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Terminal Charts For ULMM
Revision Letter For Cycle 23-2013
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Notebook

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General Information

Location: Murmansk Rus
IATA Code: MMK
Lat/Long: N68° 46.9' E032° 45.1'
Elevation: 262 ft

Airport Use: Public
Magnetic Variation: 14.9°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: 0701 Z
Sunset: 1205 Z,

Runway Information

Runway: 13
Length x Width: 8202 ft x 138 ft
Surface Type: asphalt
TDZ-Elev: 242 ft
Lighting: Edge, ALS

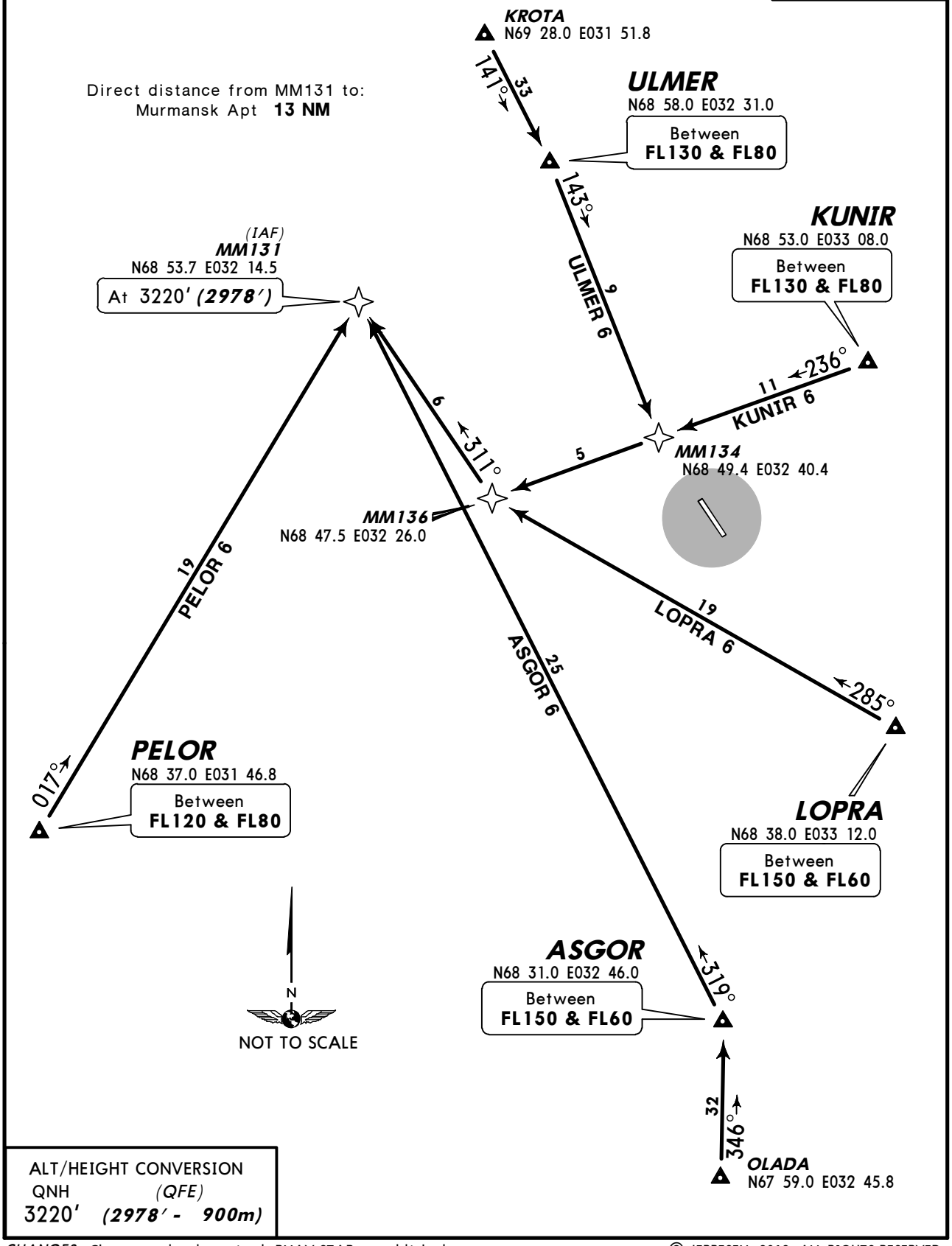
Runway: 31
Length x Width: 8202 ft x 138 ft
Surface Type: asphalt
TDZ-Elev: 267 ft
Lighting: Edge, ALS

Communication Information

ATIS 127.4
Murmansk Tower 120.3
Murmansk Transit Operations 131.9

ATIS	Apt Elev	
127.4	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 6, KUNIR 6
LOPRA 6, PELOR 6, ULMER 6
RWY 13 RNAV ARRIVALS
RNAV (GNSS)



Direct distance from MM131 to:
Murmansk Apt **13 NM**

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

CHANGES: Chart completely revised; RNAV STARs established.

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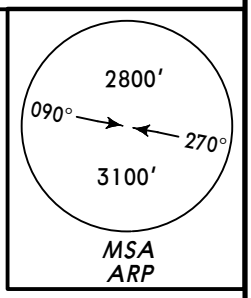
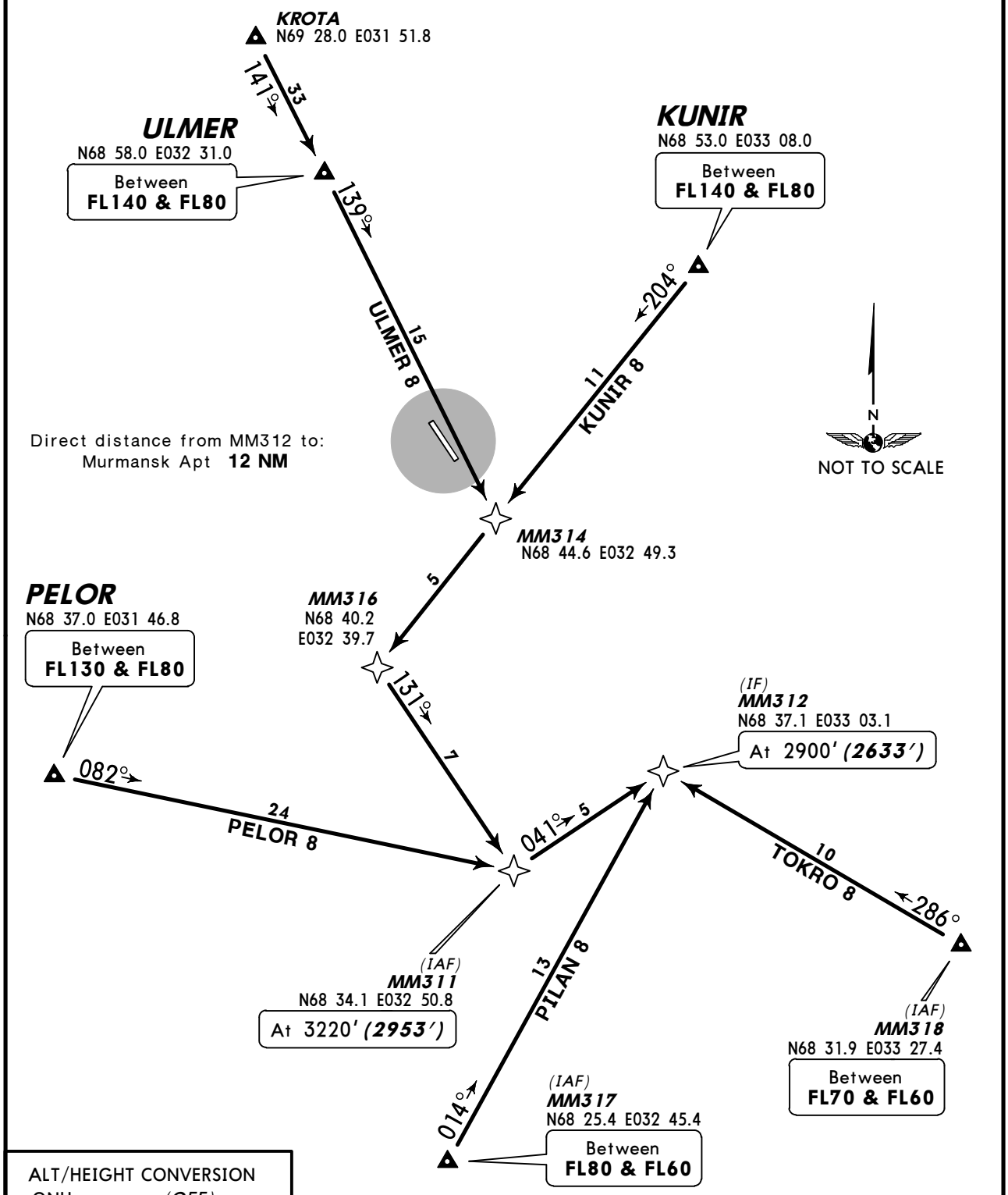
ATIS	Apt Elev	
127.4	262′	Alt Set: MM (hPa on request) QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2953′)***

KUNIR 8, PELOR 8
PILAN 8, TOKRO 8, ULMER 8
RWY 31 RNAV ARRIVALS
RNAV (GNSS)





ALT/HEIGHT CONVERSION

QNH	(QFE)	
3220′	***(2953′***	***- 900m)***
2900′	***(2633′***	***- 800m)***

CHANGES: Chart completely revised; RNAV STARs established.

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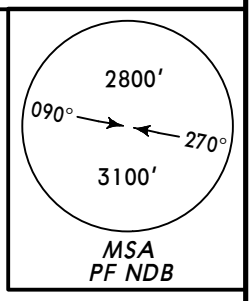
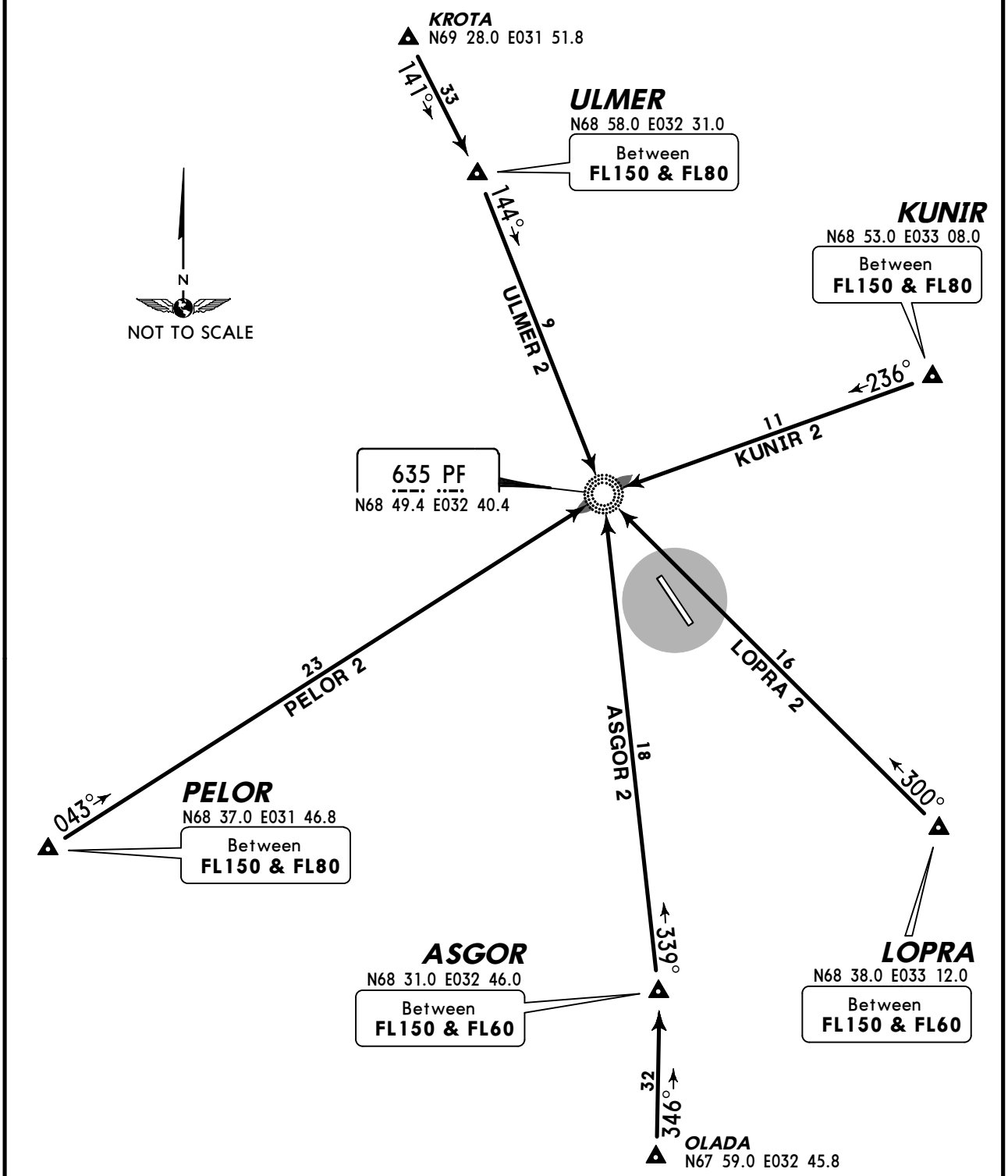
ATIS	Apt Elev	
127.4	262′	Alt Set: MM (hPa on request) QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2978′)***

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





ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	***(2978′ - 900m)***

CHANGES: New chart (STARs established).

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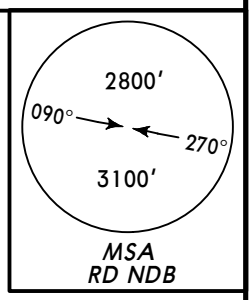
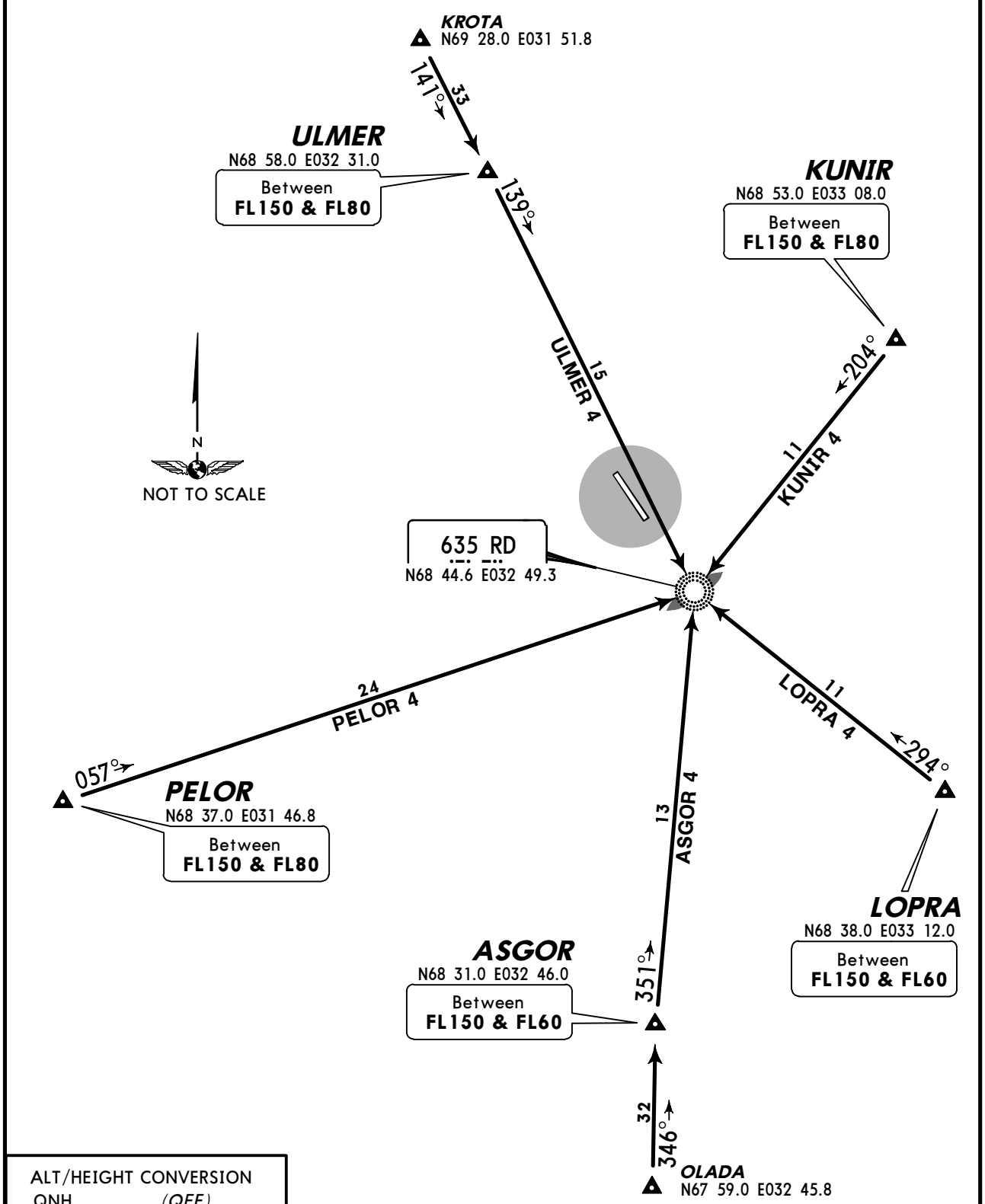
ATIS	Apt Elev	
127.4	262′	Alt Set: MM (hPa on request) QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2953′)***

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





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

CHANGES: New chart (STARs established).

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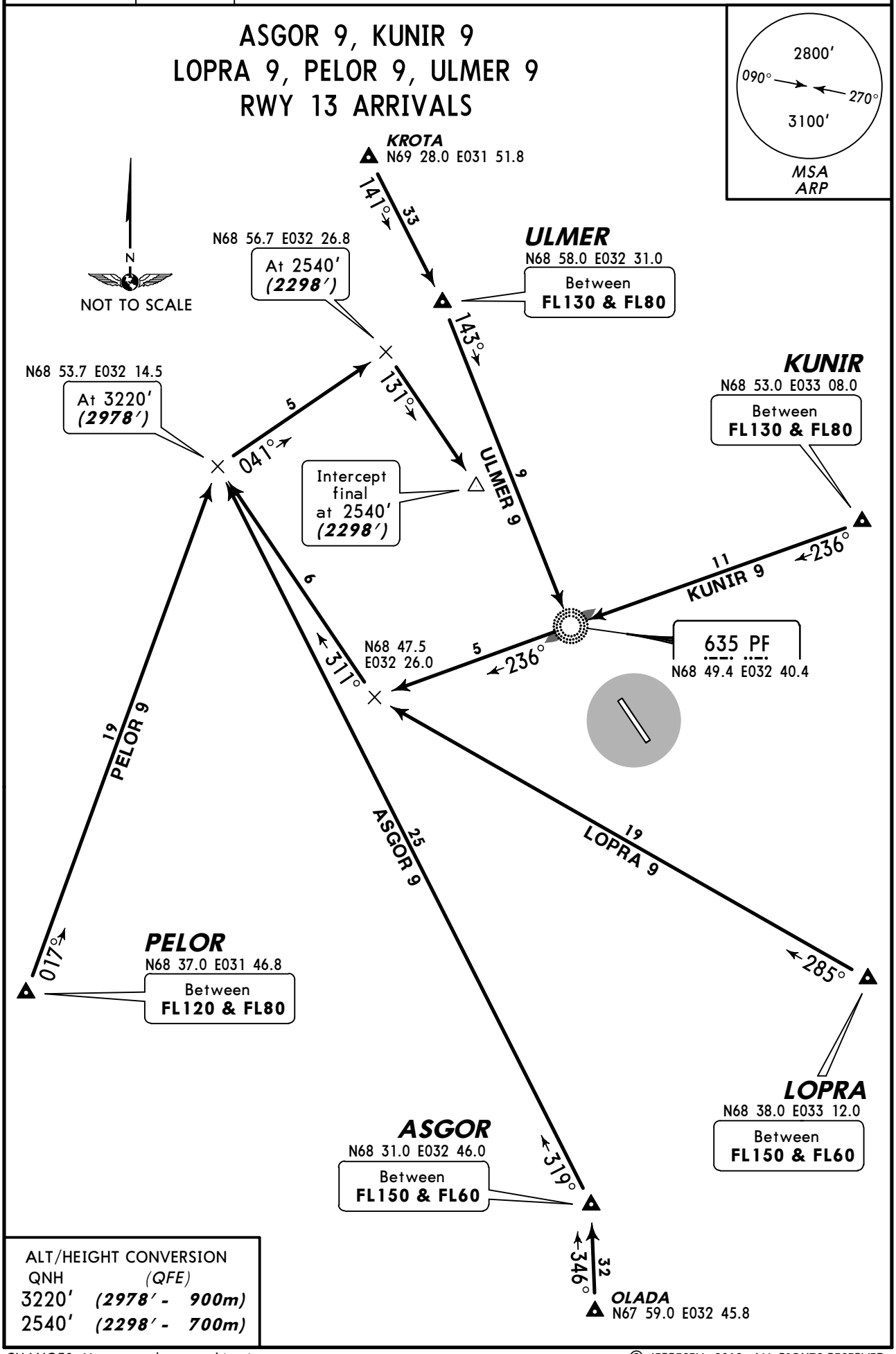
ATIS	Apt Elev	
127.4	262′	Alt Set: MM (hPa on request) QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1003.9 hPa) or above 726mm (967.9 hPa) FL70 if pressure is equal or less than 726mm (967.9 hPa) Trans alt: 3220′ ***(2978′)***

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



ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	***(2978′ - 900m)***
2540′	***(2298′ - 700m)***

CHANGES: New procedures at this airport.

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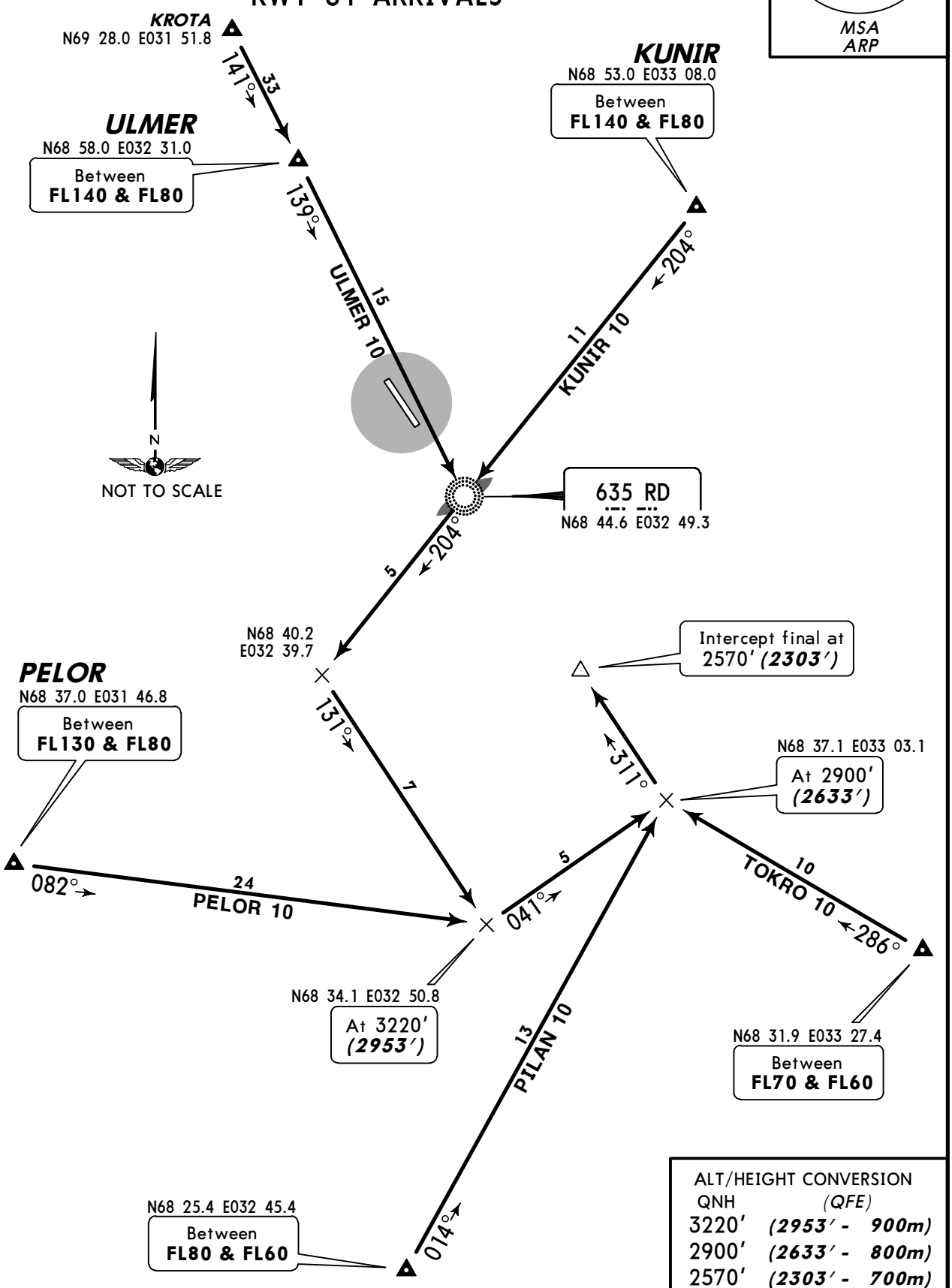
ATIS	Apt Elev	
127.4	262′	Alt Set: MM (hPa on request) QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1003.9 hPa) or above 726mm (967.9 hPa) FL70 if pressure is equal or less than 726mm (967.9 hPa) Trans alt: 3220′ ***(2953′)***

KUNIR 10 *[KUNI1Ø]*, PELOR 10 *[PELO1Ø]*
PILAN 10 *[PILA1Ø]*, TOKRO 10 *[TOKR1Ø]*
ULMER 10 *[ULME1Ø]*
RWY 31 ARRIVALS



ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	***(2953′ - 900m)***
2900′	***(2633′ - 800m)***
2570′	***(2303′ - 700m)***

CHANGES: New procedures at this airport.

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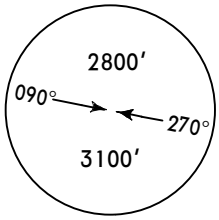
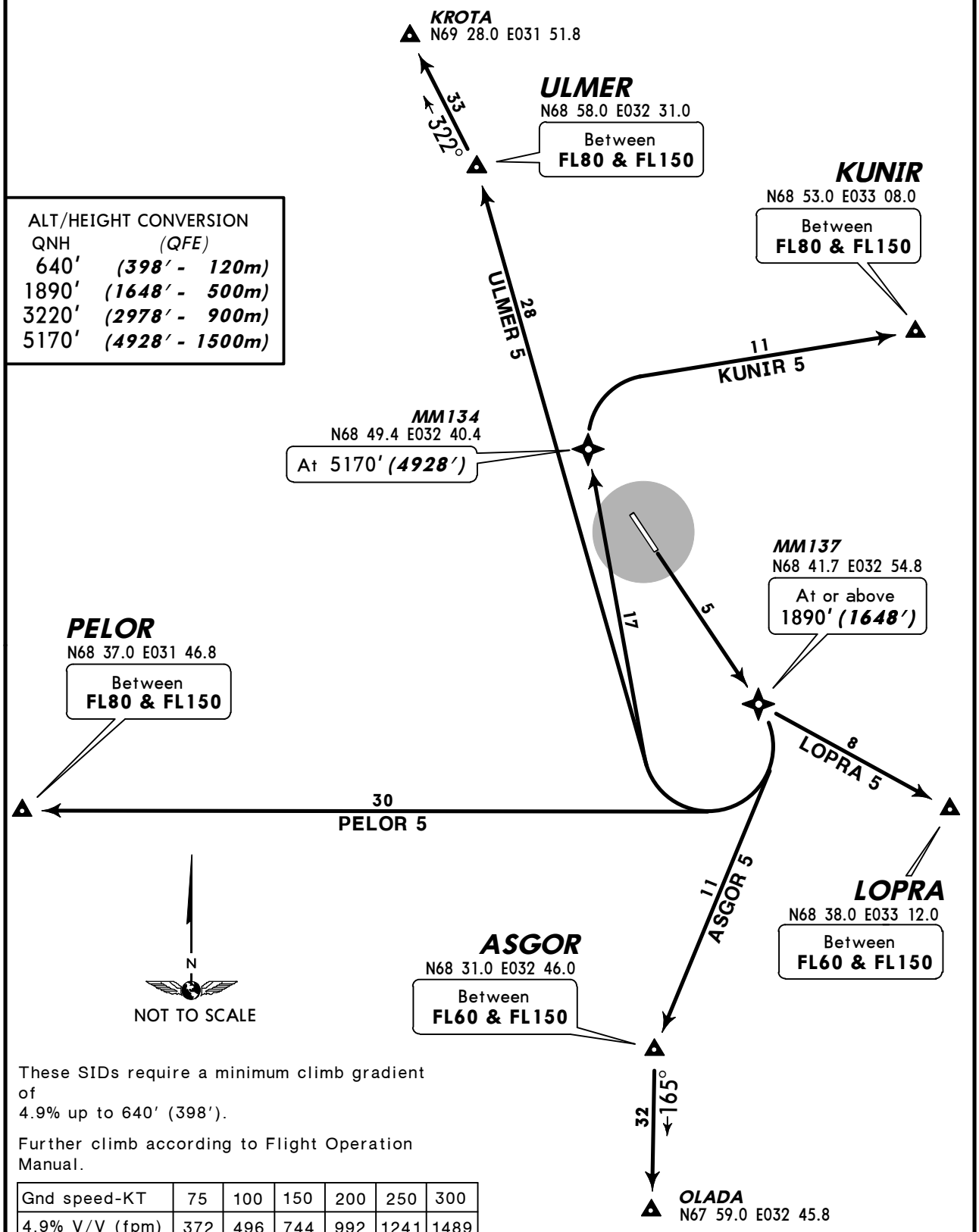
Apt Elev 262′	QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2978′)*** If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



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

CHANGES: Chart completely revised; RNAV SIDs established.

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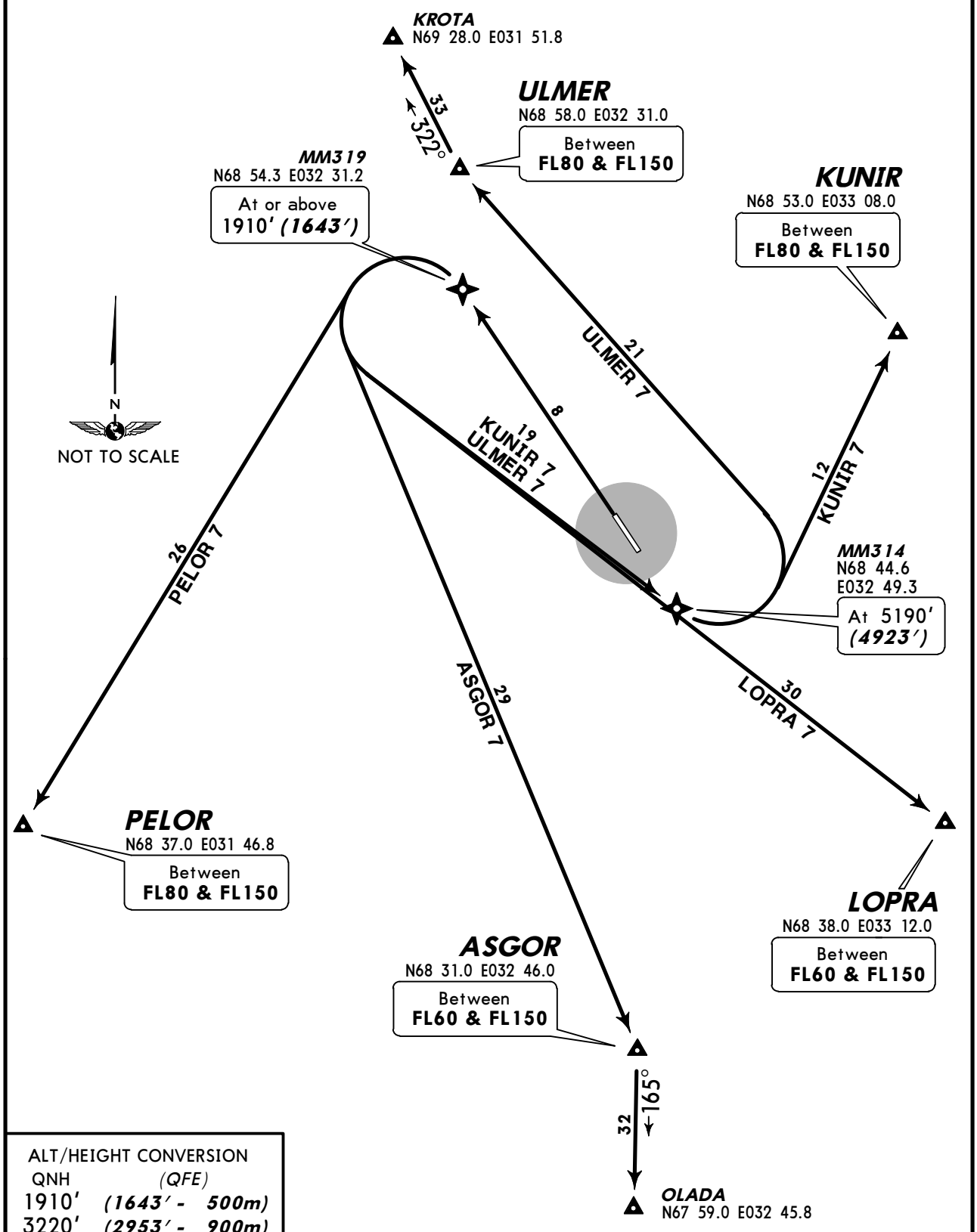
Apt Elev 262′	QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2953′)*** If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.	2800′ 090° 270° 3100′ MSA ARP

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)***

CHANGES: New chart (RNAV SIDs established).

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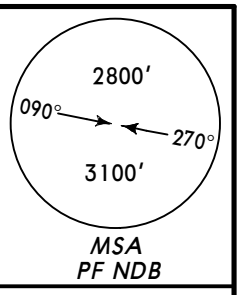
Apt Elev 262′	QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2978′)*** If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.



ASGOR 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)***

KROTA
N69 28.0 E031 51.8

ULMER
N68 58.0 E032 31.0
Between **FL80 & FL150**

KUNIR
N68 53.0 E033 08.0
Between **FL80 & FL150**

635 PF
N68 49.4 E032 40.4
At 5170′ ***(4928′)***

N68 41.7 E032 54.8
At or above 1890′ ***(1648′)***

PELOR
N68 37.0 E031 46.8
Between **FL80 & FL150**

LOPRA
N68 38.0 E033 12.0
Between **FL60 & FL150**

ASGOR
N68 31.0 E032 46.0
Between **FL60 & FL150**

OLADA
N67 59.0 E032 45.8

N
NOT TO SCALE

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

CHANGES: New chart (SIDs transferred & established).

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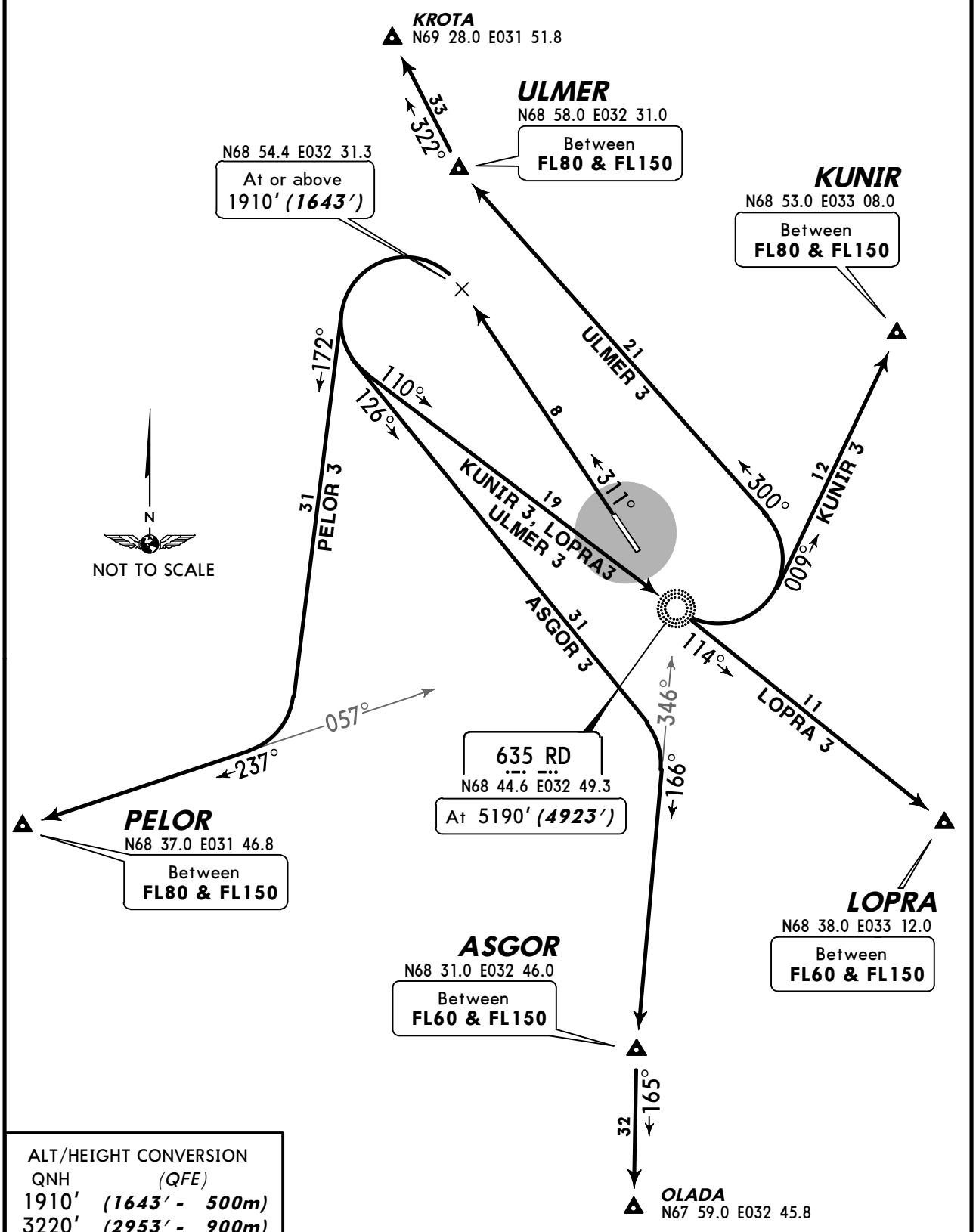
Apt Elev 262′	QNH on request **(QFE)** Trans level: FL50 FL60 if pressure is less than 753mm (1004.0 hPa) FL70 if pressure is less than 726mm (968.0 hPa) Trans alt: 3220′ ***(2953′)*** If unable to reach assigned FL climb in the established rectangular traffic pattern and by ATC instruction.	2800′ 090° 270° 3100′ 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)***

CHANGES: New chart (SIDs transferred & established).

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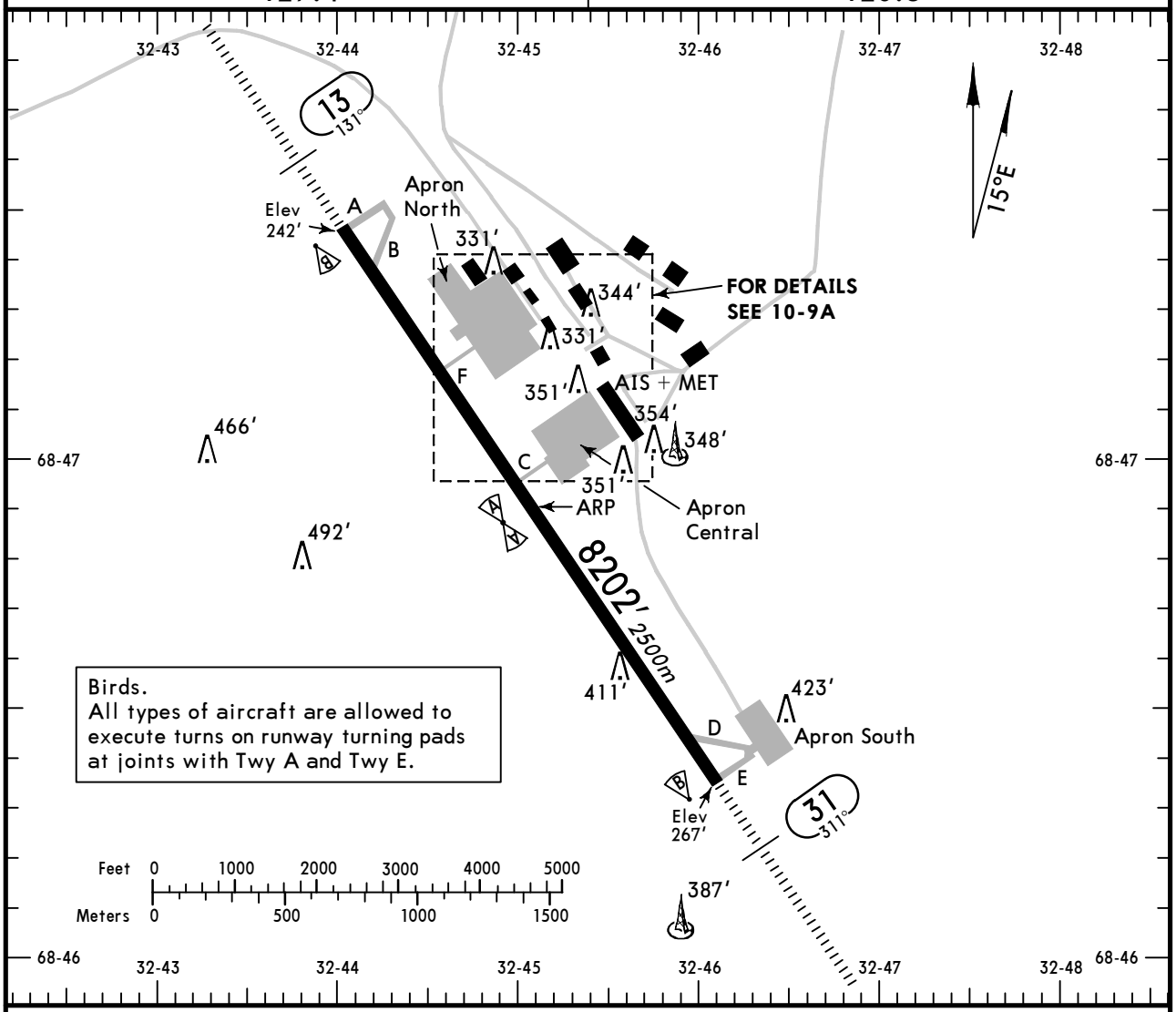
ATIS	MURMANSK Tower
127.4	120.3



ADDITIONAL RUNWAY INFORMATION

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

TAKE-OFF

	AIR CARRIER (JAA) All Rwys	
	LVP must be in force RCLM (DAY only) or RL	RCLM (DAY only) or RL
A	*250m*	*400m*
B		
C		
D	*300m*	

CHANGES: Twy F. Aprons.

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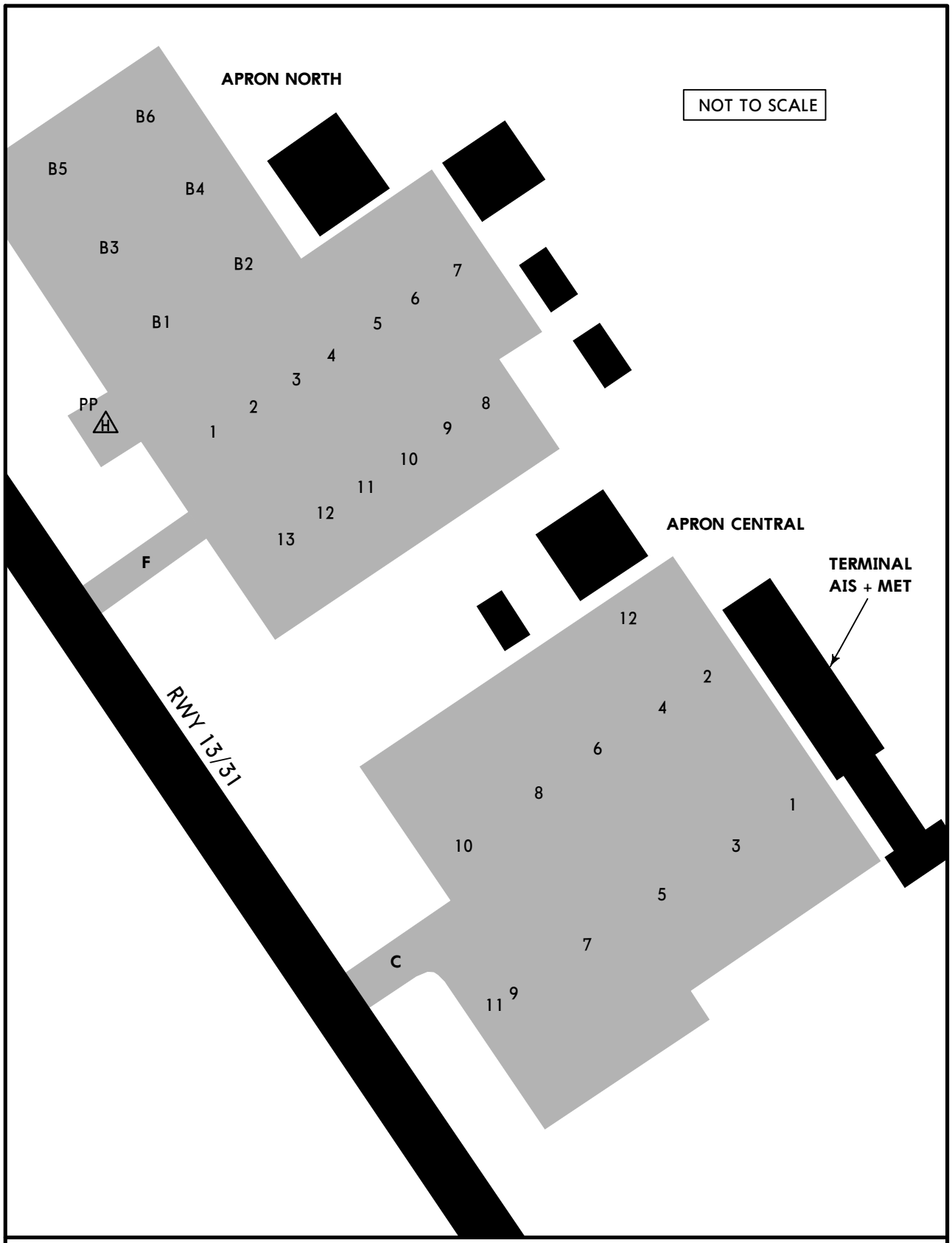

INS COORDINATES

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.

CHANGES: Twy F. Aprons. Text.

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

❶ Continuous Descent Final Approach.

TAKE-OFF RWY 13, 31

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

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ATIS	MURMANSK Tower
127.4	120.3

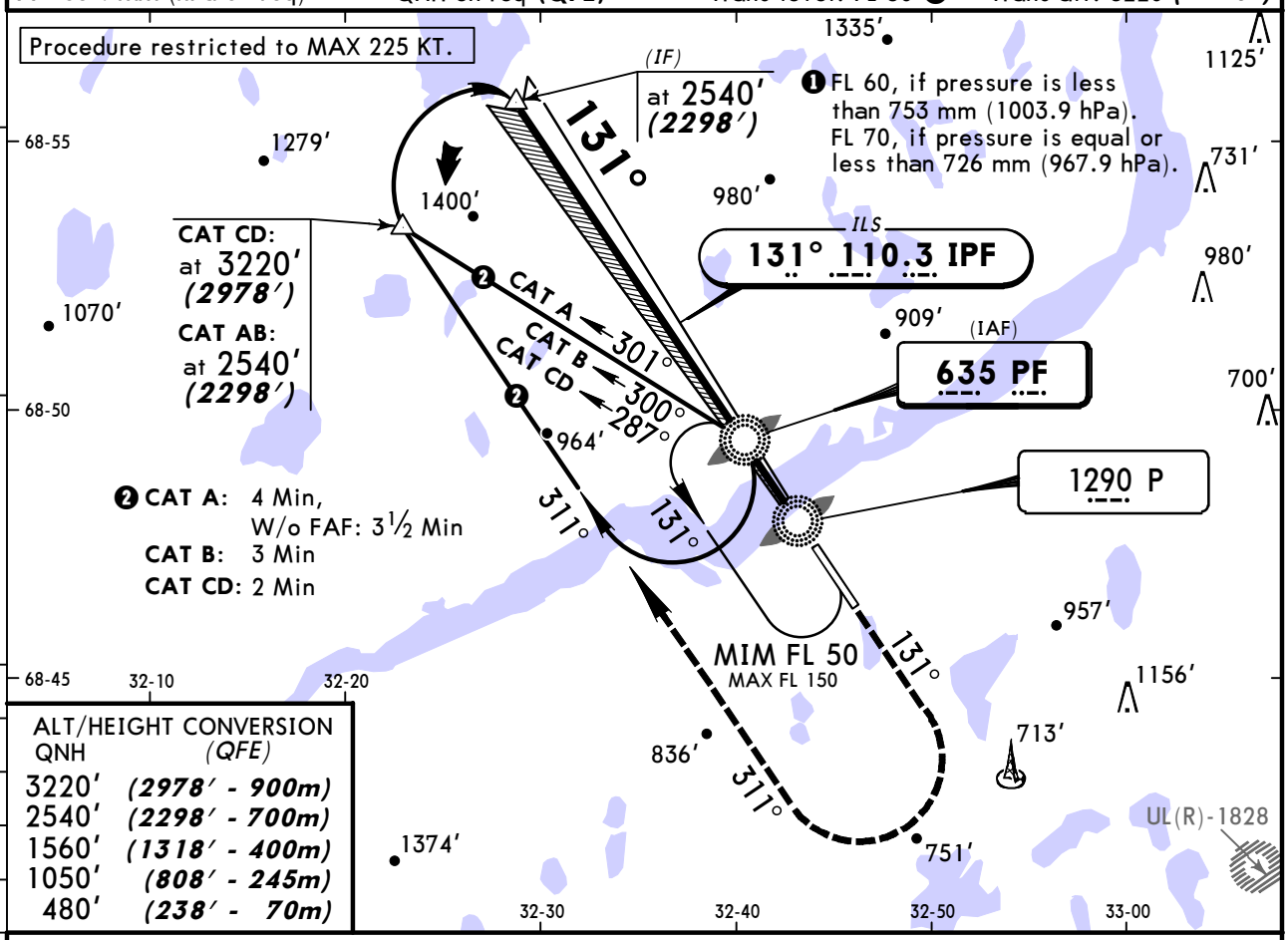
BRIEFING STRIP ™

LOC IPF **110.3**	Final Apch Crs **131°**	GS **LOM** 1046′ (804′)	ILS DA(H) Refer to Minimums	Apt Elev 262′
Lctr PF **635**		Minimum Alt **LOM** 1050′ (808′)	NDB MDA(H) (CONDITIONAL) 600′ (358′)	RWY **242′**

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.

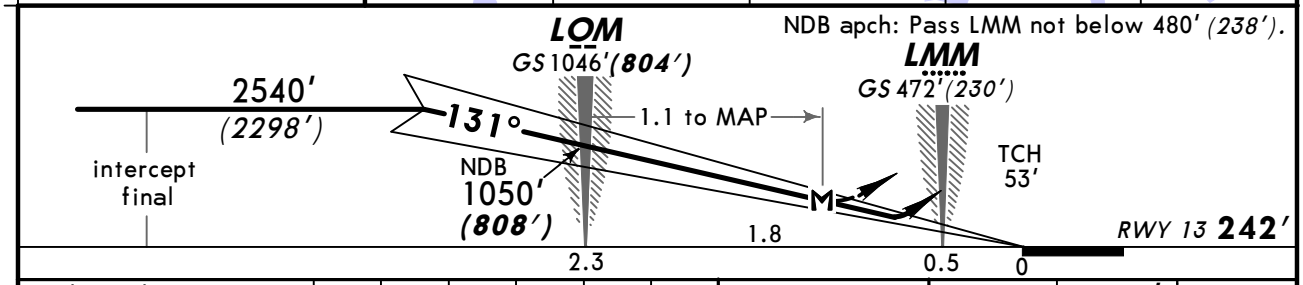
MSA ARP: 2800′ (090°–270°), 3100′

Alt Set: MM (hPa on req) | QNH on req **(QFE)** | Trans level: FL 50 ❶ | Trans alt: 3220′ (2978′)



ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	(2978′ - 900m)
2540′	(2298′ - 700m)
1560′	(1318′ - 400m)
1050′	(808′ - 245m)
480′	(238′ - 70m)



Gnd speed-Kts		70	90	100	120	140	160
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	0:25

PAPI HIALS — 1560′ (1318′) on 131°

STRAIGHT-IN LANDING RWY 13

	ILS		LOC (GS out)	2 NDB With FAF		2 NDB W/o FAF	
DA(H)	A: 442′ (200′) C: 459′ (217′) B: 452′ (210′) D: 468′ (226′)			MDA(H) 600′ (358′)		MDA(H) 1440′ (1198′)	
	FULL	ALS out			ALS out		ALS out
A	RVR 720m VIS 800m	1200m	NOT AUTH	1400m	2200m	3200m	
B							
C						4000m	4800m
D				RVR 1800m VIS 2000m		4400m	

PANS OPS

CHANGES: MSA.

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ATIS	MURMANSK Tower
127.4	120.3

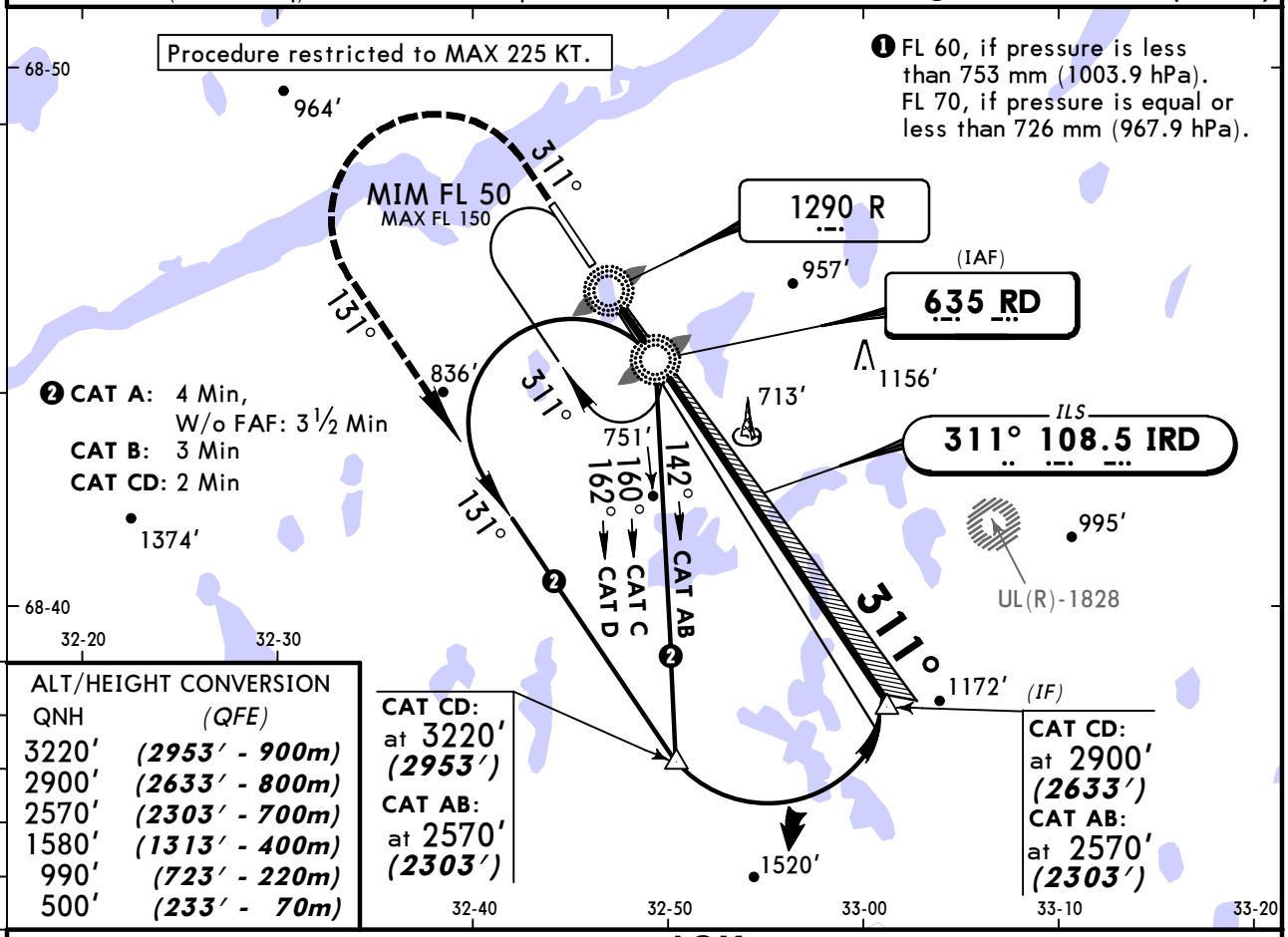
BRIEFING STRIP ™

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: 2800′ (090°–270°), 3100′

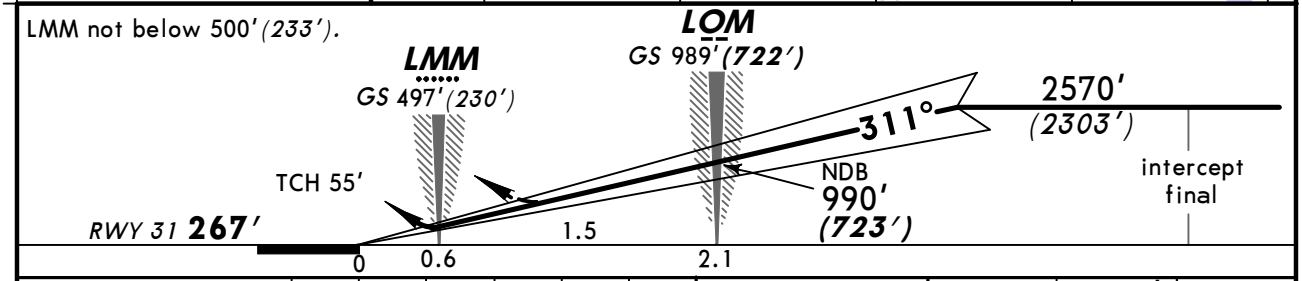
Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 50 ❶ Trans alt: 3220′ (2953′)



ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	(2953′ - 900m)
2900′	(2633′ - 800m)
2570′	(2303′ - 700m)
1580′	(1313′ - 400m)
990′	(723′ - 220m)
500′	(233′ - 70m)

LMM not below 500′ (233′).



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

PAPI HIALS — 1580′ (1313′) on 311°

STRAIGHT-IN LANDING RWY 31

	ILS		LOC (GS out)	2 NDB With FAF		2 NDB W/o FAF	
	DA(H) C: 470′ (203′)	DA(H) AB: 467′ (200′) D: 480′ (213′)		MDA(H) 800′ (533′)		MDA(H) 1430′ (1163′)	
	FULL	ALS out			ALS out		ALS out
A	RVR 720m VIS 800m	1200m	NOT AUTH	2000m	2800m	3200m	
B							
C						4000m	4800m
D				2400m		4400m	

PANS OPS

CHANGES: MSA.

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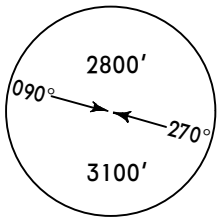
BRIEFING STRIP ™

ATIS	MURMANSK Tower
127.4	120.3

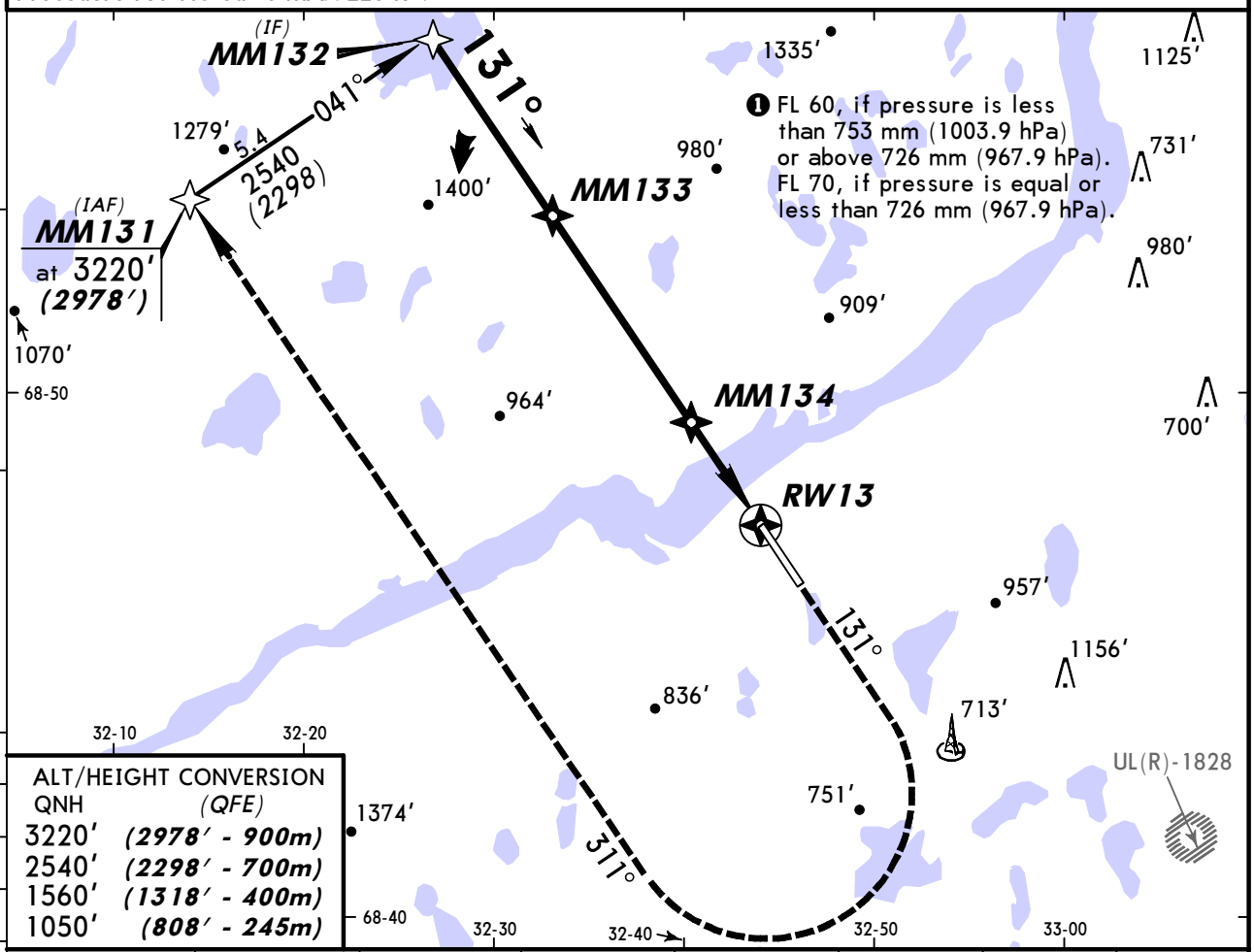
RNAV	Final Apch Crs	Minimum Alt MM133	MDA(H)	Apt Elev 262′
	131°	2540′(2298′)	590′(348′)	RWY 242′

MISSED APCH: Climb on 131° to 1560′ (1318′), then turn RIGHT to MM131, then according to chart.



MSA ARP

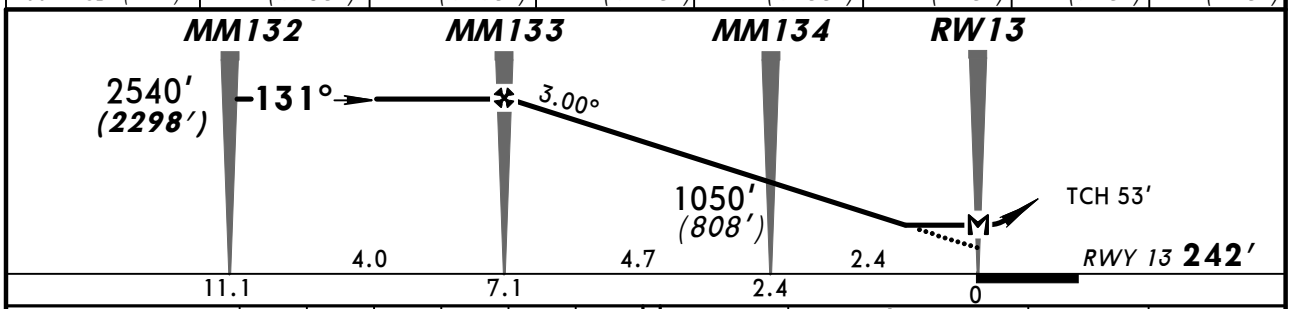
Alt Set: MM (hPa on req) QNH on req **(QFE)** Trans level: FL 50 ❶ Trans alt: 3220′(2978′)
Procedure restricted to MAX 225 KT.



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′)



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at RW13						

PAPI HIALS | 1560′ (1318′) on 131° | 311° RT | MM131

STRAIGHT-IN LANDING RWY 13

MDA(H) 590′(348′)

PANS OPS

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

CHANGES: New procedure.

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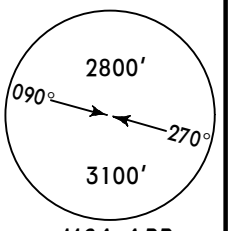
BRIEFING STRIP ™

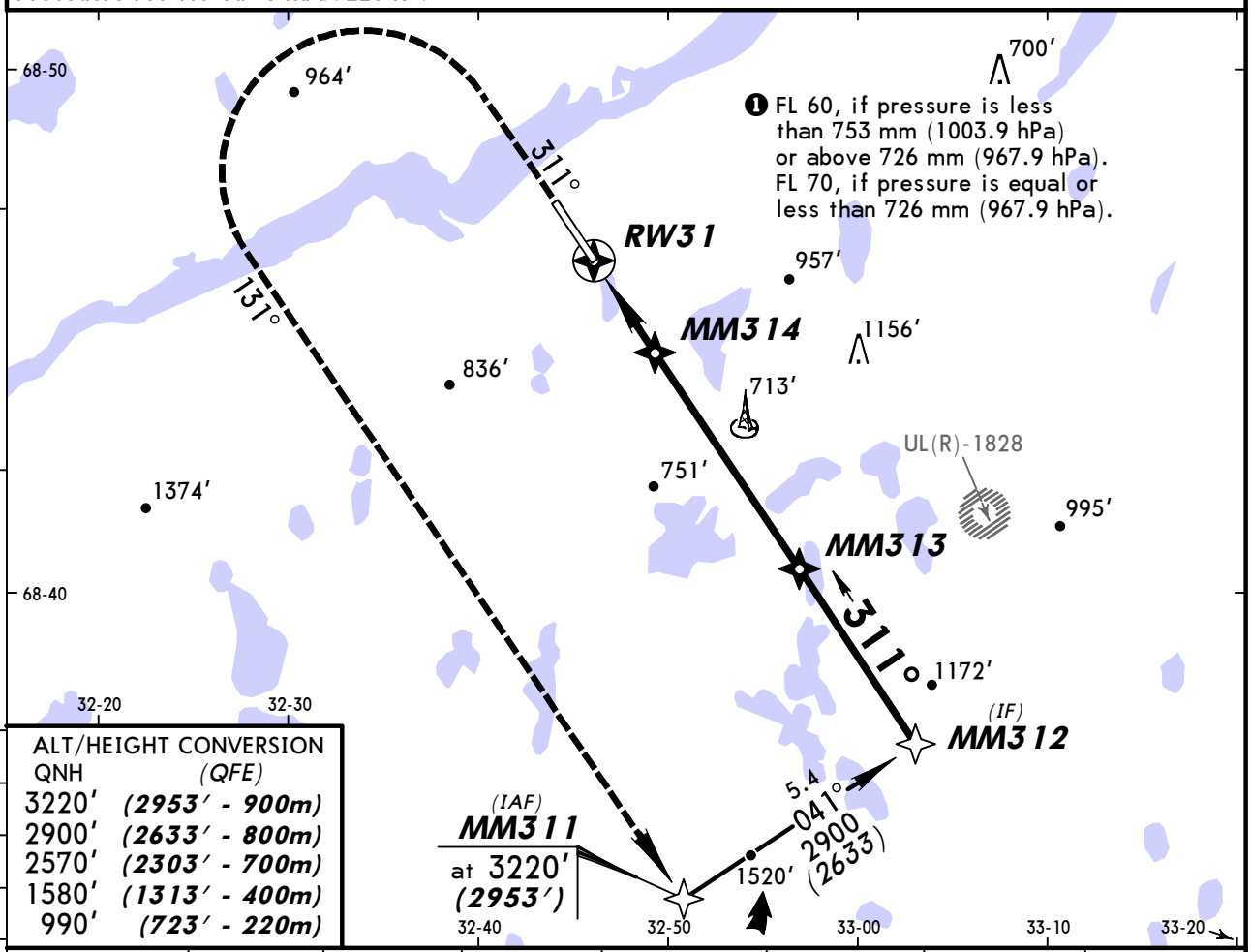
ATIS	MURMANSK Tower
127.4	120.3

RNAV	Final Apch Crs	Minimum Alt MM313	MDA(H)	Apt Elev 262′
	311°	2570′(2303′)	800′(533′)	RWY 267′

MISSED APCH: Climb on 311° to 1580′ (1313′), then turn LEFT to MM311, then according to chart.



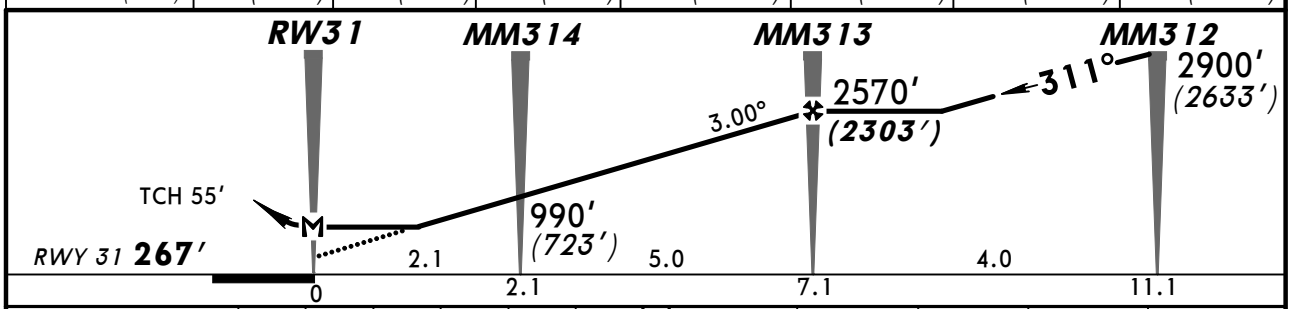
Alt Set: MM (hPa on req) QNH on req **(QFE)** Trans level: FL 50 ❶ Trans alt: 3220′(2953′)
Procedure restricted to MAX 225 KT.



ALT/HEIGHT CONVERSION

QNH	(QFE)
3220′	(2953′ - 900m)
2900′	(2633′ - 800m)
2570′	(2303′ - 700m)
1580′	(1313′ - 400m)
990′	(723′ - 220m)

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′)



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at RW31						

PAPI HIALS | 1580′ (1313′) on 311° | 131° LT | MM311

STRAIGHT-IN LANDING RWY 31

MDA(H) 800′(533′)

PANS OPS

		ALS out
A	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B		
C	RVR 1500m VIS 1600m	2400m
D	RVR 1800m VIS 2000m	2800m

CHANGES: New procedure.

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Chart changes since cycle 22-2013

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE

MURMANSK, (MURMANSK - ULMM)

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TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport ULMM