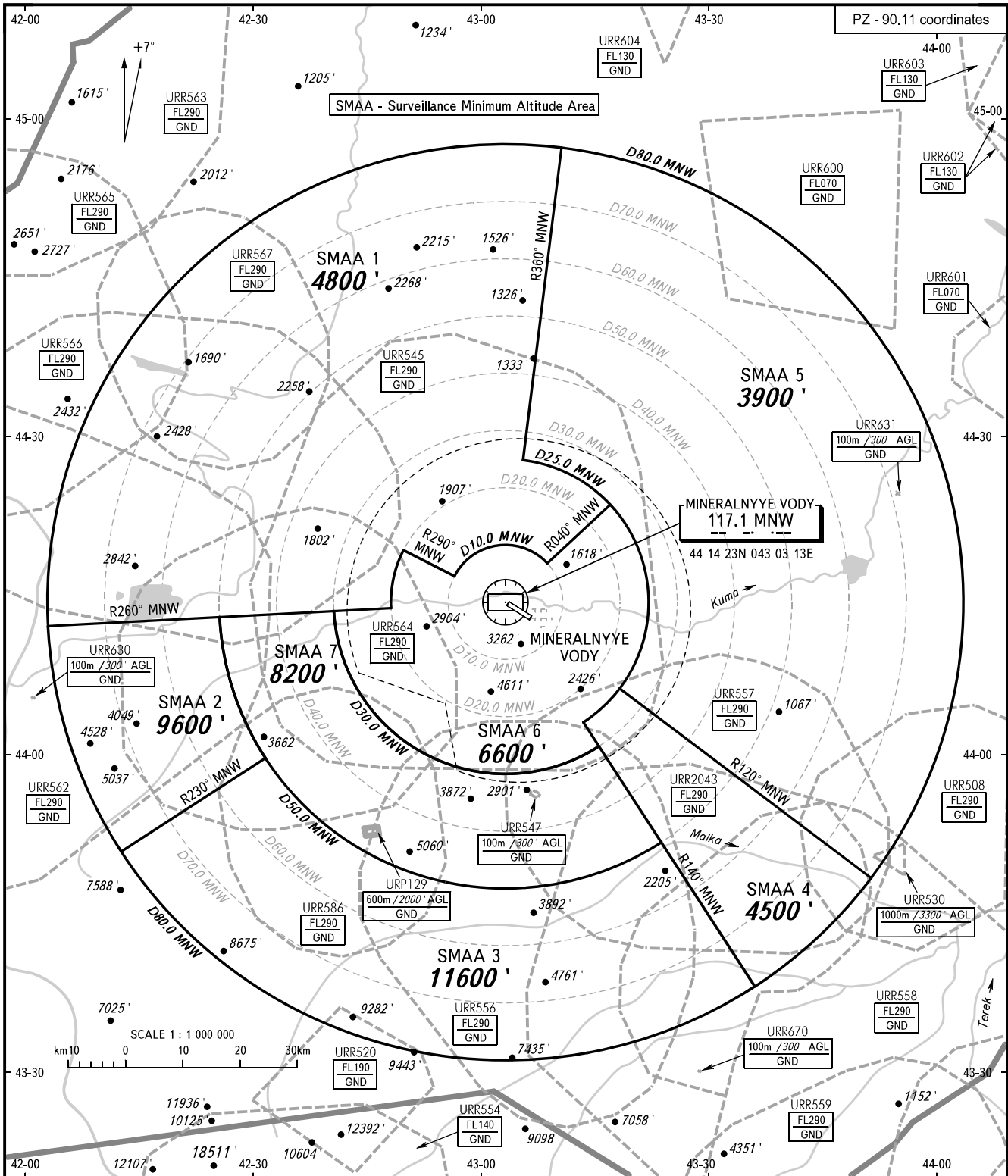


ATC SURVEILLANCE MINIMUM  
ALTITUDE CHART - ICAO

ELEV  
1047'

TRANSITION  
ALTITUDE: 7000'

MINERALNYE VODY, RUSSIA  
MINERALNYE VODY



APPROACH 119.300  
KRUG 120.700  
START 128.000

**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 under low-temperature conditions, minimum vectoring altitudes for IFR flight must be corrected by altimeter temperature correction.
3. COMMUNICATION FAILURE: As in accordance with the procedures described in AIP.
4. The coordinates of SMAA are on the reverse of this page.

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

**MINERALNYYE VODY, RUSSIA****MINERALNYYE VODY**

| <b>SURVEILLANCE MINIMUM ALTITUDE AREAS</b> |                |   |
|--|----------------|---|
| <b>IDENT</b>                               | <b>MNM ALT</b> | <b>LATERAL LIMITS (PZ-90.11 coordinates)</b>  |
| SMAA 1                                     | 4800 ft        | 441151N 0420315E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 445715N 0431038E, 442747N 0430531E, then clockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 442334N 0431659E, 441803N 0430843E, then anticlockwise by arc of a circle radius of 10 km centred at 441423N 0430313E to 441650N 0425631E, 441916N 0424949E, then anticlockwise by arc of a circle radius of 20 km centred at 441423N 0430313E to 441348N 0424813E, 441151N 0420315E. |
| SMAA 2                                     | 9600 ft        | 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 ft       | 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 ft        | 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 ft        | 434812N 0435052E, 440614N 0431811E, then anticlockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 442747N 0430531E, 445715N 0431038E, then clockwise by arc of a circle radius of 80 km centred at 441423N 0430313E to 434812N 0435052E.   |
| SMAA 6                                     | 6600 ft        | 441330N 0424043E, 441348N 0424813E, then clockwise by arc of a circle radius of 20 km centred at 441423N 0430313E to 441916N 0424949E, 441650N 0425613E, then clockwise by arc of a circle radius of 10 km centred at 441423N 0430313E to 441803N 0430843E, 442334N 0431659E, then clockwise by arc of a circle radius of 25 km centred at 441423N 0430313E to 440303N 0431325E, 440047N 0431526E, then clockwise by arc of a circle radius of 30 km centred at 441423N 0430313E to 441330N 0424043E.         |
| SMAA 7                                     | 8200 ft        | 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.   |