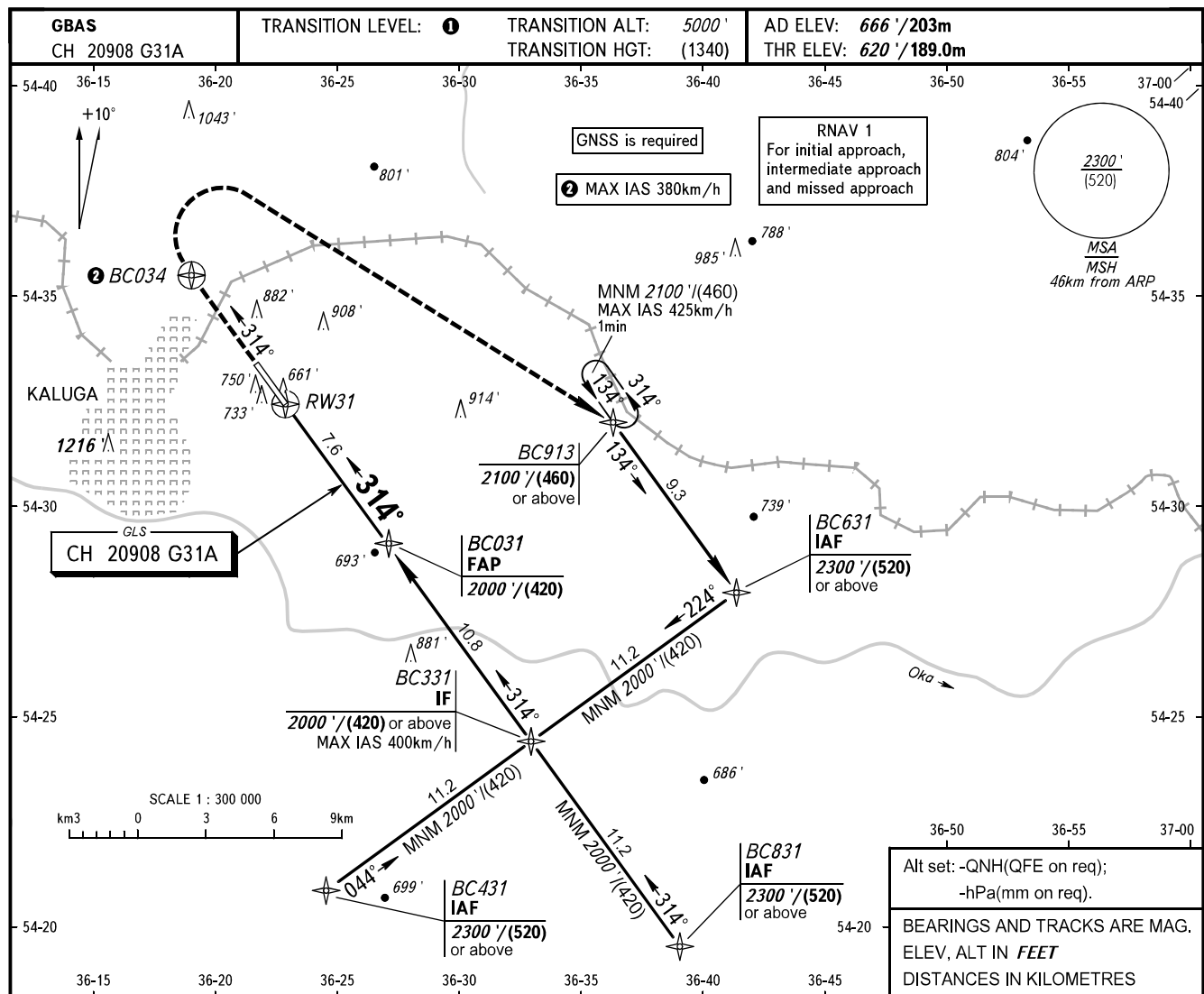


**INSTRUMENT  
APPROACH  
CHART - ICAO**

KALUGA TOWER 120.300

**KALUGA, RUSSIA**  
GRABTSEVO  
GLS RWY 31



DIST to RW31	2.0	3.0	5.0	7.0	7.6
ALTITUDE	1015'/(120)	1190'/(175)	1535'/(280)	1885'/(390)	2000'/(420)

**MISSED APPROACH**  
Climb straight ahead to BC034 (MAX IAS 380km/h), turn RIGHT to BC913 climbing to 2100'/(460) or above, then proceed to BC631 climbing 2300'/(520) or above, then according to chart or by ATC.

**\* - HGT is given relative to AD ELEV**

TCH 51' / 15.7

RW31

BC031 FAP 2000'/(420)

BC331 IF 2000'/(420) or above

3.0° (5.2%)

OCA(H)		A	B	C	D	<b>1</b> 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).  <b>WARNING:</b> Visual manoeuvring WEST of AD is PROHIBITED.					
Straight-in Approach	CAT I	761' (141') / (45)	773' (153') / (50)	783' (163') / (50)	797' (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