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JEPPESEN
JeppView for Windows

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Terminal Charts For ENGM
Revision Letter For Cycle 13-2016
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Notebook

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General Information

Location: OSLO NOR
ICAO/IATA: ENGM / OSL
Lat/Long: N60° 12.17', E011° 05.03'
Elevation: 681 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, Jet 4
Customs: Yes
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: Yes
Traffic Pattern Altitude: 1709 ft (1028 ft AGL)

Sunrise: 0149 Z
Sunset: 2045 Z

Runway Information

Runway: 01L
Length x Width: 11811 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 655 ft
Lighting: Edge, ALS, Centerline

Runway: 01R
Length x Width: 9678 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 670 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 19L
Length x Width: 9678 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 681 ft
Lighting: Edge, ALS, Centerline

Runway: 19R
Length x Width: 11811 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 675 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

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ATIS: 127.150 Departure Service
ATIS: 126.125 Arrival Service
Gardermoen Tower: 118.700
Gardermoen Tower: 123.325
Gardermoen Tower: 25.780 Military
Gardermoen Tower: 120.100
Gardermoen Tower: 118.300
Gardermoen Ground: 121.900
Gardermoen Ground: 121.600
Gardermoen Ground: 121.725
Gardermoen De-Icing Ramp/Taxi: 121.850
Gardermoen Clearance Delivery: 121.675
Gardermoen Clearance Delivery: 121.925
Oslo (Sector West) Approach: 120.450
Oslo (Sector East) Approach: 118.475
Oslo Final Radar: 128.900
Oslo Direct (Approach Control Radar): 119.975
Oslo Direct (Approach Control Radar): 136.400

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1. GENERAL

1.1. ATIS

D-ATIS Arrival 126.125
D-ATIS Departure 127.150

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

This regulation applies at Oslo Gardermoen APT and in the airspace within Gardermoen CTR as well as within the outer limits of the Oslo TMA from ground level up to 10000' when departing from or landing at APT.

Exceptions:

- Propeller ACFT with MTOW of 5700kg or less;
- Helicopters operated according to visual flight rules (VFR);
- Calibration flights;
- Ambulance flights and in-flight emergencies;
- The Norwegian Police Helicopter Service;
- Flights in connection with fire fighting, search and/or rescue operations;
- Missed approaches;
- Military flights.

These noise restrictions do not apply to military flights:

Departures with ACFT not complying with noise regulations of ICAO Annex 16, Vol 1.5, edition July 2008 chapter 3 are not permitted in the period 1600-0800LT. Departures with ACFT having a noise certification exceeding 88 EPNdB at departure are not permitted between 2400-0630LT.

Approach and landing with JET ACFT shall be carried out in a way that reduces noise as much as possible by using procedures for continuous descent, low power and low drag.

Visual approach is not permitted. Visual approaches are nonetheless permitted for visual step-over to a parallel runway after joining final approach, if it is considered necessary by the air traffic services. CAA Norway may, on application, authorise visual curved approaches under RNAV guidance.

1.2.2. PREFERENTIAL RWY SYSTEM

Between 2230-2400LT, the following rules apply:

- For jets and propeller ACFT with MTOW exceeding 5700kg and four engines or more, RWY 01R and RWY 19R are to be used for landing and RWY 01L and 19L for departure (segregated RWY operations).
- For other traffic, RWY 01L and 19R must be used (single RWY operation), except in cases of RWY closure.

Between 2400-0630LT RWY 01L or 19R are to be used (single RWY operation). In special situations segregated RWY operation may be used when this is required for efficient traffic regulation. When weather conditions require the use of ILS CAT II/III, RWY 01R may be used for arrivals.

1.2.3. REVERSE THRUST

Between 2230-0630LT jet engine reversal beyond idle reverse is not permitted after landing.

1.2.4. RUN-UP TESTS

All engine testing beyond idle power shall be done at the APT engine testing site. Time booking for use of the test site should be addressed to OSL Gate Allocation Office, Tel.: +47 6481 30 50.

1.2.5. AUXILIARY POWER UNIT (APU)

Between 2230-0630LT the use of APU after arrival at or before departure from a parking stand supplied with a ground power unit and air conditioning, must not exceed five minutes. This limitation does not apply when ambient air temperature at the parking stands is below 15° Celsius or above +20° Celsius.

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1. GENERAL

1.3. LOW VISIBILITY PROCEDURES

Pilots will be informed when low visibility procedures are in operation via ATIS or RTF. Pilots will be informed when low visibility procedures are cancelled via RTF.

Low visibility procedures are prompted by ATC, normally when RVR is less than 1000m or ceiling is less than 300'. Low visibility procedure will normally be in operation when RVR is less than 550m and ceiling less than 200'.

Surface movement radar is normally available to ATC.

Pilots are to delay the call "RWY vacated" until the ACFT has completely passed the end of the green/yellow colour coded TWY centerline lights.

During visibility condition when RVR is less than 400m, RWY entries/exits are available as follows:

RWY	01L	01R	19L	19R
RWY entry	A1, A2, A4, A5, C1	B1, B2	B6, B7, B8, B9	A9, C3, C1
RWY exit	A9, C1, C3	B6, B7, B8, B9	B1, B2	A5, A4, A2, A1, C3, C1
RWY cross-ing points	C3 to A7 and vice versa. C2 to A6 and vice versa. C1 to A4 and vice versa (published Hot Spot).	Not applica-ble	Not applica-ble	C3 to A7 and vice versa. C2 to A6 and vice versa. C1 to A4 and vice versa (published Hot Spot).

TWY lights on other entries/exits will be switched off.

In visibility condition 3 (RVR less than 400m) selected stopbars are operated at intermediate holding positions.

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON THE GROUND

ACFT operators shall ensure that Mode S transponders are able to operate when the ACFT is on the ground.

Pilots shall select AUTO mode and assigned Mode A code.

If AUTO mode is not available, select ON (e.g. XPDR) and assigned Mode A code:

- From the request for push-back or taxi, whichever is earlier;
- After landing, until the ACFT is parked;
- When parked, set Mode A code 2000 before selecting OFF or STBY.

Pilots of ACFT equipped with a Mode S transponder with an ACFT ident function, shall set the ACFT ident from the request for push-back or taxi, whichever is earlier.

The ACFT ident to be used shall be the ICAO-defined format as specified in item 7 of the ICAO flight plan.

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not comprised, TCAS should not be selected before receiving the clearance to line-up. It should be turned off after vacating the RWY.

ACFT not equipped with Mode S transponder shall select Mode A/C and the assigned Mode A code. If no code has been assigned, select Mode A/C and a non-discrete code according to Norway AIP ENR 1.6, section 2.1.2. letter C.

1.5. TAXI PROCEDURES

Stop bars at CAT III holding points may be in operation during all visibility conditions.

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1. GENERAL

1.6. PARKING INFORMATION

On stands 11 and 13 thru 53 SAFEGATE available.

1.7. OTHER INFORMATION

Birds.

2. ARRIVAL

2.1. CAT II/III OPERATIONS

RWYs 01R and 19R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.2. TAXI PROCEDURES

Allowances shall be made for 10 min taxiing time.

When exiting at A4, A5, A6, B3, B4, B6 or B7, exit speed must be adjusted to allow for a gradually increasing curvature. Excessive speed through the curve may incur a risk of TWY excursion under low friction conditions.

2.3. OTHER INFORMATION

2.3.1. POINT MERGE SYSTEM (PMS)

STARs are based on PMS and accommodate Basic Continuous Descent Operations. ACFT on STARs can expect clearance to the Merge Point (MP) when traffic permits, allowing for a precise sequencing whilst the ACFT maintains own lateral navigation.

When cleared direct to MP and also having received an instrument approach clearance, follow the transition from MP to final as stated in the relevant IAP.

Between 0030-0600LT the shortest distance from STAR starting point to MP may be seen as the expected track to the start of the IAP. Deviation from the track may be regarded as a delaying action.

3. DEPARTURE

3.1. NOISE ABATEMENT PROCEDURES

3.1.1. GENERAL

SIDs RWY 01R: NADP1 to be used during climb-out with jet ACFT.

3.2. DE-ICING

De-icing of ACFT may only be performed on the dedicated platforms.

On first contact report to Delivery, if the ACFT needs de-icing. ATC will forward the request to the de-icing coordinator. No call shall be made to the de-icing coordinator unless instructed by GARDERMOEN Ground when ACFT is approaching the de-icing platform.

ACFT equipped for Datalink Departure Clearance (DCL) and requiring de-icing, must enter REQ DEICE into the REMARKS/free text field, when requesting DEP clearance via DCL.

De-icing stand is assigned by the de-ice coordinator. Use full call sign when in contact with the de-icing coordinator.

De-icing is completed when a message including the ACFT callsign, details about the de-icing and the phrase "Equipment removed" is received from the de-ice coordinator via RTF. Do not move the ACFT until "all clear signal" (thumbs up) is given from ground crew and taxi instructions are received from ATC.

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3. DEPARTURE

Listening watch on last assigned ATC frequency is to be maintained during de-icing. Pilots are requested to maintain listening watch on the de-ice coordinator frequency until the ACFT is leaving the de-icing platform. Request for taxi instructions shall be forwarded to ATC. Specify RTF callsign and de-ice stand on which the ACFT is parked.

3.3. START-UP & PUSH-BACK

3.3.1. START-UP & PUSH-BACK

Request for start-up shall be made to GARDERMOEN Delivery when ACFT is ready for start-up/push-back (doors closed and tug connected) within TOBT +/- 5 MIN. Listening watch shall thereafter be maintained on GARDERMOEN Delivery.

GARDERMOEN Delivery sequences departing ACFT and will advise TSAT in case of delay.

GARDERMOEN Delivery will transfer ACFT is ready for start-up/push-back to GARDERMOEN Ground according to TSAT.

GARDERMOEN Ground will issue push-back clearance.

If ACFT is not ready for push-back/start-up within TOBT +/- 5 MIN, TOBT must be updated by the ground handling agent and ATC will set a new TSAT.

ACFT parked at the following stands will be pushed as follows:

- Stand 15, ACFT will be pushed to start-up position 2.
- Stand 39, ACFT will be pushed to start-up position 4.
- Stand 49, code A, B and C ACFT will be pushed to start-up position 10, facing East and code D and E ACFT will be pushed to start-up position 9 between TWYs L1 and L2, facing East.
- Stand 50, code D and E ACFT will be pushed to start-up position 8, facing North on TWY F.
- Stands 46R and 48, code E ACFT will be pushed to start-up position 16 facing West or start-up position 17 or 18 facing East, instructed by Ground control.
- Stand 51, ACFT will be pushed to start-up position 7, facing South.
- Stand 53, code D and E ACFT will be pushed to start-up position 8, except B757-200/300.
- Stand 87, code D and E ACFT will be pushed to start-up position 19 facing South or start-up position 20 facing North, instructed by Ground control.
- Stand 171L, ACFT will be pushed to start-up position 3.
- Stands 186 and 188, ACFT will be pushed to start-up position 7 facing South.
- Stands 201L and 203L, code D, E and F ACFT will be pushed to start-up position 12 facing North and to start-up position 13 facing South.
- Stands 205 and 206, ACFT will be pushed to start-up position 14 facing South or North, instructed by Ground control.
- Stands 207 thru 208R, ACFT will be pushed to start-up position 15 facing South or North, instructed by Ground control.

Optional push-back available after coordination with GARDERMOEN Ground:

- Stand 41, ACFT will be pushed to start-up position 4.
- Stands 171 and 172, ACFT will be pushed to start-up position 3.
- Stands 173 thru 176, ACFT will be pushed to start-up position 1.
- Stands 177 and 178, ACFT will be pushed to start-up position 2, facing East.
- Stands 181 and 182, ACFT will be pushed to start-up position 5, facing East.
- Stands 183 thru 185 and 187, ACFT will be pushed to start-up position 6, facing East.
- Stands 38, 76, 81, 89, 181 and 201, initial turn left after push-back.
- Stands 26, 178 and 204, initial turn right after push-back.

Note: Push-back from stand 2, 3, 7, 93, 95 and 96 only available after incorrect positioning of ACFT during towing/parking in coordination with ATC.

To avoid blast at stands when turning out from start-up position to TWY, as little power as possible shall be used.

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3. DEPARTURE

3.3.2. DATALINK DEPARTURE CLEARANCE (DCL)

Datalink Departure Clearance is available by SITA or ARINC.

DCL is not available for NON-P-RNAV equipped ACFT.

Departing IFR flights are urged to use DCL when asking for clearances.

DCL is available 30 MIN before TOBT until TOBT. For flights not assigned TOBT, DCL is available 30 MIN before EOBT.

Jet ACFT receiving a PROP-SID shall verify this at first call to GARDERMOEN Ground.

Pilots shall ensure that SID and RWY for departure are in accordance with received clearance.

"Revert to voice" should be expected:

a. if clearance via DCL is not accepted within 5 MIN;
b. in case of major delay;
c. in case of technical failure;
d. in case ATC, for some reason, decide to use VHF communication for clearance delivery.

When receiving "Revert to voice", clearance shall be obtained by GARDERMOEN Delivery.

A clearance received by VHF communication always overrides a clearance received by DCL.

3.3.3. ATC CLEARANCE

Departing IFR flights unable to utilize DCL shall contact GARDERMOEN Delivery to obtain ATC clearance. Calls shall be addressed to CLR East or CLR West according to stand. CLR East is operating on the responsibility area of GND East, and CLR West is operating on the responsibility area of GND West. Specify stand number at first call. ATC clearance may be requested at the earliest 30 MIN prior anticipated engine startup (TOBT). Listening watch shall be maintained on current delivery frequency, if no instruction of frequency change has been given by GARDERMOEN Delivery.

3.4. APT COLLABORATIVE DECISION MAKING

3.4.1. TARGET OFF BLOCK TIME (TOBT)

Verified by Ground handling company at the latest 30 MIN before planned TOBT, and indicates the time when the completion of all ground handling activities (except de-icing) is expected and ACFT will be ready for start-up/push-back. TOBT updates are necessary to ensure foreseeable departure times, and as means for ATC to issue the correct TSAT.

3.4.2. TARGET START-UP APPROVAL TIME (TSAT)

Set by ATC and indicates the time when clearance for start-up/push-back may be expected, to ensure correct departure sequence according to AD departure capacity. TSAT takes into account variable taxi time, de-icing (if necessary) and CTOT. TSAT is normally close to TOBT, but delays may occur when AD departure capacity is exceeded. The departure capacity is determined by MET conditions, de-icing capacity, RWY capacity and airspace capacity.

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3. DEPARTURE

3.5. OTHER INFORMATION

3.5.1. CALCULATED TAKE-OFF TIME (CTOT)

ACFT shall be ready for take-off at the RWY holding point not later than the CTOT.

ACFT must be ready for engine start on TSAT.

TSAT accounts for time for taxiing and de-icing as necessary, so the CTOT can be met.

Pilots must inform GARDERMOEN Delivery if start-up according to TSAT is not possible. Request for a new CTOT shall be made via the airline operator or the handling agent.

ACFT waiting for CTOT, with a wish to leave the parking stand, may request "Push and hold" to GARDERMOEN Delivery. "Push and hold" implies waiting at a different location at the AD, and is subject to approval from ATC based on availability.

ACFT with CTOT that implies less than one hour delay, are encouraged to perform "Push and hold", to release the ground personnel and the stand for other ACFT.

"Push and hold" is performed in one of the following ways:

- Push-back without engine start, so the engines can be started without delay upon request from GARDERMOEN Ground, when suitable to meet the CTOT or when the stand is needed for other ACFT;
- Normal push-back and taxi to a position suitable for holding closer to the RWY;
- Normal push-back and taxi with reduced number of engines and/or engine shut-down at a holding position closer to the RWY.

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ENGM/OSL
GARDERMOEN

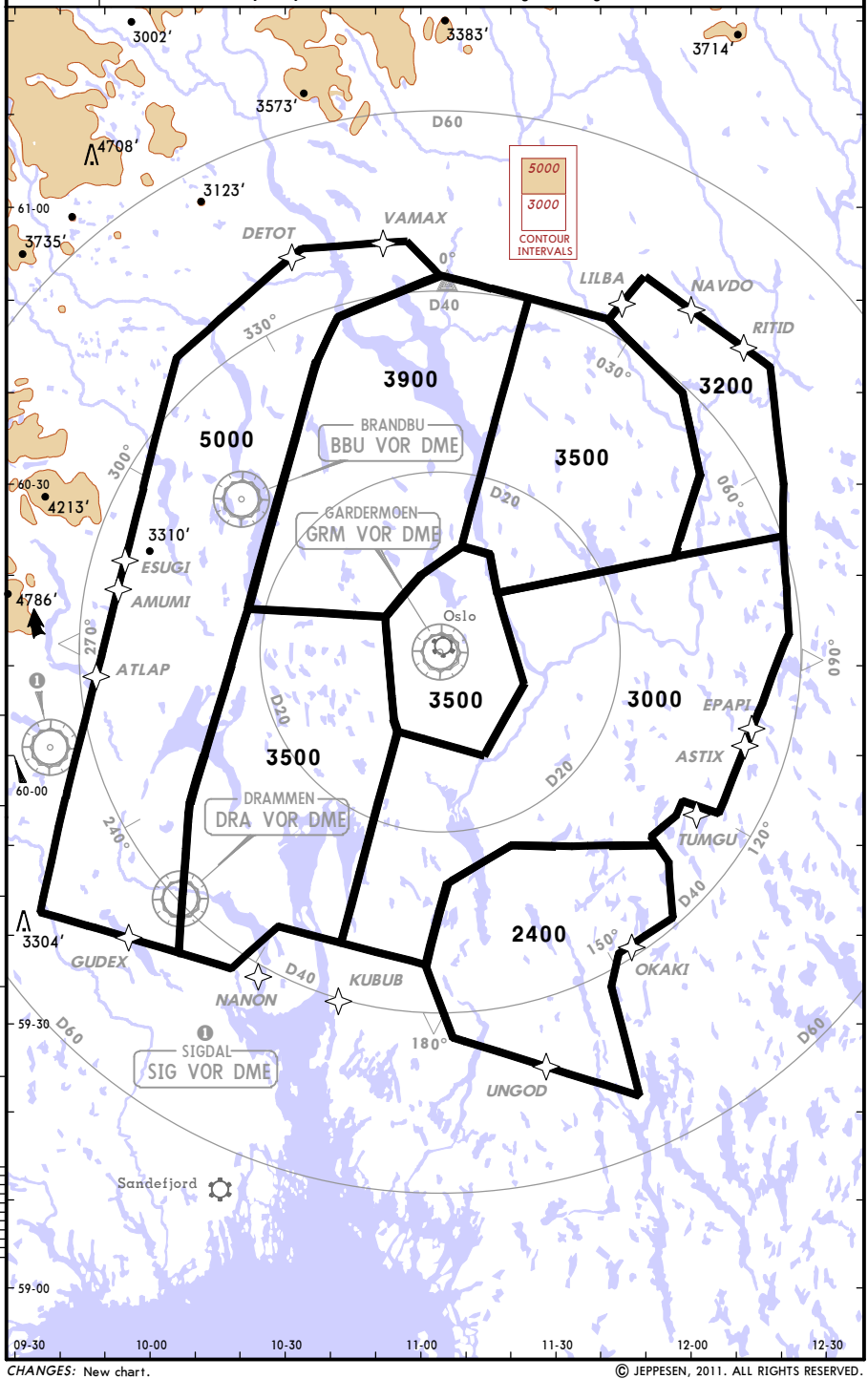
JEPPESEN

1 APR 11 (10-1R) Eff 7 Apr

OSLO, NORWAY
RADAR MINIMUM ALTITUDES

Apt Elev 681'

Alt Set: hPa Trans level: By ATC Trans alt: 7000'
1. Minimum safe altitudes are temperature correted down to 0° Celsius.
2. This chart may only be used for cross checking of assigned altitudes.



CHANGES: New chart.

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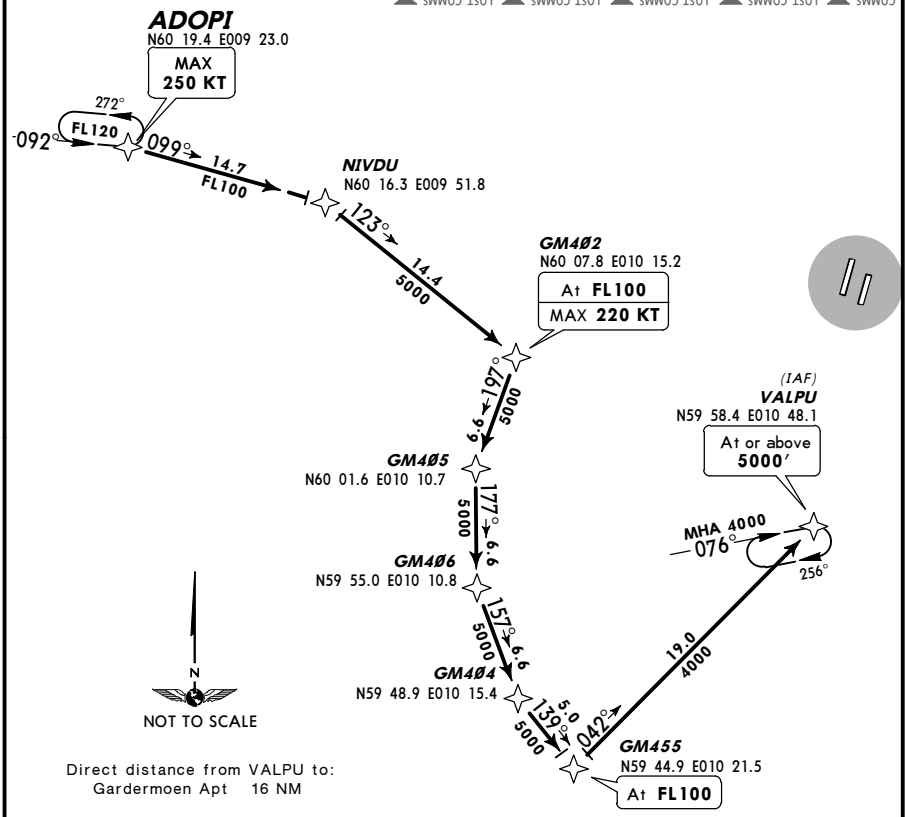
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

ADOPI THREE LIMA
(ADOPI 3L) *[ADOP3L]*
RWYS 01L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED

3900′
MSA
ARP

LOST COMMS: Follow cleared or EXPECTED STAR until IAF, then start approach to the assigned runway without delay. If no specified runway for landing has been assigned, start approach to runway 01R without delay.



Direct distance from VALPU to:
Gardermoen Apt 16 NM

Clearance limit is VALPU holding.

Merging point is VALPU.

ROUTING

ADOPI (K250-) - NIVDU - GM402 (FL100; K220-) - GM405 - GM406 - GM404 - GM455 (FL100) - VALPU (5000′+).

CHANGES: RNAV STAR ADOPI 2L renumbered 3L & revised.

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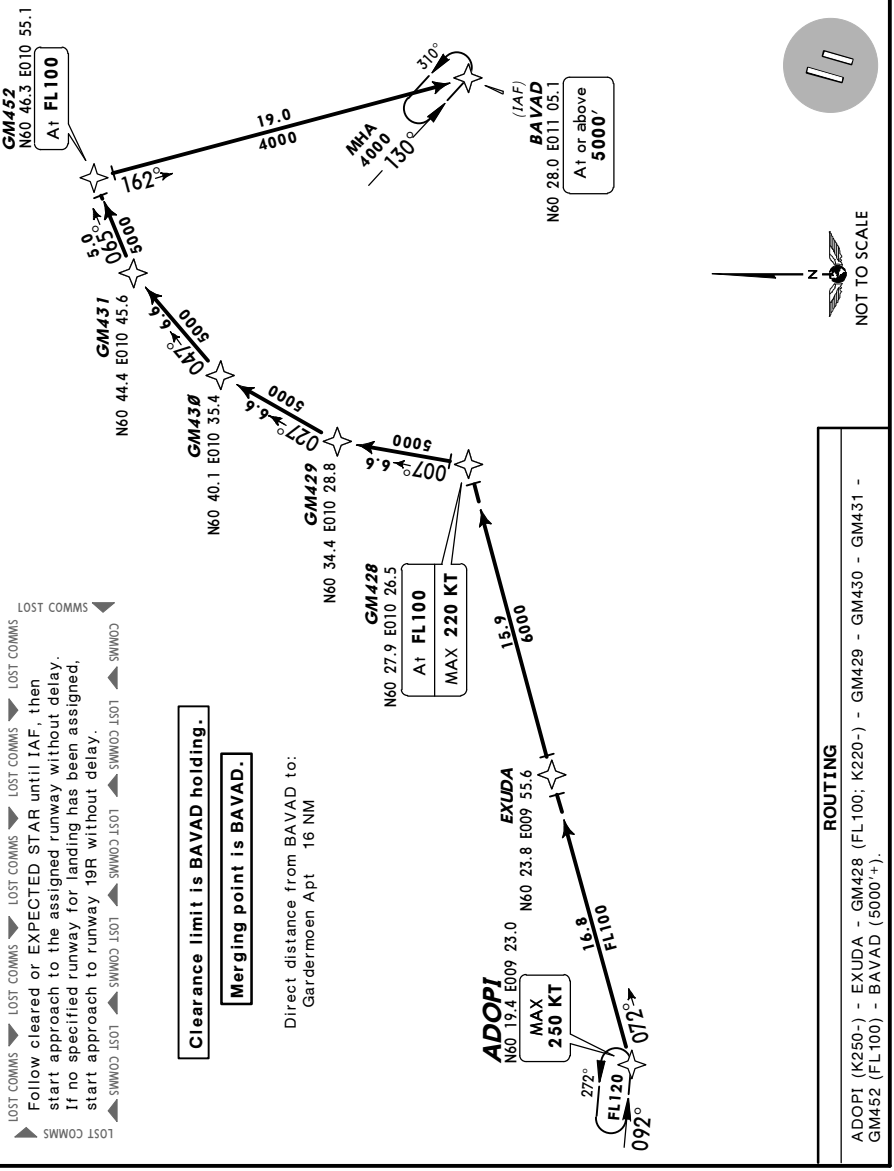
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

ADOPI THREE MIKE
(ADOPI 3M) *[ADOP3M]*
RWYS 19L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



CHANGES: RNAV STAR ADOPI 2M renumbered 3M & revised.

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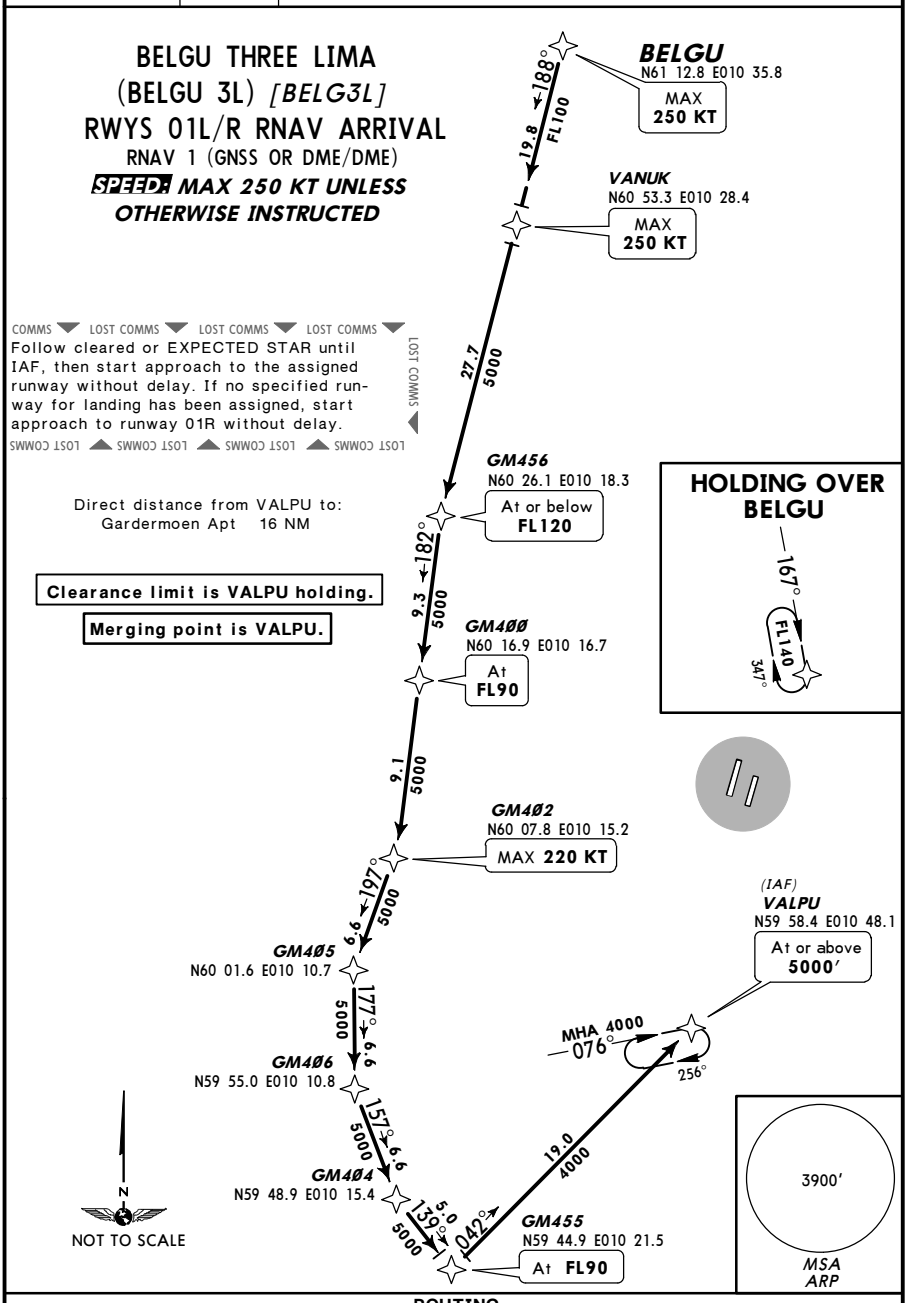
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.



ROUTING

BELGU (K250-) - VANUK (K250-) - GM456 (FL120-) - GM400 (FL90) - GM402 (K220-) - GM405 - GM406 - GM404 - GM455 (FL90) - VALPU (5000′+).

CHANGES: RNAV STAR BELGU 2L renumbered 3L & revised.

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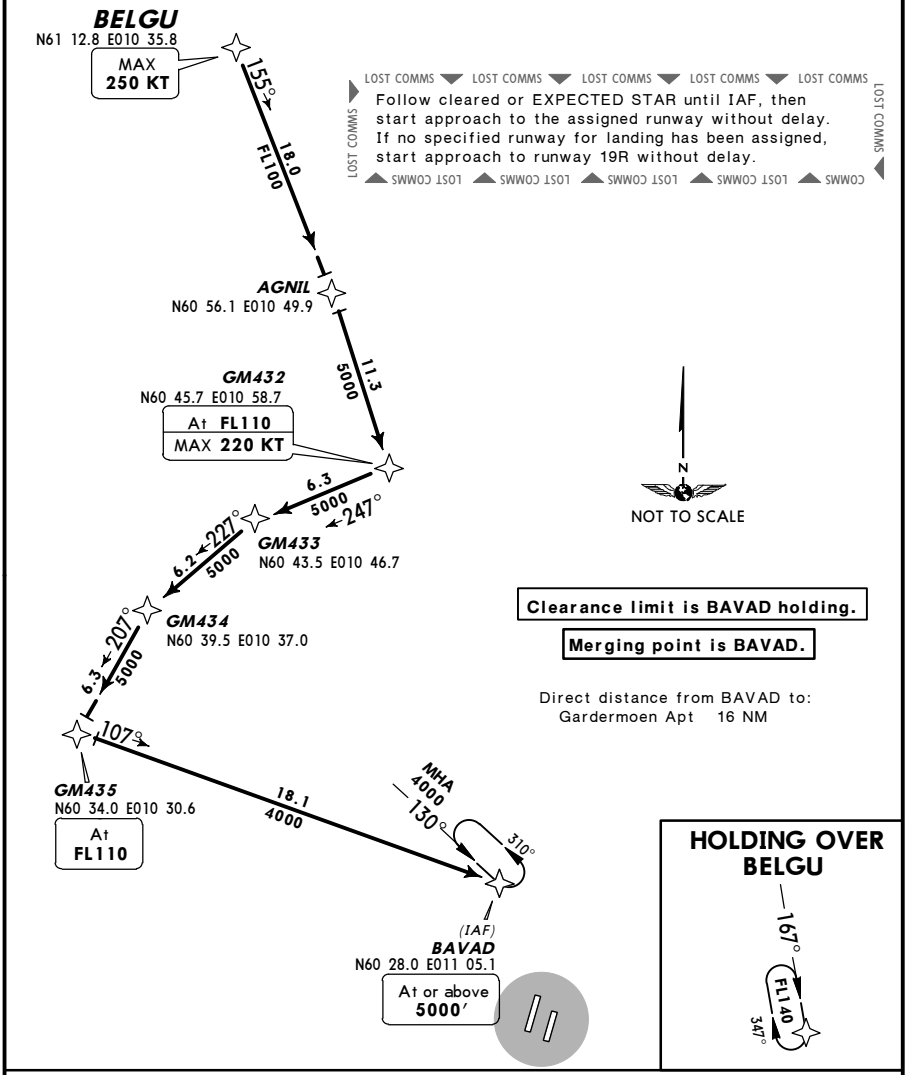
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

3900′
MSA
ARP

BELGU THREE MIKE
(BELGU 3M) *[BELG3M]*
RWYS 19L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



ROUTING

BELGU (K250-) - AGNIL - GM432 (FL110; K220-) - GM433 - GM434 - GM435 (FL110) - BAVAD (5000′+).

CHANGES: RNAV STAR BELGU 2M renumbered 3M & revised.

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126.125	681′	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 when necessary. 5. Descend as cleared by ATC.

ESEBA FOUR LIMA
(ESEBA 4L) [ESEB4L]
RWYS 01L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED

3900′
MSA
ARP

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

Follow cleared or EXPECTED STAR until IAF, then start approach to the assigned runway without delay. If no specified runway for landing has been assigned, start approach to runway 01R without delay.

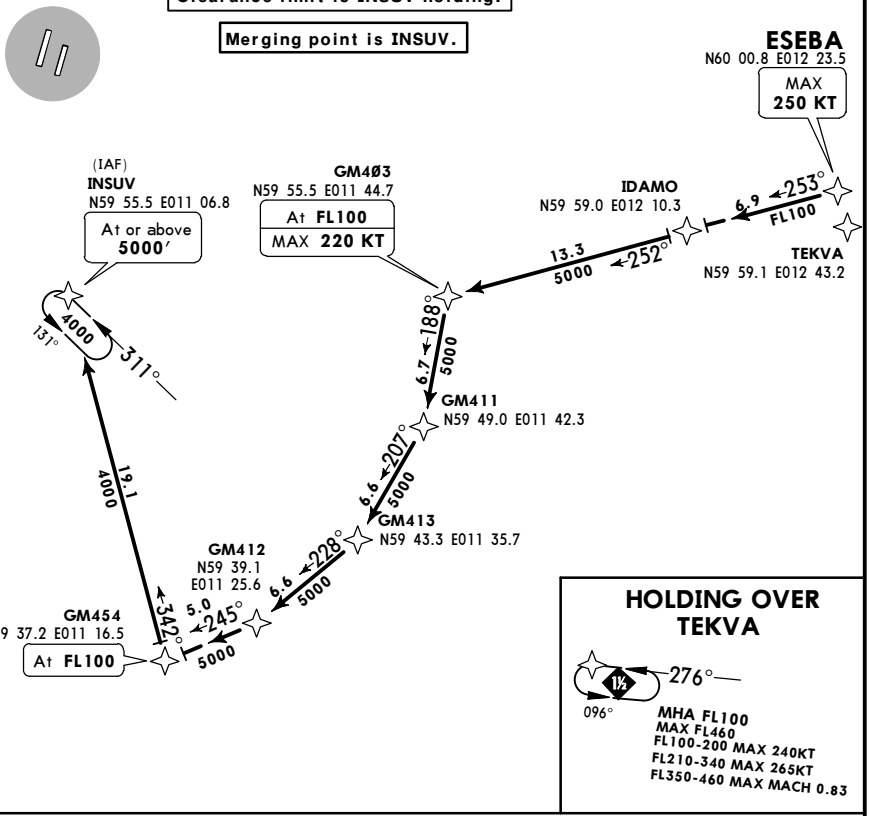
▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

Direct distance from INSUV to:
Gardermoen Apt 17 NM

N
NOT TO SCALE

Clearance limit is INSUV holding.

Merging point is INSUV.



ROUTING

ESEBA (K250-) - IDAMO - GM403 (FL100; K220-) - GM411 - GM413 - GM412 - GM454 (FL100) - INSUV (5000′+).

CHANGES: None.

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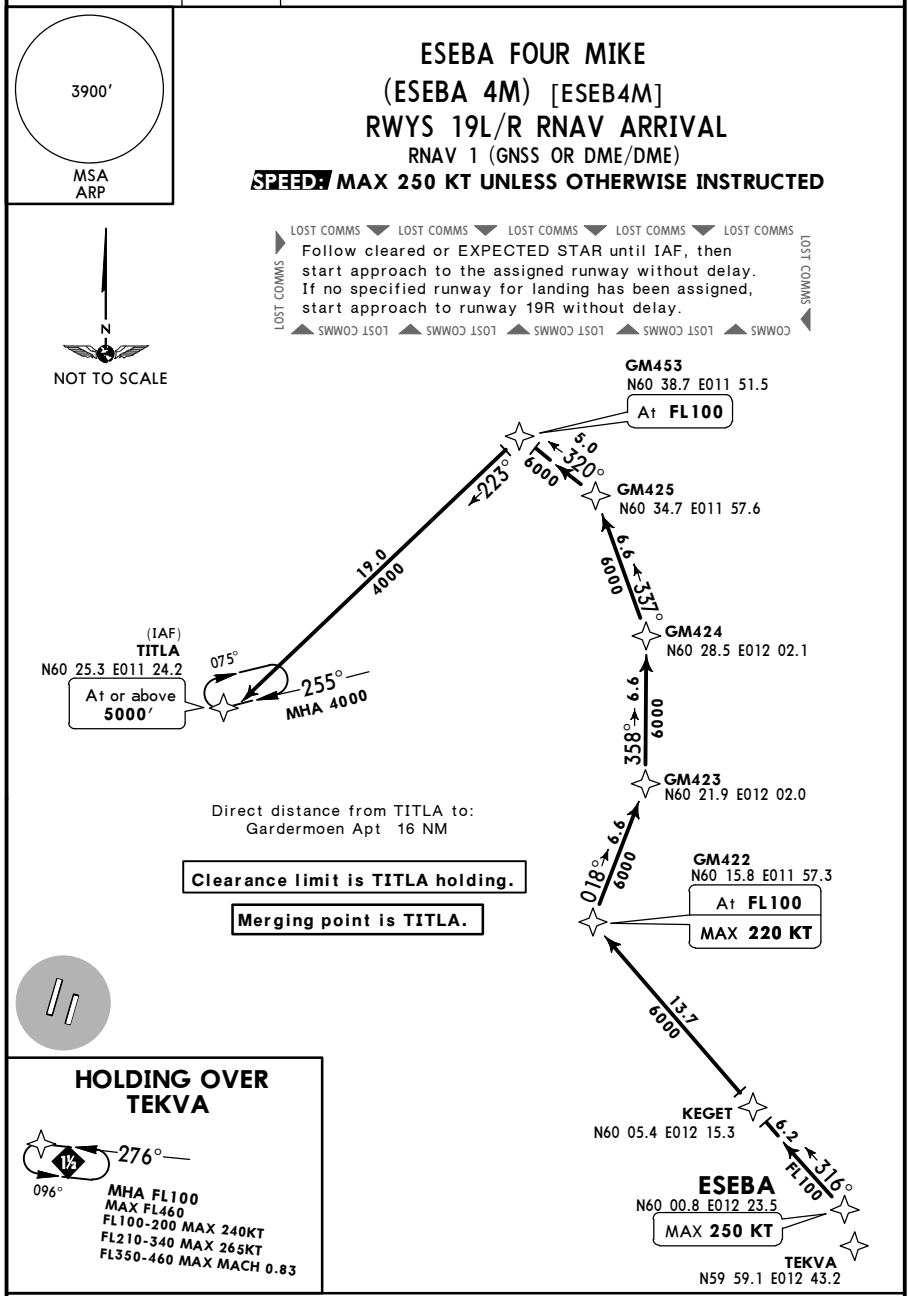
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

ESEBA FOUR MIKE
(ESEBA 4M) [ESEB4M]
RWYS 19L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



ROUTING

ESEBA (K250-) - KEGET - GM422 (FL100; K220-) - GM423 - GM424 - GM425 - GM453 (FL100) - TITLA (5000′+).

CHANGES: Reissue.

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D-ATIS	Apt Elev	
126.125	681′	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 when necessary. 5. Descend as cleared by ATC.

INREX FOUR LIMA
(INREX 4L) *[INRE4L]*
RWYS 01L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED

LOST COMMS: Follow cleared or EXPECTED STAR until IAF, then start approach to the assigned runway without delay. If no specified runway for landing has been assigned, start approach to runway 01R without delay.

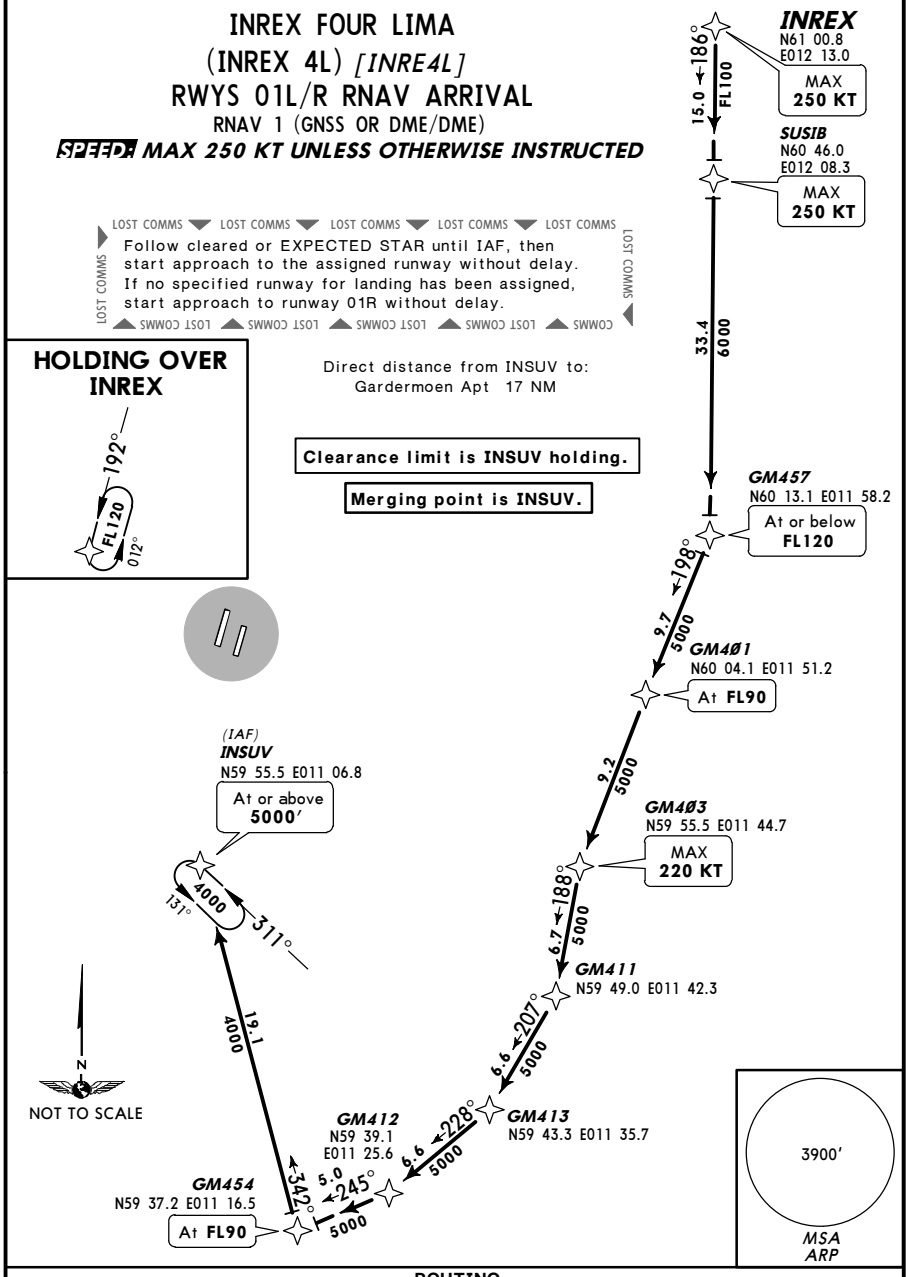
HOLDING OVER INREX

192° FL120 012°

Direct distance from INSUV to:
Gardermoen Apt 17 NM

Clearance limit is INSUV holding.

Merging point is INSUV.



ROUTING

INREX (K250-) - SUSIB (K250-) - GM457 (FL120-) - GM401 (FL90) - GM403 (K220-) - GM411 - GM413 - GM412 - GM454 (FL90) - INSUV (5000′+).

CHANGES: Reissue.

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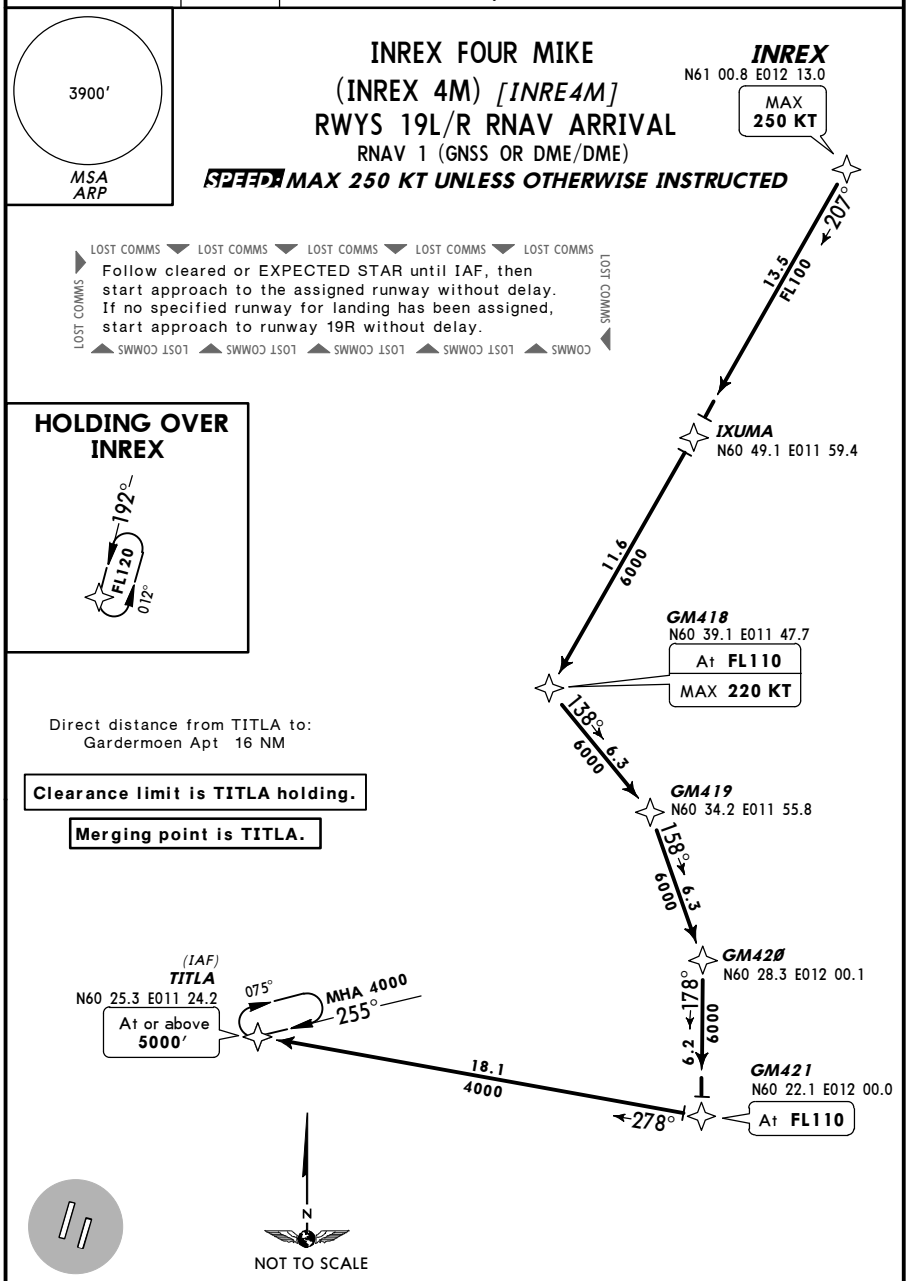
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.



ROUTING

INREX (K250-) - IXUMA - GM418 (FL110; K220-) - GM419 - GM420 - GM421 (FL110) - TITLA (5000′+).

CHANGES: None.

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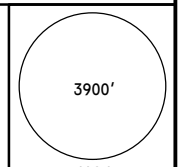
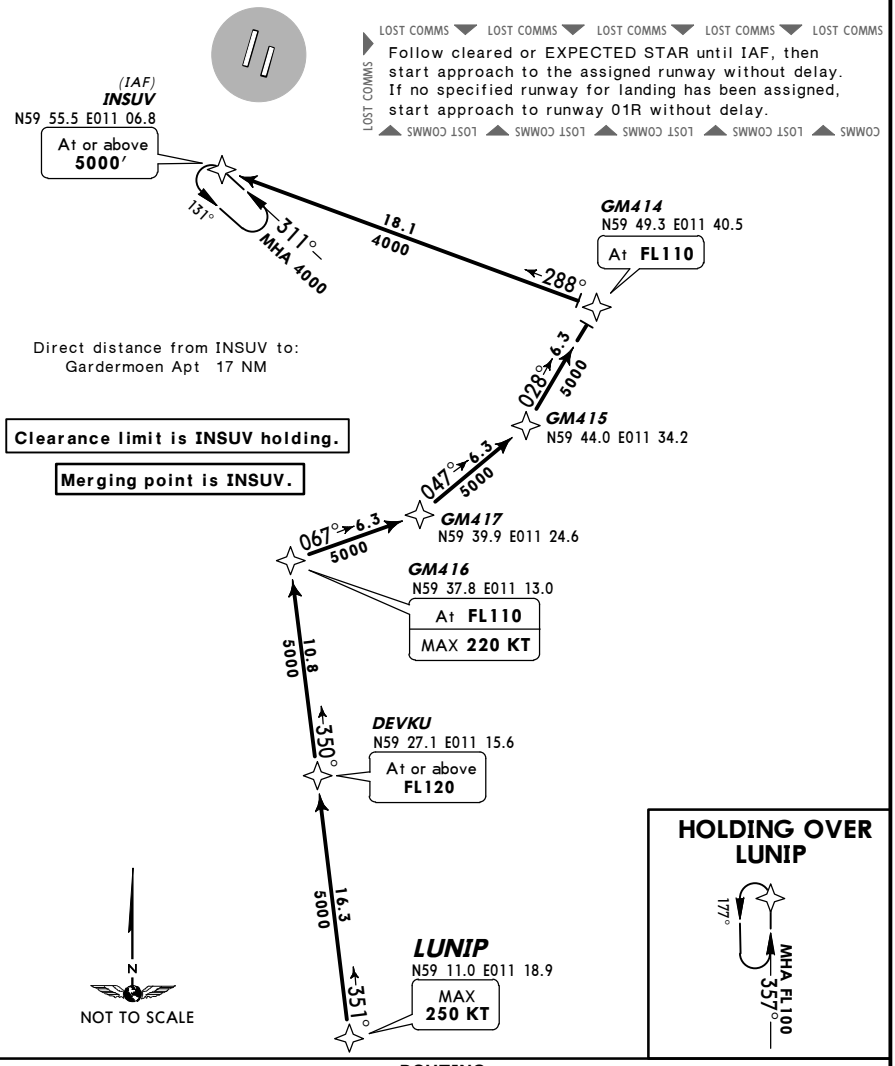
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

LUNIP FOUR LIMA
(LUNIP 4L) *[LUNI4L]*
RWYS 01L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED





Direct distance from INSUV to: Gardermoen Apt 17 NM

Clearance limit is INSUV holding.

Merging point is INSUV.

ROUTING

LUNIP (K250-) - DEVKU (FL120+) - GM416 (FL110; K220-) - GM417 - GM415 - GM414 (FL110) - INSUV (5000+).

CHANGES: RNAV STAR LUNIP 3L renumbered 4L & revised.

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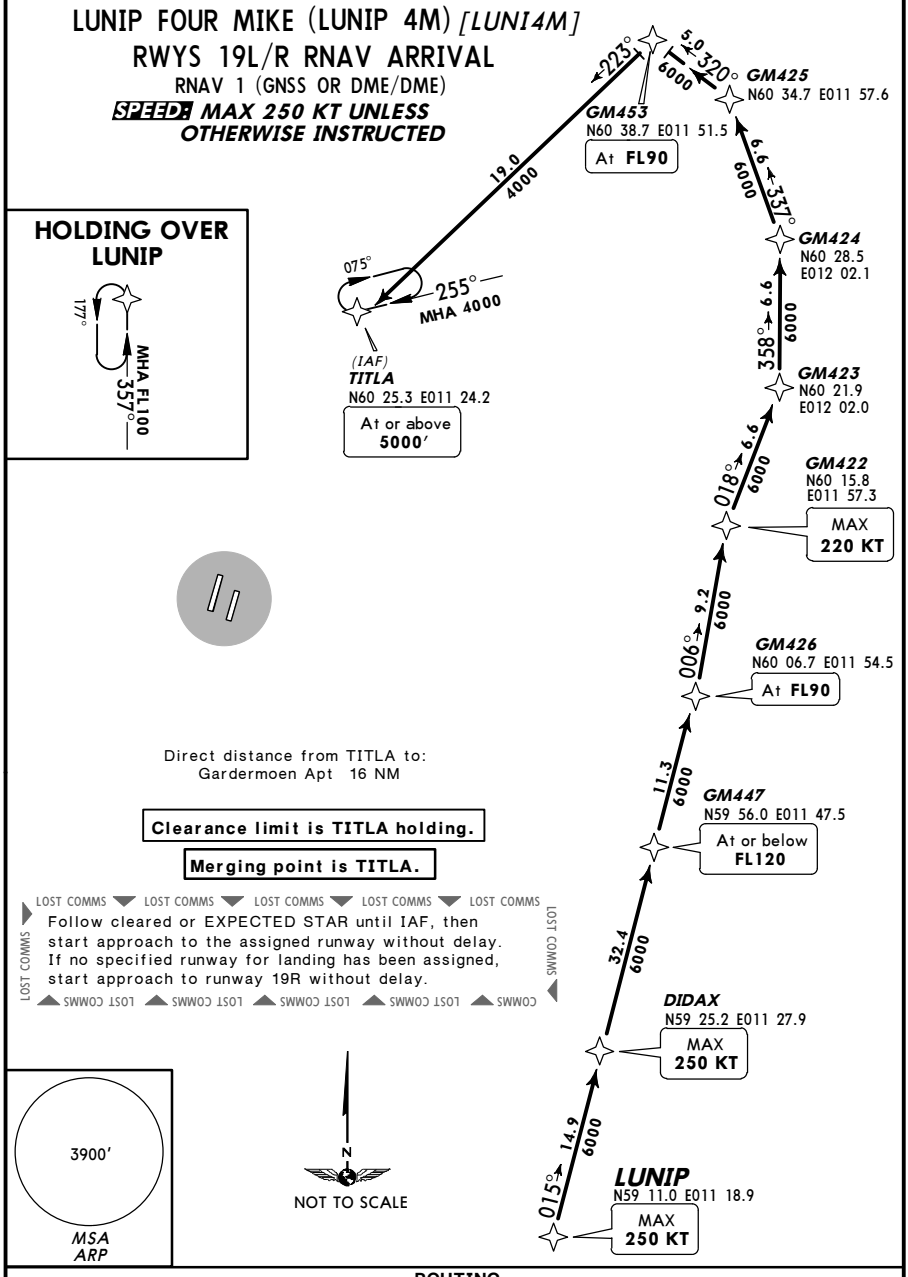
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

LUNIP FOUR MIKE (LUNIP 4M) *[LUNI4M]*
RWYS 19L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



ROUTING

LUNIP (K250-) - DIDAX (K250-) - GM447 (FL120-) - GM426 (FL90) - GM422 (K220-) - GM423 - GM424 - GM425 - GM453 (FL90) - TITLA (5000′+).

CHANGES: RNAV STAR LUNIP 3M renumbered 4M & revised.

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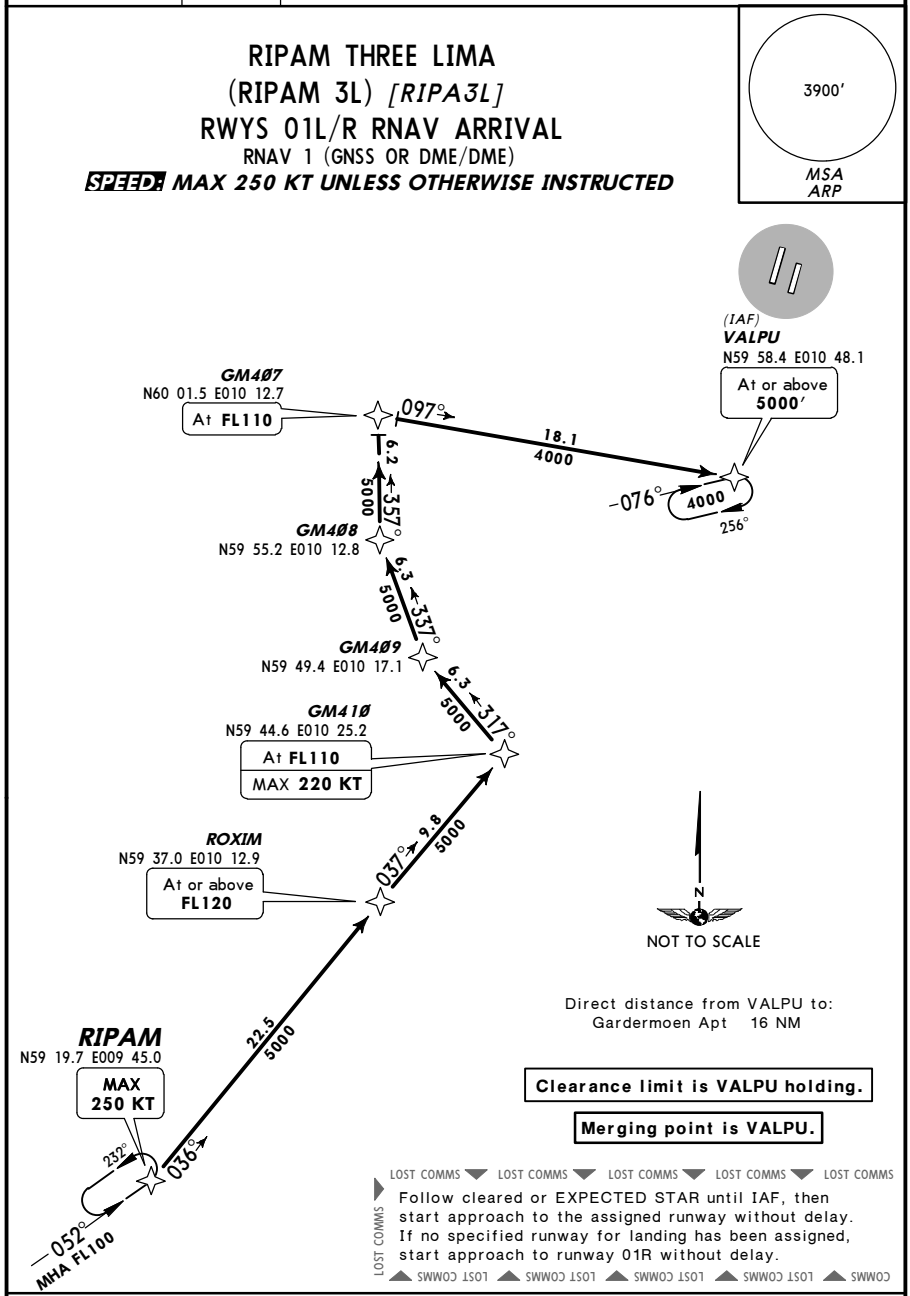
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

RIPAM THREE LIMA
(RIPAM 3L) *[RIPA3L]*
RWYS 01L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



ROUTING

RIPAM (K250-) - ROXIM (FL120+) - GM410 (FL110; K220-) - GM409 - GM408 - GM407 (FL110) - VALPU (5000+).

CHANGES: RNAV STAR RIPAM 2L renumbered 3L & revised.

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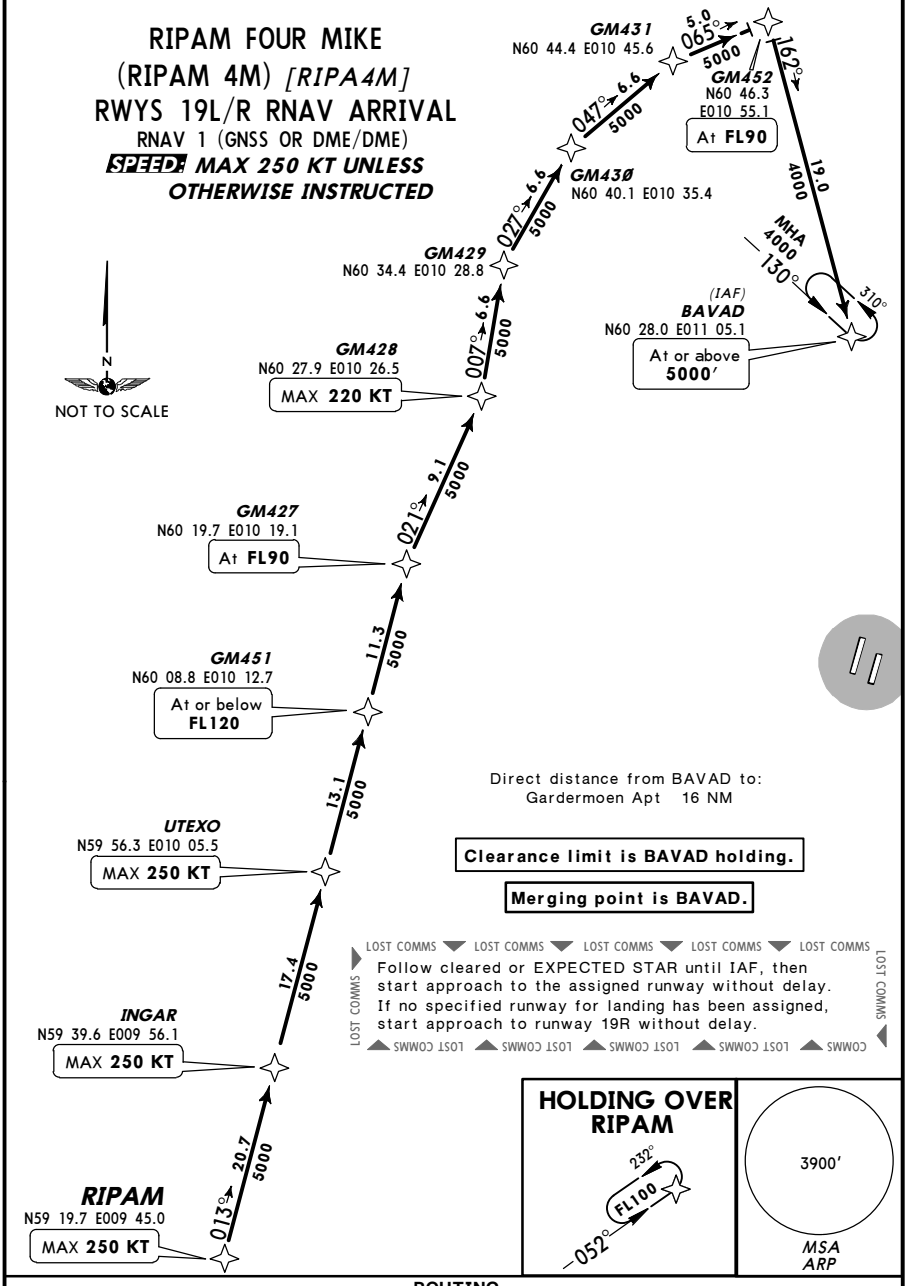
D-ATIS	Apt Elev	
126.125	681′	Alt Set: hPa Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Loss of RNAV capability, request vectoring. 4. Vectoring may be used when necessary. 5. Descend as cleared by ATC.

RIPAM FOUR MIKE
(RIPAM 4M) *[RIPA4M]*
RWYS 19L/R RNAV ARRIVAL
RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT UNLESS OTHERWISE INSTRUCTED



ROUTING

RIPAM (K250-) - INGAR (K250-) - UTEXO (K250-) - GM451 (FL120-) - GM427 (FL90) - GM428 (K220-) - GM429 - GM430 - GM431 - GM452 (FL90) - BAVAD (5000′+).

CHANGES: RNAV STAR RIPAM 3M renumbered 4M & revised.

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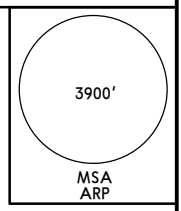
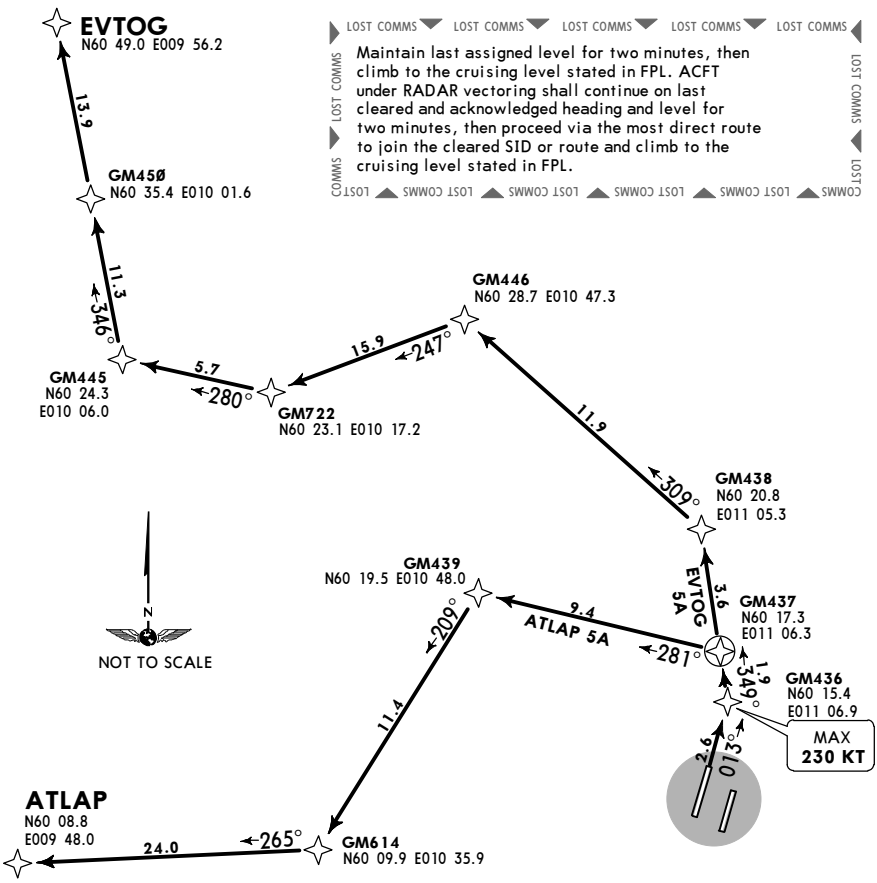
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control.

ATLAP FIVE ALFA (ATLAP 5A) [ATLA5A]
EVTOG FIVE ALFA (EVTOG 5A) [EVTO5A]
RWY 01L RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100 UNLESS OTHERWISE INSTRUCTED





LOST COMMS

Maintain last assigned level for two minutes, then climb to the cruising level stated in FPL. ACFT under RADAR vectoring shall continue on last cleared and acknowledged heading and level for two minutes, then proceed via the most direct route to join the cleared SID or route and climb to the cruising level stated in FPL.

These SIDs require a minimum climb gradient of 316′ per NM (5.2%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
316′ per NM	395	527	790	1053	1317	1580

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
ATLAP 5A	On 013° track to GM436, to GM437, to GM439, to GM614, to ATLAP
EVTOG 5A	On 013° track to GM436, to GM437, to GM438, to GM446, to GM722, to GM445, to GM450, to EVTOG.

CHANGES: General restrictions revised.

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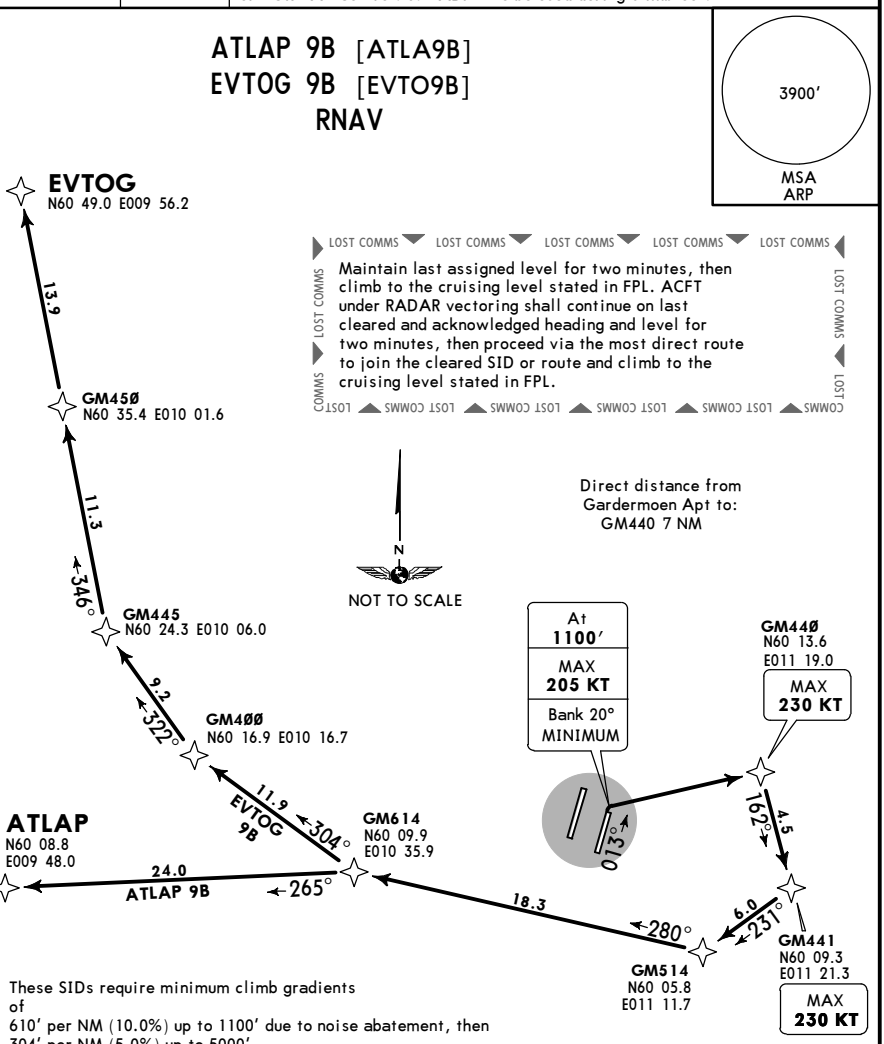
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ **1. RNAV 1 (GNSS or DME/DME)** 2. Surveillance service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control. 6. NADP-1 to be used during climb-out.

ATLAP 9B [ATLA9B]
EVTOG 9B [EVTO9B]
RNAV



These SIDs require minimum climb gradients of
610′ per NM (10.0%) up to 1100′ due to noise abatement, then
304′ per NM (5.0%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
610′ per NM	763	1017	1525	2033	2542	3050
304′ per NM	380	507	760	1013	1267	1520

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	RWY	ROUTING
ATLAP 9B	**01R**	Climb on 013° track to 1100′, turn RIGHT, direct to GM440, turn RIGHT to GM441, to GM514, to GM614, to ATLAP.
EVTOG 9B		Climb on 013° track to 1100′, turn RIGHT, direct to GM440, turn RIGHT to GM441, to GM514, to GM614, to GM400, to GM445, to GM450, to EVTOG.

CHANGES: RNAV SIDs renumbered & revised.

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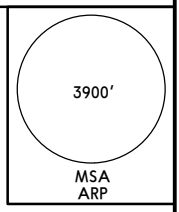
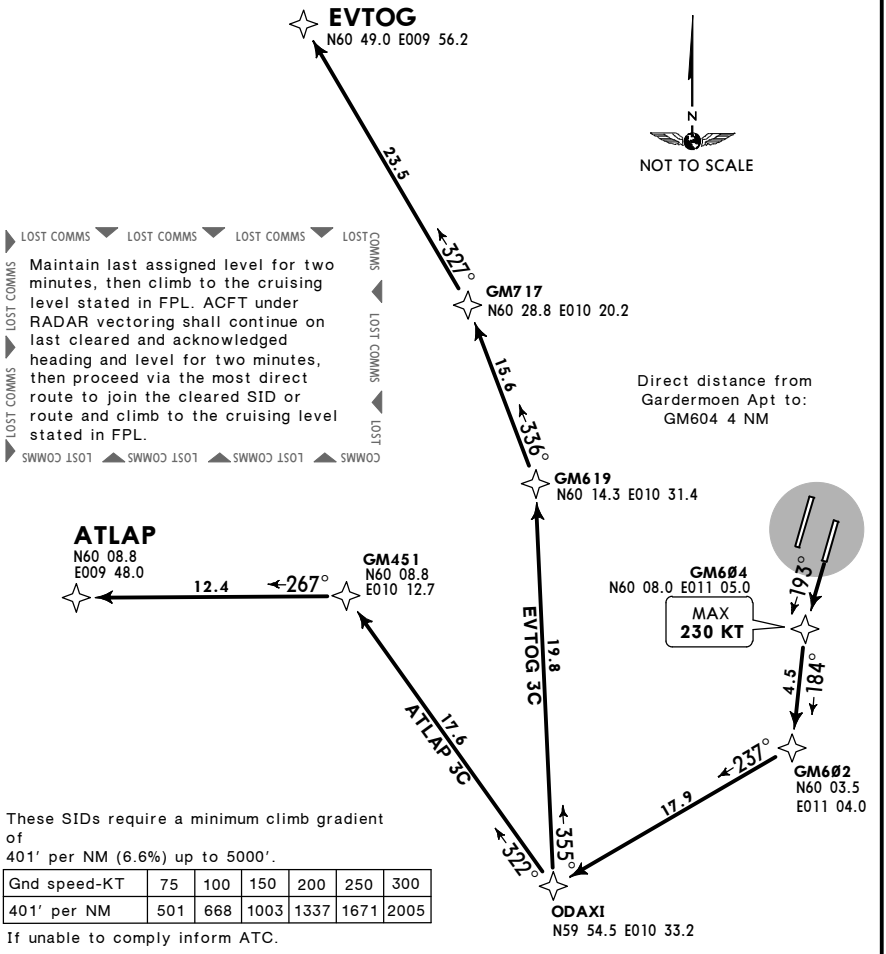
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

ATLAP THREE CHARLIE (ATLAP 3C)[ATLA3C]
EVTOG THREE CHARLIE (EVTOG 3C)[EVTO3C]
RWY 19L RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100 UNLESS OTHERWISE INSTRUCTED





These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
ATLAP 3C	On 193° track to GM604, to GM602, to ODAXI, to GM451, to ATLAP.
EVTOG 3C	On 193° track to GM604, to GM602, to ODAXI, turn RIGHT to GM619, to GM717, to EVTOG.

CHANGES: General instructions revised.

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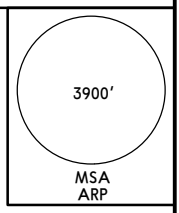
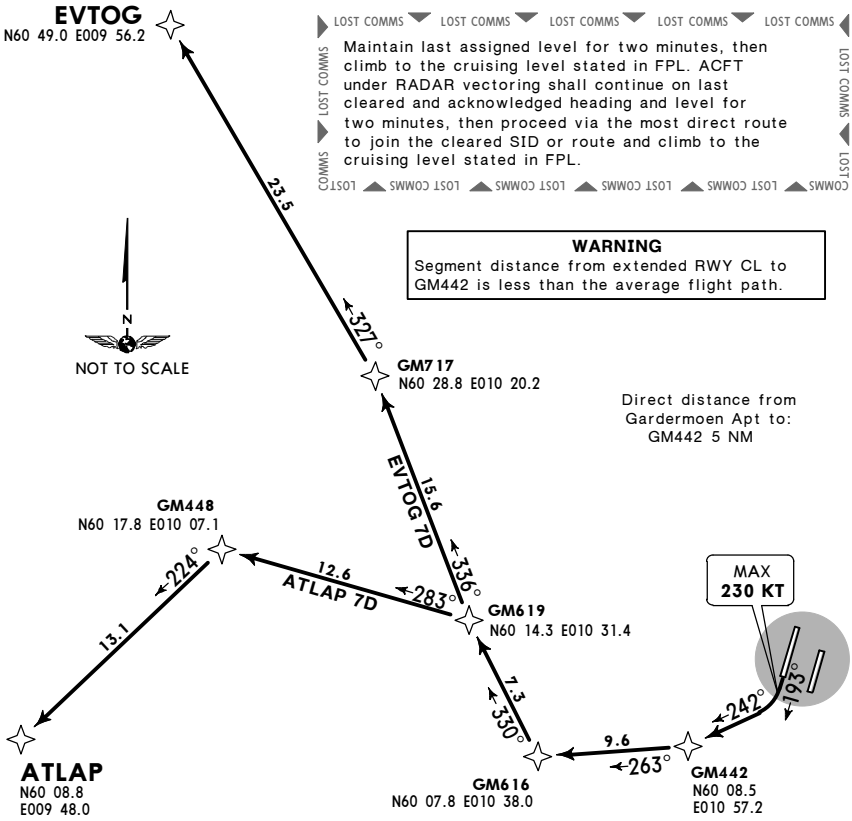
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

ATLAP SEVEN DELTA (ATLAP 7D)[ATLA7D]
EVTOG SEVEN DELTA (EVTOG 7D)[EVTO7D]
RWY 19R RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
ATLAP 7D	Climb on 193° track, intercept 242° track to GM442, to GM616, to GM619, to GM448, to ATLAP.
EVTOG 7D	Climb on 193° track, intercept 242° track to GM442, to GM616, to GM619, to GM717, to EVTOG.

CHANGES: General instructions revised.

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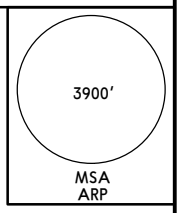
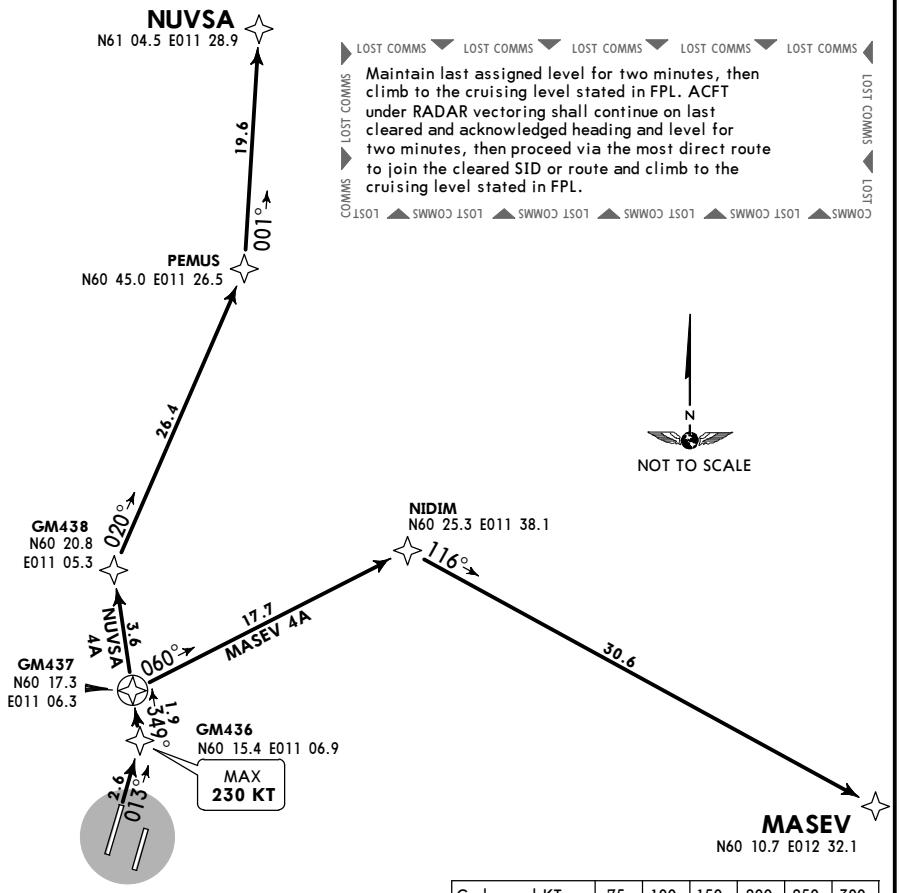
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control.

MASEV FOUR ALFA (MASEV 4A) [MASE4A]
NUVSA FOUR ALFA (NUVSA 4A) [NUVS4A]
RWY 01L RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





These SIDs require a minimum climb gradient of
316′ per NM (5.2%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
316′ per NM	395	527	790	1053	1317	1580

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
MASEV 4A	On 013° track to GM436, to GM437, to NIDIM, to MASEV.
NUVSA 4A	On 013° track to GM436, to GM437, to GM438, to PEMUS, to NUVSA.

CHANGES: General restrictions revised.

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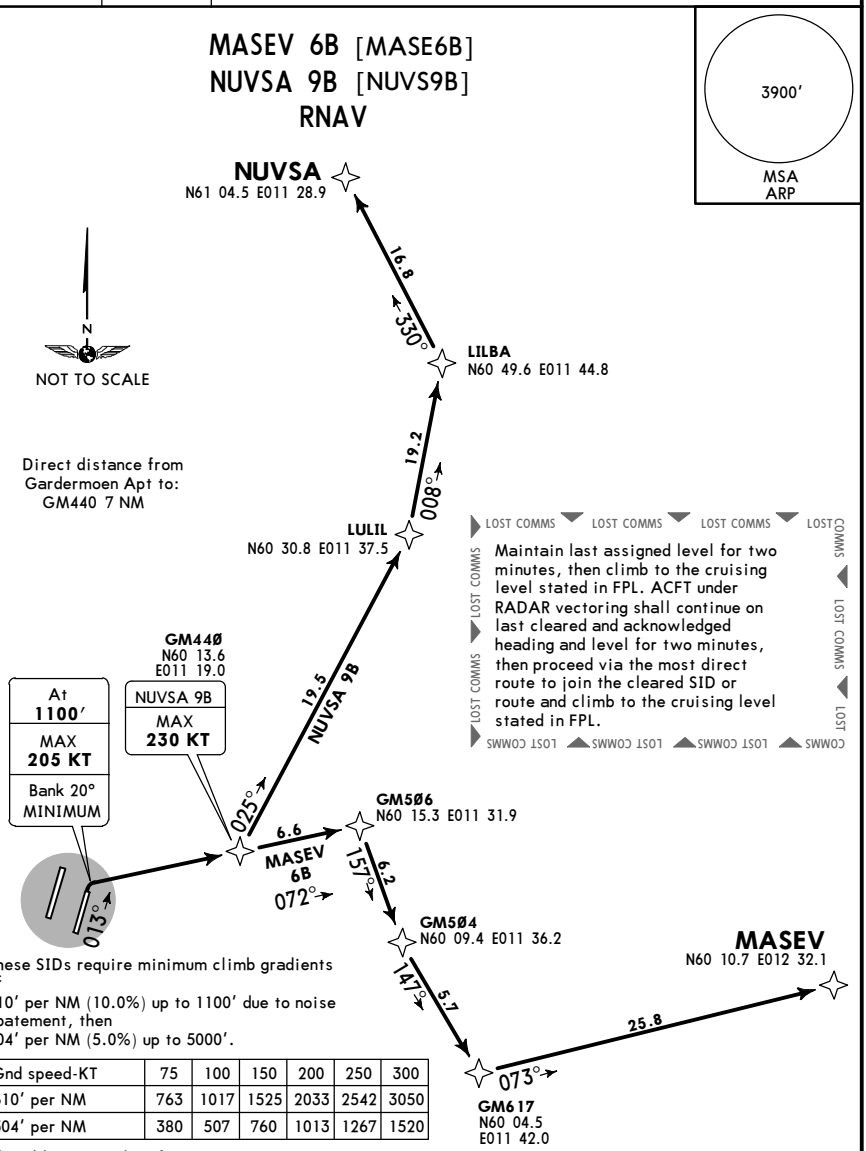
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ **1. RNAV 1 (GNSS or DME/DME)**2. Surveillance service shall be available 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control. 6. NADP-1 to be used during climb-out.

MASEV 6B [MASE6B]
NUVSA 9B [NUVS9B]
RNAV



These SIDs require minimum climb gradients of
610′ per NM (10.0%) up to 1100′ due to noise abatement, then
304′ per NM (5.0%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
610′ per NM	763	1017	1525	2033	2542	3050
304′ per NM	380	507	760	1013	1267	1520

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	RWY	ROUTING
MASEV 6B	**01R**	Climb on 013° track to 1100′, turn RIGHT, direct to GM440, to GM506, to GM504, to GM617, to MASEV.
NUVSA 9B		Climb on 013° track to 1100′, turn RIGHT, direct to GM440, to LULIL, to LILBA, to NUVSA.

CHANGES: RNAV SIDs renumbered & revised.

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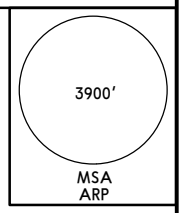
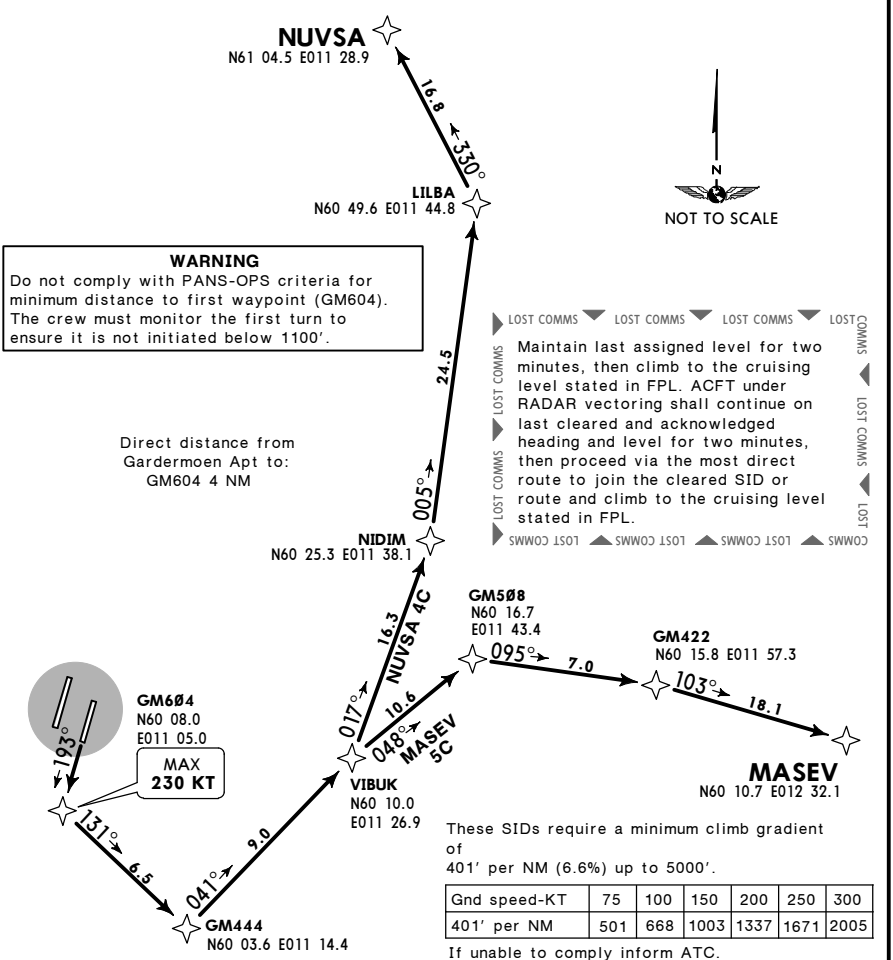
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

MASEV FIVE CHARLIE (MASEV 5C) [MASE5C]
NUVSA FOUR CHARLIE (NUVSA 4C) [NUVS4C]
RWY 19L RNAV DEPARTURES

RNAV 1 (GNSS OR (DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
MASEV 5C	On 193° track to GM604, to GM444, turn LEFT to VIBUK, to GM508, to GM422, to MASEV.
NUVSA 4C	On 193° track to GM604, to GM444, turn LEFT to VIBUK, to NIDIM, to LILBA, to NUVSA.

CHANGES: General instructions revised.

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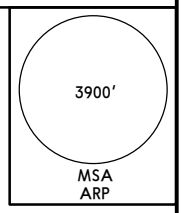
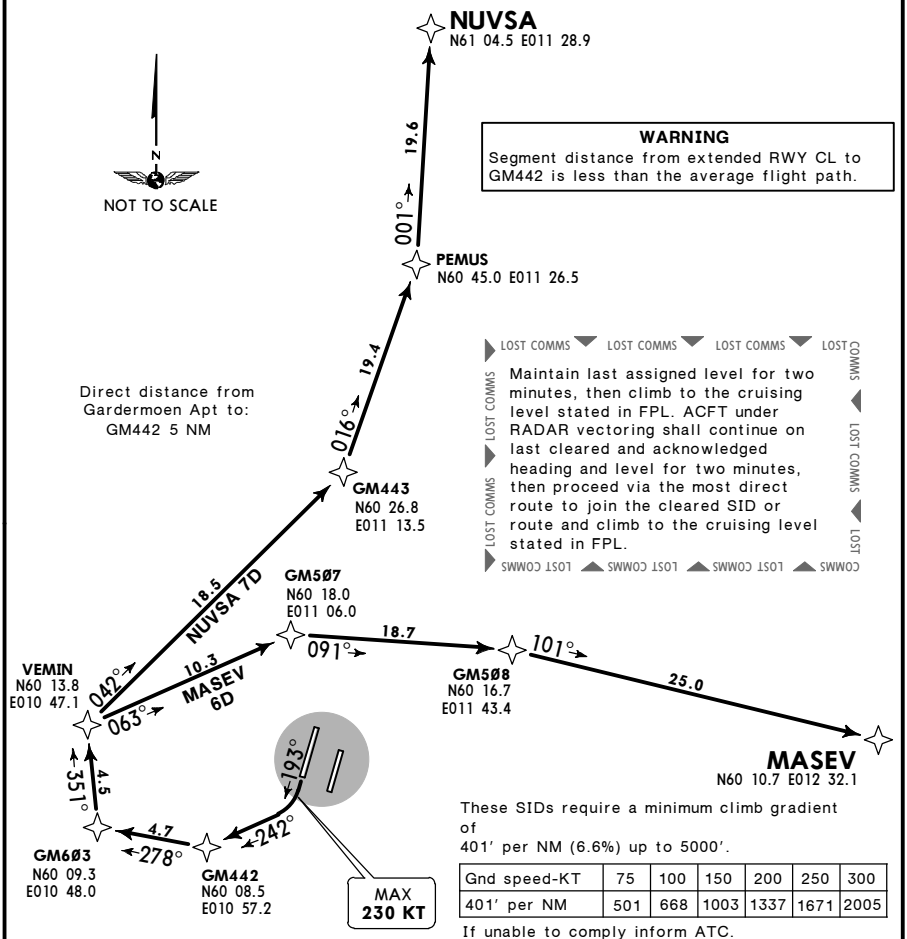
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

MASEV SIX DELTA (MASEV 6D) [MASE6D]
NUVSA SEVEN DELTA (NUVSA 7D) [NUVS7D]
RWY 19R RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





WARNING
Segment distance from extended RWY CL to GM442 is less than the average flight path.

LOST COMMS
Maintain last assigned level for two minutes, then climb to the cruising level stated in FPL. ACFT under RADAR vectoring shall continue on last cleared and acknowledged heading and level for two minutes, then proceed via the most direct route to join the cleared SID or route and climb to the cruising level stated in FPL.

These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
MASEV 6D	Climb on 193° track, intercept 242° track to GM442, to GM603, to VEMIN, to GM507, to GM508, to MASEV.
NUVSA 7D	Climb on 193° track, intercept 242° track to GM442, to GM603, to VEMIN, to GM443, to PEMUS, to NUVSA.

CHANGES: General instructions revised.

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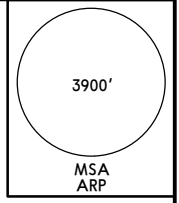
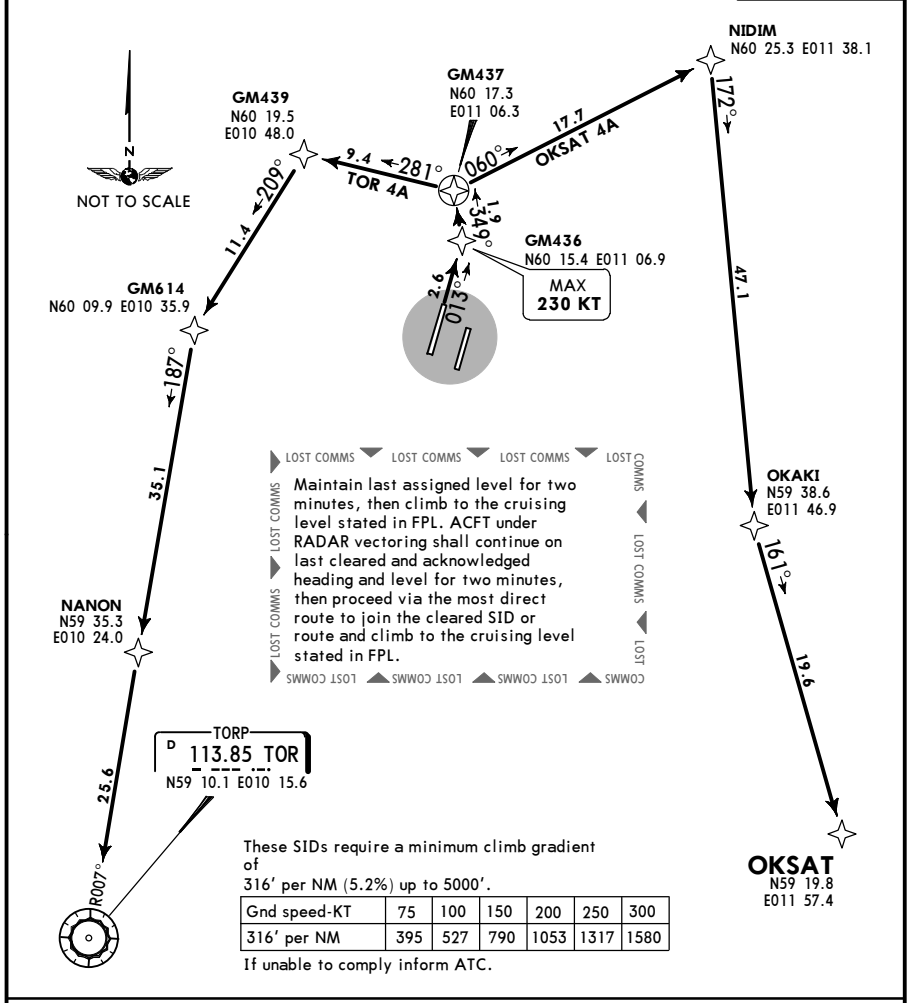
OSLO Approach (OKSAT 4A)	(TOR 4A)	Apt Elev	
118.475	120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at firstcontact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control.

OKSAT FOUR ALFA (OKSAT 4A) [OKSA4A]
TORP FOUR ALFA (TOR 4A)
RWY 01L RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





These SIDs require a minimum climb gradient of
316′ per NM (5.2%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
316′ per NM	395	527	790	1053	1317	1580

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
OKSAT 4A	On 013° track to GM436, to GM437, to NIDIM, turn RIGHT to OKAKI, to OKSAT.
TOR 4A	On 013° track to GM436, to GM437, to GM439, to GM614, to NANON, to TOR.

CHANGES: General restrictions revised.

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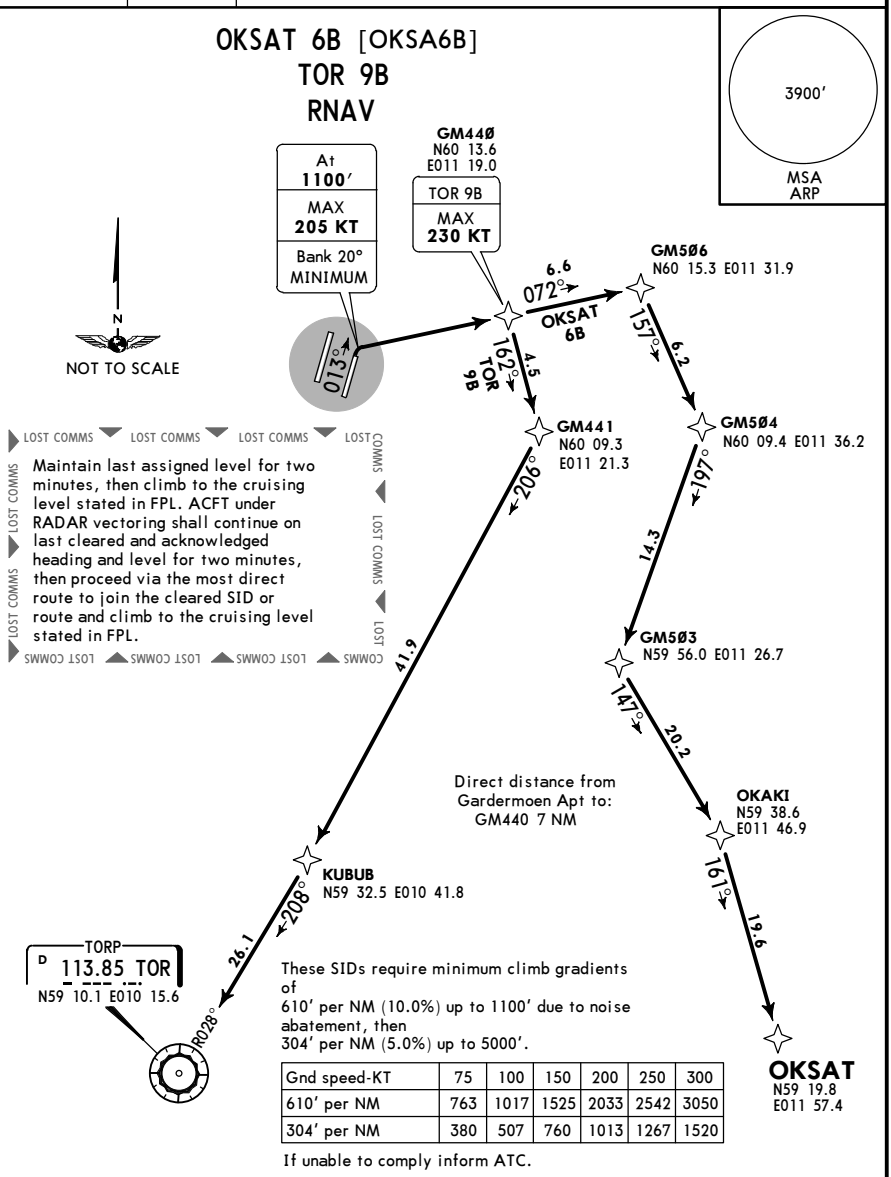
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ 1. **RNAV 1 (GNSS or DME/DME)**2. Surveillance service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control. 6. NADP-1 to be used during climb-out.

OKSAT 6B [OKSA6B]
TOR 9B
RNAV



These SIDs require minimum climb gradients of
610′ per NM (10.0%) up to 1100′ due to noise abatement, then
304′ per NM (5.0%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
610′ per NM	763	1017	1525	2033	2542	3050
304′ per NM	380	507	760	1013	1267	1520

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	RWY	ROUTING
OKSAT 6B	**01R**	Climb on 013° track to 1100′, turn RIGHT, direct to GM440, to GM506, to GM504, to GM503, to OKAKI, to OKSAT.
TOR 9B		Climb on 013° track to 1100′, turn RIGHT, direct to GM440, turn RIGHT to GM441, to KUBUB, to TOR.

CHANGES: RNAV SIDs renumbered & revised.

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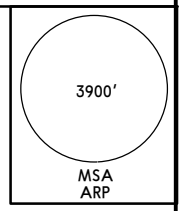
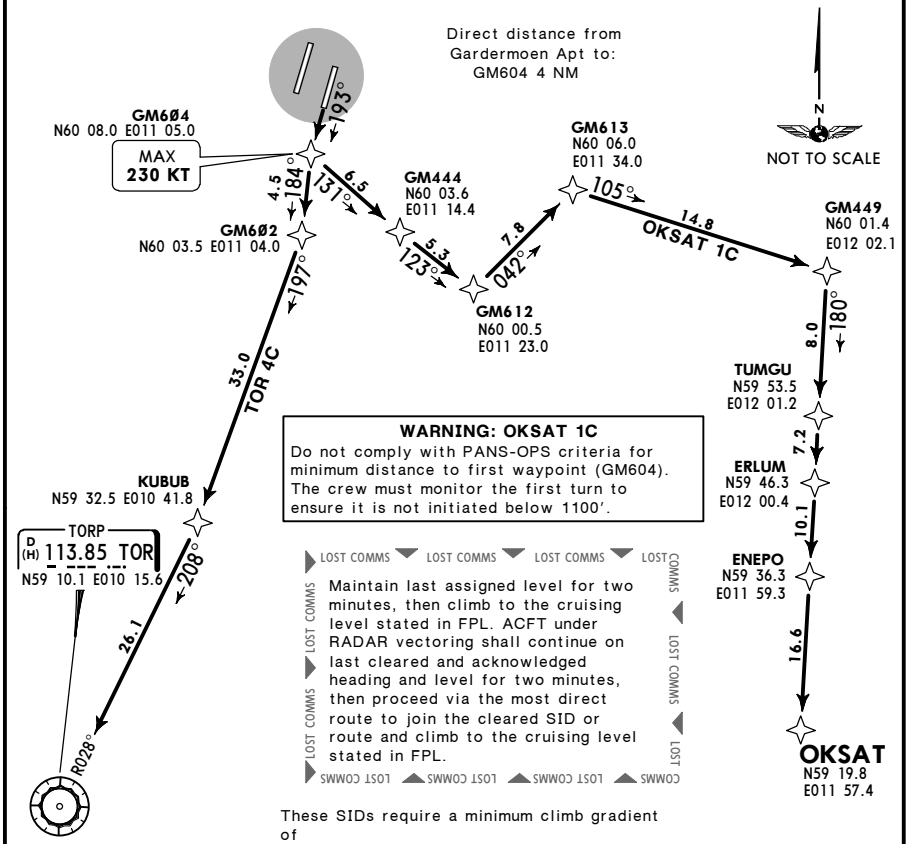
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

OKSAT ONE CHARLIE (OKSAT 1C) [OKSA1C]
TORP FOUR CHARLIE (TOR 4C)
RWY 19L RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





WARNING: OKSAT 1C
Do not comply with PANS-OPS criteria for minimum distance to first waypoint (GM604). The crew must monitor the first turn to ensure it is not initiated below 1100′.

These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
OKSAT 1C	On 193° track to GM604, to GM444, to GM612, to GM613, to GM449, to TUMGU, to ERLUM, to ENEPO, to OKSAT.
TOR 4C	On 193° track to GM604, to GM602, to KUBUB, to TOR.

CHANGES: RNAV SID TOR 3C renumbered 4C.

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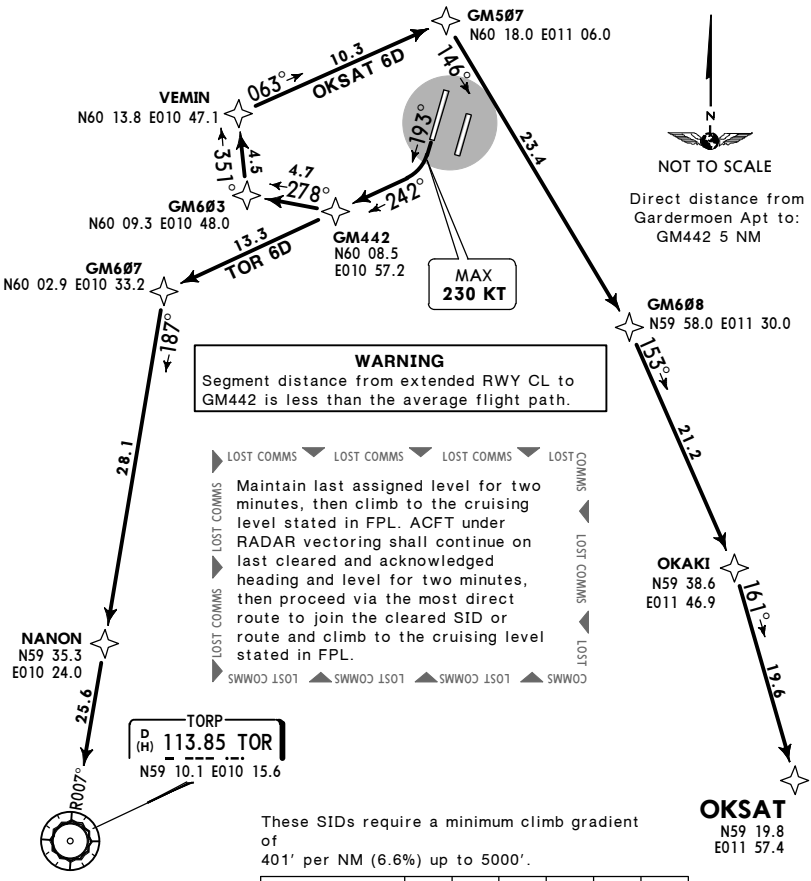
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

OKSAT SIX DELTA (OKSAT 6D) [OKSA6D]
TORP SIX DELTA (TOR 6D)
RWY 19R RNAV DEPARTURES

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED



WARNING
Segment distance from extended RWY CL to GM442 is less than the average flight path.

LOST COMMS

Maintain last assigned level for two minutes, then climb to the cruising level stated in FPL. ACFT under RADAR vectoring shall continue on last cleared and acknowledged heading and level for two minutes, then proceed via the most direct route to join the cleared SID or route and climb to the cruising level stated in FPL.

These SIDs require a minimum climb gradient of
401′ per NM (6.6%) up to 5000′.

Gnd speed-KT	75	100	150	200	250	300
401′ per NM	501	668	1003	1337	1671	2005

If unable to comply inform ATC.

Initial climb clearance **7000′**, EXPECT further climb by OSLO Approach.

SID	ROUTING
OKSAT 6D	Climb on 193° track, 242° track to GM442, to GM603, to VEMIN, to GM507, to GM608, to OKAKI, to OKSAT.
TOR 6D	Climb on 193° track, 242° track to GM442, to GM607, to NANON, to TOR.

CHANGES: None.

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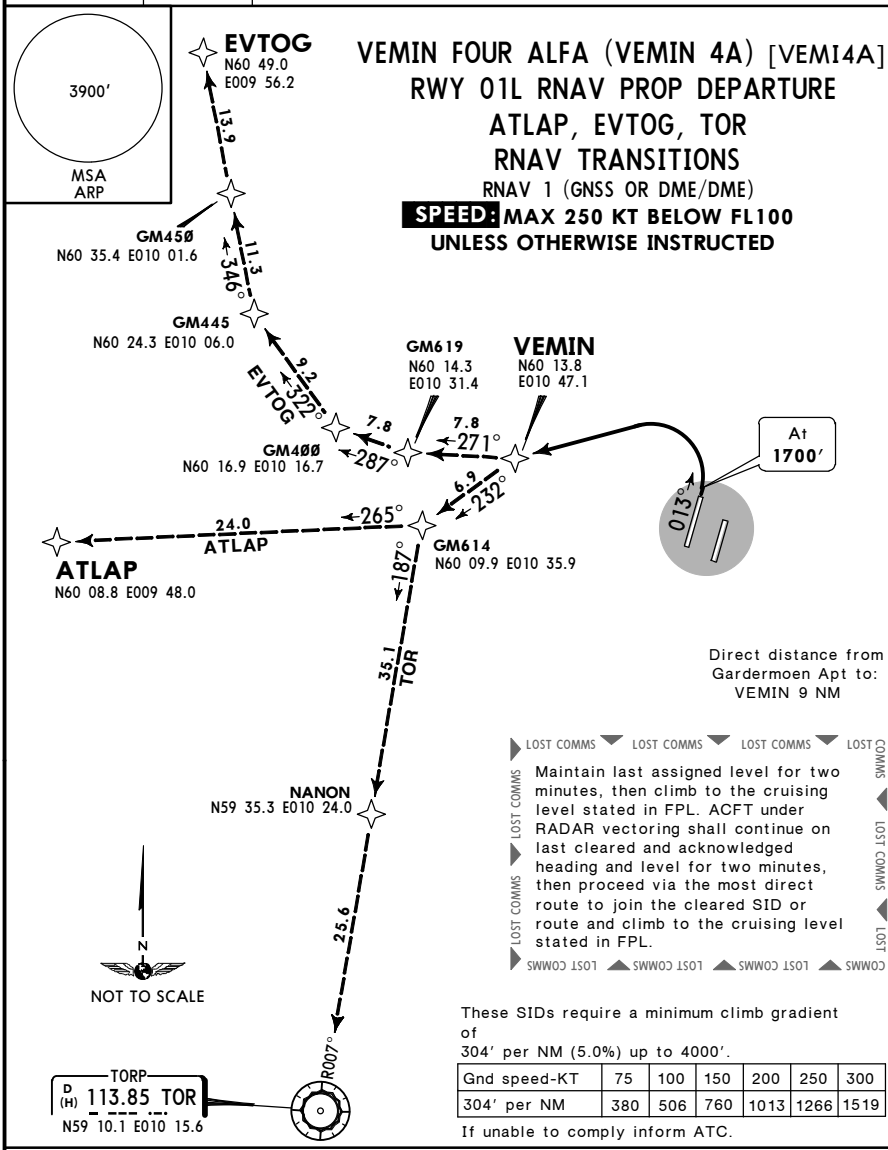
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

VEMIN FOUR ALFA (VEMIN 4A) [VEMI4A]
RWY 01L RNAV PROP DEPARTURE
ATLAP, EVTOG, TOR
RNAV TRANSITIONS

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100 UNLESS OTHERWISE INSTRUCTED



These SIDs require a minimum climb gradient of
304′ per NM (5.0%) up to 4000′.

Gnd speed-KT	75	100	150	200	250	300
304′ per NM	380	506	760	1013	1266	1519

If unable to comply inform ATC.

Initial climb clearance **4000′**, EXPECT further climb by OSLO Approach.

ROUTING

Climb on 013° track to 1700′, turn LEFT direct to VEMIN.

TRANSITION	ROUTING
ATLAP	From VEMIN to GM614, to ATLAP.
EVTOG	From VEMIN to GM619, to GM400, to GM445, to GM450, to EVTOG.
TOR	From VEMIN to GM614, to NANON, to TOR.

CHANGES: General instructions revised.

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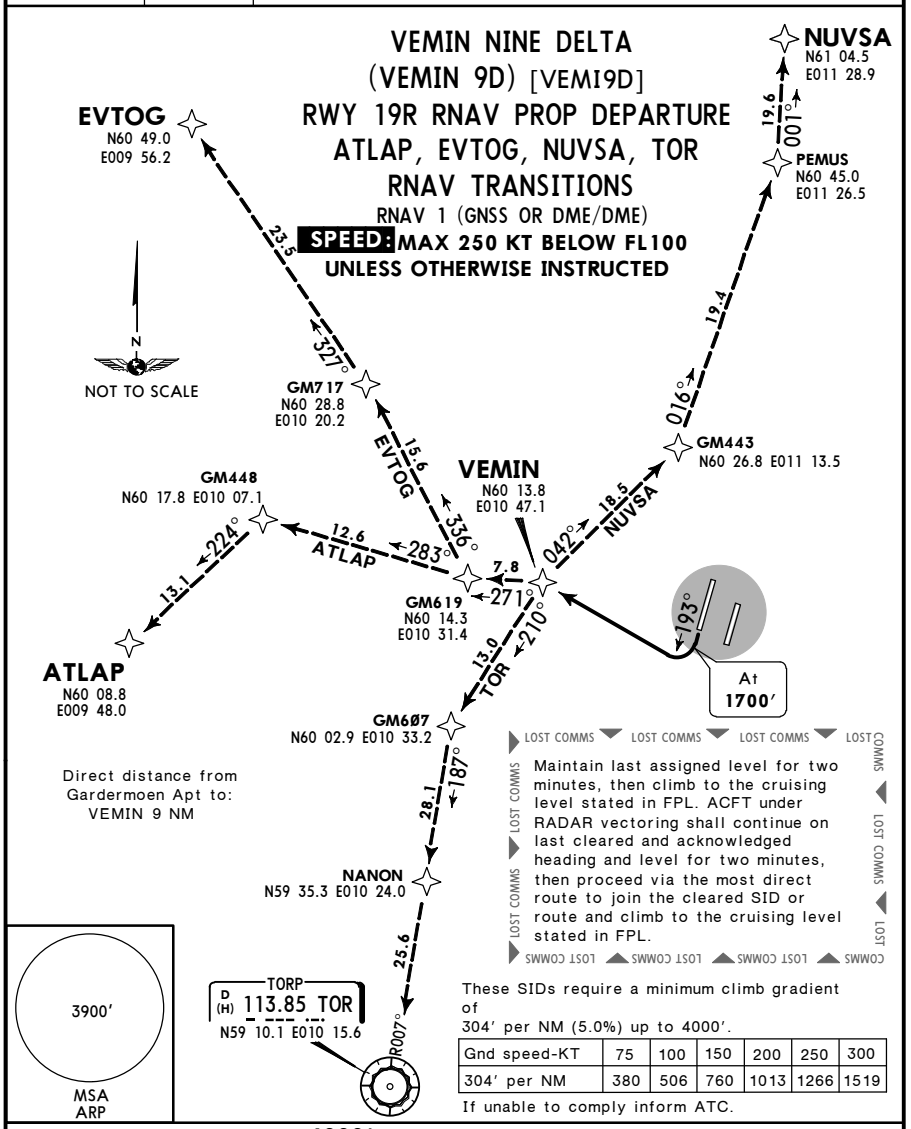
OSLO Approach	Apt Elev	
120.450	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.



Initial climb clearance **4000′**, EXPECT further climb by OSLO Approach.

ROUTING

Climb on 193° track to 1700′, turn RIGHT direct to VEMIN.

TRANSITION	ROUTING
ATLAP	From VEMIN to GM619, to GM448, to ATLAP.
EVTOG	From VEMIN to GM619, to GM717, to EVTOG.
NUVSA	From VEMIN to GM443, to PEMUS, to NUVSA.
TOR	From VEMIN to GM607, to NANON, to TOR.

CHANGES: General instructions revised.

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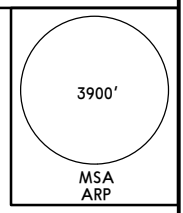
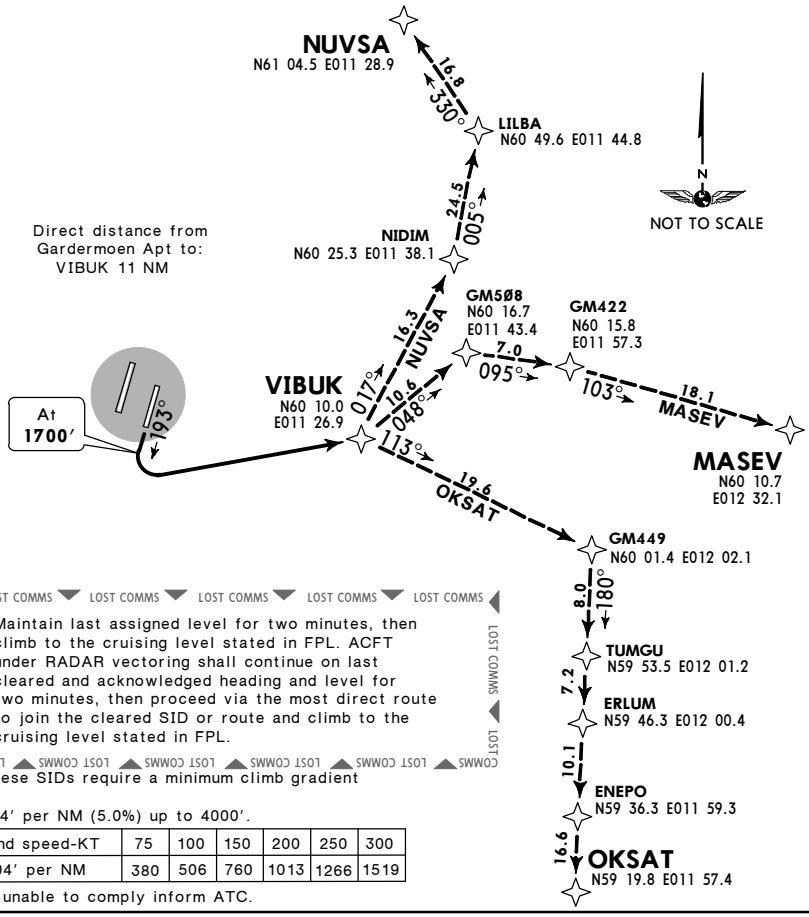
OSLO Approach	Apt Elev	
118.475	681′	Trans level: By ATC Trans alt: 7000′ 1. Class A GNSS shall not be used. 2. RADAR service shall be available. 3. Due to simultaneous parallel departures, change to OSLO Approach frequency shall always be initiated by GARDERMOEN Tower. 4. Non RNAV 1 equipped ACFT: at first contact with GARDERMOEN Delivery state 'Unable RNAV 1'. Omnidirectional departure available. 5. Enroute cruising level will be issued after take-off by OSLO Approach or OSLO Control.

VIBUK FIVE CHARLIE (VIBUK 5C) [VIBU5C]
RWY 19L RNAV PROP DEPARTURE
MASEV, NUVSA, OKSAT
RNAV TRANSITIONS

RNAV 1 (GNSS OR DME/DME)

SPEED: MAX 250 KT BELOW FL100
UNLESS OTHERWISE INSTRUCTED





LOST COMMS

Maintain last assigned level for two minutes, then climb to the cruising level stated in FPL. ACFT under RADAR vectoring shall continue on last cleared and acknowledged heading and level for two minutes, then proceed via the most direct route to join the cleared SID or route and climb to the cruising level stated in FPL.

These SIDs require a minimum climb gradient of
304′ per NM (5.0%) up to 4000′.

Gnd speed-KT	75	100	150	200	250	300
304′ per NM	380	506	760	1013	1266	1519

If unable to comply inform ATC.

Initial climb clearance **4000′**, EXPECT further climb by OSLO Approach.

ROUTING

Climb on 193° track to 1700′, turn LEFT direct to VIBUK.

TRANSITION	ROUTING
MASEV	From VIBUK to GM508, to GM422, to MASEV.
NUVSA	From VIBUK to NIDIM, to LILBA, to NUVSA.
OKSAT	From VIBUK to GM449, to TUMGU, to ERLUM, to ENEPO, to OKSAT.

CHANGES: General instructions revised.

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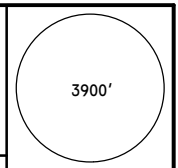
Apt Elev
681′

Trans level: By ATC Trans alt: 7000′
1. When instructed by GARDERMOEN Tower contact OSLO Approach.
2. EXPECT RADAR vectoring by OSLO Approach to join the cleared ATS route.
3. Enroute cruising levels will be issued after take-off by OSLO Approach or OSLO Control.



MSA
ARP

RWYS 01L/R, 19L/R OMNIDIRECTIONAL DEPARTURES

LOST COMMS
Maintain last cleared and acknowledged track and level for two minutes, then climb to the cruising level stated in FPL and join the cleared ATS route.

These departures require minimum climb gradients of

Rwys 01L/R

304′ per NM (5.0%) up to 4000′.

Rwys 19L/R

Sector 207°-337°: 425′ per NM (7.0%) in order to stay within controlled airspace.
Sector 337°-207°: 304′ per NM (5.0%) up to 4000′.

Gnd speed-KT	75	100	150	200	250	300
425′ per NM	532	709	1063	1418	1772	2127
304′ per NM	380	506	760	1013	1266	1519

If unable to comply inform ATC.

Initial climb clearance **4000′**, EXPECT further climb by OSLO Approach.

ROUTING

Climb on runway track to 2000′, then start turn according to ATC clearance.

RWYS 01L, 19L/R OMNIDIRECTIONAL PROP DEPARTURES

These departures require minimum climb gradients of
Sector 207°-337°: 425′ per NM (7.0%) in order to stay within controlled airspace.
Sector 337°-207°: 304′ per NM (5.0%) up to 4000′.

Gnd speed-KT	75	100	150	200	250	300
425′ per NM	532	709	1063	1418	1772	2127
304′ per NM	380	506	760	1013	1266	1519

If unable to comply inform ATC.

Initial climb clearance **4000′**, EXPECT further climb by OSLO Approach.

ROUTING

Climb on runway track to 1700′, then start turn according to ATC clearance.

CHANGES: None.

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ENGM/OSL

Apt Elev **681′**

N60 12.2 E011 05.0

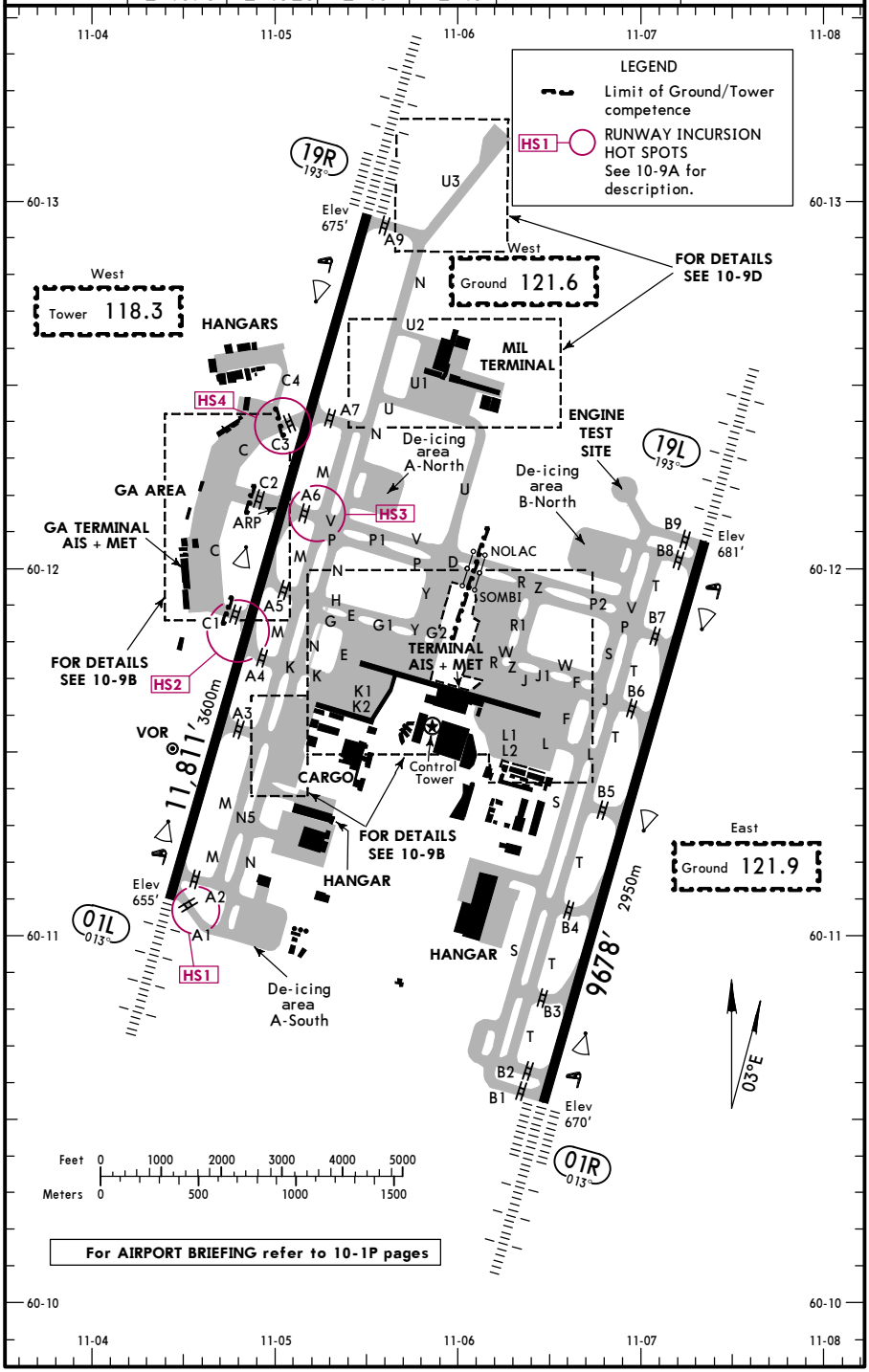
JEPPESEN

13 MAY 16 (10-9) **Eff 26 May**

OSLO, NORWAY

GARDERMOEN

D-ATIS Departure	GARDERMOEN Delivery West	GARDERMOEN Delivery East	Ground West	Ground East	Tower West incl Rwy 01L/19R	Tower East incl Rwy 01R/19L
127.150	121.675	121.925	121.6	121.9	118.3	120.1



CHANGES: Apron.

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ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
01L ❶	HIRL (60m) HIALS CL (15m) SFL PAPI-L(3.0°) RVR		10,840′ 3304m	❸	148′ 45m
19R	HIRL (60m) HIALS-II CL (15m) SFL TDZ ❷ RVR				

❶ Rwy grooved.
❷ PAPI-L(3.0°)
❸ TAKE-OFF RUN AVAILABLE (Advise ATC once transferred to Tower, if intersection dep is acceptable/requested.)

RWY 01L: From rwy head 11,811′ (3600m)
twy A2 int 11,381′ (3469m)
twy A3 int 8845′ (2696m)
twy A4 int 7536′ (2297m)
twy C1 int 7034′ (2144m)
twy A5 int 6325′ (1928m)
twy A6 int 5079′ (1548m)
twy C2 int 5079′ (1548m)

RWY 19R: From rwy head 11,811′ (3600m)
twy A7 int 8294′ (2528m)
twy C3 int 8294′ (2528m)
twy A6 int 6808′ (2075m)
twy C2 int 6808′ (2075m)

01R	HIRL (60m) HIALS-II CL (15m) SFL TDZ ❹ RVR		8706′ 2654m	❺ ❻	148′ 45m
19L	HIRL (60m) HIALS CL (15m) SFL PAPI-L(3.0°) RVR		8625′ 2629m		

❹ PAPI-L(3.0°)
❺ TAKE-OFF RUN AVAILABLE (Advise ATC once transferred to Tower, if intersection dep is acceptable/requested.)

RWY 01R: From rwy head 9678′ (2950m)
twy B2 int 9350′ (2850m)
twy B3 int 7982′ (2433m)
twy B4 int 6463′ (1970m)
twy B5 int 4797′ (1462m)

RWY 19L: From rwy head 9678′ (2950m)
twy B8 int 9265′ (2824m)
twy B7 int 7907′ (2410m)
twy B6 int 6644′ (2025m)

❻ Jet ACFT only: Intersection dep RWY 01R not permitted from twy B3 and North of twy B3. Intersection dep RWY 19L not permitted from twy B6 and South of twy B6.

RUNWAY INCURSION HOT SPOTS

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

HS1 Angled Twy. Difficult to see traffic on final.

HS2 Installed Twy CL lights on C1 and A4 will indicate direction to the Rwy CL. Caution must be exercised when instructed to cross Rwy from Twy C1 to Twy A4 and vice versa due lack of visual aids.

HS3 Twy V leading directly to a Rwy intersection. Caution must be exercised when approaching the holding point A6.

HS4 Angled Twy. Difficult to see traffic on Rwy 01L.

Standard TAKE-OFF ❶

	Approved Operators HIRL, CL & mult. RVR req	LVP must be in Force: RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	125m	150m	200m	250m	400m	500m
B						
C						
D	150m	200m	250m	300m		

❶ Operators applying U.S. Ops Specs: CL required below 300m; approved HUD required below 150m.

CHANGES: Usable lengths.

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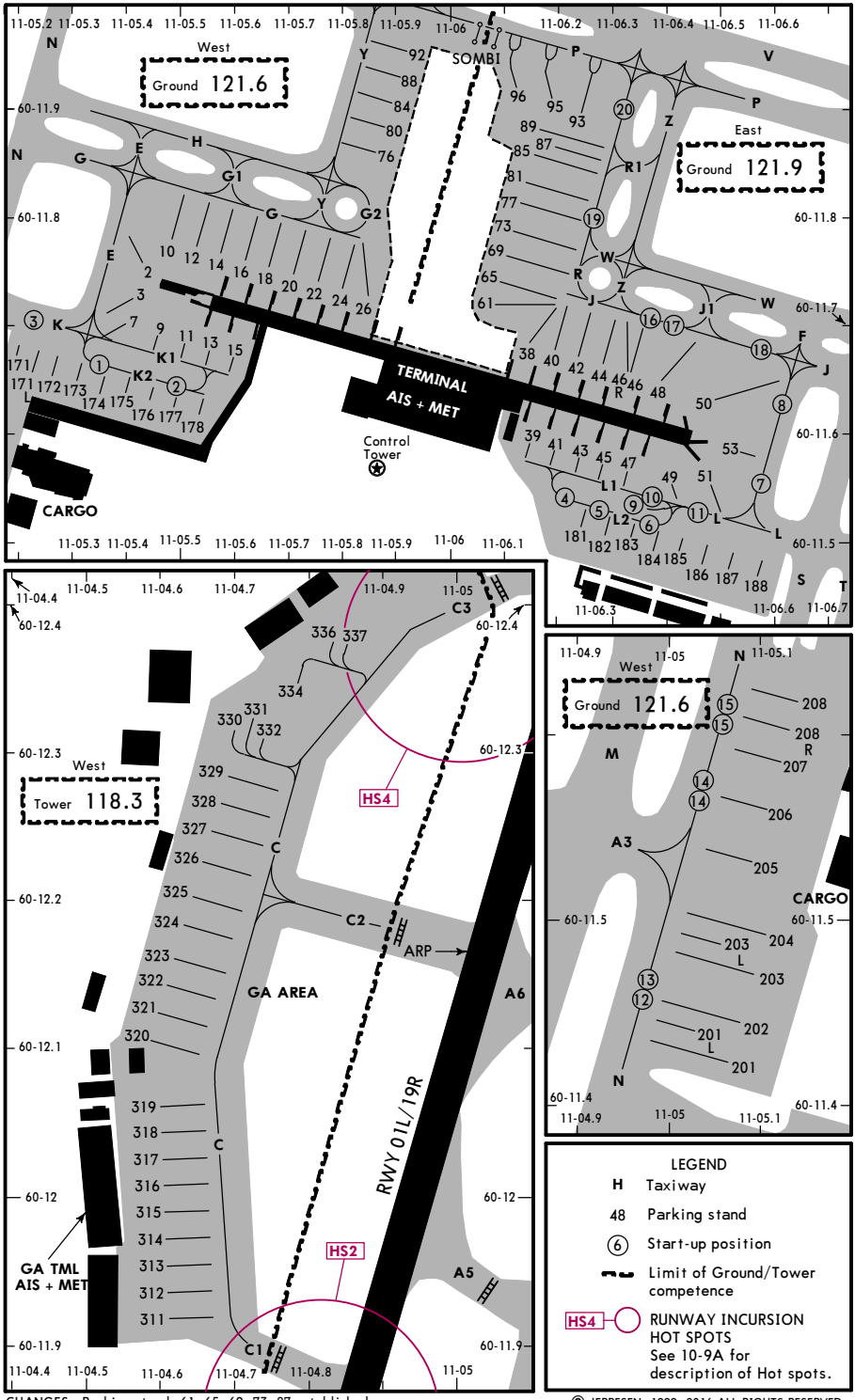

CHANGES: Parking stands 61, 65, 69, 73, 87 established.

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INS COORDINATES

STAND No.	COORDINATES		ELEV
2	N60 11.7	E011 05.4	673
3, 7	N60 11.7	E011 05.4	672
9	N60 11.7	E011 05.5	674
10	N60 11.8	E011 05.5	674
11	N60 11.7	E011 05.5	673
12	N60 11.8	E011 05.5	674
13 thru 16	N60 11.7	E011 05.6	673
18 thru 22	N60 11.7	E011 05.7	673
24, 26	N60 11.7	E011 05.8	673
38	N60 11.7	E011 06.1	673
39	N60 11.6	E011 06.2	673
40	N60 11.7	E011 06.2	673
41, 42	N60 11.6	E011 06.2	673
43 thru 47	N60 11.6	E011 06.3	673
48,49	N60 11.6	E011 06.4	673
50	N60 11.6	E011 06.4	672
51	N60 11.6	E011 06.5	672
53	N60 11.6	E011 06.5	673
61, 65	N60 11.7	E011 06.1	673
69, 73	N60 11.8	E011 06.1	673
76	N60 11.9	E011 05.9	671
77	N60 11.8	E011 06.1	673
80	N60 11.9	E011 05.9	671
81	N60 11.8	E011 06.1	673
84	N60 11.9	E011 05.9	671
85	N60 11.9	E011 06.2	673
87	N60 11.9	E011 06.2	673
88	N60 11.9	E011 06.0	671
89	N60 11.9	E011 06.2	673
92	N60 11.9	E011 06.0	672
93	N60 11.9	E011 06.2	672
95	N60 11.9	E011 06.2	674
96	N60 11.9	E011 06.1	675
171 thru 172	N60 11.6	E011 05.2	668
173	N60 11.6	E011 05.3	668
174	N60 11.6	E011 05.3	670
175	N60 11.6	E011 05.4	670
176	N60 11.6	E011 05.4	671
177, 178	N60 11.6	E011 06.5	670
181	N60 11.5	E011 06.2	670
182, 183	N60 11.5	E011 06.3	670
184, 185	N60 11.5	E011 06.4	670
186	N60 11.5	E011 06.5	670
187, 188	N60 11.5	E011 06.5	669
201 thru 202	N60 11.4	E011 05.1	664
203 thru 204	N60 11.5	E011 05.1	664
205	N60 11.5	E011 05.1	667
206	N60 11.6	E011 05.1	667
207 thru 208R	N60 11.6	E011 05.2	668
311	N60 11.9	E011 04.6	662
312 thru 314	N60 11.9	E011 04.6	663
315	N60 12.0	E011 04.6	663
316	N60 12.0	E011 04.6	664
317 thru 319	N60 12.0	E011 04.6	663
320	N60 12.1	E011 04.6	664
321, 322	N60 12.1	E011 04.6	665
323, 324	N60 12.2	E011 04.6	664
325	N60 12.2	E011 04.6	665
326	N60 12.2	E011 04.7	665
327	N60 12.3	E011 04.7	665
328 thru 330	N60 12.3	E011 04.7	666
331, 332	N60 12.3	E011 04.7	665
334	N60 12.4	E011 04.8	666
336, 337	N60 12.4	E011 04.9	-

CHANGES: Stands 61, 65, 69, 73, 87 established.

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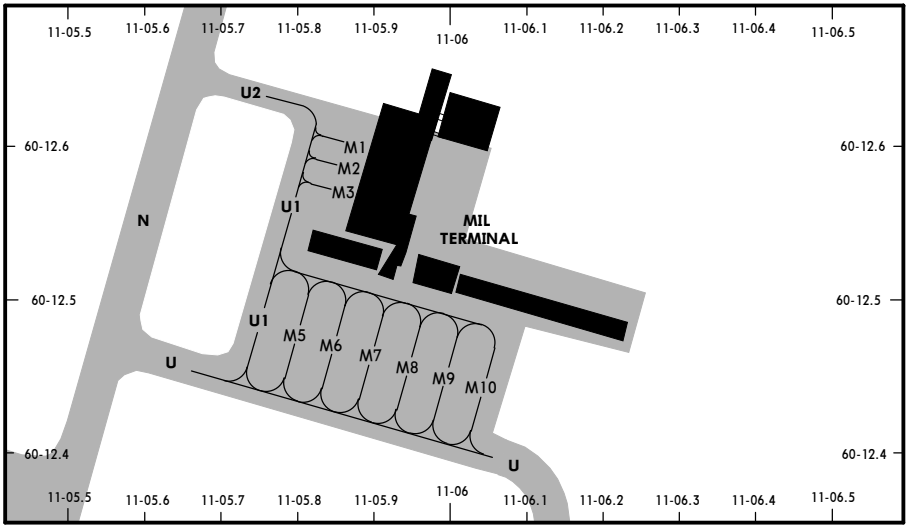
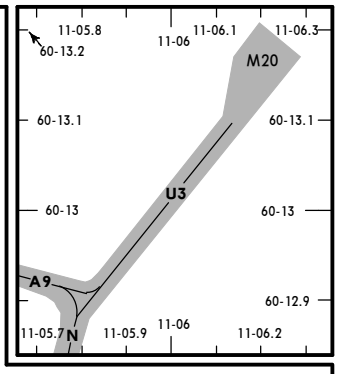


INS COORDINATES	
STAND No.	**COORDINATES**
M1 thru M3	N60 12.6 E011 05.9
M5, M6	N60 12.5 E011 05.8
M7, M8	N60 12.5 E011 05.9
M9	N60 12.5 E011 06.0
M10	N60 12.4 E011 06.0
M20	N60 13.2 E011 06.2



CHANGES: Stands added.

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OSLO, NORWAY
GARDERMOEN

STRAIGHT-IN RWY		DA(H) / MDA(H)	RVR (ALS/ALS out)
01L	ILS	855′ (200′)	500m / 1000m
	LOC	960′ (305′)	800m / 1000m
	RNAV (LPV) Z	905′ (250′)	600m / 1000m
	RNAV (LNAV/VNAV) Z	1000′ (345′)	800m / 1000m
	RNAV (LNAV) Z	1240′ (585′)	1000m / 1000m
	RNAV (RNP) X ❶	978′ (323′)	750m / 1000m
	RNAV (RNP) X ❷	1084′ (429′)	750m / 1000m
	VOR	1000′ (345′)	800m / 1000m
01R	CAT 2 ILS	770′ (100′)	RA 102′ - 300m
	ILS	870′ (200′)	500m / 1000m
	LOC	970′ (300′)	800m / 1000m
	RNAV (LPV) Z	920′ (250′)	600m / 1000m
	RNAV (LNAV/VNAV) Z	970′ (300′)	800m / 1000m
	RNAV (LNAV) Z	1230′ (560′)	1000m / 1000m
	RNAV (RNP) X ❶	945′ (275′)	600m / 1000m
	RNAV (RNP) X ❷	1062′ (392′)	750m / 1000m
	RNAV (RNP) W ❶	945′ (275′)	600m / 1000m
	RNAV (RNP) W ❷	1062′ (392′)	750m / 1000m
19L	ILS	881′ (200′)	500m / 1000m
	LOC	1030′ (349′)	800m / 1000m
	RNAV (LPV) Z	931′ (250′)	600m / 1000m
	RNAV (LNAV/VNAV) Z	1000′ (319′)	800m / 1000m
	RNAV (LNAV) Z	1230′ (549′)	1000m / 1000m
	RNAV (RNP) X ❶	990′ (309′)	750m / 1000m
	RNAV (RNP) X ❷	1030′ (349′)	750m / 1000m
19R	CAT 2 ILS	775′ (100′)	RA 100′ - 300m
	ILS	875′ (200′)	500m / 1000m
	LOC	1020′ (345′)	800m / 1000m
	RNAV (LPV) Z ❸	930′ (255′)	600m / 1000m
	RNAV (LPV) Z ❷	1020′ (345′)	800m / 1000m
	RNAV (LNAV/VNAV) Z ❷	970′ (295′)	600m / 1000m
	RNAV (LNAV) Z ❷	1040′ (365′)	800m / 1000m
	RNAV (RNP) X ❶	970′ (295′)	600m / 1000m
	RNAV (RNP) X ❷	1060′ (385′)	750m / 1000m
	VOR	1060′ (385′)	800m / 1000m

❶ Missed apch climb gradient mim 5.0%.
❷ Missed apch climb gradient mim 2.5%.
❸ Missed apch climb gradient mim 3.1%.

CIRCLE-TO-LAND ❹	MDA(H)	VIS
	1280′ (599′)	1000m

❹ Rwy 01L/19R: Not authorized East of rwy 01L/19R.
Rwy 01R/19L: Not authorized West of rwy 01R/19L.

TAKE-OFF RWY 01L, 01R, 19L, 19R

LVP must be in Force ❺				
RL, FATO LTS, CL & RVR info	RL, FATO LTS & RCLM	Unlit/unmarked defined RWY/FATO	Nil Facilities DAY	Nil Facilities NIGHT
150m	200m	200m	250m ❻	800m

❺ Without LVP 400m are stipulated.
❻ Or rejected take-off distance whichever is the greater.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15 (11-1) Eff 17 Sep

OSLO, NORWAY
ILS or LOC Rwy 01L

BRIEFING STRIP TM

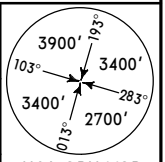
D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

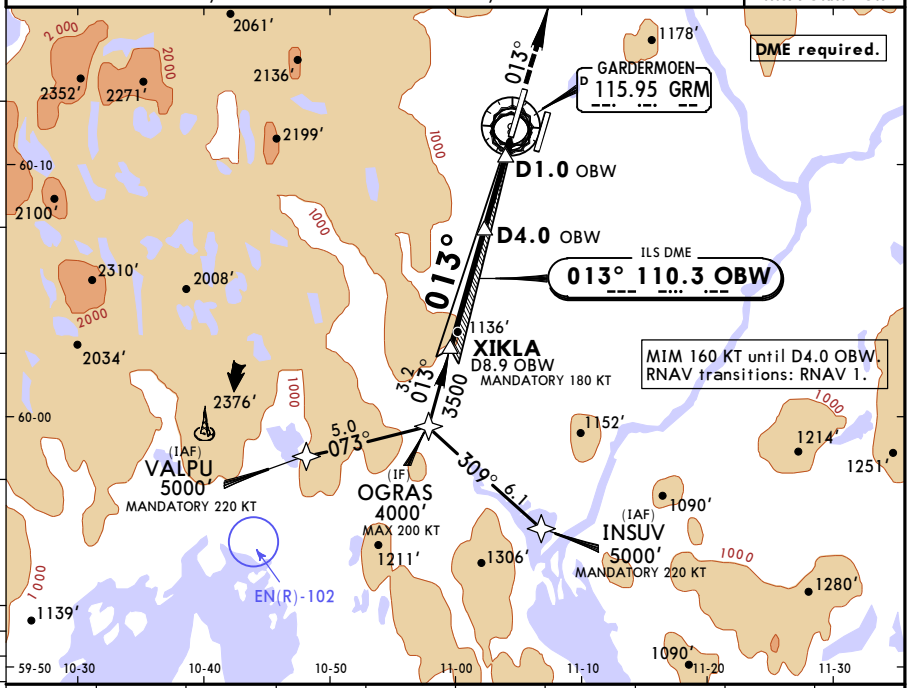
LOC OBW	Final Apch Crs	GS D4.0 OBW	ILS DA(H)	Apt Elev 681′
110.3	013°	1942′(1287′)	855′(200′)	Rwy 655′

MISSED APCH: Climb on 013° to 5000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Continue climb on 013° to 5000′.
At D20.0 OBW turn LEFT direct to VOR for a new apch.

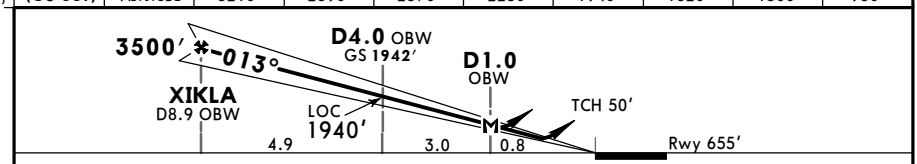
Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′



MSA GRM VOR



LOC (GS out)	OBW DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
	ALTITUDE	3210′	2890′	2570′	2250′	1940′	1620′	1300′	980′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Desc Angle 3.00°	372	478	531	637	743	849
MAP at D1.0 OBW						

HIALS
PAPI

5000′ on 013°

PANS OPS

Standard STRAIGHT-IN LANDING RWY 01L

	ILS DA(H) 855′(200′) FULL	Limited	ALS out	LOC (GS out) DA(H) 960′(305′)	ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 750m	RVR 1400m
B					
C					
D					

CIRCLE-TO-LAND

Not authorized
East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′(599′)	1500m
135	1280′(599′)	1600m
180	2040′(1359′)	2400m
205	2250′(1569′)	3600m

CHANGES: Speed restrictions.

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ENGM/OSL GARDERMOEN

JEPPESEN

4 SEP 15 (11-2) Eff 17 Sep

OSLO, NORWAY ILS or LOC Rwy 01R

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach East	*OSLO Approach West
126.125	118.475	120.450

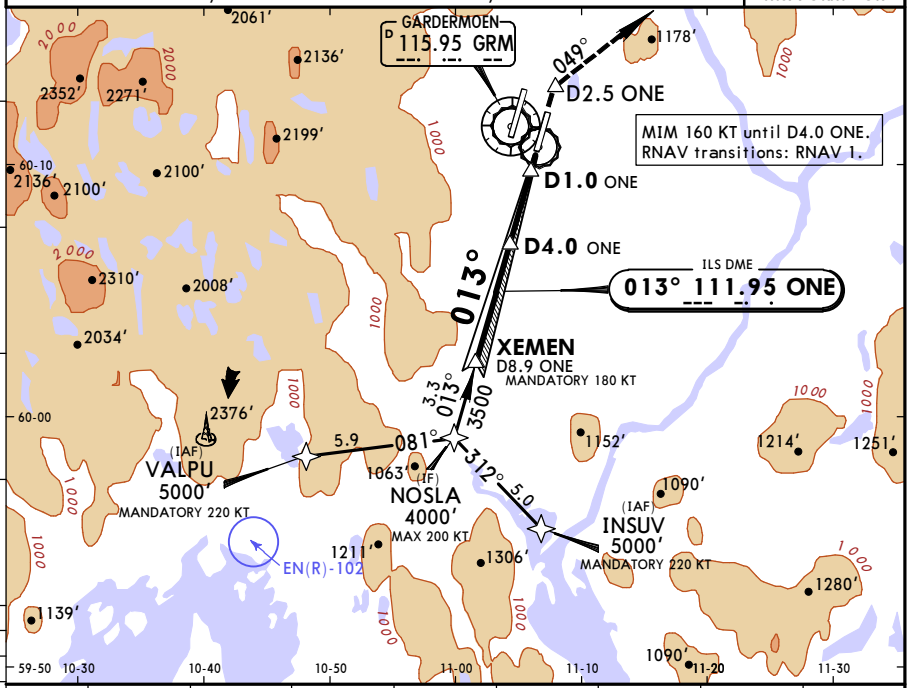
GARDERMOEN Tower West incl Rwy 01L/19R	GARDERMOEN Tower East incl Rwy 01R/19L	Ground West	Ground East
118.3	120.1	121.6	121.9

LOC ONE	Final Apch Crs	GS	ILS DA(H)	Apt Elev 681′
111.95	013°	D4.0 ONE 1957′(1287′)	Refer to Minimums	Rwy 670′

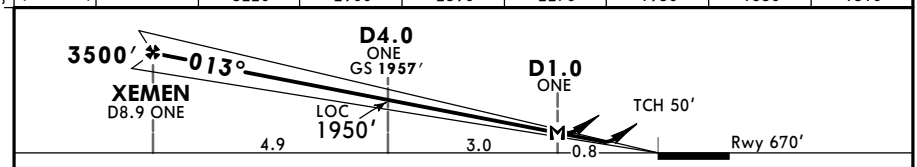
MISSED APCH: Climb on 013° to D2.5 ONE, then turn RIGHT and proceed onto 049° to 4000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Climb on 049° to 4000′. At D20.0 ONE turn RIGHT direct to VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′

MSA GRM VOR: 3900′ (193°), 3400′ (103°), 3400′ (283°), 2700′ (013°)



LOC (GS out)	ONE DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3220′	2900′	2590′	2270′	1950′	1630′	1310′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Desc Angle 3.00°	372	478	531	637	743	849
MAP at D1.0 ONE						

HIALS-II, PAPI

Refer to Missed Apch above

PANS OPS

Standard STRAIGHT-IN LANDING RWY **01R**

	ILS DA(H) ABC: 870′(200′) D: 880′(210′) FULL	Limited	ALS out	LOC (GS out) DA(H) 970′(300′)	ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 750m	RVR 1400m
B					
C					
D					

CIRCLE-TO-LAND
Not authorized West of rwy 01R/19L

Max Kts	MDA(H)	VIS
100	1280′(599′)	1500m
135	1280′(599′)	1600m
180	1570′(889′)	2400m
205	1630′(949′)	3600m

CHANGES: Speed restrictions.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15
Eff 17 Sep

(11-2A)

OSLO, NORWAY
CAT II/III ILS Rwy 01R

BRIEFING STRIP TM

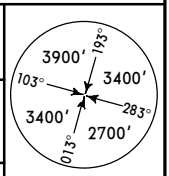
D-ATIS Arrival	*OSLO Approach East	*OSLO Approach West
126.125	118.475	120.450

GARDERMOEN Tower West incl Rwy 01L/19R	GARDERMOEN Tower East incl Rwy 01R/19L	Ground West	Ground East
118.3	120.1	121.6	121.9

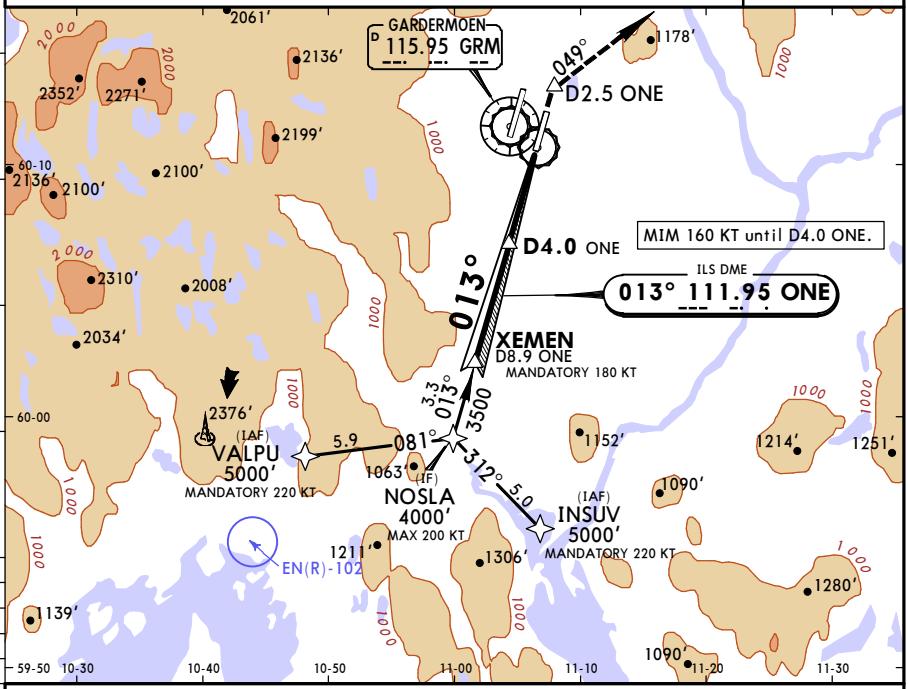
LOC	Final	GS	CAT II & IIIA ILS	Apt Elev 681′
ONE	Apch Crs	D4.0 ONE	Refer to Minimums	Rwy 670′
111.95	013°	1957′ (1287′)		

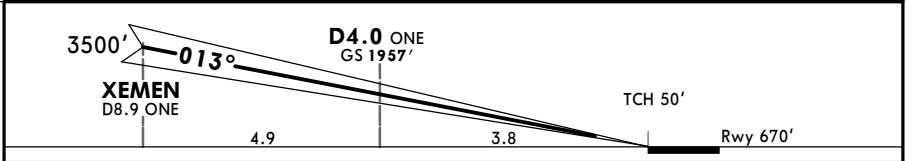
MISSED APCH: Climb on 013° to D2.5 ONE, then turn RIGHT and proceed onto 049° to 4000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Climb on 049° to 4000′. At D20.0 ONE turn RIGHT direct to VOR for a new apch.

Alt Set: hPa Rwy Elev: 24 hPa Trans level: By ATC Trans alt: 7000′
1. Special Aircrew & Aircraft Certification Required.
2. RNAV transitions: RNAV 1.



MSA
GRM VOR





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

HIALS-II
PAPI

Refer to Missed Apch above

PANS OPS

Standard STRAIGHT-IN LANDING RWY **01R**

CAT IIIA ILS	CAT II ILS
DH **50′**	**RA 102′** DA(H) **770′** (100′)
RVR 200m	RVR 300m [1]

[1] Operators applying U.S. Specs: Autoland or HUD required below RVR 350m.

CHANGES: Speed restrictions.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15 (11-3) Eff 17 Sep

OSLO, NORWAY
ILS or LOC Rwy 19L

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

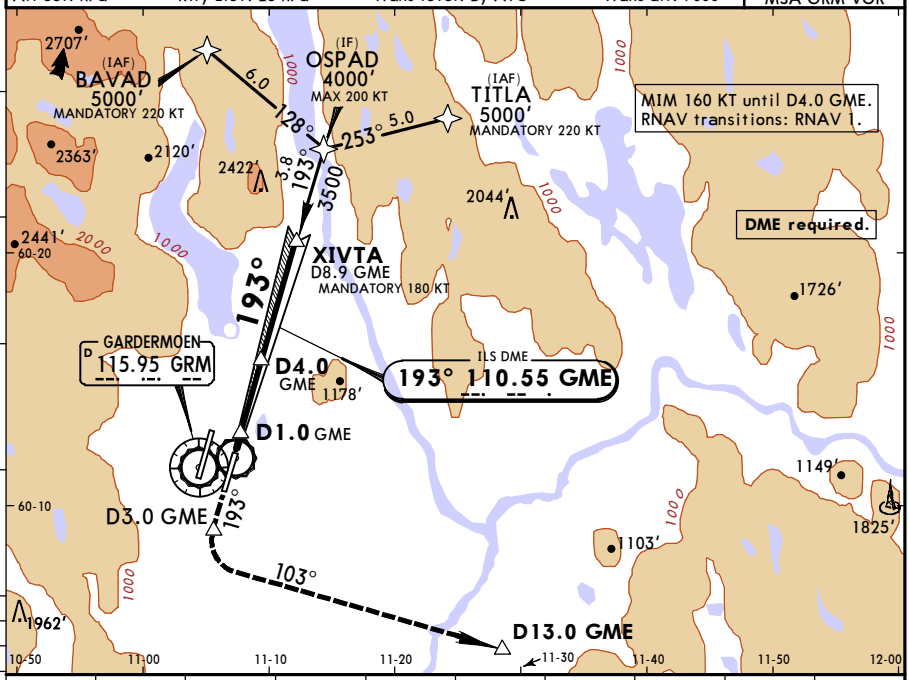
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

LOC	Final	GS	ILS	Apt Elev 681′
GME	Apch Crs	D4.0 GME	DA(H)	Rwy 681′
110.55	193°	1962′(1281′)	881′(200′)	

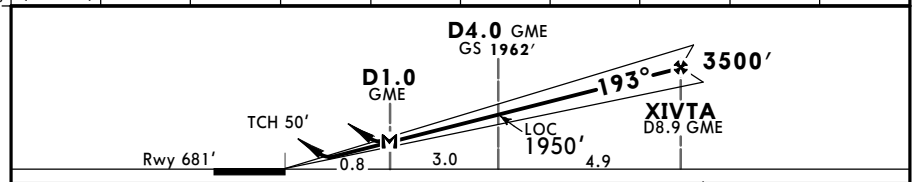
MISSED APCH: Climb on 193° to D3.0 GME. Turn LEFT to 103°. Climb to 3000′. At D13.0 GME climb to 5000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Continue on 103° to 5000′. At D20.0 GME turn LEFT direct to VOR for a new apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′

MSA GRM VOR: 3900′ (193°–103°), 3400′ (103°–283°), 3400′ (283°–013°), 2700′ (013°–193°)



LOC (GS out)	GME DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	1000′	1320′	1640′	1950′	2270′	2590′	2910′	3230′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Desc Angle 3.00°	372	478	531	637	743	849
MAP at D1.0 GME						

HIALS
PAPI

Refer to Missed Apch above

PANS OPS

Standard STRAIGHT-IN LANDING RWY 19L

	ILS DA(H) 881′(200′) FULL	Limited	ALS out	LOC (GS out) DA(H) 1030′(349′)	ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 900m	RVR 1500m
B					
C					RVR 1600m
D					

CIRCLE-TO-LAND
Not authorized West of rwy 01R/19L

Max Kts	MDA(H)	VIS
100	1280′(599′)	1500m
135	1280′(599′)	1600m
180	1570′(889′)	2400m
205	1630′(949′)	3600m

CHANGES: Speed restrictions.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15 (11-4) Eff 17 Sep

OSLO, NORWAY
ILS or LOC Rwy 19R

BRIEFING STRIP™

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

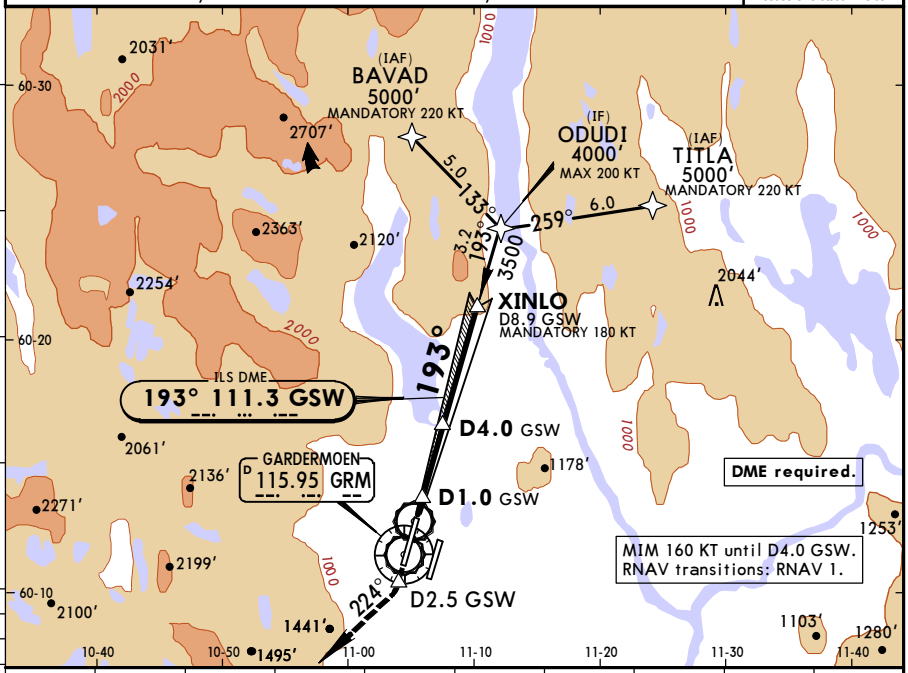
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

LOC GSW	Final Apch Crs	GS	ILS DA(H)	Apt Elev 681′
111.3	193°	D4.0 GSW 1961′(1286′)	875′(200′)	Rwy 675′

MISSED APCH: Climb on 193° to D2.5 GSW, then turn RIGHT onto 224°. Climb to 5000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Continue on 224°. Climb to 5000′. At D20.0 GSW turn RIGHT direct to VOR for a new apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′

MSA GRM VOR: 3900′ (193°–103°), 3400′ (103°–283°), 3400′ (283°–013°), 2700′ (013°–193°)



LOC (GS out)	GSW DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
	ALTITUDE	1000′	1320′	1630′	1950′	2270′	2590′	2910′	3230′

Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Desc Angle 3.00°	372	478	531	637	743	849
MAP at D1.0 GSW						

HIALS-II, PAPI

Refer to Missed Apch above

PANS OPS

Standard STRAIGHT-IN LANDING RWY **19R**

	ILS DA(H) 875′(200′) FULL	Limited	ALS out	LOC (GS out) DA(H) 1020′(345′)	ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 900m	RVR 1500m
B					
C					RVR 1600m
D					

CIRCLE-TO-LAND
Not authorized East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1980′(1299′)	2400m
205	2230′(1549′)	3600m

CHANGES: Speed restrictions.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15
Eff 17 Sep

(11-4A)

OSLO, NORWAY
CAT II/III ILS Rwy 19R

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

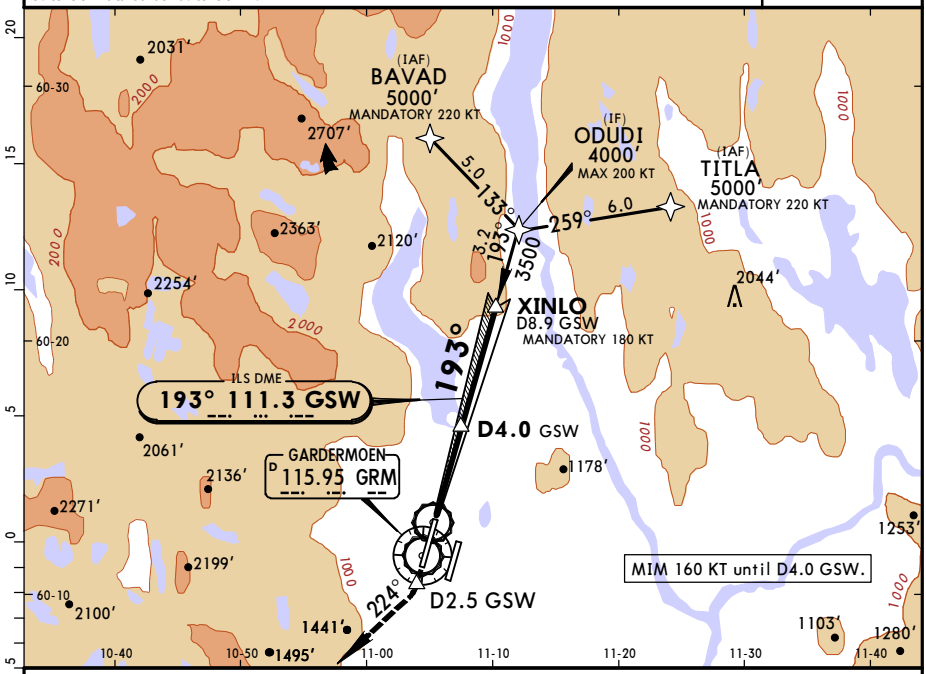
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

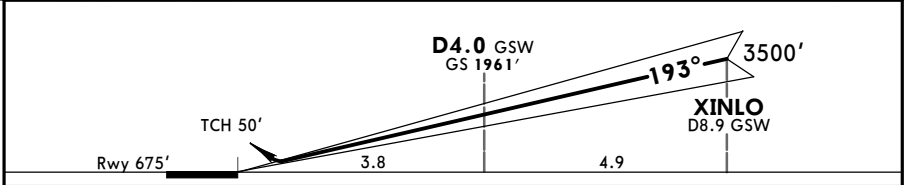
LOC GSW	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 681′
111.3	193°	D4.0 GSW 1961′(1286′)	Refer to Minimums	Rwy 675′

MSA GRM VOR: 3900′ (193°–103°), 3400′ (103°–283°), 3400′ (283°–013°), 2700′ (013°–193°)

MISSED APCH: Climb on 193° to D2.5 GSW, then turn RIGHT onto 224°. Climb to 5000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Continue on 224°. Climb to 5000′. At D20.0 GSW turn RIGHT direct to VOR for a new apch.

Alt Set: hPa Rwy Elev: 25 hPa Trans level: By ATC Trans alt: 7000′
1. **DME required.** 2. Special Aircrew & Aircraft Certification Required.
3. RNAV transitions: RNAV 1.





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

HIALS-II
PAPI

Refer to Missed Apch above

PANS OPS

Standard STRAIGHT-IN LANDING RWY **19R**

CAT IIIA ILS	CAT II ILS
DH **50′**	**RA 100′** DA(H) **775′**(100′)
RVR 200m	RVR 300m [1]

[1] Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Speed restrictions.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan
(12-1)

OSLO, NORWAY
RNAV (GNSS) Z Rwy 01L

BRIEFING STRIP ™

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

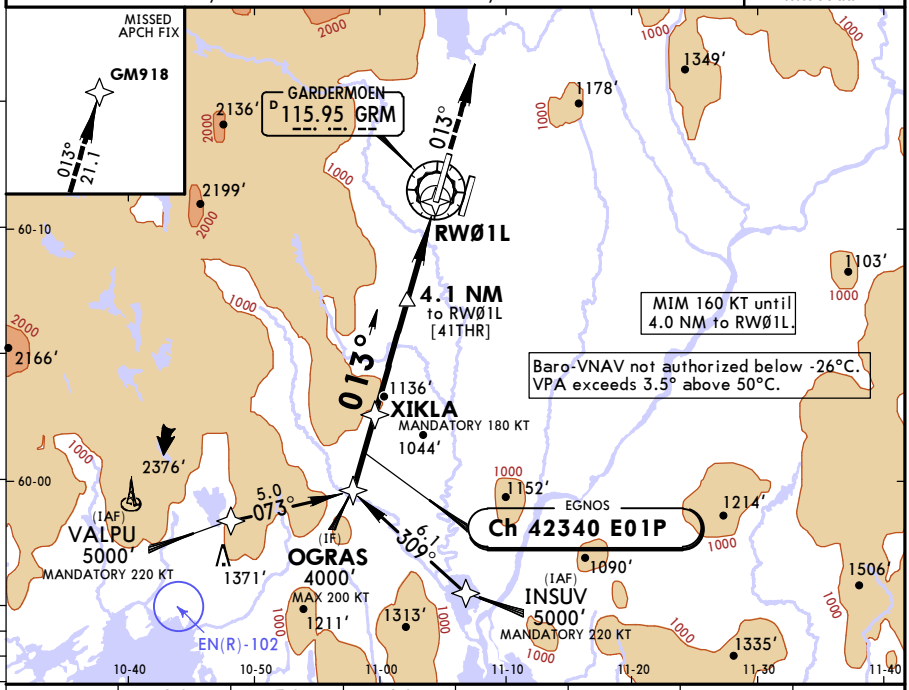
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

EGNOS	Final Apch Crs	Procedure Alt	LPV DA(H)	Apt Elev 681′
Ch 42340 E01P	013°	XIKLA 3500′ (2845′)	905′ (250′)	Rwy 655′

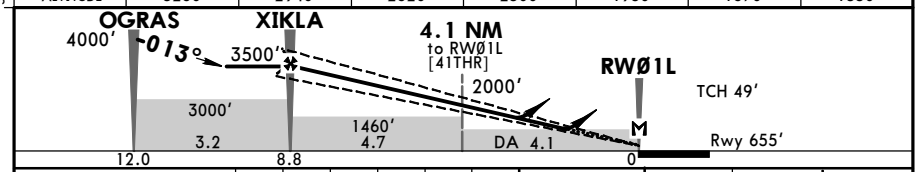
MISSED APCH: Climb to 5000′ to GM918. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM918 turn LEFT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′

3900′
MSA ARP



DIST to RWØ1L	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3260′	2940′	2620′	2300′	1980′	1670′	1350′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
LPV, LNAV/VNAV: MAP at DA						
LNAV: MAP at RWØ1L						

HIALS
PAPI

GM918 on 013°

Standard STRAIGHT-IN LANDING RWY **01L**

	LPV		LNAV/VNAV		LNAV	
	DA(H) 905′ (250′)	ALS out	DA(H) A: 1000′ (345′) B: 1010′ (355′) C: 1030′ (375′) D: 1150′ (495′)	ALS out	DA(H) 1240′ (585′)	ALS out
A	RVR 750m	RVR 1300m	RVR 900m	RVR 1500m	RVR 1500m	
B						
C			RVR 1000m	RVR 1700m	RVR 2000m	CMV 2400m
D			RVR 1500m	CMV 2300m		

PANS OPS

CIRCLE-TO-LAND

Not authorized
East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1920′ (1239′)	2400m
205	2230′ (1549′)	3600m

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-2)

OSLO, NORWAY
RNAV (RNP) X Rwy 01L

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach East	*OSLO Approach West
126.125	118.475	120.450

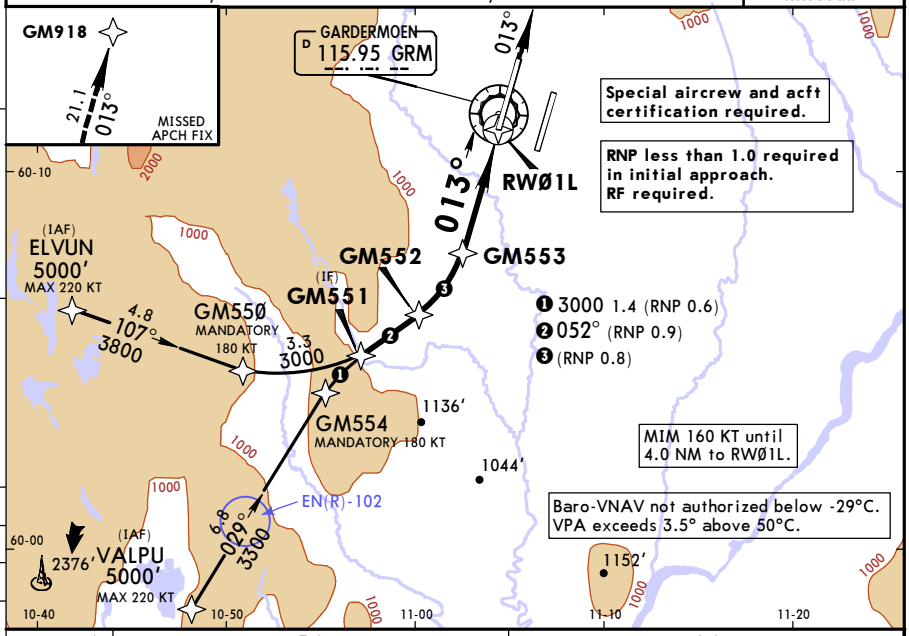
GARDERMOEN Tower West incl Rwy 01L/19R	GARDERMOEN Tower East incl Rwy 01R/19L	Ground West	Ground East
118.3	120.1	121.6	121.9

RNAV	Final Apch Crs	Procedure Alt GM553	RNP 0.30 DA(H) Refer to Minimums	Apt Elev 681′ Rwy 655′
	013°	1800′ (1145′)		

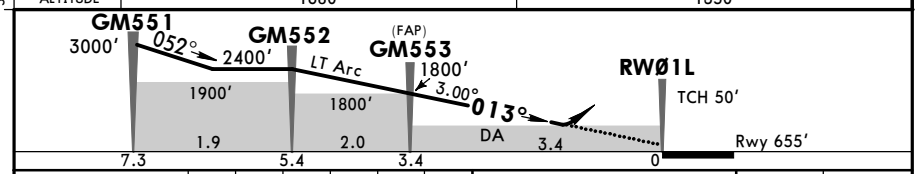
MISSED APCH: Climb to 5000′ to GM918. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM918 turn LEFT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′

3900′
MSA ARP



DIST to RW01L	3.0	2.0
ALTITUDE	1680′	1350′



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849
MAP at DA							

HIALS-II
PAPI
GM918

Standard STRAIGHT-IN LANDING RWY **01L**

	RNP 0.30		RNP 0.30	
	Missed apch climb gradient mim 5.0%		Missed apch climb gradient mim 2.5%	
DA(H)	A: 978′ (323′) C: 1029′ (374′) B: 1006′ (351′) D: 1052′ (397′)		DA(H) 1084′ (429′)	
		ALS out		ALS out
A	RVR 800m	RVR 1500m	RVR 1300m	RVR 1500m
B	RVR 900m			
C	RVR 1000m	RVR 1700m		RVR 2000m
D	RVR 1100m	RVR 1800m		

CIRCLE-TO-LAND

Not authorized East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1920′ (1239′)	2400m
205	2230′ (1549′)	3600m

PANS OPS

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-3)

OSLO, NORWAY
RNAV (GNSS) Z Rwy 01R

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach East	*OSLO Approach West
126.125	118.475	120.450

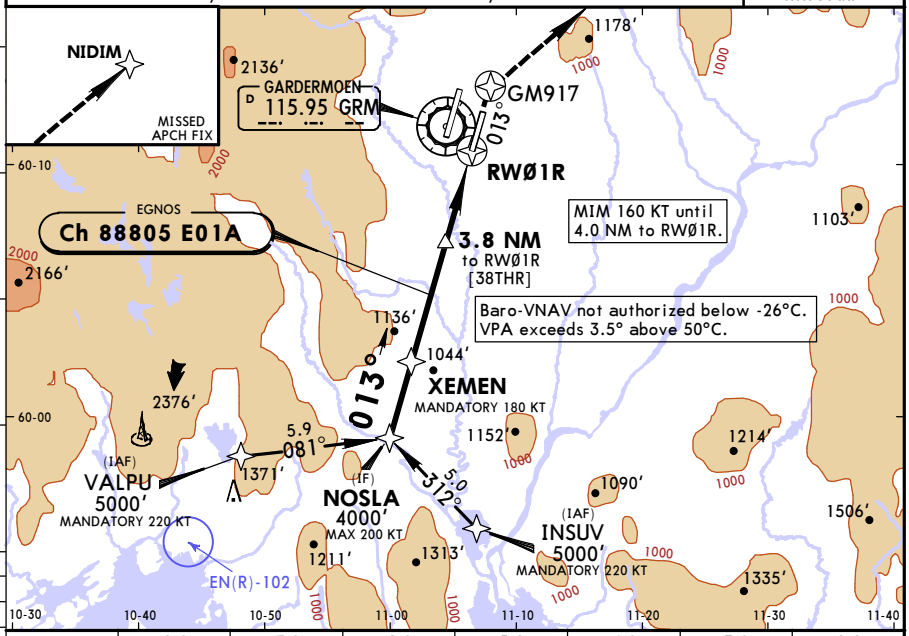
GARDERMOEN Tower West incl Rwy 01L/19R	GARDERMOEN Tower East incl Rwy 01R/19L	Ground West	Ground East
118.3	120.1	121.6	121.9

EGNOS	Final Apch Crs	Procedure Alt	LPV DA(H)	Apt Elev 681′
Ch 88805 E01A	**013°**	**XEMEN** **3500′** (2830′)	**920′** (250′)	Rwy 670′

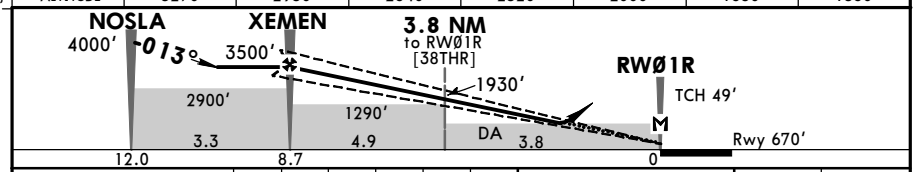
MISSED APCH: Climb to GM917. Turn RIGHT direct to NIDIM climbing to 4000′. Expect vectoring.
MISSED APCH WITH LOST COMM: At NIDIM turn RIGHT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′

3900′
MSA ARP



DIST to RWØ1R	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3270′	2950′	2640′	2320′	2000′	1680′	1360′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
LPV, LNAV/VNAV: MAP at DA						
LNAV: MAP at RWØ1R						

HIALS-II
PAPI
GM917

PANS OPS

Standard — STRAIGHT-IN LANDING RWY **01R**

	LPV		LNAV/VNAV		LNAV	
	DA(H) **920′** (250′)		DA(H) A: **970′** (300′) C: **1010′** (340′) B: **990′** (320′) D: **1030′** (360′)		DA(H) **1230′** (560′)	
		ALS out		ALS out		ALS out
A	RVR 750m [1]	RVR 1300m	RVR 750m [2]	RVR 1400m	RVR 1500m	
B			RVR 750m [3]			
C			RVR 800m	RVR 1500m	RVR 1800m	CMV 2400m
D			RVR 900m	RVR 1600m		

CIRCLE-TO-LAND

Not authorized West of rwy 01R/19L

Max Kts.	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1530′ (849′)	2400m
205	1630′ (949′)	3600m

[1] With TDZ, CL and HUD: RVR 600m. [2] With TDZ, CL and HUD: RVR 650m.
[3] With TDZ, CL and HUD: RVR 700m.

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-4)

OSLO, NORWAY
RNAV (RNP) X Rwy 01R

BRIEFING STRIP™

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

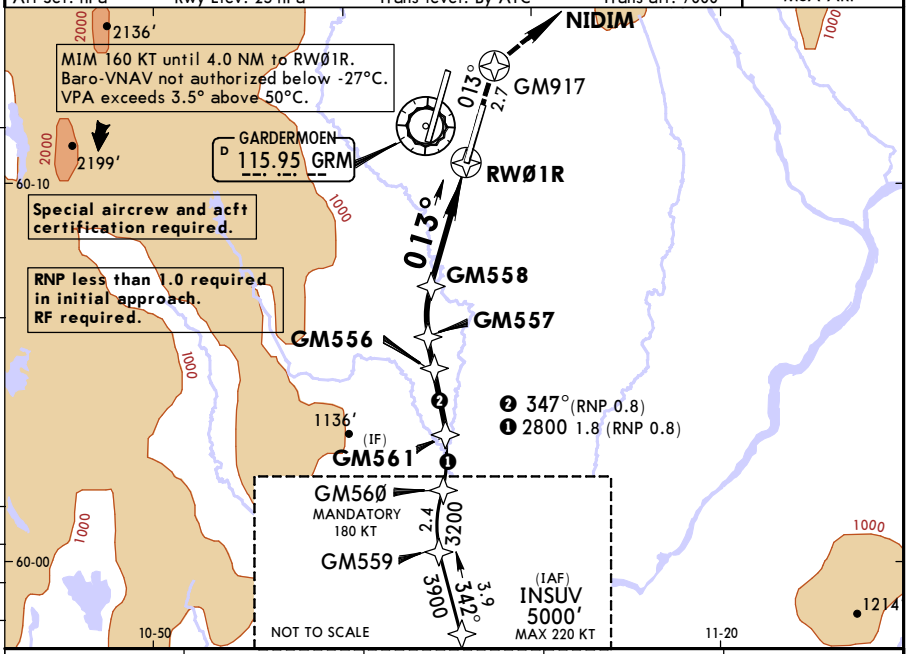
RNAV	Final Apch Crs	Procedure Alt	RNP 0.30 DA(H) Refer to Minimums	Apt Elev 681′ Rwy 670′
	013°	GM556 2500′ (1830′)		

3900′

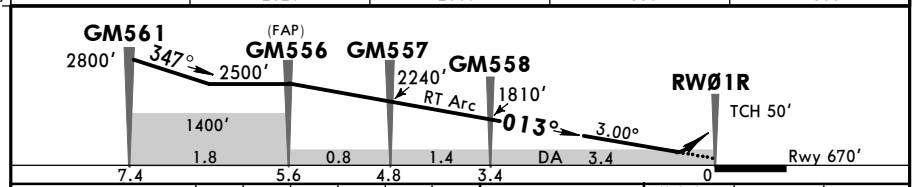
MSA ARP

MISSED APCH: Climb to GM917. Turn RIGHT direct to NIDIM, climbing to 4000′. Expect vectoring.
MISSED APCH WITH LOST COMM: At NIDIM turn RIGHT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RWØ1R	5.0	4.0	3.0	2.0
ALTITUDE	2320′	2000′	1680′	1360′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
MAP at DA						

HIALS-II
PAPI

GM917 | NIDIM RT

PANS OPS

Standard STRAIGHT-IN LANDING RWY **01R**

	RNP 0.30 Missed apch climb gradient mim 5.0%		RNP 0.30 Missed apch climb gradient mim 2.5%	
DA(H)	A: **945′** (275′) C: **996′** (326′) B: **972′** (302′) D: **1019′** (349′)		DA(H) **1062′** (392′)	
	ALS out			ALS out
A	RVR 750m ❶	RVR 1300m	RVR 1100m	RVR 1500m
B	RVR 750m ❷	RVR 1400m		
C	RVR 800m	RVR 1500m		RVR 1800m
D	RVR 900m	RVR 1600m		

CIRCLE-TO-LAND
Not authorized
West of rwy 01R/19L

Max Kts.	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1570′ (889′)	2400m
205	1630′ (949′)	3600m

❶ With TDZ, CL and HUD: RVR 600m. ❷ With TDZ, CL and HUD: RVR 700m.

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-5)

OSLO, NORWAY
RNAV (RNP) W Rwy 01R

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

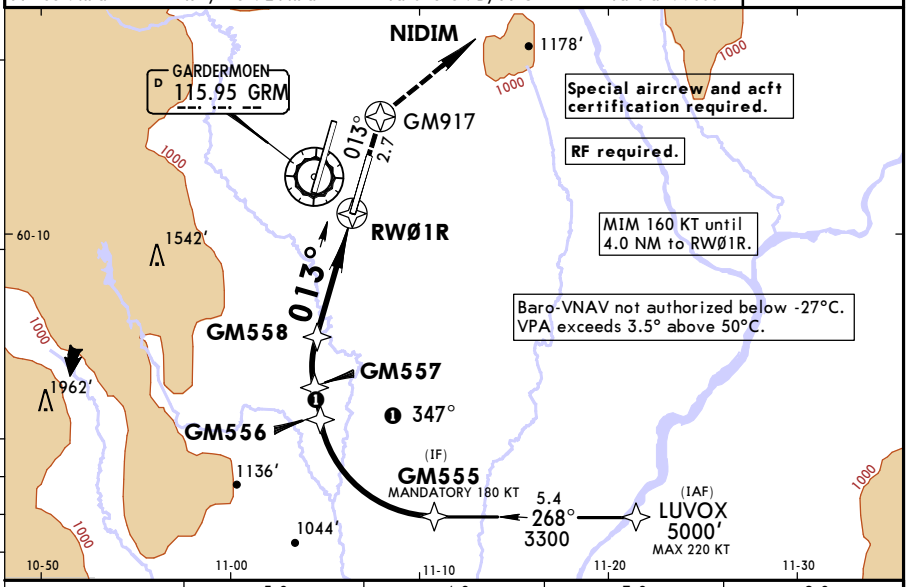
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

RNAV	Final Apch Crs	Procedure Alt	RNP 0.30 DA(H) Refer to Minimums	Apt Elev 681′ Rwy 670′
	013°	**GM556** **2500′** (1830′)		

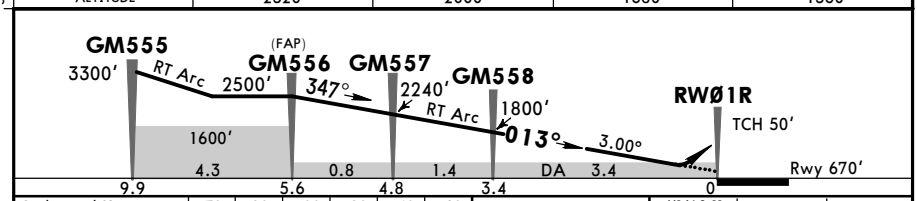
3900′
MSA ARP

MISSED APCH: Climb to GM917. Turn RIGHT direct to NIDIM, climbing to 4000′. Expect vectoring.
MISSED APCH WITH LOST COMM: At NIDIM turn RIGHT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RWØ1R	5.0	4.0	3.0	2.0
ALTITUDE	2320′	2000′	1680′	1360′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
MAP at DA						

HIALS-II
PAPI

GM917 | NIDIM RT

PANS OPS

Standard STRAIGHT-IN LANDING RWY **01R**

	RNP 0.30 Missed apch climb gradient mim 5.0%		RNP 0.30 Missed apch climb gradient mim 2.5%	
DA(H)	A: **945′** (275′) C: **996′** (326′) B: **972′** (302′) D: **1019′** (349′)		DA(H) **1062′** (392′)	
		ALS out		ALS out
A	RVR 750m [1]	RVR 1300m	RVR 1100m	RVR 1500m
B	RVR 750m [2]	RVR 1400m		
C	RVR 800m	RVR 1500m		RVR 1800m
D	RVR 900m	RVR 1600m		

CIRCLE-TO-LAND

Not authorized West of rwy 01R/19L

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1570′ (889′)	2400m
205	1630′ (949′)	3600m

[1] With TDZ, CL and HUD: RVR 600m. [2] With TDZ, CL and HUD: RVR 700m.

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-6)

OSLO, NORWAY
RNAV (GNSS) Z Rwy 19L

BRIEFING STRIP ™

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

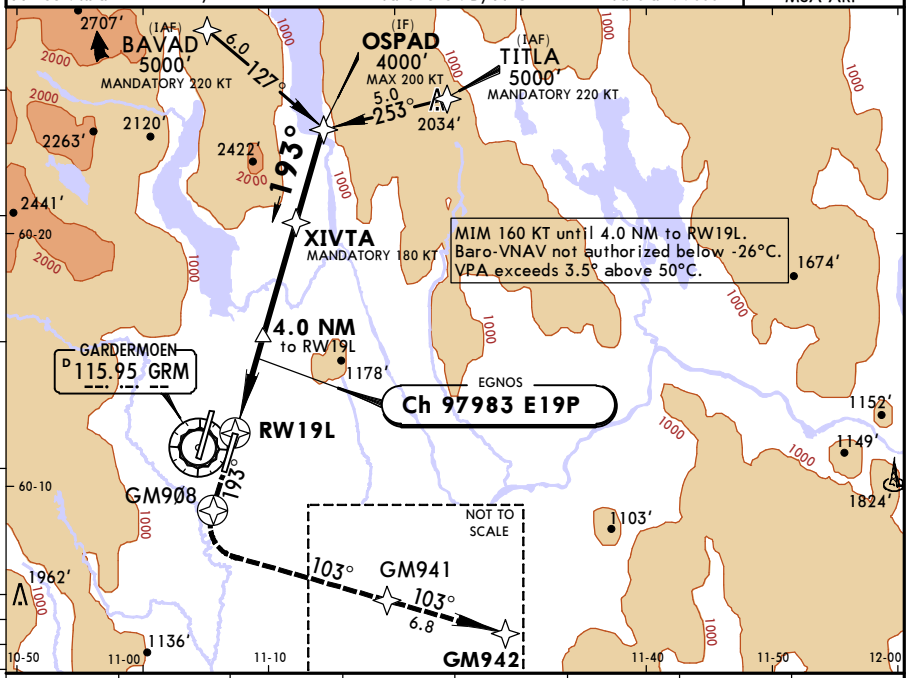
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

EGNOS	Final	Procedure Alt	LPV	Apt Elev 681′
Ch 97983 E19P	Apch Crs 193°	XIVTA 3500′ (2819′)	DA(H) Refer to Minimums	Rwy 681′

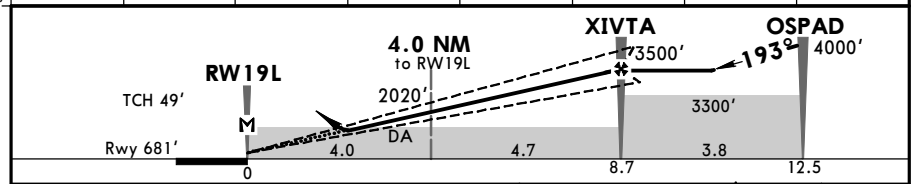
3900′ MSA ARP

MISSED APCH: Climb to GM9Ø8. Turn LEFT to GM941 on course 103°, climbing to 3000′, then climb to 5000′ to GM942. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM942 turn LEFT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RW19L	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	1370′	1690′	2010′	2330′	2650′	2970′	3280′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
LPV, LNAV/VNAV: MAP at DA						
LNAV: MAP at RW19L						

HIALS
PAPI
GM9Ø8

Standard STRAIGHT-IN LANDING RWY **19L**

LPV		LNAV/VNAV		LNAV	
DA(H) AB: 931′ (250′)	C: 940′ (259′) D: 950′ (269′)	DA(H) A: 1000′ (319′) B: 1010′ (329′)	C: 1030′ (349′) D: 1150′ (469′)	DA(H) 1230′ (549′)	
	ALS out		ALS out		ALS out
A	RVR 750m	RVR 750m	RVR 1400m	RVR 1500m	
B		RVR 800m	RVR 1500m		
C		RVR 900m	RVR 1600m	RVR 1800m	CMV 2400m
D		RVR 1500m	CMV 2200m		

RVR 1300m

CIRCLE-TO-LAND

Not authorized
West of rwy 01R/19L

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1530′ (849′)	2400m
205	1630′ (949′)	3600m

PANS OPS

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan
(12-7)

OSLO, NORWAY
RNAV (RNP) X Rwy 19L

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach
126.125	East 118.475 West 120.450

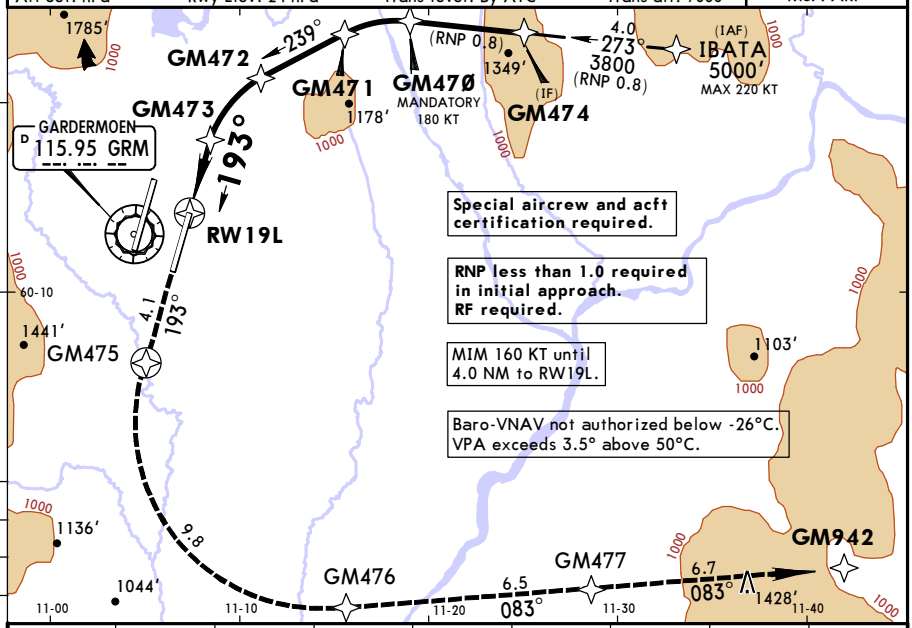
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

RNAV	Final Apch Crs	Procedure Alt	RNP 0.30 DA(H) Refer to Minimums	Apt Elev 681′ Rwy 681′
	193°	GM470 3400′ (2719′)		

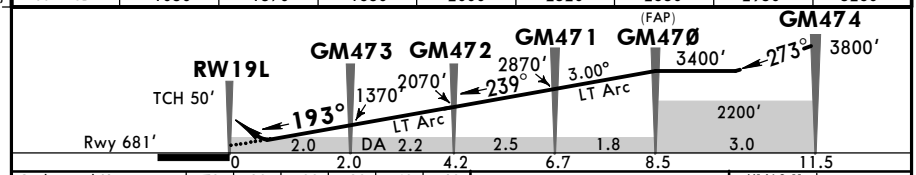
MISSED APCH: Climb to GM475. Turn LEFT to GM476 climbing to 3000′ to GM477. Continue climbing to GM942 to 5000′. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM942 turn LEFT direct to GRM VOR for a new apch.

3900′
MSA ARP

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RW19L	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	1050′	1370′	1680′	2000′	2320′	2630′	2950′	3260′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
MAP at DA						

HIALS-II
PAPI
GM475

PANS OPS

Standard STRAIGHT-IN LANDING RWY 19L

	RNP 0.30		RNP 0.30	
	Missed apch climb gradient mim 5.0%		Missed apch climb gradient mim 2.5%	
DA(H)	A: 990′ (309′) C: 1040′ (359′) B: 1020′ (339′) D: 1060′ (379′)		A: 1030′ (349′) C: 1070′ (389′) B: 1050′ (369′) D: 1090′ (409′)	
		ALS out		ALS out
A	RVR 750m	RVR 1400m	RVR 900m	RVR 1500m
B	RVR 800m	RVR 1500m	RVR 1000m	
C	RVR 900m	RVR 1600m	RVR 1100m	RVR 1800m
D	RVR 1000m	RVR 1700m	RVR 1200m	RVR 1900m

CIRCLE-TO-LAND

Not authorized
West of rwy 01R/19L

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1530′ (849′)	2400m
205	1630′ (949′)	3600m

CHANGES: Missed approach.

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-8)

OSLO, NORWAY
❶ RNAV (GNSS) Z Rwy 19R

BRIEFING STRIP™

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

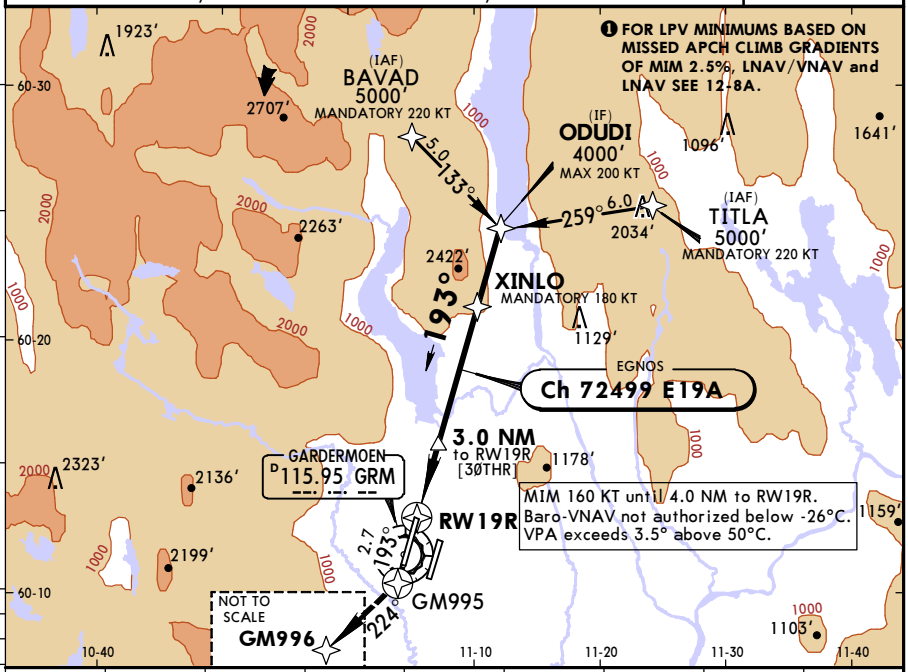
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

EGNOS	Final	Procedure Alt	LPV	Apt Elev 681′
Ch 72499	Apch Crs	XINLO	DA(H)	
E19A	193°	3500′ (2825′)	Refer to Minimums	Rwy 675′

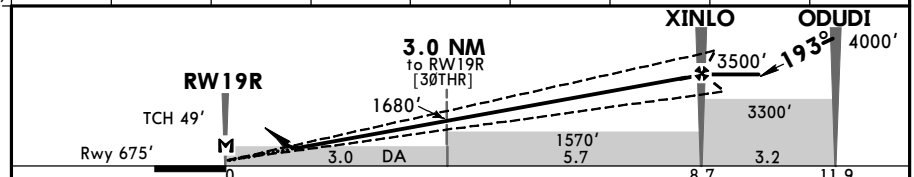
3900′
MSA ARP

MISSED APCH: Climb to GM995. Turn RIGHT to GM996 on course 224°, climbing to 5000′. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM996 turn RIGHT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RW19R	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	1050′	1370′	1680′	2000′	2320′	2640′	2960′	3280′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
MAP at DA						

HIALS-II
PAPI
GM995 on 193°

Standard

STRAIGHT-IN LANDING RWY **19R**
LPV
Missed apch climb gradient mim 3.1%

DA(H)
A: **930′** (255′) C: **950′** (275′)
B: **940′** (265′) D: **960′** (285′)

CIRCLE-TO-LAND
Not authorized
East of rwy 01L/19R

PANS OPS

		ALS out
A	RVR 750m ❶	RVR 1300m
B		
C		
D	RVR 750m ❷	RVR 1400m

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1920′ (1239′)	2400m
205	2230′ (1549′)	3600m

❶ With TDZ, CL and HUD: RVR 600m. ❷ With TDZ, CL and HUD: RVR 650m.

CHANGES: Missed approach.

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RNAV (GNSS) Z Rwy 19R MINIMUMS

BASED ON:

MISSED APCH CLIMB GRADIENT MIM 2.5%

Standard STRAIGHT-IN LANDING RWY **19R**
LPV

DA(H)
A: **1020′** (345′) C: **1040′** (365′)
B: **1030′** (355′) D: **1050′** (375′)

		ALS out
A	RVR 900m	RVR 1500m
B		
C	RVR 1000m	RVR 1700m
D		

Standard STRAIGHT-IN LANDING RWY **19R**
LNAV/VNAV

DA(H)
A: **970′** (295′) C: **1000′** (325′)
B: **980′** (305′) D: **1030′** (355′)

		ALS out
A	RVR 750m [1]	RVR 1400m
B	RVR 750m [2]	
C	RVR 800m	RVR 1500m
D	RVR 900m	RVR 1600m

[1] With TDZ, CL and HUD: RVR 650m.
[2] With TDZ, CL and HUD: RVR 700m.

Standard STRAIGHT-IN LANDING RWY **19R**
LNAV

DA(H)
AB: **1040′** (365′) C: **1060′** (385′)
D: **1080′** (405′)

		ALS out
A	RVR 1000m	RVR 1500m
B		
C	RVR 1100m	RVR 1800m
D	RVR 1200m	RVR 1900m

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ENGM/OSL
GARDERMOEN

JEPPESEN

1 JAN 16
Eff 7 Jan

(12-9)

OSLO, NORWAY
RNAV (RNP) X Rwy 19R

BRIEFING STRIP TM

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.450

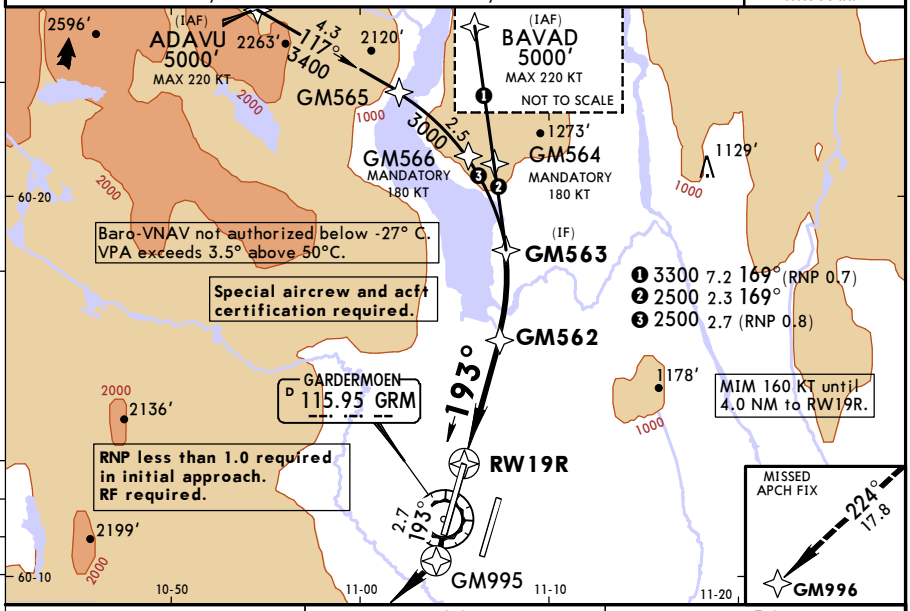
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

RNAV	Final Apch Crs	Procedure Alt	RNP 0.30 DA(H) Refer to Minimums	Apt Elev 681′ Rwy 675′
	193°	GM562 1800′ (1125′)		

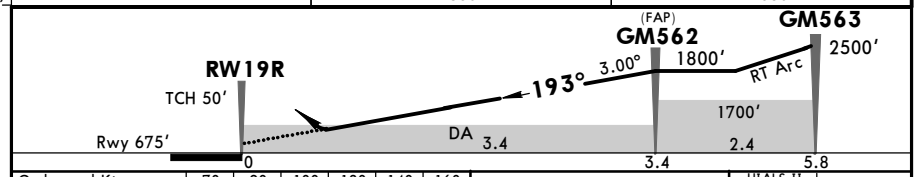
3900′
MSA ARP

MISSED APCH: Climb to GM995. Turn RIGHT on 224° climbing to 5000′ to GM 996. Expect vectoring.
MISSED APCH WITH LOST COMM: At GM996 turn RIGHT direct to GRM VOR for a new apch.

Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′



DIST to RW19R	2.0	3.0
ALTITUDE	1360′	1680′



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00°	372	478	531	637	743	849
MAP at DA						

HIALS-II
PAPI
GM995

Standard

STRAIGHT-IN LANDING RWY 19R

	RNP 0.30		RNP 0.30	
	Missed apch climb gradient mim 5.0%		Missed apch climb gradient mim 2.5%	
	DA(H) 970′ (295′)		DA(H) 1060′ (385′)	
		ALS out		ALS out
A	RVR 750m ❶	RVR 1400m	RVR 1100m	RVR 1500m
B				
C				RVR 1800m
D				

CIRCLE-TO-LAND

Not authorized East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	1920′ (1239′)	2400m
205	2230′ (1549′)	3600m

PANS OPS

❶ With TDZ, CL and HUD: RVR 650m.

CHANGES: Missed approach.

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ENGM/OSL GARDERMOEN

JEPPESEN

4 SEP 15 (13-1) Eff 17 Sep

OSLO, NORWAY VOR Rwy 01L

BRIEFING STRIP TM

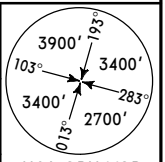
D-ATIS Arrival	*OSLO Approach East	*OSLO Approach West
126.125	118.475	120.450

GARDERMOEN Tower West incl Rwy 01L/19R	GARDERMOEN Tower East incl Rwy 01R/19L	Ground West	Ground East
118.3	120.1	121.6	121.9

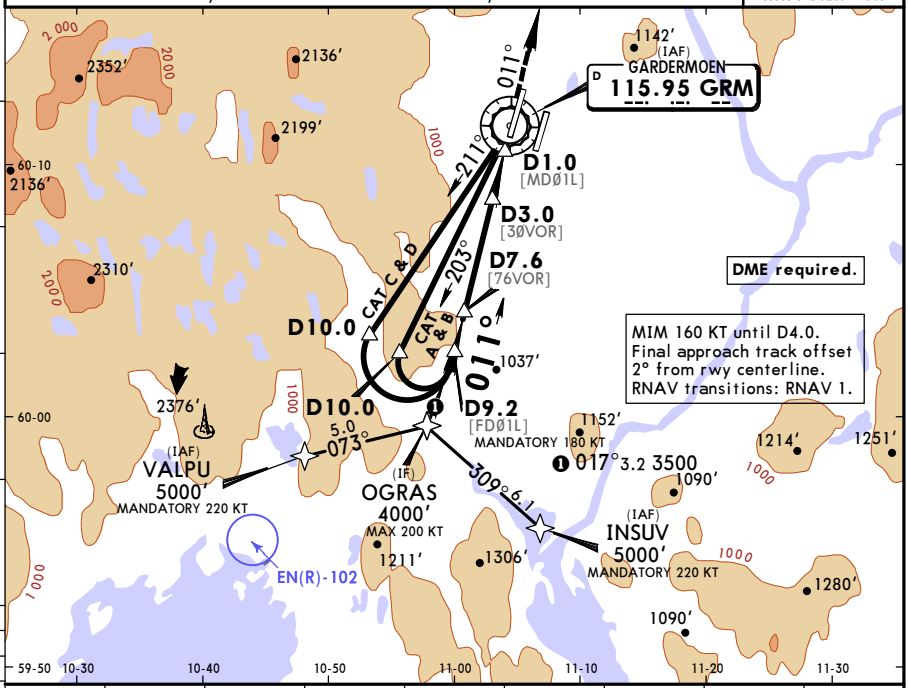
VOR	Final Apch Crs	Procedure Alt	DA(H)	Apt Elev 681′
GRM 115.95	011°	D9.2 3500′ (2845′)	Refer to Minimums	Rwy 655′

MISSED APCH: Climb to VOR, then continue on R-011 to 5000′.
Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Climb on R-011 to 5000′.
At D20.0 turn LEFT direct to VOR for new instrument apch.

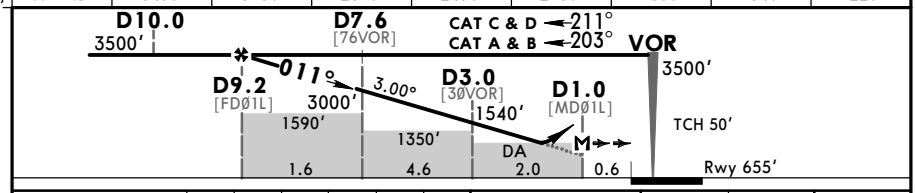
Alt Set: hPa | Rwy Elev: 24 hPa | Trans level: By ATC | Trans alt: 7000′



MSA GRM VOR



GRM DME	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3450′	3130′	2810′	2490′	2180′	1860′	1540′	1220′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00°	372	478	531	637	743	849
MAP at D1.0							

HIALS PAPI 5000′ on GRM 115.95 R-011

PANS OPS

Standard STRAIGHT-IN LANDING RWY **01L**

DA(H) A: **1000′**(345′) C: **1040′**(385′) B: **1020′**(365′) D: **1060′**(405′)

		ALS out
A	RVR 900m	RVR 1500m
B	RVR 1000m	
C	RVR 1100m	RVR 1800m
D	RVR 1200m	RVR 1900m

CIRCLE-TO-LAND

Not authorized
East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	2040′ (1359′)	2400m
205	2250′ (1569′)	3600m

CHANGES: Speed restrictions. Minimums.

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ENGM/OSL
GARDERMOEN

JEPPESEN

4 SEP 15 (13-2) Eff 17 Sep

OSLO, NORWAY
VOR Rwy 19R

BRIEFING STRIP

D-ATIS Arrival	*OSLO Approach	
126.125	East 118.475	West 120.45

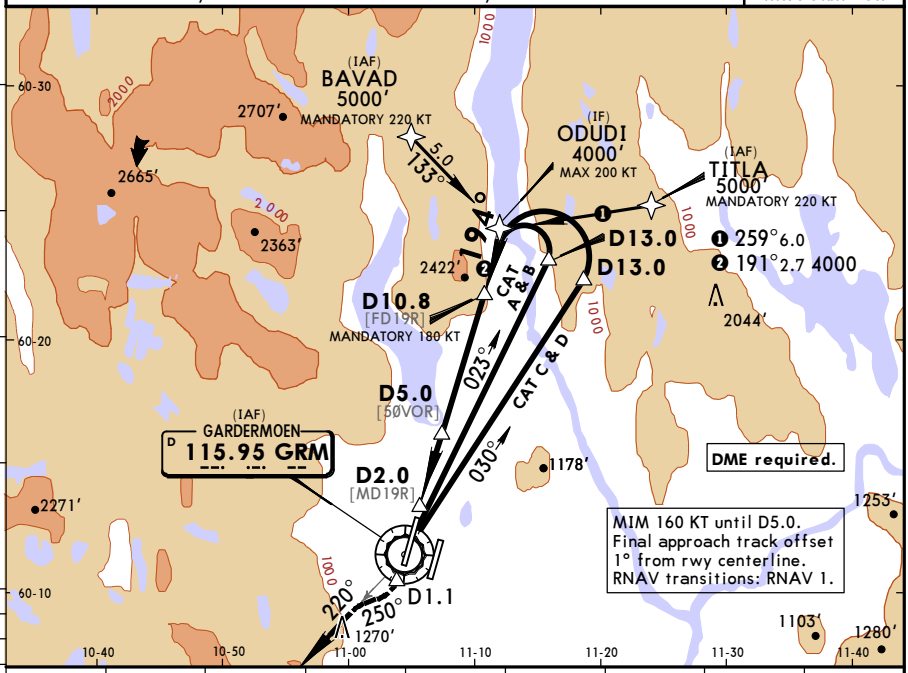
GARDERMOEN Tower		Ground	
West incl Rwy 01L/19R	East incl Rwy 01R/19L	West	East
118.3	120.1	121.6	121.9

VOR	Final	Procedure Alt	DA(H)	Apt Elev 681′
GRM	Apch Crs	D10.8		
115.95	194°	4000′ (3325′)	1060′ (385′)	Rwy 675′

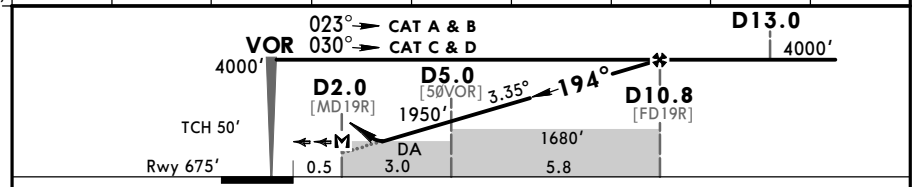
MISSED APCH: Climb on R-014 inbound to VOR. Continue climb on R-194 to D1.1, then turn RIGHT to 250°, intercept and proceed R-220. Climb to 5000′. Expect vectoring by OSLO APP.
MISSED APCH WITH LOST COMM: Continue climb on R-220 to 5000′.
At D20.0 turn RIGHT direct to VOR for new instrument apch.

Alt Set: hPa | Rwy Elev: 25 hPa | Trans level: By ATC | Trans alt: 7000′

MSA GRM VOR: 3900′ (193°–103°), 3400′ (103°–283°), 3400′ (283°–013°), 2700′ (013°–193°)



GRM DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1240′	1600′	1950′	2310′	2660′	3010′	3370′	3720′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.35°	415	534	593	711	830	948
MAP at D2.0							

HIALS-II PAPI

D1.1 on GRM 115.95 R-194

PANS OPS

Standard STRAIGHT-IN LANDING RWY **19R**

DA(H) **1060′** (385′)

		ALS out
A	RVR 1100m	RVR 1500m
B		
C		RVR 1800m
D		

CIRCLE-TO-LAND
Not authorized
East of rwy 01L/19R

Max Kts	MDA(H)	VIS
100	1280′ (599′)	1500m
135	1280′ (599′)	1600m
180	2040′ (1359′)	2400m
205	2250′ (1569′)	3600m

CHANGES: Speed restrictions. Minimums.

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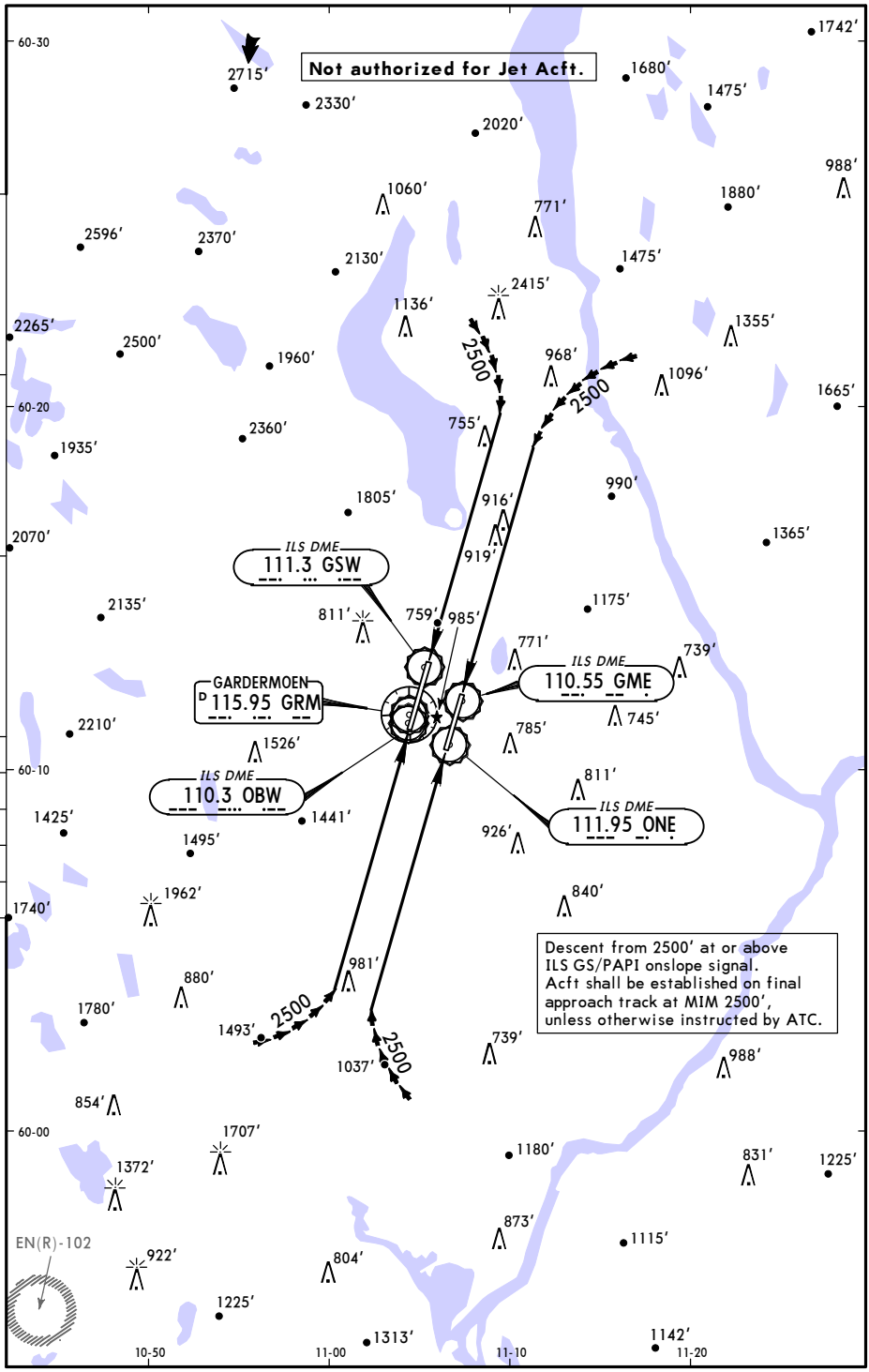
VISUAL APPROACH PROCEDURES



CHANGES: Procedures.

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JEPPESEN
JeppView for Windows

Chart changes since cycle 12-2016

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE

OSLO, (GARDERMOEN - ENGM)

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TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport ENGM

Type: Terminal
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

(12-1, 12-3, 12-6, 12-8/12-8A) RNAV (GNSS) Z RWY 01L, RWY 01R, RWY 19L and RWY 19R LPV minimums suspended.

Type: Terminal
Effectivity: Temporary
Begin Date: 20160526
End Date: Until Further Notice

(10-3B/C, F/G, K/L, M/N, P/Q) General restriction note revised. Read 'Enroute cruising level will be issued after take-off by OSLO Approach or NORWAY Control'.