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Changed chart(s) since Disc 26-2012

ADD = Added chart, REV = Revised chart, DEL = Deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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No revision activity since Disc 26-2012

TERMINAL CHART NOTAMs

No Chart NOTAMs for Airport ULMM

ULMM (Murmansk)**General Info**

Murmansk, RUS

N 68° 46.9' E 32° 45.1' Mag Var: 12.3°E

Elevation: 262'

Public, IFR, Control Tower, Customs, Landing Fee

Fuel: Jet A-1

Time Zone Info: GMT+4:00 no DST

Runway Info

Runway 13-31 8202' x 138' asphalt

Runway 13 (131.0°M) TDZE 242'

Lights: Edge, ALS

Runway 31 (311.0°M) TDZE 267'

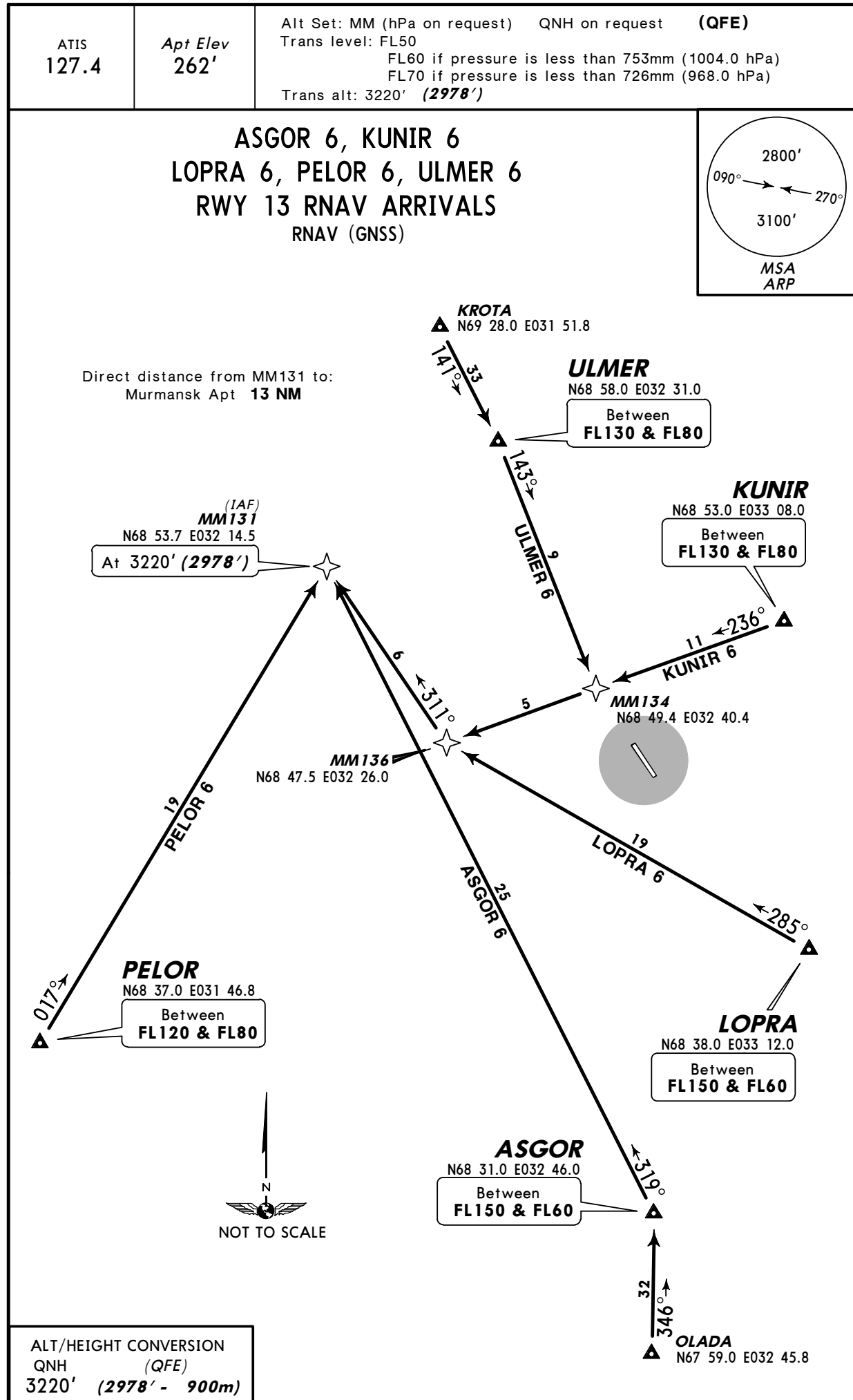
Lights: Edge, ALS

Communications InfoATIS **127.4**Murmansk Tower **120.3**Murmansk Transit Operations **131.9****Notebook Info**

ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 10-2 Eff 31 May

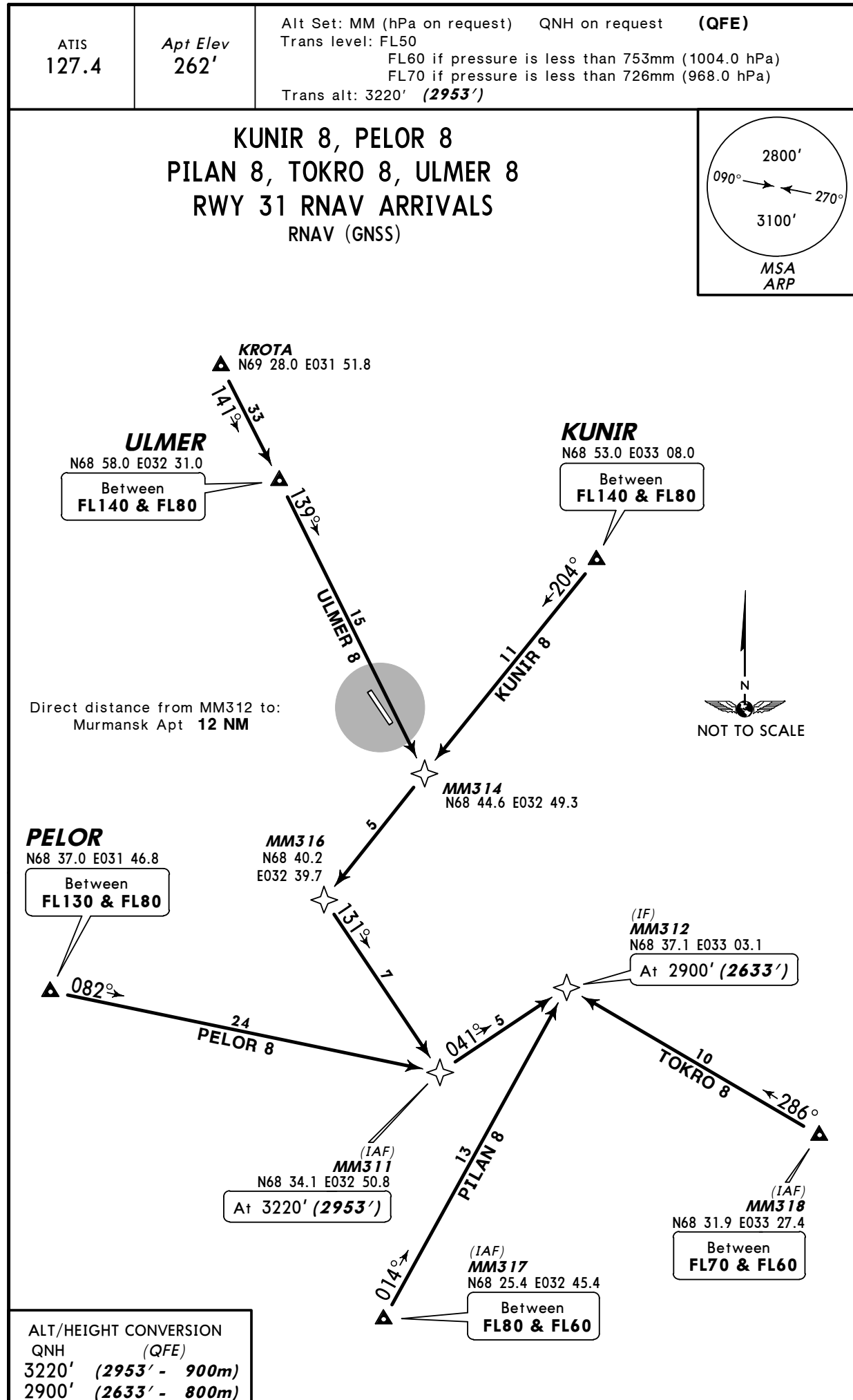
MURMANSK, RUSSIA
RNAV STAR



ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 **10-2A** Eff 31 May

MURMANSK, RUSSIA
RNAV STAR



ULMM/MMK
MURMANSK

JEPPESSEN
25 MAY 12 10-2B Eff 31 May

MURMANSK, RUSSIA

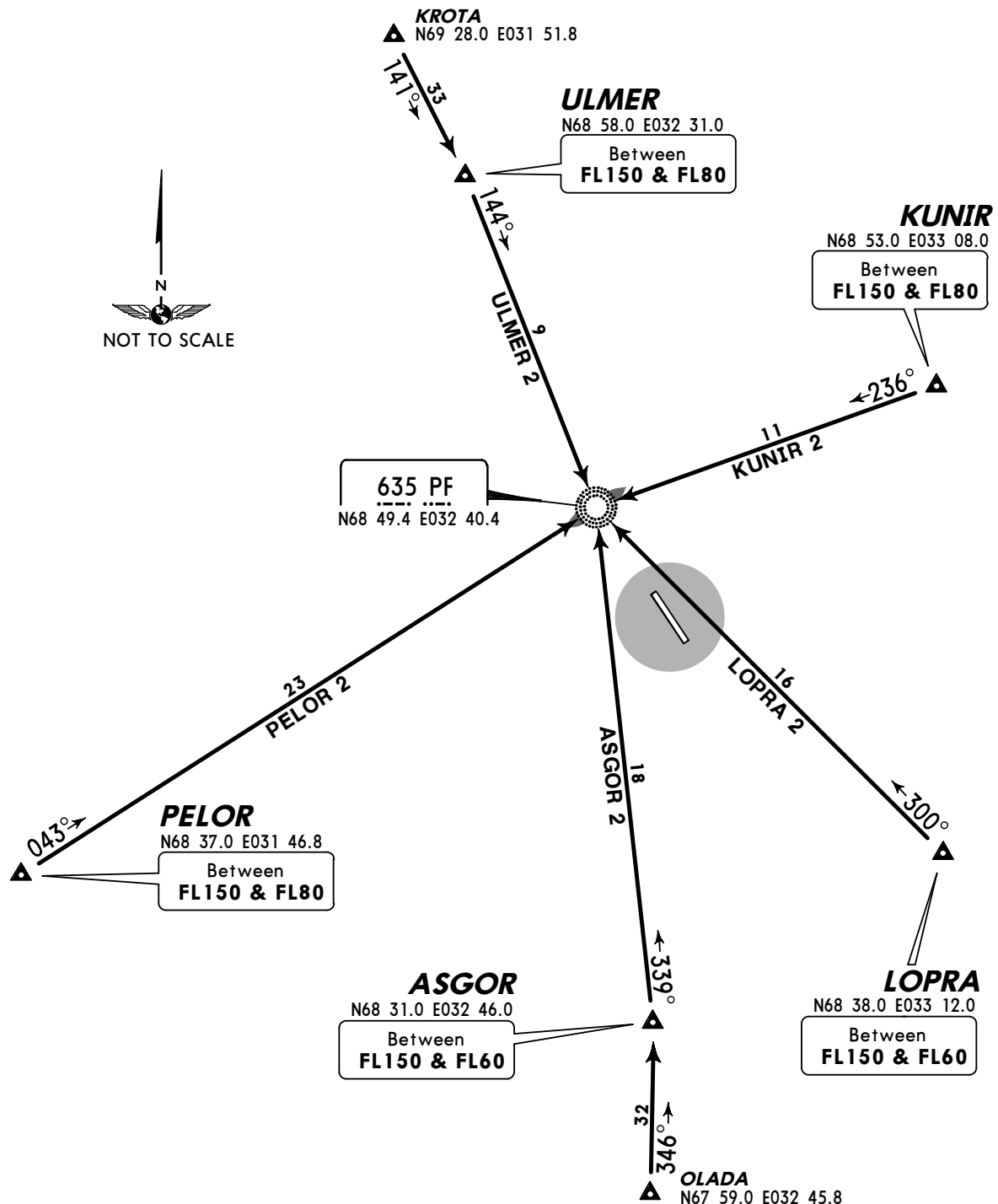
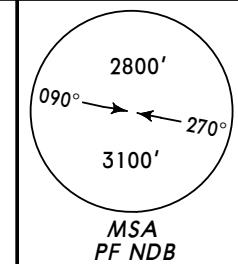
STAR

ATIS
127.4

Apt Elev
262'

Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: FL50
FL60 if pressure is less than 753mm (1004.0 hPa)
FL70 if pressure is less than 726mm (968.0 hPa)
Trans alt: 3220' (2978')

ASGOR 2, KUNIR 2
LOPRA 2, PELOR 2, ULMER 2
RWY 13 ARRIVALS



ALT/HEIGHT CONVERSION
QNH (QFE)
3220' (2978' - 900m)

ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 **10-2C** **Eff 31 May**

MURMANSK, RUSSIA

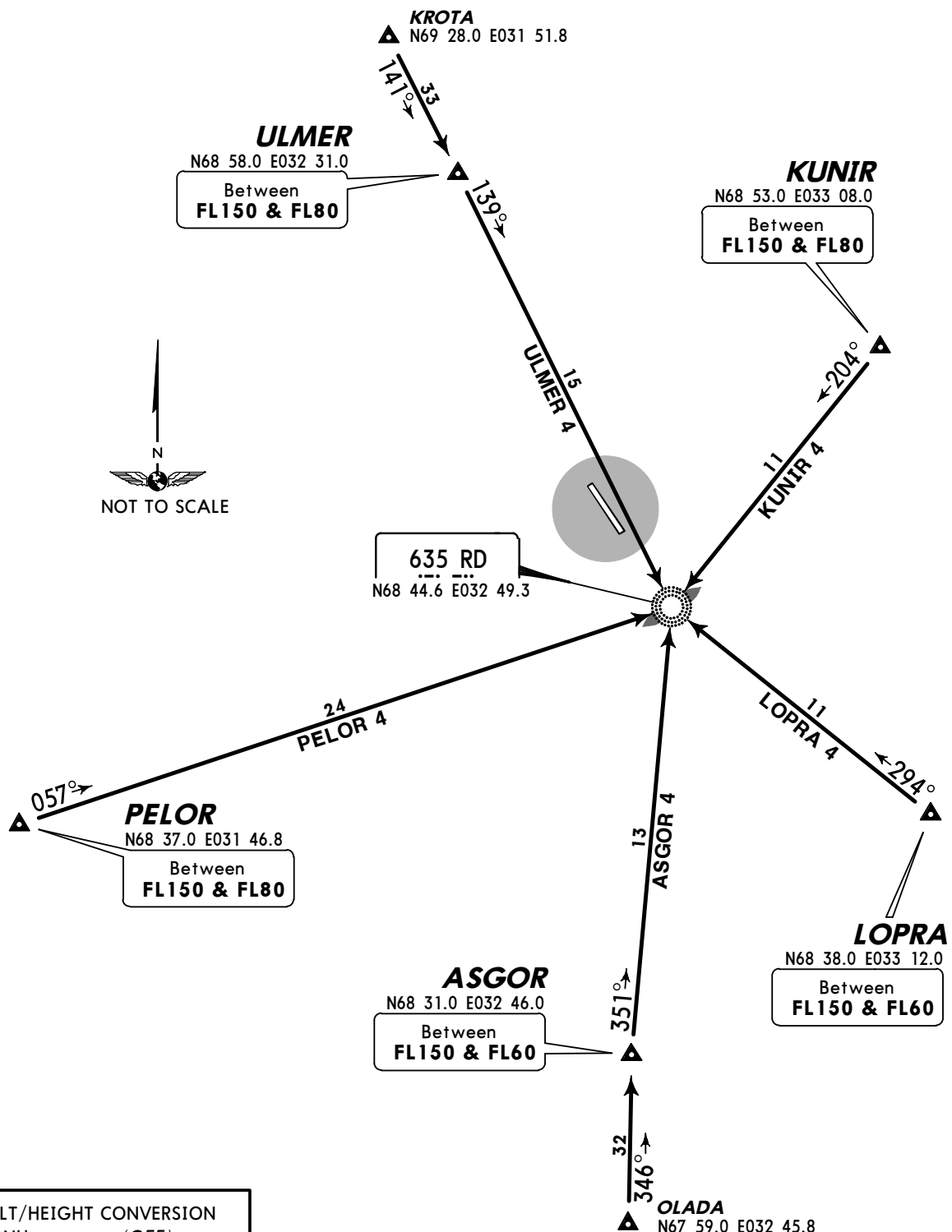
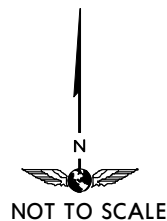
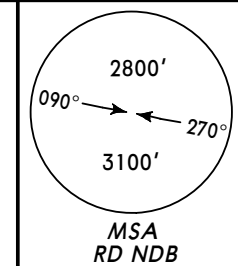
STAR

ATIS
127.4

Apt Elev
262'

Alt Set: MM (hPa on request) QNH on request **(QFE)**
Trans level: FL50
FL60 if pressure is less than 753mm (1004.0 hPa)
FL70 if pressure is less than 726mm (968.0 hPa)
Trans alt: 3220' **(2953')**

ASGOR 4, KUNIR 4
LOPRA 4, PELOR 4, ULMER 4
RWY 31 ARRIVALS



ALT/HEIGHT CONVERSION
QNH (QFE)
3220' **(2953' - 900m)**

ULMM/MMK
MURMANSK

JEPPESEN
20 JUL 12 10-2D Eff 26 Jul

MURMANSK, RUSSIA

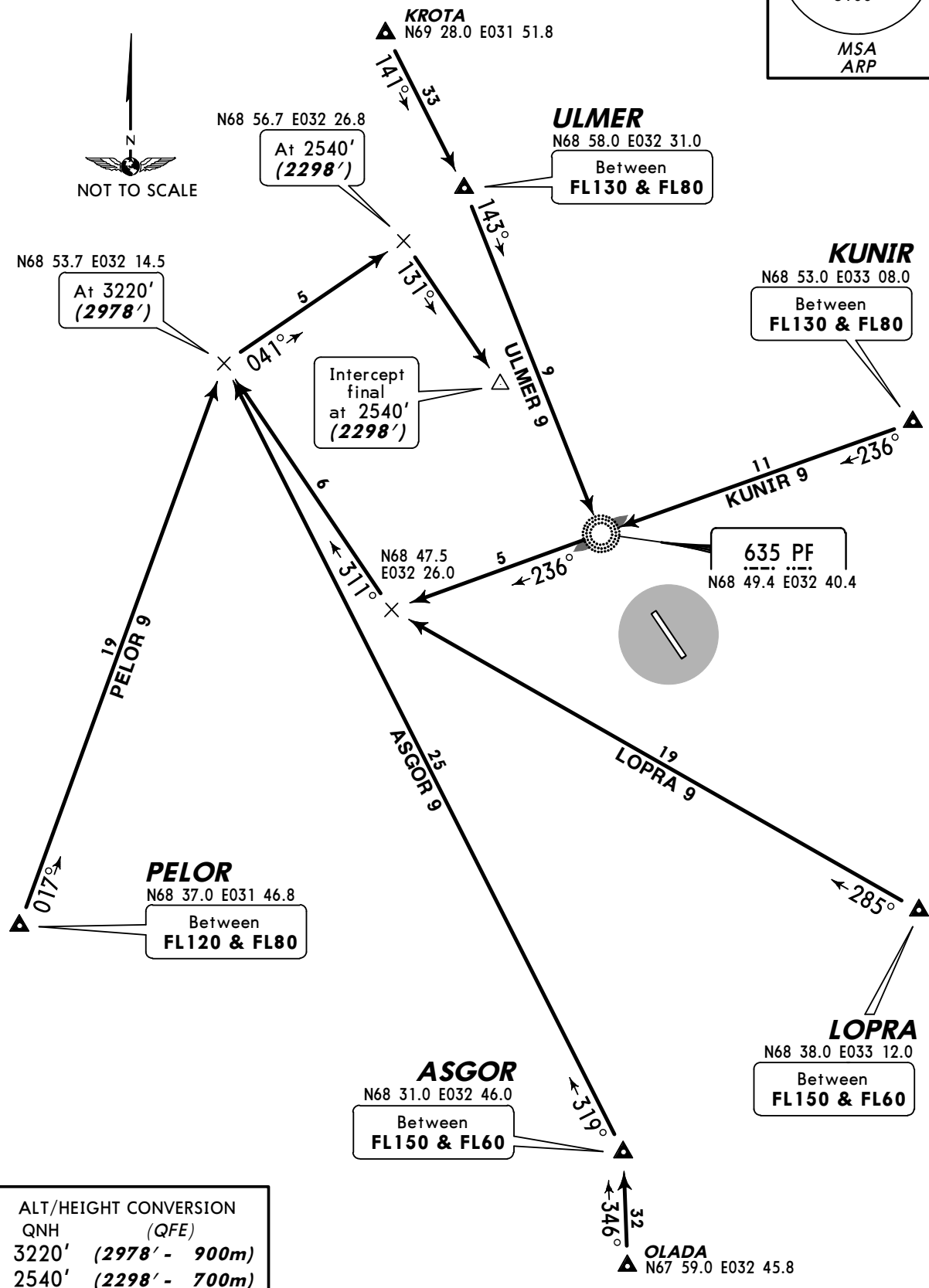
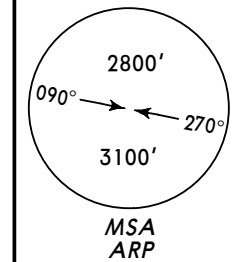
STAR

ATIS
127.4

Apt Elev
262'

Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: FL50
FL60 if pressure is less than 753mm (1003.9 hPa) or
above 726mm (967.9 hPa)
FL70 if pressure is equal or less than 726mm (967.9 hPa)
Trans alt: 3220' (2978')

ASGOR 9, KUNIR 9
LOPRA 9, PELOR 9, ULMER 9
RWY 13 ARRIVALS

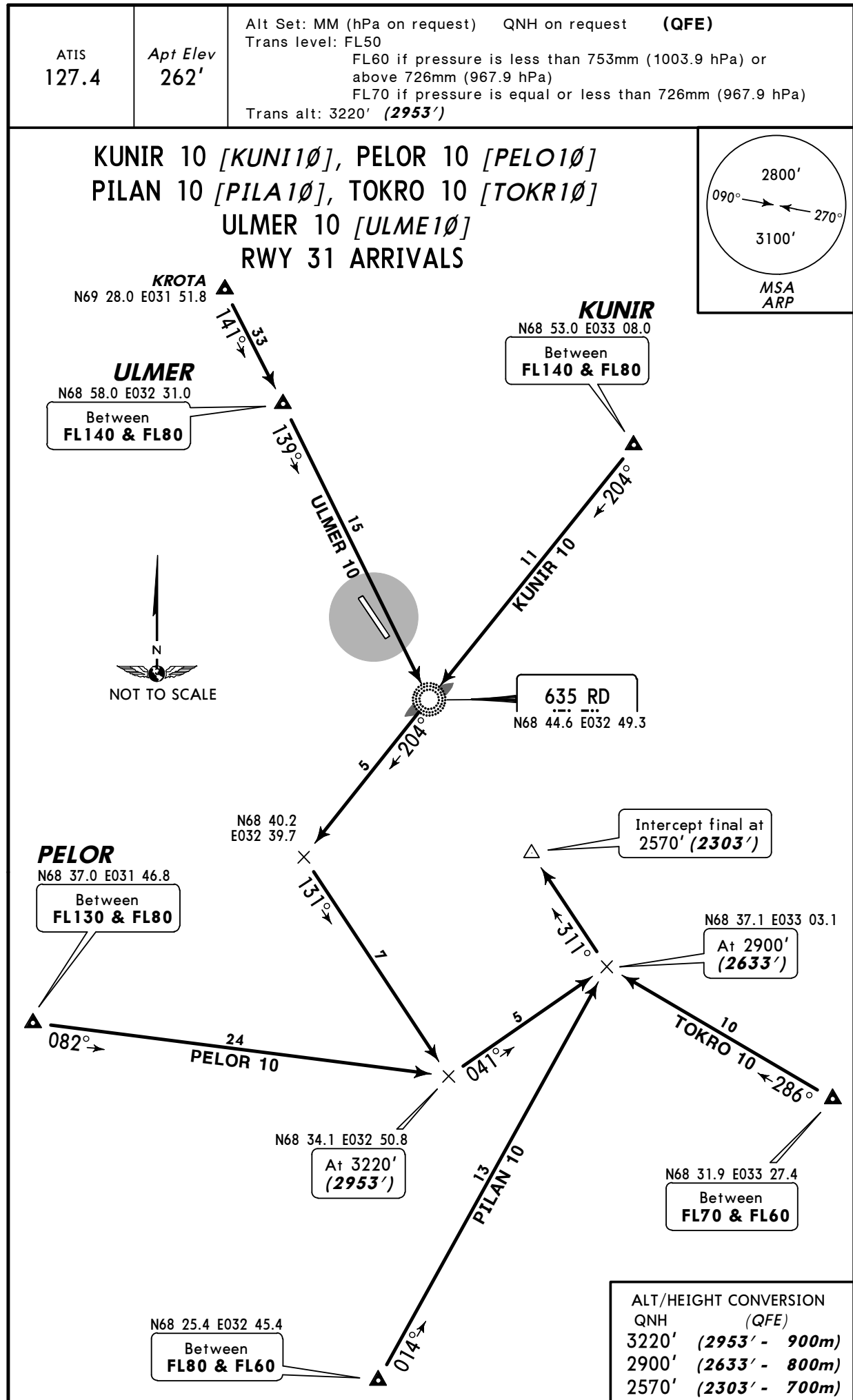


ULMM/MMK
MURMANSK

JEPPesen
20 JUL 12 (10-2E) Eff 26 Jul

MURMANSK, RUSSIA

STAR



CHANGES: New procedures at this airport.

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ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 10-3 Eff 31 May

MURMANSK, RUSSIA
RNAV SID

Apt Elev
262'

QNH on request (QFE)

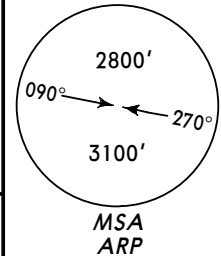
Trans level: FL50

FL60 if pressure is less than 753mm (1004.0 hPa)

FL70 if pressure is less than 726mm (968.0 hPa)

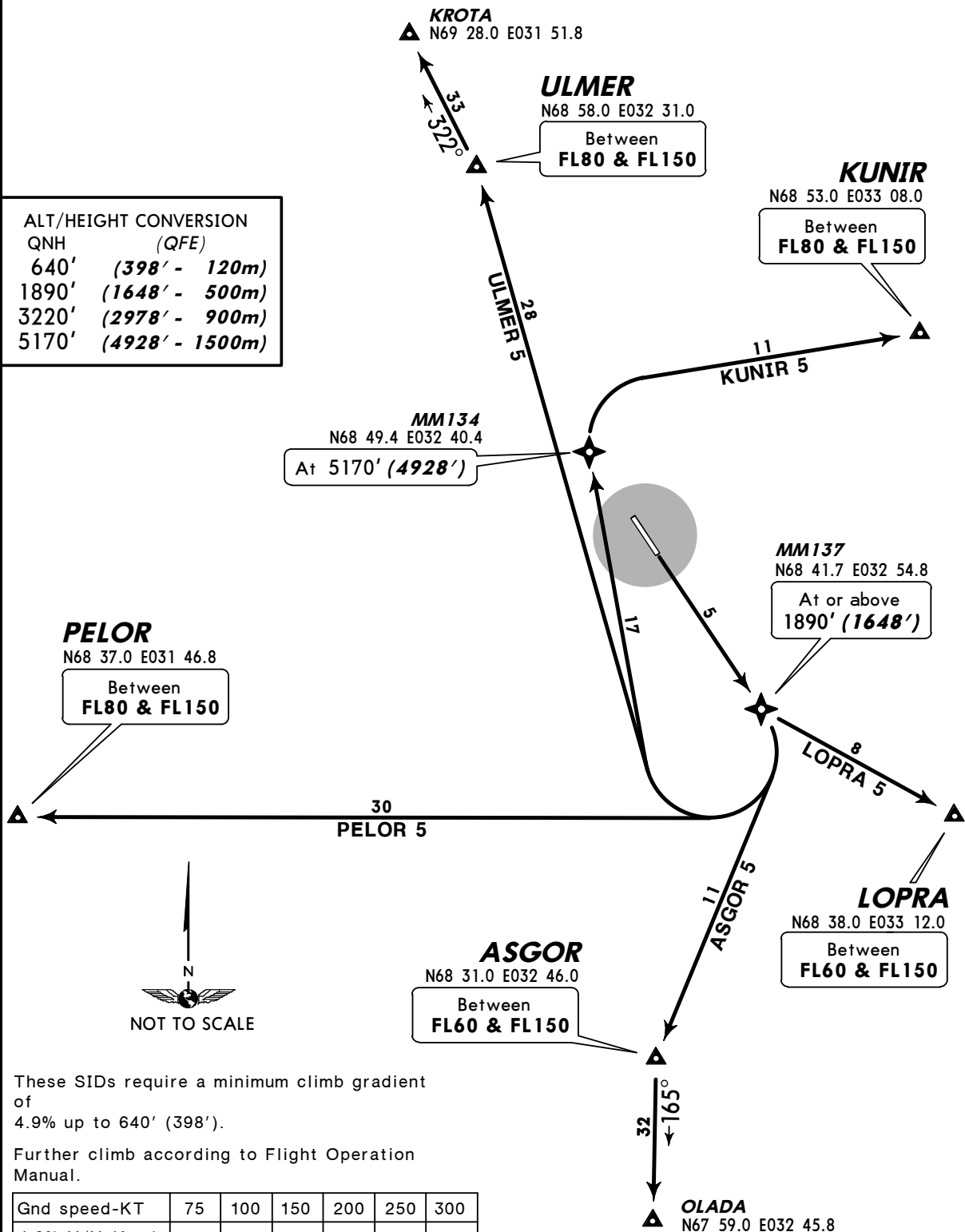
Trans alt: 3220' (2978')

If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



ASGOR 5, KUNIR 5
LOPRA 5, PELOR 5, ULMER 5
RWY 13 RNAV DEPARTURES
RNAV (GNSS)

ALT/HEIGHT CONVERSION	
QNH	(QFE)
640'	(398' - 120m)
1890'	(1648' - 500m)
3220'	(2978' - 900m)
5170'	(4928' - 1500m)



These SIDs require a minimum climb gradient of 4.9% up to 640' (398').

Further climb according to Flight Operation Manual.

Gnd speed-KT	75	100	150	200	250	300
4.9% V/V (fpm)	372	496	744	992	1241	1489

ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 **10-3A** **Eff 31 May**

MURMANSK, RUSSIA

RNAV SID

Apt Elev
262'

QNH on request **(QFE)**

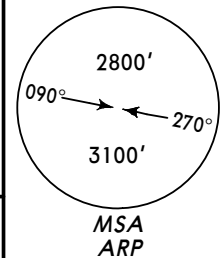
Trans level: FL50

FL60 if pressure is less than 753mm (1004.0 hPa)

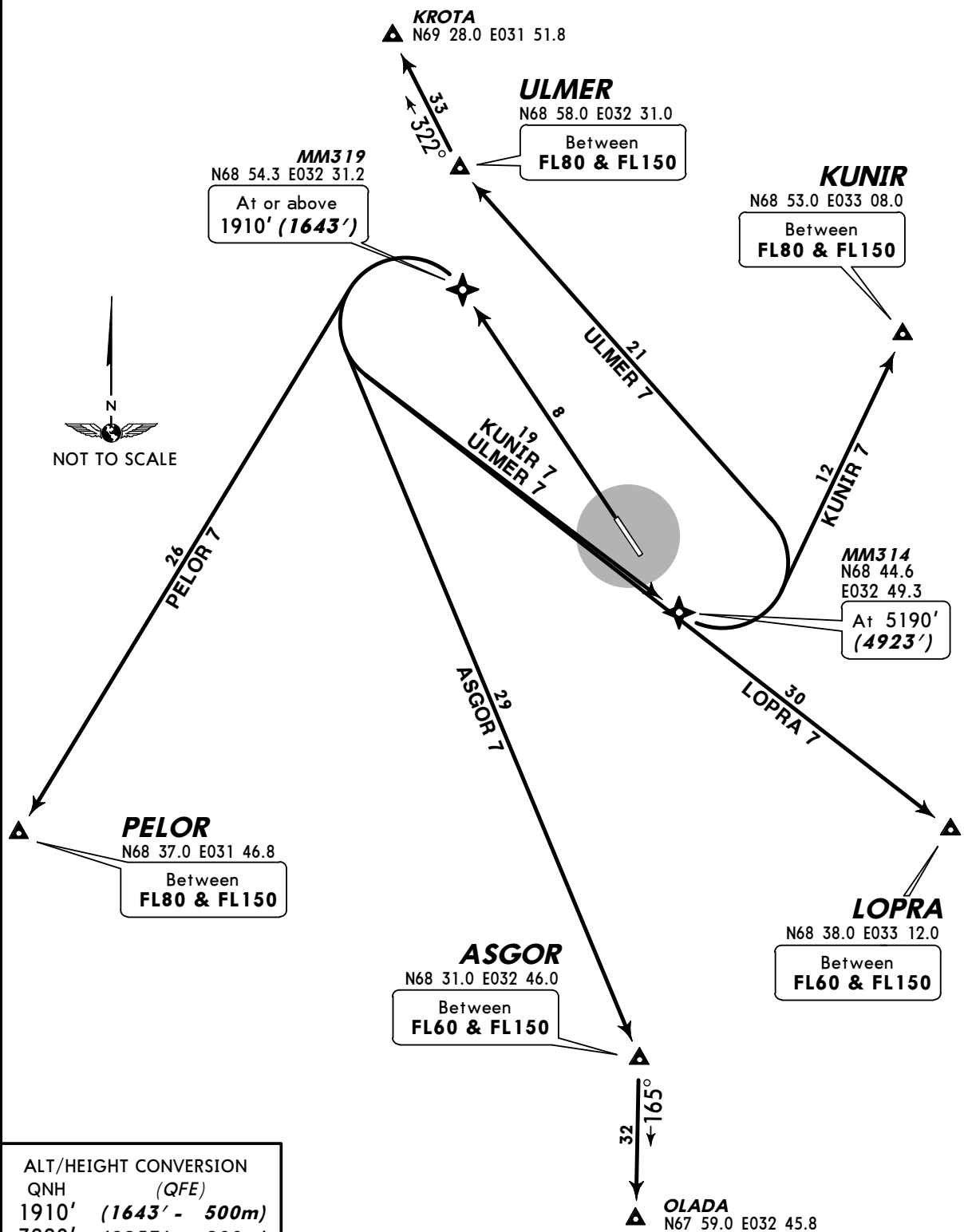
FL70 if pressure is less than 726mm (968.0 hPa)

Trans alt: 3220' **(2953')**

If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



ASGOR 7, KUNIR 7
LOPRA 7, PELOR 7, ULMER 7
RWY 31 RNAV DEPARTURES
RNAV (GNSS)



ALT/HEIGHT CONVERSION	
QNH	(QFE)
1910'	(1643' - 500m)
3220'	(2953' - 900m)
5190'	(4923' - 1500m)

ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 **10-3B** **Eff 31 May**

MURMANSK, RUSSIA

SID

Apt Elev
262'

QNH on request **(QFE)**

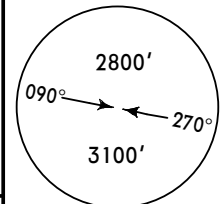
Trans level: FL50

FL60 if pressure is less than 753mm (1004.0 hPa)

FL70 if pressure is less than 726mm (968.0 hPa)

Trans alt: 3220' **(2978')**

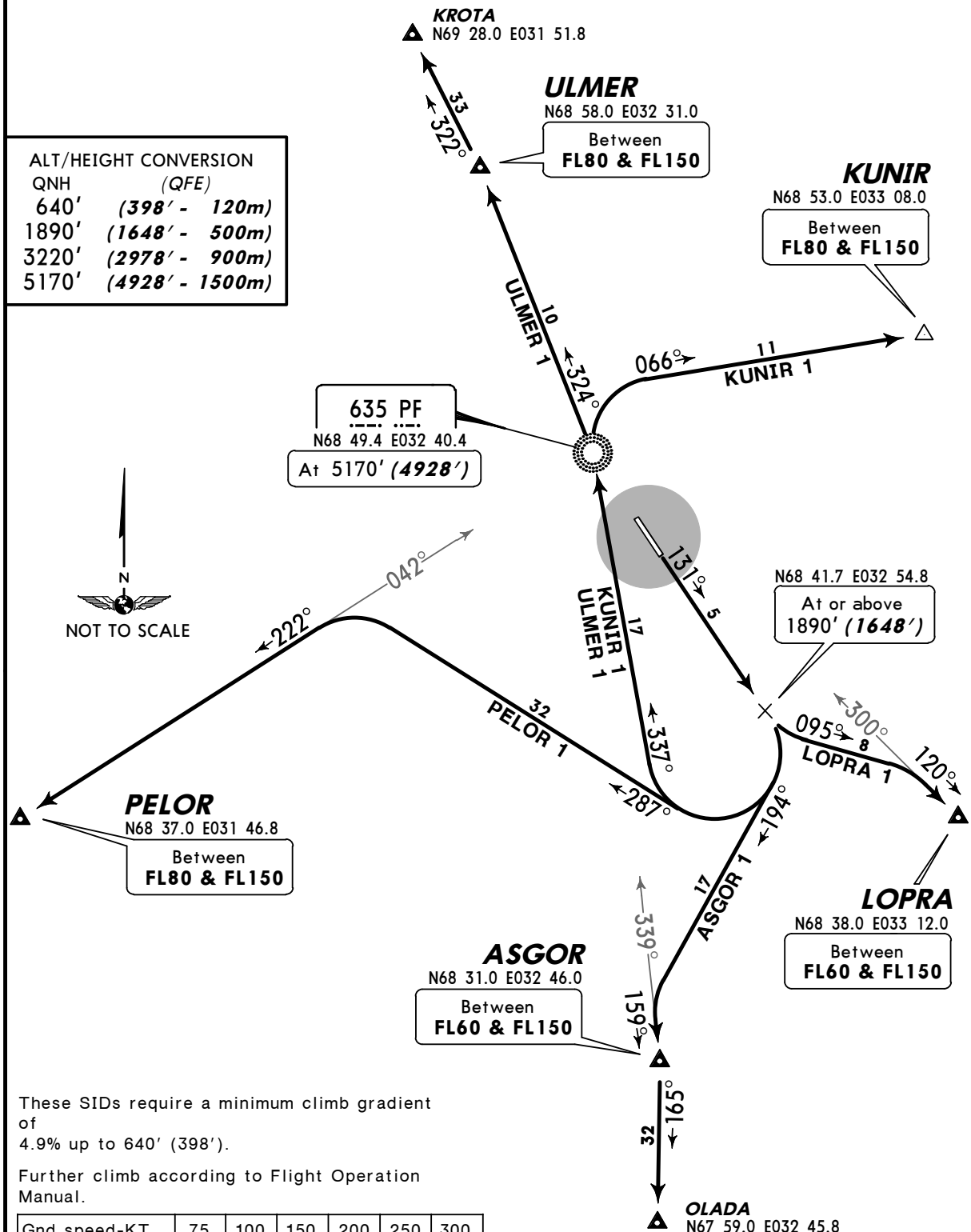
If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



MSA
PF NDB

ASGOR 1, KUNIR 1
LOPRA 1, PELOR 1, ULMER 1
RWY 13 DEPARTURES

ALT/HEIGHT CONVERSION	
QNH	(QFE)
640'	(398' - 120m)
1890'	(1648' - 500m)
3220'	(2978' - 900m)
5170'	(4928' - 1500m)



These SIDs require a minimum climb gradient of 4.9% up to 640' (398').

Further climb according to Flight Operation Manual.

Gnd speed-KT	75	100	150	200	250	300
4.9% V/V (fpm)	372	496	744	992	1241	1489

ULMM/MMK
MURMANSK

JEPPESEN
25 MAY 12 **10-3C** **Eff 31 May**

MURMANSK, RUSSIA

SID

Apt Elev
262'

QNH on request **(QFE)**

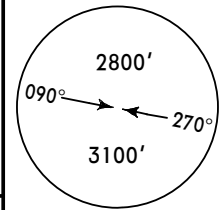
Trans level: FL50

FL60 if pressure is less than 753mm (1004.0 hPa)

FL70 if pressure is less than 726mm (968.0 hPa)

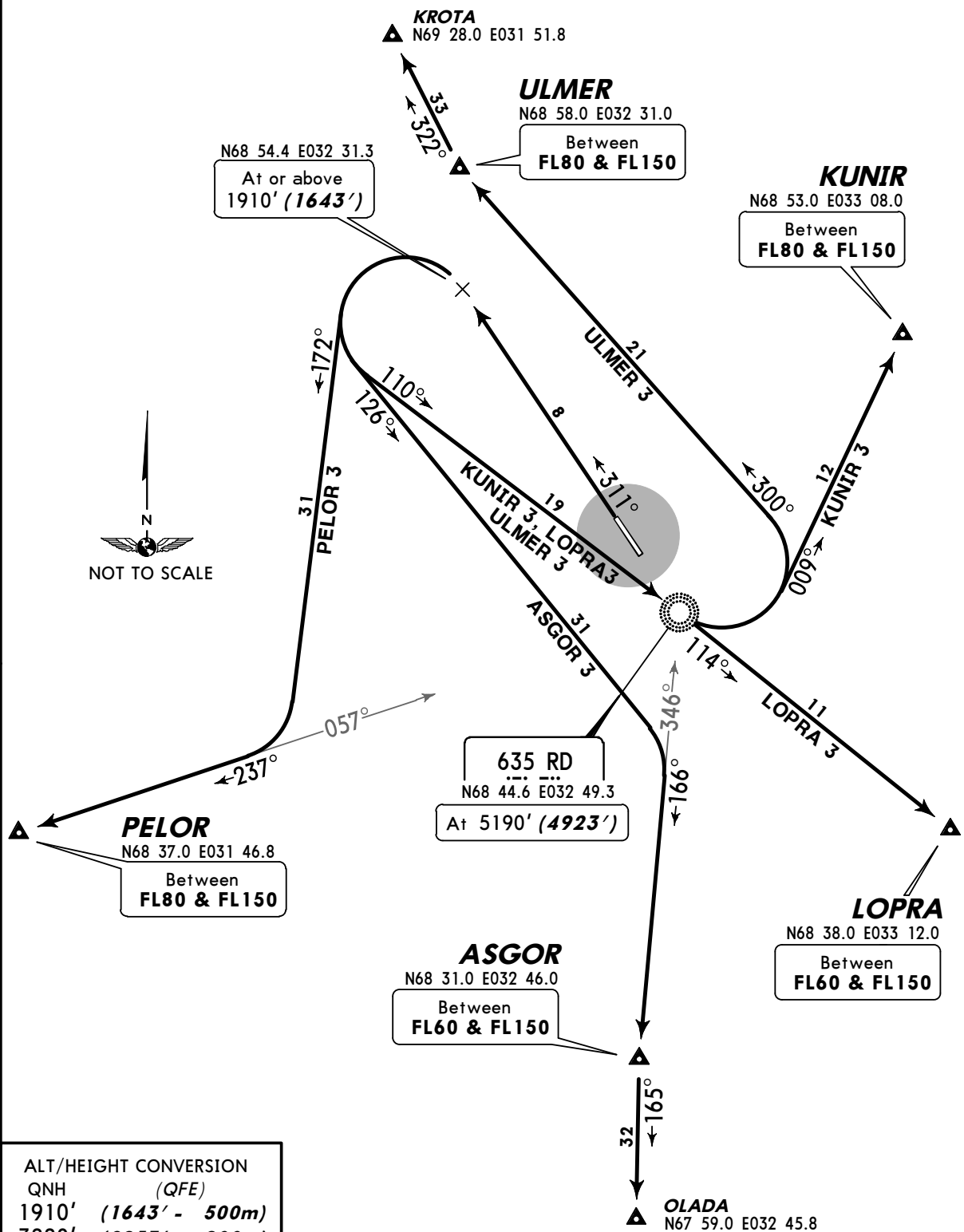
Trans alt: 3220' **(2953')**

If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



MSA
RD NDB

ASGOR 3, KUNIR 3
LOPRA 3, PELOR 3, ULMER 3
RWY 31 DEPARTURES



ALT/HEIGHT CONVERSION	
QNH	(QFE)
1910'	(1643' - 500m)
3220'	(2953' - 900m)
5190'	(4923' - 1500m)

ULMM/MMK

Apt Elev **262'**
N68 46.9 E032 45.1

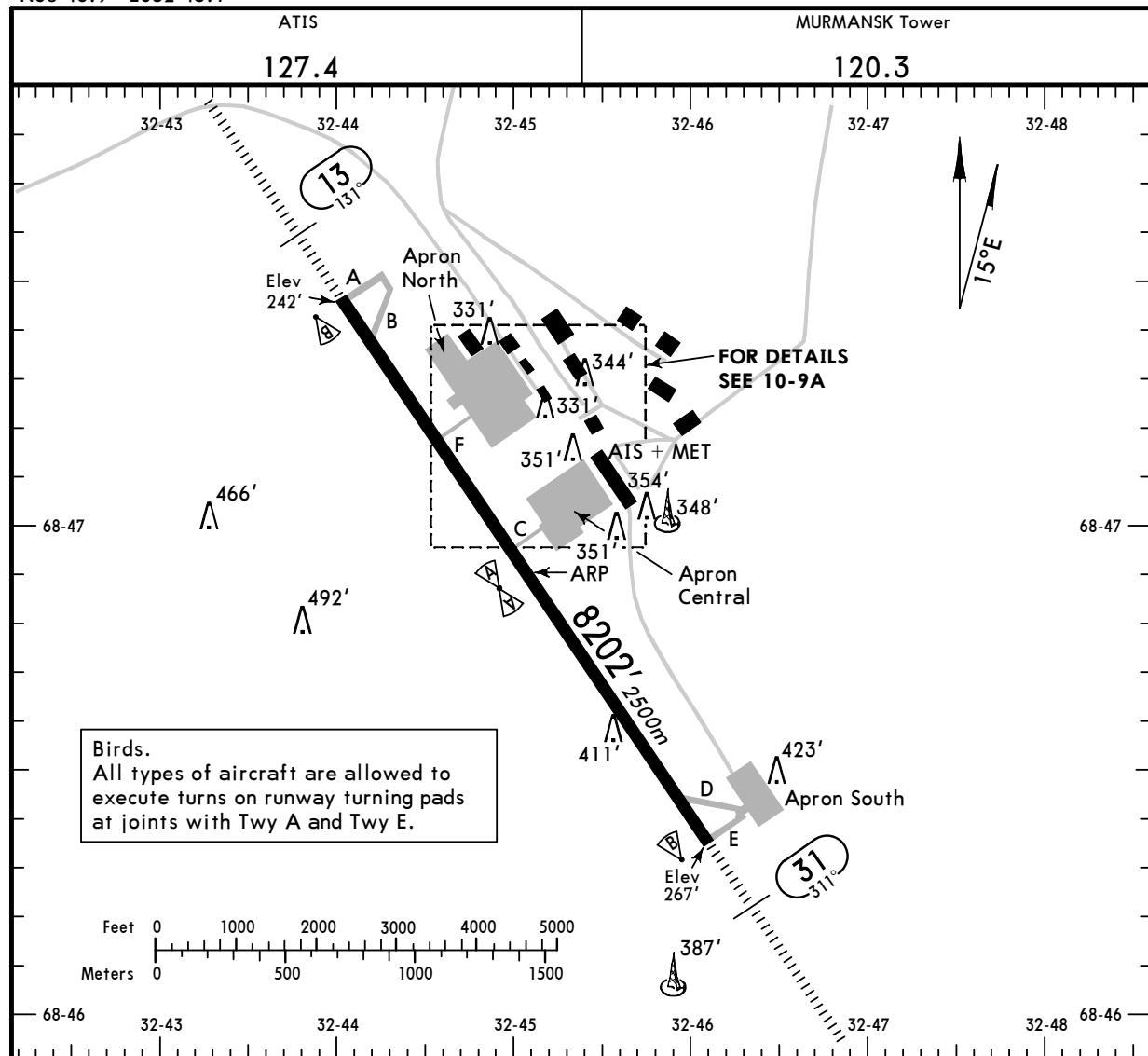
7 SEP 12

10-9

Eff 20 Sep

MURMANSK, RUSSIA

MURMANSK



Birds.
All types of aircraft are allowed to execute turns on runway turning pads at joints with Twy A and Twy E.

ADDITIONAL RUNWAY INFORMATION

					USABLE LENGTHS		TAKE-OFF	WIDTH
					LANDING BEYOND			
RWY					Threshold	Glide Slope		
13 31	HIRL (60m)	HIALS	PAPI (angle 3.0°)	RVR		7412' 2259m		138'
						7169' 2185m		42m

TAKE-OFF

AIR CARRIER (JAA)

All Rwy's

LVP must be in force

RCLM (DAY only)
or RL

RCLM (DAY only)
or RL

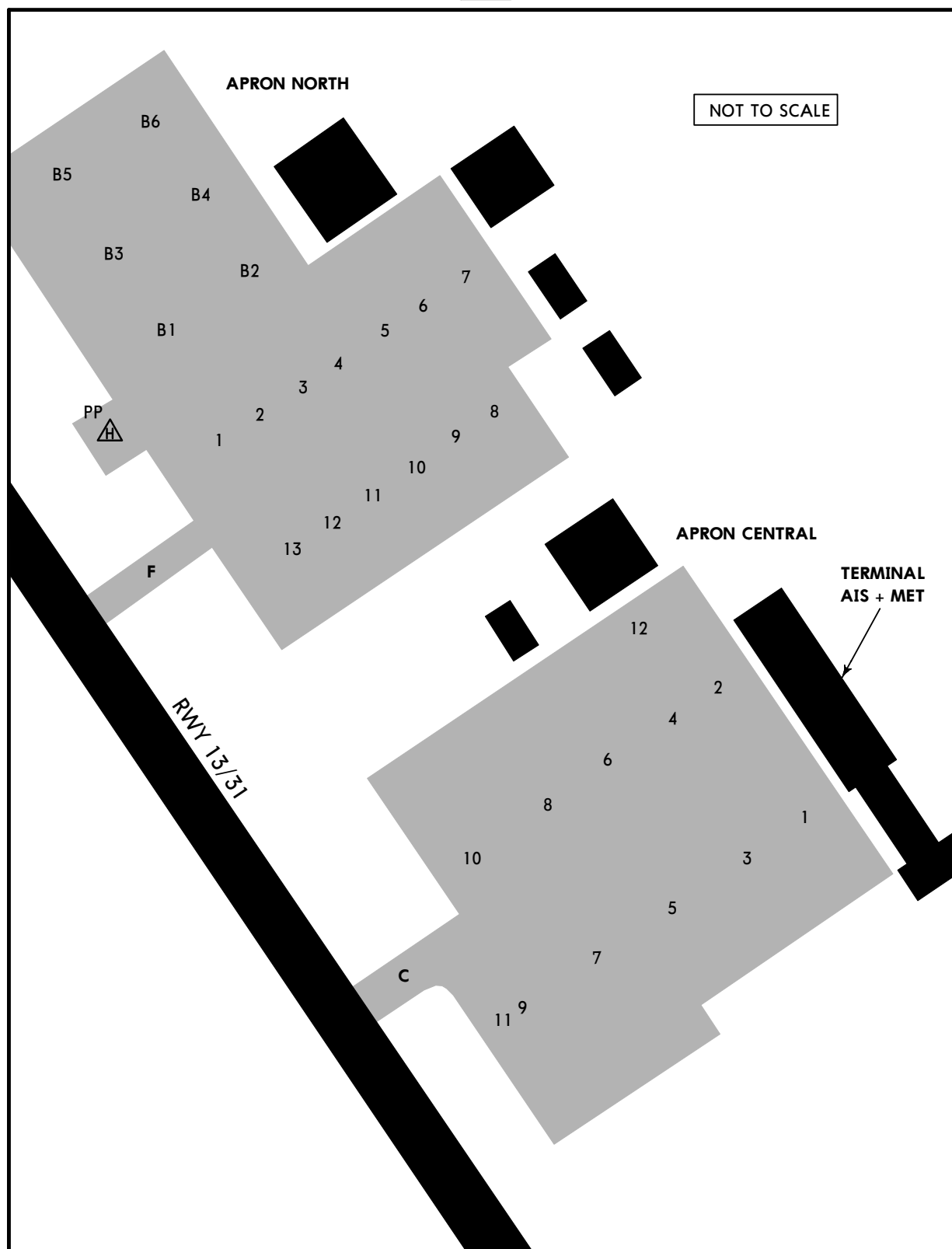
A		
B	250m	400m
C		
D	300m	

ULMM/MMK

7 SEP 12 **JEPPESEN**
 (10-9A)

Eff 20 Sep

MURMANSK, RUSSIA
 MURMANSK



INS COORDINATES

APRON CENTRAL		APRON NORTH	
STAND No.	COORDINATES	STAND No.	COORDINATES
3 thru 8	N68 47.0 E032 45.1	PP	N68 47.2 E032 44.6

Stand PP for helicopters only.
 On the APRON NORTH, stands 1-13 & B1-B6 for helicopters.
 Twy F for towing only.
 On the APRON CENTRAL:
 1. When facing SE acft with an operating radius of 72'/22m or less shall taxi out of stands 3, 5, 7 and 9 under own power only, other acft shall be towed.
 2. When facing NW acft with an operating radius of 72'/22m or less shall taxi out of stands 6, 8 and 10 under own power only, other acft shall be towed.

ULMM/MMK

18 MAY 12



JEPPESEN

(10-9S)

Eff 31 May

MURMANSK, RUSSIA
MURMANSK

Standard

STRAIGHT-IN RWY	A	B	C	D
13				
ILS	442' (200')	452' (210')	459' (217')	468' (226')
<i>FULL</i>	R550m	R550m	R550m	R550m
<i>Limited</i>	R750m	R750m	R750m	R750m
<i>ALS out</i>	R1200m	R1200m	R1200m	R1200m
LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
GNSS ①	590' (348')	590' (348')	590' (348')	590' (348')
	R900m	R900m	R900m	R900m
<i>ALS out</i>	R1500m	R1500m	R1600m	R1600m
NDB ①	600' (358')	600' (358')	600' (358')	600' (358')
(with FAF)	R900m	R900m	R900m	R900m
<i>ALS out</i>	R1500m	R1500m	R1600m	R1600m
NDB	1440' (1198')	1440' (1198')	1440' (1198')	1440' (1198')
(w/o FAF)	C4800m	C4800m	C5000m	C5000m
<i>ALS out</i>	C5000m	C5000m	C5000m	C5000m
31				
ILS	467' (200')	467' (200')	470' (203')	480' (213')
<i>FULL</i>	R550m	R550m	R550m	R550m
<i>Limited</i>	R750m	R750m	R750m	R750m
<i>ALS out</i>	R1200m	R1200m	R1200m	R1200m
LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
GNSS ①	800' (533')	800' (533')	800' (533')	800' (533')
	R1500m	R1500m	R1700m	R1700m
<i>ALS out</i>	R1500m	R1500m	C2400m	C2400m
NDB ①	800' (533')	800' (533')	800' (533')	800' (533')
(with FAF)	R1500m	R1500m	R1700m	R1700m
<i>ALS out</i>	R1500m	R1500m	C2400m	C2400m
NDB	1430' (1163')	1430' (1163')	1430' (1163')	1430' (1163')
(w/o FAF)	C4800m	C4800m	C5000m	C5000m
<i>ALS out</i>	C5000m	C5000m	C5000m	C5000m

① Continuous Descent Final Approach.

TAKE-OFF RWY 13, 31

LVP must be in Force		RCLM (DAY only) or RL	NIL (DAY only)
	RCLM (DAY only) or RL		
A	250m	400m	500m
B			
C			
D	300m		

ULMM/MMK

18 MAY 12



JEPPESEN

10-9X

Eff 31 May

JAA MINIMUMS

MURMANSK, RUSSIA

MURMANSK

STRAIGHT-IN RWY		A	B	C	D
13	ILS	442' (200')	452' (210')	459' (217')	468' (226')
		R550m	R600m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	GNSS	590' (348')	590' (348')	590' (348')	590' (348')
		R900m	R1000m	R1000m	R1400m
	ALS out	R1500m	R1500m	R1800m	R2000m
	NDB	600' (358')	600' (358')	600' (358')	600' (358')
	(with FAF)	R900m	R1000m	R1000m	R1400m
	ALS out	R1500m	R1500m	R1800m	R2000m
31	NDB	1440' (1198')	1440' (1198')	1440' (1198')	1440' (1198')
	(w/o FAF)	R1200m	R1400m	R1400m	R1800m
	ALS out	R1500m	R1500m	R2000m	R2000m
	ILS	467' (200')	467' (200')	470' (203')	480' (213')
		R550m	R550m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	GNSS	800' (533')	800' (533')	800' (533')	800' (533')
		R1000m	R1200m	R1200m	R1600m
	ALS out	R1500m	R1500m	R2000m	R2000m
	NDB	800' (533')	800' (533')	800' (533')	800' (533')
	(with FAF)	R1000m	R1200m	R1200m	R1600m
	ALS out	R1500m	R1500m	R2000m	R2000m
	NDB	1430' (1163')	1430' (1163')	1430' (1163')	1430' (1163')
	(w/o FAF)	R1200m	R1400m	R1400m	R1800m
	ALS out	R1500m	R1500m	R2000m	R2000m

TAKE-OFF RWY 13, 31

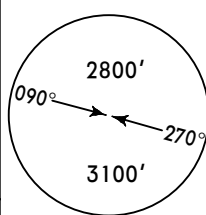
LVP must be in Force		
	RCLM (DAY only) or RL	RCLM (DAY only) or RL
A	250m	400m
B		
C		
D	300m	500m

ULMM/MMK MURMANSK

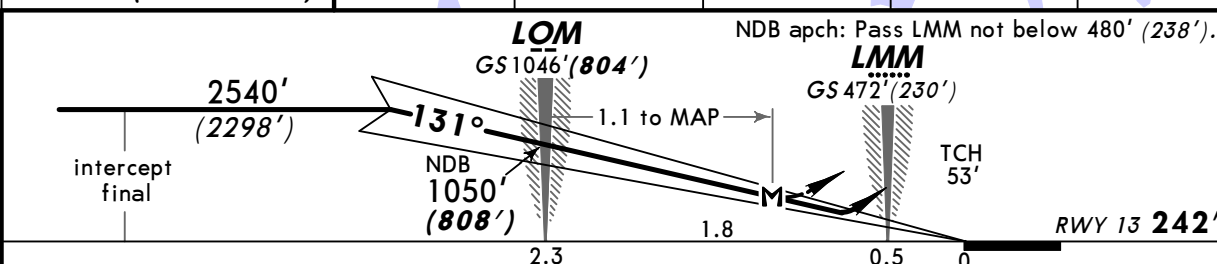
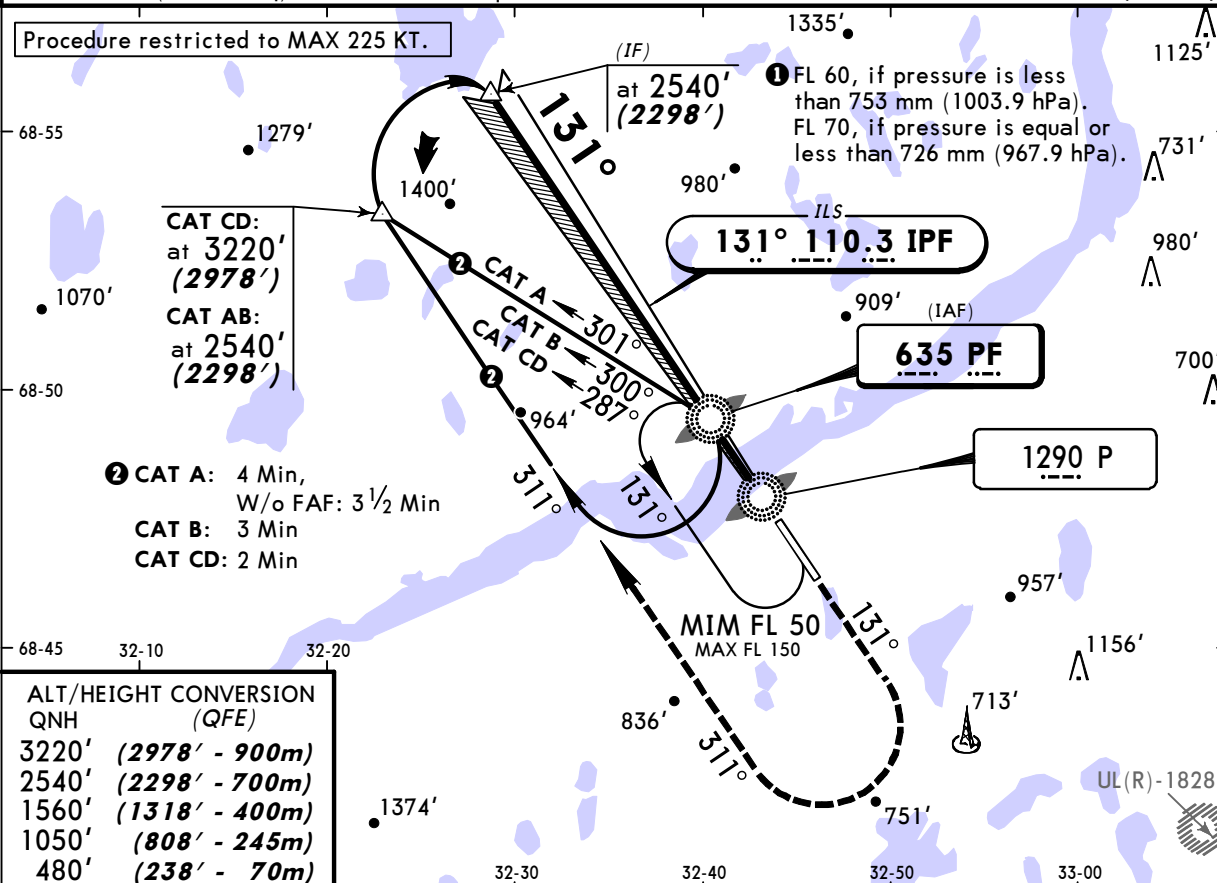
JEPPESEN
20 JUL 12
Eff 26 Jul (11-1)

MURMANSK, RUSSIA ILS or 2 NDB Rwy 13

BRIEFING STRIP

ATIS 127.4				MURMANSK Tower 120.3	
LOC IPF 110.3	Final Apch Crs 131°	GS LOM 1046' (804')	ILS DA(H) Refer to Minimums	Apt Elev 262' RWY 242'	
Lctr PF 635		Minimum Alt LOM 1050' (808')	NDB MDA(H) (CONDITIONAL) 600' (358')		
MISSED APCH: Climb on 131° to 1560' (1318'), then turn RIGHT onto 311° climbing CAT CD: to 3220' (2978'), CAT AB: to 2540' (2298'), then according to chart.					

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 50 1 Trans alt: 3220' (2978')



Gnd speed-Kts	70	90	100	120	140	160	PAPI HIALS	1560' (1318') on 131°
ILS GS or NDB Descent angle 3.00°	372	478	531	637	743	849		
LOM to MAP	1.1	0:57	0:44	0:40	0:33	0:28		

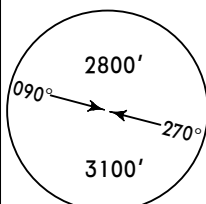
STRAIGHT-IN LANDING RWY 13							
ILS			LOC (GS out)	2 NDB			
A: 442'(200') C: 459'(217')				With FAF		W/o FAF	
B: 452'(210') D: 468'(226')				MDA(H) 600'(358')		MDA(H) 1440'(1198')	
FULL			ALS out			ALS out	
A	RVR 720m VIS 800m	1200m	NOT AUTH	1400m	2200m	3200m	
B							
C				4000m		4800m	
D				4400m			

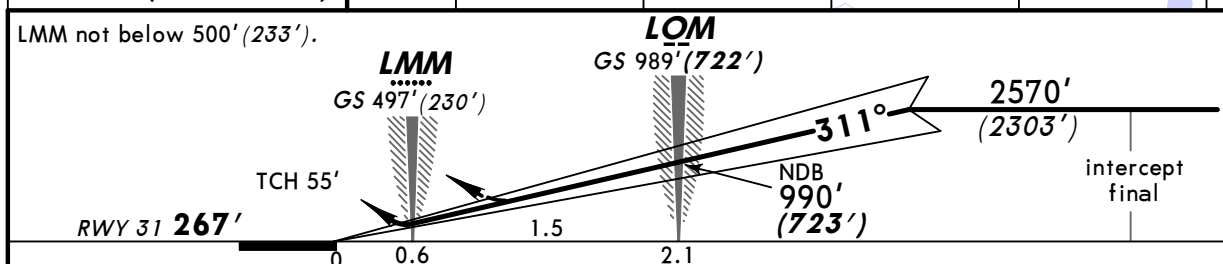
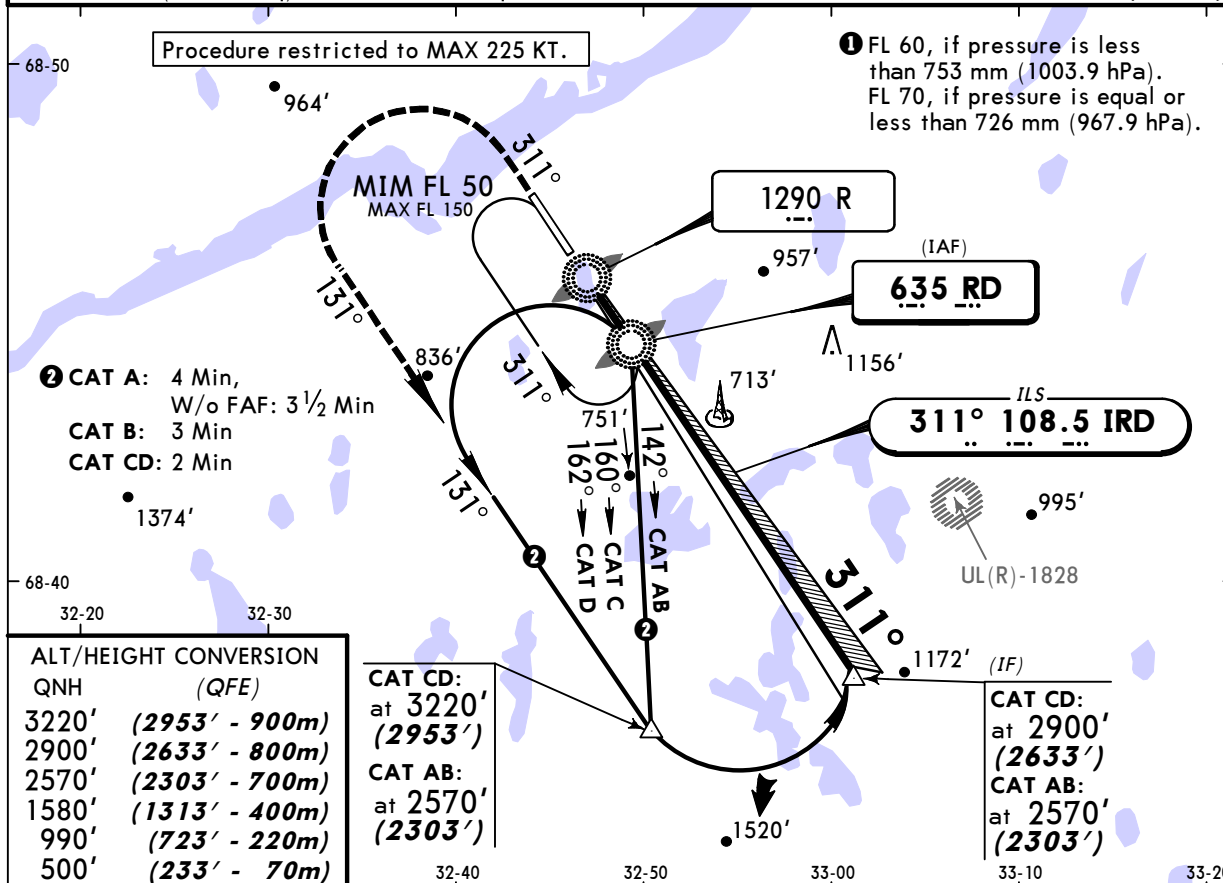
ULMM/MMK MURMANSK

JEPPESEN
20 JUL 12
Eff 26 Jul (11-2)

MURMANSK, RUSSIA ILS or 2 NDB Rwy 31

BRIEFING STRIP

ATIS 127.4				MURMANSK Tower 120.3		
LOC IRD 108.5	Final Apch Crs 311°	GS LOM 989' (722')	ILS DA(H) Refer to Minimums	Apt Elev 262' RWY 267'		
Lctr RD 635		Minimum Alt LOM 990' (723')	NDB MDA(H) (CONDITIONAL) 800' (533')			
MISSED APCH: Climb on 311° to 1580' (1313'), then turn LEFT onto 131° climbing CAT CD: to 3220' (2953'), CAT AB: to 2570' (2303'), then according to chart.						MSA ARP
Alt Set: MM (hPa on req)		QNH on req (QFE)		Trans level: FL 50 ❶		Trans alt: 3220' (2953')



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or NDB Descent angle 3.00°	372	478	531	637	743	849

STRAIGHT-IN LANDING RWY 31			
ILS		LOC (GS out)	2 NDB
DA(H) C: 470' (203') AB: 467' (200') D: 480' (213')			
FULL		ALS out	With FAF MDA(H) 800' (533')
ALS out			W/o FAF MDA(H) 1430' (1163')
FULL		ALS out	ALS out
ALS out			
RVR 720m VIS 800m		1200m	NOT AUTH
			2000m
			2800m
			3200m
			4000m
			4800m

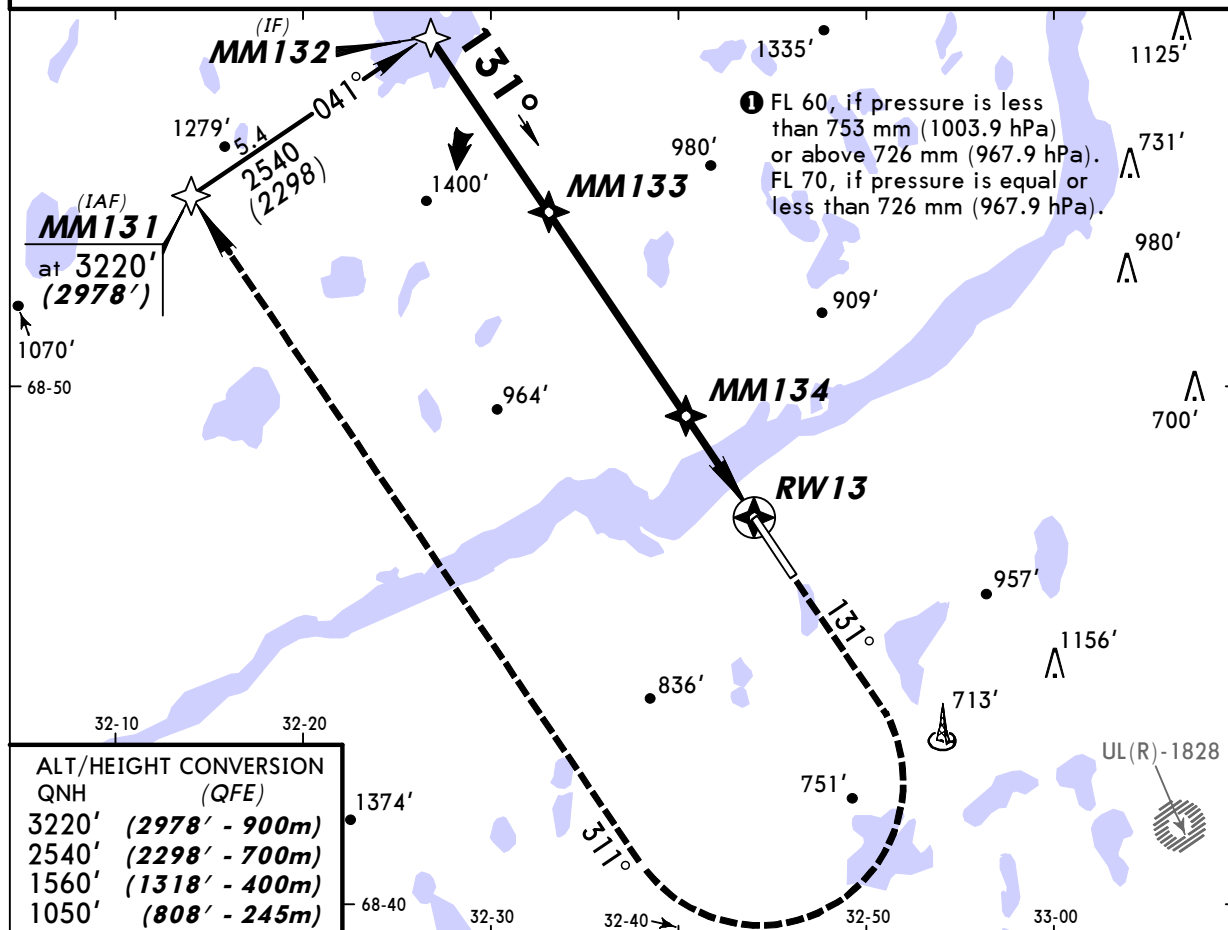
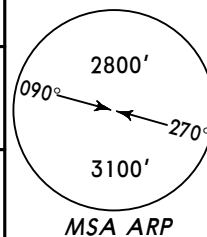
ULMM/MMK
MURMANSK

JEPPESSEN
18 MAY 12 (12-1) Eff 31 May

MURMANSK, RUSSIA
GNSS Rwy 13

BRIEFING STRIP

ATIS 127.4			MURMANSK Tower 120.3		
RNAV	Final Apch Crs 131°	Minimum Alt MM133 2540' (2298')	MDA(H) 590' (348')	Apt Elev 262'	Rwy 242'
MISSED APCH: Climb on 131° to 1560' (1318'), then turn RIGHT to MM131, then according to chart.					
Alt Set: MM (hPa on req) QNH on req (QFE) Procedure restricted to MAX 225 KT.			Trans level: FL 50 ① Trans alt: 3220' (2978')		



ALT/HEIGHT CONVERSION	QNH (QFE)
3220' (2978' - 900m)	
2540' (2298' - 700m)	
1560' (1318' - 400m)	
1050' (808' - 245m)	

DIST to RW13	5.4	4.3	3.8	3.2	2.7	2.2	1.1
ALTITUDE (HAT)	2010' (1768')	1660' (1418')	1500' (1258')	1330' (1088')	1150' (908')	990' (748')	640' (398')

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STRAIGHT-IN LANDING RWY 13

MDA(H) 590' (348')

ALS out

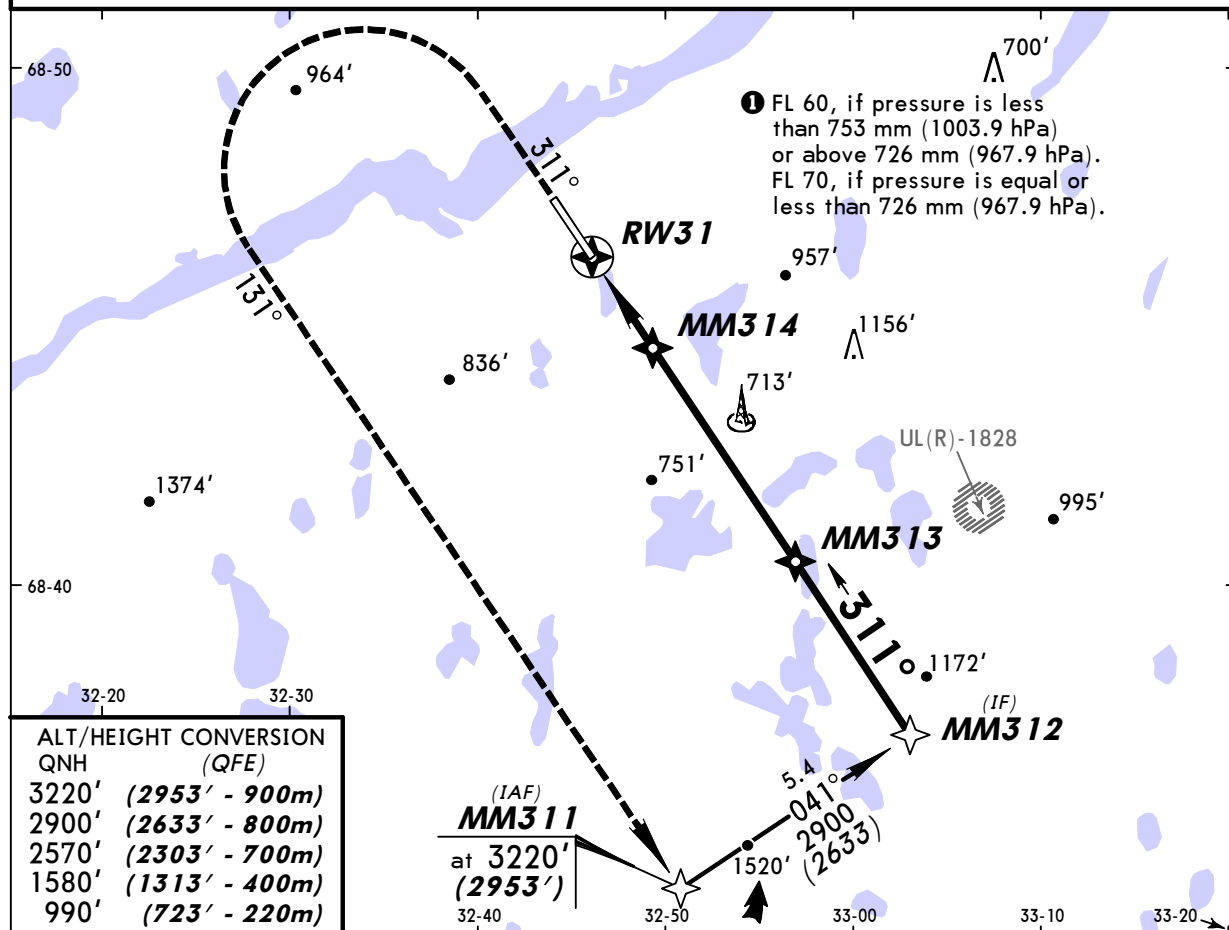
PANS OPS

A		
B	RVR 720m VIS 800m	RVR 1500m VIS 1600m
C		
D	RVR 1500m VIS 1600m	RVR 1800m VIS 2000m

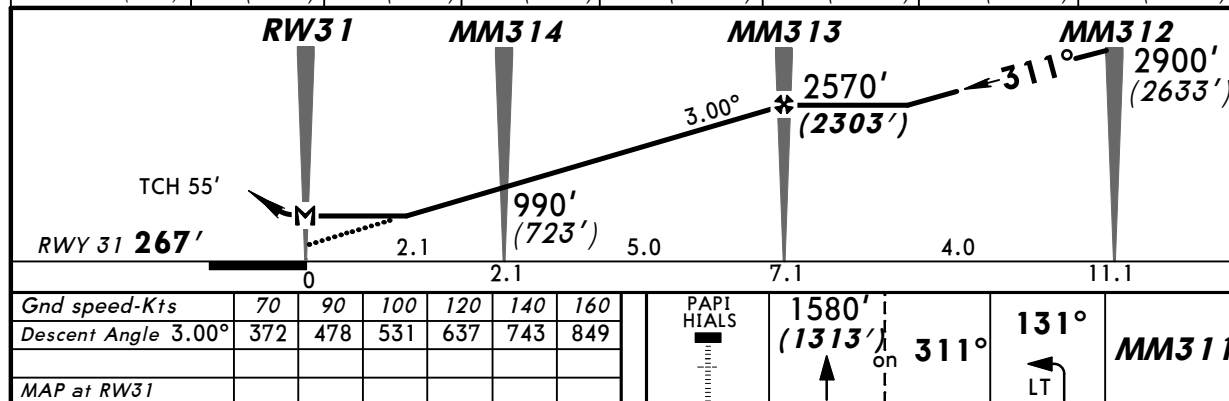
ULMM/MMK
MURMANSKJEPPESSEN
18 MAY 12 (12-2) Eff 31 MayMURMANSK, RUSSIA
GNSS Rwy 31

BRIEFING STRIP

ATIS 127.4			MURMANSK Tower 120.3			
RNAV	Final Apch Crs 311°	Minimum Alt MM313 2570'(2303')	MDA(H) 800'(533')	Apt Elev 262' RWY 267'		
MISSED APCH: Climb on 311° to 1580' (1313'), then turn LEFT to MM311, then according to chart.						
Alt Set: MM (hPa on req) QNH on req (QFE)			Trans level: FL 50 ① Trans alt: 3220'(2953')			
Procedure restricted to MAX 225 KT.						



DIST to RW31	1.1	2.2	2.7	3.2	3.8	4.3	5.4
ALTITUDE (HAT)	660' (393')	1010' (743')	1190' (923')	1350' (1083')	1510' (1243')	1690' (1423')	2040' (1773')



STRAIGHT-IN LANDING RWY 31					
MDA(H) 800' (533')					
			ALS out		
A	RVR 720m		RVR 1500m		
B	VIS 800m		VIS 1600m		
C	RVR 1500m		2400m		
D	RVR 1800m		2800m		
	VIS 2000m				

PANS OPS