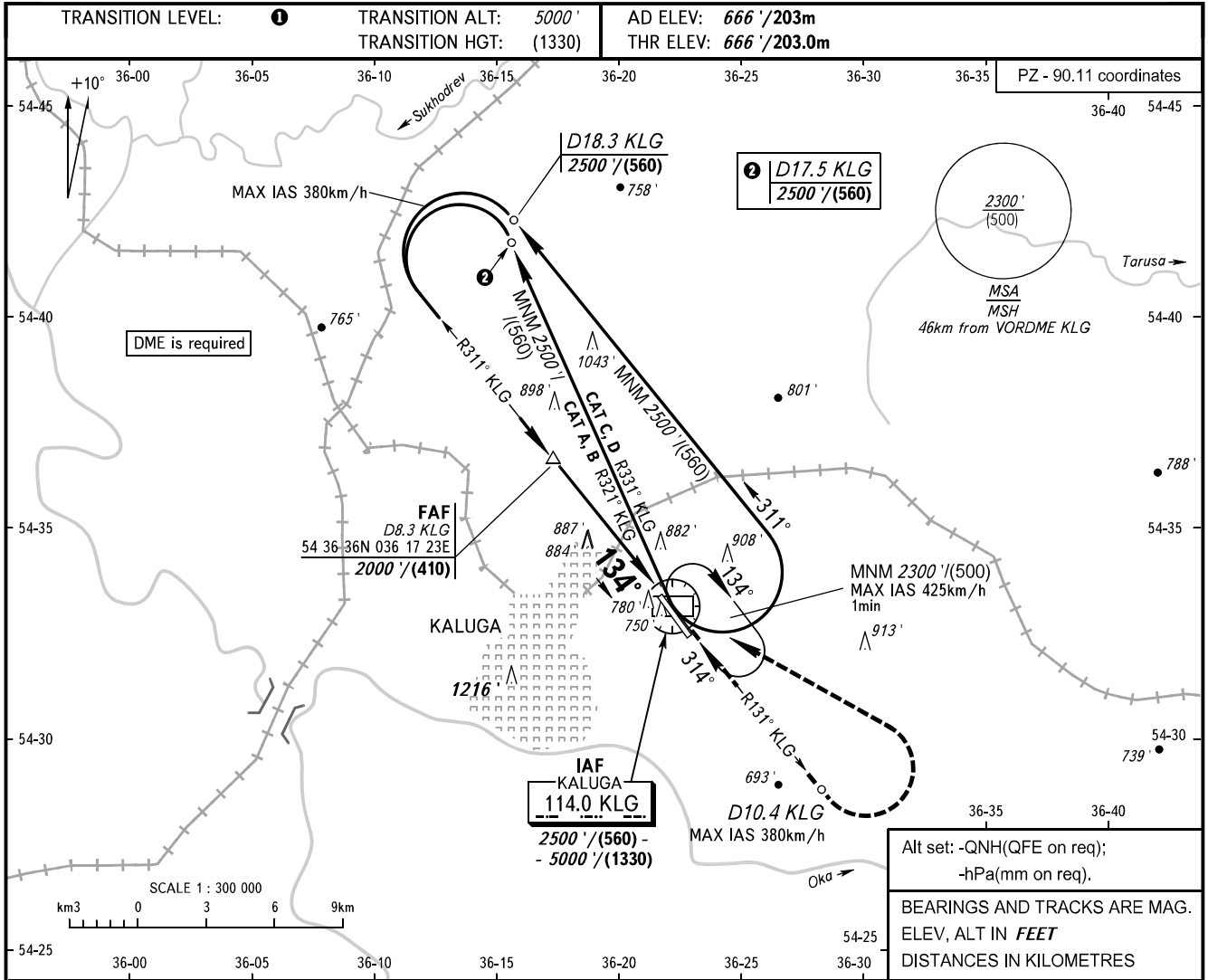


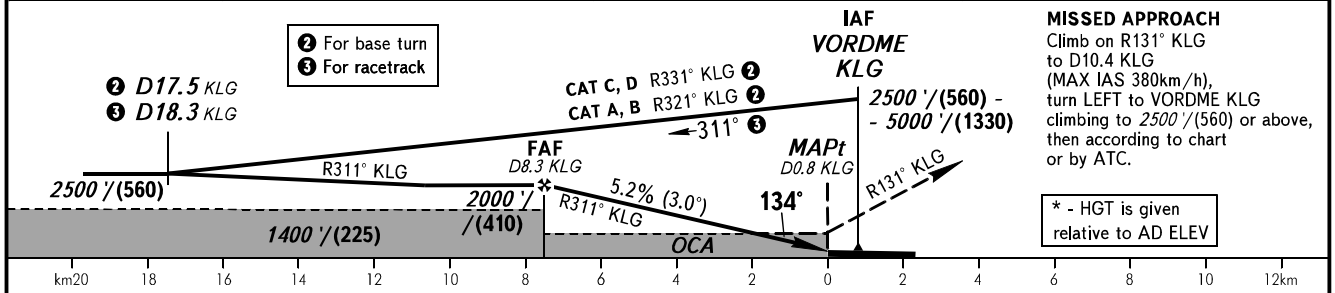
**INSTRUMENT
APPROACH
CHART - ICAO**

KALUGA TOWER 120.300

**KALUGA, RUSSIA
GRABTSEVO
VOR RWY 13**



DME KLG	8.0	6.0	4.0
ALTITUDE	1960' / (395)	1620' / (290)	1280' / (190)



OCA(H)		A	B	C	D
Straight-in Approach		1130' (470') / (145)	1130' (470') / (145)	1130' (470') / (145)	1130' (470') / (145)
	Circling	1180' (520') / (160)*	1210' (550') / (170)*	1310' (650') / (200)*	1360' (700') / (220)*

① TRANSITION LEVEL:
 - FL060 when QNH is 1013 hPa (760mm mercury column) or above;
 - FL070 when QNH is 977 hPa (733mm mercury column) or above, but less than 1013 hPa (760mm mercury column);
 - FL080 when QNH is less than 977 hPa (733mm mercury column).

WARNING:
 1. Visual manoeuvring WEST of AD is PROHIBITED.
 2. Final approach track is offset by 3° from the RWY centre line.
 3. MAPt at D0.8 KLG. Timing not authorized for defining MAPt.

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