MOON TRANSIT - MIAMI, FL

SEXTANT = A-12 BUBBLE DATE = DEC-21-2023

INDEX = +2' GPS COORDINATES = 25° 59.5' N, 80° 18.5' W

1] BEFORE TRANSIT SIGHT

2] AVERAGE TIME OF SIGHT

AVG TIME = 23H 52' 54'
(7 SHOTS) (DEC-21)

3] HS → HA → HO

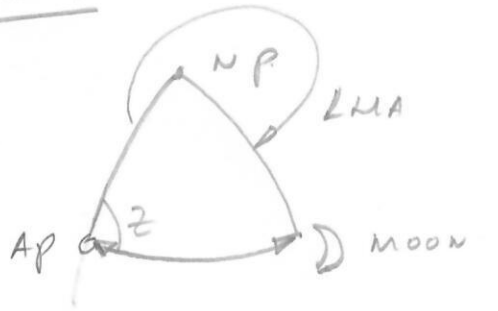
HS (AVG) = 67° 15.1'
INDEX = 0 02.0'
= 67° 17.1'
DIP = 0.0
HA = 67° 17.1'
CORR1 = + 32.6'
= 67° 49.7'
CORR2 4.5'
= 67° 54.2'
BUBBLE = 15.0'
SEXTANT

H_O = 67° 39.2' ←

4] GMA

GMA = 49° 35.5' (V = 12.0)
23HS
CORR (52'54") = 12° 37.4'
= 61 72.9
= 62° 12.9'
V_{CORR} = + 10.5'
GMA = 62° 23.4' ←

5] LMA



ASSM POSITION = 80° 23.4' ←
GMA MOON = 62° 23.4'
18° 0.0

LHA = 360°
- 18°

LHA = 342° ←

6] DECCLINATION

DECCLINATION = 11° 07.6' N. f
(23 UTC)

d=(15.1) = + 13.2'

DECCLINATION = 11° 20.8' ←
(SIGNT)

7] FROM PUB 249_Vol 2

ASSM LAT = 26° N ←
(SAME AS DECCLINATION)

Hc = 67° 20' (d=41)

CORR = + 14'
(TABLE 5)

Hc = 67' 34'

8] INTERCEPT

Ho = 67° 39.2'
Hc = 67° 34.0'

I = 5.4' NM
TOWARDS

8] ZN

Z = 128°

LHA > 180°

ZN = 128° ←

MOON TRANSIT CATCH CODE

1] TRANSIT TIME

A] ASSUMED LONG = 80° 20'

B] MOON TRANSIT (ALMANAC)

DEC 21 = 19^H 35' (UTC)

C] ARC TIME

A. LONG = 80° 20' = 80.33°

= 80.33° / 15

= 5.35

ARC TIME = 5^M 21.3'

+ CORR (TABLE II, 80° W) = + 11.0'

ARC TIME = 5^M 32.3'

D] LOCAL TRANSIT

UTC TRANSIT = 19^M 35.0

ARC TIME = 5^H 32.3'

LOCAL TRAN = 24^M 67.3'

= 25^M 7.3'

LOCAL TIME = 01^H 7.3' UTC TRANSIT

E] $H_S \rightarrow H_A \rightarrow H_O$

H_S (LOCAL TRANSIT) = 75° 24'

+ INDEX = + 02'

H_A = 75° 26.0'

CORR 1 = + 24.9

= 75° 50.9'

CORR 2 = + 4.4'

= 75° 55.3'

BUBBLE CORR = − 15.0'

H_O = 75° 40.3' ←

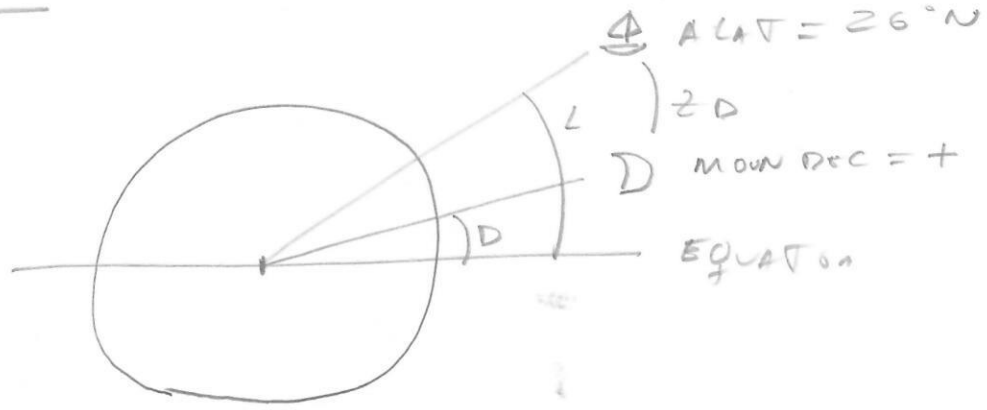
D] ZENITH DISTANCE

ZD = 89° 60.0

H_O = 75 40.3

ZD 14° 19.7 ←

E] LATITUDE



[LATITUDE ZD + DECLINATION]

F] MOON DECLINATION

DECLINATION (0100 UTC) (DEC 22) = 11° 37.7' (N)

d = 14.9 = + 1.9'

DECLINATION = 11° 39.6' ←
(TRANSIT)

G] LATITUDE

ZD = 14° 19.7'

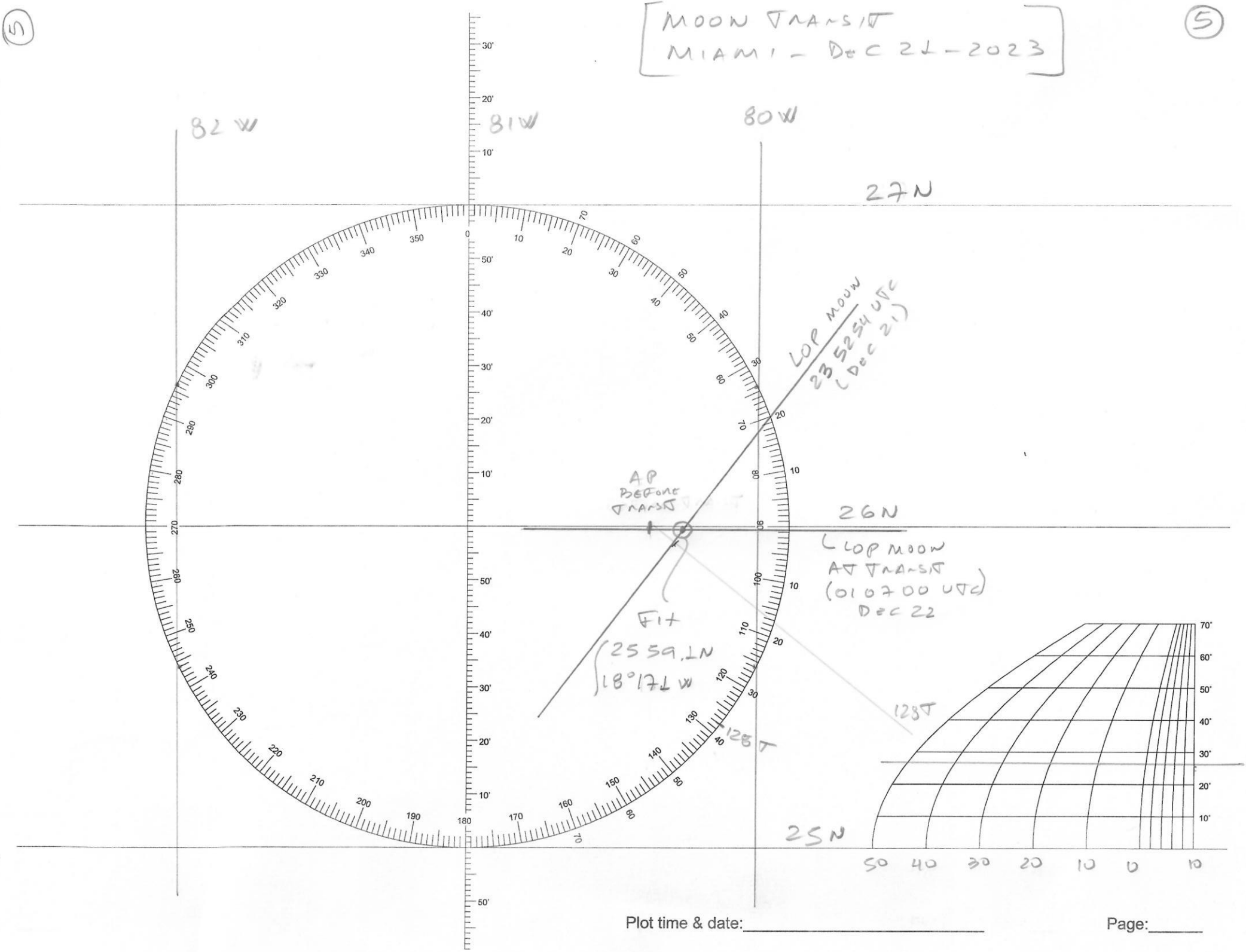
DECLN = 11° 39.4'

LAT = 25° 59.1 ←

(5)

[MOON TRANSIT
MIAMI – DEC 21 – 2023]

(5)



Plot time & date:_____ Page:_____