Index

Airport Information For ENVA

Terminal Charts For ENVA

Revision Letter For Cycle 13-2016

Change Notices

Notebook

General Information

Location: TRONDHEIM NOR
ICAO/IATA: ENVA / TRD
Lat/Long: N63° 27.45', E010° 55.45'
Elevation: 56 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 3.0° E

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

Sunrise: 0059 Z
Sunset: 2136 Z

Runway Information

Runway: 09
Length x Width: 9839 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 17 ft
Lighting: Edge, ALS, Centerline
Displaced Threshold: 830 ft

Runway: 27
Length x Width: 9839 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 56 ft
Lighting: Edge, ALS, Centerline
Displaced Threshold: 755 ft

Communication Information

ATIS: 127.550
Vaernes Tower: 119.400
Vaernes Tower: 27.892 Military
Vaernes Tower: 133.750
Vaernes Ground: 121.600
Vaernes De-Icing Ramp/Taxi: 131.750
More Approach Approach: 129.325
Vaernes Approach: 24.050 Military
Vaernes Approach: 37.522 Military
Vaernes Approach: 118.600

More Approach Approach: 119.350

Vaernes Direct (Approach Control Radar): 119.150

ENVA/TRD
VAERNES

JEPPesen

13 MAY 16

10-1P

TRONDHEIM, NORWAY

AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 127.550

1.2. NOISE ABATEMENT PROCEDURES**1.2.1. GENERAL**

The following noise abatement procedures are mandatory for all ACFT between 2300-0700LT and H24 for ACFT with MTOM more than 7000kg unless deviations are required in the interest of safety. Instructions which will imply deviations from noise abatement procedures will include the phrase "DISREGARD NOISE ABATEMENT".

1.2.2. PREFERENTIAL RWY SYSTEM

Between 2300-0700LT RWY 09 will be used for landings and RWY 27 for take-off when traffic permits. ATC will apply conditions described in ICAO Doc 4444 para 7.2.6 so that normal rules for RWY-in-use are followed under these circumstances:

- Braking action is less than 'GOOD';
- When the ceiling is lower than 1500' or the visibility is less than 5000m;
- When wind shear has been reported or forecasted or when thunderstorms are expected to affect the approach or departure; and
- When crosswind component, including gusts, exceeds 10 KT, or the tailwind component, including gusts, exceeds 5 KT.

1.2.3. RUN-UP TESTS

Between 2300-0700LT engines must not be reversed beyond idle reverse, unless so warranted by reasons of safety.

After maintenance, engine testing applying more than idle thrust shall take place at TWY Y between A1 and A2, tail pointing West. Between 2300-0700LT engine testing shall be avoided.

Between 0700-2300LT engine testing lasting maximum 15 MIN in power setting idle can be performed at parking stands or outside hangars.

1.2.4. EXCEPTIONS

Through ATC, Avinor may grant exemption from the provisions stated above for safety reasons or when special circumstances seriously impair the APT capacity.

The pilot-in-command may deviate from these provisions for safety reasons.

Necessary flights regarding control of communication and navigation equipment are exempted from these provisions.

Ambulance flights, SAR and military flights may be exempted from these provisions for both military-registered ACFT, as well as civil-registered ACFT in military operation.

1.3. LOW VISIBILITY PROCEDURE

RVR 550m or less: When LVP is in force only one ACFT is allowed in the manoeuvring area at a time.

Minimum RVR 400m for departure.

ENVA/TRD
VAERNES

JEPPesen
13 MAY 16 10-1P1

TRONDHEIM, NORWAY
AIRPORT BRIEFING

1. GENERAL

1.4. TAXI PROCEDURES

If an ACFT after landing, due to RTF congestion or other reasons, cannot obtain contact with VAERNES Ground, the pilot shall completely vacate the landing RWY and hold position until contact with VAERNES Ground can be established. The ACFT considered to be clear of the RWY when the whole ACFT has passed the holding point on the TWY used for vacating the RWY.

TWY N follow-me is required during night.

ACFT code B: TWY N.

ACFT code C: TWYs H and W.

ACFT code D: TWYs B2, J South of stand 41L, M, Y between A4 and A5.

1.5. PARKING INFORMATION

Stands 30 thru 37 Safegate equipped.

Flush lead-in lights to stands 22 thru 38.

Visual Docking Guidance System available at stands 30 thru 37.

Marshaller is mandatory on stands 38 thru 45, and on stands 22 thru 29 if offset parking is not used.

1.6. OTHER INFORMATION

Wind shear and/or moderate to severe turbulence may occur on and South of final RWY 09 with wind from South-Southeast above 25KT.

On visual APCH it is recommended to fly North of centerline and establish on final closer to RWY.

Loss of headwind may occur on short final RWY 27 when wind from West above 20 KT.

180 degree turn on the asphalt part of the RWY is not allowed because asphalt may break up.

Birds in vicinity of APT.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. GENERAL

Noise abatement procedure is part of published approach procedures, including visual approach chart.

Shorter visual approaches are allowed from the North to RWY 09 and for propeller ACFT to 2NM to RWY 27, provided a clearance to shorten the approach has been received.

2.2. OTHER INFORMATION

2.2.1. POINT MERGE SYSTEM

STAR is based on Point Merge System (PMS), and accommodates Basic Continuous Descent Operations (B-CDO).

Arriving traffic established on the STAR may at any time be cleared direct to the Merge Point (MP), and must be prepared for this.

Succeeding arriving ACFT can thus be turned directly to the MP when sufficient spacing to preceding traffic is achieved. By doing this, an accurate sequence can be attained while allowing the ACFT to maintain own navigation (LNAV). When cleared direct to the MP, and also cleared for an instrument approach, the ACFT shall follow "transition" from MP to final, as displayed on the chart for the relevant instrument approach procedure.

ENVA/TRD
VAERNES

JEPPesen
13 MAY 16 **(10-1P2)**

TRONDHEIM, NORWAY
AIRPORT BRIEFING

3. DEPARTURE

3.1. DE-ICING

De-icing of ACFT will occur on platforms M1A or M1B for code C or smaller ACFT, centred on M1 for code D or larger ACFT.

Before start-up, contact handling agent and request de-icing.

When requesting start-up, inform Ground/Tower that de-icing is needed.

Contact Ground/Tower for taxi instructions to the de-icing platform.

ACFT may be towed to the de-icing platform if friction is acceptable.

Before entering the de-icing platform, contact de-icing agency.

When de-icing is finished, contact Ground/Tower for taxi clearance.

3.2. ENROUTE CLEARANCE AND PRIMARY SID

When alternate SIDs exist to a SID endpoint, the longer SID will normally be issued to jet and turboprop ACFT with filed TAS 300 KT or more. Normally, the shorter SID will be issued to turboprop ACFT with filed TAS of less than 300 KT. In both cases the PIC can expect to be cleared DCT SID end point as soon as TFC, terrain and NAP permits.

3.3. START-UP & PUSH-BACK PROCEDURES

Contact Ground/Tower before start-up and push-back.

Push-back Procedures from stands 22 thru 29:

Standard push-back from stands 22-29 is for jet ACFT to face North on TWY H.

Turboprop shall perform a straight push. Offset parking is allowed for ACFT size DH8C and smaller on stands 22 thru 28, and size DH8D and smaller on stand 29.

Push-back Procedures from stands 30 thru 37:

Standard push-back from stands 30-37 is for code C ACFT up to size B738 straight back, for A321, B739, MD80-series and MD90 onto TWY W to face east or west as instructed by ATC.

Standard push-back from stand 30 and 31 for code D ACFT is onto TWY Y, to face east or west as instructed by ATC.

Push-back Procedures from stands 38 and 39:

Standard push-back from stand 38 and 39 is straight back.

Push-back Procedures from stands 40 thru 45:

Standard push-back from stands 40-45 is to face North on TWY J, except CRJ that shall perform a straight push-back.

After push-back from stand 41L, ACFT shall be pulled forward to start-up position J1.

After push-back from stands 43 thru 45, ACFT shall be disconnected at start-up position J2.

Start-up position J1 and J2 are marked with blue parallel lines on TWY J.

3.4. NOISE ABATEMENT PROCEDURES

3.4.1. GENERAL

Noise abatement procedure is part of published SIDs.

For jet ACFT a direct routing can be anticipated after passing 2500' AMSL.

For propeller ACFT departing on RWY 09 and all ACFT departing RWY 27 to the North a turn for visual departure can be anticipated after passing 1000' AMSL.

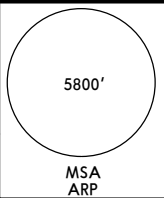
4. Minimum altitudes are temperature corrected down to 0° Celsius.



ENVA/TRD
VAERNES

JEPPESSEN TRONDHEIM, NORWAY
11 SEP 15 10-2 Eff 17 Sep RNAV STAR

ATIS 127.55	Apt Elev 56'	Alt Set: hPa Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used for sequencing. 5. Descend as cleared by ATC.
----------------	-----------------	--



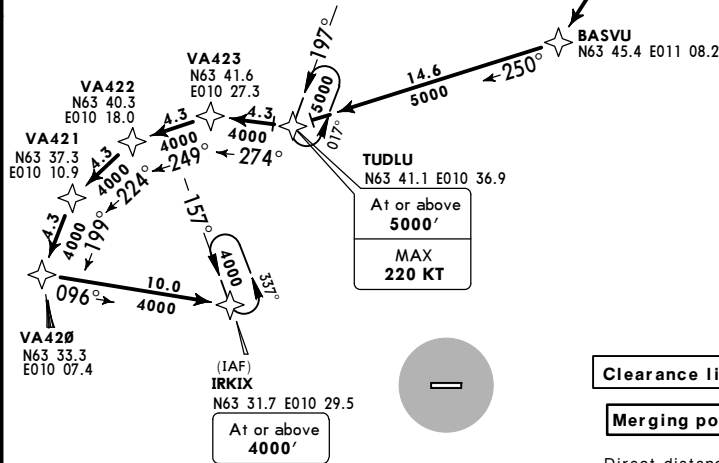
NUPGO TWO LIMA (NUPGO 2L) [NUPG2L]
RWY 09 RNAV ARRIVAL
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST
Continue on STAR and start approach to RWY 09.
COMMS ▲ SWWOC LOST ▲ SWWOC LOST ▲

NUPGO
N64 07.9 E011 41.0
At or above
FL120

DESCENT PLANNING	
As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.	
AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
63 NM	At 7000' by TUDLU



Clearance limit is IRKIX.

Merging point is IRKIX.

Direct distance from IRKIX to:
Vaernes Apt 12 NM

ROUTING

To BASVU, to TUDLU, to VA423, to VA422, to VA421, to VA420, turn LEFT to IRKIX.

ENVA/TRD
VAERNES

JEPPESSEN TRONDHEIM, NORWAY
11 SEP 15 (10-2A) Eff 17 Sep RNAV STAR

ATIS 127.55	Apt Elev 56'	Alt Set: hPa Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used for sequencing. 5. Descend as cleared by ATC.	5800' MSA ARP
----------------	-----------------	--	---

NUPGO ONE MIKE (NUPGO 1M) [NUPG1M]
RWY 27 RNAV ARRIVAL
RNAV 1 (GNSS)
GNSS REQUIRED

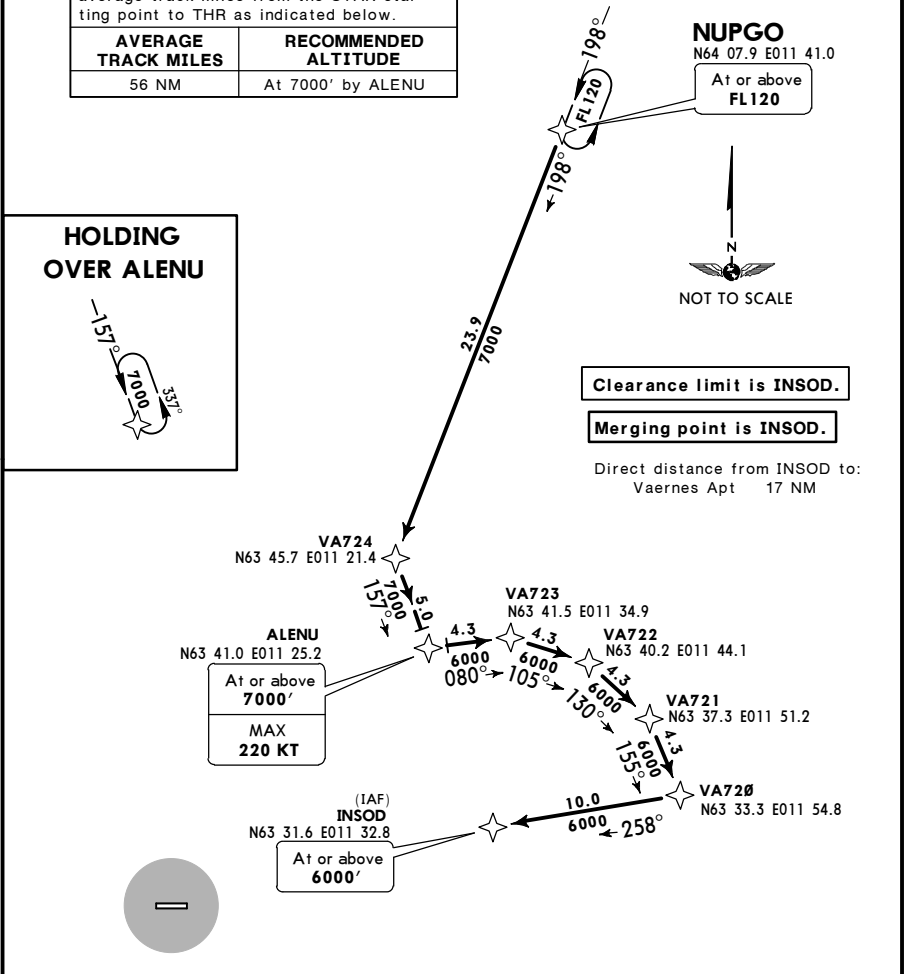
DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16NM.
Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

AVERAGE TRACK MILES	RECOMMENDED ALTITUDE
56 NM	At 7000' by ALENU

LOST COMMS
Continue on STAR and start approach to RWY 27.
LOST COMMS

HOLDING
OVER ALENU



Clearance limit is INSOD.
Merging point is INSOD.
Direct distance from INSOD to:
Vaernes Apt 17 NM

ROUTING
To VA724, to ALENU, to VA723, to VA722, to VA721, to VA720, turn RIGHT to INSOD.

ENVA/TRD
VAERNES



JEPPESSEN

TRONDHEIM, NORWAY

11 SEP 15

(10-2B)

Eff 17 Sep

RNAV STAR

ATIS
127.55

Apt Elev
56'

- Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. Class A GNSS shall not be used.
 2. RADAR service shall be available.
 3. Loss of RNAV capability, request vectoring.
 4. Vectoring may be used for sequencing.
 5. Descend as cleared by ATC.

5800'

MSA
ARP

VEVOD ONE LIMA (VEVOD 1L) [VEVO1L]
RWY 09 RNAV ARRIVAL
RNAV 1 (GNSS)
GNSS REQUIRED

DESCENT PLANNING

As clearance DCT STAR merge point will normally be issued, the vertical profile should be planned by reducing the nominal STAR length by 16NM. Descend should be planned by using the average track miles from the STAR starting point to THR as indicated below.

AVERAGE
TRACK MILES

55 NM

RECOMMENDED
ALTITUDE

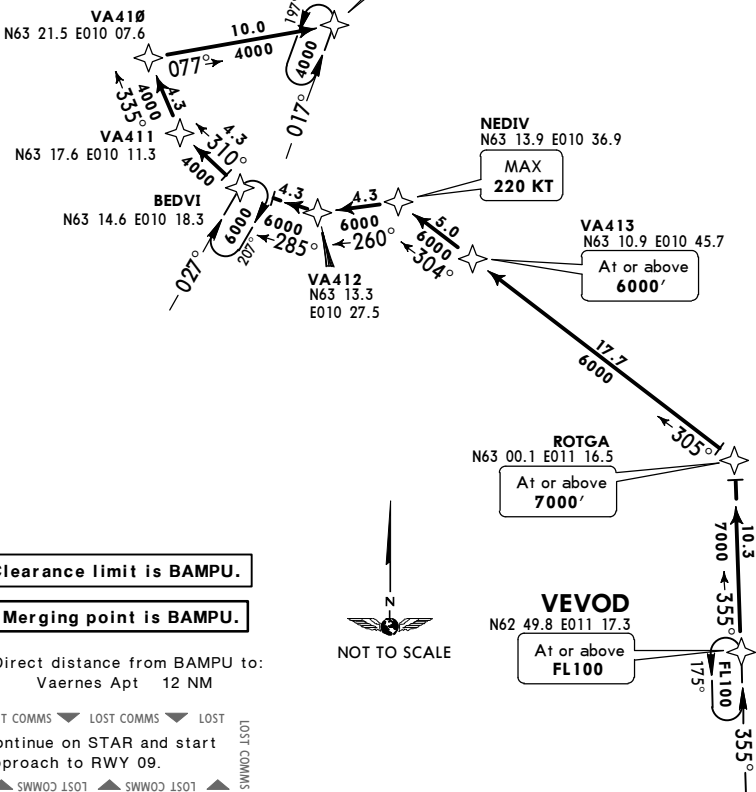
At 7000' by NEDIV

(IAF)

BAMPU

N63 23.3 E010 29.5

At or above
4000'



ROUTING

To ROTGA, to VA413, to NEDIV, to VA412, to BEDVI, to VA411, to VA410, turn RIGHT to BAMPU.

ENVA/TRD
VAERNES



JEPPESSEN

TRONDHEIM, NORWAY

11 SEP 15

(10-2C)

Eff 17 Sep

RNAV STAR

ATIS
127.55

Apt Elev
56'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. Class A GNSS shall not be used.
2. RADAR service shall be available.
3. Loss of RNAV capability, request vectoring.
4. Vectoring may be used for sequencing.
5. Descend as cleared by ATC.

5800'

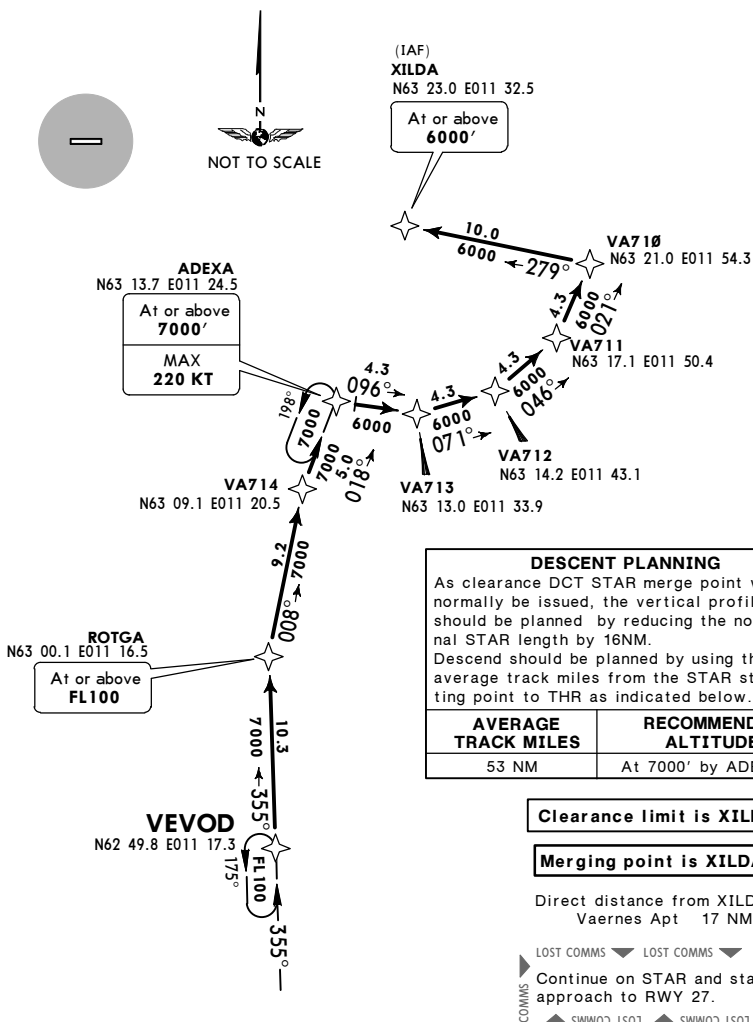
MSA
ARP

VEVOD ONE MIKE (VEVOD 1M) [VEVO1M]

RWY 27 RNAV ARRIVAL

RNAV 1 (GNSS)

GNSS REQUIRED



ROUTING

To ROTGA, to VA714, to ADEXA, to VA713, to VA712, to VA711, to VA710, turn LEFT to XILDA.

© JEPPESEN, 2014, 2015. ALL RIGHTS RESERVED.

ENVA/TRD
VAERNES

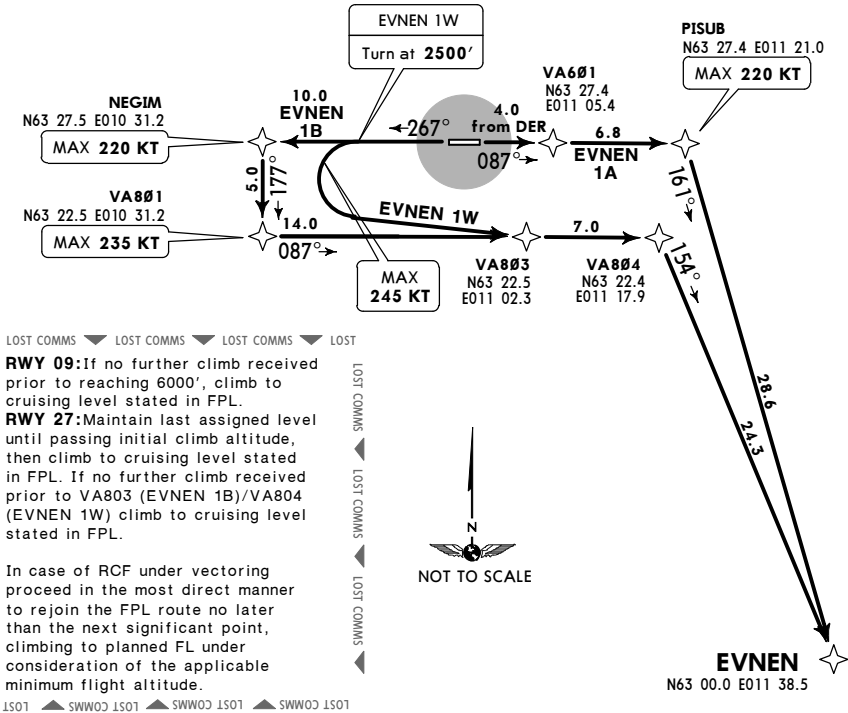
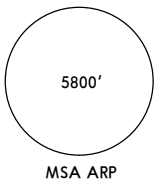
JEPPESEN TRONDHEIM, NORWAY
10 JUL 15 10-3 Eff 23 Jul RNAV SID

VAERNES
Approach (R)
118.6

Apt
Elev
56'

- Trans level: By ATC Trans alt: 7000'
1. Class A GNSS shall not be used.
 2. RADAR service shall be available.
 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27).
 4. Contact VAERNES Approach when airborne.
 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 6. When vectored or cleared for direct routing the SID climb gradients apply.

EVNEN ONE ALFA (EVNEN 1A) [EVNE1A]
EVNEN ONE BRAVO (EVNEN 1B) [EVNE1B]
EVNEN ONE WHISKEY (EVNEN 1W) [EVNE1W]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST
RWY 09:If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.
RWY 27:Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received prior to VA803 (EVNEN 1B)/VA804 (EVNEN 1W) climb to cruising level stated in FPL.
In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.
LS01 ▲ SWW03 LS01 ▲ SWW03 LS01 ▲ SWW03 LS01

These SIDs require minimum climb gradients of
EVNEN 1A
468' per NM (7.7%) to 4000'.
EVNEN 1B
395' per NM (6.5%) to 3400' to stay within controlled airspace.
EVNEN 1W
304' per NM (5.0%) to 3100'.

Gnd speed-KT	75	100	150	200	250	300
304' per NM	380	507	760	1013	1267	1520
395' per NM	494	658	988	1317	1646	1975
468' per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000'**

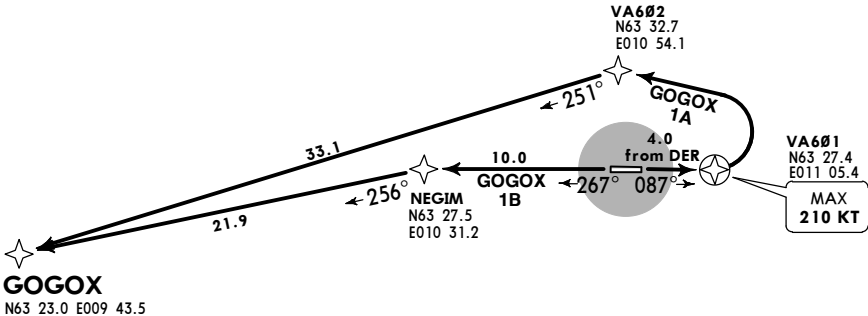
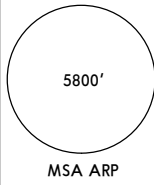
SID	RWY	ROUTING
EVNEN 1A	09	On 087° track to VA601, to PISUB, to EVNEN.
EVNEN 1B	27	On 267° track to NEGIM, to VA801, to VA804, to EVNEN.
EVNEN 1W		Climb on 267° track to 2500', turn LEFT direct to VA803, to VA804, to EVNEN.

ENVA/TRD
VAERNES

JEPPESEN TRONDHEIM, NORWAY
10 JUL 15 (10-3A) Eff 23 Jul RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56'	Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27). 4. Contact VAERNES Approach when airborne. 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 6. When vectored or cleared for direct routing the SID climb gradients apply.
----------------------------------	--------------------	---

GOGOX ONE ALFA (GOGOX 1A) [GOGO1A]
GOGOX ONE BRAVO (GOGOX 1B) [GOGO1B]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST

RWY 09: If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.
RWY 27: Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received 10 NM prior to GOGOX climb to cruising level stated in FPL.

In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.

LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼



These SIDs require minimum climb gradients of

GOGOX 1A
468' per NM (7.7%) to 4000'.
GOGOX 1B
304' per NM (5.0%) to 3000' to stay within controlled airspace.

Gnd speed-KT	75	100	150	200	250	300
304' per NM	380	507	760	1013	1267	1520
468' per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance **6000'**

SID	RWY	ROUTING
GOGOX 1A	09	On 087° track to VA601, turn LEFT, direct to VA602, to GOGOX.
GOGOX 1B	27	On 267° track to NEGIM, to GOGOX.

ENVA/TRD
VAERNES

JEPPesen TRONDHEIM, NORWAY
10 JUL 15 (10-3B) Eff 23 Jul RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56'	Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27). 4. Contact VAERNES Approach when airborne. 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 6. When vectored or cleared for direct routing the SID climb gradients apply.
----------------------------------	--------------------	---

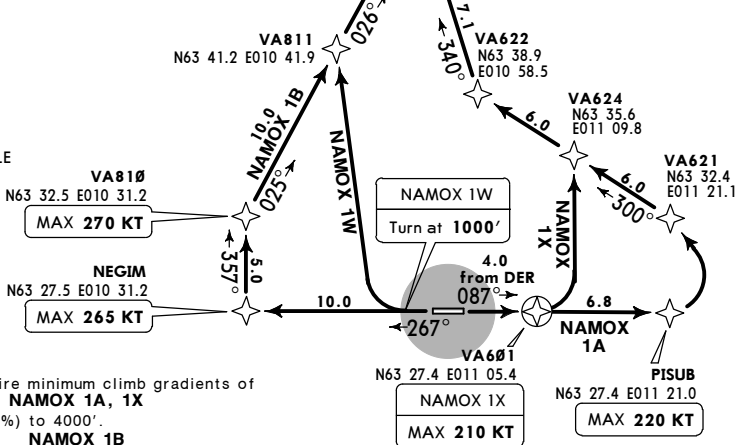
NAMOX ONE ALFA (NAMOX 1A) [NAMO1A]
NAMOX ONE BRAVO (NAMOX 1B) [NAMO1B]
NAMOX ONE WHISKEY (NAMOX 1W) [NAMO1W]
NAMOX ONE X-RAY (NAMOX 1X) [NAMO1X]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED

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

RWY 09:If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.
RWY 27:Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received 30 NM prior to NAMOX climb to cruising level stated in FPL.

In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.

LSOT ▲ SSWWOC LSOT ▲ SSWWOC LSOT ▲ SSWWOC LSOT ▲ SSWWOC LSOT



These SIDs require minimum climb gradients of
NAMOX 1A, 1X
468' per NM (7.7%) to 4000'.
NAMOX 1B
395' per NM (6.5%) to 3400' to stay within controlled airspace.
NAMOX 1W
450' per NM (7.4%) to 3900' to stay within controlled airspace.
If unable to comply inform ATC.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	988	1317	1646	1975
450' per NM	563	750	1125	1500	1875	2250
468' per NM	585	780	1170	1560	1950	2340

Initial climb clearance **6000'**

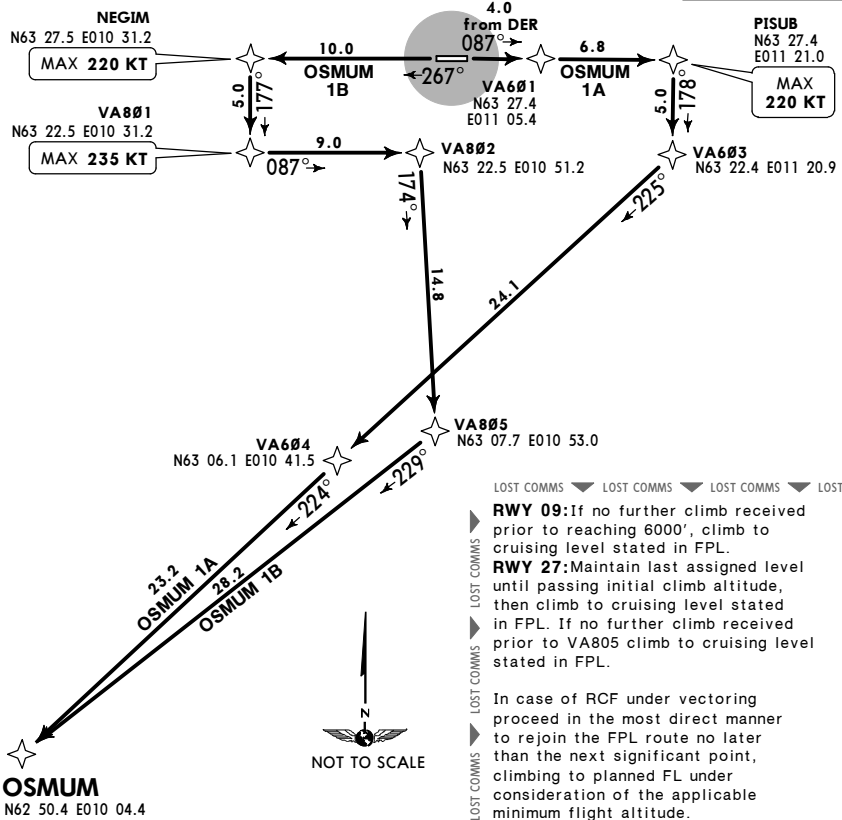
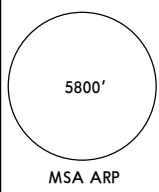
SID	RWY	ROUTING
NAMOX 1A	09	On 087° track to VA601, to PISUB, turn LEFT to VA621, to VA622, to VA623, to NAMOX.
NAMOX 1B	27	On 267° track to NEGIM, to VA810, to NAMOX.
NAMOX 1W		Climb on 267° track to 1000', turn RIGHT direct to VA811, to NAMOX.
NAMOX 1X	09	On 087° track to VA601, turn LEFT direct to VA624, to VA622, to VA623, to NAMOX.

ENVA/TRD
VAERNES

JEPPESEN TRONDHEIM, NORWAY
10 JUL 15 (10-3C) Eff 23 Jul RNAV SID

VAERNES Approach (R) 118.6	Apt Elev 56'	Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27). 4. Contact VAERNES Approach when airborne. 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 6. When vectored or cleared for direct routing the SID climb gradients apply.
----------------------------------	--------------------	---

OSMUM ONE ALFA (OSMUM 1A) [OSMU1A]
OSMUM ONE BRAVO (OSMUM 1B) [OSMU1B]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST
▶ RWY 09: If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.
▶ RWY 27: Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received prior to VA805 climb to cruising level stated in FPL.
▶ In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.
LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST
▶ 1501 ▲ SSWW03 1501 ▲ SSWW03 1501 ▲ SSWW03 1501

These SIDs require minimum climb gradients of

OSMUM 1A
468' per NM (7.7%) to 4000'.
OSMUM 1B
395' per NM (6.5%) to 3400' to stay within controlled airspace.

Gnd speed-KT	75	100	150	200	250	300
395' per NM	494	658	988	1317	1646	1975
468' per NM	585	780	1170	1560	1950	2340

If unable to comply inform ATC.

Initial climb clearance 6000'		
SID	RWY	ROUTING
OSMUM 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to OSMUM.
OSMUM 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to OSMUM.

ENVA/TRD
VAERNES

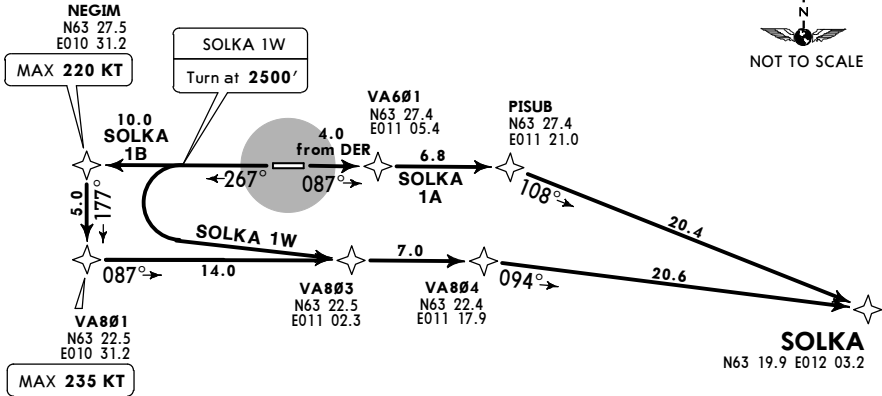
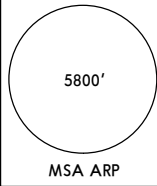
JEPPesen TRONDHEIM, NORWAY
10 JUL 15 (10-3D) Eff 23 Jul RNAV SID

VAERNES
Approach (R)
118.6

Apt
Elev
56'

- Trans level: By ATC Trans alt: 7000'
1. Class A GNSS shall not be used.
 2. RADAR service shall be available.
 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27).
 4. Contact VAERNES Approach when airborne.
 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available.
 6. When vectored or cleared for direct routing the SID climb gradients apply.

SOLKA ONE ALFA (SOLKA 1A) [SOLK1A]
SOLKA ONE BRAVO (SOLKA 1B) [SOLK1B]
SOLKA ONE WHISKEY (SOLKA 1W) [SOLK1W]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST

RWY 09: If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.

RWY 27: Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received prior to VA803 (SOLKA 1B)/10 NM prior to SOLKA (SOLKA 1W) climb to cruising level stated in FPL.

In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.

LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

These SIDs require minimum climb gradients of

SOLKA 1A
468' per NM (7.7%) to 4000'.

SOLKA 1B
395' per NM (6.5%) to 3400' to stay within controlled airspace.

SOLKA 1W
304' per NM (5.0%) to 3100'.

Gnd speed-KT	75	100	150	200	250	300
304' per NM	380	507	760	1013	1267	1520
395' per NM	494	658	988	1317	1646	1975
468' per NM	585	780	1170	1560	1950	2340

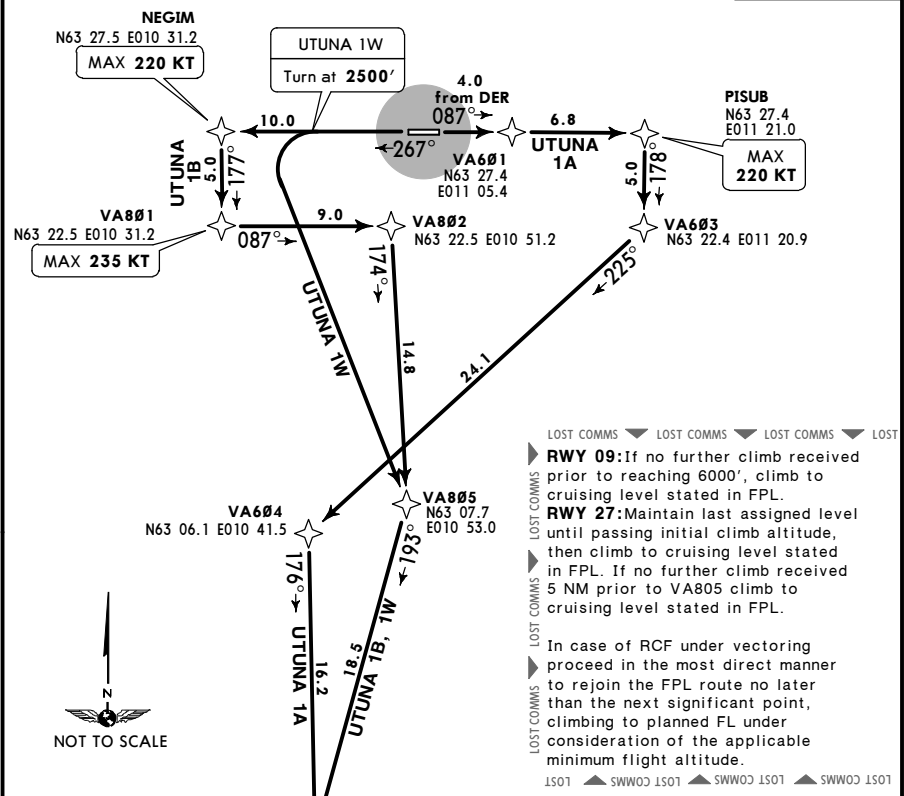
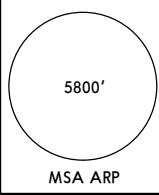
If unable to comply inform ATC.

Initial climb clearance **6000'**

SID	RWY	ROUTING
SOLKA 1A	09	On 087° track to VA601, to PISUB, to SOLKA.
SOLKA 1B	27	On 087° track to NEGIM, to VA801, to VA804, to SOLKA.
SOLKA 1W		Climb on 267° track to 2500', turn LEFT direct to VA803, to VA804, to SOLKA.

VAERNES Approach (R) 118.6	Apt Elev 56'	Trans level: By ATC Trans alt: 7000' 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Obtain ATC clearance from VAERNES Ground (RWY 09)/Tower (RWY 27). 4. Contact VAERNES Approach when airborne. 5. Non RNAV 1 ACFT: at first contact with VAERNES Ground (RWY 09)/Tower (RWY 27) state 'unable RNAV 1 due (reason)'. Omnidirectional departure available. 6. When vectored or cleared for direct routing the SID climb gradients apply.
----------------------------------	--------------------	---

UTUNA ONE ALFA (UTUNA 1A) [UTUN1A]
UTUNA ONE BRAVO (UTUNA 1B) [UTUN1B]
UTUNA ONE WHISKEY (UTUNA 1W) [UTUN1W]
RWYS 09, 27 RNAV DEPARTURES
RNAV 1 (GNSS)
GNSS REQUIRED



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST

► **RWY 09:**If no further climb received prior to reaching 6000', climb to cruising level stated in FPL.

► **RWY 27:**Maintain last assigned level until passing initial climb altitude, then climb to cruising level stated in FPL. If no further climb received 5 NM prior to VA805 climb to cruising level stated in FPL.

► In case of RCF under vectoring proceed in the most direct manner to rejoin the FPL route no later than the next significant point, climbing to planned FL under consideration of the applicable minimum flight altitude.

LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT ▲ SWWOC LSOT

These SIDs require minimum climb gradients of

UTUNA 1A
468' per NM (7.7%) to 4000'.

UTUNA 1B
395' per NM (6.5%) to 3400' to stay within controlled airspace.

UTUNA 1W
304' per NM (5.0%) to 3100'.
If unable to comply inform ATC.

Gnd speed-KT	75	100	150	200	250	300
304' per NM	380	507	760	1013	1267	1520
395' per NM	494	658	988	1317	1646	1975
468' per NM	585	780	1170	1560	1950	2340

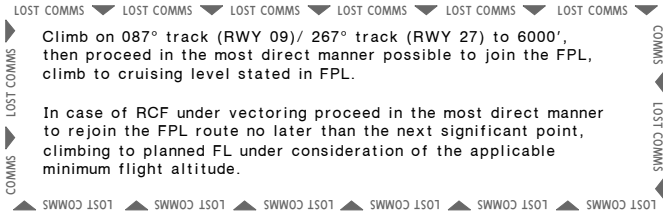
Initial climb clearance 6000'		
SID	RWY	ROUTING
UTUNA 1A	09	On 087° track to VA601, to PISUB, turn RIGHT to VA603, to VA604, to UTUNA.
UTUNA 1B	27	On 267° track to NEGIM, to VA801, to VA802, to VA805, to UTUNA.
UTUNA 1W		Climb on 267° track to 2500', turn LEFT direct to VA805, to UTUNA.

ENVA/TRD
VAERNES

JEPPESEN TRONDHEIM, NORWAY
31 OCT 14 10-3F Eff 13 Nov SID

VAERNES Approach (R) 118.6	Apt Elev 56'	Trans level: By ATC Trans alt: 7000' 1. Contact VAERNES Approach when airborne. 2. RADAR service shall be available. 3. When vectored or cleared for direct routing the omnidirectional SID climb gradients apply.
----------------------------------	-----------------	--

OMNIDIRECTIONAL ONE ALFA (OMNI 1A)
NOT TO BE USED WHEN EN(D)-354 IS ACTIVE
OMNIDIRECTIONAL ONE BRAVO (OMNI 1B)
RWYS 09, 27 OMNIDIRECTIONAL DEPARTURES



These SIDs require minimum climb gradients of

- OMNI 1A
510' per NM (8.4%) to 4000'.
- OMNI 1B
304' per NM (5.0%) to 3000'.

Gnd speed-KT	75	100	150	200	250	300
304' per NM	380	507	760	1013	1267	1520
510' per NM	638	850	1275	1700	2125	2550

If unable to comply inform ATC.

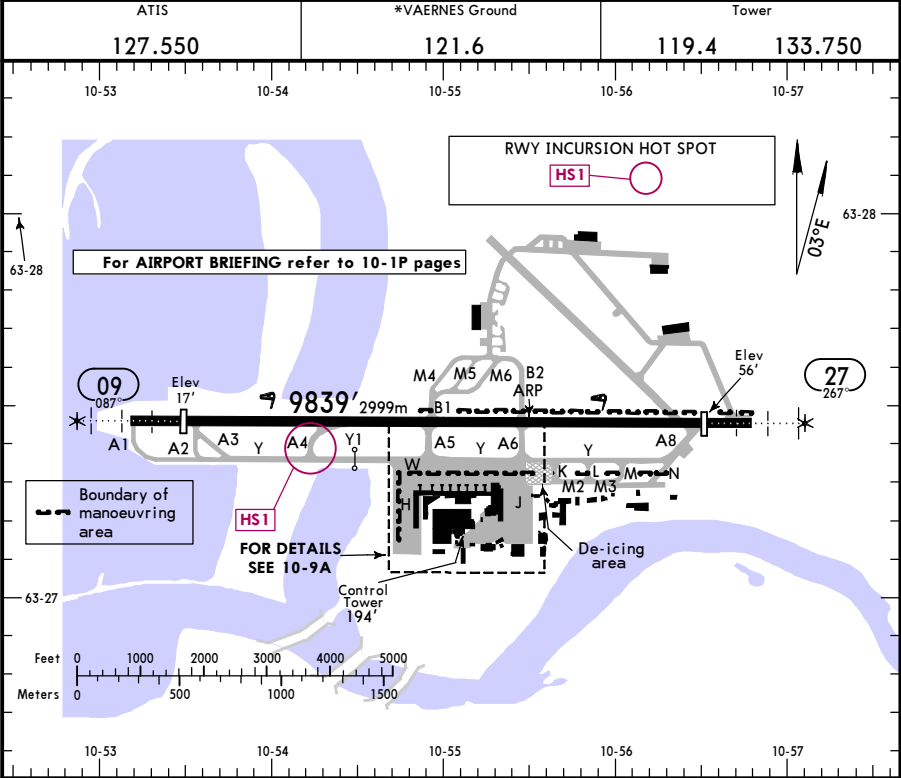
Initial climb clearance 6000'		
SID	RWY	ROUTING
OMNI 1A	09	Climb on 087° track to 6000'. Turn may be initiated by ATC after passing 4000'.
OMNI 1B	27	Climb on 267° track to 6000'. Turn may be initiated by ATC after passing 3000'.

ENVA/TRD

Apt Elev **56'**
N63 27.5 E010 55.5

JEPPesen
15 MAY 15 **(10-9)** Eff 28 May

TRONDHEIM, NORWAY
VAERNES



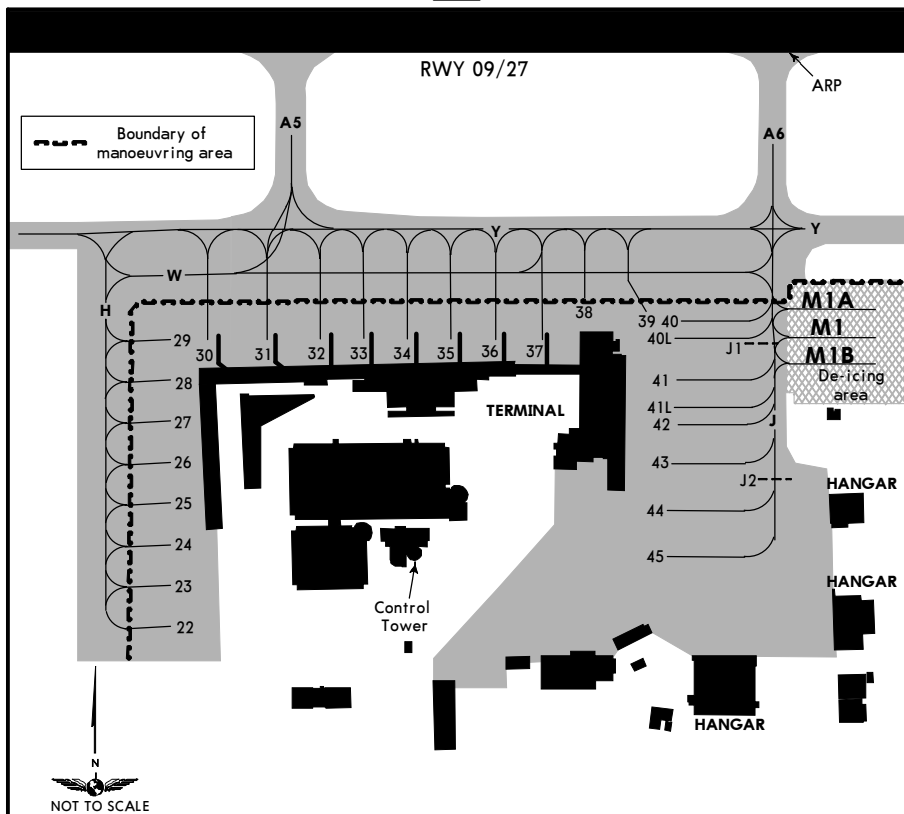
ADDITIONAL RUNWAY INFORMATION							
RWY				USABLE LENGTHS		TAKE-OFF	WIDTH
				Threshold	Glide Slope		
09	1	HIRL (60m)	CL (15m) HIALS PAPI (3.0°)	8025' 2446m	7053' 2150m	3	148' 45m
27		HIRL (60m)	CL (15m) HIALS SFL CGL PAPI (3.4°) 2	8100' 2469m	6817' 2078m		

- 1 Rwy grooved.
- 2 Obstruction penetrates PAPI clearance surface approx 1.3 NM N and 5 NM S of threshold 27.
- 3 TAKE OFF RUN AVAILABLE
- RWY 09:**
From rwy head 8855' (2699m)
twy A2/A3 int 7874' (2400m)
twy A4 int 5922' (1805m)
twy A5 int 4190' (1277m)
twy B1 int 4124' (1257m)
twy A6/B2 int 2710' (826m)

RWY 27:
From rwy head 8855' (2699m)
twy A8 int 8100' (2469m)
twy A6/B2 int 5240' (1597m)
twy B1 int 3871' (1180m)
twy A5 int 3806' (1160m)
- When an aircraft is cleared to line up on the rwy from position A8, the pilot-in-command shall inform ATC if full runway length will be used for take-off.

HOT SPOT
(For information only, not to be construed as ATC instructions.)
HS1 Angled twy, difficult to see traffic on final rwy 09.

Standard		TAKE-OFF	
A B C D	RCLM (DAY only) or RL	NIL (DAY only)	
	400m	500m	



INS COORDINATES

STAND No.	COORDINATES	ELEV	STAND No.	COORDINATES	ELEV
22	N63 27.1 E010 54.8	35	41 thru 42	N63 27.3 E010 55.3	35
23 thru 27	N63 27.2 E010 54.8	35	43 thru 45	N63 27.2 E010 55.3	36
28 thru 30	N63 27.3 E010 54.8	35			
31, 32	N63 27.3 E010 54.9	34			
33, 34	N63 27.3 E010 55.0	34			
35, 36	N63 27.3 E010 55.1	34			
37	N63 27.3 E010 55.2	34			
38	N63 27.3 E010 55.2	33			
39	N63 27.3 E010 55.3	35			
40, 40L	N63 27.3 E010 55.3	35			

ENVA/TRD

JAA COPTER MINIMUMS
TRONDHEIM, NORWAY
VAERNES

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
09	ILS ❶	217' (200')	600m / 1000m
	ILS ❷	307' (290')	700m / 1000m
	ILS ❸	543' (526')	800m / 1000m
	ILS ❹	717' (700')	800m / 1000m
	LOC ❷	460' (443')	1000m / 1000m
	LOC ❸	560' (543')	1000m / 1000m
	LOC ❹	720' (703')	1000m / 1000m
	RNAV (LNAV/VNAV) ❹	700' (683')	1000m / 1000m
	RNAV (LNAV/VNAV) ❶	830' (813')	1000m / 1000m
	RNAV (LNAV) ❸	720' (703')	1000m / 1000m
	RNAV (LNAV) ❷	900' (883')	1000m / 1000m
	RNAV (LNAV) ❶	1150' (1133')	1000m / 1000m
27	ILS	278' (222')	650m / 1000m
	LOC	700' (644')	1000m / 1000m
	RNAV (LNAV/VNAV)	900' (844')	1000m / 1000m
	RNAV (LNAV)	960' (904')	1000m / 1000m

- ❶ Missed apch climb gradient mim 5.0%
- ❷ Missed apch climb gradient mim 4.0%
- ❸ Missed apch climb gradient mim 3.0%
- ❹ Missed apch climb gradient mim 2.5%
- ❺ Missed apch climb gradient mim 3.3%
- ❻ Missed apch climb gradient mim 4.5%
- ❼ Missed apch climb gradient mim 3.5%

CIRCLE-TO-LAND ❸	MDA(H)	VIS
	1240' (1184')	1000m

❸ Not authorized North of airport.

TAKE-OFF RWY 09, 27				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
400m			400m ❹	800m

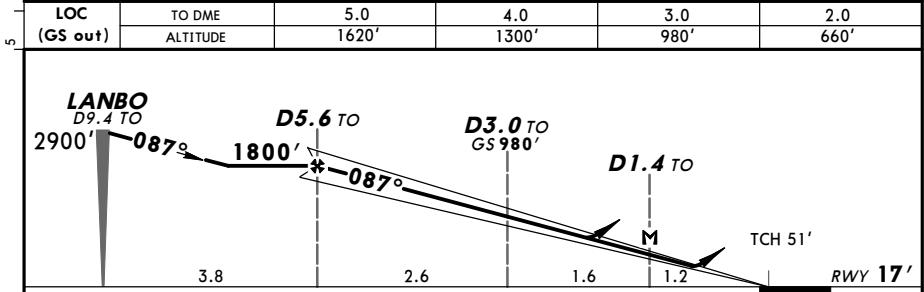
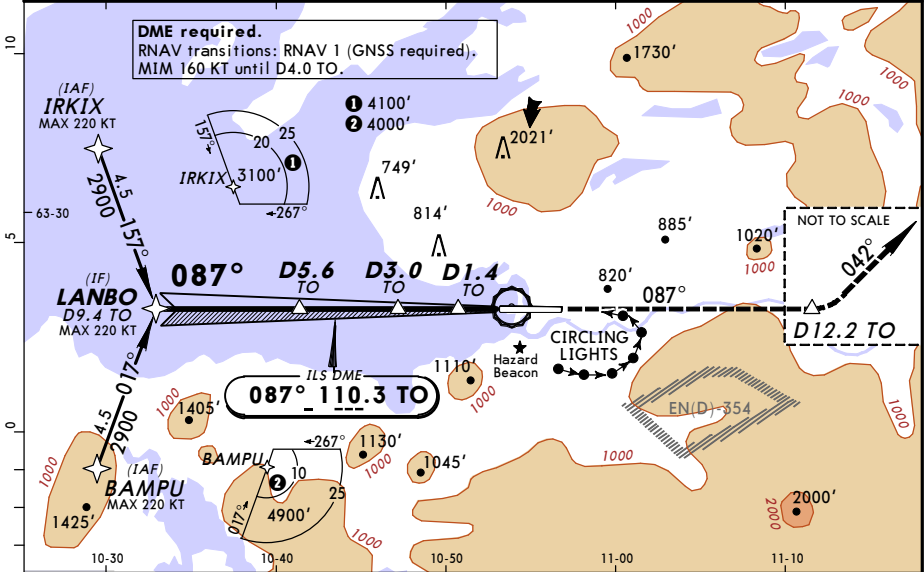
❹ Or rejected take-off distance whichever is the greater.

ENVA/TRD
VAERNES

JEPPesen
31 OCT 14 **(11-1)** Eff 13 Nov

TRONDHEIM, NORWAY
ILS or LOC Rwy 09

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
LOC TO 110.3	Final Apch Crs 087°	GS D3.0 TO 980' (963')	ILS DA(H) Refer to Minimums	Apt Elev 56' RWY 17'
MISSED APCH: Climb on 087° to 4000'. Expect vectoring. If below 3200' at D12.2 TO, turn LEFT and continue climb on 042°. MISSED APCH WITH LOST COMM: SQUAWK A7600. At D12.2 TO turn LEFT direct to IRKIX for new apch. Climb to 4100'.				5800' MSA ARP
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



Gnd speed-Kts	70	90	100	120	140	160			
ILS GS or LOC Descent Angle	3.04°	376	484	538	645	753	861		
MAP at D1.4 TO									

Standard						STRAIGHT-IN LANDING I		CIRCLE-TO-LAND	
						Missed apch climb gradient mim 5.0%		Not authorized North of airport	
						A: 217' (200°) C: 234' (217°)			
						B: 226' (209°) D: 244' (227°)			
						FULL/Limited		ALS out	
						A		Max Kts	
						B		100	
						C		135	
						D		180	
								205	

ENVA/TRD



 31 OCT 14 **(11-1A)** **Eff 13 Nov**

 TRONDHEIM, NORWAY
 VAERNES

ILS & LOC RWY 09 MINIMUMS

BASED ON:

MISSED APCH CLIMB GRADIENT MIM 4.0%

ILS		LOC (GS out)	
DA(H) A: 307' (290') C: 327' (310')		DA(H) 460' (443')	
B: 319' (302') D: 337' (320')			
FULL/Limited	ALS out	ALS out	
A RVR 900m	RVR 1400m	RVR 1500m	
B			
C RVR 1000m		RVR 1700m	CMV 2100m
D			

MISSED APCH CLIMB GRADIENT MIM 3.0%

ILS		LOC (GS out)	
DA(H) A: 543' (526') C: 564' (547')		DA(H) A: 560' (543') C: 610' (593')	
B: 556' (539') D: 574' (557')		B: 590' (573') D: 640' (623')	
FULL/Limited	ALS out	ALS out	
RVR 1500m		RVR 1500m	
C CMV 2100m	CMV 2400m	CMV 2300m	CMV 2400m
D		CMV 2400m	

MISSED APCH CLIMB GRADIENT MIM 2.5%

ILS		LOC (GS out)	
DA(H) A: 717' (700') C: 737' (720')		DA(H) A: 720' (703') C: 770' (753')	
B: 729' (712') D: 748' (731')		B: 740' (723') D: 790' (773')	
FULL/Limited	ALS out	ALS out	
RVR 1500m		RVR 1500m	
CMV 2400m		CMV 2400m	
D			

5.5.

2

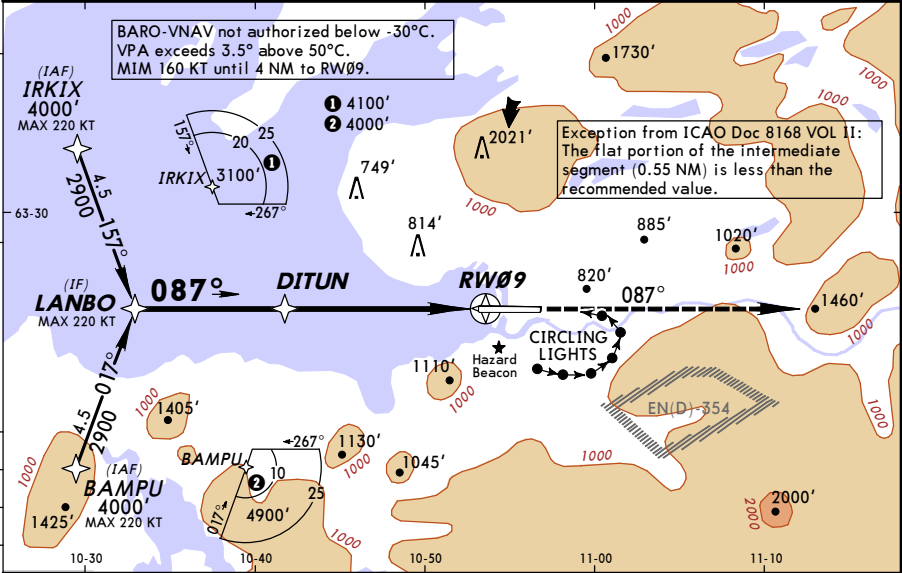
2

ENVA/TRD
VAERNES

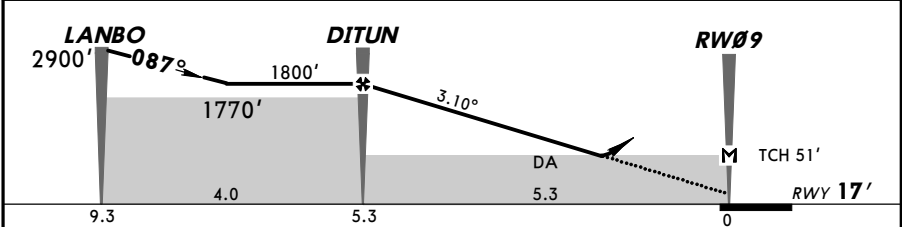
JEPPesen
31 OCT 14 **(12-1)** Eff 13 Nov

TRONDHEIM, NORWAY
RNAV (GNSS) Rwy 09

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
RNAV	Final Apch Crs 087°	Procedure Alt DITUN 1800' (1783')	LNAV/VNAV DA(H) Refer to Minimums Apt Elev 56' RWY 17'	TAA 25 NM IAF
MISSED APCH: Climb STRAIGHT AHEAD on 087° to 3300'. Expect vectoring. MISSED APCH with LOST COMM: SQUAWK A7600. At VA605 turn LEFT direct to IRKIX for new apch. Climb to 4100'.				
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: By ATC	Trans alt: 7000'	



DIST to RW09	5.0	4.0	3.0	2.0
ALTITUDE	1720'	1390'	1060'	730'



Gnd speed-Kts	70	90	100	120	140	160	HIALS	Refer to Missed Apch above
Descent Angle	3.10°	384	494	548	658	768	878	
MAP at RW09								

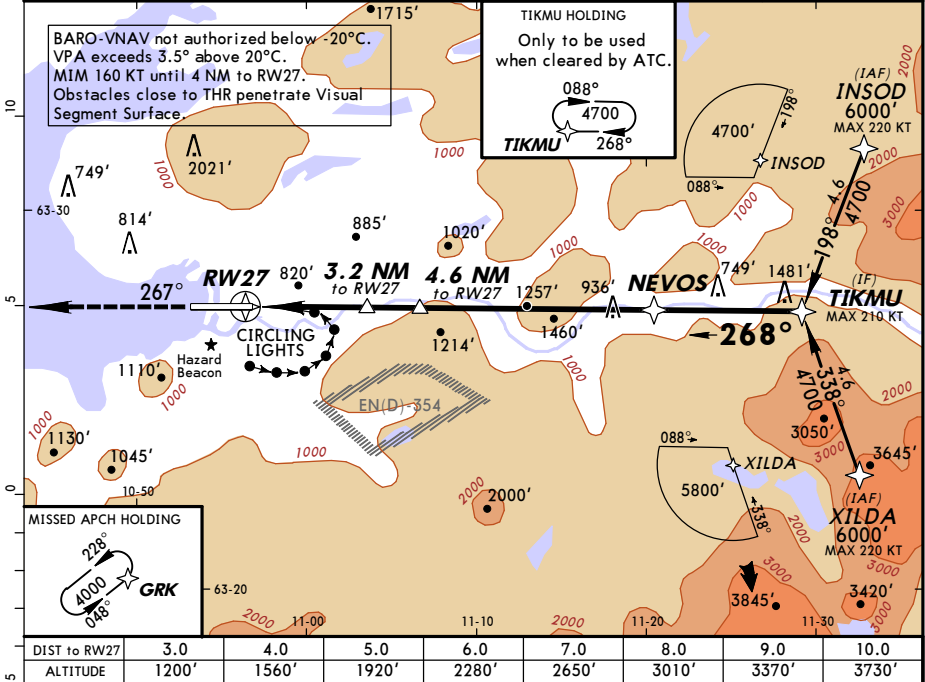
Standard		STRAIGHT-IN LANDING					CIRCLE-TO-LAND	
LNAV/VNAV		LNAV					Not authorized North of airport	
Missed apch climb grad mim 3.3%		Missed apch climb gradient mim 4.5%						
2.5%		3.5%						
2.5%		2.5%						
DA(H)		DA(H)	DA(H)	DA(H)	DA(H)	DA(H)		
A: 830' (813')		DA(H)	A: 900' (883')	A: 1150' (1133')				
B: 840' (823')		AB: 720' (703')	B: 930' (913')	B: 1170' (1153')				
C: 860' (843')		C: 740' (723')	C: 960' (943')	C: 1190' (1173')				
D: 880' (863')		D: 770' (753')	D: 990' (973')	D: 1210' (1193')				
ALS out		ALS out	ALS out	ALS out	ALS out	ALS out	Max Kts	MDA(H) VTS
A	RVR 1500m	RVR 1500m	RVR 1500m	RVR 1500m	RVR 1500m	100	1240' (1184')	1500m
B						135	1430' (1374')	1600m
C	CMV 2400m	CMV 2400m	CMV 2400m	CMV 2400m	CMV 2400m	180	2140' (2084')	2400m
D						205	2140' (2084')	3600m

ENVA/TRD
VAERNES

JEPPesen
31 OCT 14 **(12-2)** Eff 13 Nov

TRONDHEIM, NORWAY
RNAV (GNSS) Rwy 27

ATIS	VAERNES Approach (R)	*VAERNES Director (APP)	VAERNES Tower	*Ground
127.550	118.6	119.150	119.4 133.750	121.6
RNAV	Final Apch Crs 268°	Procedure Alt NEVOS 4000' (3944')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 56' RWY 56'
MISSED APCH: Climb on 267° to 4000', then turn LEFT direct to GRK. Enter GRK holding, climbing to 4000'.				TAA 25 NM IAF
Alt Set: hPa	Rwy Elev: 2 hPa	Trans level: By ATC	Trans alt: 7000'	

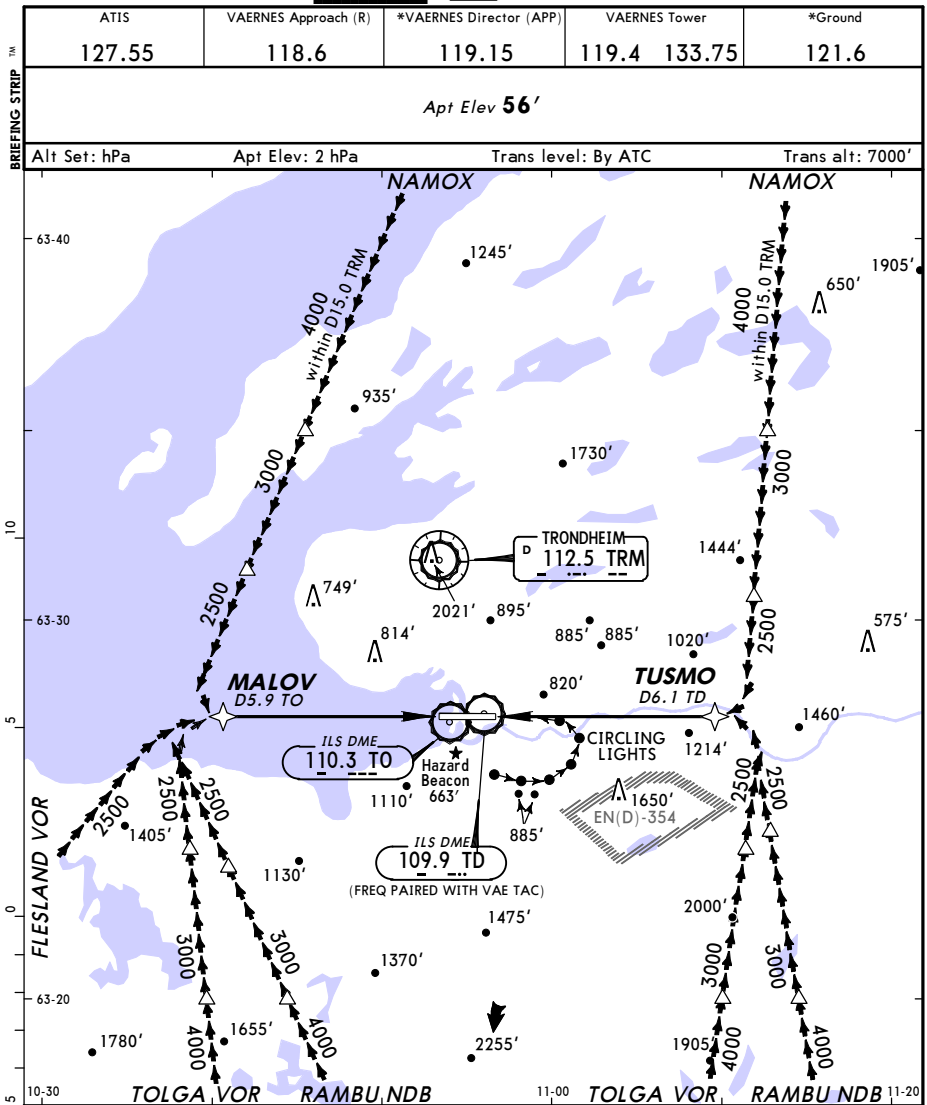


DIST to RW27		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE		1200'	1560'	1920'	2280'	2650'	3010'	3370'	3730'
RWY 56'		NEVOS 4000'							
TCH 63'		TIKMU 4700'							
MAP at RW27		STRAIGHT-IN LANDING							
Standard		LNAV/VNAV				LNAV			
		C: 910' (854')				960' (904')			
		AB: 900' (844') D: 920' (864')							
		ALS out				ALS out			
		RVR 1500m				RVR 1500m			
		CMV 2400m				CMV 2400m			
						CIRCLE-TO-LAND			
						Not authorized North of airport			
						Max Kts			
						100 1240' (1184') 1500m			
						135 1430' (1374') 1600m			
						180 2140' (2084') 2400m			
						205 2140' (2084') 3600m			

ENVA/TRD
VAERNES

JEPPESSEN
7 DEC 12
Eff 13 Dec (19-10)

TRONDHEIM, NORWAY
VISUAL APPROACH CHART



VISUAL APPROACH PROCEDURES

In order to reduce noise disturbances and to avoid VFR traffic, the following procedures apply when making visual approaches to RWY 09 or RWY 27:

Unless otherwise authorized or directed by ATC, an ACFT having been cleared for a visual approach shall:

- Execute the approach so as to be established on final approach track outside:
RWY 09: MALOV/D5.9 TO
RWY 27: TUSMO/D6.1 TD
- Maintain minimum 2500' until starting turn to final, and establish a final approach descent not below ILS glideslope/ PAPI on slope signal.



Chart changes since cycle 12-2016

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
-----	-----------------	-------	----------	----------

TRONDHEIM, (VAERNES - ENVA)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport ENVA