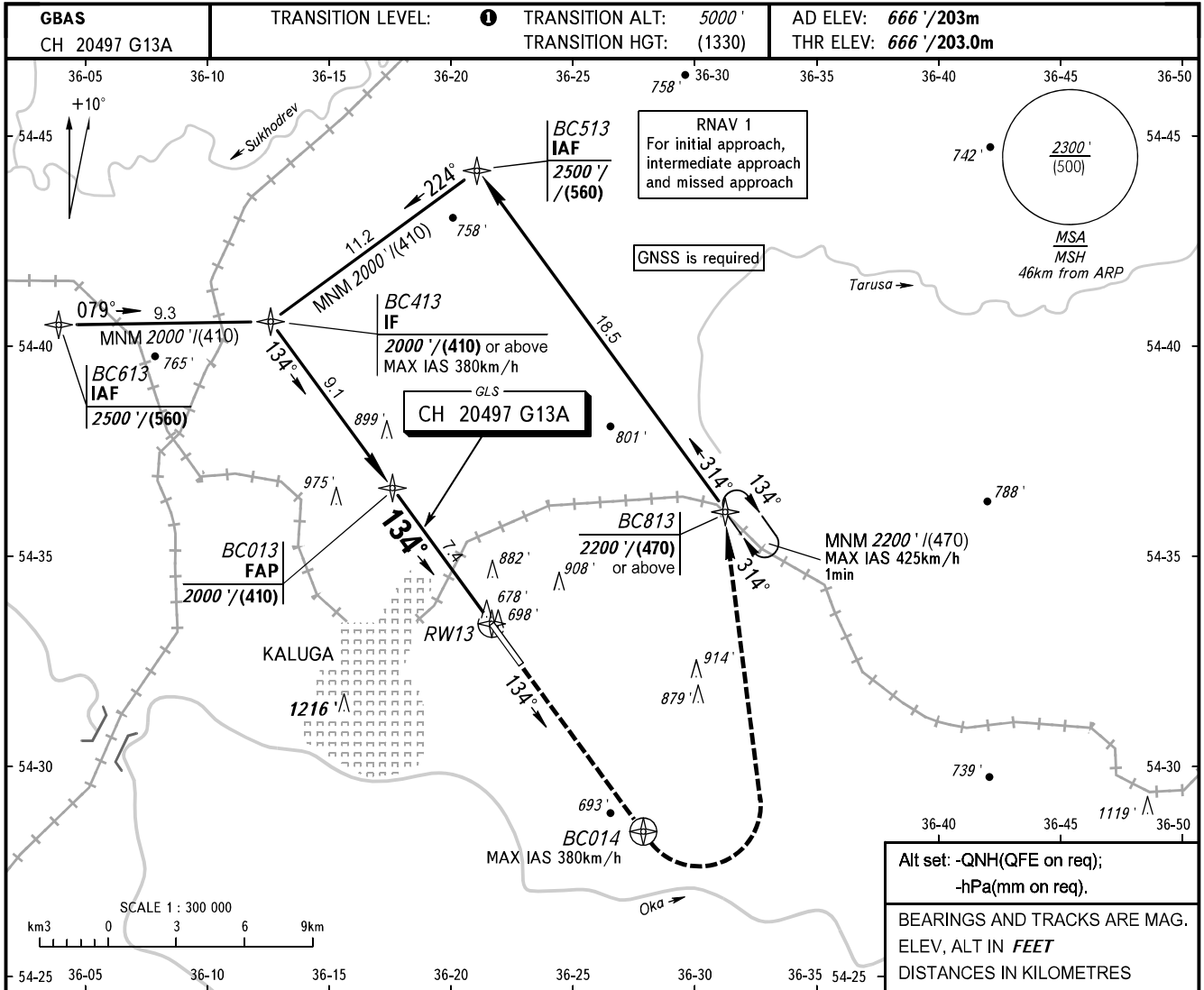


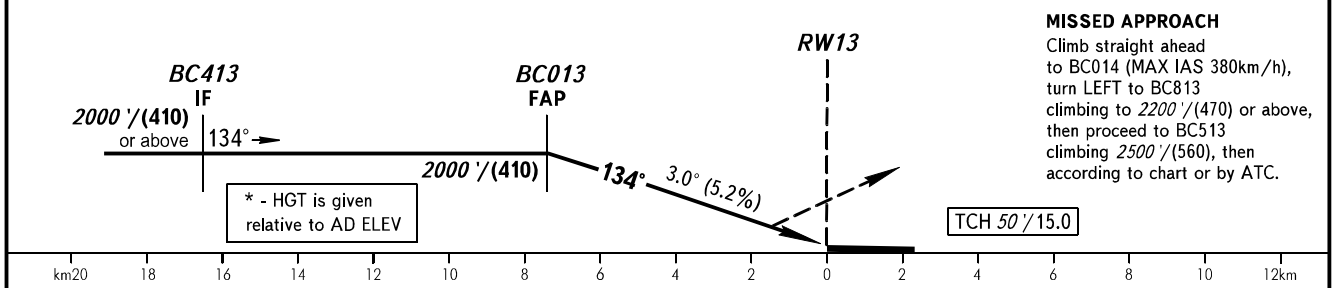
**INSTRUMENT  
APPROACH  
CHART - ICAO**

KALUGA TOWER 120.300

**KALUGA, RUSSIA  
GRABTSEVO  
GLS RWY 13**



DIST to RW13	7.4	7.0	5.0	3.0	2.0
ALTITUDE	2000' / (410)	1935' / (390)	1585' / (280)	1235' / (175)	1065' / (125)



OCA(H)		A	B	C	D						
Straight-in Approach	CAT I	815' (149') / (50)	823' (157') / (50)	833' (167') / (55)	843' (177') / (55)						
Circling		1180' (520') / (160)*	1210' (550') / (170)*	1310' (650') / (200)*	1360' (700') / (220)*						
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

**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**  
 Visual manoeuvring WEST of AD is PROHIBITED.



CHANGE: CAT I, HGT