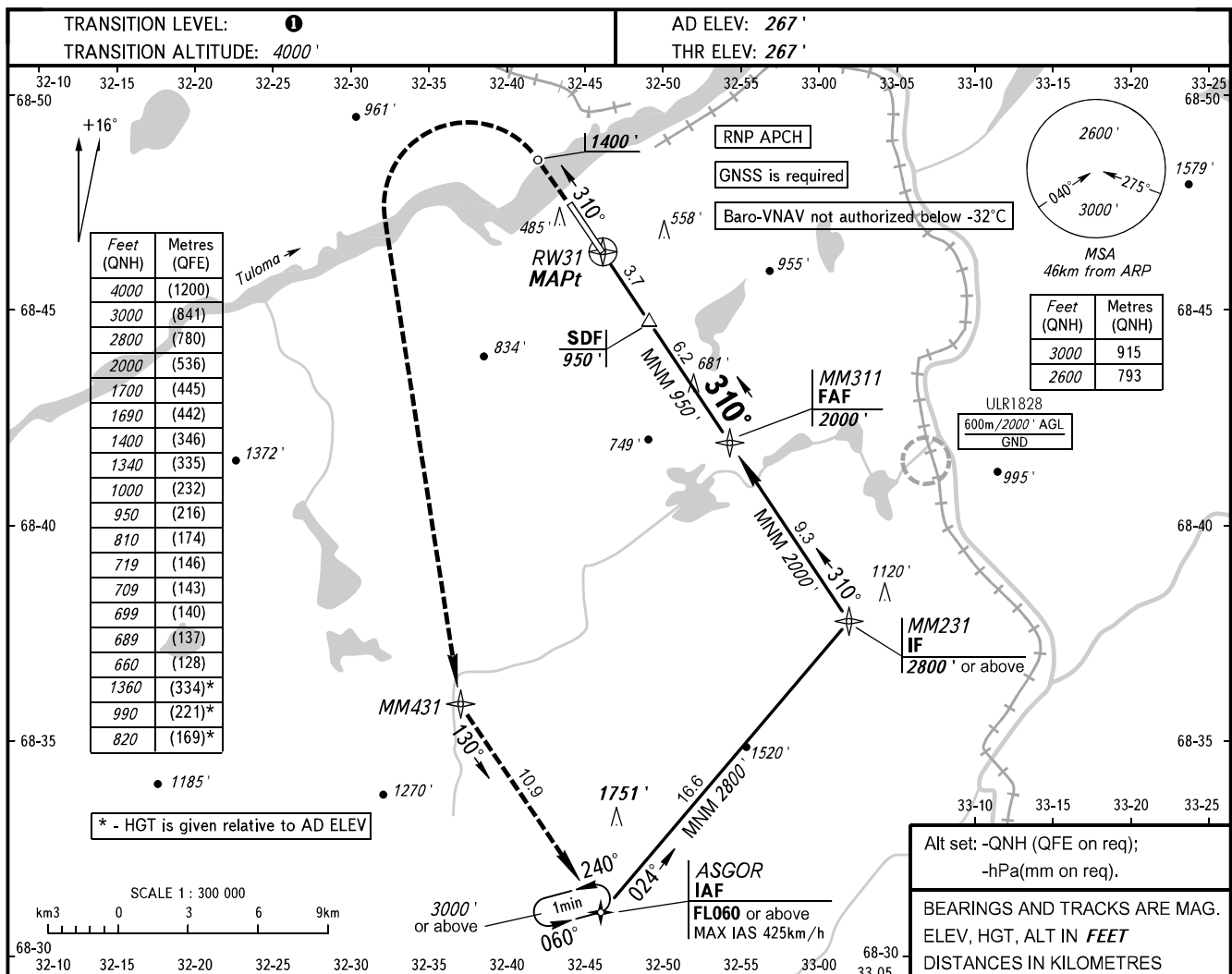


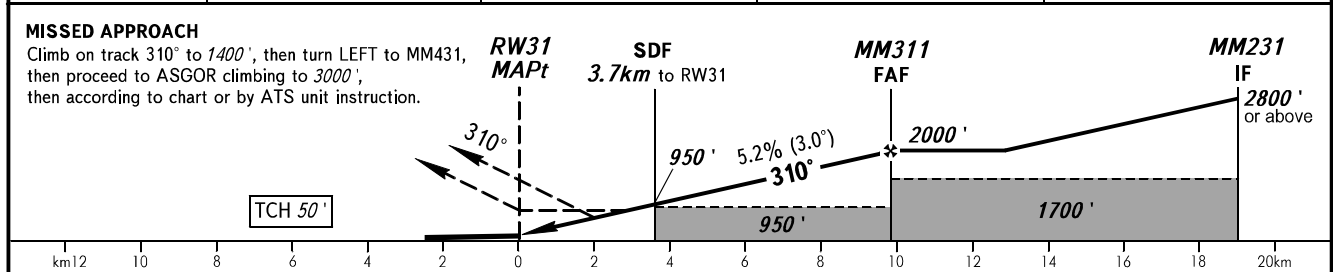
**INSTRUMENT
APPROACH
CHART - ICAO**

MURMANSK, RUSSIA
MURMANSK
RNAV Z RWY 31

TOWER **120.300**



DIST to RWY31	2.0	4.0	6.0	8.0
ALTITUDE	660'	1000'	1340'	1690'



OCA(H)		A	B	C	D	① TRANSITION LEVEL: - FLO50 when QNH is 1013 hPa (760mm mercury column) or above; - FLO60 when QNH is 977 hPa (733mm mercury column) or above, but less than 1013 hPa (760mm mercury column); - FLO70 when QNH is less than 977 hPa (733mm mercury column).					
Straight-in	LNAV	810' (550')	810' (550')	810' (550')	810' (550')	WARNING Visual manoeuvring to the north-east of the AD is prohibited.					
	LNAV/VNAV	689' (423')	699' (433')	709' (442')	719' (452')						
Approach											
Circling		820' (550')	990' (730')	1360' (1100')	1360' (1100')						
GROUND SPEED		km/h	150	180	210	240	270	300	330	360	360
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