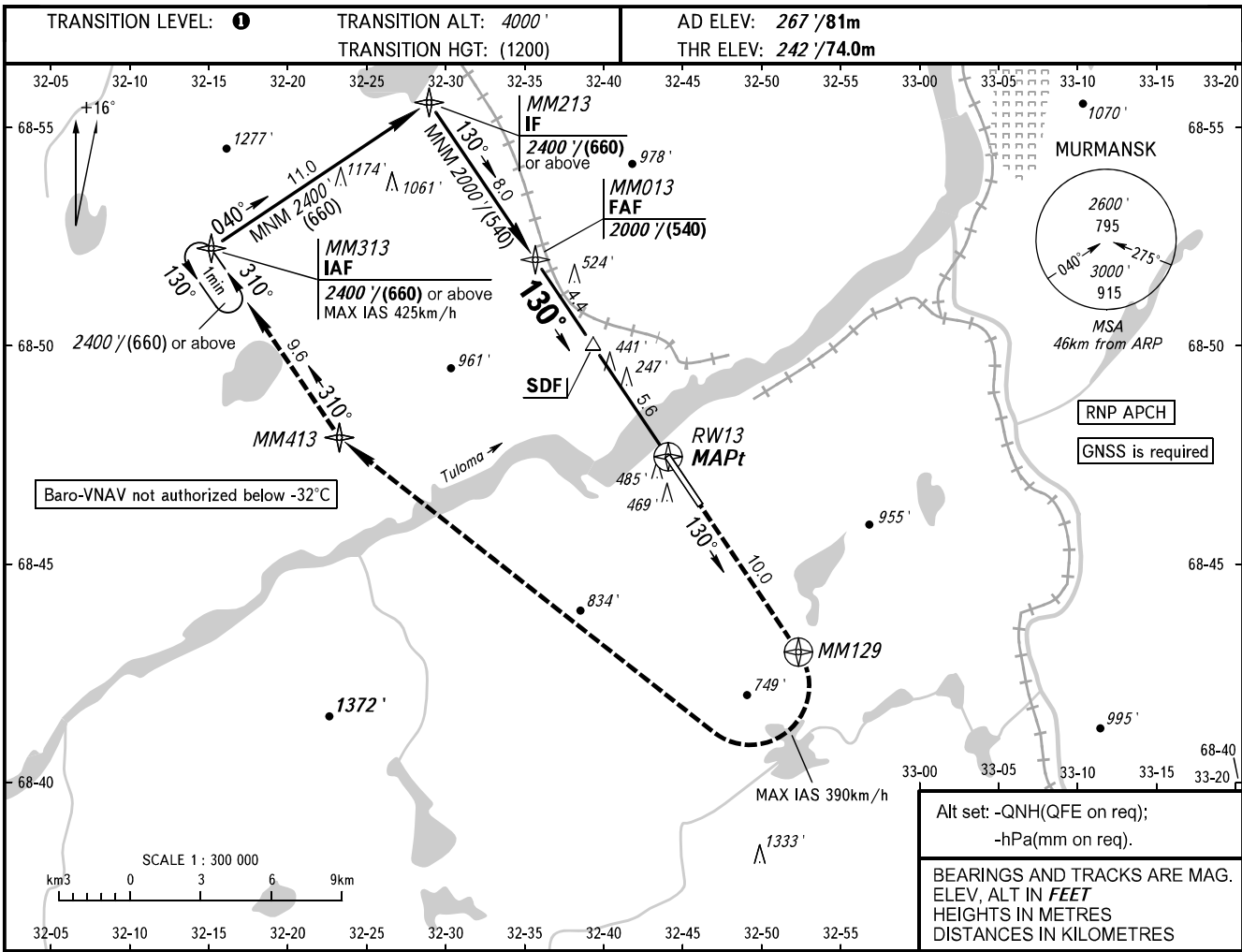


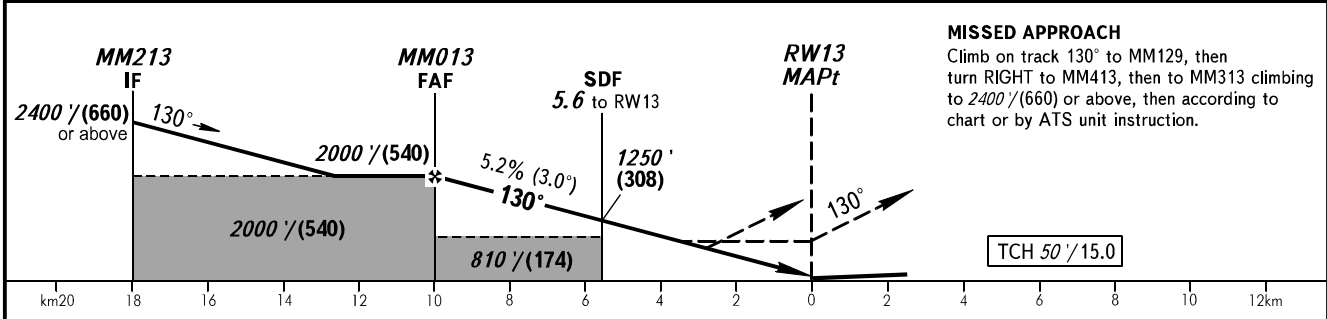
**INSTRUMENT
APPROACH
CHART - ICAO**

TOWER **120.300**
RADAR **120.700**

MURMANSK, RUSSIA
MURMANSK
RNAV RWY 13



DIST to RWY13	9.0	7.0	5.0	3.0
ALTITUDE/HEIGHT	1830'/(485)	1490'/(381)	1150'/(277)	810'/(174)



OCA(H)		A	B	C	D
Straight-in	LNAV	740' (500') (152)	740' (500') (152)	740' (500') (152)	740' (500') (152)
	LNAV/VNAV	616' (374') (114)	626' (384') (118)	636' (394') (121)	646' (404') (124)
Approach					
Circling		820' (550') (170)	990' (730') (225)	1360' (1100') (335)	1360' (1100') (335)

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
RATE OF DESCENT	m/s	2.2	2.6	3.0	3.5	3.9	4.3	4.8	5.2	5.6
RATE OF DESCENT	ft/min	427	512	597	682	768	853	938	1024	1109

CHANGE: Heading