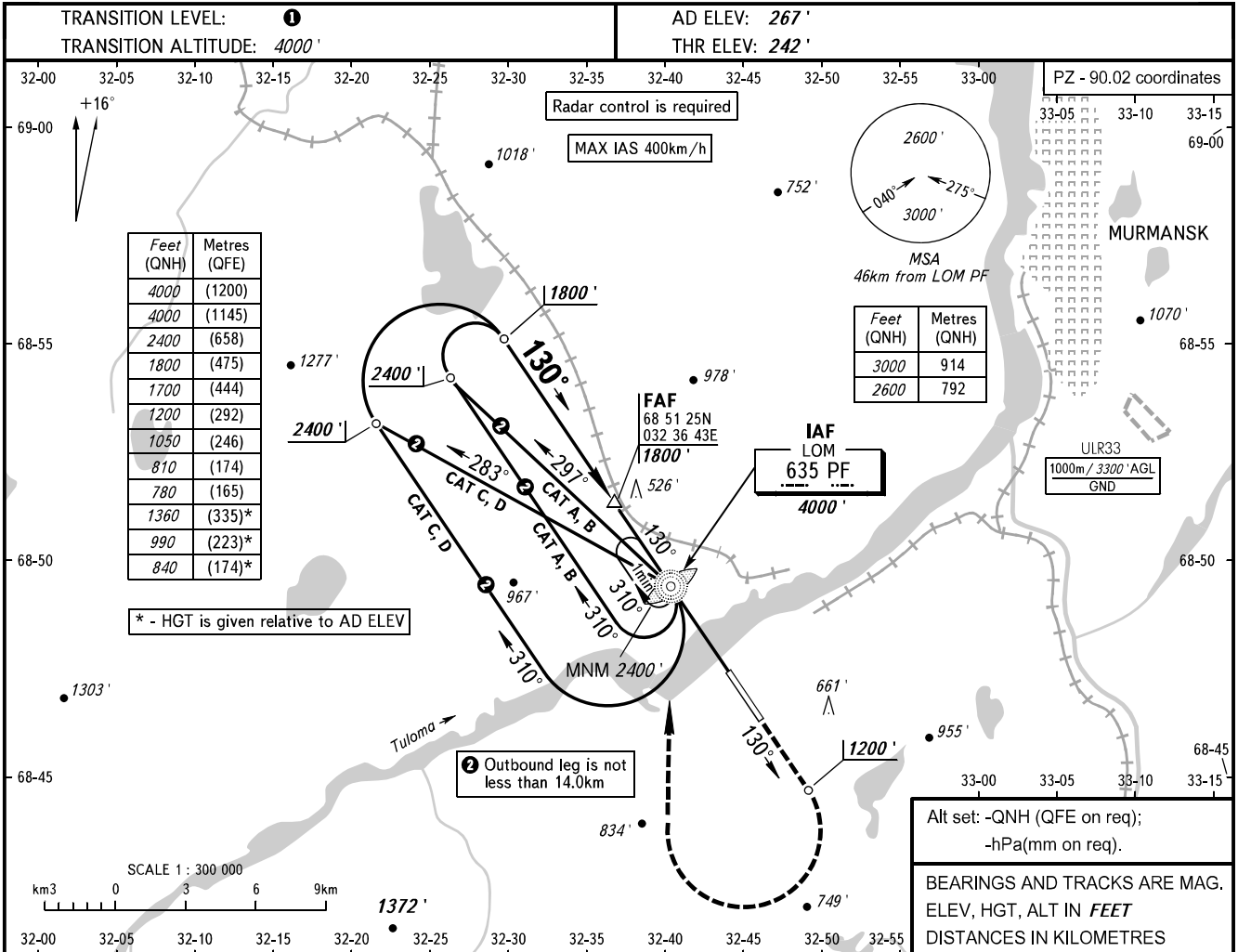


**INSTRUMENT  
APPROACH  
CHART - ICAO**

**MURMANSK, RUSSIA  
MURMANSK  
NDB RWY 13**

TOWER 120.300

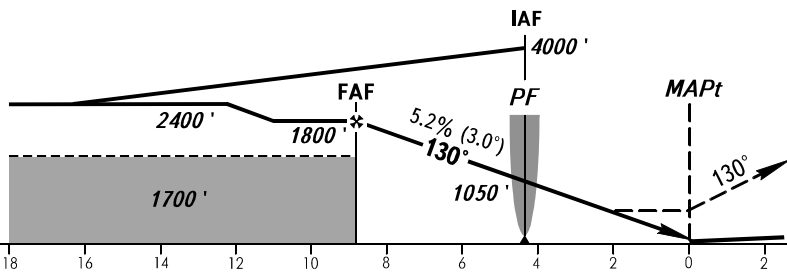


Feet (QNH)	Metres (QFE)
4000	(1200)
4000	(1145)
2400	(658)
1800	(475)
1700	(444)
1200	(292)
1050	(246)
810	(174)
780	(165)
1360	(335)*
990	(223)*
840	(174)*

\* - HGT is given relative to AD ELEV

Alt set: -QNH (QFE on req);  
-hPa(mm on req).  
BEARINGS AND TRACKS ARE MAG.  
ELEV, HGT, ALT IN FEET  
DISTANCES IN KILOMETRES

**MISSED APPROACH**  
Climb on track 130° to 1200', then turn RIGHT to LOM PF climbing to 2400' or by ATS unit instruction.



OCA(H)	A	B	C	D
Straight-in Approach	810' (570')	780' (540')	780' (540')	780' (540')
Circling	840' (570')	990' (730')	1360' (1100')	1360' (1100')

**1** TRANSITION LEVEL:  
- FL050 when QNH is 1013 hPa (760mm mercury column) or above;  
- FL060 when QNH is 977 hPa (733mm mercury column) or above, but less than 1013 hPa (760mm mercury column);  
- FL070 when QNH is less than 977 hPa (733mm mercury column).  
**WARNING**  
Visual manoeuvring to the north-east of the AD is prohibited.

GROUND SPEED	km/h	150	180	210	240	270	300	330	360	390
FAF-MAPt 8840m	min:sec	3:31	2:56	2:31	2:12	2:00	1:46	1:36	1:28	1:22
RATE OF DESCENT	m/s	2.2	2.6	3.0	3.5	3.9	4.3	4.8	5.2	5.6
	ft/min	427	512	597	682	768	853	938	1024	1109

CHANGE: New chart