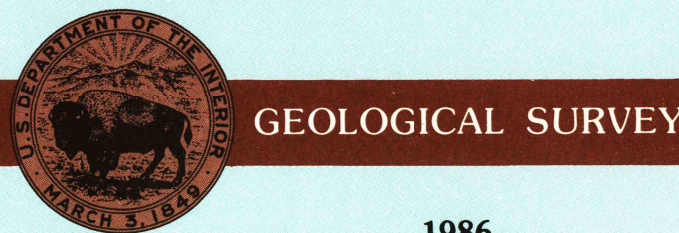




30 X 60 MINUTE QUADRANGLE
SHOWING

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



Produced by the United States Geological Survey

Compiled from USGS 1:24 000-scale topographic maps dated 1962-1980. Planimetry revised from aerial photographs taken 1983 and other source data. Revised information not field checked. Map edited 1986.

Projection and 10 000-meter grid, zone 14 Universal Transverse Mercator. 25 000-foot grid ticks based on Iowa coordinate system, north zone. South Dakota coordinate system south zone, and Nebraska coordinate system, north zone 1927 North American Datum. To place on the predicted North American Datum 1983 move the projection lines 6 meters north and 26 meters east. There may be private inholdings within the boundaries of the National or State reservations shown on this map.

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	★ N M		1	2	3	
1	3.2808		142' 107 MILS	4	5		
2	6.5617						
3	9.8425						
4	13.1234						
5	16.4042						
6	19.6850						
7	22.9659						
8	26.2467						
9	29.5275						
10	32.8084						
To convert meters to feet multiply by 3.2808		UTM grid convergence (G) and 1986 magnetic declination (M) at center of map. Diagram is approximate.		1 Freeman 2 Rock Rapids 3 Iowa Great Lakes 4 Vankaton 5 Storm Lake 6 Norfolk 7 Sioux City South 8 Ida Grove			
To convert feet to meters multiply by 0.3048							

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

USGS NHD HISTORICAL MAP
APR 23 1986
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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 gauge, narrow gauge
- Bridge: overpass, underpass
- Tunnel: road, railroad
- Built up area: locality, elevation
- Airport: landing field, landing strip
- National boundary
- State boundary
- County boundary
- National or State reservation boundary
- Land grant boundary
- U. S. public lands survey: range, township, section
- Range, township, section line: protracted
- Power transmission line: pipeline
- Dam; dam with lock
- Cemetery: burial
- Windmill; water well; spring
- Mine shaft; adit or cave; mine, quarry; gravel pit
- Campground; picnic area; U. S. location monument
- Ruin; cliff dwelling
- Distorted surface: strip mine, levee, 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
- Soil: meadow
- Orchard; vineyard

A pamphlet describing topographic maps is available on request

