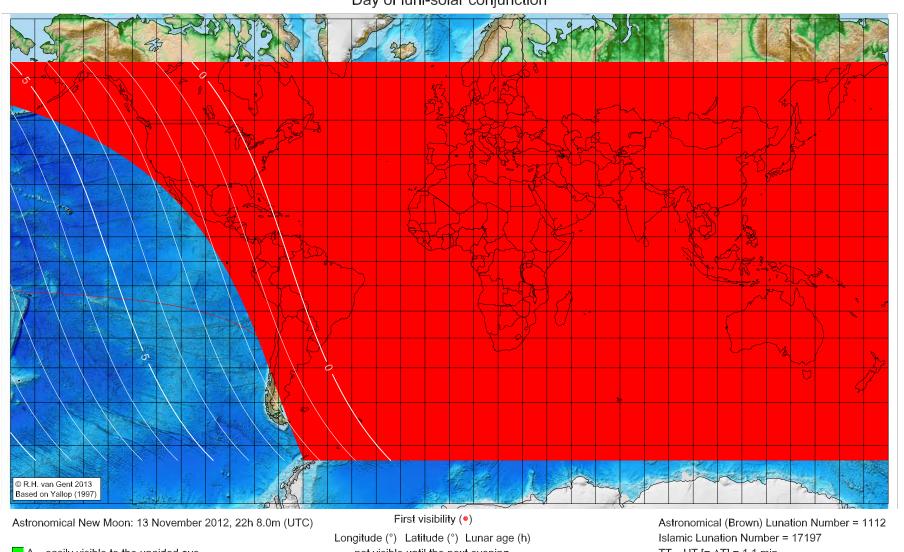
### First visibility lunar crescent for Muharram 1434 AH

Global visibility map for 13 November 2012 [Tuesday] Day of luni-solar conjunction



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

not visible until the next evening not visible until the next evening

before conjunction (astronomical new moon)

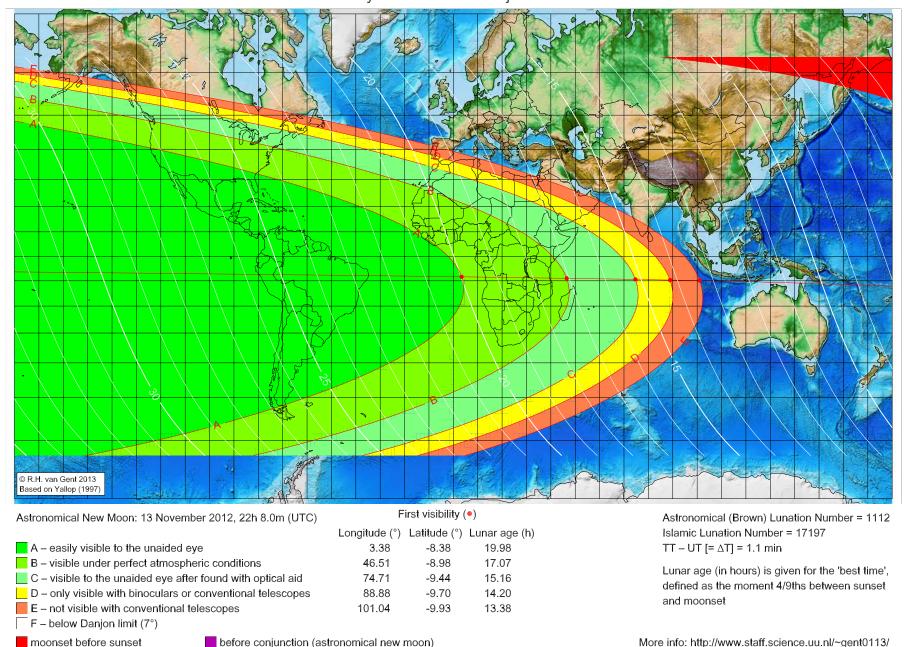
 $TT - UT = \Delta T = 1.1 min$ 

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

## First visibility lunar crescent for Muharram 1434 AH

Global visibility map for 14 November 2012 [Wednesday]

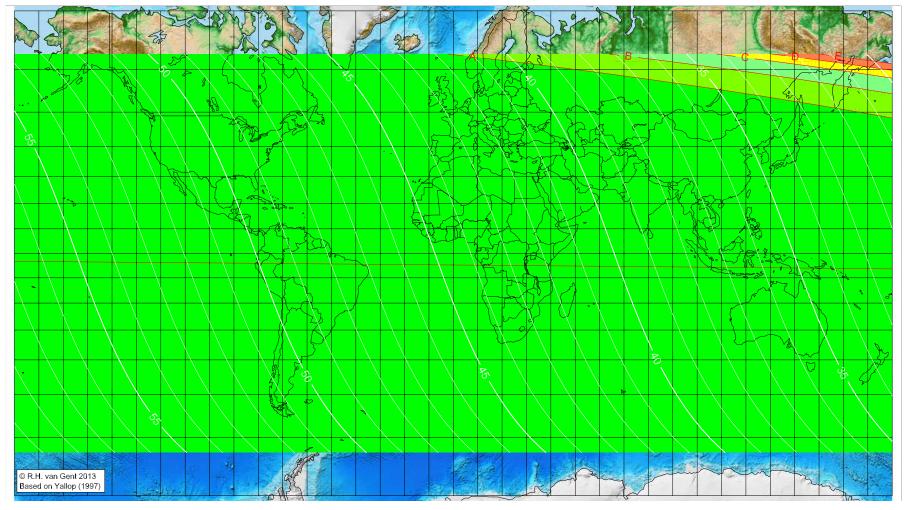
Day after luni-solar conjunction



### First visibility lunar crescent for Muharram 1434 AH

Global visibility map for 15 November 2012 [Thursday]

Second day after luni-solar conjunction



Astronomical New Moon: 13 November 2012, 22h 8.0m (UTC)

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)

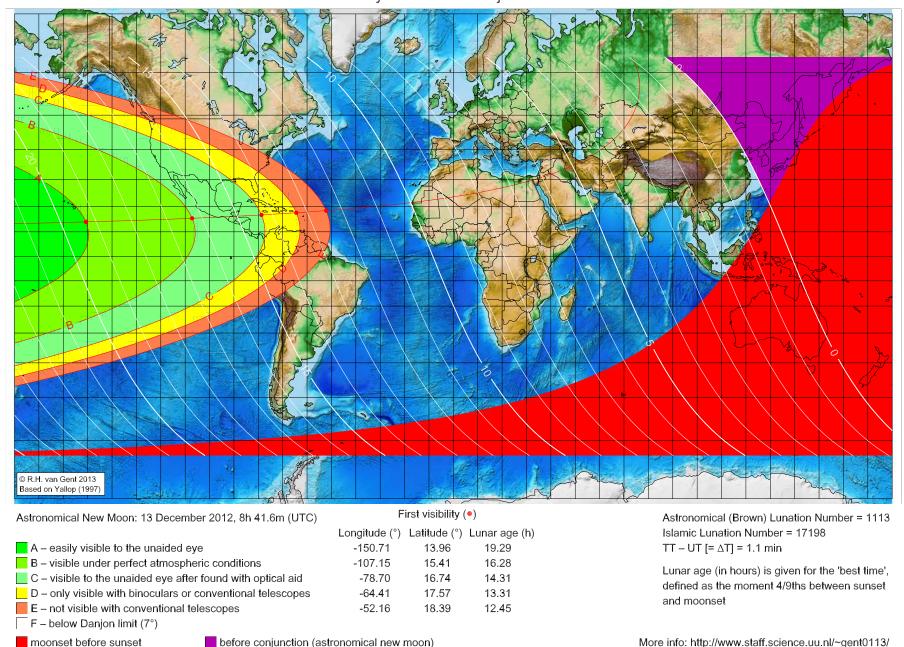
Astronomical (Brown) Lunation Number = 1112 Islamic Lunation Number = 17197  $TT - UT = \Delta T = 1.1 min$ 

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

### First visibility lunar crescent for Şafar 1434 AH

Global visibility map for 13 December 2012 [Thursday]

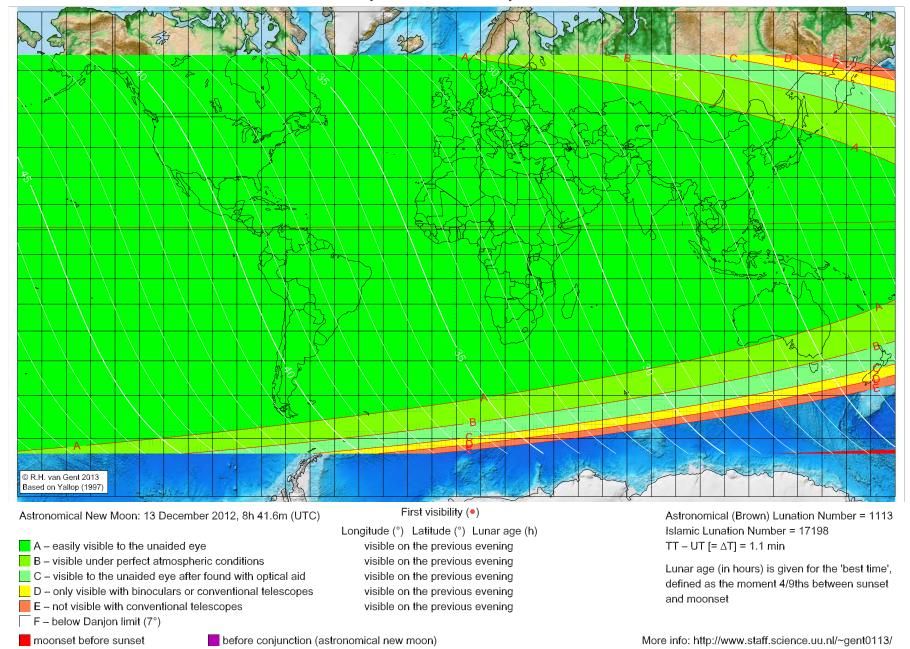
Day of luni-solar conjunction



### First visibility lunar crescent for Şafar 1434 AH

Global visibility map for 14 December 2012 [Friday]

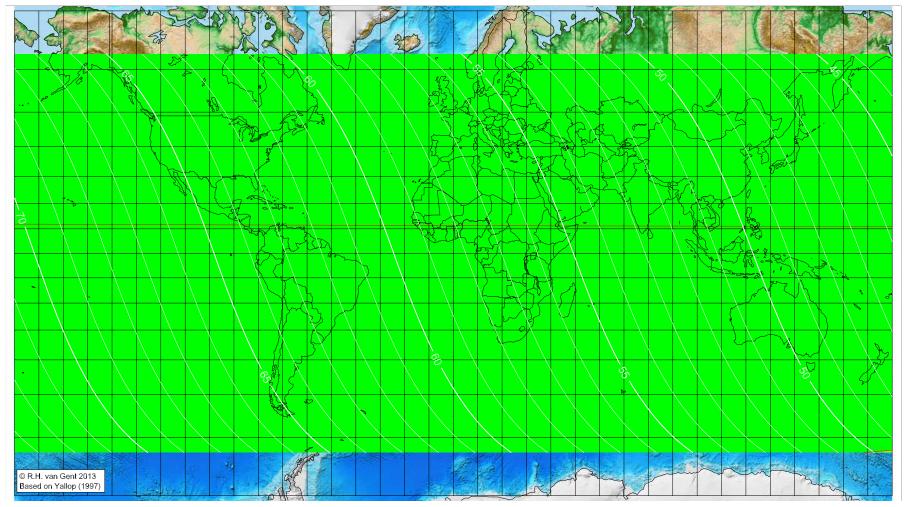
Day after luni-solar conjunction



### First visibility lunar crescent for Şafar 1434 AH

Global visibility map for 15 December 2012 [Saturday]

Second day after luni-solar conjunction



Astronomical New Moon: 13 December 2012, 8h 41.6m (UTC)

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)

Astronomical (Brown) Lunation Number = 1113 Islamic Lunation Number = 17198

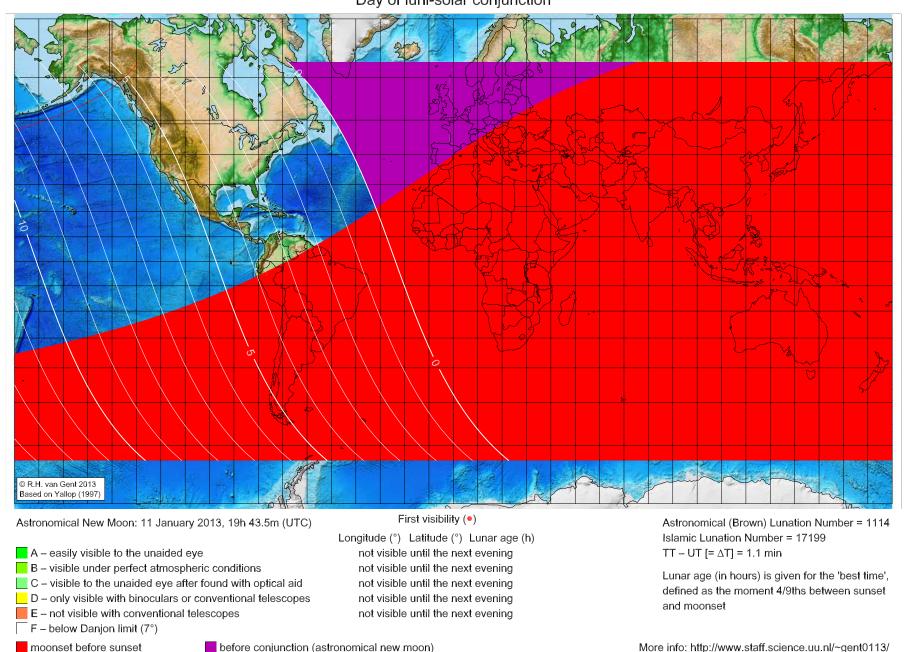
 $TT - UT [= \Delta T] = 1.1 min$ 

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

#### First visibility lunar crescent for Rabī al-Awwal 1434 AH

Global visibility map for 11 January 2013 [Friday]

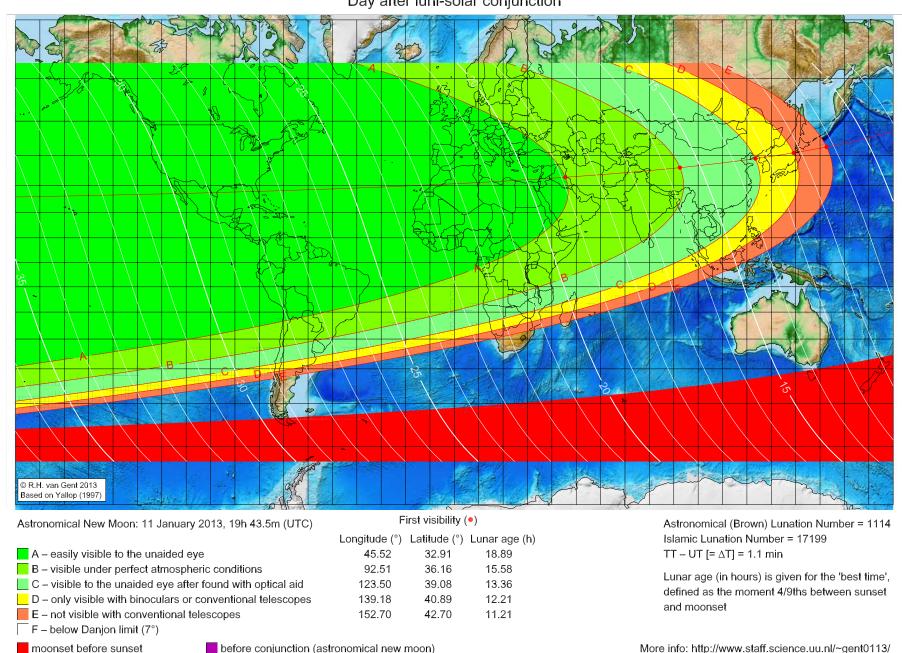
Day of luni-solar conjunction



#### First visibility lunar crescent for Rabī al-Awwal 1434 AH

Global visibility map for 12 January 2013 [Saturday]

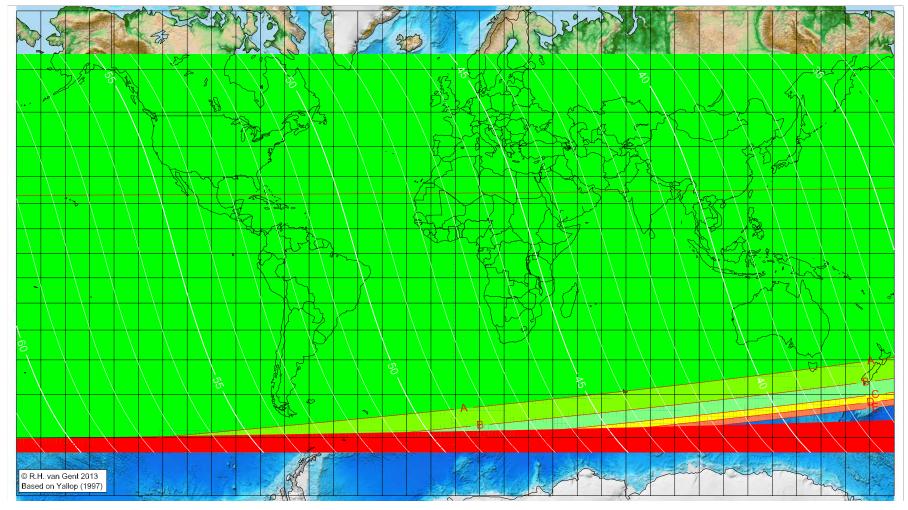
Day after luni-solar conjunction



#### First visibility lunar crescent for Rabī al-Awwal 1434 AH

Global visibility map for 13 January 2013 [Sunday]

Second day after luni-solar conjunction



Astronomical New Moon: 11 January 2013, 19h 43.5m (UTC)

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)

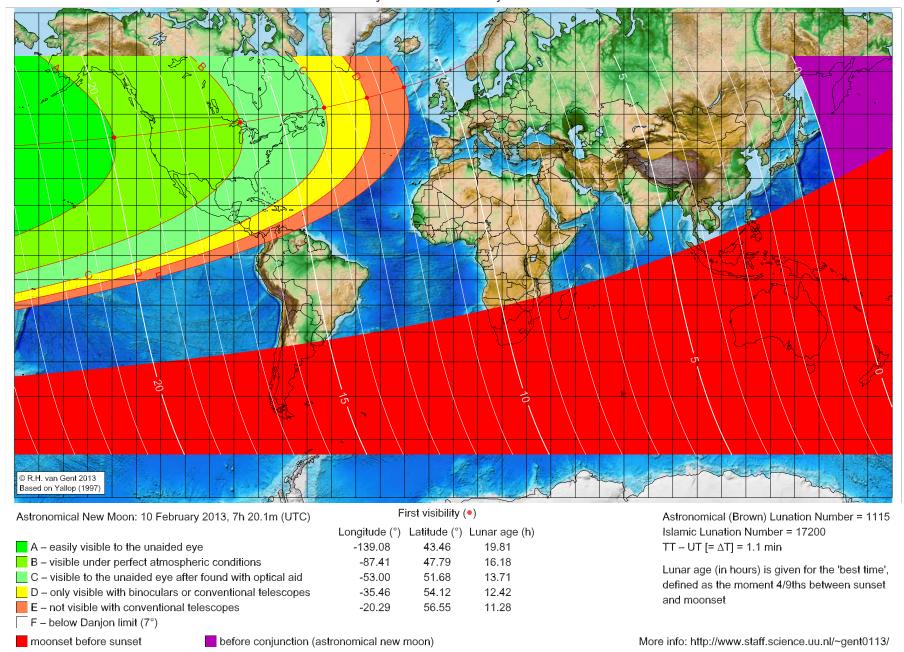
Astronomical (Brown) Lunation Number = 1114 Islamic Lunation Number = 17199 TT – UT  $[= \Delta T] = 1.1 \text{ min}$ 

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

## First visibility lunar crescent for Rabī al-Ākhir 1434 AH

Global visibility map for 10 February 2013 [Sunday]

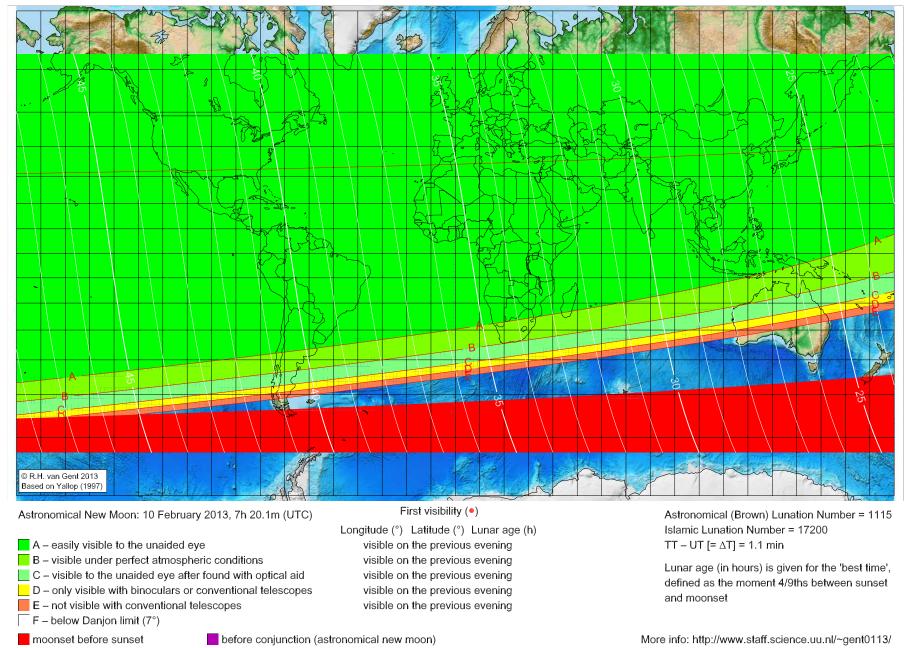
Day of luni-solar conjunction



## First visibility lunar crescent for Rabī al-Ākhir 1434 AH

Global visibility map for 11 February 2013 [Monday]

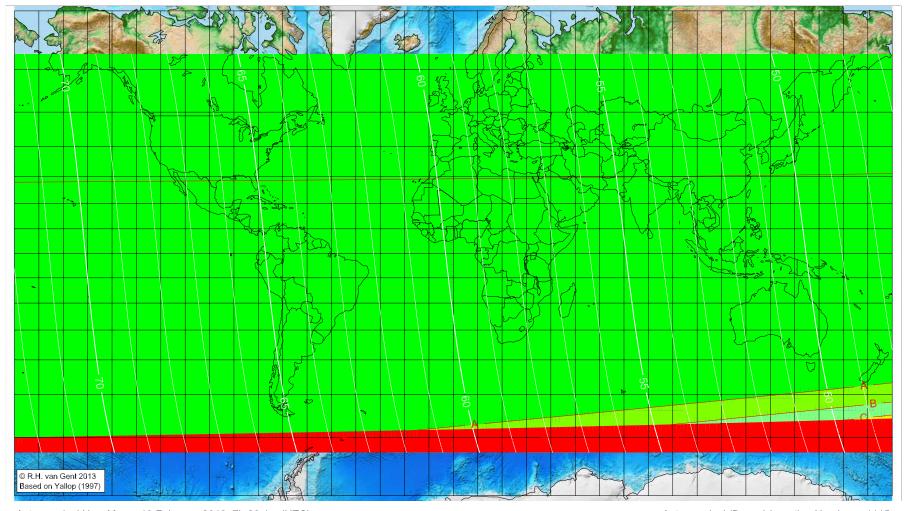
Day after luni-solar conjunction



## First visibility lunar crescent for Rabī al-Ākhir 1434 AH

Global visibility map for 12 February 2013 [Tuesday]

Second day after luni-solar conjunction



Astronomical New Moon: 10 February 2013, 7h 20.1m (UTC)

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)

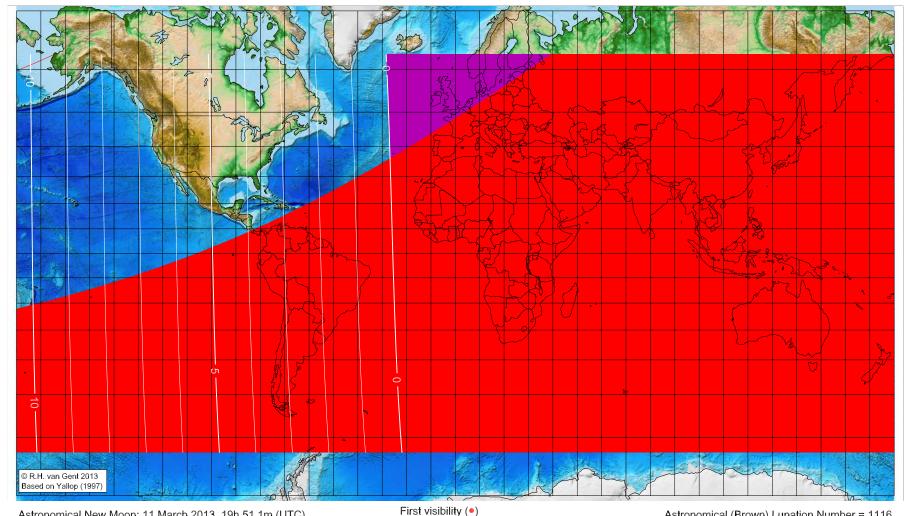
Astronomical (Brown) Lunation Number = 1115 Islamic Lunation Number = 17200  $TT - UT [= \Delta T] = 1.1 min$ 

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

## First visibility lunar crescent for Jumādā 'I-Ūlā 1434 AH

Global visibility map for 11 March 2013 [Monday]

Day of luni-solar conjunction



Astronomical New Moon: 11 March 2013, 19h 51.1m (UTC)

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

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

before conjunction (astronomical new moon)

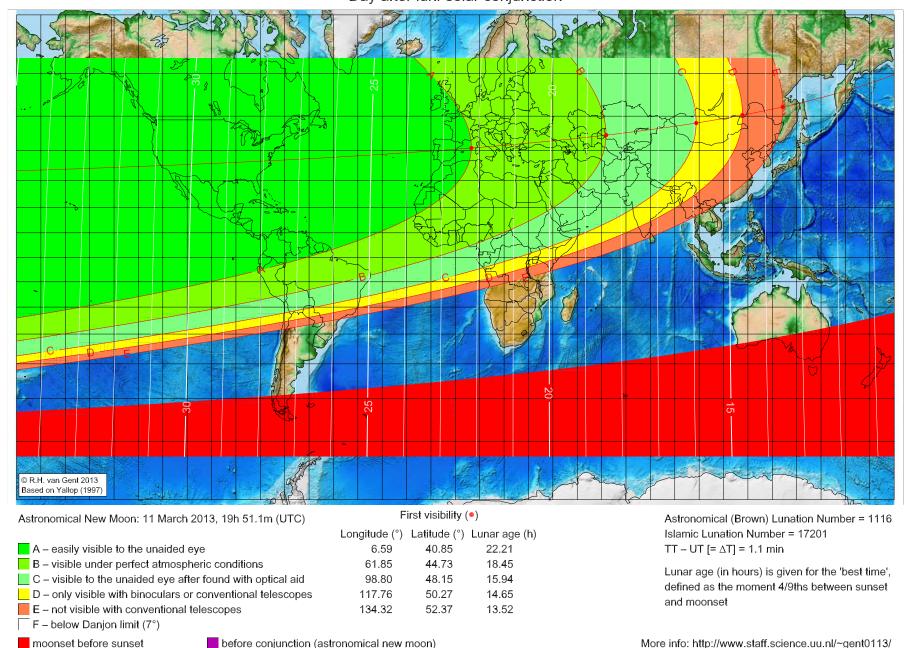
Astronomical (Brown) Lunation Number = 1116 Islamic Lunation Number = 17201  $TT - UT = \Delta T = 1.1 min$ 

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

## First visibility lunar crescent for Jumādā 'I-Ūlā 1434 AH

Global visibility map for 12 March 2013 [Tuesday]

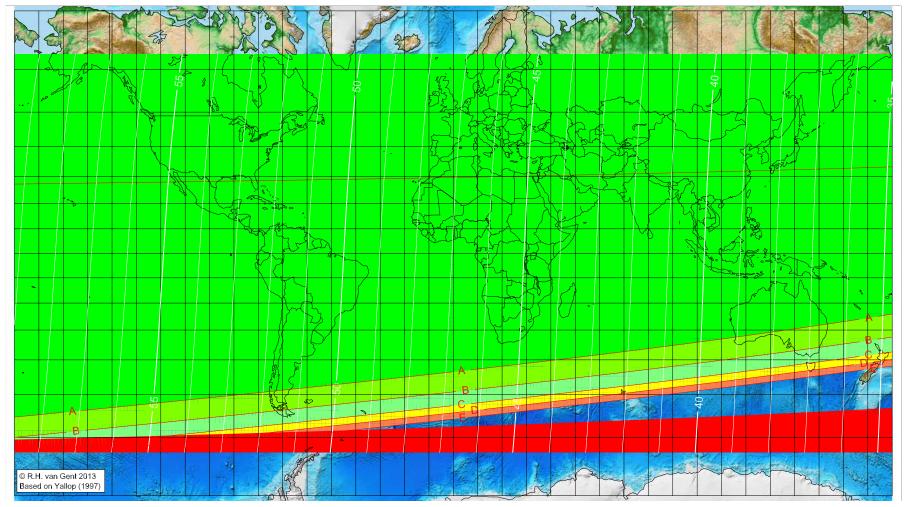
Day after luni-solar conjunction



# First visibility lunar crescent for Jumādā 'I-Ūlā 1434 AH

Global visibility map for 13 March 2013 [Wednesday]

Second day after luni-solar conjunction



Astronomical New Moon: 11 March 2013, 19h 51.1m (UTC)

A – easily visible to the unaided eye

B – visible under perfect atmospheric conditions

C – visible to the unaided eye after found with optical aid

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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)

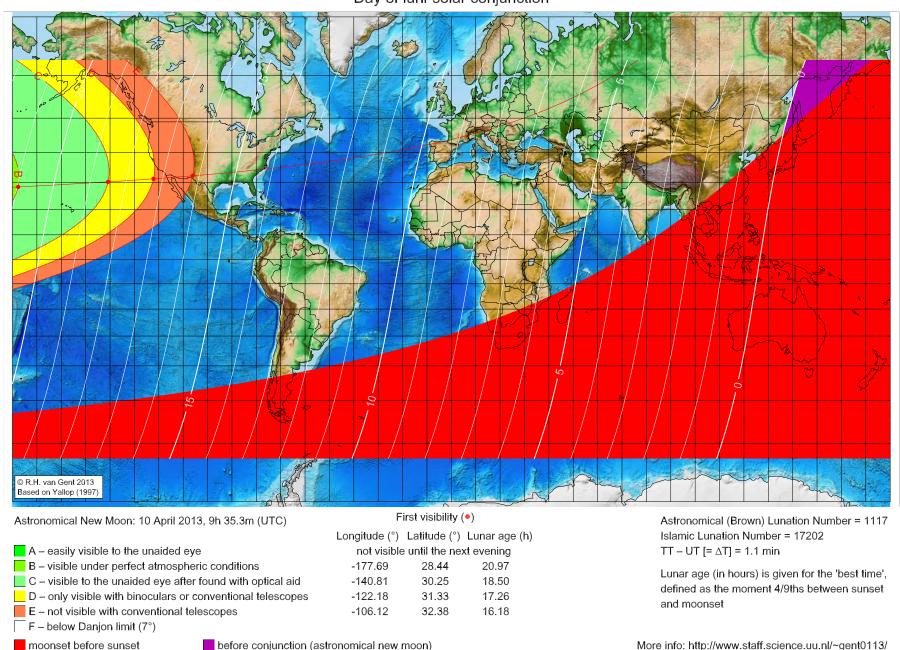
Astronomical (Brown) Lunation Number = 1116 Islamic Lunation Number = 17201  $TT - UT = \Delta T = 1.1 min$ 

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

## First visibility lunar crescent for Jumādā 'l-Ākhira 1434 AH

Global visibility map for 10 April 2013 [Wednesday]

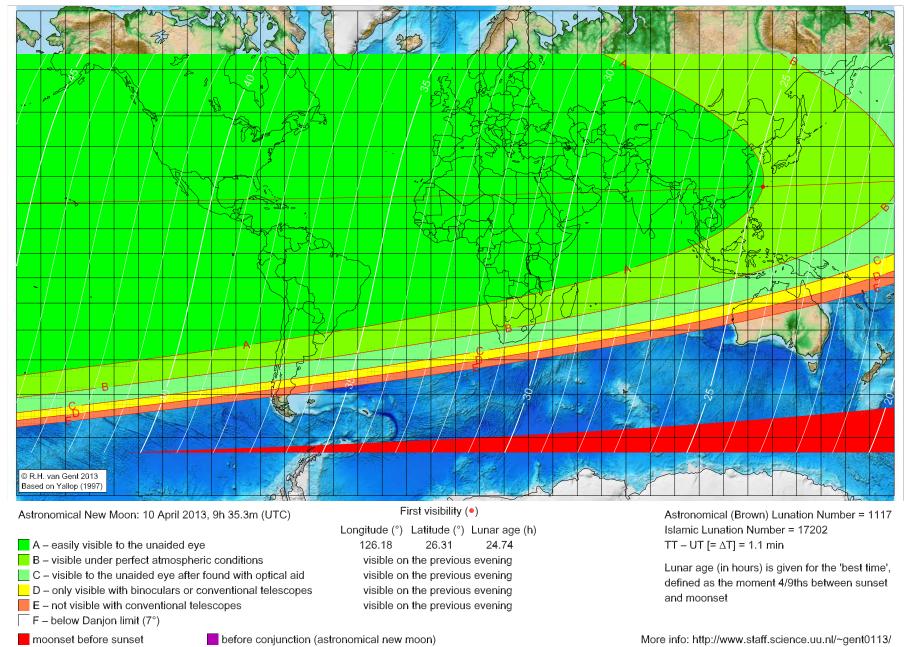
Day of luni-solar conjunction



## First visibility lunar crescent for Jumādā 'I-Ākhira 1434 AH

Global visibility map for 11 April 2013 [Thursday]

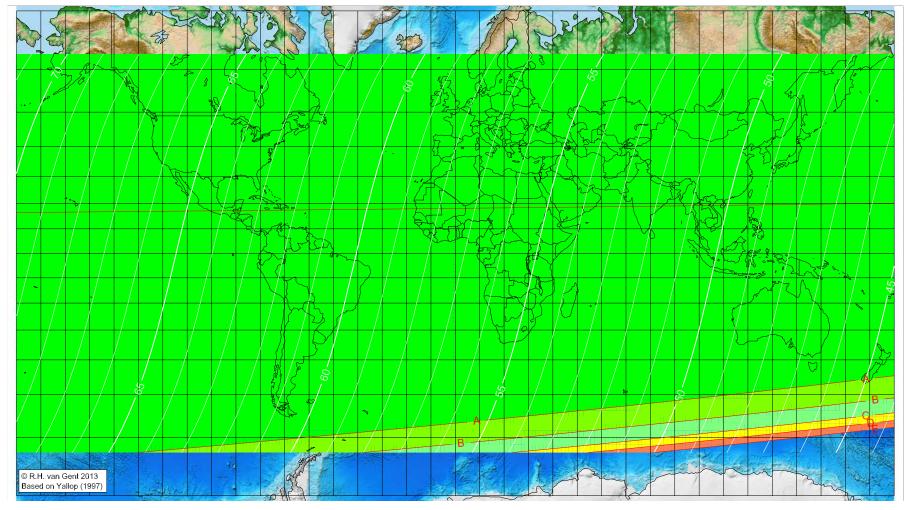
Day after luni-solar conjunction



## First visibility lunar crescent for Jumādā 'I-Ākhira 1434 AH

Global visibility map for 12 April 2013 [Friday]

Second day after luni-solar conjunction



Astronomical New Moon: 10 April 2013, 9h 35.3m (UTC)

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)

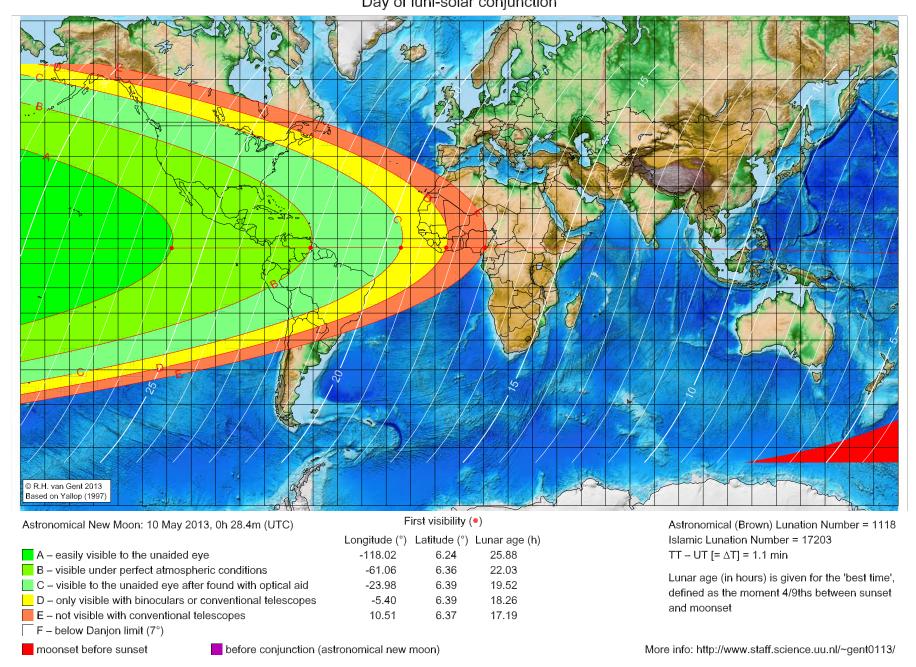
Astronomical (Brown) Lunation Number = 1117 Islamic Lunation Number = 17202  $TT - UT \ [= \Delta T] = 1.1 \ min$ 

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

### First visibility lunar crescent for Rajab 1434 AH

Global visibility map for 10 May 2013 [Friday]

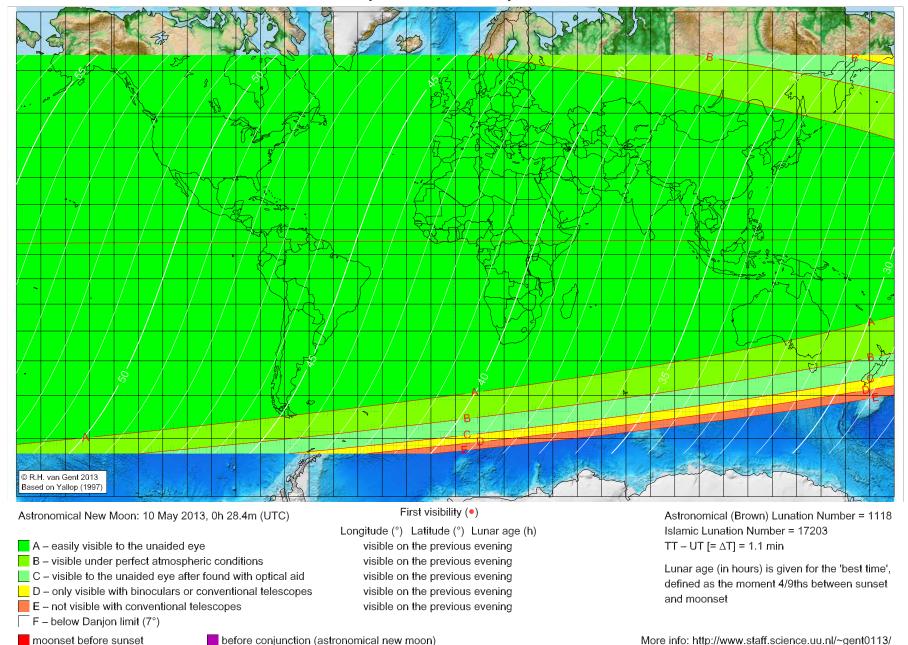
Day of luni-solar conjunction



### First visibility lunar crescent for Rajab 1434 AH

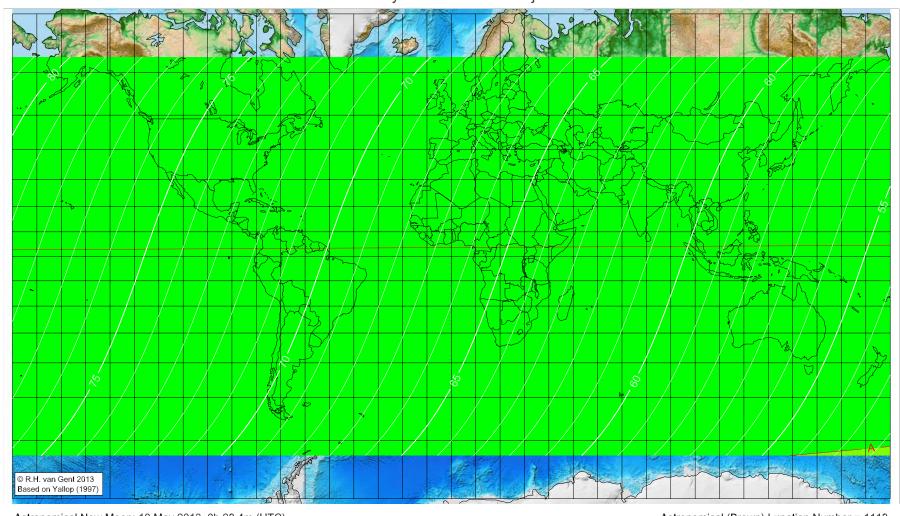
Global visibility map for 11 May 2013 [Saturday]

Day after luni-solar conjunction



### First visibility lunar crescent for Rajab 1434 AH

Global visibility map for 12 May 2013 [Sunday] Second day after luni-solar conjunction





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)

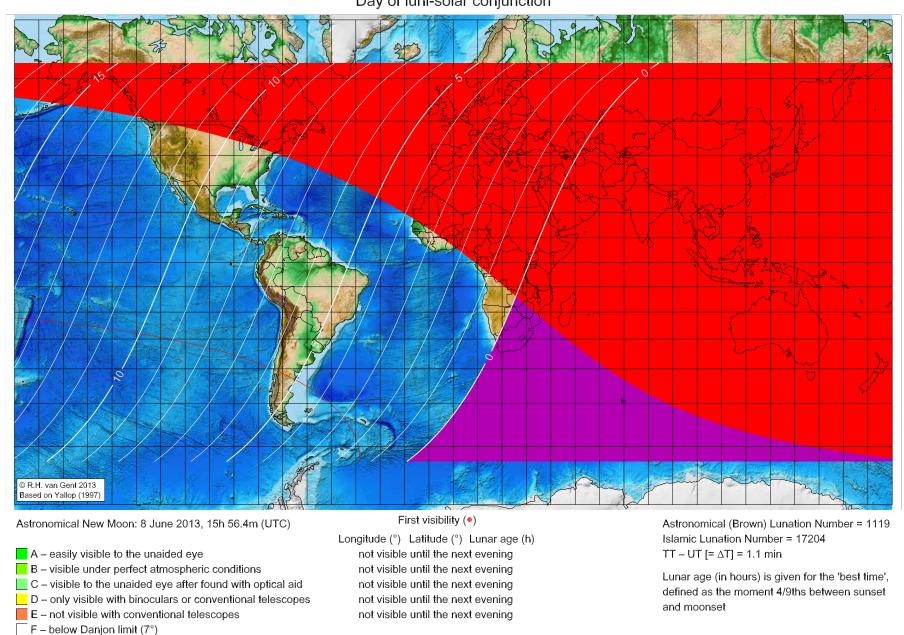
Astronomical (Brown) Lunation Number = 1118 Islamic Lunation Number = 17203  $TT - UT = \Delta T = 1.1 min$ 

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

### First visibility lunar crescent for Sha'bān 1434 AH

Global visibility map for 8 June 2013 [Saturday]

Day of luni-solar conjunction



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

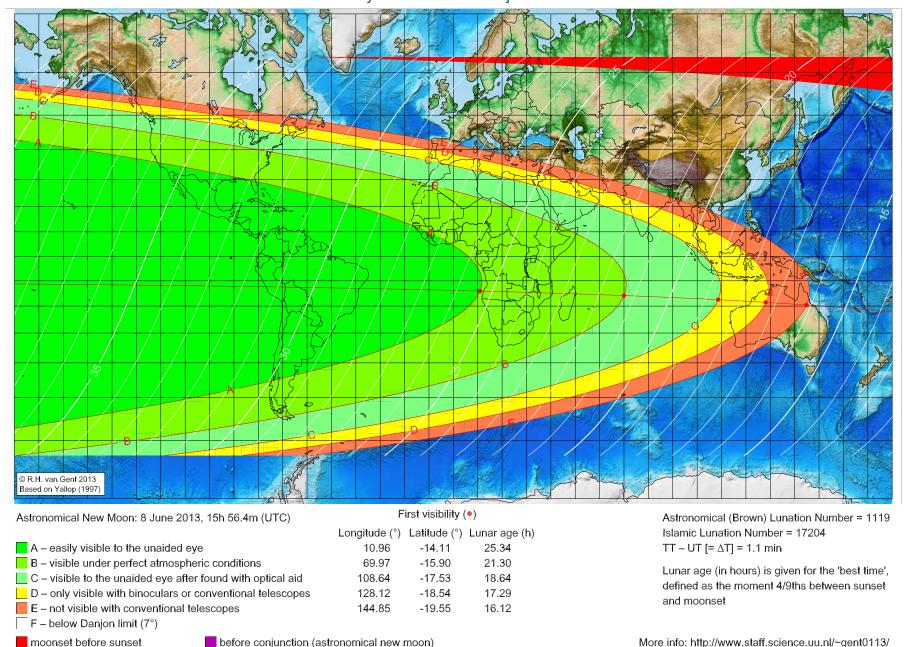
before conjunction (astronomical new moon)

moonset before sunset

### First visibility lunar crescent for Sha'bān 1434 AH

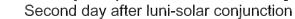
Global visibility map for 9 June 2013 [Sunday]

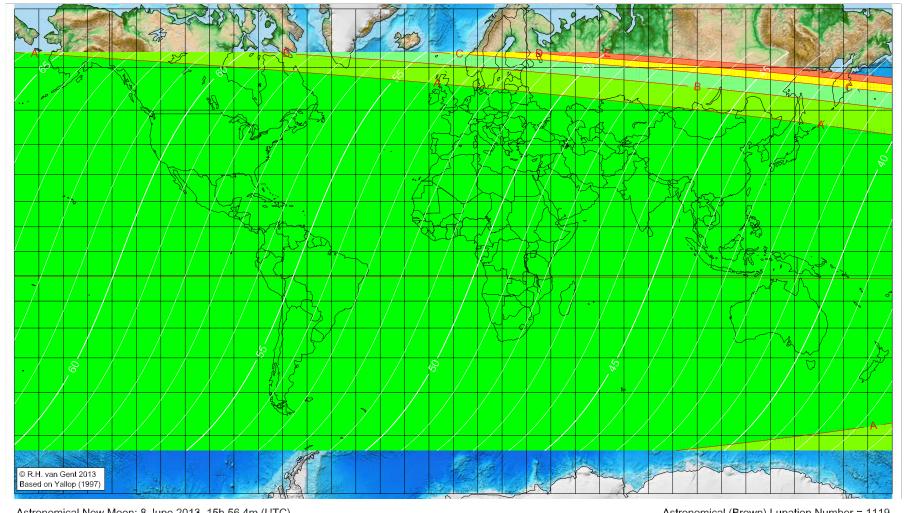
Day after luni-solar conjunction



### First visibility lunar crescent for Sha'bān 1434 AH

Global visibility map for 10 June 2013 [Monday]





Astronomical New Moon: 8 June 2013, 15h 56.4m (UTC)

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)

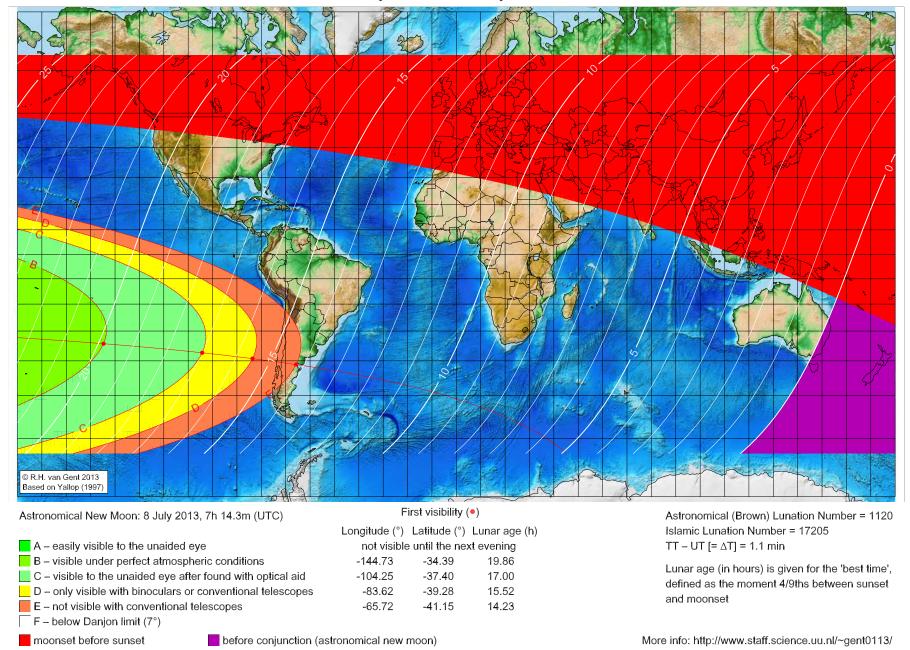
Astronomical (Brown) Lunation Number = 1119 Islamic Lunation Number = 17204  $TT - UT [= \Delta T] = 1.1 min$ 

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

### First visibility lunar crescent for Ramadan 1434 AH

Global visibility map for 8 July 2013 [Monday]

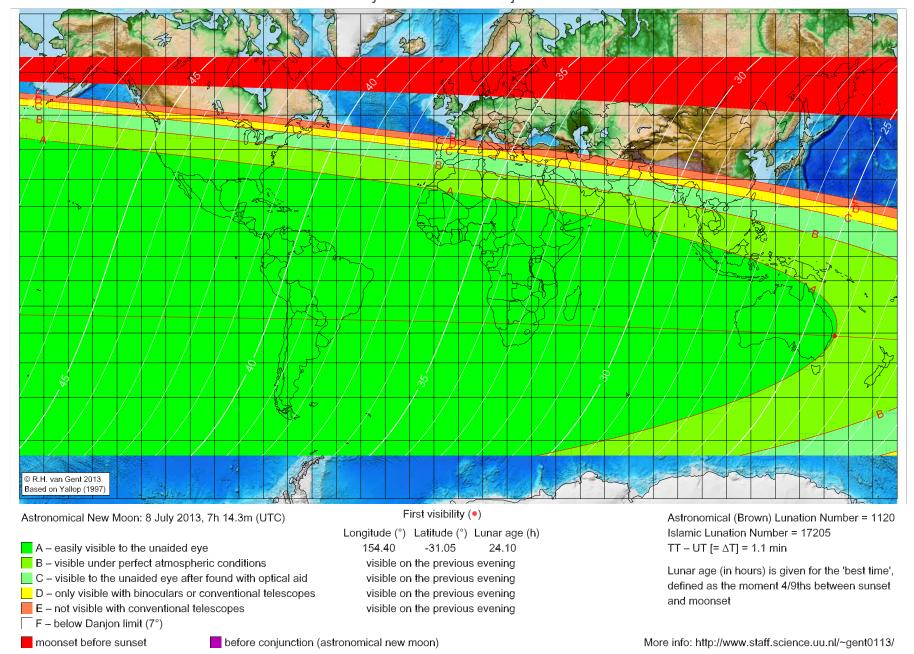
Day of luni-solar conjunction



### First visibility lunar crescent for Ramadan 1434 AH

Global visibility map for 9 July 2013 [Tuesday]

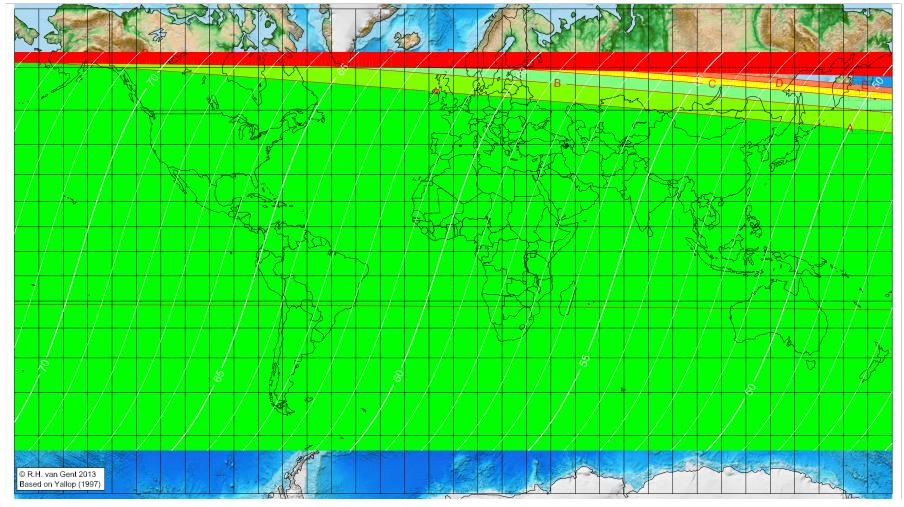
Day after luni-solar conjunction



### First visibility lunar crescent for Ramadan 1434 AH

Global visibility map for 10 July 2013 [Wednesday]

Second day after luni-solar conjunction



Astronomical New Moon: 8 July 2013, 7h 14.3m (UTC)

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)

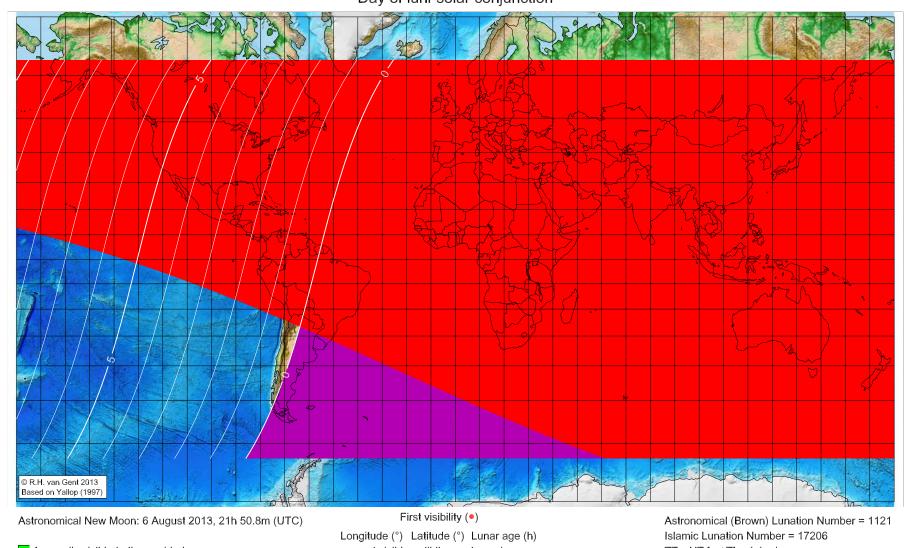
Astronomical (Brown) Lunation Number = 1120 Islamic Lunation Number = 17205  $TT - UT = \Delta T = 1.1 min$ 

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

#### First visibility lunar crescent for Shawwāl 1434 AH

Global visibility map for 6 August 2013 [Tuesday]

Day of luni-solar conjunction



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

not visible until the next evening not visible until the next evening

before conjunction (astronomical new moon)

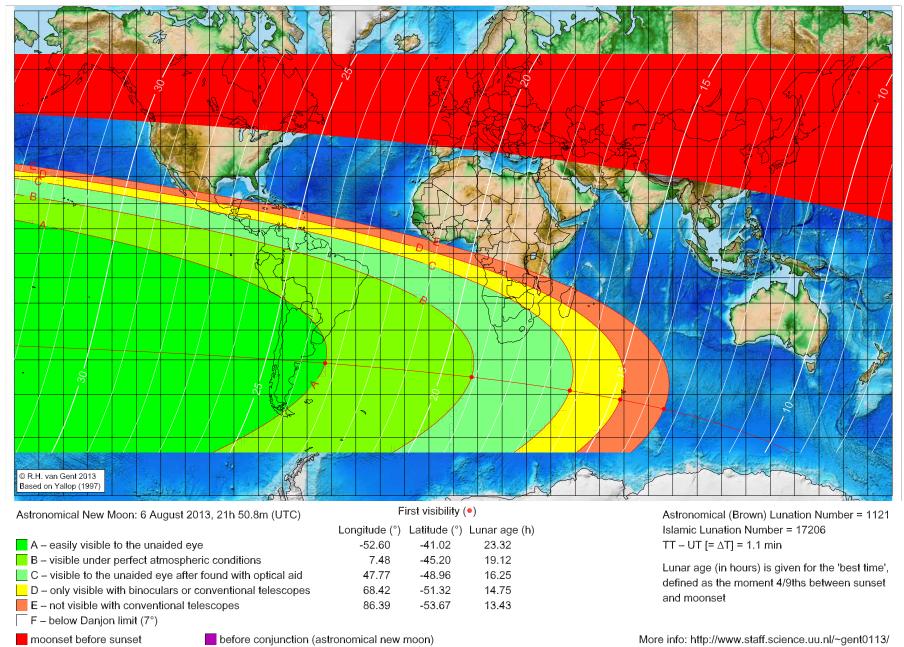
 $TT - UT = \Delta T = 1.1 min$ 

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

#### First visibility lunar crescent for Shawwāl 1434 AH

Global visibility map for 7 August 2013 [Wednesday]

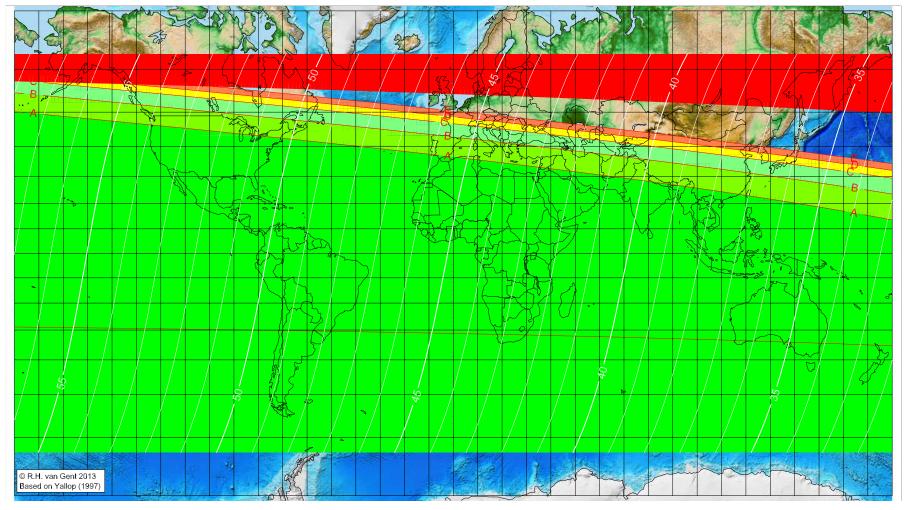
Day after luni-solar conjunction



### First visibility lunar crescent for Shawwāl 1434 AH

Global visibility map for 8 August 2013 [Thursday]

Second day after luni-solar conjunction



Astronomical New Moon: 6 August 2013, 21h 50.8m (UTC)

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)

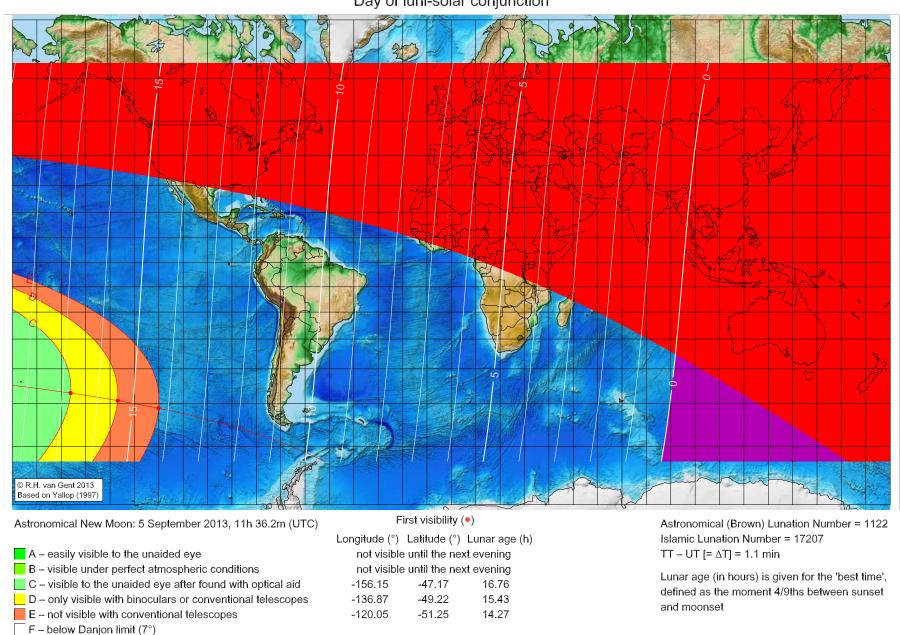
Astronomical (Brown) Lunation Number = 1121 Islamic Lunation Number = 17206  $TT - UT [= \Delta T] = 1.1 min$ 

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

### First visibility lunar crescent for Dhū 'l-Qa'da 1434 AH

Global visibility map for 5 September 2013 [Thursday]

Day of luni-solar conjunction



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

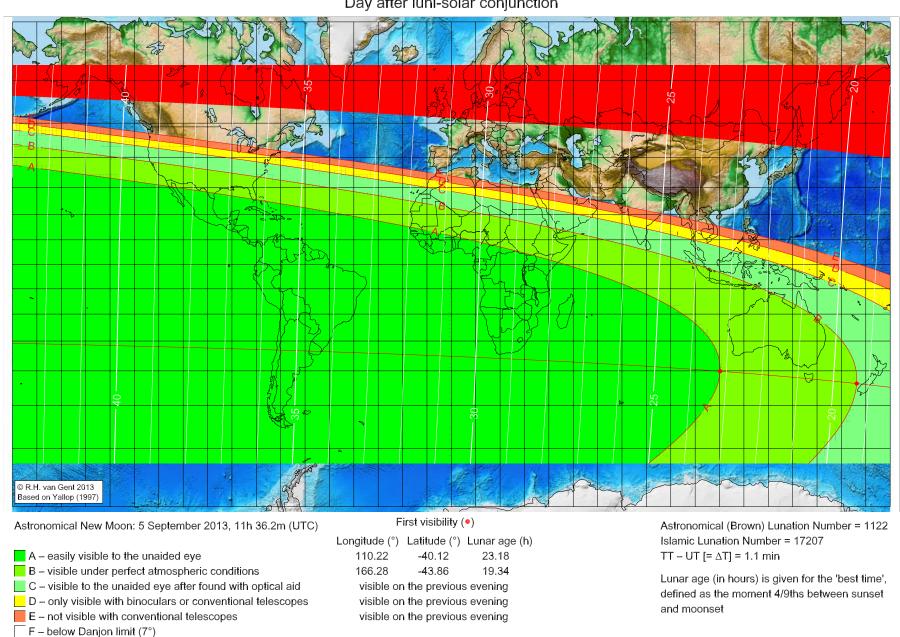
before conjunction (astronomical new moon)

moonset before sunset

#### First visibility lunar crescent for Dhū 'l-Qa'da 1434 AH

Global visibility map for 6 September 2013 [Friday]

Day after luni-solar conjunction



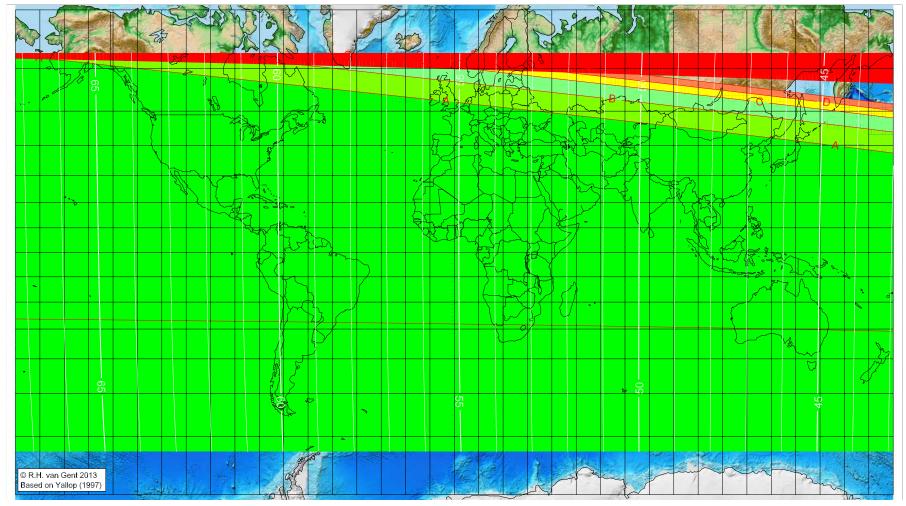
before conjunction (astronomical new moon)

moonset before sunset

### First visibility lunar crescent for Dhū 'l-Qa'da 1434 AH

Global visibility map for 7 September 2013 [Saturday]

Second day after luni-solar conjunction



Astronomical New Moon: 5 September 2013, 11h 36.2m (UTC)

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)

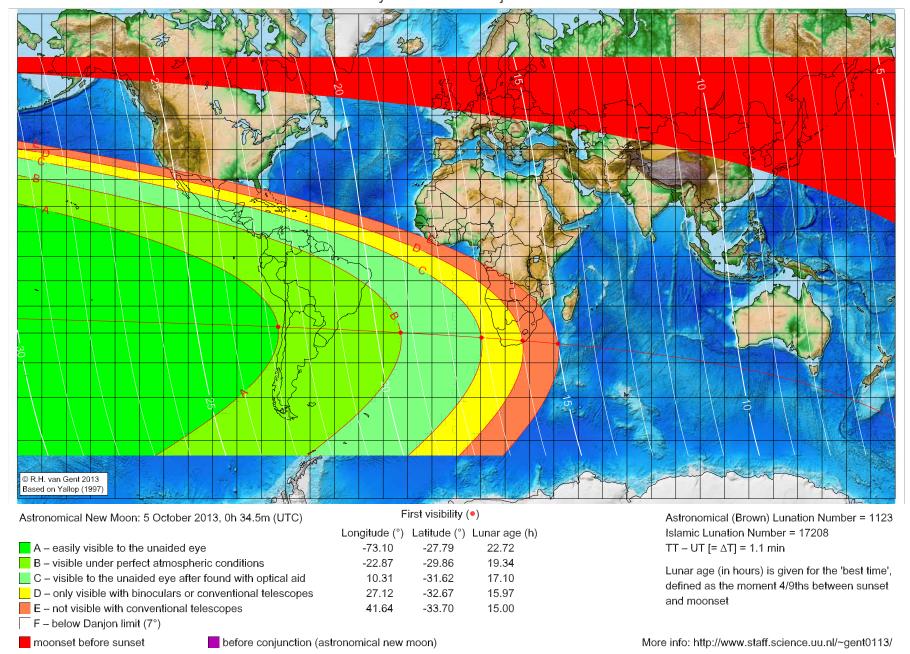
Astronomical (Brown) Lunation Number = 1122 Islamic Lunation Number = 17207  $TT - UT [= \Delta T] = 1.1 min$ 

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

## First visibility lunar crescent for Dhū 'l-Ḥijja 1434 AH

Global visibility map for 5 October 2013 [Saturday]

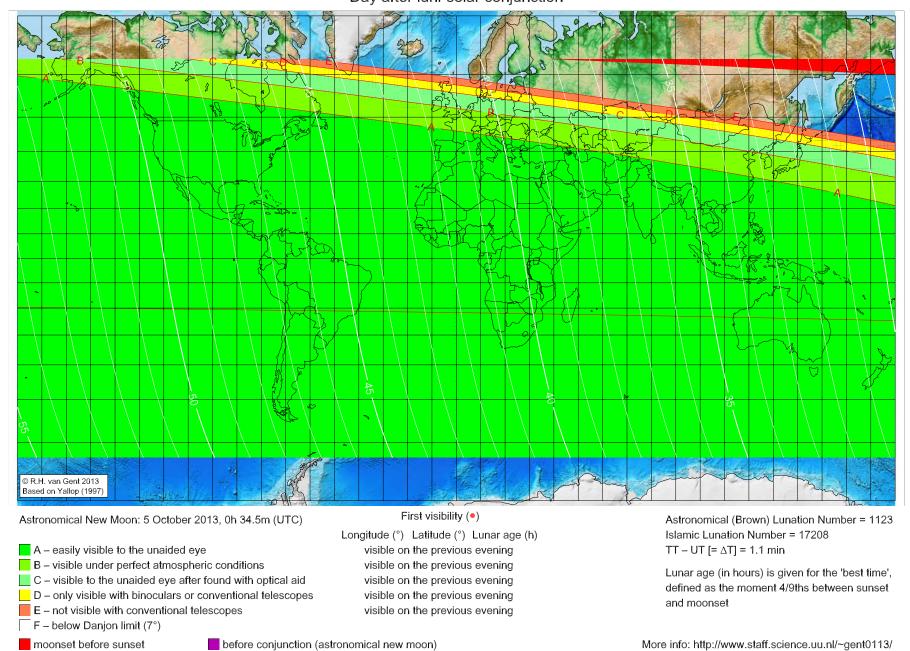
Day of luni-solar conjunction



# First visibility lunar crescent for Dhū 'l-Ḥijja 1434 AH

Global visibility map for 6 October 2013 [Sunday]

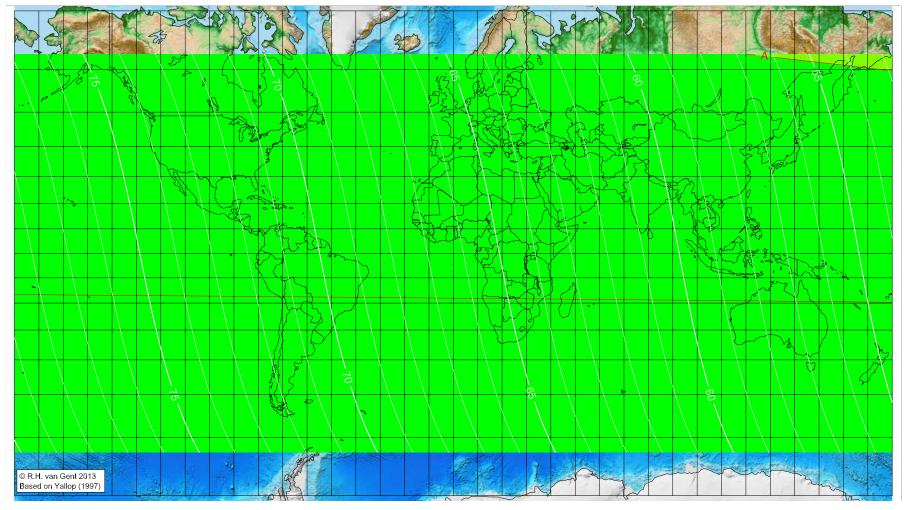
Day after luni-solar conjunction



## First visibility lunar crescent for Dhū 'l-Ḥijja 1434 AH

Global visibility map for 7 October 2013 [Monday]

Second day after luni-solar conjunction



Astronomical New Moon: 5 October 2013, 0h 34.5m (UTC)

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)

Astronomical (Brown) Lunation Number = 1123 Islamic Lunation Number = 17208  $TT - UT = \Delta T = 1.1 min$ 

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