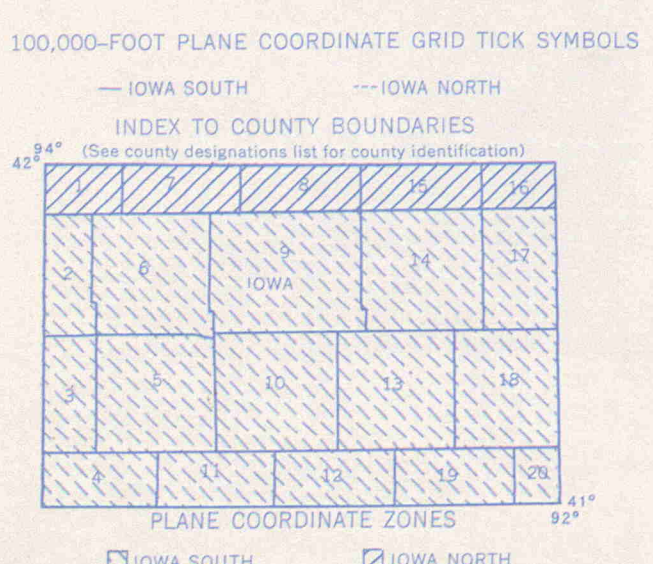


Base prepared by the Army Map Service (AM), Corps of Engineers, U.S. Army, Washington, D.C. Compiled in 1953 by photogrammetric methods by reference to Iowa County Highway Maps 1949 and 1950. Horizontal and vertical control by USC&GS, USGS, and CE. Aerial photography October 1949, April-June and October 1950. Map field checked 1954.



**COAST & GEODETIC SURVEY**

**Geological Survey**

- Monumented Point - First Order
- Monumented Point - Second Order
- Monumented Point - Third Order
- Located Object - Third Order
- See separate index for names of numbered stations
- Station reported not recovered
- Measured Base - Electronic or Taped
- Line of triangulation observed
- Line of triangulation observed from one end only
- Measured Length - Electronic or Taped
- Theodolite Traverse - Electronic Distance
- Transit Traverse - Taped Distance Third Order
- Transit Traverse and Leveling Third Order

**STATE SURVEY CONTROL**

- Horizontal or Vertical
- First Order
- Second Order
- Third Order

Scale 1:250,000

25,000 50,000 75,000 100,000 Feet

SECTIONIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

TRANSVERSE MERCATOR PROJECTION

TOWNSHIP OR RANGE LINE

LAND GRANT BOUNDARY

ROADS

- Hard surface, heavy duty
- More than two lanes wide
- Hard surface, medium duty
- More than two lanes wide
- Two lanes wide, State route marker
- Improved light duty
- Unimproved dirt
- Trail

LEGEND

RAILROADS

- Standard gauge
- Narrow gauge
- Intermittent or dry stream
- Power line

LANDMARKS: School, Church, Other

Horizontal control point

Spot elevation in feet

Marsh or swamp

Intermittent or dry stream

Power line

**COAST AND GEODETIC SURVEY**

THIRTY MINUTE QUADRANGLE DESIGNATION

INDEX TO COUNTY BOUNDARIES

1	7	8	15	16
41 093 4	41 093 1	41 092 4	41 092 1	
2	6	IOWA	14	17
3	5	10	13	18
41 093 3	41 093 2	41 092 3	41 092 2	
4	11	12	19	20

ORDER CONTROL DATA IN BLACK BY 30 MINUTE QUADRANGLE UNITS FROM DIRECTOR, COAST AND GEODETIC SURVEY, WASHINGTON 25, D.C.

**GEOLOGICAL SURVEY**

FIFTEEN MINUTE QUADRANGLE DESIGNATION

INDEX TO COUNTY BOUNDARIES

1	7	8	15	16		
129	129 124	150	122	121	120	119
2	6	IOWA	14	17		
10	100	90	98	97	96	94
3	5	10	13	18		
28	27	26	25	24	23	21
4	11	12	19	20		
96	94	93	95	91	90	89

ORDER CONTROL DATA IN RED BY 15 MINUTE QUADRANGLE UNITS FROM DIRECTOR, GEOLOGICAL SURVEY, WASHINGTON 25, D.C.

COUNTY DESIGNATIONS

- 1 Boone
- 2 Calhoun
- 3 Clarke
- 4 Clarke
- 5 Warren
- 6 Polk
- 7 Story
- 8 Marshall
- 9 Jasper
- 10 Marion
- 11 Lucas
- 12 Monroe
- 13 Mahaska
- 14 Poweshiek
- 15 Taylor
- 16 Benton
- 17 Iowa
- 18 Keokuk
- 19 Wapello
- 20 Jefferson

DES MOINES, IOWA (NK 15-S) APRIL 1964



U. S. DEPT. OF COMMERCE  
 COAST AND GEODETIC SURVEY  
 WASHINGTON, D. C.  
 FORM - 6471 (1-63)  
 DATE JUL 1964 REVISED JUL 1966

## INDEX TO NUMBERED HORIZONTAL CONTROL STATIONS

by the  
 Coast and Geodetic Survey

QUADS 410921-2-3-4 & 410931-2-3-4  
 IOWA  
 LATITUDE 41° 00' TO 42° 00'  
 LONGITUDE 92° 00' TO 94° 00'  
 DIAGRAM NK 15-8 DES MOINES

KEY NO.	STATION NAME	QUAD NO.	STATION NO.
1	AIRWAY BEACON 1 MI WEST OF MARENGO	410921	1010
2	AIRWAY BEACON 3 MI NE OF CANFORTH	410921	1011
3	BROOKLYN MUNICIPAL TANK	410921	1014
4	OTTUMWA JOHN DEERE PLANT STACK	410922	1023
4	OTTUMWA JOHN DEERE PLANT WATER TANK	410922	1024
5	OTTUMWA JOHN MORRELL CO BRICK STACK	410922	1025
5	OTTUMWA JOHN MORRELL CO LGE RED BRICK STK	410922	1026
6	OTTUMWA MUNI WATER TANK	410922	1027
7	SIGOURNEY KEOKUK CO COURTHOUSE DOME	410922	1033
7	SIGOURNEY MUNICIPAL TANK	410922	1034
8	OSKALOOSA COUNTY COURTHOUSE SQUARE TOWER	410923	1017
9	OSKALOOSA IA POWER + LIGHT CO STACK	410923	1018
10	GRINNEL COLLEGE STACK	410924	1009
11	GRINNEL CONGREGATIONAL CHURCH SPIRE	410924	1010
11	GRINNEL SPAULDING CO STACK	410924	1012
12	KELLOG MUNICIPAL TANK	410924	1014
13	WOODWARD STATE EPILEPTIC FARM STACK	410934	1011
13	WOODWARD STATE EPILEPTIC FARM TANK	410934	1012
14	OSCEOLA COURTHOUSE TOWER HIGH POINT	410933	1008
14	OSCEOLA MUNI WATER TANK	410933	1009
15	GEORGETOWN ST PATRICKS CHURCH SPIRE	410923	1015
17	OTTUMWA IOWA SOUTHERN UTILITY STACK	410922	1022
18	OTTUMWA WILDWOOD ADD MUNI WATER TANK	410922	1030
19	ALBIA REA RADIO MAST	410923	1012
20	ALBIA LIGHT + RAILWAY POWER PLANT STACK	410923	1010
21	ALBIA COUNTY COURTHOUSE CLOCK TOWER	410923	1009
21	ALBIA MUNI WATER TANK	410923	1011
22	CHARITON CONGREGATIONAL CHURCH STEEPLE	410932	1012
22	CHARITON COUNTY COURTHOUSE CLOCKTOWER	410932	1015
22	CHARITON EVANG LUTHERAN CHURCH	410932	1013
22	CHARITON WATER TANK	410932	1016
23	OTTUMWA AT+T CO TV RELAY MAST	410922	1021
24	OTTUMWA RADIO STATION KLEE MAST	410922	1028
25	CHILLICOTHE COLUMBIA METH CHURCH BELFRY	410923	1013
26	EDDYVILLE IA S UTIL GENERATING STA STACK	410923	1014
27	MUNTERVILLE EV LUTH CHURCH BELFRY	410923	1016
28	FAIRFIELD RADIO STATION KFAD MAST	410922	1017
30	MITCHELLVILLE INDUST FARM WATER TANK	410931	1011
31	MITCHELLVILLE CHURCH	410931	1012
31	MITCHELLVILLE LARGE WATER TANK	410931	1013

KEY NO.	STATION NAME	QUAD NO.	STATION NO.
31	MITCHELLVILLE SMOKESTACK	410931	1014
32	NEWTON COURTHOUSE	410931	1016
32	NEWTON MAYTAG CO STACK	410931	1018
32	NEWTON MAYTAG CO TANK	410931	1019
33	WILLIAMSON HIGHEST PT COAL TIPPLE MINE 4	410932	1022