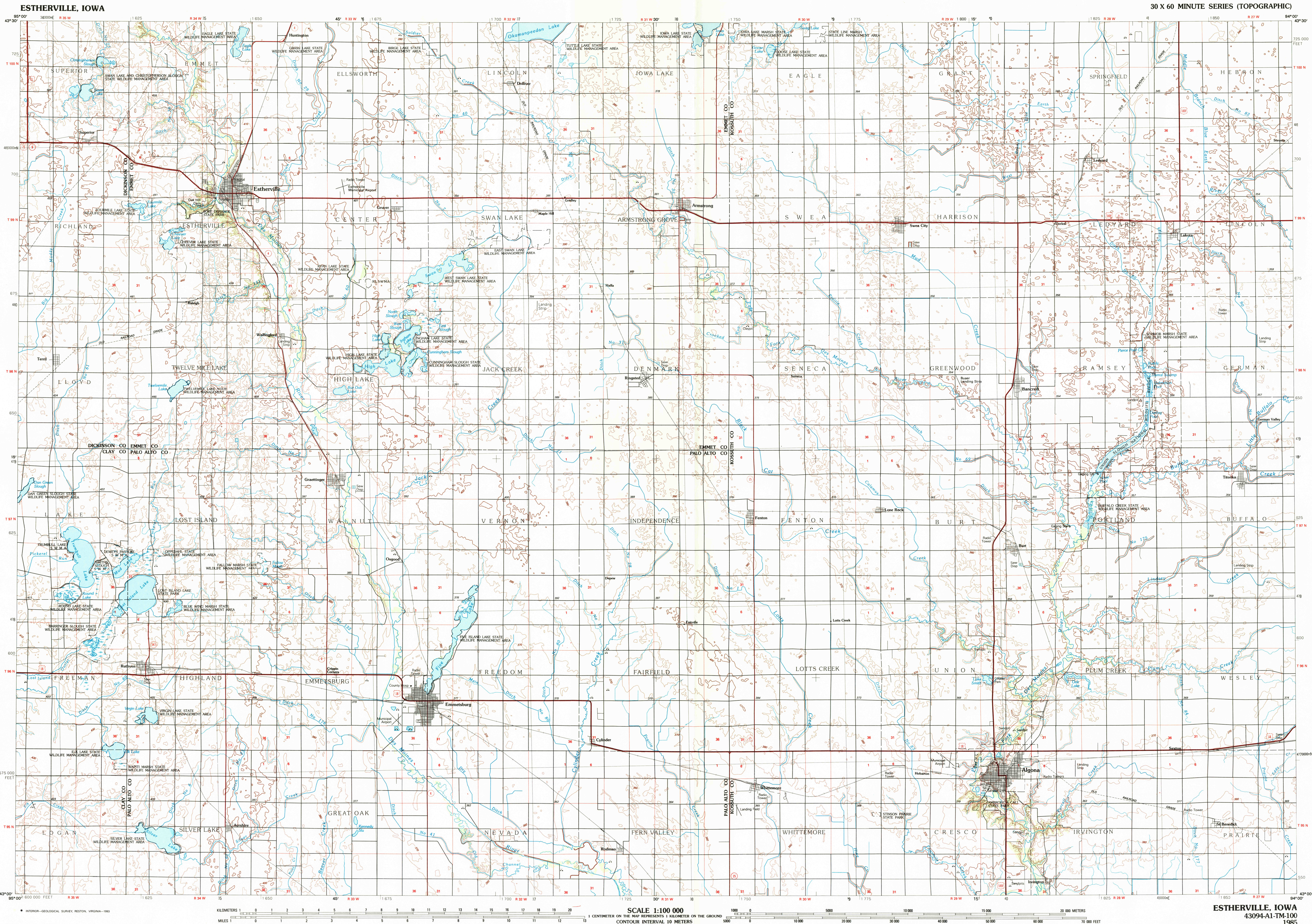




Estherville

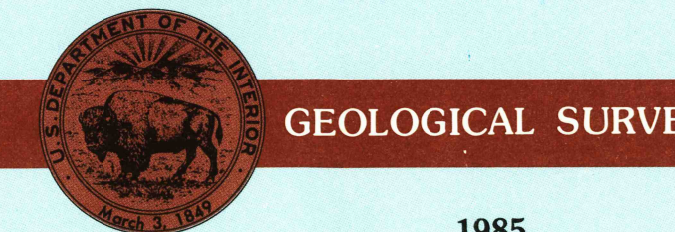
IOWA

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



1985
PHOTOINSPECTED 1990

Produced by the United States Geological Survey
Compiled from USGS 1:24 000-scale topographic maps dated 1972-1980. Planimetry revised from aerial photographs taken 1973-80 and other source data. Revised information not field checked. Map edited 1985.
1927 North American Datum (NAD 27). Projection and 10 000-meter grid: Universal Transverse Mercator, zone 15. 25 000-foot ticks; Iowa coordinate system, north zone.
The difference between NAD 27 and North American Datum of 1983 (NAD 83) is too small to show at this scale. The values of the shift between the datums for 7.5-minute intersections are given in USGS Bulletin 1875.
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 10 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		1	2	3																
2	6.5617		4	5																	
3	9.8425		6	7	8																
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 (GM) and 1983 magnetic declination (MD) at center of map. Diagram is approximate.	<table><tr><td>1</td><td>Worthington</td></tr><tr><td>2</td><td>Almont</td></tr><tr><td>3</td><td>Maestri</td></tr><tr><td>4</td><td>Iowa Great Lakes</td></tr><tr><td>5</td><td>Mason City</td></tr><tr><td>6</td><td>Storm Lake</td></tr><tr><td>7</td><td>Humboldt</td></tr><tr><td>8</td><td>Iowa Falls</td></tr></table>			1	Worthington	2	Almont	3	Maestri	4	Iowa Great Lakes	5	Mason City	6	Storm Lake	7	Humboldt	8	Iowa Falls
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To convert feet to meters multiply by 0.3048																					

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, 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; building
- Windmill; water well; spring
- Mine shaft, pit 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