

ton (so an old settler informed me) for targets.

I find an iron bar 5 feet long and tin dishes used by Deputy Wash-

ington in 1852 which is an unmarked post 8 inches square standing

point 13.45 chains N. of old temporary monument established by Deputy

between N. 1 R. and 1 W., in T. 1 N. At 83.55 chains I arrive at a

Deputy also in 1892 (Vol. 126:2) ran the meridian line south

A. O. Ruxton in 1876 subdivided a portion of T. 1 N., R. 1 W.

45, 6, 7 and 8 North.

Washington also ran the San Bernardino meridian through Townships

lined through Ranges 1 and 2 West.

every 10 chains and 1/4 corners at 40 chains. He undoubtedly triang-

base line through Ranges 3, 4, 5, 6, 7, 8 and 9 West setting section corners

ton's notes along the base line in Ranges 1 and 2 West but he ran the

in 1853. The public survey office at Olympia has some of Wash-

ington ran the base line westerly from the initial monument

the sketch of the monument. (Vol. 464:2)

report to the Surveyor General is herewith attached, also a copy of

on December 7, 1852 in accordance with instructions. A copy of his

set by Henry Washington on the top of the San Bernardino mountain

The initial point of the San Bernardino base and meridian was

Report as to origin.

SAN BERNARDINO BASE AND MERIDIAN

inches above ground" ran

"1/4 corner between Secs. 13/18 which is a granite stone 12x12x6

of T. 1 S., R. 1 W., finding the

Geo. W. Pearson in 1907 (Vol. 424:1) in re-running the boundaries

"94.16 To corner of T. 1 N. and 1 S. and R. 1 and 2 W."

(Triangulating through Sec. 34)

"13.45 Temporary monument set by Deputy Washington"

the temporary monument set by Washington.

Rice then ran the base line west from the initial point through

lat. is 34° 05' N.

xxx At 11h 57m A.M. I observe culmination of sun and the resulting

S. B. J. P. T. 1 N. R. 1 W. S 36 on N. W.

S. B. J. P. T. 1 S. R. 1 W. S 1 on S. W. and

S. B. J. P. T. 1 S. R. 1 E. S. 6 on S. E.

S. B. J. P. T. 1 N. R. 1 E. S 7 on N. E.

Granite ledge 8 feet square and 4 feet above ground. I mark post

of rock which I have built around it stand on projecting point of

5 feet high, 6 feet square. The post and the above mentioned mound

tamarack post 7 inches square, 9 feet long in mound of granite rock

chain to intersection of the meridian line at which point I set

"From this temporary monument set by Washington I run East 13.45

corner about 15 miles.

from this point extending westerly from above mentioned Township for

with base line as run by Deputy Washington and can be plainly seen

principal avenues in San Bernardino Valley and is almost co-incident

said corner bears S. 89° 20' W., the above mentioned road is one of the

and 1 South, Range 3 and Range 4 West 'in center of road' and find

From this monument I take bearing to corner of Township 1 North

marked

"Alongside of old stone, set an iron pipe 3 feet long, 3 inches diameter in old stone mound for initial point with brass cap the Surveyor General.

of stone 10 x 8 x 6 feet marked and witnessed as described by which is a tamarack post 6 inches square, 3 feet above a mound 81.67 "The initial point of the San Bernardino Base and Meridian

chains each)

(setting brass caps at 1/4 corners and section corners at 81.67 "Thence N. 89° 07' E. on true line to initial point"

which I determine from original bearing trees"

244.95 Falls 3.79 chains north of point for corner Secs. 33 and 34,

Range 1 West.

4.44 Intersect the closing corner of Township 1 South, Range 1 East,

West on random line on S. bdy. of Secs. 36, 35, 34, T. 1 N., R. 1 W.

"From the initial point of the San Bernardino Base and Meridian

dine Base line

Frank W. Chapin in 1917 (Vol. 456:11) in "Resurvey of San Bernar-

initial point"

R. 1 E., ran from there "S. 87° 1/2 W. on S. boundary of S. 31 to

of T. 1 S., R. 1 E., and finding the corner of Sec. 31 1/2, T. 1 N.,

Pearson then reran the base line through R. 1 E. "due to disclosure

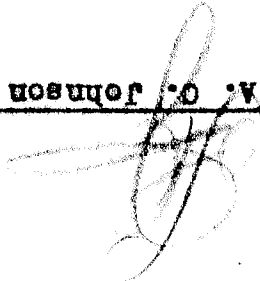
R. 1 E. and 1 W., marked C.O., 6 Grooves on E. and W. faces."

mound of stone, 5 ft. base, 4 ft. high for closing corner of T. 1 S.,

of initial monument which is a post 7 inches square, 4 feet above

"North and intersect San Bernardino Base line 4.20 chains west

V. O. Johnson



34° 07' 10" N.

The latitude of the initial point is

116° 56' 15" W.

The longitude of the initial point is

by Washington in 1852 in accompanying report.

The initial point is 13.45 chains east of old monument as set

designated the meridian southerly.

Sec 1	Sec 6
R I W	R I E
L I S	

brass capped pipe 4.44 chains west marked

and for the closing corner for T. 1 S., R. 1 E. and R. 1 W., a

This monument is the present designation of the initial point;

I P	
T I N	
R I W	R I E
S 36	S 31
19 17	

by stone or decay.

From the monument on every side, should either of the trees be torn
 or stone more than 3 1/2 feet at base and 3 feet at top of wall, to
 feet in height, filled in with dirt and stone with an outward wall
 an enclosure closely pressed by poles extending from tree to tree 5
 in earth about 2 feet and completely rammed with rock and dirt, forming
 an equilateral triangle about 6 feet apart. The monument being buried
 pine trees upwards of 10, 12 and 14 inches in diameter forming nearly
 (A permanent and conspicuous point from the valley below) near three
 monument stands being about 50 lbs. N.Y. of a natural mound of rocks
 for the monument I proceeded to erect the same. The spot on which the
 and after much loss of time in obtaining a suitable stock of timber
 I found the most eligible point for the monument on the 7th

being very laborious.

much service until the next day. The travel over mountain spurs
 those employed 15 men.) The men being much fatigued did not perform
 men (Mr. Gray, Dep. Sur. Gen. accompanying me making, including myself and
 On the 7th I reached the top of the San Bernardino Mt. with 11
 not start for the mountain until the 4th ult.

I arrive here on 10 of October and with all my exertion I could

San Bernardino Mountain.

practicable with a view of establishing a monument on the top of
 as instructed by you I proceed to this place as early as

1852

Next morning camp
 Los Angeles, Calif.
 December, 1852.

Vol. 16418

SAN BERNARDINO MOUNTAIN.

Plane N. 50° 15' E. 164 lks. 7. 1 N. 8. 1 E. 8 31-32" diam. B. 7.
 Plane S. 63° 30' E. 59 lks. 7. 1 S. 8. 1 W. 6-20" diam. B. 7.
 Plane N. 23° 00' W. 90 lks. 7. 1 N. 8. 1 W. 36-32" diam. B. 7.
 Plane S. 70° 00' W. 206 lks. 7. 1 S. 8. 1 W. 1-23" diam. B. 7.

whence bears

1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1
1	1	1	1

to the west of monument, being marked

along chain slightly drawn from each tree at an angle of about 45° from the top of the stone will above described - there was a
 I therefore had them accurately fastened to the monument.

as to stand the heavy blows.

swivel as hard it was found impossible to fasten them in such a way
 have fallen down, with the exception of one and there being no
 before leaving the ground the line attached to the cross bars
 many years.

The timber selected was clean of knots and will doubtless last
 in diameter.

to the distance of 13 feet and remainder tapering off to top 4 inches
 23 feet 9 inches hewed from the surface 8 x 10 inches on 4 sides
 3 iron bands, 25 feet 9 inches long extending from surface of earth
 The monument formed of 2 pieces of timber spliced and braced by
 ground to the top, being about 20 feet high.

They were firmly rooted in the ground and tapering off from the
 being quite as heavy and as tough as Hickory.
 The trees mentioned are hard white pine, such as I never saw,

From the monument bears the following conspicuous objects as

taken by theodolite.

1 - N. 71° 05' K. - to the top of a peak about 40 obs. distant on

San Bernardino ridge. Elevation 7° 30', approximate

height of the peak above monument 275 feet, covered

with hard pine trees of about size but low.

2 - S. 84° 25' K. - to the oak about 1 mile N. of Bald Mountain.

3 - S. 76° 55' K. - Bald Mountain about 5 1/2 miles distant. Elevation

1° 54'. Approximate height above monument 500 feet.

4 - S. 34° 55' K. - to a peak of ridge about 4 1/2 miles distant.

Elevation 15 feet.

5 - S. 10° 05' K. - to terminus west of low ridge lying south of Hill

Creek Canyon. (Course of center of sun or distant

horizon at sunset 71° 10' N.

7 - S. 90° 50' K. - to highest of 2 mountain peaks, approximate

distance 25 miles.

8 - N. 71° 55' K. - to highest point of Cajon Pass, approximate distance

30 miles.

9 - S. 75° 35' K. - to old Mission Bldg., approximate distance 20 miles.

10 - S. 71° 05' K. - to Mormon Fort, approximate distance 3 1/2 miles -

The course of sunrise on a distant horizon S. 69° 10' E.

The variation of the needle was ascertained with as much care

as practicable, but the night and position of the ground were not

altogether as favorable as I desire. By this observation on the night

of Nov. 7th, the variation was found to be 13° 15' West, which with all

possibility is 58° W. about 9 miles from the monument the

variation was found to be 13° 40' East.

heavy timber, - whilst the reflection of shade from the remaining trees
 additional expenditure of several thousand dollars, in cutting down
 highest peak upon top of the mountain, it would have required an
 eastward, on the San Bernardino Range and more generally on the
 had the monument been fixed on any other suitable point to the
 N. 75° E. about 40 chains heavily timbered with hard white pine.
 whilst the general bearing of the mountain range to the eastward is
 15 chains there from a gradual slope, the mountain becomes very steep.
 50 kcs. from the monument) S. N. being the general bearing for about
 point to the (except the natural mound previously mentioned about
 very steep - the place of the monument being much higher than any
 but after going 2 or 3 chains to the S. N. and N., the descent is
 The mountain range from the monument slopes off in every direction,
 on account of rock their efficiency might have questioned.
 a bed of rock and planted the monument and posts as instructed and
 it would have required 1 or 2 days longer to have dug down on
 found on the top of San Bernardino mountain.
 believing as I do that you were not aware that trees were to be
 stays to the monument were the best support.
 when the instructions were issued that the advantage of trees as
 adopted was the best and I am satisfied that it did not occur to you
 mode of erecting monument I acted from the conviction that the mode
 In departing from your instructions in relation to the precise
 wind to test their necessity.
 want of essential stays, till the monument was erected in a strong
 were all complete as furnished at your office, I did not perceive the
 believing that the necessary fixtures for the support of the time

Sam I. D. King, Reg.
U.S. Surveyor General of Cal.,
San Francisco, California.

Henry Washington,
Deputy Surveyor.

I am, with great respect,
Your obedient servant,

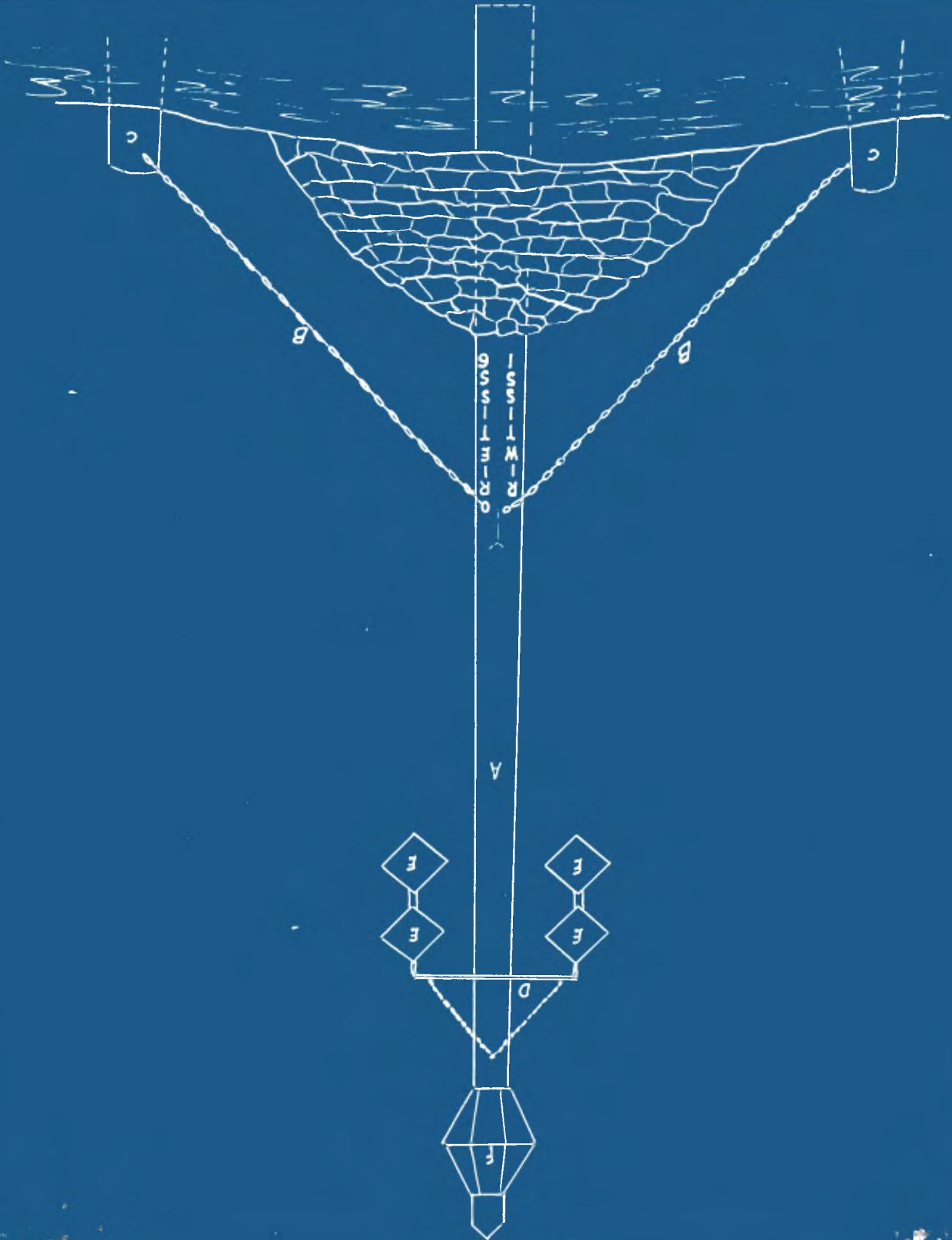
would have observed the distant view. In addition to this view of
the case, had such work been undertaken, it could not have been
completed on account of the near approach of snow, till the ensuing
summer and this have delayed the surveying operations nearly one year.
The amount of my account for expenses incurred in erecting the
monument being \$511 was forwarded to you on the 5th inst., but altho'
this amount closes the transaction, with the Government, it is
nevertheless proper to state that it does not cover all the
INCIDENTALLY expenses incurred in the prosecution of this work, but
from the charge of economy, so rigidly enjoined by you, and the
opinion expressed by you that four hundred dollars was enough to
cover all necessary expenses, accounts for my not having rendered a
full amount of ALL of my INCIDENTALLY expenditures upon this work,
believing as I do, that the account for the above reasons, would not
be allowed, or, if allowed, greatly delayed to the prejudice of the
public service.

The estimated height of the San Bernardino Mountain above the
San Bernardino Valley to the west is various, from 7 to 9000 feet,
and taking the mean makes it 8000 feet, which I think a very near
approximation, and would make it more than 10,000 feet above the
level of the Pacific Ocean.

The San Bernardino Mountain about the monument was considered
too rugged to attempt the survey of the base and meridian lines from
that point, satisfied that the line could not have been measured with
the requisite degree of accuracy.

Scale 1 1/4 inch to 1 foot.

A-The monument pole 2 1/2' high from the ground planted therein four feet and surrounded by a stone or earth mound four feet high and eleven feet in diameter.
BB-Two of the stay chains connecting the monument post with the stay posts C.C. diagonally by small chains, the two sheets of tin of one foot square (EM) as additional reflectors.
C-C-The hexagonal tin reflectors 2 1/2 feet high and 2 feet across the center suspended by a small chain on each side to near the top of the pole.



9180.1 (713a)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

October 13, 1966

Mr. M. A. Nicholas
County Engineer and Road Commissioner
825 E. Third Street
San Bernardino, California

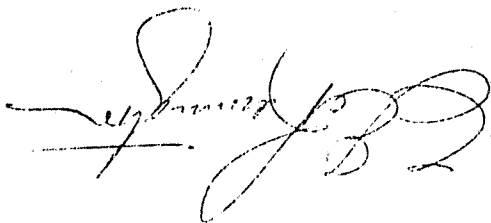
Dear Mr. Nicholas:

Please excuse the delay in this reply to your letter of September 13 requesting historical information about the initial point of the San Bernardino Meridian and Base Line. Much of the following had to be obtained from various archives.

The earliest mention we have yet found of this initial point is in the Commissioner's Report for 1851, dated November 26, 1851. Commissioner Butterfield stated: "To regulate the surveys of the lands drained by the Colorado and those on the southern coast of the State, another base line and meridian have been proposed by the surveyor general, with their intersection at Los Angeles, and this has been approved by the department." We shall continue a search for the surveyor general's report and any instructions from him to Henry Washington.

The initial point was established by Henry Washington on November 7 and November 8, 1852. His description of the establishment is given in the enclosed report on the initial point prepared by John L. Warboys, in 1944. We have not found the original report which shows the drawing of the monument referred to by Warboys. It may be that our Sacramento Office has a copy which includes the drawing. Enclosed is a copy of Washington's field notes describing how he initiated his surveys from the point. The notes indicate that Washington did not proceed directly from the monument. He commenced at a point from which it was observed to bear N. 45° E., then traversed to another point due west of the monument. By computation he determined he was then 13 miles 9.80 chains due west. His surveys branched off from this latter point.

The next surveyor in the vicinity was Albert G. Kuxton, under a contract dated November 13, 1876. Kuxton ran south from a Washington corner six miles north of the initial point to the corner of sections 19, 24, 25, and 30, on the west boundary of T. 1 N., R. 1 E. He proceeded no farther because of the rough terrain.



Any additional material we may find will be sent to you.

We enclose a map showing the principal meridians and base lines governing the public land surveys. A new two-piece wall map of the United States, scale 1:2,500,000 is now available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 20402, at a cost of \$3.00. This map shows the townships governed by each meridian.

stone situated neither on the base line nor the meridian.
 by Washington with so much labor and care, is now only a tumbled mound of
 relation to the governing lines. It is ironic that the monument, erected
 in passing but did not rehabilitate it because it had no significance in
 He noted a "large mound of stone, (probably Deputy Washington's monument)"
 differences from the record in the relative positions of the three points.
 4.20 chains west of Rice's monument. In 1917, Chapin reported slight
 established a closing corner of Tps. 1 S., Rs. 1 E. and 1 W., at a point
 that purpose. Between September 9 and September 12, 1907, George W. Pearson
 surveys in the immediate vicinity, superseding Washington's monument for
 point 13.45 chains to the east. This is the governing initial point for
 Deputy Washington in 1852," and established what he termed the initial
 Rice referred to this monument as "old temporary monument established by
 Rs. 1 E. and 1 W., to a point 13.45 chains east of Washington's monument.
 and September 13, 1894, John C. Rice surveyed south, between Tps. 1 N.,
 served as a starting point of his further surveys. Between September 9
 determined a point 13 miles 9.80 chains west of his initial point which
 From a historical standpoint this is the initial point. Thereafter he
 and base line, but was not able to extend those lines directly from it.
 1852, which he termed the initial point of the San Bernardino Meridian
 In summary, Henry Washington established a monument on November 7 and 8,

"Retrace the E. bdy. of the township and the S. bdy. of T. 1 N.,
 R. 1 W. and renew or reestablish cors. where necessary."

statement, under Extors of T. 1 S., R. 1 W.:
 part of the instructions pertinent to your research is the following
 13 townships. Very little history of previous surveys is given. The only
 for Group 41, under which Chapin worked, consist of 40 pages applying to
 were as described in the current surveying manual. The special instructions
 the townships each was to survey. Presumably the methods to be employed
 report by Warboys. The contracts let to Ruxton and Rice merely show
 and Frank W. Chapin pertinent to the initial point are included in the
 Excerpts from the field notes of surveys by John C. Rice, George Pearson,

THE WASHINGTON MONUMENT RESURVEY EXPEDITION
 INITIAL POINTS AS DETERMINED BY :
 FRANK W. CHAPIN, U.S. CADASTRAL ENGINEER IN 1917



TRUE BEARING, BY SOLAR OBSERVATION, FROM THE SW
 CORNER SECTION 34, T.1N., R.1W., TO THE "RICE MONUMENT"
 BY CHAPIN, 1917. BRASS CAPPED MONUMENTS WERE SET EACH 1/2 MILE.

SECTION 36
 T.1N., R.1W.
 S.B.B. & M

SECTION 31
 T.1N., R.1E.
 S.B.B. & M.

N 89° 07' E

620.40 FT.
 9.40 CH

293.04 FT
 4.44 CH

BASELINE

SOUTH 3.96 FT,
 (6 LINKS)

WASHINGTON MONUMENT

(Set in 1852)

LAT. 34° 07' 12".939
 LONG. 116° 55' 48".393

POSITIONS OF LATITUDE
 AND LONGITUDE ESTABLISHED
 BY THIS EXPEDITION IN
 SEPTEMBER, 1966

SECTION 1
 T.1S., R.1W.
 S.B.B. & M

MERIDIAN

MERIDIAN

PEARSON MONUMENT (Set in 1907)
 BRASS CAPPED BY CHAPIN IN 1917 (DESTROYED BY SLIT
 LAT. 34° 07' 13".118
 LONG. 116° 55' 37".536

RICE MONUMENT (Set in 1892)
 BRASS CAPPED BY CHAPIN IN 1917
 LAT. 34° 07' 13".162
 LONG. 116° 55' 34".052

SECTION 6
 T.1S., R.1E.
 S.B.B. & M.

Report on San Bernardino County Surveyors
Initial Point Expedition - July 14 & 15, 1967
by Eugene P. Rine - ACSM, Southern Calif. Section
Committee on Large Land
San Bernardino County

As a follow up to the Washington Monument Reservey
Expedition (described in the June 1967 quarterly) a group
of employees of the San Bernardino County Surveyor's office
made a trip to the initial point for the San Bernardino
Base and Meridian. The main objective of the trip was to
recover the granite stone set by Deputy Government Surveyor
Pearson in 1907, as the closing corner on the baseline, for
the San Bernardino Meridian going south.

This corner was found to be 292.88 feet west of the
initial point set by Deputy Government Surveyor Rice in
1892, for the San Bernardino Baseline and the Meridian
going north.
The Pearson monument was found in a slide area about
200 feet south of the top of the ridge on Mt. San Bernar-
dino at an elevation of over 10,000 feet above sea level.
Its position was checked by two bearing trees described in

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the 1907 Government field notes and a brass disk was set in
the top of the stone. Brass disks were also set as reference
points in rock outcrops. (See sketch)

To my knowledge this is the first time this monument

has been recovered since 1917 when U.S. Cadastre Engineer

Frank W. Chapin resurveyed the baseline. A copy of the

expedition's field notes have been sent to the Sacramento

office of the Bureau of Land Management. It is the hope of

the members of the expedition that these notes will help to

perpetuate the location of this monument.

Members of the expedition are as follows:

Eugene P. Kne - Chairman

Leslie D. Crawford

Dan Huff

Jerry Luton

Ralph C. Hodge

Neal A. Hesse

Donald L. Phillips

Carson L. Storer

Jerry Whitwell

Bill Laurie - Trail Advisor