AD 749781

CLIMATOLOGY OF CALIFORNIA COASTAL WATERS

ENVIRONMENTAL SUPPORT TO THE FLEET

FLEWEACEN ALAMEDA

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FLEET WEATHER CENTRAL ALAMEDA
Naval Air Station
Alameda, California

DEPARTMENT OF THE NAVY
FLEET WEATHER CENTRAL ALAMEDA

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Enclosure (1)

C L I M A T O L O G Y

O F

C A L I F O R N I A

C O A S T A L W A T E R S

A R E A

31 North Latitude to

42 North Latitude within

150 Miles of California Coast

Prepared by

Fleet Weather Central Alameda

CAPTAIN R. C. SLUSSER, U.S. NAVY
Commanding Officer

JULY 1972

This ... for public ... its distribution is unlimited.

INTRODUCTION

This volume contains a graphical summary of weather and sea conditions along the California Coast, prepared from all available marine data archived in the National Weather Records Center, Asheville, North Carolina. This publications should be of value to professional forecasters, as well as those persons involved in planning surface and air operations in the area covered.

Climatological parameters, presented by season, are:

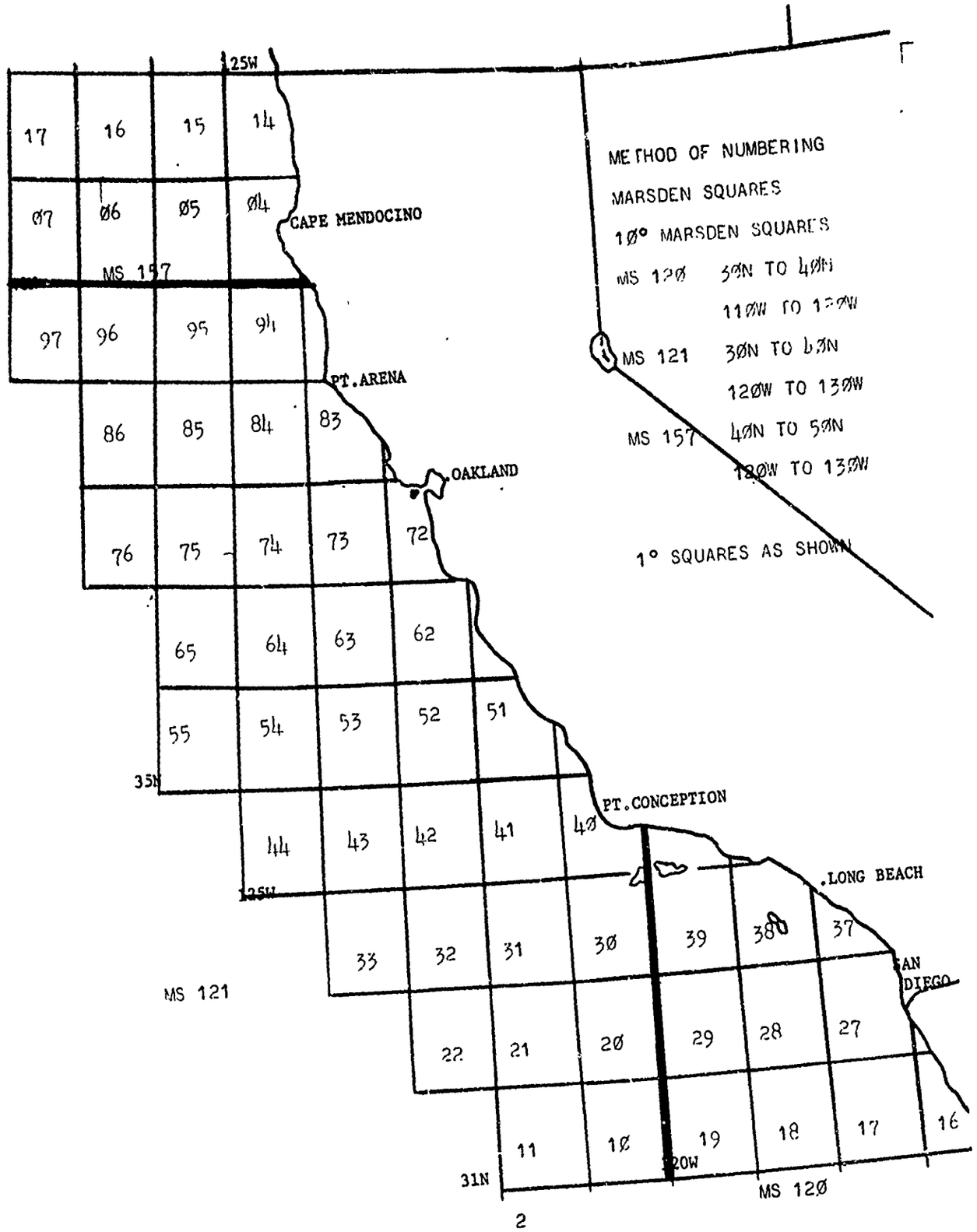
(a) Visibility
(b) Ceiling
(c) Precipitation
(d) Fog
(e) Haze
(f) Surface Wind
(g) Sea Surface Temperature
(h) Wave Height

Data for these parameters was plotted by 1° Marsden Sub-squares, as indicated on page 2.

Useful definitions of time periods utilized in this study follow.

Day: 0900 - 2000 local time
Night: 2100 - 0800 local time
Summer: June, July, August, September
Fall: October, November
Winter: December, January, February, March
Spring: April, May

This summary has been prepared by the Oceanographic Division of Fleet Weather Central Alameda headed by LCDR T. H. Calhoon, U.S.N.. This issue supercedes and updates the publication of the same name, promulgated in 1956. The contents of this printing are the same as in an earlier printing of May 1969.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MARSDEN SQUARES
10° MARSDEN SQUARES
MS 120 30N TO 40N
110W TO 120W
MS 121 30N TO 40N
120W TO 130W
MS 157 40N TO 50N
120W TO 130W
1° SQUARES AS SHOWN
125W
CAPE MENDOCINO
MS 157
PT.ARENA
OAKLAND
35N
PT.CONCEPTION
LONG BEACH
SAN DIEGO
MS 121
31N
120W
MS 120
17 16 15 14
07 06 05 04
97 96 95 94
86 85 84 83
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65 64 63 62
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44 43 42 41 40
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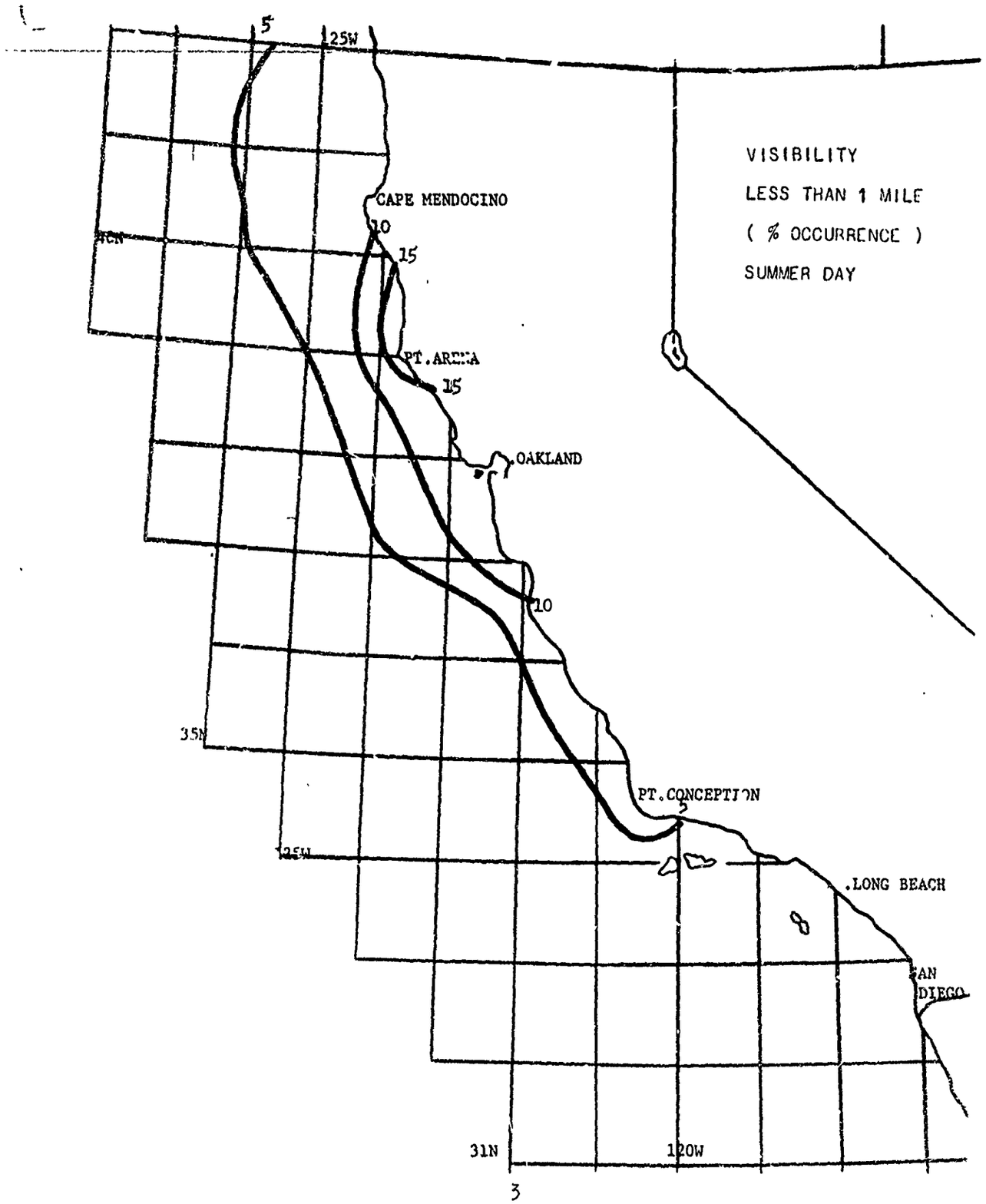
VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
SUMMER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
25W
35N
31N
120W
5
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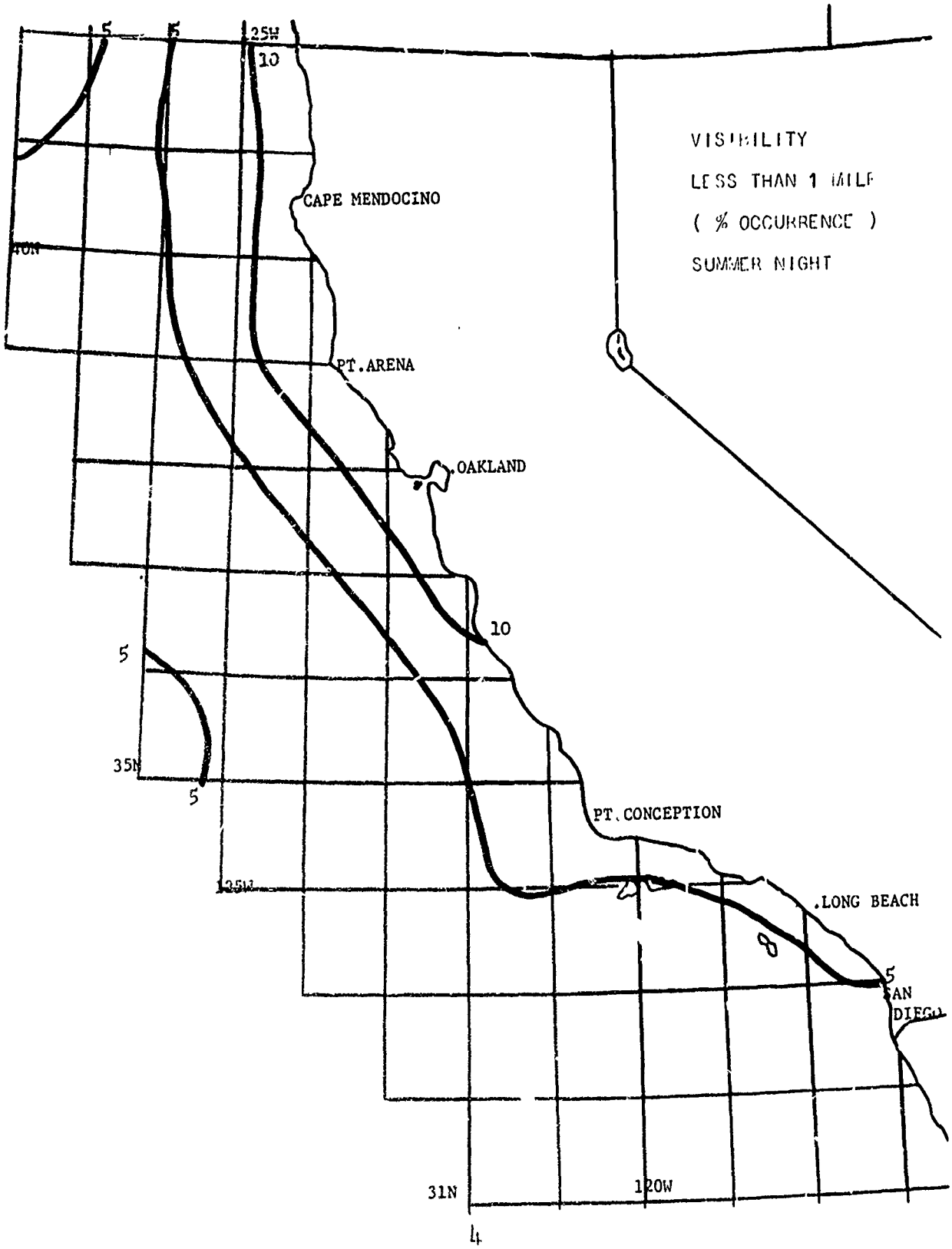
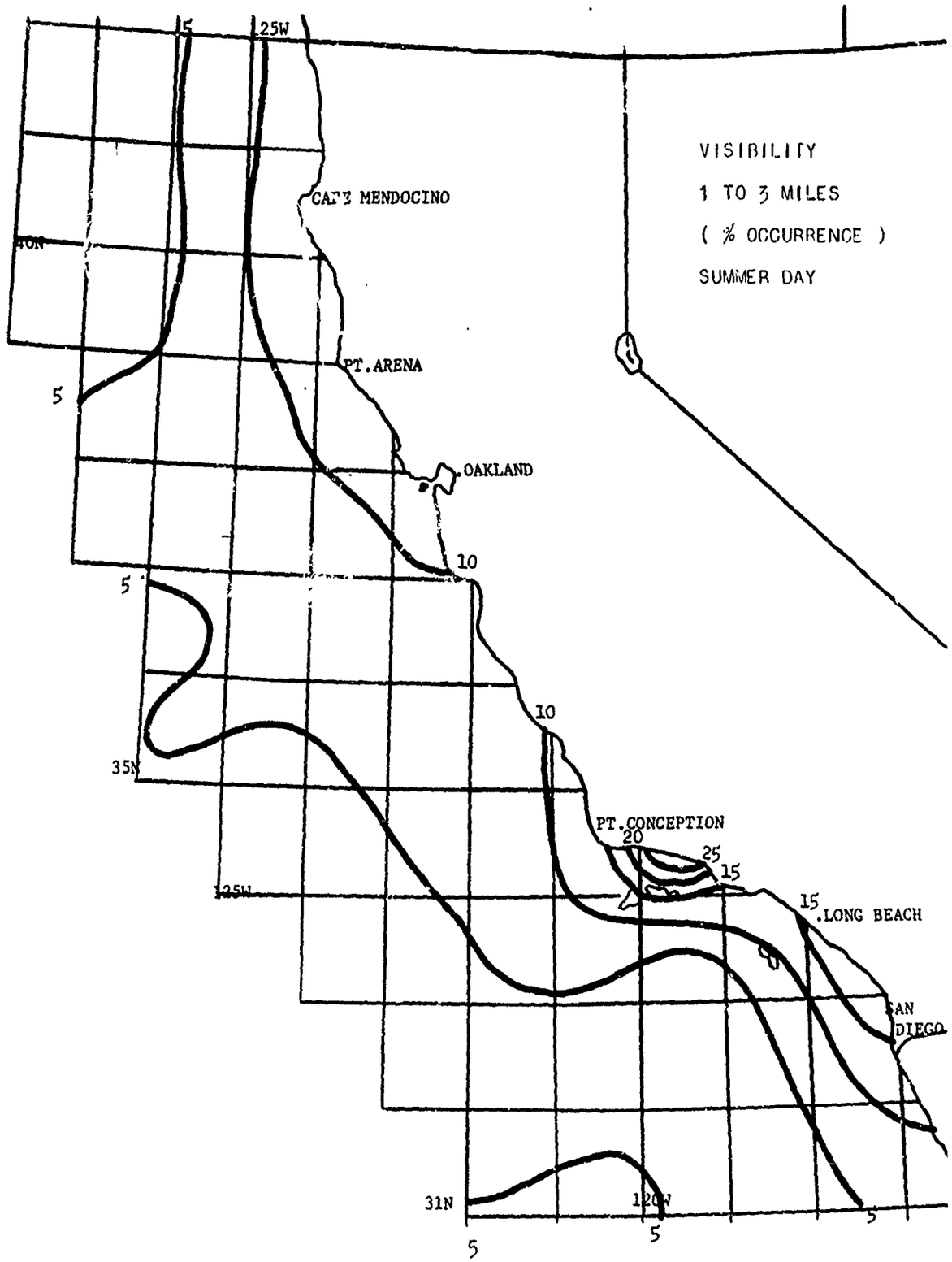
15
15
10
5
3


VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
SUMMER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N
5
10
4


VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
SUMMER DAY
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OAKLAND
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SAN DIEGO
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120W
35N
31N
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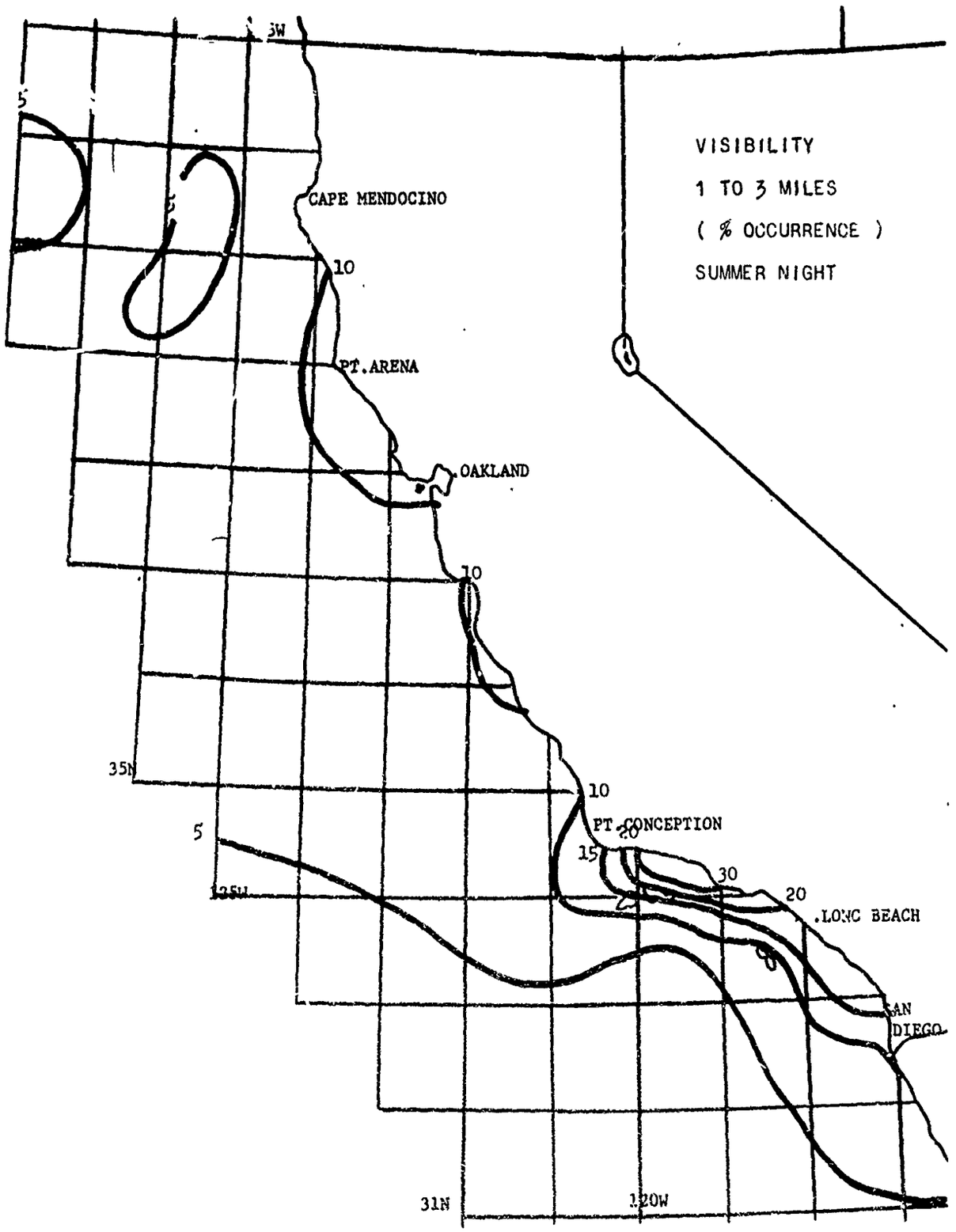
15
20
25


VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
SUMMER NIGHT
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PT. CONCEPTION
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SAN DIEGO
35N
31N
125W
120W
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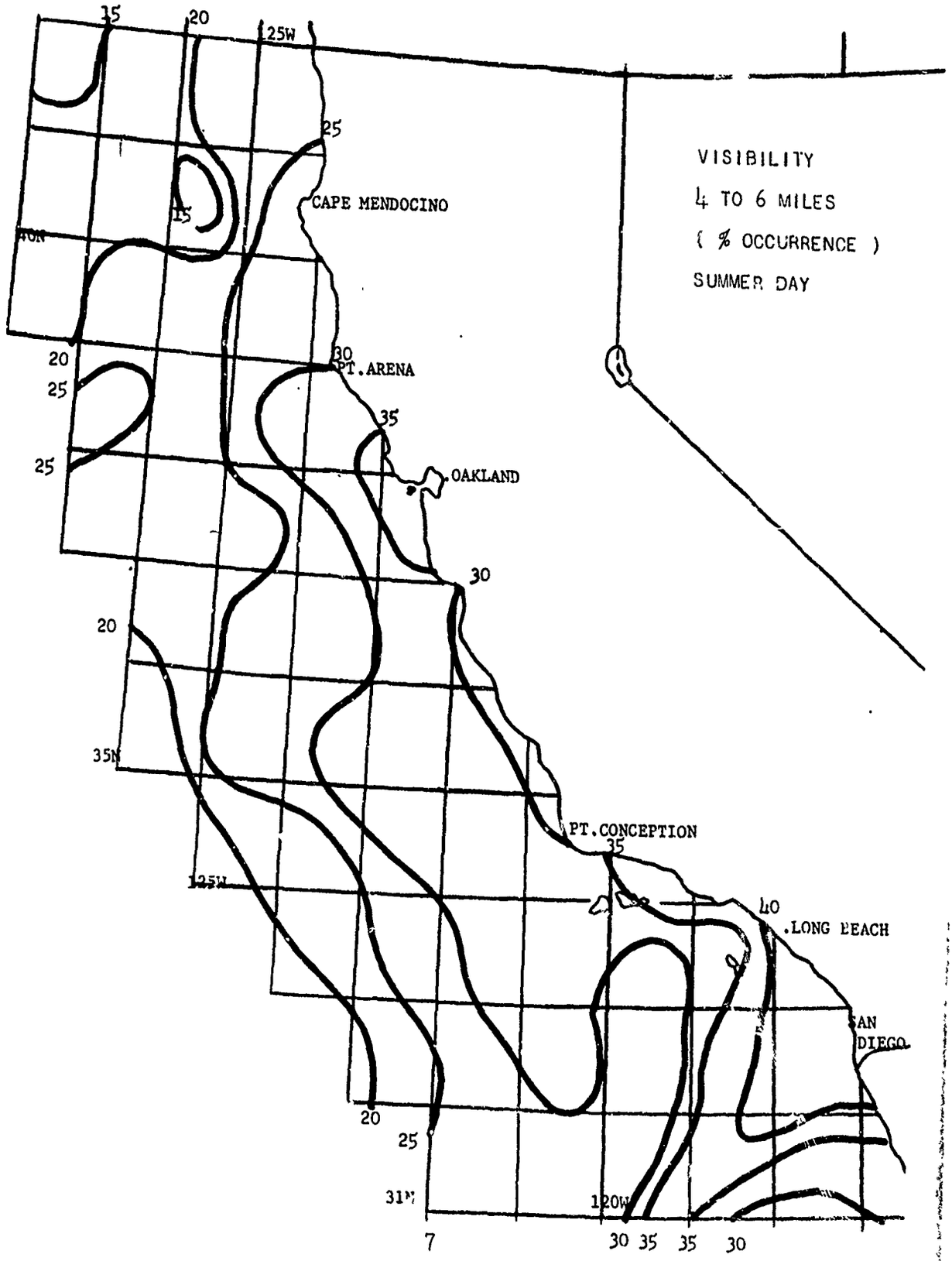
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4 TO 6 MILES
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PT. CONCEPTION
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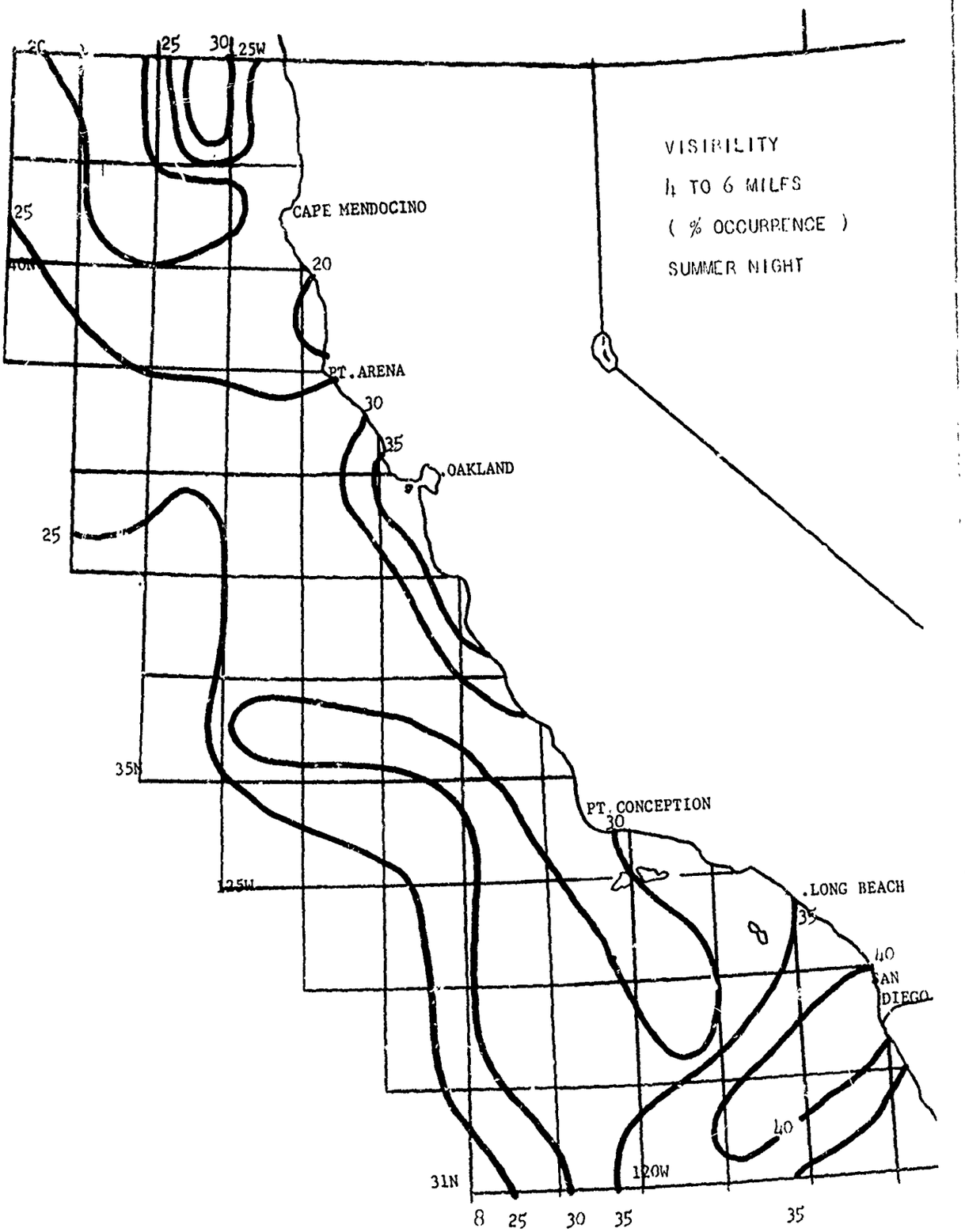
125W
120W
35N
31N
15
20
25
30
35
40
7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(% OCCURRENCE)
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PT. CONCEPTION
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SAN DIEGO
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31N
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120W
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35
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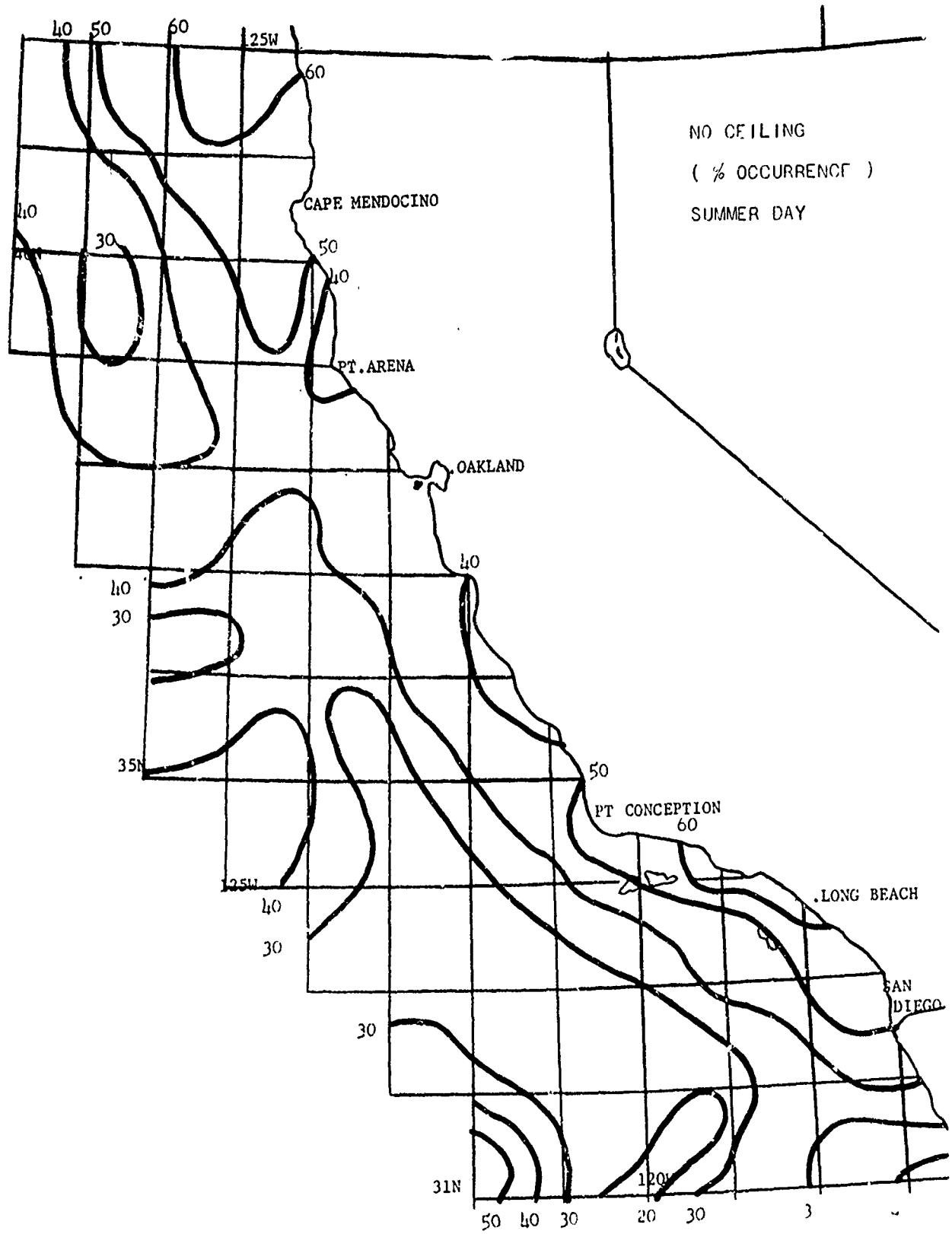
8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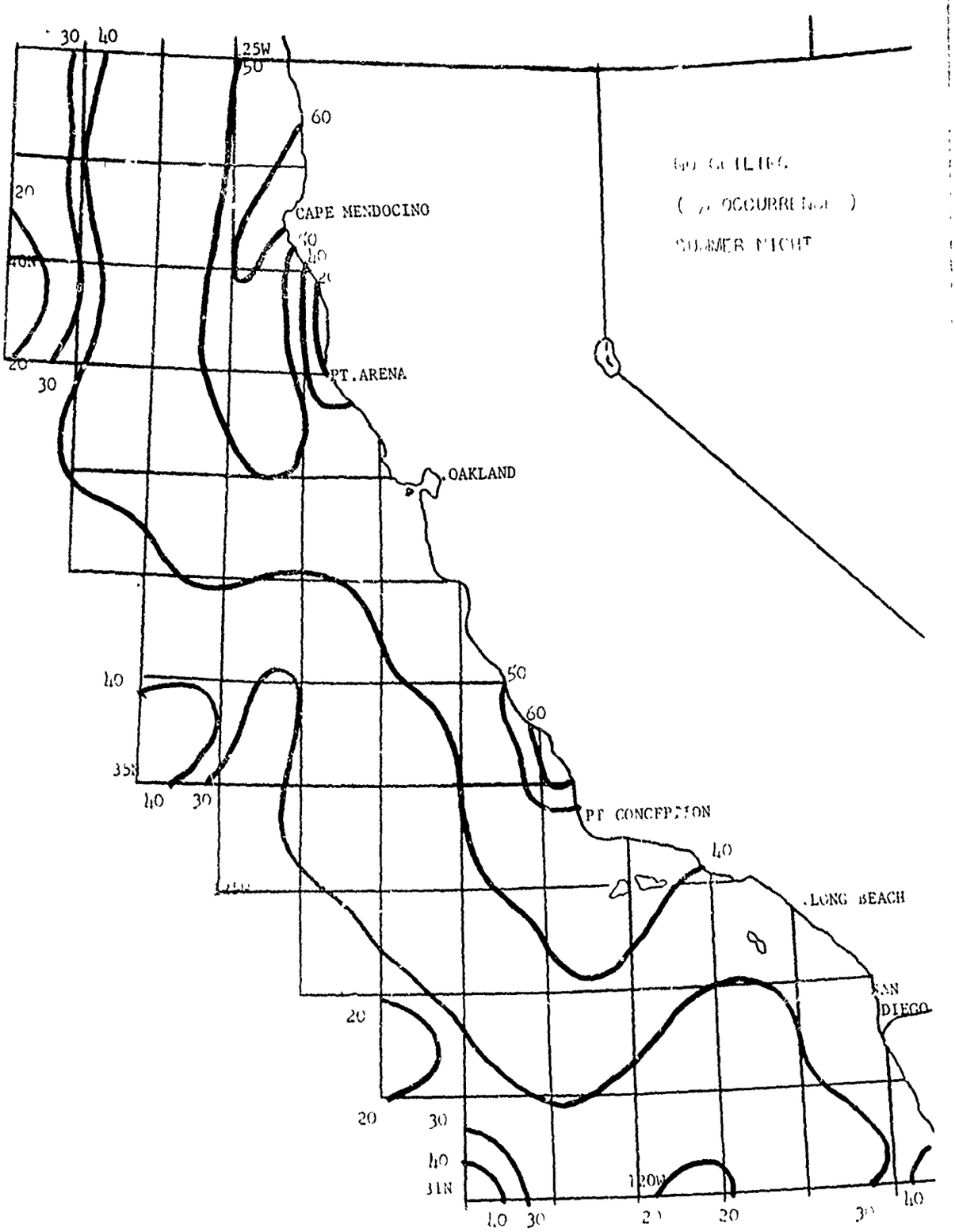
120W
35N
31N
40
50
60
30
20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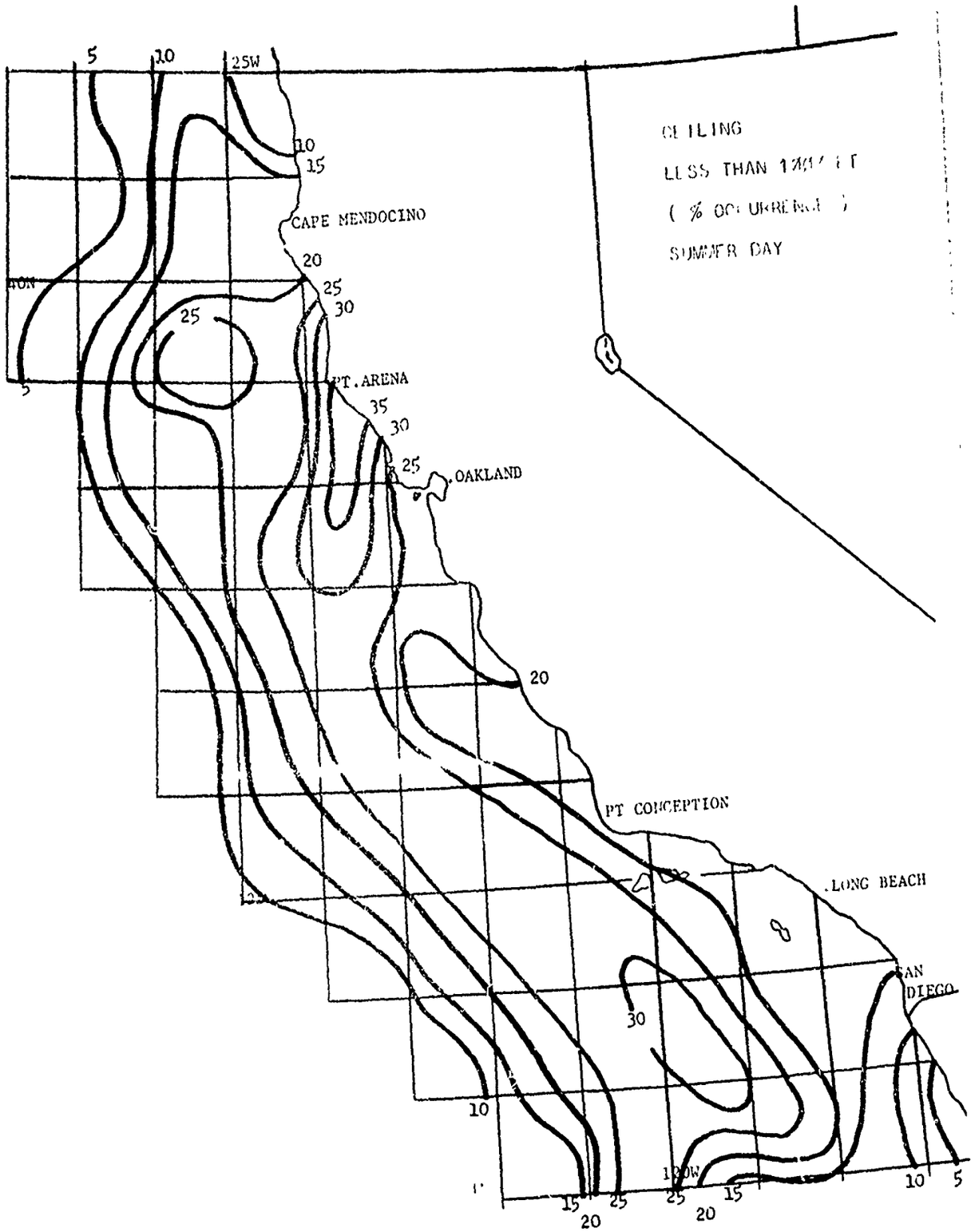
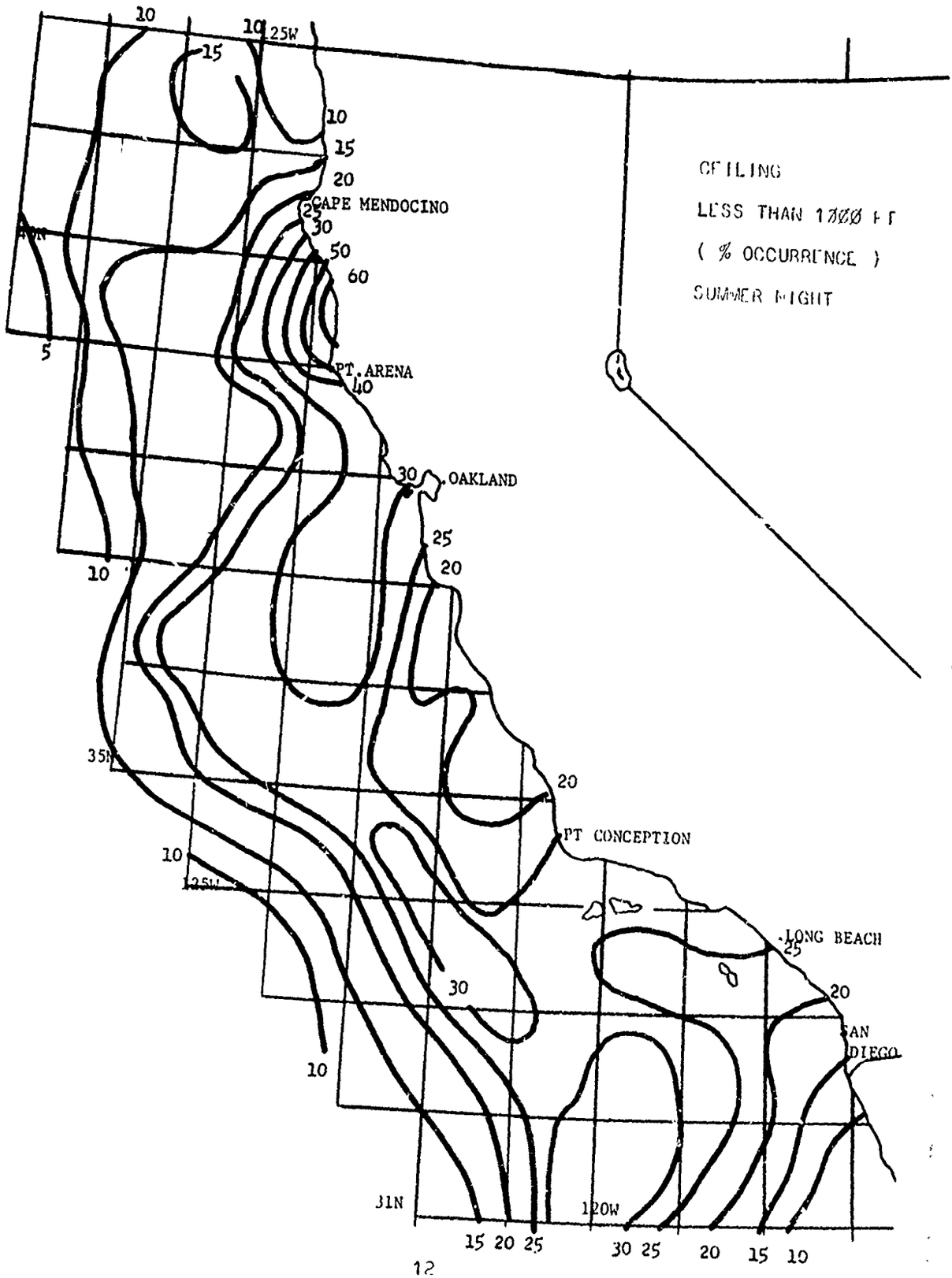
SAN DIEGO
SUMMER NIGHT


CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
SUMMER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
5
10
25W
15
20
25
30
35
100W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PT CONCEPTION
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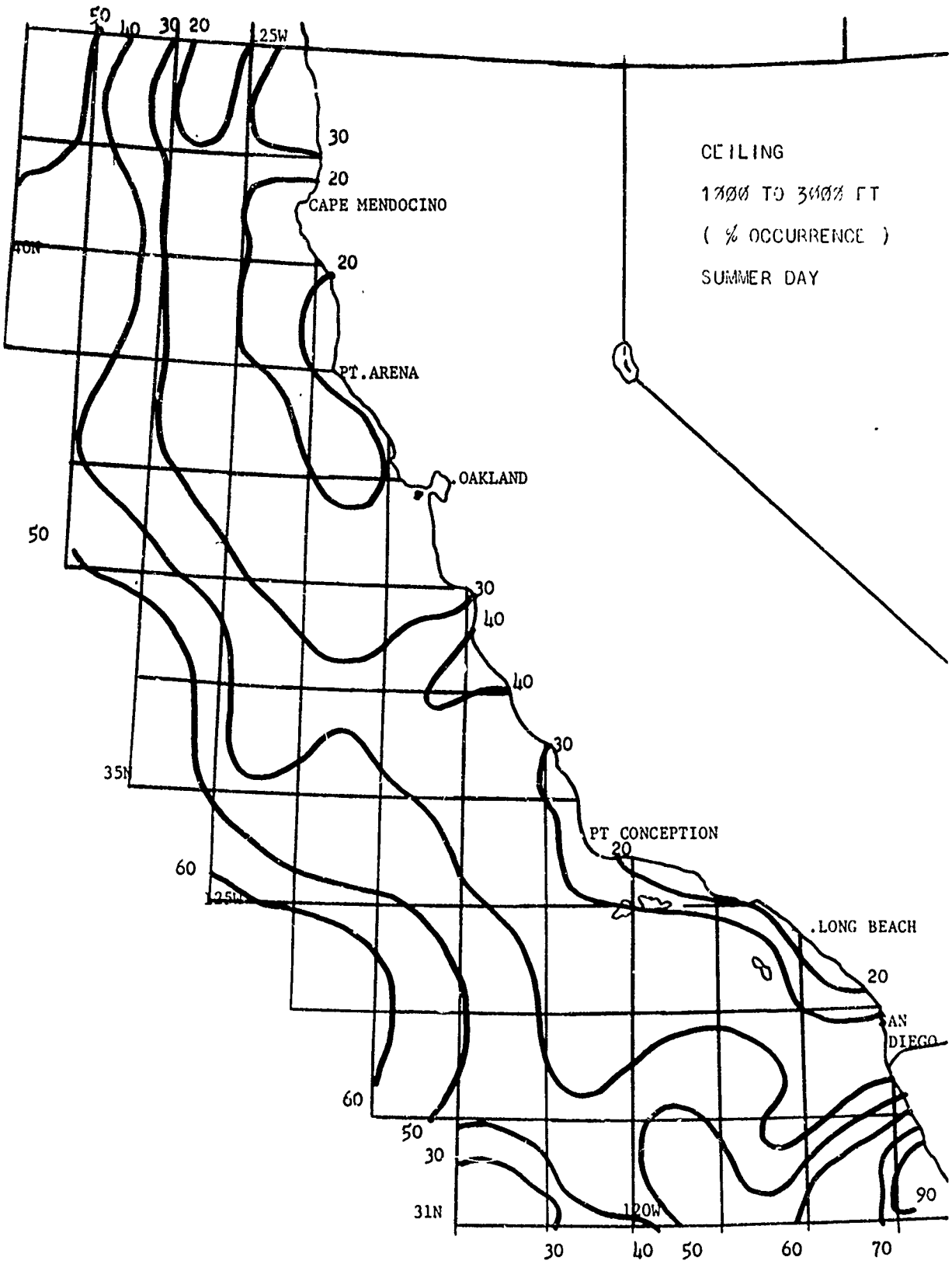
SAN DIEGO
125W
120W
35N
31N


CEILING
1000 TO 3000 FT
(% OCCURRENCE)
SUMMER DAY
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OAKLAND
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SAN DIEGO
125W
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31N
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90
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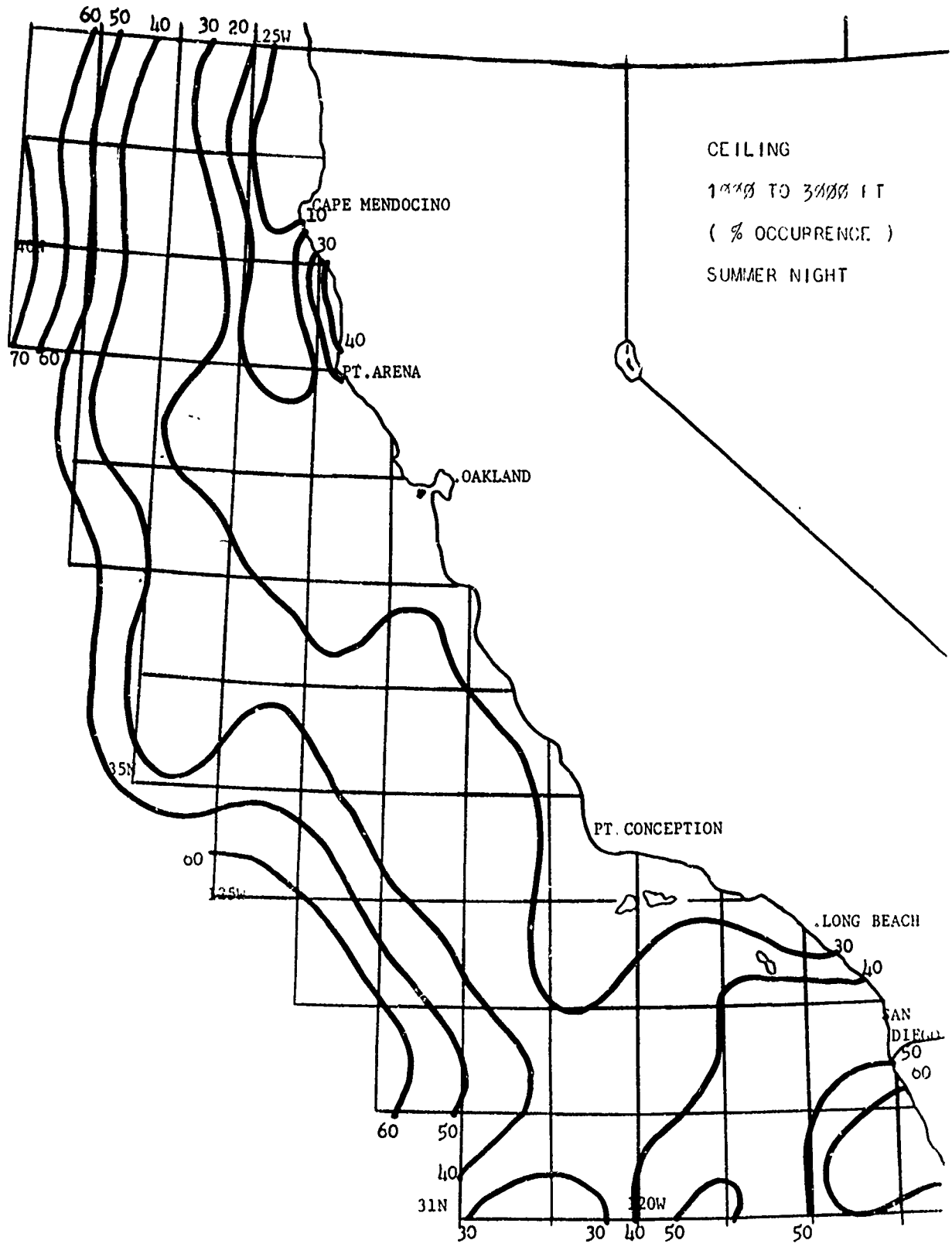
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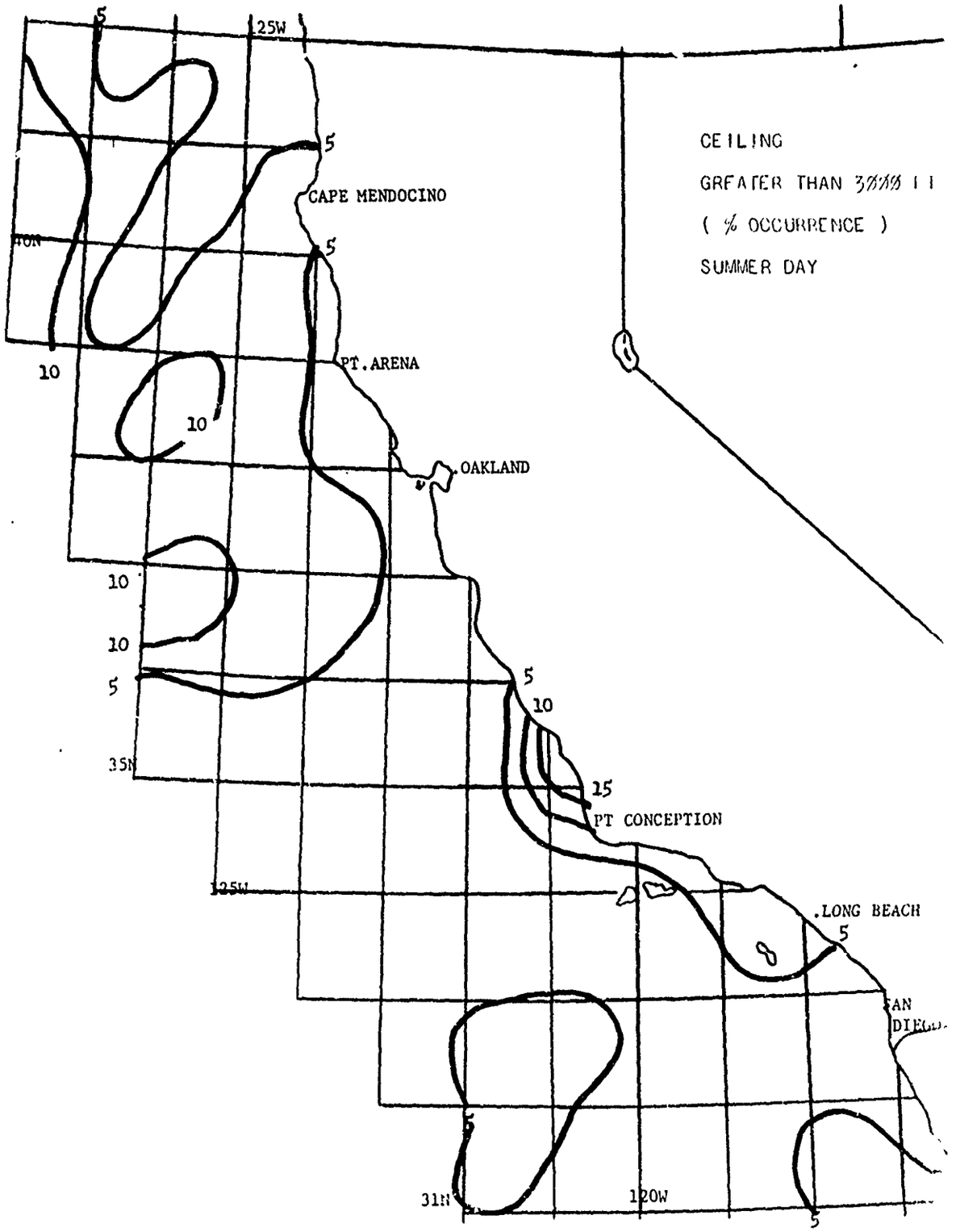
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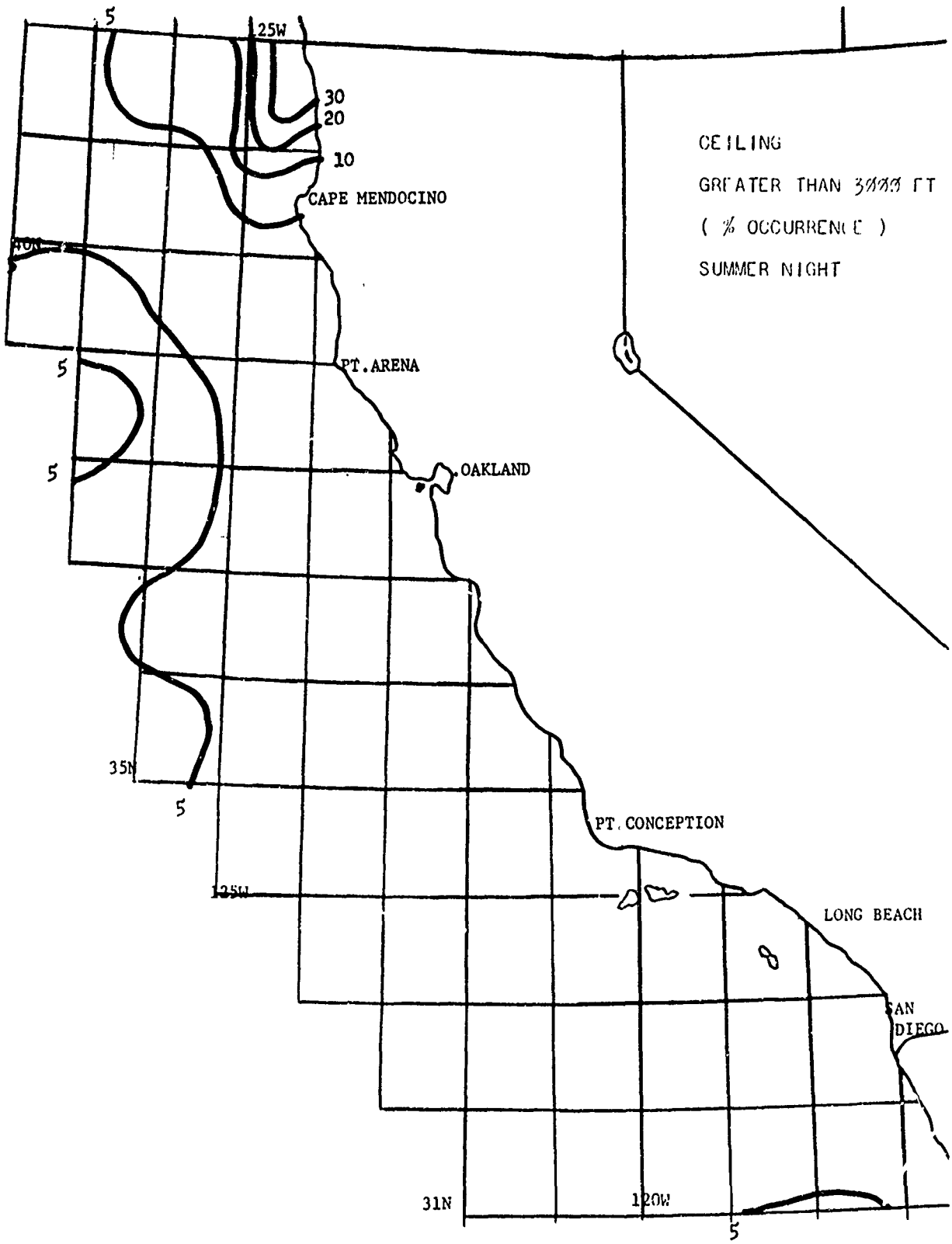
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25W
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LONG BEACH
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31N
120W
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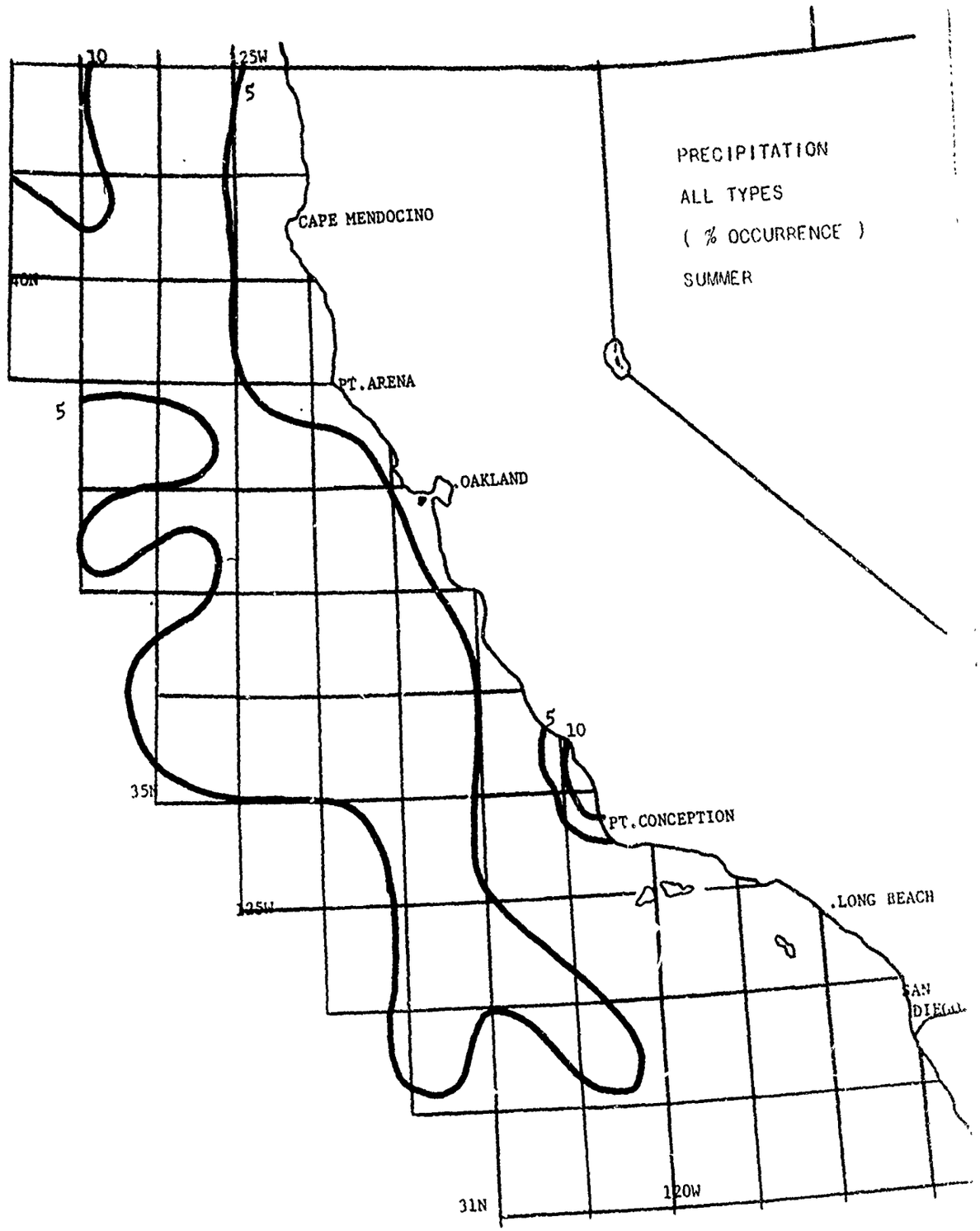
PRECIPITATION
ALL TYPES
(% OCCURRENCE)
SUMMER
10
125W
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CAPE MENDOCINO
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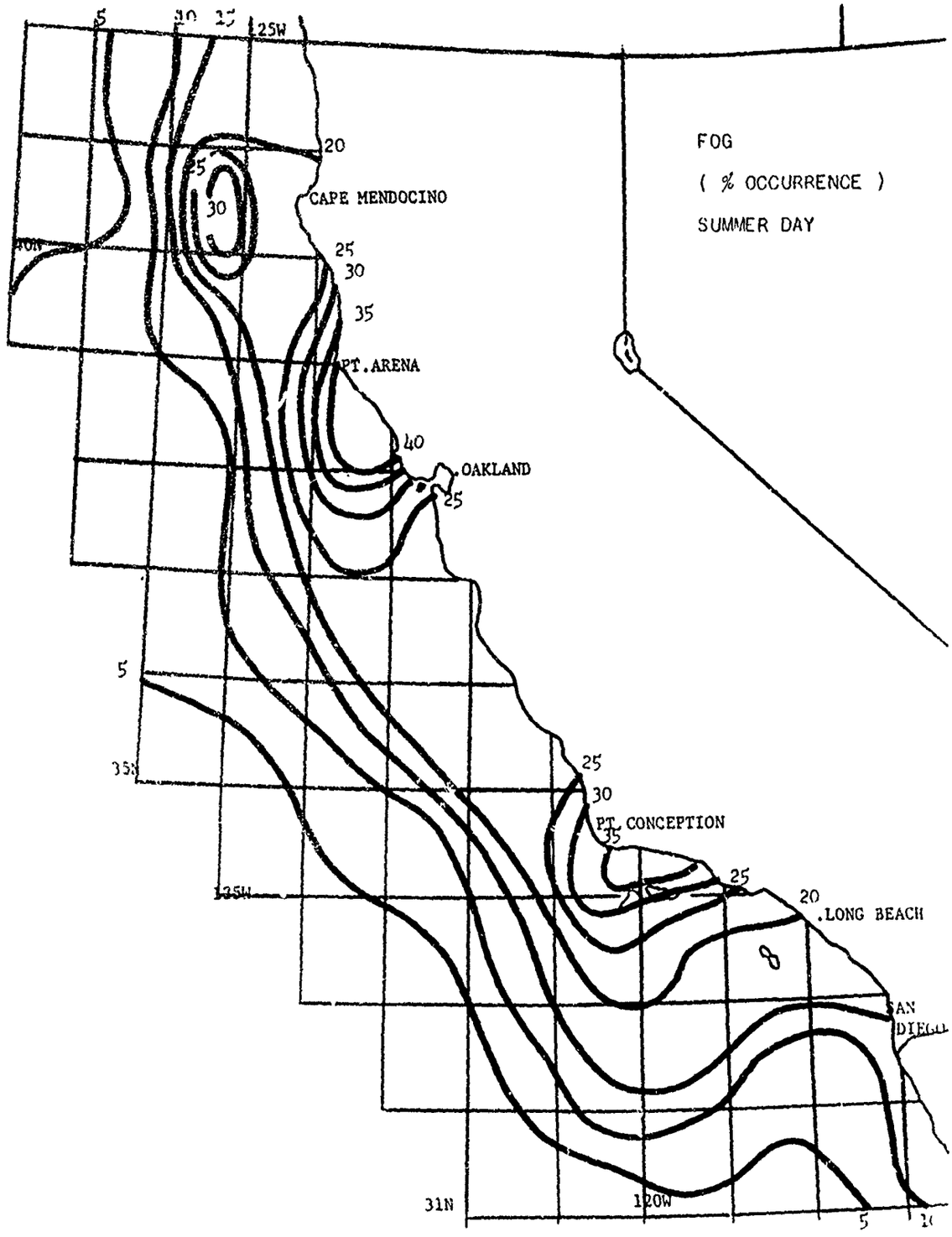
OAKLAND
5
10
35N
PT.CONCEPTION
125W
LONG BEACH
8
SAN
DIEGO
31N
120W


FOG
(% OCCURRENCE)
SUMMER DAY
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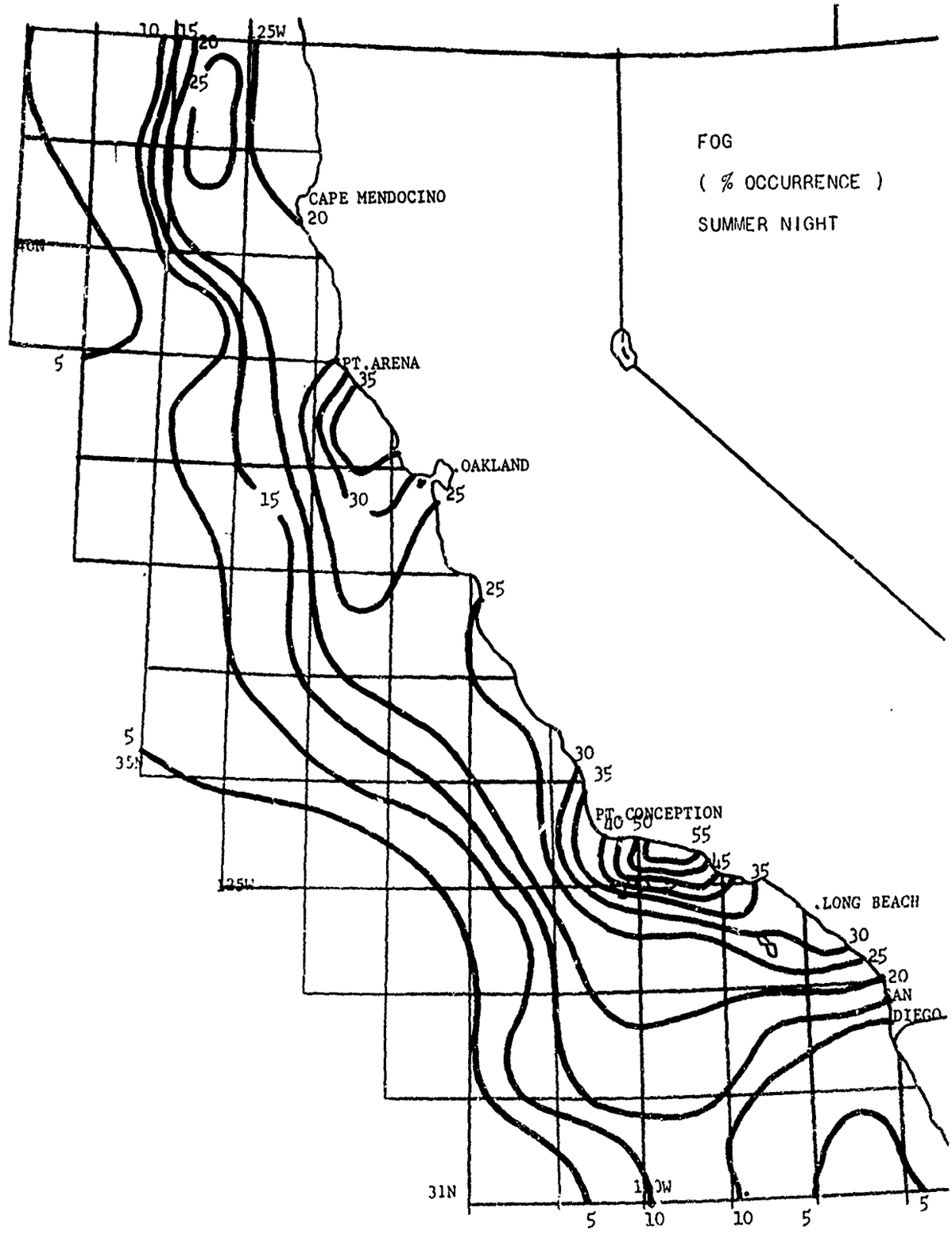
FOG
(% OCCURRENCE)
SUMMER NIGHT
CAPE MENDOCINO
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PT. CONCEPTION
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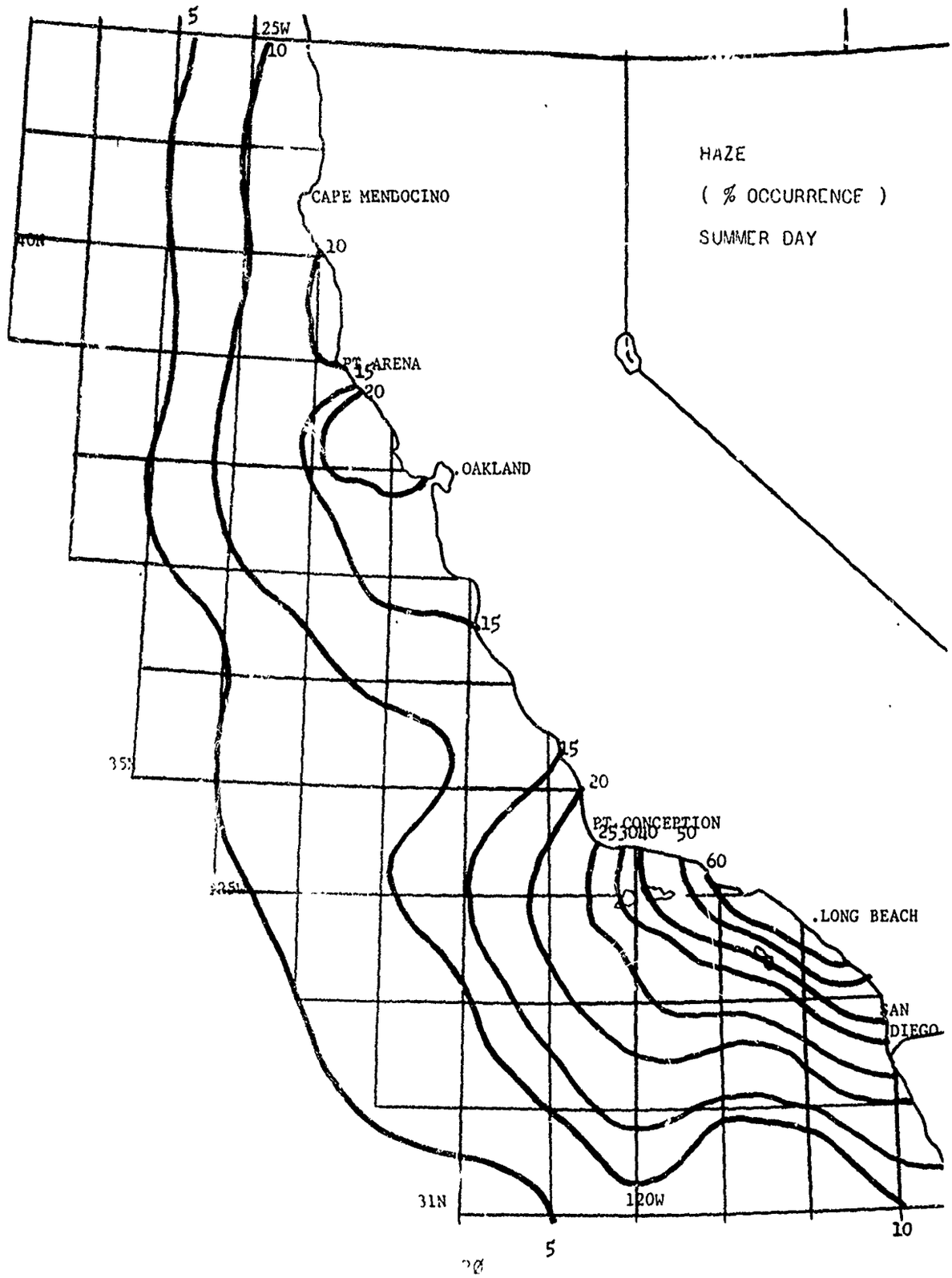
HAZE
(% OCCURRENCE)
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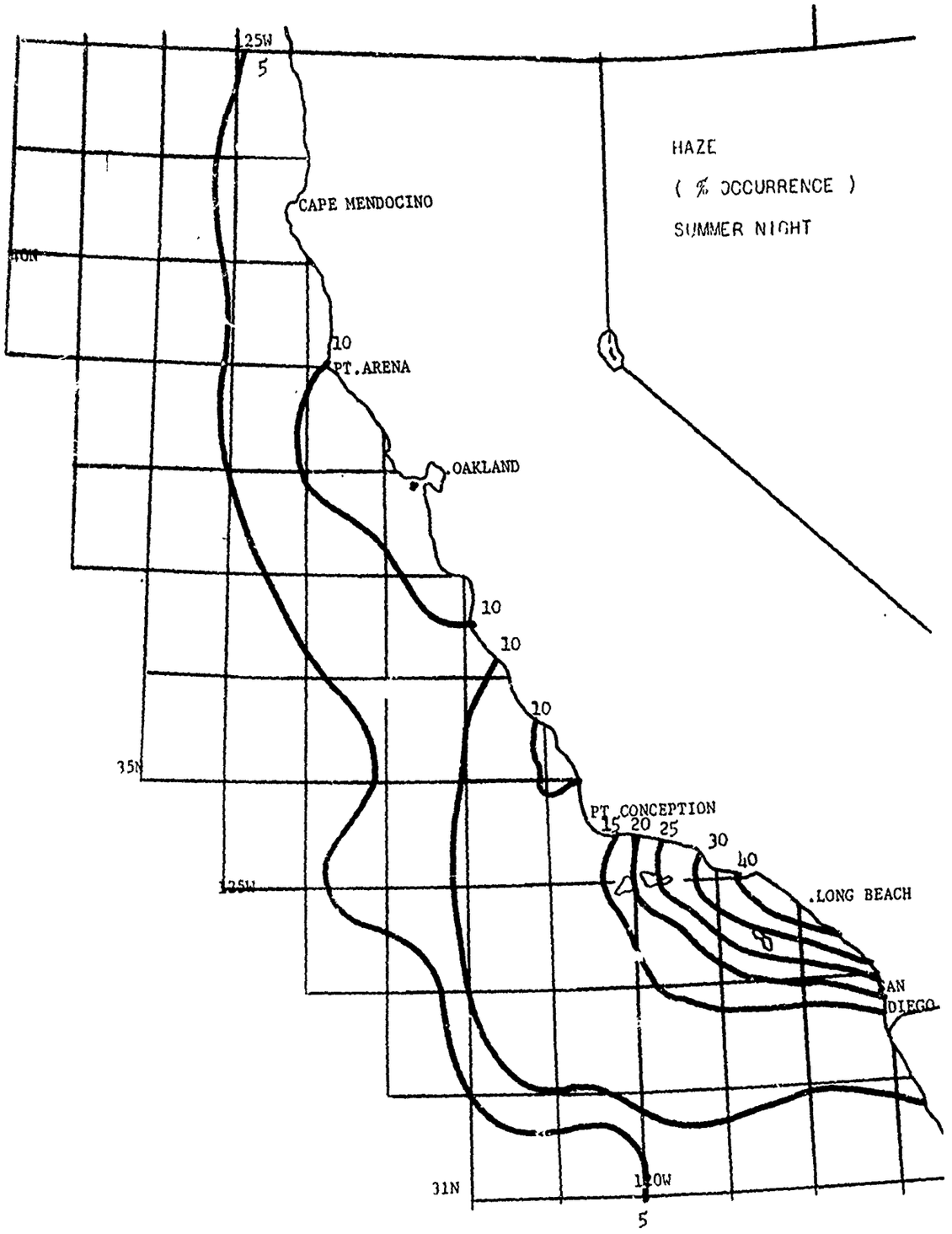
HAZE
(% OCCURRENCE)
SUMMER NIGHT
125W
5
CAPE MENDOCINO
40N
10
PT.ARENA
OAKLAND
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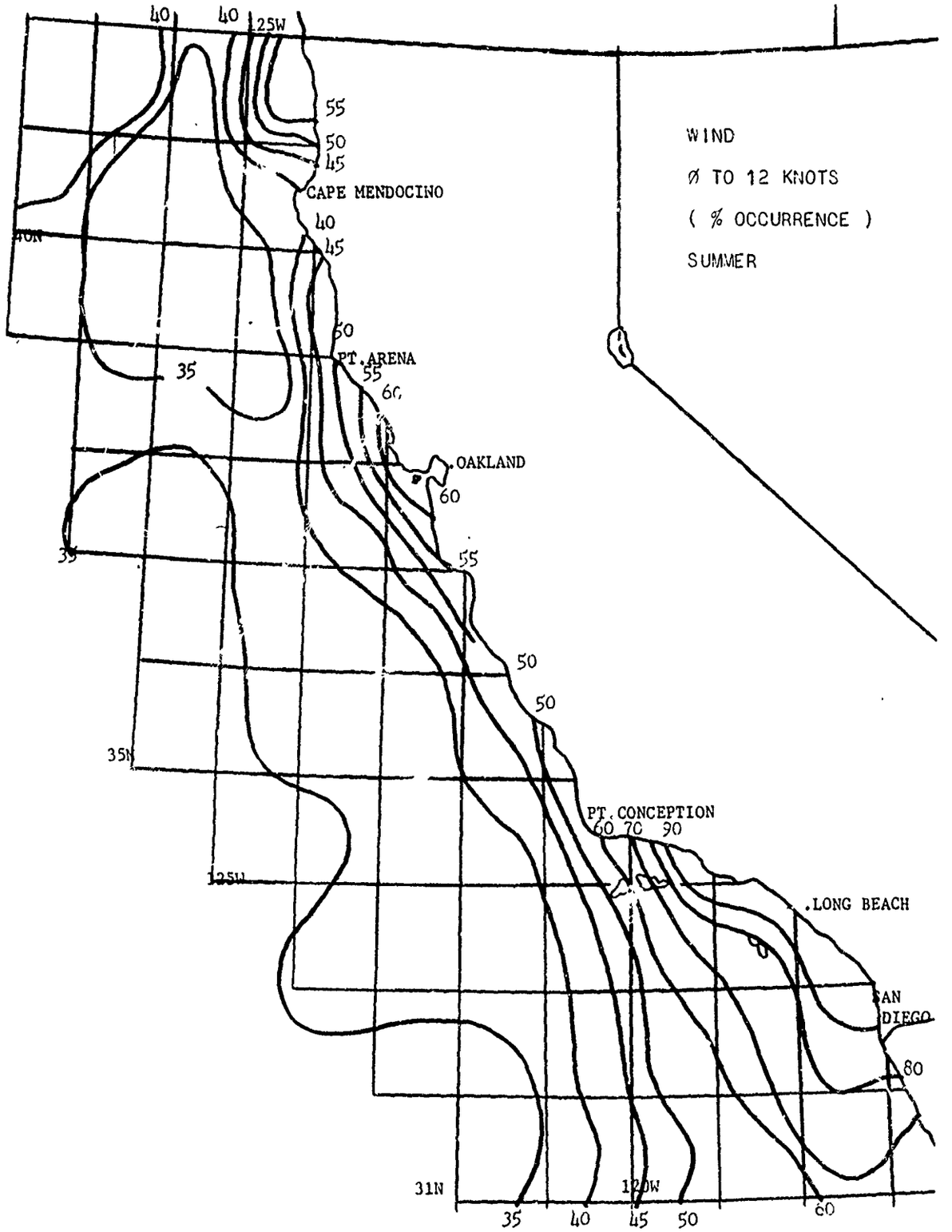
10
35N
PT CONCEPTION
15 20 25
30
40
125W
LONG BEACH
SAN
DIEGO
31N
120W
5


WIND
Ø TO 12 KNOTS
(% OCCURRENCE)
SUMMER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
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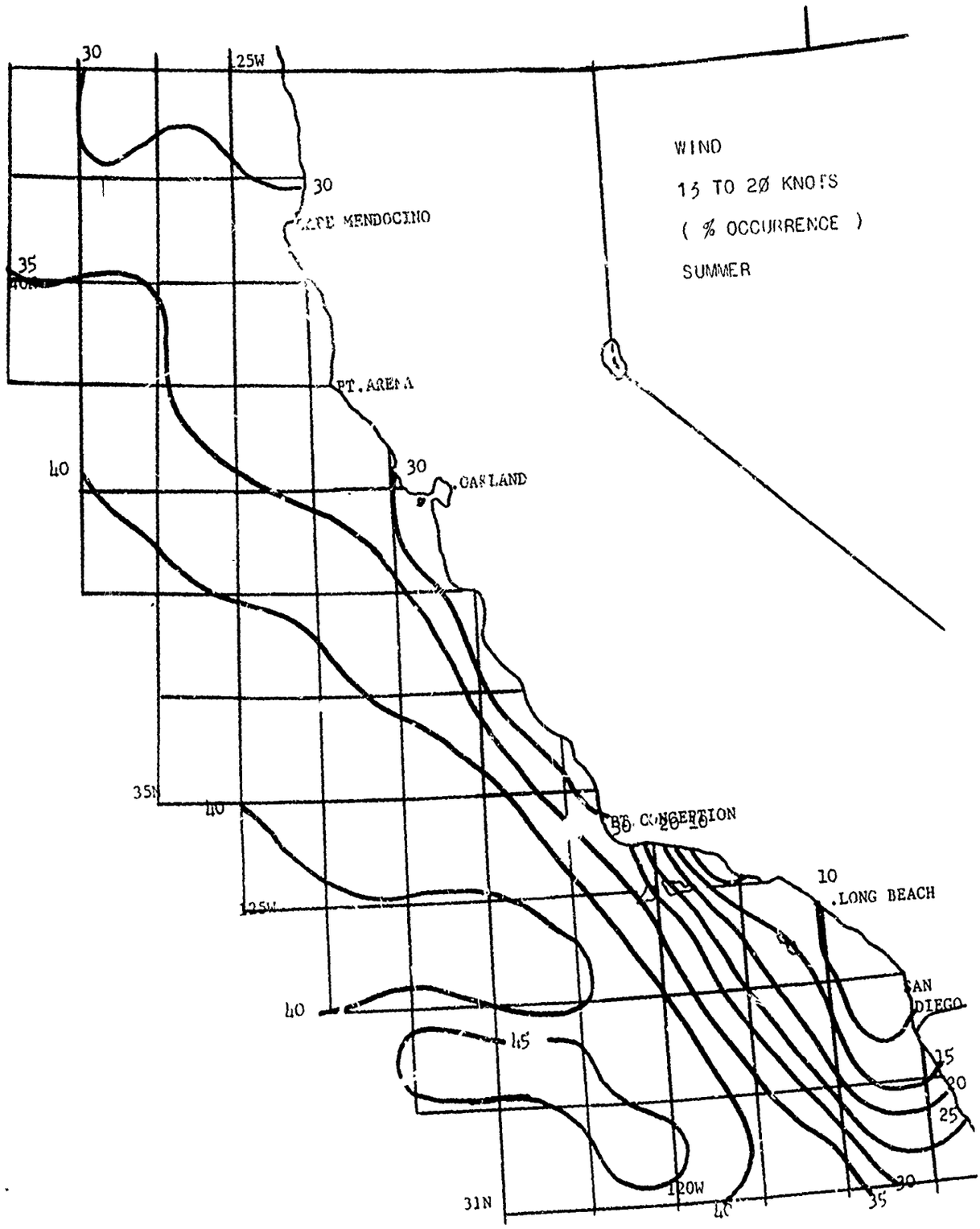
40
45
50
55
60
70
80
90


WIND
15 TO 20 KNOTS
(% OCCURRENCE)
SUMMER
30
25W
30
CAPE MENDOCINO
35
40
PT. AREN A
40
30
OAKLAND
35N
40
PT. CONCEPTION
10
LONG BEACH
125W
40
SAN DIEGO
45
15
20
25
30
35
120W
31N
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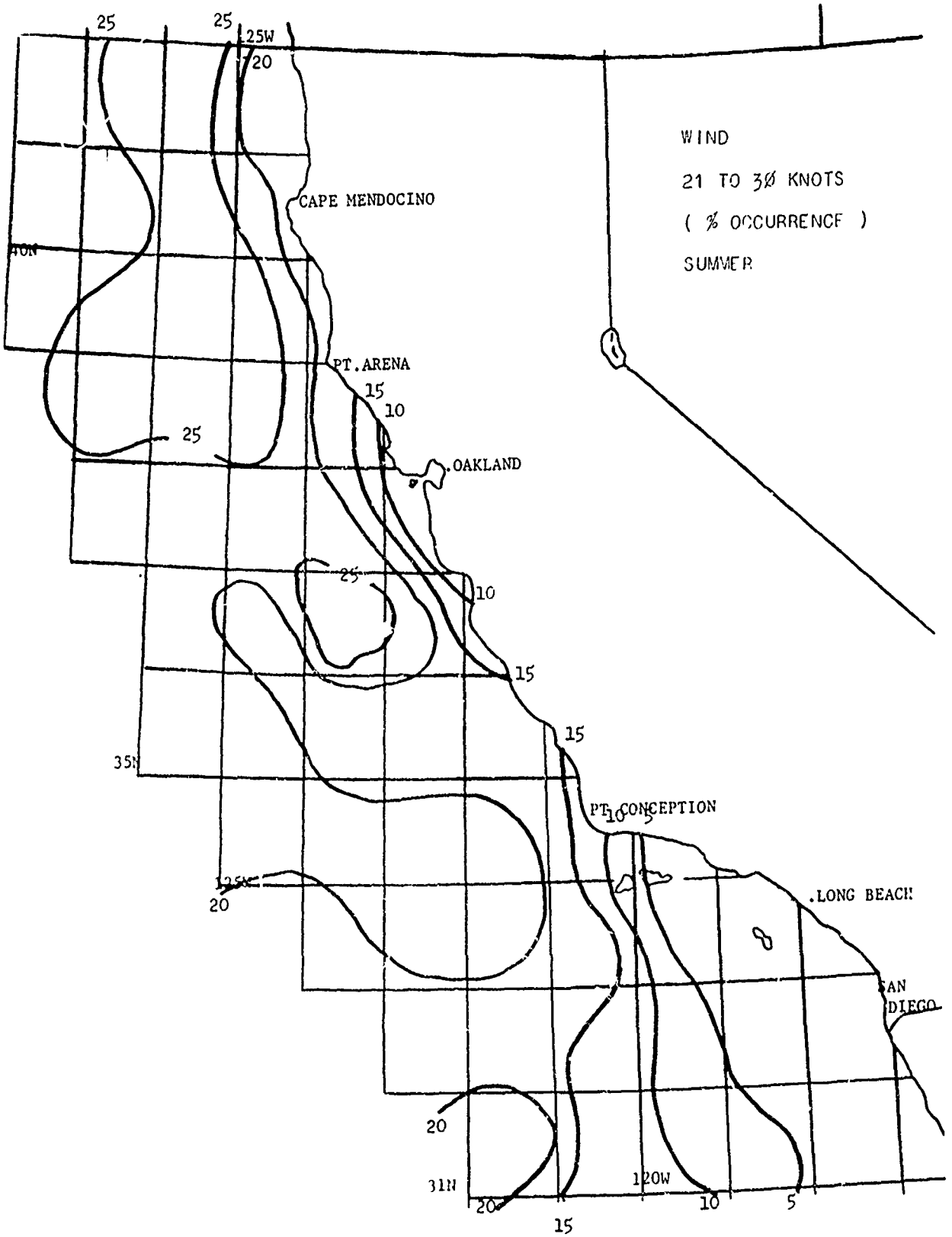
WIND
21 TO 3Ø KNOTS
(% OCCURRENCE)
SUMMER
CAPE MENDOCINO
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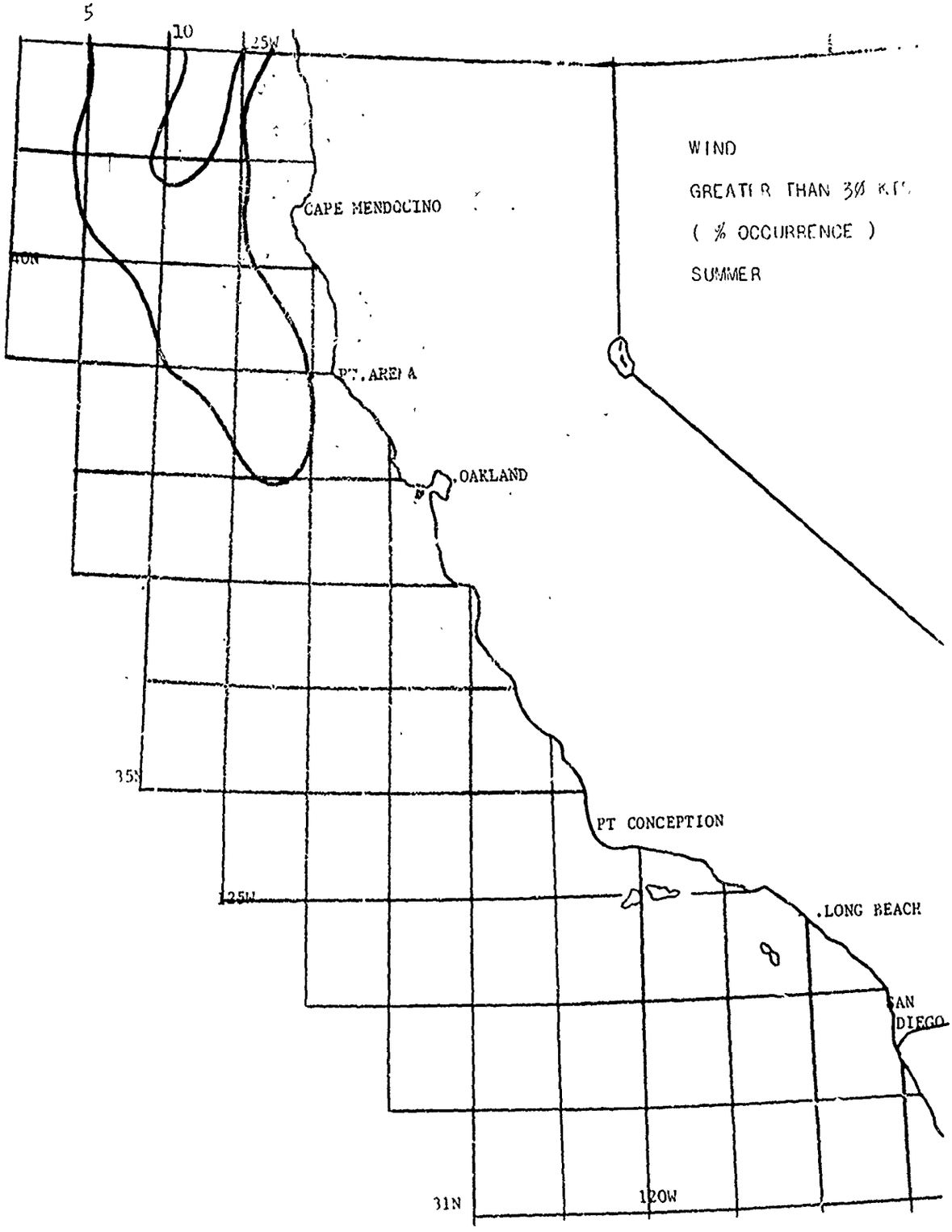
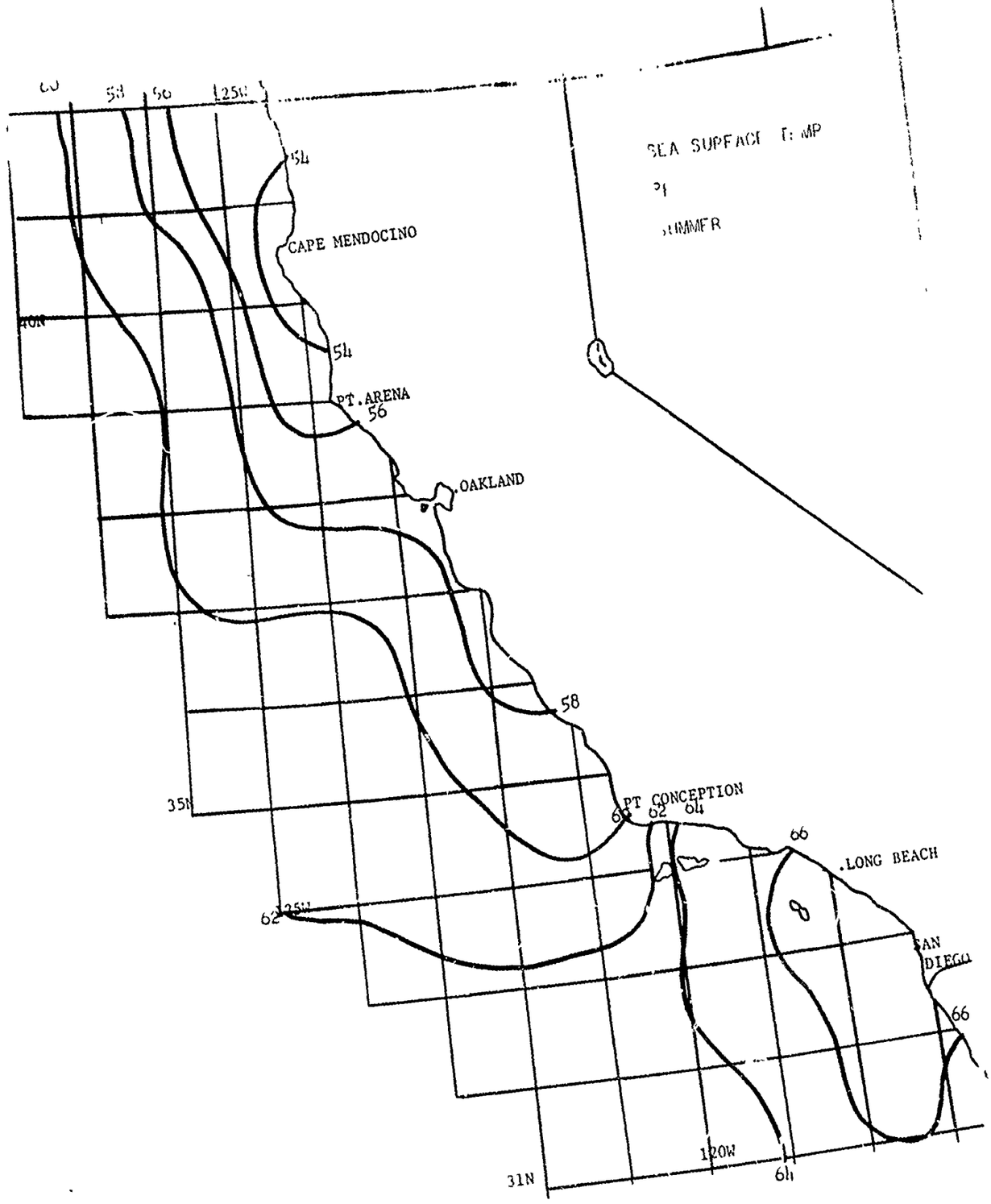
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
25
25W
20
15
10
35N
31N
120W
5


5
10
25W
WIND
GREATER THAN 30 KT
(% OCCURRENCE)
SUMMER
CAPE MENDOCINO
40N
PT. AREA
OAKLAND
35N
PT CONCEPTION
125W
LONG BEACH
8
SAN
DIEGO
31N
120W


SEA SURFACE TEMP
SUMMER
CAPE MENDOCINO
PT. ARENA
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LONG BEACH
SAN DIEGO
40N
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125W
120W
54
56
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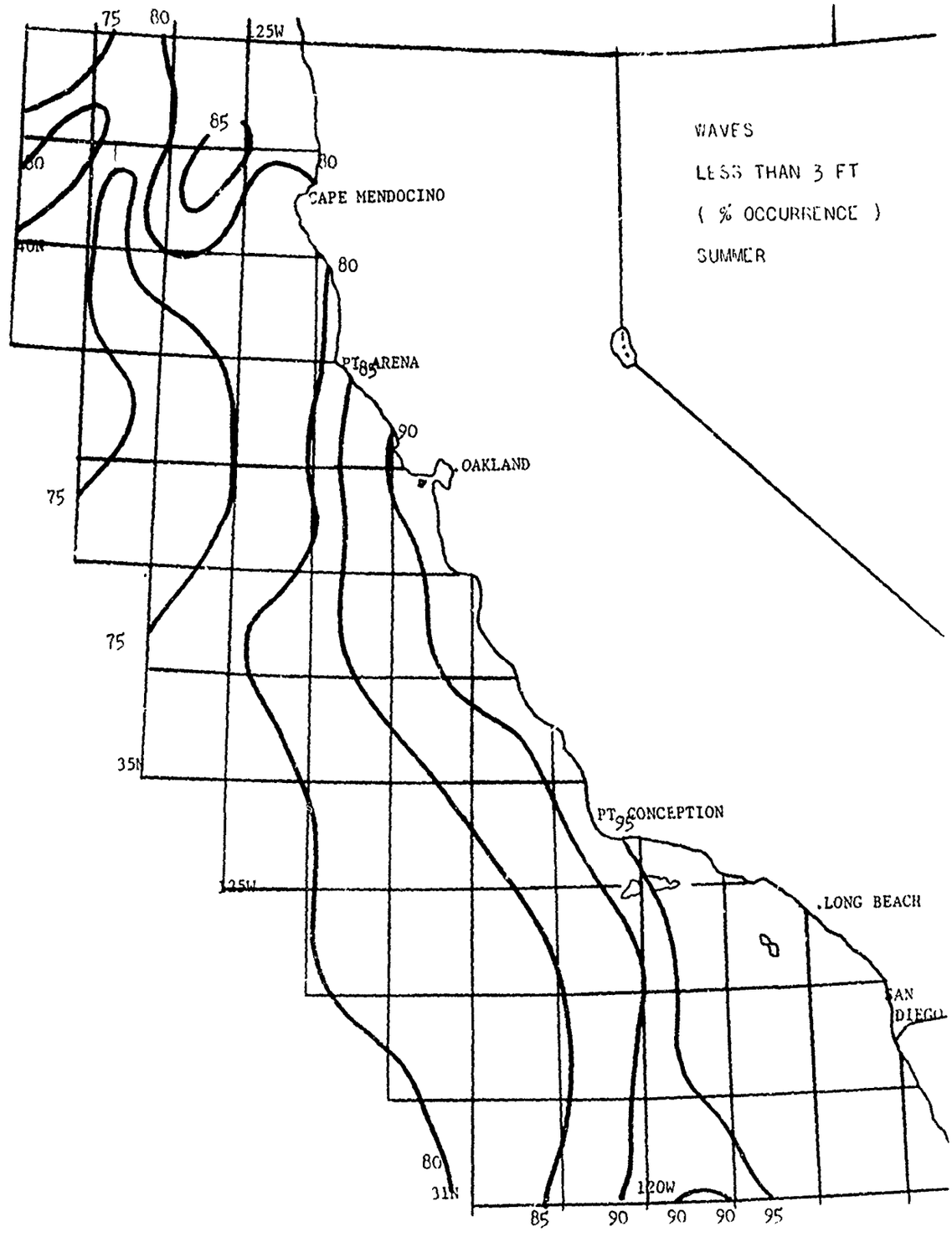
62
64
66


WAVES
LESS THAN 3 FT
(% OCCURRENCE)
SUMMER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N
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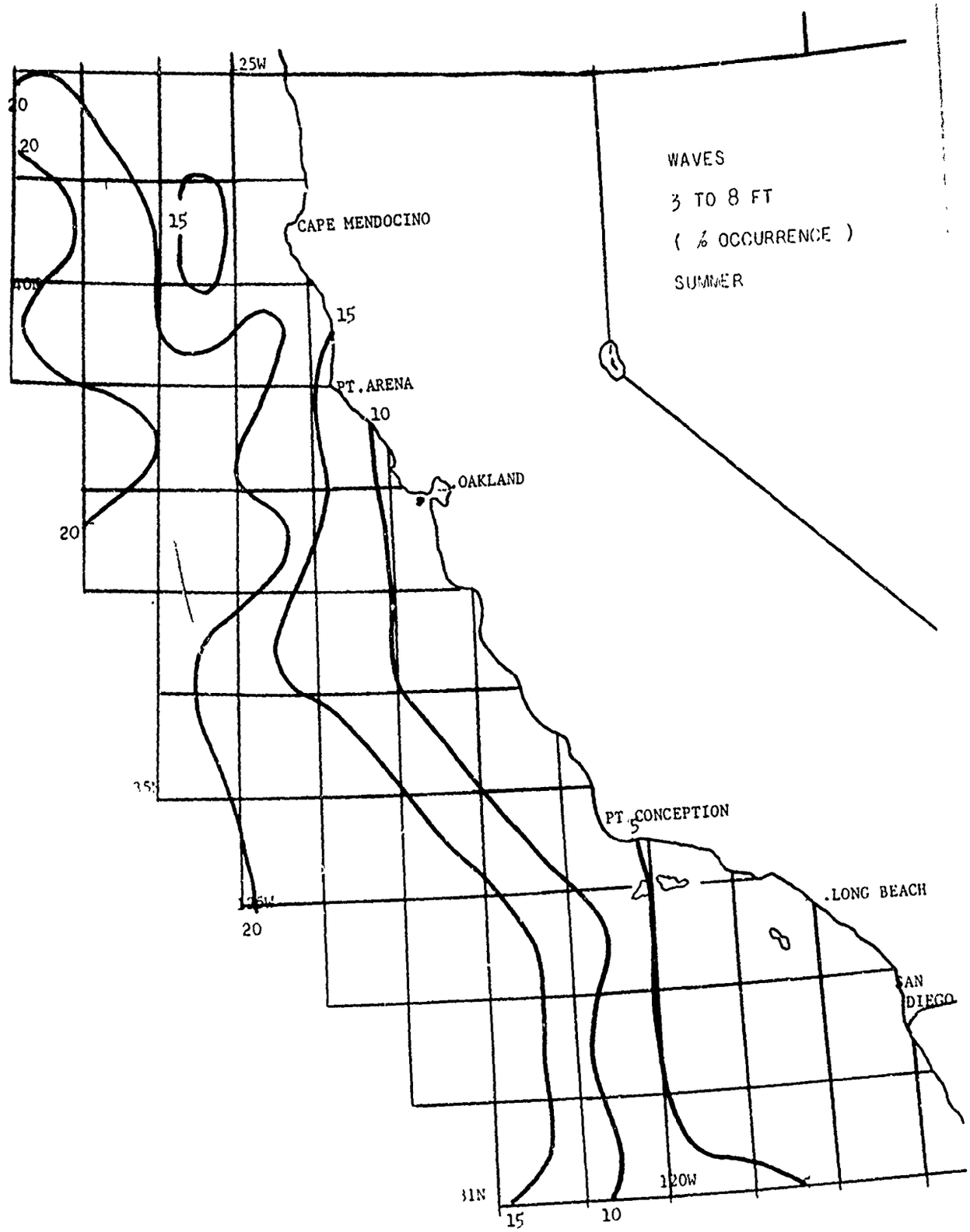
95


WAVES
3 TO 8 FT
(% OCCURRENCE)
SUMMER
25W
20
20
15
CAPE MENDOCINO
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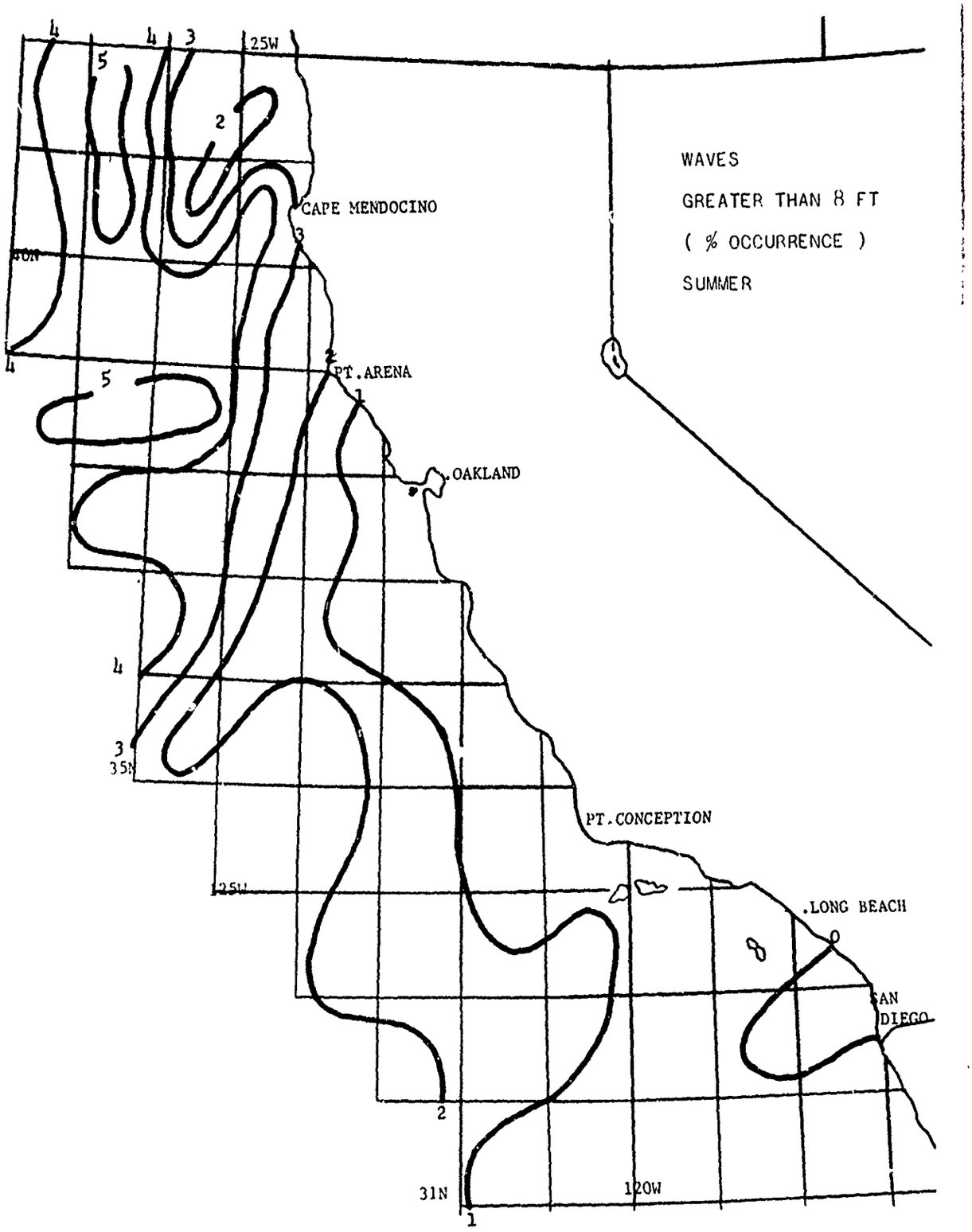
PT. CONCEPTION
5
LONG BEACH
20
8
SAN DIEGO
31N
15
10
120W


WAVES
GREATER THAN 8 FT
(% OCCURRENCE)
SUMMER
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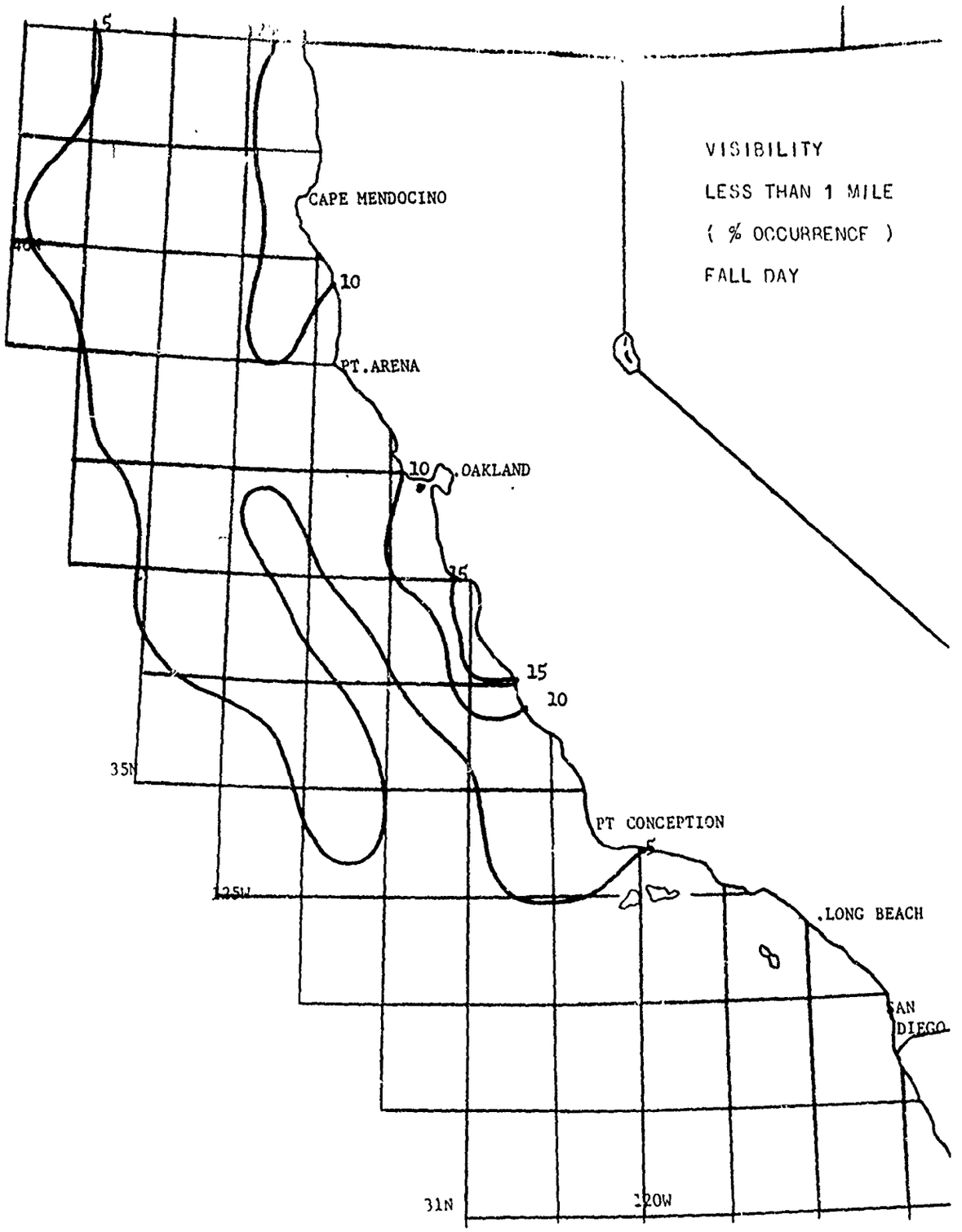
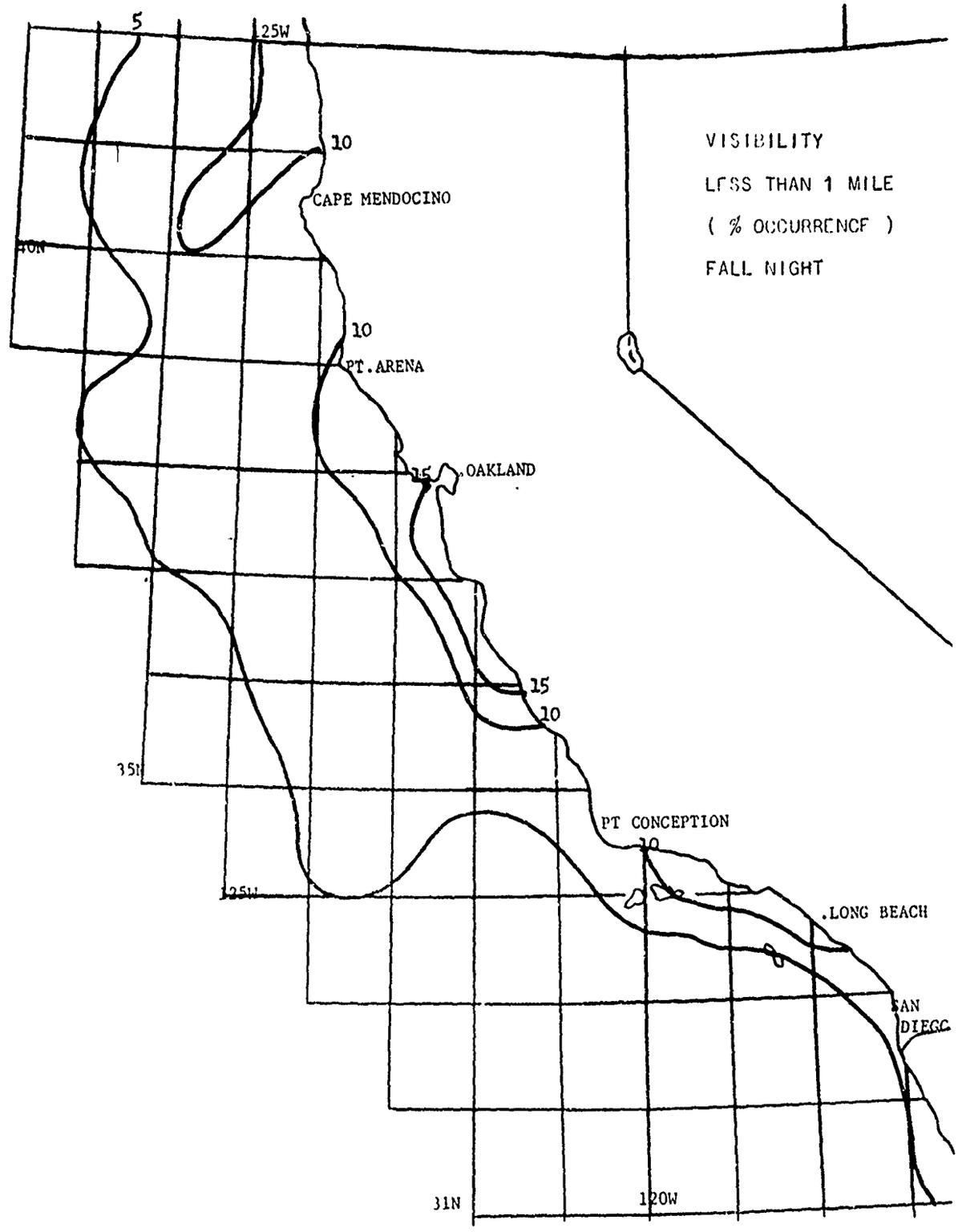
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N


VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
35N
31N
125W
120W
5
10
15
8


VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
FALL NIGHT
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125W
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CAPE MENDOCINO
40N
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PT. ARENA
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OAKLAND
15
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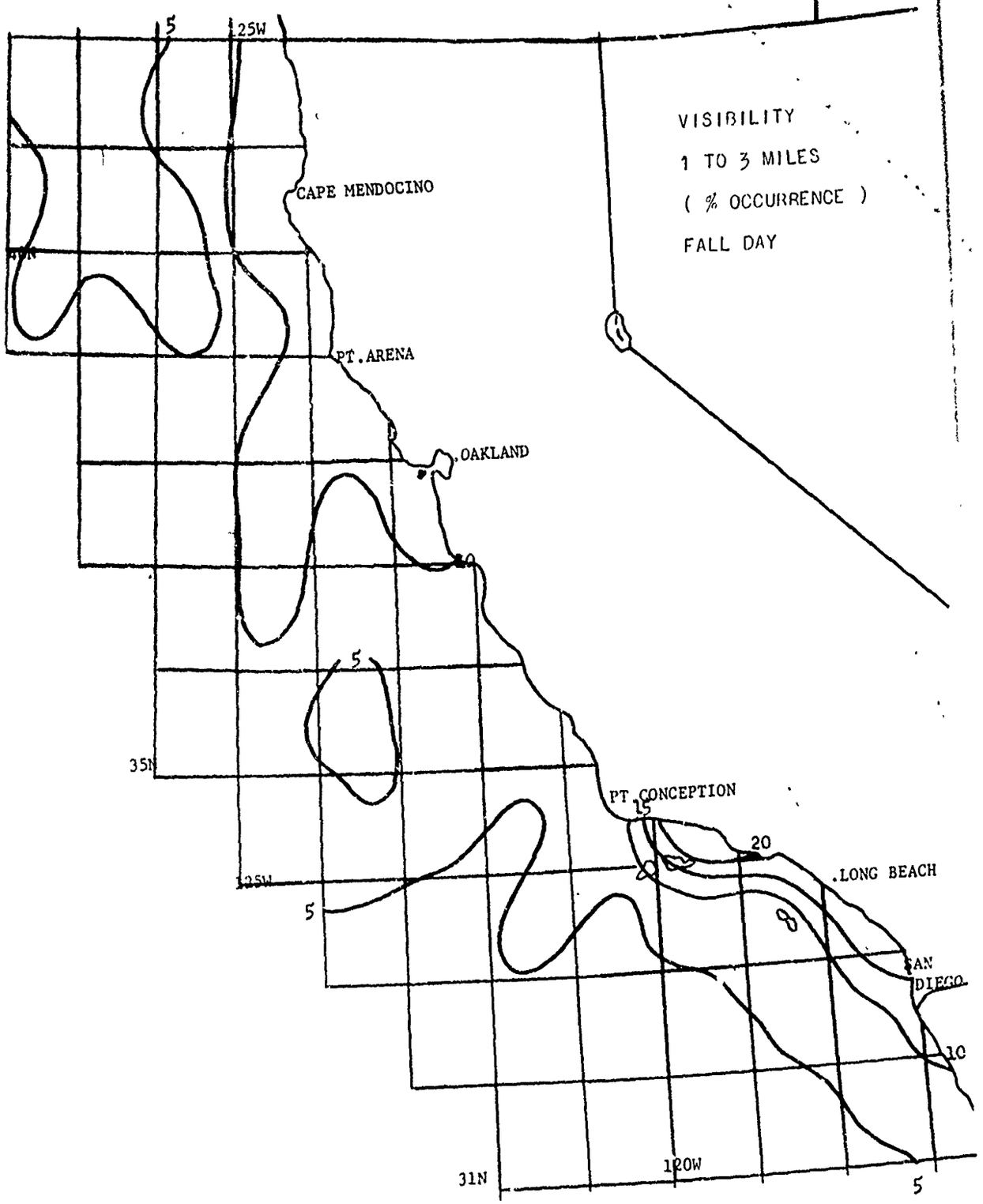
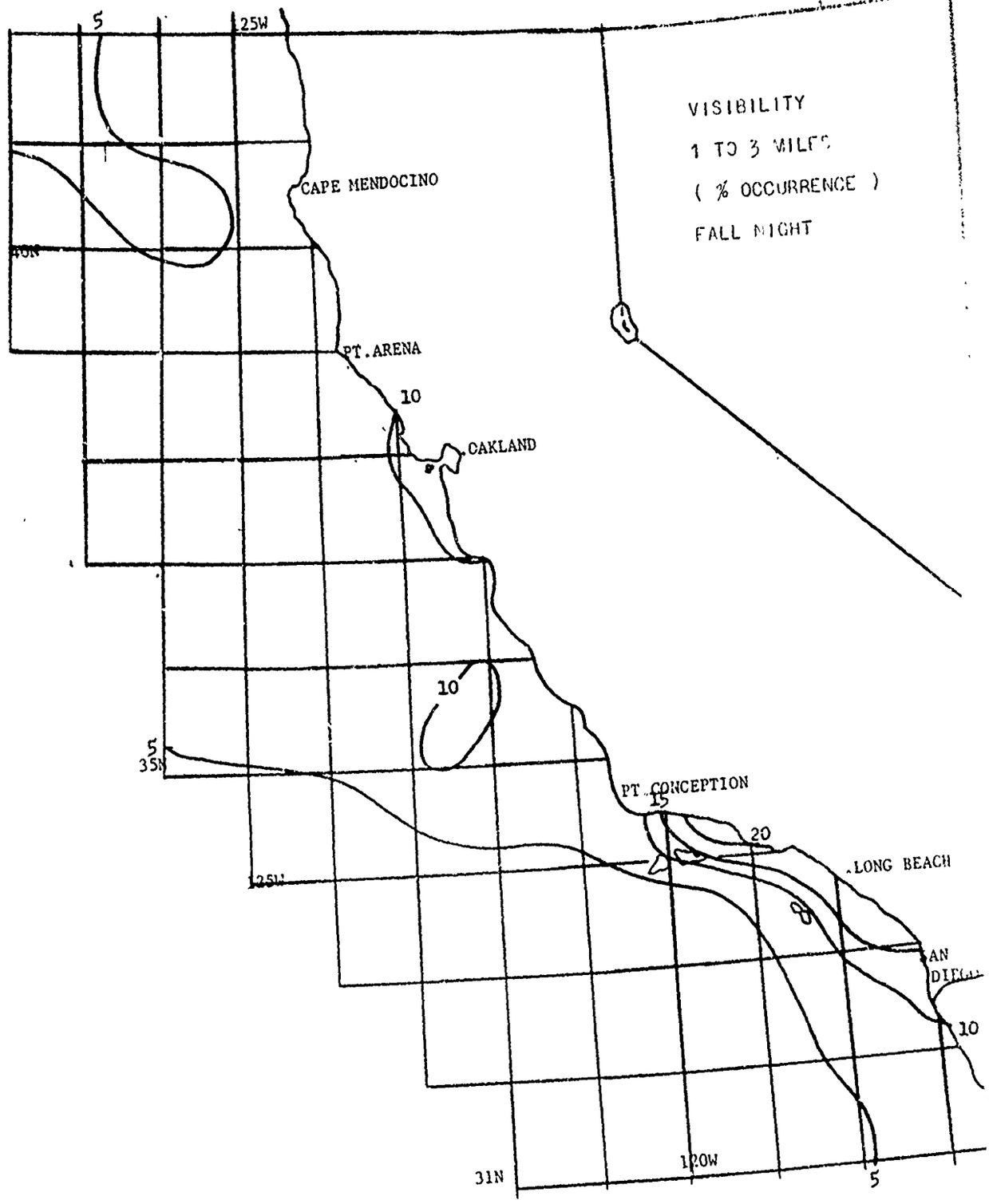
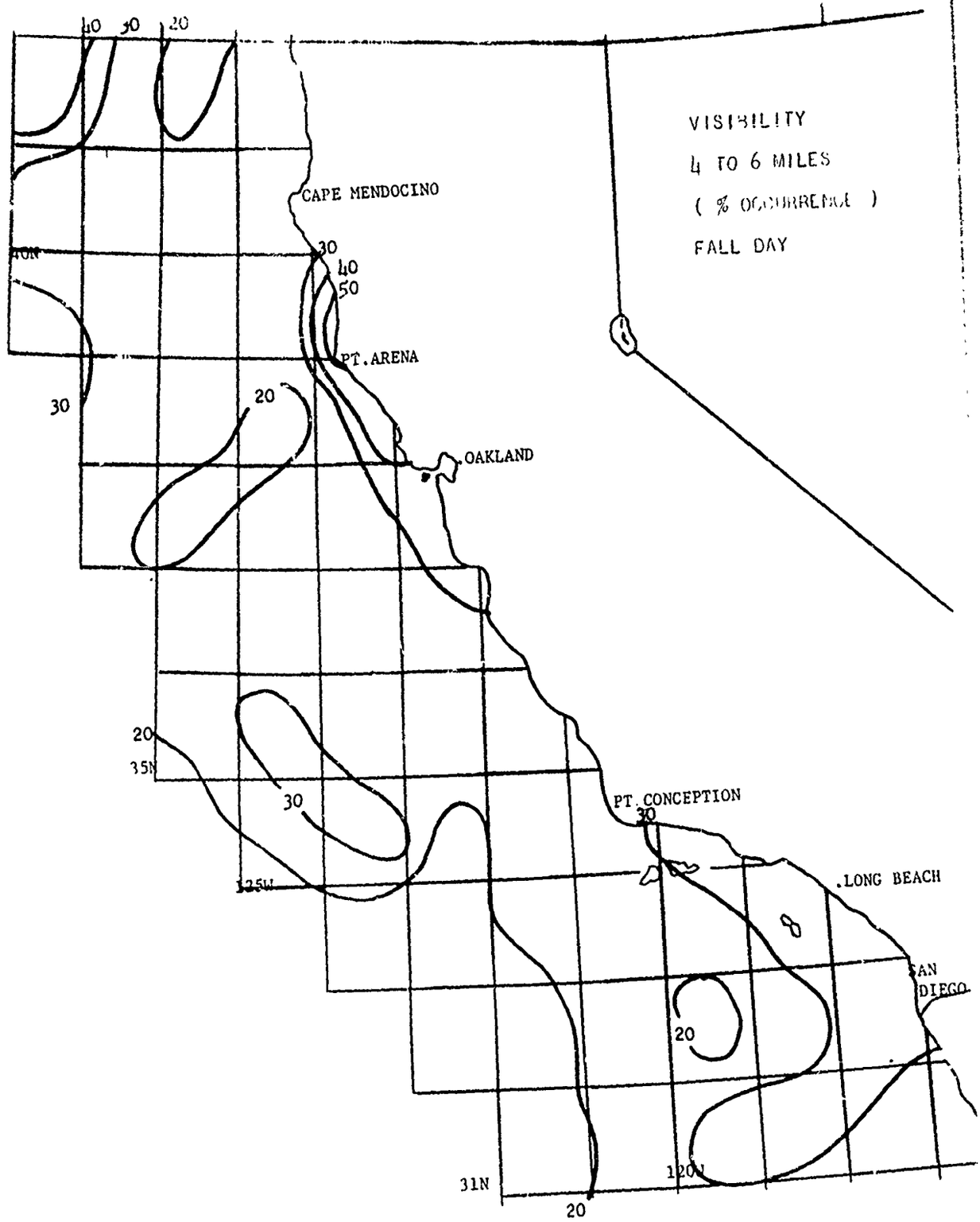
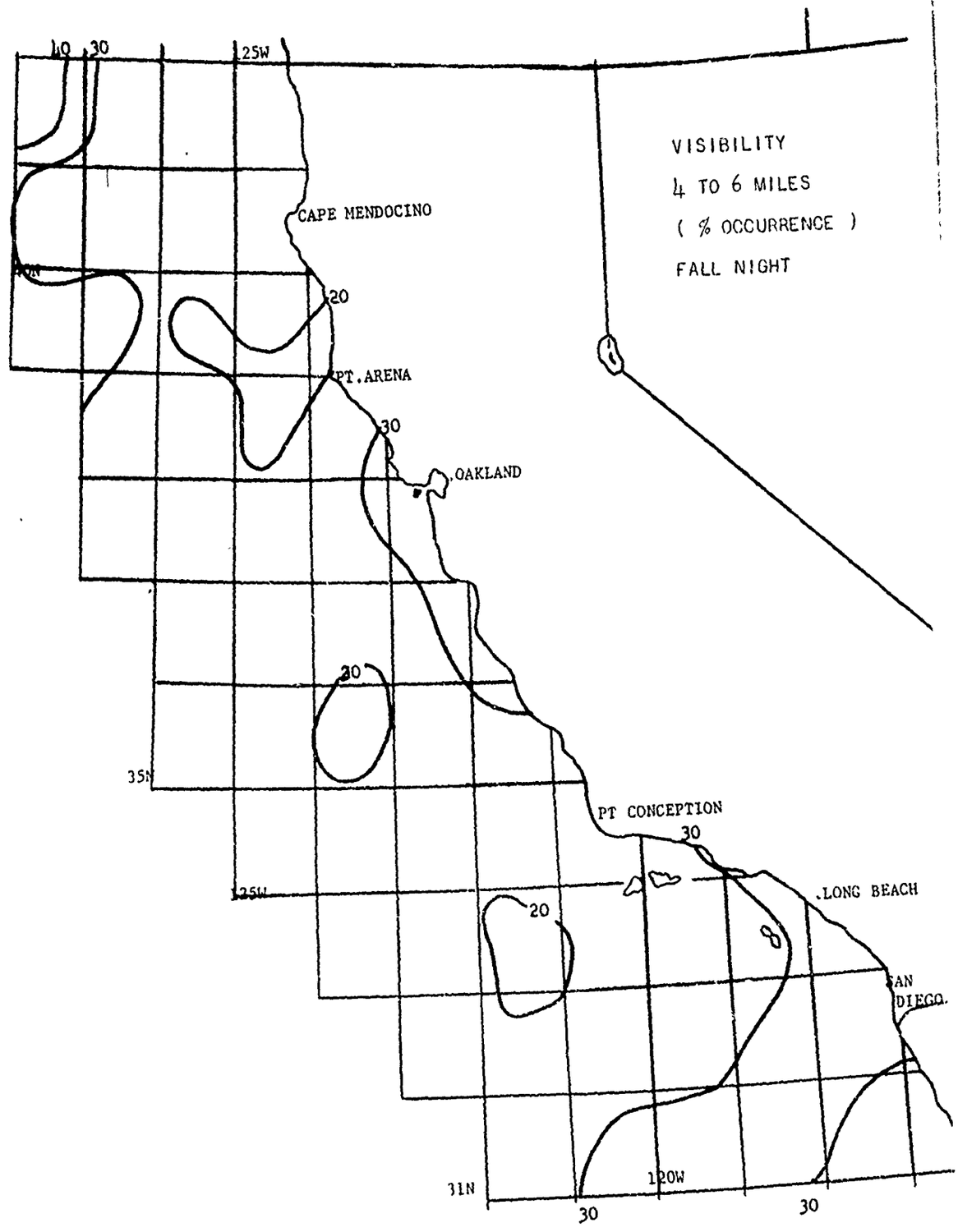
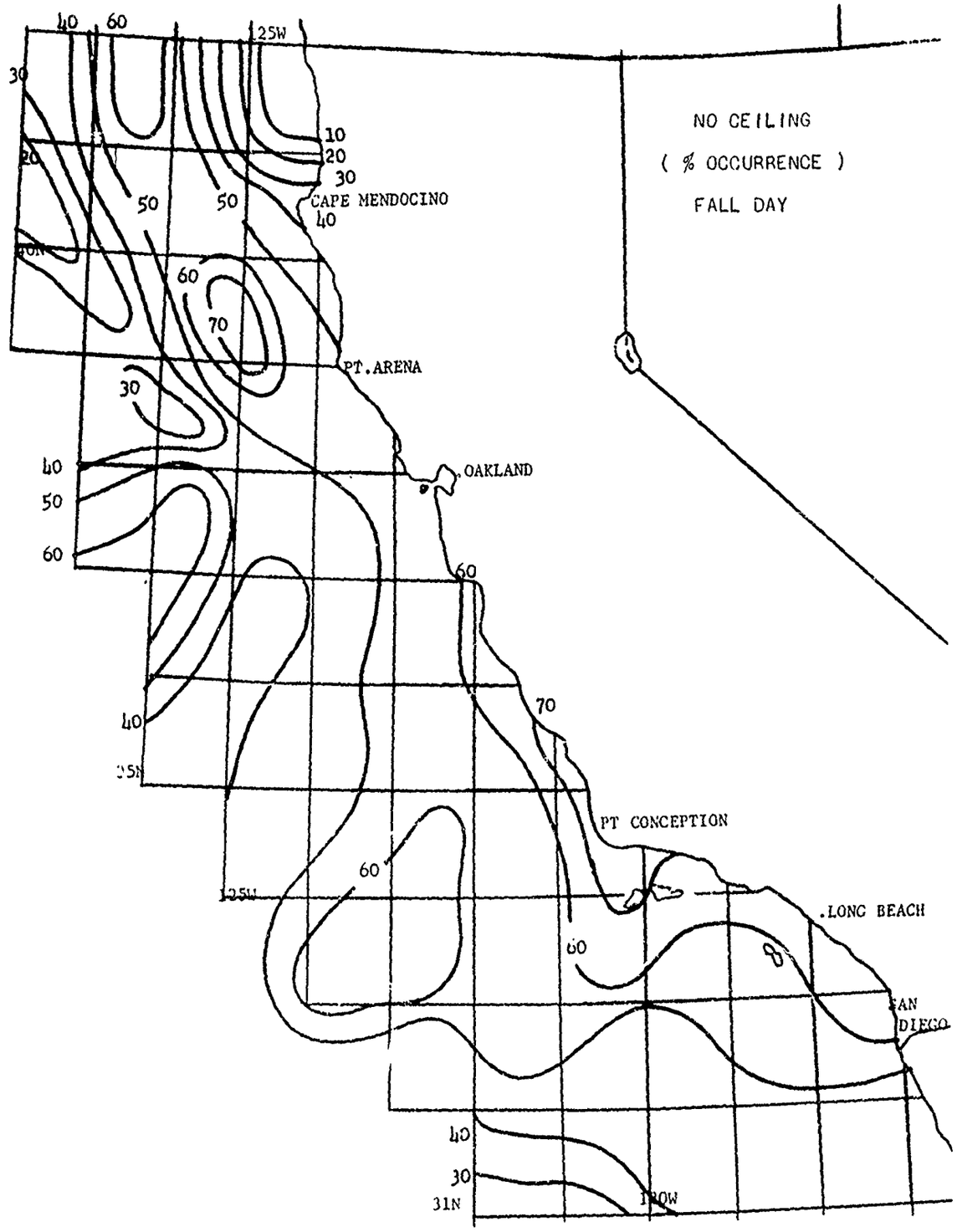
35N
PT CONCEPTION
10
125W
LONG BEACH
SAN
DIEGO
31N
120W

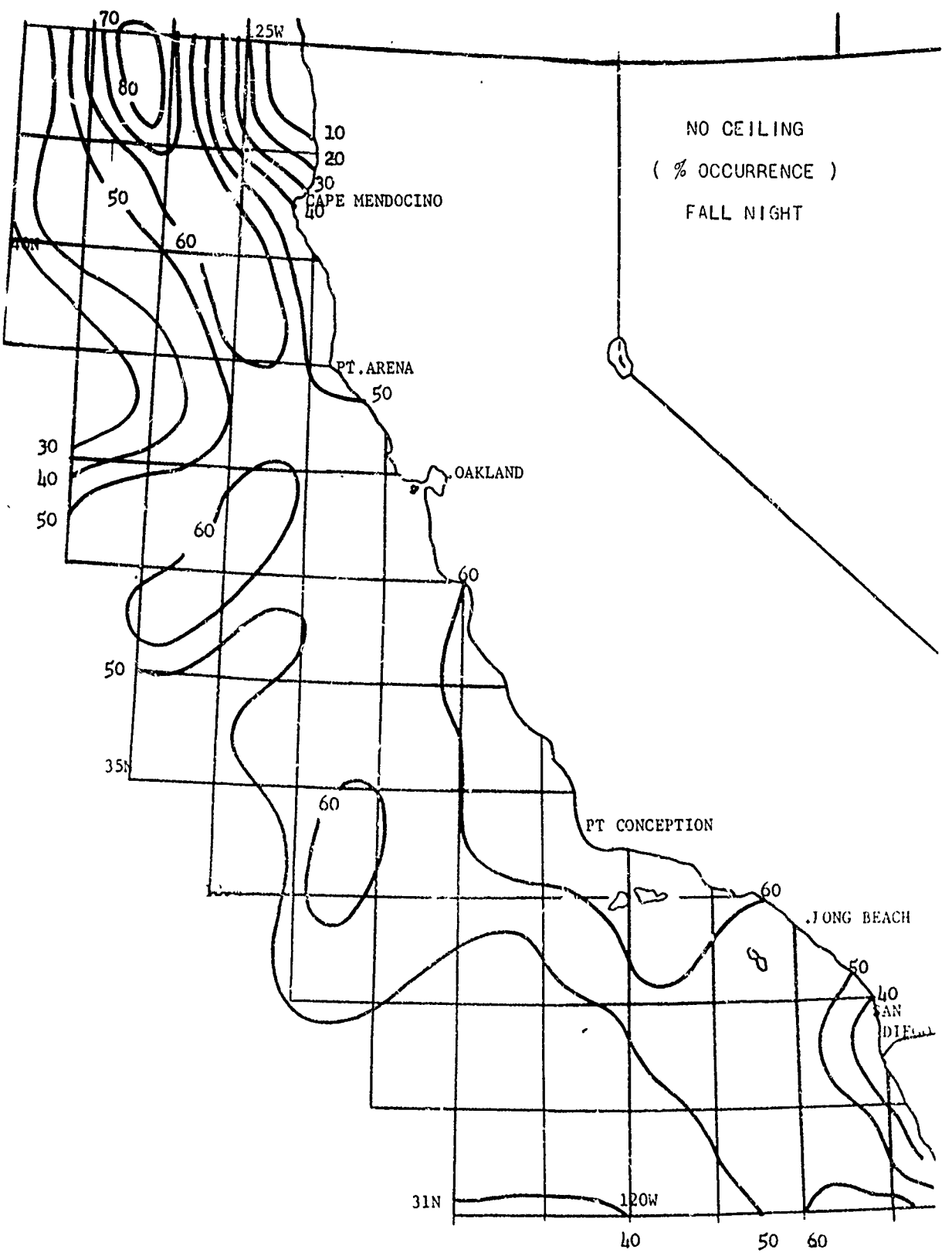

VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
5
10
15
20

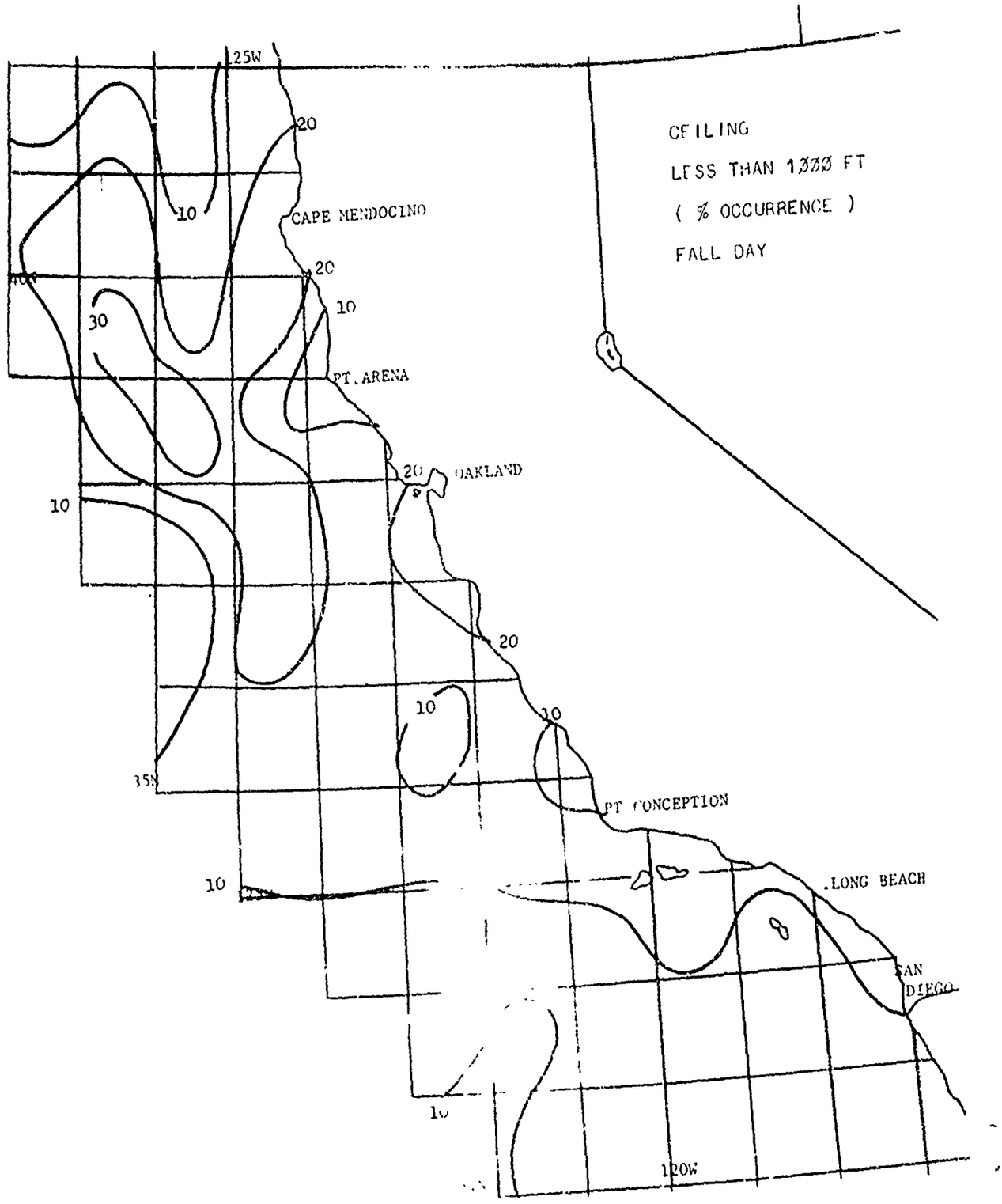

VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
FALL NIGHT
125W
5
CAPE MENDOCINO
40N
PT. ARENA
10
OAKLAND
10
5
35N
PT. CONCEPTION
15
20
LONG BEACH
125W
8
SAN DIEGO
10
31N
120W
5

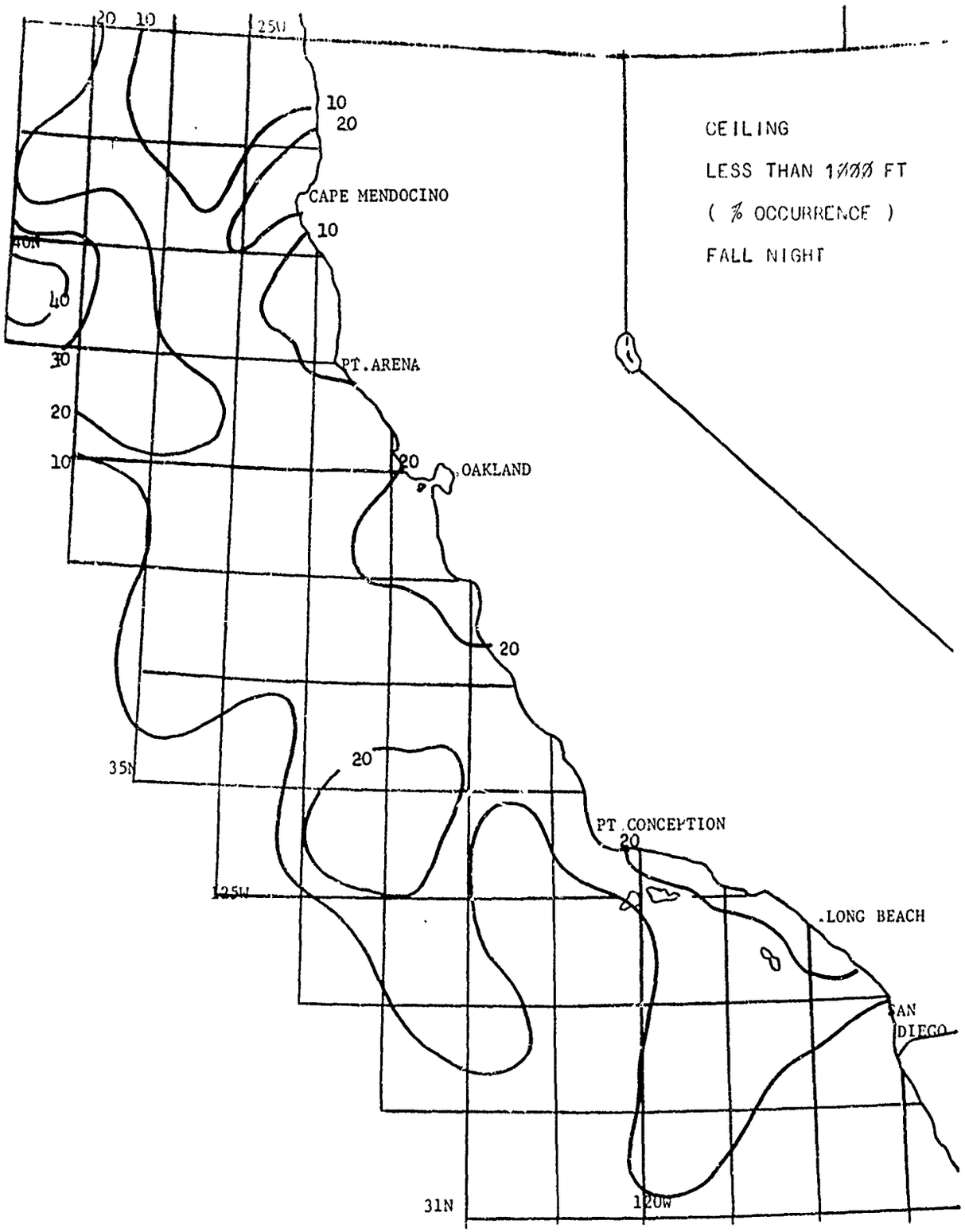

VISIBILITY
4 TO 6 MILES
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
40
30
20
50

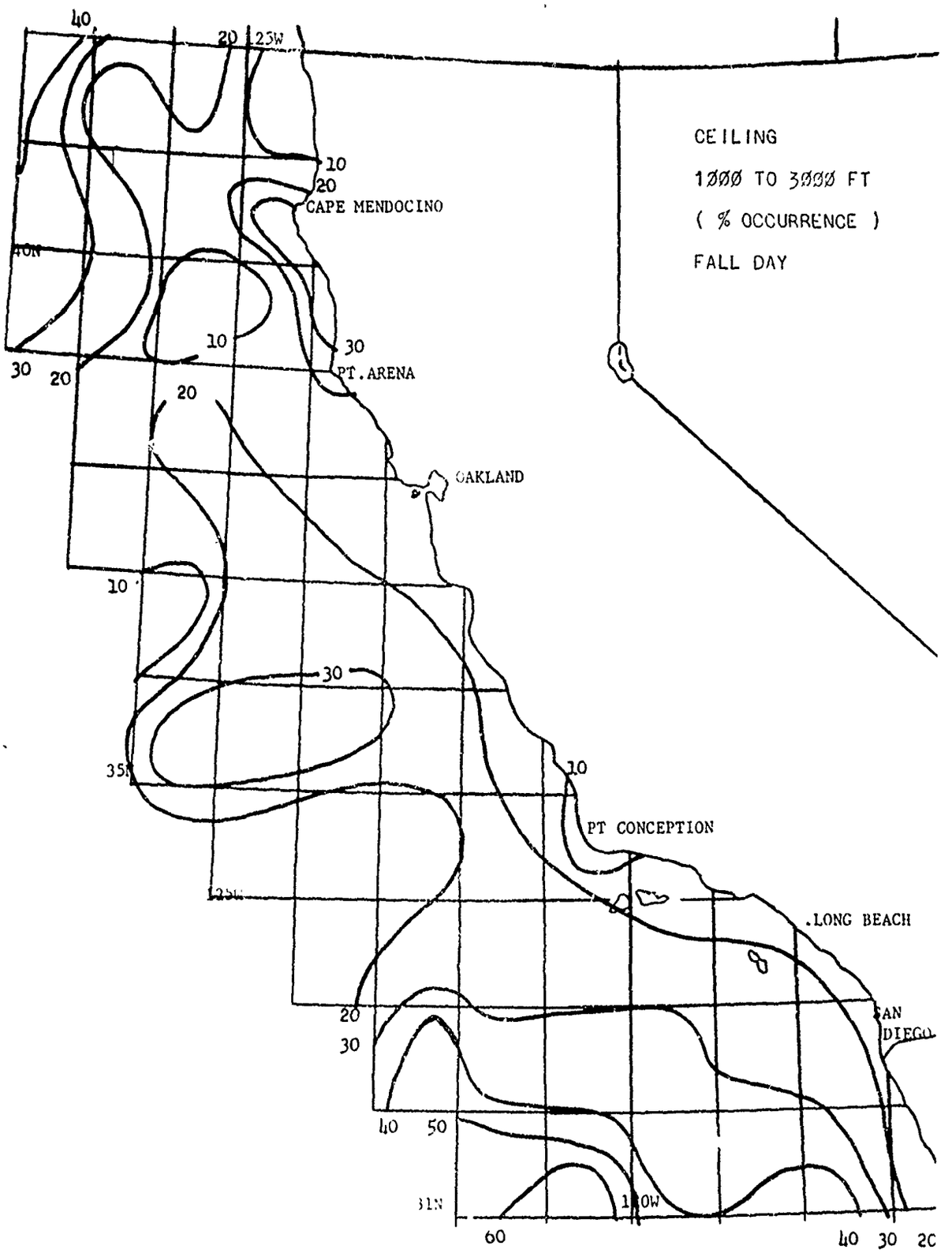

VISIBILITY
4 TO 6 MILES
(% OCCURRENCE)
FALL NIGHT
40
30
25W
CAPE MENDOCINO
20
PT. ARENA
30
OAKLAND
20
35N
PT CONCEPTION
30
125W
LONG BEACH
20
SAN DIEGO
31N
120W
30
30

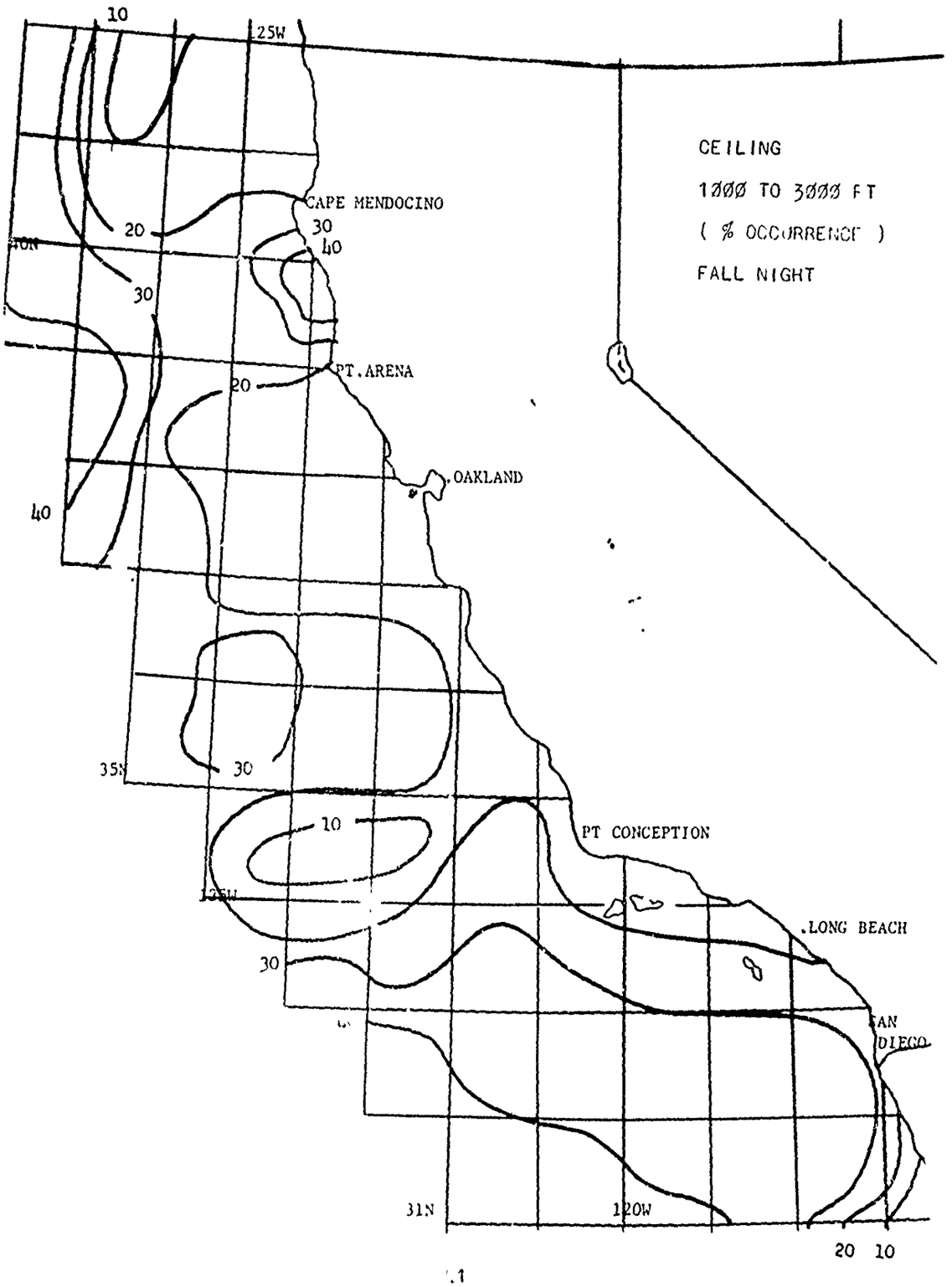

NO CEILING
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
40N
35N
31N
10
20
30
40
50
60
70

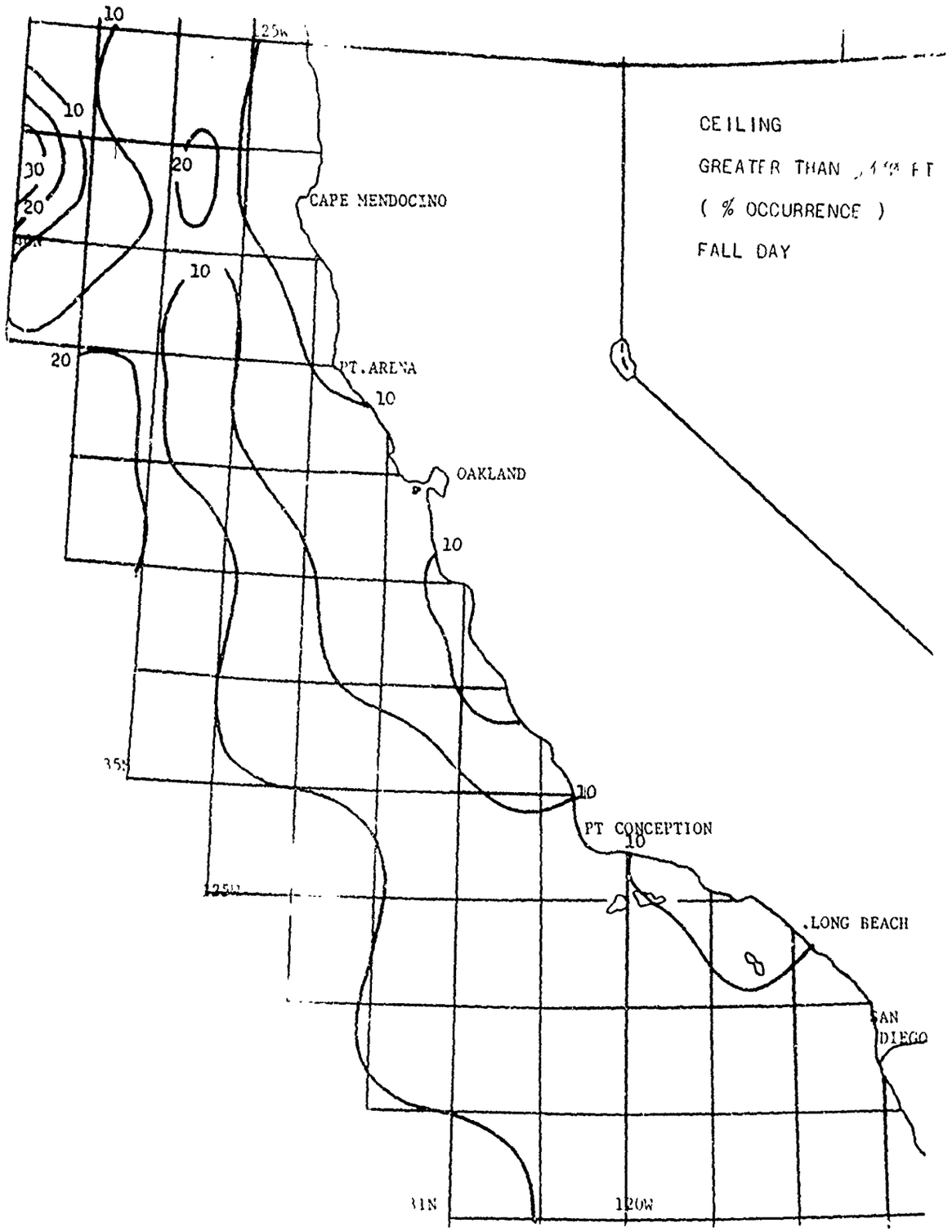

NO CEILING
(% OCCURRENCE)
FALL NIGHT
70
80
25W
10
20
30
40
CAPE MENDOCINO
50
60
PT. ARENA
50
30
40
50
OAKLAND
60
60
50
35N
60
PT CONCEPTION
60
LONG BEACH
50
40
31N
120W
40
50
60

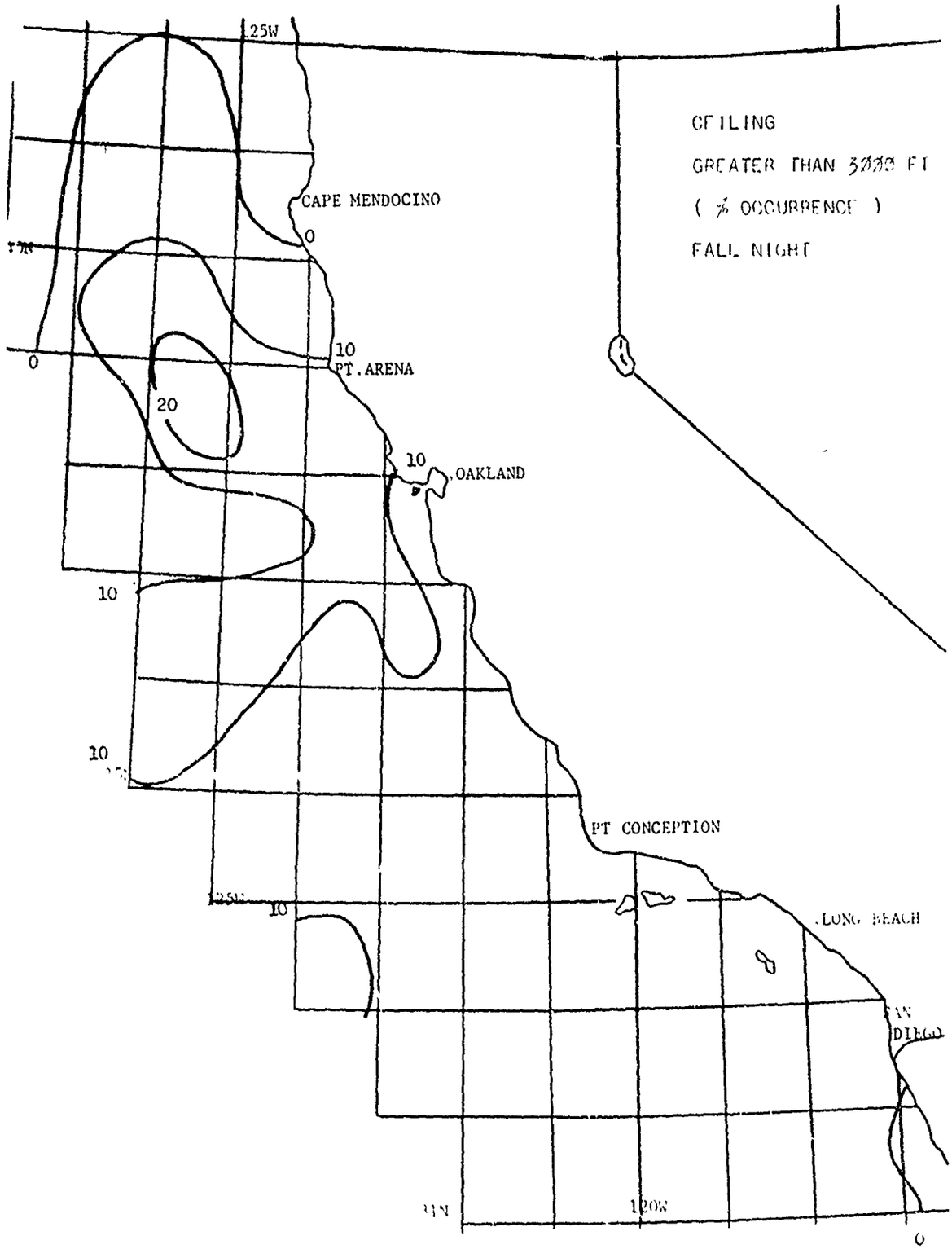

CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
FALL DAY
125W
20
10
CAPE MENDOCINO
20
10
30
PT. ARENA
20
OAKLAND
10
20
10
10
35N
PT CONCEPTION
10
LONG BEACH
SAN DIEGO
10
120W

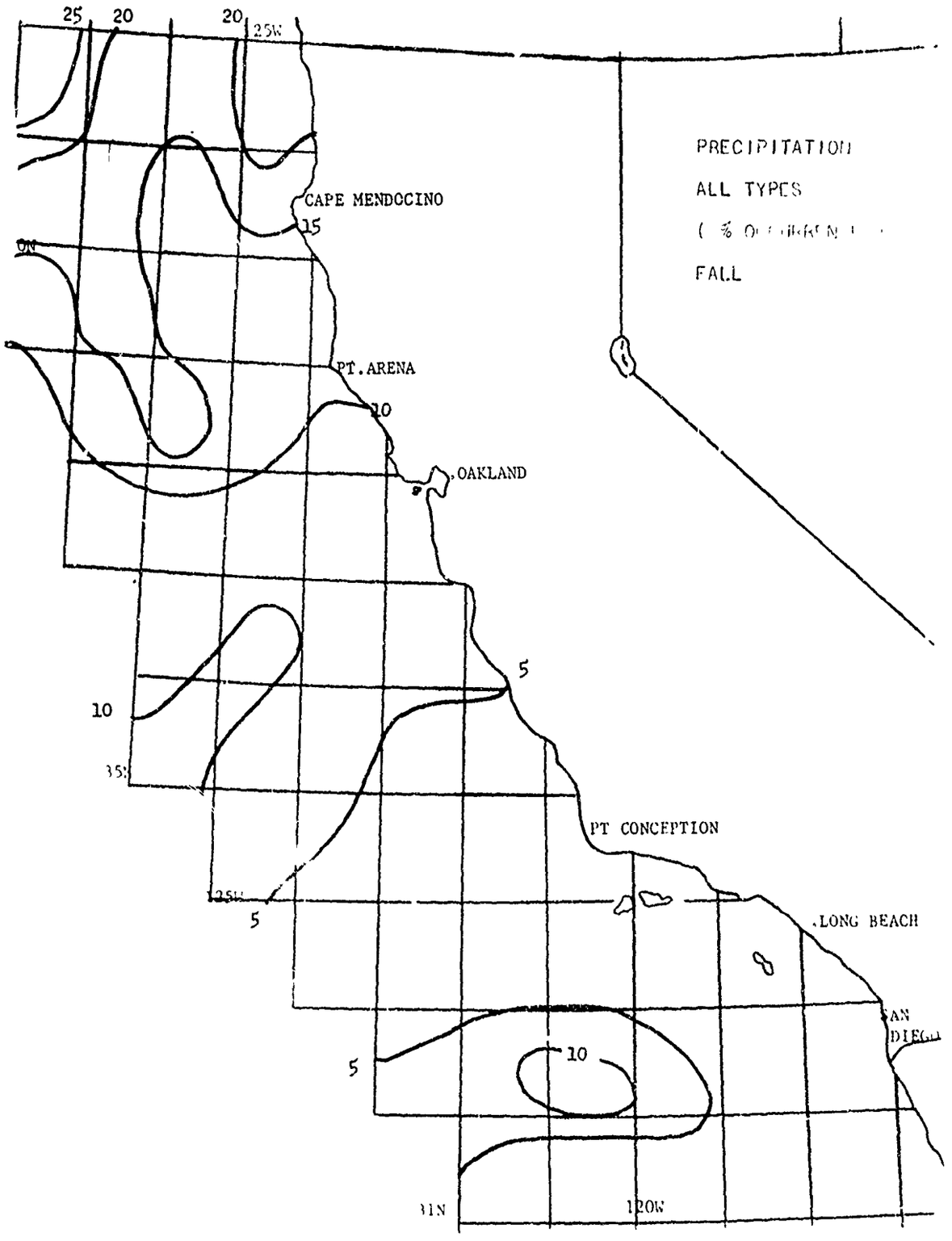

CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
FALL NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
25W
40N
35N
125W
31N
120W
20
10
40
30

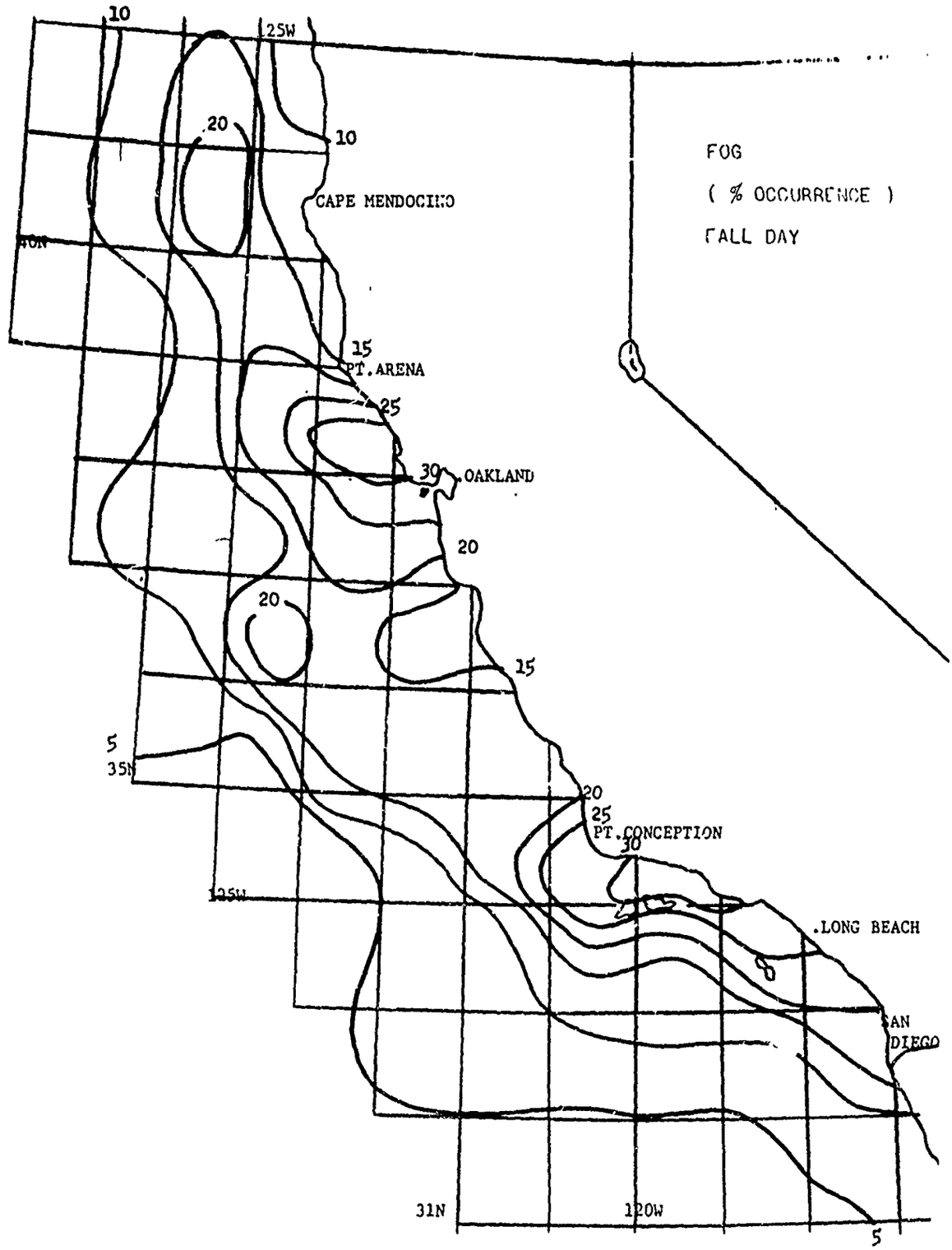

CEILING
1ØØØ TO 3ØØØ FT
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
40
20
10
30
35
50
60

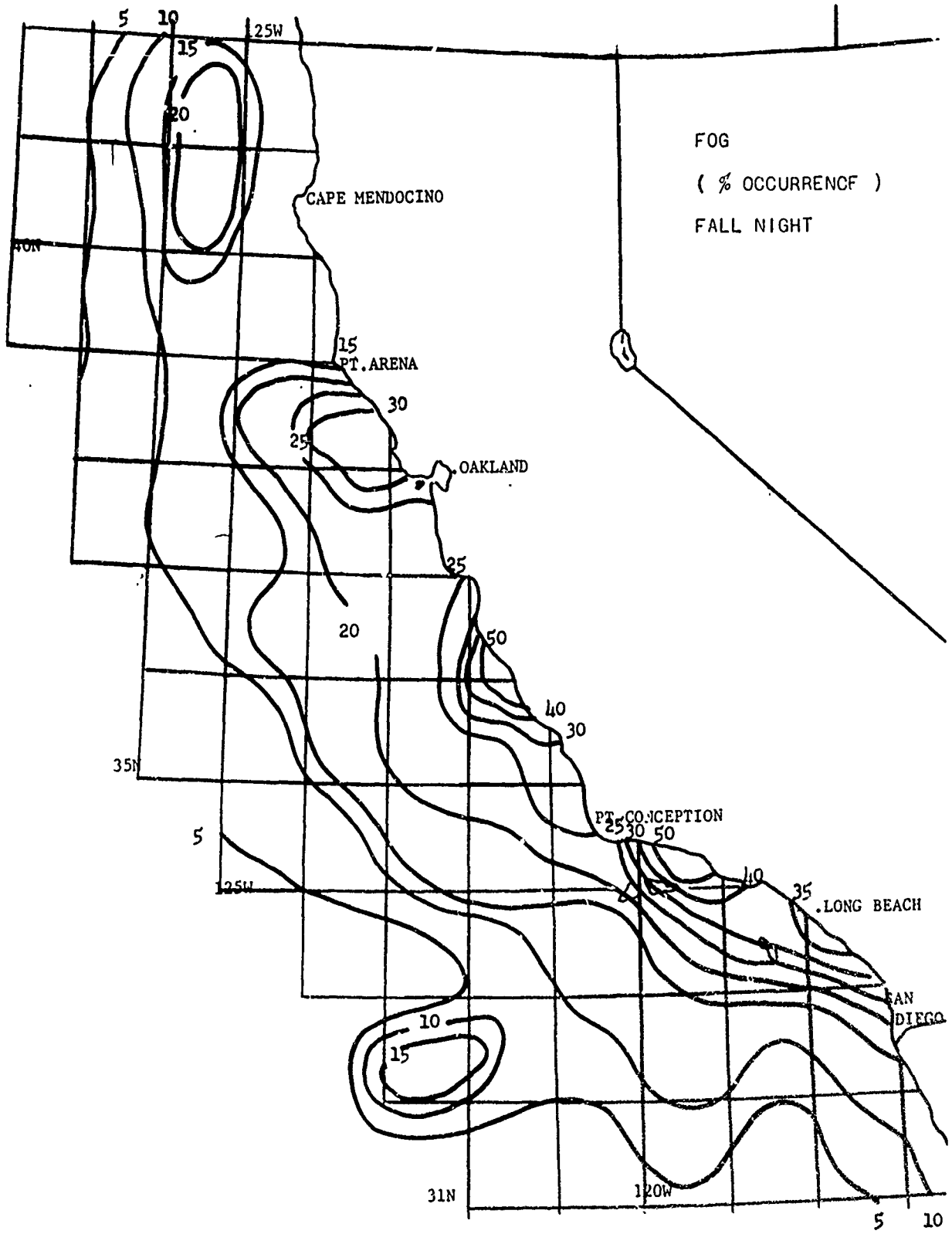

CEILING
1000 TO 3000 FT
(% OCCURRENCE)
FALL NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
10
20
30
40

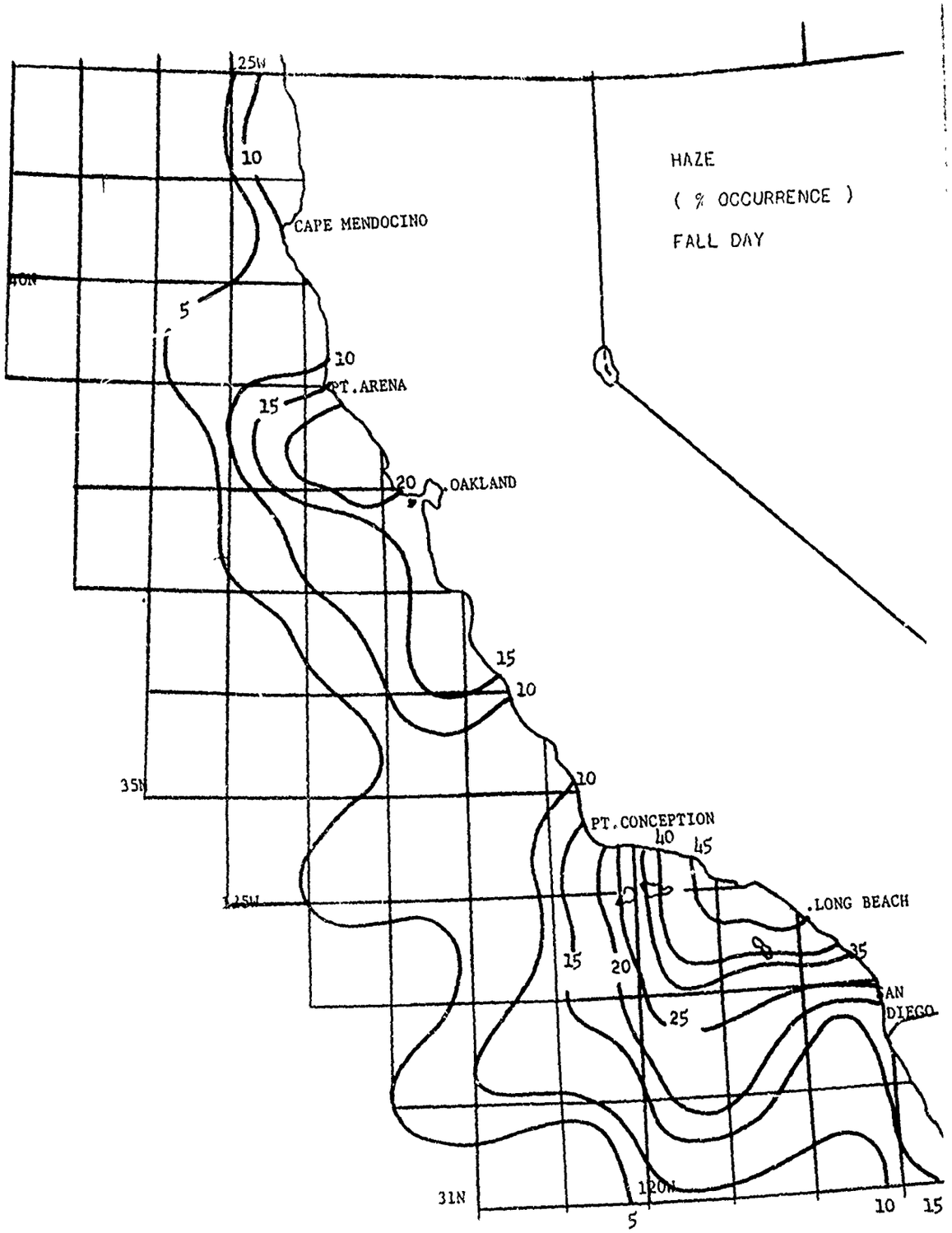

CEILING
GREATER THAN
(% OCCURRENCE)
FALL DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
10
20
30

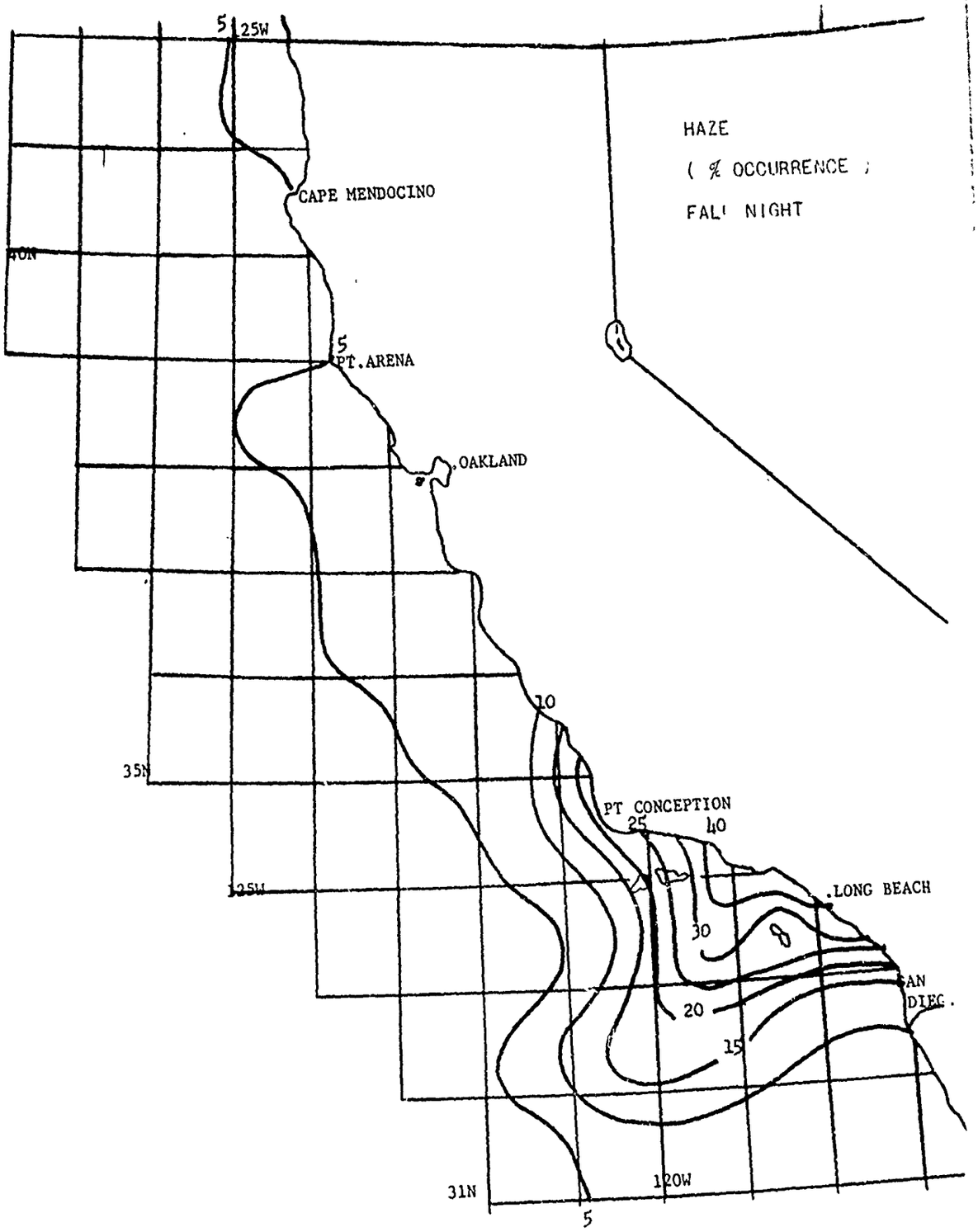

CEILING
GREATER THAN 3000 FT
(% OCCURRENCE)
FALL NIGHT
125W
CAPE MENDOCINO
0
10
PT. ARENA
0
20
10
OAKLAND
10
10
PT CONCEPTION
125W
10
LONG BEACH
SAN
DIEGO
120W
0

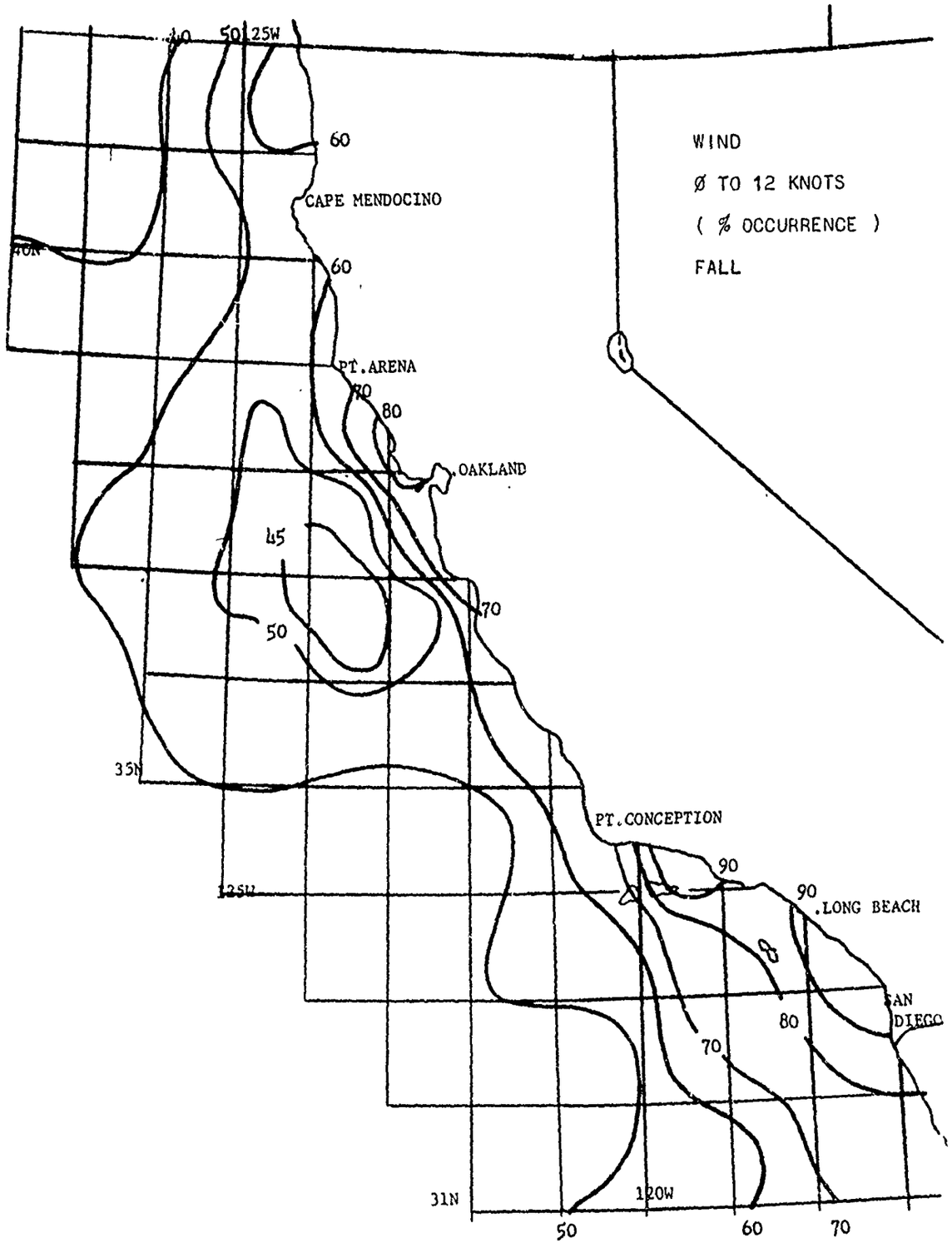

PRECIPITATION
ALL TYPES
FALL
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
25
20
20
25W
15
10
5
10
5
5
10
120W

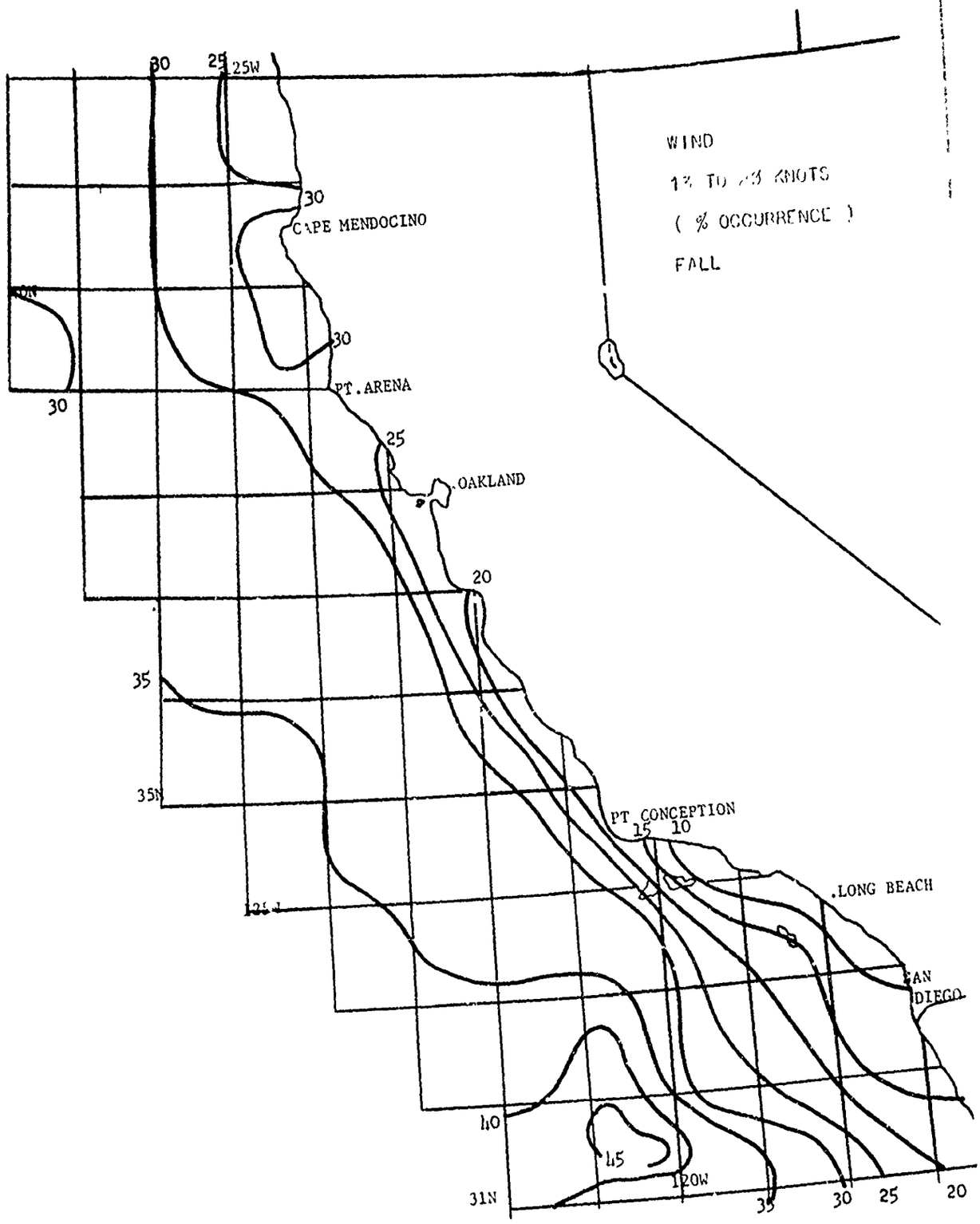

FOG
(% OCCURRENCE)
FALL DAY
10
25W
20
10
CAPE MENDOCINO
40N
15
PT. ARENA
25
30
OAKLAND
20
20
15
5
35N
20
25
PT. CONCEPTION
30
125W
LONG BEACH
SAN
DIEGO
31N
120W
5

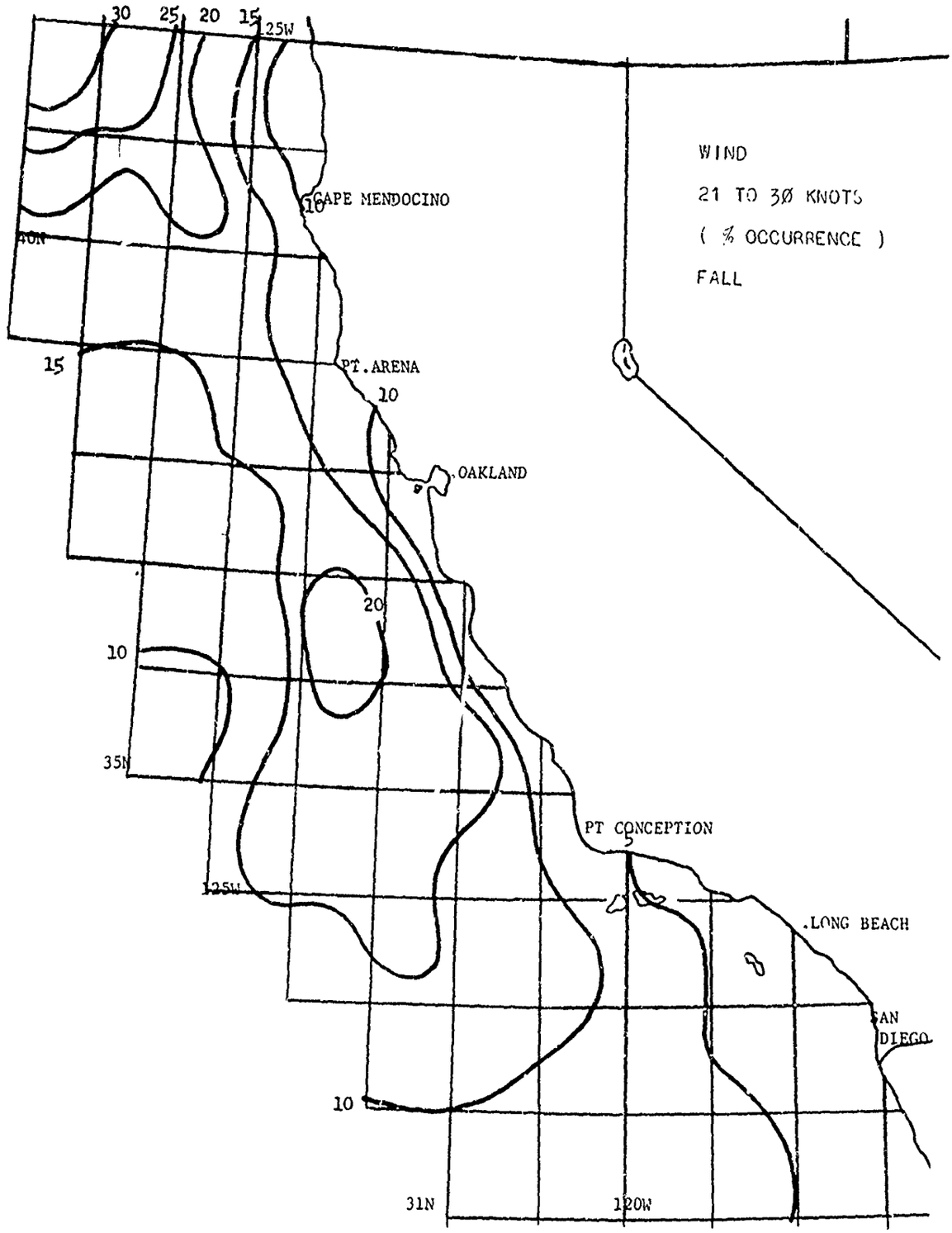

FOG
(% OCCURRENCE)
FALL NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
5
10
15
20
25
30
35
40
50

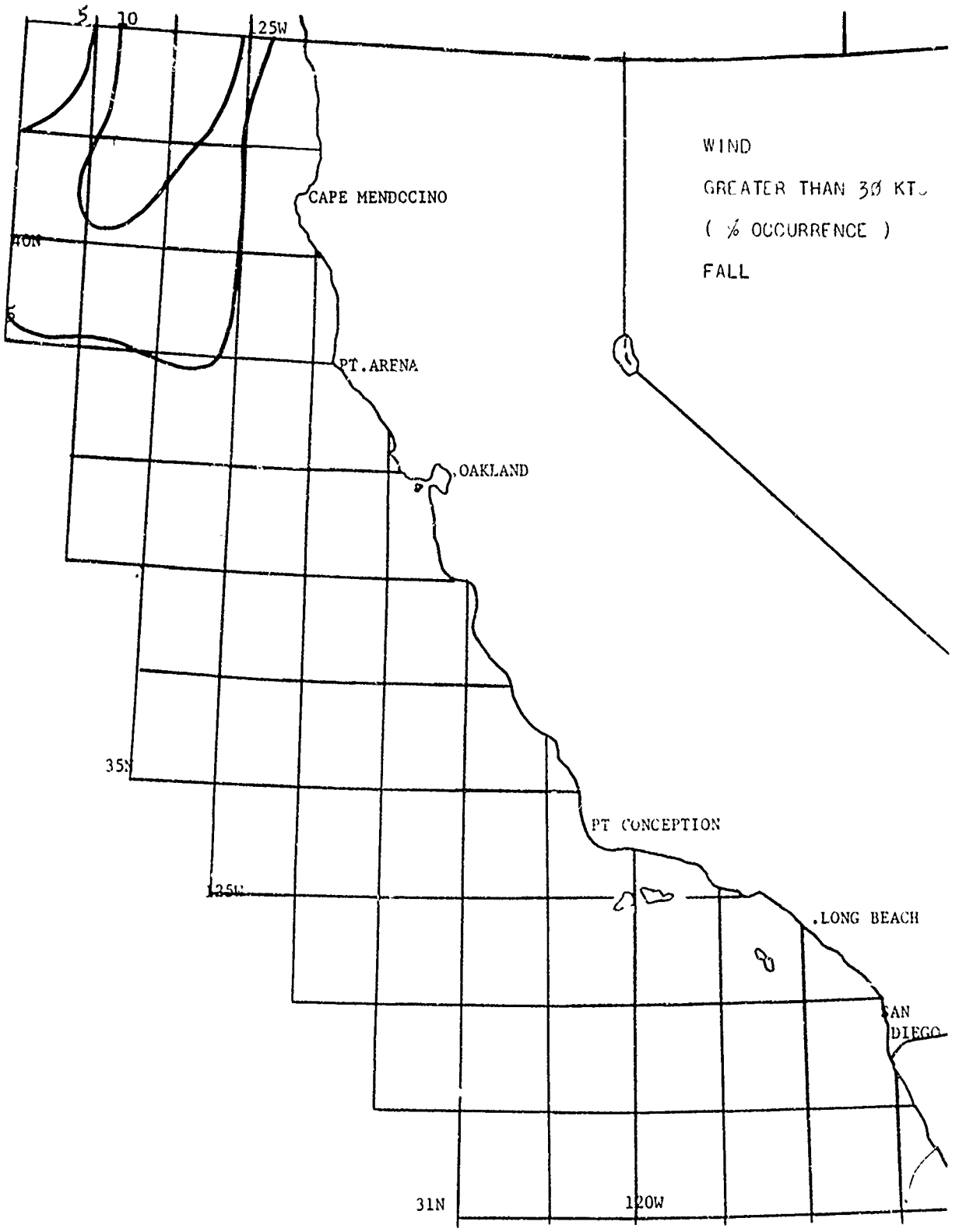

HAZE
(% OCCURRENCE)
FALL DAY
125W
10
CAPE MENDOCINO
40N
5
10
PT. ARENA
15
20
OAKLAND
15
10
35N
10
PT. CONCEPTION
40
45
125W
LONG BEACH
35
15
20
25
SAN DIEGO
31N
120W
5
10
15

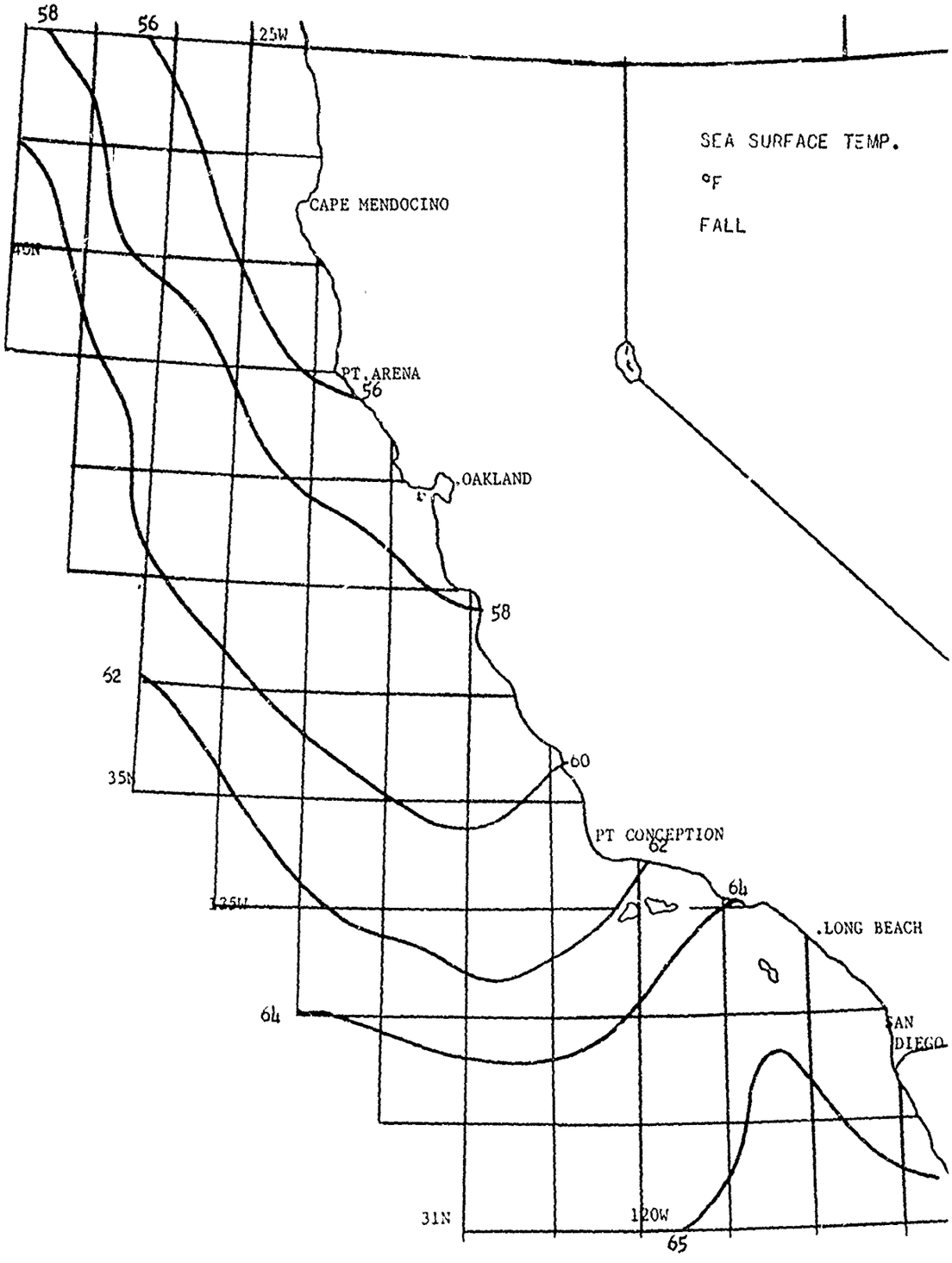

HAZE
(% OCCURRENCE)
FALL NIGHT
5
125W
CAPE MENDOCINO
40N
5
PT. ARENA
OAKLAND
10
35N
PT CONCEPTION
25
40
125W
LONG BEACH
30
8
SAN
DIEG.
20
15
31N
120W
5

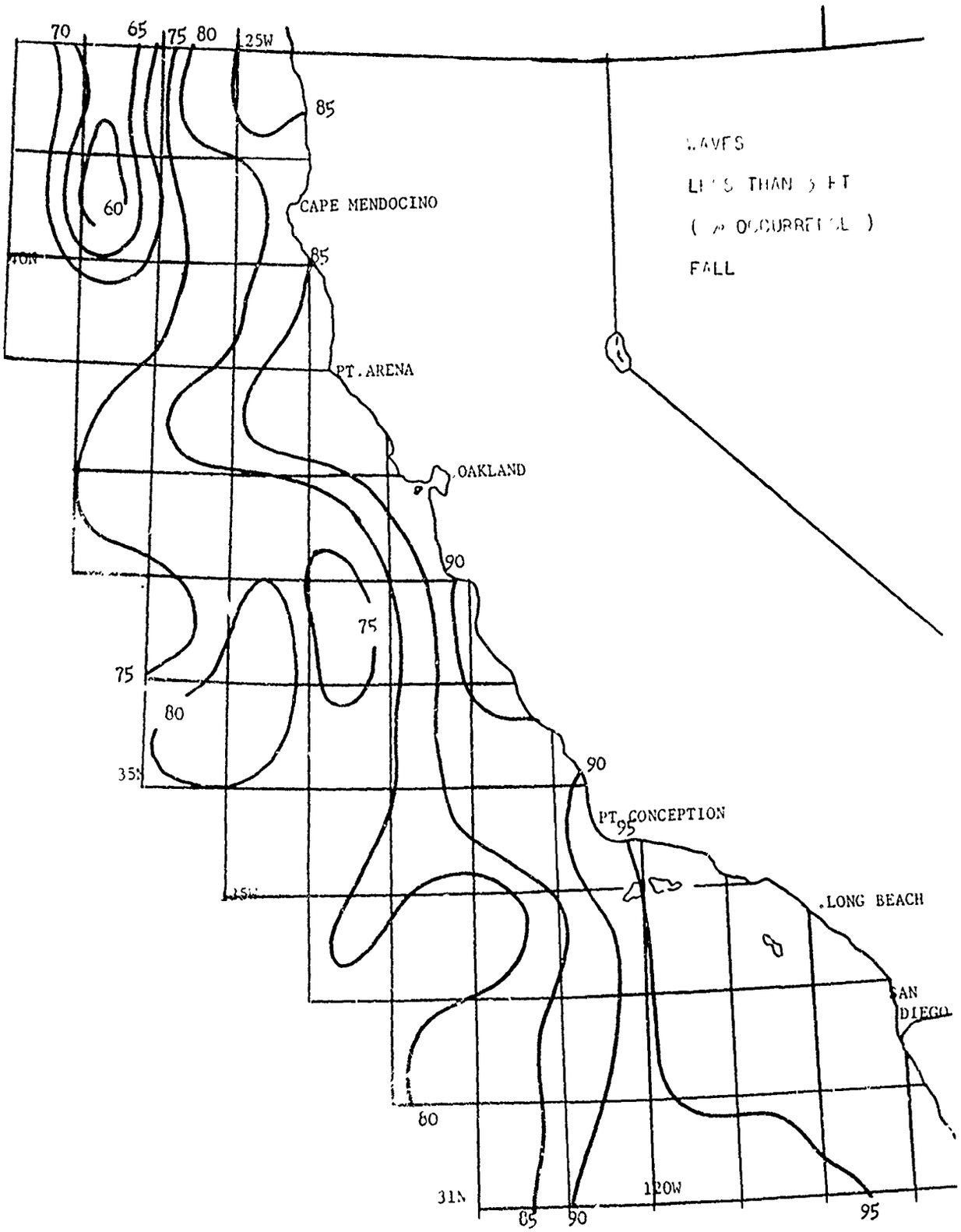

WIND
Ø TO 12 KNOTS
(% OCCURRENCE)
FALL
40
50
125W
60
CAPE MENDOCINO
40N
60
PT.ARENA
70
80
OAKLAND
45
70
50
35N
PT.CONCEPTION
90
125W
90
LONG BEACH
80
SAN DIEGO
70
31N
120W
50
60
70

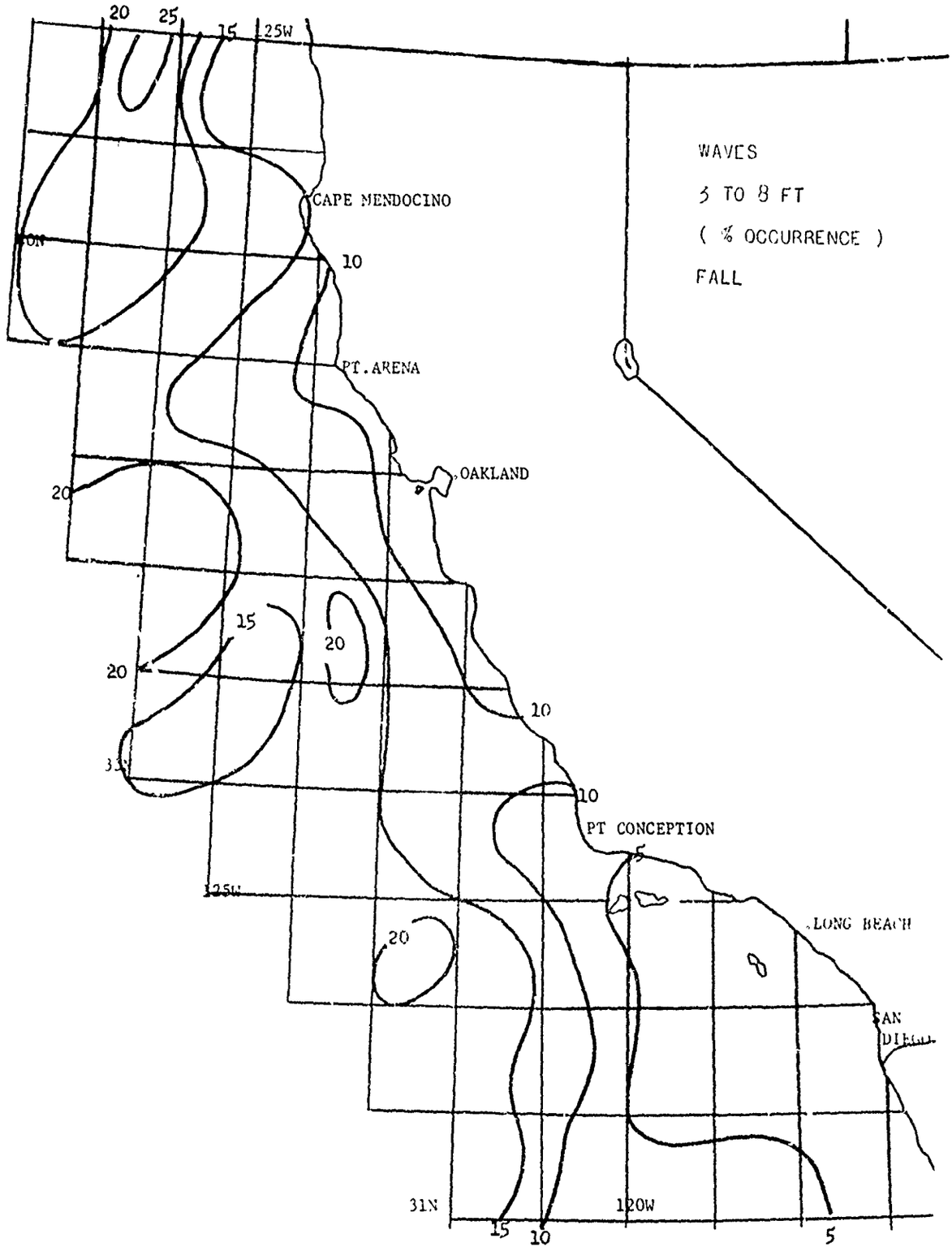

WIND
1% TO 23 KNOTS
(% OCCURRENCE)
FALL
30
25
25W
30
CAPE MENDOCINO
30
PT. ARENA
30
25
OAKLAND
20
35
35N
PT CONCEPTION
15
10
LONG BEACH
SAN DIEGO
40
45
120W
31N
35
30
25
20

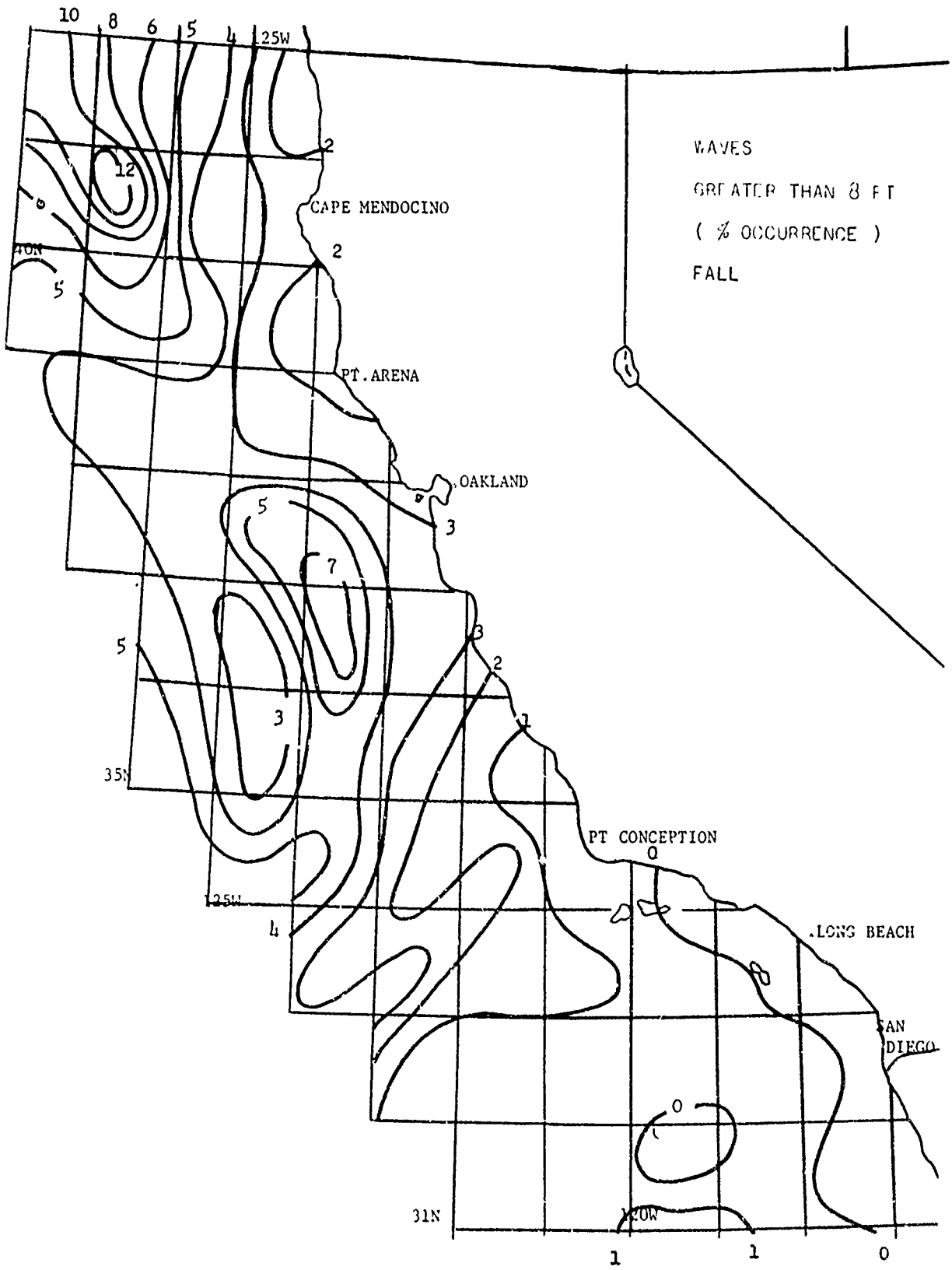

WIND
21 TO 30 KNOTS
(% OCCURRENCE)
FALL
30
25
20
15
125W
CAPE MENDOCINO
10
40N
15
PT. ARENA
10
OAKLAND
20
10
35N
PT CONCEPTION
125W
LONG BEACH
SAN DIEGO
10
31N
120W

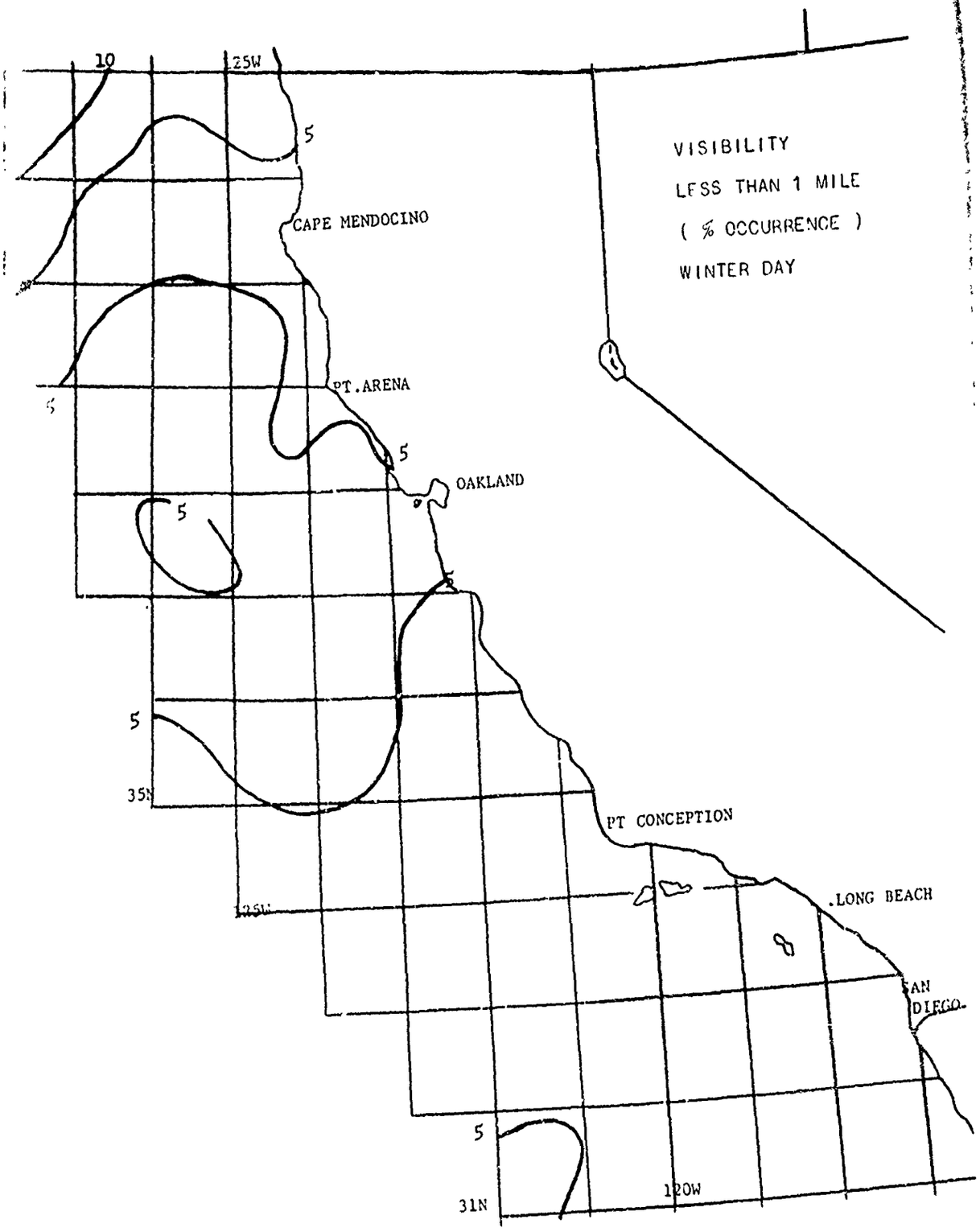

5
10
25W
WIND
GREATER THAN 30 KTS
(% OCCURRENCE)
FALL
CAPE MENDOCINO
40N
5
PT. ARENA
OAKLAND
35N
PT CONCEPTION
125W
LONG BEACH
SAN DIEGO
31N
120W

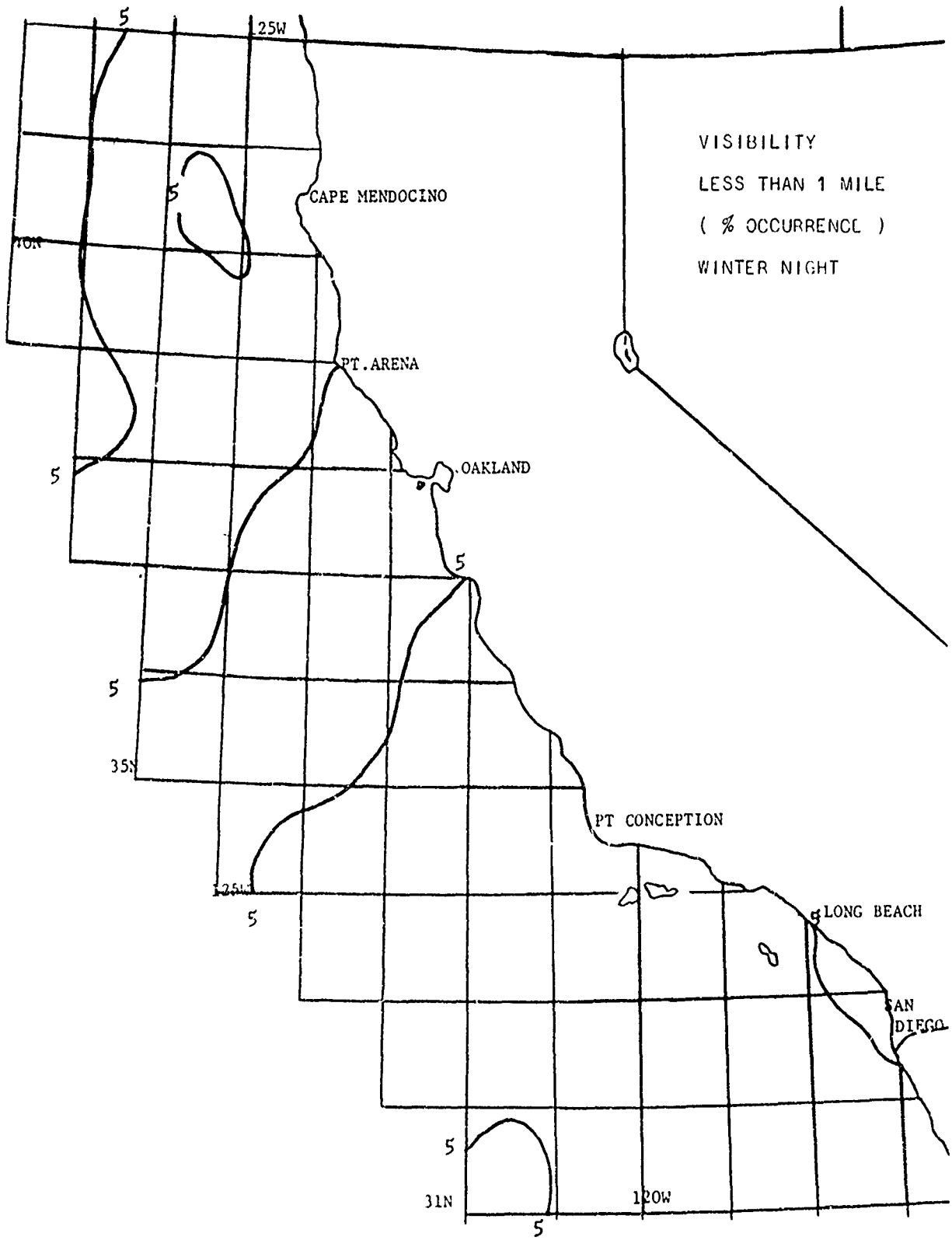

SEA SURFACE TEMP.
°F
FALL
58
56
125W
CAPE MENDOCINO
45N
PT. ARENA
56
OAKLAND
58
62
60
35N
PT CONCEPTION
62
64
125W
LONG BEACH
64
SAN
DIEGO
31N
120W
65

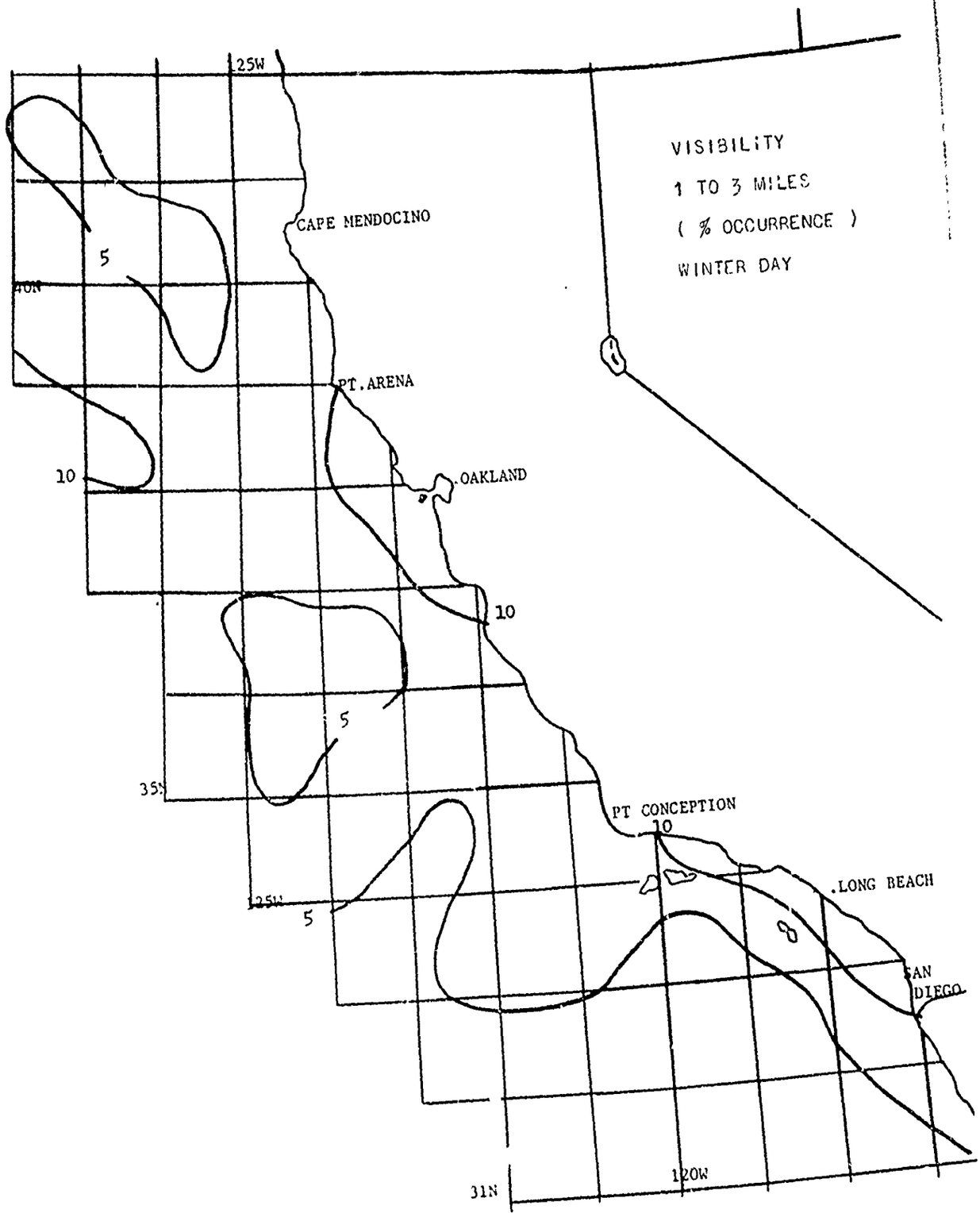

WAVES
LESS THAN 5 FT
(% OCCURRENCE)
FALL
70
65
75
80
125W
85
60
CAPE MENDOCINO
40N
85
PT. ARENA
OAKLAND
90
75
75
80
35N
90
PT. CONCEPTION
95
115W
LONG BEACH
SAN DIEGO
60
31N
120W
85
90
95

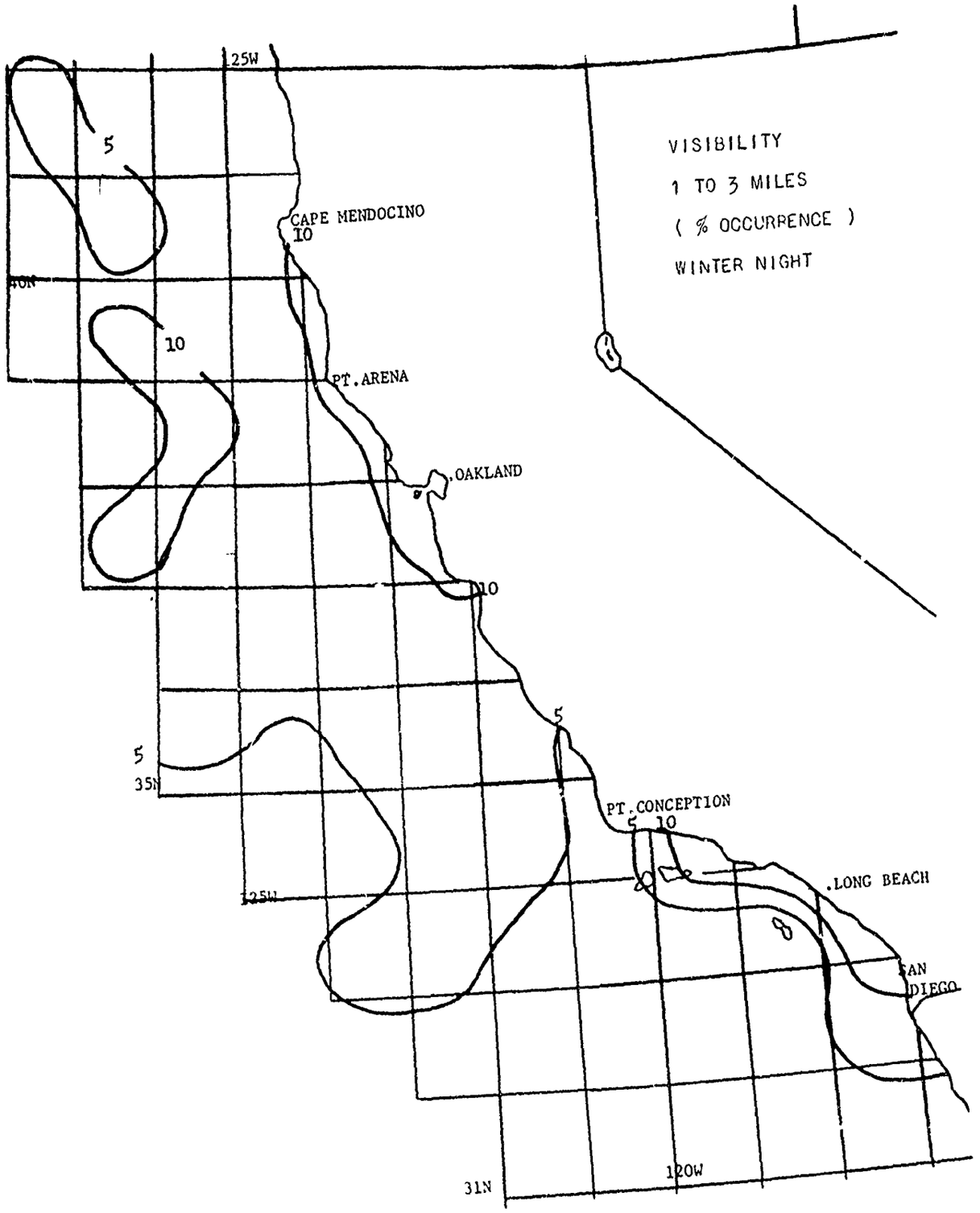

WAVES
3 TO 8 FT
(% OCCURRENCE)
FALL
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
31N
20
25
15
25W
10
5
8

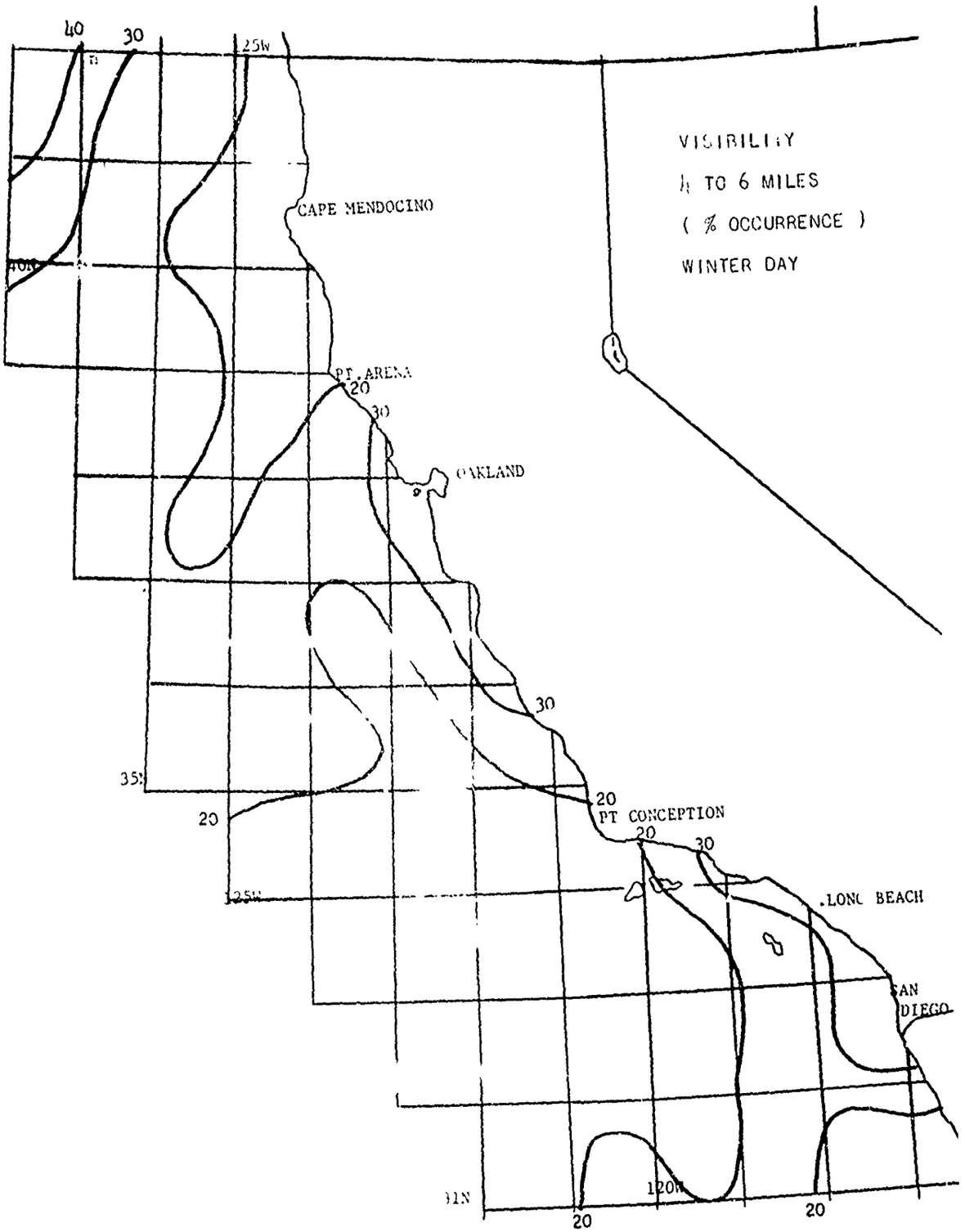

WAVES
GREATER THAN 8 FT
(% OCCURRENCE)
FALL
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
10
8
6
5
4
12
7
3
2
1
0

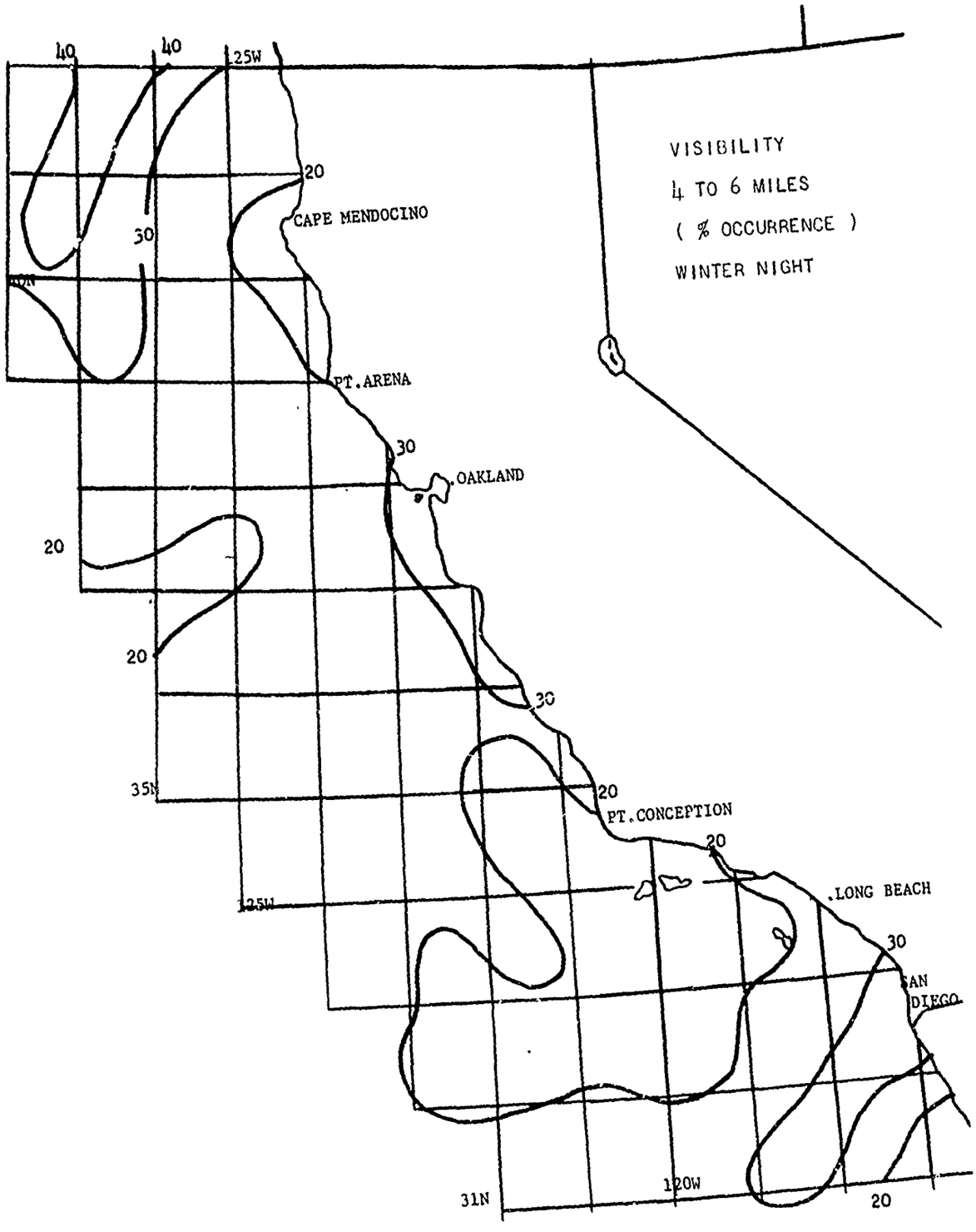

VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
WINTER DAY
10
125W
5
CAPE MENDOCINO
PT.ARENA
OAKLAND
35N
PT CONCEPTION
.LONG BEACH
SAN DIEGO
31N
120W

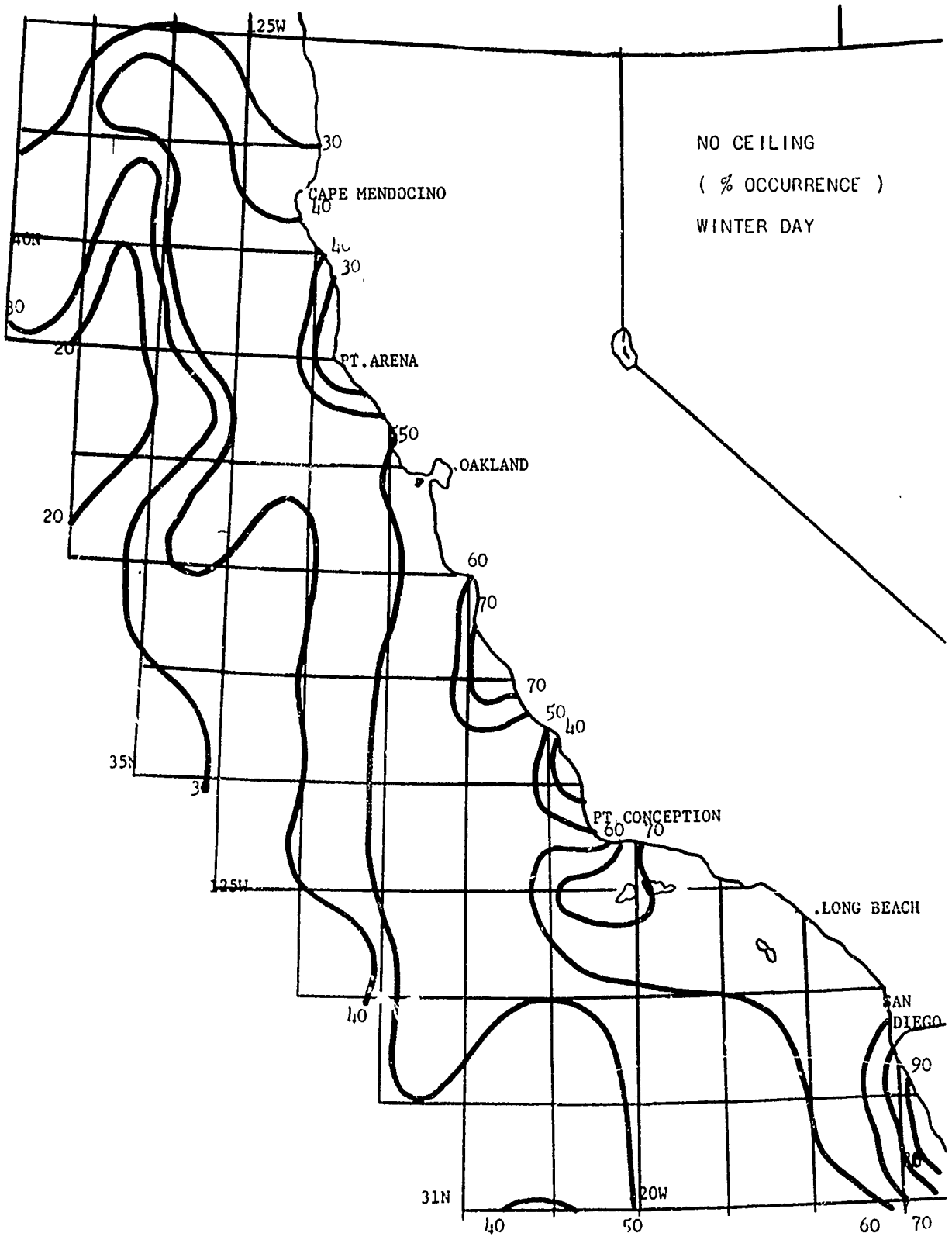

VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
WINTER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
5

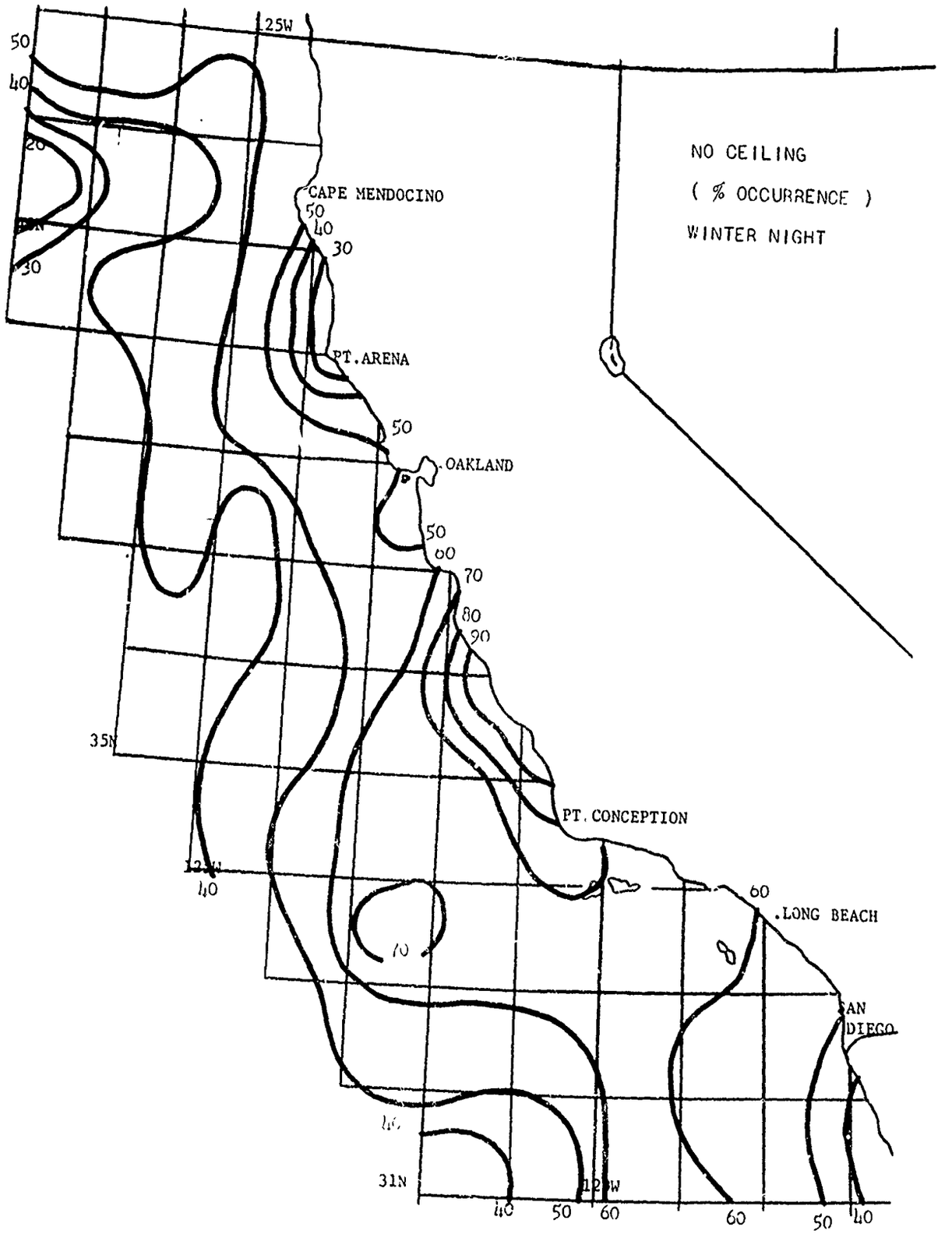

VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
WINTER DAY
125W
CAPE MENDOCINO
5
40N
PT. ARENA
10
OAKLAND
10
5
35N
PT CONCEPTION
10
LONG BEACH
125W
5
8
SAN DIEGO
31N
120W

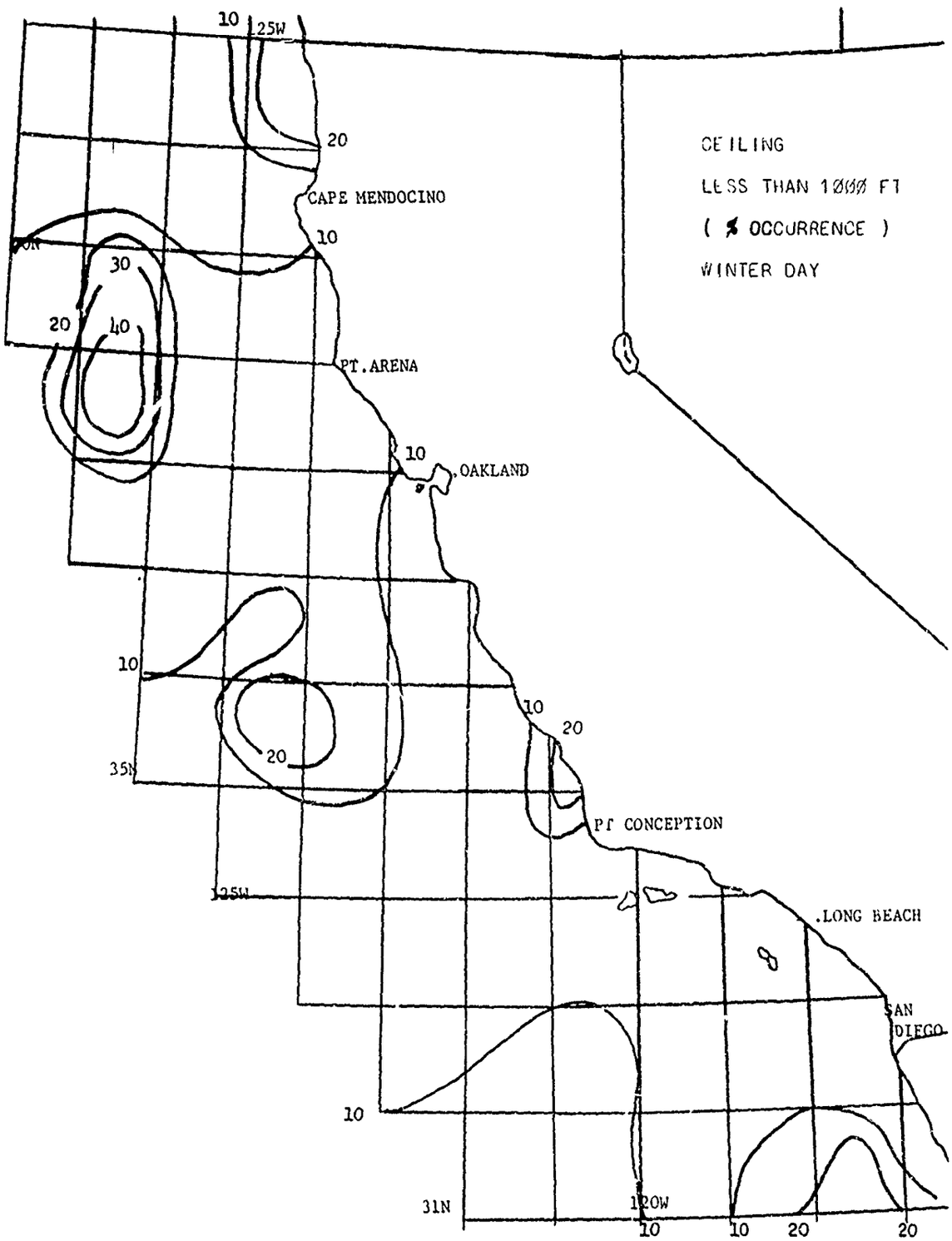

VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
WINTER NIGHT
125W
40N
35N
31N
120W
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
5
10
1

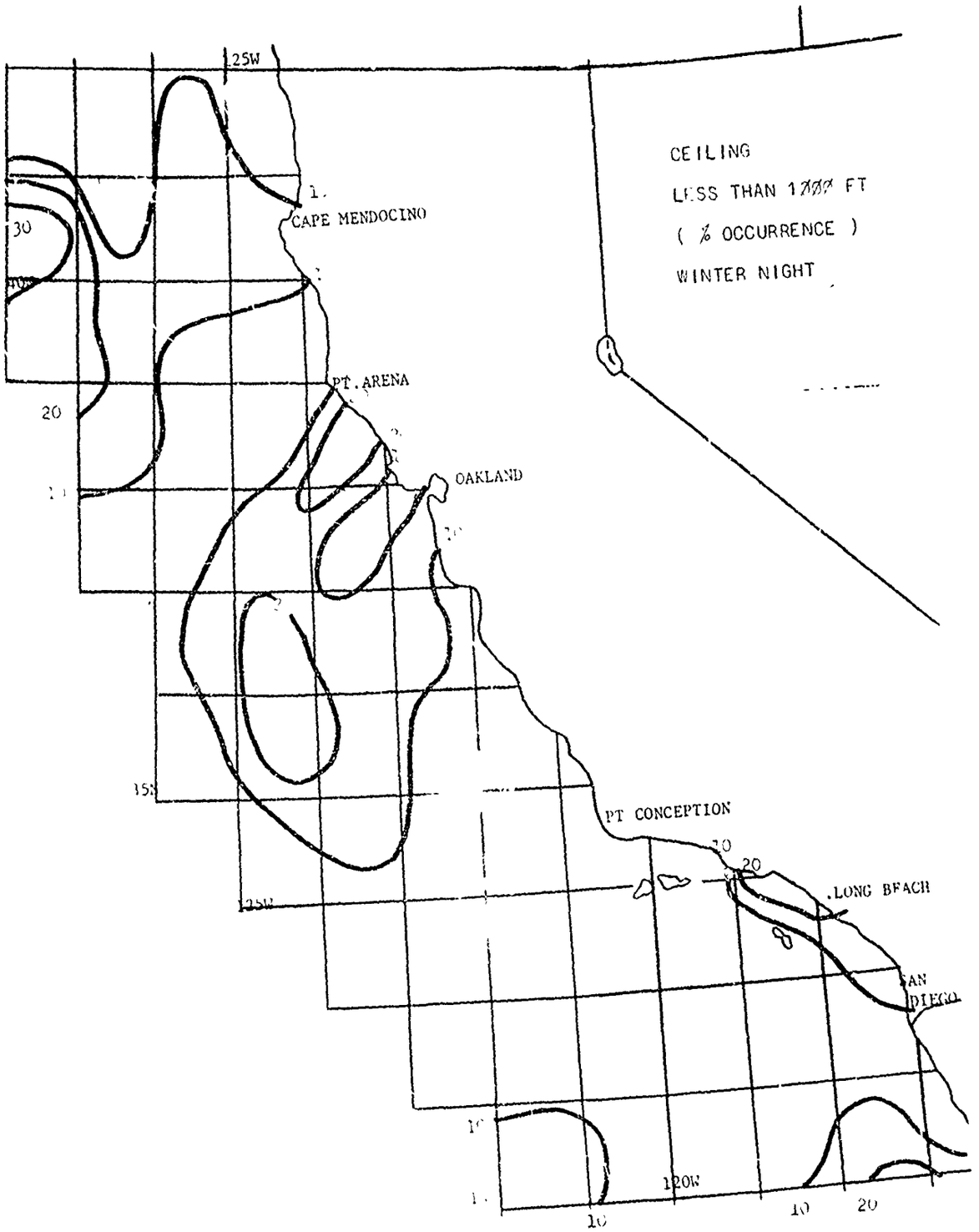

VISIBILITY
½ TO 6 MILES
(% OCCURRENCE)
WINTER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
40
30
20
25W
120W

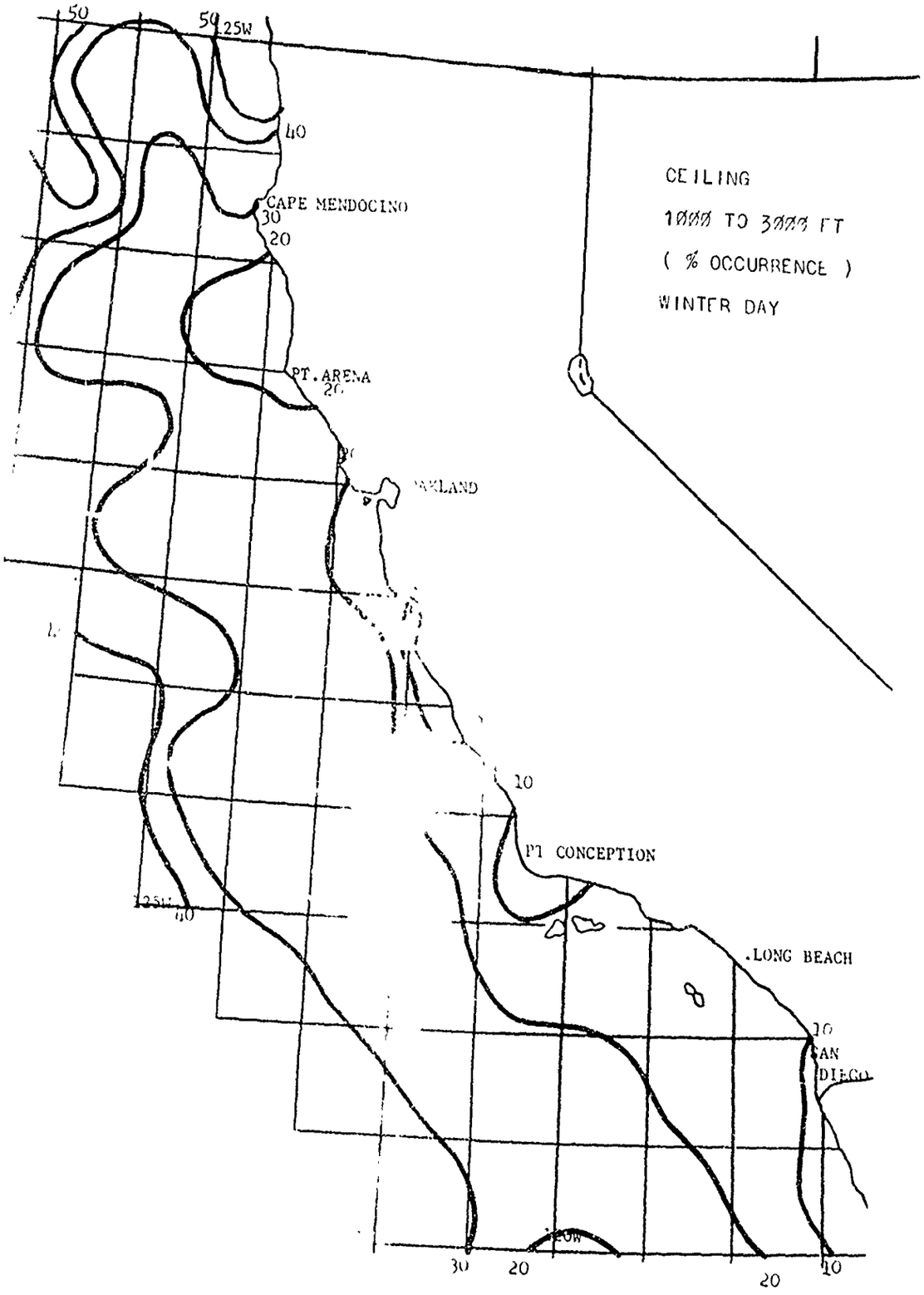

VISIBILITY
4 TO 6 MILES
(% OCCURRENCE)
WINTER NIGHT
40
40
125W
20
CAPE MENDOCINO
30
PT.ARENA
30
OAKLAND
20
20
30
35N
20
PT.CONCEPTION
20
LONG BEACH
125W
30
SAN
DIEGO
31N
120W
20

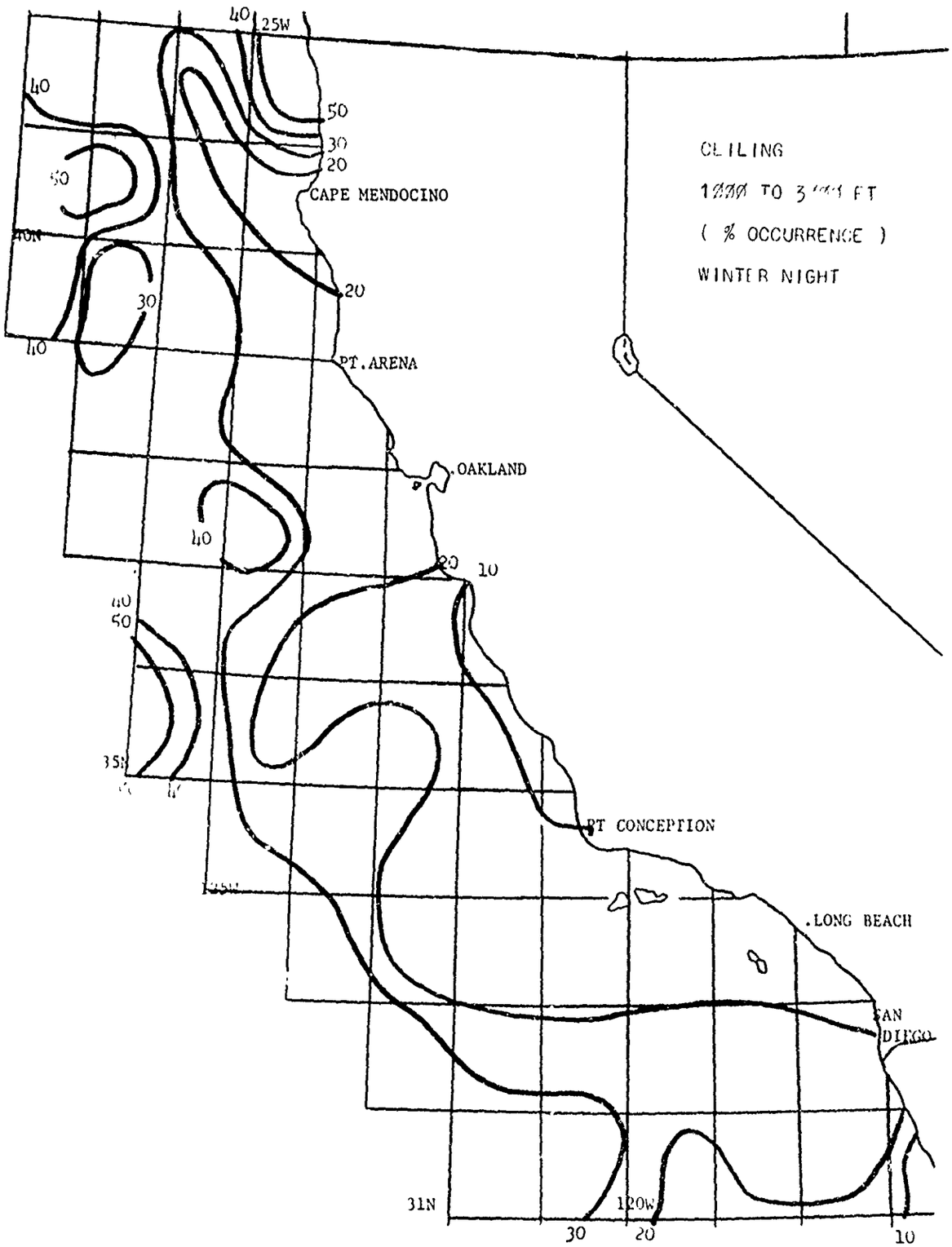

NO CEILING
(% OCCURRENCE)
WINTER DAY
125W
30
CAPE MENDOCINO
40
40N
40
30
30
20
PT. ARENA
50
OAKLAND
20
60
70
70
50
40
35N
30
PT CONCEPTION
60
70
125W
LONG BEACH
40
SAN DIEGO
90
31N
120W
40
50
60
70

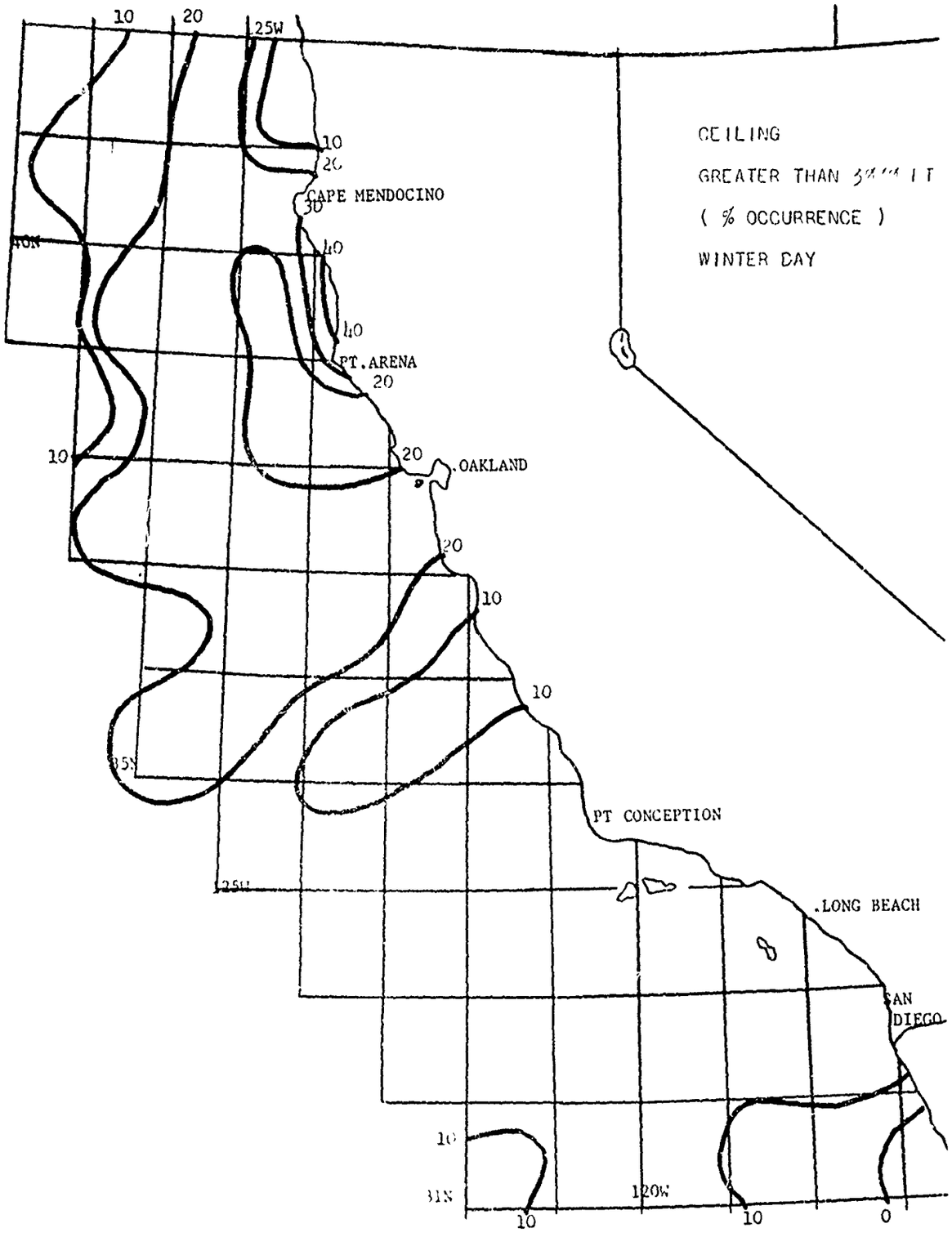

NO CEILING
(% OCCURRENCE)
WINTER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
35N
31N
50
40
30
20
60
70
80
90

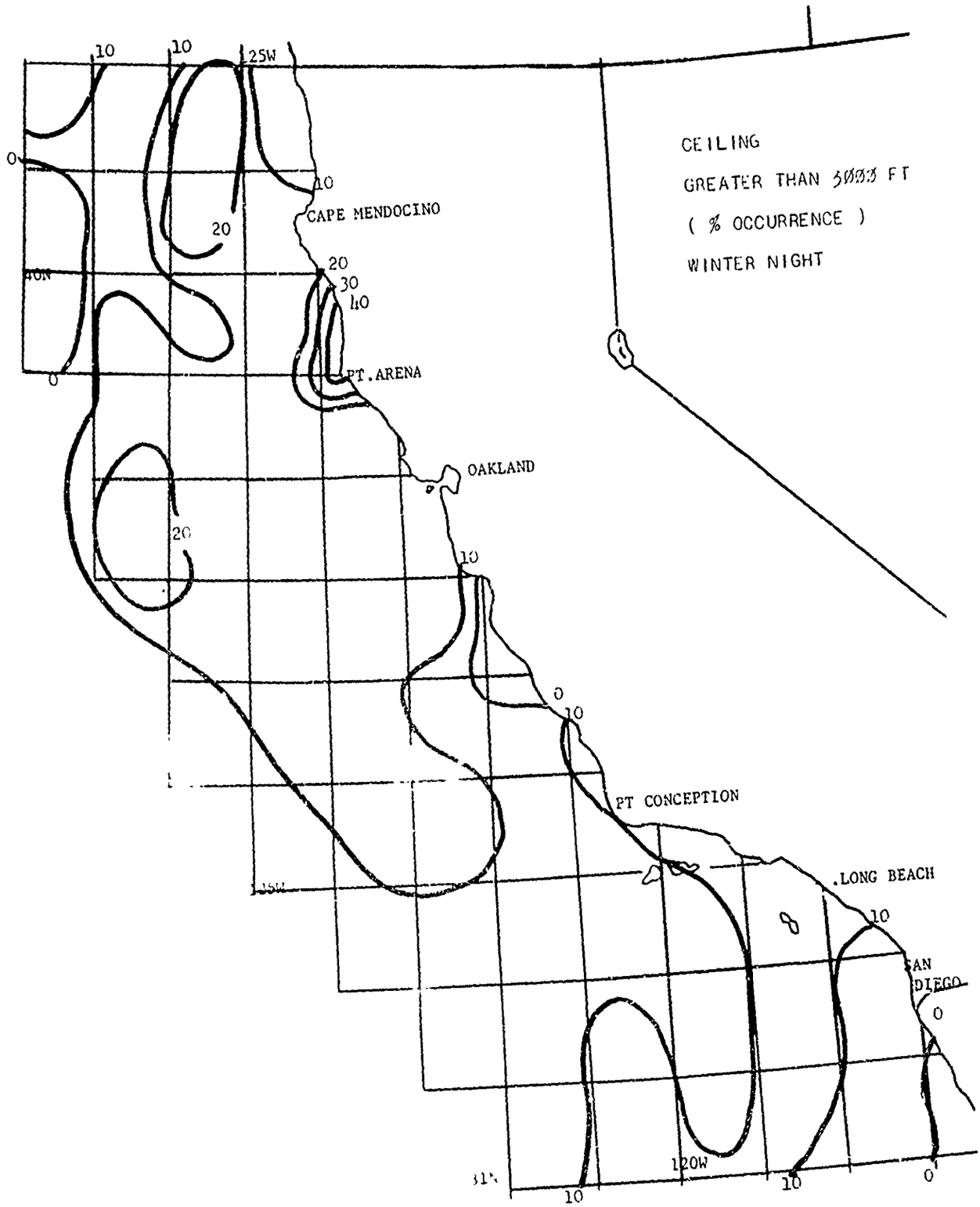

CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
WINTER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
10
20
30
40

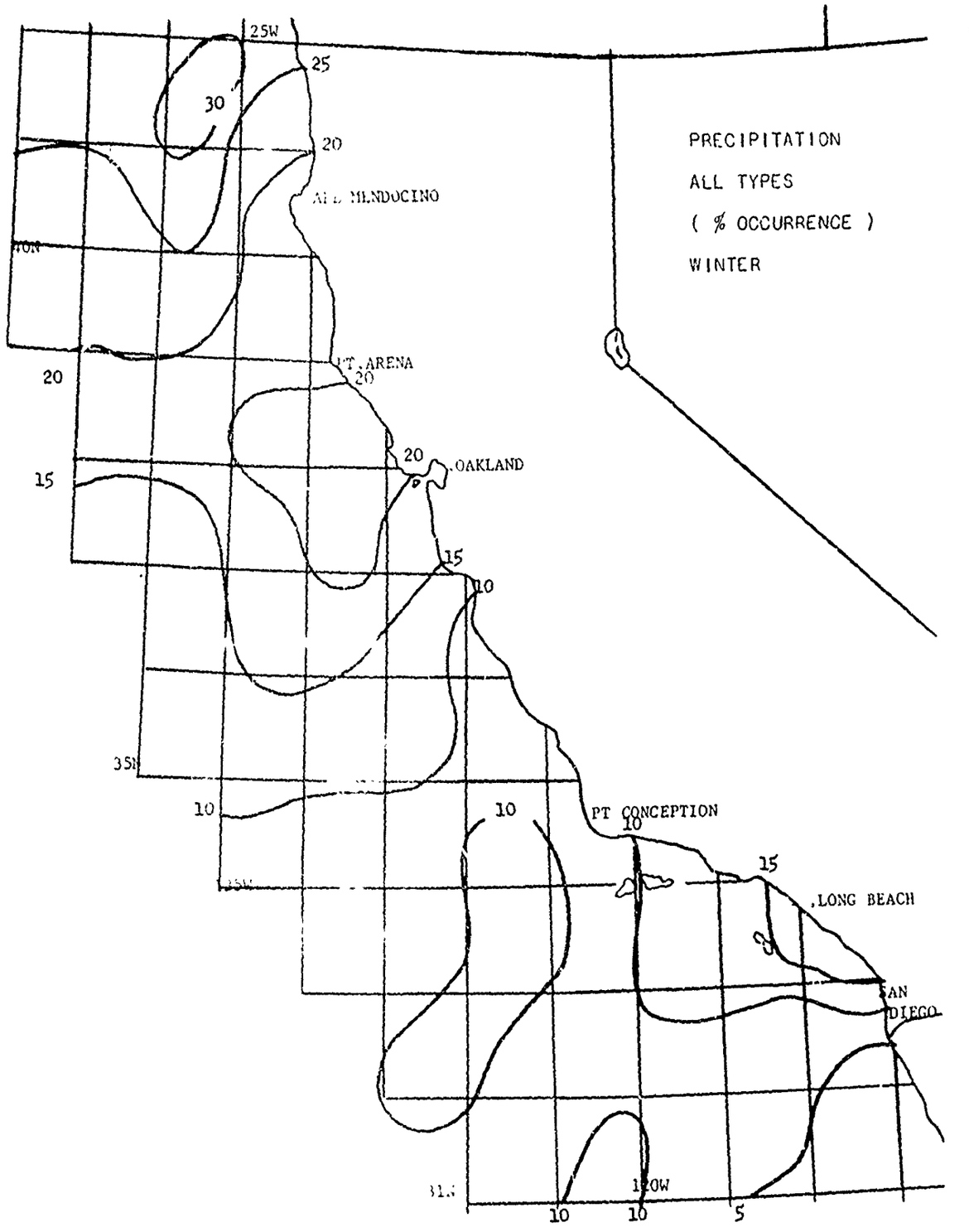

CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
WINTER NIGHT
125W
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
120W
30
20
10
20

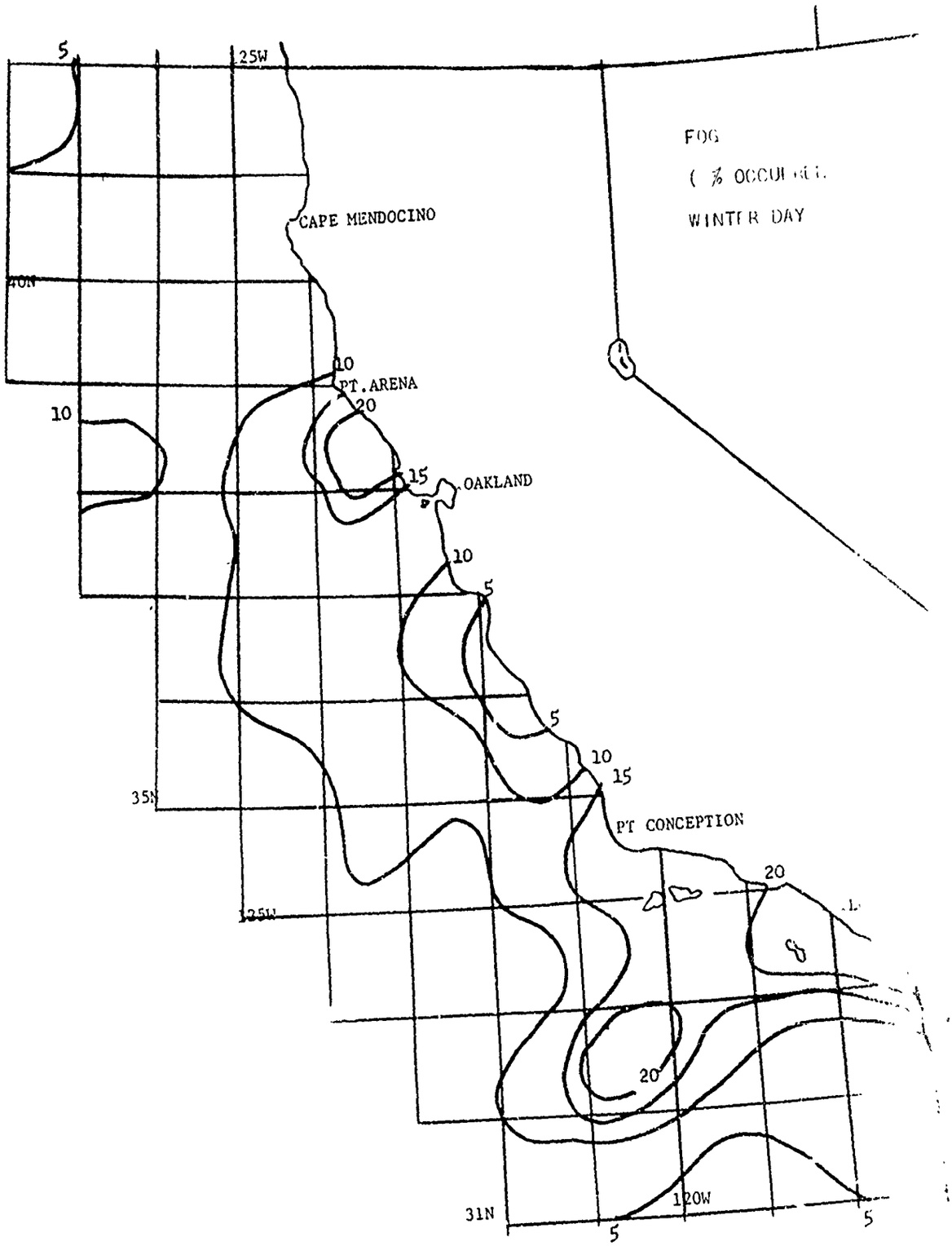

CEILING
1000 TO 3000 FT
(% OCCURRENCE)
WINTER DAY
50
50
125W
40
CAPE MENDOCINO
30
20
PT. ARENA
20
10
PT CONCEPTION
125W
40
LONG BEACH
10
SAN
DIEGO
30
20
20
10

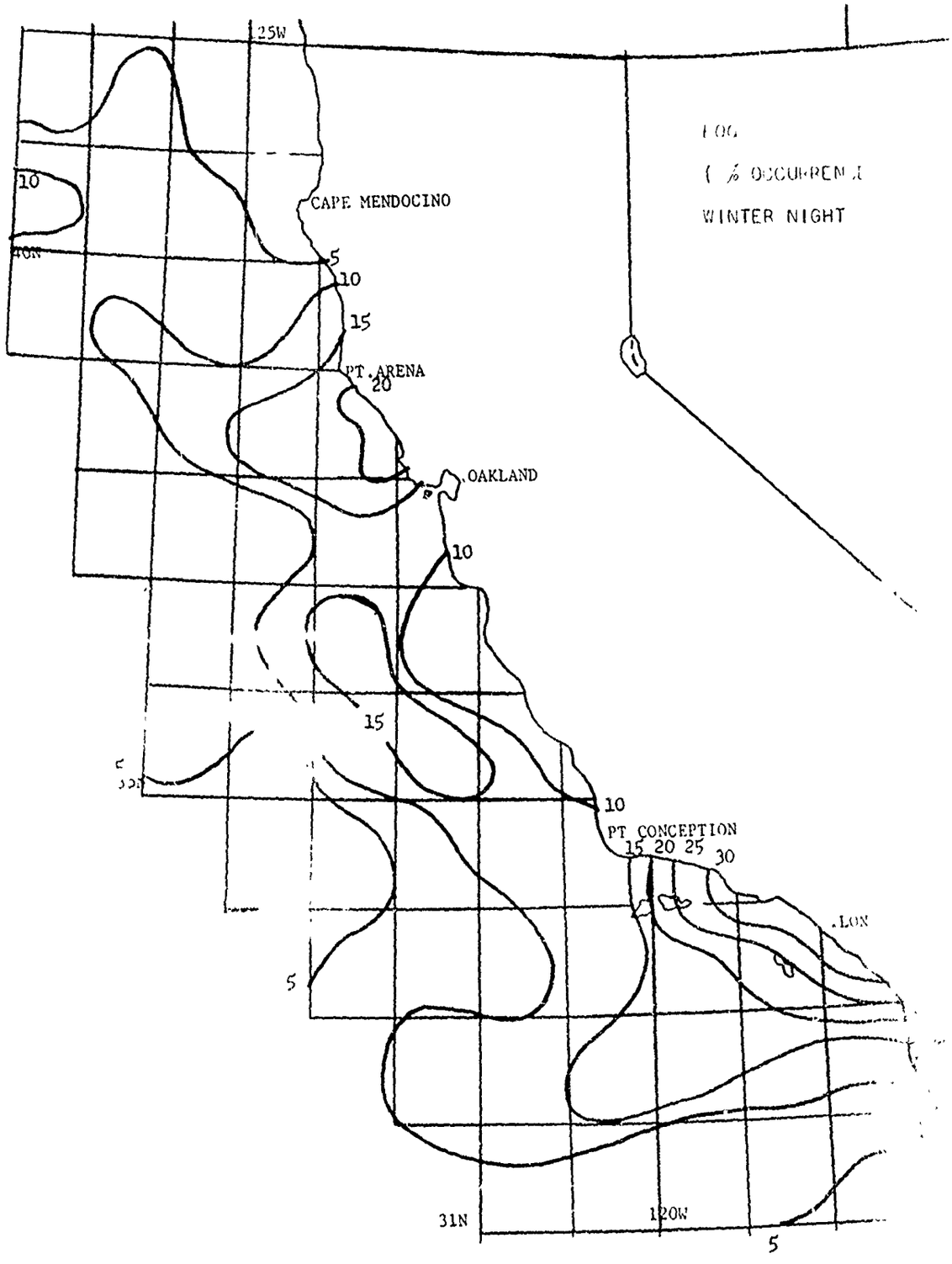

CEILING
1000 TO 3000 FT
(% OCCURRENCE)
WINTER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
40
25W
50
30
20
10
40N
35N
31N
120W

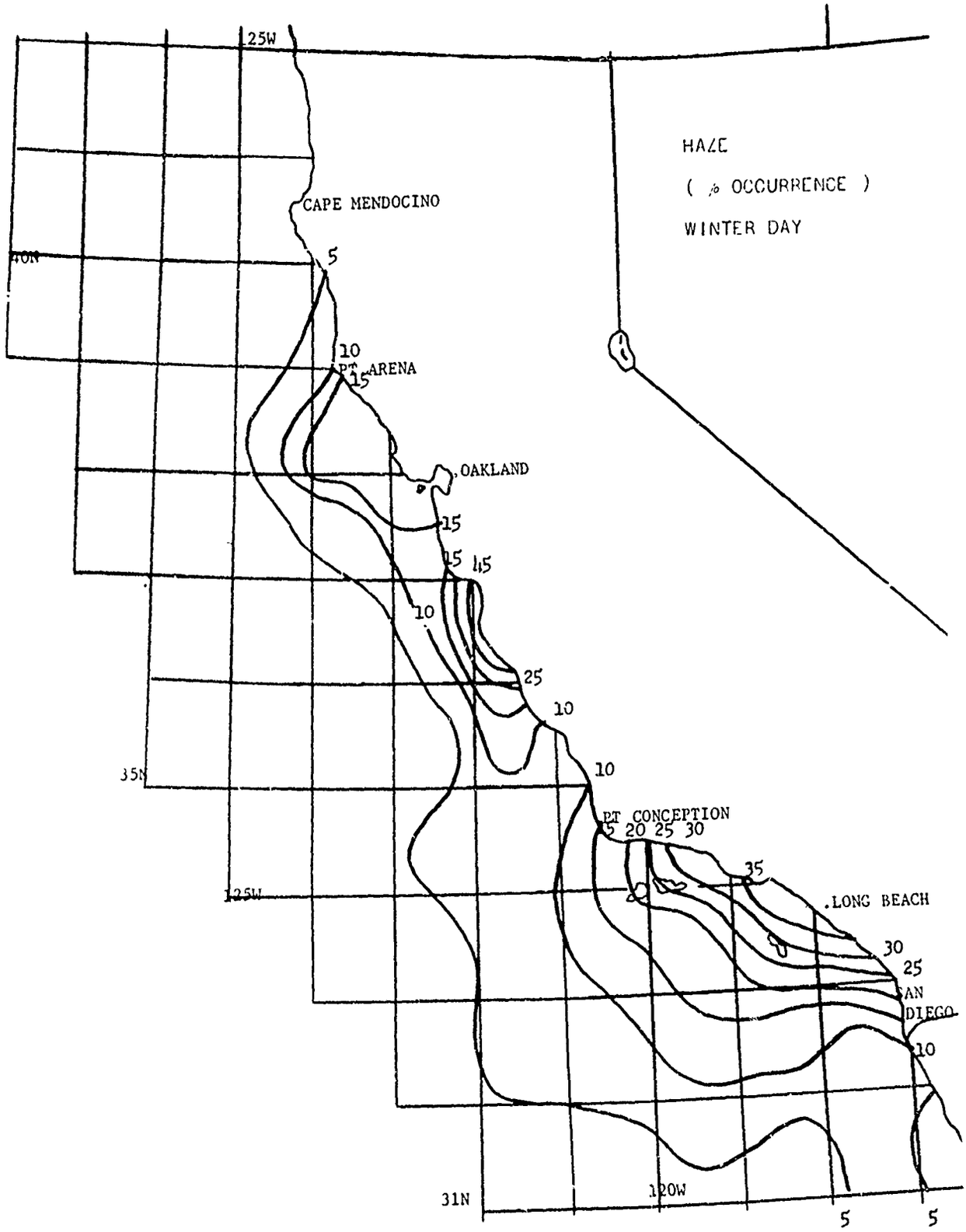

CEILING
GREATER THAN 3000 FT
(% OCCURRENCE)
WINTER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
10
20
25W
30
40
40N
35N
31N
120W
0

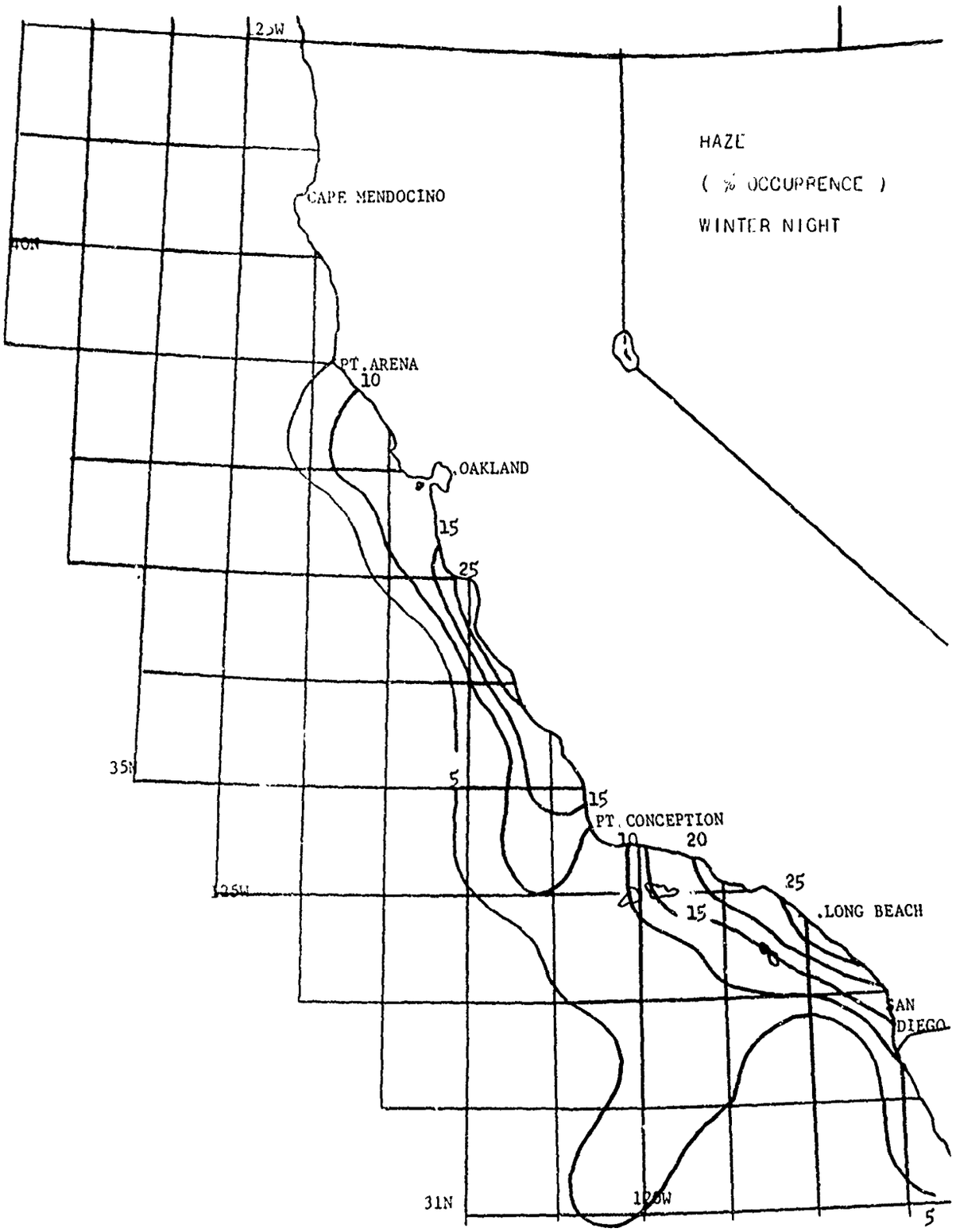

CEILING
GREATER THAN 3000 FT
(% OCCURRENCE)
WINTER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
10
20
30
40
0

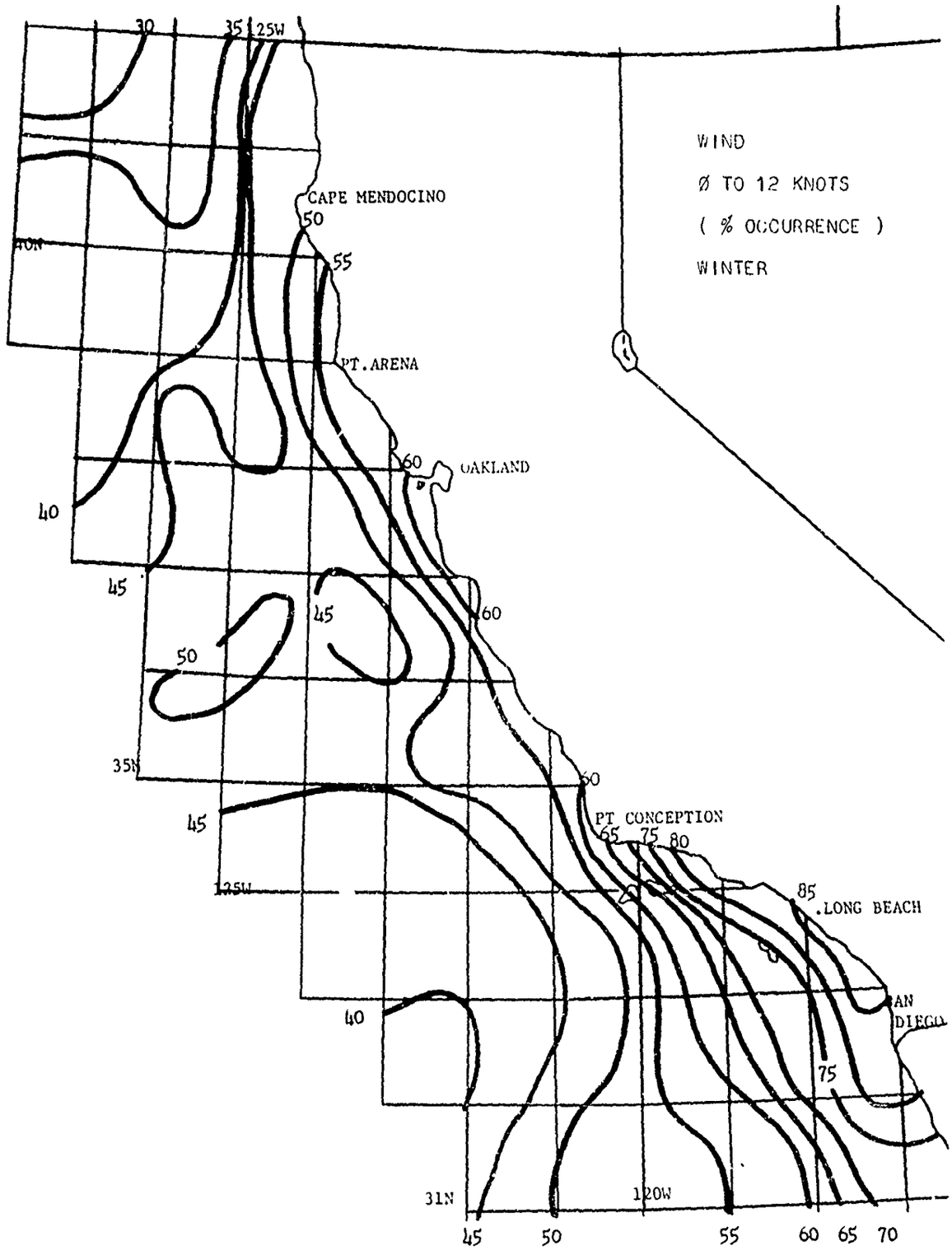

PRECIPITATION
ALL TYPES
(% OCCURRENCE)
WINTER
25W
25
30
20
MENDOCINO
PT. ARENA
20
20
OAKLAND
15
15
10
35N
10
10
PT CONCEPTION
10
15
LONG BEACH
SAN
DIEGO
10
10
5

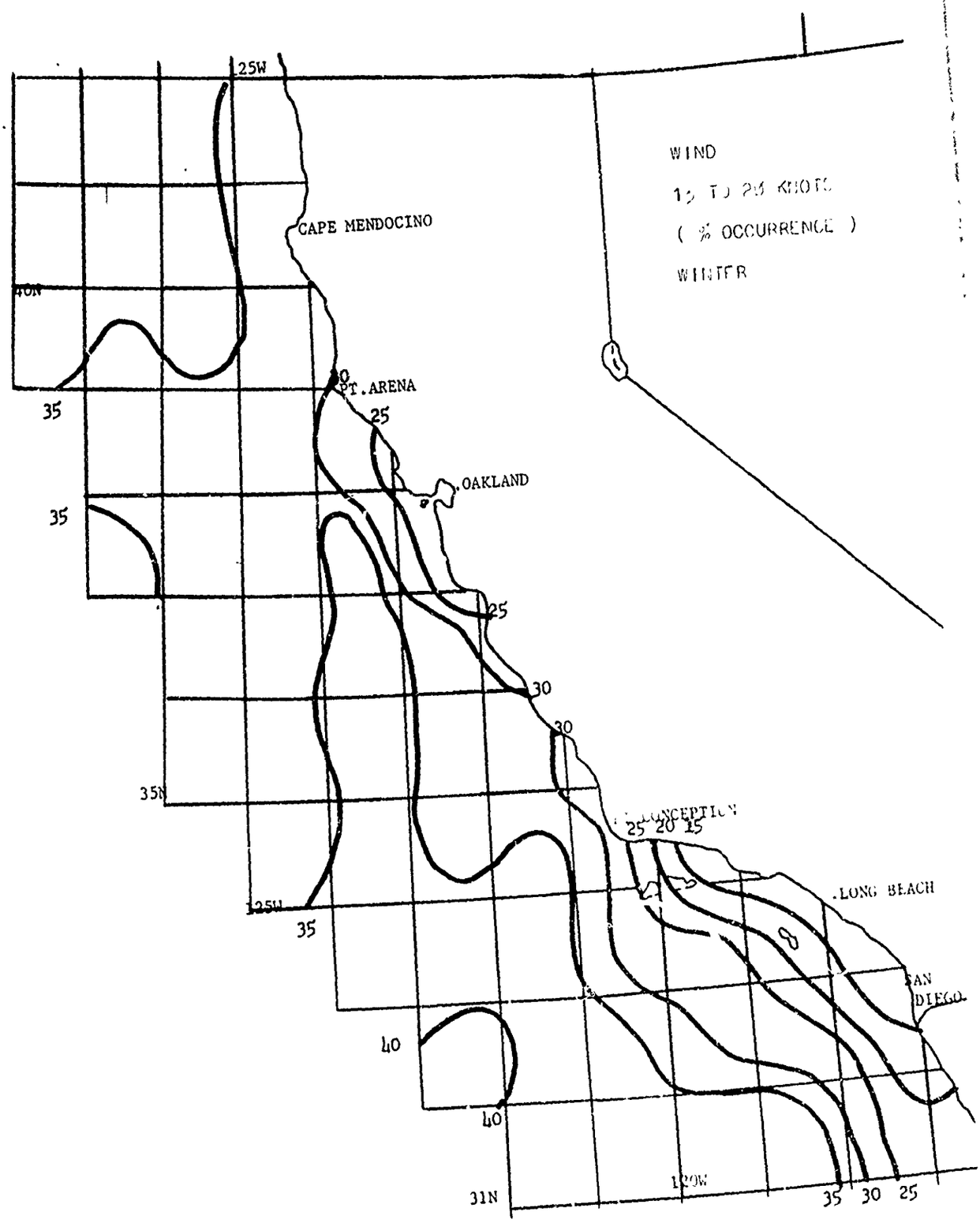

FOG
(% OCCURRENCE
WINTER DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
25W
40N
35N
125W
120W
31N
5
10
15
20

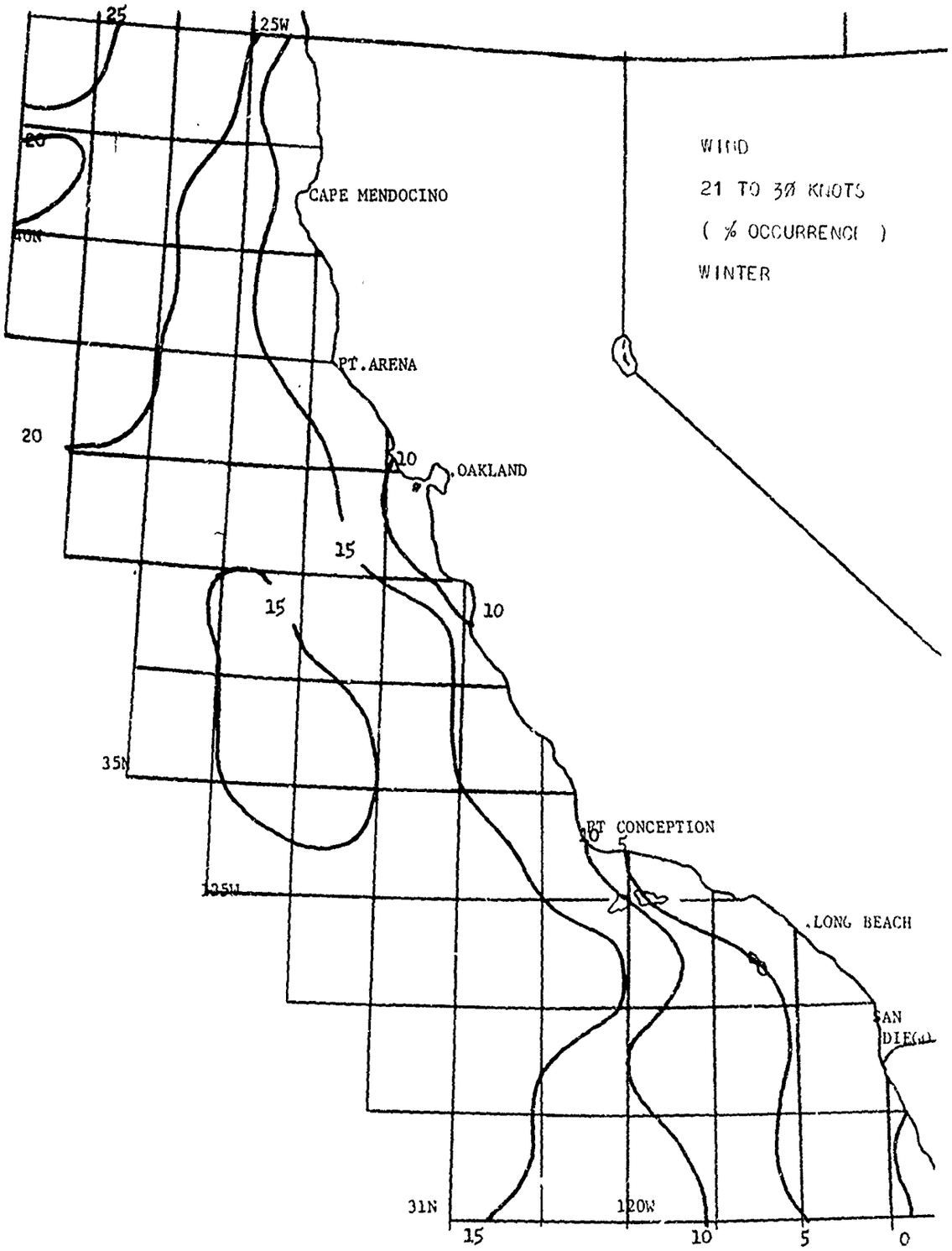

FOG
(% OCCURRENCE
WINTER NIGHT
125W
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LON
31N
120W
10
5
15
20
25
30

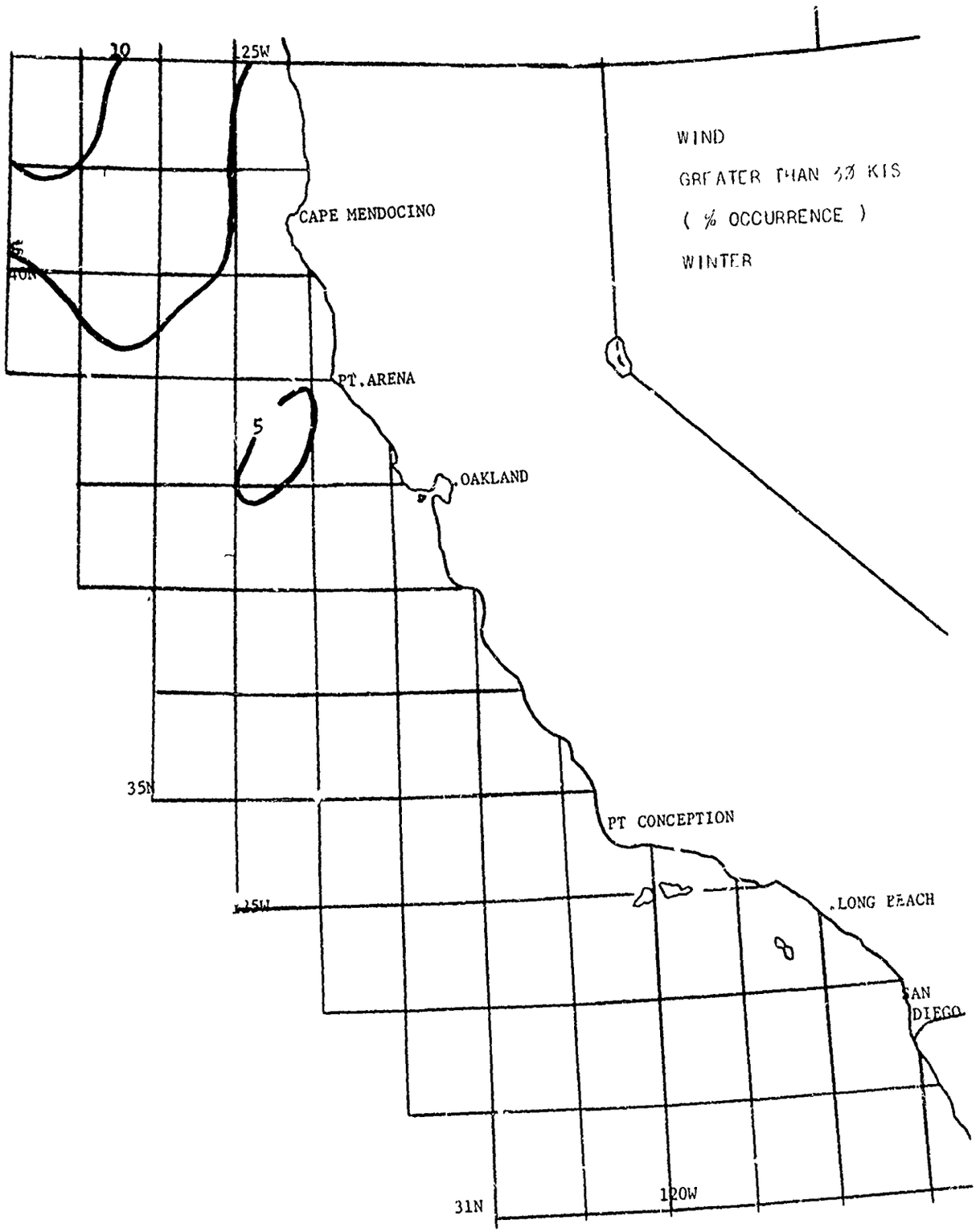

HAZE
(% OCCURRENCE)
WINTER DAY
25W
CAPE MENDOCINO
40N
5
10
PT ARENA
15
OAKLAND
15
15
15
10
25
10
10
35N
PT CONCEPTION
5 20 25 30
35
125W
LONG BEACH
30
25
SAN
DIEGO
10
31N
120W
5
5

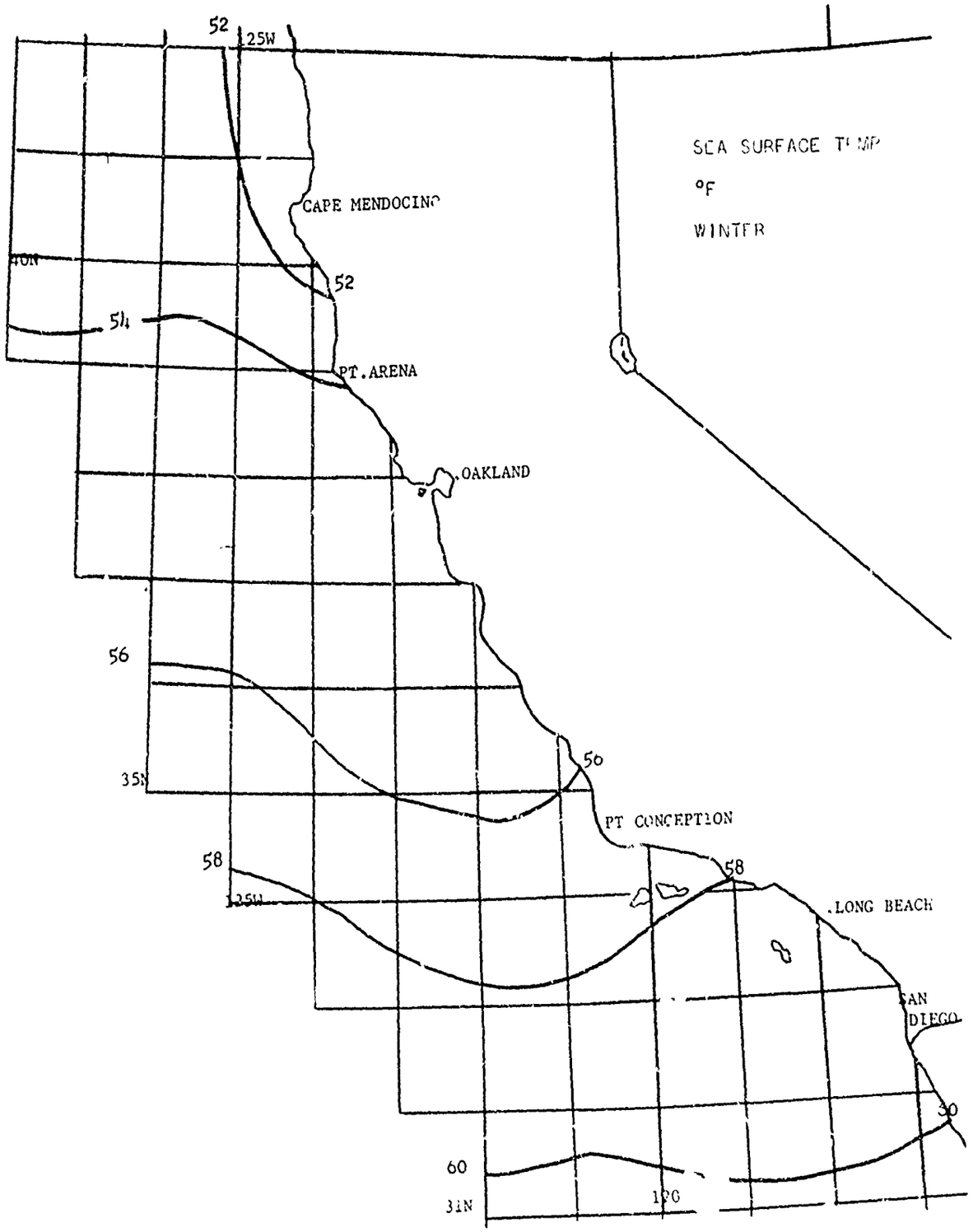

HAZE
(% OCCURRENCE)
WINTER NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
10
15
25
5
20
35N
31N

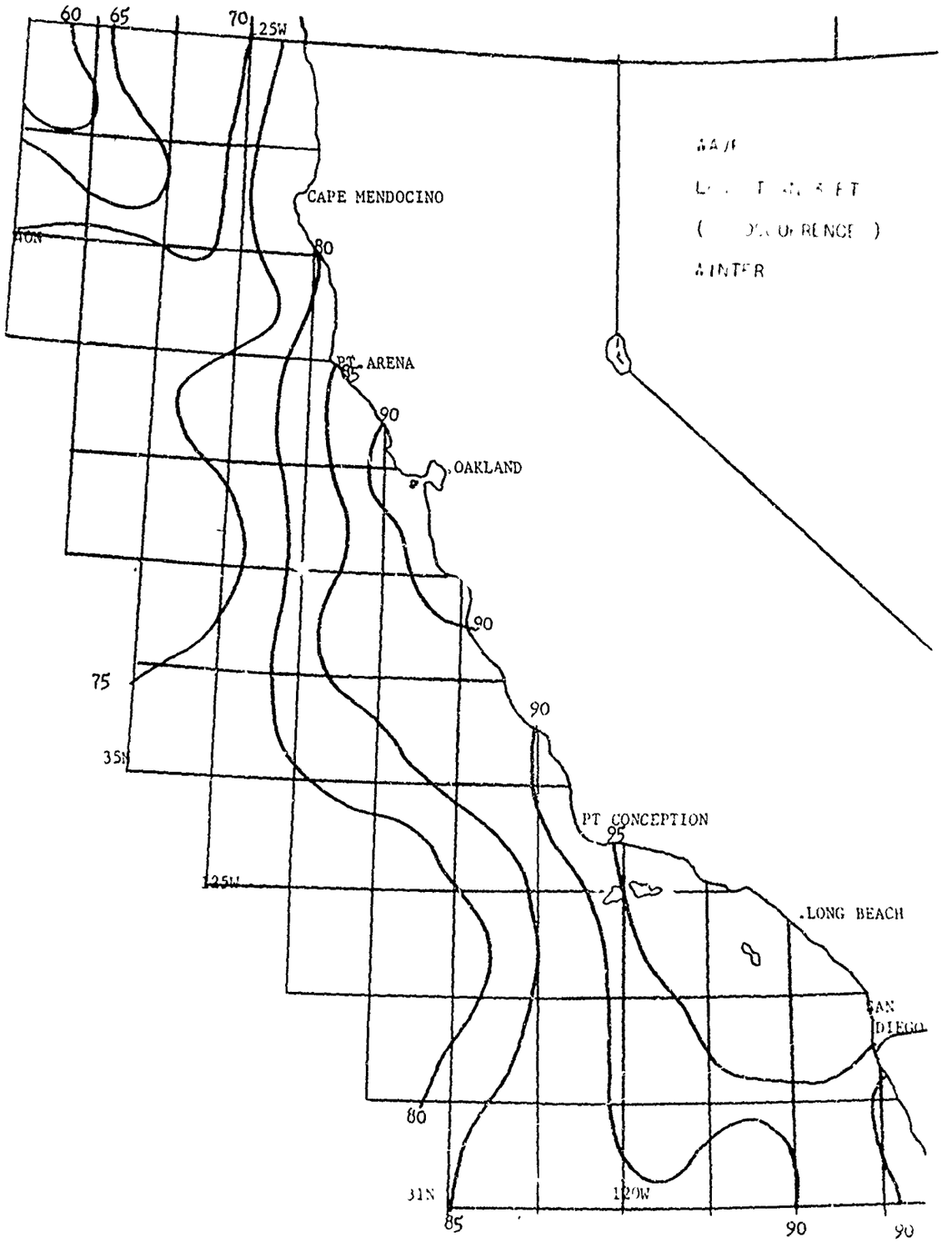

WIND
Ø TO 12 KNOTS
(% OCCURRENCE)
WINTER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
AN DIEGO
30
35
125W
40N
50
55
60
40
45
50
45
60
35N
60
45
65
75
80
125W
85
40
75
31N
120W
45
50
55
60
65
70


WIND
(% OCCURRENCE)
WINTER
CAPE MENDOCINO
PT. ARENA
OAKLAND
LONG BEACH
SAN DIEGO
25W
40N
35N
31N
120W
35
40
25
30
20
15

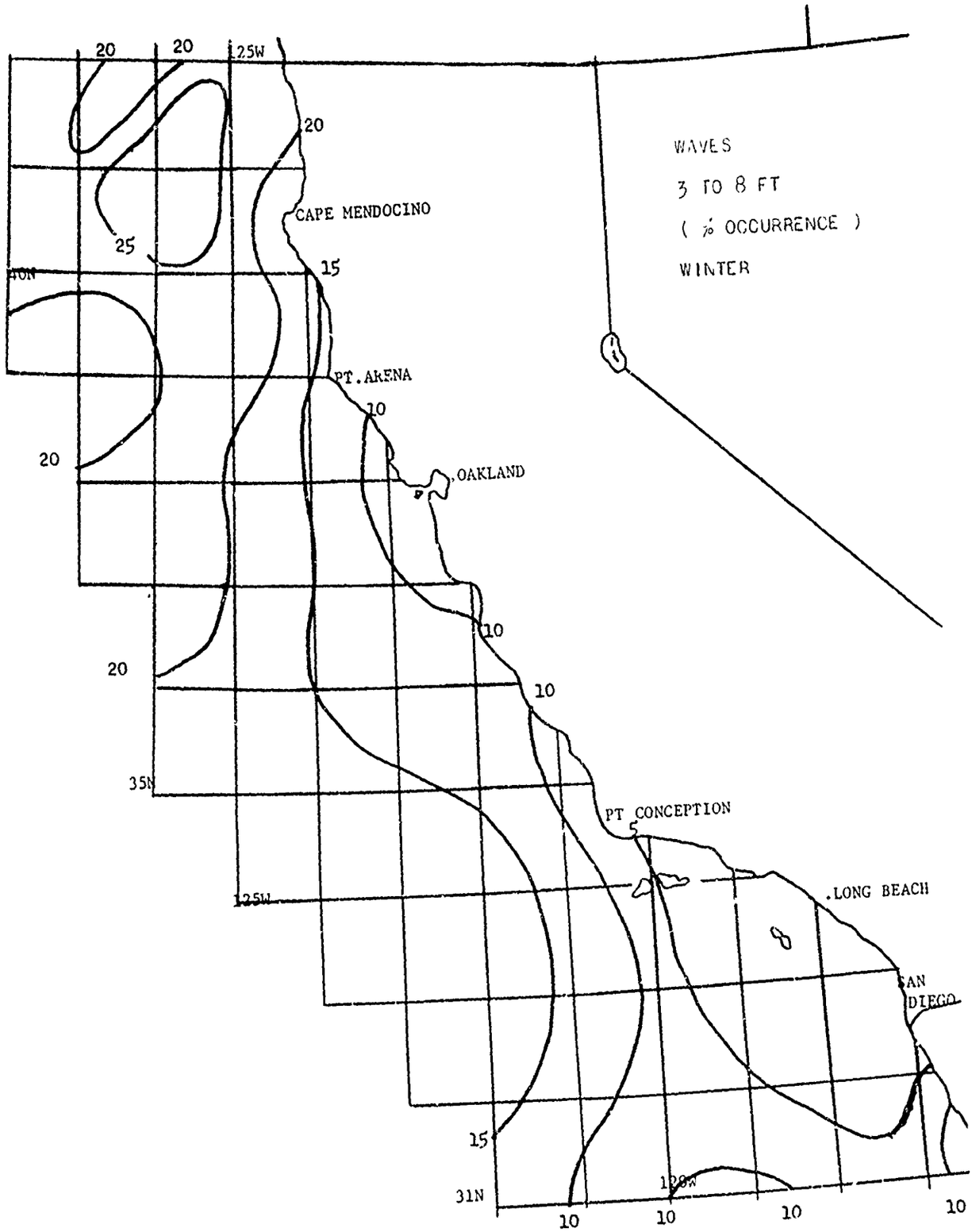

WIND
21 TO 30 KNOTS
(% OCCURRENCE)
WINTER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
25
25W
20
40N
20
10
15
15
10
35N
10
5
125W
31N
120W
15
10
5
0

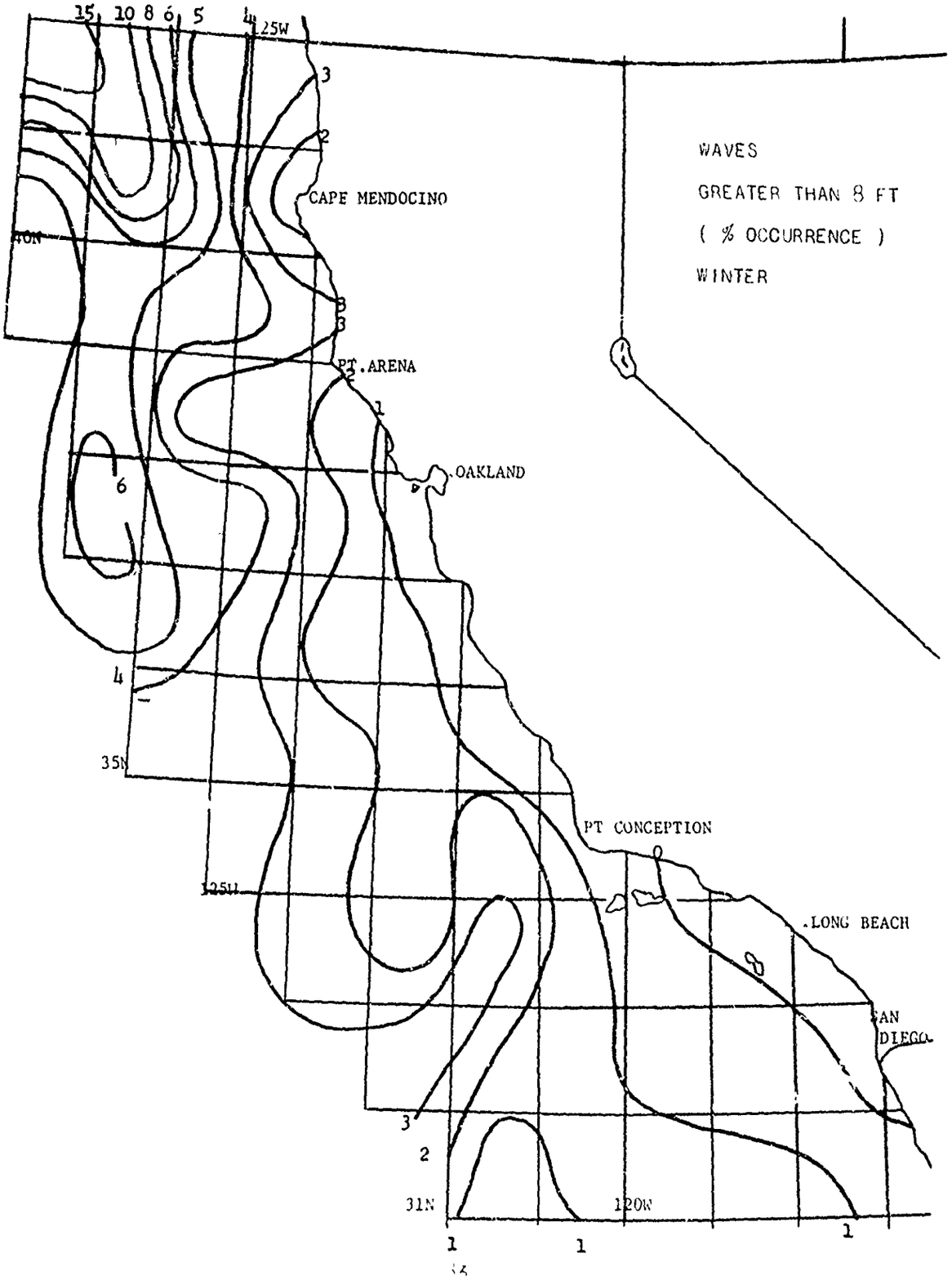

WIND
GREATER THAN 33 KTS
(% OCCURRENCE)
WINTER
10
25W
CAPE MENDOCINO
40N
PT. ARENA
5
OAKLAND
35N
PT CONCEPTION
125W
LONG BEACH
8
SAN DIEGO
31N
120W

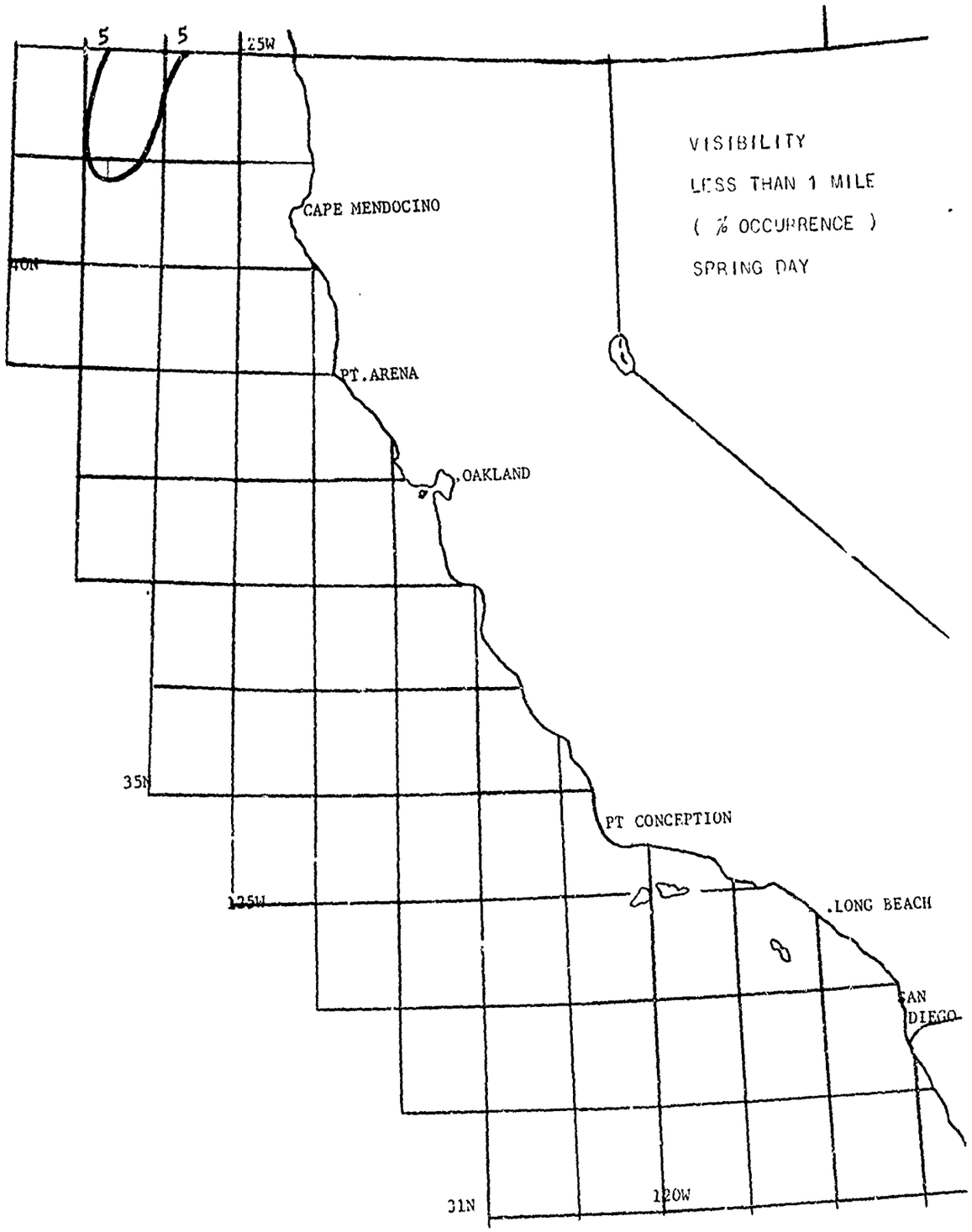

SEA SURFACE TEMP
°F
WINTER
52
125W
CAPE MENDOCINO
52
40N
54
PT.ARENA
OAKLAND
56
35N
50
PT CONCEPTION
58
58
125W
LONG BEACH
SAN
DIEGO
30
60
31N
120

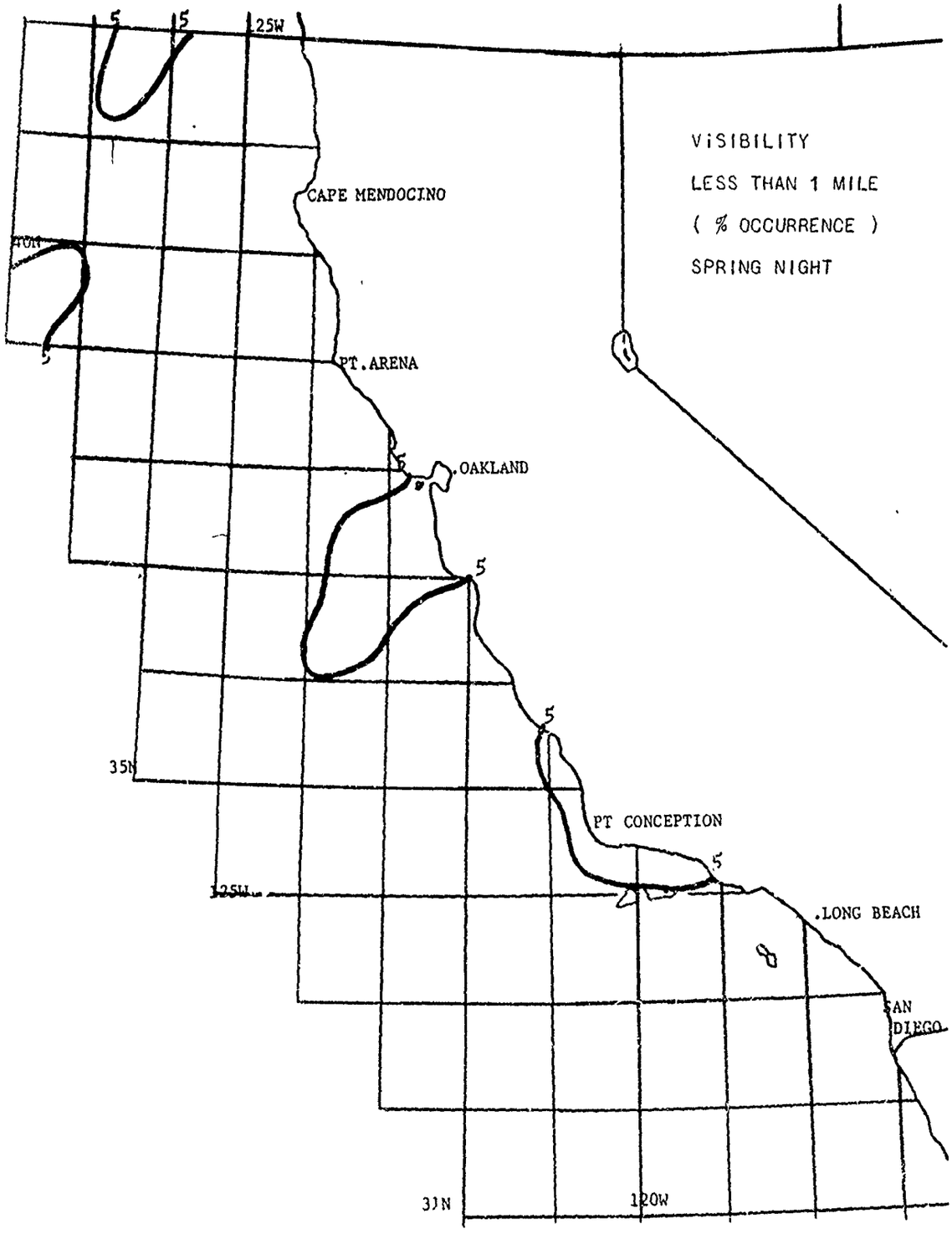

60
65
70
125W
CAPE MENDOCINO
40N
80
PT. ARENA
85
90
OAKLAND
90
75
90
35N
PT CONCEPTION
95
125W
LONG BEACH
SAN
DIEGO
80
31N
120W
85
90
90

1


WAVES
3 TO 8 FT
(% OCCURRENCE)
WINTER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
40N
35N
31N
120W
20
25
15
10
8


WAVES
GREATER THAN 8 FT
(% OCCURRENCE)
WINTER
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
15
10
8
6
5
4
3
2
1


5
5
25W
VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
40N
PT. ARENA
OAKLAND
35N
PT CONCEPTION
125W
LONG BEACH
SAN
DIEGO
31N
120W

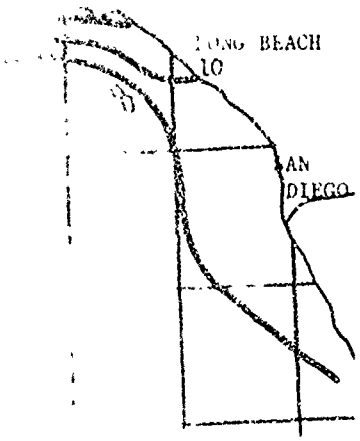

VISIBILITY
LESS THAN 1 MILE
(% OCCURRENCE)
SPRING NIGHT
125W
CAPE MENDOCINO
PT. ARENA
OAKLAND
35N
PT CONCEPTION
125W
LONG BEACH
SAN DIEGO
33N
120W

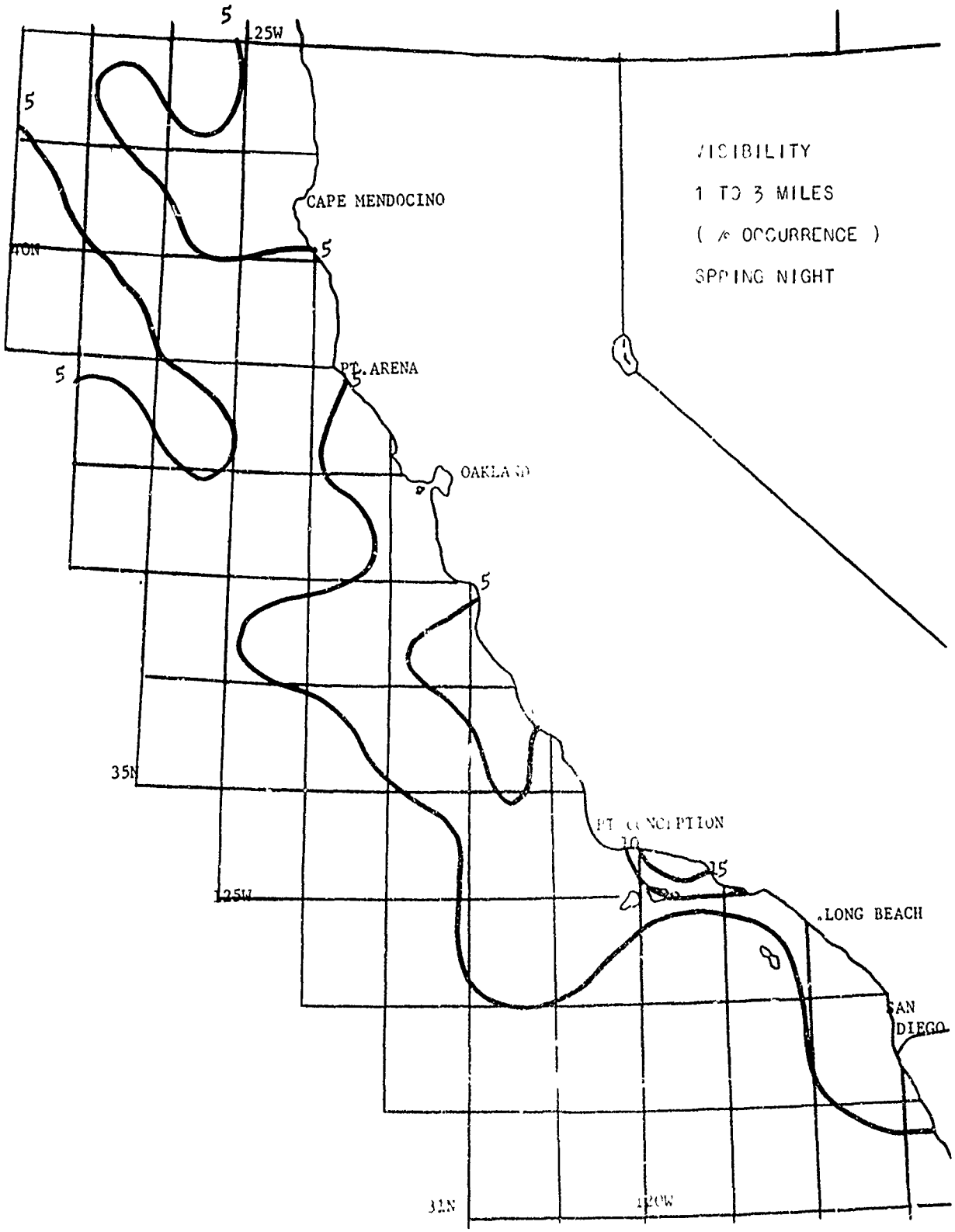
ISIBILITY

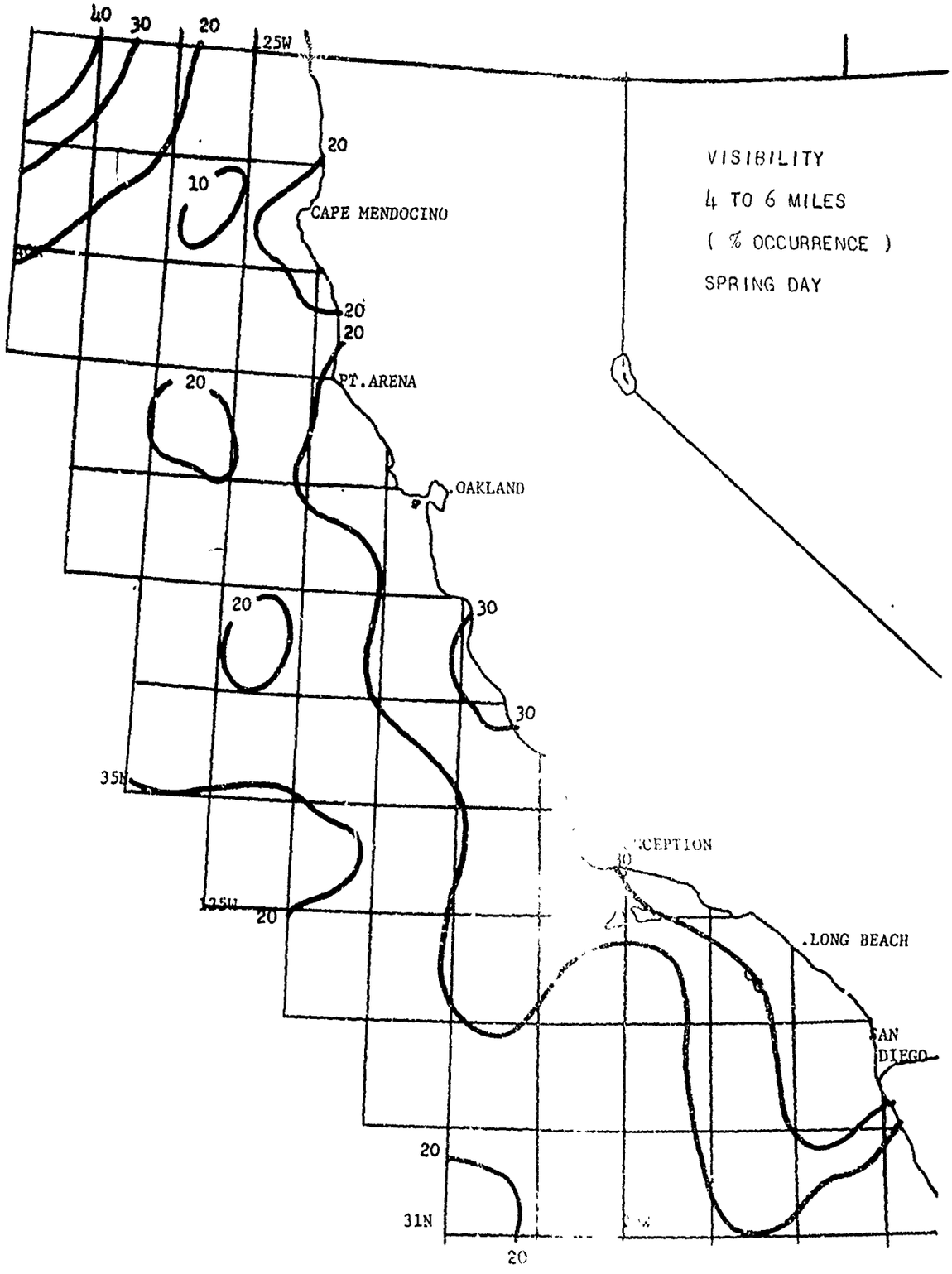
1 TO 3 MILES

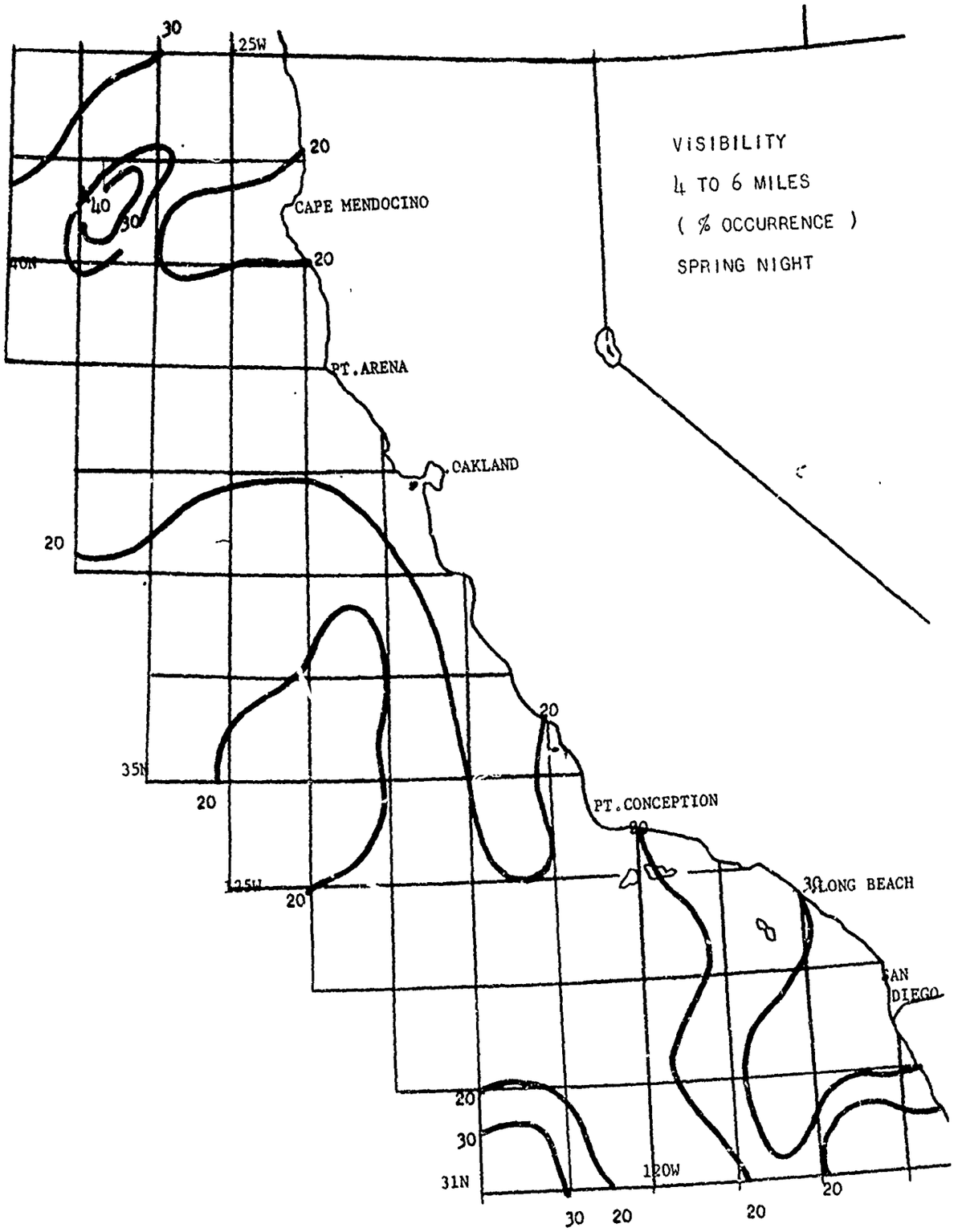
([illegible] CURRENCE)

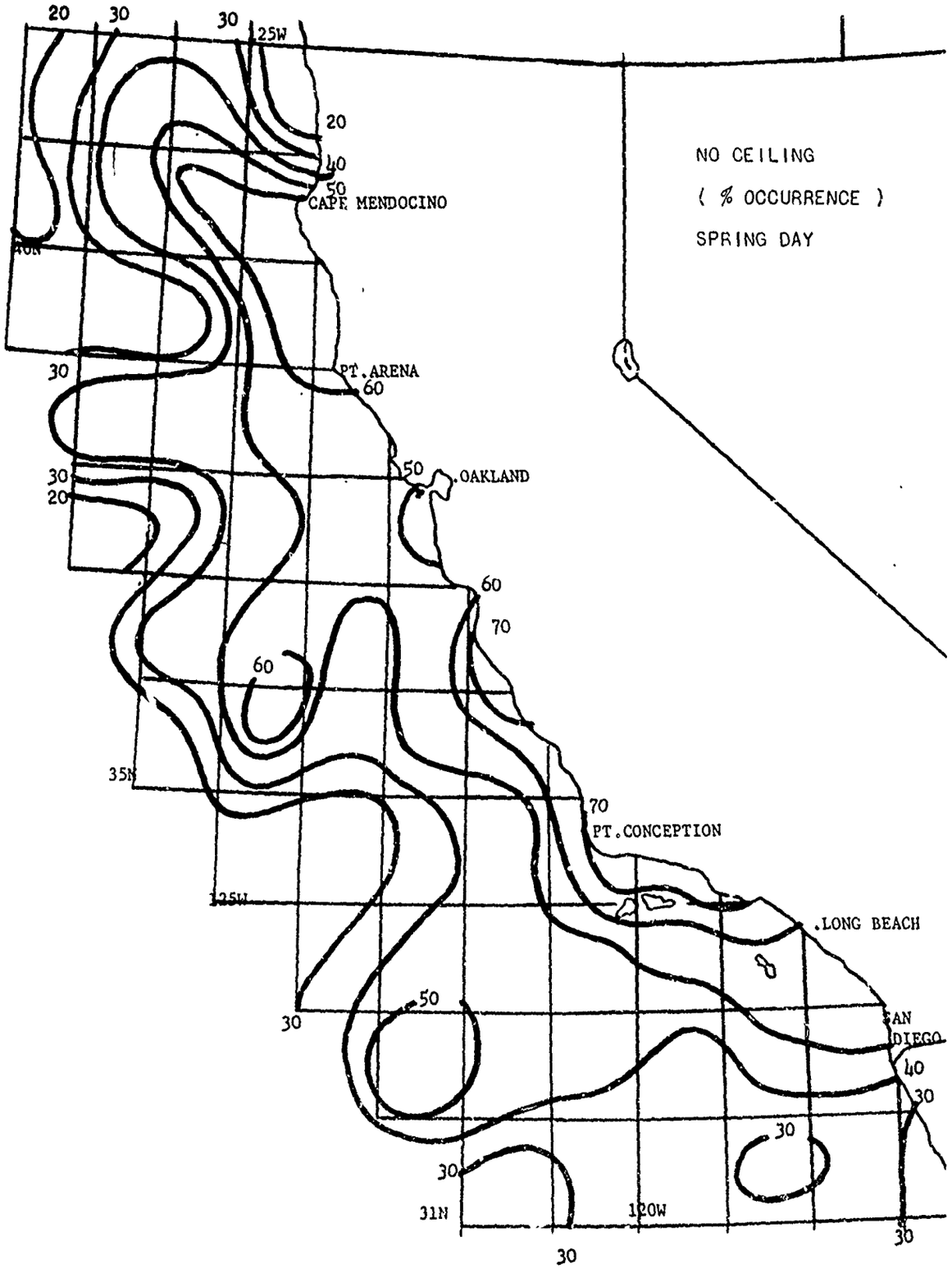
SPRING DAY

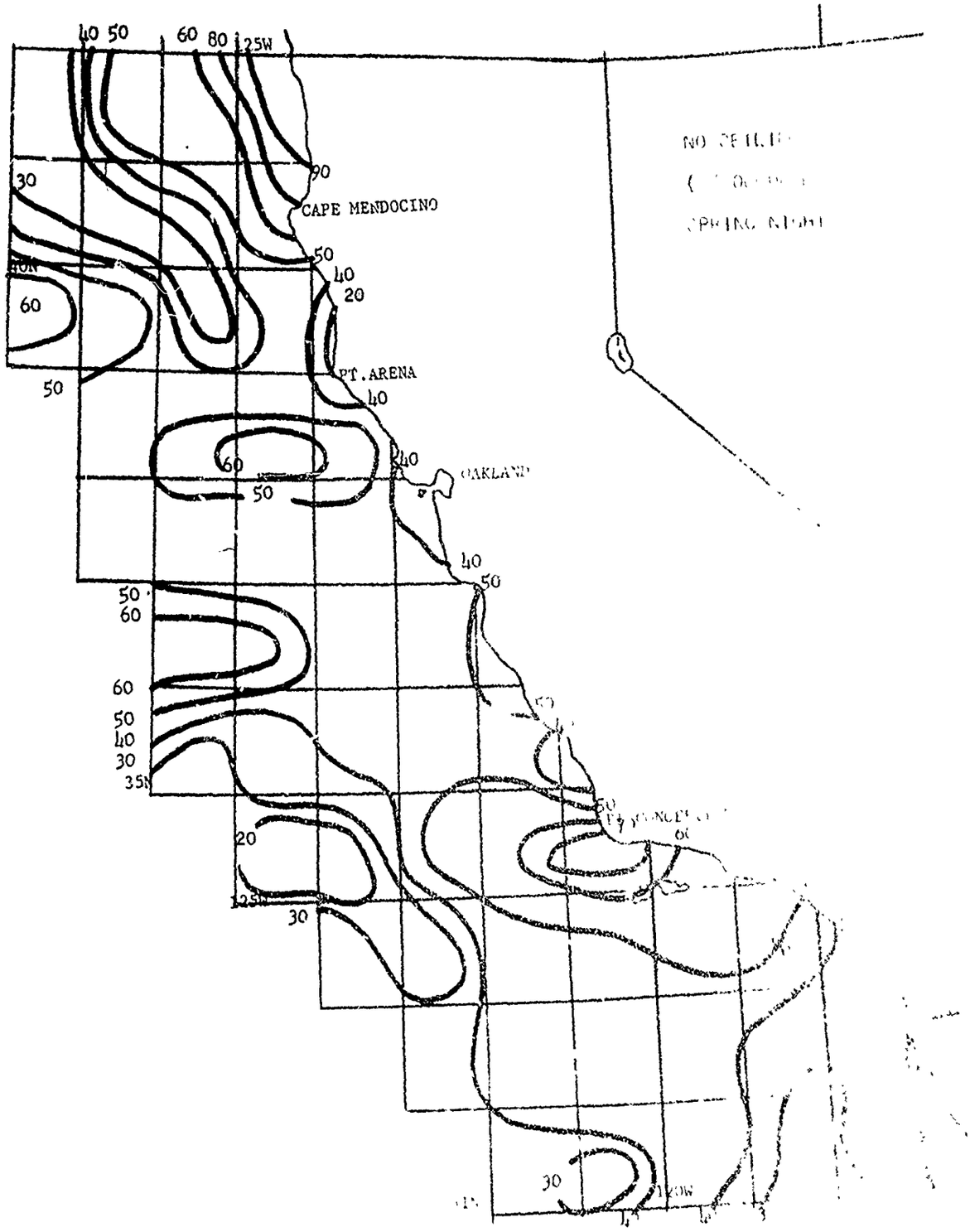



VISIBILITY
1 TO 3 MILES
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
35N
5
10
15
8


VISIBILITY
4 TO 6 MILES
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
LONG BEACH
SAN DIEGO
40
30
20
10
125W
35N
31N


VISIBILITY
4 TO 6 MILES
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N
30
20
40


NO CEILING
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N
20
30
40
50
60
70



40 50
60 80 125W
90
CAPE MENDOCINO
30
50
40
20
60
PT. ARENA
50
40
60
40
OAKLAND
50
40
50
50
60
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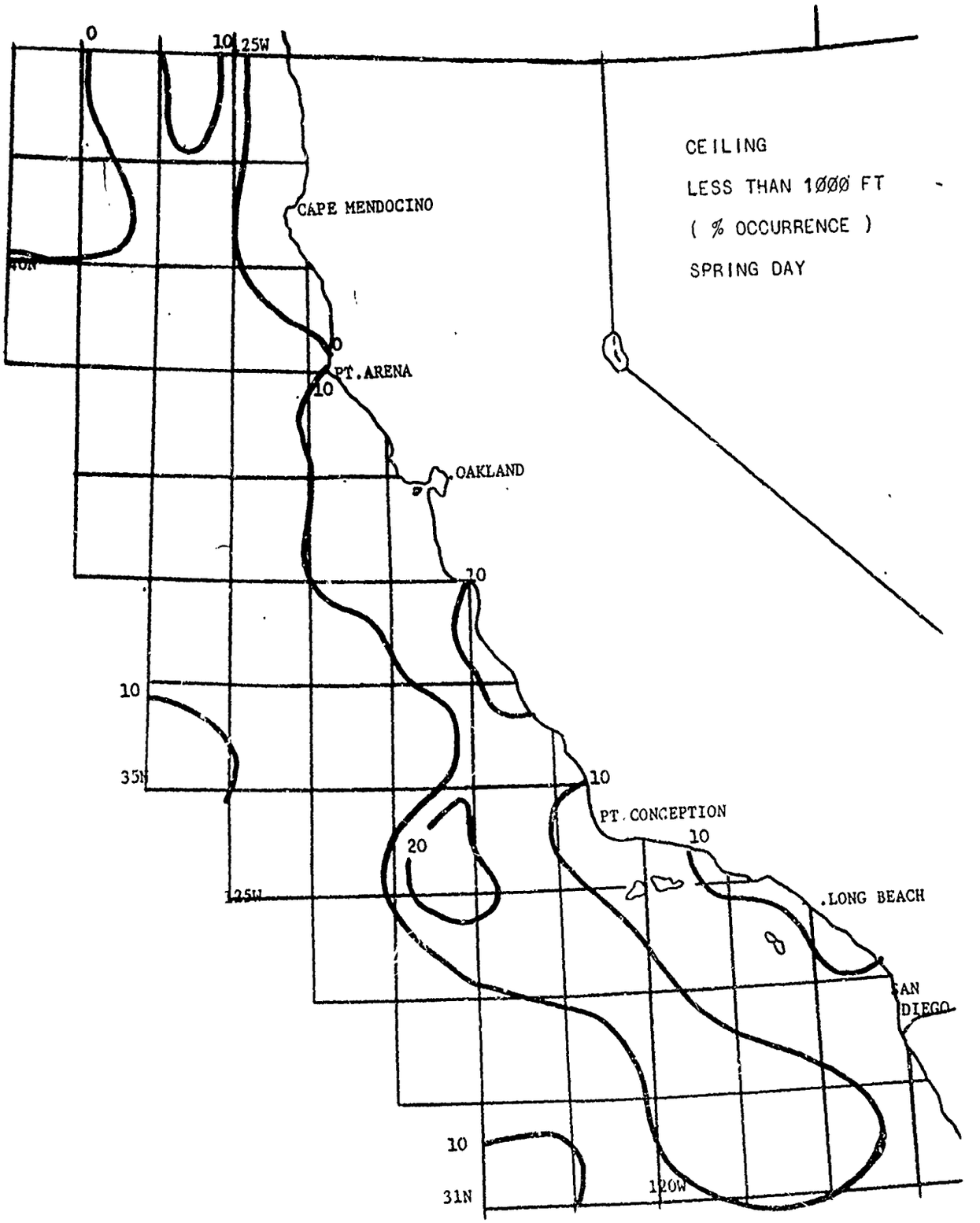
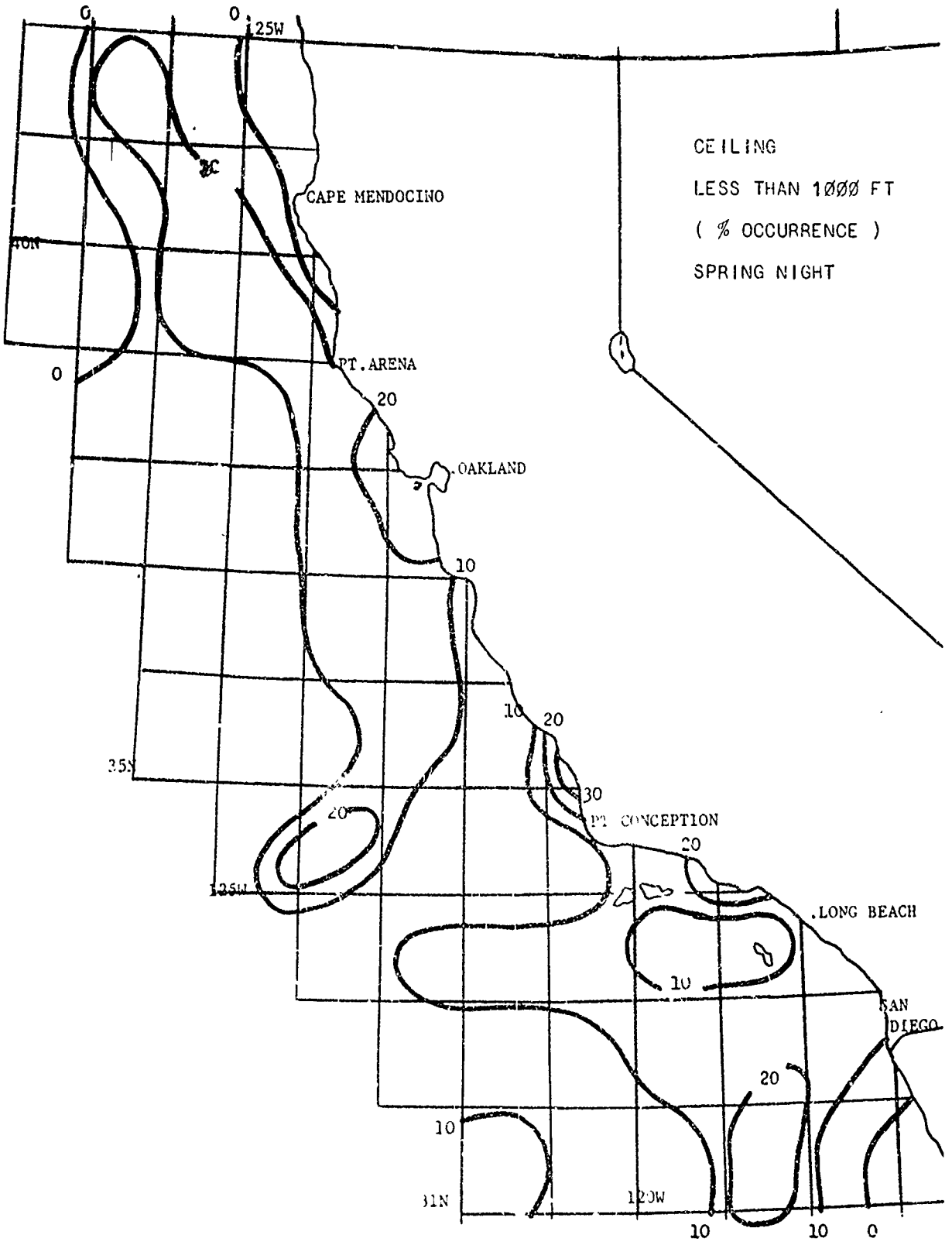
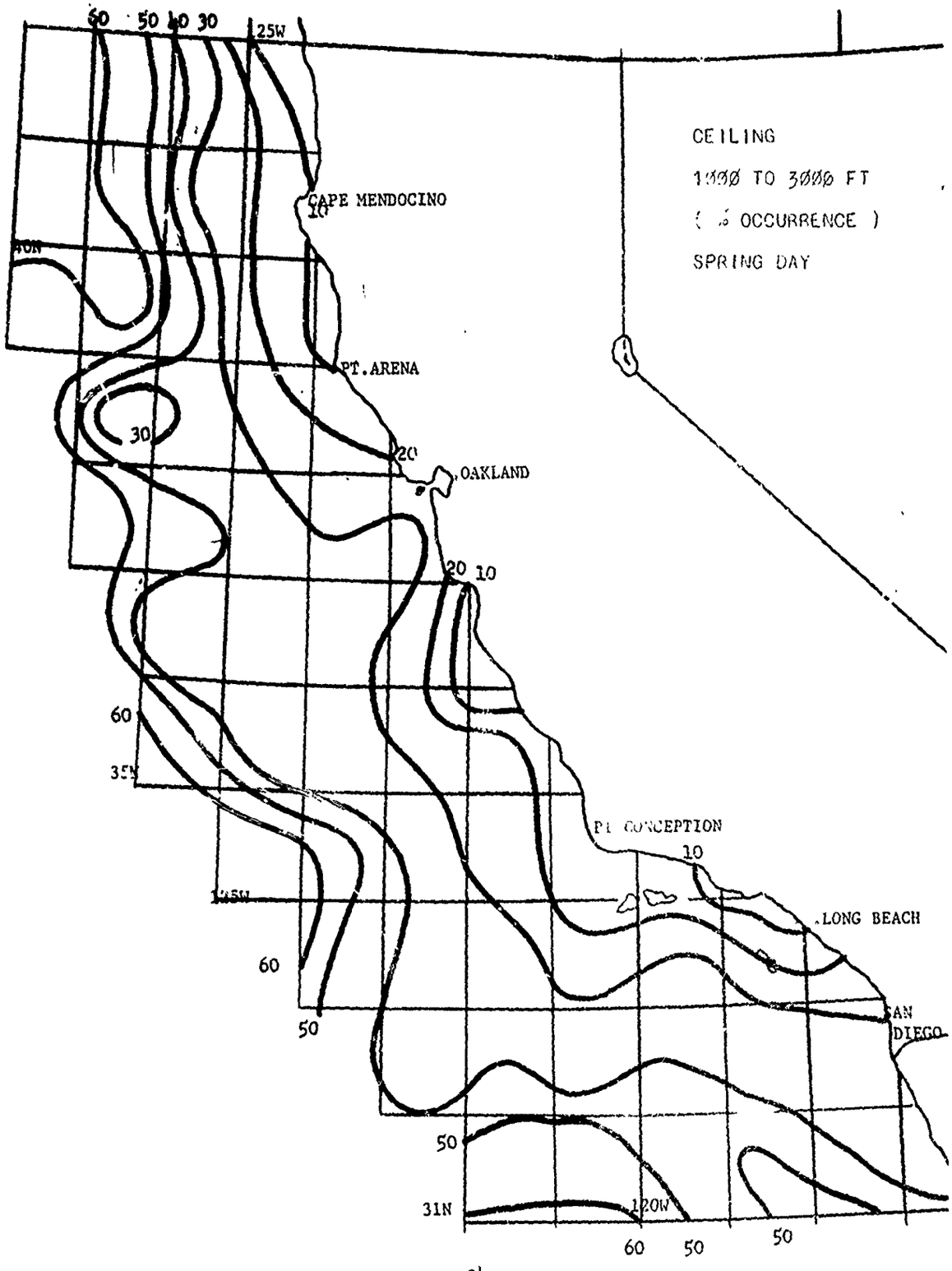
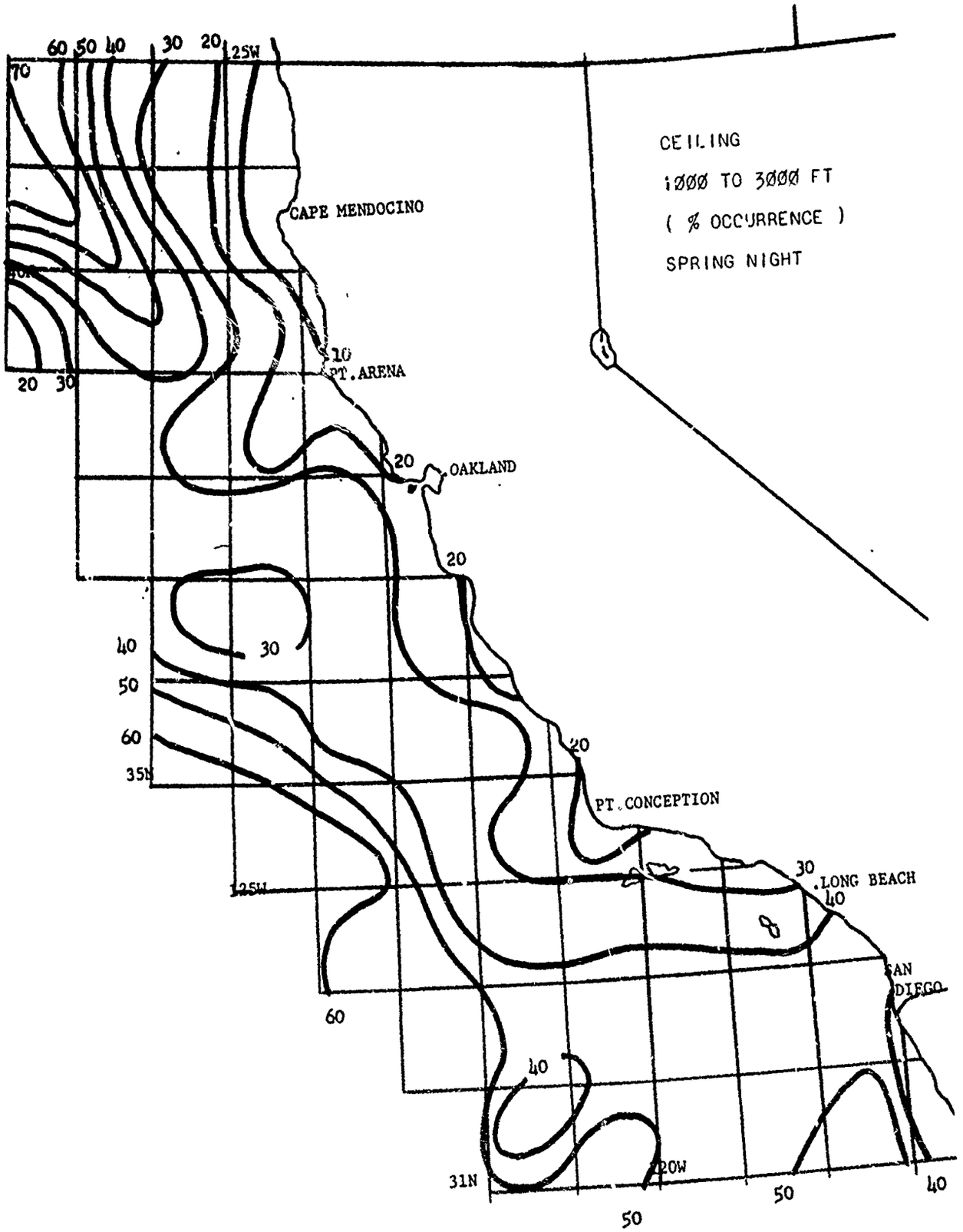
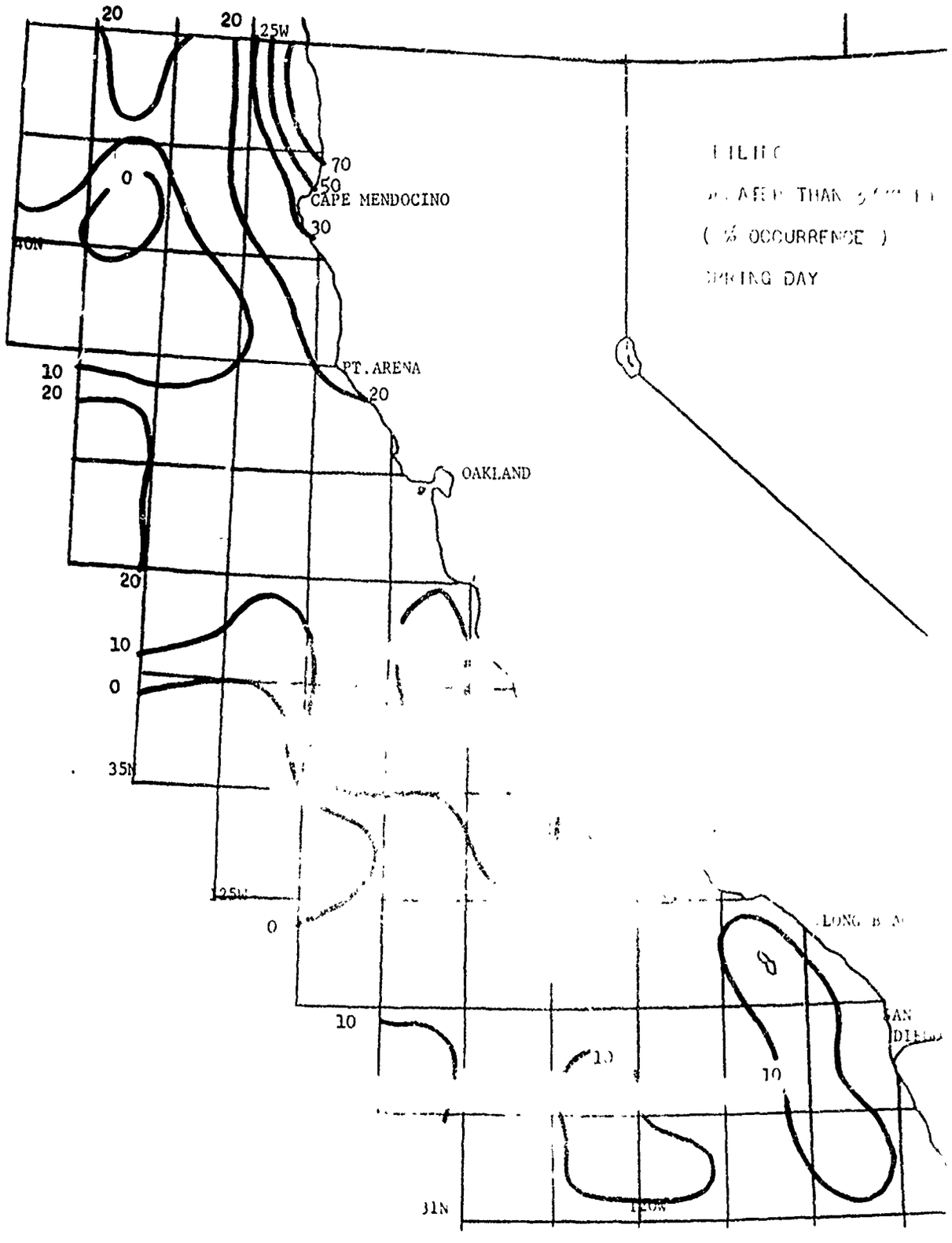
30
35N
20
125W
30
30


CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
0
10
20

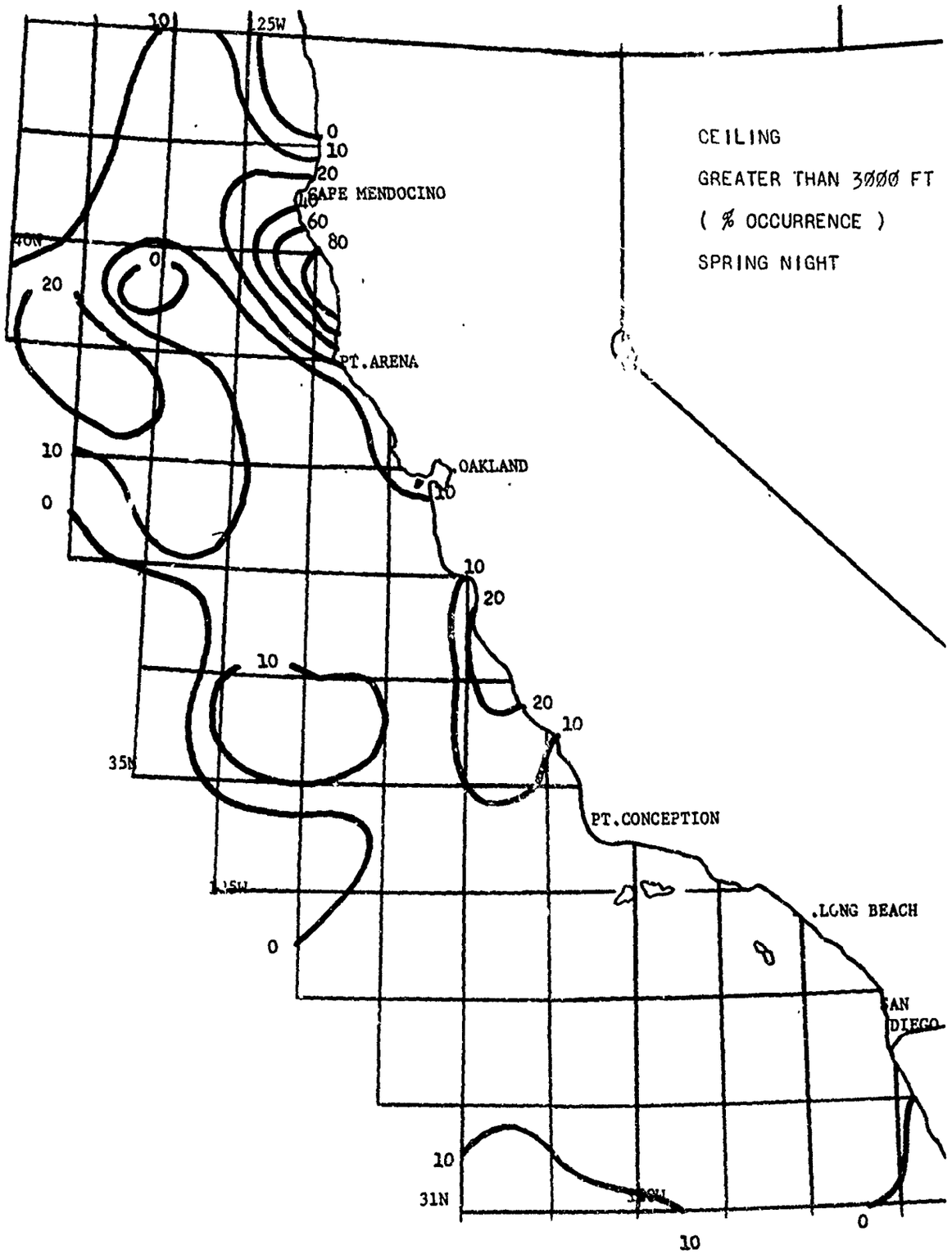

CEILING
LESS THAN 1000 FT
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
0
10
20
30

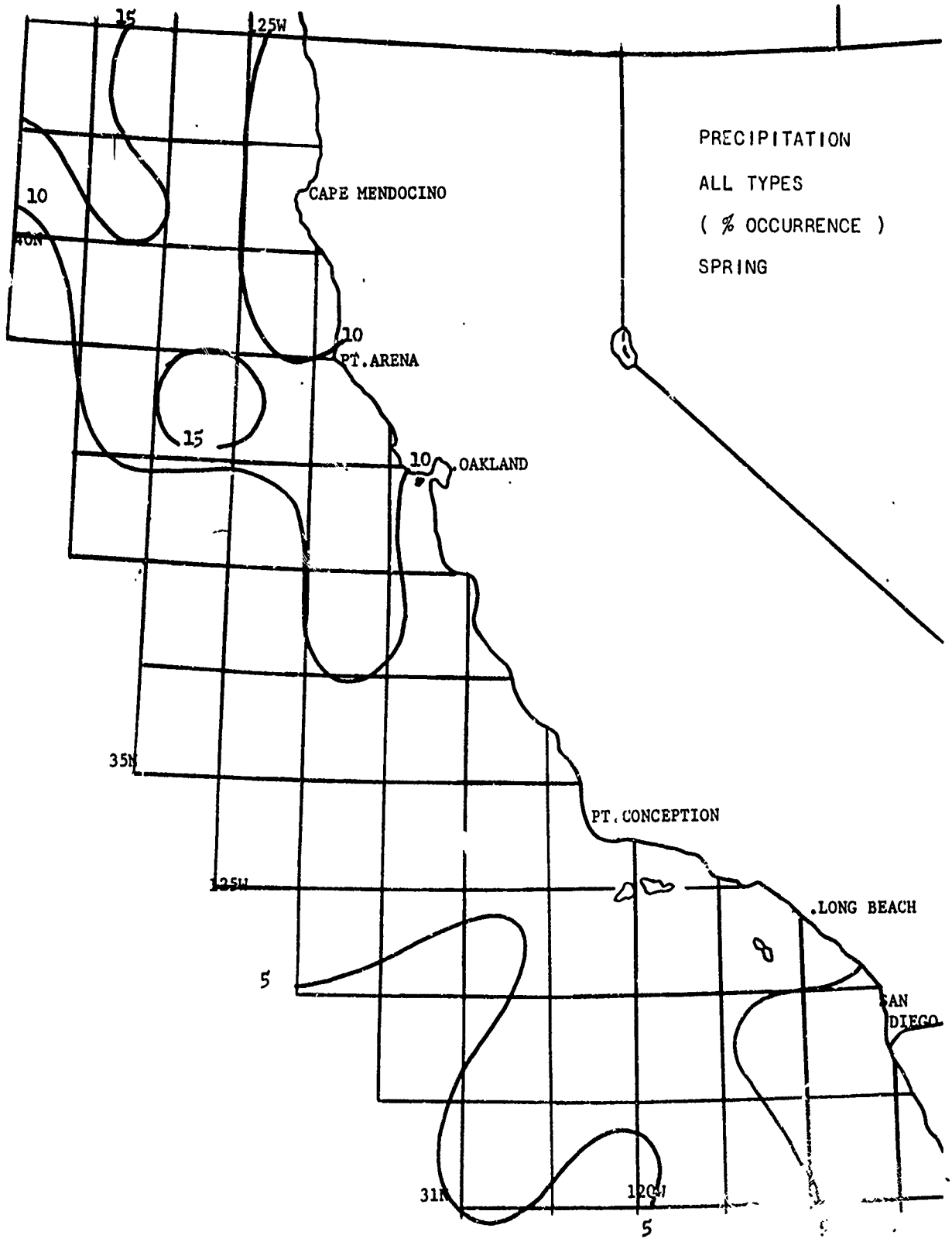

CEILING
1000 TO 3000 FT
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT CONCEPTION
LONG BEACH
SAN DIEGO
25W
40N
35N
31N
120W
60
50
40
30
20
10

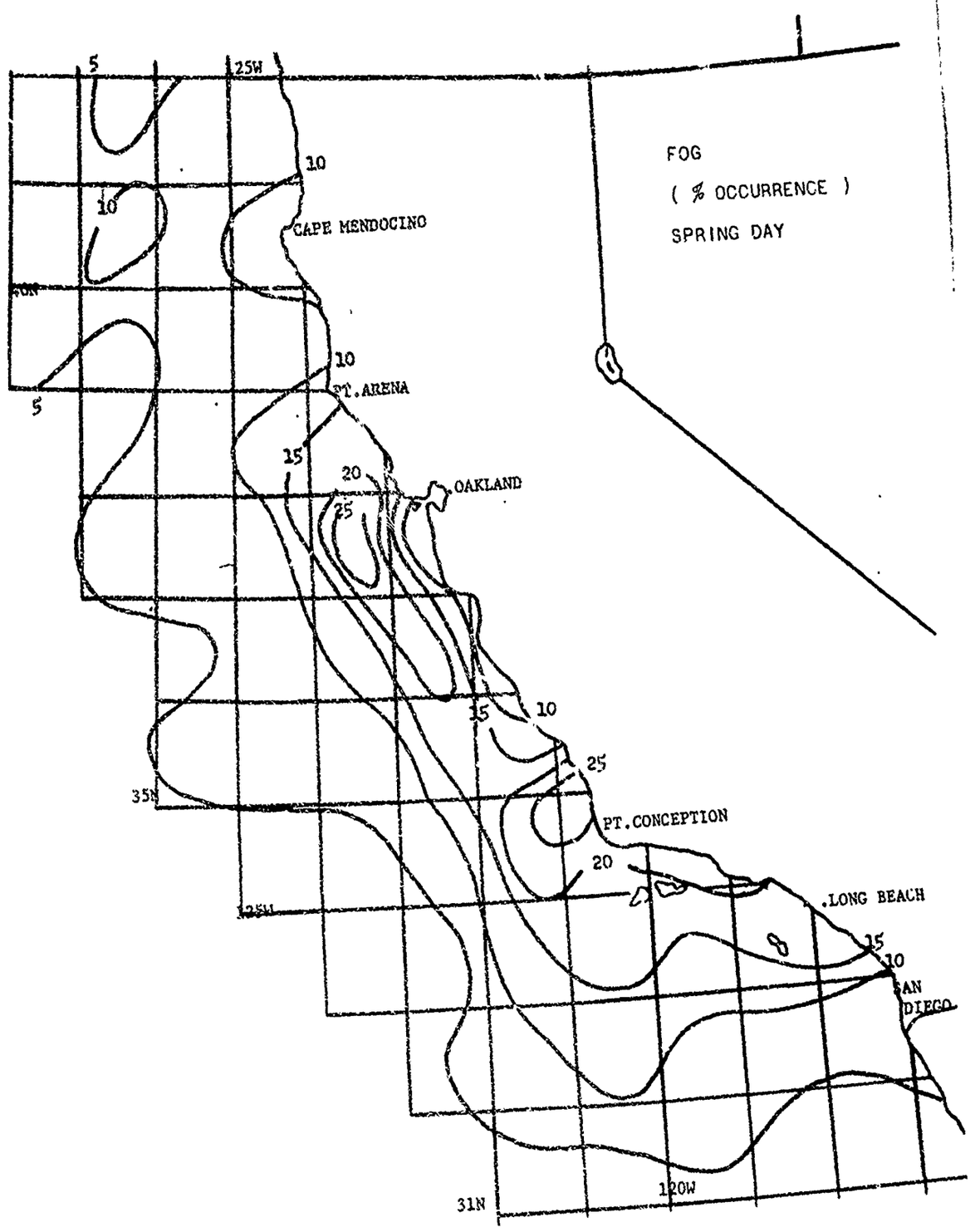

CEILING
1000 TO 3000 FT
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
70
60
50
40
30
20
10

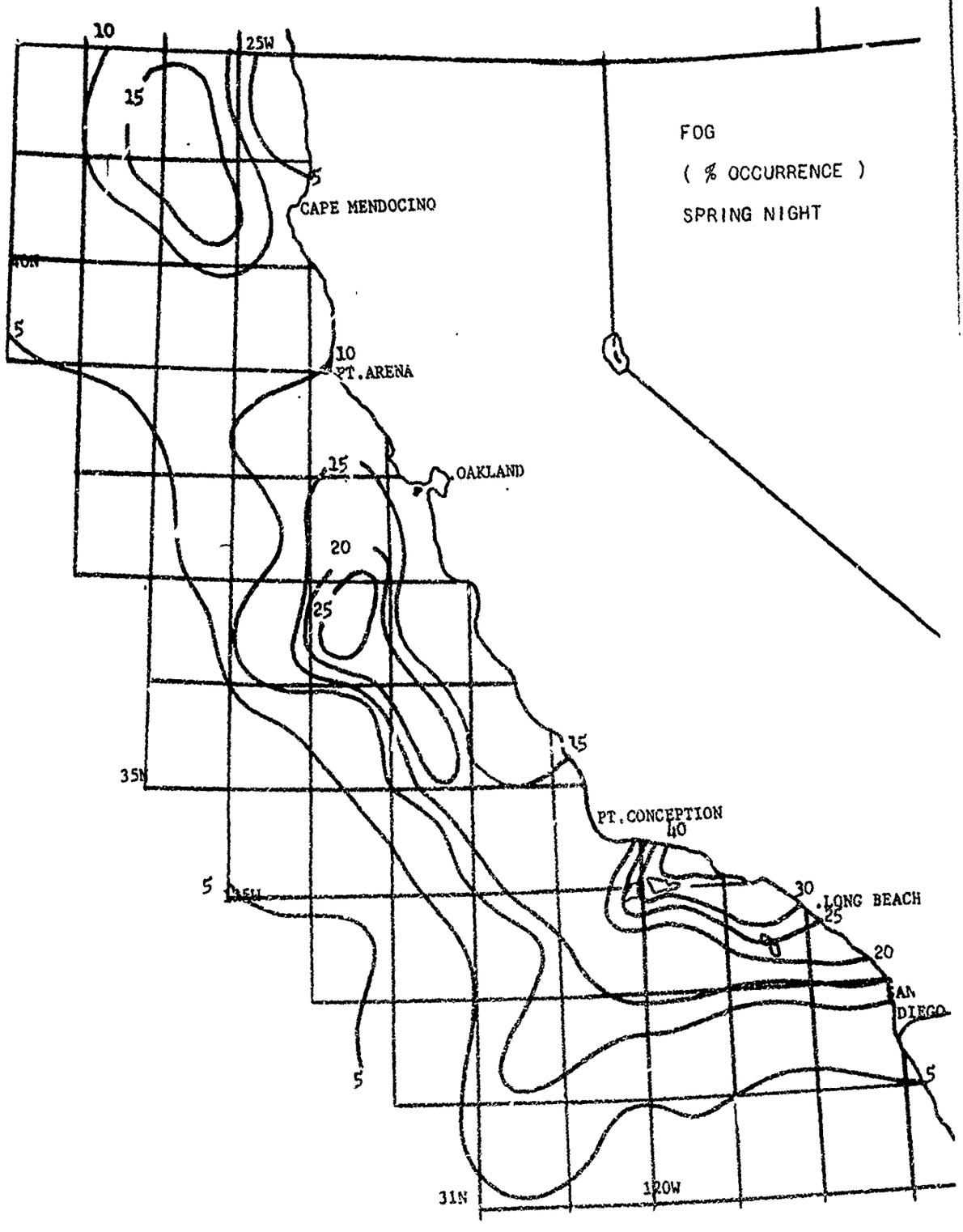


20
20
25W
70
50
CAPE MENDOCINO
30
0
40N
10
20
PT. ARENA
20
OAKLAND
20
10
0
35N
125W
0
10
10
10
31N
120W
(% OCCURRENCE)
DAY


CEILING
GREATER THAN 3000 FT
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
40N
35N
31N
0
10
20
60
80


PRECIPITATION
ALL TYPES
(% OCCURRENCE)
SPRING
15
125W
10
40N
CAPE MENDOCINO
10
PT. ARENA
15
10
OAKLAND
35N
PT. CONCEPTION
125W
LONG BEACH
5
SAN DIEGO
31N
120W
5


FOG
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
35N
31N
5
10
15
20
25


FOG
(% OCCURRENCE)
SPRING NIGHT
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
10
15
25W
5
10
15
20
25
15
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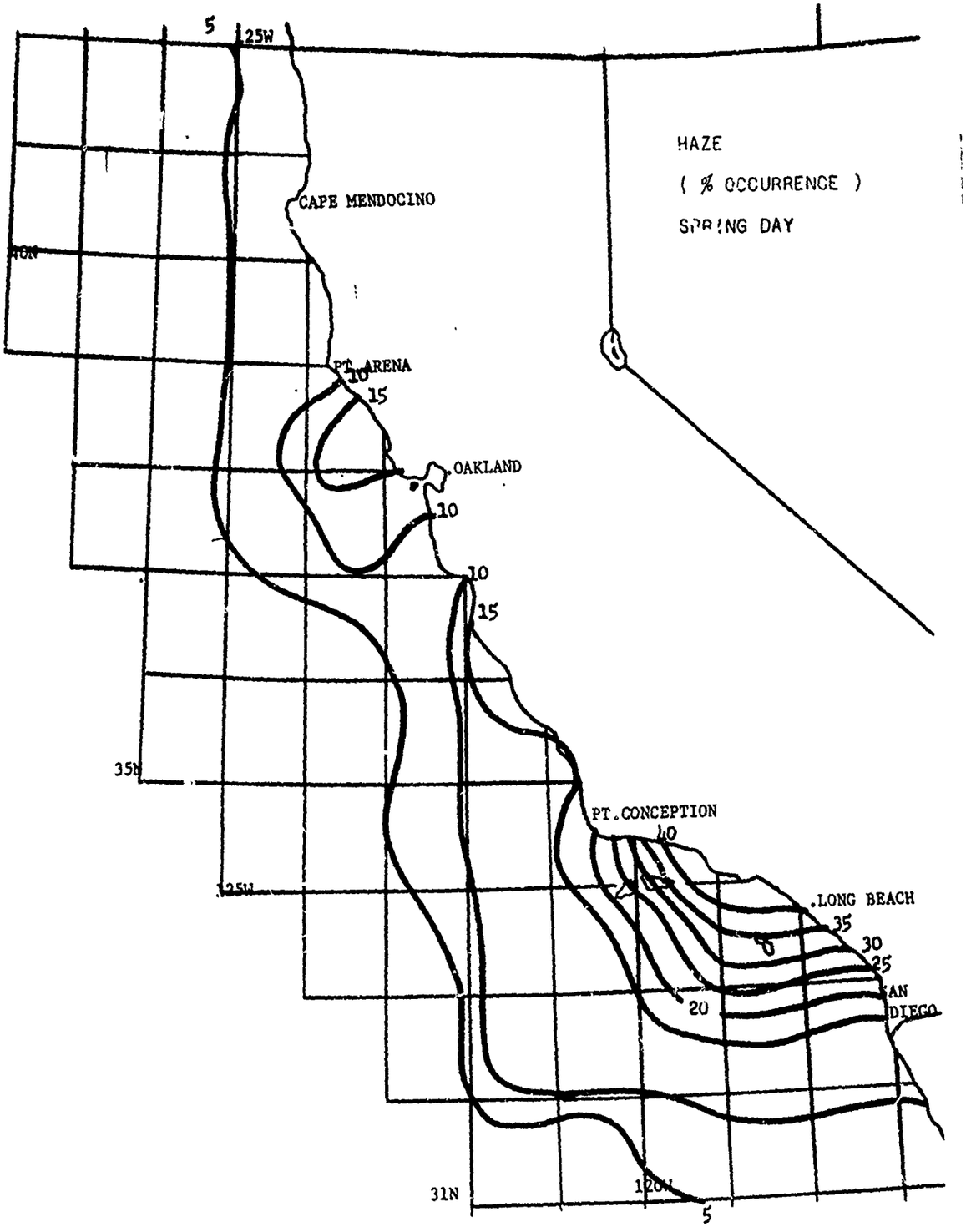
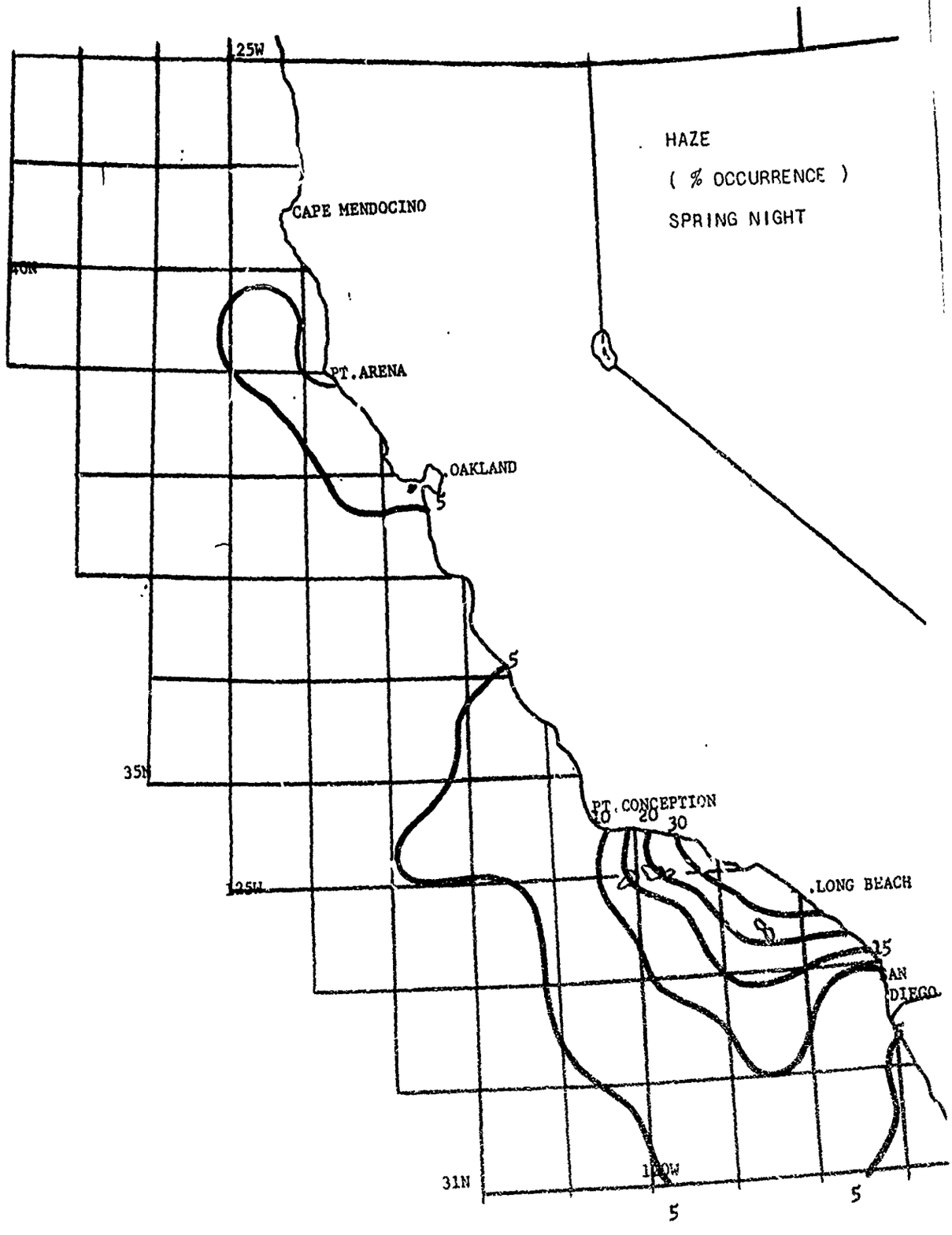
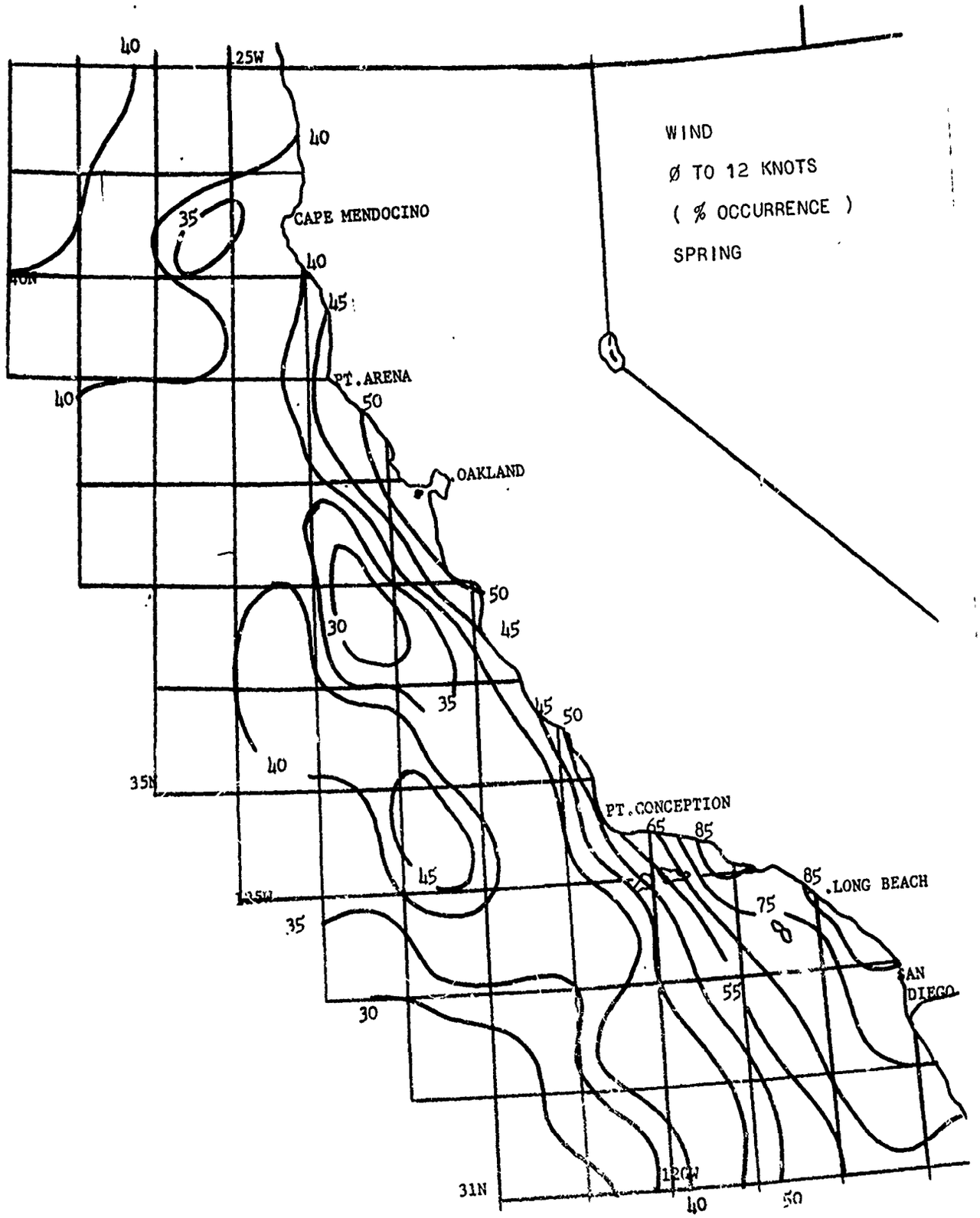
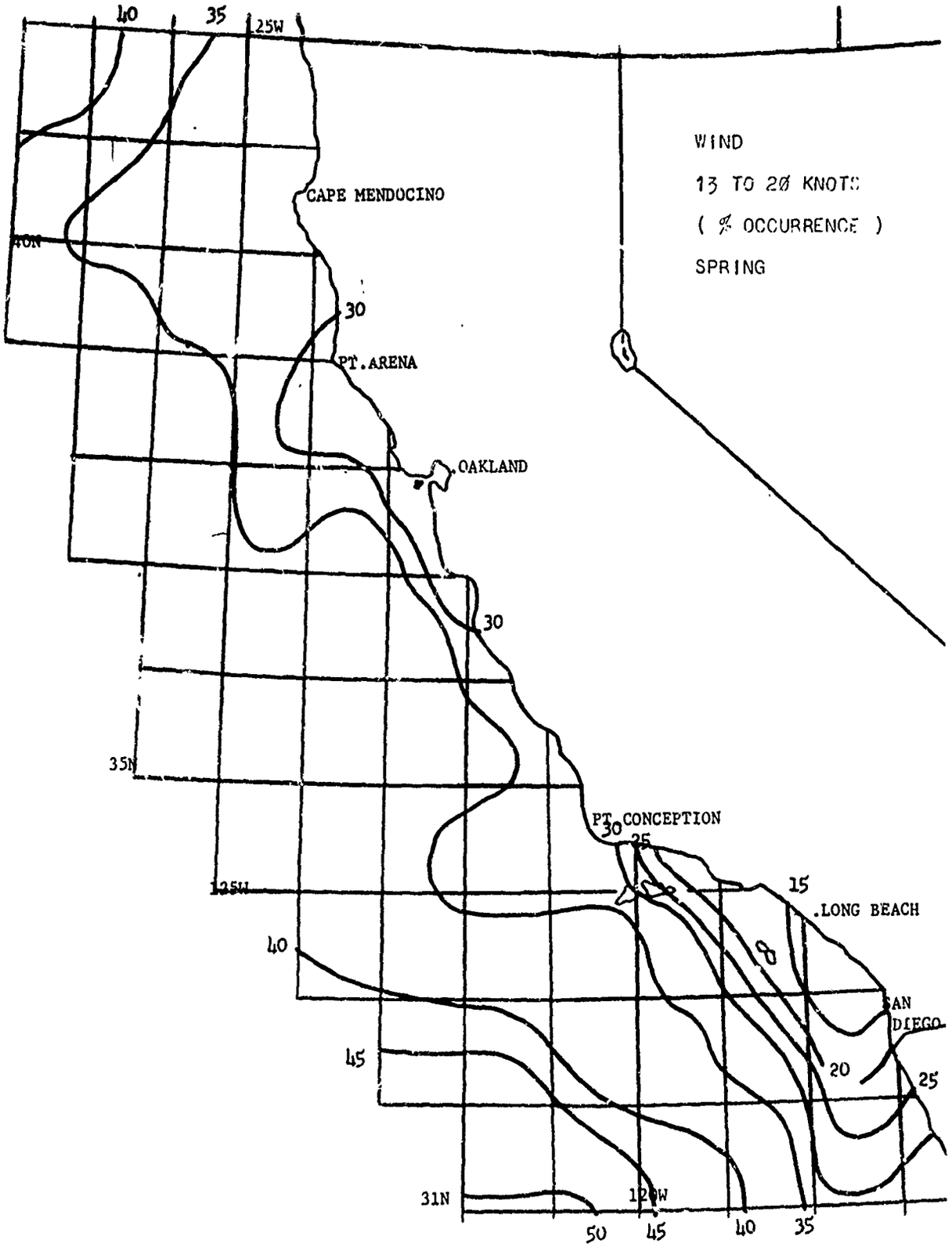
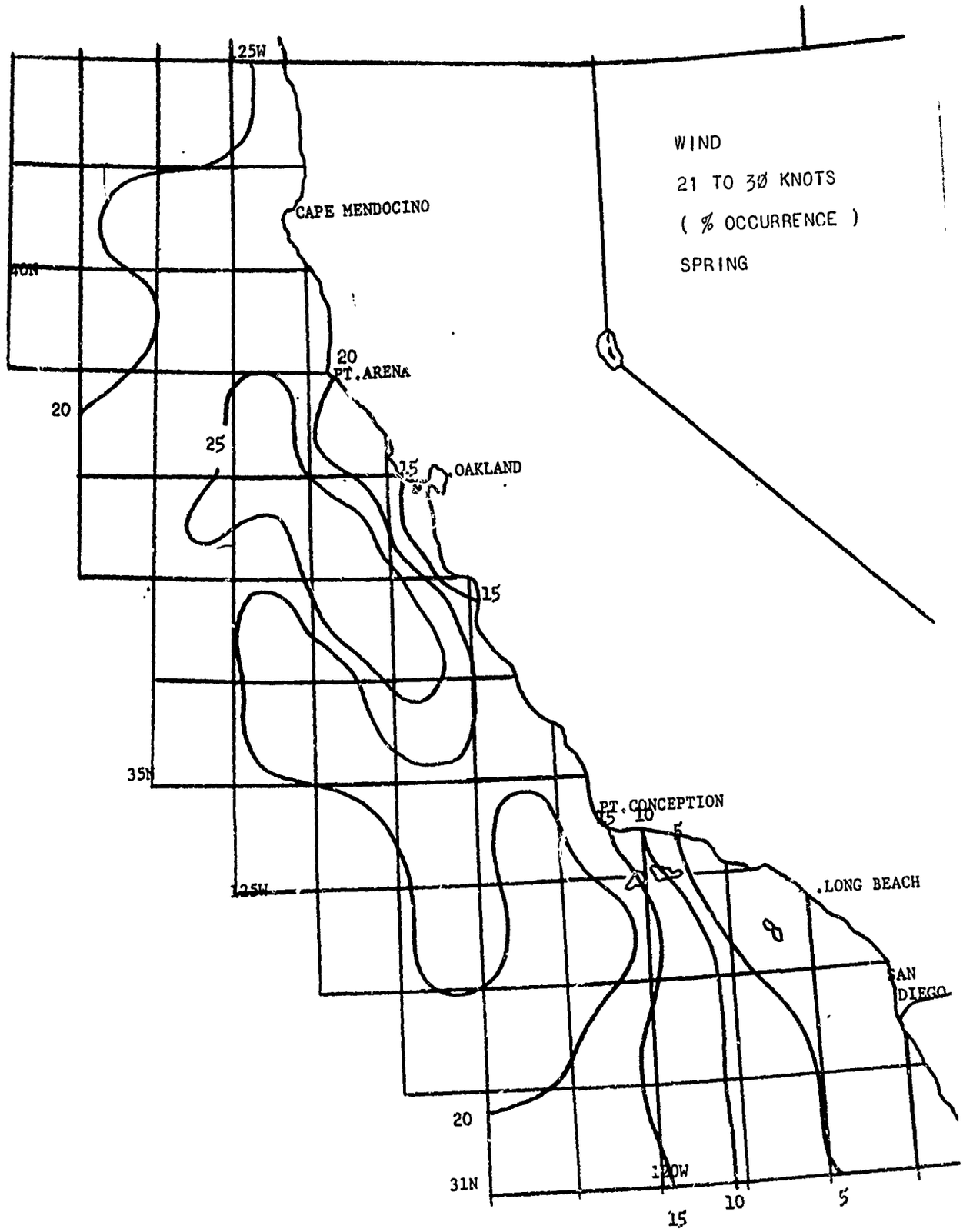
25
20
5
5
5
5

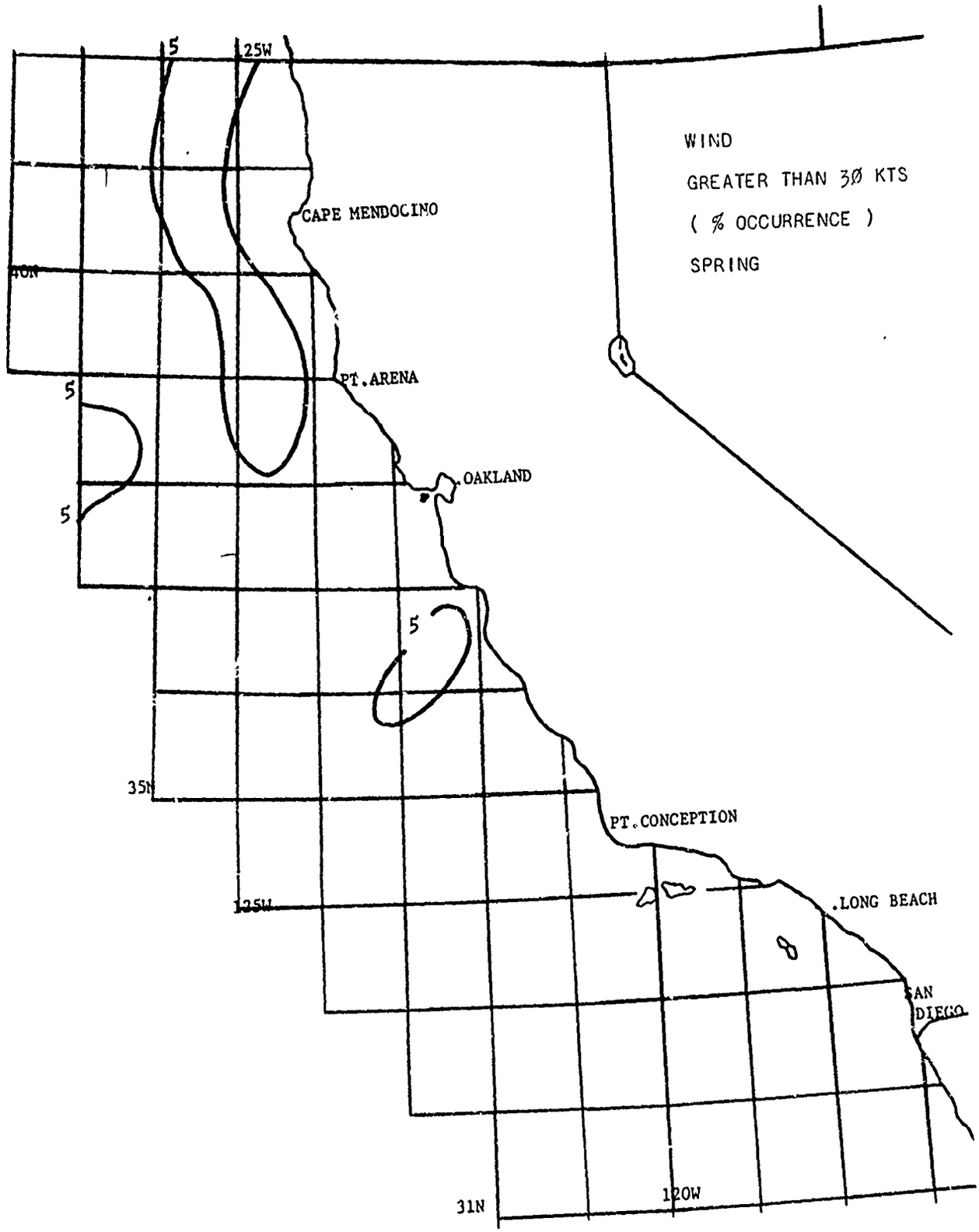

HAZE
(% OCCURRENCE)
SPRING DAY
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
5
125W
40N
35N
125W
31N
120W
10
15
10
10
15
10
35
30
25
20
5

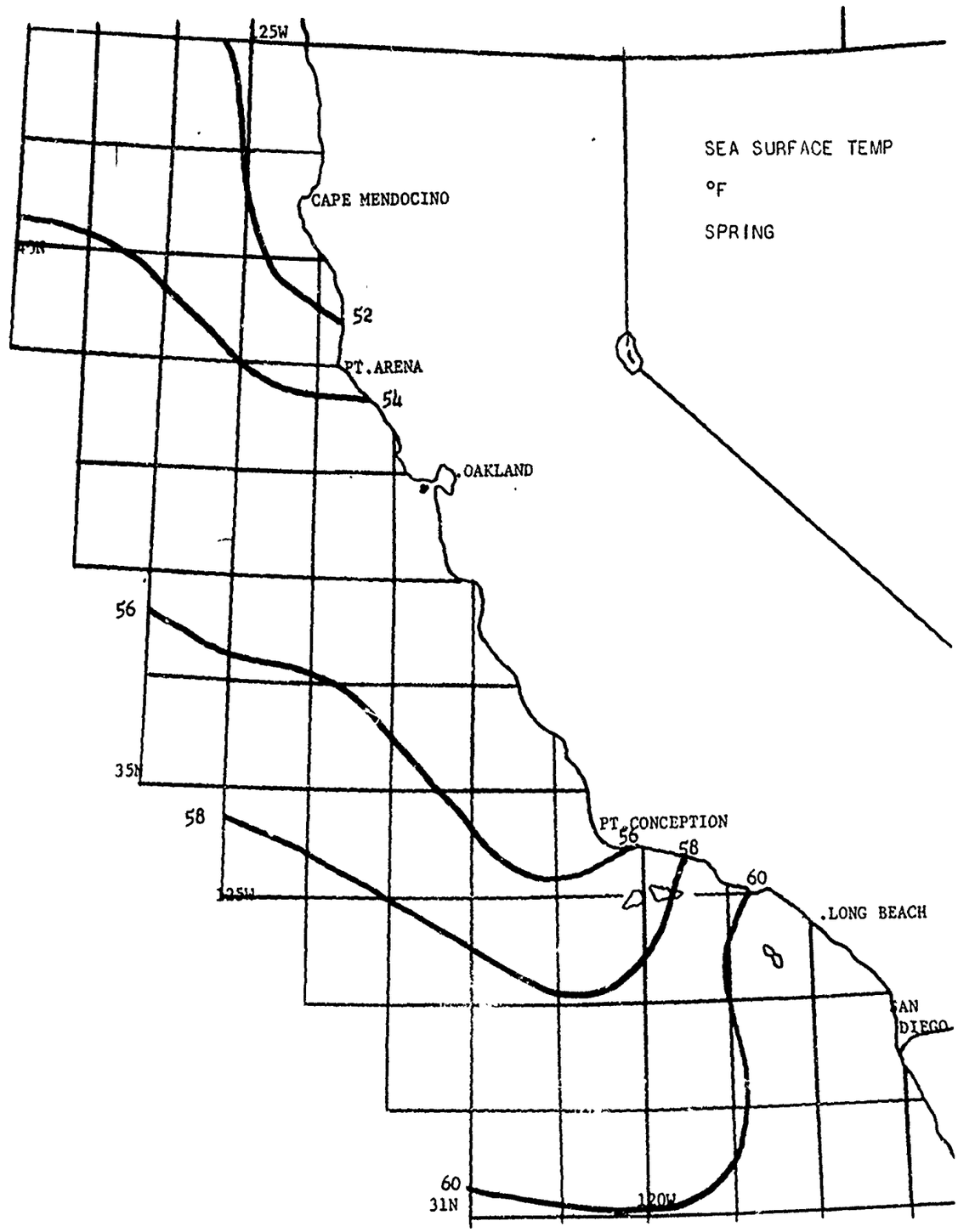

HAZE
(% OCCURRENCE)
SPRING NIGHT
25W
CAPE MENDOCINO
40N
PT. ARENA
OAKLAND
5
5
35N
PT. CONCEPTION
10
20
30
125W
LONG BEACH
15
AN
DIEGO
31N
5
5

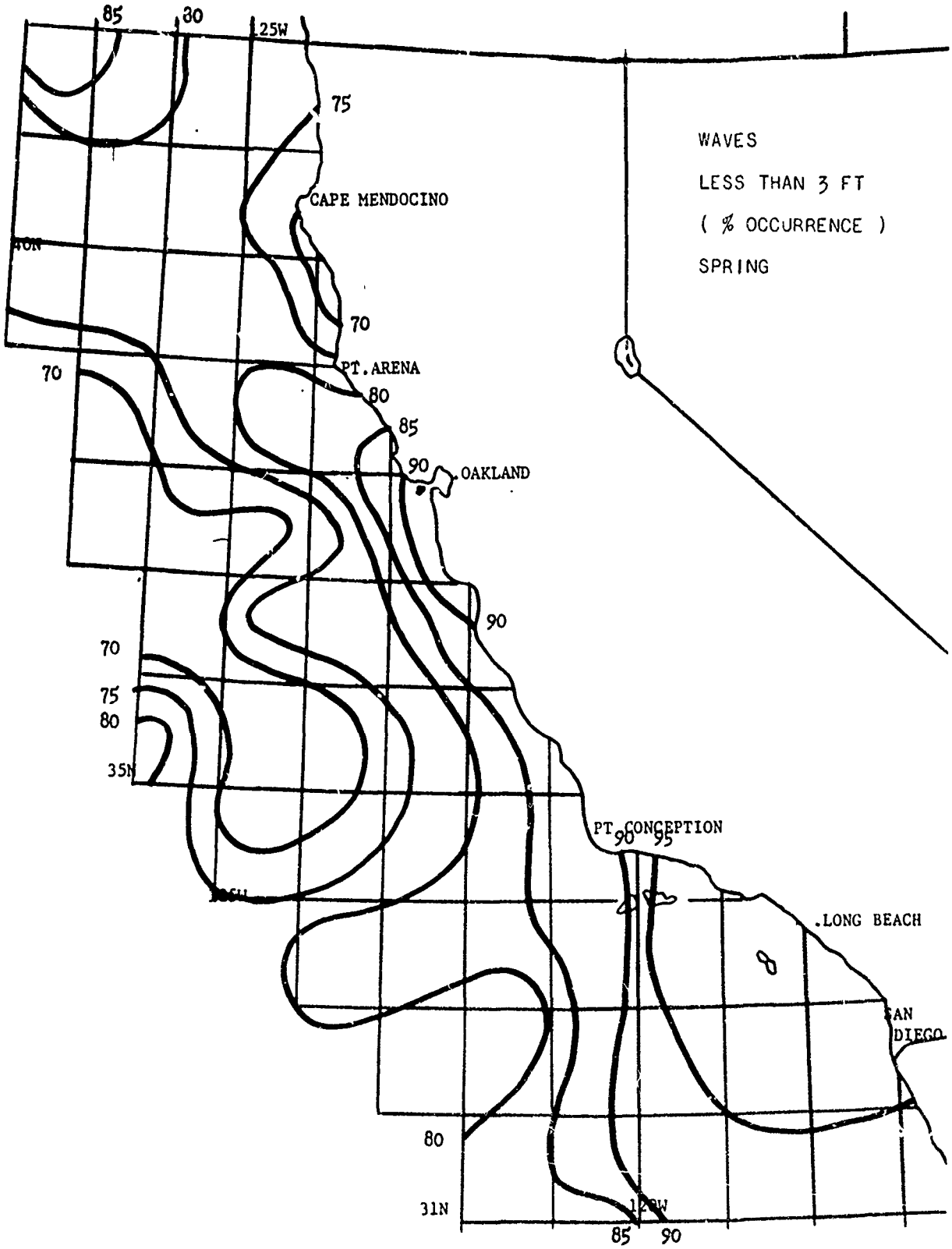

WIND
Ø TO 12 KNOTS
(% OCCURRENCE)
SPRING
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
120W
40N
35N
31N
40
35
45
50
30
65
85
75
55

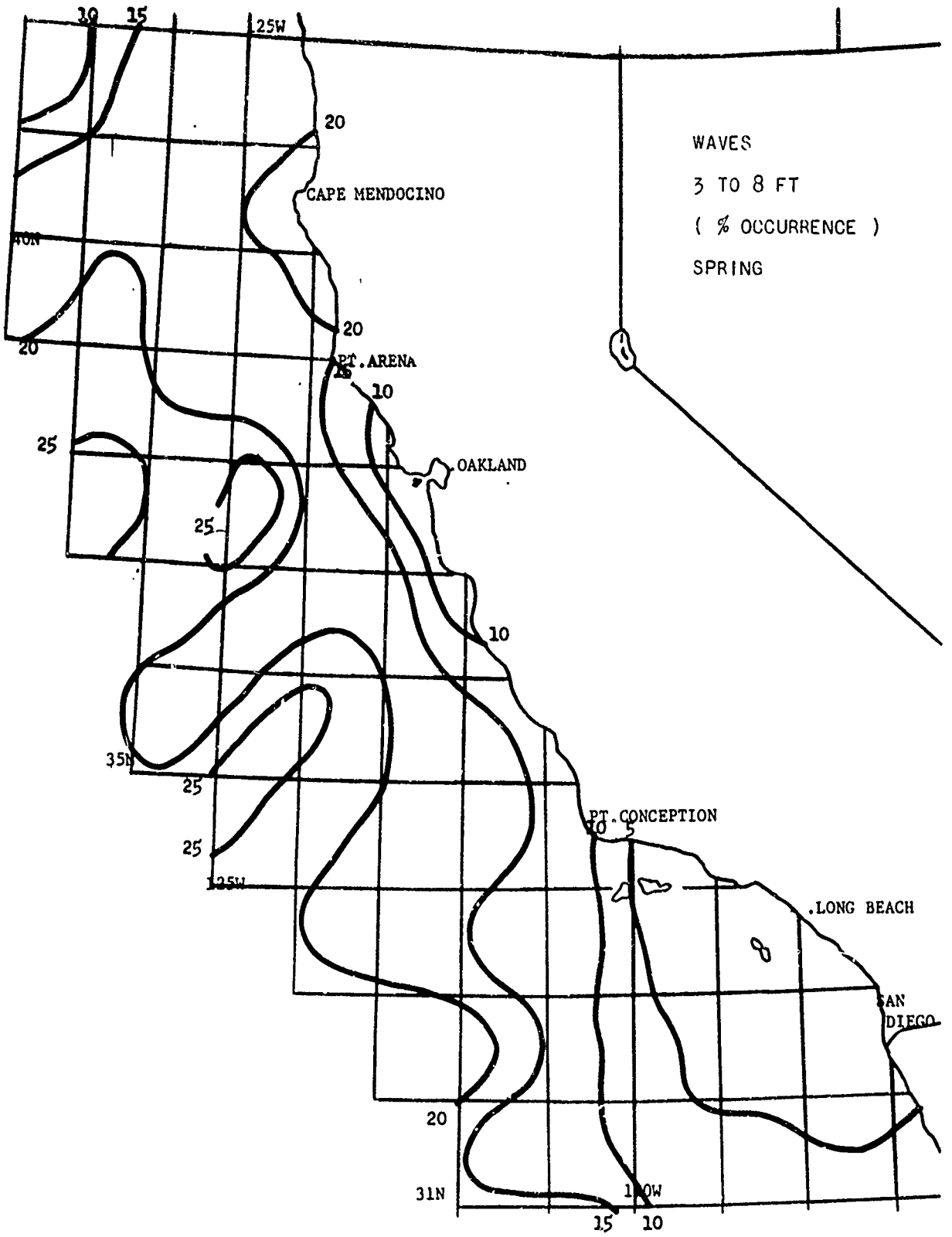

WIND
13 TO 20 KNOTS
(% OCCURRENCE)
SPRING
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
40N
35N
31N
125W
120W
40
35
25W
30
25
15
20
45
50

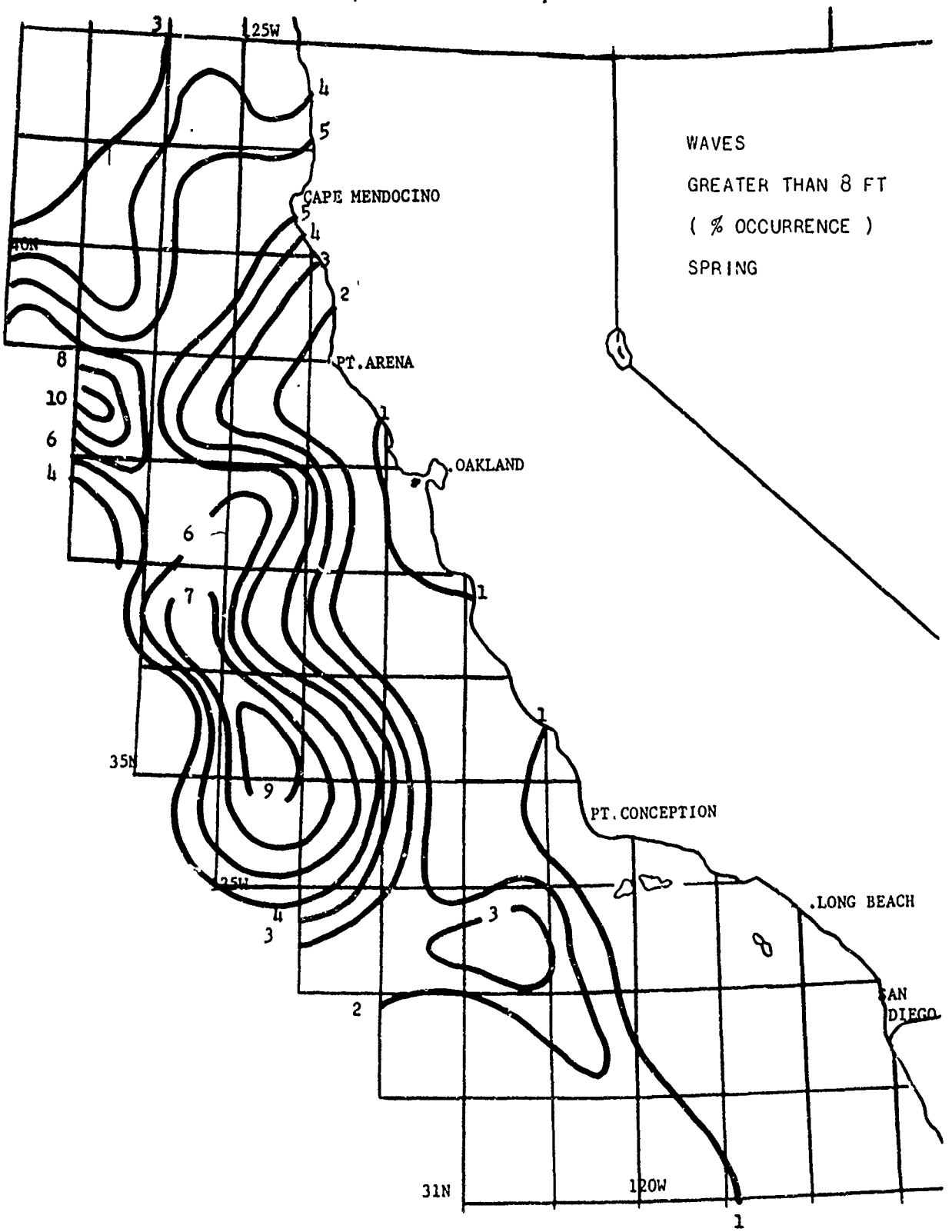

WIND
21 TO 30 KNOTS
(% OCCURRENCE)
SPRING
25W
CAPE MENDOCINO
40N
20
PT.ARENA
20
25
15
OAKLAND
15
35N
PT.CONCEPTION
15
10
5
125W
.LONG BEACH
8
SAN
DIEGO
20
31N
120W
15
10
5


WIND
GREATER THAN 3Ø KTS
(% OCCURRENCE)
SPRING
5
25W
CAPE MENDOCINO
40N
PT.ARENA
5
OAKLAND
5
5
35N
PT.CONCEPTION
125W
.LONG BEACH
SAN DIEGO
31N
120W


SEA SURFACE TEMP
°F
SPRING
125W
CAPE MENDOCINO
52
PT.ARENA
54
OAKLAND
56
35N
58
PT.CONCEPTION
56
58
60
125W
.LONG BEACH
SAN
DIEGO
60
31N
120W


WAVES
LESS THAN 3 FT
(% OCCURRENCE)
SPRING
85
80
125W
75
CAPE MENDOCINO
70
PT. ARENA
80
85
90
OAKLAND
90
70
70
75
80
35N
PT. CONCEPTION
90
95
LONG BEACH
SAN DIEGO
80
31N
120W
85
90


WAVES
3 TO 8 FT
(% OCCURRENCE)
SPRING
CAPE MENDOCINO
PT. ARENA
OAKLAND
PT. CONCEPTION
LONG BEACH
SAN DIEGO
125W
40N
35N
31N
10
15
20
25
5
8


WAVES
GREATER THAN 8 FT
(% OCCURRENCE)
SPRING
125W
CAPE MENDOCINO
40N
PT. ARENA
OAKLAND
35N
PT. CONCEPTION
LONG BEACH
SAN DIEGO
31N
120W