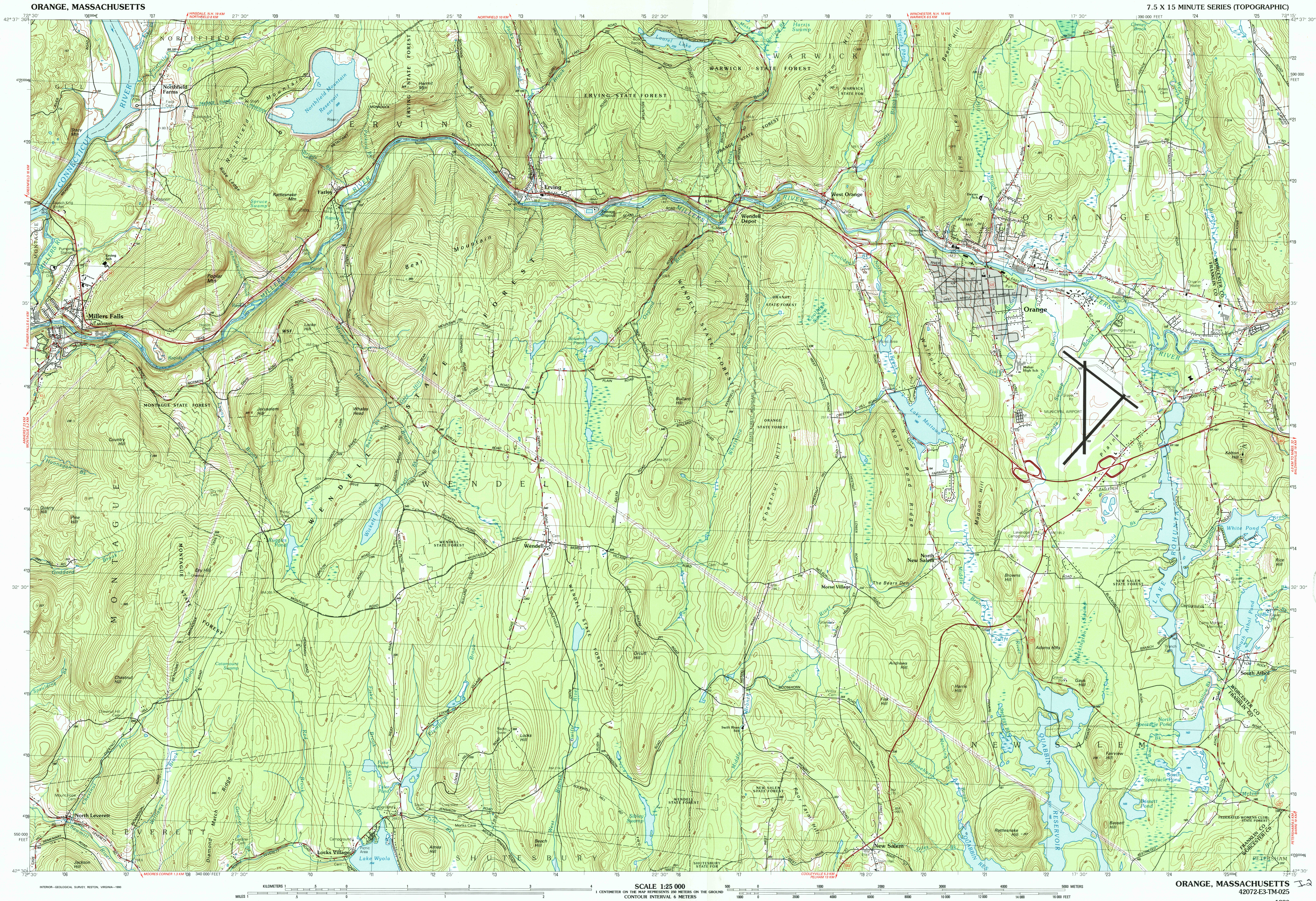




Orange

MASSACHUSETTS

1:25 000-scale metric topographic map

7.5 X 15 MINUTE QUADRANGLE SHOWING

- Contours and elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names

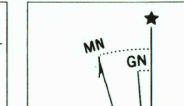
GEOLOGICAL SURVEY

1990

Produced by the United States Geological Survey
Control by USGS, NOS/NOAA, and Commonwealth of Massachusetts agencies
Compiled by photogrammetric methods from aerial photographs taken 1991. Field checked 1984. Map edited 1990
Supersedes Orange and Millers Falls
1:25,000-scale maps dated 1977
Projection and 1000-meter grid, zone 18
Universal Transverse Mercator
10,000-foot grid ticks based on Massachusetts coordinate system, mainland zone. 1927 North American Datum
To place on the predicted North American Datum 1983, move the projection lines 5 meters south and 38 meters west as shown by dashed corner ticks
There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 6 METERS
NATIONAL GEODETIC VERTICAL DATUM of 1929
CONTROL ELEVATIONS SHOWN TO THE NEAREST 0.1 METER
OTHER ELEVATIONS SHOWN TO THE NEAREST METER

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

CONVERSION TABLE		DECLINATION DIAGRAM	ADJOINING MAPS			
Meters	Feet		1	2	3	
1	3.2808					
2	6.5617					
3	9.8425					
4	13.1232					
5	16.4040					
6	19.6850					
7	22.9659					
8	26.2467					
9	29.5276					
10	32.8084					
To convert meters to feet multiply by 3.2808		UTM grid convergence (GN) and 1990 magnetic declination (MN) at center of map Diagram is approximate	1	2	3	
To convert feet to meters multiply by 0.3048			4	5	6	
			7	8		

1	Barnardston
2	Northfield
3	Winchendon
4	Greenfield
5	Williamstown
6	Athol
7	Shutesbury
8	Barre

UNIVERSITY MICROFILMS
JUN 30 1993
REC'D FILE COPY

ISBN 0-607-23488-1
9 780607 234886

Topographic Map Symbols

Primary highway, hard surface	
Secondary highway, hard surface	
Light-duty road, hard or improved surface	
Unimproved road; trail	
Road marker: intersection, U.S. State	
Railroad: standard gauge; narrow gauge	
Bridge; drawbridge	
Forbridge; overpass; underpass	
Build-up area; only selected landmark buildings shown	
House; barn; church; school; large structure	
Boundary:	
National, with monument	
State	
County; parish	
Civil township, precinct, district	
Incorporated city, village, town	
National or State reservation; small park	
Land grant with monument; found section corner	
U.S. public lands survey: range, township; section	
Range, township; section line: location approximate	
Fence or field line	
Power transmission line, located tower	
Dam; dam with lock	
Cemetery; grave	
Campground; picnic area; U.S. location monument	
Wellhead; water well; spring	
Mine shaft; prospect; adit or cave	
Control: horizontal station; vertical station; spot elevation	
Contours: index; intermediate; supplementary; depression	
Distorted surface: strip mine, line, and	
Sounding; depth curve	
Perennial lake and stream; intermittent lake and stream	
River, large and small; falls, large and small	
Sandy marsh	
Submerged marsh; land subject to controlled inundation	
Woodland; scattered trees	
Scrub; mangrove	
Orchard; vineyard	

A pamphlet describing topographic maps is available on request

FOR SALE BY U.S. GEOLOGICAL SURVEY
P.O. BOX 25286, DENVER, COLORADO 80225