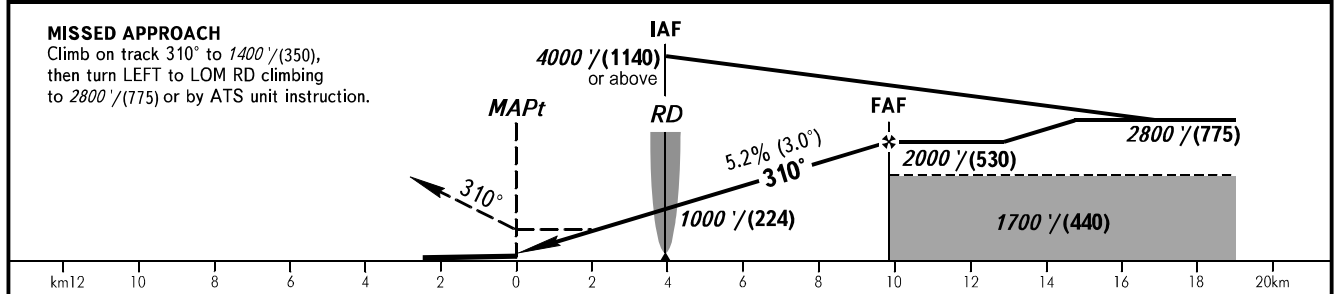
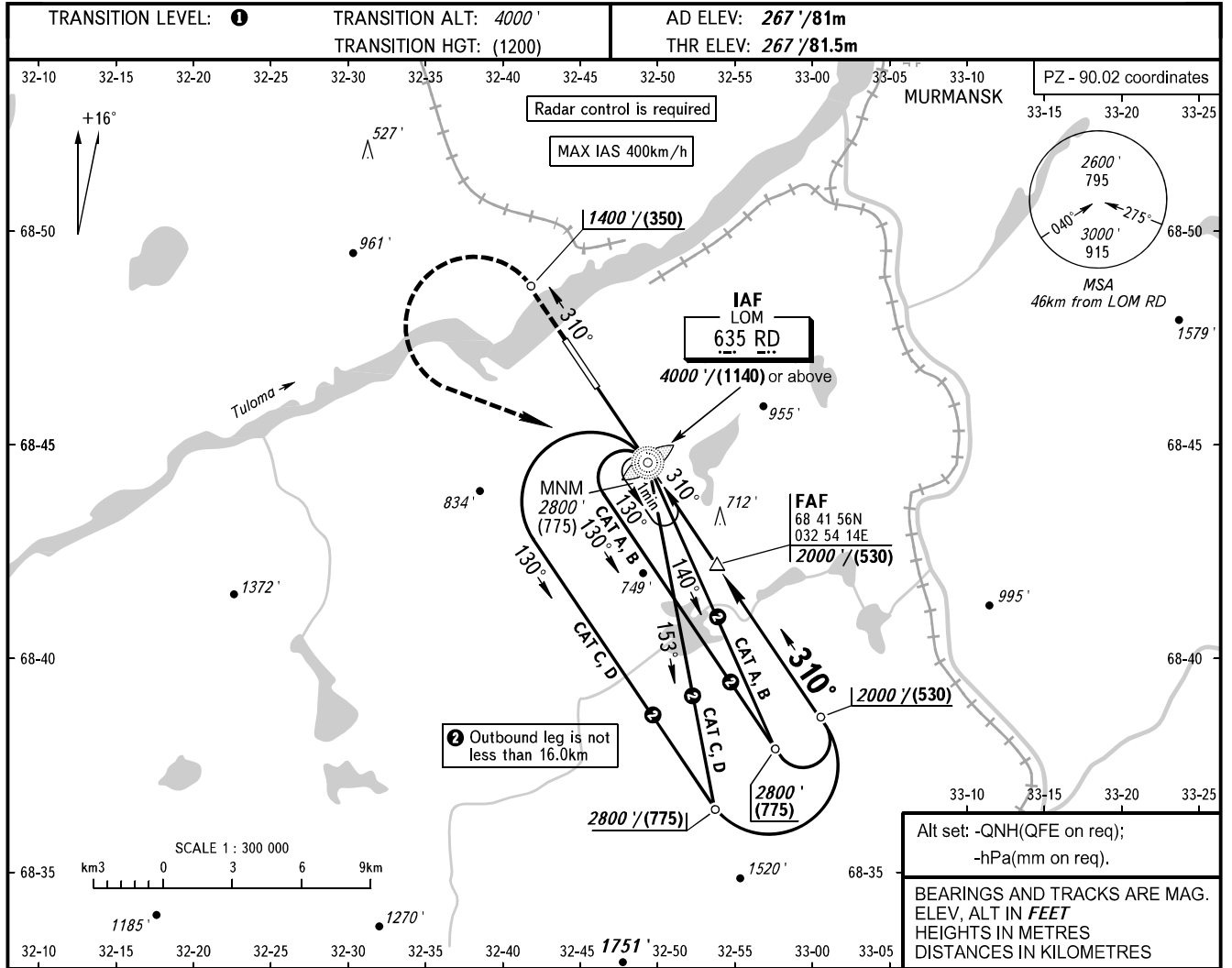


**INSTRUMENT
APPROACH
CHART - ICAO**

**MURMANSK, RUSSIA
MURMANSK
NDB Z RWY 31**

TOWER	120.300
RADAR	120.700



OCA(H)	A	B	C	D
Straight-in	960' (700') (215)	960' (700') (215)	960' (700') (215)	960' (700') (215)
Approach				
Circling	960' (700') (215)	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
FAF-MAPt 9870m	min:sec		3:58	3:18	2:50	2:29	2:12	1:59	1:48	1:31
RATE OF DESCENT	m/s		2.2	2.6	3.0	3.5	3.9	4.3	4.8	5.2
RATE OF DESCENT	ft/min		427	512	597	682	768	853	938	1109

CHANGE: Heading