1. DATE - TIME GROUP	2. LOCATION
28 Jan 53 28/2100Z	Point Mugu, California
3. SOURCE Civ Men	**10. CONCLUSION** UNKNOWN (UNIDENTIFIED)
4. NUMBER OF OBJECTS One	Unidentified
5. LENGTH OF OBSERVATION 6 Min.	**11. BRIEF SUMMARY AND ANALYSIS** White object was observed traveling in an Easterly course at high speed. Observers sighted object after a jet a/c they were observing disappeared. Sources concluded that object was not a conventional a/c.
6. TYPE OF OBSERVATION Ground-Visual	
7. COURSE East	
8. PHOTOS ☐ Yes ☒ No	
9. PHYSICAL EVIDENCE ☐ Yes ☒ No	

FORM
FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.

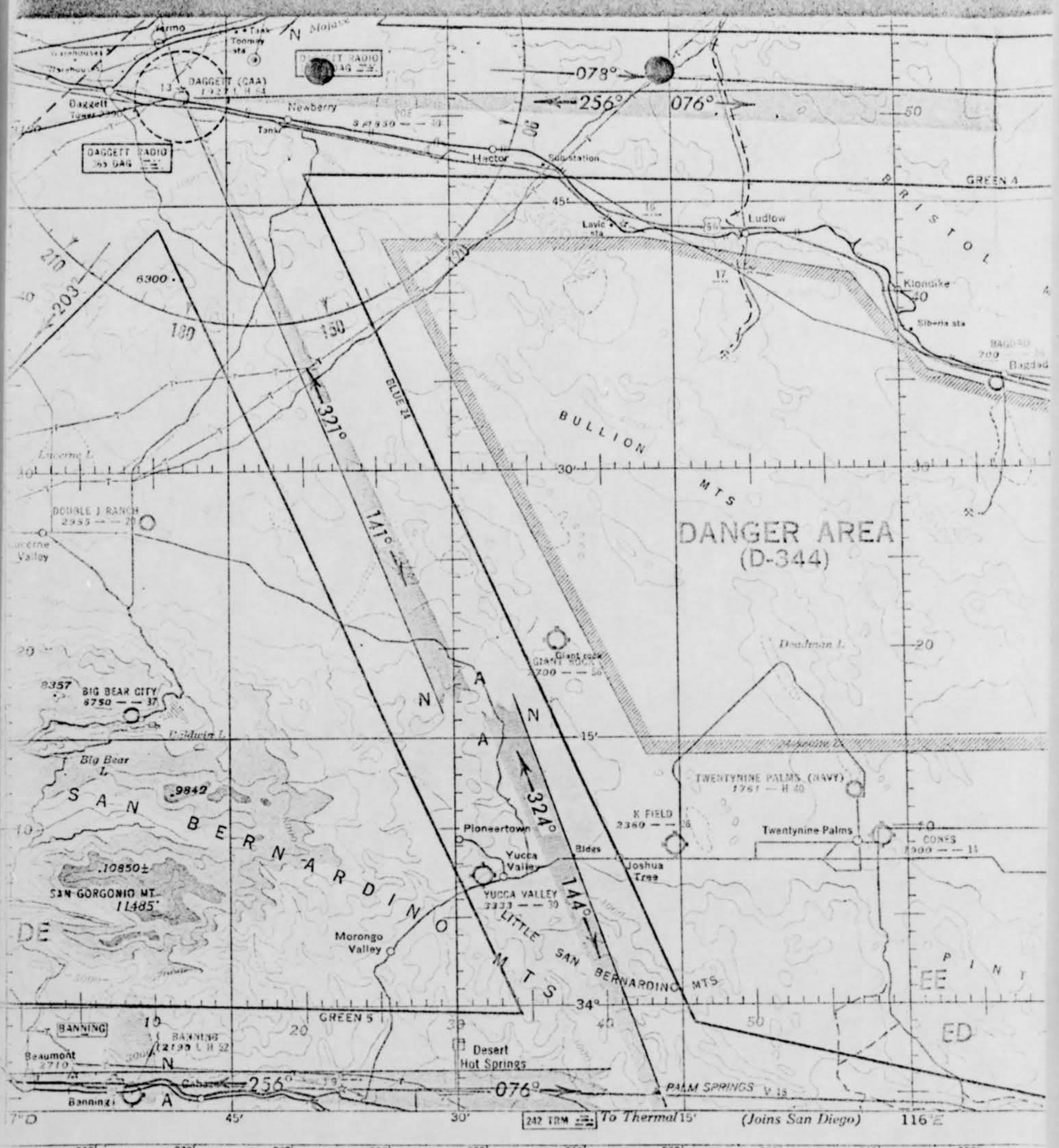
NOTE: It is requested that users of this chart indicate corrections and additions which come to their attention and notify "THE DIRECTOR, U. S. COAST AND GEODETIC SURVEY, WASHINGTON 25, D. C."

TO REFERENCE BY THE GEOREF (SHOWN IN BLUE) TO MINUTES
(Select nearest intersection south and west of point)

Sample Point: PtRU

1. EJ identifies basic 15° quadrangle
2. BE identifies 1° quadrangle
3. 12 identifies Georef minute of longitude
4. 25 identifies Georef minute of latitude
5. Sample reference: EJBE1225

See Los Angeles Local Aeronautical Chart, scale 1:250,000 for additional information.



BLUE TINT INDICATES AIR TRAFFIC CONTROLLED AREAS

For pilot information see reverse side

Victor airway designations are shown along the radials of the omni range stations. Limits of these airways which are not indicated on this chart are 5 miles on either side of the radials.

PROVIDENCE MTS

GRANITE MTS

△ GRANITE
6600

V 12

258°

Stanks Fenner

ESSEX
1350 — — 49

Clipper Mt.

Essex

078°

259°

3755

Gas sta

Sub sta

270

MTS

LOS ANGELES

PIUTE

PIPE LINE

Danby

Gas sta

Ranch

Amboy

Gas sta

Cadiz

Ranch

Tanks

Bldgs

Salt mining Plant

Bristol L.

Archer sta

Cadiz L.

Chubbuck

Milligan sta

Salt Marsh sta Tank

Reservoir & pumping sta

Tank

Dale L.

4600

SHEEP HOLE MTS

IRON MT.

OLD WOMAN MTS

TURTLE MTS

COLORADO DESERT

ZONE

Rice

RICE
832 — — 50

COXCOMB
900 — — 45

.5300

.3804

.4313

.4316

FE

FD

(Joins San Diego)

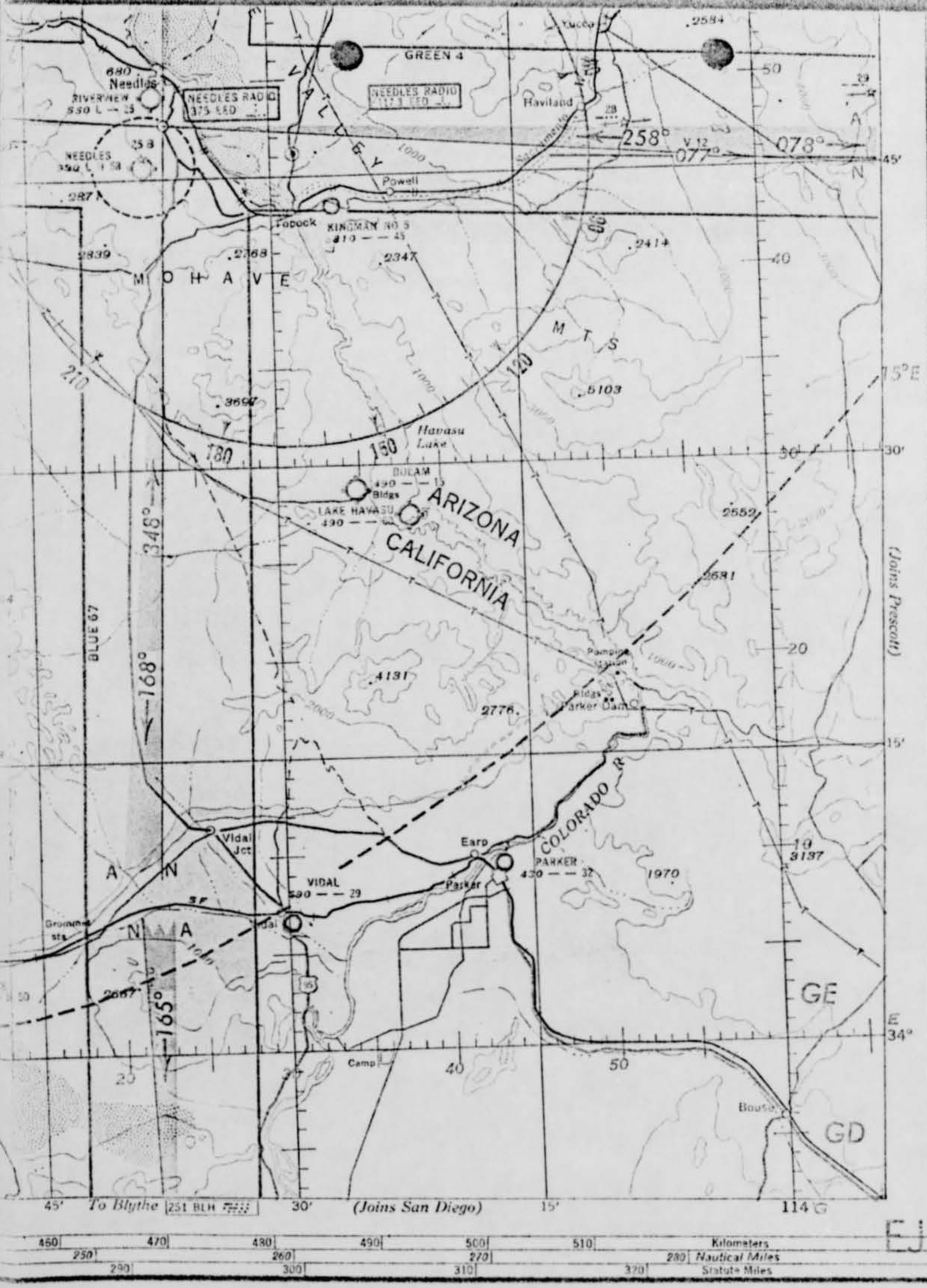
15°E 45' 30' 15' 115°F

10 20 30 40 50 10 20 30 40 50

370 380 390 400 410 420 430 440 450

200 210 220 230 240

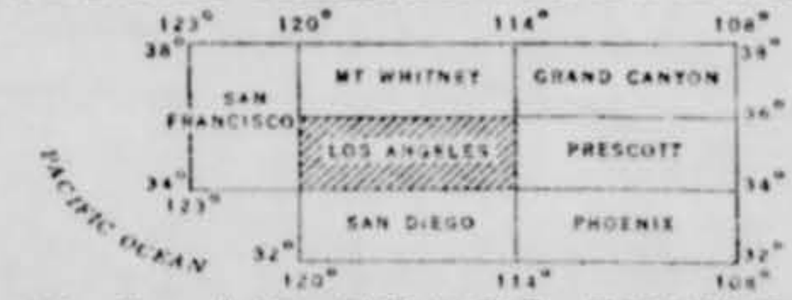
230 240 250 260 270 280



GEOREF 8-52

LOS ANGELES (R-2)

SECTIONAL AERONAUTICAL CHART



34th EDITION

Consult Coast and Geodetic Survey Radio Facility Charts and Civil Aeronautics Administration Airman's Guide for changes in aeronautical information on this chart after

SEPT. 12, 1952

Next scheduled edition, March 1953

U. S. AIR FORCE EDITION

NAUTICAL MILES

For convenience in converting distances expressed in statute miles to their equivalents in nautical miles, and vice versa, the table below has been prepared. The United States nautical mile has been used for the table.

The United States nautical mile is defined as equal to one-sixtieth of a degree (one minute) of a great circle on a sphere whose surface is equal to the surface of the earth. The value of a nautical mile is calculated on this basis as 1853.25 meters or 6080.20 feet. Since the common or statute mile is equal to 5280 feet, one nautical mile equals approximately 1.152 statute miles, and one statute mile equals approximately 0.868 nautical mile. For quick calculation the nautical mile may be considered approximately one-seventh longer than the statute mile, and the statute mile approximately one-eighth shorter than the nautical mile.

In the lower margins of the sectional charts is provided a convenient conversion scale by which values in statute miles may be readily converted to nautical miles and vice versa. Distances expressed in either unit may thus be scaled directly on the charts.

The length of one minute of latitude measured along a meridian on the surface of the earth at latitude 48°15′ is equal to a United States nautical mile. North or south of 48°15′ the length of a minute is slightly longer or shorter, since the earth is not a perfect sphere. However, for practical purposes, the nautical mile is considered equivalent to a minute of latitude at any point on the earth's surface. Therefore, the one-minute subdivisions of the meridian lines on the face of charts may also be used for scaling distances.

The knot is a unit of speed only. One knot is equal to one nautical mile per hour; as, when an aircraft is travelling 200 nautical miles per hour, its speed is 200 knots.

CONVERSION TABLES

STATUTE MILES TO NAUTICAL MILES

STATUTE MILES	NAUTICAL MILES	FEET	STATUTE MILES	NAUTICAL MILES
0.1	0.087	528	100	86.8
0.2	0.174	1056	110	95.5
0.3	0.261	1584	120	104.2
0.4	0.347	2112	130	112.9
0.5	0.434	2640	140	121.6
0.6	0.521	3168	150	130.3
0.7	0.608	3696	160	138.9
0.8	0.695	4224	170	147.6
0.9	0.782	4752	180	156.3
1.0	0.868	5280	190	165.0
			200	173.7
2	1.74		210	182.4
3	2.61		220	191.0
4	3.47		230	199.7
5	4.34		240	208.4
6	5.21		250	217.1
7	6.08		260	225.8
8	6.95		270	234.5
9	7.82		280	243.1
10	8.68		290	251.8
11	9.55		300	260.5
12	10.42		310	269.2
13	11.29		320	277.9
14	12.16		330	286.6
15	13.03		340	295.3
16	13.89		350	303.9
17	14.76		360	312.6
18	15.63		370	321.3
19	16.50		380	330.0
20	17.37		390	338.7
			400	347.4
30	26.05			
40	34.74		500	434.2
50	43.42		600	521.0
60	52.10		700	607.9
70	60.79		800	694.7
80	69.47		900	781.6
90	78.16		1000	868.4

NAUTICAL MILES TO STATUTE MILES

NAUTICAL MILES	STATUTE MILES	FEET	NAUTICAL MILES	STATUTE MILES
0.1	0.115	608.0	100	115.2
0.2	0.230	1216.0	110	126.7
0.3	0.345	1824.1	120	138.2
0.4	0.461	2432.1	130	149.7
0.5	0.576	3040.1	140	161.2
0.6	0.691	3648.1	150	172.7
0.7	0.806	4256.1	160	184.2
0.8	0.921	4864.2	170	195.8
0.9	1.036	5472.2	180	207.3
1.0	1.152	6080.2	190	218.8
			200	230.3
2	2.30		210	241.8
3	3.45		220	253.3
4	4.61		230	264.9
5	5.76		240	276.4
6	6.91		250	287.9
7	8.06		260	299.4
8	9.21		270	310.9
9	10.36		280	322.4
10	11.52		290	334.0
11	12.67		300	345.5
12	13.82		310	357.0
13	14.97		320	368.5
14	16.12		330	380.0
15	17.27		340	391.5
16	18.42		350	403.0
17	19.58		360	414.6
18	20.73		370	426.1
19	21.88		380	437.6
20	23.03		390	449.1
			400	460.6
30	34.55			
40	46.06		500	575.8
50	57.58		600	690.9
60	69.09		700	806.1
70	80.61		800	921.2
80	92.12		900	1036.4
90	103.64		1000	1151.6

6/16/52

SEARCH AND RESCUE

Search and Rescue Service is a life saving service provided through the combined efforts of the CAA, Air Force, and Coast Guard who are assisted by other organizations such as the Civil Air Patrol, Sheriffs Air Patrol, State Police, and such other agencies as may be available. It provides search, survival aid, and rescue of personnel of missing or crashed aircraft.

All you need to remember to obtain this valuable protection is:

1. File a Flight Plan with a CAA Airway Communications Station in person or by telephone or radio.
2. File an Arrival Report.
3. If you land at a location other than intended destination, report the landing to the nearest CAA Communications Station.
4. If you land enroute and are delayed more than an hour, report this information to the nearest communications station.
5. Remember that if you fail to report within one hour after your E.T.A., a search will be started to locate you. If you fail to report within three hours after your E.T.A., the full facilities of the Search and Rescue Service will be activated.

Searches are expensive, they inconvenience other people, and on numerous occasions the lives of other pilots are sacrificed when searching for lost or overdue pilots. SO, FILE AN ARRIVAL REPORT!

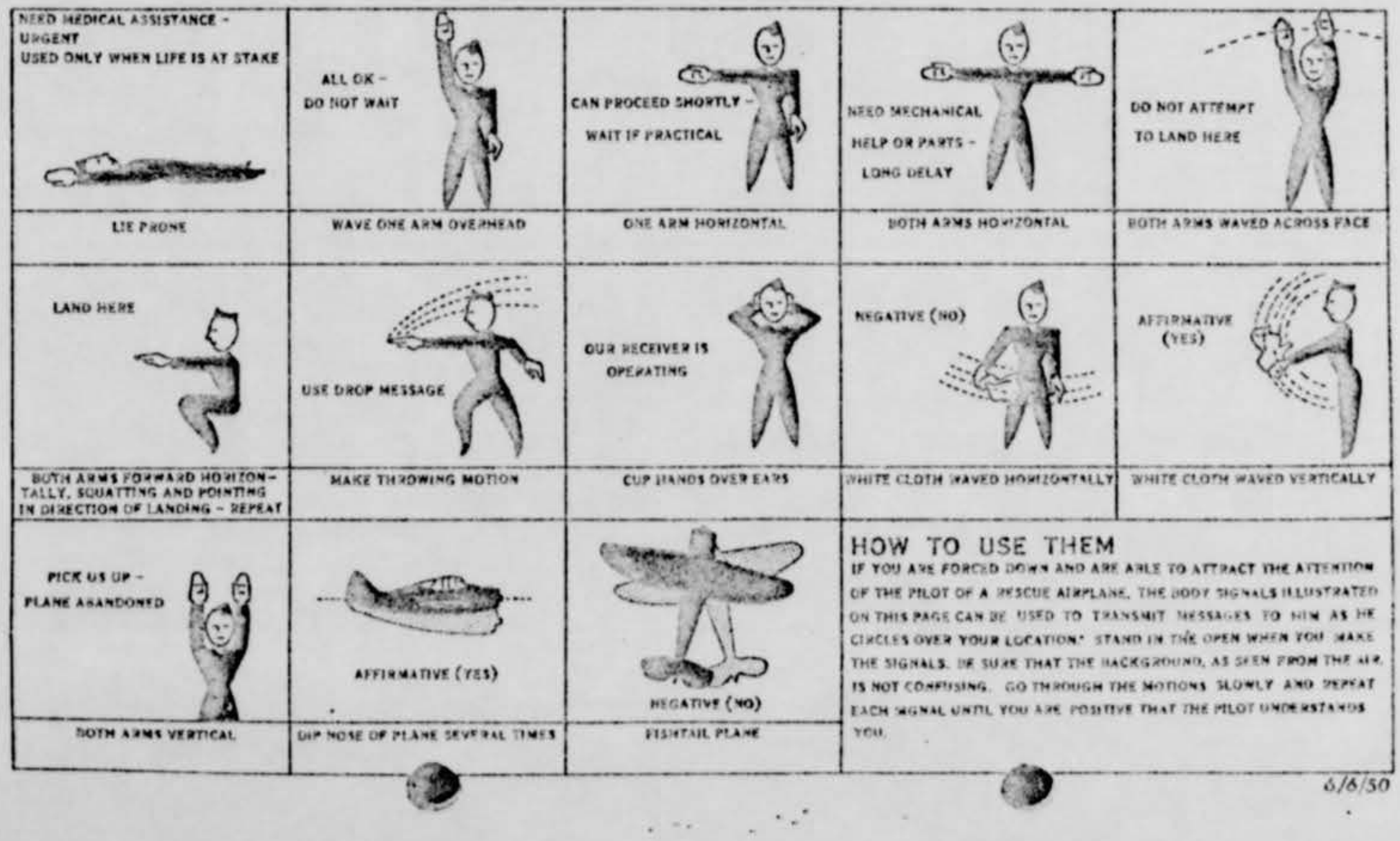
GROUND TO AIR EMERGENCY CODE DISTRESS SIGNALS

REQUIRE DOCTOR, SERIOUS INJURIES — I	REQUIRE SIGNAL LAMP WITH BATTERY, AND RADIO — I	REQUIRE FUEL AND OIL — L
REQUIRE MEDICAL SUPPLIES — II	INDICATE DIRECTION TO PROCEED — K	ALL WELL — LL
UNABLE TO PROCEED — X	AM PROCEEDING IN THIS DIRECTION — ↑	NO — N
REQUIRE FOOD AND WATER — F	WILL ATTEMPT TAKE-OFF — |>	YES — Y
REQUIRE FIREARMS AND AMMUNITION — V	AIRCRAFT SERIOUSLY DAMAGED — L7	NOT UNDERSTOOD — JL
REQUIRE MAP AND COMPASS — □	PROBABLY SAFE TO LAND HERE — △	REQUIRE MECHANIC — W
	IF IN DOUBT, USE INTERNATIONAL SYMBOL — SOS	

INSTRUCTIONS:

1. Lay out symbols by using strips of fabric or parachutes, pieces of wood, stones, or any available material.
2. Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.
3. Symbols should be at least 10 feet high or larger, if possible. Care should be taken to lay out symbols exactly as shown to avoid confusion with other symbols.
4. In addition to using symbols, every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.
5. When ground is covered with snow, signals can be made by dragging, shoveling or tramping the snow. The depressed areas forming the symbols will appear to be black from the air.
6. Pilot should acknowledge message by rocking wings from side to side.

VISUAL EMERGENCY SIGNALS



HOW TO USE THEM

IF YOU ARE FORCED DOWN AND ARE ABLE TO ATTRACT THE ATTENTION OF THE PILOT OF A RESCUE AIRPLANE, THE BODY SIGNALS ILLUSTRATED ON THIS PAGE CAN BE USED TO TRANSMIT MESSAGES TO HIM AS HE CIRCLES OVER YOUR LOCATION. STAND IN THE OPEN WHEN YOU MAKE THE SIGNALS. BE SURE THAT THE BACKGROUND, AS SEEN FROM THE AIR, IS NOT CONFUSING. GO THROUGH THE MOTIONS SLOWLY AND REPEAT EACH SIGNAL UNTIL YOU ARE POSITIVE THAT THE PILOT UNDERSTANDS YOU.

6/6/50

CRUISING ALTITUDES

CRUISING ALTITUDES WITHIN CONTROL AREAS AND ZONES – During VFR conditions aircraft at altitudes of 3000 feet or more above the surface within control zones and control areas, including controlled airways, must be flown at odd or even 1000-foot levels appropriate to the direction of flight. "Odd" and "Even" indicators are shown on Coast and Geodetic Survey Radio Facility Charts. Under IFR conditions within control zones and control areas, including controlled airways, altitudes will be flown in accordance with ATC clearances.

The following rules will govern the altitude at which aircraft shall fly when making VFR flights along controlled civil airways:

Green and Red Airways and Even-numbered VOR Airways

Eastbound flights. Aircraft shall fly at an ODD thousand-foot altitude above sea level (such as 3000, 5000, or 7000 feet).
Westbound flights. Aircraft shall fly at an EVEN thousand-foot altitude above sea level (such as 4000, 6000, or 8000 feet).

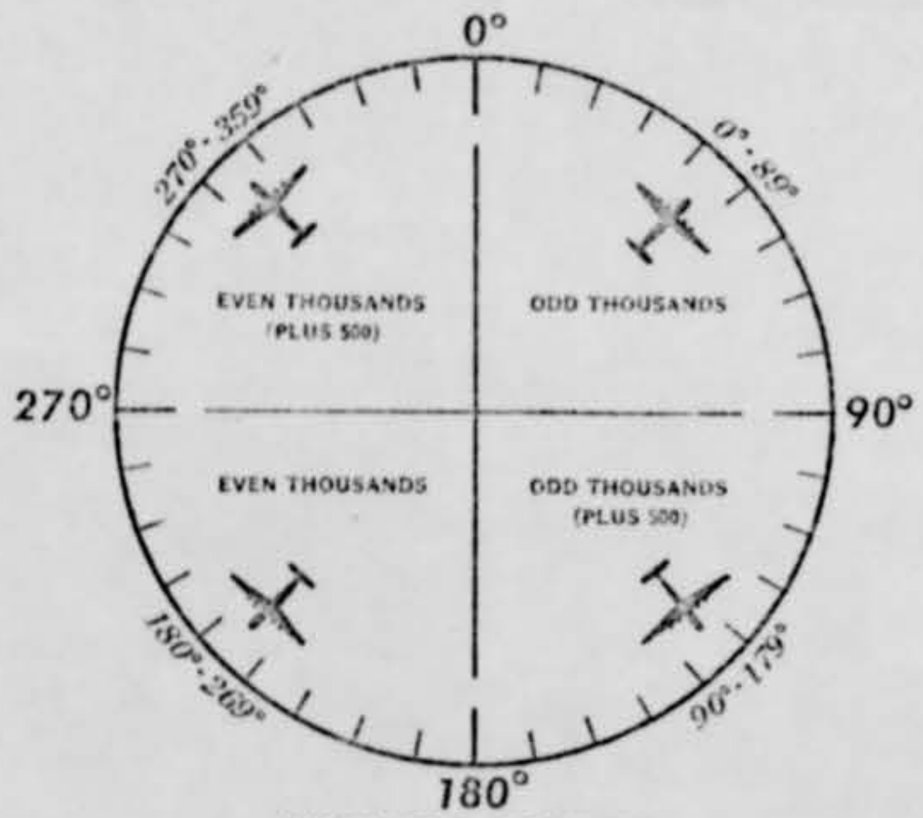
Amber and Blue Airways and Odd-numbered VOR Airways

Northbound flights. Aircraft shall fly at an ODD thousand-foot altitude above sea level (such as 3000, 5000, or 7000 feet).
Southbound flights. Aircraft shall fly at an EVEN thousand-foot altitude above sea level (such as 4000, 6000, or 8000 feet).

The following rules will apply on segments where color airways and VOR airways overlap:

Where a color airway coincides with a VOR airway, the ODD or EVEN rule for the appropriate color airway will apply.
Where no color airway is involved and an Even-numbered and an Odd-numbered VOR airway coincide, the ODD or EVEN altitude rule for the Even-numbered VOR airway will apply.

CRUISING ALTITUDES OUTSIDE CONTROL AREAS AND ZONES–When the flight visibility is less than three miles, aircraft must be flown at an altitude appropriate to the magnetic course as illustrated below.



(Illustration applies only to flight outside of control areas and control zones, including uncontrolled airways)

VISUAL FLIGHT PLAN

The Civil Air Regulations do not require that a VFR flight plan be filed for a VFR flight. However, the filing of such a flight plan is desirable, and the CAA urges that VFR flights be covered by flight plan whenever practicable as such filing materially assists in search and rescue operations if such action becomes necessary. Flight plans may be submitted to the nearest CAA airway communications station either in person or by telephone. Flight plans may be filed by radio if no other means are available but this practice should be avoided whenever possible to reduce congestion of radio channels.

If filing the flight plan, the pilot should state the name of the CAA communications station with which he will close his flight plan. If the destination is not served by a CAA communications station, or is in Canada or Mexico, the method by which the arrival report will be filed must be clearly understood by all concerned. VFR flight plans are transmitted via CAA communications facilities only to the CAA communications station with which the pilot has stated his arrival report or closing of flight plan will be filed. One hour after the estimated time of arrival, if no notice of arrival is received, queries are sent out over CAA communications systems to determine the location of the aircraft. If no information concerning the aircraft is obtained after an exhaustive communications inquiry, search and rescue operations are inaugurated. In as much as the government may be put to considerable expense in determining the location of aircraft when an arrival report is not filed, it is vitally necessary that all pilots make certain that notice of arrival is filed. If flight is terminated prior to reaching the point of intended destination specified in the flight plan, pilots should contact the nearest CAA communications station and the request that an arrival report be transmitted over CAA facilities to the CAA communications station with which the pilot stated the arrival report would be filed.

Pilots of aircraft operating on VFR flight plan who desire to make flight progress reports, should include in the report the phrase: "VFR FLIGHT PLAN FROM (blank) TO (blank)."

The flight plan shall contain the items listed under INSTRUMENT FLIGHT RULES - Flight Plan, except "Alternate Airport" and except that a visual flight rule flight plan should always specify "VFR" as a cruising altitude. The use of this term in lieu of an actual altitude indicates that the pilot intends to fly in accordance with Visual Flight Rules. Aircraft may be operated in accordance with VFR above a well defined cloud or other formation provided, climb to and descent from such "on top" flight can also be made in accordance with VFR.

7-14-52

PILOTS GUIDE FOR COMMUNICATING WITH AIRWAY STATIONS

PILOTS - never hesitate to use your radio. Remember that talking by radio is almost the same as talking on your home telephone.

The following are typical examples of two-way communication with airway stations.

IDENTIFICATION OF AIRWAY STATIONS: CAA Airway Communications Stations are identified by the name of the station followed by the word "RADIO".

Example: "CLEVELAND RADIO".

IDENTIFICATION OF AIRCRAFT: Your aircraft is identified by the make of aircraft followed by the certificate number and letter suffix, if any.

Example: "STINSON ONE THREE SIX FIVE".
"STINSON ONE THREE SIX FIVE-Y".

Example of pilot calling an airway station:
"CLEVELAND RADIO - THIS IS - STINSON ONE THREE SIX FIVE - OVER".

After communication has been established, an abbreviated form of identification may be used, if desired, using the last three units of the certificate number only.

The airway station will normally answer on the radio range or radiobeacon frequency. If reply is desired on other than the radio range or radiobeacon frequency, pilots should indicate the frequency on which the station reply is expected.

Example: "CLEVELAND RADIO - THIS IS - STINSON ONE THREE SIX FIVE - REPLY ON ONE ELEVEN POINT ONE MEGACYCLES - OVER".

After the airway station has answered your call, proceed with your message without further call up other than preceding the message with the aircraft identification. Your message may consist of your position report, a request for weather data or other information that may be required to assist you to your destination.

Example: "STINSON ONE THREE SIX FIVE - OVER CLEVELAND AT ELEVEN TWENTY - FOUR THOUSAND FEET ON VFR FLIGHT PLAN FROM YOUNGSTOWN TO TOLEDO - WHAT IS THE WEATHER AT TOLEDO - OVER".

If you are flying VFR, a position report is not required, however, it is to your advantage that the stations along your route of flight know your position at all times in order that assistance can be rendered should you encounter difficulty.
Flight plans may be filed while in flight, with a CAA Airway Communications Station, if your departure was from an airport not served by such a station.

The word "ROGER" is used to acknowledge receipt of a message.

The word "OUT" is used when a conversation is ended and no response is expected.

Example: "STINSON ONE THREE SIX FIVE - ROGER, OUT".

The words "SAY AGAIN" are used if a message was not understood and a repetition is desired.

The words "STAND BY" are used to indicate that a return call will be made as soon as practicable.

Examples: "STINSON ONE THREE SIX FIVE - SAY AGAIN, OVER".
"STINSON ONE THREE SIX FIVE - STAND BY".

ENROUTE FLIGHT SERVICE

All airway communications stations are ready to provide pilots with enroute flight information or assistance at any time. You may call any CAA RADIO for latest weather along your route of flight, upper wind velocities, airport conditions, and other flight information. If you become lost or uncertain of your position, call any CAA RADIO. Personnel at CAA airway communications stations are trained to assist pilots in establishing position by any of the following methods: (a) Visual reference to terrain features; (b) Low frequency radio range orientation; (c) VHF omni-range indications (triangulations).

RADIOTELEGRAPH CODE AND PHONETIC ALPHABETS

U.S. *	INT'L (ICAO)		U.S. *	INT'L (ICAO)		U.S.	INT'L (ICAO) **	
A—ABLE	ALFA	·—	N—NAN	NECTAR	—·	0—ZEE-ROH	ZE-RO	—————
B—BAKER	BRAVO	—···	O—OBOE	OSCAR	———	1—WUN	WUN	·————
C—CHARLIE	COCA	—·—·	P—PETER	PAPA	·——·	2—TOO	TOO	··———
D—DOG	DELTA	—··	Q—QUEEN	QUEBEC	——·—	3—THU-REE	TREE	···——
E—EASY	ECHO	·	R—ROGER	ROMEO	·—·	4—FO-WER	FOW-er	····—
F—FOX	FOXTROT	··—·	S—SUGAR	SIERRA	···	5—FI-YIV	FIFE	·····
G—GEORGE	GOLF	——·	T—TARE	TANGO	—	6—SIKS	SIX	—····
H—HOW	HOTEL	····	U—UNCLE	UNION	··—	7—SEV-VEN	SEV-en	——···
I—ITEM	INDIA	··	V—VICTOR	VICTOR	···—	8—ATE	AIT	———··
J—JIG	JULIETT	·———	W—WILLIAM	WHISKEY	·——	9—NI-YEN	NIN-er	————·
K—KING	KILO	—·—	X—XRAY	EXTRA	—··—			
L—LOVE	LIMA	·—··	Y—YOKE	YANKEE	—·——			
M—MIKE	METRO	——	Z—ZEBRA	ZULU	——··			

* The US phonetic alphabet (Able, Baker, Charlie etc.) has been supplanted by the International.(ICAO) phoneti alphabet at all CAA communication stations as of April 1, 1952. However, the US phonetic alphabet will continue to b used upon request at the stations.

** CAA facilities will continue to use normal English pronunciation instead of the International pronunciation of th numbers.

SECTIONAL CHARTS

The sectional aeronautical chart series provides complete coverage of the United States. An additional chart covers the Hawaiian Islands. These charts are designed primarily for piloting, which is also known as contact flying. They contain a maximum amount of cultural topographic features including important landmarks.

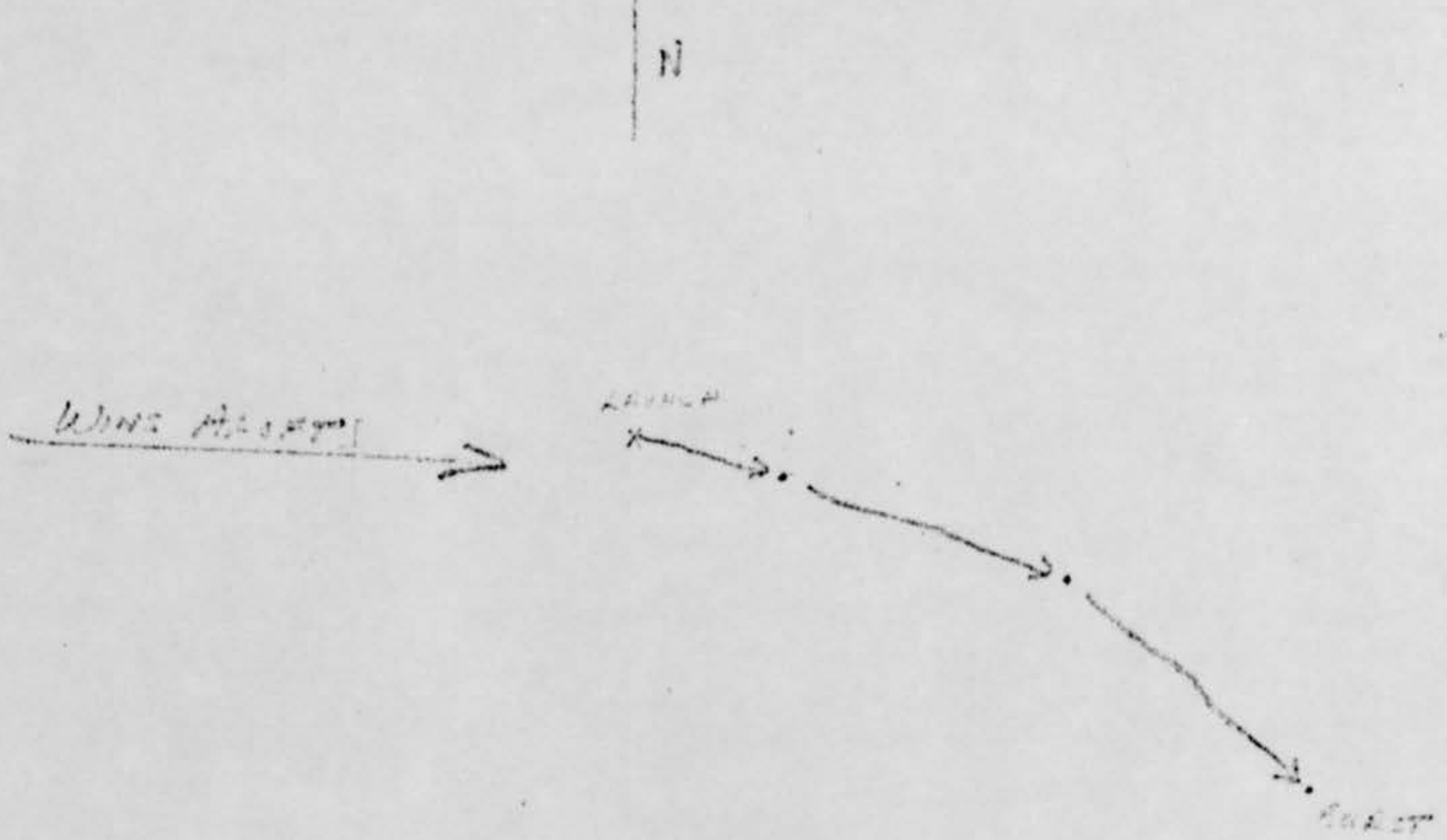
Sectional charts are revised at six-month periods to insure that the airman has the latest information available, and are sold through authorized agents located at airports and principal cities throughout the United States. They may also be obtained by writing to the Director, U. S. Coast and Geodetic Survey, Department of Commerce Building, Washington 25, D. C.

In the lower right-hand corner is printed the date of the chart. Below this the next scheduled printing is indicated. If the date of the chart is more than six months old, users are advised to check with the notices (Dates of Latest Prints) on file with authorized agents. Charts that carry older dates than those shown in large type on this list of dates are obsolete.

ADDITIONAL AERONAUTICAL CHARTS PUBLISHED AND PRINTED BY THE U. S. COAST AND GEODETIC SURVEY

Planning Charts	AP-9 and 3069a 3060d	1:5,000,000 1:3,000,000
Aircraft Position Charts	3071 North Atlantic 3073 Caribbean Sea	1:5,000,000 1:5,000,000
Route Charts	Show limited topographic information, selected aerodromes, and major radio data.	1:2,000,000
Direction Finding Charts	Six charts cover the United States	1:2,000,000
World Aeronautical Charts	Forty-three charts cover the United States	1:1,000,000
Flight Charts	Thirty-seven charts cover the principal air routes of the United States	1:1,000,000
Local Charts	Designed to provide additional landmark information and topographic detail for important air terminals.	1:250,000
Instrument Approach and Landing Charts	More than 475 charts designed for use in manuals with Radio Facility Charts	Approach 1:250,000 Landing 1:31,680
Instrument Landing System Charts	Similar to Instrument Approach and Landing charts but printed in black and halftone instead of color. Show very little detail.	Approach 1:250,000 Landing 1:75,000 1:50,000
Airport Obstruction Plans	Show runways and selected aerodrome information and objects in the vicinity that may be hazards to air traffic.	1:12,000
Radio Facility Charts	Sixty-five charts of the U. S. show all radio facilities, airways and other information necessary for instrument flying.	1:2,000,000

A catalog giving a complete list and description of the various series is available upon request


N
WIND DIRECTION

AERONAUTICAL SYMBOLS

AERODROMES

AERODROMES WITH FACILITIES

LAND	WATER	
○	⚓	Civil
◎	⚓	Joint civil and military
◎	⚓	Military
▭		Principal civil aerodromes in large populated areas; or air terminals of major importance

AERODROMES WITH EMERGENCY OR NO FACILITIES

LAND	WATER	
○		Landing area
	⚓	Sheltered anchorage

AERODROME DATA

LAND		WATER	
18	Elevation in feet	oo	Elevation in feet
L	Minimum lighting	L	Minimum lighting
H	Hard surfaced runway	S	Normally sheltered take-off area
46	Length of longest runway in hundreds of feet	62	Length of longest runway in hundreds of feet

HARMON
18 L H 46
Airport of entry
CCA SYSTEM
278 126.18

NAS ANACOSTIA
oo L S 62
2870

278 126.18 2870 Control tower transmitting frequencies

When information is lacking, the respective character will be replaced by a dash — { VALLEY / 750 L — 32

AIR NAVIGATION LIGHTS

Rotating light — — — — — — — — — — — — ☆
Rotating light (With flashing code) — — — — —•— ☆
Rotating light (With course lights) — — — 17 — ☆
Flashing light — — — — — — — — — — FL ☆

Flashing light (With code) — — — — — — —•=•• ☆FL
Marine light — — — — — — — — — — — — —●
Lightship — — — — — — — — — — — — — ⚓

F-fixed FL-flashing Occ-occulting Alt-alternating Gp-group R-red W-white G-green B-blue (U)-unwatched SEC-sector sec-second
Marine alternating lights are red and white unless otherwise indicated. Marine lights are white unless colors are stated.

RADIO FACILITIES

Use of the word "Radio" within the box indicates voice facilities

All radio facility data are printed in blue with the exception of certain LF/MF facilities such as tower frequencies, radio ranges and associated airways, which are printed in magenta.

Radio range (Without voice) — WOODY RANGE 251 FWA

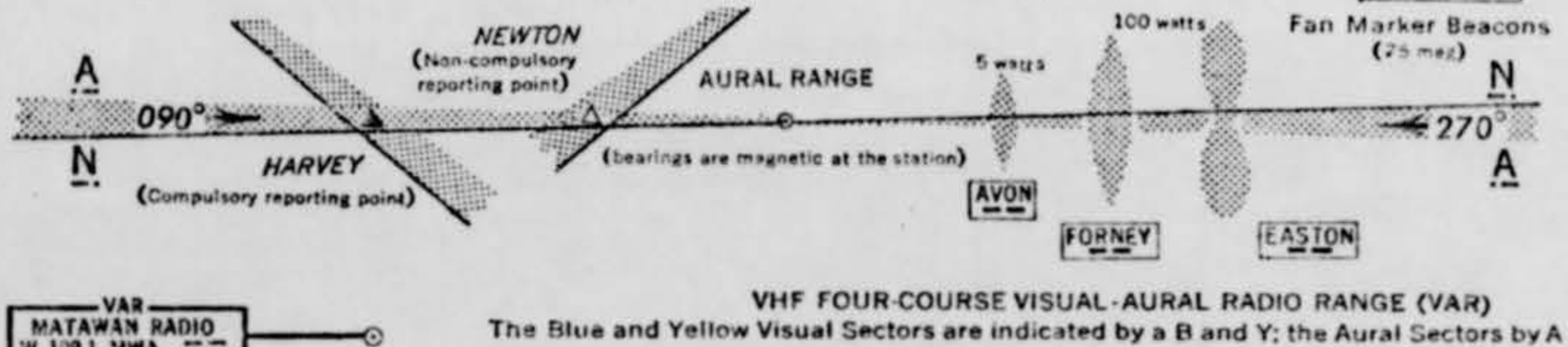
Marine radiobeacon (Without voice) — RBn EVERETT 224 —•— 10m-20m & 30m-40m

Radar beacon — RACON 9310 mc 2-2-1

Radio broadcasting station — BS WOL 1260

Radiobeacon, non-directional (homing) (With voice) — BEDFORD RADIO 522 DBH

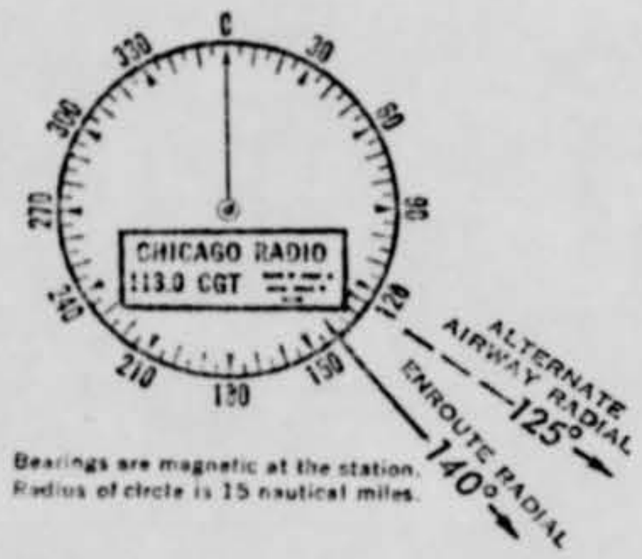
Radio communication station (with voice) — CS GOWEN RADIO 278



VAR
MATAWAN RADIO
W 109.1 MWA

VHF FOUR-COURSE VISUAL-AURAL RADIO RANGE (VAR)

The Blue and Yellow Visual Sectors are indicated by a B and Y; the Aural Sectors by A and N
Letter preceding frequency in box indicates channel



Bearings are magnetic at the station.
Radius of circle is 15 nautical miles.

VHF OMNI-DIRECTIONAL RADIO RANGE (VOR)

The VHF omni-directional range provides visual track guidance along any selected radial from the station out to a distance of approximately 50 miles when flying at the minimum instrument altitude. These ranges operate in the frequencies between 112 and 118 megacycles and require a special omni range type receiver to make use of the navigational features. Also provided are simultaneous voice communication and 3-letter (coded) identification. In operation, the pilot selects a course by setting the pointer on a course or radial selector to the desired magnetic bearing and then flies that course by reference to a cross pointer instrument.

MISCELLANEOUS

Isogonic line — — — — — — 8°E — — (Values for 1950)

Mooring mast — — — — — — — — — — —

Prominent transmission line ——T——T——

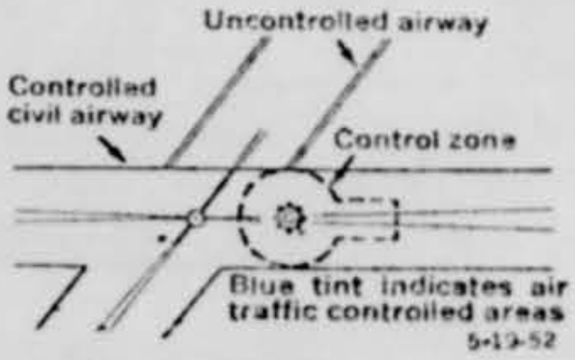
Obstruction — — — — — — — — — — — 1154 (Numerals indicate elevation above sea level of top) a Tank 930'

Restricted areas are numbered, and are indicated on the charts as follows:

Prohibited area (AR-78)

Danger or warning area (D-32) (W-46)

Caution area (C-54)



V.H.F. OMNI-RANGE (VOR)

The V.H.F. omni-range operates within the 112-118 megacycle band. In this band it is relatively free from atmospheric and precipitacion static and interference from otner radio stations. Furthermore, it is not limited to four courses as is the A-N range, but provides definite guidance on any course, to or from the station, the pilot may select. That is why it is called the Omni (Directional) Range. At minimum instrument altitudes the VOR gives reliable indications up to about 50 statute miles (43 nautical miles), depending on enroute terrain.

In flying the V.H.F. omni-range, the pilot uses three basic instruments. The first is the Flight Path Deviation Indicator (cross-pointer instrument), the same type used for the visual-aural range (VAR) and the ILS localizer. The vertical needle of this instrument tells the pilot whether he is right or left of the desired course. The second is an Omni-bearing Selector, manually operated by the rotation of a small knob, by which the pilot selects the course he desires to fly. When the cross-pointer needle is centered, the omni-bearing selector indicates the magnetic bearing of the aircraft either to or from the station. The third is a "TO-FROM" indicator which shows whether the bearing indicated by the Omni-bearing Selector is from or to the station. Furthermore, the "TO-FROM" needle can tell a flier when his aircraft is too far from the VOR or is otherwise receiving a weak signal. In this case the needle points to a red sector instead of TO or FROM.

In operation, the pilot selects a course by adjusting the omni-bearing selector to the desired magnetic bearing, and then maintains it by keeping the cross-pointer needle centered. If the aircraft is correctly aligned with the TO-FROM indications, when the needle swings to the right, for example, it indicates that the course selected lies to the right.

For example, an aircraft is due south of a VOR station. If its pilot desires to fly to the station, he sets the omni-bearing selector to indicate 0°. The "TO-FROM" indicator will then point to the word "TO". As the aircraft passes over the station the "TO-FROM" indicator will point to the word "FROM". If a turn of 180° is made north of the station, although the vertical cross-pointer needle will again become centered, the "TO-FROM" indicator will still point to "FROM". The pilot, however, will now find that he must fly "Away from the needle" to stay on course. This shows him that the "TO-FROM" indicator is incorrect. So, the pilot now rotates his omni-bearing selector to 180°. After he has done this, the "TO-FROM" indicator shifts to the "TO" position, and flying "Toward the needle" will keep him on course.

TABLE OF V.H.F. RECEPTION DISTANCES

With the increasing use of VHF and UHF frequencies for communication and navigation it appears desirable to publicize the reception distances for these frequencies. They, therefore, are tabulated below:

Feet Above Ground Station*	Reception Distance** Statute Miles	Nautical Miles
500	30	25
1,000	45	40
3,000	80	70
5,000	100	85
10,000	140	120
15,000	175	150
20,000	200	175

*No physical obstruction intervening.
**Based on zero elevation of the facility. (Distances to nearest even 5 miles).

If you are using a VHF transmitter, remember that its effective range increases with your altitude. Don't attempt to contact a station unless you are within "line of sight".

U.S. WEATHER BROADCASTS AND TRANSMISSIONS

All continuously operated CAA radio range and radio beacon stations having voice facilities on the range or radio beacon frequencies broadcast weather reports and airway information at 15 and 45 minutes past each hour. The 15-minutes past-the-hour broadcast is an "airway" broadcast consisting of weather reports from important terminals located on airway (s) within approximately 400 statute miles (350 nautical miles) of the station. The 45-minutes-past-the-hour broadcast is an "area" broadcast consisting of weather reports from locations within the flight information area of the station.

The broadcast consists of the local weather report and the latest available surface reports from other locations. Reports more than one hour old are not broadcast. Local winds aloft are broadcast 4 times after the broadcasts at 6:15 and 12:15 A.M., and P.M., E.S.T. The velocities of winds aloft are broadcast in knots.

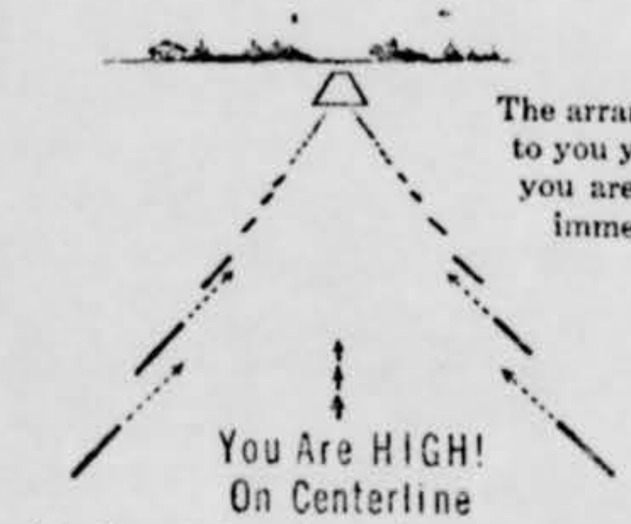
At selected stations the Weather Bureau provides a local terminal forecast covering the next two hours. This forecast is broadcast, when available, immediately following the local weather report.

Pilots enroute are requested to avoid, if possible, calling airway communications stations at or about 15 and 45 minutes past the hour (which are the scheduled broadcast times) to request weather information, as such calls may delay starting of scheduled broadcasts and cause inconvenience to other persons who are dependent on the broadcasts for weather reports.

5-4-52

HIGH INTENSITY SLOPELINE APPROACH LIGHT SYSTEM

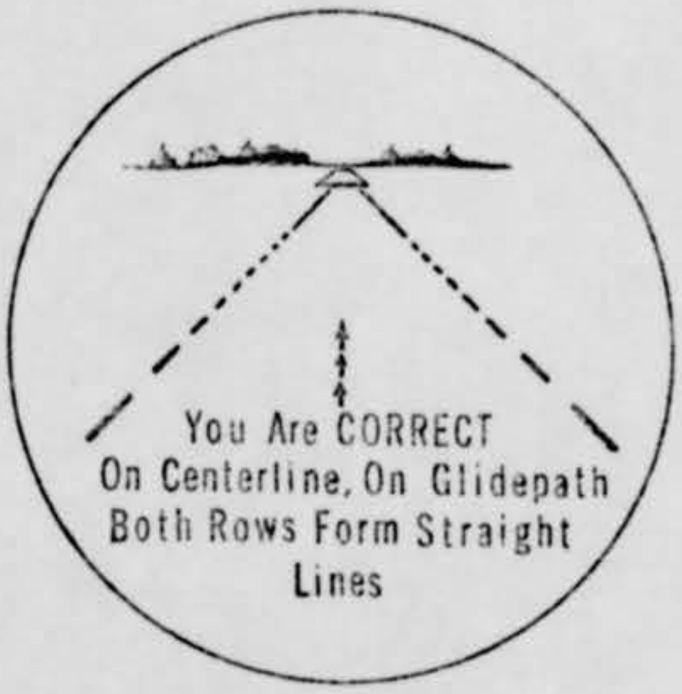
The arrangement of the slopeline lights are designed to indicate to you your position relative to the correct approach path. If you are off on either altitude or track, the lights give you an immediate indication of the proper corrective maneuvers.



You Are HIGH!
On Centerline
ghts Break Straight Line To Point Down
So: FLY DOWN

You Are LOW!
On Centerline
Lights Are Pointing Up
So: FLY UP

You Are LEFT!
On Glidepath
Lights Point Right
So: FLY TO RIGHT



You Are CORRECT
On Centerline, On Glidepath
Both Rows Form Straight
Lines

You Are RIGHT!
On Glidepath
Lights Point Left
So: FLY TO LEFT

U. S. DANGER AREAS ON LOS ANGELES SECTIONAL CHART

NO.	NAME	ACTIVITY	USING AGENCY	ALTITUDE	TIME
D-100	Point Mugu	Pilotless Aircraft and Guided Missiles Firing	Naval Air Missiles Test Center, Point Mugu, Calif.	Unltd.	Unltd.
D-276	Camp Irwin	Bombing and Gunnery	George AFB, Calif.	To 30,000	0800-1800
D-277	Trona	Pilotless Aircraft, Bombing and Aerial Gunnery	12th Naval District	Unltd.	Unltd.
D-278	China Lake	Aerial Gunnery	12th Naval District	Unltd.	Days
D-279	Muroc Lake	Bombing, Strafing, Gunnery and Accelerated Speed Range	Edwards AFB, Calif.	To 45,000	Days
W-289	Point Mugu	Pilotless Aircraft and Guided Missiles Firing	Naval Air Missiles Test Center, Point Mugu, Calif.	Unltd.	Unltd.
D-292	San Pedro	Artillery Firing	ORC Training Center, Ft. MacArthur, Calif.	To 3,000	0800-1700
D-306	Mojave	Air-to-Ground Rocketry and Gunnery	Mojave ALF, Calif.	Unltd.	Unltd.
D-344	Bullion Mts.	Artillery Firing	11th Naval District	Unltd.	Unltd.
W-412	Santa Cruz Island	Aerial Mine Training	11th Naval District	To 3,000	Unltd.
C-417	Kingman	Radio Controlled Airplane Flights	Globe Corp., Aircraft Division	To 3,000	Unltd.

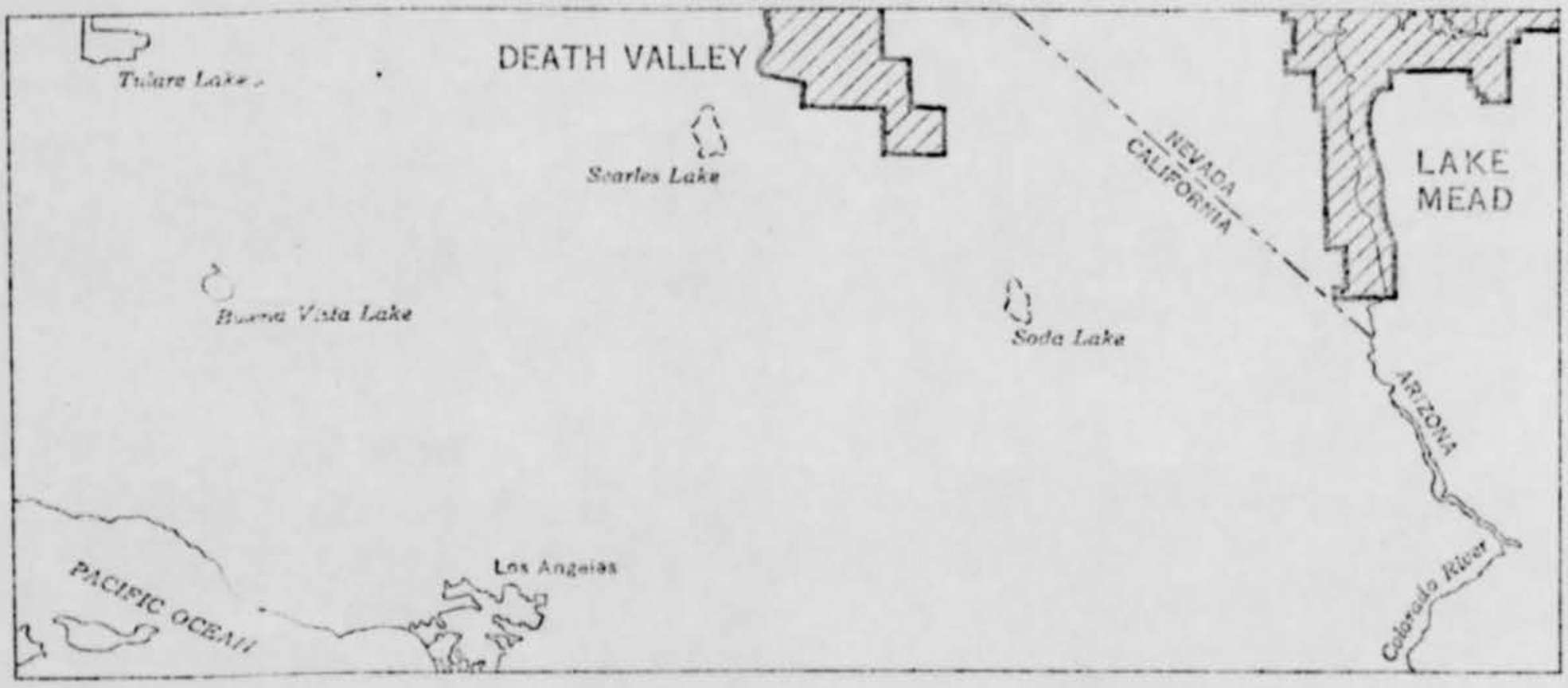
Altitude given in feet. AR - Airspace Reservation (Prohibited) C - Caution D - Danger W - Warning 8-10-52

No person shall operate an aircraft within an Airspace Reservation or Danger Area unless permission for such operation has been issued by appropriate authority.

Aircraft are not restricted from flying through Caution Areas; however, extreme caution should be exercised by pilots flying through such areas.

NATIONAL PARKS

WITHIN LOS ANGELES SECTIONAL CHART

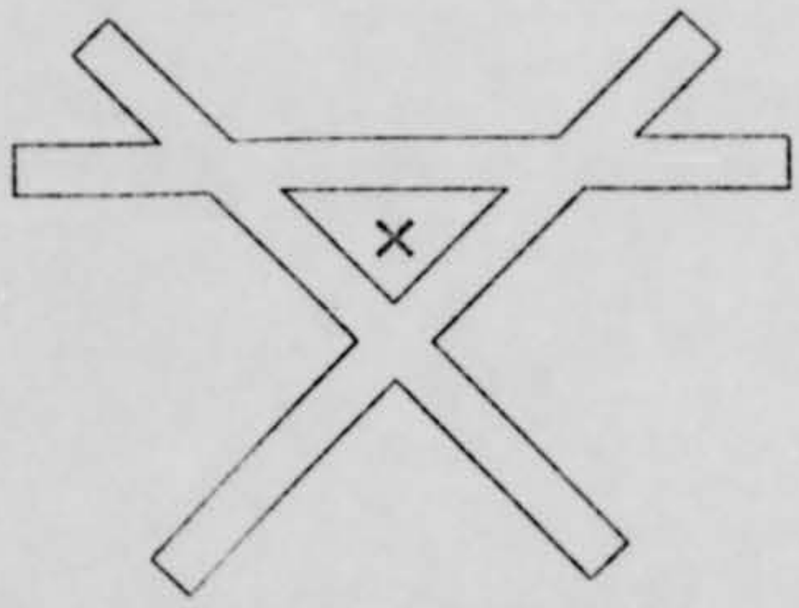


NATIONAL PARKS REGULATION. No person shall land aircraft on land or water, on any federally owned area within any national park or monument, except for emergency rescue in accordance with the directions of the officer in charge of the park or monument or where such landing is caused by unforeseeable circumstances beyond the control of such person, other than at one of the following designated landing areas: (a) Death Valley National Monument, California, Furnace Creek Airport; (b) Jackson Hole National Monument, Wyoming, Jackson Airport; and (c) Lake Mead Recreational Area Arizona and Nevada, Boulder City Municipal Field.

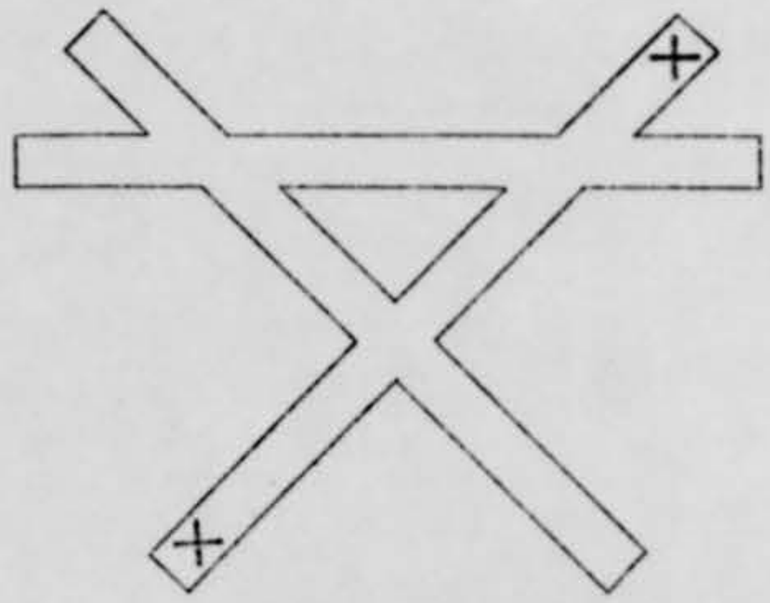
CLOSED AIRPORT AND RUNWAY MARKER

When you see a large " × " in the center of an airport, that airport is closed. Do not attempt a landing!
When you see an " × " on a runway, that runway is closed and hazardous for use. Do not use it!

TYPICAL INSTALLATIONS

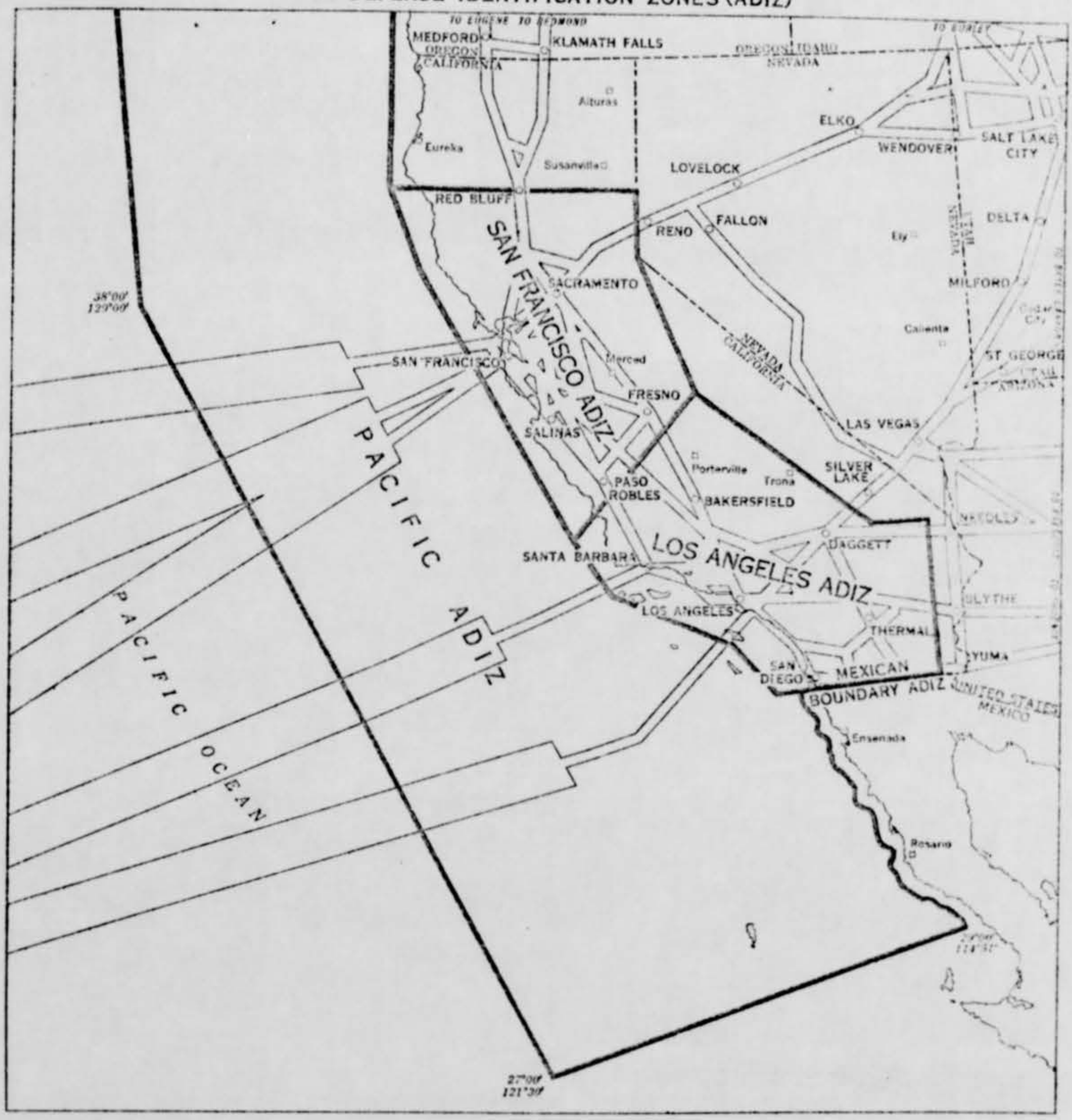


ENTIRE AIRPORT CLOSED



ONE RUNWAY CLOSED

AIR DEFENSE IDENTIFICATION ZONES (ADIZ)



In the United States several areas have been designated as Air Defense Identification Zones (ADIZ) by the Administrator of Civil Aeronautics in the interest of national security. All aircraft entering the Air Defense Identification Zones are required to file flight plans, except aircraft entering from within the Continental Limits of the United States or operating within the Seattle, San Francisco, Los Angeles, Albuquerque, Knoxville, Great Falls, Minneapolis, Traverse City, and Bangor Zones, at altitudes of less than 4000 feet above the immediate terrain. Any person who knowingly or willfully fails to do so is subject to penalties of one year in prison or $10,000 fine. The Air Defense Identification Zones are identified as follows: Seattle ADIZ, San Francisco ADIZ, Los Angeles ADIZ, Atlantic ADIZ, Pacific ADIZ, Albuquerque ADIZ, Knoxville ADIZ, Great Falls ADIZ, Minneapolis ADIZ, Traverse City ADIZ, Bangor ADIZ, Mexican Boundary ADIZ, and Canadian Boundary ADIZ. These areas are indicated on the face of Aeronautical Charts and are so labeled. For additional information see Civil Air Regulations Part 620.

8-20-52

AERODROMES - LOS ANGELES SECTIONAL CHART

LOCATION	NAME	GEOGR. POSITION	TYPE	ELEV.	FACILITIES					REMARKS
					FUEL (OCTANE)	REPAIRS	RUNWAYS NO	RUNWAYS LONGEST	LIGHTS	
Needles, Calif.	Bolam	34°29'-114°25'	Com.	490	80		1	1500		Use Caution
Needles, Calif.	Needles	34°46'-114°37'	Mun.	950	91, 100		2	5802H	Rnwy.	Attend. on call 24 hrs. from Riverview Airport
Needles, Calif.	Riverview	34°49'-114°37'	Com.	550	80/87	Major	2	2550	B-2, circle fld.	
New Cuyama (Taft), Calif.	New Cuyama	34°56'-119°41'	Priv.	2225			1	4000		
Oak View, Calif.	Casitas	34°24'-119°19'	Priv.	560			1	1100		Emergency only
Ojai, Calif.	Henderson	34°25'-119°17'	Com.	600			1	1360		Unattended
Ontario, Calif.	Ontario Int'n'l.	34°03'-117°37'	Mun.	952	80/87, 91/98, 100/130	Major	2	6260H	Rnwy., appr.	Attend. 24 hrs.
Oxnard (Camarillo), Calif.	Broome	34°08'-119°03'	Priv.	40			1	2000		Emergency only
Oxnard, Calif.	Oxnard-Ventura Co.	34°12'-119°11'	Mun.	43	80/87,91	Major	2	4515H	Runway	Attend. 24 hrs.
Palmdale, Calif.	Los Angeles Co.-Palmdale	34°37'-118-05'	Mun.	2549	80/87, 91, 100	Major	3	7019H	Runway	Attend. 24 hrs.
Parker, Ariz.	Parker	34°09'-114°16'	Mun.	439	80		3	3200		
Pixley, Calif.	Pixley	35°57'-119°18'	Mun.	264			1	2050H		
Poe (Hector), Calif.	Poe	34°48'-118°30'	Priv.	1850	80/87		1	4000		Attend. 24 hrs.
Pomona, Calif.	Brackett	34°05'-117°47'	Com.	985	80/87, 91/98	Major	1	2400	Port., prior req.	
Port Hueneme, Calif.	NAS Point Mugu	34°07'-119°08'	Navy	13	A+B1	Minor	1	5500H	Port., flood	Official business only
Redlands, Calif.	Redlands	34°05'-117°09'	Com.	1574			1	2500		Closed
Rialto, Calif.	Miro-Fontana	34°07'-117°24'	Priv.	1435			1	2500		Closed, extremely hazardous
Rialto, Calif.	Morrow	34°04'-117°22'	Com.	1100	80/87,91	Major	1	3200H		
Rice (Thermal), Calif.	Rice	34°04'-114°49'	Priv.	832			2	5000H		Unattended
Richgrove, Calif.	Burum	35°48'-119°07'	Priv.	470			1	1450		Emergency only
Ridgecrest (Inyokern), Calif.	Davis	35°37'-117°40'	Com.	2500	80, 91, 87	Major	2	4000	Strip, circle field	Attend. 24 hrs.
Rosamond, Calif.	White Oaks	34°57'-118°29'	Priv.	4100			1	5600		Attend. irreg.
Rosamond, Calif.	Flying Bar Ranch	34°49'-118°09'	Priv.	2305			1	2100		Emergency only
Rosemead (Los Angeles),Calif.	Pasadena-Rosemead	34°04'-118°03'	Com.	255	80/87		1	3000		
San Bernardino, Calif.	San Bernardino	34°11'-117°19'	Com.	1455	80/87		3	2800H	Rnwy., prior req.	
San Bernardino, Calif.	Tri-City	34°04'-117°16'	Com.	1015	80/87, 91, 98	Major	3	5200	Strip	Attend. 24 hrs.
San Fernando, Calif.	San Fernando	34°17'-118°25'	Com.	1170	80/87	Major	1	2450	Rndy., prior req.	
San Fernando, Calif.	Whiteman Airpark	34°16'-118°25'	Com.	1000	80/87	Major	1	3000		
Santa Barbara (Goleta), Calif.	Santa Barbara	34°25'-119°50'	Mun.	14	80, 91, 100	Major	5	5046H	Runway	
Santa Monica, Calif.	Santa Monica Mun.	34°01'-118°27'	Mun.	175	80, 91	Major	2	5000H	Runway	2 way radio rqrd. Closed after 11 PM
Santa Paula, Calif.	Harvey	34°22'-119°02'	Priv.	290			1	1900		Closed, Emergency only
Santa Paula, Calif.	Santa Paula	34°21'-119°03'	Com.	240	80/87	Major	1	2150	B-2, prior req.	91 octane avail. on request.
Santa Susana, Calif.	Santa Susana	34°16'-118°43'	Com.	955	80		1	1800		Attend. 24 hrs.
Shafter, Calif.	Shafter-Kern County	35°30'-119°11'	Mun.	425	80/87	Major	3	4550H	Rndy., circle field	
Shoshone, Calif.	Shoshone	35°58'-116°16'	Mun.	1580			1	2300		Unattended
Silver Lake (Baker), Calif.	CAA Site 18	35°20'-116°05'	Inter.	919			All way	4000	Boundary	Attend. 24 hrs.
Simi, Calif.	Montgomery Corp.	34°15'-118°47'	Priv.	925	80/87		1	2150		Use caution
Simmler, Calif.	Wherling Ranch	35°15'-119°55'	Priv.	2000			3	2650		Use at own risk
Solemint, Calif.	6 S Ranch	34°25'-118°28'	Com.	1350	80/87		1	2600		Closed Sundays
Taft, Calif.	Parker	35°04'-119°13'	Priv.	580			All way	3000H		Emergency only
Taft, Calif.	Taft-Kern County No. 2	35°08'-119°27'	Mun.	873	80/87	Major	4	3800	Boundary	
Taft, Calif.	Taft-Kern County No. 11	35°07'-119°20'	Mun.	415			2	2600H		Fence across fld.
Taft, Calif.	Tank Farm	35°04'-119°08'	Priv.	513			4	3000H		Emergency only
Tehachapin, Calif.	Kern Co. No. 4	35°08'-118°26'	Mun.	3952	80		1	4500H		Attended irreg.
Topock, Ariz.	Kingman No. 5	34°43'-114°28'	Misc. Govt.	810			1	4500H		Closed
Topock, Ariz.	Lake Havasu	34°27'-114°21'	Com.	490	80/87		2	6000		Attend. 24 hrs.
Trona, Calif.	Trona	35°48'-117°20'	Mun.	1716			1	6000	Boundary	Unattended
Twentynine Palms, Calif.	Cones Field	34°09'-116°01'	Priv.	1900	80/87		3	1400		
Twentynine Palms, Calif.	"K" Field	34°09'-116°15'	Priv.	2360	80		3	2640		Attend. 24 hrs.
Twentynine Palms, Calif.	Twentynine Palms (Navy)	34°12'-116°03'	Navy	1761			2	4000H		Official business only.
Ventura, Calif.	Ventura Airpark	34°16'-119°17'	Com.	13	80/87,91	Major	1	2450H	B-2, prior req.	
Victorville, Calif.	Circle M Ranch	34°27'-117°12'	Priv.	3000			2	3430		Unattended
Victorville, Calif.	Victorville "68"	34°28'-117°20'	Com.	3225	80/87		2	2640		Attend. 24 hrs.
Vidal, Calif.	Vidal	34°08'-114°30'	Priv.	590			1	2900		Unattended
Wasco, Calif.	Semi-Tropic	35°36'-119°29'	Priv.	300			1	4570H		Emergency only
Wasco, Calif.	Wasco-Kern County No. 5	35°37'-119°21'	Mun.	315	80, 91		2	3500		Attended irreg.
Wheeler Ridge, Calif.	Junction	35°04'-118°58'	Priv.	548			1	2500		
Yermo, Calif.	Calico Guest Ranch	34°55'-116°49'	Com.	1925			1	2900		Use caution
Yucaipa, Calif.	Crafton Hills	34°02'-117°04'	Priv.	2350			2	2250		Emergency only
Yucca, Ariz.	Yucca	34°53'-114°08'	Mun.	2030			2	6000H		
Yucca Valley (Desert Hot Springs), Calif.	Yucca Valley Sky Corral	34°07'-116°28'	Com.	3333	80/87	Minor	1	3000		Attend. 24 hrs.

Fuel octane ratings listed by number are those available to civil aircraft, unless otherwise noted.
Military fuel is listed by letter code indicating octane ratings as follows: A+: 115/145, A: 100/130, B: 91/98, C: 73 or 80, J: JP-1, 3.
The above listing does not include Air Force aerodromes.
*Joint civil & military operation; Air Force facilities at these fields are not listed.

Consult the latest Airman's Guide for changes in data subsequent to date of chart.

8-29-52

AERODROMES - LOS ANGELES SECTIONAL CHART

LOCATION	NAME	GEOGR. POSITION	TYPE	ELEV.	FACILITIES					REMARKS
					FUEL (OCTANE)	REPAIRS	RUNWAYS NO.	RUNWAYS LONGEST	LIGHTS	
Adelanto, Calif.	El Mirage	34°37'-117°36'	Com.	2865	80, 87	Minor	4	3740H		
Adelanto (Hesperdale), Calif.	Sun Hill Ranch	34°45'-117°30'	Com.	3000	80		1	2300		Service on call
Adelanto (Victorville), Calif.	Grey Butte	34°34'-117°41'	Mun.	3015			4	3740H		
Alpaugh (Corcoran), Calif.	Von Glahn Ranch	35°57'-119°33'	Priv.	191	80/87		3	2850	Circle field	
Amargo, Calif.	Trenary	35°00'-117°38'	Priv.	2475			1	2700		
Amboy, Calif.	Conn	34°34'-115°45'	Priv.	670			2	2750		Attend. irreg.
Apple Valley (Victorville), Calif.	Apple Valley	34°32'-117°13'	Com.	2930	80/87		2	4200	Strip	Attend. 24 hrs.
Bagdad, Calif.	Bagdad	34°35'-115°53'	Misc. Govt.	700			3	3820		Unattended
Bakersfield, Calif.	Bakersfield Airpark	35°20'-119°00'	Com.	380	80, 87	Minor	1	5000H	Rnwy., port.	
Bakersfield, Calif.	Bakersfield-Kern Co. No. 1	35°25'-119°03'	Mun.	515	80/87, 91/98, 100/130	Major	3	5948H	Rnwy., hi-intens. rnwy.	
Bakersfield, Calif.	Pumpkin Center Airpark	35°16'-119°02'	Com.	350	80/87		1	2000		
Barstow, Calif.	Barstow	34°55'-117°01'	Com.	2150	80/87		3	2800H	B-2, circle fld.	Attend. 24 hrs.
Big Bear City (San Bernardino), Calif.	Big Bear City	34°16'-116°52'	Com.	6750			1	3700H		
Boron, Calif.	Boron	35°03'-117°40'	Priv.	2550			2	2700		
Boulder City, Nev.	Boulder City	35°58'-114°51'	Mun.	2463	80, 91	Major	3	6495	Strip, on call	
Bullhead City, Ariz.	Bullhead	35°10'-114°33'	Mun.	550			1	3000		
Burbank (Los Angeles), Calif.	Lockheed Air Terminal	34°12'-118°21'	Com.	763	80, 91, 100, 115		2	6000H	Rnwy., hi-inten. rnwy.	Only 2 useable rnwys.
Buttonwillow, Calif.	Buttonwillow-Kern Co. No. 15	35°25'-119°28'	Mun.	268	80		1	2700		
Cantarillo, Calif.	Conejo Valley	34°10'-118°52'	Com.	750	80/87	Major	1	2600		Attend. weekends only
Camarillo, Calif.	McMahan	34°09'-118°54'	Priv.	1000			1	2250H		Emergency only
Camp Irwin, Calif.	Bicycle Lake	35°17'-116°37'	Army	2350	C		2	8450	Rnwy. on req.	
Canoga Park, Calif.	Canoga Park	34°11'-118°36'	Priv.	810			1	800		Attend. irreg.
Carpinteria, Calif.	Parson's Ranch Airpark	34°23'-119°29'	Com.	210	80, 91		1	2000		
Chloride, Ariz.	Shep's Pleasant Valley	35°34'-114°16'	Priv.	3600			2	2300		
Claremont, Calif.	Cable-Claremont	34°06'-117°41'	Com.	1400	80/87, 91/98	Major	2	2150H	Rnwy., circle fld.	3350 ft. avail. Attend. 24 hrs.
Daggett, Calif.	CAA Site 13	34°51'-116°47'	Inter.	1927			2	6400H	Boundary	Attend. 24 hrs.
Delano, Calif.	Delano-KernCo.No.3	35°45'-119°14'	Mun.	316	80/87	Major	2	6000H	B-2	
Delano, Calif.	Dunlap	35°44'-119°07'	Mun.	525			All way	2340H		
El Monte, Calif.	El Monte	34°05'-118°02'	Com.	300	80/87	Major	1	2000H	Rnwy., electric eye Circle field	Attend. 24 hrs.
Essex, Calif.	Essex	34°46'-115°13'	Priv.	1850			1	4900		
Famoso, Calif.	Poso-Kern County No. 16	35°36'-119°08'	Mun.	645			1	4500H		3000 all way mat available
Fellows, Calif.	Model	35°12'-119°32'	Priv.	1180			1	2100		
Fontana, Calif.	Fontana	34°08'-117°28'	Mun.	1485			3	2300H		Unattended
Glendale (Los Angeles), Calif.	Grand Central Air Terminal	34°09'-118°17'	Com.	476	80, 91, 100	Major	2	3841H	Rnwy., prior req.	Attend. 24 hrs.
Hawes (Victorville), Calif.	Hawes Aux. No. 1	34°55'-117°22'	Misc. Govt.	2319			4	5591H		
Helendale (Victorville), Calif.	Helendale	34°59'-117°18'	Priv.	2509			4	5600H		Unattended
Inyokern, Calif.	Inyokern-Kern Co. No. 8	35°39'-117°50'	Mun.	2428	80/87	Major	3	7300H		Rnwy., prior req. Use caution
Inyokern, Calif.	NAF Inyokern	35°41'-117°41'	Navy	2218	A+B	Minor	3	9000H	Ben., rnwy., on req.	Offical business only
Johannesburg (Randsburg), Calif.	Johannesburg-Kern County	35°23'-117°38'	Mun.	3550			3	4200		
Joshua Tree, Calif.	Giant Rock	34°20'-116°23'	Com.	2700	80/87	Minor	1	5600		
Kernville, Calif.	Kernville-Kern County No. 13	35°43'-118°25'	Mun.	2575			1	2400		
Kingman, Ariz.	Searchlight Ferry	35°27'-114°38'	Com.	672			1	3000		
Lake Hughes, Calif.	Neenach Ranch	34°47'-118°35'	Priv.	2975			1	1900		
Lake Hughes, Calif.	Sky Castle Field	34°42'-118°23'	Priv.	2870			3	3650		
Lancaster, Calif.	Antelope Valley	34°39'-118°08'	Priv.	2530			2	2500		
Lancaster, Calif.	Quartz Hill	34°39'-118°13'	Com.	2475	80/87	Major	3	2650	B-2, prior req.	
Lancaster, Calif.	Sterks Ranch	34°43'-118°08'	Priv.	2368			2	2150		
Lancaster, Calif.	Victory	34°47'-118°16'	Mun.	2425			4	5200		Unattended
Lancaster, Calif.	Waldrip Field	34°43'-118°07'	Priv.	2335			1	1950		Emergency only
Lancaster, Calif.	War Eagle	34°42'-118°13'	Mun.	2348			4	3350		Dangerous
Lenwood (Barstow), Calif.	Riley Field	34°51'-117°08'	Priv.	2350	80/87		3	3100	B-2, prior req.	Attend. irreg.
Los Angeles (Van Nuys), Calif.	San Fernando Valley	34°13'-118°29'	Mun.	799	80/87, 91, 100	Major	2	6000H	Runway	2 way radio required
Lost Hills, Calif.	Blackwells Corner	35°37'-119°52'	Priv.	650			1	3000		Emergency only
Lost Hills, Calif.	Lost Hills-Kern County No. 9	35°37'-119°41'	Mun.	285			2	4500H		6350 ft. rnwy. available
Lucerne Valley, Calif.	Double J Ranch	34°27'-116°50'	Priv.	2955			1	2650		Use at own risk
Lucerne Valley, Calif.	Rabbit Dry Lake	34°27'-117°01'	Priv.	2950			All way	5500		Unattended
Maricopa, Calif.	Maricopa-Kern County No. 6	35°03'-119°24'	Mun.	937			1	2800		
Maricopa, Calif.	Sunset	35°05'-119°21'	Priv.	520			3	2900		Use at own risk
Mojave, Calif.	Mojave ALF (Navy)	35°04'-118°09'	Navy	2787			3	5200H		ALF to MCAS El Toro
Mojave, Calif.	Myer	35°02'-118°10'	Com.	2725	80/87		1	3000		Attended irreg.
Moorpark, Calif.	Everett Ranch	34°15'-118°50'	Priv.	700			1	1250H		Emergency only
Muroc, Calif.	Barnes Guest Ranch	34°52'-117°57'	Com.	2340	80/87	Major	3	3600		Attend. 24 hrs.

8-29-52

[redacted]

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

THE INSPECTOR GENERAL, USAF
5TH DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
WRIGHT-PATTERSON AIR FORCE BASE, [redacted] OHIO

IN REPLY REFER TO: 5D-24-21

4 March 1953

SUBJECT: Sighting of Unidentified Flying Object Along Point Mugu, California, on 28 January 1953, by R. W. LOVE
SPECIAL INQUIRY

TO: Commanding General
Air Technical Intelligence Center
Wright-Patterson Air Force Base
Ohio
ATTN: ATIAA-2C

1. Transmitted herewith for your information and retention is one (1) copy of Spot Intelligence Report of the 18th OSI District (IG), Maywood, California, dated 20 February 1953.

2. Attention is invited to Paragraph 7, AFR 205-1, dated 14 March 1949, which prohibits the disclosure of classified information to unauthorized personnel.

D. C. NORTH
Lt Colonel, USAF
District Commander

1 Incl
Spot Intelligence Rpt, DO #18, dtd
20 Feb 53

Copy to:
Hq OSI, w/o incl

DOWNGRADED AT [redacted]
DECLASSIFIED [redacted]
DOD DIR [redacted]

UNCLASSIFIED

[redacted]

AIR FORCE-WPAFB-L-29 FEB 52 1SH

COPY

[redacted]
Oxnard, California
[redacted]

28 January 1953

To: Commander, NAMTC, Point Mugu
From: [redacted]
Subject: Report of flight of unidentified object along coast line of NAMTC, 28 January 1953

At 1300 28 January 1953, the [redacted] boat, Noana Lau, was tied to it's mooring boy approximately 1,100 yards directly offshore from Fox 4 base for the purpose of observing K.D. launchings after having recovered a KD2G-2 from the surf at 1115, and delivered same to Prexel base at Muenene.

At 1300 a K.D2R-3 was airborne, and my two tenders and myself were following its flight. However, we lost sight of the K.D. in the distance and were waiting for its return to the Fox 4 area. Since I had last seen the K.D. in the direction of Muenene, which is on a compass bearing of approximately 290 degrees magnetic from our tie-up boy, I observed the approach of a jet airplane of the type which had been used as control plane on the preceeding flight of a KDG-1. It seemed likely that this plane might have the K.D. under control so I concentrated my attention on it as it approached Fox 4 from Muenene.

When this plane was approximately at the western boundary of NAMTC, bounded by Arnold road, I sighted a white object which I mistook for the white of the K.D.'s wing. However, its approach was so rapid that it was instantly apparent it was not the K.D., but some unknown object.

I called to the two men in the boat with me and tried to point it out. One of the men, Mr. [redacted], saw it as a white streak, but since I had a chance to pick it up before it was overhead, I had sufficient time to make out its shape, color, flight and the fact that it seemed to have rather fuzzy or shimmering perimeter.

Since it appeared above and from the stern of the jet plane, which I estimated was traveling at approximately 150 to 200 knots, there was an opportunity to judge its speed. Between the time the jet plane had traveled from Arnold Road to the beach theodolite station east of Arnold Road, a matter of about three seconds, this object overhauled the jet traveling on the same course and directly over the plane. The object did not alter speed or course, but continued on a straight line to the east toward Mugu Rock and disappeared in the haze headed in the general direction of Santa Monica.

COPY

The general appearance of this object was a white flat disk approximately eighteen to twenty inches in diameter. However, its size might be larger as I had no way of checking its altitude other than it seemed well above the mountains adjacent to Mugu Rock. The shimmering outline could be compared to observing the moon on a bright sunny day, except there were no dark marks anywhere on this object.

It is our custom to report any craft not authorized in the launching area and to note the time they appear. I called Erskine F.T.C. at 1306 and inquired if he could confirm what I had seen after I described it to him. It is quite probable that whoever received my transmission did not understand what I was talking about or at least thought I was pressure happy. He informed me our services were no longer needed on the sea test range and that we were to return to port.

When I arrived in port, I called Lt. Commander Maurer by land line and made the same report. He subsequently instructed me to make this written description.

It is quite probable that there will be some doubt as to the accuracy of this report, but I can only say I have been observing the flight of planes and missiles at NOTC since 1949 and have some knowledge of their characteristics and speeds. I have never seen any plane or missile which resembled this object nor came within one half its speed.

[redacted]

CERTIFIED TO BE A CORRECT COPY

/s/ [redacted]

W.G. MAURER, LCDR, USN

LOS ANGELES (R-2)

(Joins San Francisco)

DJ

120° A F

To Coalinga

45'

(Joins Mt Whitney)

30' To Fresno

Pumping sta

QG

Athletic field

AG

Kettleman City

36° 16' 30"E

Avenal

AVENAL

SAN FRANCISCO LOS ANGELES 101

Tapes

Corcoran Race track

SALYER

205 — — 29

Tipton

Woodville

Angiola

VON GLAHN

121 — — 28

Bldgs

117°

316°

PIXLEY

264 — H 20

Pixley

Stoil

Alpaugh

Allensworth

Earlimart

SAN JOAQUIN VALLEY

Pumping sta

2650

Barracks

Oil tanks

Devils Den

Bldg

549 A

Delano

Stadium

DELANO-A

375 L

3134

Pumping sta

Ranch

Pipe line along road

PIPE LINE

Pumping sta

Pond

Towers

Farland

298°

LOST HILLS-KERN CO

285 — H 45

WASCO-KERN CO

315 — — 35

BLACKWELLS

650 — — 30

Lost Hills

School

Oil field

SEMI-TROPIC

300 — H 45

Wasco

363

Famoso

270

Pumping sta

Refinery

Pumping sta

Warehouse

Pumping sta

Tanks

SHAFTER-KERN CO

423 L H 45

Shafter

BUTTONWILLOW-KERN CO NO 13

268 — — 27

Buttonwillow

Power plant

BAKERSFIELD-KERN CO

515 L H 39

INSTR LOG SYSTEM

275 1129 1251 3

210

Simmler

TEMBLOR

3931

Reward

4332

Freeborn Mt

3311'

WHEELING RANCH

2000 — — 25

McKittrick

231°

051°

Tupman

Refinery

Tanks

Pumping station

MODEL

1110 — —

3662

Fellows

Ford City

TAFT-KERN CO NO 2

873 L — 38

Taft

3566

Maricopa

SUNSET

520 — — 29

MARICOPA-KERN CO

232 — — 28

120

3936

Ranch

CALIENTE RANGE

5104

Refinery

344°

New Cuyama

NEW CUYAMA

1225 — — 40

Cuyama

Peak Mt.

5445

3704

4918

4250±

164°

320

4530

SAN

Ventucopa

Cement plant

5165

16°E

SIERRA MTS

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

THE INSPECTOR GENERAL USAF
18th DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
AF DEPOT, BOX 310, MAYWOOD, CALIF.

20 February 1953

AIRMAIL

SUBJECT: Sighting of Unidentified Flying Object Along Point Mugu, California, on 28 January 1953, by [redacted]

TO: Director of Special Investigations
Headquarters USAF
Washington 25, D. C.

1. CIRCUMSTANCES: Between 1300 and 1306 hours, 28 January 1953, three men sighted a flying object from a ship near Point Mugu, California, which they concluded was definitely not a conventional flying aircraft.

2. DETAILS: This District Office is in receipt of a letter of transmittal from the Zone Intelligence Office, Eleventh Naval District, Los Angeles, California, which has as an inclosure the statement of Mr. [redacted], concerning his sighting with two of his employees of an unconventional flying object between 1300 and 1306 hours, 28 January 1953.

3. The sighting was made by Mr. [redacted] of the [redacted] and his two tenders, one of whom was a Mr. [redacted]

4. The above named gentlemen were on the Noana Ann which was moored off shore from the Naval Air Missile Training Center, Point Mugu, California. Their position was to observe K.D. Launchings and to recover same after they have run their course. During the observation of one of these launchings, [redacted] and his assistants lost sight of the K.D. but observed the approach of a jet aircraft. While observing this aircraft, the three men noticed an object which at first they mistook for the white of a K.D.'s wing. Further observation disclosed that it was not any part of the aircraft or from their experience was it a K.D.

5. The speed of the object greatly exceeded that of the jet aircraft which was traveling between 150 to 250 knots per hour.

6. The object was going in an easterly direction toward Mugu Rock and disappeared in the general direction of Santa Monica, California.

Air Tech. Intelligence Center
Wright-Patterson AFB, Ohio
ATIA-20

(S)

UNCLASSIFIED

SMAMA—Oct 52—75M

PIC INTELLIGENCE REPORT, dtd 20 Feb 53, Subject: Sighting of Unidentified Flying Object along Point Mugu, Calif., on 28 Jan 53, by [redacted]

7. The size of the object was estimated to be approximately eighteen to twenty inches in diameter, but might be larger.

8. Altitude could not be determined, but it was estimated to be higher than the nearby mountains.

9. The outline could be compared to observing the moon on a bright, sunny day without any dark marks on the object however.

10. The fighters concluded that this was not a conventional aircraft due to their experience in observing the flight of aircraft and other missiles at the Naval Testing Center since 1949.

11. ACTION: No action by this District Office taken or contemplated.

Arthur T. Cameron
ARTHUR T. CAMERON
Colonel, USAF
District Commander

1 Incl:
Statement of [redacted],
dtd 28 Jan 53

cc: Air Tech. Int. Center
Wright-Patterson AFB, Ohio
(w/incl)

cc: DO #5 (w/incl) (AIR MAIL)

RASON TIME ALTITUDE DATA

36	10,135	6,570	10,820	24.5	116.0	24,700		322	25.0	36	81	23,040
37	10,420	6,750	11,139	23.7	116.8	25,000		306	20.0	37	82	23,320
38	10,710	6,930	11,400	23.1	117.0	24,800		306	19.0	38	83	23,600
39	11,005	7,110	11,700	27.5	116.2	24,700		296	21.0	39	84	23,880
40	11,300	7,290	11,900	27.2	117.2	25,700		276	[illegible]	40	85	24,160
41	11,595	7,470								41	86	24,440
42	11,890	7,650								42	87	24,730
43	12,185	7,830								43	88	25,010
44	12,480	8,010								44	89	25,290
45	12,775	8,190								45	90	25,580

Termination owing to ______

Weight of balloon 600 grams
Weight of lighting device ______ grams
Weight of target or transmitter ______ grams
Free lift ______ grams
Total weight ______ grams

Color of balloon [illegible]
Type of target or transmitter [illegible]

NOTES:

CODED DATA																	
			H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff
				UCE			05	08	2	06	07		05	02	4	01	02
H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff
	37	07	0	35	05	2	36	12	4	32	14		32	13	8	30	22
H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff
0	29	44															
H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff

H—Standard level indicator. dd—Wind direction in tens of degrees.

RASON TIME ALTITUDE DATA

Contact	**	5	10	15	20	25	30	35	40	45	[illegible]	[illegible]
Pressure		996	964	816	738	668	624	548	448	452	[illegible]	[illegible]
Altitude (m.s.l.) or pressure ratio	15	200	1100	2000	2840	3610	4910	5100	[illegible]	[illegible]	[illegible]	[illegible]
Time	0	0.6	3.3	6.0	8.7	11.0	13.5	16.0	18.9	[illegible]	[illegible]	[illegible]

Contact	105	110	115	120	125	130	135	140	145	150	[illegible]	[illegible]
Pressure												
Altitude (m.s.l.) or pressure ratio												
Time												

15 *Indicate rawin, rabal, or pibal. **Surface. ***Termination.

U. S. GOVERNMENT PRINTING OFFICE 16—[illegible]

Observer [illegible]

RTMENT OF THE NAVY
EAU OF AERONAUTICS

OFT COMPUTATION SHEET

AND STATION FORM
WBAN-30

Date (Local)

	Year	Month	Day	Time
From Map				
Corr.				

Elevation of observation point above M.S.L. [illegible] Grid [illegible] (Grafton)

Time	Minutes	Azimuth: 100 gram Balloon (Grafton)	Azimuth: 50 gram Balloon (Grafton)	Azimuth: Correction (Grafton)	Elevation Angle	Azimuth Angle	Distance from observation point (Meters)	Wind Direction FAA/IN (Grafton)	Wind Velocity (Grafton)	Wind Speed (Grafton)	Altitude (Meters)
	00										11
	01										47
	02										83
	03										119
	04										156
	05										192
	06										228
	07										264
	08										301
	09										337
	10										373
	11										409
	12										446
	13										482
	14										518
	15										554
	16										591
	17										627
	18										663
	19										699
	20										736
	21										772
	22										808
	23										844
	24										881
	25										917
	26										953
	27										989
	28										1026
	29										1062
	30										1098
	31										1134
	32										1171
	33										1207
	34										1243
	35										1279
	36										1316
	37										1352
	38										1388
	39										1424
	40										1461
	41										1497
	42										1533
	43										1569
	44										1606
	45										1642
	46										1678
	47										1714
	48										1751
	49										1787
	50										1823
	51										1859
	52										1896
	53										1932
	54										1968
	55										2004
	56										2041
	57										2077
	58										2113
	59										2149
	60										2186

NOTE:

ON TIME ALTITUDE DATA

...RTMENT OF THE NAVY
...UREAU OF AERONAUTICS

...OFT COMPUTATION SHEET
(LAND STATION FORM)
WBAN-20

Release Date and Time	Year	Month	Day	Time
[illegible]	53	[illegible]	28	1219
[illegible]	53	[illegible]	28	2019

Elevation of observation point above MSL [illegible] (feet) [illegible] (meters)

Minute	Minute	Altitude: 100 gram balloon (meters)	Altitude: 30 gram balloon (meters)	Other (feet) (meters)	Elevation angle	Azimuth angle	Distance from observation point (meters)	Slant range RAWIN (yards)	Wind dir.	Wind speed in ...	Minute
1	46	13,075	8,370								46
2	47	13,375	8,550								47
3	48	13,675	8,730								48
4	49	13,975	8,910								49
5	50	14,275	9,090								50
6	51	14,570	9,270								51
7	52	14,860	9,450								52
8	53	15,145	9,630								53
9	54	15,425	9,810								54
10	55	15,705	9,990								55
11	56	15,985	10,170								56
12	57	16,265	10,350								57
13	58	16,545	10,530								58
14	59	16,825	10,710								59
15	60	17,105	10,890								60
16	61	17,385	11,070								61
17	62	17,670	11,250								62
18	63	17,950	11,430								63
19	64	18,235	11,610								64
20	65	18,515	11,790								65
21	66	18,795	11,970								66
22	67	19,080	12,150								67
23	68	19,360	12,330								68
24	69	19,645	12,510								69
25	70	19,925	12,690								70
26	71	20,210	12,870								71
27	72	20,490	13,050								72
28	73	20,775	13,230								73
29	74	21,055	13,410								74
30	75	21,340	13,590								75
31	76	21,620	13,770								76
32	77	21,905	13,950								77
33	78	22,185	14,130								78
34	79	22,470	14,310								79
35	80	22,750	14,490								80
36	81	23,040	14,670								81
37	82	23,320	14,850								82
38	83	23,600	15,030								83
39	84	23,880	15,210								84
40	85	24,160	15,390								85
41	86	24,440	15,570								86
42	87	24,720	15,750								87
43	88	25,010	15,930								88
44	89	25,300	16,110								89
45	90	25,580	16,290								90

NOTES:

H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff
	05	03	4	01	02		36	06		01	06		01	07		36	07
	32	16	8	30	22		29	32		27	30		22	42		25	40

dd—Wind direction in tens of degrees. ff—Wind speed in knots.

...SON TIME-ALTITUDE DATA

STATION

USNAMTC PT. MUGU, PORT HUENEME, CALIF.

LAT. 34° 07' N   LONG 119° 07' W

NAVAER 446 (Rev. [illegible])

DEPARTMENT OF THE NAVY
BUREAU OF AERONAUTICS
WINDS ALOFT COMPUTATION SH[EET]
(LAND STATION FORM)
WBAN-90

Ascension No. 40   *Method of observation RADAR

Minutes	Altitude: 100 gram balloon (meters)	Altitude: 30 gram balloon (meters)	Altitude: Other (feet) (meters)	Elevation angle °	Azimuth angle °	Distance from observation point (meters)	Slant range RAWIN (yards)	Wind dir. (360° = N, 090° = E, etc.)	Wind speed (m.p.h.)
Sfc								330	1.5
1	350	216	262	74.5	222.[illegible]	072		047	2.0
2	670	415	546	61.[illegible]	274.[illegible]	279		045	2.1
3	960	612	650	61.8	271.2	516		045	1.6
4	1,285	801	1320	67.3	225.8	546		354	1.6
5	1,585	990	1632	76.5	218.0	380		009	2.7
6	1,880	1,170	2020	68.4	213.8	710		013	3.1
7	2,170	1,350	2700	67.0	208.0	935		357	3.9
8	2,455	1,530	2690	66.6	186.0	1200		347	4.1
9	2,740	1,710	2460	75.9	192.0	1325		360	2.1
10	3,025	1,890	3750	65.[illegible]	190.[illegible]	[illegible]		022	[illegible]
11	3,300	2,070	3610	[illegible]	190.0	1710		006	[illegible]
12	3,580	2,250	3310	61.[illegible]	196.0	2160		345	7.6
13	3,855	2,430	4200	57.3	183.7	2410		320	7.6
14	4,130	2,610	4420	58.5	176.4	2710		313	7.1
15	4,405	2,790	4870	56.8	170.5	3185		311	9.9
16	4,675	2,970	5200	55.0	164.0	3640		305	9.1
17	4,945	3,160	5600	53.9	158.0	4070		297	11.7
18	5,215	3,330	6210	51.2	150.0	4570		297	13.2
19	5,485	3,510	6410	48.[illegible]	144.5	5920		324	11.5
20	5,755	3,690	6400	45.3	136.0	6340		321	17.3
21	6,025	3,870	6700	42.8	134.5	7290		290	17.2
22	6,295	4,050	7000	41.0	131.8	8340		291	16.2
23	6,565	4,230	7200	38.[illegible]	126.5	9169		291	16.2
24	6,835	4,410	7650	36.9	128.0	10,038		289	15.6
25	7,105	4,590	7775	33.[illegible]	124.[illegible]	11,0[illegible]		287	15.0
26	7,375	4,770	8010	34.0	125.0	11,860		291	16.7
27	7,645	4,950	8389	32.7	124.0	13,000		285	18.4
28	7,915	5,130	8610	31.4	123.3	[illegible]		289	20.0
29	8,185	5,310	8730	30.0	121.8	15,400		281	25.0
30	8,455	5,490	9200	28.5	120.0	16,900		286	23.0
31	8,730	5,670	9430	27.0	119.0	18,400		286	21.0
32	9,005	5,850	9750	26.[illegible]	118.[illegible]	19,200		277	19.0
33	9,285	6,030	10,060	25.8	116.7	20,600		277	19.0
34	9,565	6,210	10,330	24.[illegible]	116.0	22,000		286	17.0
35	9,850	6,390	10,700	24.[illegible]	116.5	22,250		[illegible]	[illegible]
36	10,135	6,570	10,950	24.[illegible]	116.0	24,700		[illegible]	[illegible]
37	10,420	6,750	11,130	23.7	116.6	25,900		[illegible]	20.0
38	10,710	6,930	11,400	23.1	117.[illegible]	27,600		[illegible]	17.[illegible]
39	11,005	7,110	11,700	22.[illegible]	117.2	29,100		[illegible]	[illegible]
40	11,300	7,290	11,900	[illegible]	117.2	32,200		276	[illegible]
41	11,595	7,470							
42	11,890	7,650							
43	12,185	7,830							
44	12,480	8,010							
45	12,775	8,190							

Minutes	Minutes	Altitude: 100 gram balloon (meters)	Altitude: 30 gram balloon (meters)
Sfc			
1	46	13,075	8,370
2	47	13,375	8,550
3	48	[illegible]	[illegible]
4	49	13,975	8,910
5	50	14,275	9,090
6	51	14,570	9,270
7	52	14,860	9,450
8	53	15,145	9,630
9	54	15,425	9,810
10	55	15,705	9,990
11	56	15,985	10,170
12	57	16,265	10,350
13	58	[illegible]	[illegible]
14	59	16,825	10,710
15	60	17,105	10,890
16	61	17,385	11,070
17	62	17,670	11,250
18	63	[illegible]	[illegible]
19	64	[illegible]	11,610
20	65	[illegible]	[illegible]
21	66	[illegible]	11,970
22	67	[illegible]	[illegible]
23	68	[illegible]	[illegible]
24	69	[illegible]	[illegible]
25	70	[illegible]	[illegible]
26	71	20,210	12,870
27	72	20,490	[illegible]
28	73	20,77[illegible]	[illegible]
29	74	21,060	[illegible]
30	75	21,340	13,590
31	76	21,620	13,770
32	77	21,905	13,950
33	78	22,185	[illegible]
34	79	22,470	[illegible]
35	80	[illegible]	[illegible]
36	81	[illegible]	[illegible]
37	82	[illegible]	[illegible]
38	83	[illegible]	[illegible]
39	84	[illegible]	[illegible]
40	85	[illegible]	[illegible]
41	86	[illegible]	[illegible]
42	87	[illegible]	[illegible]
43	88	23,010	[illegible]
44	89	23,300	[illegible]
45	90	23,580	[illegible]

Termination owing to

Weight of balloon 300 grams   Color of balloon [illegible]   NOTE:
Weight of lighting device grams   Type of target or transmitter [illegible]
Weight of target or transmitter grams
Free lift grams
Total weight grams

CODED DATA						
	422	05 08	05 67	05 03	1 01 02	
H dd ff: 35 07	H dd ff: 0 35 05	H dd ff: 2 36 12	H dd ff: 4 31 14	H dd ff: 32 18	H dd ff: 8 30 22	
H dd ff: 0 29 49	H dd ff	H dd ff	H dd ff	H dd ff	H dd ff	

Station

Lat. [illegible] Long. [illegible]

WINDS ALOFT

WBAN 904

Ascension No

STANDARD LEVEL DATA FOR TRANSMISSION TO [illegible]

Altitude (Kms)	Sfc	0.5	1.0	1.5	2.0	[illegible]	[illegible]	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Direction (Degs)	[illegible]																										
Speed (Knots)	[illegible]																										

Wind Direction — Ten Degree Points Of Compass Points

[illegible] MPH

NAVY BUREAU OF AERONAUTICS

LOFT GRAPH

BAN-20A

No. 40

	Release Date and Time			
	Year	Month	Day	Time
24th Mar	1952			
GCT	1952			

TION TO PUNCHED CARDS

Prepared by

Notified by

ELEVATIONS IN FEET

(Joins Mt Whitney)

119°

45'

30'

15'

36°

Success

Porterville

Terra Bella

Ducor

California Hot Springs

Pine Flat

Bldgs

White River

Posey

Woody

Glennville

Kernville

Isabella

Weldon

Onyx

Bodfish

Havilah

Oildale

Rosedale

BAKERSFIELD

Edison

Bena sta

Caliente

Bealville

Lamont

Twin Oaks

Keene

Tehachapi

Monolith

Mojave

Wheeler Ridge

Grapevine

Lebec

Frazier Park

Gorman

Willow Springs

Rosamond

Edwards

WHEELER RIDGE

TEHACHAPI PASS 3793

SIERRA

GREENHORN MTS

AMBERT

BAKERSFIELD RADIO

KMPC 710

9245

9974

7652

SIRRETTA PK 9956

9453

8320

4853

6823

7372

7150±

3641

4085

3548

Breckenridge Mt 7580

8318

8433

7893

5850±

5053

5011

6744

6934

6414

6708

6340

5266

7758

7988

5347

6931

6850±

7155

3831

8073

9150±

N 270°

231°

051°

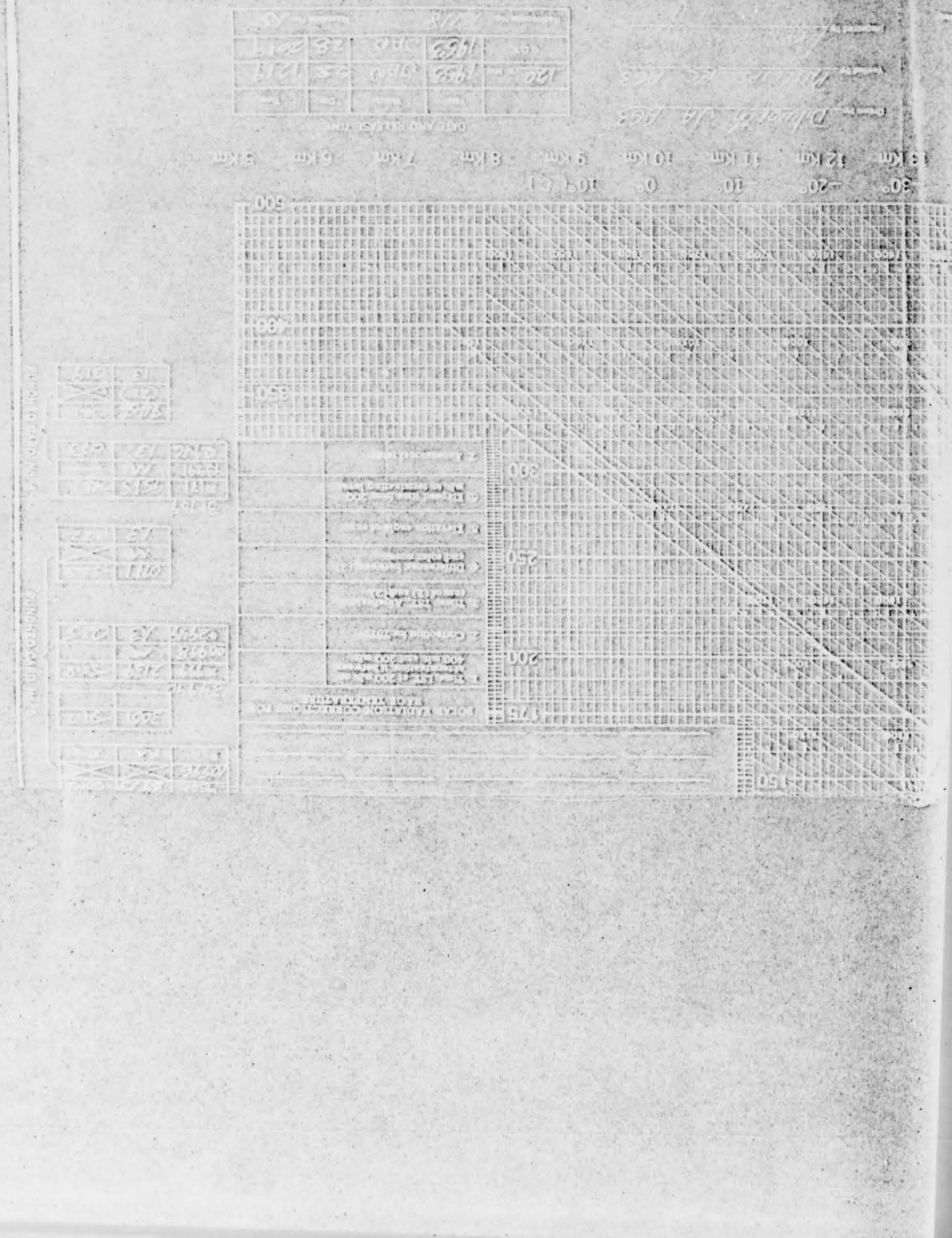
321°

141°

281°

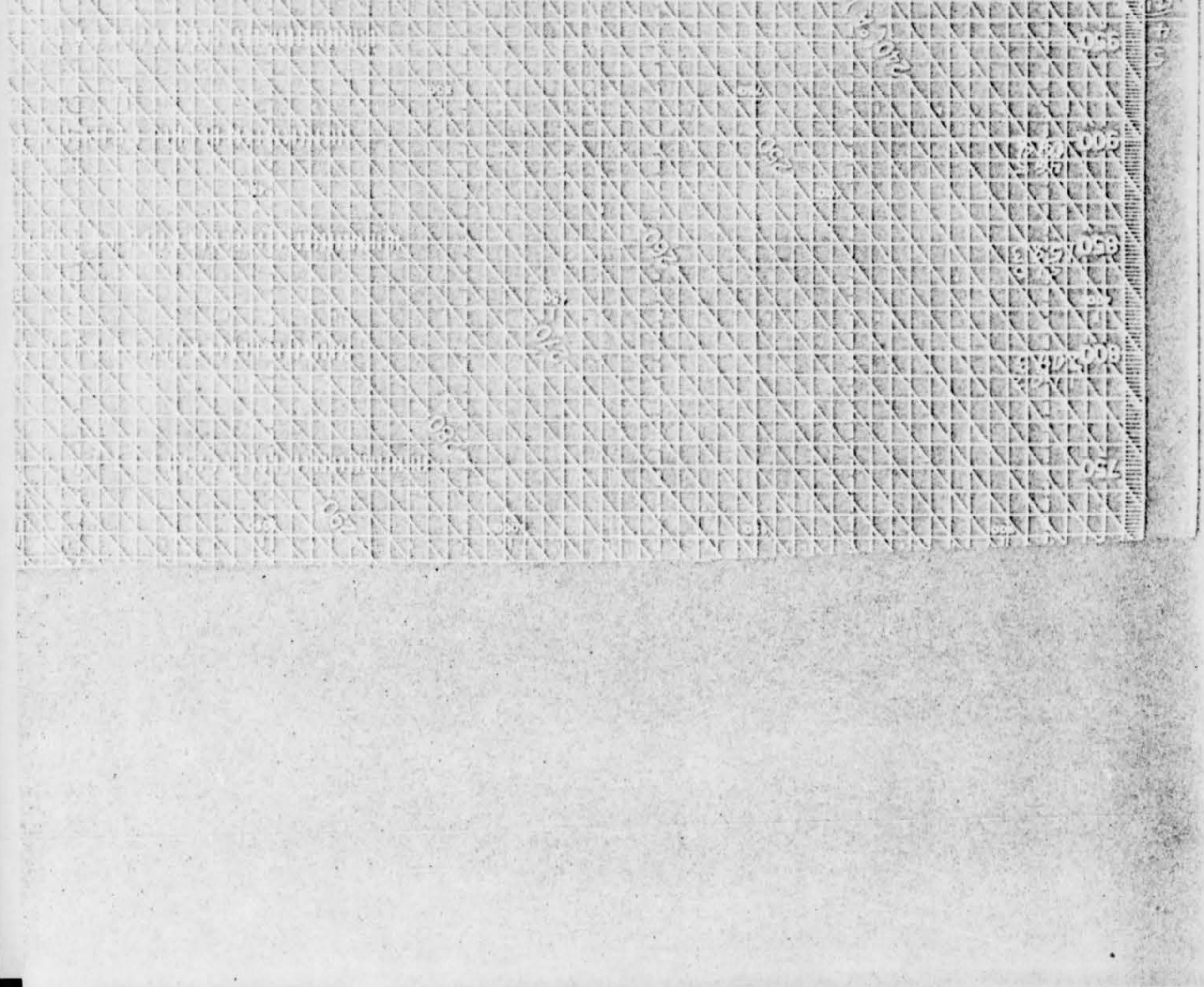
101°

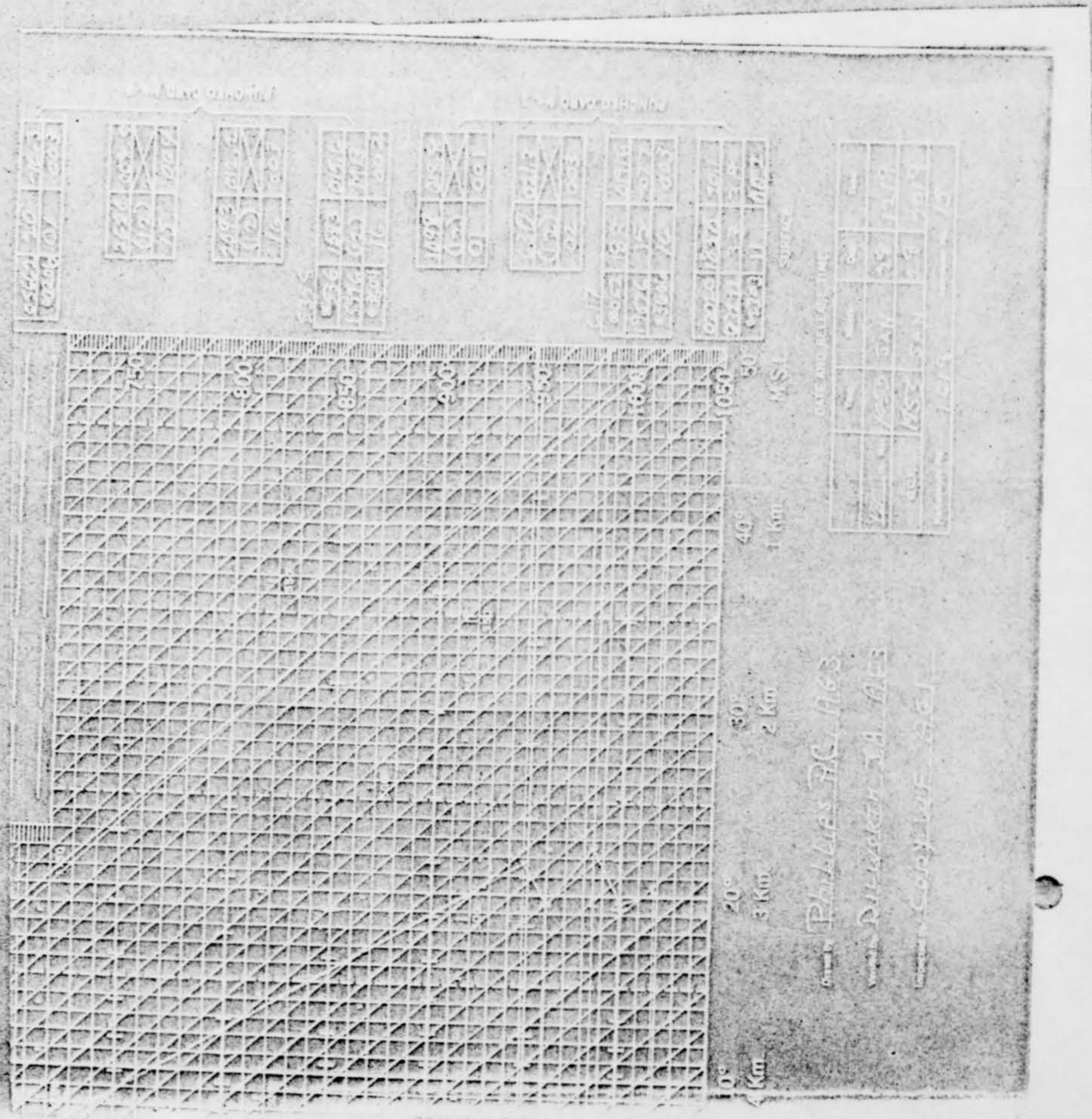
244°



NAVAER – 50-1S (REV. 5-62)

DEPARTMENT OF THE NAVY
ADIABATIC CHART
WEAPONS





NAVAER 2486 (REV 8-51)

DEPARTMENT OF THE NAVY

ADIABATIC CHART

WEAN-51A

BASELINE CHECK READINGS

Time (G.C.T.)	TEMPERATURE Ordinate	°C	°K	RELATIVE HUMIDITY Ordinate	Rad.	Corr.	Psychrometric °F
1752	72.0	22.3	295.5°	11.5	5.6	-.7	WB 53.5

9 Km −40°

8 Km −30°

7 Km −20°

6 Km −10°

5 Km 0° (C.)

Mb

400

450

500

550

600

650

700

750

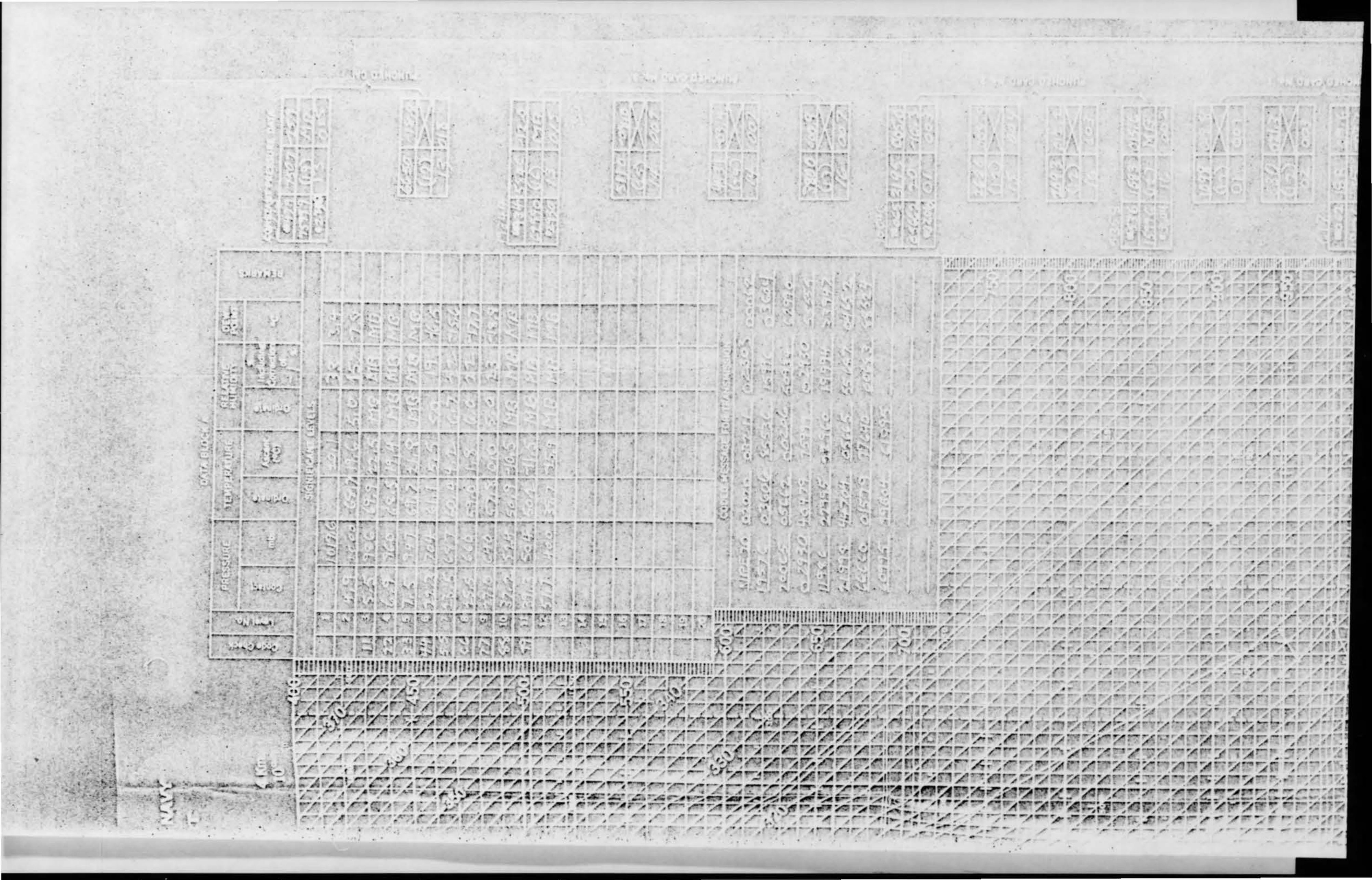
800

850

900

950

1000



(Joins Mt Whitney)
DANGER AREA
(D-278)
DANGER
(D-277)
DANGER
AREA
(D-272)
LOS ANGELES
SLATE RANGE
PANAMINT RANGE
ARGUS RANGE
WELLS VALLEY
SENTINEL PK
9630
Ballarat
TRONA
Trona
Westend
Searles L
INYOKERN
NAF INYOKERN
Ridgecrest
DAVIS
ARMITAGE
Invokern
INYOKERN RADIO
336 NID
WALKER PASS
EL PASO MTS
JOHANNESBURG-KERN CO
Johannesburg
Randsburg
Red Mountain
RAND MTS
Atolia
Saltdale
Cantil
Cuddeback L
Pumping sta
Harper L
BORON
Baker
Boron
NORTH BASE AUX (AF)
Edwards
EDWARDS AFB
Hawes
HAWES NO 1
Hinkley
BARSTOW
Barstow
Lenwood
RILEY
Hodge
HELENDALE
SUN HILL RANCH
PIPE LINE
GREEN 4
Open air theater
Lane Mt
270°
090°
360°
180°
334°
154°
329
064°
244
216°
036°
15°30'E


(Joins Mt Whitney)
117°
16°E
45'
30'
15'
116°E
Funeral Peak 6397
NOPAH RANGE
6415
DG
EG
5950
36°
Shoshone
SHOSHONE
DEATH VALLEY
OWLSHEAD MTS
4826
4694
Tecopa Hot Springs
Tecopa
Bldgs
4412
Kingston 7320
4666
Amargosa R
312°
3342
2170
Mill
5103
132°
Leach L
AVAWATZ MTS
Gas sta
Silurian L
4862
4810
AVAWATZ PASS 4169
6154
AREA
4801
5299
4880
ANGELES AIR DEFENSE IDENTIFICATION ZONE
DESERT
Top of towers
Silver Lake
3850±
4835
4967
Silver L
SILVER LAKE RANGE
(D-276)
5043
3485
Camp Irwin
BICYCLE LAKE (ARMY)
Bicycle L
Baker
Bldgs
149°
4540
3617
032°
Soda Lake
DF
West Cronise L
East Cronise L
AMBER 2
330
Lane Mt 4529
3456
300
3585
312°
212°
Gas sta
Crucero
EF
Afton
Baxter
Coyote L
Field
Sands sta
35°
Harvard
Glasgow sta
Yermo
Mojave R
DAGGETT RADIO
078°
DAGGETT (CAA)
Daggett
Newberry
256°
076°
DAGGETT RADIO 365 DAG
Hector


(Joins Mt Whitney)
To Las Vegas, Nev
115°
206 LAS
MCCARRAN
LAS VEGAS RADIO
113.3 LAS
GOODSPRINGS
245 GDS
BOULDER CITY
LAKE MEAD
HOOVER
Whitney
Henderson
Boulder City
Alunite
Arden
Sloan
Erie sta
Goodsprings
Jean
Sandy
Potosi Mt
8504
7450±
5043
5030
SPRING
MTS
PAHRUMP
VALLEY
RED IS
AMBER 2
023
203°
035°
215°
292°
240
180
150
36°
NEVADA
CALIFORNIA
Roach sta
Desert
Nipton
Moore
Ivanpah
Cima
Searchlight
SEARCHLIGHT
Nelson
Camp
ELDORADO MTS
McCULLOUGH RANGE
6996
4895
Crescent Pk
6001
Clark Mt
7903
MOUNTAIN PASS
4775
Gas sta
Settlement
Ranch
Bldgs
Yucca sta
15°30'E
NEW YORK MTS
7445
6480
5515
5550±
4524
6150±
5363
4936
5570
5865
5236
PIUTE VALLEY
DEAD MTS
WT & stock pens
Campsite
Goffs sta
Homer sta
PROVIDENCE
GRANITE MTS
258°
078°
259°
270
132°
FG
FF

LOS ANGELES (R-2)

Lambert Conformal Conic Projection   Standard Parallels 33° and 45°   Scale 1:500,000

(Joins Grand Canyon)

PRICE 25 CENTS

LOS ANGELES (R-2)

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Principal Sources: U.S. Geological Survey, U.S. Army Corps of Engineers, U.S. Air Force, U.S. Dept. of Agriculture, Civil Aeronautics Administration, and the U.S. Coast and Geodetic Survey.
BASE: Edition of Mar. 1951 Revised Aug. 1952