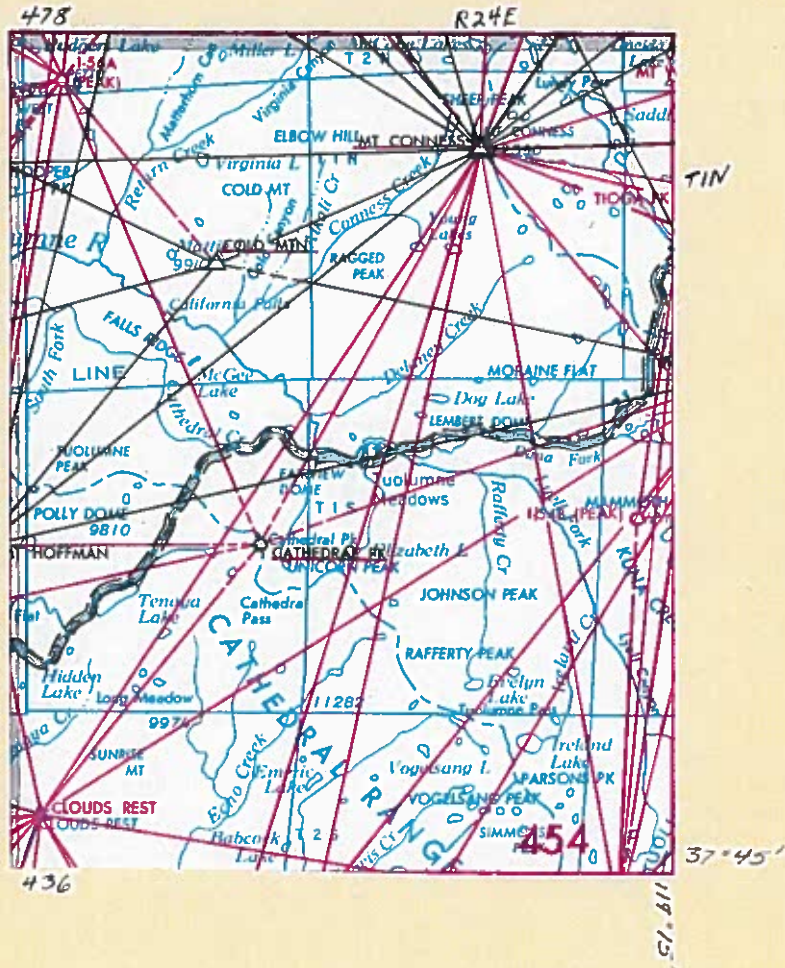


37° 45'
119 15



California (454)

Mariposa County

CLOUDS REST (324 EM)

1927 N.A.D.

C.F. Urquhart, 1905

D.R. Steele, 1952

L.B. Mansfield, 1956

Book: A 244-247; PH 207-208;
PH 244; PH 469-470

Located about 11 mi. SW. of Tuolumne Meadows R.S., 5.5 mi. E. of Yosemite, on highest point of Clouds Rest.

To reach from Tuolumne Meadows R.S., drive W. on State Highway 120 (Tioga Rd.) to Forsyth Trail at W. end of Tanaya Lake and end of rd. Pack S. on Forsyth Trail for 4.6 mi. to Clouds Rest Trail, turn right W. on Clouds Rest Trail for 2.5 mi. to highest point and station. A 3 hour pack.

Station mark: Lead plug in drill hole stamped "324 EM" (stamping very poor). Previously reported as stamped "VA BM 9929".

Reference mark No. 1: Standard reference mark tablet stamped "NO 1 1956" cemented in drill hole in top of solid granite, 18.45 ft. from station mark in azimuth $82^{\circ}07'$.

Reference mark No. 2: Standard reference mark tablet stamped "NO 2 1956" cemented in drill hole in top of solid granite, 19.18 ft. from station mark in azimuth $210^{\circ}56'$.

Image point No. 1: Small bush on top, 41 ft. from station mark and 5 ft. lower in azimuth $190^{\circ}48'$.

Photo No. 1-62 GS VJS Dup

CALIFORNIA ZONE 3
X=2,292,455.
Y= 463,226.

V.A. Elevation: 9926 ft.
(1952)

Latitude: $37^{\circ}46'04.45''$

Longitude: $119^{\circ}29'17.60''$

FILE COPY

3/6/62 lcl *de*

MT. CONNESS (C&GS)

Mono-Tuolumne Counties

Calif. (454)

USC&GS, 1879, 1890, 1934, 1941

1927 N.A.D.

C. F. Urquhart, 1904-05

A. H. Sylvester, 1905

D. R. Steele, 1952

J. C. O'Dea, 1953

USGS, 1956 (not occupied)

Books: A218-247; A677-79; PH 207-08; PH 269-270; PH 469-470

Described in Bul. 181, pages 208-209 and Bul. 310, p. 172.

Described by U. S. Coast and Geodetic Survey in Special Publication 202 and description list 736, p. 31.

Described in Bul. 310, page 172 as follows:

"A primary station of the C&GS, 10 mi. N. of Soda Springs. In shape an irregular parallelogram of granite, from NW. portion of which rises top of peak, with precipitous side of 1,000 ft. or more. It can be ascended from Soda Springs in four hours by trail made by the C&GS. Grass and water can be found within 1 mi. of summit.

"Station mark: Concrete pier, with 5/8-in. copper bolt in center."

Recovered by D.R. Steele, 1952: Station found as described. Original station mark, however, the concrete pier was almost destroyed, but the mark was still solid and in place. Reference mark No. 1 and 3 were found. Reference mark No. 2 and other concrete piers described in Special Publications 202, page 293 were not found.

Recovered by J. C. O'Dea, 1953: Found as described by C&GS in Special Publication 202, pages 293 and 294 and all marks found in good condition. Pier was badly chipped, but the 5/8" copper bolt with cross remains in good shape. Reference mark 3 is standard C&GS tablet and is set in pier as described and is at bottom of saddle about 400 ft. below station.

Station should be reached by driving about 2 mi. past Saddlebag Lake and walking SW. to highest peak and station. Station is on highest lone square-topped mtn. and is 1.6 ft. above highest ground at station.

Station mark: Cross in copper bolt in pier.

Signal: White flag over red over white X-tgts. on pole centered over station mark.

Signal data:	Top flag	14.2 ft.
	Bottom flag	12.5
	Top red X-tgt.	11.1
	Bottom red X-tgt.	8.0
	Top white X-tgt.	8.0
	Bottom white X-tgt.	5.1

Station is 0.8 ft. below top of pier and 1.6 ft. above average ground.

Note: Intersected by USGS, 1956.

~~CALIFORNIA ZONE 3~~

~~X=2,340,081.3~~

~~Y=536,318.2~~

V.A. elevation 12,590.2(USGS,1952)

*Latitude: 37°58'01.537"

*Longitude: 119°19'13.018"

*=C&GS Field Values

11/9/56 mk *mt*

FILE COPY

CAL. ZONE 3
 * X = 2,340,076.90
 * Y = 536,324.20
 CAL. ZONE 2
 * X = 2,772,524.57
 * Y = 120,811.76

FILE COPY

37°45'
119 15

CALIFORNIA 454

Index

<u>Station</u>	<u>Project</u>
Cathedral Peak	Yosemite
Clouds Rest (324 EM)	- - - -
Cold Mtn. (C&GS)	Yosemite
Mt. Conness (C&GS)	Yosemite
1-56 A	Yosemite
1-154 B	- - - -

Yosemite Project Master in CALIFORNIA 437 - Book: PH 470

CATHEDRAL PEAK

Mariposa County

Calif. (454)

L. B. Mansfield, 1956 (Not occupied)

1927 N.A.D. (Prelim.)

Books: PH 469-470

No description.

Intersected by U. S. Coast and Geodetic Survey and USGS in 1956

Note: Positions and triangles computed from C&GS field data by USGS.

FILE COPY

CALIFORNIA ZONE 3

X=2,316,308.

Y= 492,631.

**V.A. elevation 10,940.3 ft.

Latitude: 37°50'52.50"

Longitude: 119°24'16.26"

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Mt. Conness (C&GS)	209°13'00."	29°16'06."	49,743.
Mount Dana (C&GS)	250 20 39.	70 27 26.	56,507.

**=Computed from USGS and C&GS data

11/9/56 mk ✓

FILE COPY

COLD MTN (C&GS)

Mariposa County

Calif. (454)

USC&GS, 1956

1927 N.A.D.

USGS, 1956 (Not occupied)

Books: PH 469-470

FILE COPY

U. S. Coast and Geodetic Survey description not received
as yet.

CALIFORNIA ZONE 3

X=2,311,340.3

Y= 523,520.6

**V.A. elevation 9910.0 ft.(USGS,
1956)

*Latitude: 37°55'58.45"

*Longitude: 119°25'13.75"

*=C&GS Field values

**=Computed from USGS AND C&GS data

11/9/56 mk *✓*

FILE COPY

FILE COPY

1-56 A

Tuolumne County

Calif.(454)

L. B. Mansfield, 1956

1927 N.A.D.(Unadj.)

Books: PH 469-470

Located about 10.8 mi. NW. of Tuolumne Meadows Ranger Station and 10.5 mi. N. of Tenaya Lake on highest point of top, a high and prominent top known as "PETTIT PK". Station is on a small rock.

Station was reached by helicopter.

Station mark: Nail in top cedar stake wedged in crack of large boulder.

Signal: Fluorescent over white flag on pole centered over station mark.

Signal data:	Top fluorescent flag	8.0 ft.
	Top white flag	6.5
	Bottom white flag	3.5

Photo No. 1-56 GSVJS

CALIFORNIA ZONE 3
X=2,294;102
Y= 542,579.

V.A. elevation 10,788. ft.

Latitude: 37°59'08.77"

Longitude: 119°28'46.31"

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Feet</u>
Mt. Hoffmann (C&GS)	9°43'32."	189°42'26.	51,280.
Richardson (C&GS)	120 23 22.	300 15 32.	70,753.

11/9/56 mk *mk*

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1-154B

Tuolumne County

Calif. (454)

J. C. Savage

1952

1927 N.A.D. (Unadjusted)

Books: PH 207 & 208

Located about 15 mi. W. of Mono Craters, about 4 mi. SSW. of Mt. Dana (airline distances), on the summit of Mammoth Peak. (Note: There is a higher point about 1 mi. SE. of station on same ridge.)

To reach from the East Gate to Yosemite Park (Tioga Pass), drive W. on State Hwy. 120 for 4.0 mi. to a stone culvert and E.T.T. Pack SE. across Dana Fork of the Tuolumne River and up ridge to the top. A 3.5-hr. pack.

STATION MARK AND SIGNAL: White flag in cairn.

SIGNAL DATA:	Top white flag	7.0 ft.
	Bottom white flag	5.5
	Top cairn	3.0

CALIF. ZONE 3

X=2,357.274.

Y= 495,908.

V.A. ELEVATION: 12,117 ft.

Latitude 37°51'19.845"

Longitude 119°15'45.015"

<u>To Station</u>	<u>Azimuth</u>	<u>Back Azimuth</u>	<u>Log Meters</u>
Tioga Pk.	188°07'56"	8°08'33"	4.02255
Mt. Dana, C.&G.S.	217 04 32	37 06 05	3.79138
Mono L.A.W.D.			4.35593

10/22/52 mc ✓

FILE COPY

FILE COPY

NAME

COLD MOUNTAIN
MOUNT CONNESS
CATHEDRAL PEAK

STATION

1002
1005
1011

37 119 1

CALIF. 454
37°45'
119°15'

FILE COPY

DATE: 10/10/81
TIME: 10:10 AM
BY: J. J. [unclear]

TO: [unclear]
FROM: [unclear]

10/10/81

10/10/81

REVISED AND PRINTED BY:
 U.S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY
 WASHINGTON D.C.

HORIZONTAL CONTROL DATA

by the
 Coast and Geodetic Survey
 NORTH AMERICAN 1927 DATUM

CALIFORNIA 454
 QUAD 371191 STATION 1002
 CALIF
 LATITUDE 37°30' TO 38°00'
 LONGITUDE 119°00' TO 119°30'
 DIAGRAM NO 11-7 MARIPOSA

DEPARTMENT OF COMMERCE
 U.S. COAST AND GEODETIC SURVEY
 WASHINGTON 25

NAME OF STATION: COLD MOUNTAIN

CHIEF OF PARTY: R.L. Shughart

YEAR: 1956

DESCRIBED BY: R.F. Koltzerman

MARK:

MARK	HEIGHT OF REFERENCE SURVEY STATION MARK	DISTANCES AND DIRECTIONS TO ADJUNCT MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE CROWN AT THE STATION	HEIGHT OF SURVEY STATION MARK		DIRECTION
			FEET	METERS	
4	Underground-station mark				
12c	ROUNT CONNESS 1890 R.M. No. 1	SE	42.38	12.919	00 00 00.00
12c	R.M. No. 2	W	16.28	4.964	75 19 37 206 14 14

The station is located on the summit of Cold Mountain, which is a granite here topped mountain. It is about 3 1/2 miles north of Glen Aulin, 1 mile east of Virginia Lake and 1 mile west of Cold Canyon. The mark is on the highest point of the mountain, 20 feet north of a dead scrub pine and 10 feet southwest of a 6 by 6 boarder. It is stamped COLD MOUNTAIN 1956 and is set flush.

Reference mark No. 1 is set near the east edge of the mountain, 25 feet east of a dead scrub pine and is about 3 feet lower than the station. It is stamped COLD MOUNTAIN 1956 and is set flush.

Reference mark No. 2 is set near the west edge of the mountain, 18 feet north-west of a dead scrub pine tree and is 1 foot lower than the station. It is stamped COLD MOUNTAIN 1956 and is set flush.

To reach the station from Tunya Lake, follow the trail north to Glen Aulin camp, from Glen Aulin Camp follow the trail north up Cold Canyon for about 3 miles to a small camp ground on the right and a triangle blazed tree on the left. From here horses can be taken east up through the trees about 1/2 mile to the base of the mountain, from here pack northwest up the hill to the top of the ridge, then follow the ridge north, going down into a small canyon which has trees and 2 small lakes in it, then pack north up out of the canyon to the highest point of the mountain and the station as described. A 4 hour horse pack and a 2 hour back pack.

Detailed description:

References to notes in manuals of triangulation and other publications of triangulation. 1 Direction-angle measured clockwise, referred to fixed station. The enclosed booklet only, when an instrument is provided in being done. 15-50007-1 U. S. GOVERNMENT PRINTING OFFICE

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: COLD MOUNTAIN

STATE: California

LOCALITY: Hatch Hatchy to Mono Lake

YEAR: 1956

Second-order Triangulation SOURCE: G-11404 FIELD SKETCH: CALIF 430

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH ± (FROM ANGLE)	MARK
STATE: CALIF ZONE: 3 CODE: 0403	X: 2,311,336.44 Y: 523,525.99	+ 0 39 39	
STATE: X ZONE: Y CODE:			
DESCRIPTIVE DATA	POSITION	SECOND IN METERS	ELEVATION METERS
	LATITUDE: 37°55'58.504 LONGITUDE: 119°25'13.797	NORTH	3,020.2 9,909 FEET
	TO STATION	GEODETIC AZIMUTH (FROM ANGLE)	DISTANCE METERS
			246°39'26"1

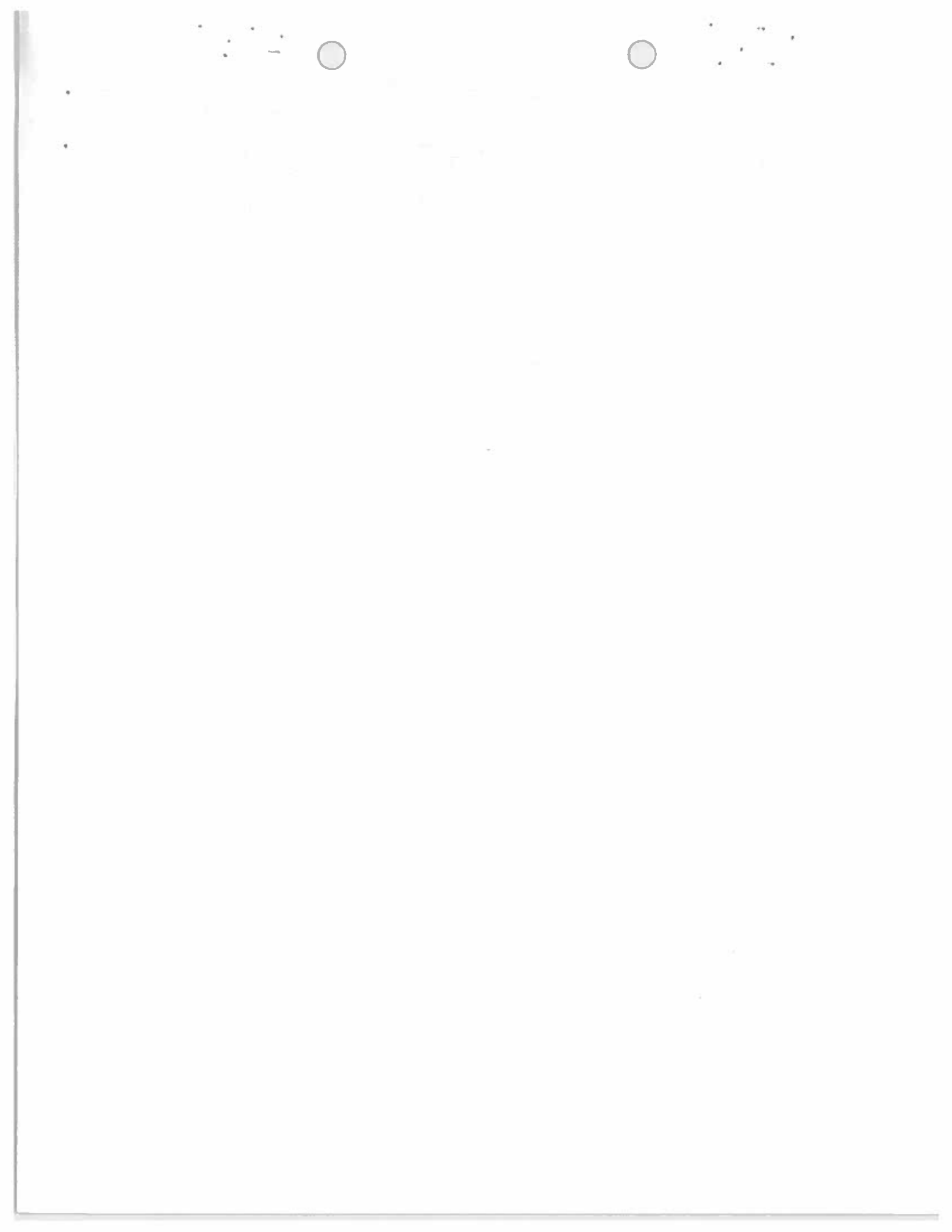
MOUNT CONNESS

FILE COPY

FEB 6 1958

FORM 324 (2-51-54)

USCGM-DC 3247



JULY 1963 AND PRINTED BY:
 U.S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY
 WASHINGTON D. C.

by the
 Coast and Geodetic Survey
 NORTH AMERICAN 1927 DATUM

QUAD 371191 STATION 1004
 CALIF
 LATITUDE 37°30' TO 38°00'
 LONGITUDE 119°00' TO 119°30'
 DIAGRAM NJ 11-7 MARIPOSA

DEPARTMENT OF COMMERCE
 U.S. COAST AND GEODETIC SURVEY
 DESCRIPTION OF TRIANGULATION STATION

NAME OF STATION: **LEE VINING** STATE: **CALIFORNIA** COUNTY: **MONO**

Year: **1956** Described by: **I. D. Fraser**

MARK	HEIGHT OF SURVEY MARK	REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE CORNER AT THE STATION	HEIGHT OF SURVEY MARK	PITCH
7a	RIGHT OF HIGHWAY APPROXIMATELY 1.78 METERS.			1.0
7b	Left-hand side of road			
deso	POTATO PEAK 1955 (USGS)			
11a	Azimuth Mark			
11a	Reference Mark 1			
11a	Reference Mark 2			

The station is located 0.5 mile southeast of Lee Vining, 60 yards northwest of the intersection of U.S. Highway 395 and a gravel road, 50 feet northeast of U.S. Highway 395, and 22 feet north of a U.S. Forest Service Boundary signpost. It is a standard mark as described in notes 1a and 7a, projects 2 inches above the surface of the ground, and is stamped "LEE VINING 1956."

Reference mark 1 is 54 feet northeast of U.S. Highway 395. It is a standard mark as described in note 1a, projects 2 inches above the surface of the ground, and is stamped "LEE VINING NO. 1 1956."

Reference mark 2 is 35 feet northeast of U.S. Highway 395. It is a standard mark as described in note 1a, projects 2 inches above the surface of the ground, and is stamped "LEE VINING NO. 2 1956."

Azimuth mark is a standard disk, cemented in a drill hole in the northwest end of a concrete flood bridge, and is stamped "LEE VINING 1956."

To reach the station from the Lee Vining post office, go southeast on U.S. Highway 395 for 0.5 mile to a side road on the left, turn sharp left along the embankment for about 60 yards and the station as described.

To reach the azimuth mark from the station, go north on a gravel road for 0.05 mile to a side road on the right, turn right and go 0.2 mile to the flood bridge and mark as described.

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: **LEE VINING**

YEAR: **1956**

STATE: **CALIFORNIA** LOCALITY: **OMEGA VALLEY**

Second-order Triangulation SOURCE: **G-11777**

FIELD SKETCH: **CALIF 436**

GRID DATA	COORDINATES (Feet)	PLANE AZIMUTH \$ION AND E	MARK
STATE: CALIF	x 2,399,791.27	253°03'34"	AZIMUTH MARK
ZONE: 3403	y 531,240.64	+0 50 56	
CODE: 0403			

STATE:	ZONE:	COORD.	POSITION	SECONDS IN METERS	ELEVATION
CALIF	3403	x	2,399,791.27	2.0827	METERS
		y	531,240.64	6,833	FEET
		CODE:	0403		

TO STATION	POSITION	GEODETIC AZIMUTH (From mark)	DISTANCE METERS
AZIMUTH MARK	37°57'03"24"	NORTH	2.0827
	119 06 48.392	WEST	6,833
		THIRD ORDER	253°54'29"6

FORM 384 (2-1-1951)

HORIZONTAL CONTROL DATA

CALIFORNIA
STATE DEPARTMENT OF PUBLIC WORKS
CALIF. STATION 1003

by the
1st and Geodetic Survey
17th AMERICAN 1927 DATUM

MOUNT CONNESS (Tuolumne County Calif., L.A.S., 1879; 1934)--
About 4 miles NW of E gate to Yosemite Park, 4 miles SW of Saddle-
bag Lake, and on highest point of Mount Conness. To reach from
Leaving, go S 0.3 mile on highway, turn right on to Tioga Pass
Road and go 12 miles, turn right onto road to Saddlebag Lake, and
go 1.5 miles turn right and go about 0.6 mile to end of road,
to N point of high ridge and thence along ridge to highest point
and station sits. In 1879 station was marked by cross on copper
bolt set in drill hole in solid rock. In 1934 the geodetic
position of the station was determined. Concrete pier 26 inches
in diameter and 40 inches above rock, was built; and 5/8-inch
copper bolt with broad, flat, spherical head was placed in top.
A silver pin was driven into head of bolt but cross on top &
short distance away marks station. "Mount Conness latitude sta-
tion", marked by concrete pier, was 194.5 meters (638 feet) from
station in azimuth 301°59'; magnetic pier was 180.4 meters (592
feet) from station in azimuth 298°20'; vertical-circle pier was
8.72 meters (28.6 feet) W and 24.81 meters (81.4 feet) S of mag-
netic pier; and transit pier was 1.545 meters (5.07 feet) W of
latitude pier. In 1934 two standard reference disks in bedrock,
note 12a, were established--No. 1 is 14.304 meters (46.93 feet)
from station in azimuth 347°52'; No. 2 is 22.126 meters (72.59
feet) from station in azimuth 93°44'. Reference mark No. 3 (prob-
ably standard reference disk) was also established, at base of
sharp peak, in concrete pier about 3 feet high, and about 1/4
mile from station in azimuth 301°59'32".

NAME OF STATION: MOUNT CONNESS

Established by: L.A.S. Year: 1879 STATE: California
R.L.E. Year: 1934 COUNTY: Tuolumne

Detailed statement as to the fitness of the original description, including marks found, stamping, changes made and other pertinent facts.
This station mark as originally established in 1879 and the reference
marks established in 1934 were recovered and found in good condition. The
concrete pier with the copper bolt and a silver pin marking the center.
point which was established over the original mark in 1930 has since been
partly destroyed and no evidence of the bolt or silver pin could be found.
However, the original copper bolt marked by a cross and set in bedrock was
found in excellent condition and well protected by the remains of the 1890
Pier. A discrepancy was found in the horizontal measurements of reference
mark No. 1 and reference mark No. 2 established in 1934.

Following is a new and complete description:

The station mark is on the highest point of Mount Conness, about 4 1/2
miles NNW of the east gate of Yosemite National Park, 4 miles W of the
north end of Saddlebag Lake, 4 miles NE of Young Lake and just W of the
Tuolumne-Mono County Line and the boundary line between Yosemite National
Park and Inyo National Forest. The station is marked by a cross on a
copper bolt set in a drill hole in bedrock and is about surrounded by the
remains of a concrete pier projecting about 16 inches above the mark. The
copper bolt projects about 4 inches above the surface of the rock and bears
no stamping.

Reference mark No. 1 is located on the south slope of the mountain
about 9 feet below the elevation of the station. It is a standard bronze
disk cemented in a drill hole in outcropping bedrock and the disk is
stamped CONNESS NO 1 1934 (note 12a).

Reference mark No. 2 is located on the west slope of the mountain
about 40 feet below the elevation of the station. It is standard bronze
disk cemented in a drill hole in a large granite boulder and the disk is
stamped CONNESS NO 2 1934 (note 12c).

Reference mark No. 3 (azimuth mark) is located on a shelf at the base
of the east rise of the mountain and about 650 feet below the elevation of
the station. It is a standard bronze disk cemented in a drill hole in the
top of a concrete pier approximately 18 inches square and projecting 56
inches above the ground. This is the most easterly of two piers within
a rock enclosure. The disk is stamped CONNESS NO 3 1934.

A direction was taken to two concrete piers at about the same ele-
vation as reference mark No. 3, but no measurements could be made because
of the distance and vertical angle involved. One of these piers is within
the same rock enclosure and about 5 feet W of reference mark No. 3. The
point observed upon was a small cross near the center of the pier which
is 16 inches by 24 inches at the top and projects about 54 inches above
the ground. The other pier is 60.23 feet SW of reference mark No. 3. The
point observed upon was a small cross near the center of the pier which
is approximately 22 inches square at the top and projects 51 inches above
the surface of the ground.

A helicopter landing was made on the shelf at the base of the east
rise of the mountain from a small meadow at the north end of Saddlebag
Lake. A 30-minute pack to the top and the station from this point.

R

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: MOUNT CONNESS
STATE: California LOCALITY: 39th Parallel AzC
FIELD ORDER: Triangulation SOURCE: G-275
YEAR: 1890
FIELD SKETCH: SP 202-21

GRID DATA	COORDINATES (F.M.D.)	PLANE AZIMUTH ± CORRECTION ANGLE	MARK
STATE: Calif ZONE: 2 CODE: 0402	X 2,772,524.57 Y 120,811.76	300°18'10" + 1 41 22	RM NO 3
STATE: Calif ZONE: 3 CODE: 0403	X 2,340,076.90 Y 536,324.20	301 16 12 + 0 43 20	RM NO 3
STATE: Calif ZONE: 4 CODE: 0404	X 1,907,638.61 Y 959,058.18	- 0 11 28	
STATE: Nev ZONE: W CODE: 2703	X 287,553.32 Y 1,171,916.22	- 0 27 12	

GEODETIC DATA	POSITION	SECONDS IN METERS	ELEVATION METERS
LATITUDE: 37°58'01".597 LONGITUDE: 119°19'13.072	NORTH WEST		3,853.8 12,585
TO STATION	GEODETIC AZIMUTH (From center)		DISTANCE METERS
MOUNT HOFFMAN	51°21'33".6		

Station: MOUNT CONNESS (contd) County: Tuolumne State: Calif.

OBJECT	DISTANCE	DIRECTION
MT HOFFMAN	feet	0° 00' 00"
R.M. No. 2	76.76	42 19 10
R.M. No. 3 (Az.Mk.)	W (0.1 mile)	250 37 36.0
Pier	SE (0.1 mile)	250 52 13.3
Pier	SE (0.1 mile)	255 25 57.8
R.M. No. 1	46.82	296 51 14

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JULY 1953
 PUBLISHED AND PRINTED BY:
 U. S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY
 WASHINGTON D. C.
 JUL 1979

HORIZONTAL CONTROL DATA

by the
 Coast and Geodetic Survey
 NORTH AMERICAN 1927 DATUM

QUAD 371191 STATION 1010
 CALIF 37°30' TO 38°00'
 LATITUDE 119°00' TO 119°30'
 LONGITUDE DIAGRAM NJ 11-7 MARIPOSA

ADJUSTED HORIZONTAL CONTROL DATA
 ADJUSTMENT BY CGS

NAME OF STATION WILLIAMS BUTTE LAND OBS BY CGS
 STATE CALIFORNIA YEAR 1934 FIRST ORDER

SOURCE	C-03064		
GEODETIC LATITUDE	37 59 08.843	ELEVATION	23699.3 METERS
GEODETIC LONGITUDE	119 08 50.861	GEODETIC HEIGHT	8429 FEET

STATE & ZONE	CODE	STATE COORDINATES (Feet)		S	E	# 100 Δ 51 ANGLE
		X	Y			
CA 3	0403	2,389,764.89	519,667.39	+	0 50 55	

TO STATION OR OBJECT	GEODETIC AZIMUTH (True Az)	PLANE AZIMUTH (True Az)	CODE

THESE DATA ARE OBTAINED FROM ADJUSTMENT OF 1936

WILLIAMS BUTTE L.A. (Mono County, Calif., C.P., 1934)--The station is on William Butte, which lies about 2 1/2 miles S of Leavitt and 1 mile W of the highway. It is a sharp prominent butte which rises steep from the highway. Reference and azimuth marks are standard bronze disks in outcropping bedrock as described in note 12a. The station mark is a 1-inch galvanized pipe projecting about 1 foot above the ground. The pipe has a cap on top and a small hole bored in the cap. Reference mark No. 3 (azimuth mark) is 1/2 mile S on the first white rock across the saddle. S point of gable roof on house azimuth mark is 1 mile N just across the highway. Remained from Leavitt as follows: Take the highway going S and go 2.5 miles to some Indian smoke on the right of the road, leave the truck here and climb the sharp butte to the W and the station. A 1 1/2-hour pack.

OBJECT DISTANCE DIRECTION
 BPOB 0°00'00.0
 S point of gable roof 5.390 15 21 28.8
 R.M.No. 2 E 65 15
 R.M.No. 3 Az. W. S 133 48 09.8
 R.M.No. 1 H 12.502 388 13 36

WILLIAMS BUTTE (Mono County, Calif., C.P., 1934, Mono Aerial Survey, 1940)--Found as described. Recovered R.M. 1 and R.M. 2. Present condition of mark excellent.

RECOVERY NOTE, TRIANGULATION STATION
 Quad No. 371191 R

NAME OF STATION: WILLIAMS BUTTE (LAND) 1934
 ESTABLISHED BY: G. P. YEAR: 1934 STATE: CALIFORNIA BENCH MARK ALSO
 RECOVERED BY: R. L. Clark YEAR: 1973 COUNTY: MONO
 AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 2.2 miles, airline, south of Lee Vining
 HEIGHT OF TELESCOPE ABOVE STATION MARK: 1.4 meters
 HEIGHT OF LIGHT ABOVE STATION MARK: 1.4 meters

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
RT DAMA (NGS) 1934 "V.G."	40.796	12.432	0 00 00.0	
RM 1	119 31 02	5.389	119 31 02	
RM 2	17.685	208	34 19	

The station mark and reference marks 1 and 2 were recovered in good condition as described in 1974. No search was made for the azimuth mark.

Edward R. Clark

JULY 1963
 PUBLISHED AND PRINTED BY:
 U.S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY
 WASHINGTON D.C.

HORIZONTAL CONTROL DATA

by the
 Coast and Geodetic Survey
 NORTH AMERICAN 1927 DATUM

CALIFORNIA 454

QUAD 371191 STATION 1011
 CALIF
 LATITUDE 37° 30' TO 38° 00'
 LONGITUDE 119° 00' TO 119° 30'
 DIAGRAM NJ 11-7 MARIPOSA

NO TEXT

ADJUSTED HORIZONTAL CONTROL DATA

NAME OF STATION: CATHEDRAL PEAK YEAR: 1956
 STATE: California LOCALITY: Hetch Hetch to Mono Lake
 Third-order Triangulation Source: G-11404 FIELD SKETCH: CALIF 430

GRID DATA	COORDINATES (F+M)	PLANE AZIMUTH ANGLE	MARK
STATE: Calif ZONE: 3 CODE: 0403	X 2,316,308.73 Y 492,630.23	+ 0 40 14	
STATE: ZONE: CODE:			

GEODETIC DATA	POSITION	SECOND IN METERS	ELEVATION
LATITUDE: LONGITUDE:	37° 50' 52" .493 119° 24' 16.251		3,334.1 METERS 10,959 FEET

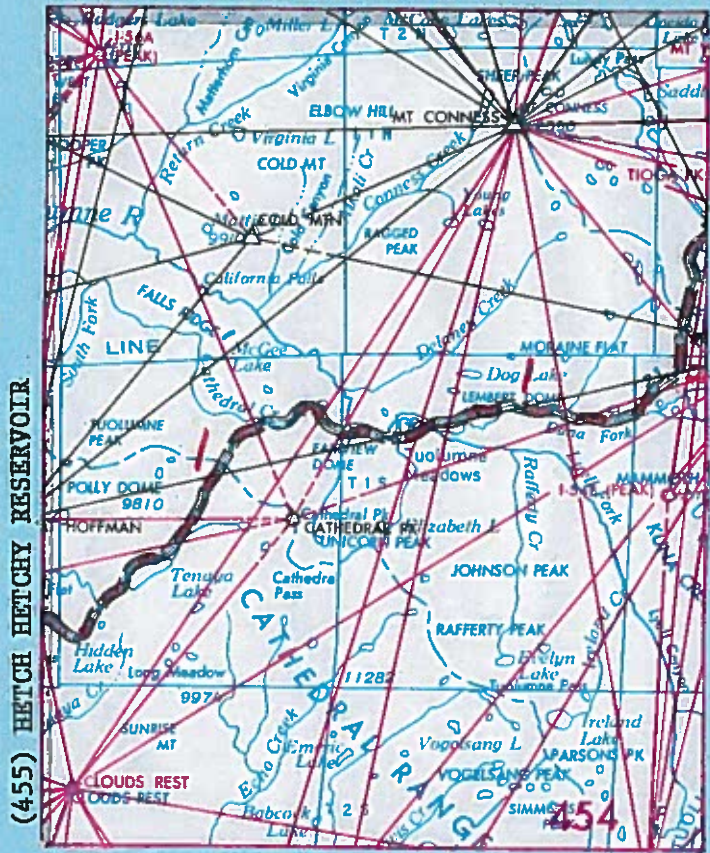
TO STATION	GEODETIC AZIMUTH (From center)	LOGARITHM (METERS)	METERS
Computed from stations MT HOFFMAN, PRICE PEAK, MT CONGRESS, MT DANA			

FILE COPY
 FEB 8 1968

11-384 (2-21-63)

USC&GSC 1551-1

(471) MATTERHORN PEAK



(436) MERCED PEAK

- (1) C.R. Smith 1898
- (2) C.R. Smith 1898

- 6274, Bul. 766
- 6274, Bul. 766

TUOLUMNE MEADOWS

~~MT. GONNESS~~ (454) STATE

CALIFORNIA

BrC.R. SMITH, 1898

ALTIMUDE ABOVE
MEAN SEA LEVEL
(Feet)

THIRD

Adj.

1929 GENERAL

6274

766, pg. 446

THIRD ORDER

for Publication

not distribute

CALIFORNIA

~~MT. GONNESS~~ QUADRANGLE

(Latitude 37°45'-38°00' ; Longitude 119°15'-119°30')

MARIPOSA-TUOLUMNE-MONO COUNTIES

FILE COPY

1) FROM DANA FORK TRAIL WEST TO SODA SPRINGS

Soda Springs, 3.5 mi. east of, on north side of Tioga rd., where trail comes in from the meadows east of rd., in ledge of rock; aluminum bolt stamped "U.S.G.S. 9270 ft. B.M.O."

Not Found 87
9275.559

Soda Springs, 100 ft. west of, in large granite boulder on south side of trail; aluminum bolt stamped "U.S.G.S. 8594 ft. B.M.O."

OK
8599.441

T. 1 S., R. 23 E., SE corner of sec. 1, Diablo meridian; iron post stamped "8555 0"

OK
8560.883

Cathedral Creek, in conspicuous rock in north side of creek bed, 50 ft. from rd.; aluminum bolt stamped "U.S.G.S. 8337 ft. B.M.O."

Not Found 87
8342.940

Lake Tenaya, on west shore of, about 300 ft. east of three log cabins in grove of trees, in large boulder between rd. & lake shore; aluminum tablet stamped "U.S.G.S. 8146 ft. B.M.O."

Not Found 87
8151.312

Lake Tenaya; surface of water, September 17, 1898

8146.7

Snow Flat, 300 ft. SW of wooden culvert in rd. X-ing, in large granite boulder, on west side of rd.; aluminum tablet stamped "U.S.G.S. 8705 Ft. B.M.O." (recovered in 1906 by leveling from Merced, and correction made)

8710.07
8711.206

-END OF LINE-

1957
37-119-1

hwp 183
7.53

7/27/54 is ✓

~~TUOLUMNE MEADOWS~~

D. MT. CONNESS (454) STATE CALIFORNIA BY C.R. SMITH, 1898

RE THIRD Adj. 1929 GENERAL

(2) 37 45
119 15
43
ALTITUDE ABOVE
MEAN SEA LEVEL
(Feet)

K: 6274

L: 766, pg. 446

Third Order
for Publication
Not Distribute

CALIFORNIA

~~MT. CONNESS~~ QUADRANGLE

(Latitude 37°45'-38°00' ; Longitude 119°15'-119°30')
MARIPOSA-TUOLUMNE-MONO COUNTIES

FILE COPY

(2) FROM DANA FORK TRAIL NORTH TO TIOGA

Tioga Pass summit, on rock on east side of rd., aluminum tablet stamped "9941 ft. B.M.O."

9946.953
Destroyed 86

Tioga mine, at SW corner of assay office, in ledge of rock; round iron plug set in cement and marked "9795"

9800.510

-END OF LINE-

7/27/54 is ✓

REPORT ON CONDITION OF SURVEY MARK

USGS LINE 1

MAPPING CENTER

NGS Line #103

STATE California COUNTY Mañriposa QUAD NAME Tuolumne Mdws

STATION NAME and/or NUMBER 8705 USGS QUAD NUMBER 371191/454

LATITUDE _____ TYPE of MARK: BM TRAV. TRIANG DOPPLER

LONGITUDE _____ YEAR ESTABLISHED ~~MARKED~~ 1898

ELEVATION 8710.107 ft ft/meter By USGS NGS OTHER _____ (Name of agency)

CONDITION Good MARK STAMPED 8705

REMARKS or REVISED DESCRIPTION

12.6 miles west along Tioga Road (Calif Hwy 120) from the bridge over Tuolumne River at Tuolumne Meadows, to a side road leading northeast to May Lake Trailhead, 0.8 mile northeast along road to May Lake trailhead, at the south end of Snow Flat, on the inside of a curve, at a creek crossing, 300 feet south of a wooden sign "Snow Flat Elev 8710" on the top of a 7'x15' granite outcrop which projects about 5 feet above the road. 14 1/2 feet west of the center line of the road, and about 5 feet higher than the road.

SUBMITTED BY R. F. Wilson AGENCY USGS NMD DATE 9/17/86

Marks found in good condition need not be reported unless description is inadequate. Please prepare in triplicate. CSC-178

REPORT ON CONDITION OF SURVEY MARK

MAPPING CENTER

USGS Line #2

NGS Line #103

STATE California COUNTY Tuolumne QUAD NAME Tuolumne Meadows

STATION NAME and/or NUMBER 9941 (USGS) QUAD NUMBER 371191/454

LATITUDE _____ TYPE of MARK: BM TRAV. TRIANG DOPPLER

LONGITUDE _____ YEAR ESTABLISHED ~~MARKED~~ 1898

ELEVATION 9944.160 ft/meter By USGS NGS OTHER _____ (Name of agency)

CONDITION Destroyed MARK STAMPED _____

REMARKS or REVISED DESCRIPTION

Found shank and depressed circle in overturned boulder. Tablet is gone.

SUBMITTED BY R. F. Wilson AGENCY USGS NMD DATE 9/16/86

Marks found in good condition need not be reported unless description is inadequate. Please prepare in triplicate. CSC-178

REPORT ON CONDITION OF SURVEY MARK

MAPPING CENTER

STATE California COUNTY Tuolumne QUAD NAME Line 1 Tuolumne Mdws
STATION NAME and/or NUMBER 9270 USGS QUAD NUMBER 454 (3711914)
LATITUDE _____ ° _____ ' _____ " TYPE of MARK: BM TRAV TRIANG DOPPLER
LONGITUDE _____ ° _____ ' _____ " YEAR ESTABLISHED 1898
ELEVATION _____ ft/meter By: USGS NGS OTHER _____ (Name of agency)
CONDITION SFNF MARK STAMPED _____

REMARKS or REVISED DESCRIPTION:

The description is inadequate. Obviously the road alinement has been changed since the 1898 level line was run. I searched all areas of probability without success.

SUBMITTED BY: R. F. Wilson AGENCY USGS NMD DATE 8/7/87

Marks found in good condition need not be reported unless description is inadequate.

Please prepare in triplicate.

GSC-178

REPORT ON CONDITION OF SURVEY MARK

MAPPING CENTER

STATE California COUNTY Tuolumne QUAD NAME Line 1 Tuolumne Mdws
STATION NAME and/or NUMBER 8337 USGS QUAD NUMBER 454 (3711914)
LATITUDE _____ ° _____ ' _____ " TYPE of MARK: BM TRAV TRIANG DOPPLER
LONGITUDE _____ ° _____ ' _____ " YEAR ESTABLISHED 1898
ELEVATION _____ ft/meter By: USGS NGS OTHER _____ (Name of agency)
CONDITION Not Found MARK STAMPED _____

REMARKS or REVISED DESCRIPTION:

The road at Cathedral Creek crossing has been extensively altered in reconstruction. The mark is probably permanently buried beneath the road fill.

SUBMITTED BY: R. F. Wilson AGENCY USGS NMD DATE 8/7/87

Marks found in good condition need not be reported unless description is inadequate.

Please prepare in triplicate.

GSC-178

REPORT ON CONDITION OF SURVEY MARK

MAPPING CENTER

STATE California COUNTY Tuolumne QUAD NAME Tuolumne Mdws Line 1
STATION NAME and/or NUMBER 8146 USGS QUAD NUMBER 454 (3711914)
LATITUDE _____ TYPE of MARK: BM TRAV TRIANG DOPPLER
LONGITUDE _____ YEAR ESTABLISHED 1898
ELEVATION _____ ft/meter By: USGS NGS OTHER _____ (Name of agency)
CONDITION Not found MARK STAMPED _____

REMARKS or REVISED DESCRIPTION:

The entire west and northwest shoreline of Lake Tanaya was searched without success. The three log cabins referred to in the description could not be found and probably don't exist.

SUBMITTED BY: R. F. Wilson AGENCY: USGS NMD DATE: 8/7/87

Marks found in good condition need not be reported unless description is inadequate.

Please prepare in triplicate.

GSC-178

TUOLUMNE MEADOWS
USGS Vertical Control 1898

Line 1
454
3711914

Soda Springs, 3.5 mi. east of, on north side of Tioga Rd., where trail comes in from the meadows east of road, in ledge of rock, aluminum bolt stamped "USGS 9270 ft BMO" *SJNF* 9275.559 *(R)*

Soda Springs, 100 ft west of, in large granite boulder on south side of trail; aluminum bolt stamped "USGS 8594 ft B.M.O." *(OK)* 8599.441 *(2-27)*

T1S, R23E., SE corner of sec. 1, Diablo Meridian; iron post stamped stamped "8555.0". *(OK)* 8560.883 *USGS BM pipe & cap - rocks for S.C.S.*

Cathedral Creek, in conspicuous rock in north side of creek bed, 50 ft from rd.; aluminum bolt stamped "USGS 8337 ft. B.M.O." 8342.940 *(R)* *SJNF*

Lake Tanaya, on west shore of, in large boulder between rd. and lake shore, about 300 ft. east of three log cabins in grove of trees, al. tablet stamped "USGS 8146 ft. BMO." 8151.312 *(R)* *SJNF*

Snow Flat (Plotted last year.)

R.F.W.
8/87