

7

HARBOR SUR
TIDE GAUGE READINGS

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Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

| MINUTES. | LKS. | MINUTES. | LKS. | MINUTES. | LKS. |
|----------|------------------|----------|------------------|----------|-------------------|
| 1 | 2 $\frac{1}{2}$ | 21 | 49 | 41 | 95 $\frac{1}{2}$ |
| 2 | 4 $\frac{1}{2}$ | 22 | 51 $\frac{1}{2}$ | 42 | 98 |
| 3 | 7 | 23 | 53 $\frac{1}{2}$ | 43 | 100 $\frac{1}{2}$ |
| 4 | 9 $\frac{1}{2}$ | 24 | 56 | 44 | 102 $\frac{1}{2}$ |
| 5 | 11 $\frac{1}{2}$ | 25 | 58 $\frac{1}{2}$ | 45 | 105 |
| 6 | 14 | 26 | 60 $\frac{1}{2}$ | 46 | 107 $\frac{1}{2}$ |
| 7 | 16 $\frac{1}{2}$ | 27 | 63 | 47 | 109 $\frac{1}{2}$ |
| 8 | 18 $\frac{1}{2}$ | 28 | 65 $\frac{1}{2}$ | 48 | 112 |
| 9 | 21 | 29 | 67 $\frac{1}{2}$ | 49 | 114 $\frac{1}{2}$ |
| 10 | 23 $\frac{1}{2}$ | 30 | 70 | 50 | 116 $\frac{1}{2}$ |
| 11 | 25 $\frac{1}{2}$ | 31 | 72 $\frac{1}{2}$ | 51 | 119 |
| 12 | 28 | 32 | 74 $\frac{1}{2}$ | 52 | 121 $\frac{1}{2}$ |
| 13 | 30 $\frac{1}{2}$ | 33 | 77 | 53 | 123 $\frac{1}{2}$ |
| 14 | 32 $\frac{1}{2}$ | 34 | 79 $\frac{1}{2}$ | 54 | 126 |
| 15 | 35 | 35 | 81 $\frac{1}{2}$ | 55 | 128 $\frac{1}{2}$ |
| 16 | 37 $\frac{1}{2}$ | 36 | 84 | 56 | 130 $\frac{1}{2}$ |
| 17 | 39 $\frac{1}{2}$ | 37 | 86 $\frac{1}{2}$ | 57 | 133 |
| 18 | 42 | 38 | 88 $\frac{1}{2}$ | 58 | 135 $\frac{1}{2}$ |
| 19 | 44 $\frac{1}{2}$ | 39 | 91 | 59 | 137 $\frac{1}{2}$ |
| 20 | 46 $\frac{1}{2}$ | 40 | 93 $\frac{1}{2}$ | 60 | 140 |

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

| ANGLE | COR. IN LINKS | ANGLE | COR. IN LINKS | ANGLE | COR. IN LINKS | ANGLE | COR. IN LINKS |
|-------|---------------|-------|---------------|-------|---------------|-------|---------------|
| ° | | ° | | ° | | ° | |
| 4 | 0.24 | 11 | 1.88 | 18 | 5.14 | 25 | 10.54 |
| 5 | 0.38 | 12 | 2.24 | 19 | 5.76 | 26 | 11.26 |
| 6 | 0.55 | 13 | 2.63 | 20 | 6.42 | 27 | 12.24 |
| 7 | 0.76 | 14 | 3.06 | 21 | 7.11 | 28 | 13.37 |
| 8 | 0.98 | 15 | 3.53 | 22 | 7.85 | 29 | 14.34 |
| 9 | 1.24 | 16 | 4.02 | 23 | 8.64 | 30 | 15.47 |
| 10 | 1.55 | 17 | 4.56 | 24 | 9.47 | 35 | 22.07 |



LEVEL BOOK

No. 400

IF Found

Return to City Engr Office



MANUFACTURED BY

A. S. Crocker Co.

SAN FRANCISCO

and

SACRAMENTO

FROM
Loring's Book Store

July

Tide Gauge

1

| Date | Time | Height | Date | Time | Height |
|------------------|-------------------|--------|------|-----------|--------|
| 17 th | 1 ^{PM} 5 | 8.0 | | 3-50 | 7.5 |
| | 1-20 | 8.1 | | 4 o'clock | 7.4 |
| | 1-30 | 8.1 | | 4-10 | 7.3 |
| | 1-40 | 8.2 | | 4-20 | 7.1 |
| | 1-50 | 8.2 | | 4-30 | 7.0 |
| | 2 o'clock | 8.1 | | | |
| | 2-10 | 8.1 | | | |
| | 2-20 | 8.1 | | | |
| | 2-30 | 8.1 | | | |
| | 2-40 | 8.1 | | | |
| | 2-50 | | | | |
| | 3 o'clock | | | | |
| | 3-10 | 7.8 | | | |
| | 3-20 | 7.7 | | | |
| | 3-30 | 7.7 | | | |
| | 3-40 | 7.6 | | | |

JULY 18th 1911

| Time AM | Hgt | Time | Hgt | Time | Hgt |
|------------|-----|------|-----|------|-----|
| 9.0'clock | 5.0 | | | | |
| 9-10 | 5.1 | | | | |
| 9-20 | 5.2 | | | | |
| 9-30 | | | | | |
| 9-40 | | | | | |
| 9-50 | | | | | |
| 10.0'clock | | | | | |

JULY 19th 1911

2

| Time AM | Height | Corr Height | Time PM | Height | Corr Height |
|------------|--------|----------------|------------|--------|----------------|
| 8.0'clock | 5.2 | 1.8 | 3-30 | 9.0 | 5.6 |
| 8-10 | 5.1 | | 3-40 | 9.0 | 5.6 |
| 8-20 | 5.1 | | 3-50 | 8.9 | 5.5 |
| 8-30 | 5.1 | | 4.0'clock | 8.9 | 5.5 |
| 8-40 | 5.1 | | 4-10 | 8.9 | 5.5 |
| 8-50 | 5.1 | | 4-20 | | |
| 9.0'clock | 5.1 | | 4-30 | | |
| 9-10 | 5.2 | | 4-40 | | |
| 9-20 | 5.2 | | | | |
| 9-30 | 5.3 | | | | |
| 9-40 | 5.4 | | | | |
| 9-50 | | | | | |
| 10.0'clock | | | | | |

0 on Rod = 3.4 below lowest low water

July 24

| Time H.M. | Height | Corr Height | Time | Height | Corr Height |
|--------------|--------|----------------|------------|--------|----------------|
| 8.0'clock | 7.0 | 3.6 | 10-40 | 7.0 | 3.6 |
| 8-10 | 7.1 | 3.7 | 10-50 | 6.9 | 3.5 |
| 8-20 | 7.2 | 3.8 | 11.0'clock | 6.8 | 3.4 |
| 8-30 | 7.3 | 3.9 | 11-10 | 6.7 | 3.3 |
| 8-40 | 7.4 | 4.0 | 11-20 | 6.6 | 3.2 |
| 8-50 | 7.5 | 4.1 | 11-30 | 6.4 | 3.0 |
| 9.0'clock | 7.6 | 4.2 | 11-40 | | |
| 9-10 | 7.6 | 4.2 | | | |
| 9-20 | 7.5 | 4.1 | | | |
| 9-30 | 7.5 | 4.1 | | | |
| 9-40 | 7.5 | 4.1 | | | |
| 9-50 | 7.5 | 4.1 | | | |
| 10.0'clock | 7.4 | 4.0 | | | |
| 10-10 | 7.3 | 3.9 | | | |
| 10-20 | 7.2 | 3.8 | | | |
| 10-30 | 7.1 | 3.7 | | | |

July 24

3

| Time P.M. | Height | Corr Height | Time | Height | Corr Height |
|--------------|--------|----------------|-----------|--------|----------------|
| 1.0'clock | 5.5 | 2.1 | 3-40 | 6.5 | 3.1 |
| 1-10 | 5.4 | 2.0 | 3-50 | 6.7 | 3.3 |
| 1-20 | 5.4 | 2.0 | 4.0'clock | 6.8 | 3.4 |
| 1-30 | 5.4 | 2.0 | 4-10 | 7.0 | 3.6 |
| 1-40 | 5.4 | 2.0 | 4-20 | 7.2 | 3.8 |
| 1-50 | 5.4 | 2.0 | 4-30 | 7.4 | 4.0 |
| 2.0'clock | 5.4 | 2.0 | | | |
| 2-10 | 5.5 | 2.1 | | | |
| 2-20 | 5.6 | 2.2 | | | |
| 2-30 | 5.6 | 2.2 | | | |
| 2-40 | 5.7 | 2.3 | | | |
| 2-50 | 5.8 | 2.4 | | | |
| 3.0'clock | 5.9 | 2.5 | | | |
| 3-10 | 6.0 | 2.6 | | | |
| 3-20 | 6.1 | 2.7 | | | |
| 3-30 | 6.3 | 2.9 | | | |

July 25

| Time | Height | Corr Height | Time | Height | Corr Height |
|------------|--------|----------------|------------|--------|----------------|
| 7-50 | 6.3 | 2.9 | 10-30 | 7.7 | 3.3 |
| 8-0'clock | 6.5 | 3.1 | 10-40 | 7.6 | 4.2 |
| 8-10 | 6.7 | 3.3 | 10-50 | 7.5 | 4.1 |
| 8-20 | 6.8 | 3.4 | 11-0'clock | 7.4 | 4.0 |
| 8-30 | 7.0 | 3.6 | 11-10 | 7.3 | 3.9 |
| 8-40 | 7.1 | 3.7 | 11-20 | 7.2 | 3.8 |
| 8-50 | 7.2 | 3.8 | 11-30 | 7.1 | 3.7 |
| 9-0'clock | 7.4 | 4.0 | 11-40 | 6.9 | 3.5 |
| 9-10 | 7.5 | 4.1 | 11-50 | | |
| 9-20 | 7.5 | 4.1 | | | |
| 9-30 | 7.6 | 4.2 | | | |
| 9-40 | 7.7 | 4.3 | | | |
| 9-50 | 7.8 | 4.4 | | | |
| 10-0'clock | 7.8 | 4.4 | | | |
| 10-10 | 7.8 | 4.4 | | | |
| 10-20 | 7.8 | 4.4 | | | |

July 25

4

| Time | Height | Corr Height | Time | Height | Corr Height |
|-----------|--------|----------------|-----------|--------|----------------|
| 10'clock | 5.8 | 2.4 | 3-40 | 5.6 | 2.2 |
| 1-10 | 5.7 | 2.3 | 3-50 | 5.7 | 2.3 |
| 1-20 | 5.6 | 2.2 | 4-0'clock | 5.9 | 2.5 |
| 1-30 | 5.5 | 2.1 | 4-10 | 6.0 | 2.6 |
| 1-40 | 5.4 | 2.0 | 4-20 | | |
| 1-50 | 5.3 | 1.9 | | | |
| 2-0'clock | 5.3 | 1.9 | | | |
| 2-10 | 5.2 | 1.8 | | | |
| 2-20 | 5.2 | 1.8 | | | |
| 2-30 | 5.2 | 1.8 | | | |
| 2-40 | 5.2 | 1.8 | | | |
| 2-50 | 5.2 | 1.8 | | | |
| 3-0'clock | 5.2 | 1.8 | | | |
| 3-10 | 5.3 | 1.9 | | | |
| 3-20 | 5.4 | 2.0 | | | |
| 3-30 | 5.5 | 2.1 | | | |

July 26

| Time | Height | corr Height | Time | Height | corr Height |
|--------------------------|--------|----------------|-------------|--------|----------------|
| 8:00 ^{AM} clock | 5.9 | 2.4 | 10-40 | 8.0 | 4.6 |
| 8-10 | 6.0 | 2.6 | 10-50 | 8.0 | 4.6 |
| 8-20 | 6.2 | 2.8 | 11:00 clock | 8.0 | 4.6 |
| 8-30 | 6.4 | 3.0 | 11-10 | 8.0 | 4.6 |
| 8-40 | 6.6 | 3.2 | 11-20 | 7.9 | 4.5 |
| 8-50 | 6.8 | 3.4 | 11-30 | 7.8 | 4.4 |
| 9:00 clock | 7.0 | 3.6 | 11-40 | 7.6 | 4.2 |
| 9-10 | 7.2 | 3.8 | 11-50 | 7.5 | 4.1 |
| 9-20 | 7.3 | 3.9 | | | |
| 9-30 | 7.5 | 4.1 | | | |
| 9-40 | 7.6 | 4.2 | | | |
| 9-50 | 7.7 | 4.3 | | | |
| 10:00 clock | 7.8 | 4.4 | | | |
| 10-10 | 7.9 | 4.5 | | | |
| 10-20 | 8.0 | 4.6 | | | |
| 10-30 | 8.0 | 4.6 | | | |

July 26

| Time | Height | corr Height | Time | Height | corr Height |
|--------------------------|--------|----------------|------------|--------|----------------|
| 1:00 ^{PM} clock | 6.5 | 3.1 | 3-40 | 5.1 | 1.7 |
| 1-10 | 6.3 | 2.9 | 3-50 | 5.2 | 1.8 |
| 1-20 | 6.2 | 2.8 | 4:00 clock | 5.2 | 1.8 |
| 1-30 | 6.0 | 2.6 | 4-10 | 5.3 | 1.9 |
| 1-40 | 5.8 | 2.4 | 4-20 | 5.4 | 2.0 |
| 1-50 | 5.7 | 2.3 | 4-30 | | |
| 2:00 clock | 5.6 | 2.2 | | | |
| 2-10 | 5.5 | 2.1 | | | |
| 2-20 | 5.4 | 2.0 | | | |
| 2-30 | 5.3 | 1.9 | | | |
| 2-40 | 5.3 | 1.9 | | | |
| 2-50 | 5.2 | 1.8 | | | |
| 3:00 clock | 5.2 | 1.8 | | | |
| 3-10 | 5.1 | 1.7 | | | |
| 3-20 | 5.1 | 1.7 | | | |
| 3-30 | 5.1 | 1.7 | | | |

| July 27 | | | | | | |
|-----------|------|--------|--------------|------|--------|--------------|
| PM | Time | Height | corr. Height | Time | Height | corr. Height |
| 1-10 | | | | | | |
| 1-10 | 7.1 | 3.7 | 3:40 | 5.1 | 1.7 | |
| 1-20 | 6.9 | 3.5 | 3:50 | 5.1 | 1.7 | |
| 1-30 | 6.8 | 3.4 | 4:00 | 5.1 | 1.7 | |
| 1-40 | 6.6 | 3.2 | 4:10 | 5.0 | 1.6 | |
| 1-50 | 6.5 | 3.1 | 4:20 | 5.0 | 1.6 | |
| 2:0'clock | 6.3 | 2.9 | | | | |
| 2-10 | 6.1 | 2.7 | | | | |
| 2-20 | 6.0 | 2.6 | | | | |
| 2-30 | 5.9 | 2.5 | | | | |
| 2-40 | 5.7 | 2.3 | | | | |
| 2-50 | 5.6 | 2.2 | | | | |
| 3:0'clock | 5.5 | 2.1 | | | | |
| 3-10 | 5.4 | 2.0 | | | | |
| 3-20 | 5.3 | 1.9 | | | | |
| 3-30 | 5.2 | 1.8 | | | | |

| July 28 | | | | | | 6 |
|------------|------|--------|--------------|------|--------|--------------|
| PM | Time | Height | corr. Height | Time | Height | corr. Height |
| 8:0'clock | 4.4 | 1.0 | 10:40 | 7.6 | 4.2 | |
| 8-10 | 4.6 | 1.2 | 10:50 | 7.7 | 4.3 | |
| 8-20 | 4.8 | 1.4 | 11:0'clock | 7.8 | 4.4 | |
| 8-30 | 5.0 | 1.6 | 11-10 | 7.9 | 4.5 | |
| 8-40 | 5.3 | 1.9 | 11-20 | 8.0 | 4.6 | |
| 8-50 | 5.5 | 2.1 | 11-30 | 8.1 | 4.7 | |
| 9:0'clock | 5.7 | 2.3 | 11-40 | 8.2 | 4.8 | |
| 9-10 | 5.9 | 2.5 | | | | |
| 9-20 | 6.1 | 2.7 | | | | |
| 9-30 | 6.3 | 2.9 | | | | |
| 9-40 | 6.5 | 3.1 | | | | |
| 9-50 | 6.7 | 3.3 | | | | |
| 10:0'clock | 6.8 | 3.4 | | | | |
| 10-10 | 7.0 | 3.6 | | | | |
| 10-20 | 7.2 | 3.8 | | | | |
| 10-30 | 7.4 | 4.0 | | | | |

July 28

| Time | Height | corr Height | Time | Height | corr Height |
|-----------------|--------|----------------|-----------|--------|----------------|
| PM 1-0'clock | 7.9 | 4.5 | 3-40 | 5.6 | 2.2 |
| 1-10 | 7.8 | 4.4 | 3-50 | 5.4 | 2.0 |
| 1-20 | 7.7 | 4.3 | 4-0'clock | 5.3 | 1.9 |
| 1-30 | 7.6 | 4.2 | 4-10 | 5.2 | 1.8 |
| 1-40 | 7.5 | 4.1 | 4-20 | 5.1 | 1.7 |
| 1-50 | 7.3 | 3.9 | 4-30 | 5.1 | 1.7 |
| 2-0'clock | 7.0 | 3.6 | 4-40 | 5.1 | 1.7 |
| 2-10 | 6.8 | 3.4 | 4-50 | 5.0 | 1.6 |
| 2-20 | 6.7 | 3.3 | | | |
| 2-30 | 6.5 | 3.1 | | | |
| 2-40 | 6.3 | 2.9 | | | |
| 2-50 | 6.2 | 2.8 | | | |
| 3-0'clock | 6.1 | 2.7 | | | |
| 3-10 | 5.9 | 2.5 | | | |
| 3-20 | 5.8 | 2.4 | | | |
| 3-30 | 5.7 | 2.3 | | | |

July 29

7

| Time | Height | corr Height | Time | Height | corr Height |
|------------|--------|----------------|------------|--------|----------------|
| 7-50 PM | 4.0 | 0.7 | 10-30 | 6.9 | 3.6 |
| 8-0'clock | 4.1 | 0.8 | 10-40 | 7.0 | 3.7 |
| 8-10 | 4.4 | 1.1 | 10-50 | 7.2 | 3.9 |
| 8-20 | 4.6 | 1.3 | 11-0'clock | 7.4 | 4.1 |
| 8-30 | 4.7 | 1.4 | | | |
| 8-40 | 4.9 | 1.6 | | | |
| 8-50 | 5.1 | 1.8 | | | |
| 9-0'clock | 5.3 | 2.0 | | | |
| 9-10 | 5.5 | 2.2 | | | |
| 9-20 | 5.7 | 2.4 | | | |
| 9-30 | 5.9 | 2.6 | | | |
| 9-40 | 6.1 | 2.8 | | | |
| 9-50 | 6.3 | 3.0 | | | |
| 10-0'clock | 6.5 | 3.2 | | | |
| 10-10 | 6.7 | 3.4 | | | |
| 10-20 | 6.8 | 3.5 | | | |

July 31

| Time | Height | Corr Height | Time | Height | Corr Height |
|------------------|--------|----------------|-------------|--------|----------------|
| 8:00 clock AM | 4.6 | 2.3 | 10-40 | 6.7 | 3.4 |
| 8-10 | 4.7 | 1.4 | 10-50 | 6.9 | 3.6 |
| 8-20 | 4.8 | 1.5 | 11:00 clock | 7.0 | 3.7 |
| 8-30 | 4.9 | 1.6 | 11-10 | 7.1 | 3.8 |
| 8-40 | 5.1 | 1.8 | 11-20 | 7.2 | 3.9 |
| 8-50 | 5.2 | 1.9 | 11-30 | 7.3 | 4.0 |
| 9:00 clock | 5.3 | 2.0 | 11-40 | 7.4 | 4.1 |
| 9-10 | 5.4 | 2.1 | 11-50 | 7.6 | 4.3 |
| 9-20 | 5.6 | 2.3 | | | |
| 9-30 | 5.7 | 2.4 | | | |
| 9-40 | 5.8 | 2.5 | | | |
| 9-50 | 5.9 | 2.6 | | | |
| 10:00 clock | 6.1 | 2.8 | | | |
| 10-10 | 6.3 | 3.0 | | | |
| 10-20 | 6.4 | 3.1 | | | |
| 10-30 | 6.6 | 3.3 | | | |

July 31

8

| Time | Height | Corr Height | Time | Height | Corr Height |
|-------------------|--------|----------------|------|--------|----------------|
| 10:00 clock PM | 8.2 | 4.9 | | | |
| 1-10 | 8.3 | 5.0 | | | |
| 1-20 | 8.4 | 5.1 | | | |
| 1-30 | 8.5 | 5.2 | | | |
| 1-40 | 8.5 | 5.2 | | | |
| 1-50 | 8.5 | 5.2 | | | |
| 2:00 clock | 8.6 | 5.3 | | | |
| 2-10 | 8.5 | 5.2 | | | |
| 2-20 | 8.5 | 5.2 | | | |
| 2-30 | 8.5 | 5.2 | | | |
| 2-40 | 8.4 | 5.1 | | | |
| 2-50 | 8.4 | 5.1 | | | |
| 3:00 clock | 8.3 | 5.0 | | | |
| 3-10 | 8.2 | 4.9 | | | |
| 3-20 | 8.1 | 4.8 | | | |
| 3-30 | 8.0 | 4.7 | | | |

August 1

| Time | Height | Height ^{corr} | Time | Height | Height ^{corr} |
|------------|--------|------------------------|------------|--------|------------------------|
| 8-10 | 5.3 | 2.0 | 10-50 | 6.6 | 3.3 |
| 8-20 | 5.3 | 2.0 | 11 o'clock | 6.7 | 3.4 |
| 8-30 | 5.4 | 2.1 | 11-10 | 6.8 | 3.5 |
| 8-40 | 5.4 | 2.1 | 11-20 | 6.9 | 3.6 |
| 8-50 | 5.5 | 2.2 | 11-30 | 7.0 | 3.7 |
| 9 o'clock | 5.5 | 2.2 | 11-40 | 7.2 | 3.9' |
| 9-10 | 5.6 | 2.3 | | | |
| 9-20 | 5.7 | 2.4 | | | |
| 9-30 | 5.8 | 2.5 | | | |
| 9-40 | 5.9 | 2.6 | | | |
| 9-50 | 6.0 | 2.7 | | | |
| 10 o'clock | 6.1 | 2.8 | | | |
| 10-10 | 6.2 | 2.9 | | | |
| 10-20 | 6.3 | 3.0 | | | |
| 10-30 | 6.4 | 3.1 | | | |
| 10-40 | 6.5 | 3.2 | | | |

August 1.

9

| Time | Height | Height ^{corr} | Time | Height | Height ^{corr} |
|-----------|--------|------------------------|-----------|--------|------------------------|
| 1-10 | 8.1 | 4.8 | 3-50 | 8.4 | 5.1 |
| 1-20 | 8.1 | 4.8 | 4 o'clock | 8.4 | 5.1 |
| 1-30 | 8.2 | 4.9 | 4-10 | | |
| 1-40 | 8.3 | 5.0 | 4-20 | | |
| 1-50 | 8.4 | 5.1 | 4-30 | | |
| 2 o'clock | 8.4 | 5.1 | | | |
| 2-10 | 8.5 | 5.2 | | | |
| 2-20 | 8.5 | 5.2 | | | |
| 2-30 | 8.5 | 5.2 | | | |
| 2-40 | 8.6 | 5.3 | | | |
| 2-50 | 8.6 | 5.3 | | | |
| 3 o'clock | 8.5 | 5.2 | | | |
| 3-10 | 8.5 | 5.2 | | | |
| 3-20 | 8.5 | 5.2 | | | |
| 3-30 | 8.5 | 5.2 | | | |
| 3-40 | 8.4 | 5.1 | | | |

August 2

| Time | Height | Corr Height | Time | Height | Corr Height |
|--------------------------|--------|----------------|-------------|--------|----------------|
| 8:00 ^{AM} clock | 5.9 | 2.6 | 10-40 | 6.4 | 3.1 |
| 8-10 | 5.9 | 2.6 | 10-50 | 6.5 | 3.2 |
| 8-20 | 5.9 | 2.6 | 11:00 clock | 6.6 | 3.3 |
| 8-30 | 5.9 | 2.6 | 11-10 | 6.7 | 3.4 |
| 8-40 | 5.9 | 2.6 | 11-20 | 6.8 | 3.5 |
| 8-50 | 5.9 | 2.6 | 11-30 | | |
| 9:00 clock | 5.9 | 2.6 | 11-40 | | |
| 9-10 | 5.9 | 2.6 | | | |
| 9-20 | 6.0 | 2.7 | | | |
| 9-30 | 6.0 | 2.7 | | | |
| 9-40 | 6.1 | 2.8 | | | |
| 9-50 | 6.1 | 2.8 | | | |
| 10:00 clock | 6.2 | 2.9 | | | |
| 10-10 | 6.3 | 3.0 | | | |
| 10-20 | 6.3 | 3.0 | | | |
| 10-30 | 6.4 | 3.1 | | | |

August 2

| Time | Height | Corr Height | Time | Height | Corr Height |
|---------------------|--------|----------------|------------|--------|----------------|
| 12:50 ^{PM} | 7.5 | 4.2 | 3-30 | 8.7 | 5.4 |
| 10:00 clock | 7.6 | 4.3 | 3-40 | 8.7 | 5.4 |
| 1-10 | 7.7 | 4.4 | 3-50 | 8.7 | 5.4 |
| 1-20 | 7.8 | 4.5 | 4:00 clock | 8.7 | 5.4 |
| 1-30 | 7.9 | 4.6 | 4-10 | 8.7 | 5.4 |
| 1-40 | 8.0 | 4.7 | 4-20 | 8.7 | 5.4 |
| 1-50 | 8.1 | 4.8 | | | |
| 2:00 clock | 8.1 | 4.8 | | | |
| 2-10 | 8.2 | 4.9 | | | |
| 2-20 | 8.3 | 5.0 | | | |
| 2-30 | 8.4 | 5.1 | | | |
| 2-40 | 8.5 | 5.2 | | | |
| 2-50 | 8.5 | 5.2 | | | |
| 3:00 clock | 8.6 | 5.3 | | | |
| 3-10 | 8.6 | 5.3 | | | |
| 3-20 | 8.7 | 5.4 | | | |

August 4

| Time # M | Height | Corr Height | Time | Height | Corr Height |
|-------------|--------|----------------|------------|--------|----------------|
| 8 o'clock | 6.9 | 3.6 | 10-40 | 5.9 | 3.1 |
| 8-10 | 6.9 | 3.6 | 10-50 | 6.4 | 3.1 |
| 8-20 | 6.9 | 3.6 | 11 o'clock | 6.4 | 3.1 |
| 8-30 | 6.9 | 3.6 | 11-10 | 6.4 | 3.1 |
| 8-40 | 6.8 | 3.5 | 11-20 | 6.4 | 3.1 |
| 8-50 | 6.8 | 3.5 | 11-30 | 6.4 | 3.1 |
| 9 o'clock | 6.8 | 3.5 | | | |
| 9-10 | 6.7 | 3.4 | | | |
| 9-20 | 6.7 | 3.4 | | | |
| 9-30 | 6.7 | 3.4 | | | |
| 9-40 | 6.6 | 3.3 | | | |
| 9-50 | 6.6 | 3.3 | | | |
| 10 o'clock | 6.5 | 3.2 | | | |
| 10-10 | 6.5 | 3.2 | | | |
| 10-20 | 6.5 | 3.2 | | | |
| 10-30 | 6.5 | 3.2 | | | |

August 4

11

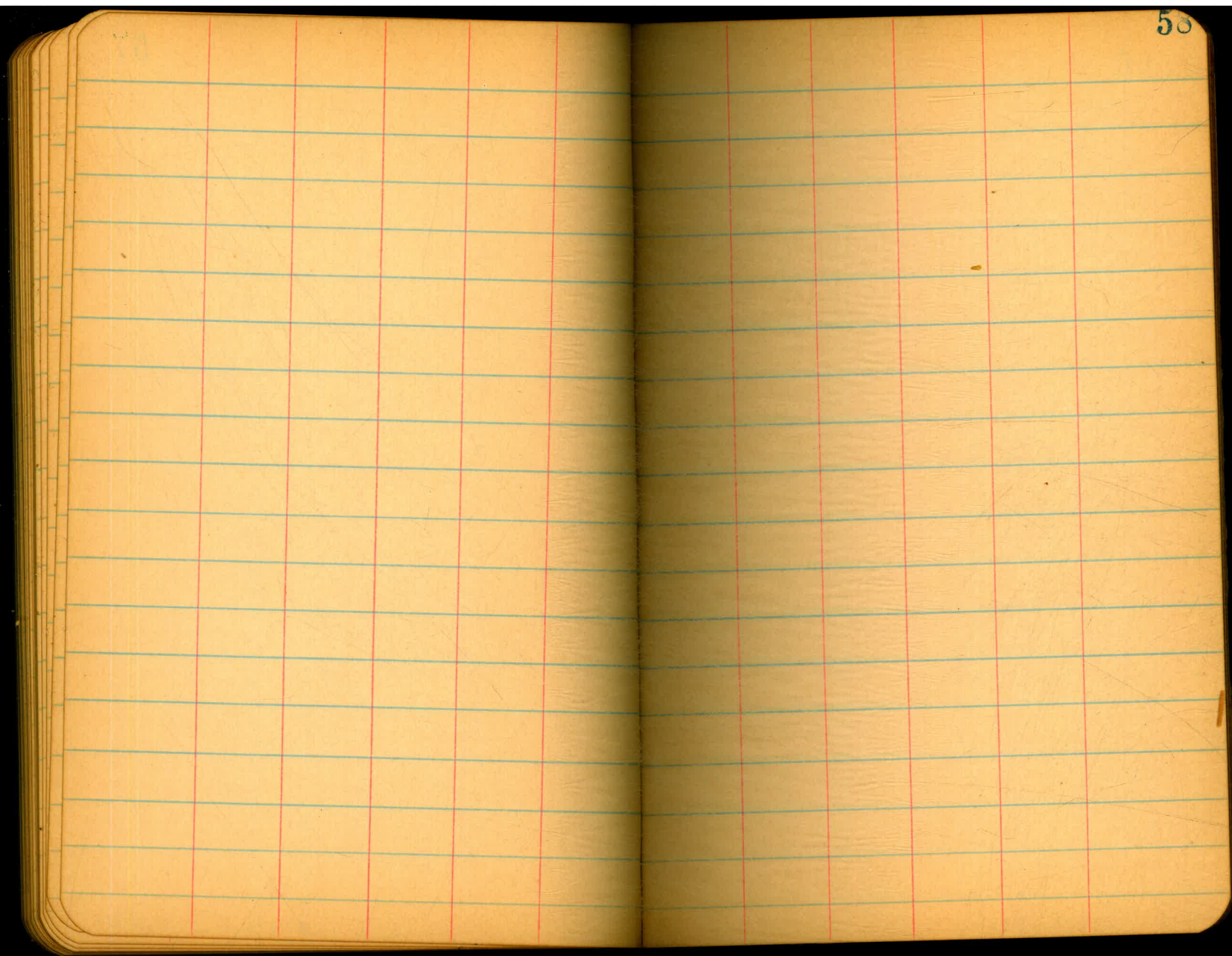
| Time # M | Height | Corr Height | Time | Height | Corr Height |
|-------------|--------|----------------|-----------|--------|----------------|
| 10 o'clock | 6.9 | 3.6 | 3-40 | 8.3 | 5.0 |
| 1-10 | 6.9 | 3.6 | 3-50 | 8.4 | 5.1 |
| 1-20 | 7.0 | 3.7 | 4 o'clock | 8.5 | 5.2 |
| 1-30 | 7.0 | 3.7 | 4-10 | 8.6 | 5.3 |
| 1-40 | 7.1 | 3.8 | 4-20 | 8.6 | 5.3 |
| 1-50 | 7.2 | 3.9 | 4-30 | 8.8 | 5.5 |
| 2 o'clock | 7.3 | 4.0 | 4-40 | 8.8 | 5.5 |
| 2-10 | 7.4 | 4.1 | 4-50 | 8.8 | 5.5 |
| 2-20 | 7.5 | 4.2 | | | |
| 2-30 | 7.6 | 4.3 | | | |
| 2-40 | 7.7 | 4.4 | | | |
| 2-50 | 7.8 | 4.5 | | | |
| 3 o'clock | 7.9 | 4.6 | | | |
| 3-10 | 8.0 | 4.7 | | | |
| 3-20 | 8.1 | 4.8 | | | |
| 3-30 | 8.2 | 4.9 | | | |

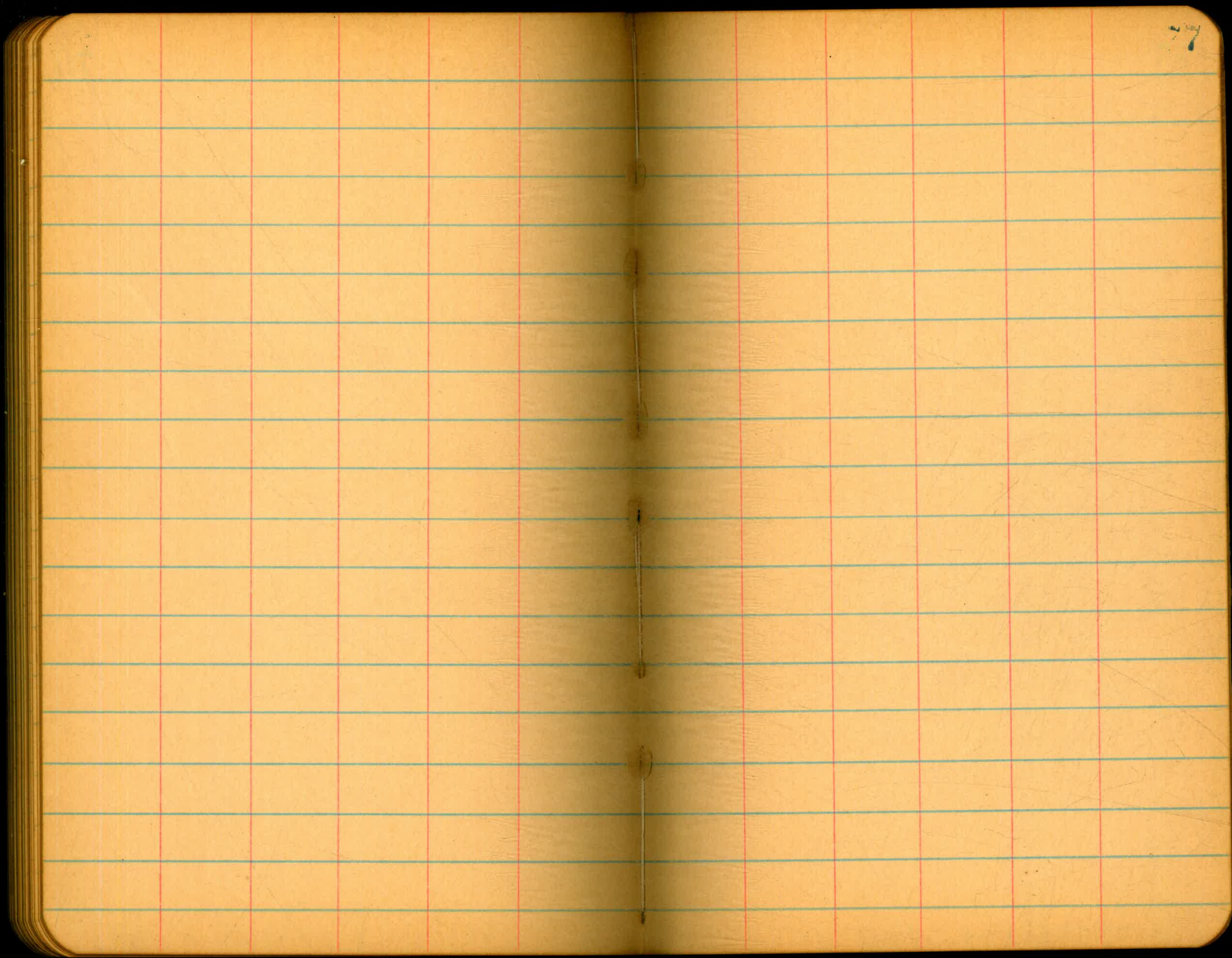
August 5

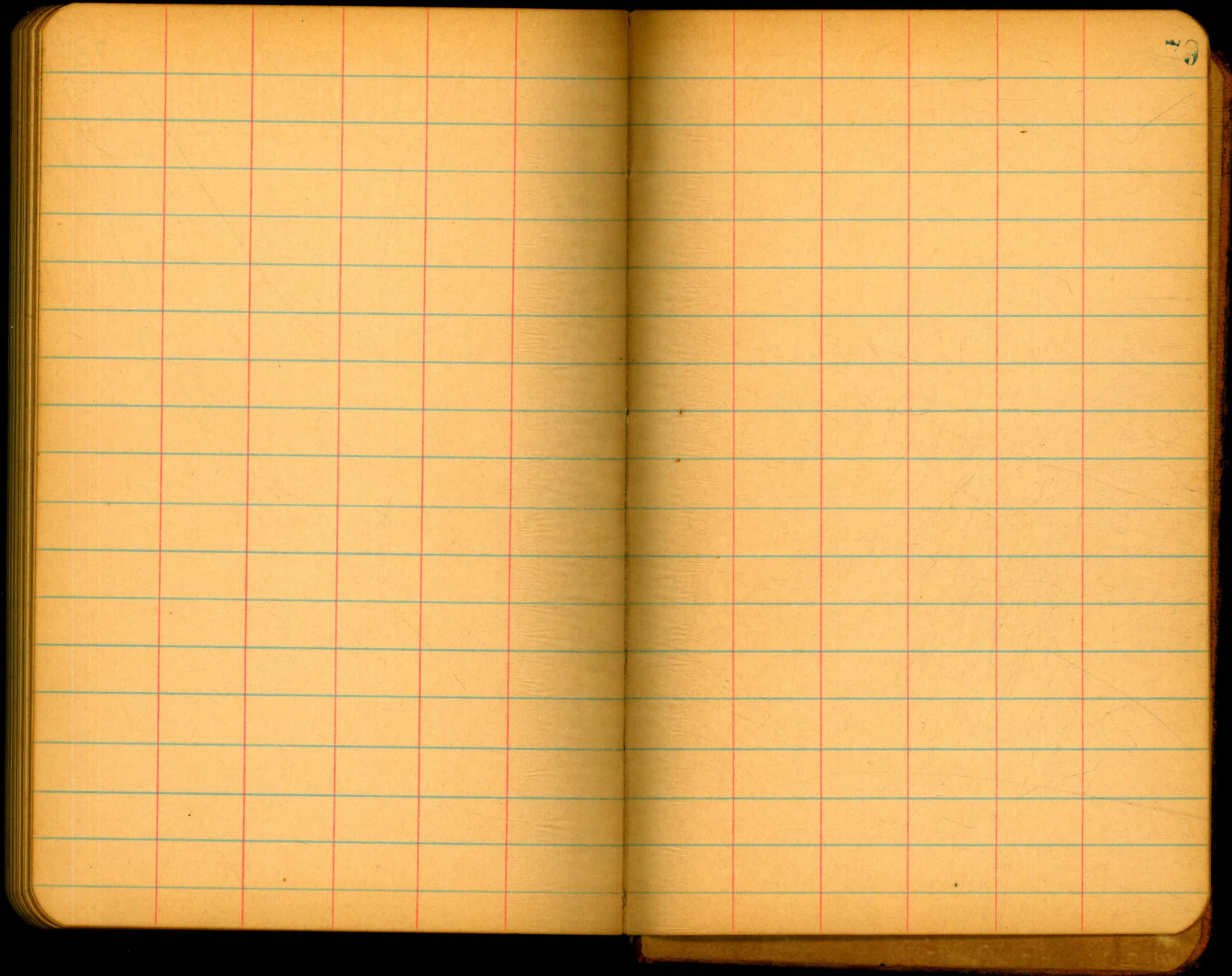
| Time PM | Height | Height CORR | Time | Height | Height CORR |
|------------|--------|----------------|------------|--------|----------------|
| 8-03 | 7.25 | 3.95 | 10-20 | 6.7 | 3.4 |
| 8-04 | 7.24 | 3.94 | 10-30 | 6.6 | 3.3 |
| 8-05 | 7.24 | 3.94 | 10-40 | 6.6 | 3.3 |
| 8-06 | 7.24 | 3.94 | 10-50 | 6.5 | 3.2 |
| 8-07 | 7.24 | 3.94 | 11 o'clock | 6.5 | 3.2 |
| 8-10 | 7.2 | 3.9 | | | |
| 8-20 | 7.2 | 3.9 | | | |
| 8-30 | 7.2 | 3.9 | | | |
| 8-40 | 7.2 | 3.9 | | | |
| 8-50 | 7.2 | 3.9 | | | |
| 9-5 | 7.12 | 3.82 | | | |
| 9-20 | 7.0 | 3.7 | | | |
| 9-30 | 7.0 | 3.7 | | | |
| 9-40 | 6.9 | 3.6 | | | |
| 9-50 | 6.9 | 3.6 | | | |
| 10 o'clock | 6.8 | 3.5 | | | |
| 10-10 | 6.7 | 3.4 | | | |

August 16 Bay slightly choppy 12

| Time AM | Height | Height CORR |
|------------|--------|----------------|
| 8:35 | 5.80 | 2.50 |
| 8:40 | 5.83 | 2.53 |
| 8:45 | 5.90 | 2.60 |
| 8:50 | 5.96 | 2.66 |
| 8:55 | 6.03 | 2.73 |
| 9:00 | 6.07 | 2.77 |
| 9:05 | 6.14 | 2.84 |
| 9:10 | 6.21 | 2.91 |
| 9:20 | 6.30 | 3.00 |
| 9:25 | 6.34 | 3.04 |
| 9:30 | 6.40 | 3.10 |
| 9:35 | 6.45 | 3.15 |
| 9:40 | 6.55 | 3.25 |
| 9:45 | 6.65 | 3.35 |
| 9:50 | 6.72 | 3.42 |
| 9:55 | 6.76 | 3.46 |







PM
1-15 8.0

20

#400

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

| Degrees. | DEGREES. | | ¼ DEGREE. | | ¼ DEGREE. | | ¼ DEGREE. | | Degrees. |
|----------|----------|-------|-----------|-------|-----------|-------|-----------|-------|----------|
| | Lat. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat. | Dep. | |
| 0 | | | 100.00 | 0.44 | 100.00 | 0.87 | 99.99 | 1.31 | 89 |
| 1 | 99.98 | 1.75 | 99.98 | 2.18 | 99.97 | 2.62 | 99.95 | 3.05 | 88 |
| 2 | 99.94 | 3.49 | 99.92 | 3.93 | 99.91 | 4.36 | 99.88 | 4.80 | 87 |
| 3 | 99.86 | 5.23 | 99.84 | 5.67 | 99.81 | 6.10 | 99.79 | 6.54 | 86 |
| 4 | 99.76 | 6.98 | 99.73 | 7.41 | 99.69 | 7.85 | 99.66 | 8.28 | 85 |
| 5 | 99.62 | 8.72 | 99.58 | 9.15 | 99.54 | 9.58 | 99.50 | 10.02 | 84 |
| 6 | 99.45 | 10.45 | 99.41 | 10.89 | 99.36 | 11.32 | 99.31 | 11.75 | 83 |
| 7 | 99.25 | 12.19 | 99.20 | 12.62 | 99.14 | 13.05 | 99.09 | 13.49 | 82 |
| 8 | 99.03 | 13.92 | 98.97 | 14.35 | 98.90 | 14.78 | 98.84 | 15.21 | 81 |
| 9 | 98.77 | 15.64 | 98.70 | 16.07 | 98.63 | 16.50 | 98.56 | 16.93 | 80 |
| 10 | 98.48 | 17.36 | 98.40 | 17.79 | 98.33 | 18.22 | 98.25 | 18.65 | 79 |
| 11 | 98.16 | 19.08 | 98.08 | 19.51 | 97.99 | 19.94 | 97.90 | 20.36 | 78 |
| 12 | 97.81 | 20.79 | 97.72 | 21.22 | 97.63 | 21.64 | 97.53 | 22.07 | 77 |
| 13 | 97.44 | 22.50 | 97.34 | 22.92 | 97.24 | 23.34 | 97.13 | 23.77 | 76 |
| 14 | 97.03 | 24.19 | 96.92 | 24.62 | 96.81 | 25.04 | 96.70 | 25.46 | 75 |
| 15 | 96.59 | 25.88 | 96.48 | 26.30 | 96.36 | 26.72 | 96.25 | 27.14 | 74 |
| 16 | 96.13 | 27.56 | 96.00 | 27.98 | 95.88 | 28.40 | 95.76 | 28.82 | 73 |
| 17 | 95.63 | 29.24 | 95.50 | 29.65 | 95.37 | 30.07 | 95.24 | 30.49 | 72 |
| 18 | 95.11 | 30.90 | 94.97 | 31.32 | 94.83 | 31.73 | 94.69 | 32.14 | 71 |
| 19 | 94.55 | 32.56 | 94.41 | 32.97 | 94.26 | 33.38 | 94.12 | 33.79 | 70 |
| 20 | 93.97 | 34.20 | 93.82 | 34.61 | 93.67 | 35.02 | 93.51 | 35.43 | 69 |
| 21 | 93.36 | 35.84 | 93.20 | 36.24 | 93.04 | 36.65 | 92.88 | 37.06 | 68 |
| 22 | 92.72 | 37.46 | 92.55 | 37.86 | 92.39 | 38.27 | 92.22 | 38.67 | 67 |
| 23 | 92.05 | 39.07 | 91.88 | 39.47 | 91.71 | 39.87 | 91.53 | 40.27 | 66 |
| 24 | 91.35 | 40.67 | 91.18 | 41.07 | 91.00 | 41.47 | 90.81 | 41.87 | 65 |
| 25 | 90.63 | 42.26 | 90.45 | 42.66 | 90.26 | 43.05 | 90.07 | 43.44 | 64 |
| 26 | 89.88 | 43.84 | 89.69 | 44.23 | 89.49 | 44.62 | 89.30 | 45.01 | 63 |
| 27 | 89.10 | 45.40 | 88.90 | 45.79 | 88.70 | 46.17 | 88.50 | 46.56 | 62 |
| 28 | 88.29 | 46.95 | 88.09 | 47.33 | 87.88 | 47.72 | 87.67 | 48.10 | 61 |
| 29 | 87.46 | 48.48 | 87.25 | 48.86 | 87.04 | 49.24 | 86.82 | 49.62 | 60 |
| 30 | 86.60 | 50.00 | 86.38 | 50.38 | 86.16 | 50.75 | 85.94 | 51.13 | 59 |
| 31 | 85.72 | 51.50 | 85.49 | 51.88 | 85.26 | 52.25 | 85.04 | 52.62 | 58 |
| 32 | 84.80 | 52.99 | 84.57 | 53.36 | 84.34 | 53.73 | 84.10 | 54.10 | 57 |
| 33 | 83.87 | 54.46 | 83.63 | 54.83 | 83.39 | 55.19 | 83.15 | 55.56 | 56 |
| 34 | 82.90 | 55.92 | 82.66 | 56.28 | 82.41 | 56.64 | 82.16 | 57.00 | 55 |
| 35 | 81.92 | 57.36 | 81.66 | 57.71 | 81.41 | 58.07 | 81.16 | 58.42 | 54 |
| 36 | 80.90 | 58.78 | 80.64 | 59.13 | 80.39 | 59.48 | 80.13 | 59.83 | 53 |
| 37 | 79.86 | 60.18 | 79.60 | 60.53 | 79.34 | 60.88 | 79.07 | 61.22 | 52 |
| 38 | 78.80 | 61.57 | 78.53 | 61.91 | 78.26 | 62.25 | 77.99 | 62.59 | 51 |
| 39 | 77.71 | 62.93 | 77.44 | 63.27 | 77.16 | 63.61 | 76.88 | 63.94 | 50 |
| 40 | 76.60 | 64.28 | 76.32 | 64.61 | 76.04 | 64.94 | 75.76 | 65.28 | 49 |
| 41 | 75.47 | 65.61 | 75.18 | 65.93 | 74.90 | 66.26 | 74.61 | 66.59 | 48 |
| 42 | 74.31 | 66.91 | 74.02 | 67.24 | 73.73 | 67.56 | 73.43 | 67.88 | 47 |
| 43 | 73.14 | 68.20 | 72.84 | 68.52 | 72.54 | 68.84 | 72.24 | 69.15 | 46 |
| 44 | 71.93 | 69.47 | 71.63 | 69.78 | 71.33 | 70.09 | 71.02 | 70.40 | 45 |
| 45 | 70.71 | 70.71 | | | | | | | |
| Degrees. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat. | Dep. | Lat. | Degrees. |
| | DEGREES | | ¼ DEGREE. | | ¼ DEGREE. | | ¼ DEGREE. | | |

950
375
100
100

70°
3050

75
40
25
15
10
5
2
1
0

15.25
15.25