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**Isostatic gravity map and principal facts for 694 gravity stations in
Yellowstone National Park and vicinity, Wyoming, Montana, and Idaho**

By

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CONTENTS

	Page
Introduction	1
Data Collection	1
Datum and Base Stations	4
Base Station Descriptions	4
Data Reduction	8
Sources of Error	9
Isostatic Correction	9
A Brief Note on Interpretation	12
Description of Diskette	13
Acknowledgments	14
References	15
Figure Captions	18

TABLES

	Page
TABLE 1. Explanation of principal fact format	18
2. Explanation of accuracy codes	19
3. Principal facts for U.S. Geological Survey data	20
4. Principal facts for University of Utah data	21
5. Principal facts for Defense Mapping Agency data	24

ILLUSTRATIONS

	Page
FIGURE 1. Location map of Yellowstone National Park	32
2. Locations of U.S. Geological Survey gravity data	33
3. Locations of University of Utah gravity data	34
4. Locations of gravity data obtained from Defense Mapping Agency	35
5. Effect of changing $\Delta\rho$	36
6. Difference from varying $\Delta\rho$	37
7. Effect of changing T_0	38
8. Difference from varying T_0	39
9. Location of maximum horizontal gravity gradient	40

INTRODUCTION

Yellowstone National Park is located in northwest Wyoming and includes parts of eastern Idaho and southern Montana (fig. 1). It contains the Yellowstone caldera, which was formed by the largest Quaternary ash-flow tuff eruption in North America. The Yellowstone caldera represents the youngest of a series of volcanic eruptions that have migrated from the southwest to the northeast across the eastern Snake River Plain. This progression in time and space of volcanism has been interpreted as the track of a localized, mantle heat source or "hotspot" fixed beneath the continental crust of the northwestern United States (Morgan, 1972; Smith and Christiansen, 1980) as well as a propagating continental rift zone (Smith, 1978). The vigorous hydrothermal system located within Yellowstone National Park may be heated by shallow bodies of partial melt.

Measurements of the Earth's gravity field may be used to interpret geologic structure in terms of density distributions. At Yellowstone National Park, significant density contrasts exist between the pyroclastic rocks that fill the caldera depression and the underlying basement as well as between the partial melt (if present) and the underlying batholith. Thus, interpretation of the gravity field at Yellowstone National Park can provide information on the structure of the Yellowstone caldera, the basement, and any partial melt bodies that may be present.

All available gravity data of Yellowstone National Park have been compiled to provide an updated list of principal facts (see tables 1 and 2) and to produce an isostatic gravity map. This compilation of gravity data consists of 514 stations obtained from the Defense Mapping Agency, 153 stations collected by the University of Utah, and 27 stations collected by the U.S. Geological Survey (USGS) in July 1987. All gravity data were reduced by standard USGS reduction techniques to give complete Bouguer anomaly values. Isostatic gravity anomaly values were computed by applying an Airy-Heiskanen isostatic correction.

DATA COLLECTION

The gravity data in this report were compiled from Defense Mapping Agency, University of Utah, and USGS data sets. The purpose of combining these data was to improve the accuracy and to enhance the regional

gravity coverage of Yellowstone National Park. Accuracy of the data sets was improved by replacing Defense Mapping Agency stations with higher-accuracy re-measurements made by the University of Utah. Much of the University of Utah data were high-precision (multiple readings) measurements using Lacoste and Romberg gravity meters, whereas Defense Mapping Agency data were measured by standard (one reading) measurements with Lacoste and Romberg meters or less accurate Worden meters. Accuracy was also improved by relocating stations and re-estimating terrain corrections by using previously unavailable 1:24,000-scale topographic maps. Regional coverage of the older Defense Mapping Agency data set was enhanced using stations collected by the USGS and the University of Utah.

The USGS collected 27 gravity stations in July, 1987, to improve regional coverage (fig. 2 and table 3). Lacoste and Romberg gravity meter G8 was used.

Also included in this report are data for 153 stations collected in 1977, 1979, and 1983-1984 by faculty and students at the University of Utah (fig. 3 and Table 4) using Lacoste and Romberg gravity meters D26, G395, and G461. These data were reduced by the USGS, Menlo Park, CA. Most of these data were measured using high-precision (multiple readings) techniques for monitoring gravity changes.

This compilation includes 514 Defense Mapping Agency stations (fig. 5 and table 5), which were reduced from the observed gravity values by the USGS, Menlo Park, CA. The Defense Mapping Agency data are available from:

National Geophysical Data Center

National Oceanic and Atmospheric Administration

Mail Code E/GCX2, 325 Broadway

Boulder, Colorado 80303

The original data set obtained from the Defense Mapping Agency consisted of contributions from 14 different studies. Because data from 6 of these sources were replaced entirely by University of Utah data, only 8 Defense Mapping Agency sources were included in this compilation. The leading 4 characters in the station names are a code indicating the source of the data:

Code	Source	Number of stations
2150	Crustal studies, Yellowstone Plateau, Wyoming, U.S. Geological Survey, 1963.	199
3925	Gravity data in Idaho, Montana, and Wyoming, U.S. Geological Survey, 1972.	10
4099	Gravity data in the U.S., north-south profiles, Defense Mapping Agency, 1967.	2
4687	Gravity data, Yellowstone National Park region, U.S. Geological Survey, 1968.	279
5134	Gravity data for Montana, Defense Mapping Agency, 1967.	3
5177	Idaho regional gravity survey, Defense Mapping Agency, 1972	2
5878	Defense Mapping Agency, 1963	7
6340	C. L. Long, Principal facts for gravity stations in the south Absaroka Wilderness, Wyoming, U.S. Geological Survey Open-File Report 82-1034, 1977	9

The majority of stations obtained from the Defense Mapping Agency are from two studies carried out by the USGS (source codes 2150 and 4687). A complete Bouguer gravity map based on data from source code 4687 has been published for the Yellowstone National Park area (Blank and Gettings, 1974).

DATUM AND BASE STATIONS

All observed gravity values were referenced to the International Gravity Standardization Net 1971 (IGSN 71) gravity datum (International Association of Geodesy, 1974). Relative gravity measurements for both the USGS and University of Utah data sets were tied to the Lamar Ranger Station IGSN 71 base (Jablonski, 1974; station name '3 GWM'), located in northeast Yellowstone National Park. The main base station (station name '1176') for both the USGS and University of Utah field sessions is located at Canyon Village in north-central Yellowstone National Park. Four secondary field bases in Yellowstone National Park were tied to the base at Canyon Village. Descriptions of these base stations are adapted from Evoy and Smith (1979) and International Association of Geodesy (1974).

BASE STATION DESCRIPTIONS

STATION NAME: **3 GWM**

TYPE: IGSN 71 Base Station

15' QUADRANGLE: Abiathar Peak, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Mount Hornaday, WY

LATITUDE: 44° 53.05' N

LONGITUDE: 110° 13.18' W

ELEVATION: 1,996.7 meters, 6,551 feet

OBSERVED GRAVITY: 980,006.09 mGal

From Lamar Ranger Station 1.1 miles southeast on Cooke Highway; 18 feet northeast of road and 100 feet southwest of aspen grove, on top of masonry culvert over creek, bench mark stamped "GWM 3." Place baseplate directly over bench mark.

STATION NAME: 1176

TYPE: Main Base Station

15' QUADRANGLE: Canyon Village, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Canyon Village, WY

LATITUDE: 44° 44.18' N

LONGITUDE: 110° 29.50' W

ELEVATION: 2,413.0 meters, 7,916.7 feet

OBSERVED GRAVITY: 979,888.13 mGal

Near Canyon Junction, at service station located on northeast quadrant of intersection; 325 feet east of centerline of north-south highway, 155 feet north of centerline of west-east highway, 81 feet southeast of southeast end wall of brick service station building, 6 feet higher than asphalt driveway of service station, on top of small knoll; bench mark stamped "11 MDC 1976 (CN)" cemented on southwest side of lava outcrop projecting 1.5 feet. Place baseplate above bench mark on highest point of the rock.

STATION NAME: J 11

TYPE: Field Base

15' QUADRANGLE: Canyon Village, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Canyon Village, WY

LATITUDE: 44° 43.19' N

LONGITUDE: 110° 29.70' W

ELEVATION: 2,377.5 meters, 7,800.2 feet

OBSERVED GRAVITY: 979,886.75 mGal

From Canyon Junction, 0.9 mile south of intersection along the highway toward Lake Junction; then 0.25 mile southeast along section of old highway bed to north end of parking area overlooking "Grand Canyon of the Yellowstone;" 10 feet west of rim of canyon, 1.5 feet higher than parking area; set on concrete post projecting 2.0 feet. Place baseplate on flat outcrop 25 feet east of bench mark stamped "J 11 1923" behind tree at the edge of a slight dropoff.

STATION NAME: A 158

TYPE: Field Base

15' QUADRANGLE: Norris Junction, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Norris Junction, WY

LATITUDE: 44° 43.60' N

LONGITUDE: 110° 42.10' W

ELEVATION: 2,306.7 meters, 7,568.0 feet

OBSERVED GRAVITY: 979,924.80 mGal

At Norris, 20 feet north of the north side of the Museum building; 2 feet north of the base of the stone retaining wall around the Museum; top of a concrete post projecting 2 inches. Place baseplate directly over the bench mark stamped "A 158 1960."

STATION NAME: 4076

TYPE: Field Base

15' QUADRANGLE: Madison Junction, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Madison Junction, WY

LATITUDE: 44° 37.63' N

LONGITUDE: 110° 51.50' W

ELEVATION: 2,143.1 meters, 7,031.2 feet

OBSERVED GRAVITY: 979,931.68 mGal

From Madison Junction, 1.4 miles south of "T" road intersection toward Old Faithful to north end of turnout on west side of highway; 72 feet west of and across drain from centerline of highway; on west sidehill of drain, 26 feet west of center of drain, about 1 foot higher than highway surface; bench mark stamped "40 MDC 1976" cemented on top of boulder projecting 1.0 foot. Place baseplate directly over the bench mark.

STATION NAME: TWRBS

TYPE: Field Base

15' QUADRANGLE: Tower Junction, WY

7 $\frac{1}{2}$ ' QUADRANGLE: Tower Junction, WY

LATITUDE: 44° 55.31' N

LONGITUDE: 110° 24.02' W

ELEVATION: 1,866 meters, 6,122 feet

OBSERVED GRAVITY: 980,028.46 mGal

From Tower Junction, 0.95 mile northeast along highway toward northeast entrance to top of hill and position where highway makes a sweeping curve south with a gravel road north to a trailhead; 250 feet north and northwest along the gravel road to a point where old road bed joins gravel road; 55 feet west of and 10 feet lower than center of junction, 30 feet north of centerline of old road bed, 8 feet southeast of steep cliff to river, on top of 7×3 foot boulder projecting 1.5 feet. Place the baseplate directly over a chiseled square.

DATA REDUCTION

The gravity data were reduced using the Geodetic Reference System of 1967 (International Association of Geodesy, 1971). Mathematical equations for corrections used by the USGS are given in Cordell and others (1982). The following corrections were applied:

Earth tide	to correct for the gravitational force of the sun and moon.
Instrument drift	to compensate for drift in the instrument's spring.
Latitude	to account for the variation of gravity with latitude.
Free-air	to account for the decrease of gravity in free-air with increasing elevation.
Bouguer	to account for the gravitational effect of the mass between the station and sea-level, assuming an infinite horizontal slab of thickness equal to the station elevation as a first order approximation and using a standard reduction density of 2.67 g/cm^3 .
Curvature	to correct the Bouguer correction for curvature of the earth.
Terrain	to account for the gravitational effect of topography, using a standard reduction density of 2.67 g/cm^3 .
Isostatic	to account for the long-wavelength gravitational effect of isostatic compensation of the crust due to topographic loading.

All of the USGS data collected in July, 1987, and the University of Utah data and some of the Defense Mapping Agency data were terrain corrected using the Hayford-Bowie (1912) method for the inner-zone correction. The terrain corrections consisted of two parts, the "field" and "hand" terrain corrections. The "field" terrain correction accounts for the region within 68 m of the station (Hayford-Bowie zones A and B) and is estimated in the field. "Field" terrain corrections were not available for the University of Utah and Defense Mapping Agency data. The "hand" terrain correction accounts for the region 68-590 m from the station (Hayford-Bowie zones C and D). It is estimated from $7\frac{1}{2}$ - or 15-minute topographic maps. The outer-zone terrain correction accounts for the region 590 m to 166.7 km from the station. It was computed from a digital

elevation model using a computer procedure by Plouff (1977). The remainder of the Defense Mapping Agency data were terrain-corrected from 0-167 km using a computer procedure of Godson and Plouff (1988).

SOURCES OF ERROR

The main source of error is in elevation control. An error of 1 m in elevation results in about a 0.2 mGal error in the gravity reduction. Most of the data were collected at or near bench marks and spot elevations, which are accurate to about 1 m and 3 m, respectively. Thus, errors of 0.2 to 0.6 mGal associated with elevation control are expected for most of the data. A small fraction of the stations (mainly the University of Utah data with station names beginning with "84") were controlled in elevation by contour interpolation, which is considered accurate to about a contour interval. Because topographic maps with 20 to 80 foot contour intervals were used, these measurements would be expected to have errors of 1.2 to 4.8 mGal associated with elevation control. The next largest source of error is often the terrain correction, which is considered accurate to about 5 to 10% of its total value. Because some terrain corrections are as high as 34 mGal, errors as high as 3.4 mGal can be expected in the terrain correction, although the average error based on the average terrain correction is about 0.3 mGal. Observed gravity measurements are typically accurate to 0.05 mGal if a Lacoste and Romberg meter is used. In general, the Yellowstone gravity stations have errors equal to and less than 2.5 mGal (one contour interval). A four character accuracy code, described in table 2, is included for each station in the principal facts.

ISOSTATIC CORRECTION

The isostatic correction is made to remove the long-wavelength gravitational effect caused by isostatic compensation. An Airy-Heiskanen model of isostatic compensation (Heiskanen and Vening Meinesz, 1958) was used for the isostatic correction. The Airy-Heiskanen model assumes no lateral density variations within the crust or mantle and assumes local compensation of topographic loading so that the crustal thickness, T , is determined by:

$$T = T_o + \frac{\rho_t}{\Delta\rho} e + e \quad (1)$$

where T_o is the assumed crustal thickness for sea-level terrain, ρ_t is the assumed density of topography, $\Delta\rho$ is the assumed density contrast between the lower-crust and upper-mantle, and e is the surface elevation above sea level. The correction was computed by the program AIRYROOT (Simpson and others, 1983), which uses a digital elevation model from the station to 166.7 km and corrections from Karki and others (1961) from 166.7 km to an angular distance of 180°. The Airy-Heiskanen model used assumed $T_o = 30$ km, $\rho_t = 2.67$ g/cm³, and $\Delta\rho = 0.35$ g/cm³. These parameters were chosen for consistency with the isostatic gravity map of the United States by Simpson and others (1985).

We examined the effect on isostatic gravity values resulting from changing T_o and $\Delta\rho$ on the basis of seismic studies. Seismic refraction studies (Braile and others, 1982; Sparlin and others, 1982) indicate a crustal thickness of about 42 km beneath the eastern Snake River Plain, immediately southwest of Yellowstone National Park. For the same area, Sparlin and others (1982) estimated a 0.30 g/cm³ lower crust-upper mantle density contrast based on seismic velocity versus density curves for various rock types compiled by Woollard (1962). According to equation (1), using $T = 42$ km and $\Delta\rho = 0.30$ g/cm³, T_o would be 27 km, very close to T_o chosen in the actual model used for calculating the isostatic regional gravity. The effect of changing either $\Delta\rho$ (figs. 5 and 6) or T_o (figs. 7 and 8) on the isostatic correction is mainly a constant ("DC") shift within the Yellowstone National Park area. All of the isostatic regional corrections shown in Figures 5 and 7 describe a similarly curved regional gravity field within Yellowstone National Park. The combined effect of changing T_o from 30 km to 27 km and $\Delta\rho$ from 0.35 g/cm³ to 0.30 g/cm³ is about a -2 mGal "DC" shift in the isostatic correction for the Yellowstone National Park area. Clearly, the Airy-Heiskanen parameters $\Delta\rho = 0.35$ g/cm³ and $T_o = 30$ km yield a model of regional gravity field that is very close to and consistent with the model constrained by seismic estimates of T_o and $\Delta\rho$. Thus, the nature of the regional gravity is similarly described by a range of Airy-Heiskanen parameters.

For other geologic reasons, it is not necessary to make an exact selection of the Airy-Heiskanen parameters based on seismic estimates. The Airy-Heiskanen model is a simplified model because lateral density variations within the crust and mantle are not considered. In the Yellowstone National Park area, a significant lateral

variation in density of the crust must occur at about 10 to 20 km below sea-level based on anomalously high seismic velocities of about 6.5 km/s in contrast to background velocities of 6.0-6.1 km/s at those depths (Smith and others, 1982). Braile and others (1982) and Sparlin and others (1982) have detected similar anomalous seismic velocity variations in the eastern Snake River Plain at depths of about 8 to 18 km. Braile and others (1982) attributed the high-velocity layer to cooling of magmatic intrusions within the upper crust after passing of the Yellowstone "hotspot", whereas Sparlin and others (1982) interpreted the high-velocity layer as mafic material that intruded the highly fractured upper crustal layer of the eastern Snake River Plain accompanying graben formation or as a petrologic transition due to metamorphism of the upper crust by a rising heat source. Regardless of the origin and lithology of this high-velocity layer, all of these interpretations agree that this layer exists beneath, but not very far beyond, the eastern Snake River Plain. Sparlin and others (1982) assigned a $+0.21 \text{ g/cm}^3$ density contrast to this lateral variation based on seismic velocity-density curves by Woollard (1962) and on gravity modeling. The similarity in seismic velocity, thickness, and depths of occurrence between the layers described by Braile and others (1982), Sparlin and others (1982), and Smith and others (1982) indicates that these high-velocity layers appear to belong to one continuous layer of similar composition. The gravitational effect of this high-velocity layer underneath Yellowstone National Park, if assigned a density contrast of $+0.21 \text{ g/cm}^3$, would be equivalent to the addition of a topographic load of 750 m. This additional load is not accounted for by the Airy-Heiskanen model.

Thus, at Yellowstone National Park, we conclude that it is preferable to maintain consistency with the published isostatic residual gravity map of the United States (Simpson and others, 1985) by using $\Delta\rho=0.35 \text{ g/cm}^3$, $\rho_t=2.67 \text{ g/cm}^3$, and $T_o=30 \text{ km}$ rather than to change these parameters based on seismic evidence because:

- 1) These parameters are close enough to the seismic estimates. The effect of changing these parameters primarily causes only a slight change (about -2 mGal) of the "DC" level of the isostatic correction.
- 2) The effect of lateral variations of density in the crust are significant and not considered by the Airy-Heiskanen model, cautioning an exact selection of the Airy-Heiskanen parameters. These lateral density variations should therefore be reflected as variations in the isostatic residual gravity values.

A BRIEF NOTE ON INTERPRETATION

The isostatic gravity map (plate 1) is at the same scale (1:125,000) and have the same dimensions as existing geologic (U.S. Geological Survey, 1972), topographic (U.S. Geological Survey, 1961a), and shaded relief (U.S. Geological Survey, 1961b) maps for ease of interpretation. The scale of geologic structure that can be interpreted from this map greatly depends on station coverage and spacing. Along roads in Yellowstone National Park, gravity station coverage is adequate (1-3 km spacing) for interpreting shallow structures, such as the caldera fill. Elsewhere, access is difficult and limited and thus most off-road stations have been collected with the aid of a helicopter. Due to the expense of such work, the off-road station coverage in Yellowstone National Park, though admirable, is far less dense (3-10 km spacing) than along the roads.

Better station coverage would help in the interpretation of geologic structure at Yellowstone National Park. For example, closed gravity highs or lows associated with single stations may not be real; only denser station coverage can determine the nature of these anomalies. Denser station coverage can also better define vertical density contacts associated with faults or fractures. For a vertical contact with a constant density contrast, the horizontal gravity gradient is maximized over the contact. Some of the steeply-dipping ring fractures or faults of the Yellowstone caldera complex are clearly defined by large horizontal gravity gradients where gravity data are adequate. Locations of maximum horizontal gravity gradients (fig. 9) were determined by a computer algorithm (Blakely and Simpson, 1986). Curvilinear strings of these points may define ring fractures and faults. The extensions of these ring fractures and faults into regions of sparse gravity station coverage could be better defined with denser station coverage.

The average isostatic residual gravity value for the Yellowstone National Park stations is about 5 mGal and is significantly less than the average complete Bouguer gravity value of -225 mGal. The isostatic residual gravity values range from about -29 mGal in the northeastern part of Yellowstone caldera to over +40 mGal east and northwest of the caldera. The gravity low is caused by low-density pyroclastic rocks and sediments that fill the Yellowstone caldera depression and, to a lesser extent, shallow partial melts (Eaton and others, 1975). The highs are associated with Tertiary andesitic and basaltic volcanoclastic rocks and lava flows and Paleozoic and Mesozoic metasedimentary rocks. The regional level of the isostatic residual gravity is about +25

to +30 mGal. Therefore, the gravity low associated with the caldera is about -53 to -58 mGal. As discussed in the previous section, changing the Airy-Heiskanen parameters based on seismic estimates in the eastern Snake River Plain would amount to about a -2 mGal "DC" shift in the isostatic correction. Therefore, the +25 to +30 mGal regional high is not attributable to the Airy-Heiskanen parameters.

The isostatic residual gravity map of the United States (Simpson and others, 1985) reveals a regional gravity high of about +25 to +30 mGal extending from Yellowstone National Park through the eastern Snake River Plain. This regional gravity high appears to correlate with the anomalously high 6.5 km/s seismic velocity layer between 8 and 20 km below sea-level previously mentioned in this report. Because the layer's areal extent, approximately 100 by 600 km, is at least 10 times greater than the layer's thickness, t , of about 10 km, the vertical gravitational attraction, g_z , of this layer is nearly that of a "Bouguer slab," or

$$g_z = 2 \pi G \Delta \rho t \approx +88 \text{ mGal}$$

where G is the Universal Gravitational Constant. If a density of +0.21 g/cm³ is assigned to the layer, then the vertical gravitational effect of the high-velocity layer is +88 mGal. The gravitational effect of the anomalously high-velocity, high-density layer (approximately +88 mGal) is much greater than the regional-scale isostatic residual high (+25 to +30 mGal). Therefore, this layer has at least partial isostatic compensation.

DESCRIPTION OF DISKETTE

Six ascii files are contained on one 5 1/4-inch double-sided, high-density diskette formatted for IBM-PC's using DOS 2.0 or higher versions. README.TXT contains the title-page information and a brief description of the five other files on the diskette. USGS.ISO contains principal facts for the U.S. Geological Survey data collected in 1987 (table 3). UTAH.ISO contains the principal facts of the University of Utah gravity data (table 4) and DOD.ISO contains the principal facts of the 514 Defense Mapping Agency stations (table 5). The data contained in these three files are in Plouff format (a8, f3.0, f4.2, f4.0, f6.1, f7.2, a4, f6.2, f6.2, f5.2, f5.2, a1, f6.2, f6.2; see table 2). The values for the observed gravity, the seventh format item, do not have the first digit (9 as in 979,948.73). The other two files, PFTAB.TXT and ACC.TXT, contain the same information as tables 1

and 2 respectively.

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TABLE 1.—*Explanation of principal fact format*

Item	Explanation
STATION NAME (a8) -----	An alphanumeric combination of up to 8 characters used for station identification
LAT (f3.0,f4.2) -----	Latitude in degrees and minutes, to 0.01 minute
LON (f4.0,f4.2) -----	Longitude in degrees and minutes, to 0.01 minute
ELEV (f6.1) -----	Elevation, to 0.1 foot
OG (f7.2) -----	Observed gravity, to 0.01 mGal
AC (a4) -----	Four digit code describing the general location, elevation, latitude, and observed gravity accuracy (see table 2)
FAA (f6.2) -----	Free-air anomaly to 0.01 mGal
SBA (f6.2) -----	Simple Bouguer anomaly, to 0.01 mGal
ITC (f5.2) -----	Inner-zone terrain correction for a density of 2.67 g/cm ³ , to 0.01 mGal, followed by a letter denoting the extent of the correction. 'Z' indicates computer computer terrain correction from station out to 166.7 km with inner correction out to D zone.
TC (f5.2) -----	Total terrain correction from the station to 166.7 km for a density of 2.67 g/cm ³ , to 0.01 mGal
CBA (f6.2) -----	Complete Bouguer anomaly reduced for a density of 2.67 g/cm ³ , to 0.01 mGal
ISO (f6.2) -----	Isostatic residual anomaly values assuming an Airy model for isostatic compensation of topographic loads. This model assumes a crustal thickness of 30 km, a topographic density load of 2.67 g/cm ³ and a density contrast across the base of the model crust of 0.35 g/cm ³ .

TABLE 2.—*Explanation of accuracy code (AC)*

[NGS, National Geodetic Survey; NMD, National Mapping Division; USGS, U. S. Geological Survey]

Code	Explanation			
General elevation and location code-1 st digit				
A	Altimetry, good control	P	On or near surveyed mark	
B	On USGS or NGS level-line bench mark	Q	River gradient interpolation	
C	Contour line interpolation	R	Lake or reservoir elevation by leveling	
D	Destroyed or not found reference mark	S	Sea level elevation	
E	Near level-line bench mark other than USGS or NGS	T	Photogrammetry by USGS NMD	
F	Map elevation, black or field checked	U	Unknown elevation source	
G	Map elevation, brown or not field checked	V	On vertical angle bench mark	
H	Near vertical angle bench mark	W	Map elevation, blue	
I	Other special source	X	On or near boundary marker	
K	Photogrammetry by other than USGS NMD	Y	Altimetry, poor control	
N	Near USGS or NGS level-line bench mark	Z	Special source (e.g. mobile elevation recorder)	
M	On level-line bench mark other than USGS or NGS			
Elevation code-2 nd digit		Elevation accuracy (ft)	Approximate gravity effect (mGal)	
1	On bench mark	0.2	0.01	
2	Near bench mark	0.3	0.02	
3	Transit or good alidade survey	1.0	0.06	
4	Vertical angle bench mark or black map elevation	2.0	0.12	
5	Black map elevation on old map or good photogrammetry	4.0	0.24	
6	Brown map elevation or good photogrammetry on 20 ft contour interval map	10	0.6	
7	Brown map elevation on 80 ft contour interval map or good altimetry	20	1.2	
8	Contour interpolation on 80 ft contour interval map	40	2.4	
9	Contour interpolation on 200 ft contour interval map or poor altimetry	80	4.8	
Latitude code-3 rd digit (based at lat 44°)		Latitude accuracy (min)	Distance accuracy (ft)	Approximate gravity effect (mGal)
1	Triangulation or special survey data	0.007	42	0.01
2	Location known to 0.04 in on 1:24,000 map (special care)	0.014	84	0.02
3	0.10 in on 1:24,000 map or 0.04 in on 1:62,500 map	0.035	210	0.05
4	0.21 in on 1:24,000 map or 0.08 in on 1:62,500 map	0.07	420	0.1
5	0.42 in on 1:24,000 map or 0.16 in on 1:62,500 map	0.14	840	0.2
6	0.40 in on 1:62,500 map or 0.1 in on 1:250,000 map	0.35	2,100	0.5
7	0.80 in on 1:62,500 map or 0.2 in on 1:250,000 map	0.7	4,200	1.0
8	1.60 in on 1:62,500 map or 0.4 in on 1:250,000 map	1.4	8,400	2.0
9	4.00 in on 1:62,500 map or 1.0 in on 1:250,000 map	3.5	21,000	5.0
Observed gravity code-4 th digit			Approximate gravity effect (mGal)	
1	Local survey with special gravity meter		0.01	
2	Multiple observations with LaCoste and Romberg gravity meter		0.02	
3	Average LaCoste and Romberg or multiple observations with Worden gravity meter		0.05	
4	LaCoste and Romberg observation with small vibrations or average Worden gravity meter		0.1	
5	Data from loop with closure error this large		0.2	
6	Data from loop with closure error this large		0.5	
7	Data from loop with closure error this large		1	
8	Data from loop with closure error this large		2	
9	Data from loop with closure error this large		4	

TABLE 3.—Principal Facts for U.S. Geological Survey data

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
YS01	44 54.45	110 20.51	6223.0	980024.92	233	-0.77	-213.02	0.08	D 3.46	-211.06	16.35
YS02	44 54.84	110 23.48	6245.0	980020.43	233	-3.78	-216.78	0.77	D 3.42	-214.86	12.21
YS03	44 56.15	110 26.47	6531.0	980007.11	233	7.80	-214.96	0.42	D 3.01	-213.46	12.77
YS04	44 56.16	110 28.76	7571.0	979936.37	233	34.75	-223.47	0.07	D 2.65	-222.32	3.52
YS05	44 55.24	110 28.21	7143.0	979956.58	433	16.14	-227.48	0.60	D 3.92	-225.08	1.28
YS06	44 44.35	110 28.63	8024.0	979880.31	433	39.07	-234.60	0.07	D 1.23	-234.84	-4.83
YS07	44 43.77	110 28.83	7877.0	979886.03	433	31.86	-236.80	0.16	D 1.40	-236.88	-6.70
YS08	44 44.14	110 28.02	8012.0	979876.71	433	34.66	-238.61	0.05	D 1.47	-238.61	-8.46
YS09	44 43.34	110 27.41	8016.0	979867.48	433	27.02	-246.39	3.53	D 5.58	-242.28	-11.83
YS10	44 42.51	110 28.91	7829.0	979879.82	433	23.04	-243.99	0.03	D 0.82	-244.65	-14.12
YS11	44 45.35	110 30.31	7962.0	979894.49	433	45.91	-225.65	0.30	D 2.42	-224.70	4.79
YS12	44 45.25	110 31.37	7998.0	979894.53	433	49.49	-223.30	0.96	D 2.93	-221.84	7.53
YS13	44 46.02	110 31.75	8762.0	979849.75	433	75.31	-223.53	0.47	D 2.81	-222.12	6.83
YS14	44 36.56	110 23.95	7740.0	979875.60	233	19.43	-244.55	0.29	D 1.67	-244.37	-11.60
YS15	44 30.92	110 25.10	7763.0	979867.65	433	22.15	-242.63	0.04	D 0.58	-243.53	-9.62
YS16	44 28.43	110 31.55	7755.0	979866.66	433	24.16	-240.34	0.02	D 0.66	-241.16	-8.07
YS17	44 23.45	110 34.26	7898.0	979857.43	433	35.88	-233.50	0.02	D 0.49	-234.49	-1.42
YS18	44 23.38	110 33.45	7820.0	979859.13	433	30.36	-236.36	0.01	D 0.47	-237.37	-4.05
YS19	44 23.22	110 32.59	7841.0	979858.35	433	31.80	-235.64	0.03	D 0.51	-236.61	-3.03
YS20	44 19.70	110 35.51	7905.0	979853.17	433	37.93	-231.68	0.00	D 0.53	-232.63	0.45
YS21	44 39.09	110 48.38	6901.0	979945.41	233	6.60	-228.77	0.62	D 2.69	-227.60	0.01
YS22	44 38.93	110 46.59	6997.0	979939.20	233	9.65	-228.99	0.26	D 1.84	-228.67	-0.62
YS23	44 39.73	110 45.65	7144.0	979930.12	233	13.18	-230.48	2.55	D 5.15	-226.84	1.28
YS24	44 53.99	110 22.66	6605.0	979991.72	433	2.62	-222.66	0.38	D 2.56	-221.61	5.80
YS25	44 53.25	110 19.79	7897.0	979910.53	132	43.93	-225.41	1.30	D 6.28	-220.61	6.99
YS26	44 52.76	110 20.74	7562.0	979929.16	433	31.63	-226.09	0.37	D 3.27	-224.31	3.53
YS27	44 53.92	110 22.03	7102.0	979962.35	433	20.05	-222.17	1.65	D 5.44	-218.25	9.13

TABLE 4.—Principal Facts for University of Utah data

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
176	44 43.87	110 41.48	7484.0	979930.58	B132	39.33	-215.93	0.19	D 0.99	-216.44	11.70
177	44 32.69	110 25.20	7769.0	979867.81	N232	20.21	-244.77	0.04	D 0.90	-245.36	-11.86
275	44 42.90	110 43.84	7444.0	979927.66	B132	34.12	-219.77	0.96	D 1.86	-219.41	8.48
277	44 31.88	110 25.94	7743.0	979868.85	B142	20.02	-244.07	0.03	D 0.81	-244.76	-11.19
375	44 56.00	110 43.57	7257.0	979962.77	B142	31.89	-215.62	0.47	D 2.04	-215.09	9.22
377	44 31.00	110 28.70	7995.0	979856.10	B142	32.28	-240.41	0.28	D 1.13	-240.75	-7.55
475	44 57.97	110 42.42	6575.0	980005.08	B133	7.16	-217.09	0.31	D 3.57	-215.04	8.76
476	44 42.42	110 37.41	8025.0	979891.67	B132	53.43	-220.28	0.09	D 0.83	-220.91	8.23
676	44 42.23	110 34.76	8219.0	979874.50	B132	54.78	-225.55	0.03	D 0.80	-226.20	3.42
776	44 42.75	110 33.32	8143.0	979878.35	B132	50.70	-227.04	0.04	D 0.77	-227.72	2.02
777	44 27.04	110 33.74	7841.0	979859.87	N232	27.55	-239.89	0.20	D 0.83	-240.54	-7.78
877	44 25.75	110 35.00	7834.0	979858.06	N232	27.03	-240.17	0.14	D 0.92	-240.73	-8.12
976	44 43.49	110 31.41	8156.0	979872.06	B132	44.52	-233.66	0.33	D 1.26	-233.85	-4.01
977	44 24.47	110 33.91	7786.7	979860.44	B132	26.89	-238.69	0.01	D 0.49	-239.68	-6.61
O 9	44 39.24	110 46.26	7134.5	979931.57	B132	14.47	-228.86	0.13	D 1.38	-229.00	-0.95
T 9	44 42.75	110 38.71	7757.5	979910.76	B132	46.89	-217.69	0.12	D 1.00	-218.18	10.69
Y 8	44 58.60	110 41.91	6239.5	980023.73	N232	-6.67	-219.48	0.43	D 4.20	-216.79	6.85
Y 9	44 37.05	110 51.31	7103.7	979923.53	B132	6.84	-235.44	0.07	D 1.11	-235.85	-8.79
Z 9	44 35.87	110 49.83	7155.8	979919.26	N242	9.25	-234.81	0.09	D 0.86	-235.47	-7.90
1077	44 17.91	110 36.67	7802.0	979859.25	B132	37.04	-229.06	0.01	D 0.86	-229.69	3.16
1176	44 44.18	110 29.50	7916.7	979888.13	N232	37.06	-232.95	0.06	D 1.06	-233.37	-3.40
1177	44 13.87	110 39.12	7740.0	979861.21	B132	39.26	-224.73	0.20	D 1.55	-224.66	7.49
1276	44 45.36	110 28.82	8169.0	979877.77	N232	48.63	-229.99	0.35	D 2.32	-229.13	0.52
1277	44 9.88	110 39.91	7224.0	979894.37	N232	29.96	-216.43	0.02	D 0.98	-216.96	15.02
1376	44 46.22	110 27.31	8622.0	979851.45	B132	63.57	-230.51	0.17	D 2.52	-229.39	0.08
1777	44 54.87	110 24.67	6278.0	980015.24	B132	-5.92	-220.04	0.29	D 3.38	-218.17	8.81
1976	44 51.18	110 24.96	7664.0	979909.84	B132	24.48	-236.92	0.25	D 2.06	-236.35	-8.19
2076	44 51.89	110 23.65	7090.0	979947.33	B132	6.97	-234.85	0.48	D 2.09	-234.27	-6.17
2276	44 42.50	110 30.11	7697.8	979892.21	N232	23.12	-239.43	0.25	D 1.17	-239.75	-9.37
2376	44 42.07	110 30.34	7678.5	979891.55	B132	21.29	-240.60	0.53	D 1.52	-240.57	-10.10
2476	44 41.36	110 29.84	7693.2	979885.38	B132	17.58	-244.82	0.59	D 1.52	-244.79	-14.05
2576	44 40.67	110 29.12	7679.8	979884.33	B132	16.30	-245.63	0.05	D 0.77	-246.35	-15.33
2676	44 37.81	110 26.28	7757.3	979875.63	N232	19.20	-245.38	0.01	D 0.77	-246.10	-13.96
2776	44 37.13	110 25.19	7713.9	979877.03	N232	17.55	-245.54	0.17	D 1.32	-245.71	-13.23
3076	44 34.69	110 22.66	7842.5	979866.48	B132	22.76	-244.72	0.12	D 0.87	-245.33	-11.95
3176	44 33.79	110 22.29	7755.6	979869.40	B132	18.87	-245.65	0.02	D 0.65	-246.48	-12.81
3276	44 33.51	110 20.14	7762.9	979866.10	N232	16.68	-248.09	0.01	D 0.59	-248.99	-14.98
3376	44 33.54	110 18.47	7813.6	979864.84	N232	20.15	-246.35	0.03	D 0.67	-247.17	-13.00
3476	44 33.24	110 16.09	7912.4	979860.67	N232	25.70	-244.17	0.02	D 0.76	-244.88	-10.44
3576	44 30.60	110 14.86	8178.2	979862.58	N232	56.57	-222.37	0.12	D 1.25	-222.57	12.64
3676	44 30.22	110 13.95	8351.8	979855.34	N232	66.20	-218.65	0.51	D 1.82	-218.27	17.09
3776	44 30.11	110 12.65	8425.0	979855.05	N232	72.96	-214.39	0.36	D 1.83	-213.99	21.45
3876	44 29.42	110 11.79	8603.0	979848.07	B132	83.74	-209.68	0.82	D 2.48	-208.61	27.03
3976	44 29.37	110 10.53	8438.0	979861.94	N232	82.19	-205.61	0.70	D 3.45	-203.58	32.17
4076	44 37.63	110 51.50	7031.2	979931.68	B132	7.31	-232.51	0.07	D 1.29	-232.73	-5.76
4176	44 36.38	110 50.71	7129.9	979920.31	B132	7.09	-236.09	0.35	D 1.39	-236.21	-8.93
4276	44 35.01	110 49.77	7163.7	979920.67	N232	12.70	-231.63	0.12	D 0.89	-232.26	-4.60
4376	44 33.36	110 48.40	7255.2	979908.42	B132	11.53	-235.92	0.30	D 1.05	-236.38	-8.19
4476	44 32.63	110 48.58	7275.9	979905.97	N232	12.13	-236.03	0.02	D 0.75	-236.79	-8.60
4576	44 31.96	110 49.56	7244.0	979909.23	N232	13.41	-233.67	0.22	D 1.01	-234.17	-6.22
4676	44 31.36	110 49.72	7241.8	979910.48	B132	15.35	-231.65	0.15	D 1.12	-232.04	-4.10
4776	44 29.92	110 50.36	7273.0	979905.59	B132	15.56	-232.50	0.18	D 1.45	-232.56	-4.75
4876	44 28.13	110 51.32	7293.0	979900.07	B132	14.63	-234.12	0.23	D 1.84	-233.79	-6.24
4976	44 26.16	110 47.79	7805.1	979867.49	N232	33.12	-233.09	0.75	D 1.55	-233.02	-4.29
5076	44 25.95	110 46.53	7856.6	979864.25	N232	35.04	-232.92	0.06	D 0.85	-233.55	-4.41
5176	44 26.07	110 44.06	8061.5	979850.48	N232	40.34	-234.61	0.09	D 1.19	-234.89	-4.97
5276	44 26.95	110 41.37	8075.9	979846.62	N232	36.50	-238.94	0.25	D 1.02	-239.38	-8.72
5376	44 25.28	110 35.47	8079.4	979844.89	B132	37.62	-237.95	0.10	D 0.86	-238.55	-6.04
5476	44 24.84	110 34.68	7803.6	979860.58	N232	28.07	-238.09	0.20	D 0.80	-238.78	-5.97
8401	44 41.39	110 25.58	7775.0	979874.09	C643	13.92	-251.26	0.24	D 1.45	-251.30	-20.01
8403	44 39.72	110 22.45	8065.0	979856.48	C643	26.07	-249.00	0.20	D 1.31	-249.16	-17.12
8404	44 37.74	110 21.60	8402.0	979834.11	C643	38.35	-248.22	0.20	D 1.19	-248.46	-15.84
8405	44 35.64	110 19.42	8300.0	979836.78	C643	34.60	-248.48	0.30	D 1.68	-248.25	-14.83
8406	44 34.58	110 25.25	8520.0	979823.43	C643	43.52	-247.07	0.28	D 1.66	-246.83	-13.90
8407	44 38.22	110 18.52	8702.0	979813.64	C643	45.33	-251.47	0.14	D 1.47	-251.39	-18.69
8408	44 37.44	110 15.00	8050.0	979854.68	C643	26.31	-248.25	0.19	D 1.21	-248.51	-15.24
8409	44 39.86	110 16.21	8225.0	979843.12	C643	27.53	-253.00	0.22	D 1.15	-253.30	-20.86
8410	44 40.33	110 18.58	8170.0	979846.01	C643	24.55	-254.10	0.15	D 1.65	-253.91	-21.73
8415	44 35.05	110 13.78	7880.0	979867.44	C853	26.70	-242.06	0.23	D 1.22	-242.32	-8.23
8416	44 41.67	110 14.57	8280.0	979842.97	C853	29.82	-252.59	0.57	D 1.77	-252.26	-20.34

TABLE 4.—Principal Facts for University of Utah data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
8 4 1 7	44 40.41	110 9.98	8440.0	979837.11	C 853	40.89	-246.98	0.97	D 2.63	-245.77	-13.46
8 4 1 8	44 44.69	110 15.33	8400.0	979839.02	C 643	32.59	-253.91	0.10	D 1.22	-254.13	-23.27
8 4 1 9	44 48.37	110 13.65	9200.0	979810.43	C 853	73.58	-240.20	0.10	D 4.15	-237.38	-8.00
8 4 2 0	44 42.89	110 10.69	8550.0	979841.97	C 853	52.34	-239.28	0.17	D 1.70	-238.99	-7.54
8 4 2 6	44 27.16	110 24.61	7750.0	979863.19	C 643	22.14	-242.19	0.02	D 0.43	-243.25	-8.48
8 4 2 7	44 24.79	110 21.28	7740.0	979873.59	C 643	35.18	-228.81	0.00	D 0.45	-229.85	6.03
8 4 2 9	44 21.83	110 21.18	7749.0	979881.73	C 643	48.63	-215.67	0.02	D 0.57	-216.59	19.92
8 4 3 0	44 21.00	110 19.65	7740.0	979883.39	C 643	50.69	-213.30	0.00	D 0.56	-214.23	22.73
8 4 3 1	44 18.36	110 18.93	7759.0	979884.91	C 643	57.98	-206.66	0.02	D 0.71	-207.43	30.21
8 4 3 7	44 30.81	110 22.95	7740.0	979865.19	C 643	17.70	-246.29	0.00	D 0.47	-247.31	-13.03
8 4 5 0	44 32.02	110 26.36	7736.0	979870.61	W 443	20.91	-242.94	0.81	D 1.87	-242.56	-9.11
A 1 1	44 34.09	110 23.11	7793.6	979870.03	N 232	22.62	-243.20	0.15	D 1.01	-243.67	-10.19
A 1 4	44 39.82	110 57.86	6750.3	979964.74	B 142	10.67	-219.56	0.60	D 2.49	-218.59	6.58
B 1 1	44 35.48	110 23.06	7782.1	979873.79	B 132	21.33	-243.42	0.11	D 1.21	-243.69	-10.54
B 1 4	44 39.65	110 59.42	6735.6	979969.46	B 132	14.27	-215.47	0.08	D 1.04	-215.94	8.83
BPR 1	44 28.97	110 51.11	7274.0	979901.96	B 132	13.47	-234.63	0.17	D 1.48	-234.66	-7.06
BPR 2	44 52.24	110 11.21	6581.0	980002.77	B 132	14.06	-210.40	0.58	D 5.60	-206.32	21.96
BPR 3	44 55.26	110 5.76	6903.0	979992.64	B 132	29.62	-205.82	0.37	D 7.27	-200.07	26.34
BPR 4	44 56.72	110 4.88	7011.0	979987.82	B 132	32.75	-206.38	0.83	D 9.01	-198.88	26.65
BPR 5	44 59.46	110 3.30	7198.0	979980.29	N 242	38.65	-206.85	1.74	D 10.90	-197.46	26.33
BPR 7	45 0.34	110 2.48	7303.0	979976.18	N 242	43.08	-206.01	0.51	D 7.38	-200.14	23.01
BPR 8	44 53.32	110 8.40	6686.0	980001.19	B 132	20.71	-207.32	0.19	D 5.69	-203.15	24.45
BPR 9	44 33.54	110 21.36	7744.4	979868.15	N 232	16.95	-247.19	0.00	D 0.57	-248.10	-14.23
CHSQ	44 54.69	110 22.38	6220.0	980023.48	N 232	-2.85	-215.00	0.20	D 2.99	-213.51	13.70
D 1 2	44 33.35	110 16.72	7995.7	979853.26	N 232	25.95	-246.76	0.05	D 0.82	-247.41	-13.06
DA 1	44 34.38	110 49.16	7178.5	979918.32	N 232	12.69	-232.15	0.06	D 0.73	-232.93	-5.05
F 1 0	44 26.77	110 48.33	7584.6	979881.35	N 232	25.35	-233.34	0.22	D 1.06	-233.78	-5.23
H 1 0	44 25.93	110 45.43	7921.6	979860.06	N 232	36.99	-233.19	0.03	D 0.99	-233.68	-4.18
H 1 2	44 30.30	110 11.55	8472.8	979853.53	N 232	75.64	-213.34	0.78	D 2.65	-212.12	23.31
H 1 3	44 22.13	110 35.37	7969.3	979850.86	B 132	38.00	-233.81	0.02	D 0.48	-234.80	-1.91
J 1 1	44 43.19	110 29.70	7800.0	979886.75	N 232	26.22	-239.82	1.44	D 2.38	-238.92	-8.69
K 1 0	44 26.53	110 43.05	8262.8	979837.04	N 242	45.11	-236.71	0.26	D 1.20	-236.95	-6.79
K 1 2	44 28.70	110 9.48	8414.9	979863.45	N 242	82.54	-204.47	0.25	D 3.93	-201.97	34.01
L 1 0	44 26.89	110 42.40	8016.7	979852.53	N 242	36.94	-236.49	0.05	D 0.99	-236.97	-6.60
N 1 0	44 26.91	110 38.10	8321.9	979853.07	N 242	48.12	-235.72	0.27	D 1.05	-236.11	-4.56
N 1 3	44 15.91	110 38.21	7741.1	979860.78	B 132	35.87	-228.16	0.14	D 1.54	-228.11	4.31
O 1 0	44 26.32	110 37.45	8366.1	979830.75	N 232	48.84	-236.50	0.03	D 0.85	-237.09	-5.30
OF 4	44 27.66	110 50.65	7341.5	979897.21	B 133	17.03	-233.37	0.07	D 1.26	-233.61	-5.83
P 1 0	44 25.68	110 36.37	8228.7	979837.84	N 233	43.99	-236.66	0.16	D 0.96	-237.15	-4.96
P 1 3	44 12.70	110 39.92	7859.9	979849.89	B 142	40.97	-227.11	0.08	D 1.15	-227.44	4.40
Q 1 3	44 11.27	110 39.93	7566.6	979870.86	B 142	36.55	-221.53	0.05	D 0.90	-222.13	9.77
R 1 1	44 53.37	110 23.38	6597.6	979988.79	B 132	-0.07	-225.09	0.17	D 2.51	-224.10	3.52
S 1 3	44 8.17	110 39.93	6882.9	979915.24	B 142	21.36	-213.39	0.29	D 2.15	-212.76	19.27
T 1 0	44 29.00	110 32.31	7861.5	979862.53	B 132	29.18	-238.95	0.05	D 0.70	-239.73	-6.92
U 1 0	44 30.16	110 30.97	8429.8	979827.14	B 132	45.42	-242.09	0.03	D 1.20	-242.32	-9.52
UNST	44 19.04	110 35.91	7785.0	979860.08	N 232	34.57	-230.95	0.03	D 0.70	-231.74	1.28
W 1 0	44 31.45	110 27.50	7843.5	979864.76	B 132	26.02	-241.50	0.32	D 1.31	-241.67	-8.32
WYBS	44 41.22	111 6.82	6641.0	979985.48	N 232	19.03	-207.47	0.00	D 0.37	-208.62	14.17
Y 1 3	44 38.44	110 53.72	6791.0	979953.84	B 142	5.68	-225.94	0.11	D 3.44	-224.02	2.32
Z 1 0	44 32.94	110 23.97	7755.9	979869.16	N 232	19.94	-244.59	0.02	D 0.73	-245.35	-11.72
Z 1 3	44 38.82	110 55.82	6762.0	979955.02	B 142	3.56	-227.07	1.44	D 6.09	-222.50	3.27
1 GWM	44 55.12	110 17.61	6539.0	980014.32	B 132	17.32	-205.71	0.74	D 3.48	-203.75	23.40
2 GWM	44 54.18	110 14.70	6558.0	980006.61	B 132	12.81	-210.86	0.80	D 4.94	-207.44	20.11
3 GWM	44 53.04	110 13.18	6550.9	980006.02	B 132	13.27	-210.16	0.71	D 5.46	-206.21	21.81
3 9 VS	44 55.21	110 19.16	6280.0	980027.08	B 132	5.60	-208.59	0.06	D 2.98	-207.12	20.00
4 GWM	44 52.40	110 9.52	6650.0	980000.66	B 132	18.19	-208.63	0.09	D 4.55	-205.59	22.53
8 4 0 6 A	44 33.89	110 28.03	8480.0	979829.92	C 643	47.29	-241.84	0.10	D 1.15	-242.21	-9.57
8 4 2 3 A	44 50.24	110 11.95	7960.0	979902.74	C 853	46.60	-224.89	2.18	D 6.65	-219.72	9.12
A 1 5 8	44 43.60	110 42.10	7567.9	979924.80	B 132	41.84	-216.28	0.02	D 0.73	-217.05	11.01
BPR 1 0	44 27.23	110 49.13	7388.0	979893.07	B 132	17.91	-234.07	0.05	D 1.20	-234.38	-6.08
DA 3 3 4	44 36.46	110 23.24	7721.2	979877.34	N 232	19.56	-243.79	0.23	D 1.61	-243.67	-10.78
DA 3 3 5	44 30.87	110 49.84	7256.5	979908.85	N 242	15.84	-231.66	0.10	D 1.21	-231.96	-4.03
E 1 5 8	44 41.42	110 44.65	7342.5	979923.01	N 232	22.16	-228.27	0.31	D 1.92	-227.86	0.17
E 1 1 A 2	44 38.41	110 27.23	7693.6	979880.20	B 132	16.88	-245.53	0.03	D 0.77	-246.25	-14.38
F 1 1 A	44 38.75	110 27.46	7689.3	979881.41	B 132	17.18	-245.08	0.01	D 0.76	-245.81	-14.06
G 1 5 7	44 56.86	110 42.82	6999.0	979978.26	B 132	21.85	-216.87	0.40	D 3.06	-215.32	8.80
G 1 5 8	44 40.60	110 44.78	7300.5	979924.82	B 132	21.27	-227.73	1.75	D 4.66	-224.58	3.56
J 1 5 8	44 39.63	110 44.85	7194.6	979928.21	B 132	16.17	-229.22	1.76	D 3.90	-226.83	1.48
L 1 5 7	44 53.69	110 44.04	7328.7	979956.35	B 132	35.70	-214.26	0.05	D 1.01	-214.76	10.29
M 1 5 8	44 38.93	110 47.46	6960.6	979941.53	B 132	8.56	-228.84	0.14	D 1.76	-228.60	-0.75

TABLE 4.—Principal Facts for University of Utah data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67	
N 0 157	44 52.61	110 44.14	7295.9	979955.48	B132	33.38	-215.46	0.09	D	1.25	-215.72	9.68
P 158	44 39.12	110 49.26	6869.8	979945.22	B132	5.31	-229.68	0.60	D	3.02	-228.18	-0.79
Q 157	44 51.02	110 44.18	7309.1	979950.65	B132	32.19	-217.11	0.21	D	1.67	-216.94	8.93
Q 158	44 39.00	110 50.70	6900.6	979946.22	B132	7.51	-227.85	0.26	D	3.10	-226.27	0.78
R 157	44 50.04	110 43.73	7359.3	979945.08	B132	32.81	-218.20	0.22	D	1.79	-217.91	8.31
S 10A	44 28.02	110 33.29	7743.6	979869.18	N232	26.23	-237.88	0.07	D	0.79	-238.58	-5.82
S 157	44 48.48	110 44.00	7388.5	979942.33	B132	35.15	-216.85	0.06	D	1.51	-216.84	9.75
TWRBS	44 55.31	110 24.02	6122.0	980028.46	P332	-8.01	-216.82	0.20	D	3.41	-214.91	11.95
U 157	44 47.25	110 44.30	7525.3	979931.35	B132	38.89	-217.78	0.28	D	1.52	-217.76	9.07
V 157	44 46.42	110 44.04	7551.8	979928.53	B132	39.81	-217.76	0.30	D	1.53	-217.73	9.34
WYBSA	44 39.91	111 5.92	6664.0	979981.18	N232	18.87	-208.42	0.08	D	0.50	-209.44	13.57
X 157	44 45.19	110 43.40	7518.4	979929.02	B132	39.01	-217.42	0.32	D	1.21	-217.71	9.76
Z 157	44 44.26	110 41.85	7473.4	979932.69	B132	39.86	-215.04	0.21	D	0.97	-215.57	12.42

TABLE 5.—Principal Facts for Defense Mapping Agency data

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
21500100	44 38.53	110 51.73	6805.1	979951.10	C 643	4.12	-227.98	0.17 Z	2.87	-226.63	0.22
21500119	44 34.67	110 49.73	7169.0	979920.60	F 543	13.64	-230.88	0.05 Z	0.75	-231.64	-3.94
21500121	44 32.90	110 48.35	7288.1	979905.22	F 543	12.12	-236.46	0.06 Z	0.79	-237.18	-8.95
21500122	44 32.17	110 47.95	7355.0	979901.80	F 543	16.08	-234.77	0.04 Z	0.95	-235.33	-6.93
21500123	44 32.10	110 49.02	7261.2	979907.57	F 543	13.15	-234.51	0.23 Z	1.04	-234.98	-6.88
21500126	44 28.80	110 50.93	7336.9	979897.93	N 232	15.60	-234.64	0.03 Z	1.10	-235.05	-7.39
21500127	44 32.37	110 50.52	7211.0	979913.21	W543	13.66	-232.29	0.01 Z	0.73	-233.07	-5.43
21500128	44 33.32	110 50.35	7204.1	979915.39	F 543	13.76	-231.95	0.00 Z	0.61	-232.85	-5.22
21500129	44 37.35	110 49.80	7151.9	979921.35	F 543	8.74	-235.19	0.11 Z	0.79	-235.91	-8.44
21500130	44 38.02	110 48.50	7185.0	979920.85	F 543	10.34	-234.72	0.00 Z	0.67	-235.56	-7.89
21500131	44 38.88	110 48.03	7007.9	979938.75	F 543	10.31	-228.71	0.02 Z	1.31	-228.92	-1.21
21500132	44 39.00	110 49.67	6860.9	979946.69	N 233	4.25	-229.76	0.63 Z	3.11	-228.17	-0.86
21500136	44 39.03	111 1.18	6707.0	979970.99	N 233	14.05	-214.71	0.03 Z	0.80	-215.43	8.89
21500137	44 39.20	111 3.83	6689.0	979975.71	N 233	16.82	-211.32	0.02 Z	0.53	-212.31	11.27
21500200	44 44.00	110 41.70	7482.0	979931.91	N 233	40.28	-214.91	0.10 Z	0.87	-215.54	12.53
21500204	44 56.83	110 27.00	6602.0	980005.86	N 233	12.50	-212.67	0.24 Z	3.14	-211.05	14.91
21500215	44 50.33	110 45.93	7500.0	979936.22	C 853	36.73	-219.07	0.84 Z	2.11	-218.46	7.31
21500216	44 48.67	110 48.05	7667.0	979924.28	F 543	42.98	-218.52	0.36 Z	1.88	-218.13	7.69
21500217	44 49.13	110 51.28	10336.0	979760.51	H 433	129.21	-223.32	6.43 Z	27.45	-196.98	27.78
21500303	44 40.83	111 5.97	6651.9	979985.14	N 233	20.30	-206.58	0.00 Z	0.38	-207.71	15.29
21500304	44 43.22	111 5.78	6615.2	979983.46	F 543	11.57	-214.06	0.01 Z	0.42	-215.15	7.88
21500306	44 45.57	111 6.75	6579.0	979988.57	C 643	9.73	-214.66	0.00 Z	0.57	-215.60	7.11
21500307	44 46.40	111 6.73	6580.1	979991.83	N 233	11.84	-212.58	0.00 Z	0.70	-213.40	9.28
21500308	44 47.08	111 6.72	6624.0	979992.97	N 233	16.08	-209.85	0.02 Z	0.87	-210.49	12.14
21500309	44 47.90	111 6.25	6815.0	979988.08	N 233	25.90	-206.54	0.02 Z	0.94	-207.12	15.52
21500310	44 48.38	111 5.77	6734.0	979996.74	N 233	28.22	-201.46	0.43 Z	1.84	-201.13	21.57
21500311	44 51.45	111 3.33	6925.0	979997.83	F 433	42.63	-193.56	1.06 Z	3.58	-191.50	31.26
21500312	44 52.05	111 2.95	7110.9	979990.30	N 233	51.66	-190.87	0.70 Z	2.52	-189.87	32.84
21500313	44 52.52	111 2.73	7044.0	980000.51	F 543	54.87	-185.38	0.71 Z	3.00	-183.89	38.78
21500314	44 54.70	111 3.10	7240.2	979994.21	W543	63.72	-183.22	0.76 Z	2.73	-182.01	40.11
21500316	44 43.67	111 6.38	6601.0	979983.90	N 233	10.00	-215.15	0.00 Z	0.43	-216.23	6.64
21500317	44 42.52	111 6.12	6563.0	979988.41	N 233	12.67	-211.17	0.00 Z	0.42	-212.27	10.69
21500318	44 41.83	111 6.02	6629.9	979984.79	N 233	16.37	-209.75	0.02 Z	0.40	-210.87	12.12
21500400	44 40.28	111 6.00	6660.1	979983.28	N 233	20.04	-207.12	0.02 Z	0.42	-208.21	14.78
21500401	44 44.63	111 6.80	6586.9	979986.75	N 233	10.08	-214.58	0.00 Z	0.48	-215.62	7.12
21500402	44 46.85	111 8.58	6567.9	979992.41	F 543	10.60	-213.41	0.00 Z	0.88	-214.05	8.21
21500411	44 58.70	111 4.88	7022.0	980009.22	N 233	52.20	-187.30	4.41 Z	10.96	-177.86	42.92
21500412	44 59.55	111 4.88	6972.1	980014.23	F 543	51.24	-186.56	0.64 Z	6.02	-182.06	38.45
21500413	45 0.18	111 4.85	6922.9	980016.01	F 543	47.44	-188.68	1.38 Z	7.55	-182.65	37.67
21500500	44 39.90	111 6.75	6654.0	979984.62	F 433	21.39	-205.56	0.11 Z	0.54	-206.54	16.24
21500502	44 37.63	111 9.67	6674.9	979980.85	F 543	23.00	-204.66	0.51 Z	1.58	-204.60	17.26
21500503	44 36.50	111 9.77	6706.0	979976.49	F 543	23.27	-205.46	0.21 Z	1.42	-205.55	16.19
21500506	44 38.60	111 6.50	6661.9	979980.60	F 543	20.07	-207.15	0.37 Z	0.98	-207.69	15.13
21500508	44 40.87	111 8.17	6631.9	979987.99	F 543	21.21	-204.99	0.01 Z	0.41	-206.09	16.34
21500534	44 24.25	111 5.62	8274.0	979847.04	N 233	59.61	-222.60	0.21 Z	2.16	-221.88	-0.29
21500535	44 24.50	111 4.57	8333.0	979841.69	N 233	59.42	-224.79	0.04 Z	1.58	-224.65	-2.58
21500536	44 24.48	111 1.45	8430.1	979826.82	N 233	53.70	-233.82	0.03 Z	1.27	-233.98	-10.60
21500537	44 24.70	110 57.05	8612.9	979811.89	F 433	55.61	-238.15	0.01 Z	1.36	-238.20	-13.03
21500538	44 24.78	110 56.37	8553.1	979816.24	N 233	54.23	-237.49	0.01 Z	1.25	-237.66	-12.21
21500539	44 25.82	110 54.90	8320.9	979832.91	N 233	47.51	-236.29	0.16 Z	1.18	-236.55	-10.45
21500540	44 27.33	110 54.17	8169.9	979844.57	N 233	42.71	-235.94	0.04 Z	0.93	-236.47	-10.05
21500541	44 28.42	110 52.63	8003.9	979856.71	N 243	37.61	-235.38	0.30 Z	1.66	-235.19	-8.20
21500700	44 57.50	111 4.00	7090.9	980006.50	F 433	57.76	-184.09	0.28 Z	3.81	-181.79	39.49
21500801	44 43.03	110 33.00	8133.9	979878.57	F 543	49.64	-227.78	0.03 Z	0.76	-228.48	1.25
21500802	44 42.48	110 34.07	8183.1	979876.73	N 233	53.26	-225.84	0.15 Z	0.90	-226.40	3.28
21500804	44 42.78	110 44.12	7435.0	979926.62	C 643	32.42	-221.17	1.01 Z	1.89	-220.78	7.08
21500805	44 42.28	110 44.67	7345.1	979925.98	N 233	24.08	-226.44	0.15 Z	1.21	-226.74	1.12
21500806	44 39.52	110 44.67	7211.9	979927.76	C 643	17.51	-228.46	1.37 Z	3.30	-226.68	1.69
21500810	44 46.87	110 44.37	7574.1	979927.76	N 233	40.45	-217.88	0.43 Z	1.48	-217.90	9.01
21500811	44 49.23	110 43.58	7381.9	979941.90	N 233	32.97	-218.80	0.30 Z	2.17	-218.14	8.32
21500812	44 50.58	110 43.95	7335.0	979948.15	N 233	32.79	-217.39	0.37 Z	1.83	-217.07	8.96
21500814	44 55.22	110 43.88	7269.0	979959.90	W443	31.33	-216.59	0.07 Z	1.29	-216.81	7.74
21500816	44 44.83	110 29.55	8015.1	979886.50	N 233	43.70	-229.67	0.01 D	1.24	-229.90	-0.16
21500817	44 46.03	110 28.02	8547.9	979857.24	--	62.68	-228.87	1.39 Z	3.94	-226.35	3.12
21500818	44 47.10	110 27.15	8850.1	979835.96	--	68.17	-233.68	0.52 Z	3.43	-231.63	-2.46
21500819	44 48.27	110 26.80	8851.1	979833.10	--	63.64	-238.25	0.94 Z	5.07	-234.55	-5.74
21500820	44 49.43	110 26.67	8750.0	979840.72	--	60.01	-238.42	0.53 Z	4.87	-234.95	-6.51
21500821	44 50.83	110 25.70	8018.0	979887.54	--	35.96	-237.51	0.53 Z	3.03	-235.95	-7.79
21500822	44 51.97	110 24.50	7327.1	979933.82	--	15.61	-234.30	0.11 Z	1.73	-234.07	-6.11
21500826	44 57.27	110 28.77	6851.1	979986.98	N 233	16.06	-217.61	1.38 Z	4.61	-214.52	10.98

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67	
21500827	44 57.32	110 29.95	6961.0	979983.41	N 233	22.73	-214.69	0.12	Z	2.19	-214.01	11.33
21500828	44 57.32	110 31.72	6792.0	979992.93	N 233	16.37	-215.28	1.23	Z	3.14	-213.66	11.54
21500829	44 57.47	110 33.97	6912.1	979983.96	N 233	18.46	-217.29	0.06	Z	1.33	-217.48	7.41
21500830	44 56.90	110 36.83	6646.0	980002.26	N 233	12.62	-214.06	0.35	Z	2.40	-213.17	11.69
21500832	44 39.85	110 28.07	7737.9	979879.36	N 233	18.03	-245.89	0.10	Z	0.74	-246.64	-15.27
21500840	44 32.43	110 17.33	7733.9	979874.55	W443	24.04	-239.74	0.06	Z	0.84	-240.39	-5.79
21500846	44 37.68	110 28.80	7771.0	979875.29	N 233	20.34	-244.70	0.00	D	0.59	-245.60	-13.80
21500847	44 36.90	110 31.02	7850.1	979870.64	N 233	24.30	-243.44	0.05	Z	0.68	-244.24	-12.66
21500848	44 36.60	110 32.65	8029.9	979860.96	N 233	31.97	-241.91	0.04	Z	0.62	-242.76	-11.44
21500849	44 36.53	110 35.12	7929.1	979867.75	N 233	29.39	-241.05	0.08	Z	0.83	-241.70	-10.83
21500850	44 36.77	110 36.83	8194.9	979850.40	N 233	36.65	-242.86	0.06	Z	0.82	-243.49	-13.06
21500851	44 36.23	110 38.42	8266.1	979850.21	N 233	43.96	-237.97	0.08	Z	1.25	-238.17	-8.00
21500852	44 35.90	110 41.87	7315.9	979911.40	C 643	16.39	-233.14	0.42	Z	1.38	-233.27	-3.68
21500853	44 35.82	110 43.87	7296.9	979912.39	N 233	15.71	-233.17	0.50	Z	1.26	-233.42	-4.30
21500854	44 35.45	110 45.28	7242.1	979914.57	F 543	13.30	-233.71	0.72	Z	1.68	-233.54	-4.73
21500855	44 35.32	110 46.32	7233.9	979915.36	N 243	13.52	-233.21	1.24	Z	2.35	-232.37	-3.82
21500900	44 55.00	110 25.05	6270.0	980016.28	N 233	-5.82	-219.67	0.20	Z	3.47	-217.71	9.19
21500905	44 54.87	110 19.37	6182.1	980030.17	N 233	0.00	-210.85	0.04	Z	3.45	-208.90	18.38
21500906	44 54.83	110 16.87	6538.1	980014.64	N 233	17.99	-205.01	0.25	Z	3.07	-203.45	23.83
21500910	44 52.72	110 9.08	6654.9	980001.65	N 233	19.16	-207.82	0.20	Z	5.06	-204.28	23.65
21500911	44 53.88	110 7.37	6741.1	979999.28	N 233	23.14	-206.78	0.38	Z	7.11	-201.19	26.05
21500914	44 58.48	110 3.88	7244.1	979977.40	N 233	41.57	-205.51	0.00	Z	9.84	-197.18	27.23
21500915	44 59.78	110 3.17	7252.0	979978.24	N 233	41.19	-206.15	0.40	Z	8.04	-199.62	23.97
21500916	45 0.30	110 1.88	7256.9	979978.69	N 243	41.32	-206.19	0.98	Z	8.44	-199.26	23.80
21500918	45 1.17	109 56.03	7573.2	979967.39	N 233	58.42	-199.88	0.92	Z	8.95	-192.42	28.52
21500921	44 57.20	110 15.02	6708.0	980009.39	N 233	25.12	-203.67	0.19	Z	4.51	-200.67	25.48
21500922	44 58.37	110 13.03	6628.9	980016.08	N 233	22.62	-203.47	0.14	D	5.38	-199.61	25.93
21500923	44 59.70	110 11.55	6627.0	980017.72	N 233	22.08	-203.95	0.20	D	6.64	-198.83	25.95
21500924	45 0.50	110 10.93	6634.8	980015.29	N 243	19.17	-207.13	0.36	Z	7.98	-200.66	23.66
21500925	45 1.80	110 10.47	6664.0	980012.26	N 243	16.92	-210.37	0.59	Z	8.16	-203.73	19.81
21500926	45 2.97	110 9.52	6780.8	980003.83	N 243	17.70	-213.58	2.59	Z	11.91	-203.18	19.58
21500927	45 5.35	110 8.52	6889.1	980008.74	N 243	29.20	-205.77	0.40	Z	5.35	-201.94	19.15
21501001	44 32.42	110 25.43	7733.9	979871.01	W543	20.51	-243.27	0.05	Z	0.89	-243.86	-10.33
21501003	44 31.72	110 24.93	7733.9	979868.68	W543	19.24	-244.54	0.00	Z	0.58	-245.45	-11.68
21501004	44 30.35	110 25.20	7733.9	979869.39	W543	22.01	-241.77	0.04	Z	0.61	-242.65	-8.63
21501005	44 28.20	110 27.43	7733.9	979867.10	W543	22.97	-240.82	0.04	Z	0.64	-241.66	-7.64
21501006	44 27.18	110 29.88	7733.9	979865.16	W543	22.56	-241.22	0.01	Z	0.47	-242.23	-8.56
21501007	44 28.03	110 31.03	7733.9	979867.39	W543	23.51	-240.27	0.04	Z	0.65	-241.11	-7.83
21501008	44 28.63	110 32.62	7775.9	979867.49	W543	26.65	-238.56	0.01	Z	0.66	-239.39	-6.57
21501010	44 26.40	110 34.42	7733.9	979866.30	W543	24.88	-238.90	0.04	Z	0.84	-239.54	-6.85
21501013	44 24.95	110 34.07	7733.9	979864.07	W543	24.84	-238.94	0.03	Z	0.59	-239.84	-6.86
21501015	44 21.70	110 32.77	7913.1	979854.65	W443	37.16	-232.74	0.03	Z	0.50	-233.71	-0.01
21501019	44 28.22	110 8.40	8465.9	979857.92	W543	82.53	-206.22	2.04	Z	7.09	-200.56	35.56
21501020	44 29.38	110 0.07	6949.1	979931.57	N 243	11.93	-225.08	1.42	Z	13.77	-212.83	22.76
21501022	44 28.83	110 1.65	7083.0	979925.82	N 243	19.59	-221.99	2.12	Z	13.00	-210.50	25.44
21501100	44 33.13	110 23.58	7744.1	979869.74	F 543	19.13	-245.00	0.01	Z	0.72	-245.76	-12.11
21501102	44 34.03	110 15.57	7895.0	979859.37	C 643	21.58	-247.70	0.06	Z	0.86	-248.31	-14.05
21501103	44 35.57	110 14.77	7868.1	979864.89	F 543	22.25	-246.11	0.06	Z	1.00	-246.59	-12.71
21501104	44 36.90	110 12.90	7940.0	979865.53	F 543	27.64	-243.17	0.26	Z	1.45	-243.20	-9.66
21501105	44 32.50	110 15.37	7957.0	979867.76	N 233	38.10	-233.29	0.05	Z	0.91	-233.86	0.83
21501106	44 31.93	110 15.30	7975.1	979867.82	F 543	40.72	-231.29	0.02	Z	0.95	-231.81	3.04
21501107	44 30.95	110 15.20	8124.0	979864.58	N 233	52.95	-224.13	0.50	Z	1.64	-223.95	11.15
21501201	44 21.63	110 34.83	7998.0	979849.71	C 643	40.30	-232.49	0.02	Z	0.52	-233.44	-0.35
21501203	44 18.20	110 36.32	7779.9	979860.43	N 233	35.71	-229.64	0.03	Z	0.89	-230.24	2.71
21501204	44 16.98	110 37.53	7804.1	979858.44	N 233	37.83	-228.35	0.01	Z	1.01	-228.82	3.79
21501206	44 14.63	110 38.82	7748.0	979859.04	N 243	36.70	-227.56	0.57	Z	2.02	-227.03	5.21
21501214	44 25.97	110 42.02	7824.1	979862.91	F 543	30.62	-236.24	0.06	Z	1.22	-236.50	-5.91
21501215	44 24.50	110 41.68	7792.0	979861.32	W543	28.23	-237.53	0.19	Z	1.52	-237.50	-6.70
21501216	44 23.12	110 40.13	7792.0	979859.43	W543	28.42	-237.34	0.14	Z	1.11	-237.72	-6.33
21501217	44 21.63	110 39.70	7793.0	979858.05	C 643	29.39	-236.41	0.02	Z	0.68	-237.22	-5.60
21501218	44 20.70	110 39.02	7780.0	979856.21	C 643	27.72	-237.63	0.15	Z	0.94	-238.18	-6.26
21501219	44 19.90	110 36.80	7795.9	979859.04	C 643	33.26	-232.64	0.36	Z	0.94	-233.18	-0.50
21501220	44 19.58	110 36.48	7803.1	979858.89	N 233	34.26	-231.88	0.18	Z	0.76	-232.60	0.20
21501222	44 24.20	110 29.95	7733.9	979860.67	W543	22.58	-241.21	0.05	Z	0.49	-242.20	-8.07
21501223	44 25.47	110 30.10	7733.9	979864.49	W543	24.47	-239.31	0.00	Z	0.41	-240.39	-6.49
21501224	44 26.55	110 28.03	7733.9	979866.33	W543	24.69	-239.09	0.02	Z	0.43	-240.15	-5.96
21501225	44 25.13	110 24.85	7733.9	979865.19	W543	25.69	-238.09	0.00	Z	0.41	-239.17	-4.05
21501227	44 24.70	110 20.88	7733.9	979876.89	W543	38.04	-225.74	0.00	Z	0.46	-226.77	9.19
21501228	44 25.57	110 21.28	7733.9	979868.32	W543	28.15	-235.63	0.00	Z	0.45	-236.66	-0.95
21501229	44 25.22	110 22.17	7733.9	979869.16	W543	29.53	-234.25	0.01	Z	0.44	-235.30	0.32

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67	
21501230	44 24.43	110 23.50	7733.9	979868.61	W543	30.16	-233.62	0.00	Z	0.41	-234.70	0.82
21501231	44 23.33	110 23.33	7733.9	979877.24	W543	40.46	-223.32	0.03	Z	0.50	-224.31	11.46
21501232	44 22.42	110 23.70	7733.9	979880.46	W543	45.05	-218.73	0.06	Z	0.75	-219.47	16.39
21501233	44 22.23	110 25.28	7733.9	979880.46	W543	45.34	-218.45	0.21	Z	1.42	-218.51	17.05
21501234	44 23.15	110 22.42	7733.9	979879.67	W543	43.15	-220.63	0.00	Z	0.47	-221.65	14.34
21501235	44 23.03	110 20.95	7733.9	979883.29	W543	46.95	-216.83	0.00	Z	0.48	-217.84	18.47
21501237	44 19.20	110 20.13	7733.9	979881.60	W543	51.05	-212.73	0.03	Z	0.75	-213.47	23.77
21501238	44 17.57	110 20.23	7733.9	979882.15	W543	54.05	-209.73	0.00	Z	0.98	-210.24	27.29
21501239	44 17.32	110 18.90	7733.9	979885.37	W543	57.65	-206.13	0.00	Z	0.84	-206.78	31.09
21501242	44 22.28	110 18.38	7733.9	979889.60	W543	54.40	-209.38	0.04	Z	0.75	-210.12	26.80
21501243	44 23.47	110 17.77	7733.9	979890.73	W543	53.73	-210.05	0.06	Z	0.81	-210.73	26.03
21501244	44 27.07	110 24.42	7733.9	979863.85	W543	21.43	-242.35	0.00	Z	0.41	-243.43	-8.61
21501245	44 8.92	110 49.53	7376.0	979891.18	N 243	42.51	-209.07	0.01	Z	0.80	-209.77	17.75
21501246	44 9.75	110 49.15	7616.1	979873.97	N 243	46.60	-213.16	0.11	Z	1.25	-213.40	14.32
21501247	44 11.65	110 48.00	8105.0	979840.99	N 243	56.68	-219.75	0.24	Z	1.63	-219.59	8.72
21501248	44 12.93	110 47.98	8630.9	979806.53	N 243	69.70	-224.68	0.07	Z	2.33	-223.76	4.56
21501249	44 13.58	110 46.33	8714.9	979799.28	N 243	69.35	-227.89	0.03	Z	1.90	-227.39	1.66
21501250	44 13.72	110 44.52	8626.0	979803.39	N 243	64.90	-229.31	0.04	Z	1.64	-229.08	0.76
21501251	44 14.67	110 42.77	8501.0	979809.64	N 243	57.98	-231.97	0.02	Z	1.24	-232.15	-1.56
21501252	44 14.92	110 40.78	8405.8	979814.25	N 243	53.27	-233.43	0.00	Z	1.14	-233.72	-2.33
21501253	44 19.18	110 32.53	8015.1	979848.08	C 643	43.97	-229.40	0.24	Z	1.01	-229.86	4.17
21501254	44 18.65	110 31.98	8129.9	979842.53	C 643	50.01	-227.28	0.26	Z	1.42	-227.32	6.90
21501255	44 17.13	110 29.78	7451.1	979882.46	W543	28.46	-225.68	0.04	Z	1.93	-225.25	9.92
21501256	44 16.55	110 28.35	7451.1	979881.55	W543	28.42	-225.71	0.03	Z	1.16	-226.06	9.60
21501257	44 15.73	110 28.00	7451.1	979882.99	W543	31.10	-223.04	0.00	Z	1.06	-223.48	12.38
21501258	44 15.00	110 26.80	7451.1	979887.46	W543	36.67	-217.47	0.10	Z	1.38	-217.59	18.71
21501259	44 12.08	110 29.78	7266.1	979895.49	F 543	31.73	-216.10	0.03	Z	1.62	-215.99	19.73
21501260	44 10.13	110 35.00	6954.1	979917.36	N 243	27.22	-209.96	0.42	Z	4.81	-206.67	27.32
21501261	44 8.97	110 38.02	6894.0	979917.86	N 243	23.82	-211.31	1.16	Z	5.81	-207.02	25.80
21501262	44 25.17	110 21.35	7733.9	979870.25	--	30.69	-233.09	0.00	Z	0.45	-234.13	1.66
21501263	44 22.77	110 16.45	7733.9	979869.49	--	53.55	-210.23	0.37	Z	1.52	-210.20	26.91
21501264	44 20.48	110 16.58	7733.9	979888.25	--	55.77	-208.01	0.13	Z	1.03	-208.47	29.15
21501265	44 17.80	110 13.87	7733.9	979881.80	W543	53.36	-210.42	0.25	Z	2.65	-209.26	29.42
21501266	44 20.83	110 13.37	7733.9	979891.28	W543	58.26	-205.52	0.14	Z	2.13	-204.87	33.14
21501267	44 22.38	110 13.67	7733.9	979893.26	W543	57.91	-205.87	0.05	Z	1.88	-205.48	32.11
21501268	44 23.40	110 15.17	7733.9	979889.60	--	52.71	-211.07	0.00	Z	0.94	-211.62	25.51
21501269	44 25.55	110 17.37	7733.9	979888.21	--	48.08	-215.70	0.00	Z	0.70	-216.49	19.84
21501270	44 31.45	110 23.22	7733.9	979866.78	W433	17.75	-246.03	0.00	Z	0.49	-247.03	-12.94
21501271	44 30.55	110 22.70	7733.9	979864.89	W433	17.22	-246.57	0.00	Z	0.47	-247.58	-13.21
21501273	44 25.77	110 37.50	8286.1	979836.12	F 543	47.53	-235.08	0.20	Z	0.96	-235.57	-3.72
21501274	44 26.03	110 38.32	8388.1	979829.48	F 543	50.07	-236.02	0.00	Z	0.82	-236.63	-5.05
21501275	44 25.83	110 39.73	8519.0	979820.07	F 543	53.27	-237.29	0.04	Z	1.22	-237.49	-6.31
21501276	44 26.98	110 41.00	8023.0	979850.41	F 543	35.28	-238.36	0.12	Z	1.01	-238.82	-8.04
21501281	44 27.62	110 49.67	7365.2	979895.60	N 233	17.70	-233.50	0.02	Z	1.16	-233.85	-5.74
21501283	44 25.00	110 48.77	7633.9	979874.21	F 543	25.51	-234.86	0.05	Z	1.03	-235.32	-6.88
21501284	44 25.38	110 48.12	7639.1	979875.50	F 543	26.72	-233.83	0.09	Z	0.94	-234.38	-5.71
21501285	44 26.27	110 48.20	7606.0	979879.92	F 543	26.69	-232.73	0.17	Z	0.99	-233.24	-4.63
21501300	44 24.02	110 34.13	7810.0	979858.87	F 433	28.19	-238.19	0.01	Z	0.48	-239.19	-6.13
21501402	44 59.53	110 41.50	5629.9	980080.35	N 233	-28.73	-220.75	0.63	Z	7.84	-214.38	9.01
21501403	45 3.20	110 45.65	5179.1	980087.22	N 243	-49.76	-226.41	0.03	Z	8.25	-219.59	1.68
21501404	45 4.03	110 46.45	5165.0	980092.48	N 243	-47.08	-223.24	0.07	Z	8.83	-215.84	4.91
21501405	45 5.45	110 46.95	5188.0	980094.82	N 243	-44.72	-221.66	0.17	Z	10.28	-212.82	7.10
21501406	45 6.72	110 47.70	5124.0	980104.89	N 243	-42.58	-217.35	1.17	Z	11.83	-206.94	12.18
21501407	45 6.67	110 51.18	5978.0	980068.82	F 543	1.68	-202.22	0.63	Z	5.45	-198.26	20.46
21501415	45 2.13	110 42.15	5380.9	980076.01	F 543	-40.39	-223.92	0.20	Z	6.65	-218.72	3.41
21501416	45 2.20	110 41.40	5848.1	980051.51	F 543	-21.10	-220.56	1.47	Z	5.88	-216.17	5.92
21501417	45 2.70	110 39.83	6334.0	980029.54	F 433	1.84	-214.19	3.36	Z	7.23	-208.47	13.45
21501442	44 55.87	110 35.37	7147.0	979968.54	F 543	27.53	-216.24	0.10	Z	1.38	-216.37	8.98
21501443	44 54.82	110 37.18	7537.0	979941.46	F 433	38.67	-218.39	0.74	Z	2.27	-217.62	7.87
21501444	44 55.02	110 35.67	7439.0	979950.39	F 543	38.09	-215.63	0.05	Z	1.30	-215.84	9.77
21502800	44 57.45	110 40.63	6065.9	980035.15	N 233	-9.82	-216.71	0.13	Z	4.63	-213.58	10.73
21502900	44 57.88	110 41.23	6004.9	980038.85	C 643	-12.51	-217.32	0.44	Z	5.05	-213.76	10.31
3925B 68	45 6.48	109 54.25	10400.9	979806.96	F 543	155.58	-199.17	1.70	Z	8.85	-191.41	24.54
3925B 78	45 2.04	109 48.50	8061.0	979952.07	W443	87.61	-187.32	0.79	Z	5.17	-183.62	33.69
3925B104	44 59.65	109 55.06	10092.8	979604.71	C 843	134.69	-209.54	6.05	Z	20.44	-190.26	30.74
3925B106	44 55.58	109 54.42	10585.0	979761.67	F 543	144.02	-217.01	6.38	Z	22.13	-195.92	27.04
3925B107	44 53.47	109 55.75	9995.7	979800.97	F 543	131.17	-209.76	4.90	Z	14.09	-196.85	27.69
3925B108	44 49.69	109 54.13	10148.0	979781.74	F 543	131.94	-214.18	4.32	Z	17.73	-197.60	28.21
3925B109	44 46.60	109 54.80	9862.9	979800.04	F 543	128.12	-208.27	2.04	Z	9.23	-200.25	27.18
3925B110	44 46.76	109 51.16	10915.0	979719.74	H 443	146.38	-225.90	7.04	Z	30.68	-196.18	29.77

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
3925B111	44 51.27	109 49.59	10959.0	979743.83	F 543	167.80	-205.98	2.56 Z	25.72	-181.21	42.05
3925B116	44 53.08	109 49.78	8896.0	979879.75	F 543	107.25	-196.17	13.31 Z	20.11	-177.43	45.49
40990529	45 0.40	109 59.40	7387.8	979971.54	N 233	46.32	-205.66	2.08 Z	11.24	-195.92	26.49
40990530	44 58.65	109 50.30	7149.9	980000.28	N 243	55.34	-188.52	1.84 Z	10.43	-179.60	40.93
46870042	44 9.92	111 8.60	6467.8	979961.12	F 543	25.61	-194.99	0.10 Z	0.57	-195.93	21.31
46870045	44 13.21	111 8.23	6713.9	979940.78	N 243	23.43	-205.66	0.23 Z	0.79	-206.29	11.89
46870046	44 14.65	111 6.89	6824.8	979931.46	N 243	22.36	-210.42	0.67 Z	1.72	-210.21	9.02
46870137	44 27.53	111 8.58	7628.0	979898.61	F 543	45.54	-214.63	0.07 Z	1.21	-214.91	6.04
46870138	44 27.82	111 8.74	7630.9	979898.21	F 543	44.98	-215.29	0.05 Z	1.17	-215.61	5.33
46870464	44 40.24	111 9.08	6628.9	979988.15	--	22.04	-204.05	0.00 Z	0.45	-205.12	17.05
46870465	44 40.09	111 8.25	6638.8	979987.87	N 233	22.92	-203.51	0.01 Z	0.44	-204.59	17.79
46870467	44 39.51	111 5.81	6666.0	979979.39	N 233	17.87	-209.49	0.10 Z	0.55	-210.46	12.57
46870526	45 2.68	111 7.97	6740.8	980021.94	--	32.49	-197.42	0.16 Z	3.81	-195.13	23.80
46870566	44 9.01	111 2.35	6452.8	979952.03	F 543	16.48	-203.61	0.08 Z	0.40	-204.72	16.00
46870569	44 8.28	111 0.44	6193.9	979961.98	N 243	3.20	-208.06	0.84 Z	1.60	-207.96	13.78
46870920	44 56.62	110 18.42	6249.0	980033.62	N 233	7.10	-206.03	0.58 Z	5.45	-202.09	24.42
46870924	44 31.00	111 9.21	8057.7	979876.60	F 543	57.67	-217.16	0.18 Z	2.13	-216.49	4.69
46870925	44 30.13	111 7.83	8190.9	979864.65	F 543	60.54	-218.83	0.01 Z	1.93	-218.35	3.20
46870999	44 38.18	111 5.75	6667.0	979977.40	F 543	17.98	-209.41	0.28 Z	1.01	-209.92	13.10
46871000	44 39.50	111 8.43	6636.8	979988.16	N 233	23.91	-202.45	0.05 Z	0.54	-203.43	18.88
46871001	44 38.11	111 9.26	6660.8	979981.32	N 233	21.42	-205.76	0.55 Z	1.43	-205.85	16.16
46871026	44 13.80	111 9.12	6779.9	979937.29	F 543	25.25	-205.99	0.15 Z	0.75	-206.76	11.07
46871027	44 14.65	111 9.13	7047.9	979919.89	F 543	31.75	-208.63	0.10 Z	0.78	-209.37	8.64
46871028	44 15.74	111 7.94	7153.9	979911.51	N 233	31.68	-212.32	0.11 Z	1.13	-212.70	6.19
46871029	44 11.91	111 9.31	6805.8	979936.98	N 243	30.23	-201.90	0.04 Z	0.62	-202.80	14.46
46871031	44 24.48	111 9.18	7550.9	979899.10	F 543	43.39	-214.15	0.07 Z	1.36	-214.29	5.87
46871032	44 24.56	111 8.56	7586.0	979897.23	N 233	44.69	-214.04	0.01 Z	1.08	-214.46	5.98
46871033	44 21.98	111 8.63	7691.9	979885.30	G 643	46.60	-215.74	0.21 Z	1.23	-216.00	3.89
46871040	44 24.05	111 6.79	7789.7	979881.21	C 643	48.59	-217.10	0.02 Z	1.19	-217.39	3.71
46871053	44 43.45	111 9.14	6569.9	979990.10	F 543	13.60	-210.48	0.00 Z	0.45	-211.54	10.67
46871055	44 41.73	111 9.05	6610.9	979987.82	F 543	17.77	-207.71	0.01 Z	0.42	-208.81	13.41
46871056	44 42.00	111 7.61	6617.8	979986.90	F 543	17.09	-208.62	0.01 Z	0.39	-209.75	12.84
46871060	44 44.25	111 5.79	6601.7	979986.21	F 433	11.50	-213.67	0.01 Z	0.46	-214.72	8.28
46871062	44 44.35	111 9.59	6532.8	979994.53	C 643	13.20	-209.62	0.02 Z	0.56	-210.57	11.54
46871067	44 44.65	111 5.79	6602.9	979986.39	C 643	11.19	-214.02	0.00 Z	0.48	-215.05	7.93
46871068	44 46.01	111 5.78	6586.0	979988.12	F 433	9.27	-215.35	0.00 Z	0.63	-216.24	6.67
46871070	44 47.47	111 8.29	6587.9	979992.73	N 233	11.86	-212.83	0.00 Z	1.16	-213.19	9.08
46871077	44 37.18	111 5.80	6878.0	979958.66	F 543	20.57	-214.02	0.47 Z	1.56	-213.97	8.98
46871226	44 25.93	110 22.00	7733.9	979865.57	W543	24.87	-238.92	0.02 Z	0.45	-239.95	-4.45
4687A	44 41.12	110 26.19	7666.8	979872.11	F 543	20.97	-247.34	0.10 Z	0.86	-247.96	-16.69
4687B013	44 32.94	110 46.27	8045.9	979853.08	H 443	31.11	-243.32	0.41 Z	1.89	-242.89	-14.19
4687B150	44 44.75	110 42.82	7613.8	979923.01	N 233	42.63	-217.06	0.11 Z	0.73	-217.82	9.84
4687B153	44 43.24	110 40.12	7560.0	979924.21	C 643	41.06	-216.79	0.07 Z	1.03	-217.26	11.27
4687B159	44 42.57	110 41.87	8050.0	979889.82	C 643	53.70	-220.86	0.13 Z	1.42	-220.90	7.35
4687B160	44 42.07	110 42.13	8608.0	979846.32	F 433	63.38	-230.22	0.97 Z	5.42	-226.20	2.01
4687B161	44 41.50	110 40.99	8547.0	979854.14	F 433	66.33	-225.18	0.32 Z	2.54	-224.06	4.52
4687B165	44 44.68	110 39.93	7587.0	979922.57	F 433	39.78	-218.99	0.01 Z	0.80	-219.69	8.53
4687B169	44 43.82	110 43.32	7451.8	979931.64	C 643	37.45	-216.71	0.17 Z	0.93	-217.29	10.51
4687B173	44 44.40	110 44.54	7520.0	979924.79	C 643	36.13	-220.36	0.24 Z	1.04	-220.82	6.61
4687B200	44 33.61	110 49.58	7317.9	979906.64	G 643	15.27	-234.33	0.40 Z	0.95	-234.88	-7.07
4687B217	44 34.45	110 48.08	7194.9	979915.68	C 843	11.49	-233.91	0.48 Z	1.33	-234.09	-5.91
4687B225	44 32.15	110 52.86	7922.9	979864.05	H 433	31.72	-238.51	2.10 Z	3.86	-236.13	-9.31
4687B228	44 33.77	110 53.41	7410.8	979901.41	F 433	18.52	-234.24	0.03 Z	0.78	-234.98	-8.33
4687B230	44 33.74	110 51.72	7361.9	979906.57	G 643	19.14	-231.96	0.24 Z	0.82	-232.64	-5.47
4687B243	44 35.45	110 52.65	7692.9	979886.05	C 643	27.13	-235.25	0.05 Z	0.71	-236.03	-9.30
4687B256	44 30.62	110 51.55	7993.7	979858.75	G 643	35.37	-237.27	1.73 Z	3.56	-235.18	-7.88
4687B258	44 30.75	110 45.82	8219.8	979844.49	F 543	42.16	-238.20	0.46 Z	1.68	-237.97	-8.96
4687B261	44 30.55	110 48.87	7651.9	979881.28	G 643	25.90	-235.08	0.47 Z	1.40	-235.17	-6.97
4687B317	44 29.62	110 52.81	7996.7	979860.49	F 543	38.90	-233.84	0.05 Z	1.07	-234.24	-7.33
4687B343	44 28.10	110 47.20	8192.9	979843.40	F 543	42.54	-236.89	0.61 Z	1.92	-236.43	-7.65
4687B345	44 29.29	110 46.55	8390.7	979832.22	F 433	48.15	-238.04	0.67 Z	2.20	-237.27	-8.40
4687C	44 37.66	110 6.57	8071.9	979871.80	C 843	45.15	-230.16	0.11 Z	2.58	-229.04	4.13
4687D	44 17.88	110 9.19	7782.8	979882.28	C 843	58.31	-207.14	0.05 Z	3.00	-205.63	33.58
4687E	44 10.18	110 6.05	7879.9	979857.82	C 843	54.59	-214.17	0.15 Z	3.24	-212.41	29.07
4687F	44 8.74	110 4.81	7907.8	979852.12	C 843	53.67	-216.04	0.22 Z	3.61	-213.91	28.01
4687G100	44 30.90	110 57.30	8025.9	979862.18	F 543	41.40	-232.34	0.41 Z	1.42	-232.38	-7.00
4687H001	44 48.50	110 42.22	8274.9	979882.89	F 543	58.95	-223.28	1.82 Z	4.03	-220.69	6.03
4687H003	44 43.25	110 38.02	7879.9	979903.92	W443	50.80	-217.96	0.10 Z	0.80	-218.64	10.21
4687H004	44 43.35	110 37.22	7879.9	979904.00	W443	50.73	-218.03	0.21 Z	0.94	-218.57	10.41
4687H005	44 44.62	110 35.04	7999.0	979897.35	W443	53.35	-219.47	0.93 Z	1.98	-218.96	10.04

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67	
4687H006	44 45.27	110 33.13	8027.9	979896.36	W443	54.10	-219.71	1.29	Z	3.19	-217.99	11.12
4687H007	44 44.51	110 33.13	8103.0	979889.22	F 543	55.16	-221.21	0.10	Z	1.03	-221.64	7.67
4687H008	44 31.27	109 57.97	6708.0	979949.74	N 243	4.60	-224.19	0.89	Z	11.55	-214.16	20.51
4687H009	44 33.53	109 58.52	6899.9	979943.07	N 243	12.54	-222.79	0.26	Z	10.15	-214.16	19.78
4687H010	44 38.87	110 11.65	9642.7	979748.12	H 443	67.19	-261.69	3.25	Z	12.35	-250.59	-18.01
4687H011	44 38.08	110 10.85	8979.0	979797.79	F 543	55.71	-250.53	1.84	Z	5.33	-246.57	-13.60
4687H012	44 38.62	110 13.71	7982.9	979857.01	C 843	20.55	-251.72	0.04	Z	1.60	-251.59	-18.60
4687H013	44 43.38	110 15.47	8563.0	979825.57	F 543	36.42	-255.64	0.04	Z	1.17	-255.88	-24.61
4687H014	44 40.63	110 16.14	8242.7	979842.39	W543	27.31	-253.83	0.48	Z	1.55	-253.73	-21.53
4687H015	44 41.13	110 14.40	8449.8	979833.17	C 843	36.78	-251.42	0.13	Z	1.19	-251.65	-19.58
4687H016	44 39.53	110 15.50	8447.0	979830.82	F 433	36.59	-251.52	0.26	Z	1.28	-251.67	-19.14
4687H017	44 38.86	110 16.59	8230.0	979842.32	W433	28.71	-251.99	0.51	Z	1.57	-251.87	-19.13
4687H018	44 38.32	110 15.63	8233.8	979843.12	W433	30.69	-250.15	0.06	Z	0.94	-250.68	-17.72
4687H019	44 33.85	110 25.17	8636.0	979813.89	F 433	45.98	-248.57	1.40	Z	4.20	-245.78	-12.69
4687H020	44 34.61	110 24.27	8612.0	979814.82	C 643	43.51	-250.22	0.98	Z	3.54	-248.09	-15.05
4687H021	44 41.30	110 44.03	8054.8	979874.55	F 433	40.80	-233.93	2.89	D	5.25	-230.14	-2.07
4687H022	44 41.68	110 35.08	8205.0	979873.58	C 643	53.37	-226.48	0.26	Z	1.01	-226.92	2.79
4687H023	44 39.48	110 36.49	8291.0	979853.60	W443	44.79	-237.99	0.00	Z	0.82	-238.62	-8.68
4687H024	44 41.10	110 34.39	8138.8	979872.85	F 543	47.30	-230.29	0.10	Z	0.83	-230.92	-0.94
4687H025	44 22.59	110 49.19	7880.9	979855.73	F 543	33.87	-234.93	0.89	Z	1.90	-234.50	-6.25
4687H026	44 20.77	110 50.47	8569.9	979811.25	F 543	56.86	-235.43	0.19	Z	1.60	-235.25	-7.64
4687H027	44 18.82	110 50.75	8544.0	979812.07	F 433	58.19	-233.22	0.95	Z	2.56	-232.08	-4.66
4687H028	44 18.47	110 51.20	8250.0	979833.76	F 543	52.79	-228.59	0.03	Z	1.12	-228.92	-1.67
4687H029	44 20.08	110 46.61	8024.9	979842.46	F 543	37.92	-235.79	0.13	Z	1.03	-236.23	-7.04
4687H030	44 20.45	110 46.97	7791.0	979858.73	W443	31.65	-234.08	0.28	Z	1.35	-234.21	-5.12
4687H031	44 21.29	110 47.55	7791.0	979860.60	W443	32.26	-233.47	0.02	Z	0.88	-234.08	-5.20
4687H032	44 23.25	110 49.87	8002.0	979850.33	F 543	38.85	-234.07	0.08	Z	0.92	-234.62	-6.64
4687H033	44 34.95	110 52.23	7635.8	979866.50	G 643	22.97	-237.47	0.11	Z	0.79	-238.17	-11.27
4687H034	44 35.23	110 55.68	7846.0	979878.01	F 433	33.80	-233.80	0.07	Z	0.82	-234.46	-8.61
4687H035	44 34.50	110 56.12	7862.0	979877.40	G 643	35.80	-232.35	0.04	Z	0.81	-233.02	-7.28
4687H056	44 32.13	109 58.32	6805.8	979945.07	N 243	7.82	-224.31	1.21	Z	13.20	-212.62	21.79
4687H057	44 34.45	109 57.63	7043.0	979935.40	N 243	16.93	-223.28	0.47	Z	11.57	-213.23	20.16
4687H058	44 35.22	109 56.21	7306.8	979921.67	N 243	26.82	-222.39	0.62	Z	12.12	-211.78	20.97
4687H059	44 36.62	109 53.12	7690.9	979908.23	N 243	47.36	-214.95	0.87	Z	9.43	-207.02	24.33
4687H060	44 36.85	109 49.02	8183.7	979885.24	N 243	70.32	-208.80	1.06	Z	12.59	-197.67	32.12
4687H061	44 38.59	109 48.07	10326.8	979763.64	N 243	147.38	-204.84	1.47	Z	9.57	-196.38	31.89
4687H063	44 32.69	110 34.00	8146.0	979849.28	W443	37.09	-240.74	0.35	Z	1.15	-241.05	-9.29
4687H064	44 29.20	110 33.12	7829.7	979864.30	F 543	27.66	-239.39	0.09	Z	0.84	-240.03	-7.43
4687H065	44 51.78	110 17.43	8813.0	979842.67	F 433	64.33	-236.25	3.62	Z	12.00	-225.64	2.46
4687H066	44 49.72	110 15.21	9613.8	979780.65	F 433	80.64	-247.26	1.97	Z	11.60	-236.92	-8.15
4687H067	44 50.39	110 16.97	8975.7	979825.21	F 543	64.25	-241.89	2.04	Z	7.91	-235.34	-6.72
4687H068	44 50.14	110 8.96	6973.8	979974.71	F 543	26.07	-211.78	0.29	D	3.69	-209.61	19.34
4687H069	44 44.05	109 55.14	9590.9	979816.68	F 543	123.07	-204.04	0.49	Z	5.36	-199.95	28.67
4687H070	44 43.83	109 53.45	9892.7	979796.04	F 543	131.11	-206.31	0.87	Z	6.23	-201.28	26.86
4687H071	44 43.43	109 51.82	9917.0	979799.17	F 543	137.12	-201.12	1.66	Z	7.04	-195.28	32.50
4687H072	44 32.31	110 23.83	7733.9	979867.10	W543	16.77	-247.01	0.00	Z	0.57	-247.93	-14.13
4687H073	44 31.56	110 22.13	7733.9	979865.79	W543	16.59	-247.19	0.00	Z	0.49	-248.19	-13.96
4687H074	44 31.58	110 20.67	7733.9	979864.35	W543	15.12	-248.66	0.00	Z	0.50	-249.65	-15.22
4687H075	44 31.82	110 19.55	7733.9	979869.71	W543	20.12	-243.66	0.00	Z	0.54	-244.61	-10.11
4687H076	44 31.51	110 18.24	7733.9	979875.23	W543	26.10	-237.68	0.00	Z	0.62	-238.55	-3.81
4687H077	44 30.63	110 16.72	7733.9	979884.07	W543	36.27	-227.51	0.55	Z	1.80	-227.20	7.93
4687H078	44 30.64	110 18.68	7733.9	979869.17	W543	21.35	-242.43	0.00	Z	0.58	-243.33	-8.42
4687H079	44 30.45	110 20.40	7733.9	979862.16	W543	14.63	-249.15	0.00	Z	0.49	-250.15	-15.42
4687H080	44 30.40	110 23.79	7733.9	979865.35	W543	17.90	-245.88	0.00	Z	0.46	-246.91	-12.68
4687H081	44 28.97	110 24.61	7733.9	979867.00	W543	21.71	-242.07	0.00	Z	0.46	-243.10	-8.70
4687H082	44 29.05	110 23.50	7733.9	979864.58	W543	19.16	-244.62	0.00	Z	0.44	-245.67	-11.10
4687H083	44 28.67	110 21.97	7733.9	979862.98	W543	17.84	-245.94	0.00	Z	0.45	-246.98	-12.11
4687H084	44 28.82	110 19.61	7733.9	979865.21	W543	20.15	-243.64	0.00	Z	0.51	-244.61	-9.39
4687H085	44 29.39	110 17.08	7733.9	979882.86	W543	36.94	-226.84	0.00	Z	0.78	-227.55	7.86
4687H086	44 28.22	110 17.42	7733.9	979883.92	W543	39.76	-224.02	0.01	Z	0.70	-224.81	10.86
4687H087	44 27.33	110 17.31	7733.9	979886.44	W543	43.62	-220.16	0.04	Z	0.77	-220.88	15.02
4687H088	44 26.14	110 17.75	7733.9	979886.39	W543	45.37	-218.42	0.02	Z	0.68	-219.22	16.91
4687H089	44 26.34	110 19.42	7733.9	979876.96	W543	35.63	-228.15	0.00	Z	0.51	-229.13	6.70
4687H090	44 26.43	110 20.84	7733.9	979864.78	W543	23.32	-240.46	0.00	Z	0.45	-241.50	-5.91
4687H091	44 26.67	110 21.78	7733.9	979862.98	W543	21.16	-242.62	0.00	Z	0.44	-243.67	-8.29
4687H122	44 12.18	110 7.10	7830.7	979862.14	G 743	51.27	-215.81	0.06	Z	3.23	-214.07	26.82
4687HG10	44 27.40	110 56.35	7953.7	979857.07	C 643	34.80	-236.48	0.10	Z	1.12	-236.83	-11.17
4687HG11	44 23.71	110 44.57	8111.9	979841.48	W543	39.63	-237.04	0.37	Z	1.20	-237.30	-7.45
4687HG12	44 23.59	110 45.66	8170.0	979840.53	C 643	44.32	-234.34	0.07	Z	0.82	-234.97	-6.50
4687HG13	44 23.22	110 42.41	7791.0	979862.28	W543	31.03	-234.70	0.03	Z	0.69	-235.50	-4.86

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
4687HG14	44 21.63	110 42.60	7792.0	979859.35	C 643	30.59	-235.17	0.14 Z	0.81	-235.85	-5.20
4687HG15	44 19.32	110 44.73	7946.9	979844.64	C 643	33.92	-237.13	0.22 Z	1.52	-237.08	-7.17
4687HG16	44 19.17	110 41.80	8310.0	979819.25	C 643	42.86	-240.57	0.13 Z	1.03	-240.99	-10.06
4687HG17	44 18.70	110 39.23	7794.9	979850.60	F 543	26.53	-239.33	0.06 Z	1.02	-239.80	-7.87
4687HG18	44 17.03	110 40.48	8410.0	979811.08	F 543	47.31	-239.53	0.05 Z	1.13	-239.83	-8.37
4687HG19	44 15.85	110 34.99	9724.7	979732.62	F 543	94.11	-237.57	2.80 D	12.17	-226.64	6.59
4687HG20	44 13.12	110 34.54	9025.9	979785.23	F 543	85.21	-222.64	2.56 Z	8.27	-215.72	17.95
4687HG21	44 12.68	110 23.37	9875.0	979730.57	F 543	110.96	-225.85	3.55 Z	15.80	-211.25	25.88
4687HG22	44 11.91	110 20.49	9052.8	979792.57	F 543	96.90	-211.86	2.50 Z	6.61	-206.60	31.58
4687HG23	44 14.68	110 20.16	8885.8	979808.78	F 543	93.25	-209.82	0.76 Z	3.60	-207.60	30.22
4687HG24	44 17.39	110 24.27	7780.8	979872.79	C 843	49.37	-216.01	0.71 Z	2.10	-215.40	21.20
4687HG25	44 19.14	110 23.35	8179.8	979850.17	F 543	61.59	-217.40	0.48 Z	1.26	-217.59	18.86
4687HG26	44 19.61	110 25.60	8900.9	979809.03	F 543	87.48	-216.10	0.49 Z	3.49	-213.98	21.72
4687HG27	44 23.80	110 27.86	7819.0	979860.01	W 543	30.51	-236.17	0.00 Z	0.43	-237.22	-2.55
4687HG28	44 31.98	110 44.94	8230.0	979842.32	C 643	39.09	-241.61	0.06 Z	1.26	-241.80	-12.66
4687HG29	44 30.39	110 42.15	7962.0	979858.35	C 643	32.35	-239.21	0.09 Z	1.17	-239.52	-9.40
4687HG30	44 28.87	110 42.85	8515.7	979822.86	W 543	51.16	-239.29	0.33 Z	1.48	-239.23	-9.24
4687HG31	44 34.03	110 40.72	7386.8	979900.10	C 643	14.57	-237.38	0.02 Z	1.32	-237.56	-7.43
4687HG32	44 37.40	110 41.75	7525.0	979901.19	C 643	23.55	-233.10	0.30 Z	1.04	-233.56	-4.22
4687HG33	44 39.29	110 41.67	7710.0	979899.85	C 643	36.74	-226.22	0.22 Z	1.03	-226.68	2.32
4687HG34	44 38.29	110 43.78	7610.0	979901.21	C 643	30.22	-229.33	0.36 Z	0.99	-229.84	-1.13
4687HG35	44 28.98	110 39.82	8569.9	979821.97	F 543	55.20	-237.10	0.15 Z	1.31	-237.20	-6.38
4687HG36	44 23.78	110 38.05	8060.0	979845.50	C 843	38.67	-236.23	0.30 Z	0.91	-236.78	-4.86
4687HG37	44 21.07	110 30.35	7906.8	979858.17	C 643	41.04	-228.64	0.18 Z	0.80	-229.32	5.11
4687HG38	44 19.15	110 27.85	8074.8	979855.57	F 543	57.11	-218.30	0.33 Z	1.33	-218.43	16.91
4687HG39	44 14.00	110 14.30	8781.8	979809.66	F 543	85.38	-214.14	0.32 Z	2.26	-213.27	25.96
4687HG40	44 12.46	110 10.76	9821.9	979730.78	F 543	106.51	-228.48	0.37 Z	5.99	-223.71	16.20
4687HG41	44 13.05	110 9.45	9870.7	979728.53	F 543	107.96	-228.70	2.37 Z	12.08	-217.83	22.12
4687HG42	44 14.70	110 9.45	8735.9	979808.48	F 543	78.83	-219.12	0.48 Z	3.52	-217.00	22.80
4687HG43	44 16.05	110 11.92	9486.9	979762.80	F 543	101.66	-221.91	1.61 Z	8.61	-214.58	24.40
4687HG44	44 18.67	110 6.40	10253.0	979713.86	F 543	120.72	-228.98	3.95 D	14.97	-215.14	23.50
4687HG45	44 19.09	110 9.21	9236.9	979784.86	F 543	95.66	-219.39	6.35 Z	14.83	-205.88	32.68
4687HG46	44 21.52	110 8.34	9641.7	979760.64	F 543	105.79	-223.06	2.67 Z	11.59	-212.72	25.12
4687HG47	44 21.72	110 11.54	9714.9	979755.60	H 443	107.32	-224.03	4.89 Z	15.38	-209.89	27.66
4687HG48	44 23.13	110 10.78	9736.9	979758.30	F 543	109.96	-222.14	2.70 Z	11.32	-212.05	25.18
4687HG49	44 29.74	110 34.90	8161.7	979847.29	C 643	41.02	-237.35	0.11 Z	0.88	-237.92	-5.89
4687HG50	44 30.15	110 38.65	8588.9	979822.96	C 643	56.21	-236.74	0.02 Z	1.21	-236.94	-5.96
4687HG51	44 32.08	110 37.27	8170.0	979851.48	C 643	42.46	-236.19	0.03 Z	0.74	-236.91	-5.79
4687HG52	44 38.40	110 39.31	7950.0	979875.71	C 643	36.49	-234.66	0.19 Z	1.18	-234.95	-5.31
4687HG53	44 45.85	110 53.31	7870.0	979924.18	C 643	66.21	-202.21	0.06 Z	1.11	-202.58	22.80
4687HG54	44 46.36	110 56.45	8267.0	979900.49	F 433	79.04	-202.92	0.95 Z	5.62	-198.75	25.88
4687HG55	44 48.38	110 55.17	8843.0	979872.86	F 433	102.47	-199.14	1.56 Z	6.76	-193.76	30.70
4687HG56	44 49.17	110 58.49	8127.0	979923.49	F 543	84.65	-192.54	0.58 Z	2.58	-191.41	32.43
4687HG57	44 52.46	110 58.35	7409.8	979973.96	F 543	62.79	-189.94	0.35 Z	3.99	-187.46	35.89
4687HG58	44 51.66	110 57.14	7497.7	979965.14	F 543	63.43	-192.30	0.38 Z	4.63	-189.17	34.52
4687HG59	44 23.13	110 7.58	10357.0	979710.28	F 543	120.17	-233.07	3.90 Z	16.74	-217.44	19.81
4687HG60	44 24.80	110 8.80	10655.8	979684.68	F 543	120.12	-243.32	8.37 D	28.45	-215.90	20.76
4687HG61	44 26.83	110 11.87	9236.9	979799.74	F 543	98.86	-216.18	1.86 Z	5.44	-212.07	24.16
4687HG62	44 25.75	110 12.95	8887.8	979819.91	F 543	87.86	-215.27	0.47 Z	2.86	-213.79	22.74
4687HG63	44 27.60	110 14.00	8274.9	979858.23	C 843	65.82	-216.41	0.04 Z	1.19	-216.66	19.42
4687HG64	44 32.18	110 11.47	9451.8	979779.40	F 543	90.63	-231.74	2.00 Z	7.13	-225.90	8.78
4687HG65	44 34.82	110 10.02	9176.8	979786.60	F 543	68.02	-244.98	2.62 Z	7.90	-238.41	-4.44
4687HG66	44 37.31	110 18.28	8988.0	979792.42	F 433	52.35	-254.20	1.13 Z	4.07	-251.49	-18.57
4687HG67	44 38.27	110 1.56	9663.7	979785.64	F 543	107.58	-222.02	0.30 Z	6.71	-216.56	15.55
4687HG68	44 41.17	110 5.45	8648.0	979847.82	F 543	70.00	-224.96	1.62 Z	5.55	-220.82	10.92
4687HG69	44 43.19	110 2.28	8883.9	979851.39	F 543	92.68	-210.33	0.27 Z	3.57	-208.13	22.46
4687HG70	44 44.88	110 4.77	8029.9	979906.11	F 543	64.62	-209.26	0.04 Z	2.38	-208.34	22.09
4687HG71	44 43.95	110 13.80	8770.0	979817.62	F 543	47.06	-252.06	0.18 Z	1.79	-251.66	-20.58
4687HG72	44 45.43	110 18.09	8461.9	979831.72	F 543	29.98	-258.63	0.12 Z	1.53	-258.52	-28.01
4687HG73	44 45.35	110 20.80	8870.0	979803.64	C 743	40.36	-262.18	1.10 Z	5.93	-257.62	-27.31
4687HG74	44 57.74	110 57.25	8806.8	979879.12	F 543	91.21	-209.17	2.13 Z	8.03	-202.52	19.31
4687HG75	44 54.61	110 53.66	9742.8	979821.49	F 543	126.22	-206.08	3.61 Z	14.12	-193.20	29.90
4687HG76	44 54.23	110 49.82	9957.0	979796.43	F 433	121.84	-217.76	3.39 Z	18.22	-200.73	22.96
4687HG77	44 57.05	110 50.73	9885.0	979808.66	F 543	123.05	-214.10	2.10 Z	13.89	-201.41	21.24
4687HG78	44 59.27	110 21.01	8643.0	979891.51	F 543	85.91	-208.88	0.08 Z	3.99	-206.30	18.41
4687HG80	44 55.84	110 8.60	9932.7	979790.30	F 543	111.00	-227.78	10.25 D	30.03	-198.94	26.82
4687HG82	44 45.73	110 7.93	9323.8	979806.67	F 543	85.44	-232.57	4.66 D	14.32	-219.56	10.55
4687HG83	44 45.46	110 10.86	9162.7	979814.44	F 543	78.48	-234.03	0.02 D	2.67	-232.70	-2.30
4687HG84	44 46.96	110 9.21	9336.9	979807.28	F 543	85.43	-233.03	1.19 D	9.32	-225.02	4.71
4687HG85	44 47.95	110 11.11	9072.8	979827.58	F 543	79.42	-230.03	0.12 D	4.49	-226.89	2.60

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
4687HG 86	44 48.47	110 13.50	9290.0	979804.44	F 543	75.90	-240.96	1.10	Z 6.16	-236.11	-6.80
4687HG 87	44 47.41	110 18.21	8158.0	979858.21	F 443	24.94	-253.30	0.10	Z 1.47	-253.29	-23.42
4687HG 88	44 49.89	110 18.85	8227.0	979868.30	F 433	37.77	-242.83	1.29	Z 4.21	-240.07	-11.16
4687HG 89	44 53.21	110 29.65	9120.7	979823.66	C 643	72.07	-239.01	0.44	Z 6.47	-233.88	-7.21
4687HG 91	44 47.87	110 29.82	9680.8	979782.71	--	91.78	-238.41	2.63	Z 11.60	-228.05	0.41
4687HG 92	44 48.17	110 33.71	9268.8	979819.29	F 433	89.21	-226.92	1.61	Z 6.61	-221.63	6.30
4687HG 93	44 49.78	110 33.90	9372.9	979811.64	F 433	88.91	-230.78	1.77	Z 7.58	-224.50	2.87
4687HG 94	44 47.63	110 36.05	8843.0	979852.57	F 433	83.31	-218.30	0.28	Z 2.70	-216.98	10.86
4687HG 95	44 50.12	110 40.60	8309.7	979890.98	F 543	67.88	-215.54	0.63	Z 2.40	-214.59	11.92
4687HG 96	44 52.80	110 40.71	8119.0	979909.24	F 433	64.17	-212.74	0.66	Z 2.91	-211.29	14.38
4687HG 97	44 52.05	110 37.00	8182.0	979895.85	F 433	57.83	-221.23	2.18	Z 5.25	-217.43	8.98
4687HG 98	44 53.35	110 33.78	8586.9	979868.83	F 543	66.89	-225.99	1.00	Z 4.95	-222.45	3.81
4687HG 99	44 27.74	110 59.47	8855.0	979801.71	H 433	63.58	-238.44	0.39	Z 3.15	-236.66	-12.26
4687V 0 04	44 37.35	110 25.05	7702.8	979879.86	C 643	19.00	-243.72	0.27	Z 1.51	-243.70	-11.26
4687V 0 05	44 42.12	110 28.25	7706.0	979884.46	C 643	16.71	-246.12	0.00	Z 0.75	-246.86	-16.11
4687V 0 06	44 40.70	110 25.80	8089.9	979857.17	F 433	27.62	-248.30	0.31	Z 1.17	-248.59	-17.20
4687V 0 07	44 40.90	110 26.74	8041.0	979861.12	F 433	26.68	-247.57	0.43	Z 1.34	-247.70	-16.48
4687V 0 09	44 39.23	110 20.29	8582.0	979823.79	F 433	42.69	-250.02	0.47	Z 1.73	-249.70	-17.41
4687V 0 10	44 38.38	110 21.83	8609.8	979822.22	F 433	45.01	-248.64	0.18	Z 1.76	-248.29	-15.91
4687V 0 11	44 37.36	110 21.73	8515.8	979827.33	F 433	42.83	-247.62	0.65	Z 2.14	-246.90	-14.22
4687V 0 12	44 42.73	110 24.69	8273.9	979842.53	F 433	27.20	-254.99	0.33	Z 1.46	-254.98	-24.07
4687V 0 13	44 43.54	110 23.87	8394.7	979841.01	F 543	35.81	-250.51	0.02	Z 1.48	-250.46	-19.74
4687V 0 14	44 43.53	110 20.30	8562.0	979825.21	F 433	35.74	-256.28	0.10	Z 1.46	-256.24	-25.25
4687V 0 15	44 41.68	110 19.55	9094.8	979784.62	F 433	47.99	-262.21	0.43	Z 3.20	-260.35	-28.83
4687V 0 16	44 42.22	110 18.25	9221.0	979776.71	F 433	51.12	-263.38	0.53	Z 4.23	-260.48	-29.07
4687V 0 17	44 45.77	110 13.33	8828.7	979824.71	F 543	56.91	-244.21	0.49	Z 2.63	-242.96	-12.55
4687V 0 18	44 46.92	110 16.23	8540.0	979836.00	C 643	36.53	-253.72	0.13	Z 1.66	-253.48	-23.45
4687V 0 19	44 42.31	110 16.14	8470.9	979826.39	C 643	30.20	-258.71	1.24	Z 2.45	-257.69	-26.07
4687V 0 20	44 43.34	110 9.52	8771.0	979836.11	F 543	66.56	-232.59	0.06	Z 1.76	-232.22	-1.01
4687V 0 21	44 42.01	110 11.13	8999.0	979806.32	F 543	60.19	-246.74	1.02	Z 3.20	-244.90	-13.24
4687V 0 22	44 40.30	110 9.46	8444.9	979841.60	F 543	46.01	-242.02	0.74	Z 2.09	-241.36	-9.03
4687V 0 23	44 38.68	110 8.25	8321.9	979850.35	F 543	45.65	-238.19	0.28	Z 1.95	-237.68	-4.83
4687V 0 24	44 37.37	110 7.15	8095.8	979867.57	C 843	43.60	-232.52	0.41	Z 2.92	-231.06	2.22
4687V 0 25	44 36.30	110 8.28	8820.9	979816.07	F 543	61.83	-239.02	1.73	Z 4.19	-236.22	-2.69
4687V 0 26	44 35.84	110 11.74	7892.7	979869.33	C 843	28.60	-240.60	0.43	Z 1.85	-240.23	-6.34
4687V 0 27	44 33.88	110 12.63	8170.9	979851.89	F 543	40.24	-238.44	0.04	Z 1.34	-238.56	-4.15
4687V 0 28	44 35.95	110 16.33	8372.0	979833.57	F 433	37.69	-247.85	0.96	Z 2.32	-246.97	-13.40
4687V 0 29	44 35.10	110 16.04	7924.0	979860.71	C 643	24.03	-246.24	0.02	Z 0.87	-246.84	-12.92
4687V 0 30	44 47.50	110 24.55	9649.9	979764.25	--	70.97	-258.16	2.49	Z 13.60	-245.81	-16.67
4687V 0 31	44 47.67	110 22.58	8857.9	979810.90	--	42.99	-259.13	4.07	Z 13.78	-246.73	-17.34
4687V 0 32	44 46.71	110 23.19	8481.0	979835.33	--	33.46	-255.80	1.64	Z 6.65	-250.58	-20.83
4687V 0 33	44 45.87	110 25.43	8254.9	979865.11	--	43.26	-238.29	0.27	Z 2.53	-237.20	-7.34
4687V 0 34	44 44.55	110 26.09	8136.9	979860.89	F 433	29.95	-247.57	1.38	Z 4.88	-244.15	-13.92
4687YHG 1	44 50.67	110 2.03	8847.8	979860.24	F 543	86.84	-214.93	5.70	Z 11.82	-204.49	23.03
4687YHG 1	44 35.12	111 1.32	8026.0	979872.72	F 433	45.59	-228.15	0.67	Z 3.07	-226.55	-2.44
4687YHG 2	44 33.55	110 58.20	8023.0	979870.01	C 643	44.97	-228.87	0.11	Z 1.07	-229.07	-3.98
4687YHG 3	44 30.69	111 0.14	8428.8	979838.54	F 433	55.93	-231.55	0.78	Z 2.15	-230.83	-6.48
4687YHG 4	44 31.59	111 2.73	8129.9	979868.54	F 543	56.50	-220.79	0.17	Z 1.37	-220.88	2.64
4687YHG 5	44 29.13	111 4.10	8287.7	979856.39	C 643	62.88	-219.79	0.01	Z 1.28	-219.95	2.86
4687YHG 6	44 27.08	111 2.32	8388.9	979838.82	F 433	57.91	-228.21	0.99	Z 2.39	-227.25	-3.95
4687YHG 7	44 15.65	110 57.15	7742.0	979867.43	F 433	42.99	-221.07	0.90	Z 2.60	-219.95	4.39
4687YHG 8	44 12.91	110 52.76	7323.8	979896.30	F 543	36.70	-213.09	0.67	Z 2.86	-211.74	14.50
4687YHG 9	44 19.16	110 48.50	8368.0	979824.01	F 433	53.08	-232.33	0.07	Z 1.12	-232.64	-4.26
4687YR 01	44 19.66	110 12.18	7733.9	979889.33	W 543	58.08	-205.70	0.08	Z 1.85	-205.34	33.10
4687YR 02	44 12.49	110 6.62	7835.0	979866.30	C 843	55.36	-211.86	0.03	Z 3.27	-210.08	30.78
4687YR 03	44 13.58	110 7.07	7827.8	979866.04	C 843	52.78	-214.21	0.01	Z 2.53	-213.16	27.37
4687YR 04	44 13.60	110 7.46	7814.0	979867.14	C 843	52.56	-213.95	0.02	Z 2.79	-212.65	27.84
4687YR 05	44 13.49	110 7.84	7799.9	979868.07	C 843	52.33	-213.70	1.71	Z 5.41	-209.78	30.70
4687YR 06	44 13.65	110 6.41	7859.9	979866.17	C 843	55.82	-212.26	0.08	Z 2.67	-211.07	29.51
4687YR 07	44 10.27	110 6.26	7861.9	979858.78	C 843	53.72	-214.43	0.09	Z 3.06	-212.85	28.59
4687YR 08	44 10.21	110 6.68	7836.0	979857.53	C 843	50.13	-217.14	0.09	Z 2.89	-215.73	25.68
4687YR 09	44 10.10	110 7.00	7837.9	979855.82	C 843	48.76	-218.57	0.17	Z 2.97	-217.08	24.31
4687YR 10	44 9.92	110 7.23	7836.0	979854.58	C 843	47.61	-219.65	0.27	Z 3.19	-217.94	23.47
4687YR 11	44 10.45	110 4.99	8363.8	979826.68	C 843	68.49	-216.77	0.45	Z 4.27	-213.94	27.44
4687YR 12	44 10.79	110 4.22	8440.0	979819.96	C 843	68.42	-219.44	1.89	Z 7.74	-213.13	28.20
4687YR 13	44 11.17	110 3.55	8611.9	979808.57	C 843	72.61	-221.12	2.15	Z 9.62	-212.91	28.33
4687YR 14	44 10.30	110 5.75	7917.0	979856.99	C 843	57.05	-212.97	0.35	Z 4.03	-210.42	31.04
4687YR 15	44 13.74	110 5.97	7879.9	979865.22	C 843	56.61	-212.15	0.20	Z 3.08	-210.55	30.03
4687YR 16	44 14.39	110 4.09	7957.0	979858.14	C 843	55.80	-215.59	0.90	Z 5.15	-211.92	28.56
4687YR 17	44 14.21	110 4.80	7919.9	979860.58	C 843	55.03	-215.10	0.23	Z 3.96	-212.61	27.89

TABLE 5.—Principal Facts for Defense Mapping Agency data—Continued

STATION NAME	LAT deg min	LON deg min	ELEV ft	OG mGal	AC	FAA mGal	SBA mGal	ITC mGal	TC mGal	CBA 2.67	ISO 2.67
4687YR18	44 13.21	110 6.50	7879.9	979863.42	C643	55.61	-213.15	0.21	Z 2.96	-211.66	29.02
4687YR19	44 17.43	110 8.38	8929.8	979804.18	F543	68.63	-215.94	6.46	D 12.97	-204.34	34.80
4687YR20	44 17.87	110 7.77	9593.8	979756.43	F543	102.58	-224.64	9.12	D 19.71	-206.19	32.73
61343 012	45 3.25	111 9.26	6690.0	980020.19	C653	25.10	-203.07	0.38	Z 4.21	-200.38	18.13
61343 013	45 2.09	111 6.78	6811.0	980018.89	F543	36.92	-195.38	0.16	Z 4.40	-192.50	26.81
61343 014	45 0.75	111 4.80	6915.0	980017.11	F543	46.94	-188.91	0.31	Z 5.32	-185.11	34.99
61771 940	44 25.82	111 7.74	7810.0	979882.68	F543	49.29	-217.09	0.96	Z 2.33	-216.24	4.75
61771 941	44 21.12	111 9.80	7708.0	979882.07	G643	46.19	-216.71	0.26	Z 1.41	-216.79	2.37
68785 091	44 54.77	110 15.59	6629.0	980008.10	N233	20.08	-206.01	0.47	Z 3.92	-203.61	23.67
68785 091	45 1.75	110 42.46	5314.0	980078.83	N233	-43.29	-224.53	0.19	Z 6.58	-219.40	2.90
68785 113	44 31.63	111 5.43	7572.0	979903.25	C643	38.73	-219.52	0.19	Z 1.56	-219.46	3.18
68785 113	44 53.99	111 4.48	8047.0	979944.23	F433	90.60	-183.86	0.12	Z 1.93	-183.39	38.52
68785 113	45 1.40	110 57.25	8438.0	979900.49	F543	72.41	-215.39	2.47	Z 4.99	-211.83	8.65
68785 113	45 3.54	110 36.99	8566.9	979893.60	F543	77.40	-217.79	4.64	Z 15.50	-203.70	17.68
68785 113	45 4.52	110 28.58	9724.1	979822.82	F543	110.83	-220.83	4.04	Z 17.43	-204.64	16.69
6340H 066	44 28.02	109 52.10	6434.7	979967.64	N233	1.72	-217.75	2.34	Z 12.02	-207.24	27.41
6340H 067	44 28.83	109 54.52	6554.8	979961.71	F433	5.85	-217.71	2.79	Z 12.35	-206.68	28.04
6340H 068	44 30.12	109 57.85	6673.9	979953.44	N243	6.83	-220.80	1.09	Z 10.98	-211.34	23.73
6340H 088	44 8.77	109 48.06	10549.9	979682.69	F433	132.36	-227.46	3.84	Z 11.57	-216.95	23.45
6340H 112	44 28.36	109 58.88	10001.0	979742.07	F543	110.65	-230.46	2.39	Z 17.05	-214.59	20.55
6340H 113	44 23.72	109 54.64	10503.0	979705.69	F433	128.40	-229.82	3.63	Z 18.74	-212.15	23.86
6340H 114	44 24.20	109 49.27	10420.9	979703.39	F433	117.68	-237.75	4.08	Z 25.87	-212.97	21.52
6340H 116	44 18.06	109 54.25	11165.0	979638.26	F433	131.68	-249.13	7.84	Z 34.15	-215.87	22.06
6340H 117	44 21.03	109 57.00	10797.9	979677.61	F433	132.07	-236.21	6.31	Z 24.76	-212.45	24.86

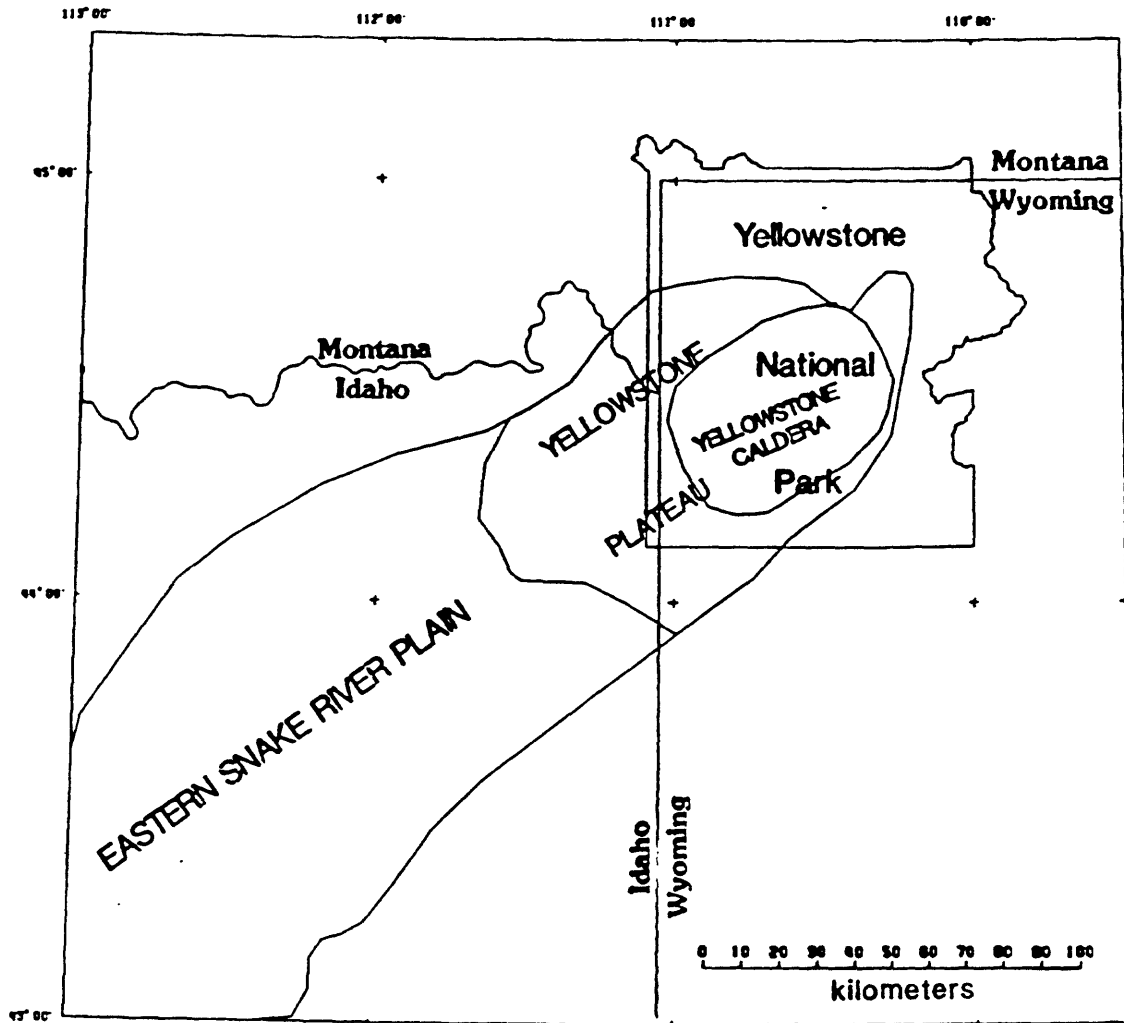


FIGURE. 1.—Location map of Yellowstone National Park.

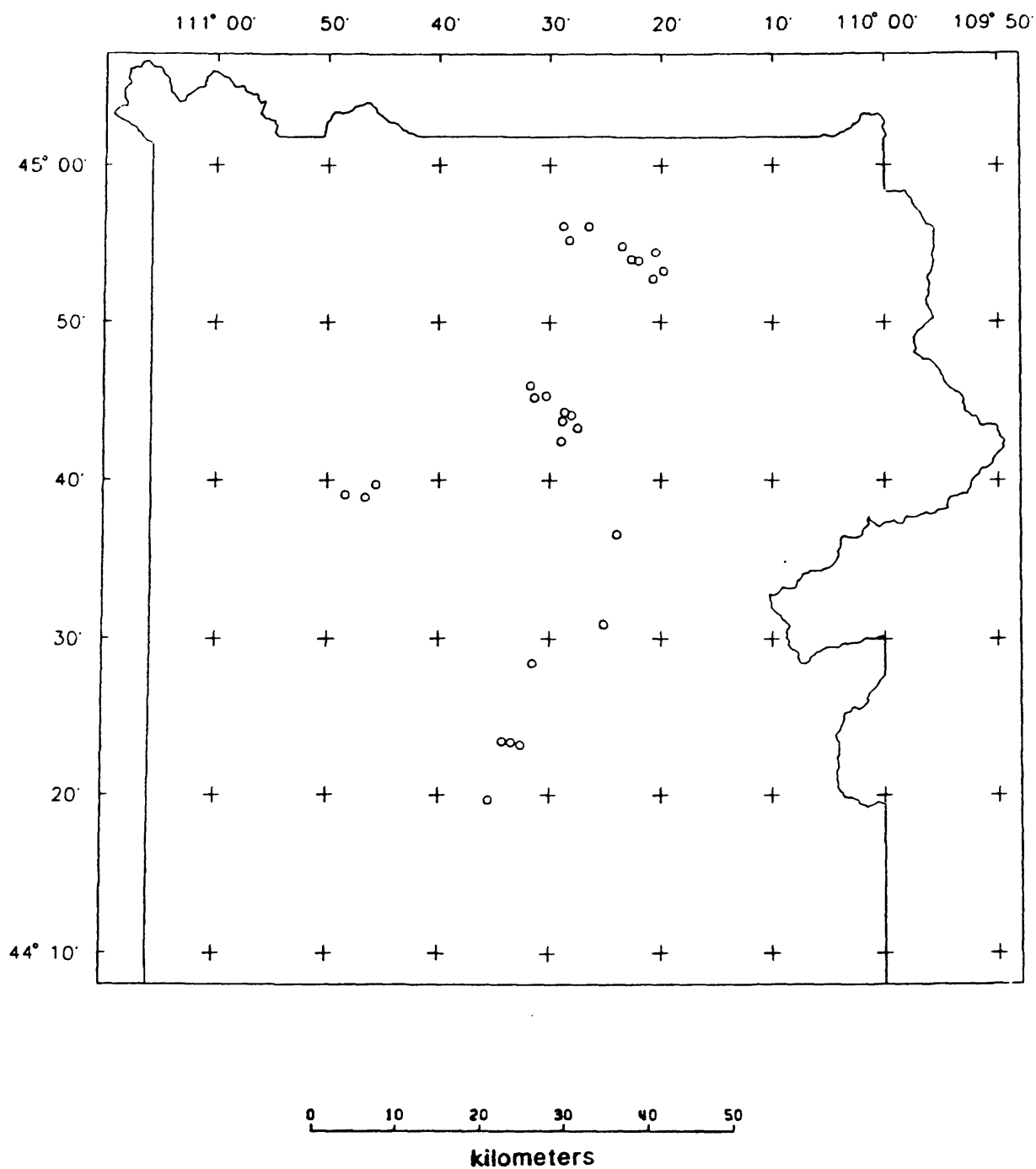


FIGURE 2.—Locations (o's) of U.S. Geological Survey gravity data collected during July 1987.

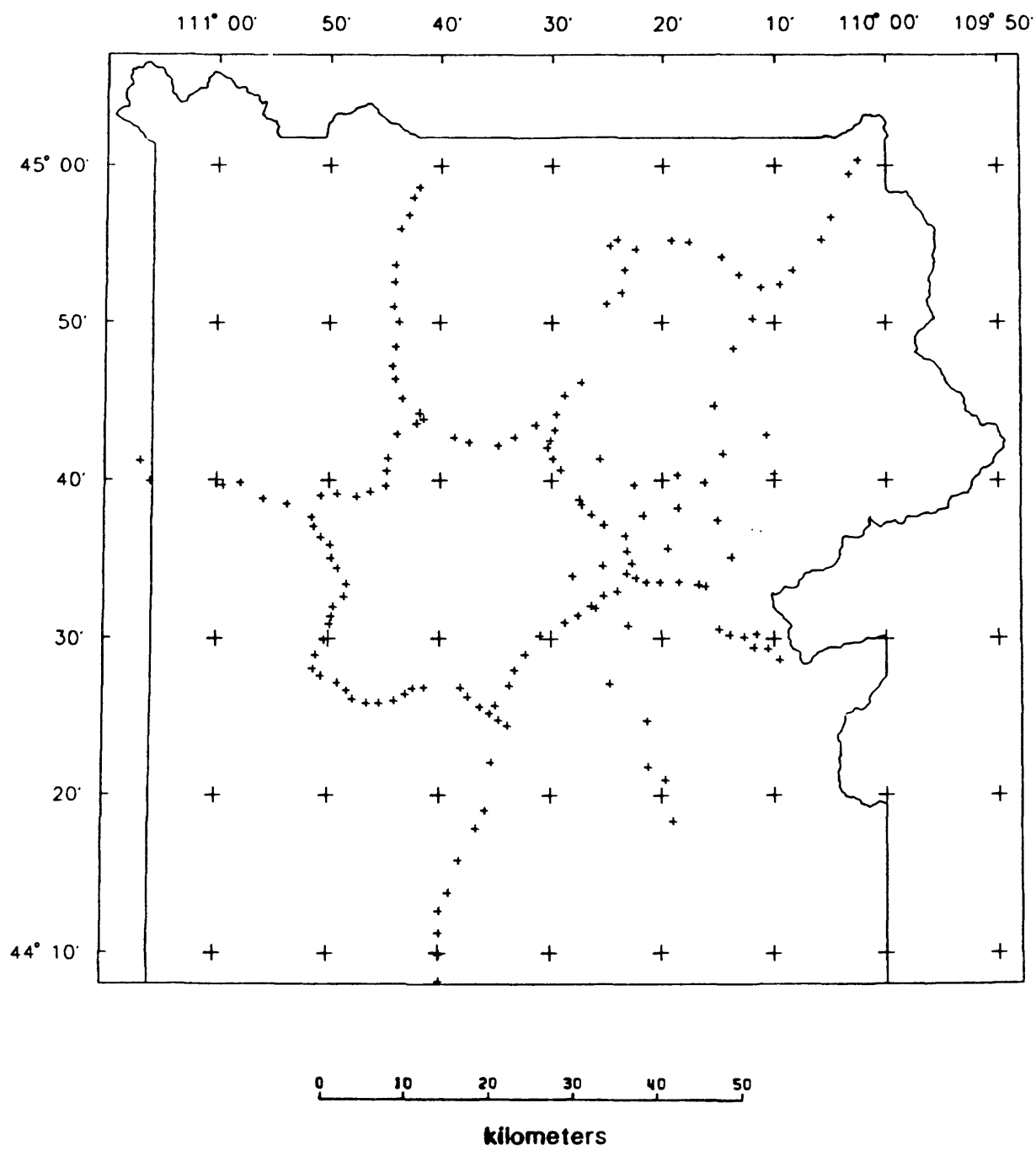


FIGURE 3.—Locations (+'s) of University of Utah gravity data obtained during 1977, 1979, and 1983-4.

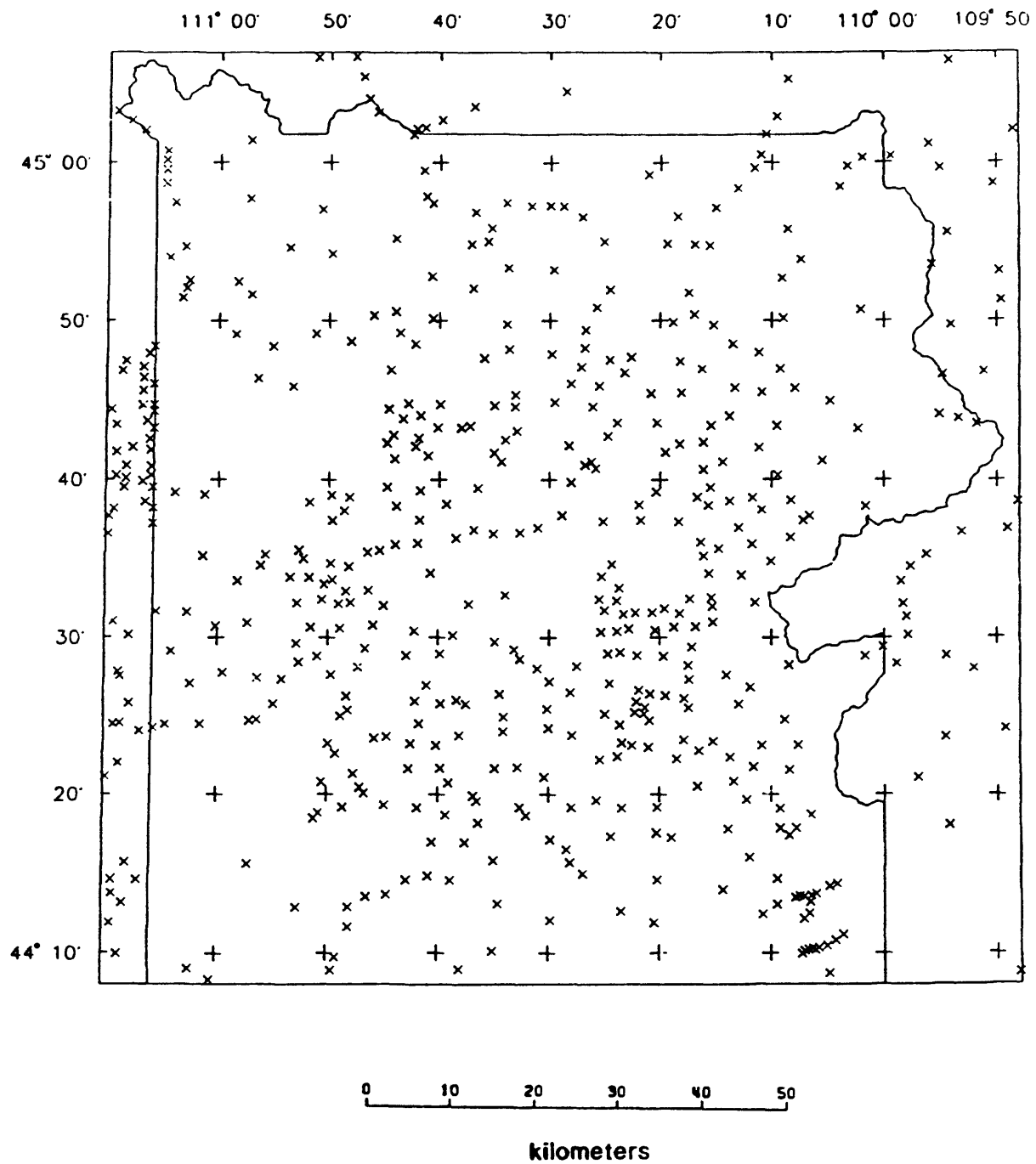


Figure. 4.-Locations (x's) of gravity data obtained from Defense Mapping Agency.

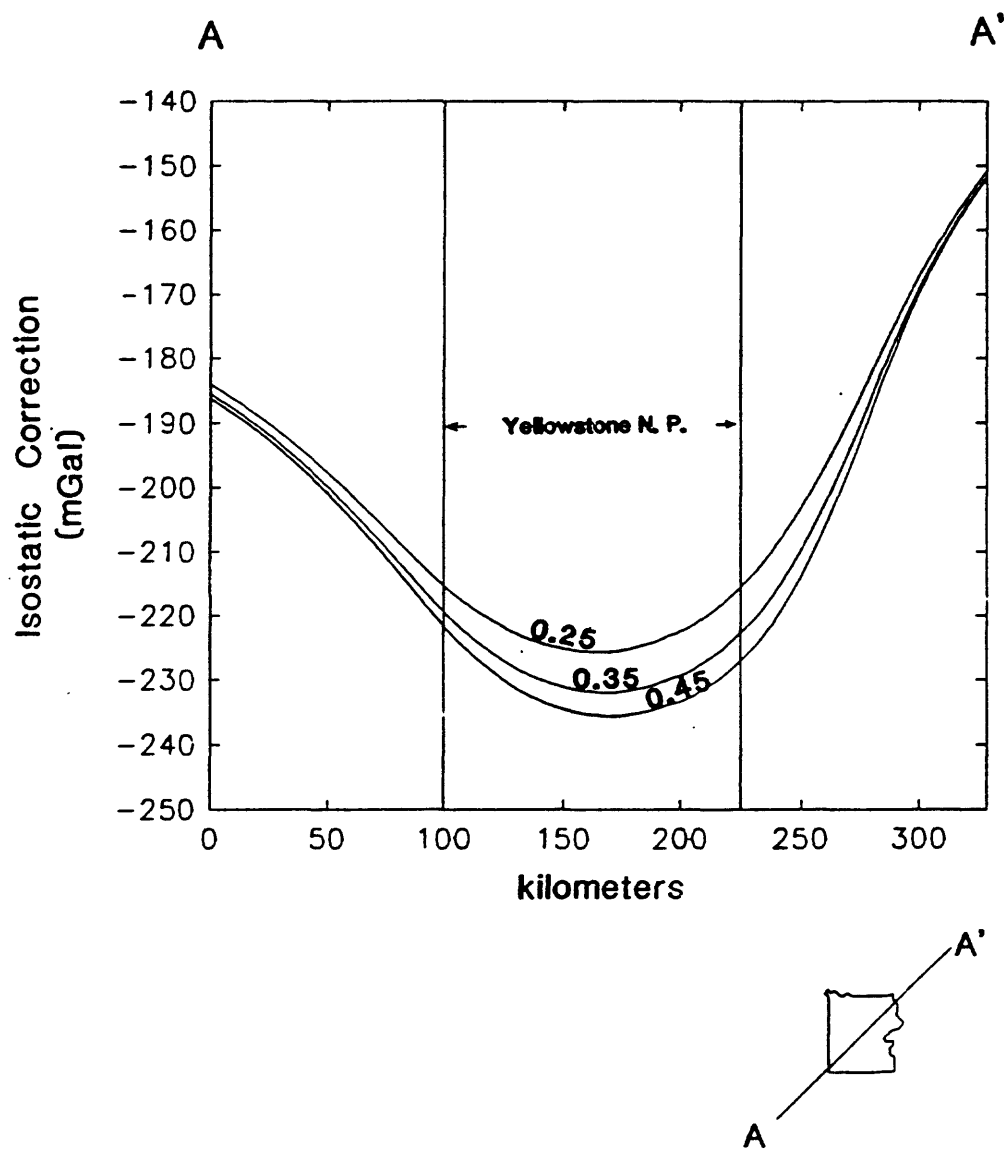


Figure 5.—Effect of changing $\Delta\rho$ on the Airy-Heiskanen isostatic regional correction along AA' through the Yellowstone National Park region keeping T_0 and ρ constant (30 km and 2.67 g/cm³ respectively). Numbers on curves are assumed values of $\Delta\rho$ in g/cm³.

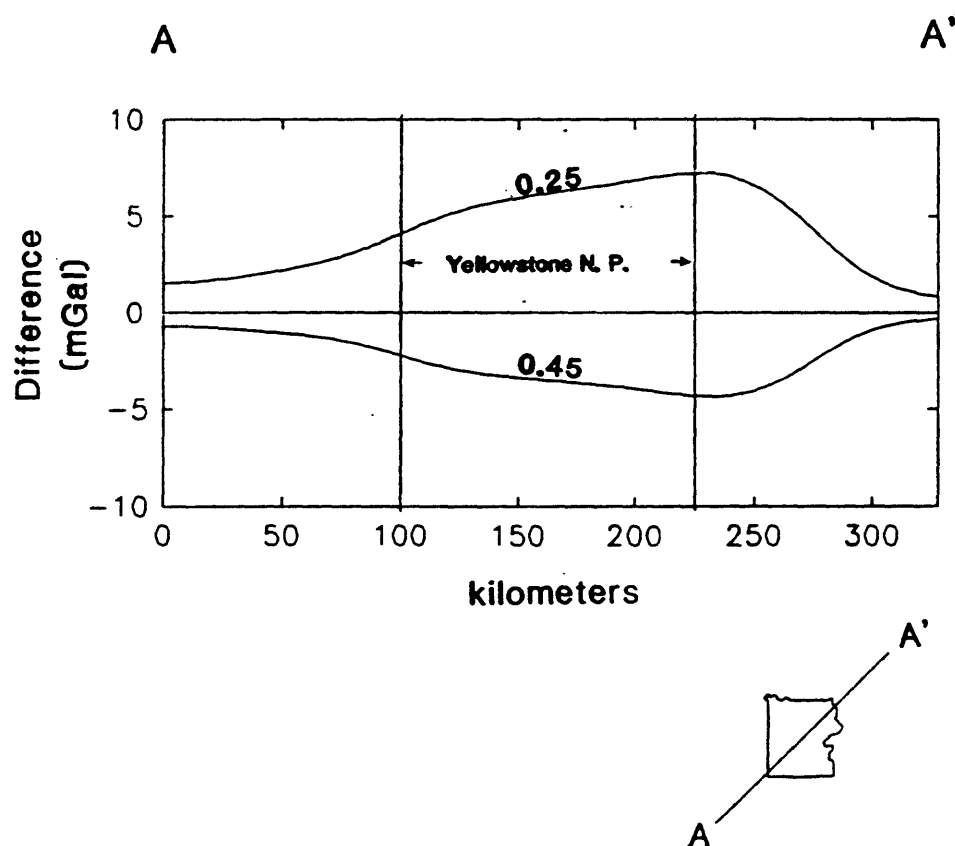


Figure 6.—Difference in Airy-Heiskanen isostatic correction by varying $\Delta\rho \pm 0.10 \text{ g/cm}^3$ with respect to 0.35 g/cm^3 along **AA'**. Maximum difference is approximately 7 mGal.

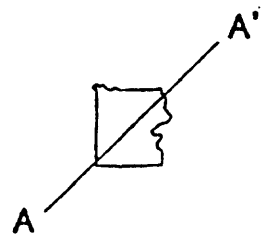
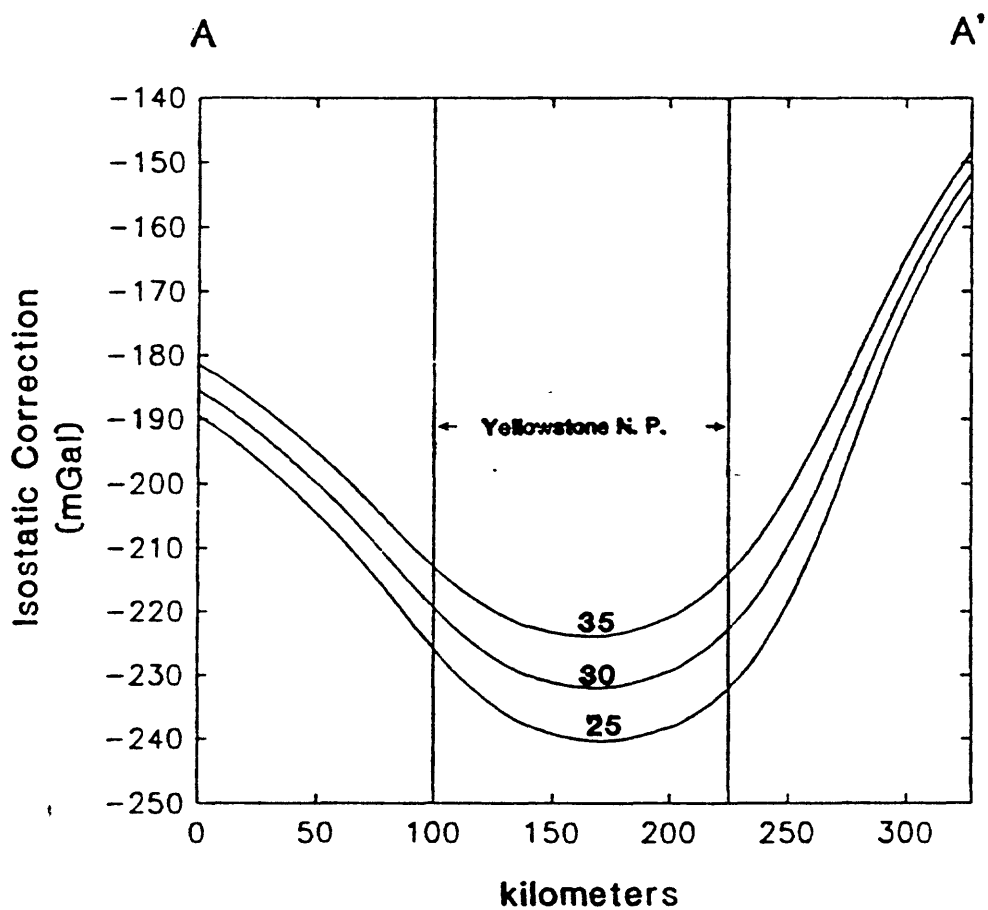


Figure 7.—Effect of changing T_0 on the Airy-Heiskanen isostatic regional correction along AA' , keeping $\Delta\rho$ and ρ constant (0.35 and 2.67 g/cm³ respectively). Numbers on curves are assumed values of T_0 in km.

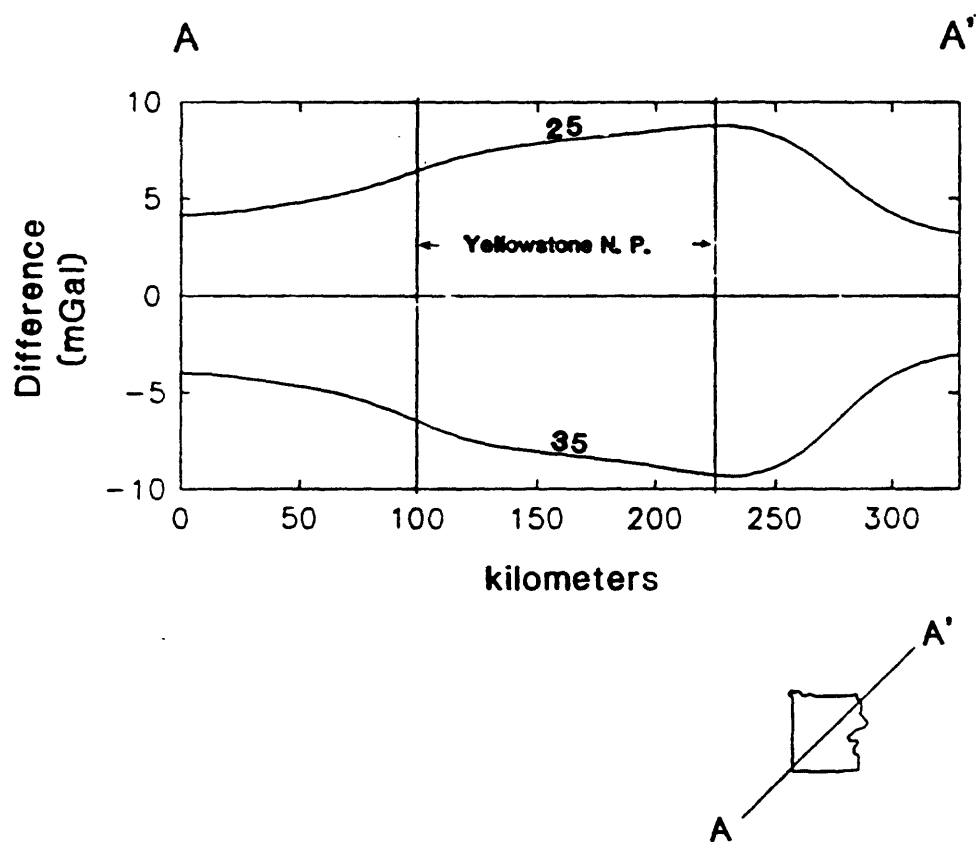


Figure 8.—Difference in isostatic correction by varying T_0 ± 5 km with respect to 30 km along AA' . Maximum difference is less than 10 mGal.

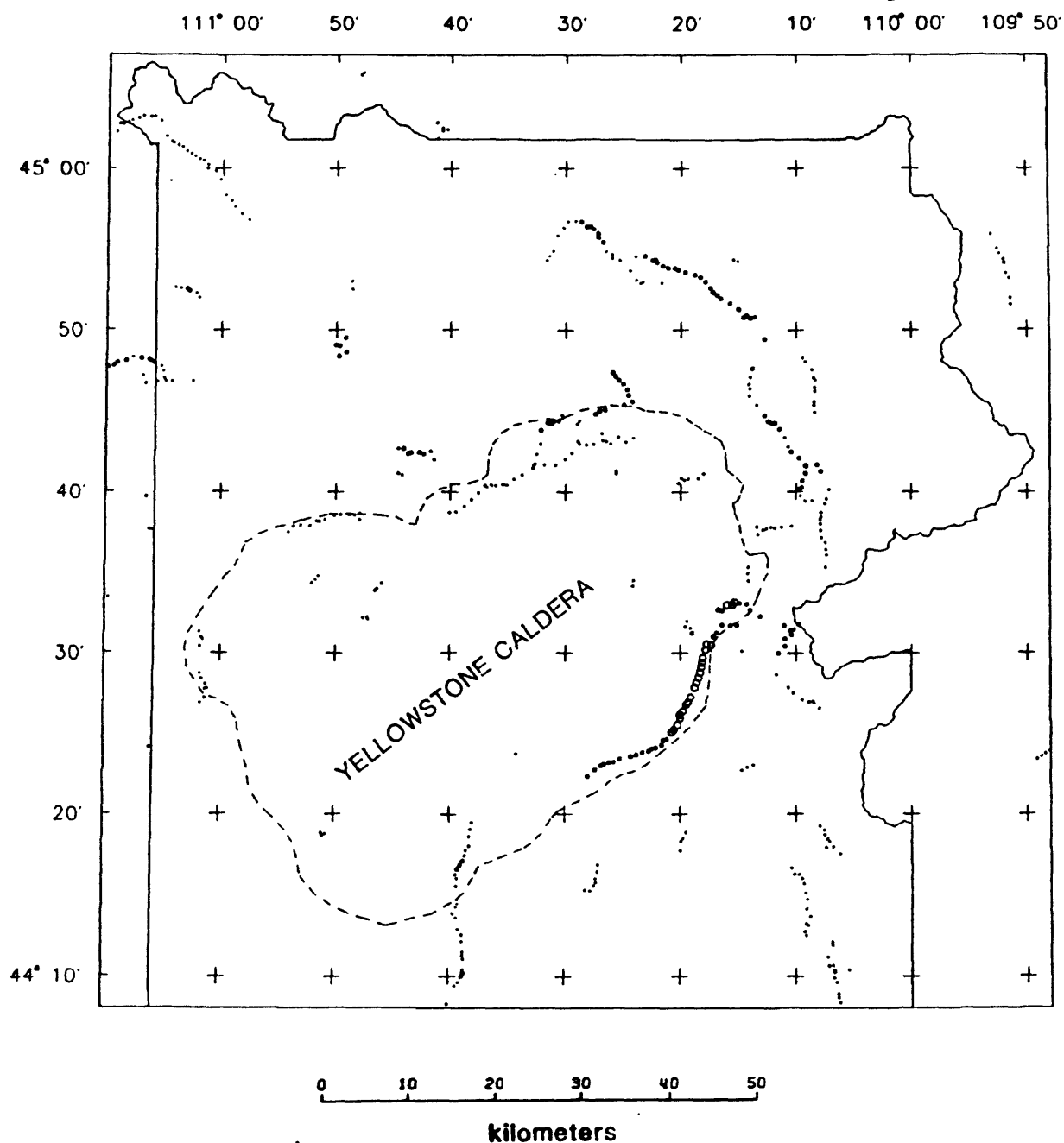


Figure 9.—Location of maximum horizontal gravity gradient in Yellowstone National Park area. Dotted line indicates caldera boundary (Christiansen, 1984). Size of circles is proportional to the value of the the horizontal gravity gradient.