

ATC SURVEILLANCE MINIMUM
ALTITUDE CHART - ICAO

MINERALNYE VODY, RUSSIA

MINERALNYE VODY

ELEV
1047 / 319m

TRANSITION ALT: 9000'
TRANSITION HGT: (2430)

WARNING:
1. The chart may only be used for cross-checking of altitudes assigned while the aircraft is identified under radar control.
2. When vectoring is carried out in low-temperature conditions, minimum vectoring altitudes for IFR flight must be corrected by altimeter temperature correction.
3. COMMUNICATION FAILURE: In accordance with procedures described in AIP.
4. SMAA coordinates are on the reverse of this page.

SMAA - Surveillance Minimum Altitude Area

1 SMAA 8
4400'
(1025)

2 URP129
500m / 2000' AGL
GND

3 URR556
FL290
GND

4 D20.0 MNW

5 D25.0 MNW

6 D35.0 MNW

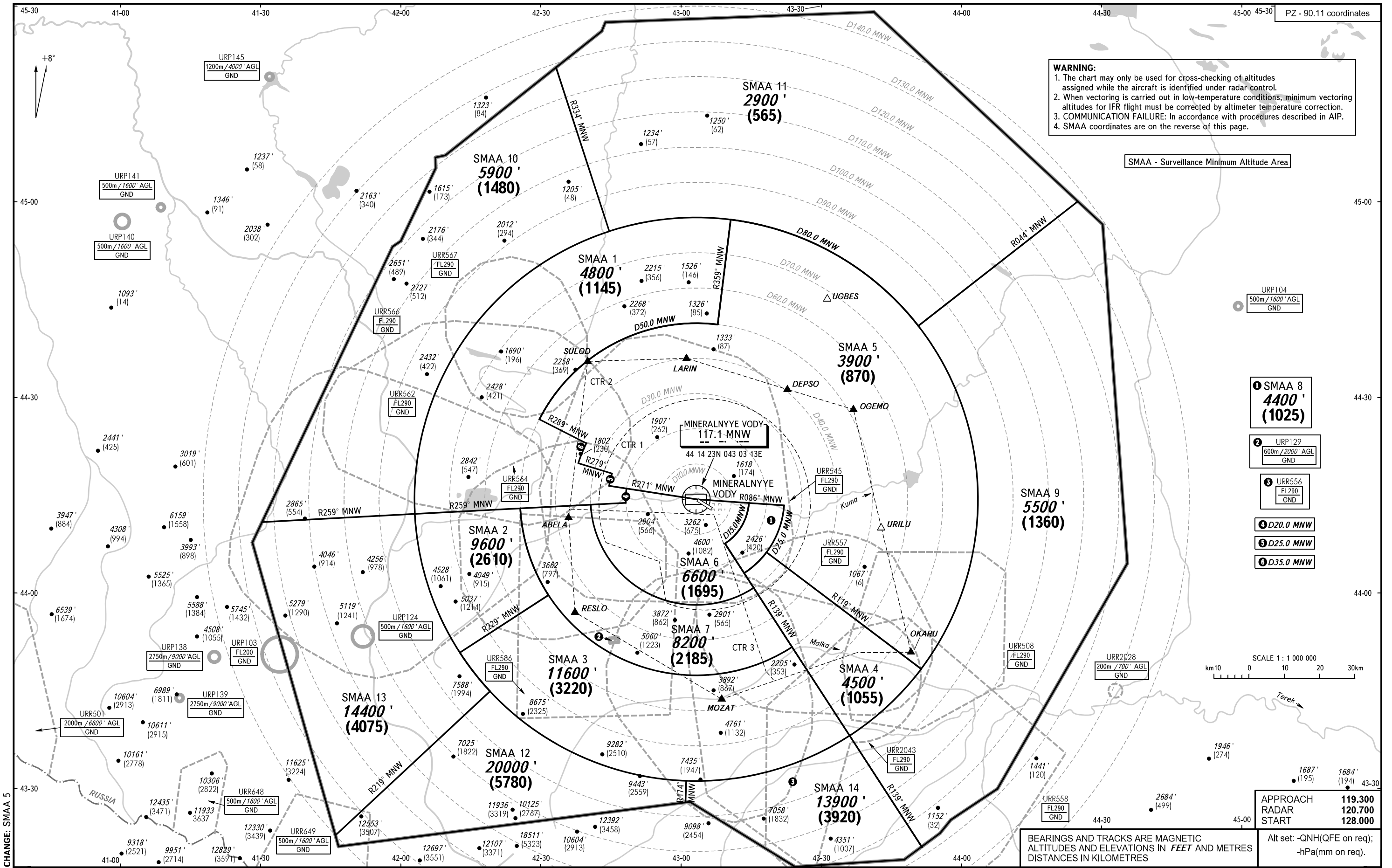
SCALE 1 : 1 000 000
0 10 20 30km

APPROACH 119.300
RADAR 120.700
START 128.000

BEARINGS AND TRACKS ARE MAGNETIC
ALTITUDES AND ELEVATIONS IN FEET AND METRES
DISTANCES IN KILOMETRES

Alt set: -QNH(QFE on req);
-hPa(mm on req).

CHANGE: SMAA 5



MINERALNYYE VODY, RUSSIA

MINERALNYYE VODY

SURVEILLANCE MINIMUM ALTITUDE AREAS		
IDENT	MNM ALT (ft) HGT (m)	LATERAL LIMITS (PZ-90.11 coordinates)
SMAA 1	4800 (1145)	445715N 0431038E – 444110N 0430750E, then anticlockwise by arc of a circle radius of 50 km centred at 441423N 0430313E to 442633N 0422938E – 442255N 0423944E, then anticlockwise by arc of a circle radius of 35 km centred at 441423N 0430313E to 441951N 0423802E – 441818N 0424514E, then anticlockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 441624N 0424438E – 441600N 0424821E, then anticlockwise by arc of a circle radius of 20 km centred at 441423N 0430313E to 441348N 0424813E – 441151N 0420315E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 445715N 0431038E.
SMAA 2	9600 (2610)	441151N 0420315E – 441252N 0422544E, then anticlockwise by arc of a circle radius of 50 km centred at 441423N 0430313E to 435936N 0423151E – 435040N 0421309E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 441151N 0420315E.
SMAA 3	11600 (3220)	435040N 0421309E – 435936N 0423151E, then anticlockwise by arc of a circle radius of 50 km centred at 441423N 0430313E to 435142N 0432332E – 433804N 0433537E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 435040N 0421309E.
SMAA 4	4500 (1055)	433804N 0433537E – 440303N 0431325E, then anticlockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 440614N 0431811E – 434812N 0435052E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 433804N 0433537E.
SMAA 5	3900 (870)	445715N 0431038E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 434812N 0435052E – 440614N 0431811E, then anticlockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 441325N 0432157E – 441423N 0430313E – 441624N 0424438E, then clockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 441818N 0424514E – 441951N 0423802E, then clockwise by arc of a circle radius of 35 km centred at 441423N 0430313E to 442255N 0423944E – 442633N 0422938E, then clockwise by arc of a circle radius of 50 km centred at 441423N 0430313E to 444110N 0430750E – 445715N 0431038E.
SMAA 6	6600 (1695)	441600N 0424821E – 441423N 0430313E – 441348N 0431427E, then clockwise by arc of a circle radius of 15 km centred at 441423N 0430313E to 440735N 0430920E – 440047N 0431526E, then clockwise by arc of a circle radius of 30 km centred at 441423N 0430313E to 441329N 0424043E – 441348N 0424813E, then clockwise by arc of a circle radius of 20 km centred at 441423N 0430313E to 441600N 0424821E.
SMAA 7	8200 (2185)	441252N 0422544E – 441330N 0424043E, then anticlockwise by arc of a circle radius of 30 km centred at 441423N 0430313E to 440047N 0431526E – 435142N 0432332E, then clockwise by arc of a circle radius of 50 km centred at 441423N 0430313E to 441252N 0422544E.
SMAA 8	4400 (1025)	441348N 0431427E – 441325N 0432157E, then clockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 440303N 0431325E – 440735N 0430920E, then anticlockwise by arc of a circle radius of 15 km centred at 441423N 0430313E to 441348N 0431427E.
SMAA 9	5500 (1360)	444049N 0435056E – 445935N 0442538E, then along Mineralnyye Vody CTA boundary to 432053N 0435041E – 433804N 0433537E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 444049N 0435056E.
SMAA 10	5900 (1480)	441151N 0420315E – 441014N 0413043E, then along Mineralnyye Vody CTA boundary to 452033N 0423242E – 445526N 0424426E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 441151N 0420315E.
SMAA 11	2900 (565)	445526N 0424426E – 452033N 0423242E, then along Mineralnyye Vody CTA boundary to 445935N 0442538E – 444049N 0435056E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 445526N 0424426E.

SMAA 12	20000 (5780)	433111N 0430108E – 432754N 0430059E, then along Mineralnyye Vody CTA boundary to 432223N 0414724E – 434447N 0421938E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 433111N 0430108E.
SMAA 13	14400 (4075)	434447N 0421938E – 432223N 0414724E, then along Mineralnyye Vody CTA boundary to 441014N 0413043E – 441151N 0420315E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 434447N 0421938E.
SMAA 14	13900 (3920)	433804N 0433537E – 432053N 0435041E, then along Mineralnyye Vody CTA boundary to 432754N 0430059E – 433111N 0430108E, then anticlockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 433804N 0433537E.