STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

VNUKOVO TOWER	118.300
VNUKOVO RADAR	123.400 135.900
DOMODEDOVO RADAR	119.400 125.300 129.800
SHEREMETYEVO RADAR	118.100 122.700
MOSCOW APPROACH	118.950 118.550 127.200 128.000 130.375 124.200 131.200 127.700

PZ - 90.11 coordinates

❶ PZ - 90.02 coordinates

TRANSITION ALT: 10000'
TRANSITION HGT: (2900)

EMGAS 3A, EMGAS 3B, TOGMO 3A, TOGMO 3B

DME/DME or GNSS is required

RNAV 1

MSAAT/MSHAT is computed for surface air temperature at the aerodrome -29°C.

MINIMUM CLIMB GRADIENT (due to the airspace structure): 5.4% up to 6000'/(1640).
MINIMUM CLIMB GRADIENT (due to obstacles):
EMGAS 3A, TOGMO 3A: 3.6% up to 1200'/(175).
WARNING:
Close-in obstacles:
- RWY 01: to the left and right of take-off heading at DIST 234-1487m from DER with MAX ELEV 665'/(10);
- RWY 06: to the right of take-off heading at DIST 676-708m from DER with MAX ELEV 746'/(40).

❷ WW017
MAX IAS 380km/h/205KT

❸ WW018
2500'/(575) or above
IAS 405km/h/220KT

❹ EMGAS 3A, TOGMO 3A
❺ EMGAS 3B, TOGMO 3B

HGT is given relative to RWY 06 THR ELEV 629'/192m.

If unable to comply with published restrictions, advise Vnukovo-Delivery.

WW063
MAX IAS 405km/h/220KT

WW019
3500'/(880) or above
IAS 445km/h/240KT

WW014
6000'/(1640) or above
IAS 445km/h/240KT

REMLI
8000'/(2250) or below
IAS 465km/h/250KT

SOMAG
9000'/(2555)
IAS 465km/h/250KT

SURZA
FL110-FL130
IAS 500km/h/270KT

OFIRA
FL130-FL150
IAS 500km/h/270KT

RIREN
FL150 or above
IAS 500km/h/270KT

LAZIT
FL170-FL210
IAS 500km/h/270KT

POZUK
FL150-FL190
IAS 500km/h/270KT

OMEZA
FL210 or below
IAS 500km/h/270KT

VNUKOVO 113.7 WNK — 55 35 18N 037 15 15E
CHULKOVO 109.2 LP — ❶ 55 33 10N 038 02 08E
DOMODEDOVO 113.3 DMD — 55 23 18N 037 54 42E
GLOTAYEVO 113.5 GLW — 55 09 46N 037 47 55E
MARYINO 112.5 MRN — 55 42 41N 038 13 42E
VENEV 108.6 WW — 54 20 46N 038 14 19E

MSAAT/MSHAT 46km from ARP

SCALE 1 : 500 000

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

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

MOSCOW, RUSSIA
VNUKOVO
RNAV RWY 01, 06