

LUNAR FORM

Cook / BAILY's trap
to TAHITI
SEP 1773


① Position $S - 16^{\circ}45'33''$ Date: 1773 SEP 07 TT-UT = +16.4 s
 $W + 151^{\circ}29'48''/E - 208^{\circ}30'12''$
 OTHMANENO Unrestricted horizon: [179°-312°] [326°-338°]
 BODY: ☉ T = 77.5 F P = 29"92

Lunar Distance: 105° 47' 04" Body height: 12° 38' 40" C height: 43° 29' 00" U
 (10 observations)
 COMPUTED VALUES: LUNAR DISTANCE UT: 17 h 06 m 40 s T

* Height of eye = +24' + Refraction
 BODY ☉ height: 13° 09' 59" / P₃: 079.6°
 height: 42° 54' 38" / A₃: 312.0°
 * Height of eye = +12' + Refraction
 BODY ☉ height: 13° 08' 35" / A₃: 079.6°
 height: 42° 53' 13" / A₃: 312.0°
 * Height of eye = +0' + Refraction
 BODY ☉ height: 13° 05' 12" / A₃: 079.6°
 height: 42° 49' 50" / A₃: 312.0°
 * Height of eye = +0' + NO refraction
 BODY ☉ height: 13° 01' 19" / A₃: 079.6°
 height: 42° 48' 51" / A₃: 312.0°

REMARKS: ☉ geocentric height: 13° 17' 21" restricted horizon
 ☉ geocentric height: 43° 13' 47" horizon on probably ON
 (western tip of Borra-Bora)

1830' Difference on ☉ height
 1840' Difference on ☉ height WHAT HAPPENED?

by:  computation date: 01 APR 2010

② Position $S - 16^{\circ}45'33''$ Date 1773 SEP 08 TT-UT = +16.4 s
 $W + 151^{\circ}29'48''/E - 208^{\circ}30'12''$
 OTHMANENO Unrestricted horizon: [179°-312°] [326°-338°]
 BODY: ☉ T = 78 F P = 29"92

Published values: Lunae Distance: 94° 23' 59" Body height: NONE " [Height 33° 01' 20"] ☉

COMPUTED VALUES: LUNAR DISTANCE UT: 18 h 40 m 44 s
 * Height of eye = +24' + Refraction
 BODY ☉ height: 35° 07' 29" / A₃: 070.5°
 height: 33° 08' 35" / A₃: 304.9°
 * Height of eye = +12' + refraction
 BODY ☉ height: 35° 06' 04" / A₃: 070.5°
 height: 33° 07' 11" / A₃: 304.9°
 * Height of eye = +0' + refraction
 BODY ☉ height: 35° 02' 41" / A₃: 070.5°
 height: 33° 03' 48" / A₃: 304.9°
 * Height of eye = +0' + NO refraction
 BODY ☉ height: 35° 01' 23" / A₃: 070.5°
 height: 33° 02' 23" / A₃: 304.9°

REMARKS: ☉ geocentric height 35° 17' 21" restricted horizon
 ☉ geocentric height: 33° 30' 08" horizon OK

NO SUN ALTITUDE REPORTED (RESTRICTED HORIZON)
 MOON ALTITUDE DIFFERENCE $\approx 5' / 6'$