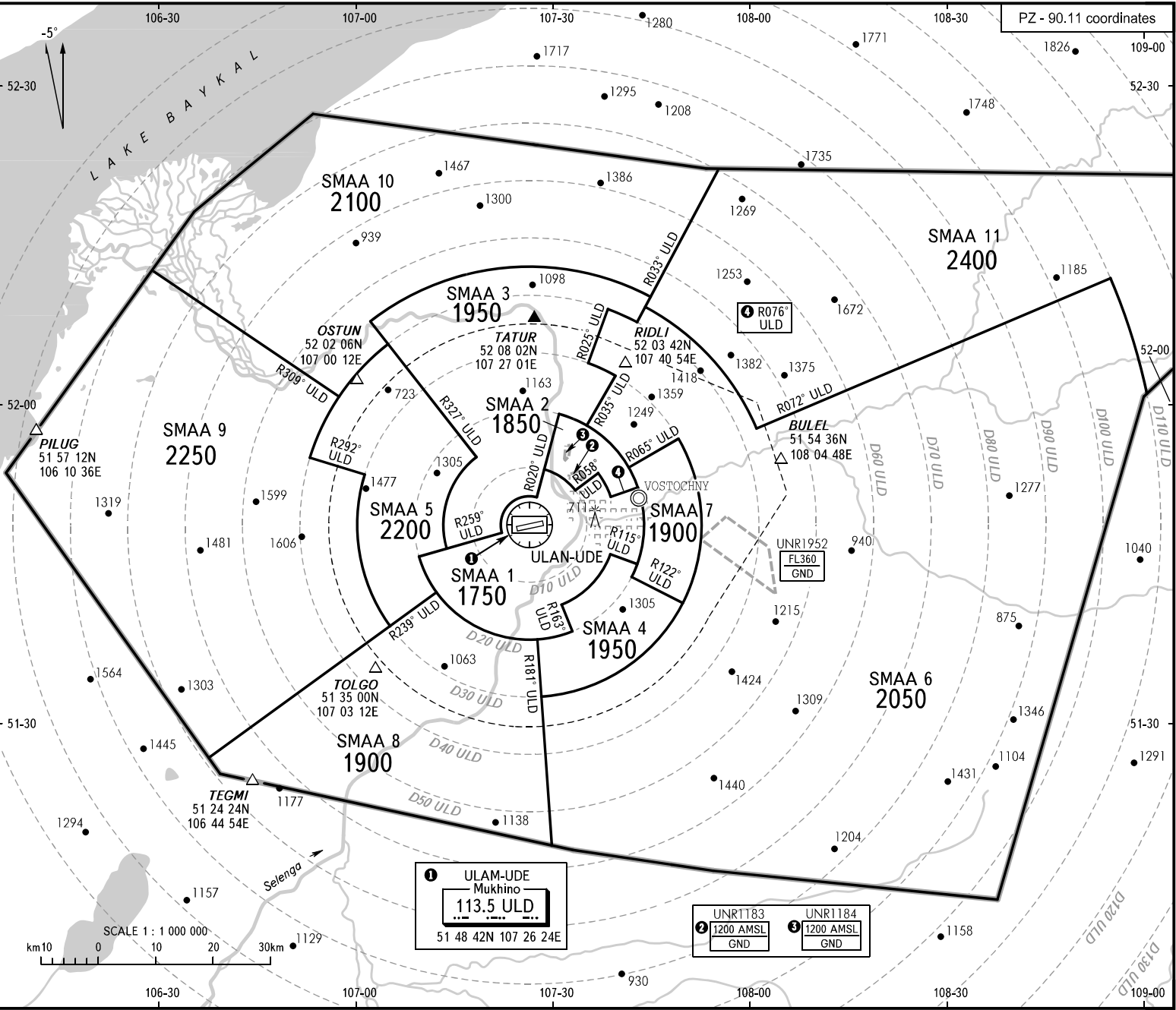


ATC SURVEILLANCE MINIMUM
ALTITUDE CHART - ICAO

ELEV
518m

TRANSITION LEVEL: FL090
TRANSITION HEIGHT: (1800)

ULAN-UDE, RUSSIA
MUKHINO



APPROACH TOWER
129.300
118.100

BEARINGS AND TRACKS ARE MAGNETIC
ALTITUDES, HEIGHTS AND ELEVATIONS ARE IN METRES
DISTANCES ARE IN KILOMETRES

The chart may only be used for cross-checking of altitudes assigned while the aircraft is identified under radar control.

GENERAL INFORMATION:
Surveillance Minimum Altitude Area (SMAA) - is an area where the minimum safe altitude is specified by ATIS unit for IFR flights (for the purpose of vectoring).

COMMUNICATION FAILURE:
As in accordance with the procedures described in AIP. See SMAA coordinates on the reverse of this page.

ULAN-UDE, RUSSIA
MUKHINO

SURVEILLANCE MINIMUM ALTITUDE AREAS		
IDENT	MNM ALT	LATERAL LIMITS (PZ-90.11 coordinates)
UIUU SMAA 1	1750	515119N 1072731E, 515355N 1072838E, then clockwise by arc of a circle radius of 10 km centred at 514842N 1072624E to 515159N 1073318E, 515332N 1073652E, then clockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 515116N 1073847E, 515207N 1074255E, then clockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 514503N 1074246E, 514558N 1073841E, then clockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 514111N 1073111E, 513840N 1073247E, then clockwise by arc of a circle radius 20 km centred at 514842N 1072624E to 514548N 1070939E, 514759N 1072212E, then clockwise by arc of a circle radius of 5 km centred at 514842N 1072624E to 515119N 1072731E.
UIUU SMAA 2	1850	515355N 1072838E, 515908N 1073053E, then clockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 515207N 1074255E, 515116N 1073847E, then anticlockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 515332N 1073652E, 515159N 1073318E, then anticlockwise by arc of a circle radius of 10 km centred at 514842N 1072624E to 515355N 1072838E.
UIUU SMAA 3	1950	514759N 1072212E, 514632N 1071350E, then clockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 515505N 1071822E, 520750N 1070213E, then clockwise by arc of a circle radius of 45 km centred at 514842N 1072624E to 521005N 1074459E, 520742N 1074256E, then anticlockwise by arc of a circle radius of 40 km centred at 514842N 1072624E to 520858N 1073822E, 520354N 1073522E, then clockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 520239N 1073941E, 515800N 1073514E, then anticlockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 515908N 1073053E, 515119N 1072731E, then anticlockwise by arc of a circle radius of 5 km centred at 514842N 1072624E to 514759N 1072212E.
UIUU SMAA 4	1950	514558N 1073841E, 514503N 1074246E, then clockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 514344N 1074150E, 514114N 1074931E, then clockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 513234N 1072819E, 513757N 1072741E, then anticlockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 513840N 1073247E, 514111N 1073111E, then anticlockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 514558N 1073841E.
UIUU SMAA 5	2200	514632N 1071350E, 514548N 1070939E, then anticlockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 514217N 1071226E, 513904N 1070529E, then clockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 515317N 1070121E, 515447N 1065258E, then clockwise by arc of a circle radius of 40 km centred at 514842N 1072624E to 520543N 1070455E, 515505N 1071822E, then anticlockwise by arc of a circle radius of 15 km centred at 514842N 1072624E to 514632N 1071350E.
UIUU SMAA 6	2050	515800N 1073514E, 520239N 1073941E, then anticlockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 520354N 1073522E, 520858N 1073822E, then clockwise by arc of a circle radius of 40 km centred at 514842N 1072624E to 520742N 1074256E, 520908N 1074410E, then clockwise by arc of a circle radius of 43 km centred at 514842N 1072624E to 515748N 1080050E, 521139N 1085500E, then clockwise by arc of a circle radius of 110 km centred at 514842N 1072624E to 520015N 1090027E, then along Ulan-Ude (Mukhino) CTA boundary to 511825N 1072959E, 513234N 1072819E, then anticlockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 515643N 1074906E, 515403N 1074131E, then anticlockwise by arc of a circle radius of 20 km centred at 514842N 1072624E, 515800N 1073514E.
UIUU SMAA 7	1900	515403N 1074131E, 515643N 1074906E, then clockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 514114N 1074931E, 514344N 1074150E, then anticlockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 515403N 1074131E.
UIUU SMAA 8	1900	512623N 1063824E, 514217N 1071226E, then anticlockwise by arc of a circle radius of 20 km centred at 514842N 1072624E to 513757N 1072741E, 511825N 1072959E, then along Ulan-Ude (Mukhino) CTA boundary to 512623N 1063824E.
UIUU SMAA 9	2250	521225N 1062857E, 520046N 1065728E, then anticlockwise by arc of a circle radius of 40 km centred at 514842N 1072624E to 515447N 1065258E, 515317N 1070121E, then anticlockwise by arc of a circle radius of 30 km centred at 514842N 1072624E to 513904N 1070529E, 512623N 1063824E, then along Ulan-Ude (Mukhino) CTA boundary to 521225N 1062857E.
UIUU SMAA 10	2100	520046N 1065728E, 521225N 1062857E, then along Ulan-Ude (Mukhino) CTA boundary to 522159N 1075519E, 521005N 1074459E, then anticlockwise by arc of a circle radius of 45 km centred at 514842N 1072624E to 520750N 1070213E, 520543N 1070455E, then anticlockwise by arc of a circle radius of 40 km centred at 514842N 1072624E to 520046N 1065728E.
UIUU SMAA 11	2400	520908N 1074410E, 522159N 1075519E, then along Ulan-Ude (Mukhino) CTA boundary to 520015N 1090027E, then anticlockwise by arc of a circle radius of 110 km centred at 514842N 1072624E to 521139N 1085500E, 515748N 1080050E, then anticlockwise by arc of a circle radius of 43 km centred at 514842N 1072624E to 520908N 1074410E.