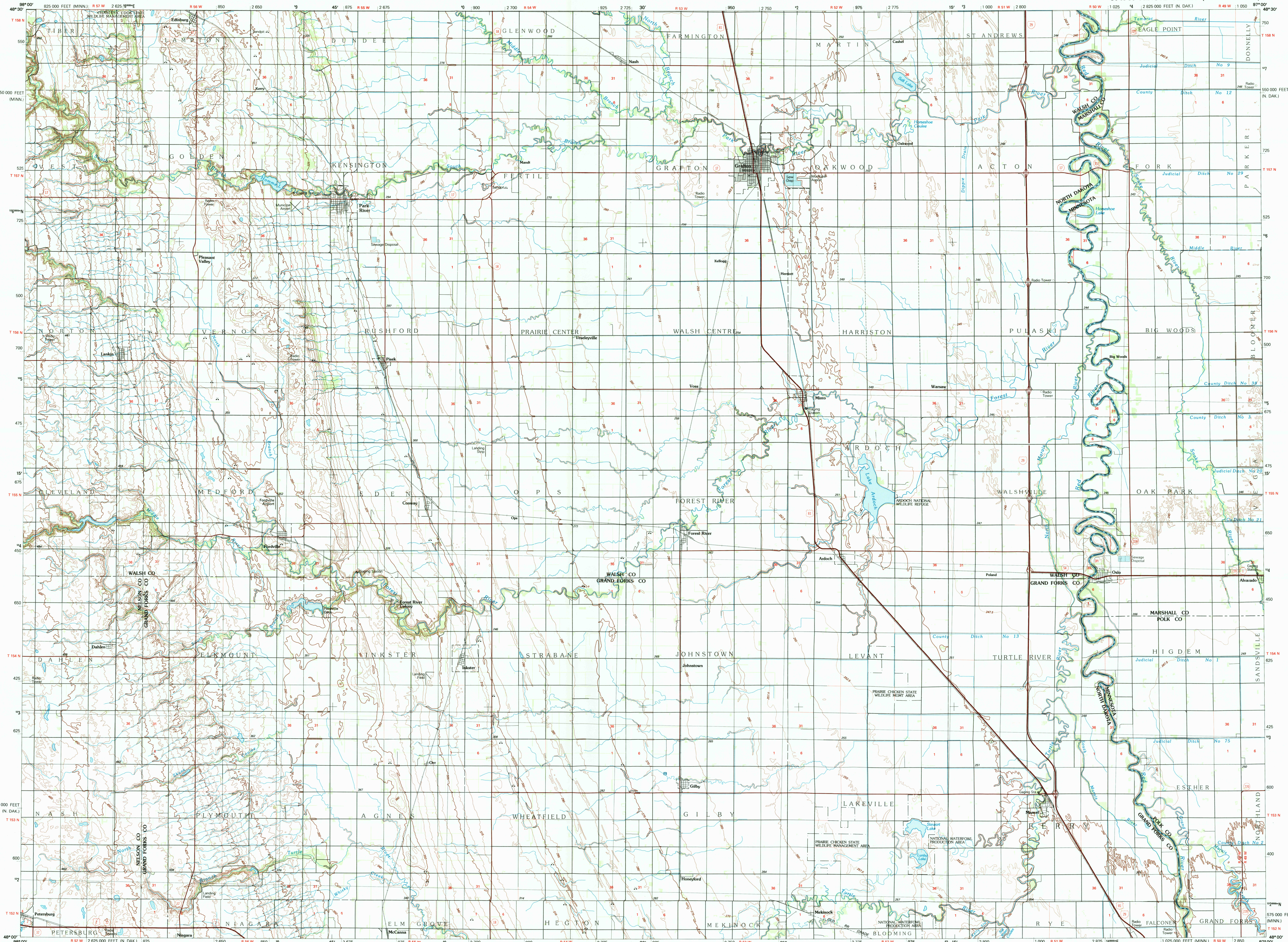


GRAFTON, NORTH DAKOTA-MINNESOTA

30 X 60 MINUTE SERIES (TOPOGRAPHIC)



• INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1993

KILOMETERS 1 0 1 2 3 4 5 6 7 8 9 10 11 12
MILES 1 0 1 2 3 4 5 6 7 8

SCALE 1:100 000
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 5 METERS
SUPPLEMENTARY CONTOUR INTERVAL 2.5 METERS

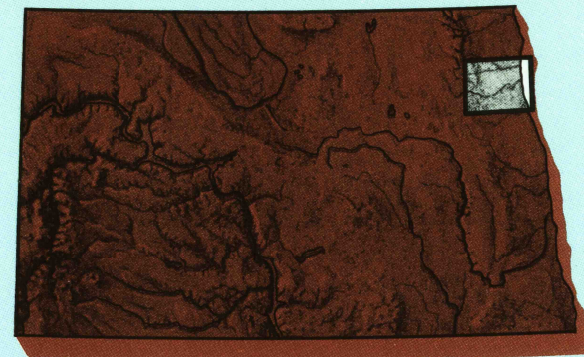
GRAFTON, NORTH DAKOTA-MINNESOTA
48097-A1-TM-100

1985
PHOTOINSPECTED 1990

Grafton

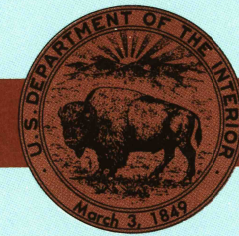
NORTH DAKOTA-MINNESOTA

1:100 000-scale metric
topographic map



30 X 60 MINUTE QUADRANGLE
SHOWING

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



U. S. GEOLOGICAL SURVEY

1985
PHOTOINSPECTED 1990

Produced by the United States Geological Survey

Compiled from USGS 1:24 000-scale topographic maps dated 1960-1979. Planimetry revised from aerial photographs taken 1981 and other source data. Revised information not field checked. Map edited 1985.

Projection and 10 000-meter grid, zone 14, Universal Transverse Mercator.

25 000-foot grid ticks based on North Dakota coordinate system, north zone and Minnesota coordinate system, north zone 1927 North American Datum.

To place on the predicted North American Datum 1983, move the projection lines 4 meters north and 25 meters east.

There may be private inholdings within the boundaries of the National or State reservations shown on this map.

Map photoinspected using 1990 photographs.

No major culture or drainage changes found.

CONTOUR INTERVAL 5 METERS

SUPPLEMENTARY CONTOUR INTERVAL 2.5 METERS

NATIONAL GEODETIC VERTICAL DATUM OF 1929

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			4		5
2	6.5617					
3	9.8425					
4	13.1234					
5	16.4042					
6	19.6850					
7	22.9658					
8	26.2467					
9	29.5275					
10	32.8084					
To convert meters to feet multiply by 3.2808		UTM grid convergence (GN) and 1983 magnetic declination (MN) at center of map. Diagram is approximate.		6	7	8
To convert feet to meters multiply by 0.3048						

- Langdon
- Cavalier
- Hollock
- Devils Lake
- Thief River Falls
- Stump Lake
- Grand Forks
- Crookston

FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

Topographic Map Symbols

Primary highway, hard surface	-----
Secondary highway, hard surface	-----
Light duty road, principal street, hard or improved surface	-----
Other road or street; trail	-----
Route marker: Interstate, U.S.; State	-----
Railroad: standard gage; narrow gage	-----
Bridge: overpass; underpass	-----
Tunnel: road; railway	-----
Built up area: locality; elevation	-----
Airport; landing field; landing strip	-----
National boundary	-----
State boundary	-----
County boundary	-----
Civil township boundary	-----
National or State reservation boundary	-----
Land grant boundary	-----
U.S. public lands survey: range, township; section	-----
Range, township; section line: protected	-----
Power transmission line: pipeline	-----
Dam; dam with lock	-----
Cemetery: building	-----
Windmill; water well; spring	-----
Mine shaft; adit or cave; mine, quarry; gravel pit	-----
Campground; picnic area; U.S. location monument	-----
Ruins; cliff dwelling	-----
Distorted surface: strip mine, lava, sand	-----
Contours: index; intermediate; supplementary	-----
Bathymetric contours: index; intermediate	-----
Stream, lake: perennial; intermittent	-----
Rapids, large and small; falls, large and small	-----
Area to be submerged: marsh, swamp	-----
Land subject to controlled inundation; woodland	-----
Scrub; mangrove	-----
Orchard; vineyard	-----

A pamphlet describing topographic maps is available on request

USGS Library
Reston, VA.
Topo Archive