

SERIES 1501 AIR
SHEET NN 37-5
EDITION 2

POPULATED PLACES
Over 100,000
50,000 to 100,000
10,000 to 50,000
2,000 to 10,000
Less than 2,000

MOSKVA KLIMOVSK
Obukhova
Kubinka
Dubny

ROADS
Dual highway
All weather, hard surface
Two or more lanes wide
One lane wide
All weather, loose or light surface
Two or more lanes wide
One lane wide
Fair or dry weather, loose surface
Cart track
Footpath, trail
Route marker International
National Secondary

RAILROADS
Normal gauge, single track 1.52m(5'7"); Double track
Narrow gauge
Electric, single track; Double track

BOUNDARIES
International
First-order administrative division

OTHER FEATURES
Area name
Mine or quarry
Tank
Landmark Feature
Fence
Well
Perennial, intermittent, Spring
Single line perennial stream
Single line intermittent stream
Perennial lake; Definite Shoreline
Marsh or swamp
Cliff: Greater than interval, Less than interval
Horizontal control point
Dam

VEGETATION
Trees
TERRAIN ELEVATIONS
Spot elevation: Normal, Critical
Highest known elevation is 863 feet at the following coordinates:
Geographic: 54°31'N, 38°03'E
Grid: DA3843

AERODROMES (Military or Civil)
Runway pattern known
EDNA Name
50-Length of longest runway in nearest hundreds of feet
s-Soft or unimproved surface
Z26-Elevation
Runway pattern unknown
HELIPORT/HELIPAD

RADIO FACILITIES
VHF OMNI RANGE (VOR)
VORTAC
TACAN
VOR with DME

VISUAL AIDS AND OBSTRUCTIONS
Obstruction
Elevation of obstruction top, above sea level
Elevation of obstruction top, above ground level
Group obstruction
Radio facility obstruction
Power transmission line
Visual ground sign
Aero light; Marine light

CAUTION
Vertical obstructions, including powerlines, have been extracted from the most reliable source available. However, there is no assurance that all are shown, or that their locations or heights are exact.

CAUTION
AIR INFORMATION CURRENT THROUGH
28 JANUARY 2000
Consult NOTAMS and Flight Information Publications for the latest air information; the NIMA Aeronautical Chart Updating Manual or MOD (U.K.) Aeronautical Chart Amendment document, for other chart revision information.

LINE OF EQUIVAL MAGNETIC VARIATION FOR 2000
(Annual rate of change 3" increase)

ATTENTION
THIS CHART CONTAINS
MAXIMUM ELEVATION FIGURES (MEF)
The Maximum Elevation Figures shown in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The MEF is based on information available concerning the highest known feature in each quadrangle, including terrain and obstructions (trees, towers, antennas, etc.).
EXAMPLE: 12,500 feet

LOCATION DIAGRAM
(WAC INDEX SHOWN IN BLUE)
(WAC INDEX SHOWN IN RED OR BROWN)

NO 36-12	NO 37-10	NO 37-11	NO 37-12	NO 38-10
NV 36-3	NV 37-1	NN 37-2	NN 37-3	NN 38-1
NV 36-6	NV 37-4	NN 37-5	NN 37-6	NN 38-4
NV 36-9	NV 37-7	NN 37-8	NN 37-9	NN 38-7
NV 36-12	NV 37-10	NN 37-11	NN 37-12	NN 38-10

Prepared and published by the National Imagery and Mapping Agency
MAP INFORMATION AS OF 1998

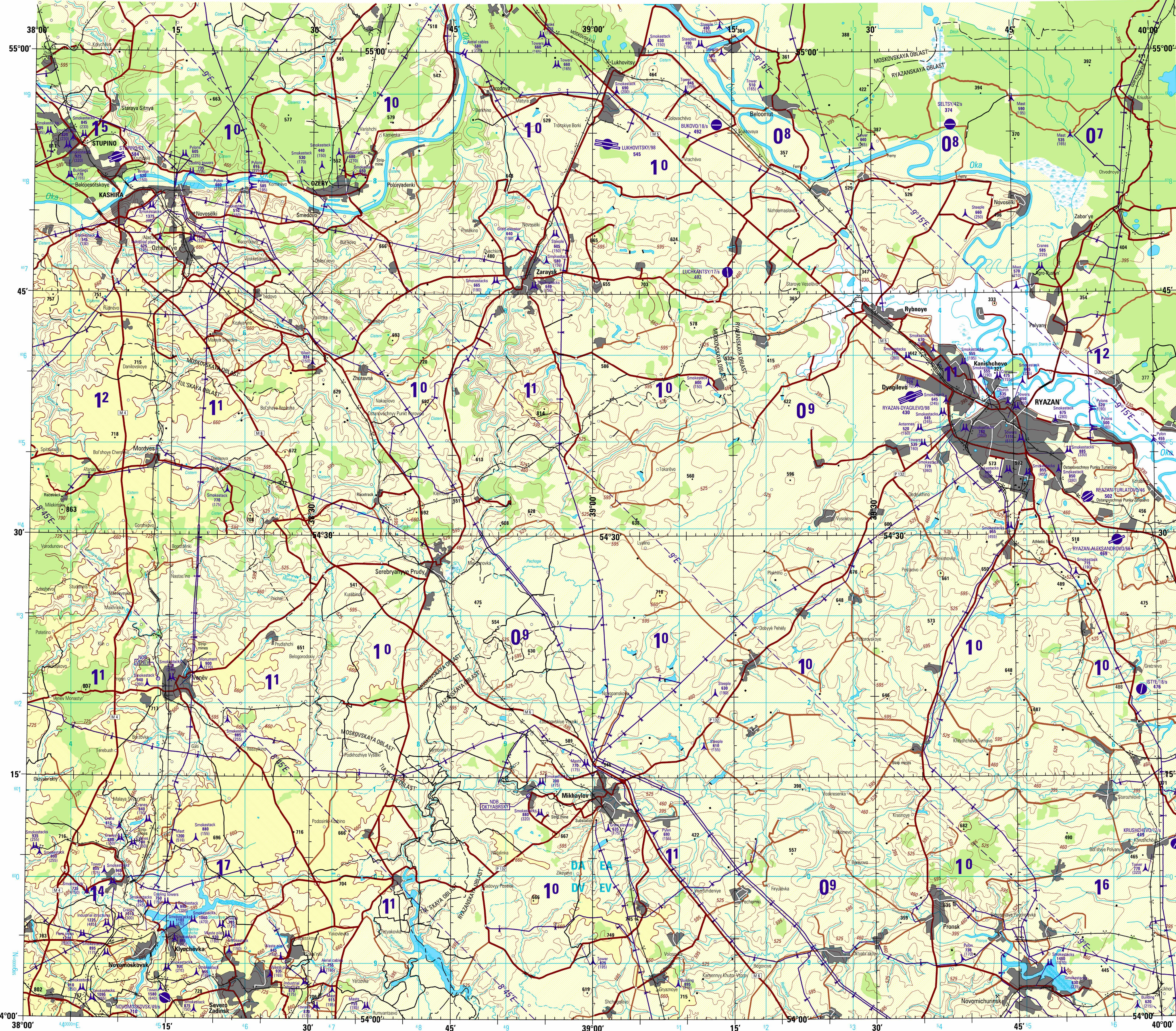
CONVERSION OF ELEVATIONS

FEET	METERS	FEET	METERS
800	274	10000	3048
900	244	9000	2743
700	213	8000	2438
600	183	7000	2134
500	152	6000	1829
400	122	5000	1524
300	91	4000	1219
200	61	3000	914
100	31	2000	610
50	15	1500	457
0	0	1000	305

SCALE 1:250,000
RYAZAN', RUSSIA

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SERIES 1501 COMPANION SHEET IS EDITION 2



COORDINATE CONVERSION WS 84 TO EGSO
Grid: Add 21m E, Add 182m N
Geographic: Add 1.2" Long, Add 1.7" Lat.

COORDINATE CONVERSION WS 84 TO WGS 72
Grid: Subtract 10m E, Subtract 4m N
Geographic: Subtract 0.8" Long, Subtract 0.7" Lat.

EXAMPLE 10,000 METER GRID SQUARE

EXAMPLE 1,000 METER REFERENCE

1. Read letters identifying the 100,000 meter square in which the point lies: AB

2. Read large number labeling the VERTICAL grid line left of point: 2

3. Read large number labeling the HORIZONTAL grid line below point: 3

Estimate tenths (1,000 meters) from grid line to point: .4

Example: AB1234

GRID ZONE DESIGNATION
37U

WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA IN WHICH THE POINT LIES, PREFIX THE GRID ZONE DESIGNATION.
Example: 37UAB1234

JOINT OPERATIONS GRAPHIC (AIR)

CONTOUR INTERVAL APPROXIMATELY 70 FEET

BLUE NUMBERED LINES INDICATE THE 10,000 METER UNIVERSAL TRANSVERSE MERCATOR GRID, ZONE 31, WORLD GEODETIC SYSTEM 1984 ELLIPSOID.

5 10 15 20 25 30 Statute Miles
5 10 15 20 25 30 Nautical Miles

USERS SHOULD REFER CORRECTIONS, ADDITIONS, AND COMMENTS TO THE NIMA CUSTOMER HELP DESK: 1-800-455-0899; COMMERCIAL 314-260-5032; OSN 490-6032; OR WRITE TO: DIRECTOR, NATIONAL IMAGERY AND MAPPING AGENCY, ATTN: CDD, MAIL STOP P-31, 4800 SAIGON ROAD, BETHESDA, MD 20816-5003

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GLOSSARY

Kanal canal
Kanava irrigation ditch
Oblast first-order administrative division
Datsunovoychyy Punkt railroad stop
Ozero lake
Sovkhoz farm
Stantsiya railroad station
Vodokhranilishche reservoirs

GEOREF
BASIC 15 QUADRANGLE
OK

RELIABILITY OF THIS GRAPHIC
(as determined by standard practice)

	I	II
PLOTTING ACCURACY	90% ASSURANCE	
Horizontal	within 425 ft.	within 425 ft.
Contours	within 70 ft.	within 70 ft.
GRAPHIC FEATURE	AREA I	AREA II
Date of information	1998	1995

Horizontal Datum: World Geodetic System 1984
Vertical Datum: Mean Sea Level
Transverse Mercator Projection

NOTES
Powerlines are shown except within populated place limits. Other obstructions are shown if they are 150 feet or more above ground level. See caution note.
On this graphic a line is generally considered as being 8 feet (2.5 meters) in width.
In built-up areas only through routes are classified.
Road classification should be referred to with caution.
Caution: Not all telephone and electric service lines are shown.
Boundary representation is not necessarily authoritative.
Depiction of international boundaries has changed since the last edition.

Reprinted by NIMA 07-00

NSN 7641014680132
NIMA Ref No. 1501ANN3705

ED. NO 002