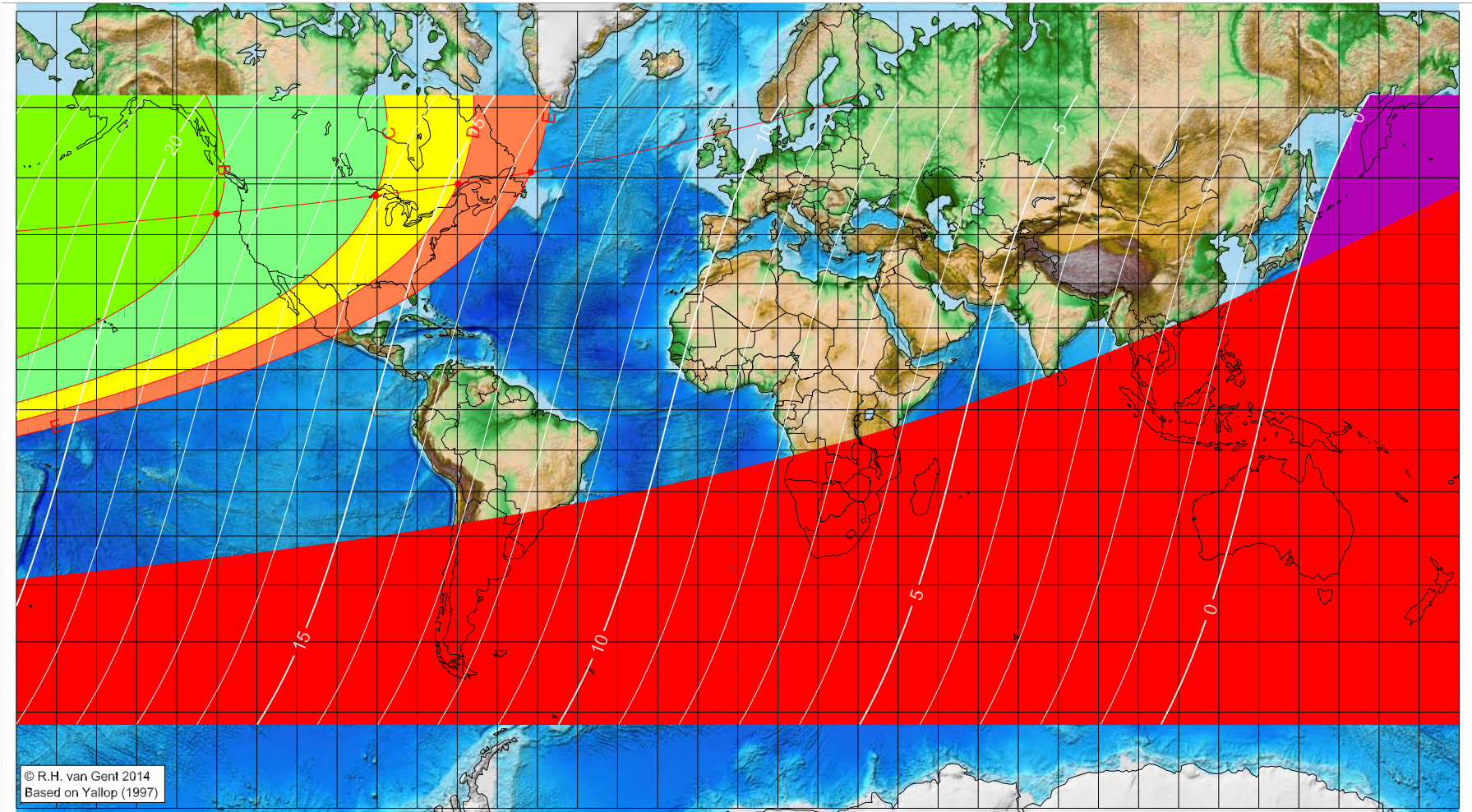


First visibility lunar crescent for Muḥarram 9 AH (proleptic)

Global visibility map for 18 April 630 [Wednesday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 18 April 630, 9h 12.5m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
-130.05	43.90	18.70
-90.45	47.08	16.13
-69.84	49.00	14.81
-51.62	50.88	13.65

Astronomical (Brown) Lunation Number = -15988
Islamic Lunation Number = 97
TT - UT [= ΔT] = 1.25 h

- 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°)

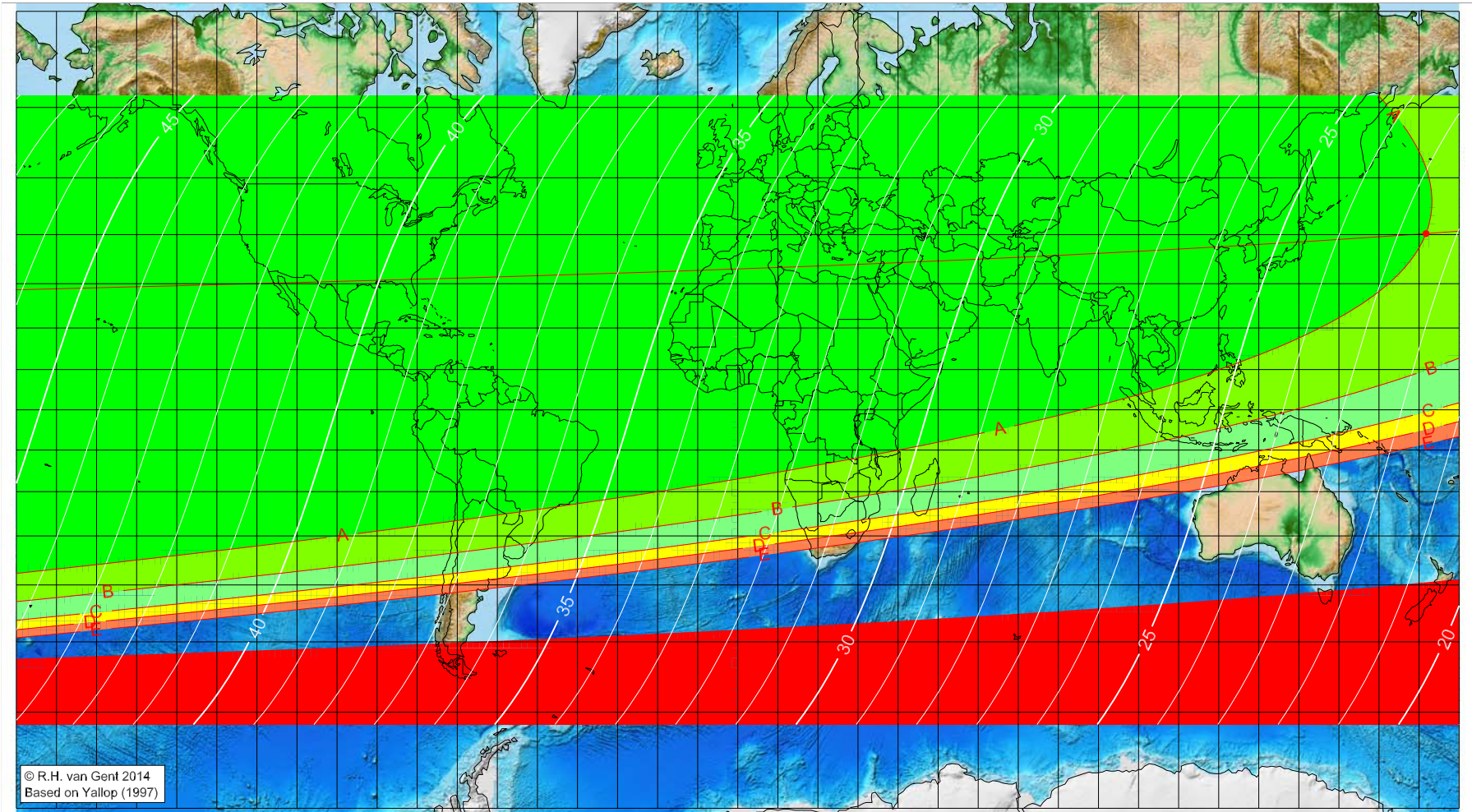
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Muḥarram 9 AH (proleptic)

Global visibility map for 19 April 630 [Thursday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 18 April 630, 9h 12.5m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
171.73	40.19	22.53
visible on the previous evening		
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = -15988
Islamic Lunation Number = 97
TT - UT [= ΔT] = 1.25 h

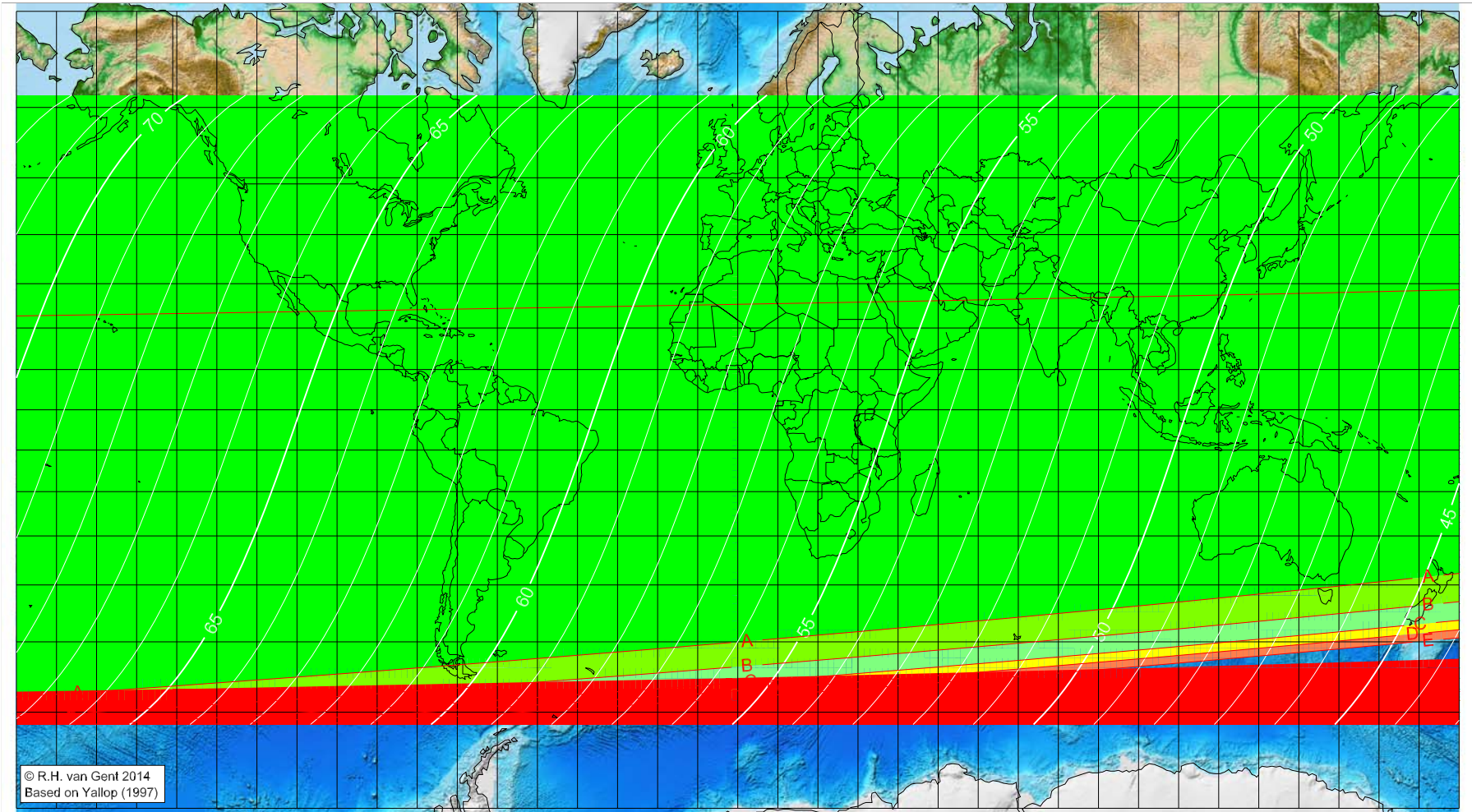
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

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 Muḥarram 9 AH (proleptic)

Global visibility map for 20 April 630 [Friday]
Second day after luni-solar conjunction



Astronomical New Moon: 18 April 630, 9h 12.5m (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)

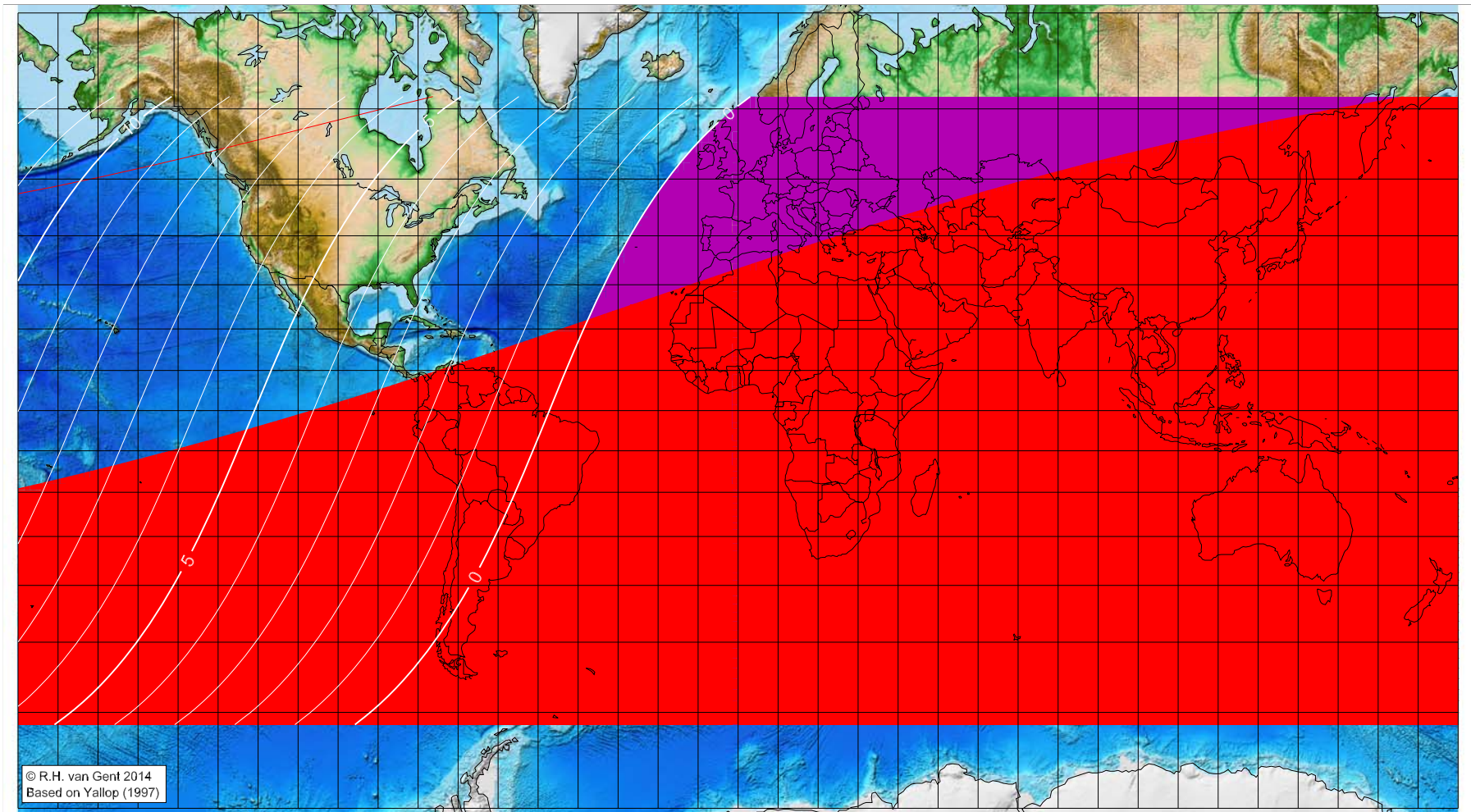
Astronomical (Brown) Lunation Number = -15988
Islamic Lunation Number = 97
TT – UT [= ΔT] = 1.25 h

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 Şafar 9 AH (proleptic)

Global visibility map for 17 May 630 [Thursday]
Day of luni-solar conjunction



Astronomical New Moon: 17 May 630, 21h 2.0m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15987
Islamic Lunation Number = 98
TT - UT [= ΔT] = 1.25 h

- 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

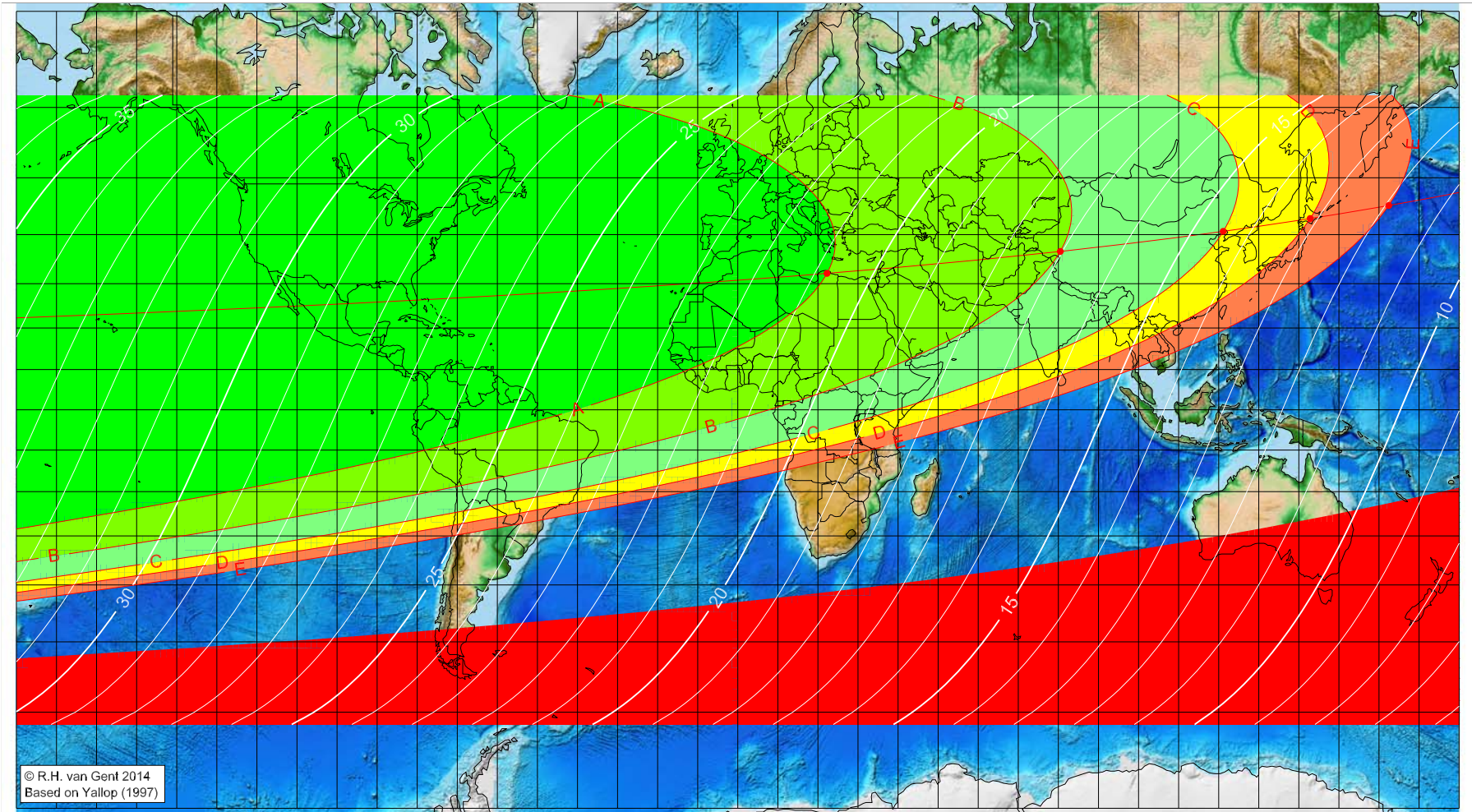
Longitude (°) Latitude (°) Lunar age (h)
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Şafar 9 AH (proleptic)

Global visibility map for 18 May 630 [Friday]
Day after luni-solar conjunction



Astronomical New Moon: 17 May 630, 21h 2.0m (UTC)

First visibility (•)

Astronomical (Brown) Lutation Number = -15987
Islamic Lutation Number = 98
TT - UT [= ΔT] = 1.25 h

- 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)

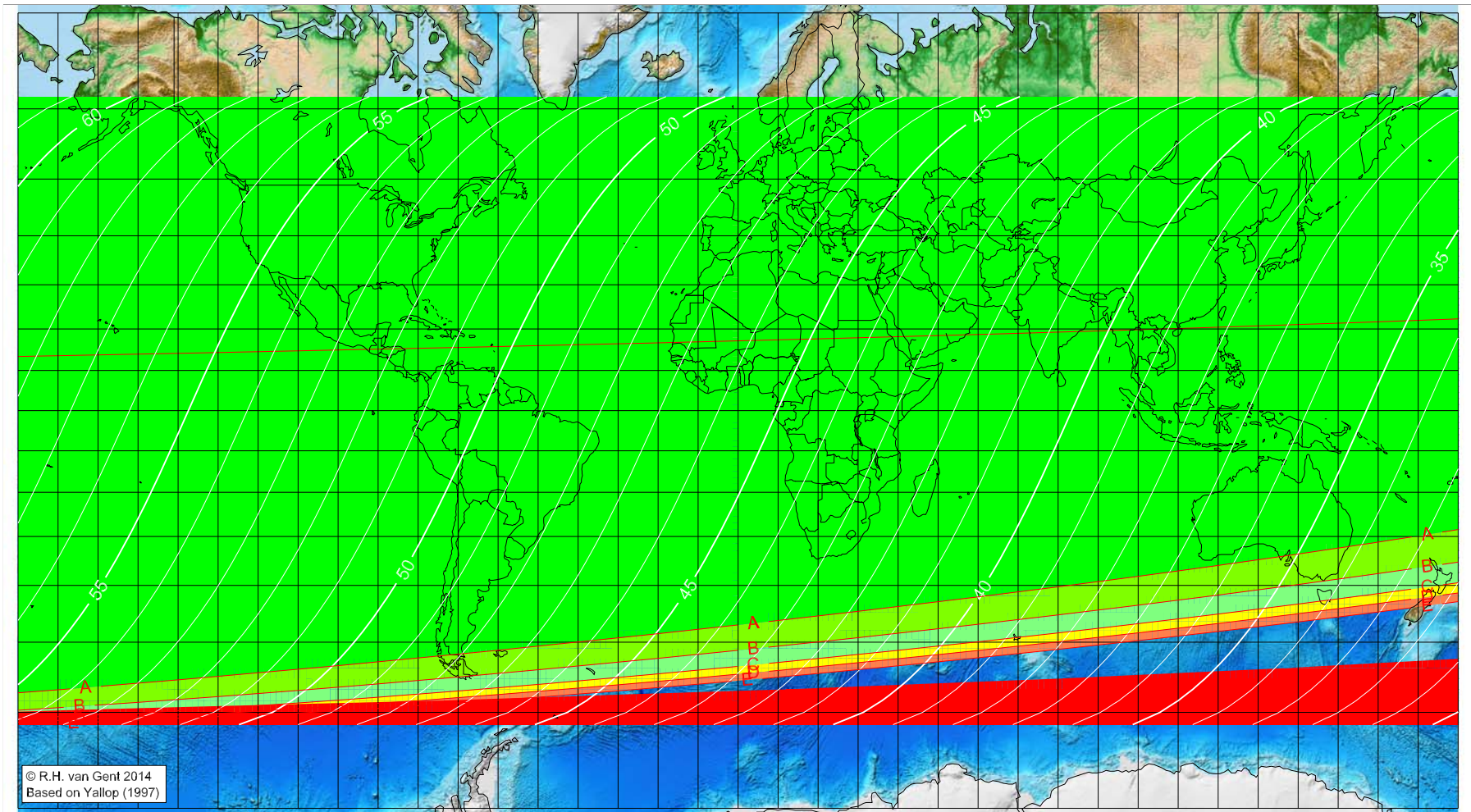
Longitude (°)	Latitude (°)	Lunar age (h)
22.26	32.20	20.79
80.48	36.72	17.04
121.13	40.63	14.47
142.83	43.01	13.13
162.44	45.34	11.94

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 Şafar 9 AH (proleptic)

Global visibility map for 19 May 630 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 17 May 630, 21h 2.0m (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)

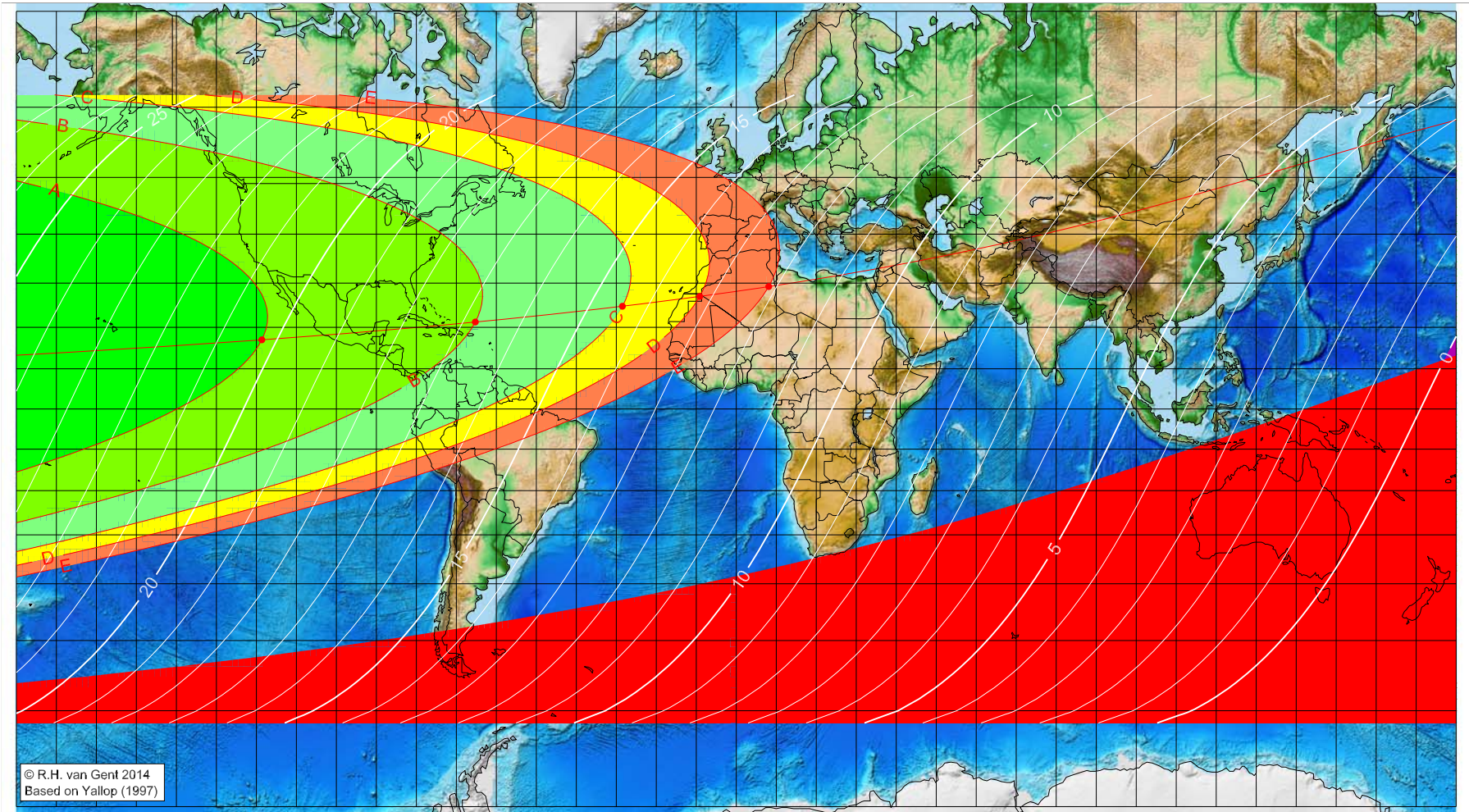
Astronomical (Brown) Lunation Number = -15987
Islamic Lunation Number = 98
TT – UT [= ΔT] = 1.25 h

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 Rabīʿ al-Awwal 9 AH (proleptic)

Global visibility map for 16 June 630 [Saturday]
Day of luni-solar conjunction



Astronomical New Moon: 16 June 630, 6h 34.9m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15986
Islamic Lunation Number = 99
TT - UT [= ΔT] = 1.25 h

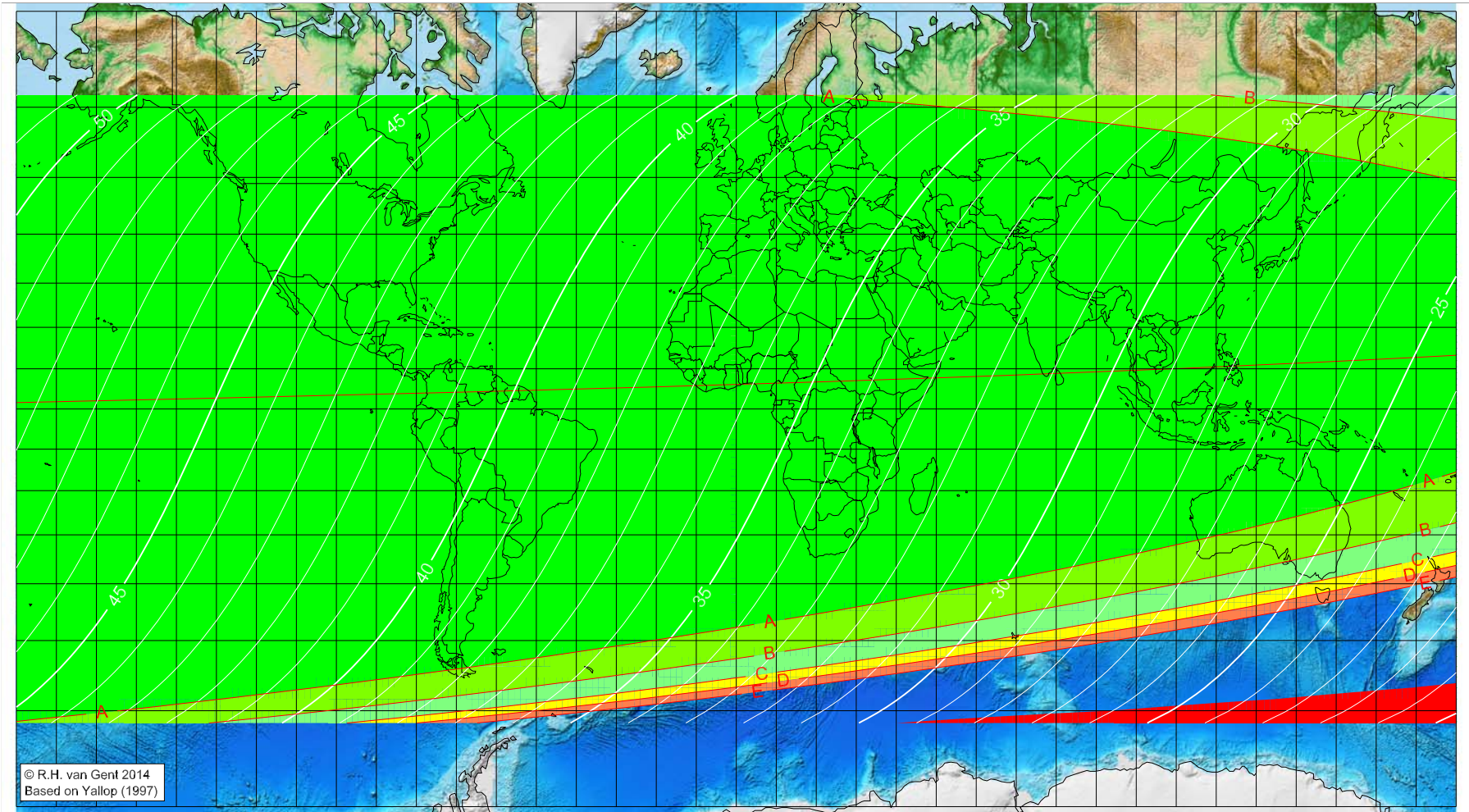
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

Longitude (°)	Latitude (°)	Lunar age (h)
-118.63	17.04	20.26
-65.25	21.24	16.79
-28.48	24.86	14.43
-9.14	27.07	13.21
8.11	29.25	12.14

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 Rabīʿ al-Awwal 9 AH (proleptic)

Global visibility map for 17 June 630 [Sunday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 16 June 630, 6h 34.9m (UTC)

First visibility (•)

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

Astronomical (Brown) Lunation Number = -15986
Islamic Lunation Number = 99
TT - UT [= ΔT] = 1.25 h

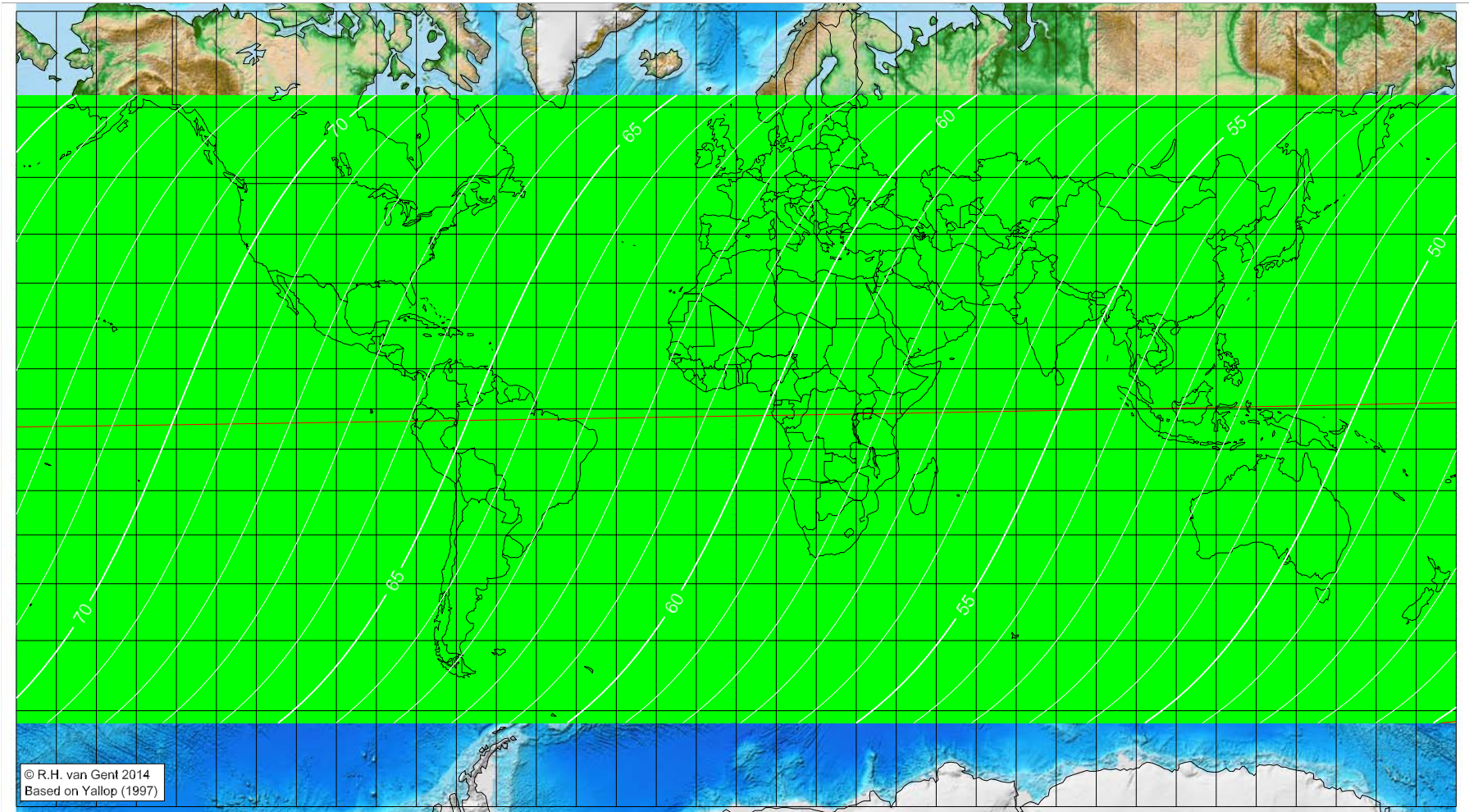
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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)

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

First visibility lunar crescent for Rabīʿ al-Awwal 9 AH (proleptic)

Global visibility map for 18 June 630 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 16 June 630, 6h 34.9m (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)

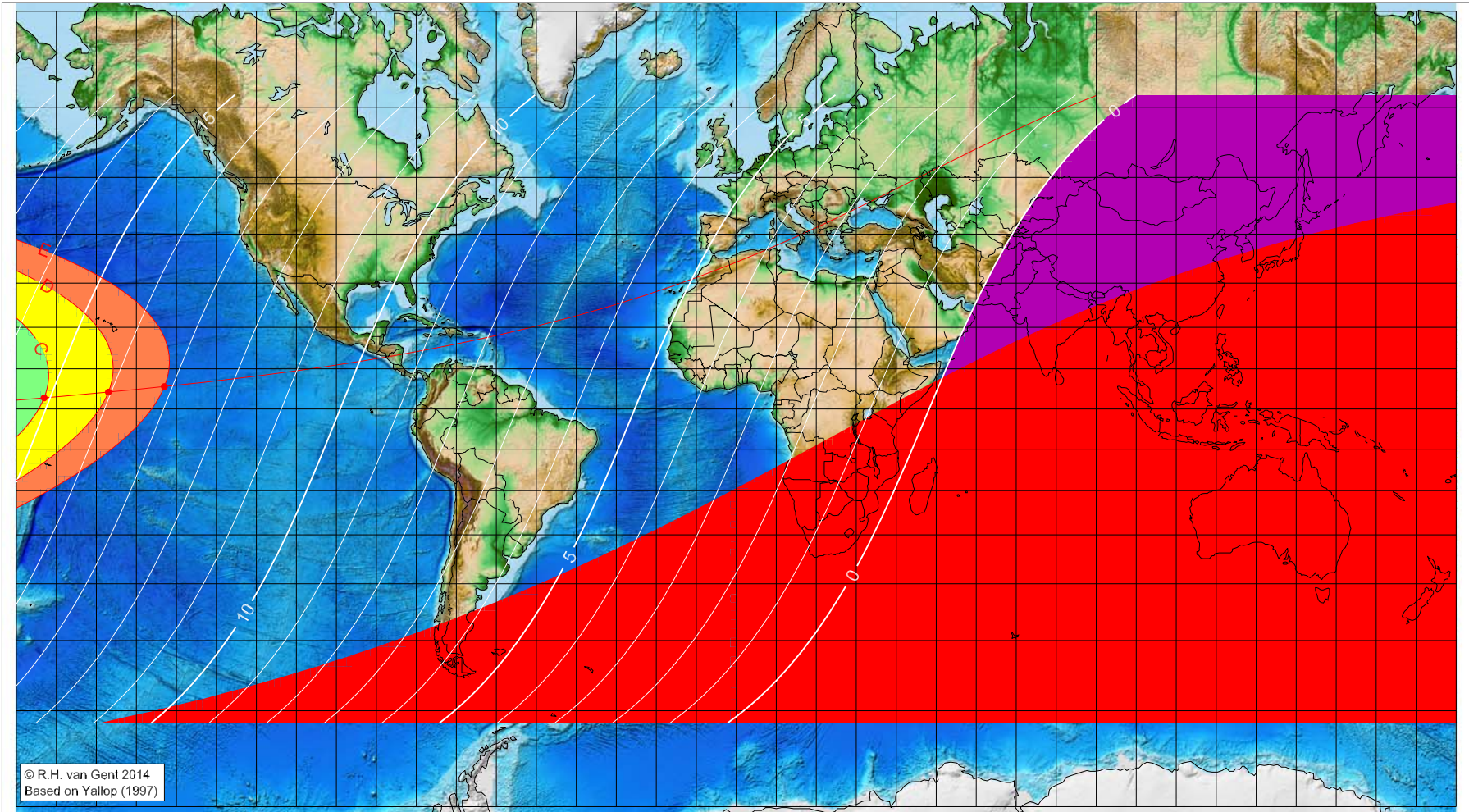
Astronomical (Brown) Lunation Number = -15986
Islamic Lunation Number = 99
TT – UT [= ΔT] = 1.25 h

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 Rabī al-Ākhir 9 AH (proleptic)

Global visibility map for 15 July 630 [Sunday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 15 July 630, 14h 53.0m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
-173.07	2.77	15.10
-157.00	4.20	14.05
-143.01	5.59	13.14

Astronomical (Brown) Lunation Number = -15985
Islamic Lunation Number = 100
TT - UT [= ΔT] = 1.25 h

- 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°)

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

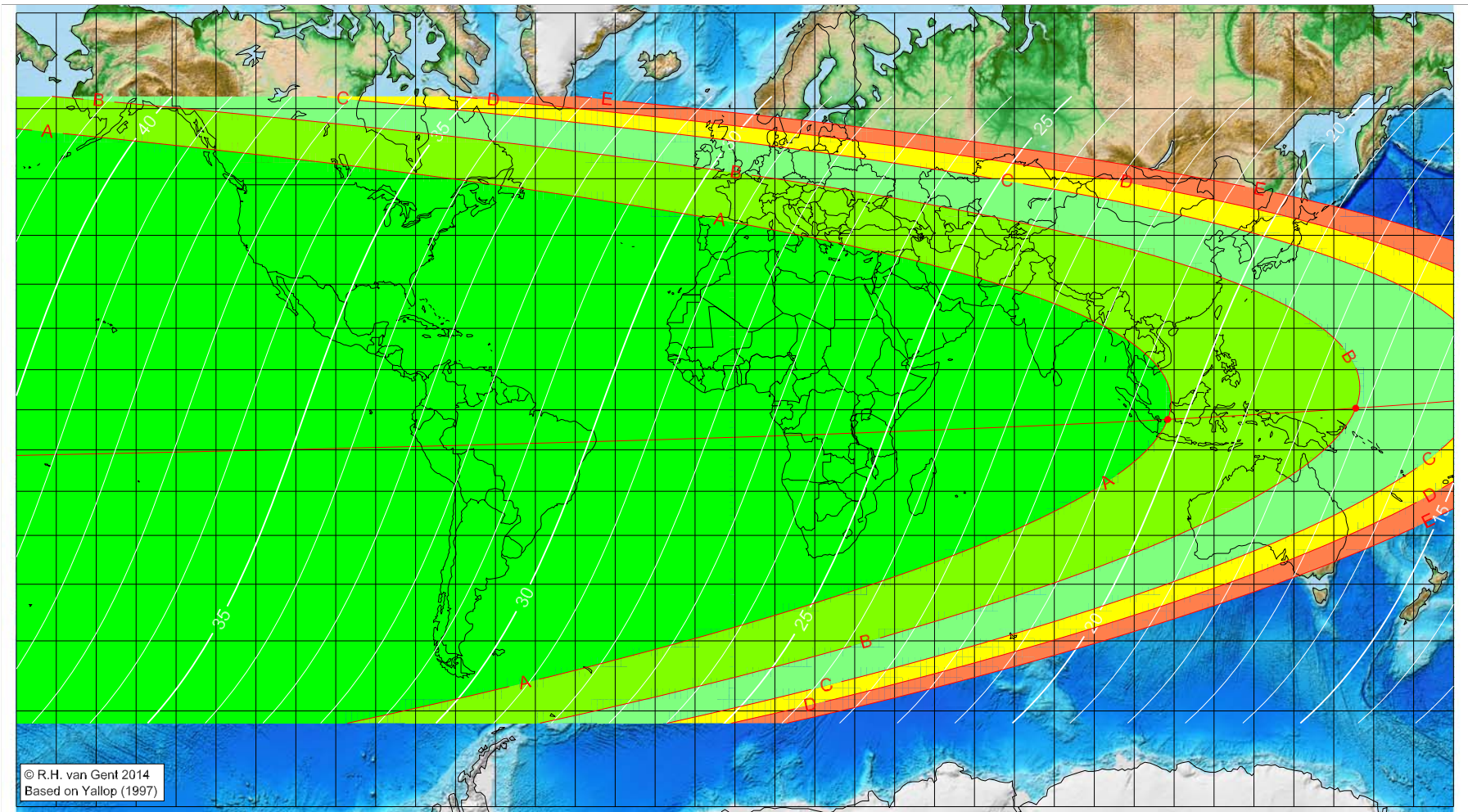
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rabī al-Ākhir 9 AH (proleptic)

Global visibility map for 16 July 630 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 15 July 630, 14h 53.0m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
108.41	-2.42	20.29
155.49	0.40	17.17
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = -15985
Islamic Lunation Number = 100
TT - UT [= ΔT] = 1.25 h

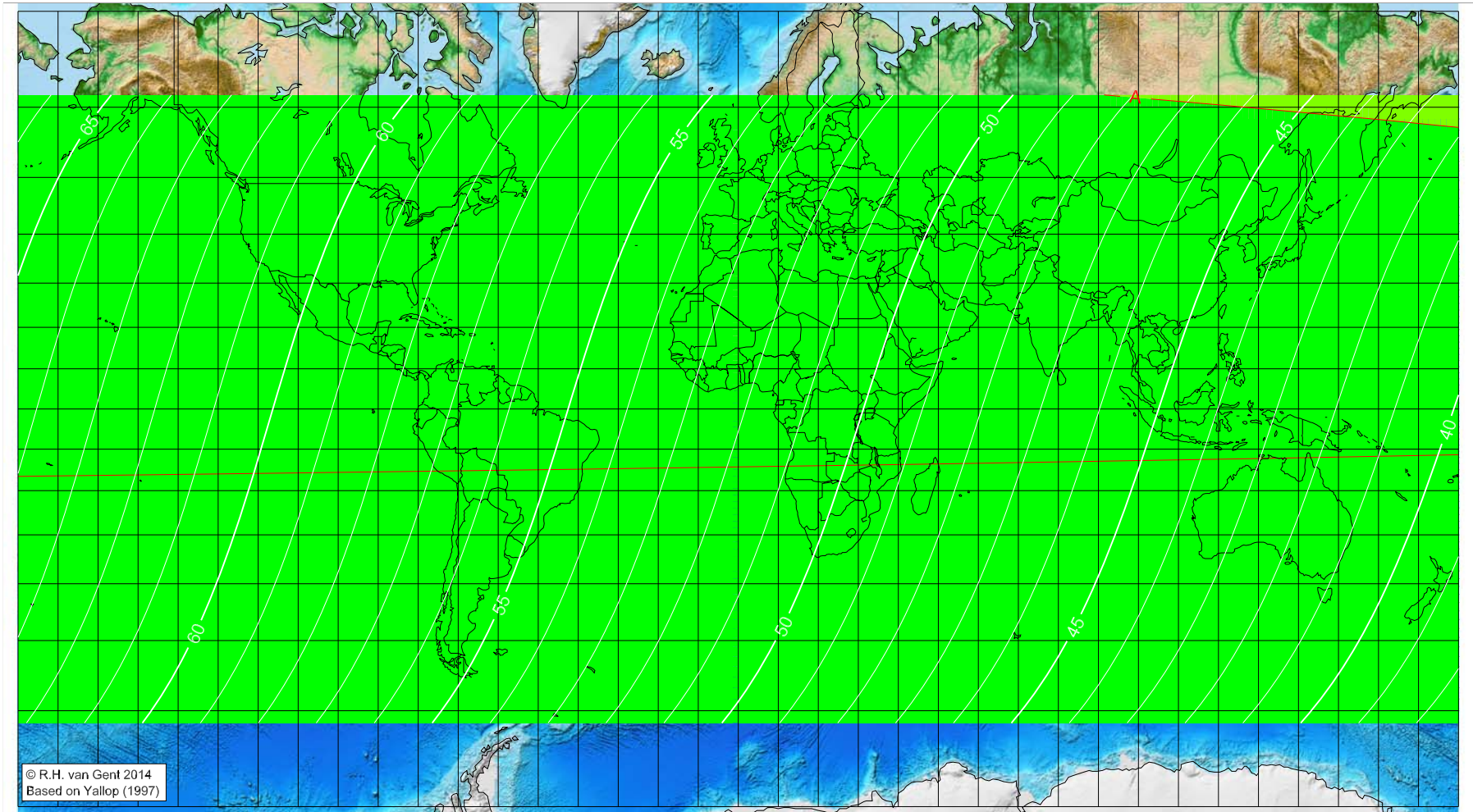
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

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 Rabī^c al-Ākhir 9 AH (proleptic)

Global visibility map for 17 July 630 [Tuesday]
 Second day after luni-solar conjunction



Astronomical New Moon: 15 July 630, 14h 53.0m (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)

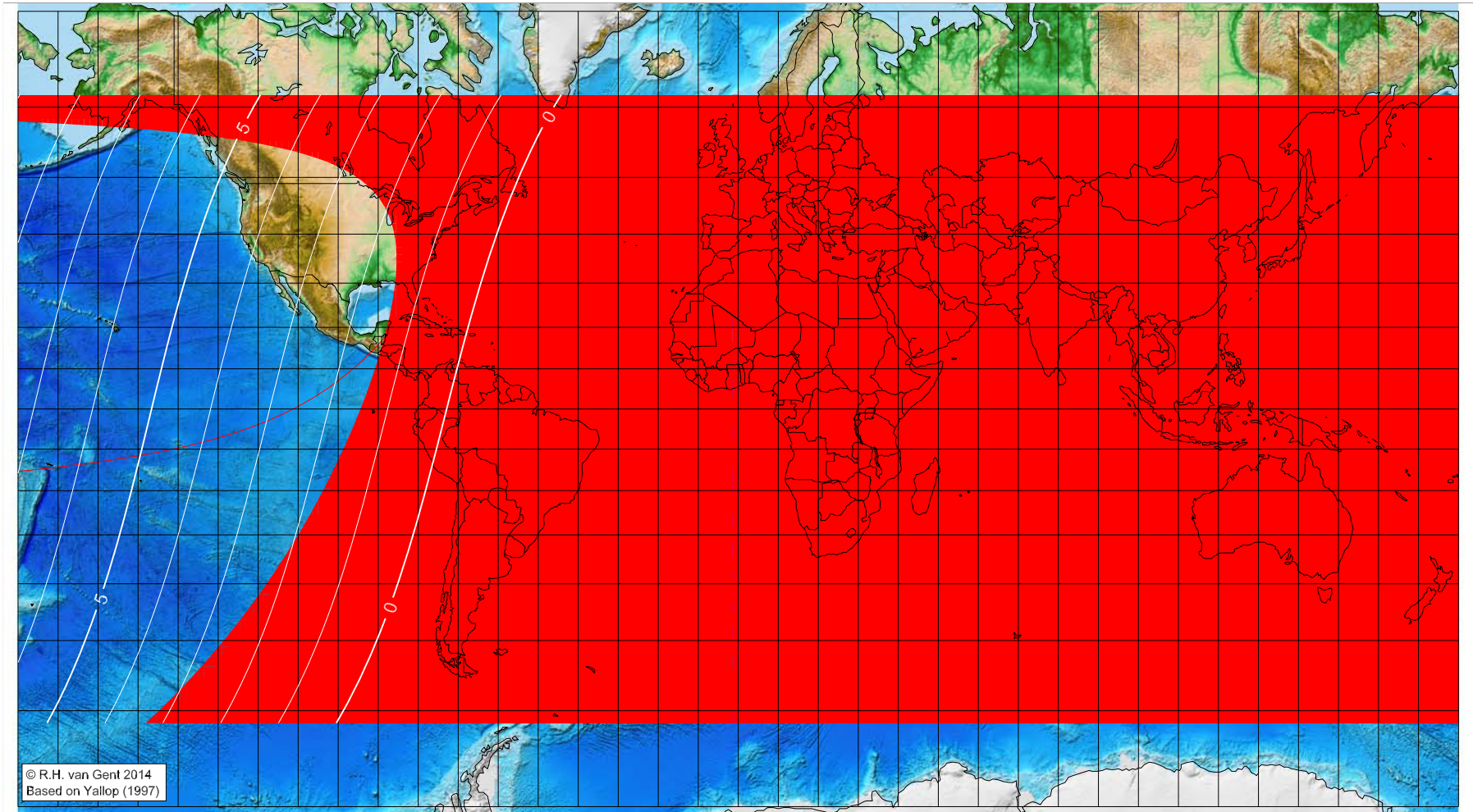
Astronomical (Brown) Lunation Number = -15985
 Islamic Lunation Number = 100
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Jumādā 'l-Ūlā 9 AH (proleptic)

Global visibility map for 13 August 630 [Monday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 13 August 630, 22h 55.9m (UTC)

First visibility (•)

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

Astronomical (Brown) Lunation Number = -15984
Islamic Lunation Number = 101
TT - UT [= ΔT] = 1.25 h

- 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°)

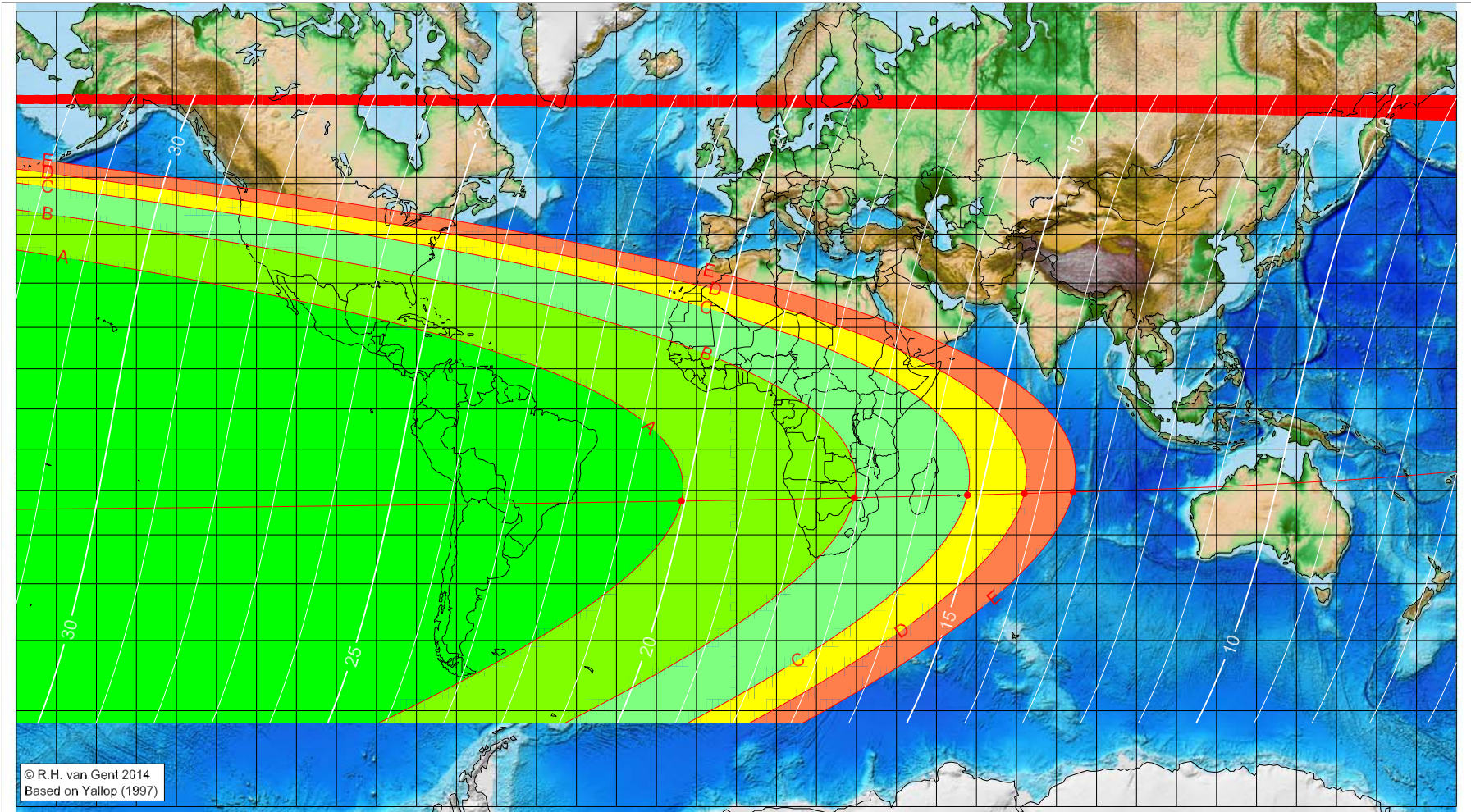
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Jumādā 'l-Ūlā 9 AH (proleptic)

Global visibility map for 14 August 630 [Tuesday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 13 August 630, 22h 55.9m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-13.74	-22.41	20.06
29.46	-21.65	17.14
57.74	-21.04	15.22
71.96	-20.68	14.26
84.17	-20.34	13.44

Astronomical (Brown) Lunation Number = -15984
Islamic Lunation Number = 101
TT - UT [= ΔT] = 1.25 h

- 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°)

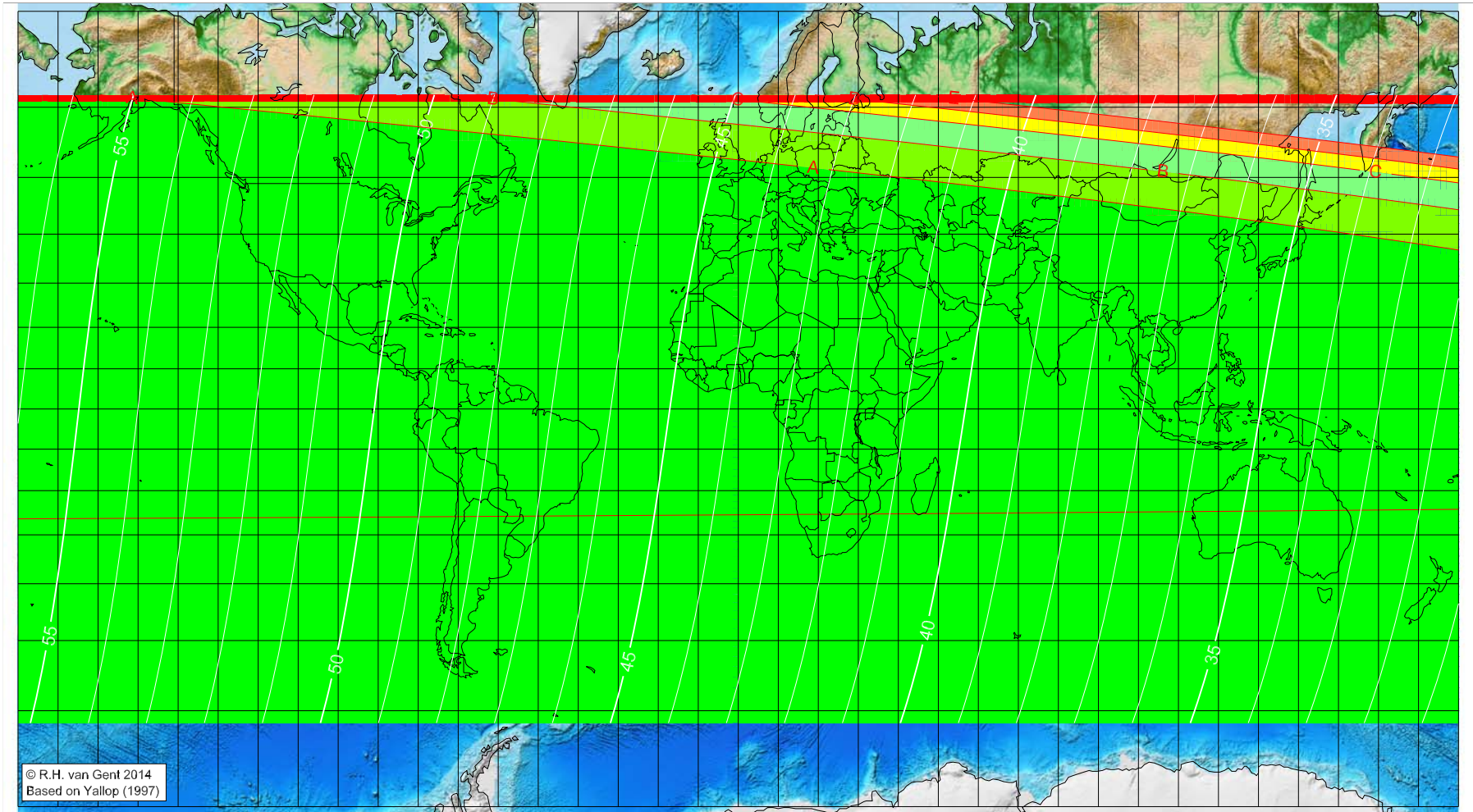
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Jumādā 'l-Ūlā 9 AH (proleptic)

Global visibility map for 15 August 630 [Wednesday]
 Second day after luni-solar conjunction



Astronomical New Moon: 13 August 630, 22h 55.9m (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)

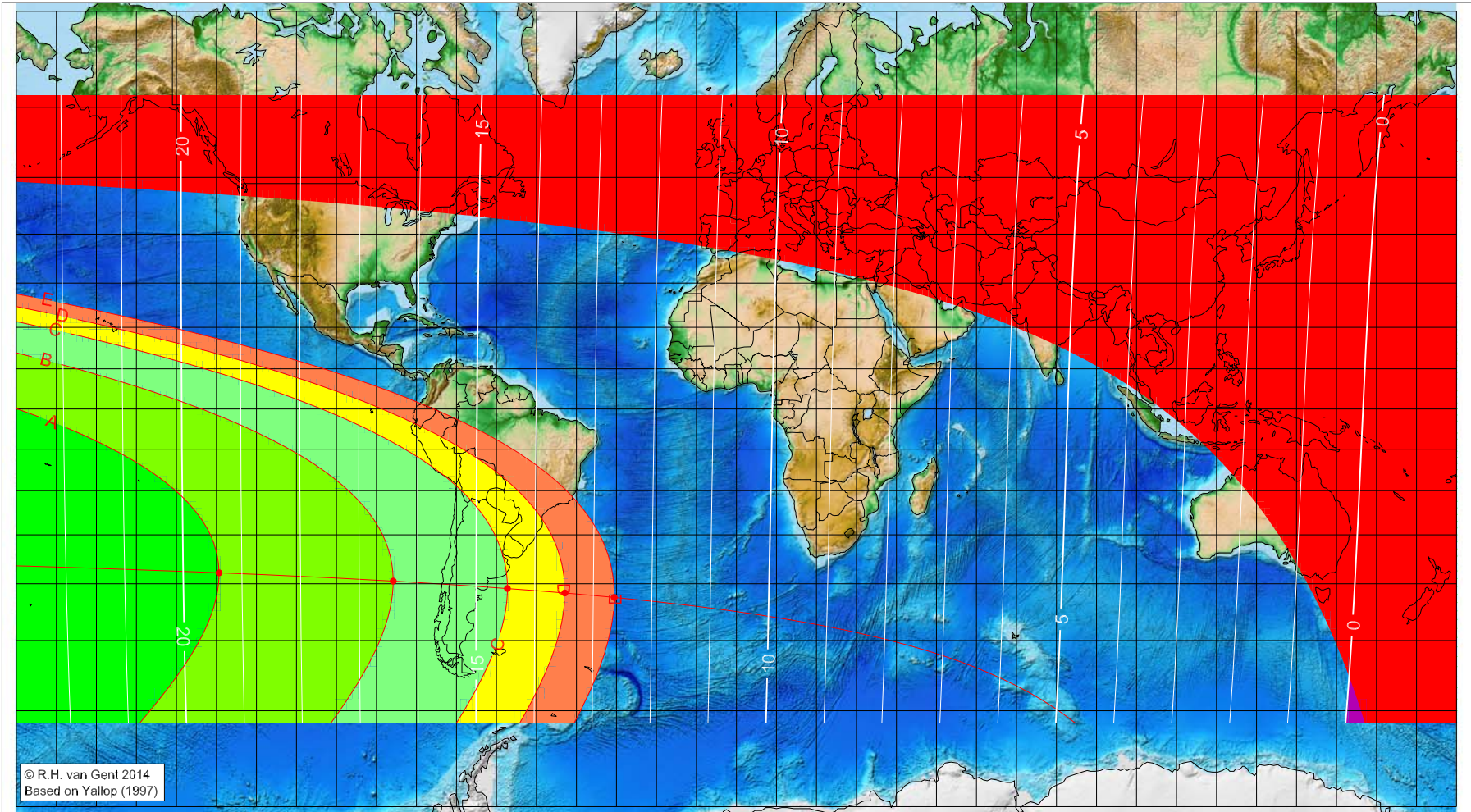
Astronomical (Brown) Lunation Number = -15984
 Islamic Lunation Number = 101
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Jumādā 'l-Ākhira 9 AH (proleptic)

Global visibility map for 12 September 630 [Wednesday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 12 September 630, 7h 28.5m (UTC)

First visibility (•)

	Longitude (°)	Latitude (°)	Lunar age (h)
•	-129.35	-37.87	19.39
•	-85.80	-39.49	16.42
•	-57.27	-40.89	14.47
•	-42.91	-41.74	13.49
•	-30.56	-42.56	12.64

Astronomical (Brown) Lunation Number = -15983

Islamic Lunation Number = 102

TT - UT [= ΔT] = 1.25 h

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

- 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°)

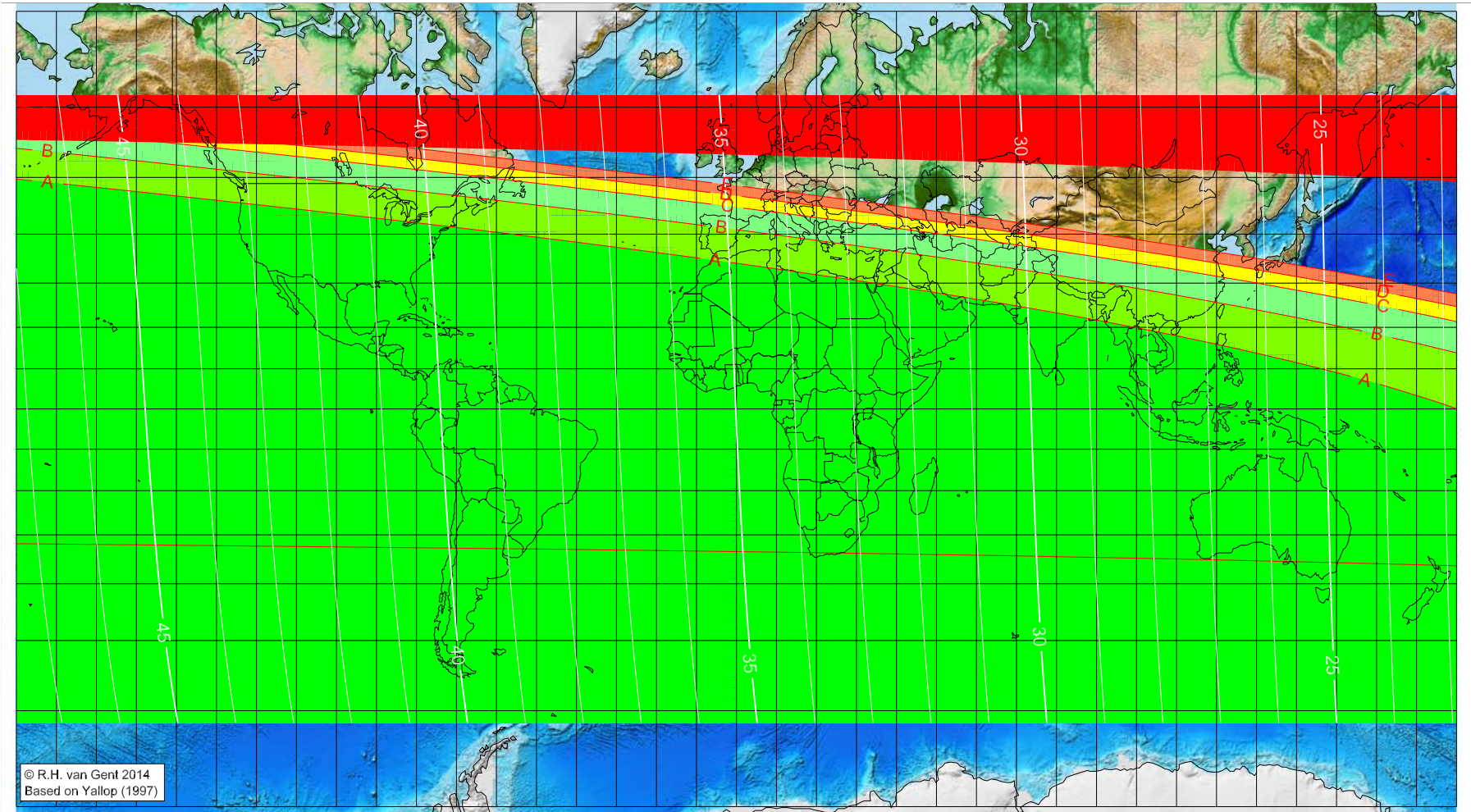
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Jumādā 'l-Ākhira 9 AH (proleptic)

Global visibility map for 13 September 630 [Thursday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 12 September 630, 7h 28.5m (UTC)

First visibility (•)

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

Astronomical (Brown) Lunation Number = -15983
Islamic Lunation Number = 102
TT - UT [= ΔT] = 1.25 h

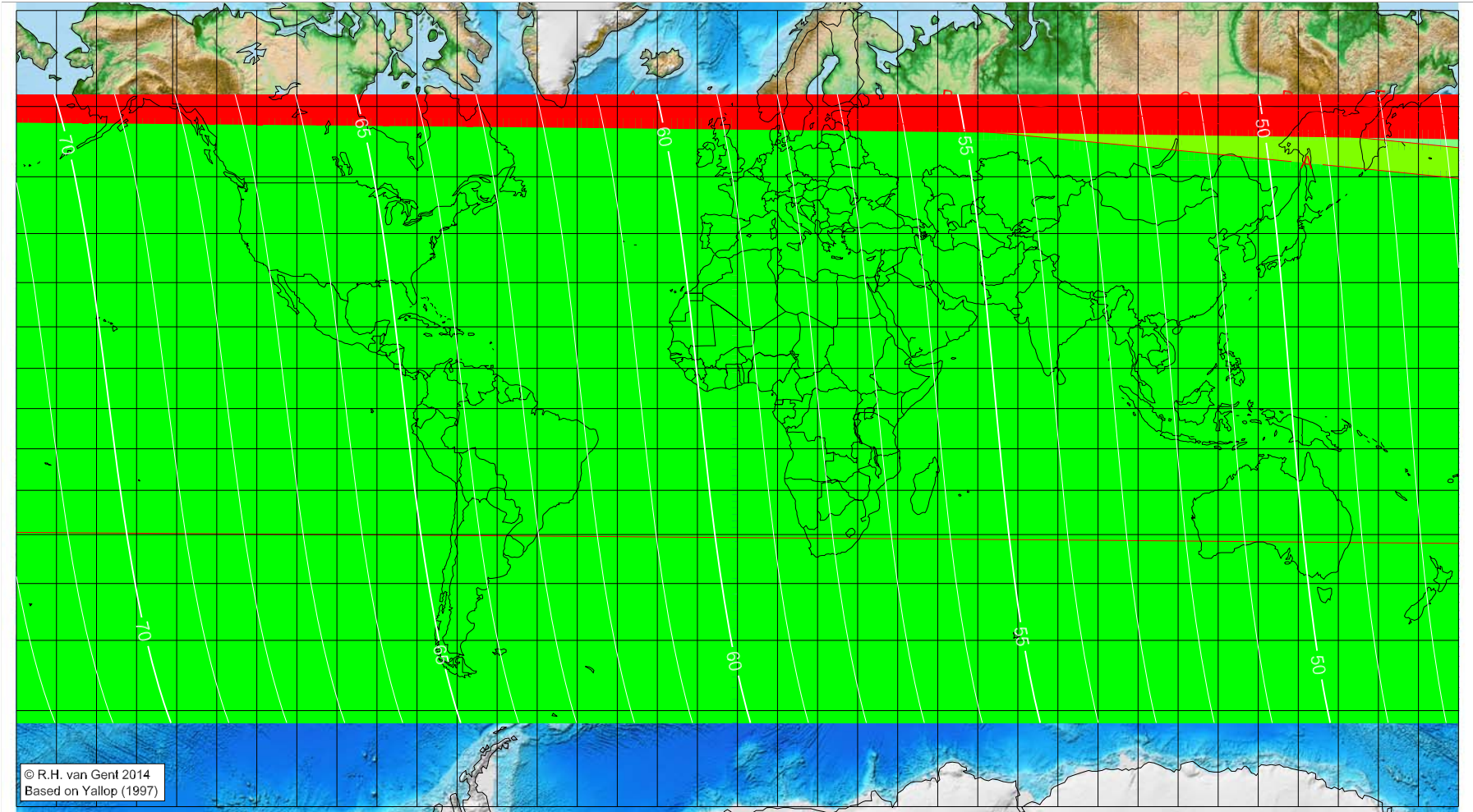
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

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 Jumādā 'l-Ākhira 9 AH (proleptic)

Global visibility map for 14 September 630 [Friday]
Second day after luni-solar conjunction



Astronomical New Moon: 12 September 630, 7h 28.5m (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)

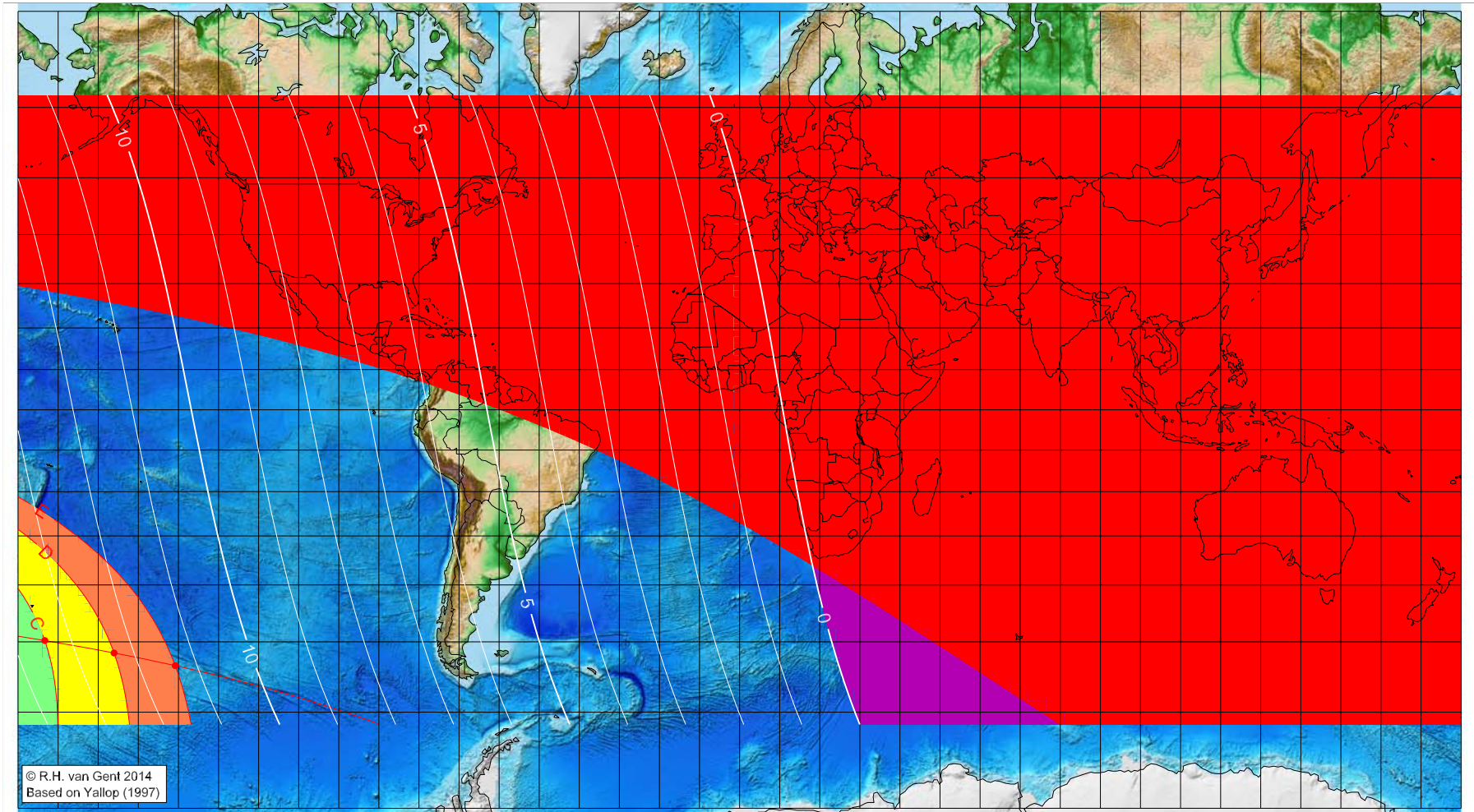
Astronomical (Brown) Lunation Number = -15983
Islamic Lunation Number = 102
TT – UT [= ΔT] = 1.25 h

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 Rajab 9 AH (proleptic)

Global visibility map for 11 October 630 [Thursday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 11 October 630, 17h 2.4m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-173.33	-49.79	13.45
-156.06	-51.75	12.34
-140.80	-53.66	11.37

Astronomical (Brown) Lunation Number = -15982
Islamic Lunation Number = 103
TT - UT [= ΔT] = 1.25 h

- 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°)

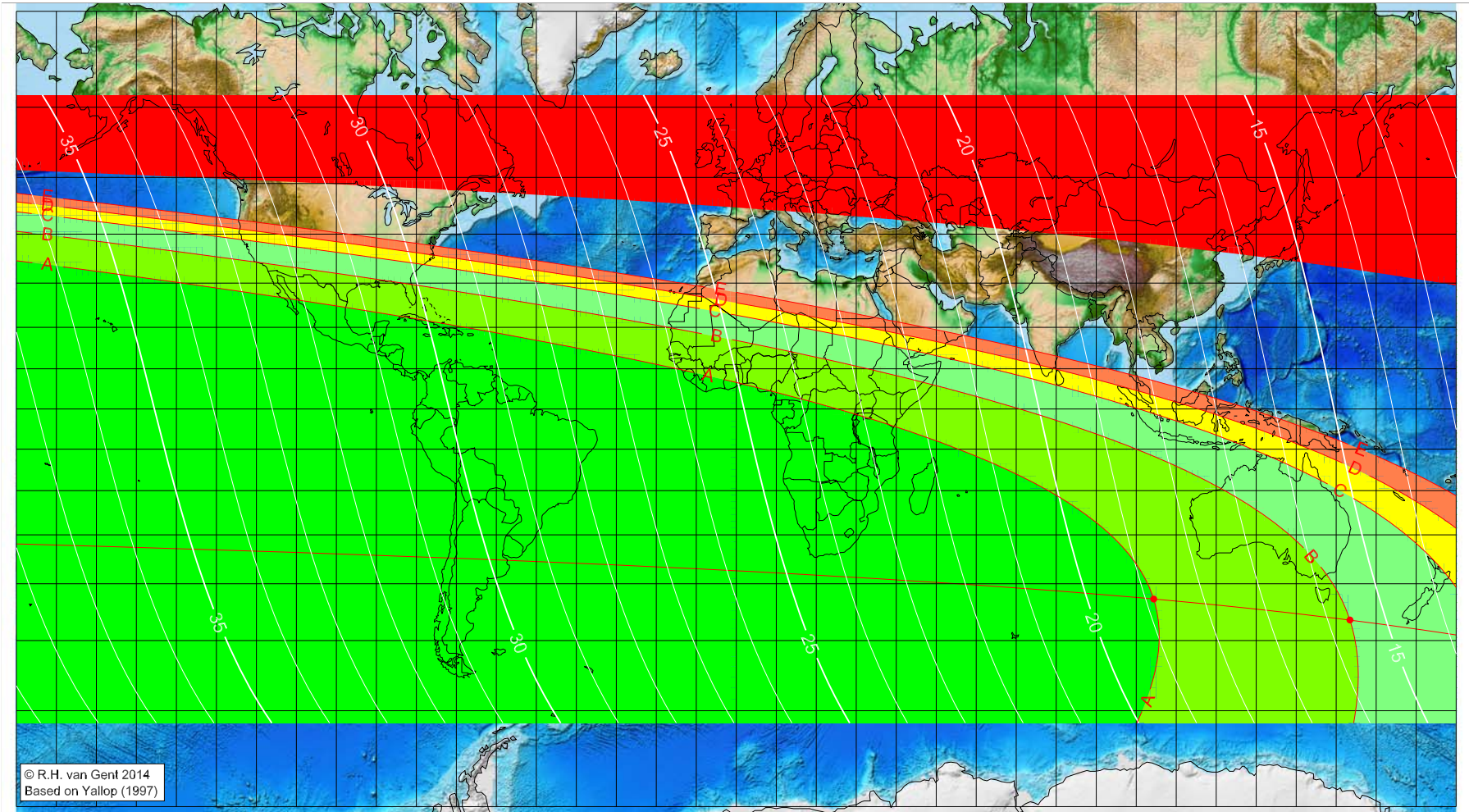
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rajab 9 AH (proleptic)

Global visibility map for 12 October 630 [Friday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 11 October 630, 17h 2.4m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
104.37	-42.86	18.86
153.44	-46.58	15.62
		visible on the previous evening
		visible on the previous evening

Astronomical (Brown) Lunation Number = -15982
Islamic Lunation Number = 103
TT - UT [= ΔT] = 1.25 h

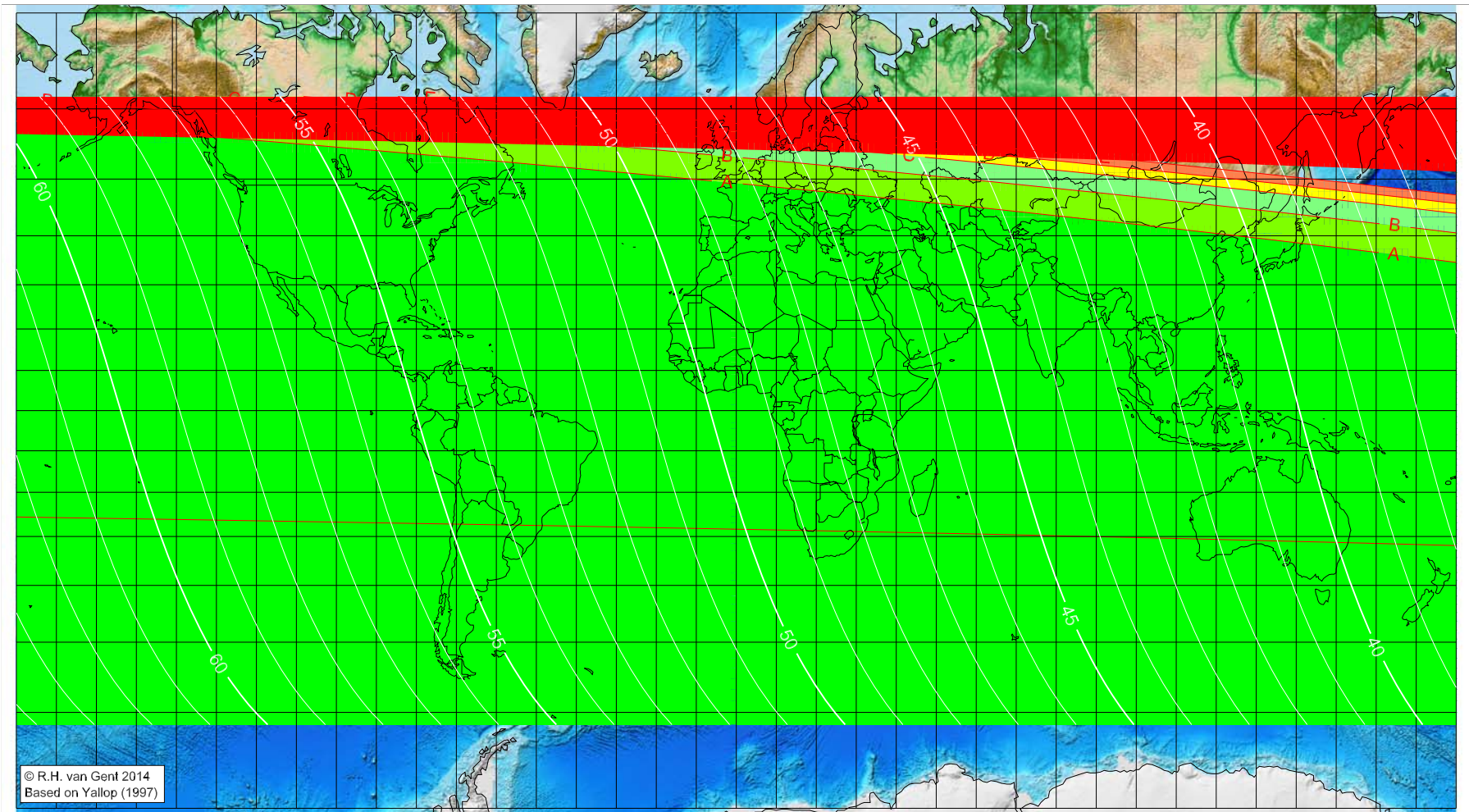
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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)

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

First visibility lunar crescent for Rajab 9 AH (proleptic)

Global visibility map for 13 October 630 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 11 October 630, 17h 2.4m (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)

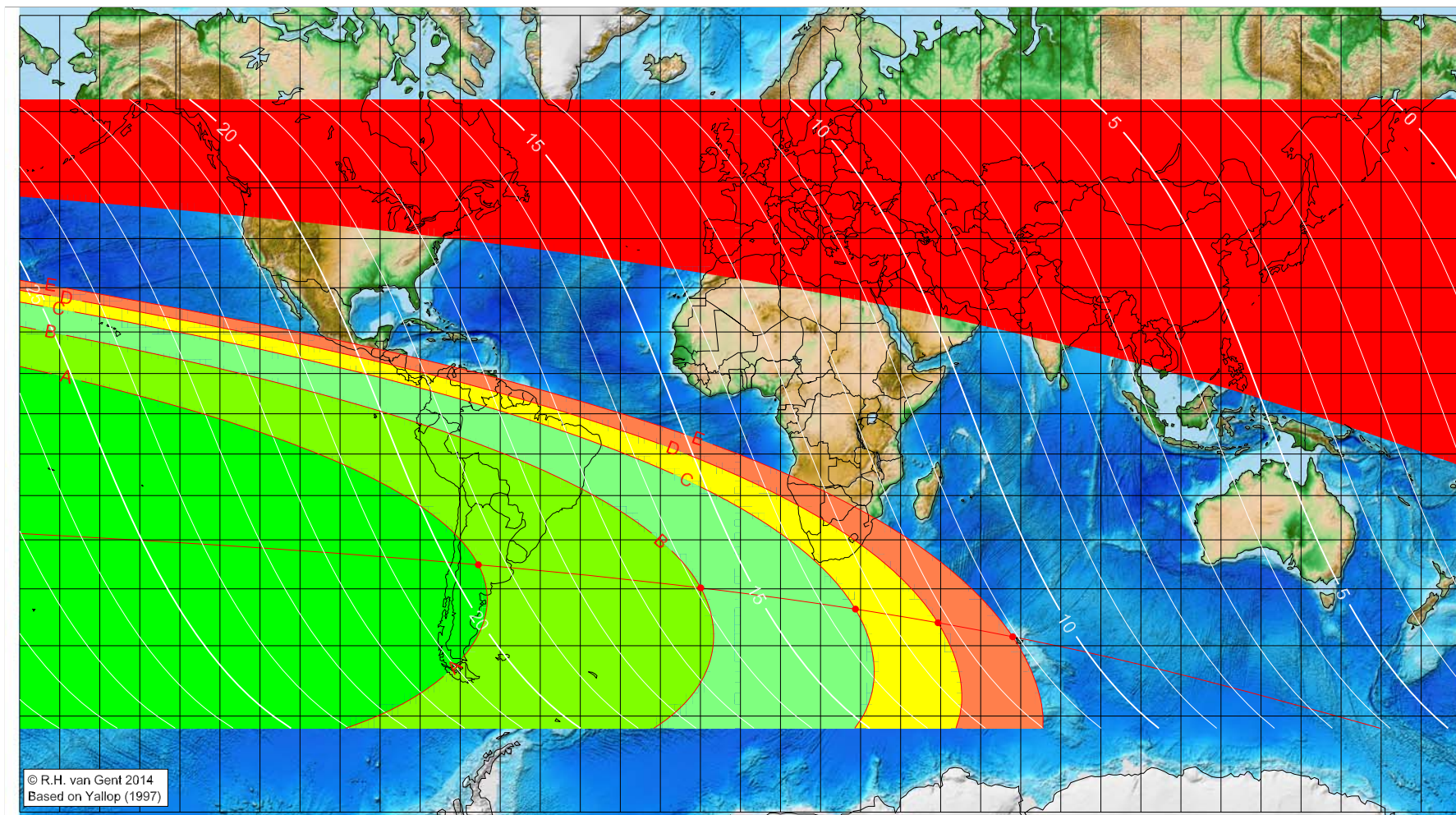
Astronomical (Brown) Lunation Number = -15982
Islamic Lunation Number = 103
TT – UT [= ΔT] = 1.25 h

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 Shaʿbān 9 AH (proleptic)

Global visibility map for 10 November 630 [Saturday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 10 November 630, 4h 5.1m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15981
Islamic Lunation Number = 104
TT - UT [= ΔT] = 1.25 h

- 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°)

Longitude (°)	Latitude (°)	Lunar age (h)
-65.46	-35.24	19.48
-9.93	-39.81	15.91
28.72	-43.76	13.48
49.34	-46.17	12.21
67.99	-48.54	11.09

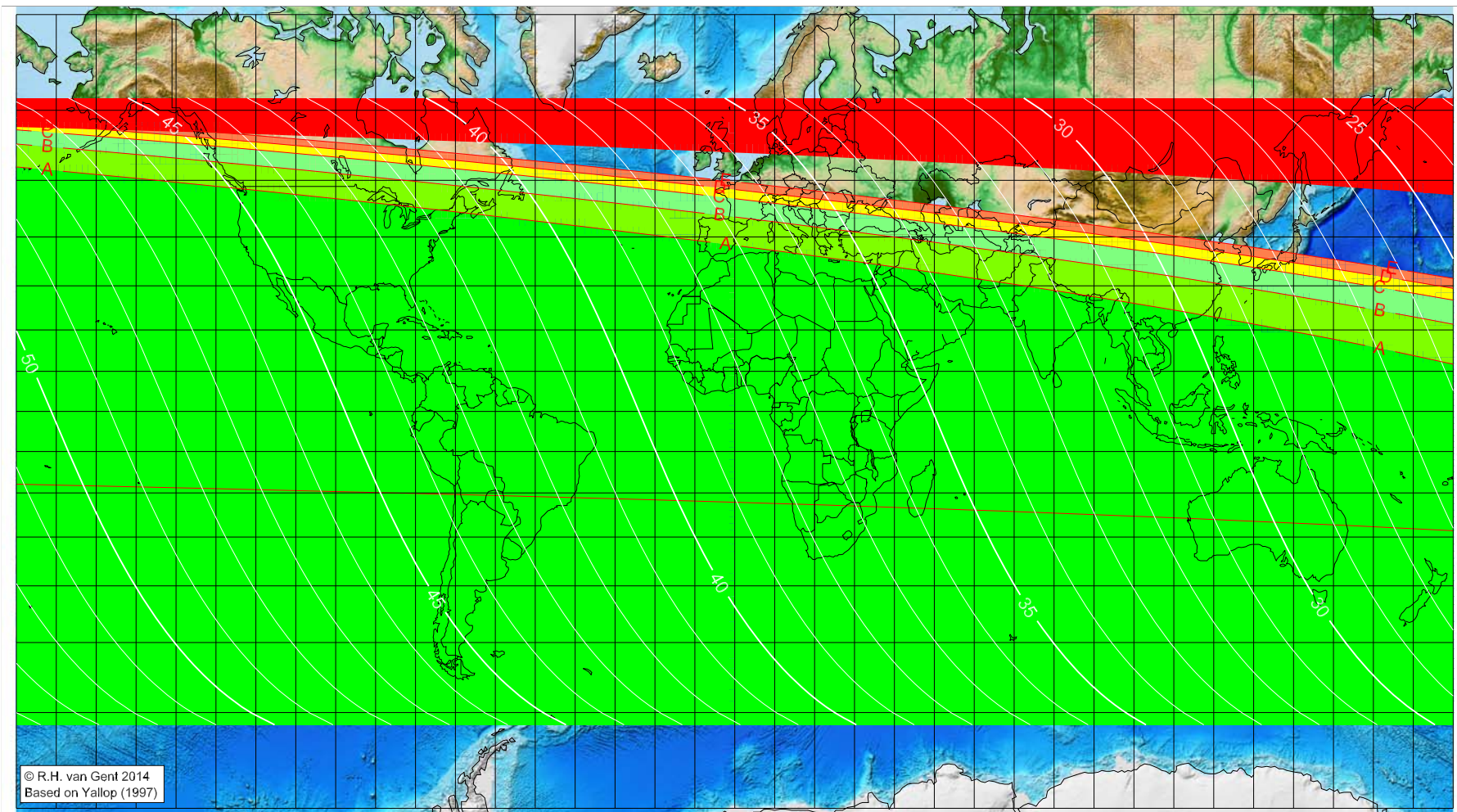
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Sha'bān 9 AH (proleptic)

Global visibility map for 11 November 630 [Sunday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 10 November 630, 4h 5.1m (UTC)

First visibility (•)

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

Astronomical (Brown) Lunation Number = -15981
Islamic Lunation Number = 104
TT - UT [= ΔT] = 1.25 h

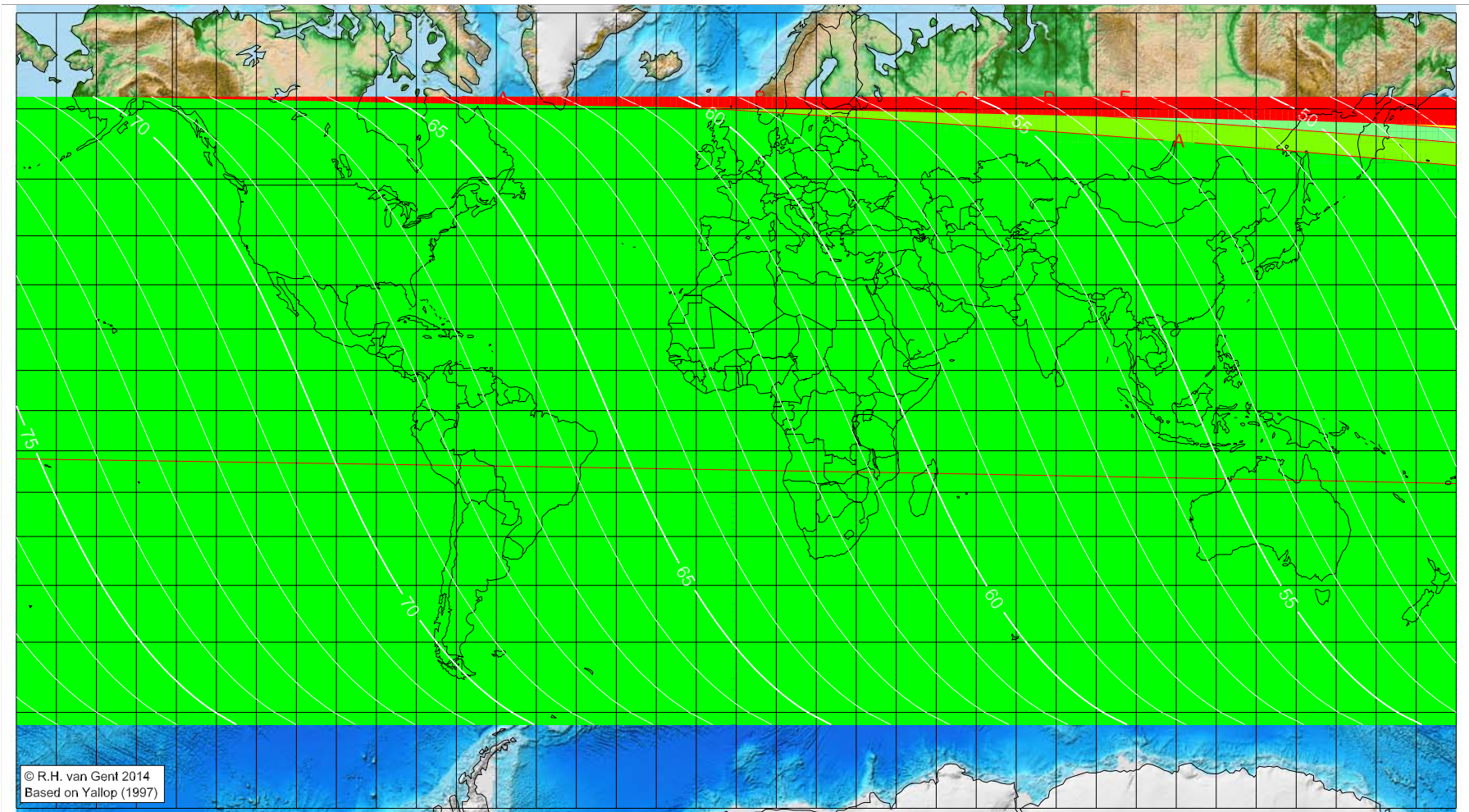
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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)

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

First visibility lunar crescent for Shaʿbān 9 AH (proleptic)

Global visibility map for 12 November 630 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 10 November 630, 4h 5.1m (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)

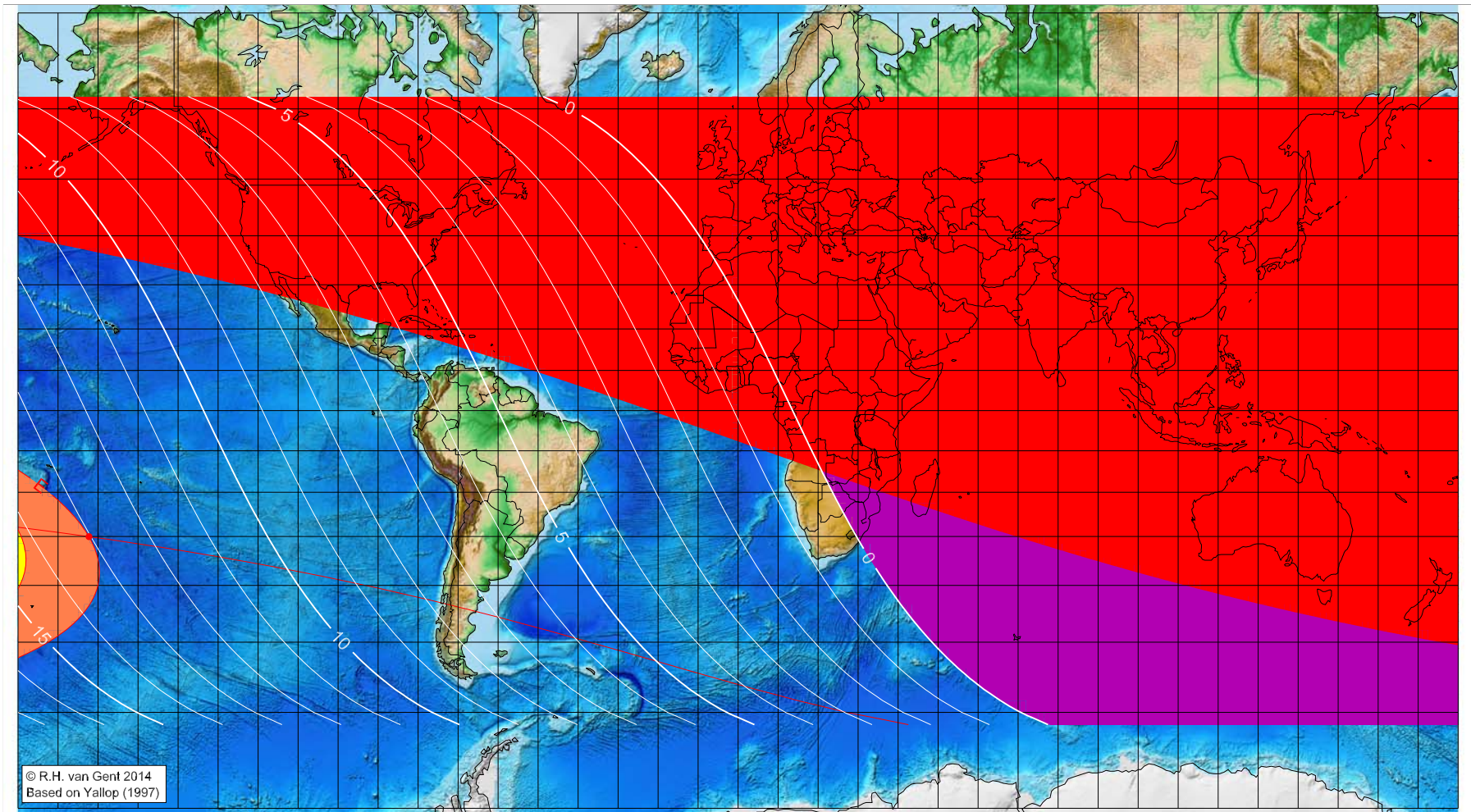
Astronomical (Brown) Lunation Number = -15981
Islamic Lunation Number = 104
TT – UT [= ΔT] = 1.25 h

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 9 AH (proleptic)

Global visibility map for 9 December 630 [Sunday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 9 December 630, 17h 3.4m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-162.27	-30.03	13.03

Astronomical (Brown) Lunation Number = -15980
Islamic Lunation Number = 105
TT - UT [= ΔT] = 1.25 h

- 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°)

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

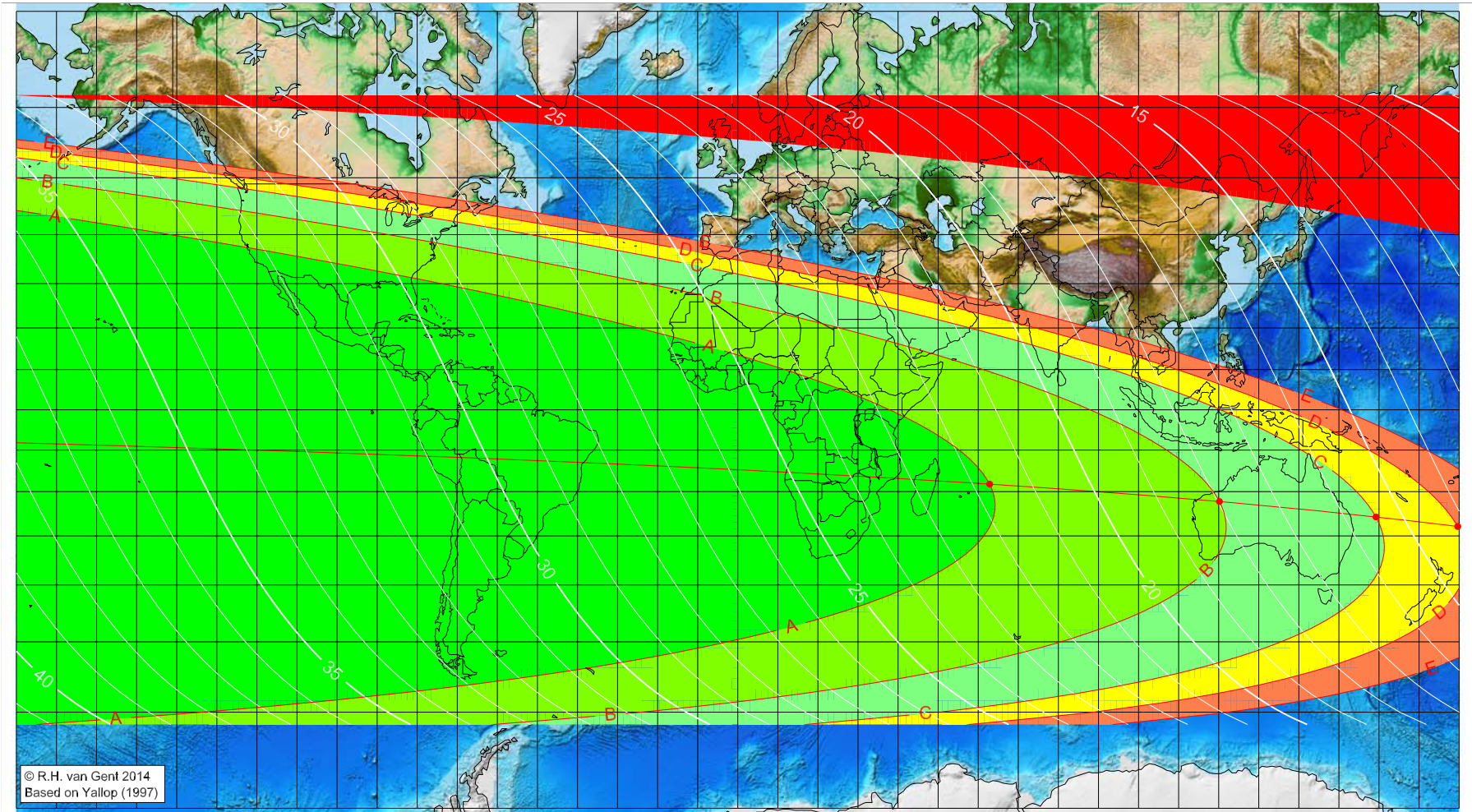
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Ramaḍān 9 AH (proleptic)

Global visibility map for 10 December 630 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 9 December 630, 17h 3.4m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15980
Islamic Lunation Number = 105
TT - UT [= ΔT] = 1.25 h

- 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)
62.86	-18.24	21.71
120.19	-22.31	17.97
159.25	-25.82	15.46
179.65	-27.94	14.17

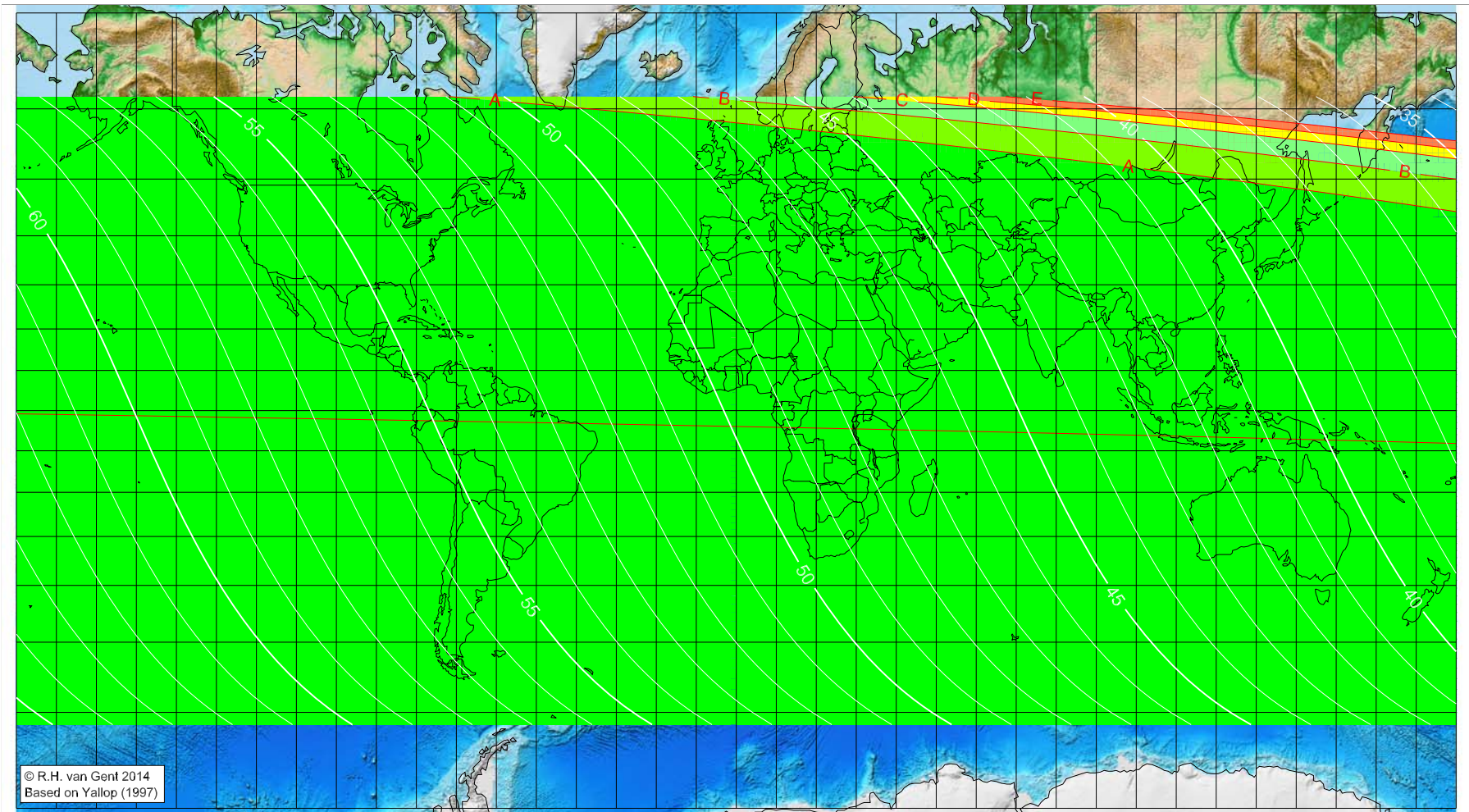
visible on the previous evening

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 9 AH (proleptic)

Global visibility map for 11 December 630 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 9 December 630, 17h 3.4m (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)

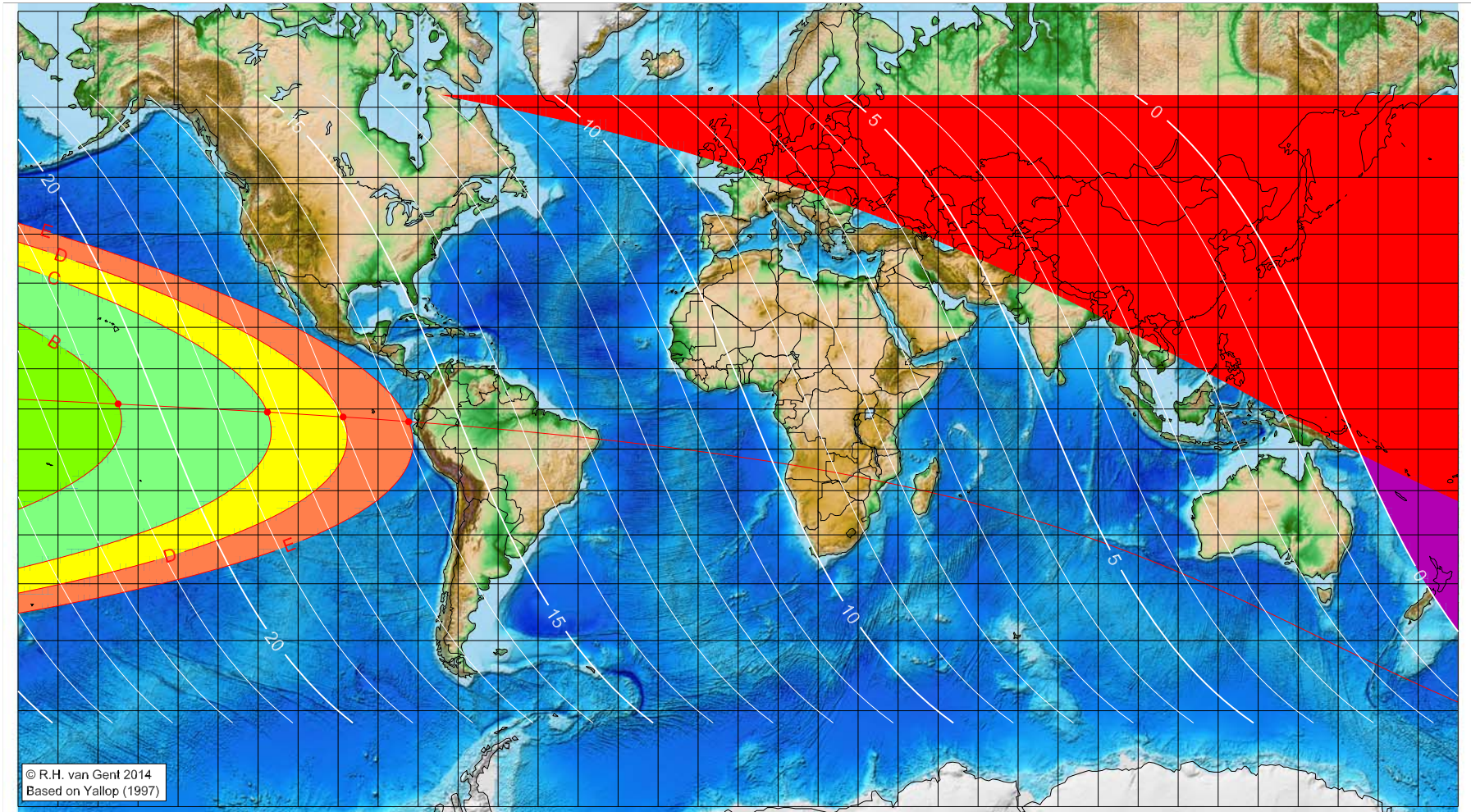
Astronomical (Brown) Lunation Number = -15980
Islamic Lunation Number = 105
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 9 AH (proleptic)

Global visibility map for 8 January 631 [Tuesday]
Day of luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 8 January 631, 8h 10.8m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15979
Islamic Lunation Number = 106
TT - UT [= ΔT] = 1.25 h

- 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°)

Longitude (°)	Latitude (°)	Lunar age (h)
-154.99	1.27	20.67
-117.67	-0.78	18.20
-98.75	-2.00	16.95
-82.38	-3.19	15.87

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

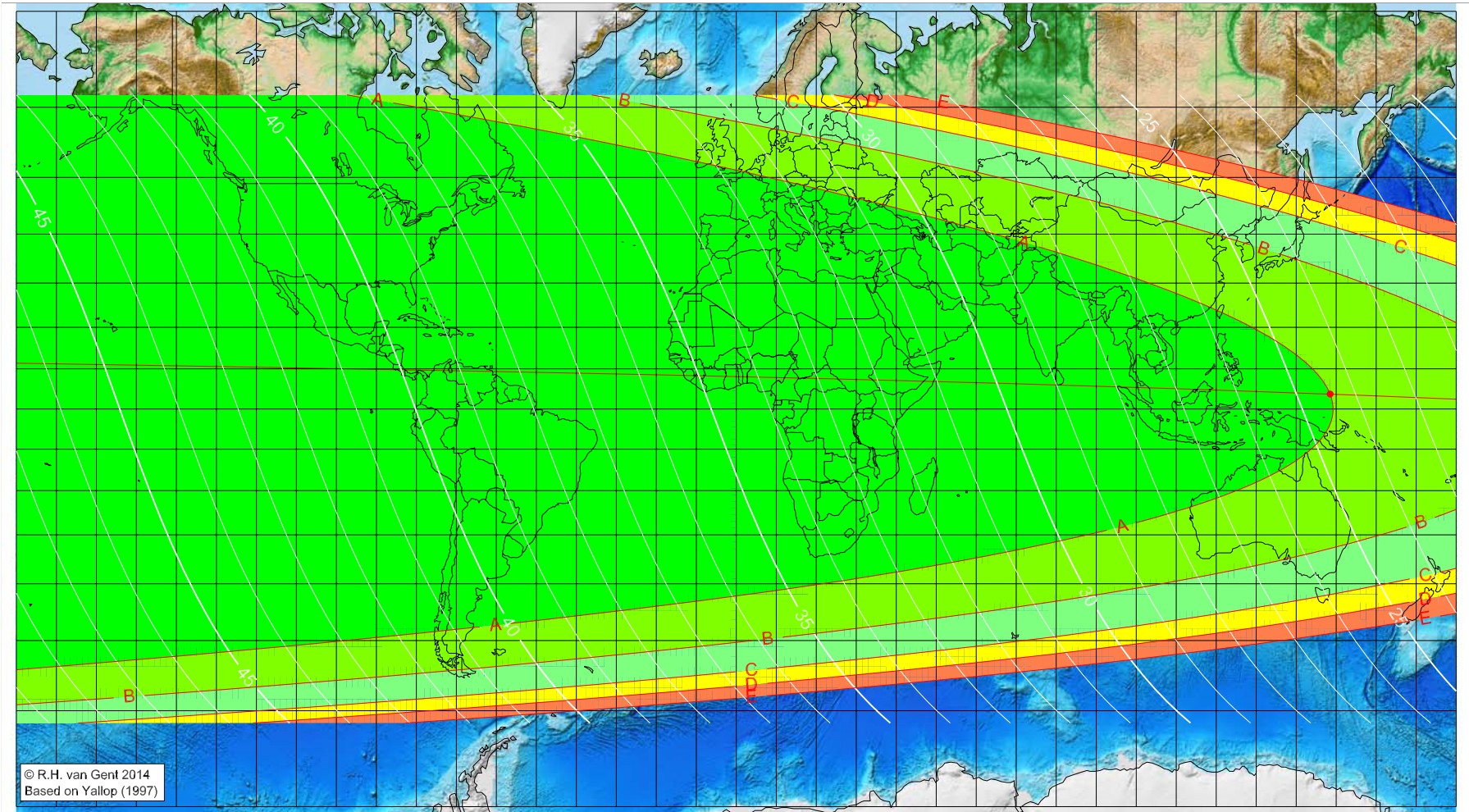
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Shawwāl 9 AH (proleptic)

Global visibility map for 9 January 631 [Wednesday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 8 January 631, 8h 10.8m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
148.49	3.73	24.43
visible on the previous evening		
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = -15979
Islamic Lunation Number = 106
TT - UT [= ΔT] = 1.25 h

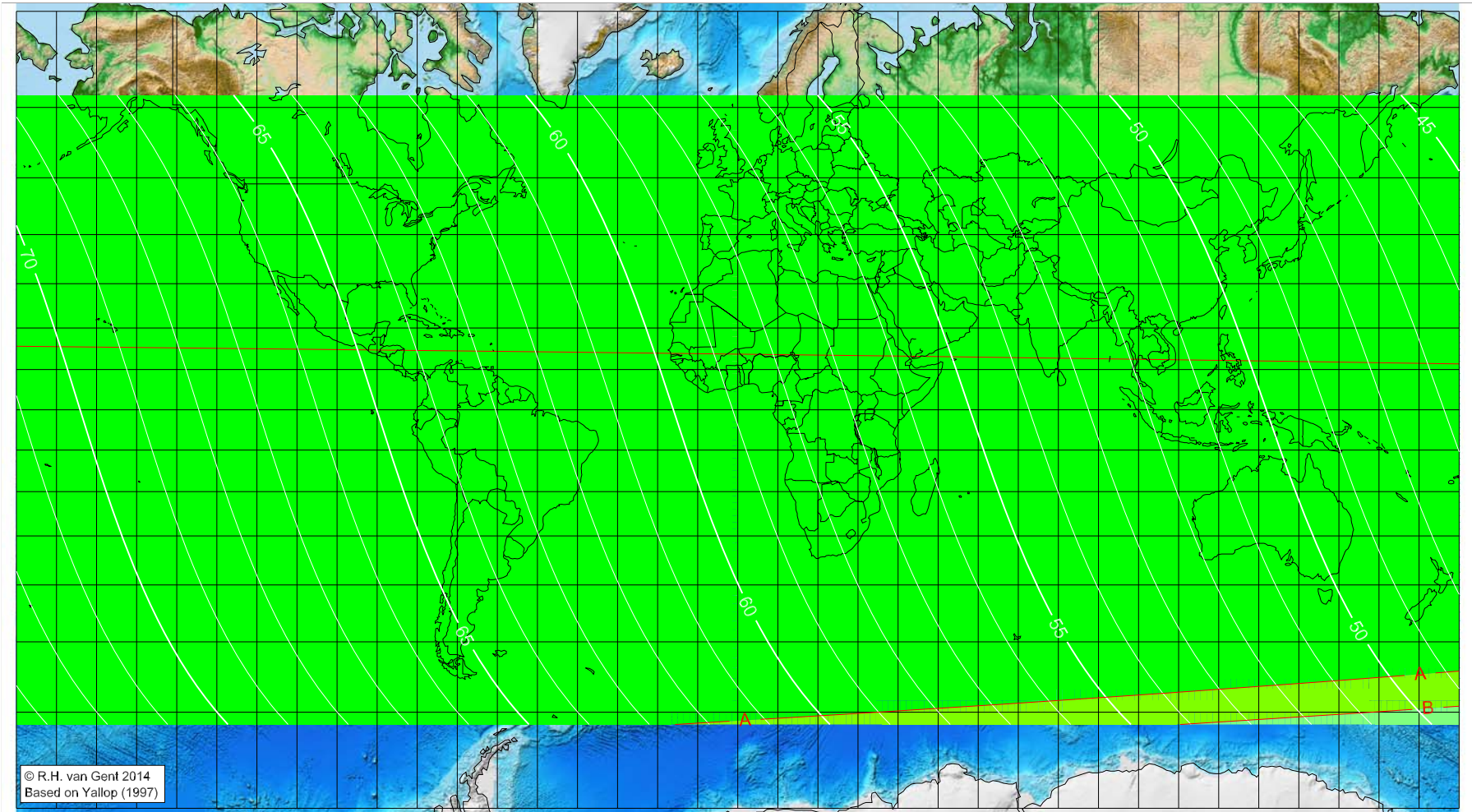
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

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 9 AH (proleptic)

Global visibility map for 10 January 631 [Thursday]
Second day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 8 January 631, 8h 10.8m (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)

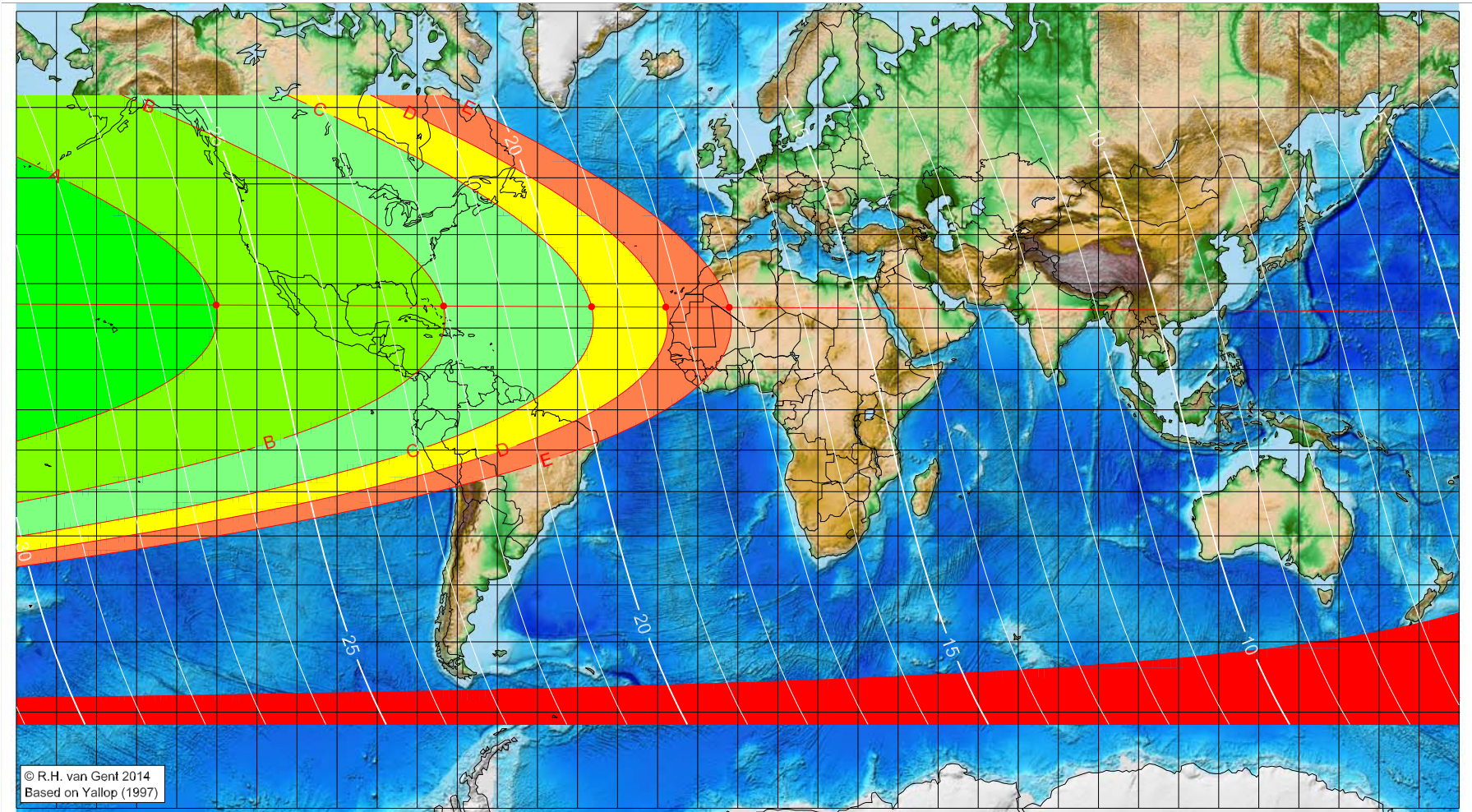
Astronomical (Brown) Lunation Number = -15979
Islamic Lunation Number = 106
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Dhū 'l-Qa'da 9 AH (proleptic)

Global visibility map for 7 February 631 [Thursday]
Day of luni-solar conjunction



Astronomical New Moon: 7 February 631, 1h 4.2m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15978
Islamic Lunation Number = 107
TT - UT [= ΔT] = 1.25 h

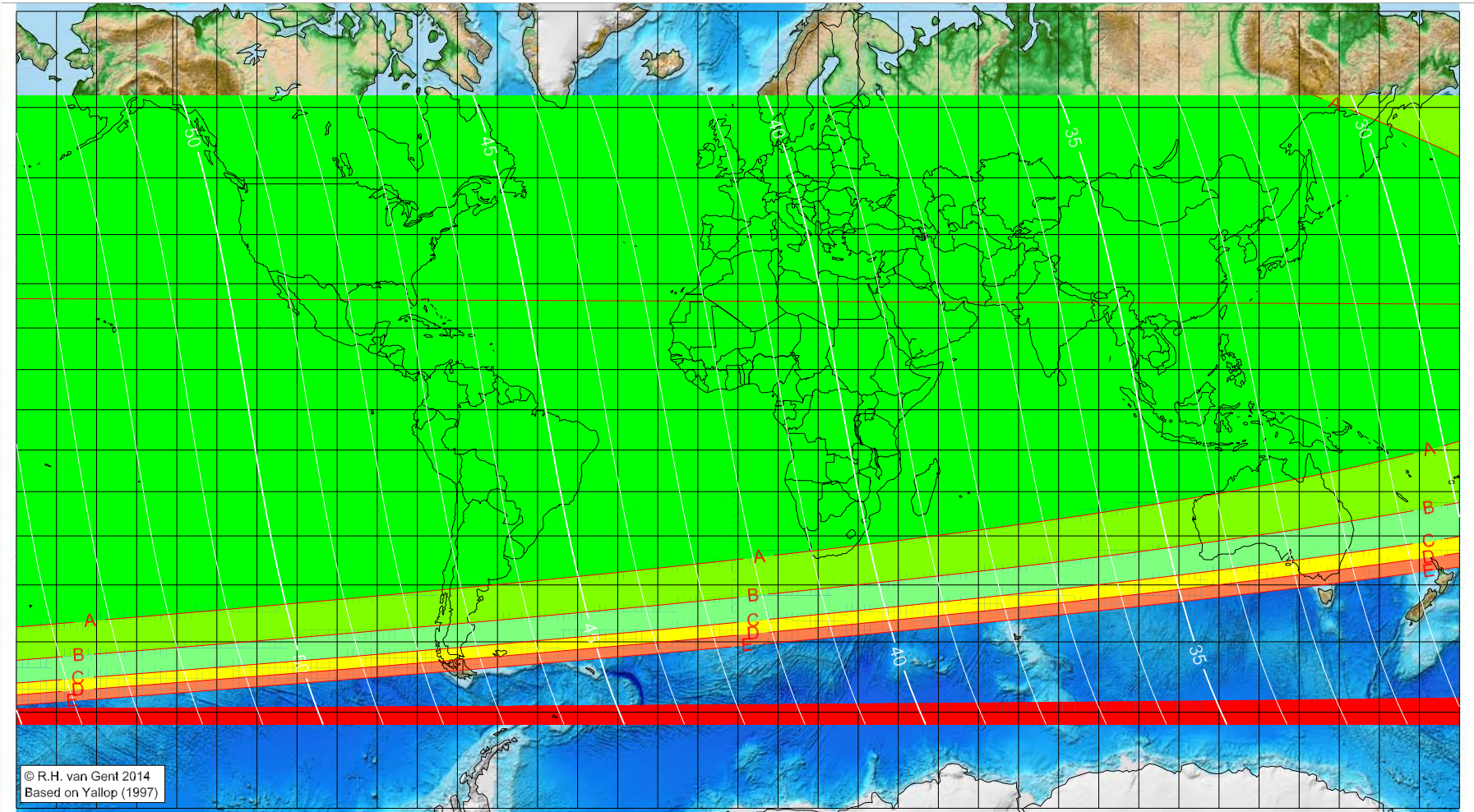
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

Longitude (°)	Latitude (°)	Lunar age (h)
-130.17	25.30	25.87
-73.43	25.06	22.03
-36.49	24.90	19.53
-17.98	24.82	18.27
-2.13	24.75	17.20

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 9 AH (proleptic)

Global visibility map for 8 February 631 [Friday]
Day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 7 February 631, 1h 4.2m (UTC)

First visibility (•)

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

Astronomical (Brown) Lunation Number = -15978
Islamic Lunation Number = 107
TT - UT [= ΔT] = 1.25 h

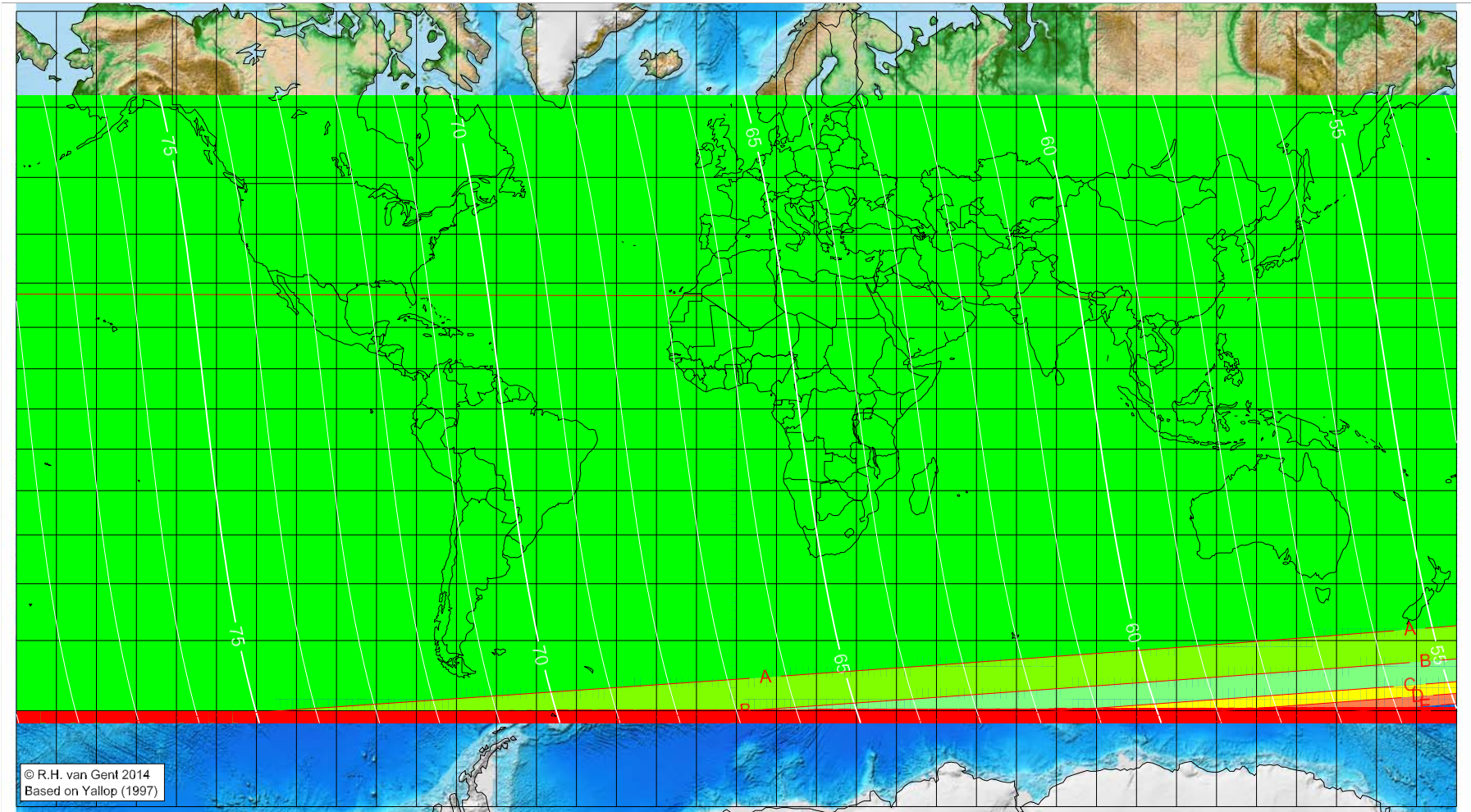
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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)

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

First visibility lunar crescent for Dhū 'l-Qa'da 9 AH (proleptic)

Global visibility map for 9 February 631 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 7 February 631, 1h 4.2m (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)

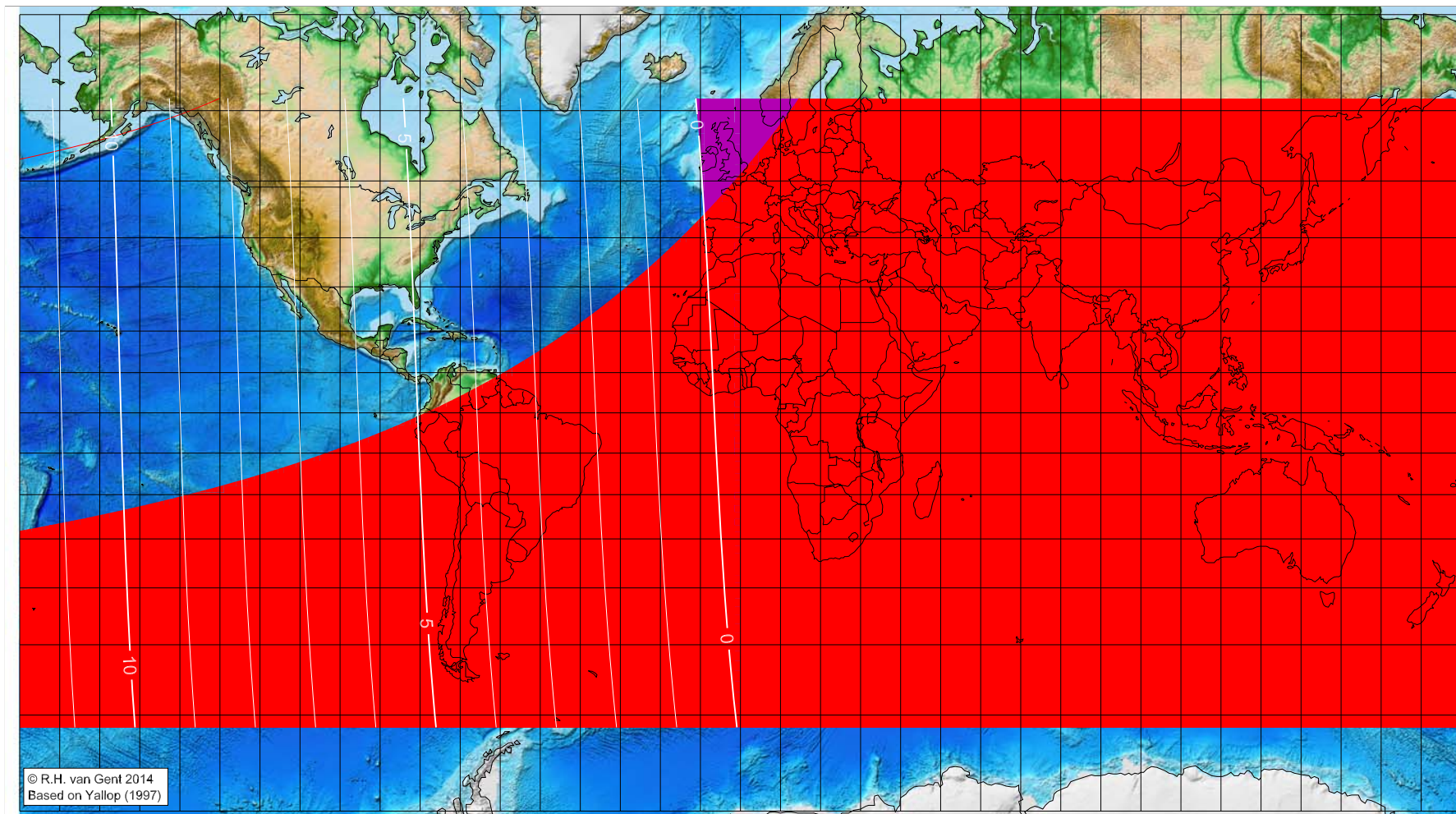
Astronomical (Brown) Lunation Number = -15978
Islamic Lunation Number = 107
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Dhū 'l-Hijja 9 AH (proleptic)

Global visibility map for 8 March 631 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 8 March 631, 18h 36.9m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15977
Islamic Lunation Number = 108
TT - UT [= ΔT] = 1.25 h

- 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°)

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

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

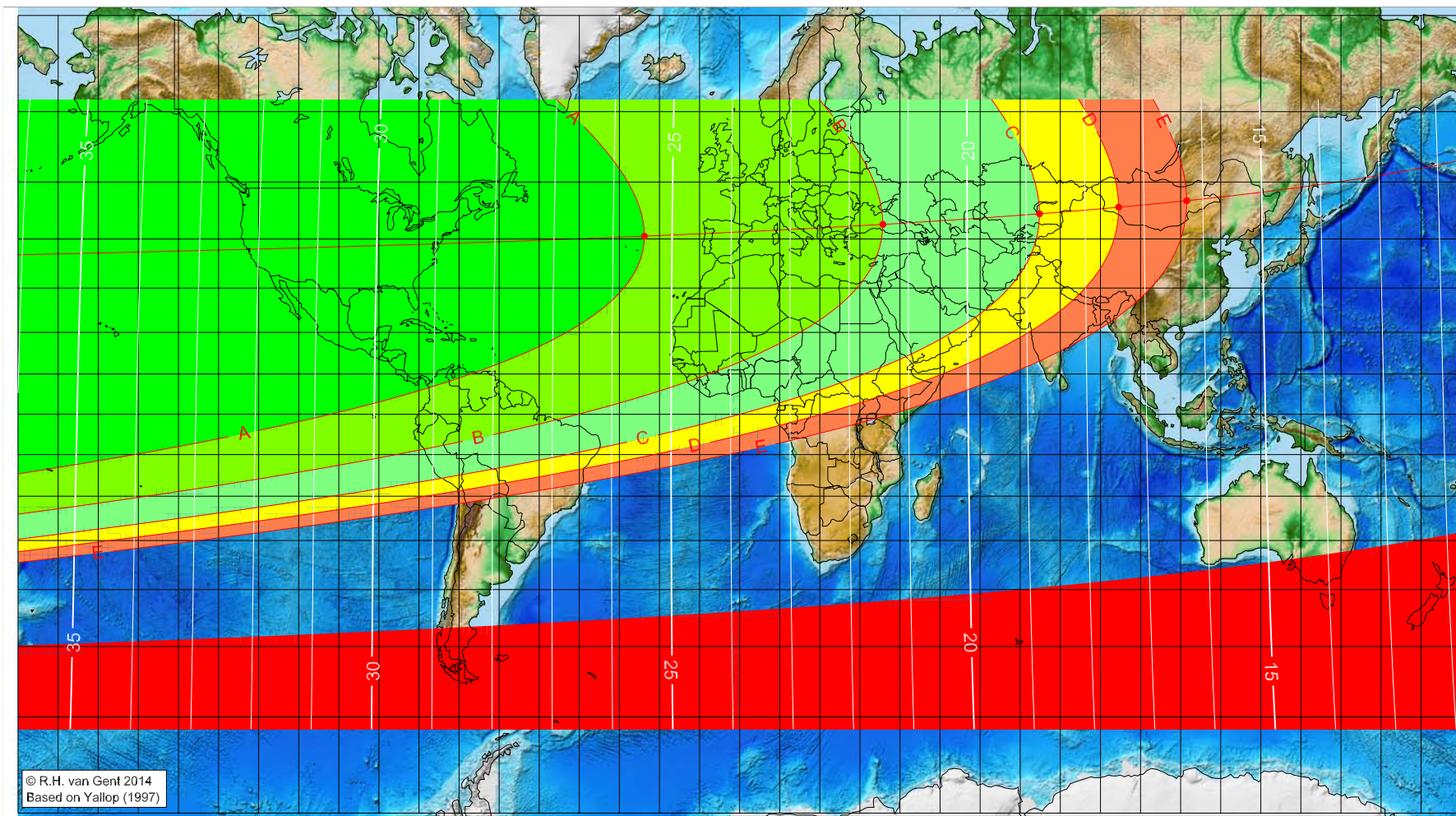
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Dhū 'l-Hijja 9 AH (proleptic)

Global visibility map for 9 March 631 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 8 March 631, 18h 36.9m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15977
Islamic Lunation Number = 108
TT - UT [= ΔT] = 1.25 h

- 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°)

Longitude (°)	Latitude (°)	Lunar age (h)
-23.75	40.52	25.47
35.72	42.72	21.43
74.80	44.63	18.77
94.53	45.79	17.43
111.52	46.92	16.27

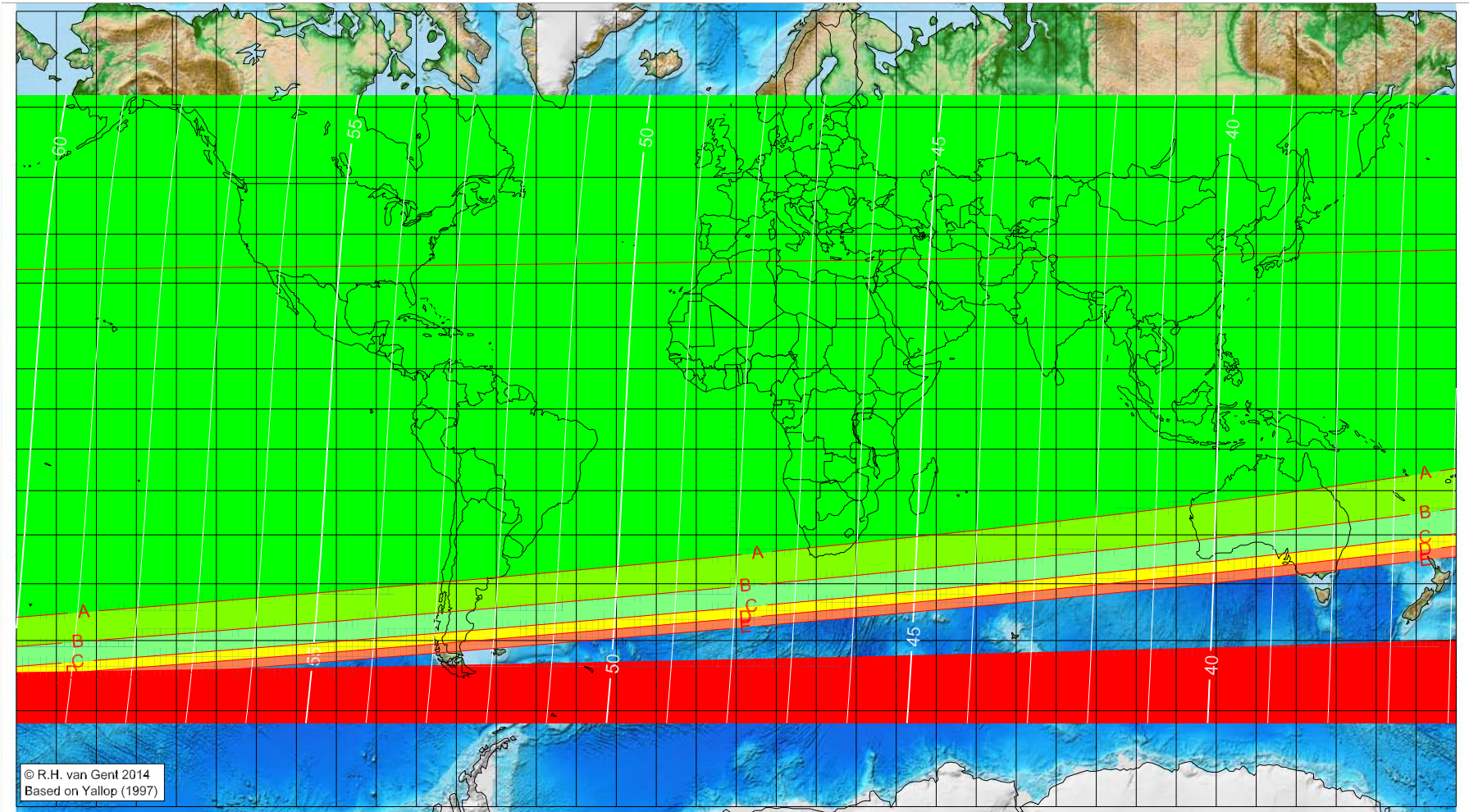
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- moonset before sunset
- before conjunction (astronomical new moon)

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

First visibility lunar crescent for Dhū 'l-Hijja 9 AH (proleptic)

Global visibility map for 10 March 631 [Sunday]
Second day after luni-solar conjunction



© R.H. van Gent 2014
Based on Yallop (1997)

Astronomical New Moon: 8 March 631, 18h 36.9m (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 = -15977
Islamic Lunation Number = 108
TT – UT [= ΔT] = 1.25 h

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/>