

L'inafferrabile Hilal

Paolo Morini

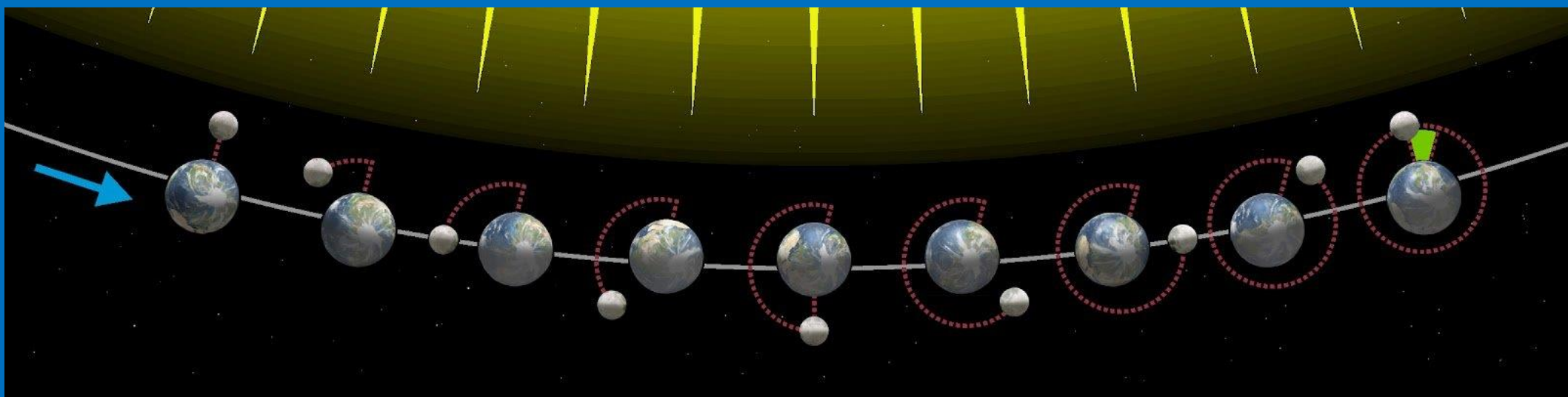


L'inafferrabile Hilal









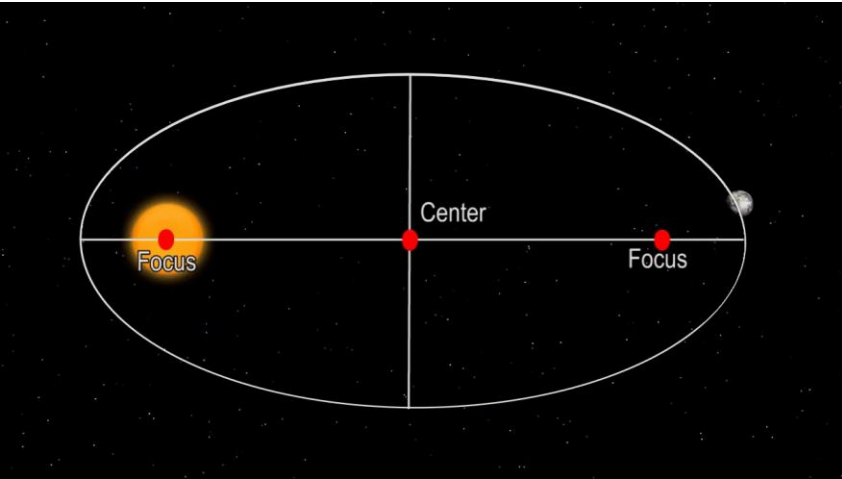
Luna Nuova

Primo Quarto

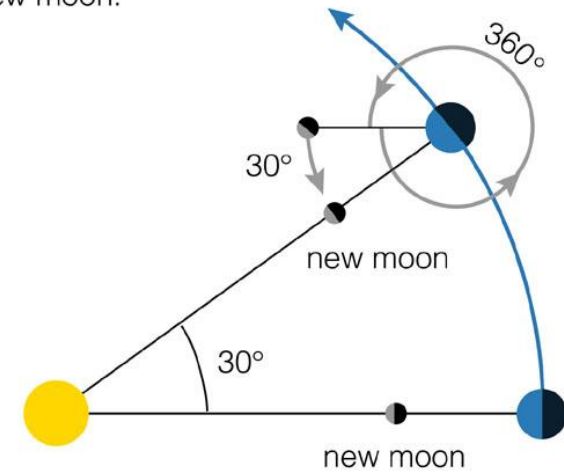
Luna Piena

Ultimo Quarto

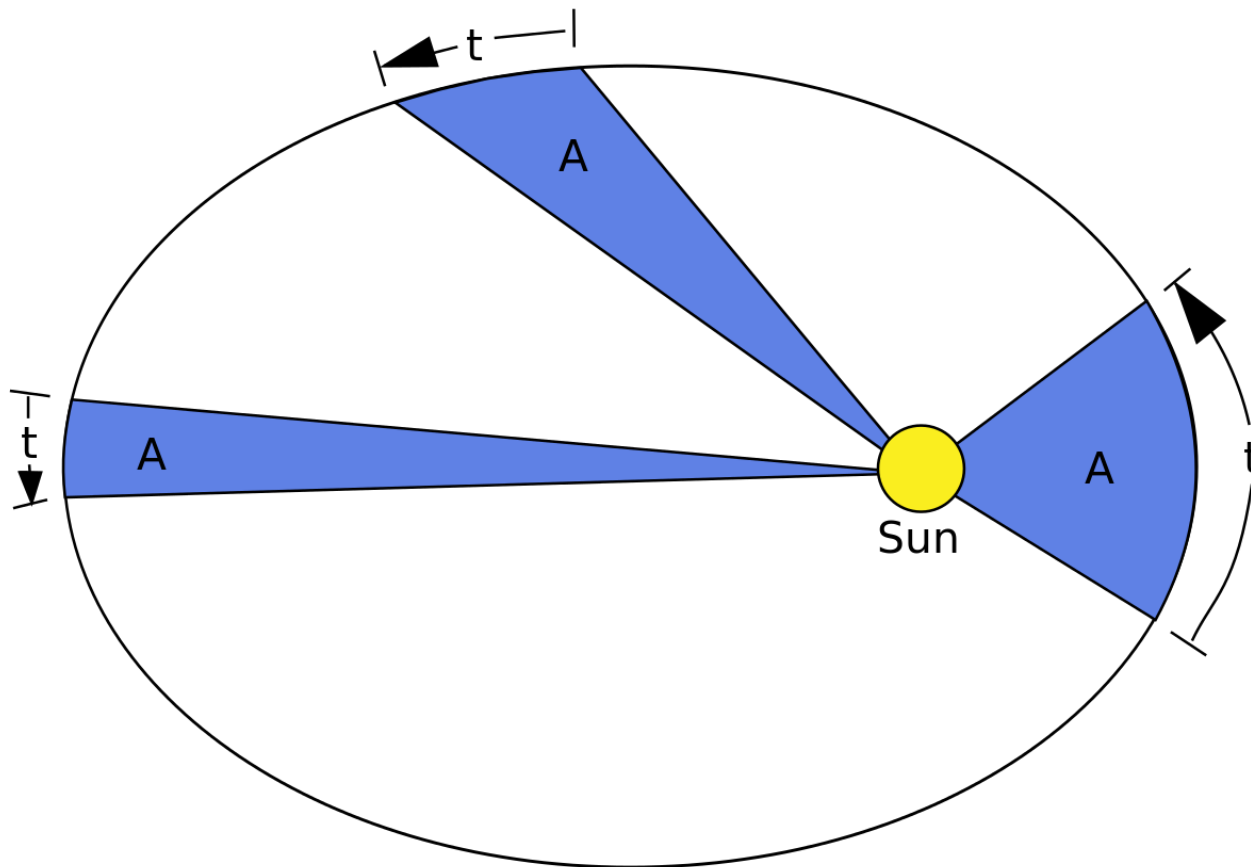
Luna Nuova



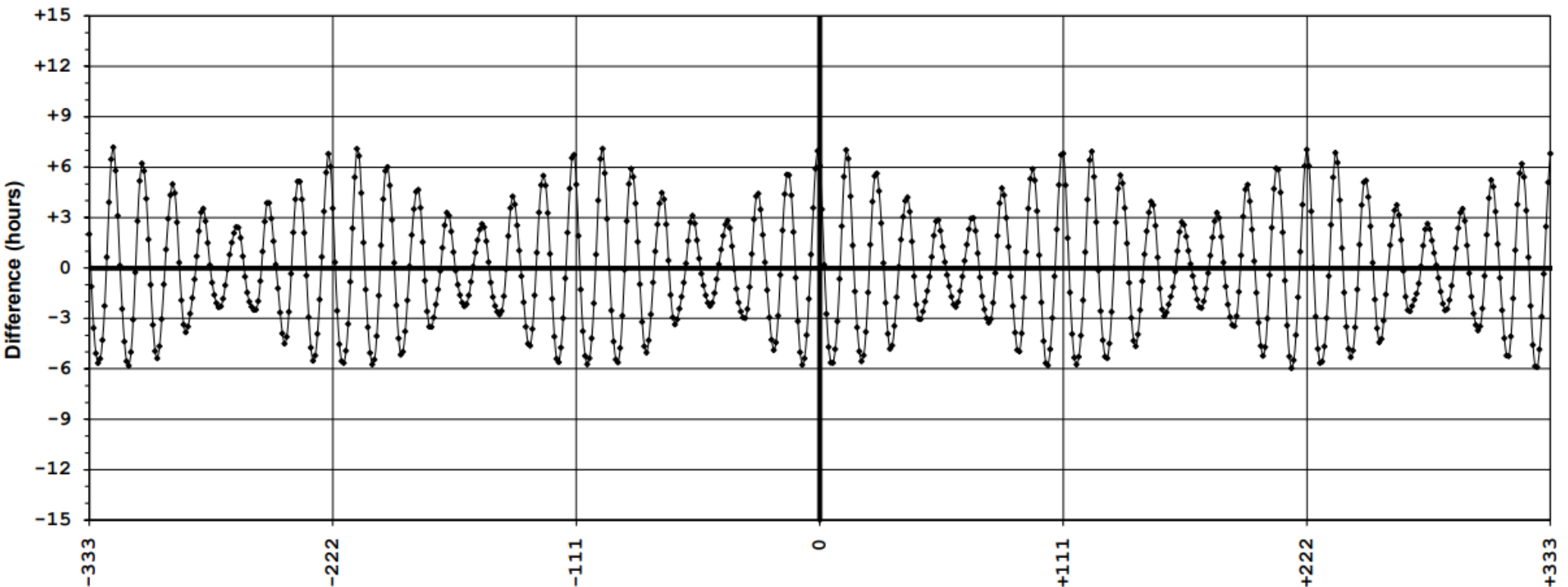
Earth travels about 30° per month around the Sun, so the Moon must orbit around Earth about $360^\circ + 30^\circ = 390^\circ$ from new moon to new moon.



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Medium-term periodic variability repeats at intervals of almost 9 years or about 111 lunar months, and is the time required for the lunar orbital perigee to advance eastward 360° with respect to the Earth orbital perihelion. Through future millennia, as Earth orbital eccentricity decreases, peaks will converge toward intermediate heights.



super Luna



7 aprile 2020
20:45
distanza 356097 km

mini Luna



1 ottobre 2020
22:00
distanza 405093 km

Camera Panasonic GX9 Telescopio TV85 f 600 mm ripresa al fuoco diretto

Paolo Morini





Partial

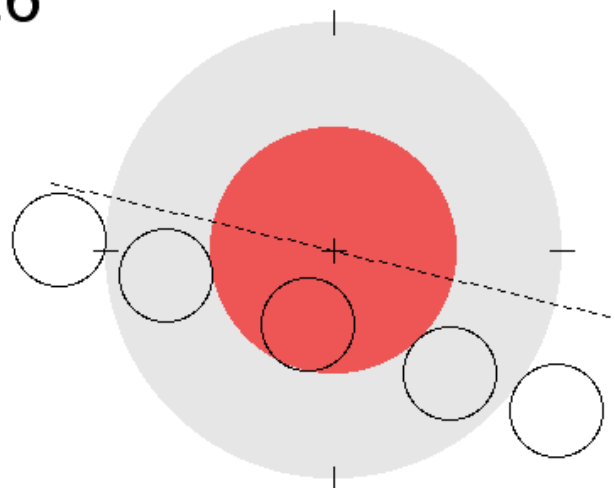
2021 Nov 19

Saros 126

09:04 TD

A.Node

$\Delta T = 70s$

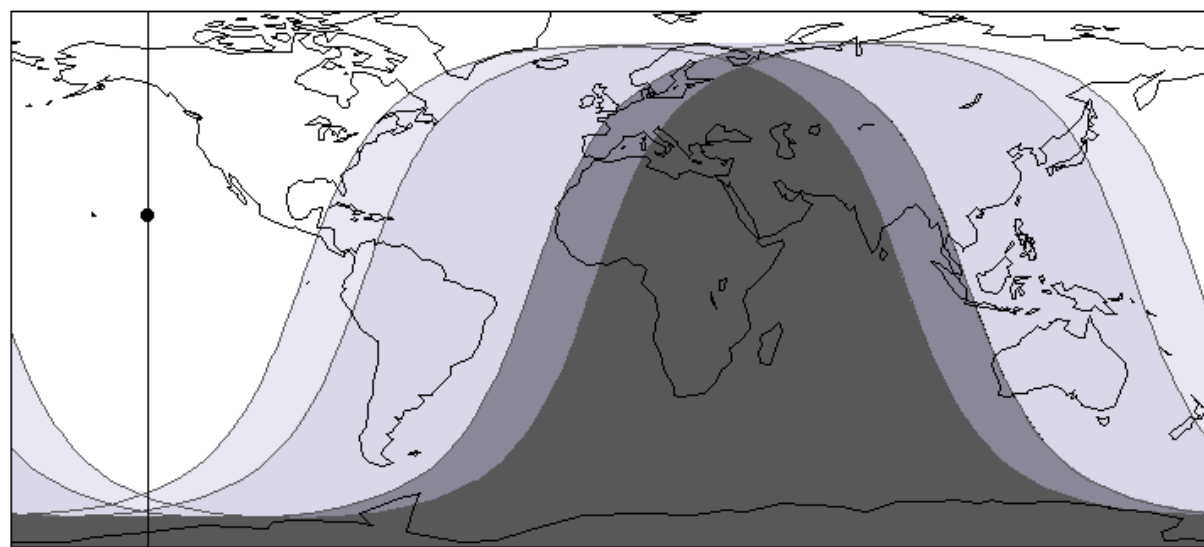


Par. = 208m

U.Mag. = 0.9742

Gam. = -0.4552

P.Mag. = 2.0720



Thousand Year Canon of Lunar Eclipses

©2014 by Fred Espenak

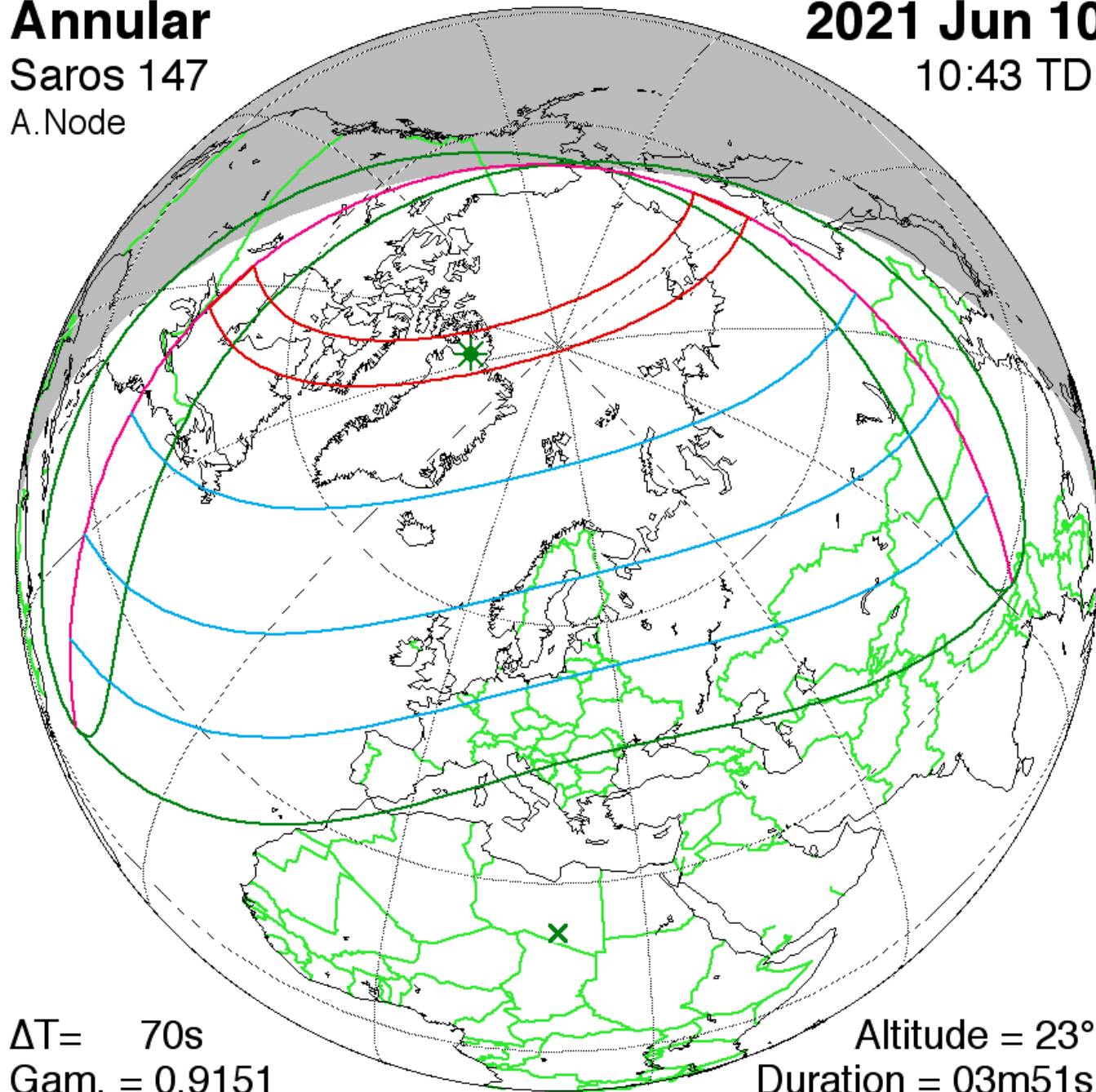
Annular

Saros 147

A.Node

2021 Jun 10

10:43 TD



$\Delta T = 70s$
Gam. = 0.9151

Altitude = 23°
Duration = 03m51s

Thousand Year Canon of Solar Eclipses

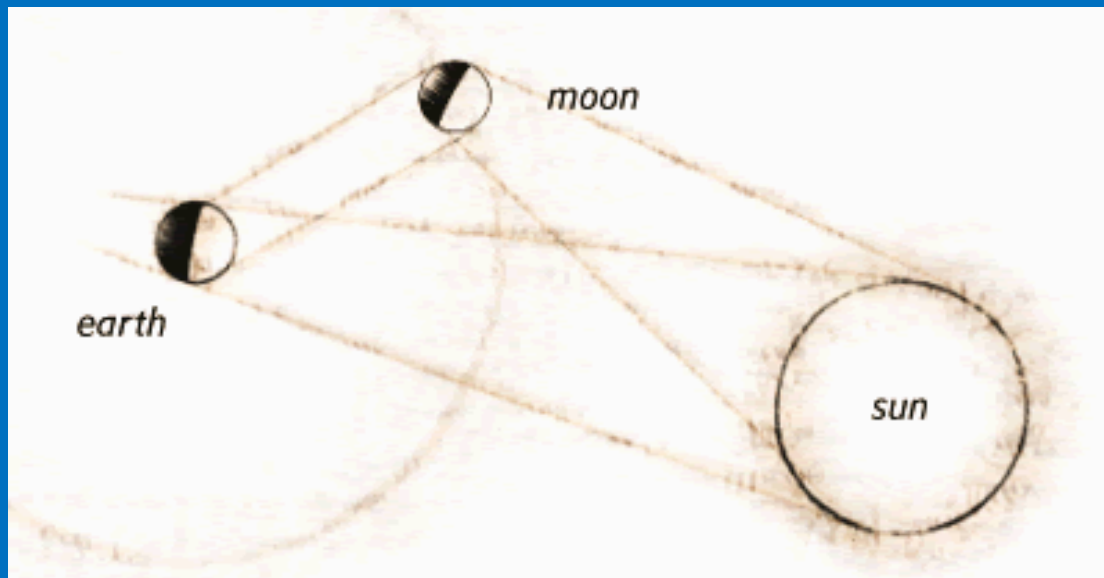
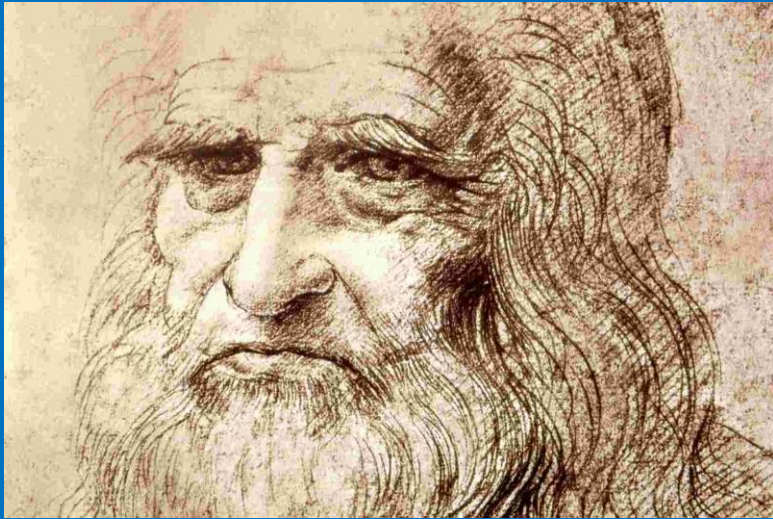
©2014 by Fred Espenak













Early Visibility of the New Moon.

GENTLEMEN,—

On February 10th of last year I observed the New Moon when only 17 hours old: I am told that this is a “record” for England. On the evening mentioned, just after sunset, I was searching for Comet *a* 1910, which was then fading, and to my surprise saw the thin lunar crescent. Three other people saw it at the same time. I have frequently observed it at 30 hours, but never so early as above.

Yours faithfully,

Tunbridge Wells, 1911, Mar. 16.

D. W. HORNER.

Young-Moon Geometry

On the morning of August 13, 1931, French astronomer André Danjon observed a Moon only 16h 12m before new with a 3-inch refractor. Much to his surprise, the thin crescent appeared to extend only 75° to 80° along the Moon's limb — considerably less than the expected 180° (halfway around). When Danjon compiled many other observations of this “deficiency” effect, he came to a remarkable conclusion: Whenever the Moon is 7° or less from the Sun, there can be no visible crescent at all!



More recently, in May 1990, that master of difficult observations, Steve O'Meara, spotted a very thin crescent with his unaided eye, just 15 h and 32 min after new.

August 19, 2001

After journeying to an arid, mountainous region not far from Kerman in southeastern Iran, we set up two huge binoculars and trained them on the western horizon. The Sun was setting on August 19, 2001, and we hoped to catch sight of an extremely slender Moon. Our excitement was high, for we knew we had a chance to spot an even younger lunar crescent than the one seen telescopically by James Stamm on January 20, 1996, when the Moon was only $12^{\text{h}} 07^{\text{m}}$ past new.

We had applied to the Kerman Meteorological Administration for help in finding the best possible site, and on the morning of the 19th they recommended that we travel 100 kilometers southwest of Kerman to Lāleh Zār Mountain. We got there one



to be the youngest crescent Moon ever seen with optical aid. This took place on September 7, 2002, when Mohsen G. Mirsaeed of Teheran saw a crescent just 11 h and 40 min after new! This record is unlikely to be broken, unless observers start counting seconds and fractions of seconds on a stopwatch. Maybe not even then!

... immediately went behind the distant mountains. Nor could we



photograph it. As expected, the arc of the crescent was much less than 180° ; it appeared about 70° to 75° in length. When we first glimpsed the Moon, its age was $12^{\text{h}} 15^{\text{m}}$. Thus we did not break Stamm's record (as to age), but we did see the Moon at an elongation of only 7.6° from the Sun — an important move toward Danjon's limit (explained in the main article).







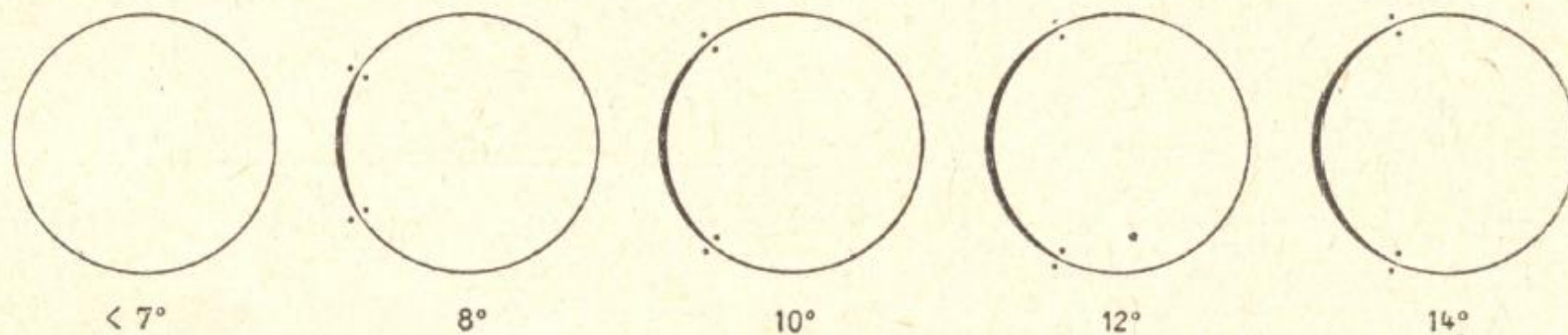


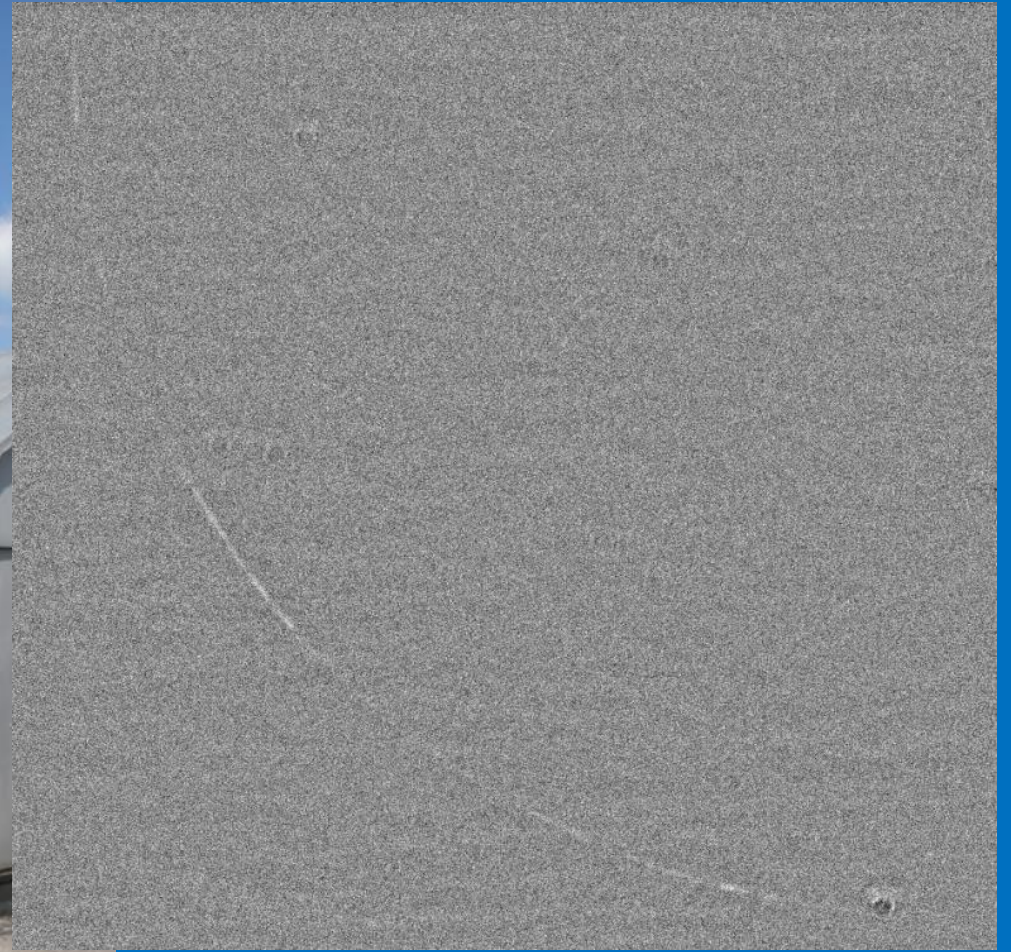
Fig. 31. — Le croissant lunaire à diverses distances du Soleil. Les cornes du croissant sont marquées par des points.



LE CROISSANT LUNAIRE

Dans un article publié ici il y a trois ans ⁽¹⁾ sous le titre : *Jeunes et vieilles lunes*, j'appelais l'attention des lecteurs sur quelques propriétés peu connues du croissant lunaire. On trouvera ici la discussion d'observations nouvelles qui permettent de préciser les conclusions de ma première étude.







New Moon Crescent - May 15 2018 11h48m UTC

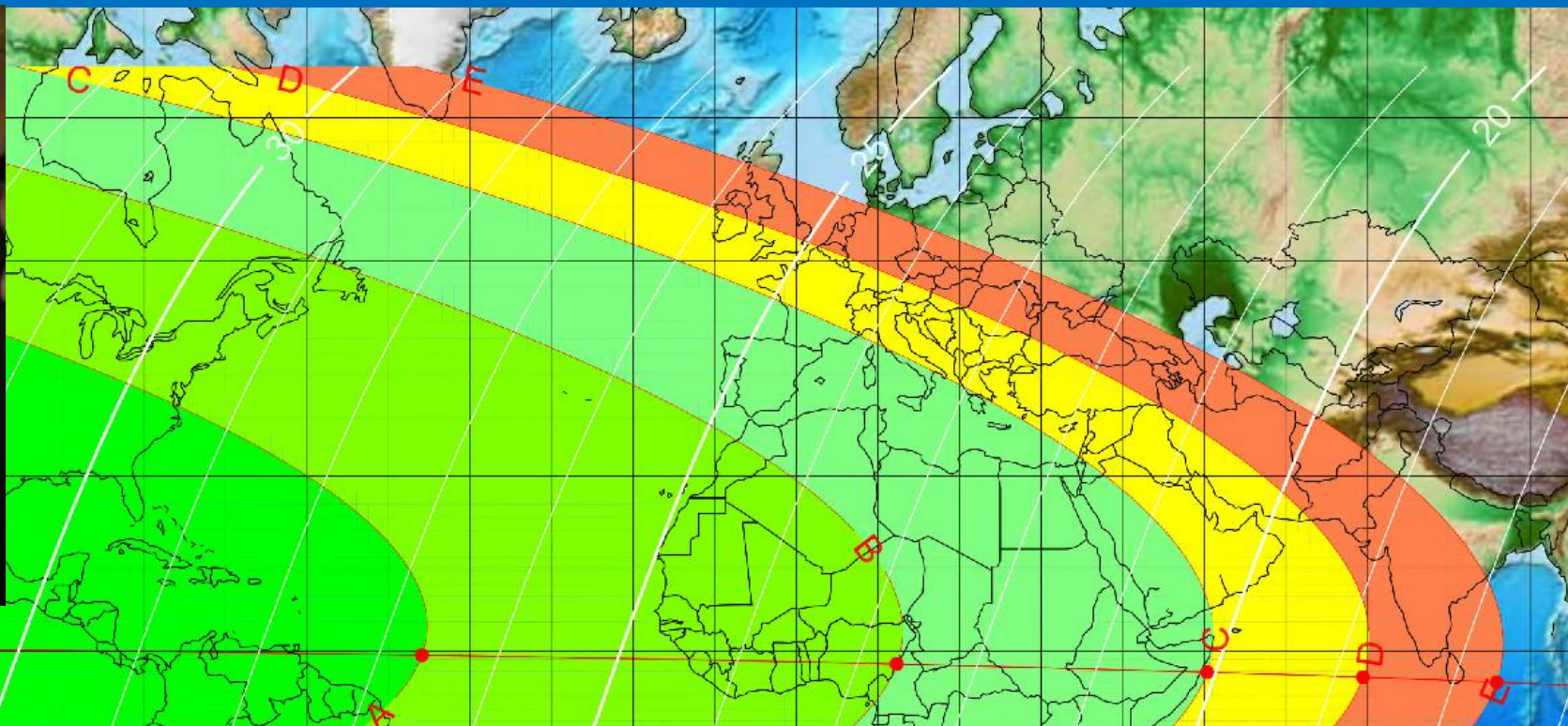
• THIERRY LEGAULT 2018
www.astrophoto.fr



A Method for Predicting the First Sighting of the New Crescent Moon

by

B.D. Yallop



The six ranges of the single test parameter q are calibrated by applying the q -test to a standard set of 295 first sightings of the new crescent moon that cover the period 1859 to 1996. The ranges of the parameter correspond to the following visibility types and visibility codes for the new crescent moon:

- (A) easily visible to the unaided eye;
- (B) visible under perfect atmospheric conditions;
- (C) may need optical aid to find the thin crescent moon before it can be seen with the unaided eye;
- (D) can only be seen with binoculars or a telescope;
- (E) below the normal limit for detection with a telescope;
- (F) not visible, below the Danjon limit.



illuminated fraction: 0.278

Predicting the First Visibility of the Lunar Crescent

Introduction

Global lunar visibility maps based on Yallop's method

Global lunar visibility maps for this year (1442 AH)

Global lunar visibility maps for next year (1443 AH)

Global lunar visibility maps (1434 AH to 1445 AH)

Global lunar visibility maps for the early Islamic period (0 AH to 11 AH)

Literature & useful web links

N.B. These web pages are best viewed on a screen of 1280 x 1024 pixels or larger



Department of Mathematics

© R.H. van Gent (February 2021)

Introduction

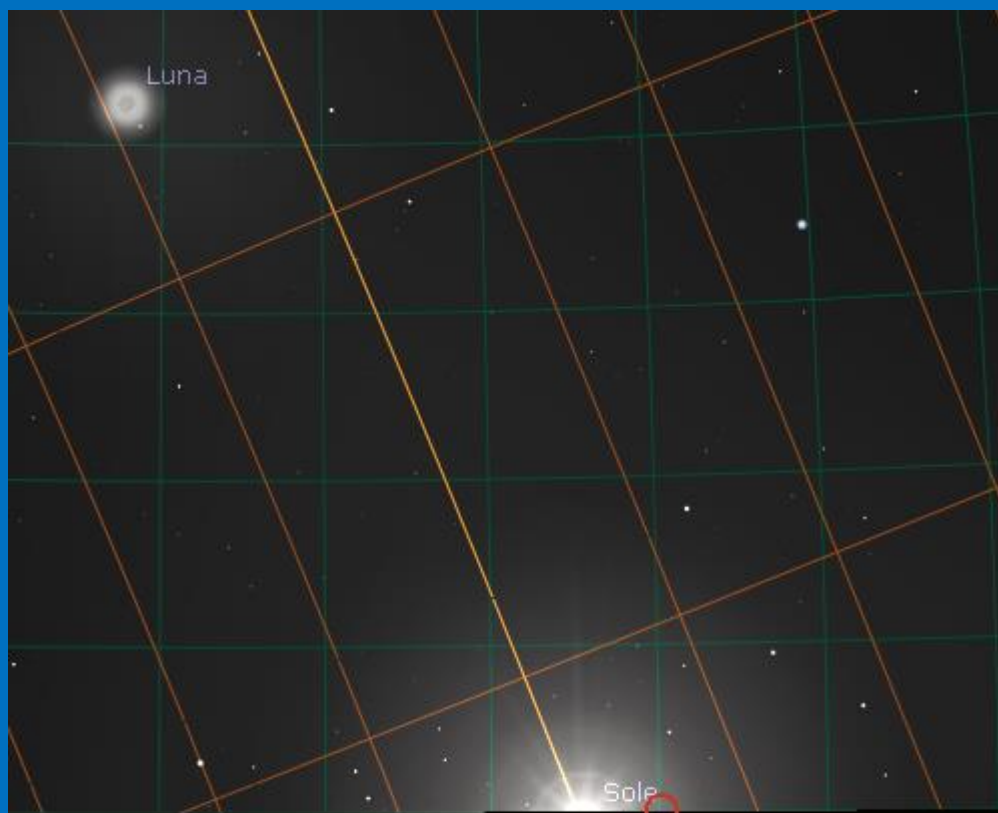
Predicting the first visibility of the [young lunar crescent](#) from a given location is an astronomical problem which has challenged astronomers and mathematicians for more than four millennia. Already in the second half of the first millennium BCE Babylonian priest-astronomers developed sophisticated numerical algorithms for predicting the motion of the moon, the times of its synodic phases and the first visibility of the lunar crescent above the western horizon just after sunset. More accurate methods were devised in later ages by Hindu, Islamic and Jewish scholars and the refinement of these methods has continued up until the present day.

In the past the dates of first lunar visibility were crucial parameters in regulating the religious and administrative calendars of many cultures. In the present time several communities still depend on lunar calendars but these are computed according to well-defined astronomical and mathematical rules and no longer depend on an actual first sighting of the lunar crescent. Examples of such calendars are the [Chinese calendar](#), the [Hebrew calendar](#), the [Christian Easter reckoning](#) and some variants of the [Islamic calendar](#).

For many Muslims, however, the first sighting of the lunar crescent at the begin of each month is still a matter of importance, debate and dispute. Especially around the begin and the end of [Ramaḍān](#) (the Islamic month of fasting and abstinence) and the begin of [Dhu 'l-Hijja](#) (the Islamic month of pilgrimage), the first sighting of the lunar crescent is eagerly awaited by Muslims from the four corners of the world.



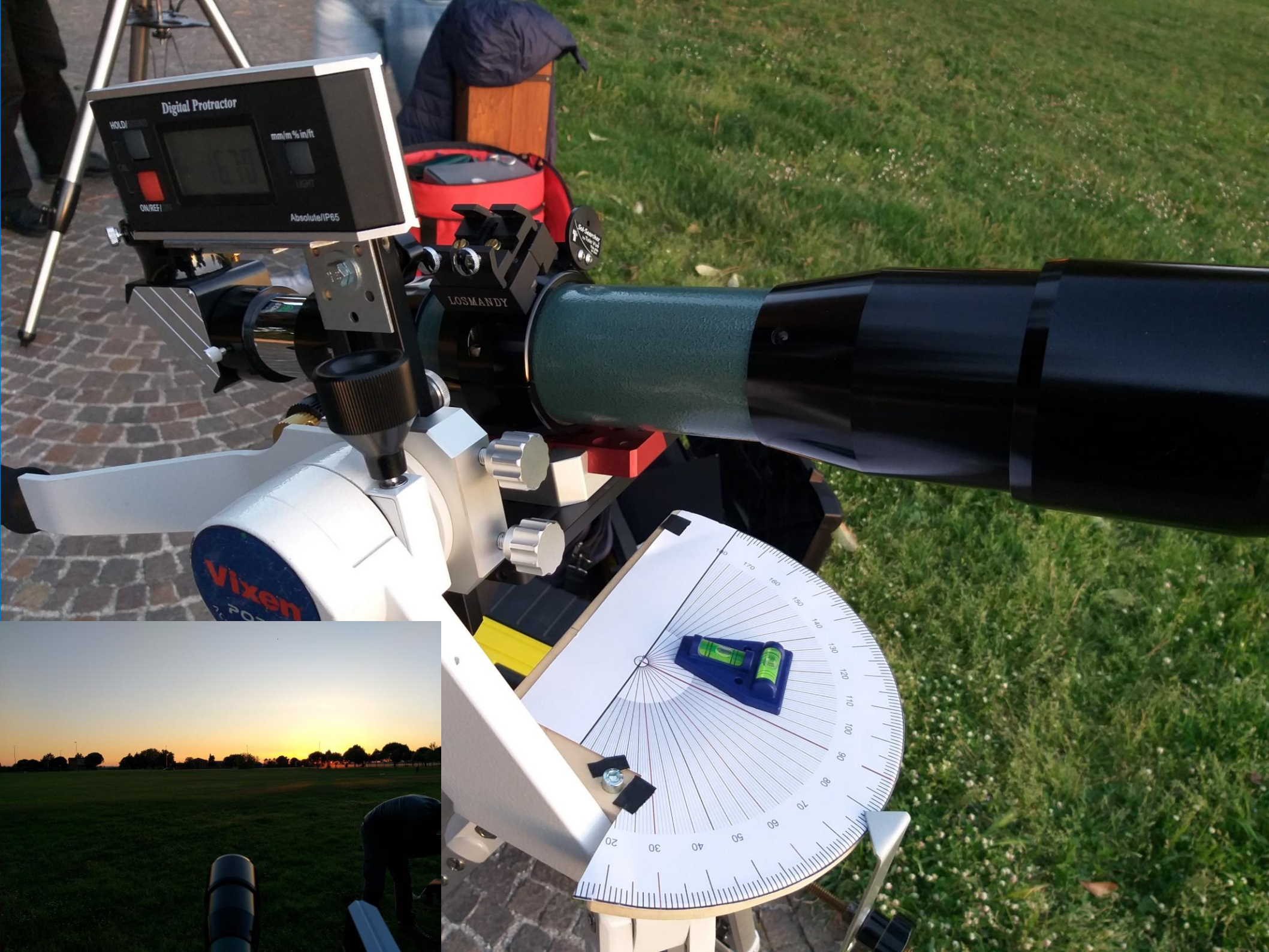
Seated at the right is Ur-Nammu, the first king of the Third Dynasty of Ur where a major centre of worship for the moon god Sin was located. Approaching from the left between two protective female deities is Hash-hamer, governor of the city Ishkun-Sin. Impression from a Neo-Sumerian greenstone cylinder seal (c. 2100 BCE) from Babylon in the [British Museum](#), London.

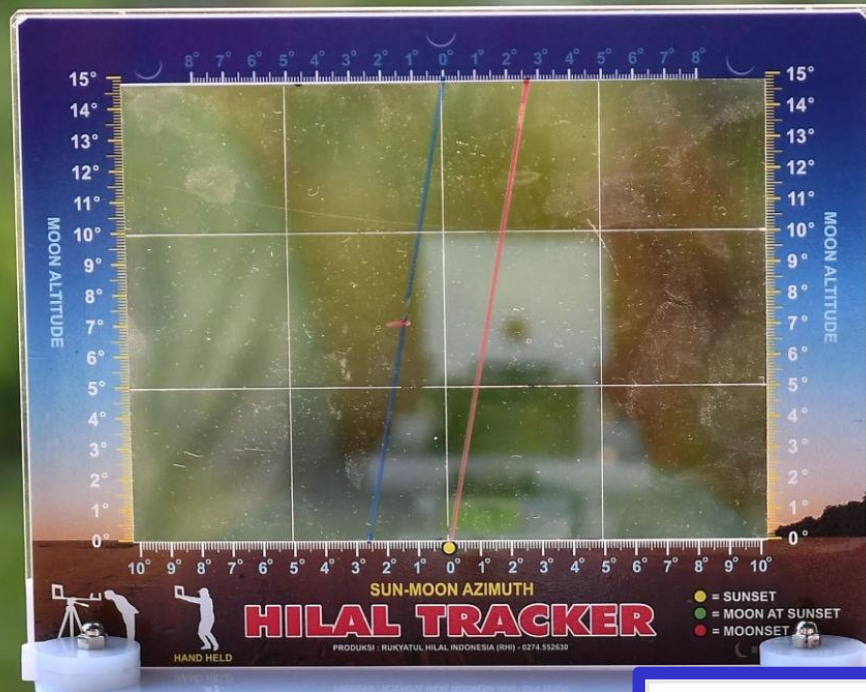


Data e ora						
Data e ora					Giorno giuli	
2021	-	3	-	15	18	: 14



Data e ora						
Data e ora					Giorno giuli	
2023	-	3	-	23	18	: 23









STEFANO BIGLIARDI

La mezzaluna e la Luna dimezzata

Islam, pseudoscienza e paranormale

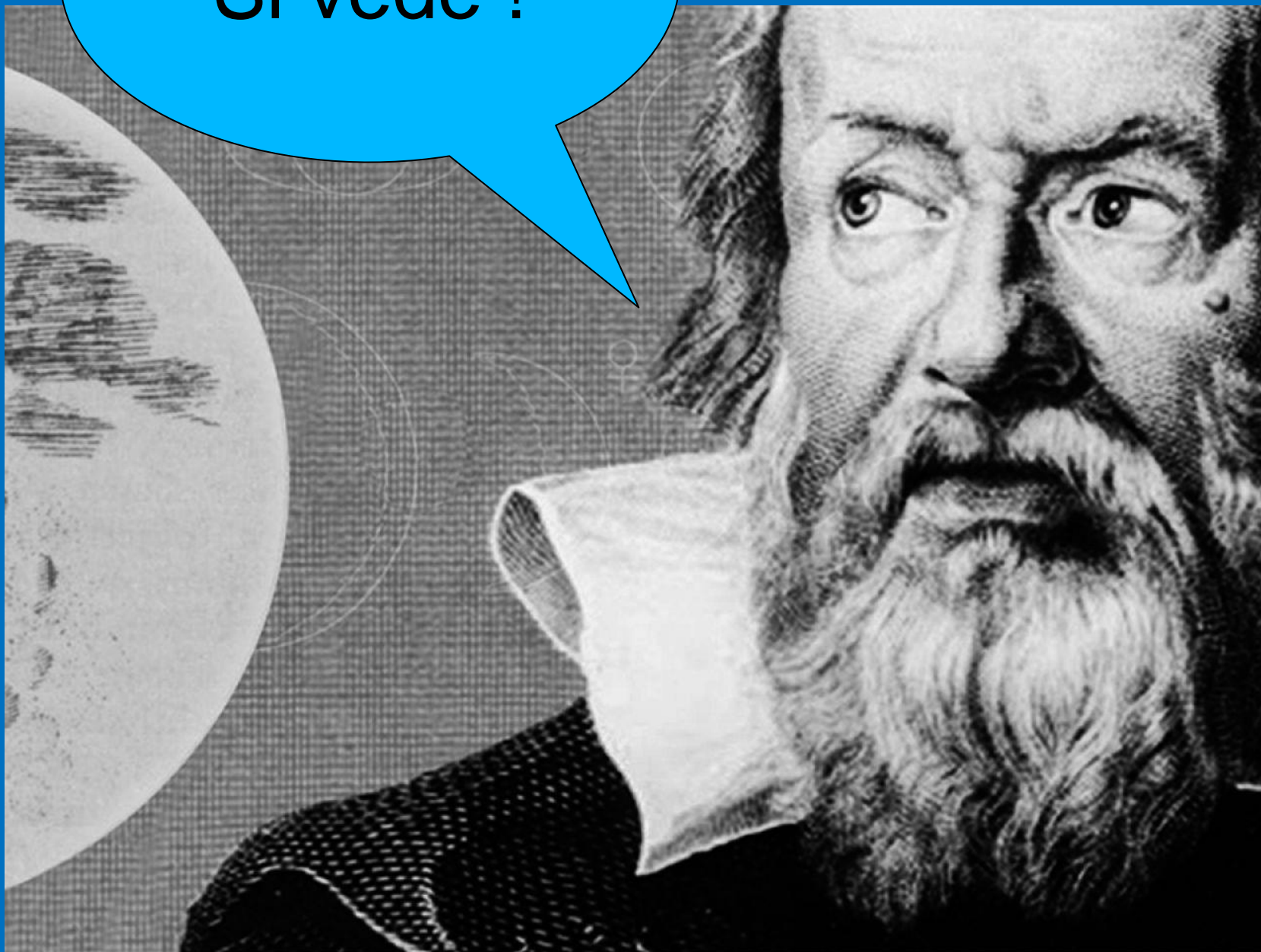


«Pseudoscienza e bufale
non sono un'esclusiva
del mondo occidentale.»

I QUADERNI DEL
CICAP



Eppur non
Si vede !







المرصد الإسلامي لمراقبة الأهلة بفرنسا
L'Observatoire Lunaire Des Musulmans De France

«In Francia esiste, da decenni, una forte comunità musulmana, e nel corso di questi anni la comunità non ha mai avuto un osservatorio per controllare visivamente la comparsa o meno della prima luna crescente dal suolo francese.

La confusione di notizie sperimentata dai musulmani di Francia all'inizio del Ramadan del 2013 ci ha sensibilizzato sulla necessità di osservare la prima falce di luna.

È questa la sfida che abbiamo raccolto e che è ha portato, per grazia di Allah, alla creazione dell'OLMF (L'Osservatorio Lunare dei Musulmani di Francia), al servizio dell'Islam e dei musulmani in Francia.

Alla fine di ogni mese lunare, l'OLMF scansiona il cielo alla ricerca della nuova Luna crescente.»

**BEGINNER'S GUIDE TO
Moonsighting in the UK**
Wednesday 20 May
4:00PM - 6:00PM
Back by popular demand!

ONLINE
ZOOM
CALL



New Crescent Society
@newcrescentsociety · Organizzazione comunitaria

Home Video Foto Informazioni Altro ▼



Imad Ahmed



IUS LUNAE

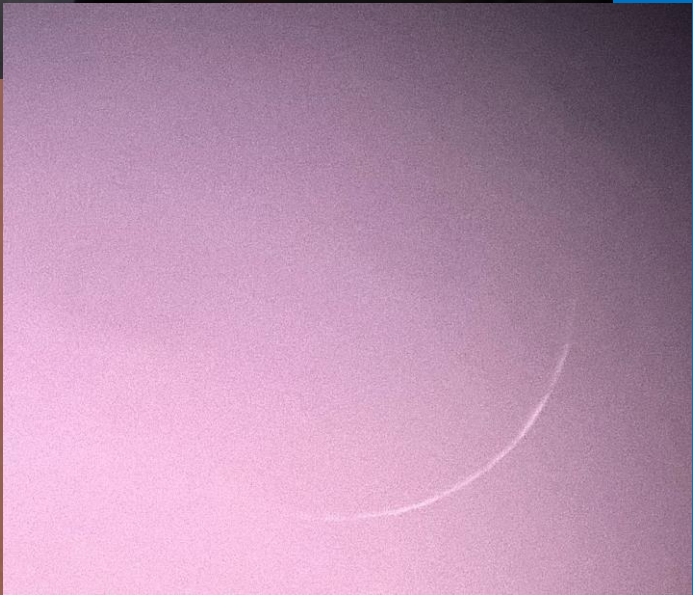
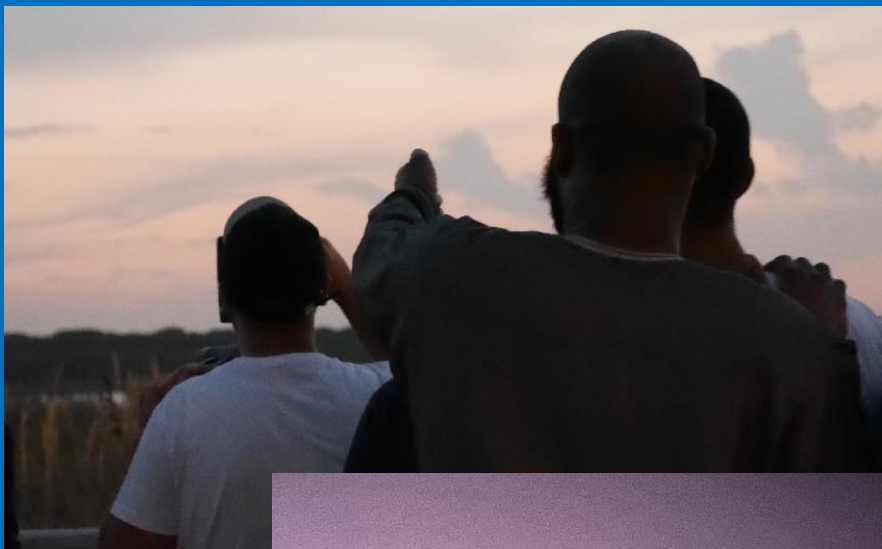
Notiziario dell'Associazione Ravennate Astrofili Rheyta IL PLANETARIO

Numero Speciale in occasione del Festival delle Culture 2019

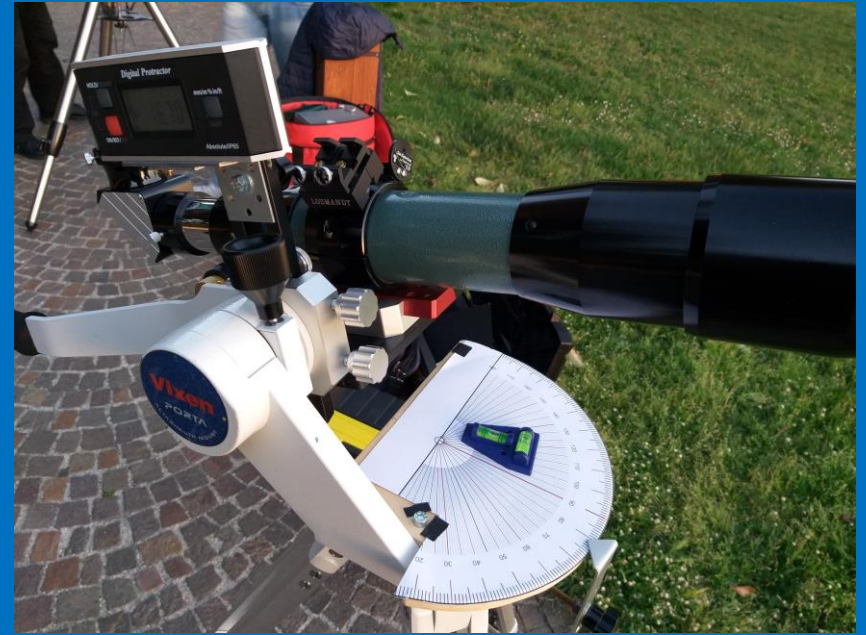


Pare che in questa nostra epoca i diritti tendano a diventare una merce di scambio: con i diritti (cedendoli) si crede di comprare coraggio, sicurezza, benessere.

Al contrario, i diritti sono invece da tutelare e non da spendere, e teniamoci soprattutto caro il diritto alla Luna: di vederla, di andarci, di cercare su di essa il senno perduto degli uomini, come fece il cavaliere Astolfo. Cercando sulla Luna il senno del suo amico Orlando, ne trovò a montagne, talmente tanto da far pensare che sulla Terra fosse rimasta solo la pazzia.

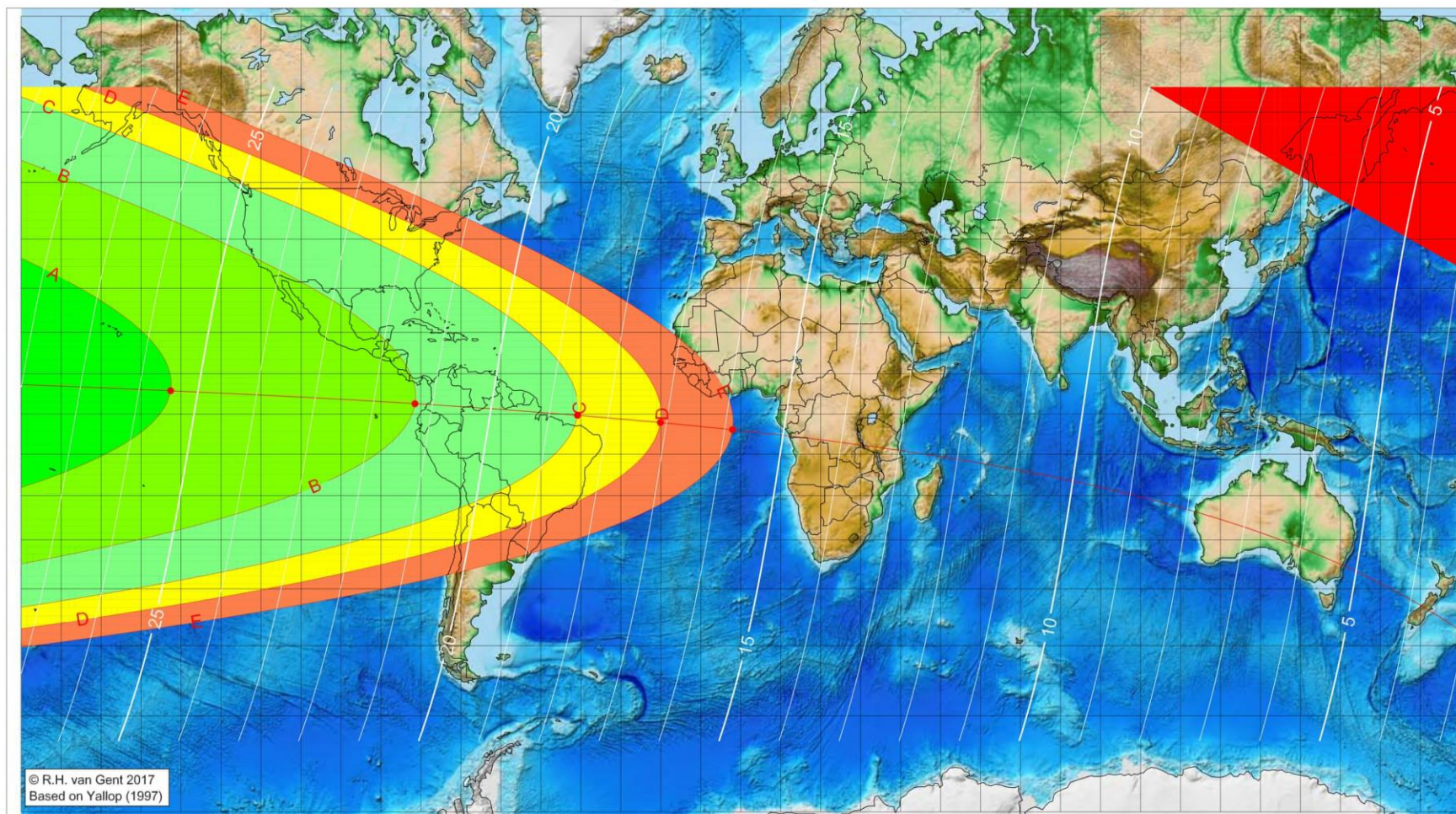


Hilal Party del 6 maggio 2019



First visibility lunar crescent for Ramaḍān 1442 AH

Global visibility map for 12 April 2021 [Monday]
Day of luni-solar conjunction



Astronomical New Moon: 12 April 2021, 2h 30.7m (UTC)

First visibility (•)

- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset before sunset
- before conjunction (astronomical new moon)

Longitude (°)	Latitude (°)	Lunar age (h)
-142.61	5.81	25.46
-81.50	2.57	21.30
-40.85	-0.33	18.52
-20.10	-2.13	17.10
-2.06	-3.91	15.87

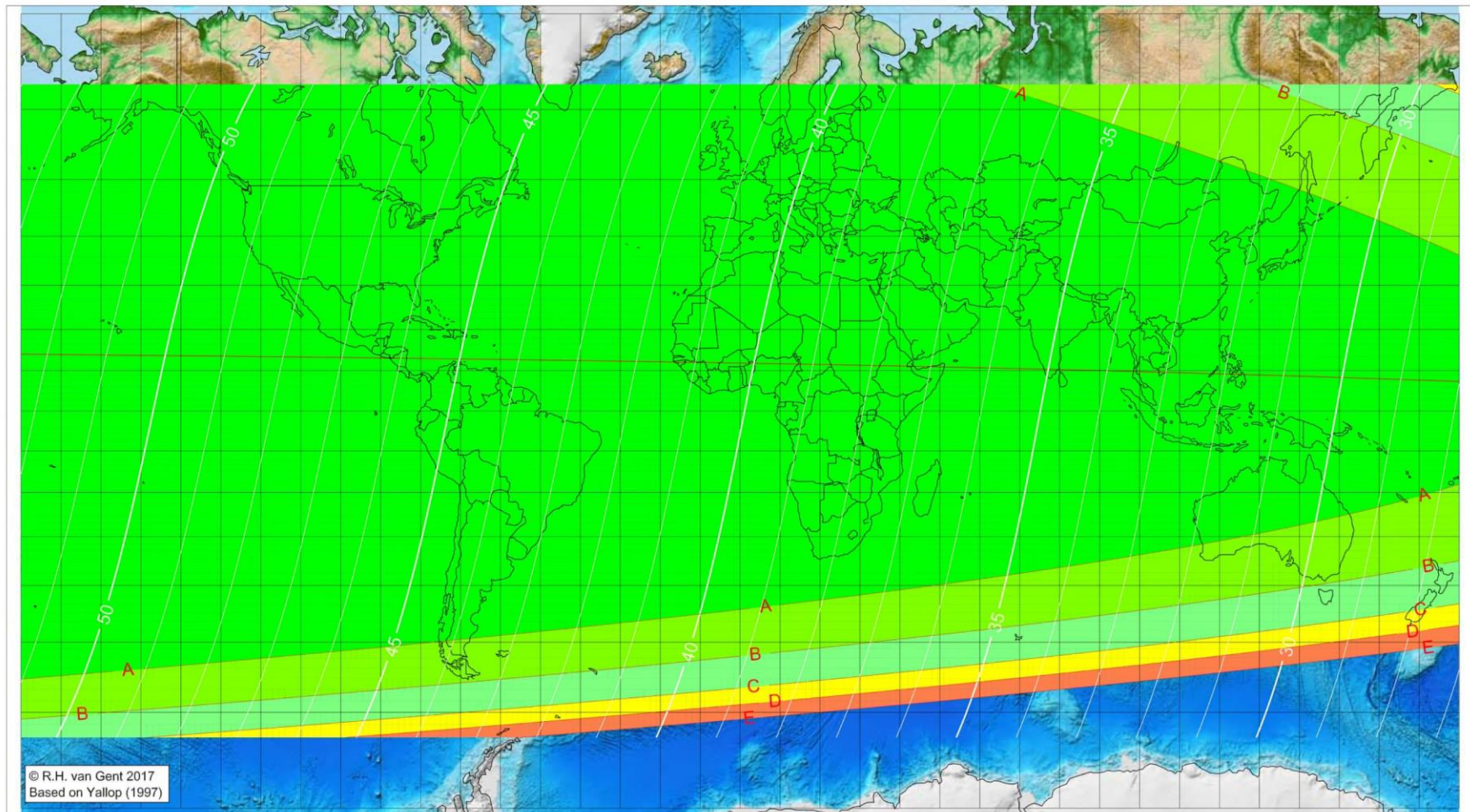
Astronomical (Brown) Lunation Number = 1216
Islamic Lunation Number = 17301
TT – UT [= ΔT] = 1.2 min

Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

More info: <http://www.staff.science.uu.nl/~gent0113/>

First visibility lunar crescent for Ramaḍān 1442 AH

Global visibility map for 13 April 2021 [Tuesday]
Day after luni-solar conjunction



Astronomical New Moon: 12 April 2021, 2h 30.7m (UTC)

First visibility (•)

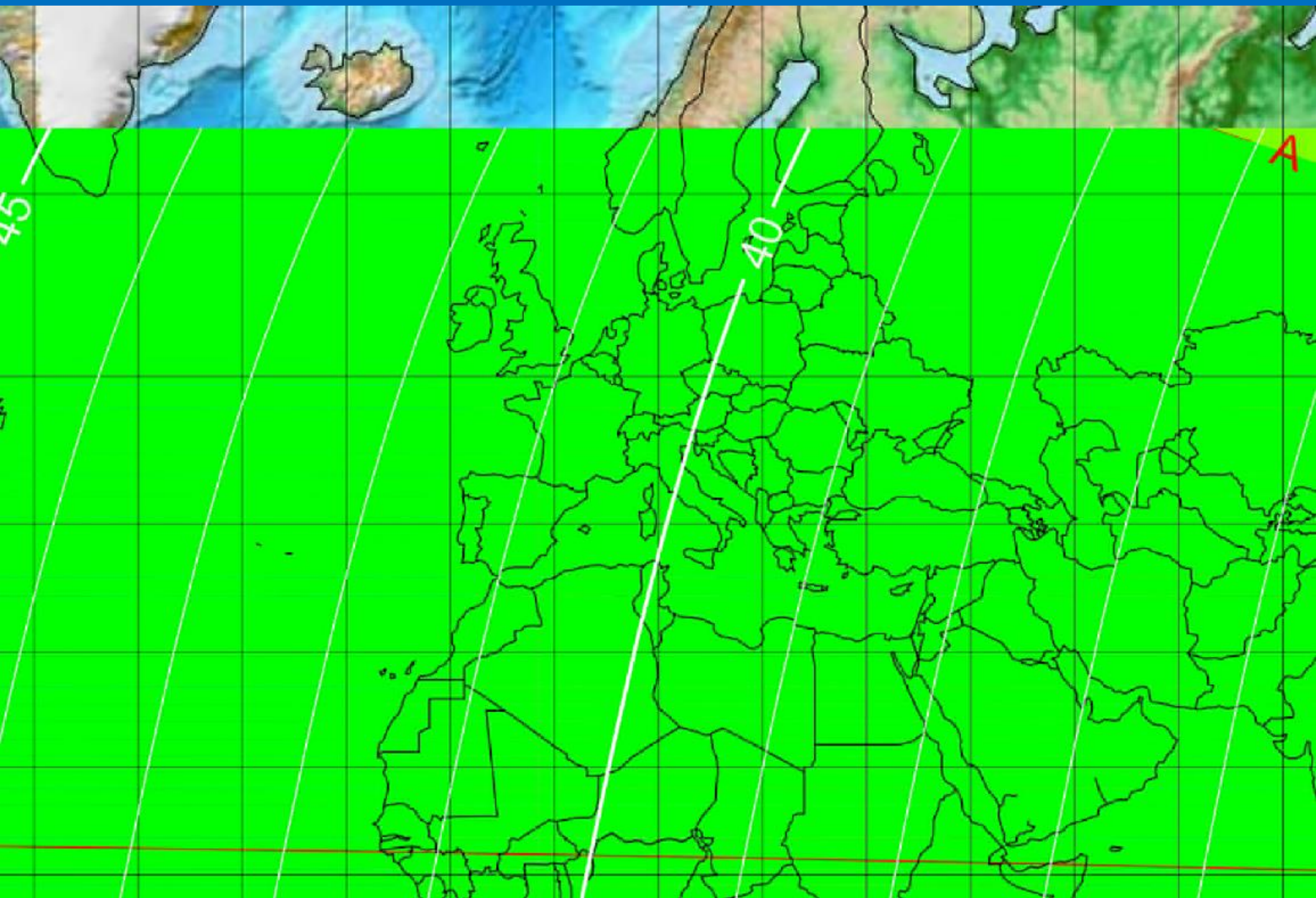
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset before sunset
- before conjunction (astronomical new moon)

Longitude (°) Latitude (°) Lunar age (h)
visible on the previous evening
visible on the previous evening
visible on the previous evening
visible on the previous evening
visible on the previous evening

Astronomical (Brown) Lunation Number = 1216
Islamic Lunation Number = 17301
TT – UT [= ΔT] = 1.2 min

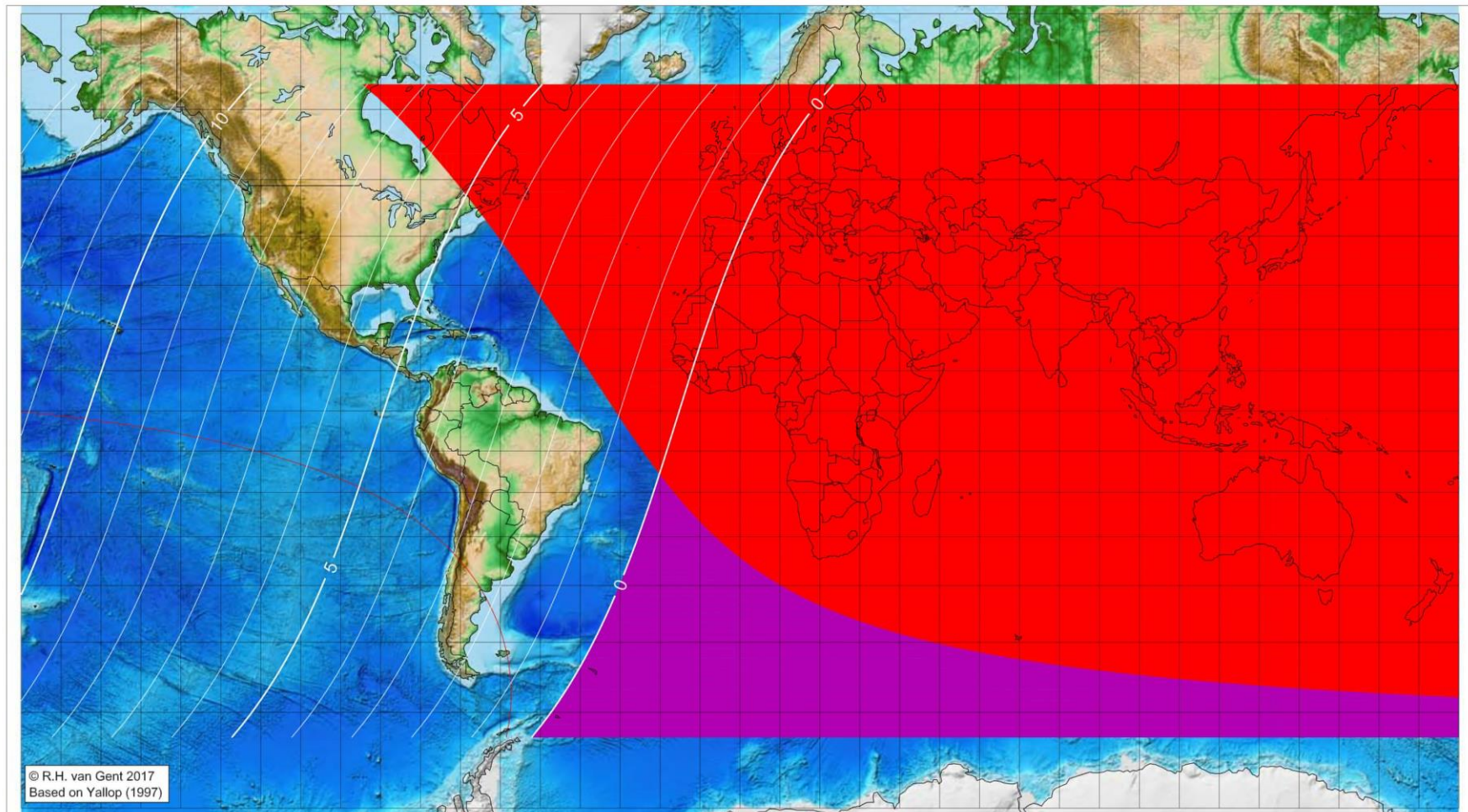
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

More info: <http://www.staff.science.uu.nl/~gent0113/>



First visibility lunar crescent for Shawwāl 1442 AH

Global visibility map for 11 May 2021 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 11 May 2021, 18h 59.7m (UTC)

First visibility (●)

- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset before sunset
- before conjunction (astronomical new moon)

Longitude (°)	Latitude (°)	Lunar age (h)
not visible until the next evening	not visible until the next evening	not visible until the next evening
not visible until the next evening	not visible until the next evening	not visible until the next evening
not visible until the next evening	not visible until the next evening	not visible until the next evening
not visible until the next evening	not visible until the next evening	not visible until the next evening

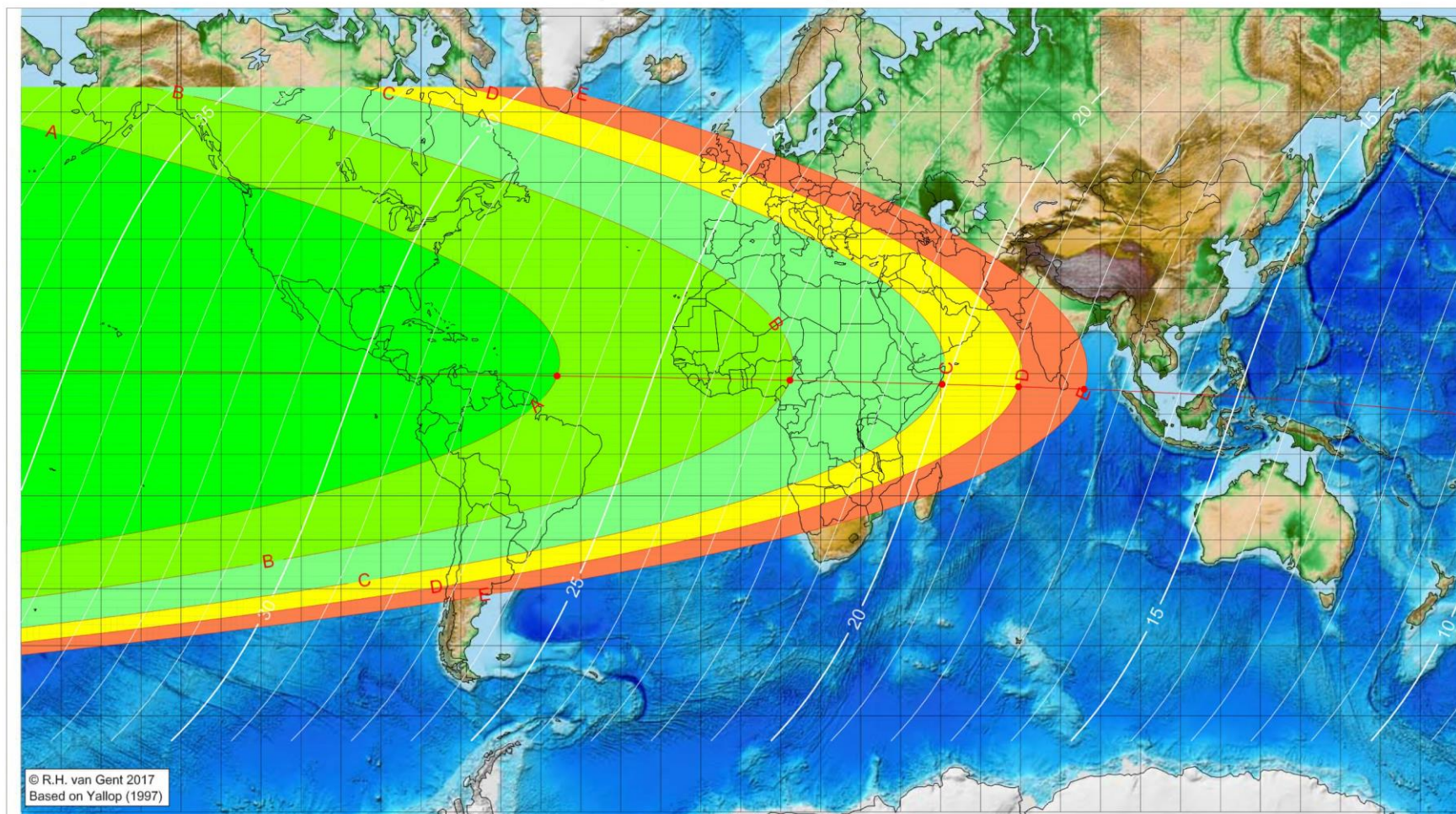
Astronomical (Brown) Lunation Number = 1217
Islamic Lunation Number = 17302
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

More info: <http://www.staff.science.uu.nl/~gent0113/>

First visibility lunar crescent for Shawwāl 1442 AH

Global visibility map for 12 May 2021 [Wednesday]
Day after luni-solar conjunction



Astronomical New Moon: 11 May 2021, 18h 59.7m (UTC)

First visibility (●)

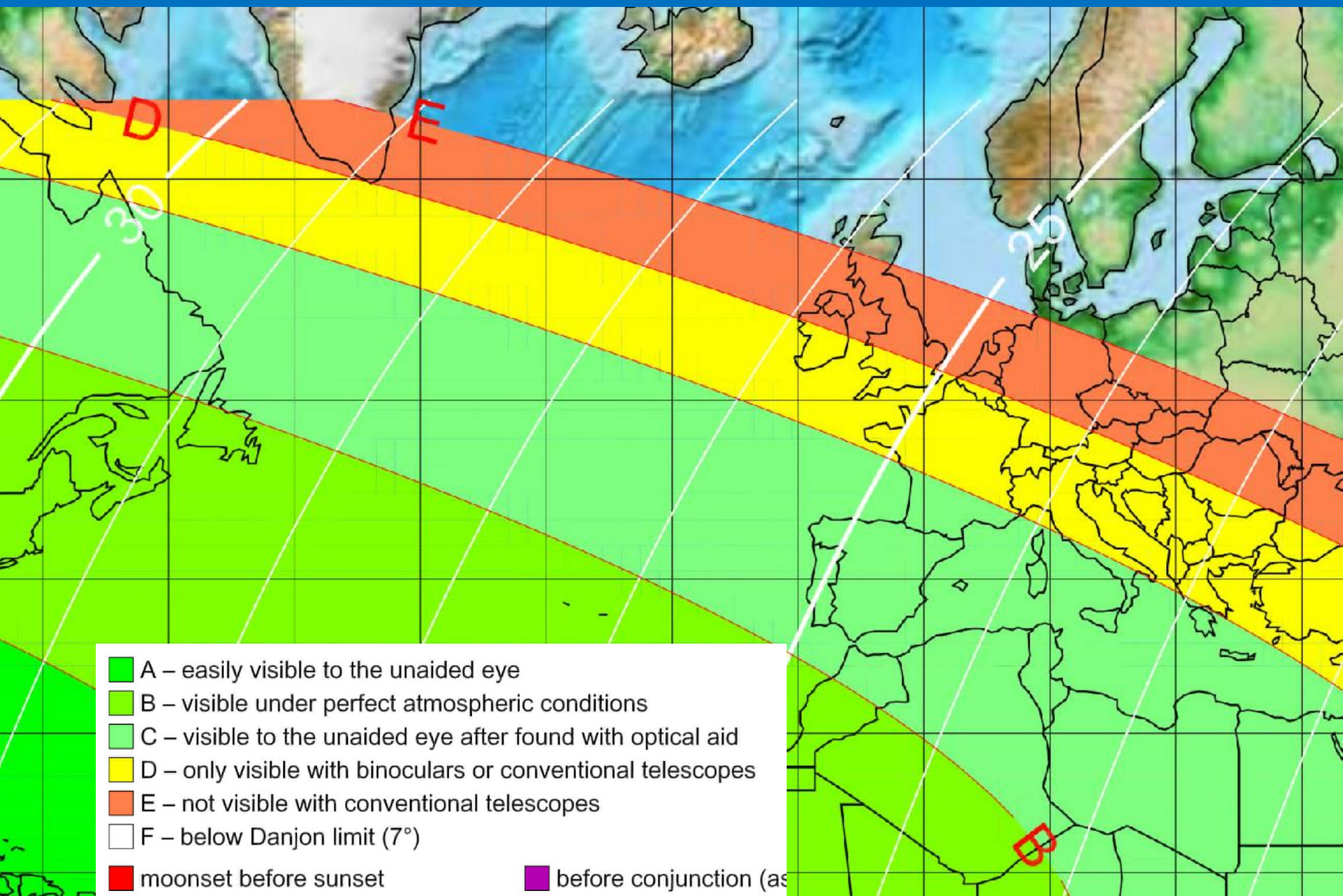
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset before sunset
- before conjunction (astronomical new moon)


Longitude (°)	Latitude (°)	Lunar age (h)
-45.95	9.48	26.64
12.30	8.41	22.67
50.37	7.42	20.07
69.49	6.80	18.76
85.90	6.17	17.64

Astronomical (Brown) Lunation Number = 1217
Islamic Lunation Number = 17302
TT – UT [= ΔT] = 1.2 min

Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

More info: <http://www.staff.science.uu.nl/~gent0113/>





Grazie per
l'attenzione

