

List of pages in this Trip Kit

Trip Kit Index

Airport Information For ULMM

Terminal Charts For ULMM

Revision Letter For Cycle 08-2026

Change Notices

Notebook

General Information

Location: MURMANSK RUS
ICAO/IATA: ULMM / MMK
Lat/Long: N68° 46.90', E032° 45.07'
Elevation: 267 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -3:00 = UTC
Magnetic Variation: 16.0° E

Fuel Types: Jet A-1
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0018 Z
Sunset: 1914 Z

Runway Information

Runway: 13
Length x Width: 8202 ft x 138 ft
Surface Type: asphalt
TDZ-Elev: 257 ft
Lighting: Edge, ALS

Runway: 31
Length x Width: 8202 ft x 138 ft
Surface Type: asphalt
TDZ-Elev: 267 ft
Lighting: Edge, ALS

Communication Information

ATIS: 127.400
Murmansk Tower: 120.300
Murmansk Tower: 129.000 Secondary
Murmansk Tower: 124.000 Secondary
Murmansk Radar: 124.000 Secondary
Murmansk Radar: 129.000 Secondary
Murmansk Transit Operations: 131.900
Murmansk Radar: 120.700

ULMM/MMK
MURMANSK

JEPPESEN

16 MAY 25

10-1P

MURMANSK, RUSSIA
AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 126.8 (English)
127.4 (Russian)

1.2. LOW VISIBILITY PROCEDURES (LVP)

LVP are applied when RVR is less than 550m.

Flight crew is informed about application of LVP via ATIS or by ATS unit on initial contact.

The following phrase is used: "LVP in progress."

Flight crews of arriving ACFT must report landing and RWY vacated when LVP are in force.

1.3. RWY OPERATIONS

All types of ACFT are allowed to execute a 180° turn on RWY turn pads at junctions with TWY A and TWY E or at any point on the RWY by decision of pilot-in-command and ATS unit clearance.

1.4. TAXI PROCEDURES

Two-way communication is maintained via intercom between flight crew and person in charge of towing.

1.5. PARKING INFORMATION

Enter stands in accordance with signals of marshaller.

Exit stands (taxiing or towing) after obtaining clearance.

On the apron North stands 1 thru 13 and B1 thru B6 available for helicopters.

Stands 2 thru 13 may be used for helicopter, if adjacent stands on each side are vacant.

1.6. COMMUNICATION FAILURE PROCEDURES

In case of communication failure monitor LOM frequency for ATC instructions and information.

Pilot can use following phone numbers:

- Flight Control Officer:
+7 (8152) 281-383
- TWR Controller:
+7 (8152) 281-315
- Radar Controller:
+7 (8152) 281-310

1.7. OTHER INFORMATION

When executing GLS, RNP approach flight crew must inform ATS unit about alternate approach procedure.

Birds in vicinity of APT.

2. ARRIVAL

2.1. COMMUNICATION FAILURE PROCEDURES

The following holding areas are established for descent in case of communication failure:

- RWY 13:
holding area over LOM PF, inbound track 130°, RIGHT turns, time flown on out-bound leg is one minute, minimum safe altitude is 2400';
- RWY 31:
holding area over LOM RD, inbound track 310°, LEFT turns, time flown on out-bound leg is one minute, minimum safe altitude is 2800'.

In case of communication failure before established on final or in process of radar vectoring, climb (descend) to 4000', proceed to LOM of active RWY along the shortest distance. Descent and approach shall be carried out after passing LOM.

In case of communication failure after established on final, follow communication failure during missed approach on para 2.1.1. below.

2.1.1. MISSED APPROACH PROCEDURE

ACFT shall climb to 3000' while proceeding on landing track of active RWY, then proceed to LOM along the shortest distance climbing to 4000'.

If the pilot-in-command decides to land after executing a missed approach, ACFT shall carry out approach after passing LOM as for the established procedure.

2.2. OTHER INFORMATION

The flight crew must listen to current ATIS broadcast and report its code letter on initial radio contact with ATS unit.

3. DEPARTURE

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

3.1.1. START-UP

Engines shall be started on stands or on start-up positions 1 thru 4 after ACFT are towed onto TWY guidance line.

Where it is necessary to perform pre-flight procedures (engines warm-up, etc.) on the RWY, the flight crew must report ATS unit about this before entering the RWY.

3.2. COMMUNICATION FAILURE PROCEDURES

In case of communication failure after take-off, climb to FL (altitude) as in accordance with available ATC clearance.

If the decision is made to proceed to destination aerodrome, proceed to LOM of the active RWY along the shortest distance, after passing LOM, climb to FL and proceed along the route according to flight plan.

If the decision is made to land, proceed to LOM of active RWY along the shortest distance, after passing LOM, descend to 4000' in the holding area and carry out approach procedure.

3.3. OTHER INFORMATION

The flight crew must listen to current ATIS broadcast and report its code letter on initial radio contact with ATS unit.

ULMM/MMK MURMANSK

JEPPESSEN

MURMANSK, RUSSIA

9 MAY 25 (10-1R)

Eff 15 May

RADAR MINIMUM ALTITUDES

Apt Elev
267

Alt Set: hPa (MM on request)

Trans level: FL060

FL070 if pressure is less than 1013 hPa (760mm)

FL080 if pressure is less than 977 hPa (733mm)

Trans alt: 5000

1. Chart only to be used for cross-checking of altitudes assigned while under vectoring control.
2. When vectoring is carried out under low-temperature conditions, minimum vectoring altitudes must be corrected by altimeter temperature correction.

FEET METERS

QNH (QFE)

5000 (1445)

3000 (835)

2800 (775)

2500 (685)

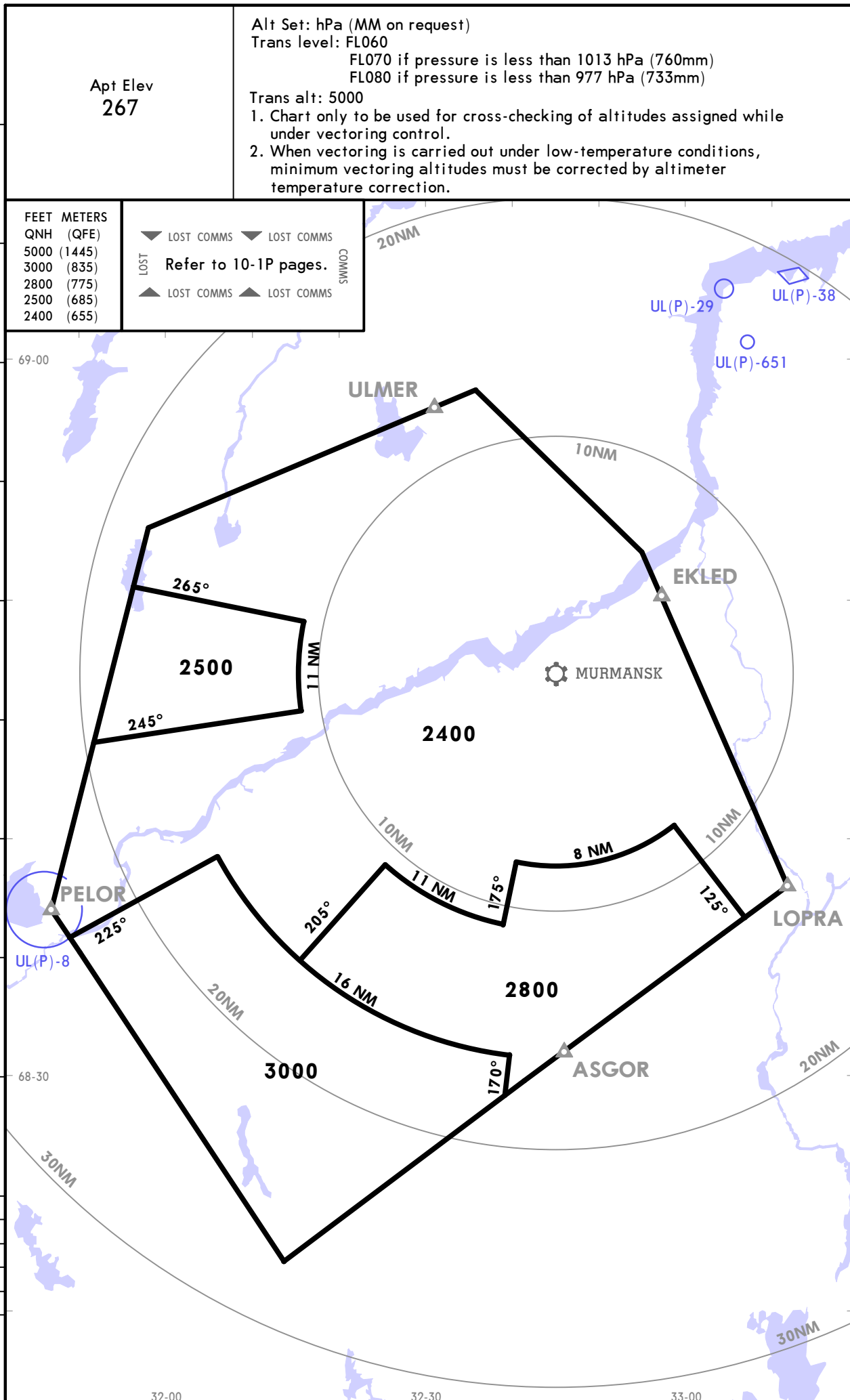
2400 (655)

▼ LOST COMMS ▼ LOST COMMS

Refer to 10-1P pages.

▲ LOST COMMS ▲ LOST COMMS

45
40
35
30
25
20
15
10
5
0
5



ULMM/MMK
MURMANSK

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MURMANSK, RUSSIA

9 MAY 25

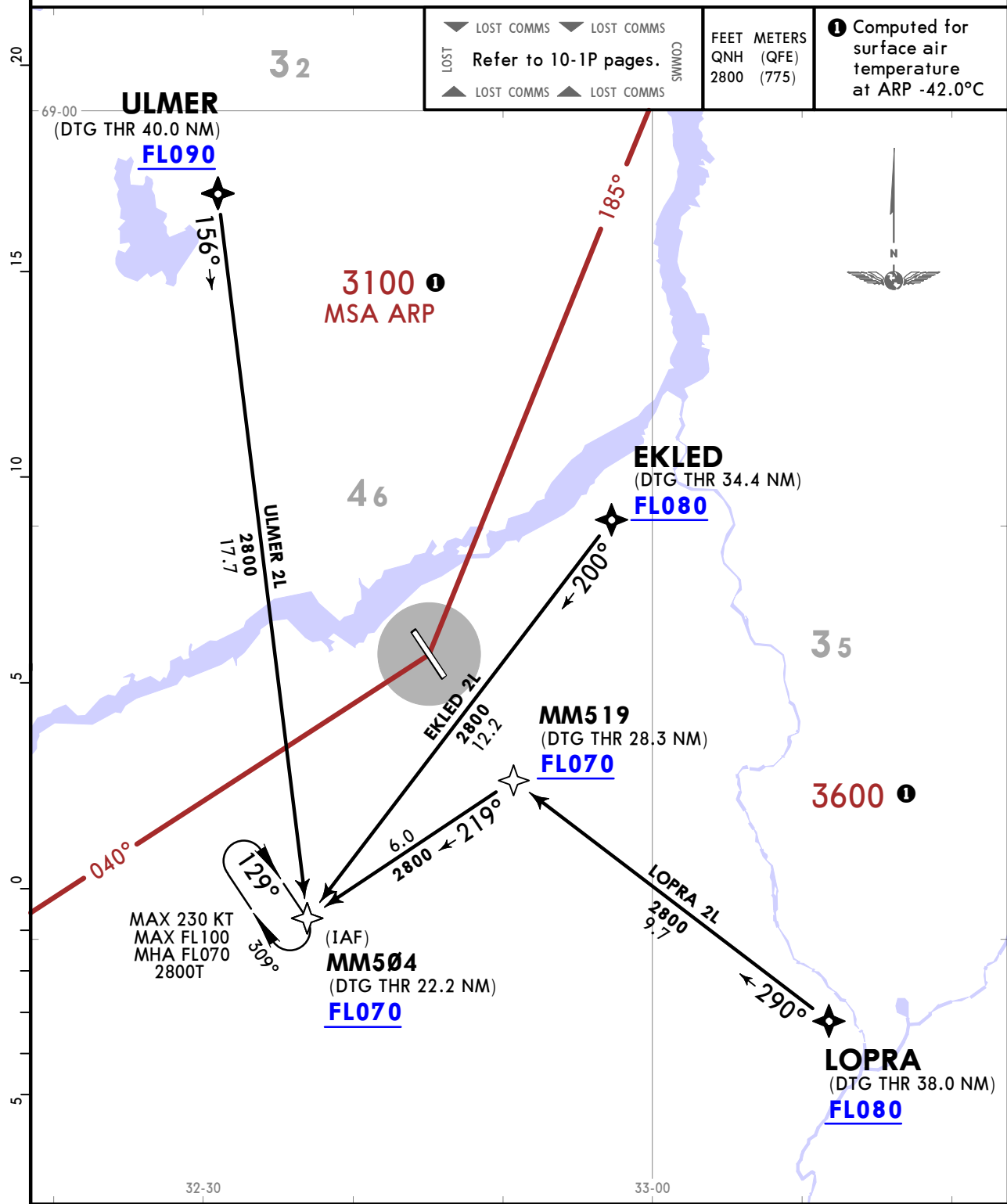
10-2A

Eff 15 May

RNAV STAR

ATIS 126.8 (Russian 127.4)	Alt Set: hPa (MM on request) Trans level: FL060 FL070 if pressure is less than 1013 hPa (760mm) FL080 if pressure is less than 977 hPa (733mm)
Apt Elev 267	RNAV 1 GNSS required 1. CDO are applicable if there is no conflicting traffic. 2. CDO can be cancelled by ATC in case of necessity to provide separation. 3. In case of high air traffic intensity, ATC will issue next clearance in advance to provide CDO, as far as practicable. 4. Speed and altitude restrictions can be cancelled by ATC.

EKLED 2L [EKLE2L]
LOPRA 2L [LOPR2L], ULMER 2L [ULME2L]
RNAV ARRIVALS
(RWY 31)



ULMM/MMK
MURMANSK

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MURMANSK, RUSSIA

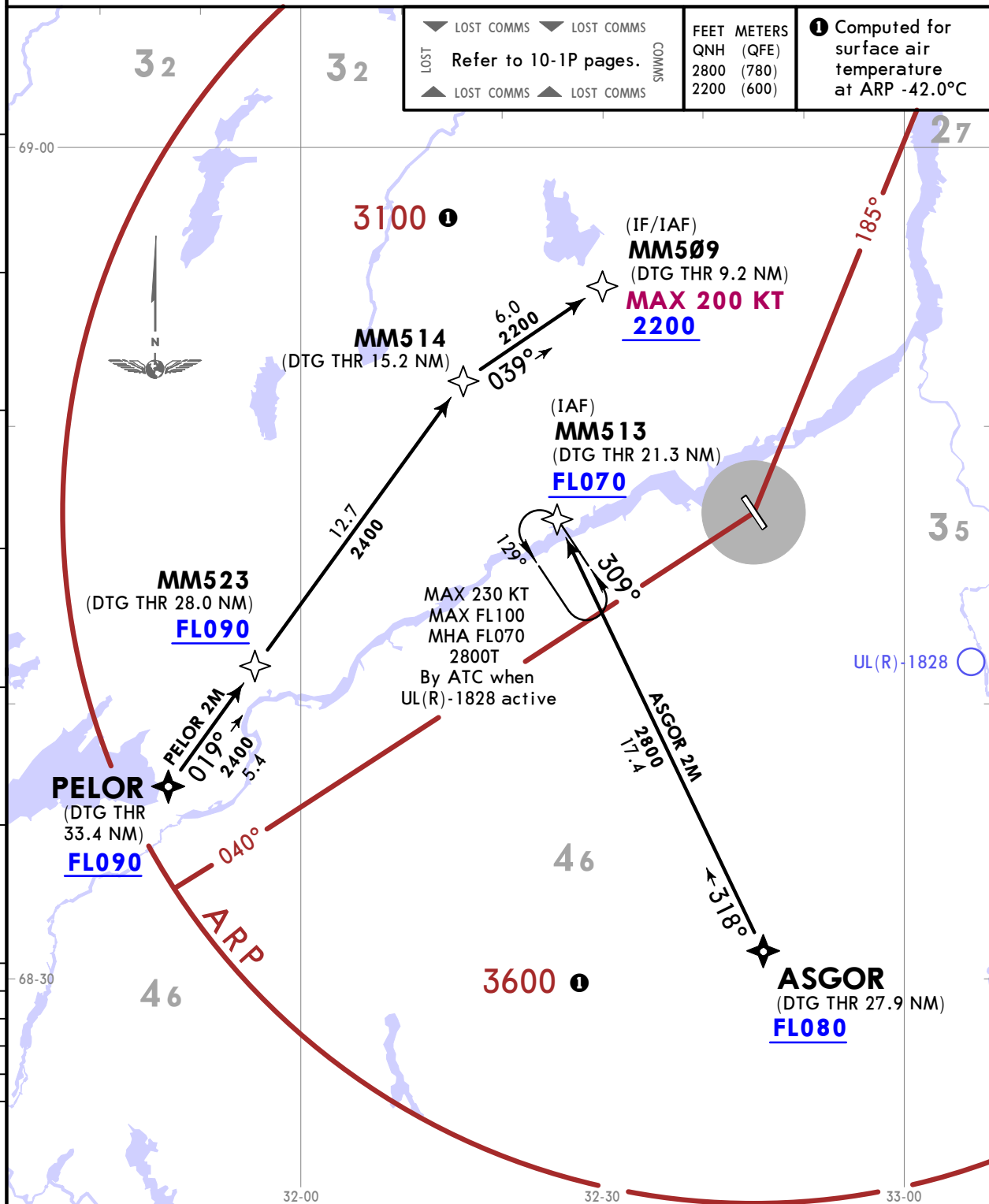
9 MAY 25 **10-2B**

Eff 15 May

RNAV STAR

ATIS 126.8 (Russian 127.4)	Alt Set: hPa (MM on request) Trans level: FL060 FL070 if pressure is less than 1013 hPa (760mm) FL080 if pressure is less than 977 hPa (733mm)
	RNAV 1 GNSS required
Apt Elev 267	1. CDO are applicable if there is no conflicting traffic. 2. CDO can be cancelled by ATC in case of necessity to provide separation. 3. In case of high air traffic intensity, ATC will issue next clearance in advance to provide CDO, as far as practicable. 4. Speed and altitude restrictions can be cancelled by ATC.

ASGOR 2M [ASG02M]
PELOR 2M [PELO2M]
RNAV ARRIVALS
(RWY 13)



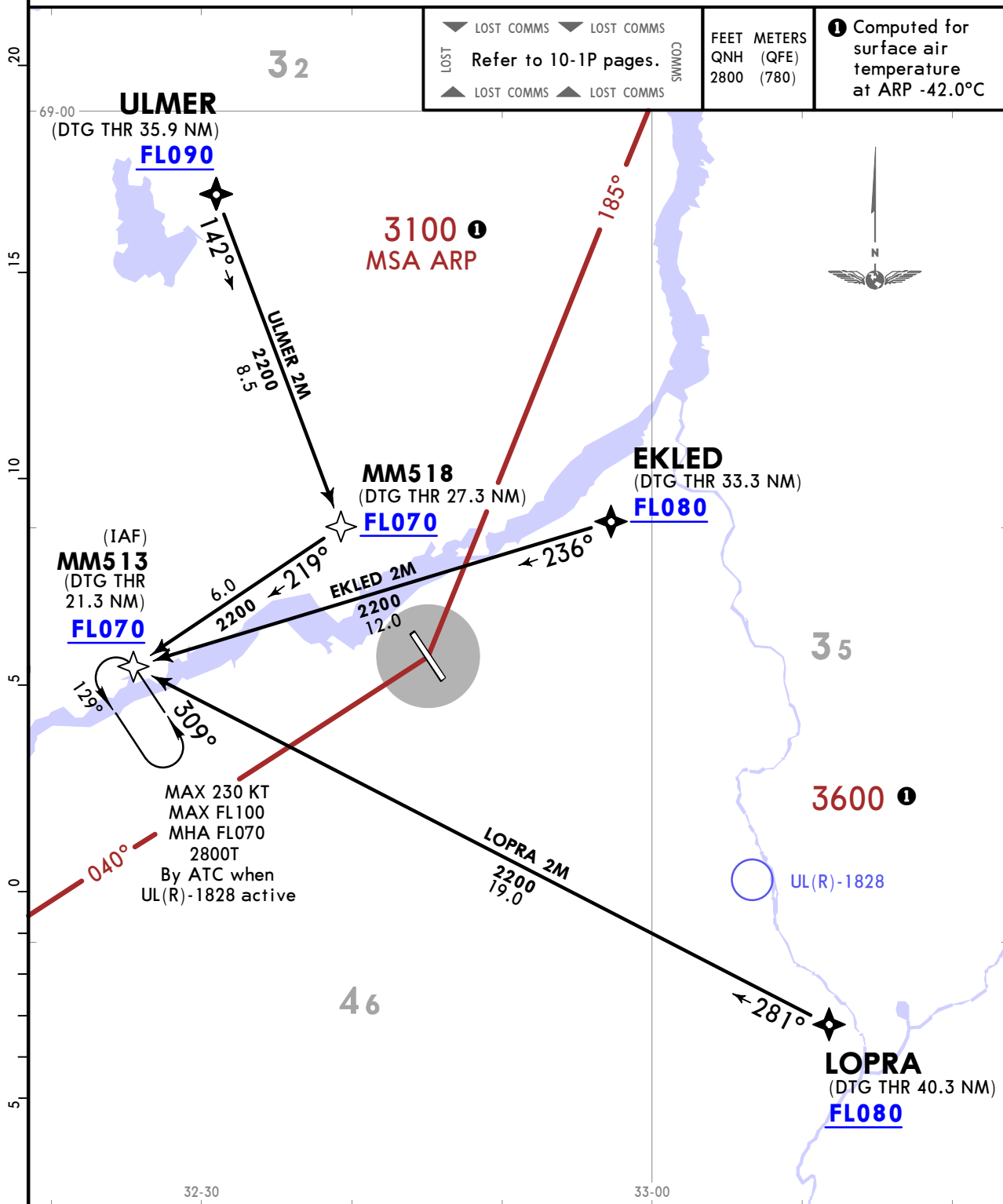
ULMM/MMK
MURMANSK

JEPPESEN
9 MAY 25 **10-2C** Eff 15 May

MURMANSK, RUSSIA
RNAV STAR

ATIS 126.8 (Russian 127.4)	Alt Set: hPa (MM on request) Trans level: FL060 FL070 if pressure is less than 1013 hPa (760mm) FL080 if pressure is less than 977 hPa (733mm)
Apt Elev 267	RNAV 1 GNSS required 1. CDO are applicable if there is no conflicting traffic. 2. CDO can be cancelled by ATC in case of necessity to provide separation. 3. In case of high air traffic intensity, ATC will issue next clearance in advance to provide CDO, as far as practicable. 4. Speed and altitude restrictions can be cancelled by ATC.

EKLED 2M [EKLE2M]
LOPRA 2M [LOPR2M], ULMER 2M [ULME2M]
RNAV ARRIVALS
(RWY 13)



ULMM/MMK MURMANSK



MURMANSK, RUSSIA

9 MAY 25 **10-2D**

Eff 15 May

STAR

ATIS
126.8
(Russian 127.4)

Apt Elev
267

Alt Set: hPa (MM on request)
Trans level: FL060
FL070 if pressure is less than 1013 hPa (760mm)
FL080 if pressure is less than 977 hPa (733mm)

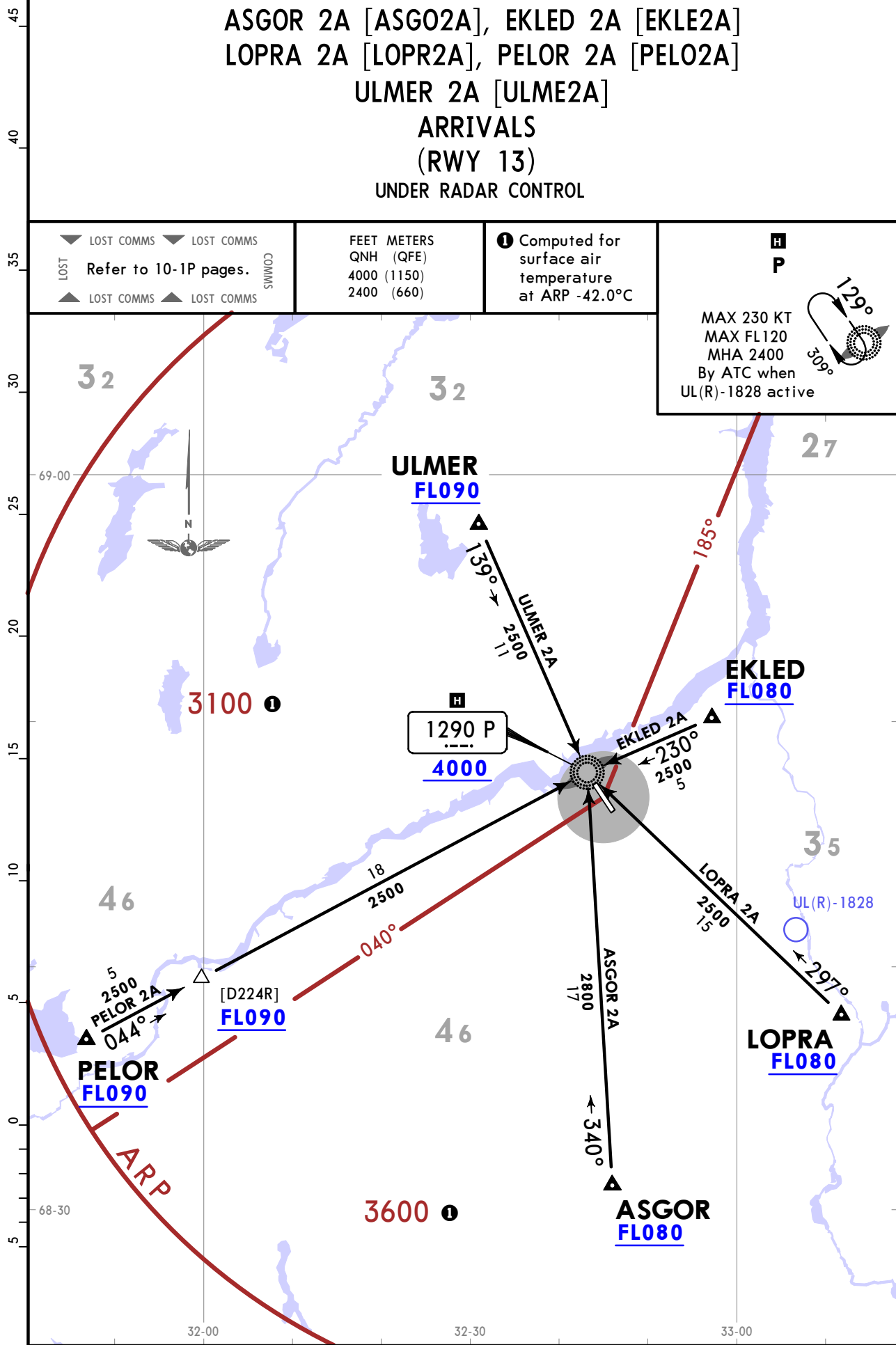
**ASGOR 2A [ASGO2A], EKLED 2A [EKLE2A]
LOPRA 2A [LOPR2A], PELOR 2A [PELO2A]
ULMER 2A [ULME2A]
ARRIVALS
(RWY 13)
UNDER RADAR CONTROL**

LOST COMMS Refer to 10-1P pages.
LOST COMMS

FEET METERS
QNH (QFE)
4000 (1150)
2400 (660)

Computed for surface air temperature at ARP -42.0°C

H
P
MAX 230 KT
MAX FL 120
MHA 2400
By ATC when
UL(R)-1828 active



ULMM/MMK
MURMANSK

JEPPESEN

MURMANSK, RUSSIA

9 MAY 25 **(10-2E)**

Eff 15 May

STAR

ATIS
126.8
(Russian 127.4)

Apt Elev
267

Alt Set: hPa (MM on request)
Trans level: **FL060**
FL070 if pressure is less than 1013 hPa (760mm)
FL080 if pressure is less than 977 hPa (733mm)

ASGOR 2B [ASGO2B], EKLED 2B [EKLE2B]
LOPRA 2B [LOPR2B], PELOR 2B [PELO2B]
ULMER 2B [ULME2B]
ARRIVALS
(RWY 13)
UNDER RADAR CONTROL

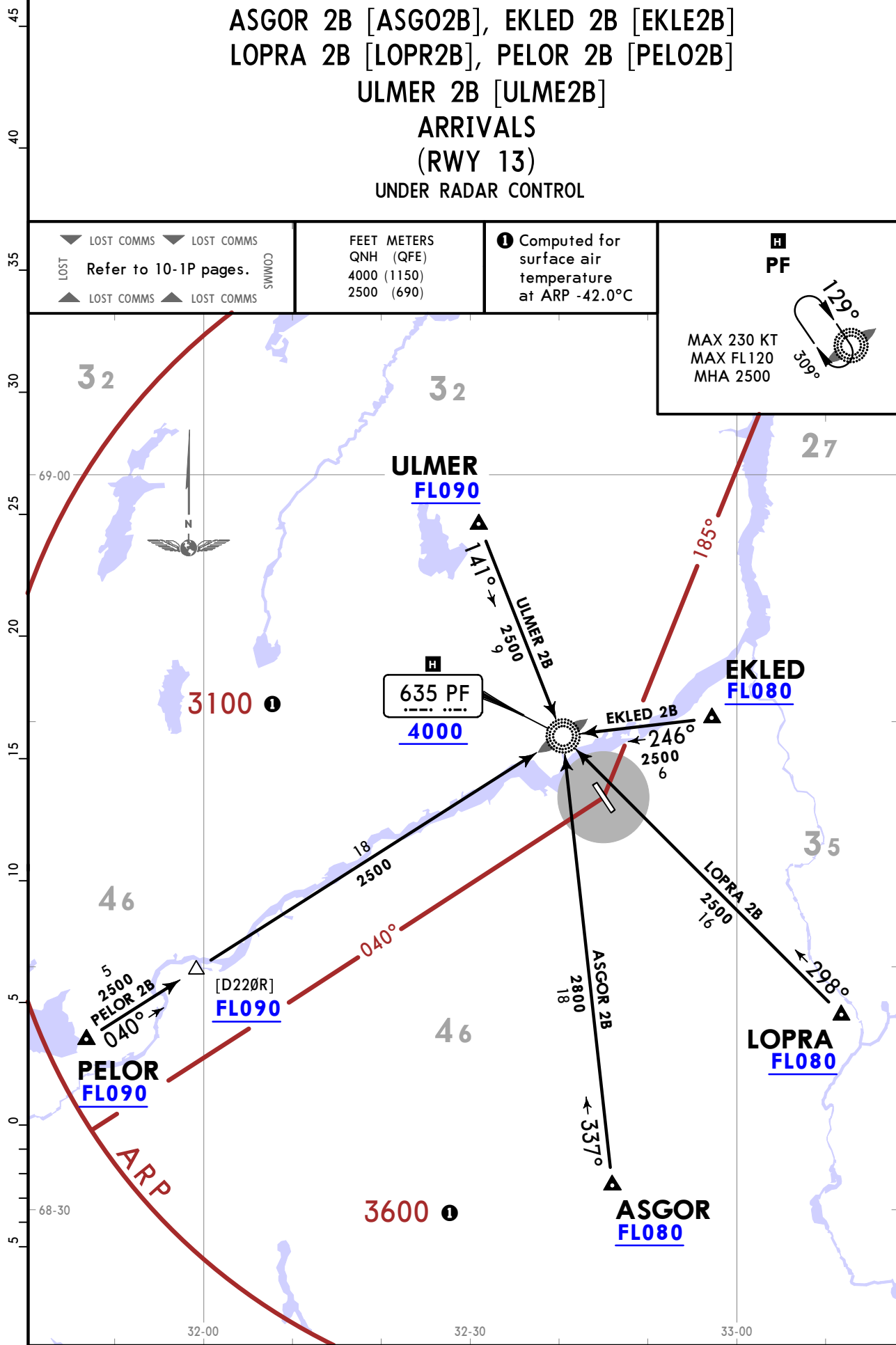
▼ LOST COMMS ▼ LOST COMMS
Refer to 10-1P pages.
▲ LOST COMMS ▲ LOST COMMS

FEET METERS
QNH (QFE)
4000 (1150)
2500 (690)

① Computed for
surface air
temperature
at ARP -42.0°C

H
PF

MAX 230 KT
MAX FL 120
MHA 2500



ULMM/MMK
MURMANSK

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MURMANSK, RUSSIA

9 MAY 25 (10-2G)

Eff 15 May

STAR

ATIS
126.8
(Russian 127.4)

Apt Elev
267

Alt Set: hPa (MM on request)
Trans level: FL060
FL070 if pressure is less than 1013 hPa (760mm)
FL080 if pressure is less than 977 hPa (733mm)

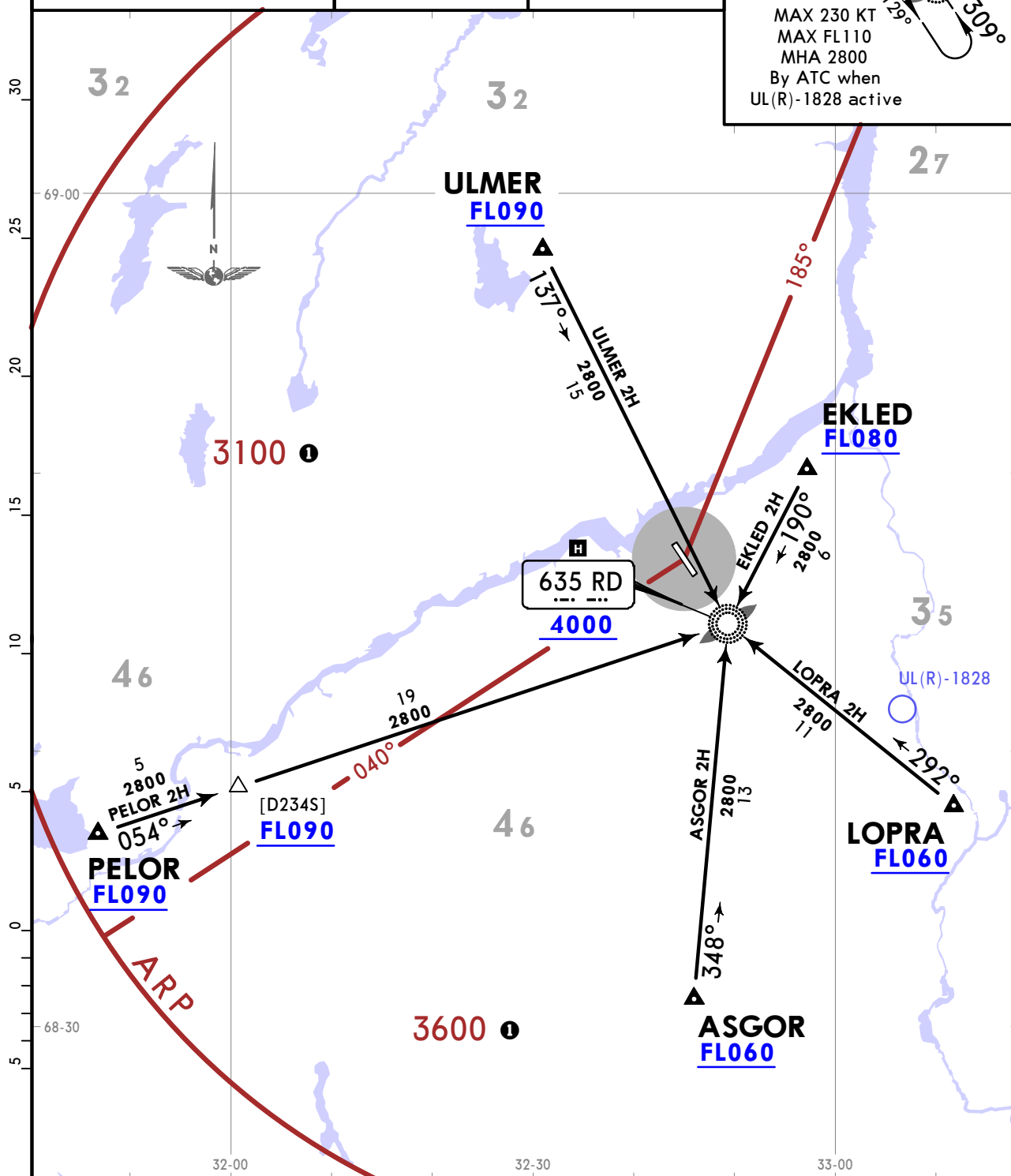
ASGOR 2H [ASGO2H], EKLED 2H [EKLE2H]
LOPRA 2H [LOPR2H], PELOR 2H [PELO2H]
ULMER 2H [ULME2H]
ARRIVALS
(RWY 31)
UNDER RADAR CONTROL

LOST COMMS Refer to 10-1P pages.

FEET METERS
QNH (QFE)
4000 (1140)
2800 (775)

Computed for surface air temperature at ARP -42.0°C

RD
MAX 230 KT
MAX FL110
MHA 2800
By ATC when UL(R)-1828 active



ULMM/MMK
MURMANSK

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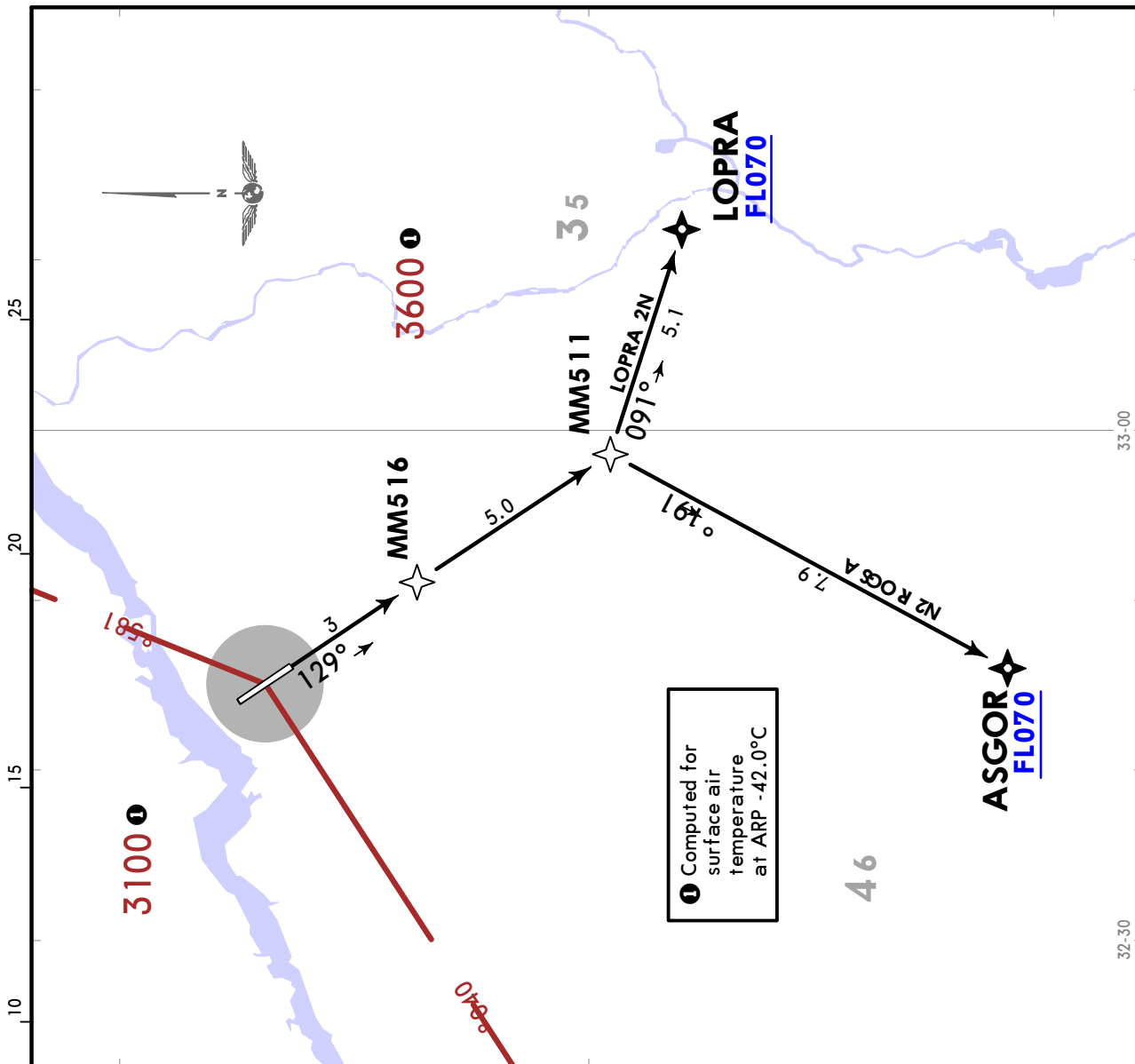
MURMANSK, RUSSIA

9 MAY 25

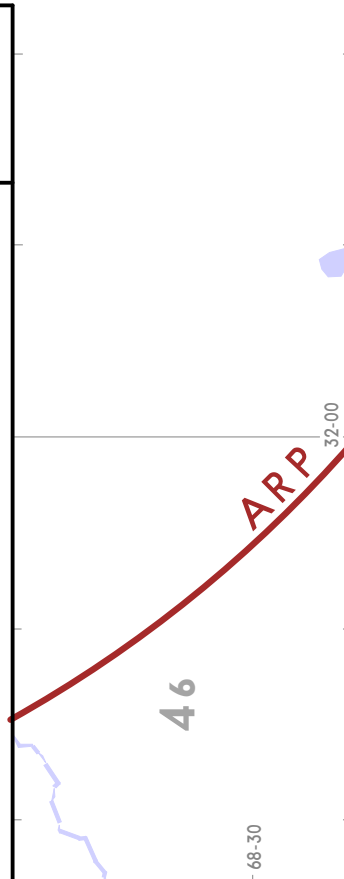
10-3

Eff 15 May

RNAV SID



Apt Elev 267	Trans alt: 5000 QNH (QFE on request)	RNAV 1 GNSS required	<ol style="list-style-type: none"> 1. CCO are applicable in case of low traffic intensity and in case of high traffic intensity, if practicable. 2. Rate of climb may be assigned to provide CCO in high traffic intensity. 3. In case CCO is applied after passing MM516, following phrase is used: "EXPECT CCO before (WPT)" 4. ATC uses "Direct to" procedure for purpose of CCO, speed and altitude restriction can be cancelled by ATC. 5. EXPECT close-in obstacles. 																												
ASGOR 2N [ASGO2N] LOPRA 2N [LOPR2N] RNAV DEPARTURES (RWY 13)			<table border="1"> <tr> <th colspan="2">FEET METERS</th> </tr> <tr> <td>QNH</td> <td>(QFE)</td> </tr> <tr> <td>900</td> <td>(205)</td> </tr> <tr> <td>5000</td> <td>(1445)</td> </tr> </table>	FEET METERS		QNH	(QFE)	900	(205)	5000	(1445)																				
FEET METERS																															
QNH	(QFE)																														
900	(205)																														
5000	(1445)																														
These SIDs require minimum climb gradients ASGOR 2N: 5.0% up to 900. 6.5% up to FL070, due to airspace structure. LOPRA 2N: 5.0% up to 900. 8.6% up to FL070, due to airspace structure.			<table border="1"> <thead> <tr> <th>Gnd speed-KT</th> <th>75</th> <th>100</th> <th>150</th> <th>200</th> <th>250</th> <th>300</th> </tr> </thead> <tbody> <tr> <td>5.0% V/V (fpm)</td> <td>380</td> <td>506</td> <td>760</td> <td>1013</td> <td>1266</td> <td>1519</td> </tr> <tr> <td>6.5% V/V (fpm)</td> <td>494</td> <td>658</td> <td>987</td> <td>1316</td> <td>1646</td> <td>1975</td> </tr> <tr> <td>8.6% V/V (fpm)</td> <td>653</td> <td>871</td> <td>1306</td> <td>1742</td> <td>2177</td> <td>2613</td> </tr> </tbody> </table>	Gnd speed-KT	75	100	150	200	250	300	5.0% V/V (fpm)	380	506	760	1013	1266	1519	6.5% V/V (fpm)	494	658	987	1316	1646	1975	8.6% V/V (fpm)	653	871	1306	1742	2177	2613
Gnd speed-KT	75	100	150	200	250	300																									
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ULMM/MMK
MURMANSK

JEPPESSEN

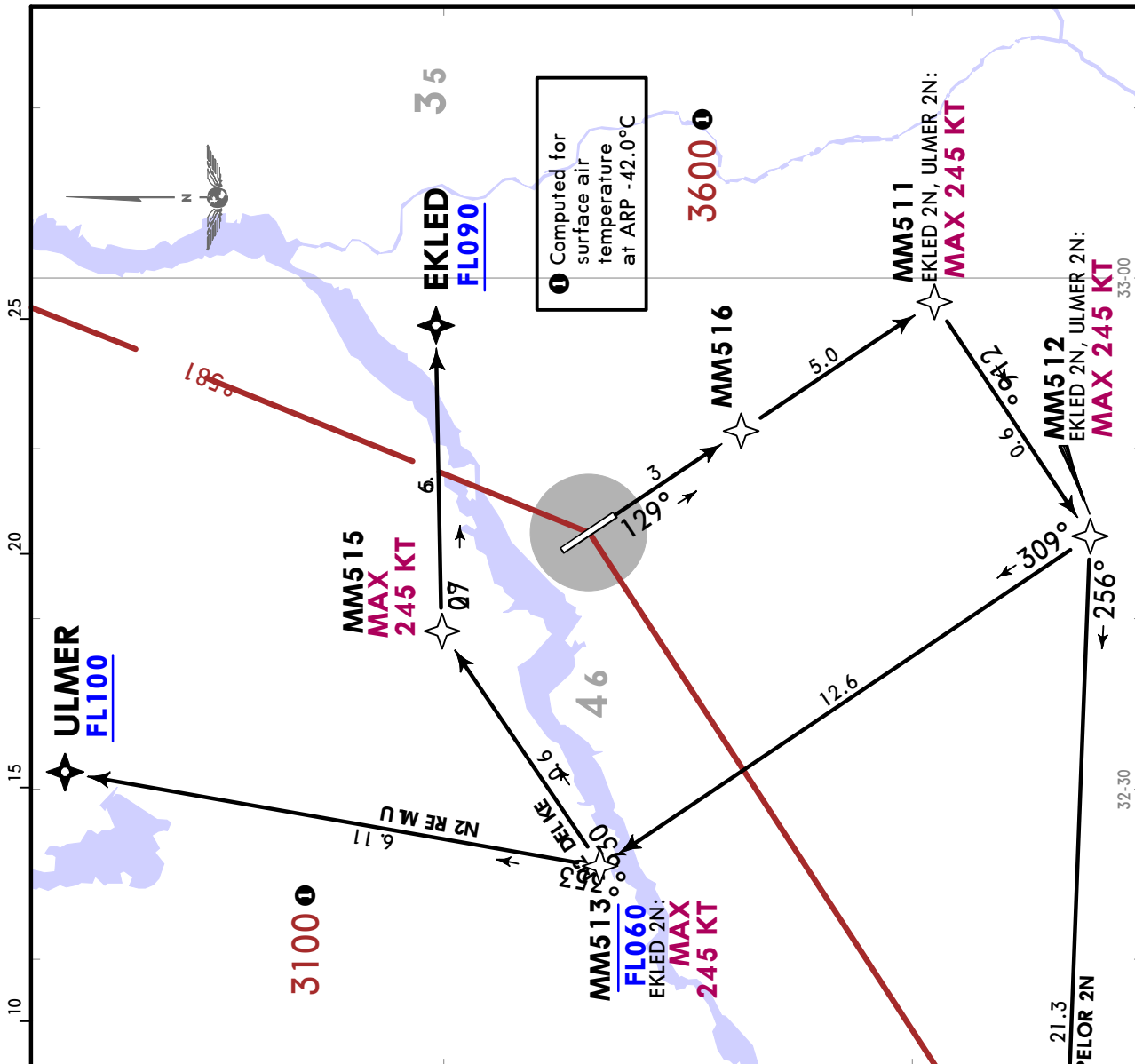
MURMANSK, RUSSIA

9 MAY 25

10-3A

Eff 15 May

RNAV SID



Trans alt: 5000 QNH (QFE on request)
RNAV 1 GNSS required

Apt Elev
267

- CCO are applicable in case of low traffic intensity and in case of high traffic intensity, if practicable.
- Rate of climb may be assigned to provide CCO in high traffic intensity.
- In case CCO is applied after passing MM516, following phrase is used: "EXPECT CCO before (WPT)"
- ATC uses "Direct to" procedure for purpose of CCO, speed and altitude restriction can be cancelled by ATC.
- EXPECT close-in obstacles.

**EKLED 2N [EKLE2N]
PELOR 2N [PELO2N]
ULMER 2N [ULME2N]
RNAV DEPARTURES
(RWY 13)**

These SIDs require minimum climb gradients of

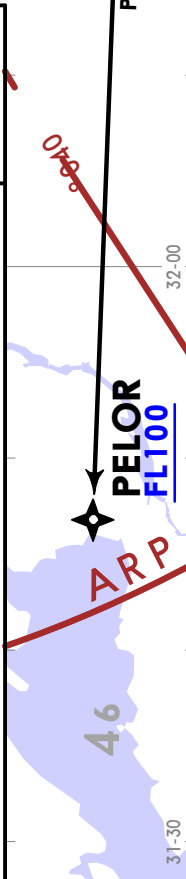
EKLED 2N: 5.0% up to 900.
4.1% up to FL090, due to airspace structure.

PELOR 2N: 5.0% up to 900.
4.8% up to FL100, due to airspace structure.

ULMER 2N: 5.0% up to 900.
4.5% up to FL100, due to air-space structure.

Gnd speed-KT	75	100	150	200	250	300
4.1% V/V (fpm)	311	415	623	830	1038	1246
4.5% V/V (fpm)	342	456	684	911	1139	1367
4.8% V/V (fpm)	365	486	729	972	1215	1458
5.0% V/V (fpm)	380	506	760	1013	1266	1519

FEET METERS
QNH (205)
5000 (1445)



ULMM/MMK MURMANSK

JEPPesen
9 MAY 25 **10-3B** Eff 15 May

MURMANSK, RUSSIA
RNAV SID

Apt Elev
267

Trans alt: 5000 QNH (QFE on request)

RNAV 1 GNSS required

1. CCO are applicable in case of low traffic intensity and in case of high traffic intensity, if practicable.
2. Rate of climb may be assigned to provide CCO in high traffic intensity.
3. In case CCO is applied after passing MM506, following phrase is used: "EXPECT CCO before (WPT)"/
4. ATC uses "Direct to" procedure for purpose of CCO speed and altitude restriction can be cancelled by ATC.

ASGOR 2P [ASGO2P]
PELOR 2P [PELO2P]
RNAV DEPARTURES
(RWY 31)

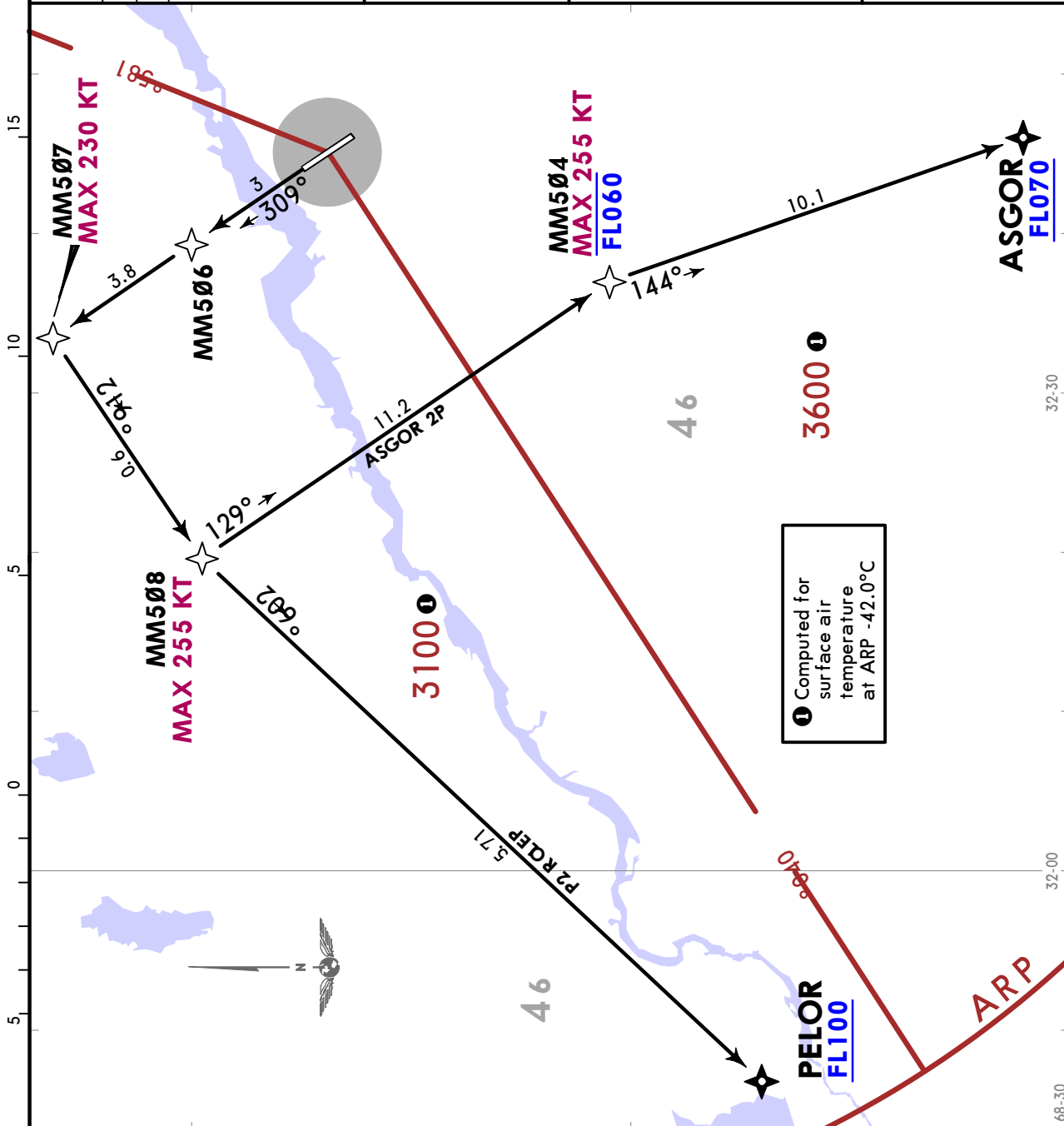
These SIDs require minimum climb gradients of

ASGOR 2P: 3.5% up to 700.
3.4% up to FL070, due to airspace structure.

PELOR 2P: 3.5% up to 700.
5.5% up to FL100, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
3.4% V/V (fpm)	258	344	516	689	861	1033
3.5% V/V (fpm)	266	354	532	709	886	1063
5.5% V/V (fpm)	418	557	835	1114	1392	1671

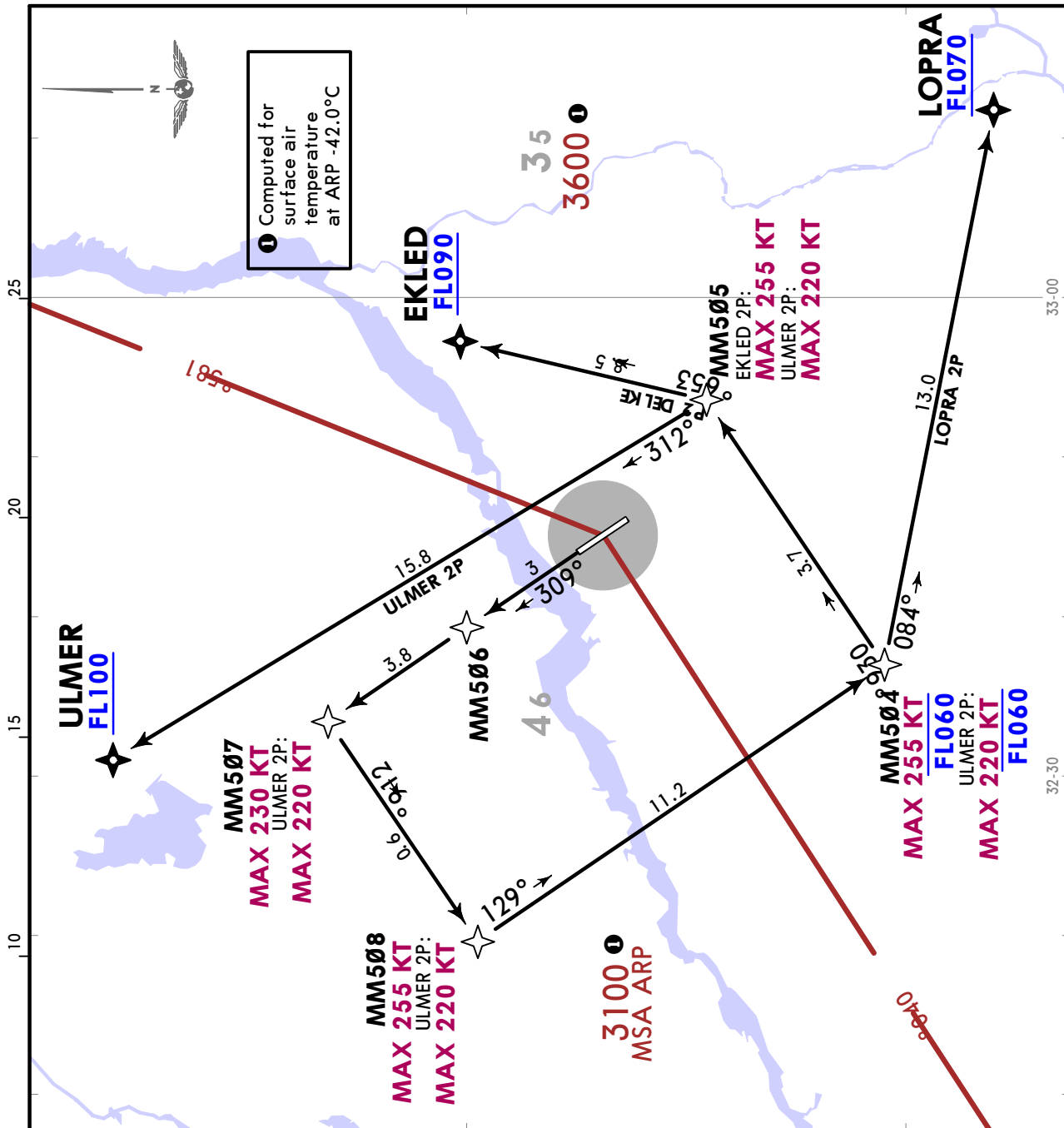
FEET METERS
QNH (QFE)
700 (135)
5000 (1445)



ULMM/MMK
MURMANSK

JEPPESSEN
9 MAY 25 **10-3C** Eff 15 May

MURMANSK, RUSSIA
RNAV SID



EKLED 2P [EKLE2P]
LOPRA 2P [LOPR2P]
ULMER 2P [ULME2P]
RNAV DEPARTURES (RWY 31)

These SIDs require minimum climb gradients of

EKLED 2P: 3.5% up to 700.
4.2% up to FL090, due to airspace structure.

LOPRA 2P: 3.5% up to 700.

ULMER 2P: 4.4% up to 1300.

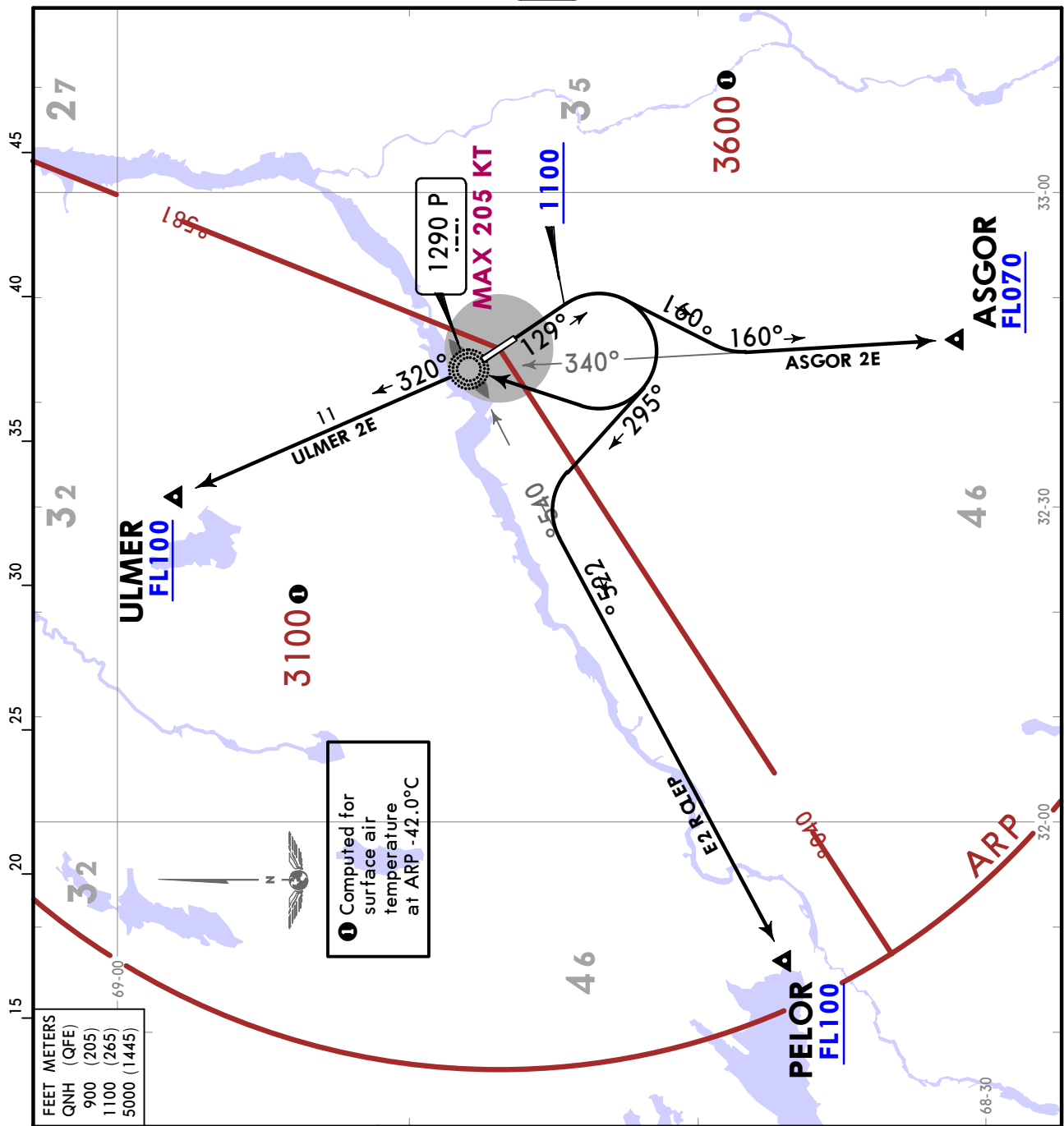
Gnd speed-KT	75	100	150	200	250	300
3.5% V/V (fpm)	266	354	532	709	886	1063
4.2% V/V (fpm)	319	425	638	851	1063	1276
4.4% V/V (fpm)	334	446	668	891	1114	1337

FEET METERS	
QNH (QFE)	
700 (135)	
1300 (315)	
5000 (1445)	

ULMM/MMK
MURMANSK

JEPPESSEN
9 MAY 25 (10-3D) Eff 15 May

MURMANSK, RUSSIA
SID



FEET	METERS
QNH (QFE)	
900 (205)	
1100 (265)	
5000 (1445)	

Apt Elev **267**
Trans alt: 5000 QNH (QFE on request)
ULMER 2E: Turn before DER PROHIBITED

**ASGOR 2E [ASGO2E]
PELOR 2E [PELO2E]
ULMER 2E [ULME2E]
DEPARTURES
(RWY 13)
UNDER RADAR CONTROL**

Close-In Obstacle
MAX 404 - located to the RIGHT and LEFT of take-off heading at MAX 0.5 NM from DER
These SIDs require minimum climb gradients of

ASGOR 2E: 5.0% up to 900. 6.9% up to FL070, due to airspace structure.	75	100	150	200	250	300
PELOR 2E: 5.6% up to FL090. 5.2% up to FL100, due to airspace structure.	380	506	760	1013	1266	1519
ULMER 2E: 5.0% up to 900. 6.1% up to FL100, due to airspace structure.	395	527	790	1053	1316	1580
	425	567	851	1134	1418	1701
	463	618	927	1235	1544	1853
	524	699	1048	1397	1747	2096

SID	ROUTING
ASGOR 2E	Climb straight ahead to 1100 or above, turn RIGHT, 190° track, intercept 160° bearing from P to ASGOR.
PELOR 2E	Climb straight ahead to 1100 or above, turn RIGHT, 295° track, intercept 225° bearing from P to PELOR.
ULMER 2E	Climb straight ahead to 1100 or above, turn RIGHT to P, 320° bearing from P to ULMER.

ULMM/MMK
MURMANSK

JEPPESSEN

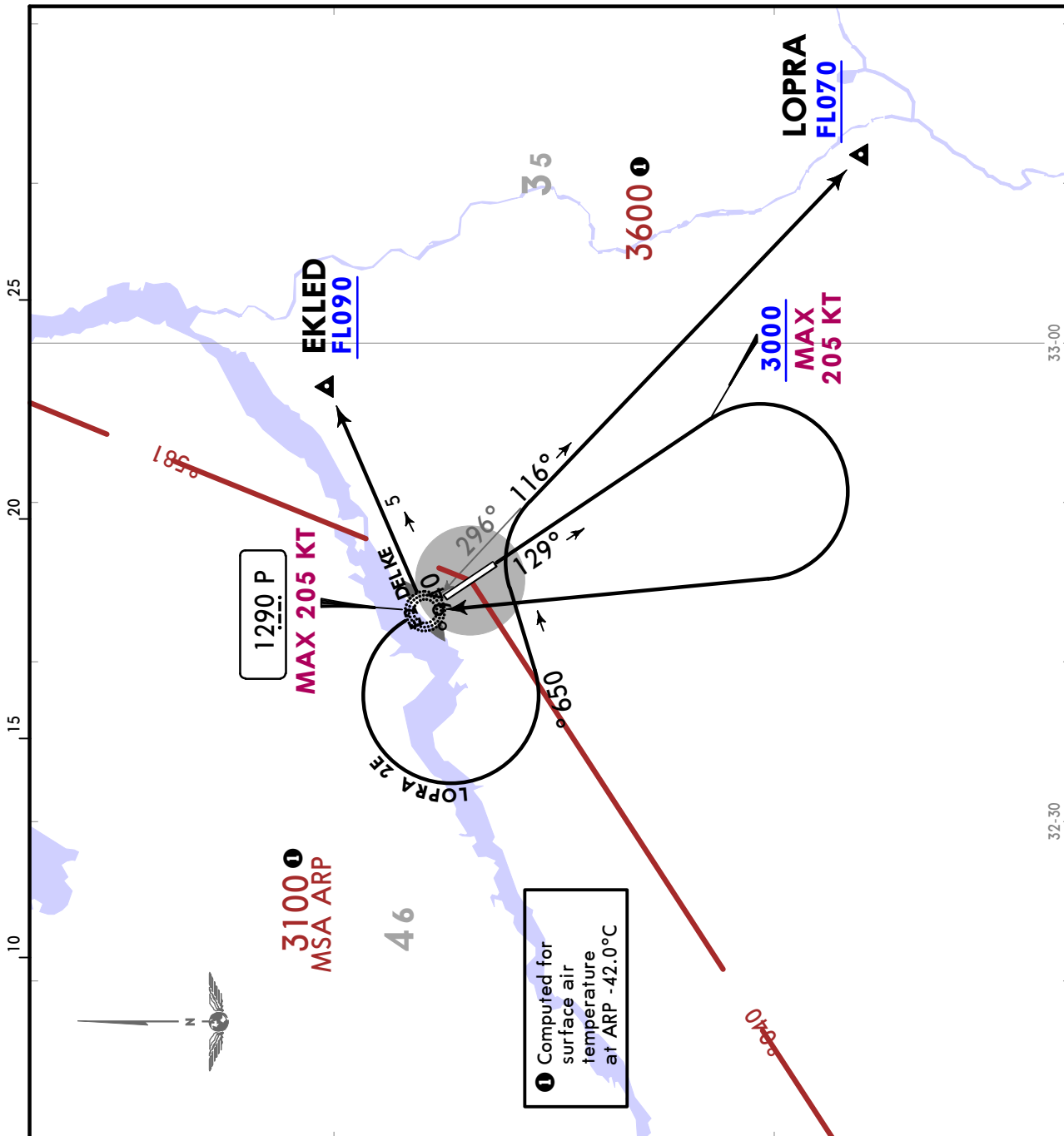
MURMANSK, RUSSIA

9 MAY 25

10-3E

Eff 15 May

SID



Apt Elev
267

Trans alt: 5000 QNH (QFE on request)
Turn before DER PROHIBITED

**EKLED 2E [EKLE2E]
LOPRA 2E [LOPR2E]
DEPARTURES
(RWY 13)
UNDER RADAR CONTROL**

Close-In Obstacle
MAX 404 - located to the RIGHT and LEFT of take-off heading at MAX 0.5 NM from DER
These SIDs require minimum climb gradients of

EKLED 2E: 5.0% up to 1700.
4.8% up to FLO90, due to airspace structure.

LOPRA 2E: 5.0% up to 1700.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458
5.0% V/V (fpm)	380	506	760	1013	1266	1519

SID ROUTING

EKLED 2E Climb straight ahead to 3000 or above, turn RIGHT to P, 049° bearing from P to EKLED.

LOPRA 2E Climb straight ahead to 3000 or above, turn RIGHT to P, turn LEFT, 056° track, intercept 116° bearing from P to LOPRA.

FEET	METERS
QNH (QFE)	1700 (445)
3000 (845)	5000 (1445)

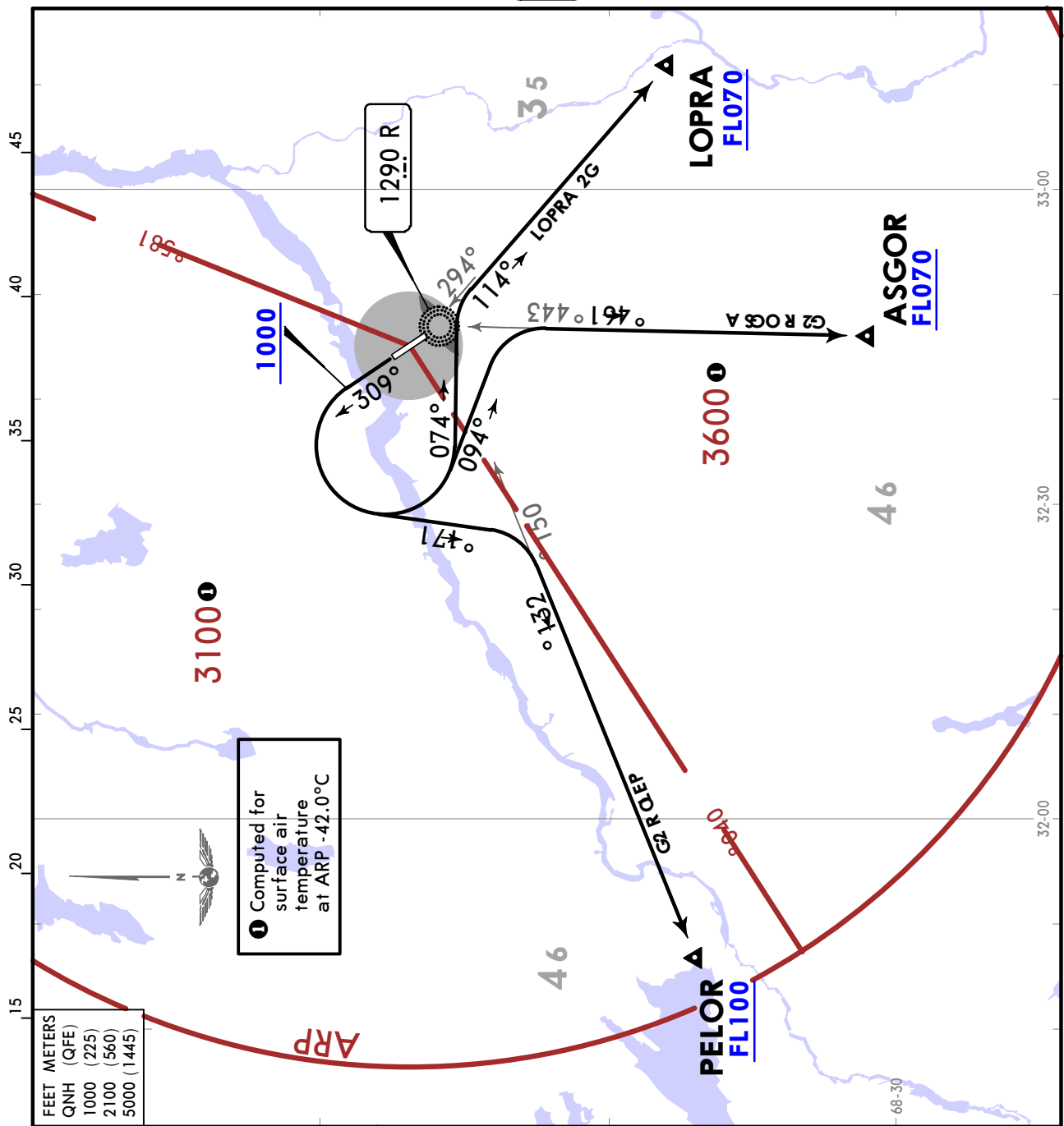
ULMM/MMK
MURMANSK



MURMANSK, RUSSIA

9 MAY 25 **10-3F** Eff 15 May

SID



FEET	METERS
QNH (QFE)	
1000 (225)	
2100 (560)	
5000 (1445)	

Apt Elev **267**
Trans alt: 5000 QNH (QFE on request)
Turn before DER PROHIBITED

ASGOR 2G [ASG02G]
LOPRA 2G [LOPR2G]
PELOR 2G [PELO2G]
DEPARTURES
(RWY 31)
UNDER RADAR CONTROL

These SIDs require minimum climb gradients of
ASGOR 2G: 4.0% up to FL070, due to airspace structure.
LOPRA 2G: 3.5% up to 2100.
 4.1% up to FL070, due to airspace structure.
PELOR 2G: 6.0% up to FL090.
 5.7% up to FL100, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
3.5% V/V (fpm)	266	354	532	709	886	1063
4.0% V/V (fpm)	304	405	608	810	1013	1215
4.1% V/V (fpm)	311	415	623	830	1038	1246
5.7% V/V (fpm)	433	577	866	1154	1443	1732
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID	ROUTING
ASGOR 2G	Climb straight ahead to 1000 or above, turn LEFT, 094° track, intercept 164° bearing from R to ASGOR.
LOPRA 2G	Climb straight ahead to 1000 or above, turn LEFT to R, 114° bearing from R to LOPRA.
PELOR 2G	Climb straight ahead to 1000 or above, turn LEFT, 171° track, intercept 231° bearing from R to PELOR.

ULMM/MMK
MURMANSK

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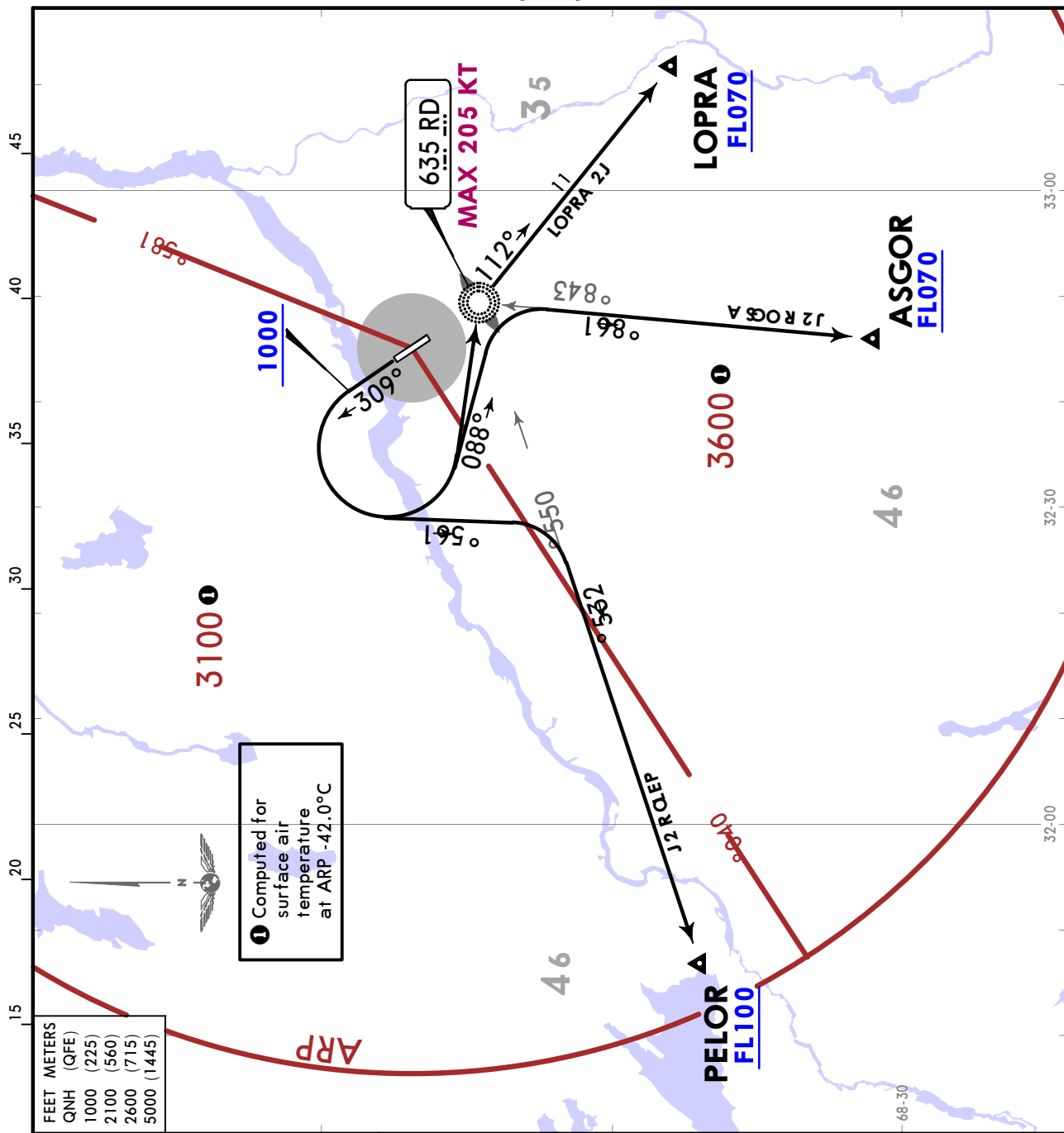
MURMANSK, RUSSIA

9 MAY 25

10-3H

Eff 15 May

SID



FEET	METERS
QNH (QFE)	
1000 (225)	
2100 (560)	
2600 (715)	
5000 (1445)	

① Computed for surface air temperature at ARP -42.0°C

Apt Elev **267**

Trans alt: 5000 QNH (QFE on request)
LOPRA 2J: Turn before DER PROHIBITED

ASGOR 2J [ASG02J]
LOPRA 2J [LOPR2J]
PELOR 2J [PELO2J]

DEPARTURES (RWY 31)
UNDER RADAR CONTROL

These SIDs require minimum climb gradients of

ASGOR 2J: 3.5% up to 2100.
3.9% up to FL070, due to airspace structure.

LOPRA 2J: 3.6% up to 2600.
4.2% up to FL070, due to airspace structure.

PELOR 2J: 6.0% up to FL090.
5.9% up to FL100, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
3.5% V/V (fpm)	266	354	532	709	886	1063
3.6% V/V (fpm)	273	365	547	729	911	1094
3.9% V/V (fpm)	296	395	592	790	987	1185
4.2% V/V (fpm)	319	425	638	851	1063	1276
5.9% V/V (fpm)	448	597	896	1195	1494	1792
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID ROUTING

ASGOR 2J Climb straight ahead to 1000 or above, turn LEFT, 088° track, intercept 168° bearing from RD to ASGOR.

LOPRA 2J Climb straight ahead to 1000 or above, turn LEFT to RD, 112° bearing from RD to LOPRA.

PELOR 2J Climb straight ahead to 1000 or above, turn LEFT, 165° track, intercept 235° bearing from RD to PELOR.

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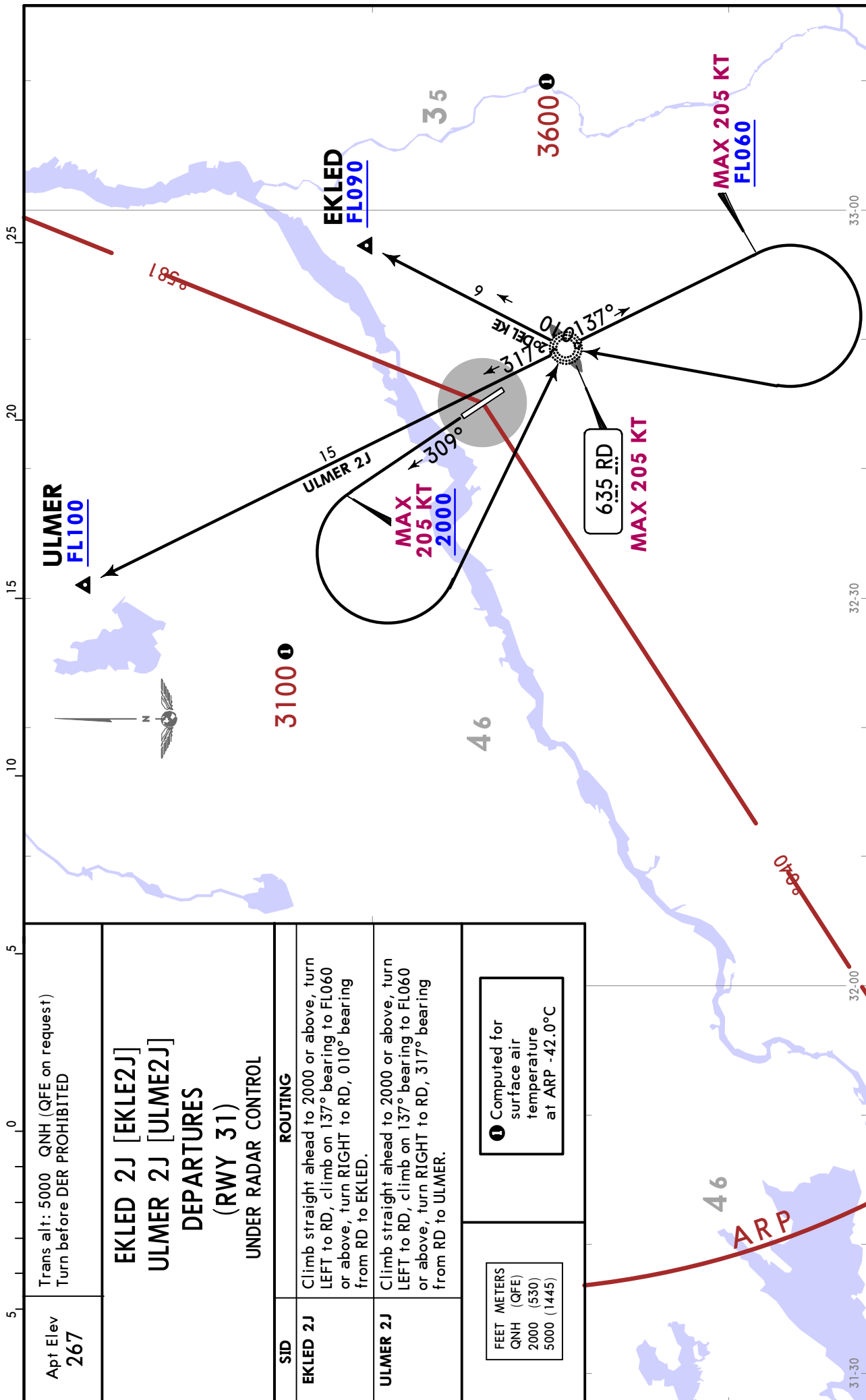
MURMANSK, RUSSIA

9 MAY 25

10-3J

Eff 15 May

SID



Apt Elev 267	Trans alt: 5000 QNH (QFE on request) Turn before DER PROHIBITED						
EKLED 2J [EKLE2J] ULMER 2J [ULME2J] DEPARTURES (RWY 31) UNDER RADAR CONTROL							
SID	ROUTING						
EKLED 2J	Climb straight ahead to 2000 or above, turn LEFT to RD, climb on 137° bearing to FL060 or above, turn RIGHT to RD, 010° bearing from RD to EKLED.						
ULMER 2J	Climb straight ahead to 2000 or above, turn LEFT to RD, climb on 137° bearing to FL060 or above, turn RIGHT to RD, 317° bearing from RD to ULMER.						
<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;">FEET METERS</td> </tr> <tr> <td style="text-align: center;">QNH (QFE)</td> </tr> <tr> <td style="text-align: center;">2000 (530)</td> </tr> <tr> <td style="text-align: center;">5000 (1445)</td> </tr> </table>		FEET METERS	QNH (QFE)	2000 (530)	5000 (1445)	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;">① Computed for surface air temperature at ARP -42.0°C</td> </tr> </table>	① Computed for surface air temperature at ARP -42.0°C
FEET METERS							
QNH (QFE)							
2000 (530)							
5000 (1445)							
① Computed for surface air temperature at ARP -42.0°C							

ULMM/MMK
MURMANSK

JEPPESSEN

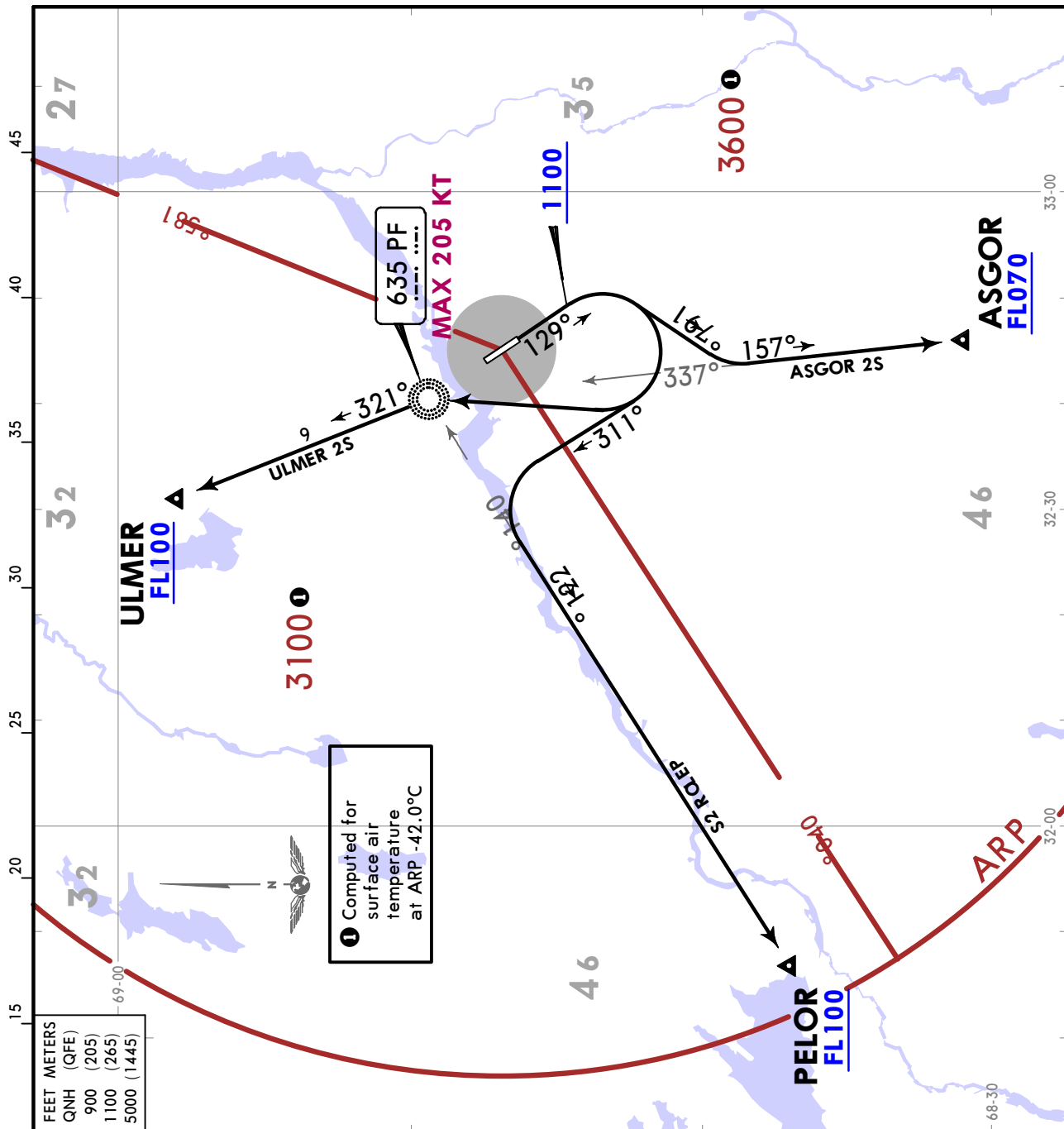
MURMANSK, RUSSIA

9 MAY 25

10-3K

Eff 15 May

SID



FEET	METERS
QNH (QFE)	
900 (205)	
1100 (265)	
5000 (1445)	

Trans alt: 5000 QNH (QFE on request)
ULMER 2S: Turn before DER PROHIBITED

**ASGOR 2S [ASG02S]
PELOR 2S [PELO2S]
ULMER 2S [ULME2S]
DEPARTURES
(RWY 13)
UNDER RADAR CONTROL**

Close-In Obstacle
MAX 404 - located to the RIGHT and LEFT of take-off heading at MAX 0.5 NM from DER

These SIDs require minimum climb gradients of

ASGOR 2S: 5.0% up to 900.
6.8% up to FL070, due to airspace structure.

PELOR 2S: 5.6% up to FL090.
5.0% up to FL100, due to airspace structure.

ULMER 2S: 5.0% up to 900.
6.2% up to FL100, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519
5.6% V/V (fpm)	425	567	851	1134	1418	1701
6.2% V/V (fpm)	471	628	942	1256	1570	1884
6.8% V/V (fpm)	516	689	1033	1377	1722	2066

ROUTING

ASGOR 2S Climb straight ahead to 1100 or above, turn RIGHT, 197° track, intercept 157° bearing from PF to ASGOR.

PELOR 2S Climb straight ahead to 1100 or above, turn RIGHT, 311° track, intercept 221° bearing from PF to PELOR.

ULMER 2S Climb straight ahead to 1100 or above, turn RIGHT to PF, 321° bearing from PF to ULMER.

ULMM/MMK

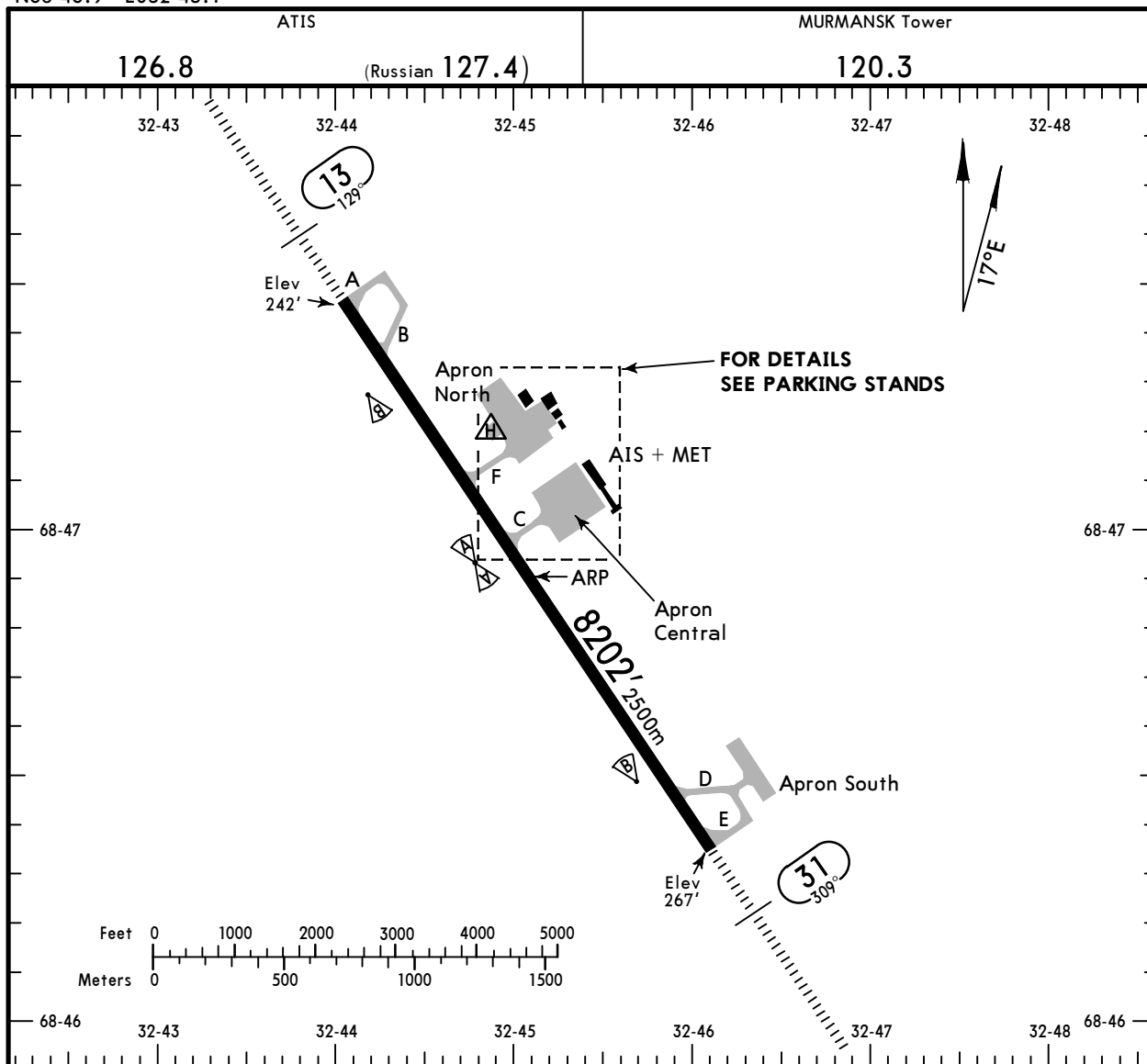
Apt Elev **267'**
N68 46.9 E032 45.1

JEPPESEN

16 MAY 25 **(10-9)**

MURMANSK, RUSSIA

MURMANSK



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			WIDTH
		Threshold	Landing Beyond Glide Slope	TAKE-OFF	
13 31	RL (60m) PALS CAT-I (900m) PAPI-L (angle 3.0°) RVR		7411' 2259m 7109' 2167m		138' 42m

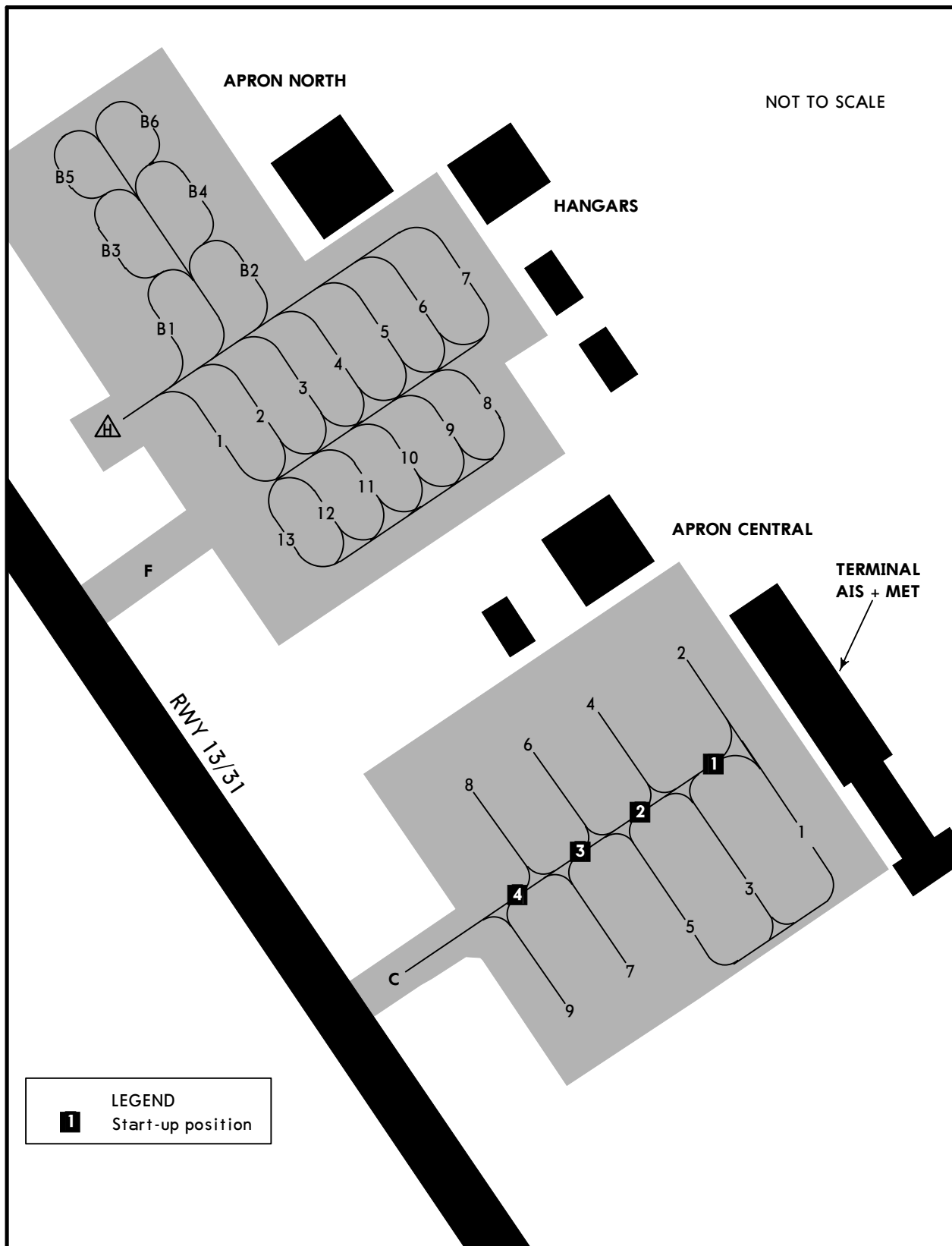
Std TAKE-OFF			
I RL & RCLM	I RL or RCLM	Adequate Vis Ref	
		DAY	NIGHT
R/V300m	R/V400m	R/V500m	NA

I For NIGHT operations, at least RL and RENL are required.

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JEPPESEN
16 MAY 25 (10-9A)

MURMANSK, RUSSIA
MURMANSK



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JEPPesen
 16 MAY 25 **(10-9S)**
EASA AIR OPS**MURMANSK, RUSSIA**
MURMANSK

STRAIGHT-IN RWY		A	B	C	D
13	ILS Y or Z	442' (200')	442' (200')	442' (200')	442' (200')
	FULL	① R550m	① R550m	① R550m	① R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	442' (200')	442' (200')	442' (200')	442' (200')
		① R550m	① R550m	① R550m	① R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	② LOC Z	550' (308')	550' (308')	550' (308')	550' (308')
	with OM	R750m	R750m	R750m	R750m
	ALS out	R1400m	R1400m	R1400m	R1400m
	② LOC Z	1000' (758')	1000' (758')	1000' (758')	1000' (758')
	w/o OM	R1500m	R1500m	R1500m	R1500m
	ALS out	R2400m	R2400m	R2400m	R2400m
	② LOC Y	550' (308')	550' (308')	550' (308')	550' (308')
		R750m	R750m	R750m	R750m
	ALS out	R1400m	R1400m	R1400m	R1400m
RNP LNAV/VNAV	622' (380')	632' (390')	642' (400')	652' (410')	
	R1000m	R1100m	R1100m	R1200m	
ALS out	R1500m	R1500m	R1800m	R1900m	
② RNP LNAV	740' (498')	740' (498')	740' (498')	740' (498')	
	R1500m	R1500m	R1500m	R1500m	
ALS out	R1500m	R1500m	R2300m	R2300m	
② NDB Z	720' (478')	720' (478')	720' (478')	720' (478')	
	R1500m	R1500m	R1500m	R1500m	
ALS out	R1500m	R1500m	R2200m	R2200m	
② NDB Y	750' (508')	750' (508')	750' (508')	750' (508')	
with OM	R1500m	R1500m	R1600m	R1600m	
ALS out	R1500m	R1500m	R2400m	R2400m	
② NDB Y	930' (688')	930' (688')	930' (688')	930' (688')	
w/o OM	R1500m	R1500m	R2400m	R2400m	
② NDB X	1470' (1228')	1470' (1228')	1470' (1228')	1470' (1228')	
	R1500m	R1500m	R2400m	R2400m	
31	ILS Y or Z	467' (200')	467' (200')	467' (200')	467' (200')
	FULL	① R550m	① R550m	① R550m	① R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	467' (200')	467' (200')	467' (200')	467' (200')
		① R550m	① R550m	① R550m	① R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	② LOC Z	780' (513')	780' (513')	780' (513')	780' (513')
	with OM	R1500m	R1500m	R1600m	R1600m
	ALS out	R1500m	R1500m	R2400m	R2400m
	② LOC Z	960' (693)	960' (693)	960' (693)	960' (693)
w/o OM	R1500m	R1500m	R2400m	R2400m	
② LOC Y	780' (513')	780' (513')	780' (513')	780' (513')	
	R1500m	R1500m	R1600m	R1600m	
ALS out	R1500m	R1500m	R2400m	R2400m	

① R750m when a Flight Director or Autopilot or HUD to DA is not used.

② Continuous Descent Final Approach.

ULMM/MMK

 **JEPPESEN**
16 MAY 25 **(10-9SI)**

EASA AIR OPS
MURMANSK, RUSSIA
MURMANSK

STRAIGHT-IN RWY	A	B	C	D
RNP LNAV/VNAV 31 (CONTD)	817' (550') R1500m	837' (570') R1500m	837' (570') R1900m	847' (580') R1900m
ALS out	R1500m	R1500m	R2400m	R2400m
① RNP LNAV	860' (593') R1500m	860' (593') R1500m	860' (593') R2000m	860' (593') R2000m
ALS out	R1500m	R1500m	R2400m	R2400m
① NDB Z	820' (553') R1500m	820' (553') R1500m	820' (553') R1800m	820' (553') R1800m
ALS out	R1500m	R1500m	R2400m	R2400m
① NDB Y with OM ALS out	820' (553') R1500m R1500m	820' (553') R1500m R1500m	820' (553') R1800m R2400m	820' (553') R1800m R2400m
① NDB Y w/o OM	820' (553') R1500m	820' (553') R1500m	820' (553') R2400m	820' (553') R2400m
① NDB X	1630' (1363') R1500m	1630' (1363') R1500m	1630' (1363') R2400m	1630' (1363') R2400m

① Continuous Descent Final Approach.

CIRCLE-TO-LAND ②	100 KT	135 KT	180 KT	205 KT
	850' (583')	1030' (763')	1430' (1163')	1430' (1163')
after ILS Z or LOC Z 13	1030' (763')	1030' (763')	1430' (1163')	1430' (1163')
after ILS Z or LOC Z 31	960' (693')	1030' (763')	1430' (1163')	1430' (1163')
after RNP 31	870' (603')	1030' (763')	1430' (1163')	1430' (1163')
after NDB Y 13	940' (673')	1030' (763')	1430' (1163')	1430' (1163')
③ after NDB X 13	1480' (1238')	1480' (1238')	1480' (1238')	1480' (1238')
after NDB X 31	1630' (1363')	1630' (1363')	1630' (1363')	1630' (1363')
	V1500m	V1600m	V2400m	V3600m

② Prohibited NORTH-EAST of airport.

③ Circling height based on rwy 13 threshold elev of 242'.

TAKE-OFF

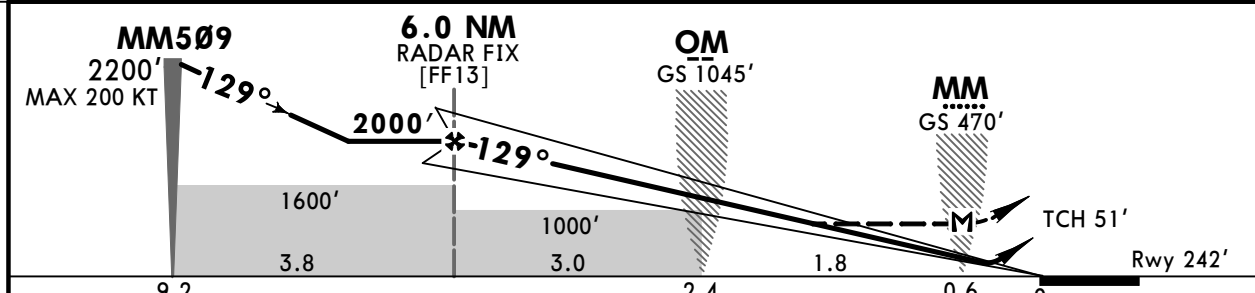
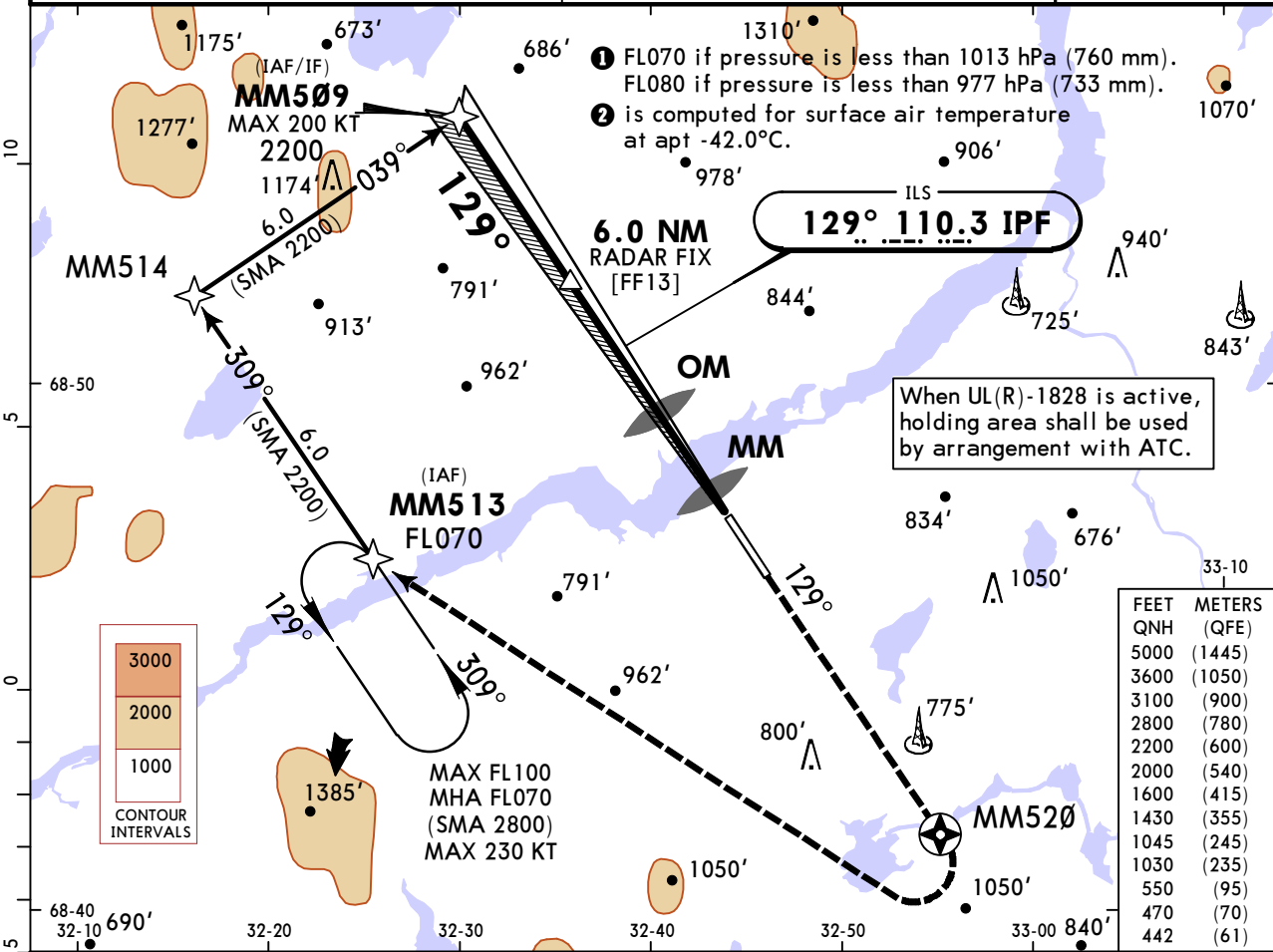
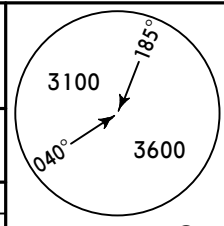
Low Visibility Procedures required		RCLM or RL	RL	Adequate Vis Ref	
Approval for Low Visibility Take-off required				DAY	NIGHT
RCLM & RL & RVR		DAY	NIGHT	DAY	NIGHT
DAY	NIGHT				
R300m		R/V400m		R/V500m	NA

ULMM/MMK
MURMANSK

JEPPESEN
16 MAY 25 (11-1)

MURMANSK, RUSSIA
ILS Z or LOC Z Rwy 13

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
LOC IPF 110.3	Final Apch Crs 129°	6.0 NM RADAR FIX 2000' (1758')	ILS DA(H) 442' (200')	Apt Elev 267' Rwy 242'	
MISSED APCH: Climb STRAIGHT AHEAD to MM520 (MAX 230 KT), then turn RIGHT to MM513 climbing to 2800' or above.					
Alt Set: hPa (MM on req)		Rwy Elev: 9 hPa	Trans level: FL060 ①	Trans alt: 5000'	
RNAV 1 required for initial and missed apch.			1. GNSS required. 2. LOC: Radar required.		MSA ARP ②



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	MM520 ↑ 230 KT MAX	
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743			849
MAP at MM. Timing not authorized for defining MAP.									

PANS OPS	Std				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport			
	ILS		with OM CDFA		LOC (GS out)		w/o OM CDFA	
	DA(H) 442' (200')		② DA/MDA(H) 550' (308')		② DA/MDA(H) 1000' (758')			
	FULL	ALS out	ALS out	ALS out	ALS out	ALS out	Max KT	MDA(H)
	A						100	1030' (763') V1500m
B	① R550m	R1200m	R750m	R1400m		135	1030' (763') V1600m	
C						180	1430' (1163') V2400m	
D						205	1430' (1163') V3600m	

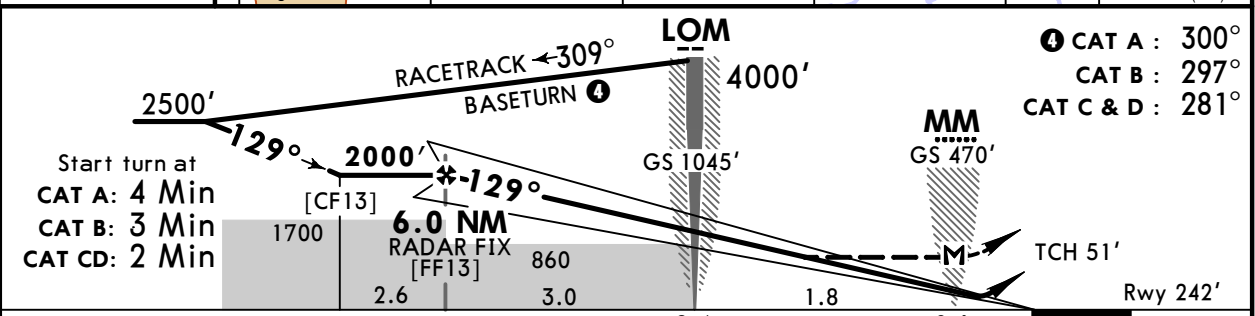
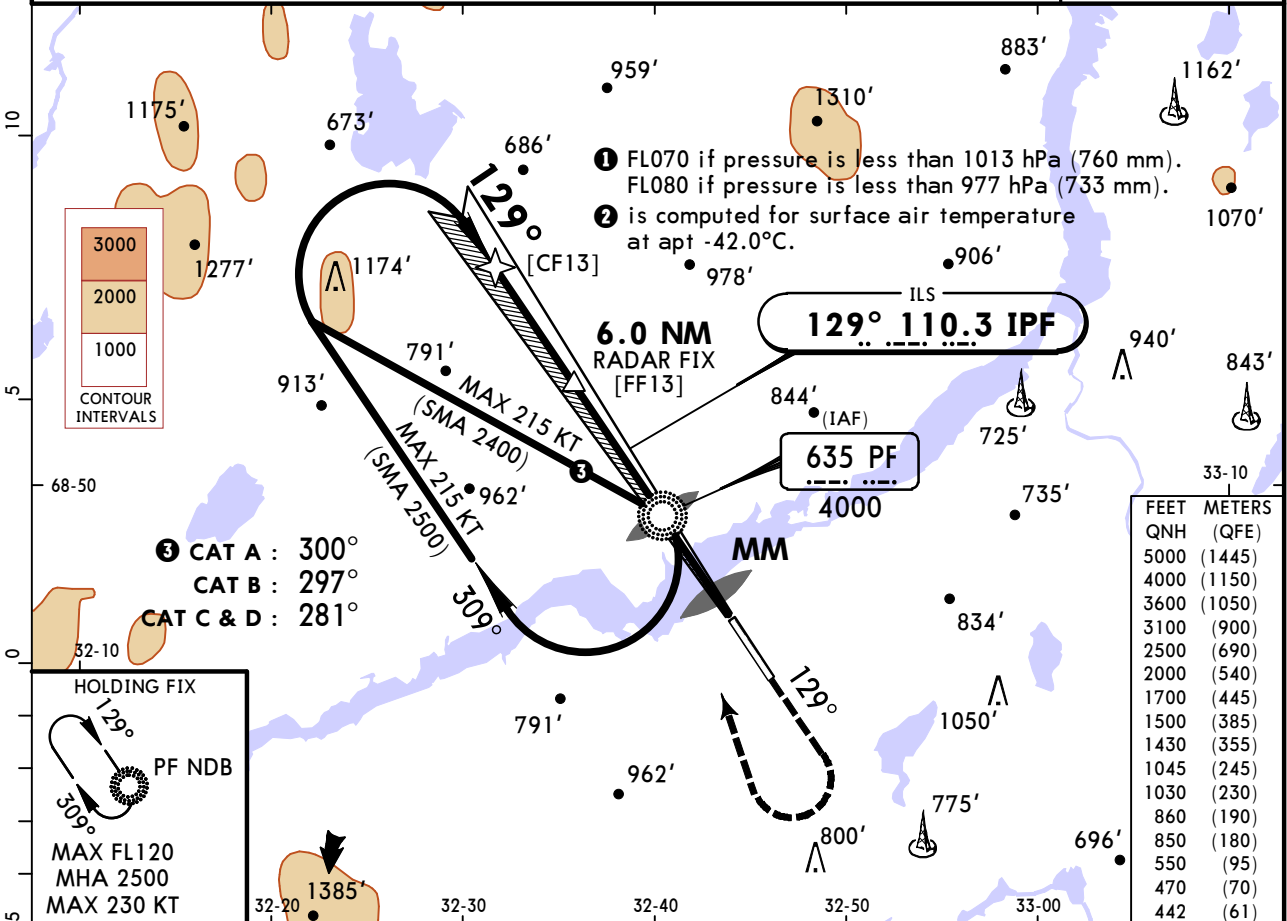
① R750m when a Flight Director or Autopilot or HUD to DA is not used.
② VNAV DA(H) in lieu of MDA(H) depends on operator policy.
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ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 (11-2)

MURMANSK, RUSSIA ILS Y or LOC Y Rwy 13

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
LOC IPF 110.3	Final Apch Crs 129°	6.0 NM RADAR FIX 2000' (1758')	ILS DA(H) 442' (200')	Apt Elev 267'	
MISSED APCH: Climb STRAIGHT AHEAD to 1500' or above, then turn RIGHT to PF NDB climbing to 2500' or above. Turn before MAP is prohibited.					
Alt Set: hPa (MM on req) Rwy Elev: 9 hPa Trans level: FL060 ① Trans alt: 5000'					
Radar required.					MSA ARP ②



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI 1500' ↑ PF 635 → RT
ILS GS or	3.00°	372	478	531	637	743	
LOC Descent Angle	3.00°	372	478	531	637	743	

MAP at MM. Timing not authorized for defining MAP.

	STRAIGHT-IN LANDING		CIRCLE-TO-LAND	
	ILS	LOC (GS out)	Prohibited NORTH-EAST of airport	
	DA(H) 442' (200')	② DA/MDA(H) 550' (308')		
	ALS out	ALS out	Max KT	MDA(H)
A			100	850' (583') V1500m
B	R550m	R1200m	135	1030' (763') V1600m
C		R750m	180	1430' (1163') V2400m
D		R1400m	205	1430' (1163') V3600m

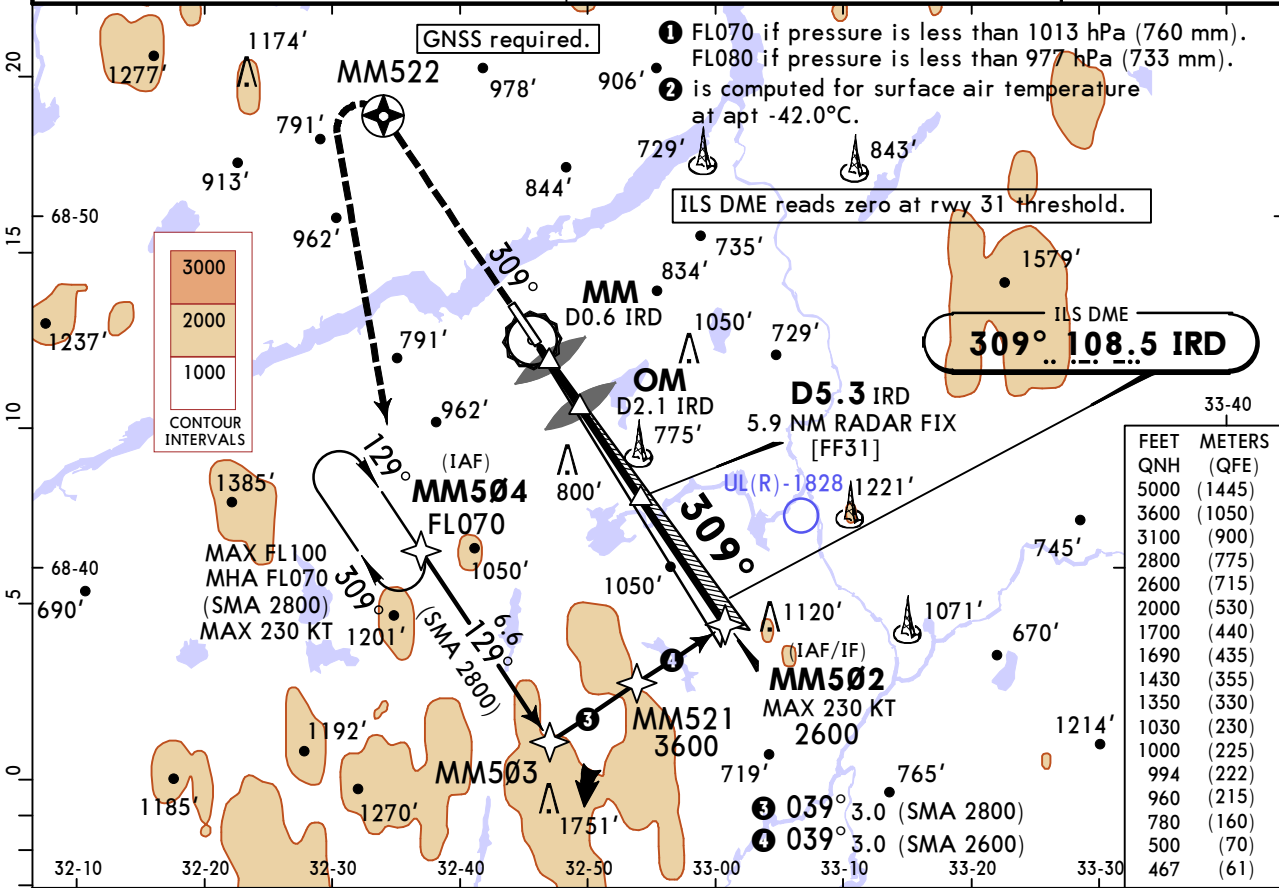
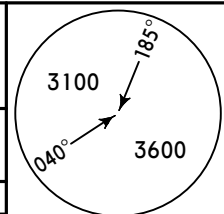
① R750m when a Flight Director or Autopilot or HUD to DA is not used.
 ② VNAV DA(H) in lieu of MDA(H) depends on operator policy.
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ULMM/MMK MURMANSK

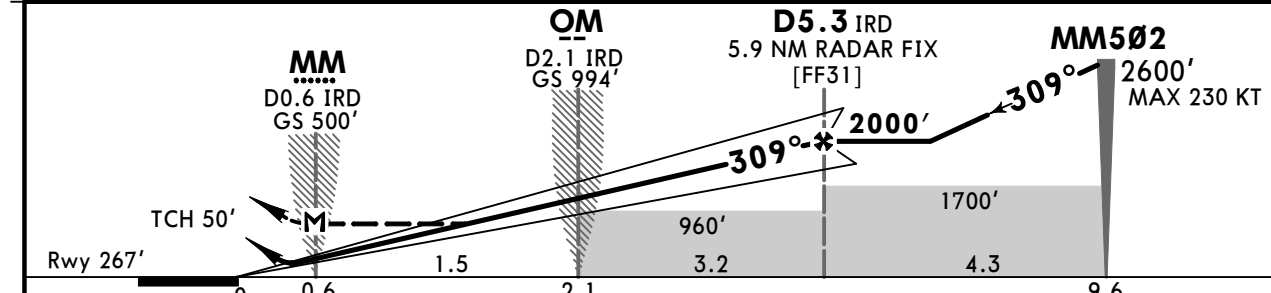
JEPPesen
16 MAY 25 **(11-3)**

MURMANSK, RUSSIA ILS Z or LOC Z Rwy 31

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
LOC IRD 108.5	Final Apch Crs 309°	D5.3 IRD 2000' (1733')	ILS DA(H) 467' (200')	Apt Elev 267' Rwy 267'	
MISSED APCH: Climb STRAIGHT AHEAD to MM522 (MAX 215 KT), then turn LEFT to MM504 climbing to 2800' or above.					
Alt Set: hPa (MM on req) Rwy Elev: 10 hPa Trans level: FL060 ① Trans alt: 5000'					
RNAV 1 required for initial and missed apch.				LOC: Radar or DME required.	
					MSA ARP ②



IRD DME	2.2	3.2	4.3
ALTITUDE	1000'	1350'	1690'



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	MM522 ↑ 215 KT MAX	
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743			849
MAP at MM. Timing not authorized for defining MAP.									

PANS OPS	STRAIGHT-IN LANDING				CIRCLE-TO-LAND	
	ILS		LOC (GS out)		Prohibited NORTH-EAST of airport	
	with OM CDFA		w/o OM CDFA			
	DA(H) 467' (200')		DA/MDA(H) 780' (513')		DA/MDA(H) 960' (693')	
	FULL	ALS out	ALS out	ALS out	ALS out	ALS out
A			R1500m		R1500m	
B	① R550m	R1200m	R1500m		R1500m	
C			R1600m	R2400m	R2400m	
D			R1600m	R2400m	R2400m	
					Max KT	MDA(H)
					100	960' (693') V1500m
					135	1030' (763') V1600m
					180	1430' (1163') V2400m
					205	1430' (1163') V3600m

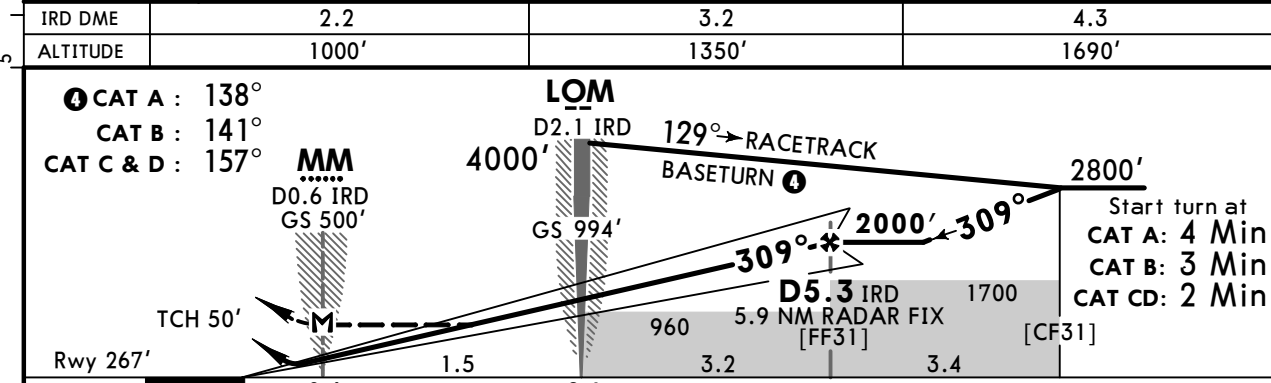
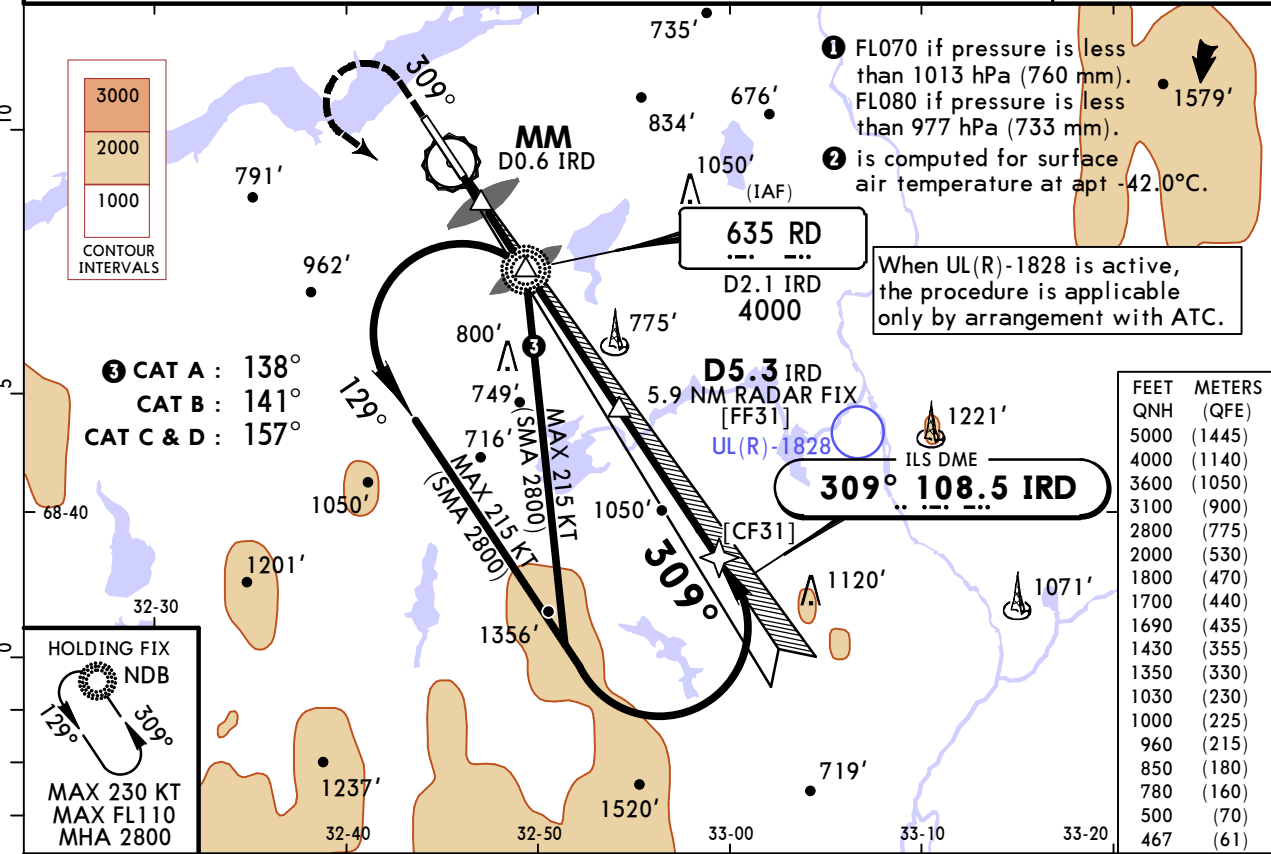
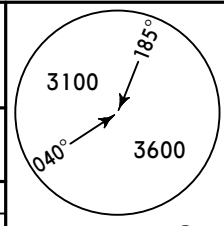
① R750m when a Flight Director or Autopilot or HUD to DA is not used.
② VNAV DA(H) in lieu of MDA(H) depends on operator policy.
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ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 **(11-4)**

MURMANSK, RUSSIA ILS Y or LOC Y Rwy 31

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
LOC IRD 108.5	Final Apch Crs 309°	D5.3 IRD 2000' (1733')	ILS DA(H) 467' (200')	Apt Elev 267' Rwy 267'	
MISSED APCH: Climb STRAIGHT AHEAD to 1800' (MAX 185 KT), then turn LEFT to RD NDB climbing to 2800' or above. Turn before MAP is prohibited.					
Alt Set: hPa (MM on req) Rwy Elev: 10 hPa Trans level: FL060 1 Trans alt: 5000'					
1. Radar required. 2. ILS DME reads zero at rwy 31 threshold.					



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	1800'	RD 635 LT	
ILS GS or LOC Descent Angle	3.00°	372	478	531	637	743				849
MAP at MM. Timing not authorized for defining MAP.										

PANS OPS	STRAIGHT-IN LANDING				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport
	ILS		LOC (GS out) CDFA		
	DA(H) 467' (200')		2 DA/MDA(H) 780' (513')		
	ALS out		ALS out		Max KT
A			R1500m		100
B	1 R550m	R1200m			135
C			R1600m	R2400m	180
D					205

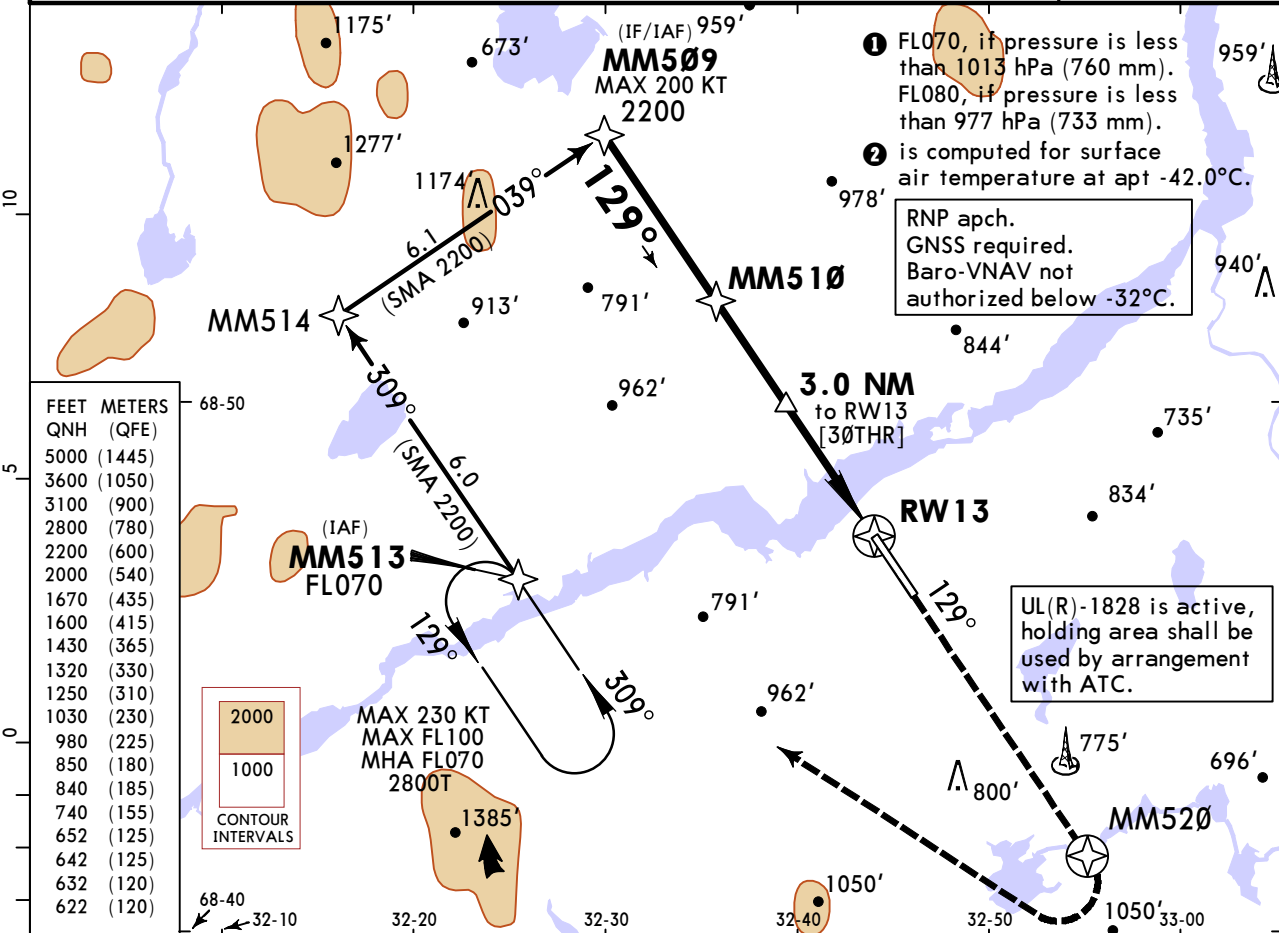
1 R750m when a Flight Director or Autopilot or HUD to DA is not used.
2 VNAV DA(H) in lieu of MDA(H) depends on operator policy.
 CHANGES: Procedure. © JEPPESEN, 2020, 2025. ALL RIGHTS RESERVED.

ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 (12-1)

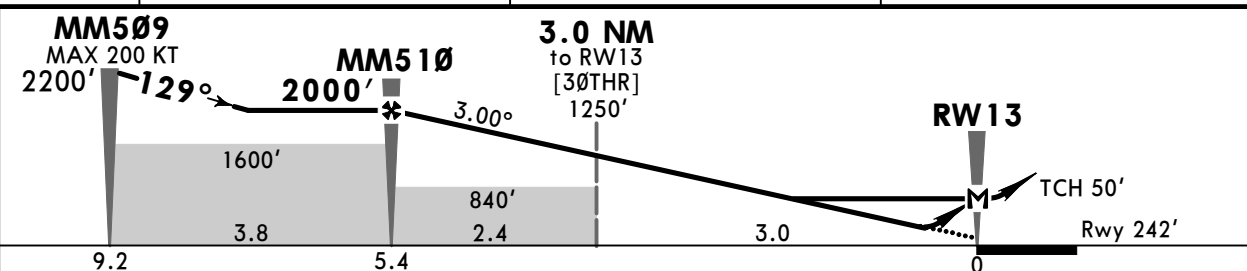
MURMANSK, RUSSIA RNP Rwy 13

ATIS 126.8			(Russian 127.4)			MURMANSK Tower 120.3		
BRIEFING STRIP™	RNAV	Final Apch Crs 129°	MM510 2000' (1758')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 267'	Rwy 242'		
	MISSED APCH: Climb STRAIGHT AHEAD to MM520 (MAX 230 KT), turn RIGHT to MM513 climbing to 2800' or above.							
Alt Set: hPa (MM on req)		Rwy Elev: 9 hPa	Trans level: FL060 ①	Trans alt: 5000'		MSA ARP ②		



FEET	METERS
5000	(1445)
3600	(1050)
3100	(900)
2800	(780)
2200	(600)
2000	(540)
1670	(435)
1600	(415)
1430	(365)
1320	(330)
1250	(310)
1030	(230)
980	(225)
850	(180)
840	(185)
740	(155)
652	(125)
642	(125)
632	(120)
622	(120)

DIST to RW13	4.3	3.2	2.2
ALTITUDE	1670'	1320'	980'



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	230 KT MAX	MM520	
Glide Path Angle	3.00°	372	478	531	637	743				849
MAP at RW13	Timing not authorized for defining MAP.									

Std	STRAIGHT-IN LANDING				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport		
	LNAV/VNAV		LNAV CDFA		Max KT	MDA(H)	
	A: 622' (380') C: 642' (400')		DA(MDA(H)) 740' (498')			100	850' (583') V1500m
	DA(H) B: 632' (390') D: 652' (410')				135	1030' (763') V1600m	
		ALS out		ALS out	180	1430' (1163') V2400m	
					205	1430' (1163') V3600m	

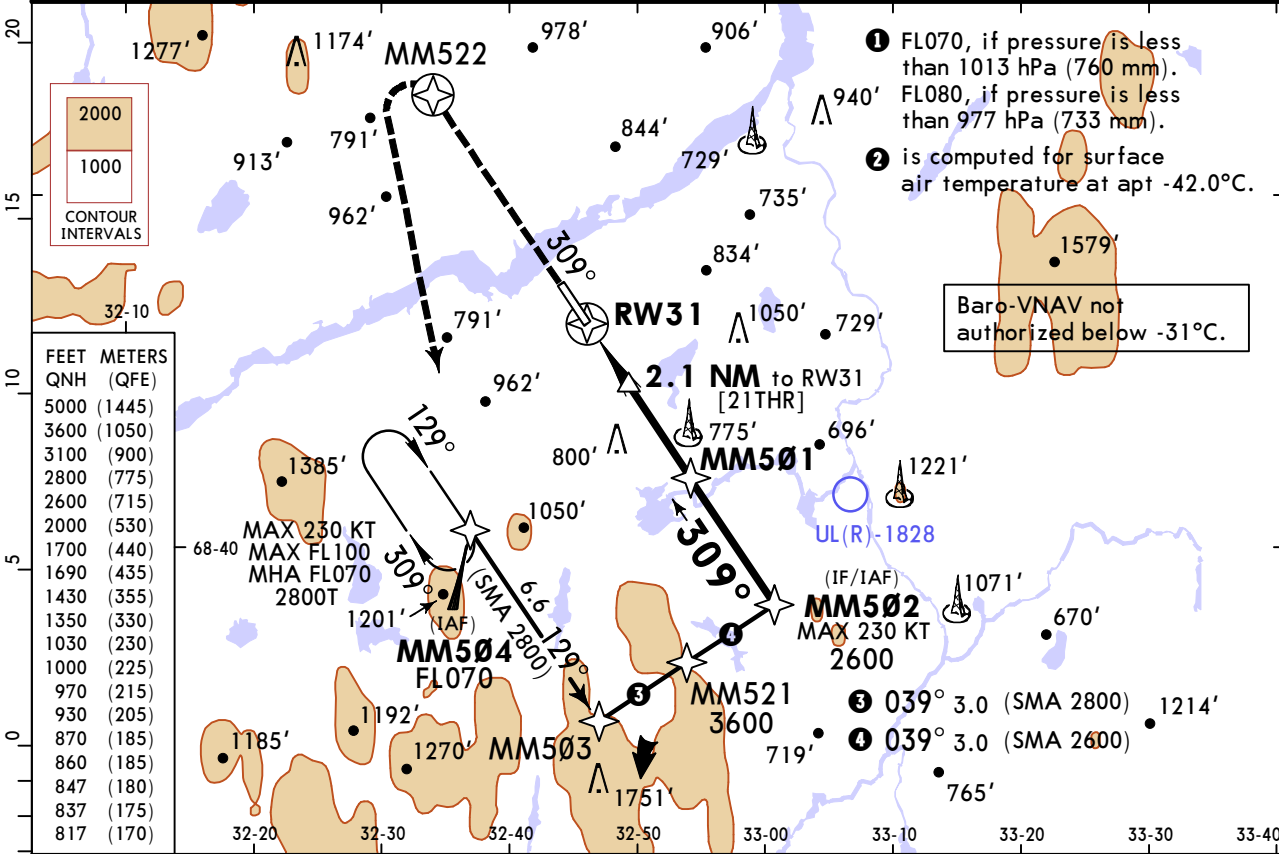
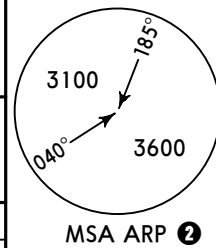
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.
CHANGES: Communications, procedure, minimums. © JEPPESEN, 2014, 2025. ALL RIGHTS RESERVED.

ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 (12-2)

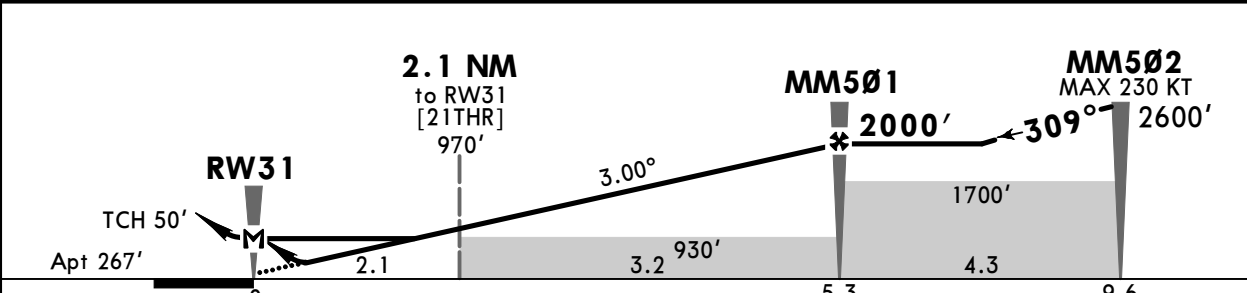
MURMANSK, RUSSIA RNP Rwy 31

ATIS 126.8		(Russian 127.4)		MURMANSK Tower 120.3	
RNAV	Final Apch Crs 309°	MM501 2000' (1733')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 267'	
MISSED APCH: Climb STRAIGHT AHEAD to MM522 (MAX 215 KT), turn LEFT to MM504 climbing to 2800' or above.					
Alt Set: hPa (MM on req) Apt Elev: 10 hPa Trans level: FL060 ① Trans alt: 5000'					
RNP apch. 1.GNSS required. 2.Baro-VNAV not authorized below -32°C.					



FEET METERS	
QNH (QFE)	
5000 (1445)	
3600 (1050)	
3100 (900)	
2800 (775)	
2600 (715)	
2000 (530)	
1700 (440)	
1690 (435)	
1430 (355)	
1350 (330)	
1030 (230)	
1000 (225)	
970 (215)	
930 (205)	
870 (185)	
860 (185)	
847 (180)	
837 (175)	
817 (170)	

DIST to RW31	2.2	3.2	4.3
ALTITUDE	1000'	1350'	1690'



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	215 KT MAX	MM522	
Glide Path Angle	3.00°	372	478	531	637	743				849
MAP at RW31										

Timing not authorized for defining MAP.

PANS OPS	Std STRAIGHT-IN LANDING				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport			
	LNAV/VNAV		LNAV CDFA		LNAV/VNAV		CIRCLE-TO-LAND	
	DA(H) A: 817' (550')		DA(H) 860' (593')		DA(H) 870' (603')		MDA(H)	
	BC: 837' (570')		D: 847' (580')		ALS out		ALS out	
	A	R1500m		R1500m		100	1030' (763') V1600m	
B	R1500m		R1500m		135	1430' (1163') V2400m		
C	R1900m	R2400m	R2000m	R2400m	180	1430' (1163') V3600m		
D	R1900m	R2400m	R2000m	R2400m	205	1430' (1163') V3600m		

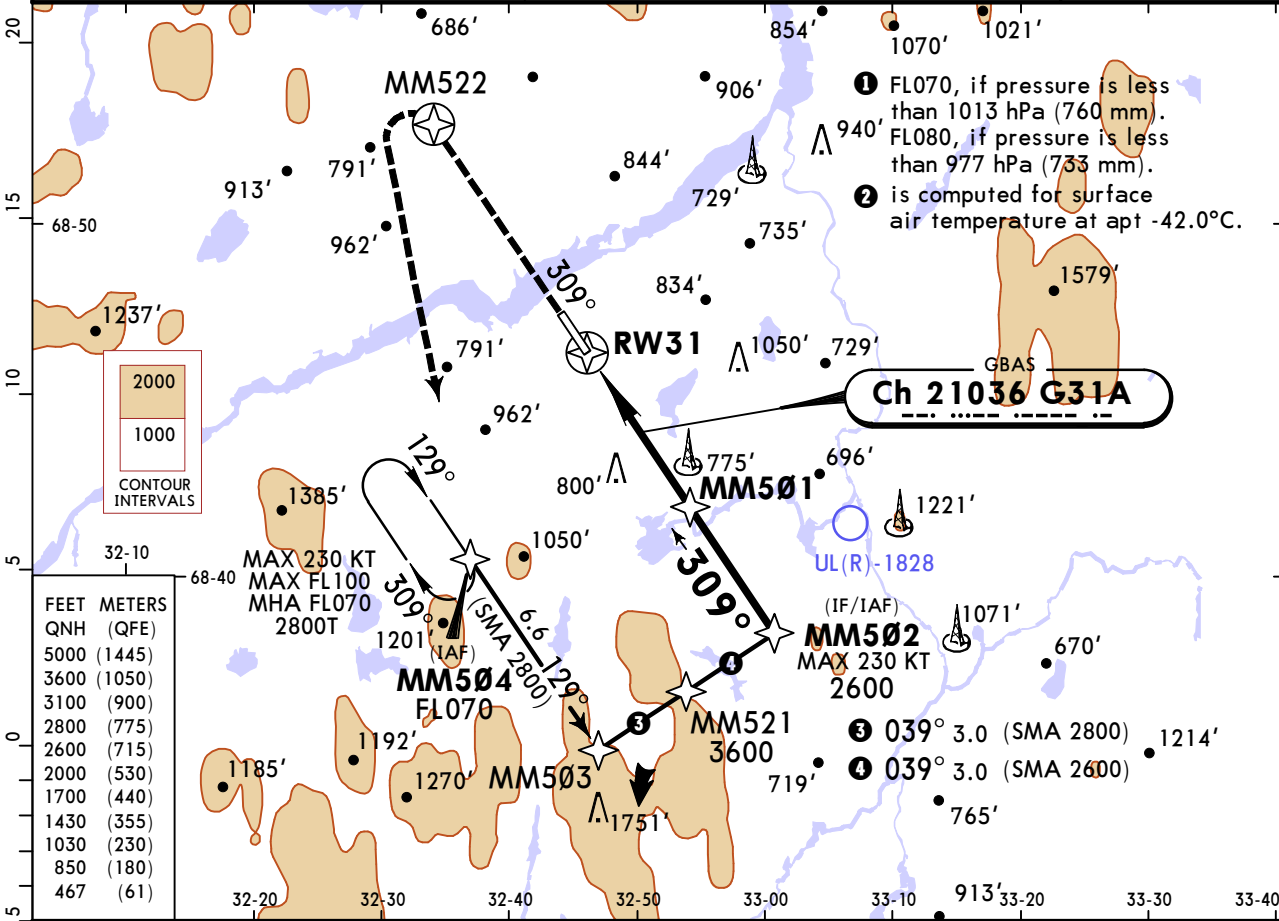
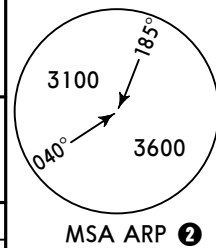
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.

ULMM/MMK MURMANSK

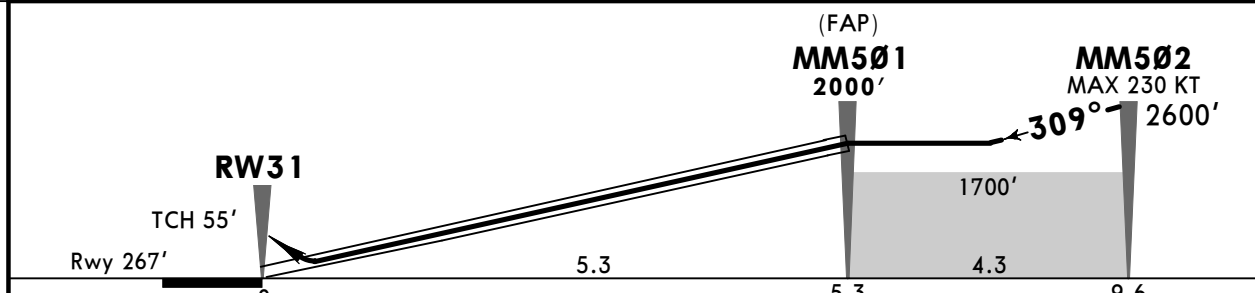
JEPPESSEN
16 MAY 25 (12-41)

MURMANSK, RUSSIA GLS Rwy 31

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
GBAS Ch 21036 G31A	Final Apch Crs 309°	MM501 2000' (1733')	DA(H) Refer to Minimums	Apt Elev 267' Rwy 267'	
MISSED APCH: Climb STRAIGHT AHEAD to MM522 (MAX 215 KT), turn LEFT to MM504 climbing to 2800' or above.					
Alt Set: hPa (MM on req)			Rwy Elev: 10 hPa	Trans level: FL060 ①	Trans alt: 5000'
RNAV 1 for initial and missed approach.			GNSS required.		



FEET	METERS
5000	(1445)
3600	(1050)
3100	(900)
2800	(775)
2600	(715)
2000	(530)
1700	(440)
1430	(355)
1030	(230)
850	(180)
467	(61)



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT I PAPI	215 KT MAX	MM522
Glide Path Angle	3.00°	372	478	531	637	743			

PANS OPS	Std	STRAIGHT-IN LANDING		CIRCLE-TO-LAND Prohibited NORTH-EAST of airport		
		GLS				
		DA(H) 467' (200')				
		ALS out		Max KT	MDA(H)	
	A			100	850' (583')	V1500m
B			135	1030' (763')	V1600m	
C	1 R550m	R1200m		180	1430' (1163') V2400m	
D			205	1430' (1163')	V3600m	

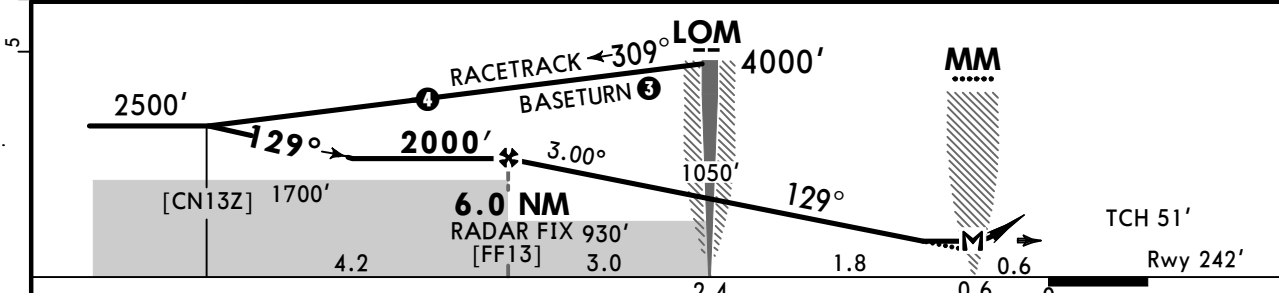
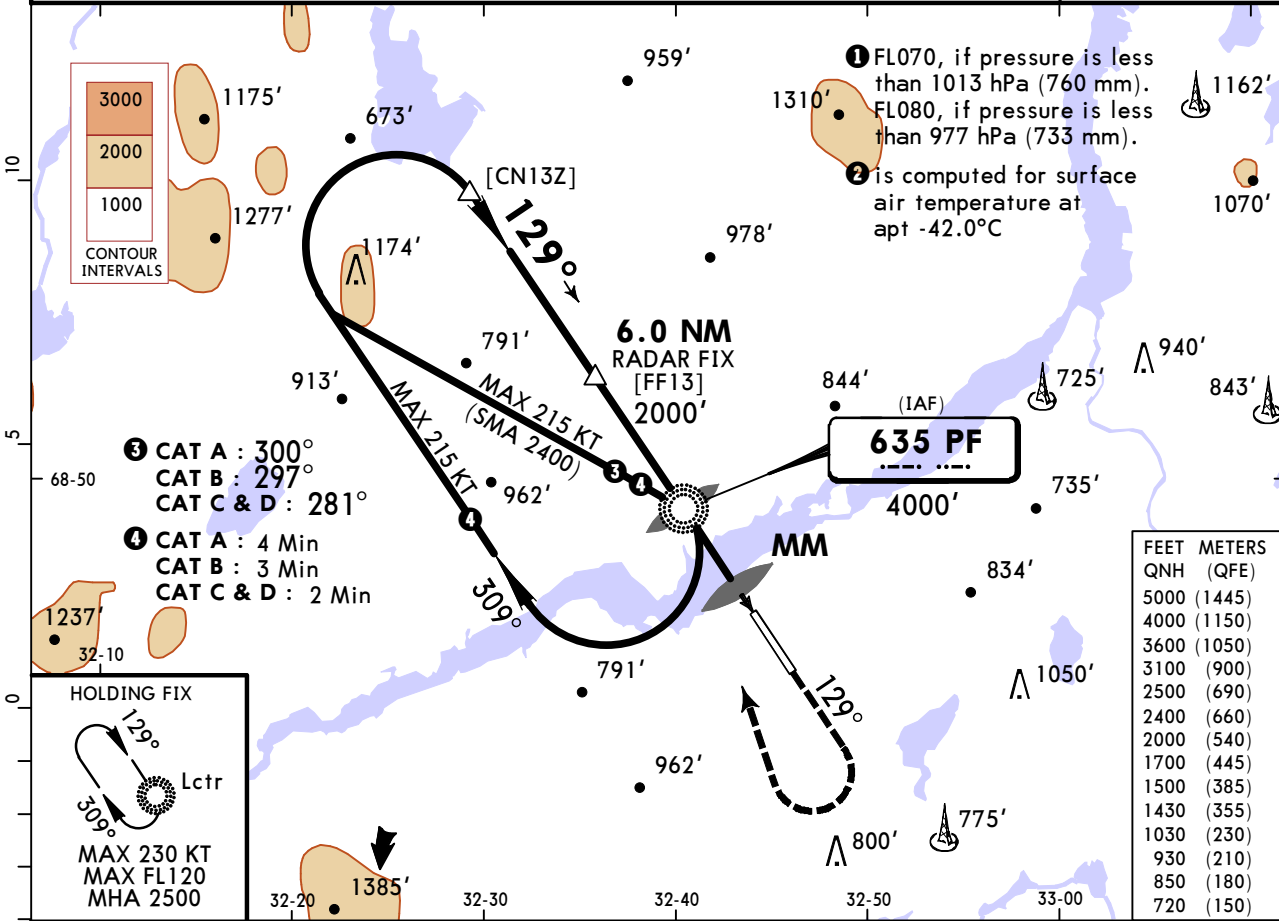
1 R750m when a Flight Director or Autopilot or HUD to DA is not used.

ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 (16-1)

MURMANSK, RUSSIA NDB Z Rwy 13

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
Lctr PF 635	Final Apch Crs 129°	6.0 NM RADAR FIX 2000' (1558')	DA/MDA(H) 720' (478')	Apt Elev 267'	Rwy 242'
MISSED APCH: Climb straight ahead to 1500' or above, then turn RIGHT to Lctr climbing to 2500' or above. Turn before passing MAP is PROHIBITED.					
Alt Set: hPa (MM on req) Rwy Elev: 9 hPa Trans level: FL060 ① Trans alt: 5000'					
Radar required.					



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT-I PAPI MIN 1500'
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at MM							

Timing not authorized to define MAP.

Std STRAIGHT-IN LANDING		CIRCLE-TO-LAND Prohibited NORTH-EAST of airport	
CDFA ① DA/MDA(H) 720' (478')			
		ALS out	
A	R1500m		Max 100 850' (583') V1500m
B	R1500m		135 1030' (763') V1600m
C	R1500m	R2200m	180 1430' (1163') V2400m
D	R1500m	R2200m	205 1430' (1163') V3600m

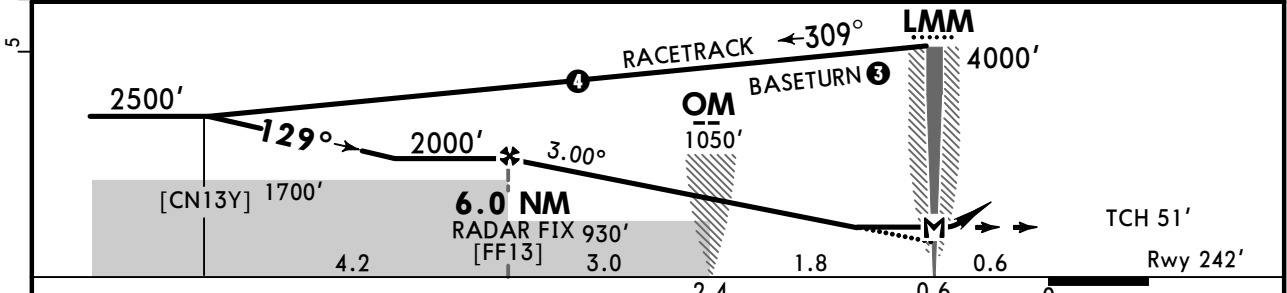
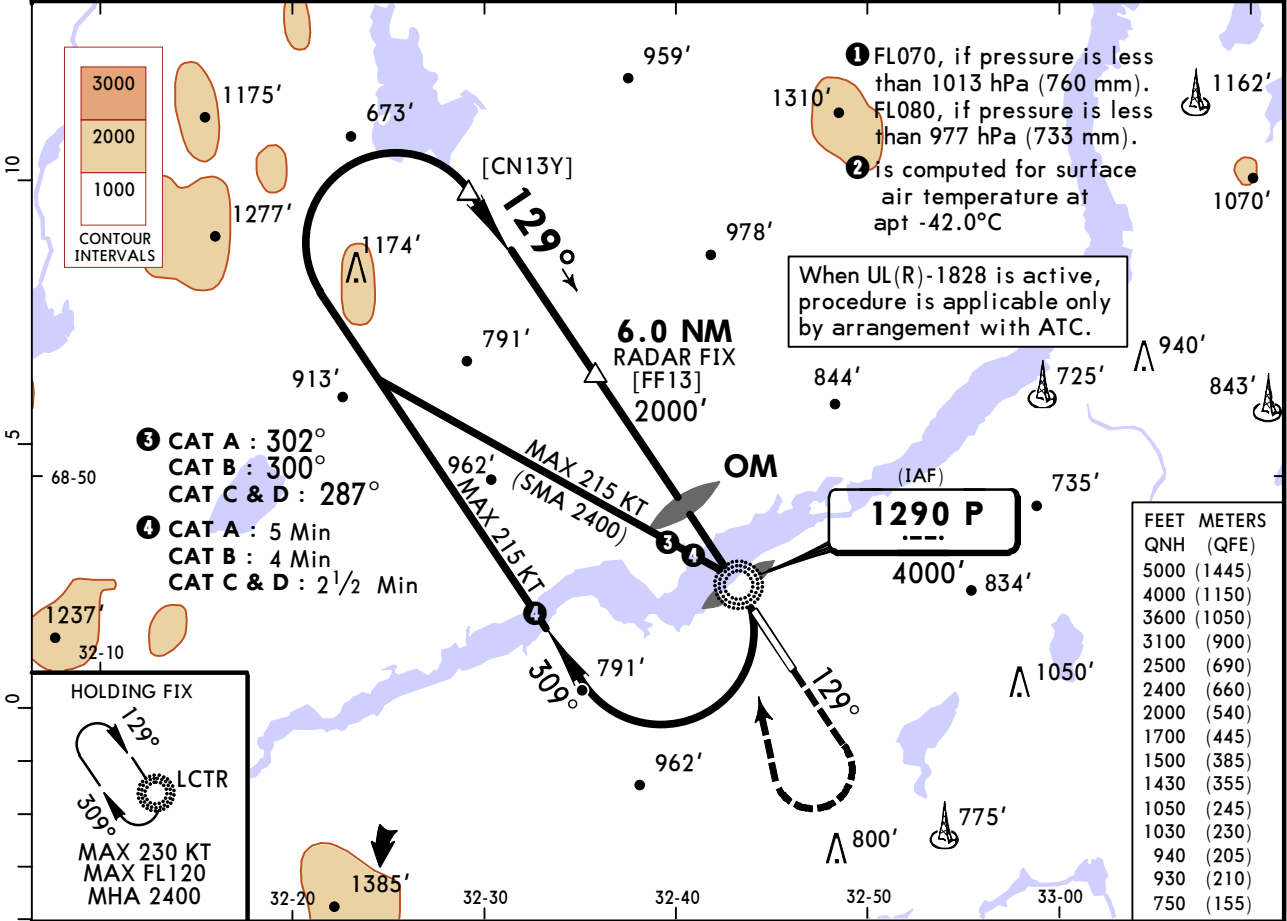
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.
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ULMM/MMK MURMANSK

JEPPesen
16 MAY 25 **(16-2)**

MURMANSK, RUSSIA NDB Y Rwy 13

ATIS			MURMANSK Tower		
126.8			(Russian 127.4)		
120.3					
Lctr P 1290	Final Apch Crs 129°	6.0 NM RADAR FIX 2000' (1558')	DA/MDA(H) (CONDITIONAL) 750' (508')	Apt Elev 267'	Rwy 242'
MISSED APCH: Climb STRAIGHT AHEAD to 1500' or above, then turn RIGHT to LCTR climbing to 2500' or above.					<p>MSA ARP ②</p>
Turn before passing MAP is PROHIBITED.					
Alt Set: hPa (MM on req) Rwy Elev: 9 hPa Trans level: FL060 ① Trans alt: 5000'					
Radar required.					



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT-I PAPI 1500'
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at LMM							

Timing not authorized to define MAP.

Std STRAIGHT-IN LANDING				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport	
with OM CDFA ① DA/MDA(H) 750' (508')		w/o OM CDFA ① DA/MDA(H) 930' (688')		Max KT	MDA(H)
ALS out		ALS out			
A	R1500m		R1500m		100 940' (673') V1500m
B	R1500m		R1500m		135 1030' (763') V1600m
C	R1600m		R2400m		180 1430' (1163') V2400m
D	R1600m		R2400m		205 1430' (1163') V3600m

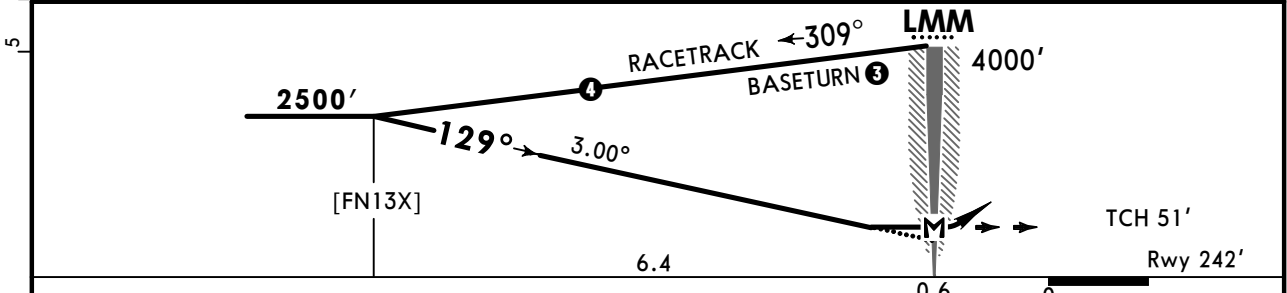
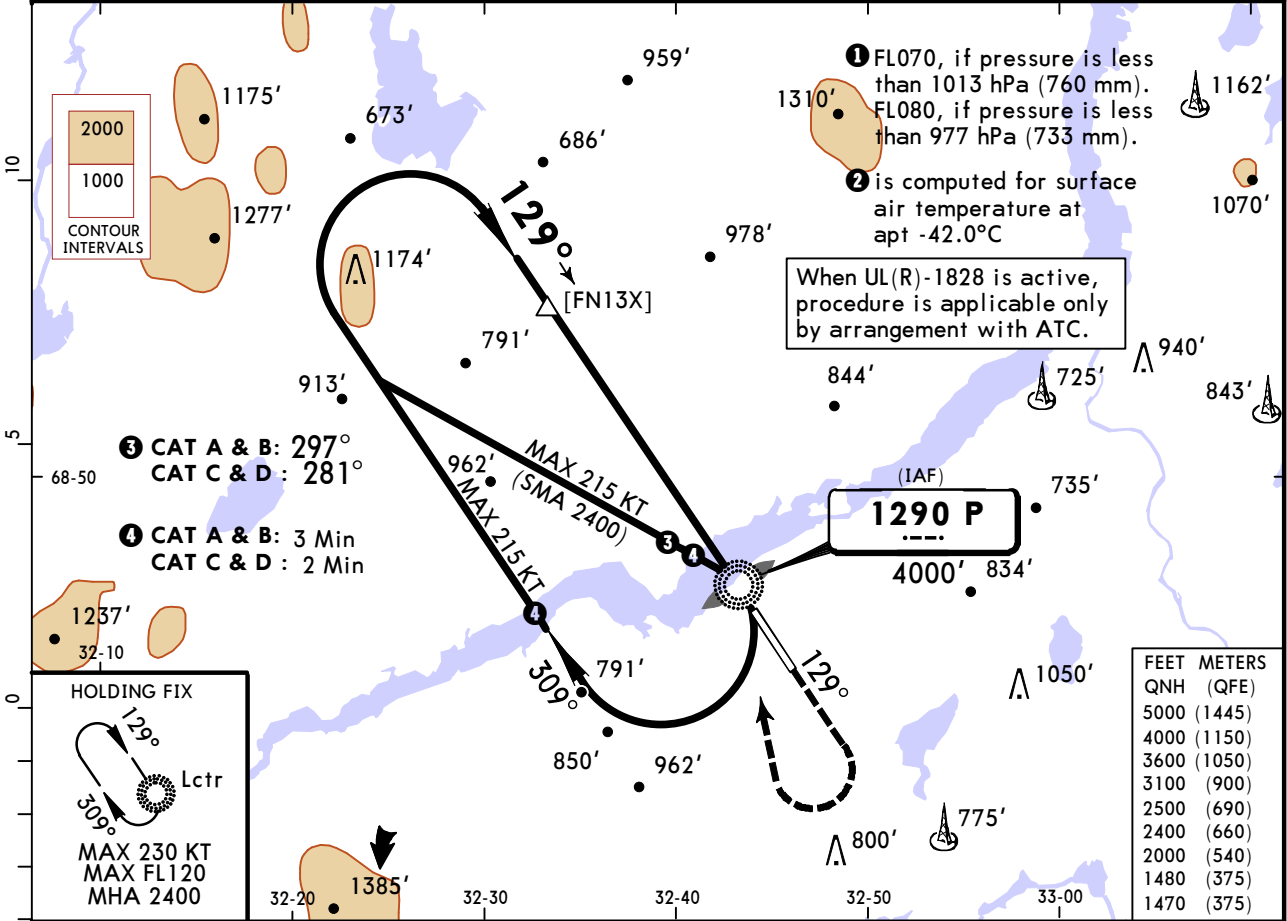
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.

ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 **16-3**

MURMANSK, RUSSIA NDB X Rwy 13

ATIS 126.8 (Russian 127.4)				MURMANSK Tower 120.3	
Lctr P 1290	Final Apch Crs 129°	[FN13X] 2500' (2258')	DA/MDA(H) 1470' (1228')	Apt Elev 267'	Rwy 242'
MISSED APCH: Climb STRAIGHT AHEAD to 2000' or above, then turn RIGHT to Lctr climbing to 2500' or above. Turn before passing MAP is PROHIBITED.					
Alt Set: hPa (MM on req) Rwy Elev: 9 hPa Trans level: FL060 ① Trans alt: 5000'					
					MSA ARP ②



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

Timing not authorized to define MAP.

PALS CAT-I
PAPI

2000'
or above

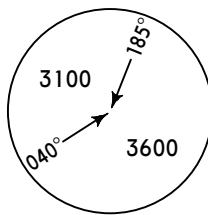
PANS OPS	Std STRAIGHT-IN LANDING CDFA			CIRCLE-TO-LAND ② Prohibited NORTH-EAST of airport		
	① DA/MDA(H) 1470' (1228')			ALS out		
	A	R1500m			Max KT 100	MDA(H) 1480' (1238') V1500m
	B	R1500m			135	1480' (1238') V1600m
	C	R2400m			180	1480' (1238') V2400m
D	R2400m			205	1480' (1238') V3600m	

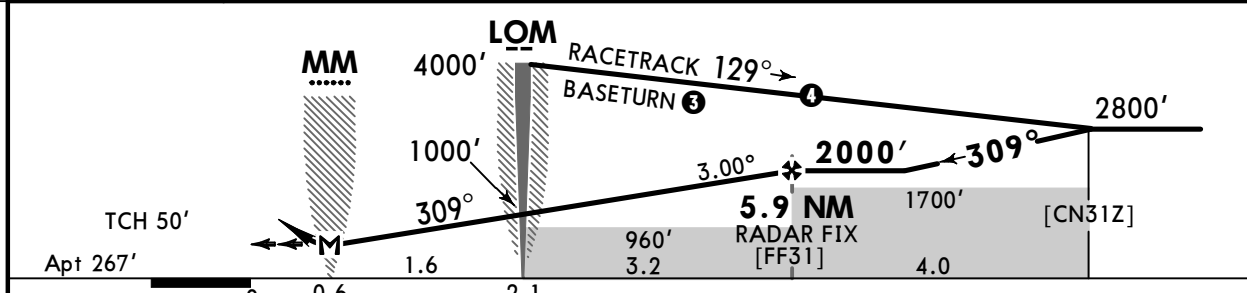
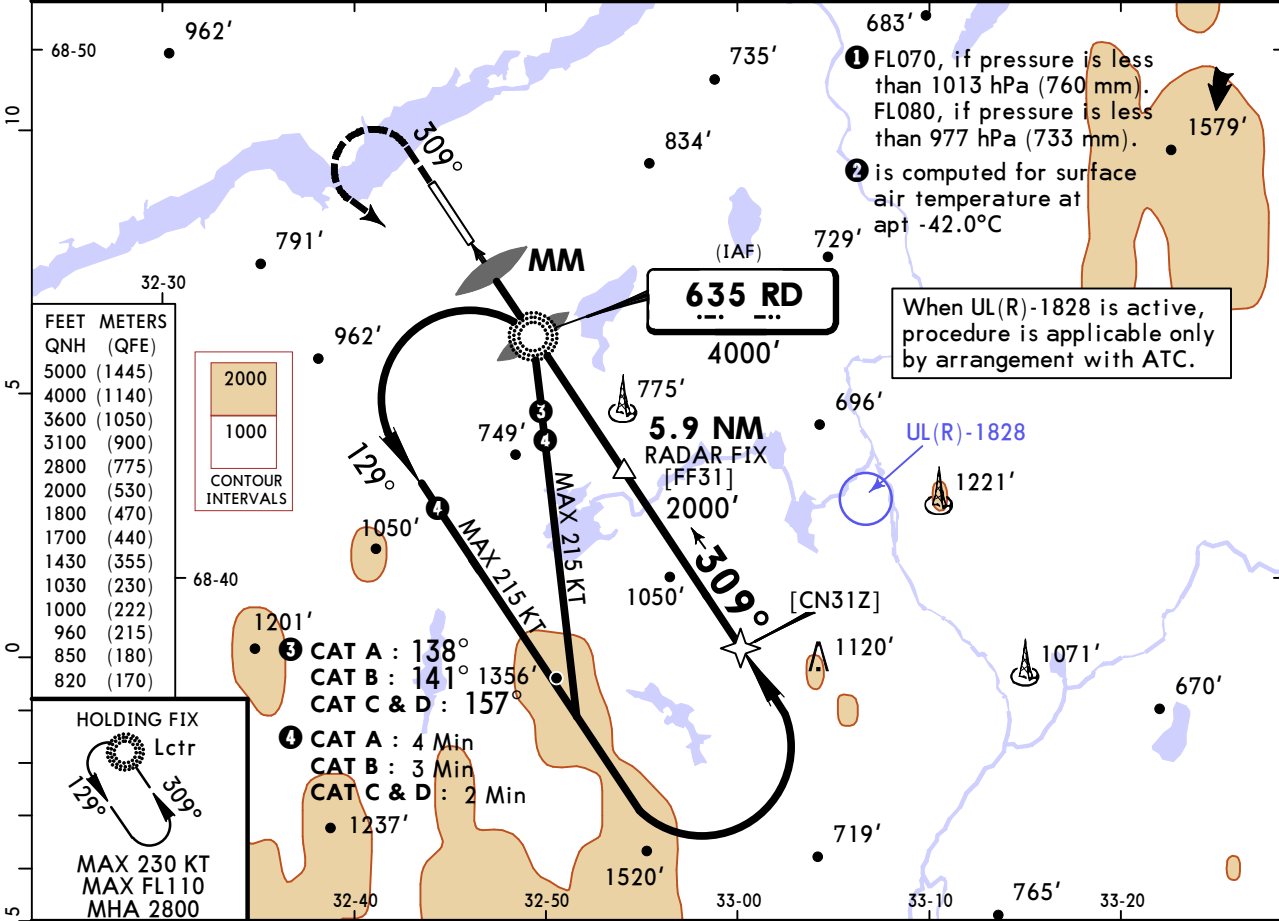
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.
② Circling height based on rwy 13 threshold elev of 242'.

ULMM/MMK
MURMANSK

JEPPESSEN
16 MAY 25 **(16-4)**

MURMANSK, RUSSIA
NDB Z Rwy 31

ATIS			MURMANSK Tower		
126.8			(Russian 127.4)		
120.3					
Lctr RD 635	Final Apch Crs 309°	5.9 NM RADAR FIX 2000' (1733')	DA/MDA(H) 820' (553')	Apt Elev 267'	
MISSED APCH: Climb STRAIGHT AHEAD to 1800' or above, then turn LEFT to Lctr climbing to 2800' or above. Turn before passing MAP is PROHIBITED.					 <p>MSA ARP ②</p>
Alt Set: hPa (MM on req) Apt Elev: 10 hPa Trans level: FL060 ① Trans alt: 5000'					
Radar required.					



Gnd speed-Kts	70	90	100	120	140	160		PALS CAT-I	1800' or above
Descent Angle	3.00°	372	478	531	637	743	849	PAPI	
MAP at MM									
Timing not authorized to define MAP.									

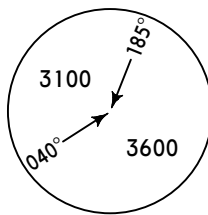
PANS OPS	Std STRAIGHT-IN LANDING				CIRCLE-TO-LAND Prohibited NORTH-EAST of airport			
	CDFA							
	① DA/MDA(H) 820' (553')							
					ALS out			
	A	R1500m				Max KT		
B					100	MDA(H)		
C					135	850' (583')	V1500m	
D	R1800m		R2400m		180	1030' (763')	V1600m	
					205	1430' (1163')	V2400m	
					205	1430' (1163')	V3600m	

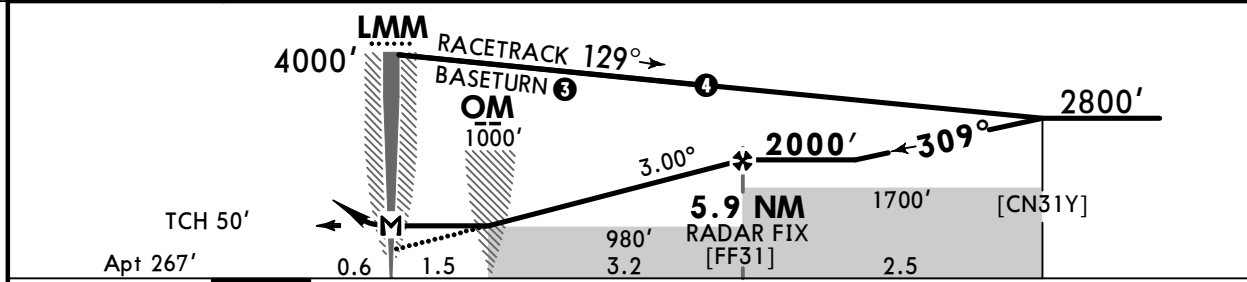
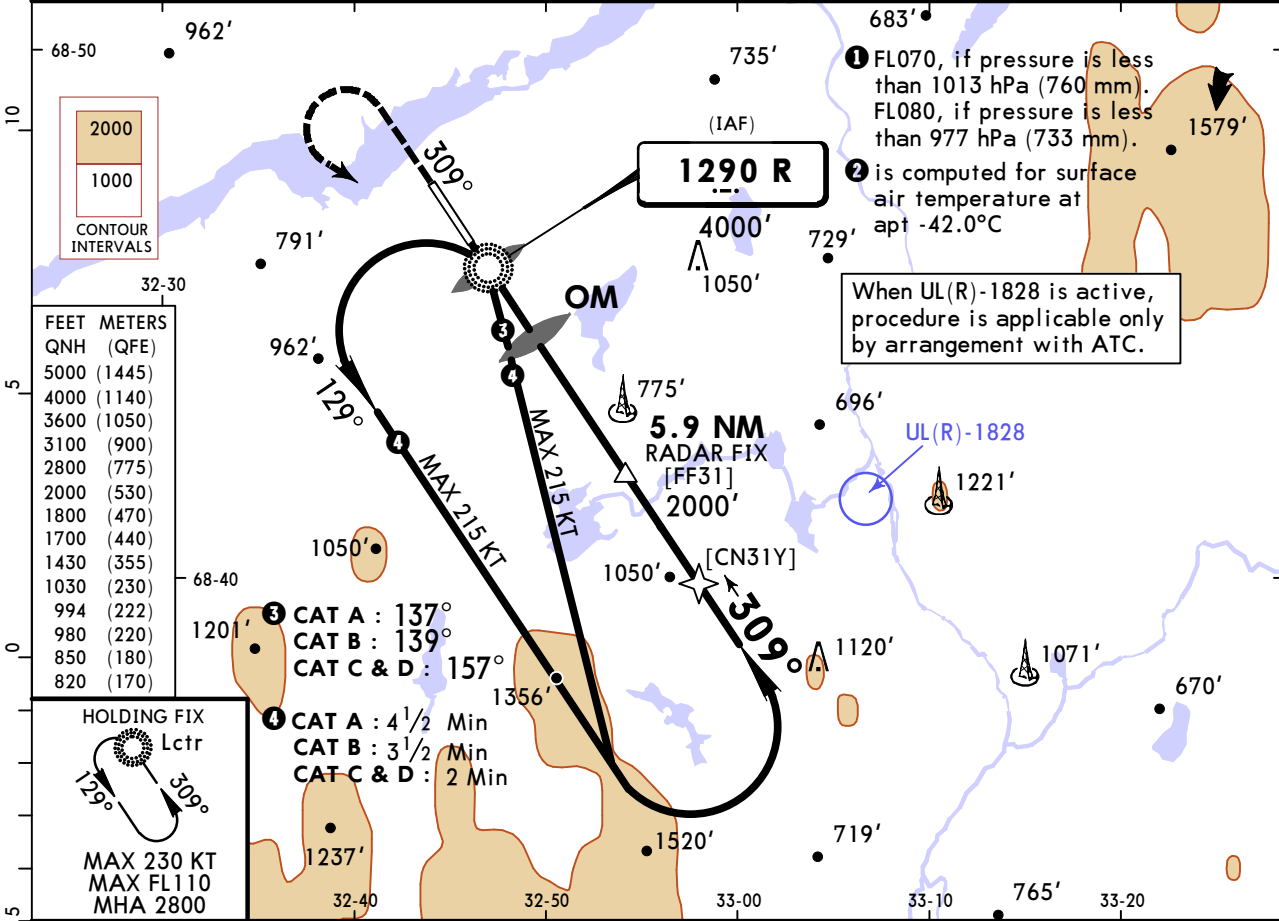
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.

ULMM/MMK MURMANSK

JEPPESSEN
16 MAY 25 (16-5)

MURMANSK, RUSSIA NDB Y Rwy 31

ATIS 126.8 (Russian 127.4)			MURMANSK Tower 120.3		
Lctr R 1290	Final Apch Crs 309°	5.9 NM RADAR FIX 2000' (1733')	DA/MDA(H) (CONDITIONAL) 820' (553')	Apt Elev 267'	 <p>MSA ARP ②</p>
MISSED APCH: Climb STRAIGHT AHEAD to 1800' or above, then turn LEFT to Lctr and climbing to 2800' or above. Turn before passing MAP is PROHIBITED.					
Alt Set: hPa (MM on req) Apt Elev: 10 hPa Trans level: FL060 ① Trans alt: 5000'					
Radar required.					



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT-I PAPI 1800' or above
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at LMM							

Timing not authorized to define MAP.

	STRAIGHT-IN LANDING		CIRCLE-TO-LAND Prohibited NORTH-EAST of airport	
	with OM CDFA ① DA/MDA(H) 820' (553')	w/o OM CDFA ① DA/MDA(H) 980' (713')	Max KT	MDA(H)
A	ALS out	ALS out	100	850' (583') V1500m
B	R1500m	R1500m	135	1030' (763') V1600m
C	R1800m	R2400m	180	1430' (1163') V2400m
D	R1800m	R2400m	205	1430' (1163') V3600m

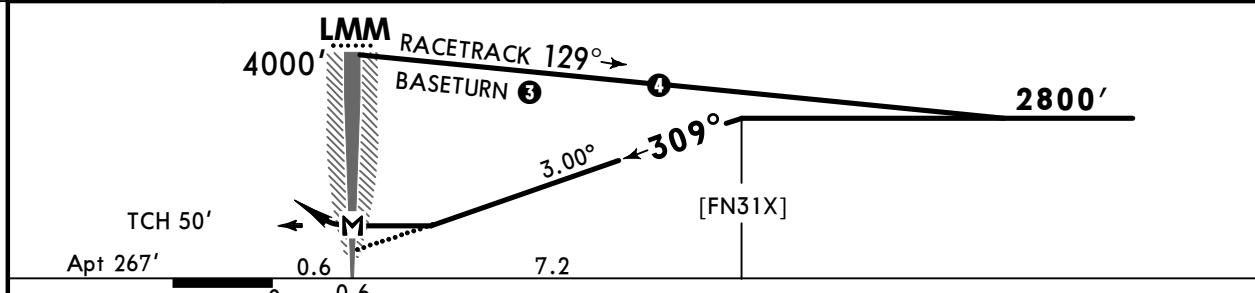
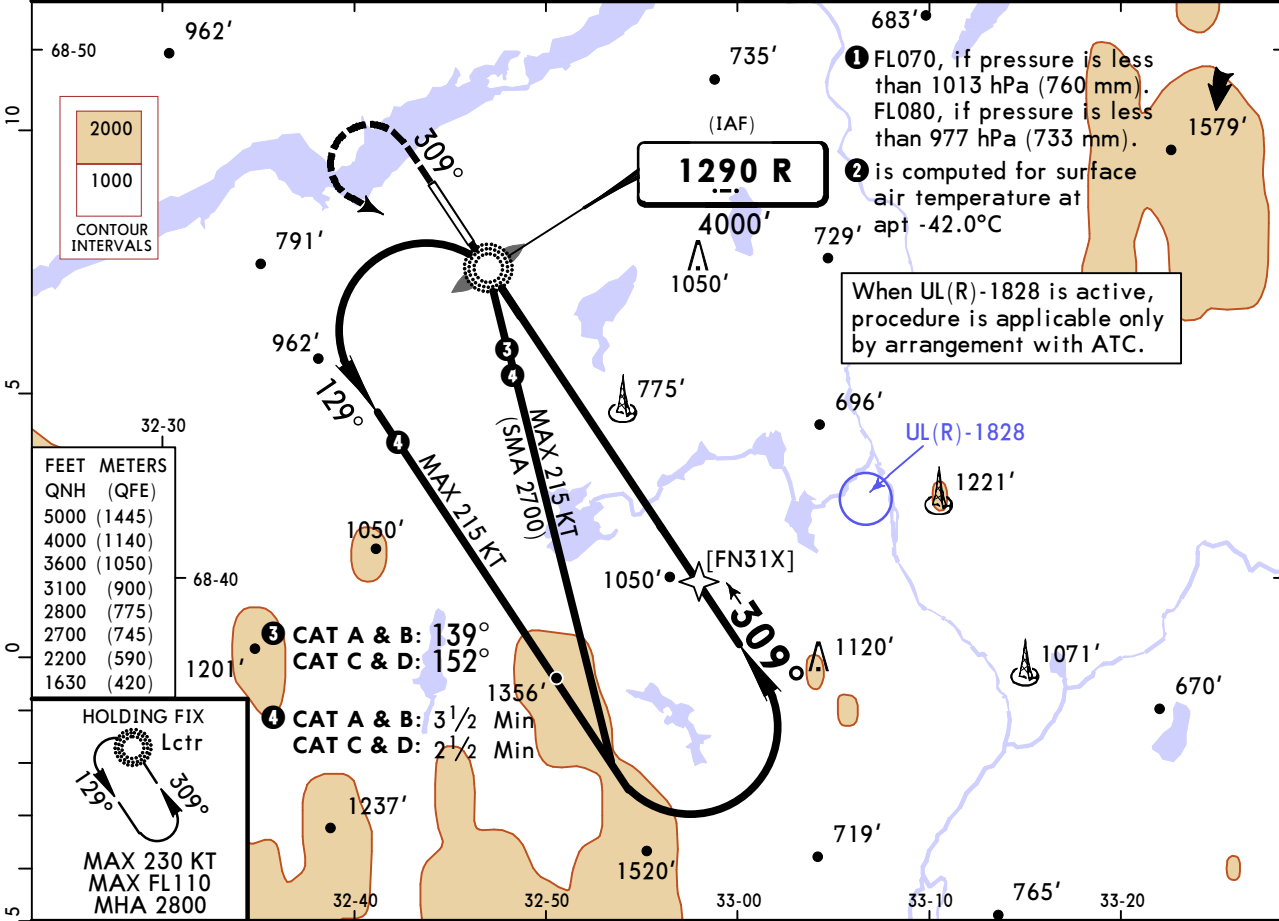
① VNAV DA(H) in lieu of MDA(H) depends on operator policy.

ULMM/MMK MURMANSK

JEPPESEN
16 MAY 25 **16-6**

MURMANSK, RUSSIA NDB X Rwy 31

ATIS			MURMANSK Tower		
126.8			(Russian 127.4)		
Lctr R 1290	Final Apch Crs 309°	[FN31X] 2800' (2533')	DA/MDA(H) 1630' (1363')	Apt Elev 267'	
MISSED APCH: Climb STRAIGHT AHEAD to 2200' or above, then turn LEFT to Lctr climbing to 2800' or above. Turn before passing MAP is PROHIBITED.					
Alt Set: hPa (MM on req)				Apt Elev: 10 hPa	
Trans level: FL060 ①			Trans alt: 5000'		
					MSA ARP ②



Gnd speed-Kts	70	90	100	120	140	160	PALS CAT-I PAPI 2200' or above
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at LMM							

Timing not authorized to define MAP.

	STRAIGHT-IN LANDING CDFA		CIRCLE-TO-LAND	
	Prohibited NORTH-EAST of airport			
	① DA/MDA(H) 1630' (1363')			
	ALS out		Max KT	MDA(H)
A	R1500m		100	1630' (1363') V1500m
B			135	1630' (1363') V1600m
C	R2400m		180	1630' (1363') V2400m
D			205	1630' (1363') V3600m

① VNAV DA(H) in lieu of MDA(H) depends on operator policy.
 CHANGES: Comms, MSA, procedure, minimums. © JEPPESEN, 2020, 2025. ALL RIGHTS RESERVED.



Chart changes since cycle 07-2026

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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MURMANSK, (MURMANSK - ULMM)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport ULMM