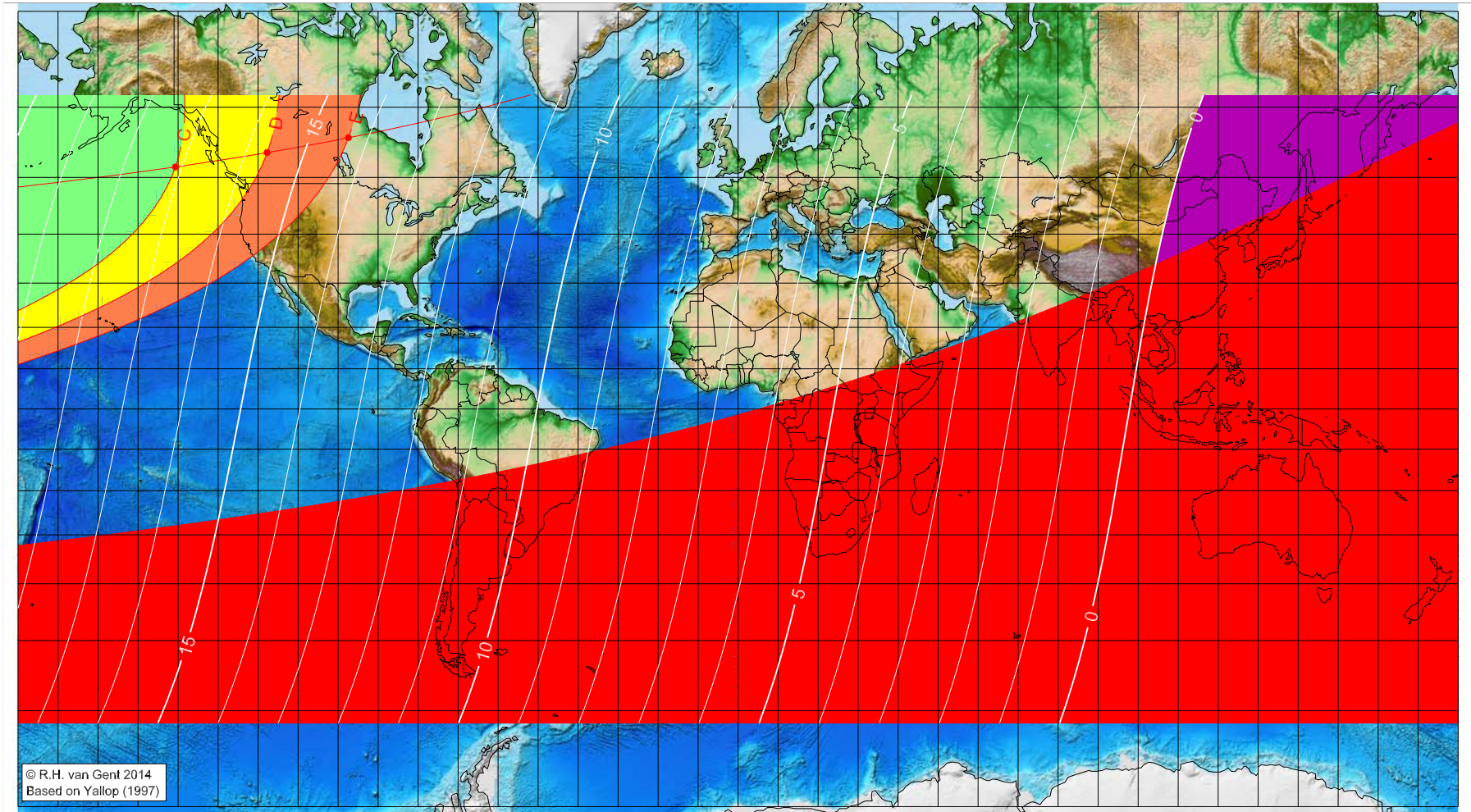


First visibility lunar crescent for Muḥarram 10 AH (proleptic)

Global visibility map for 7 April 631 [Sunday]
Day of luni-solar conjunction



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

Astronomical New Moon: 7 April 631, 11h 28.1m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-140.66	51.65	17.11
-117.75	53.82	15.63
-97.42	55.96	14.34

Astronomical (Brown) Lunation Number = -15976
Islamic Lunation Number = 109
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°)

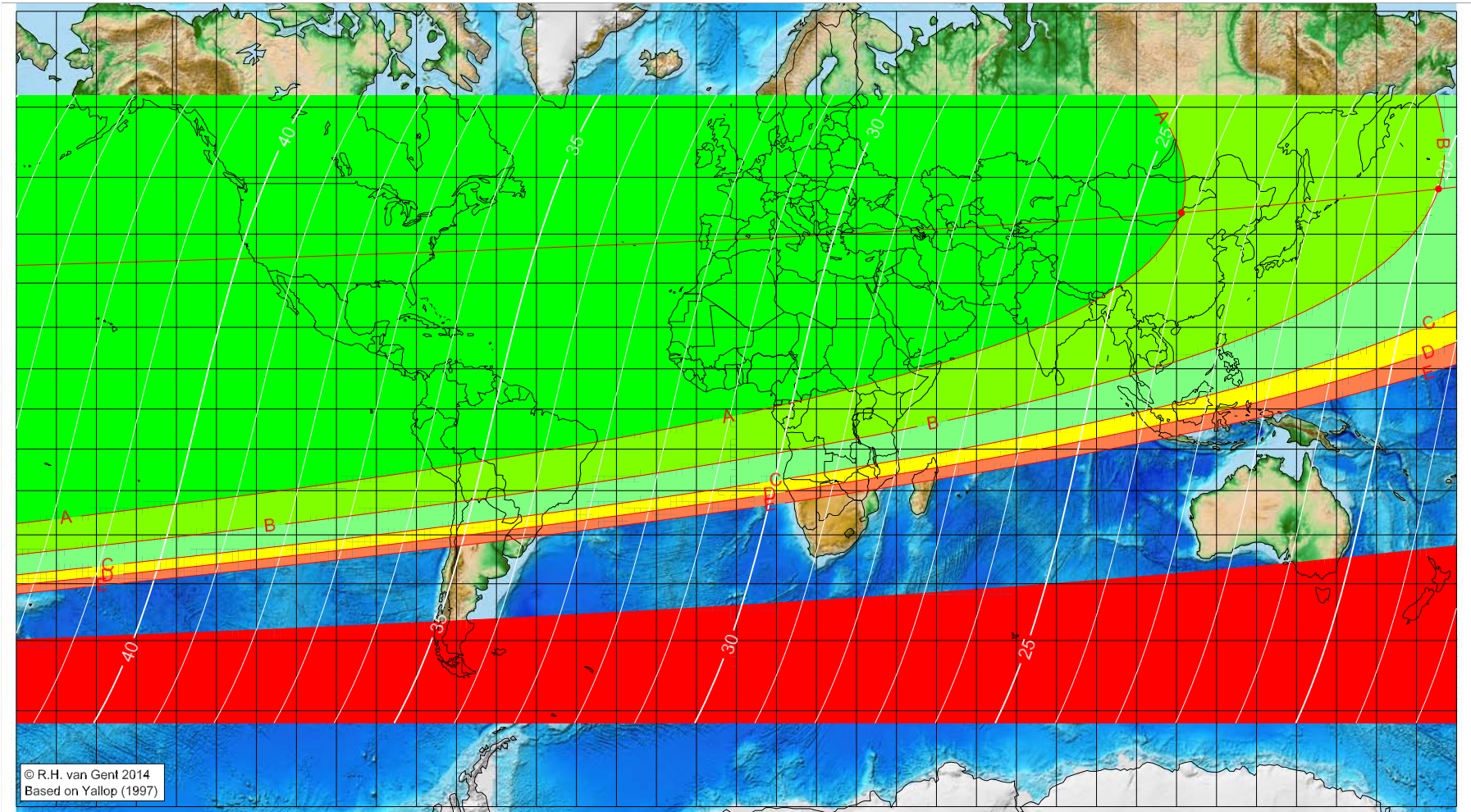
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Muḥarram 10 AH (proleptic)

Global visibility map for 8 April 631 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 7 April 631, 11h 28.1m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
111.19	44.01	24.22
175.50	48.10	19.97
visible on the previous evening		visible on the previous evening
visible on the previous evening		visible on the previous evening

Astronomical (Brown) Lunation Number = -15976
Islamic Lunation Number = 109
TT - UT [= ΔT] = 1.25 h

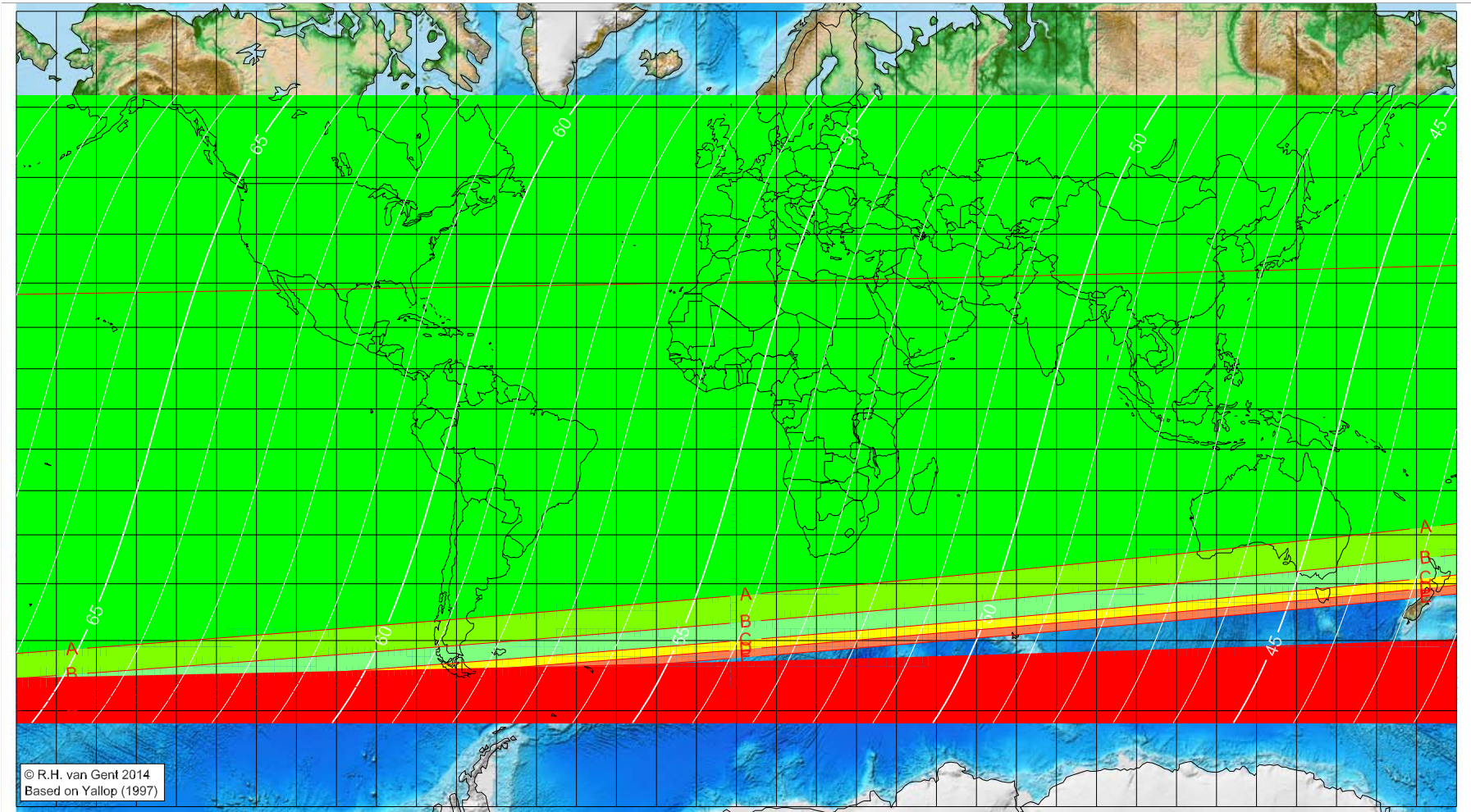
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 10 AH (proleptic)

Global visibility map for 9 April 631 [Tuesday]
 Second day after luni-solar conjunction



Astronomical New Moon: 7 April 631, 11h 28.1m (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)

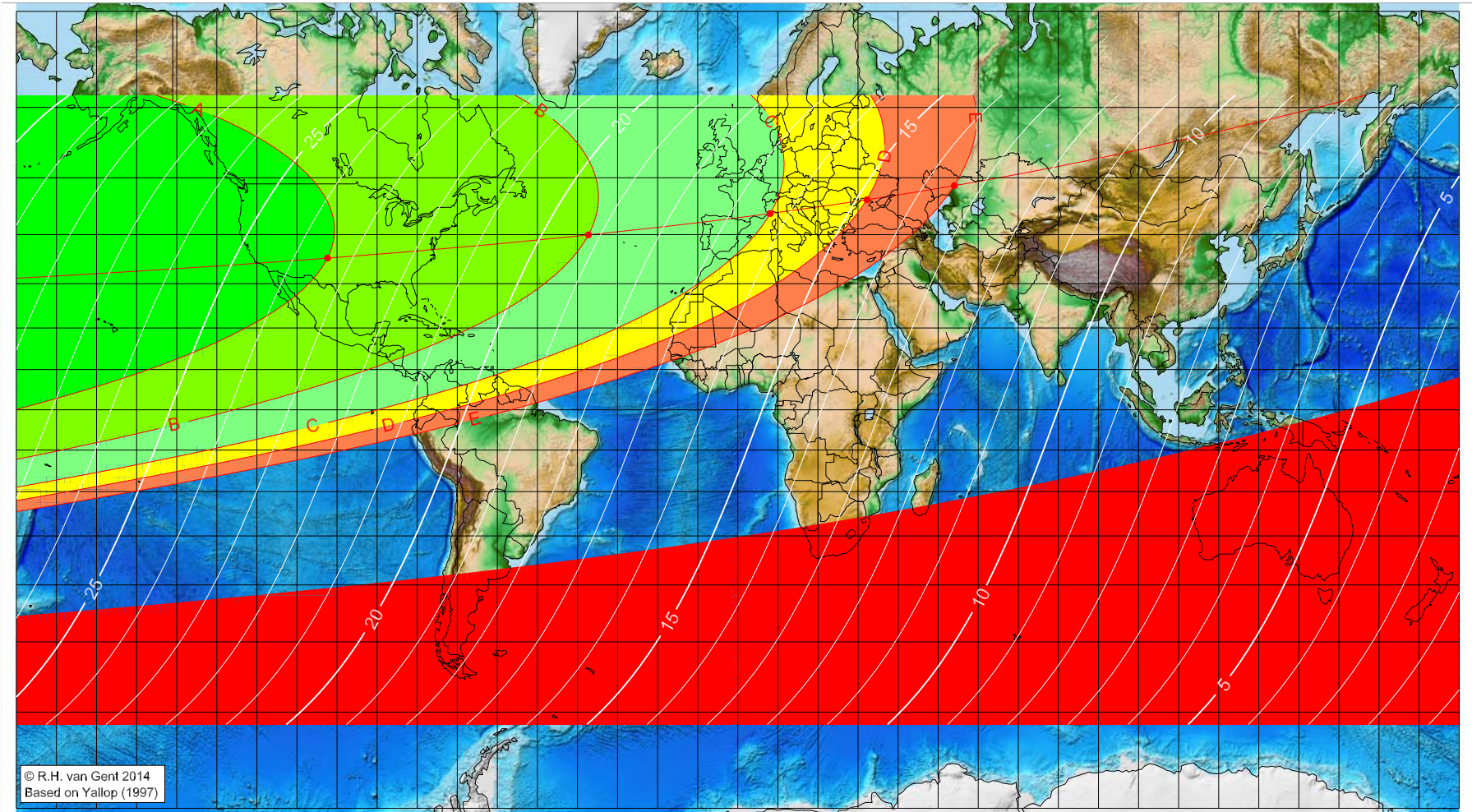
Astronomical (Brown) Lunation Number = -15976
 Islamic Lunation Number = 109
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Şafar 10 AH (proleptic)

Global visibility map for 7 May 631 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 7 May 631, 2h 42.1m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15975
Islamic Lunation Number = 110
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)

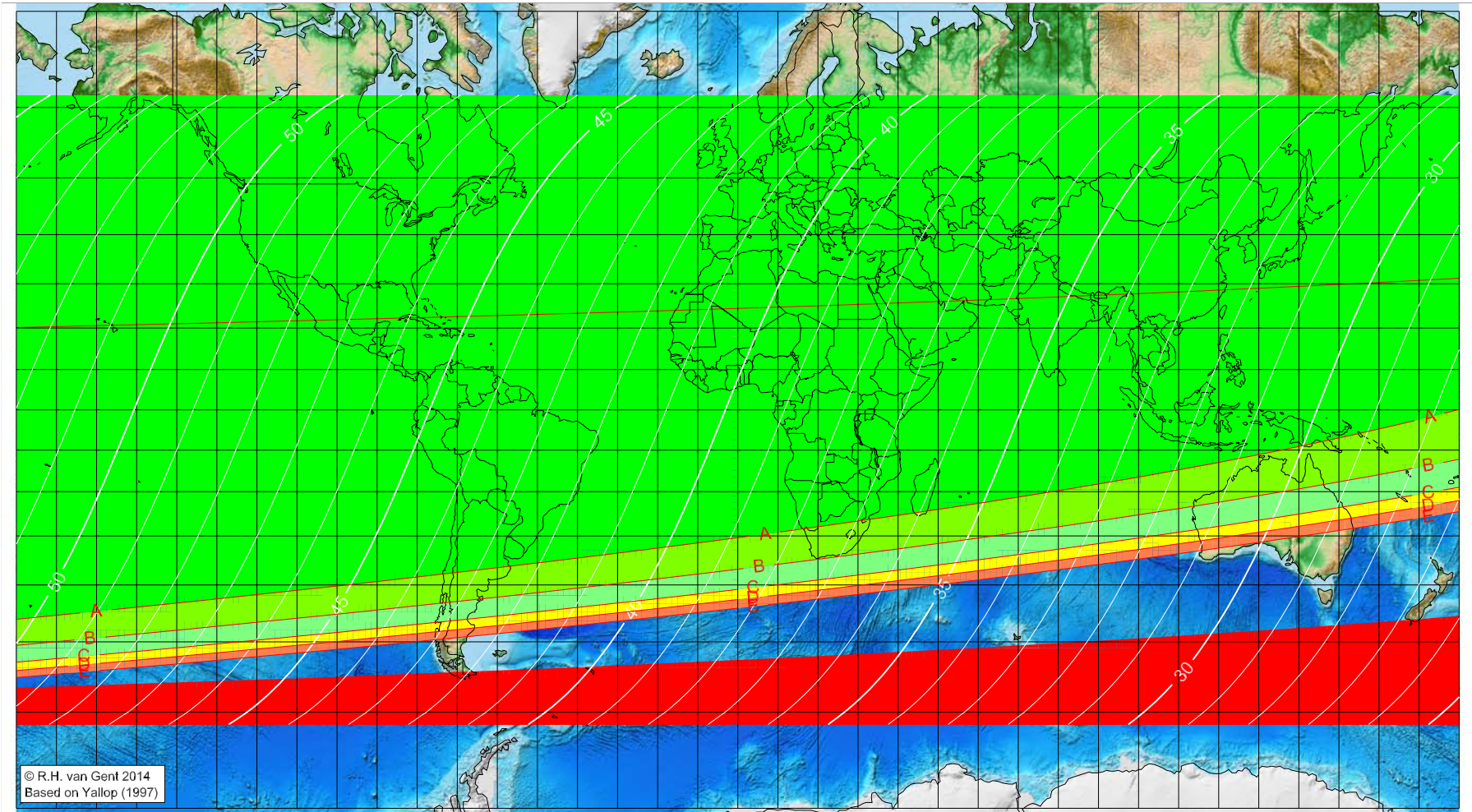
Longitude (°)	Latitude (°)	Lunar age (h)
-102.38	35.37	23.43
-37.26	39.95	19.20
8.08	43.92	16.32
32.22	46.34	14.82
54.01	48.72	13.48

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 10 AH (proleptic)

Global visibility map for 8 May 631 [Wednesday]
Day after luni-solar conjunction



Astronomical New Moon: 7 May 631, 2h 42.1m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15975
Islamic Lunation Number = 110
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)

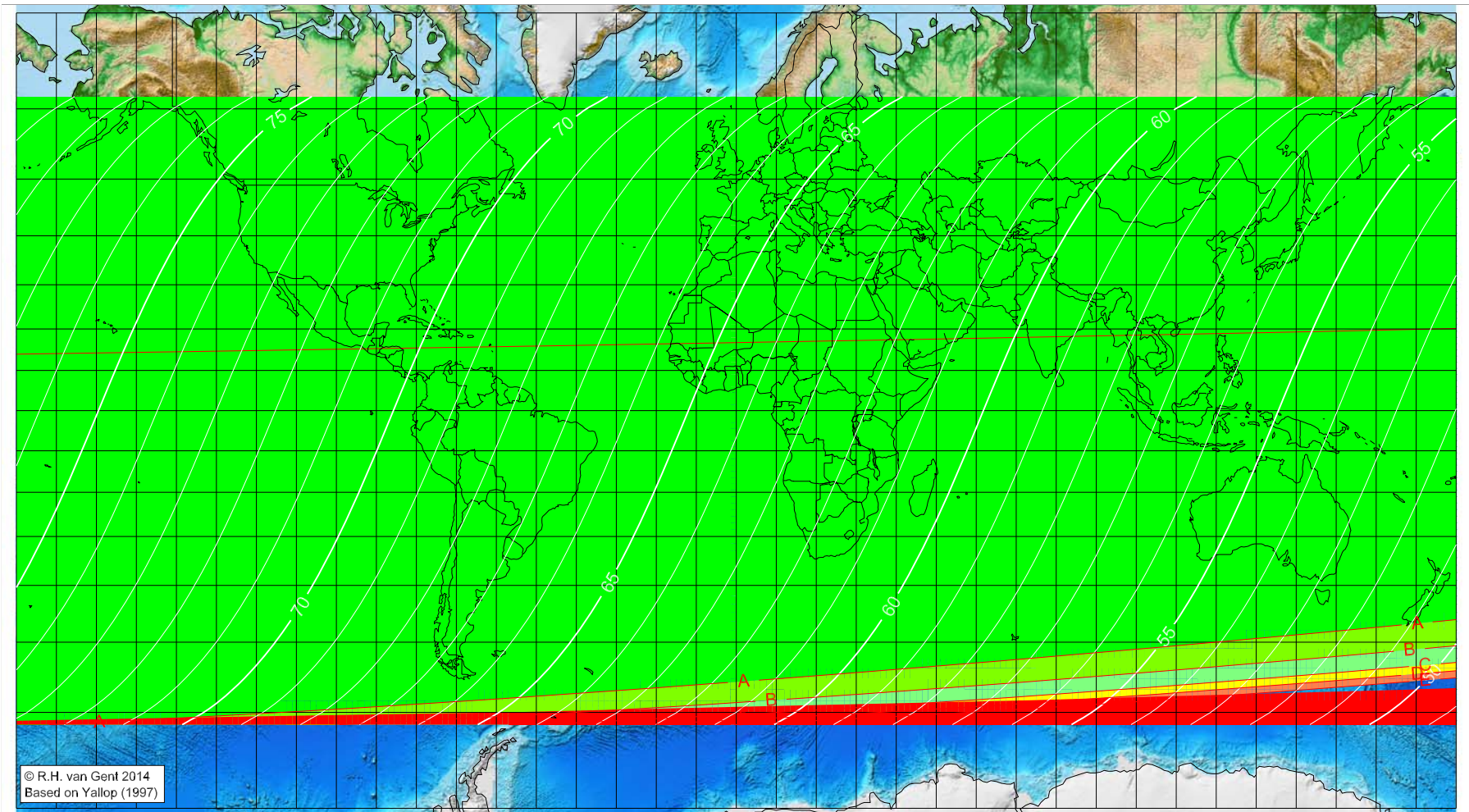
Longitude (°)	Latitude (°)	Lunar age (h)
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

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 Şafar 10 AH (proleptic)

Global visibility map for 9 May 631 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 7 May 631, 2h 42.1m (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)

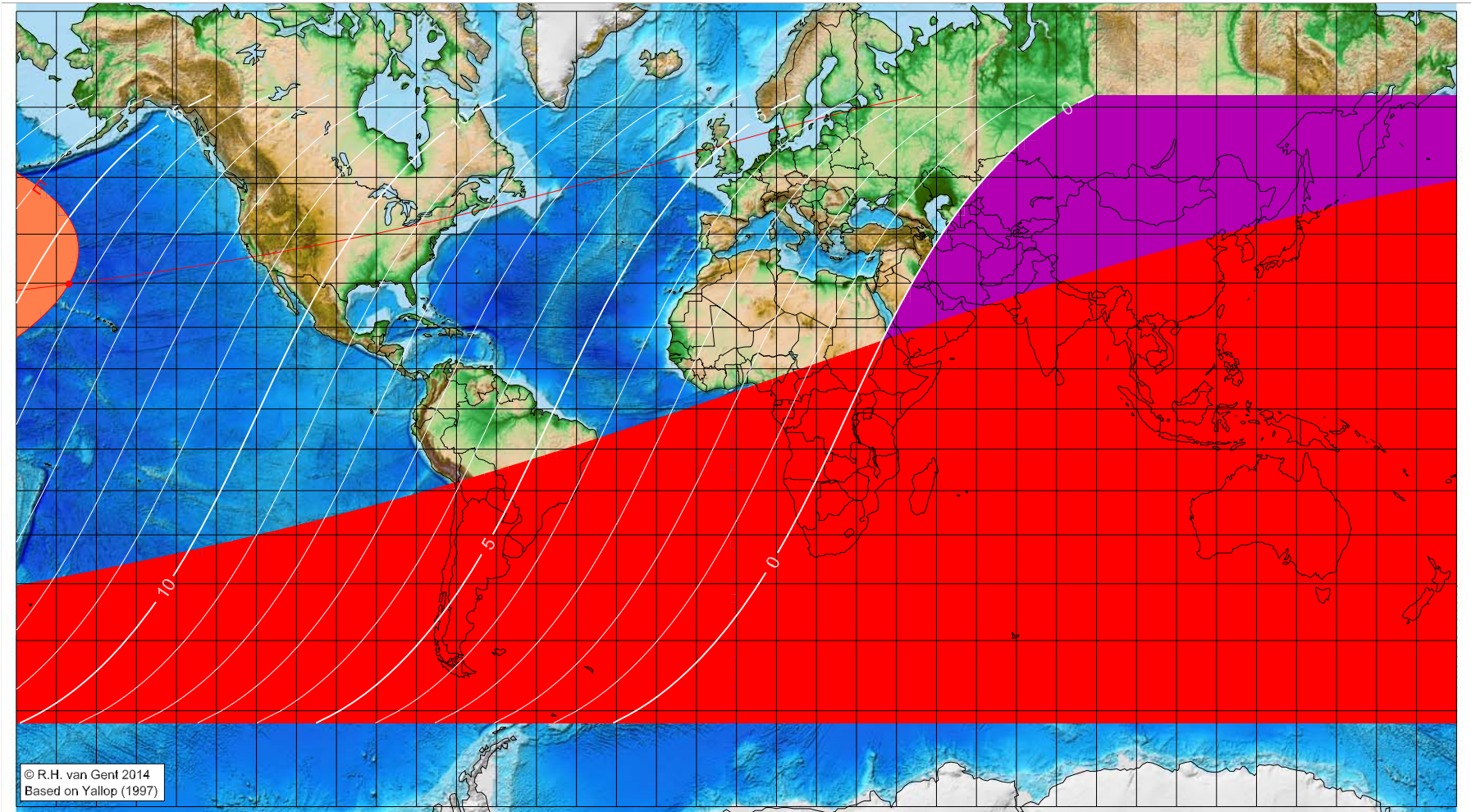
Astronomical (Brown) Lunation Number = -15975
Islamic Lunation Number = 110
TT – UT [= ΔT] = 1.25 h

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 10 AH (proleptic)

Global visibility map for 5 June 631 [Wednesday]
Day of luni-solar conjunction



Astronomical New Moon: 5 June 631, 16h 3.3m (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)
-166.87	29.80	14.29

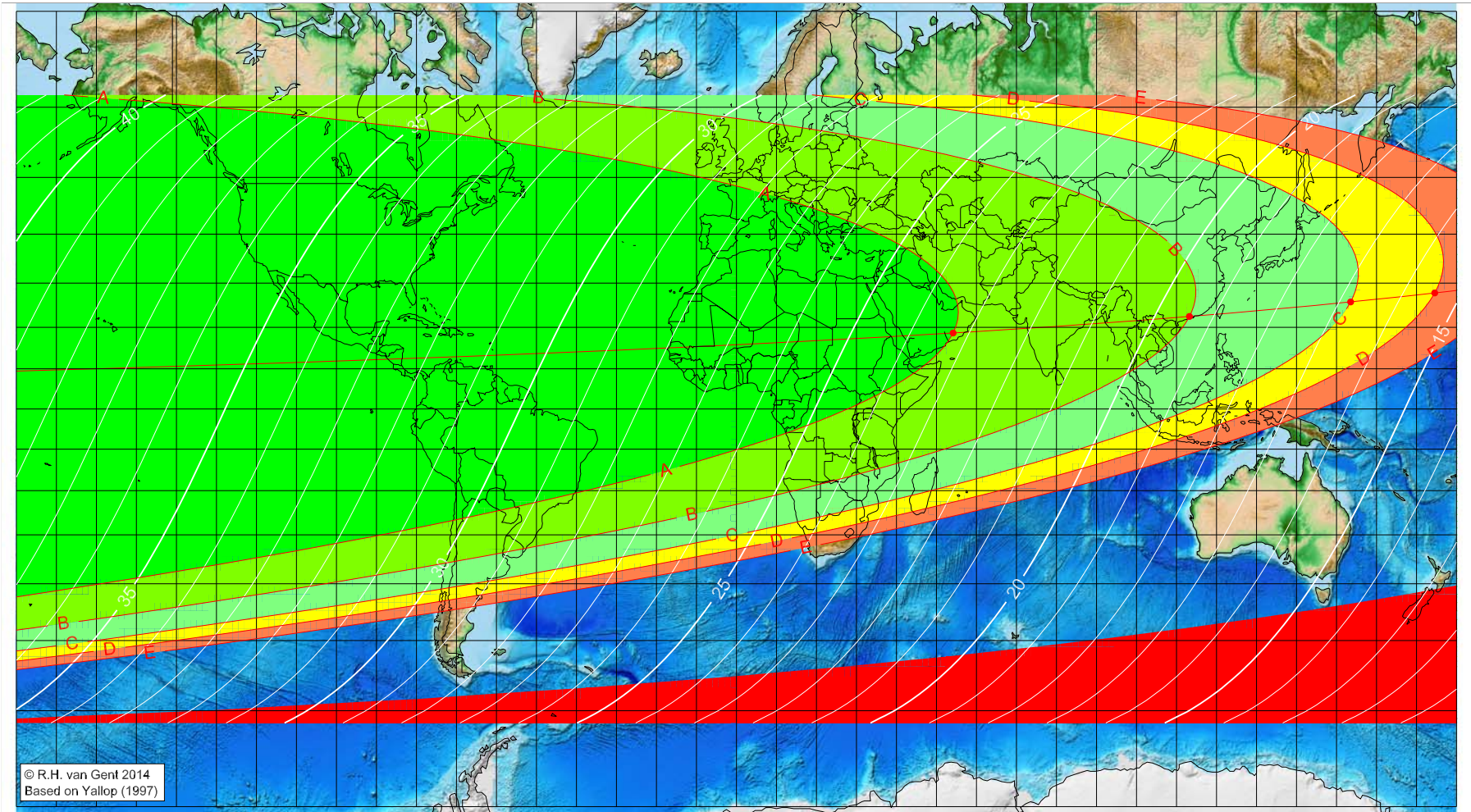
Astronomical (Brown) Lunation Number = -15974
Islamic Lunation Number = 111
TT – UT [= ΔT] = 1.25 h

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 10 AH (proleptic)

Global visibility map for 6 June 631 [Thursday]
Day after luni-solar conjunction



Astronomical New Moon: 5 June 631, 16h 3.3m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
54.16	18.66	23.27
113.24	22.53	19.41
153.53	25.84	16.81
174.55	27.84	15.46

visible on the previous evening

Astronomical (Brown) Lunation Number = -15974
Islamic Lunation Number = 111
TT - UT [= ΔT] = 1.25 h

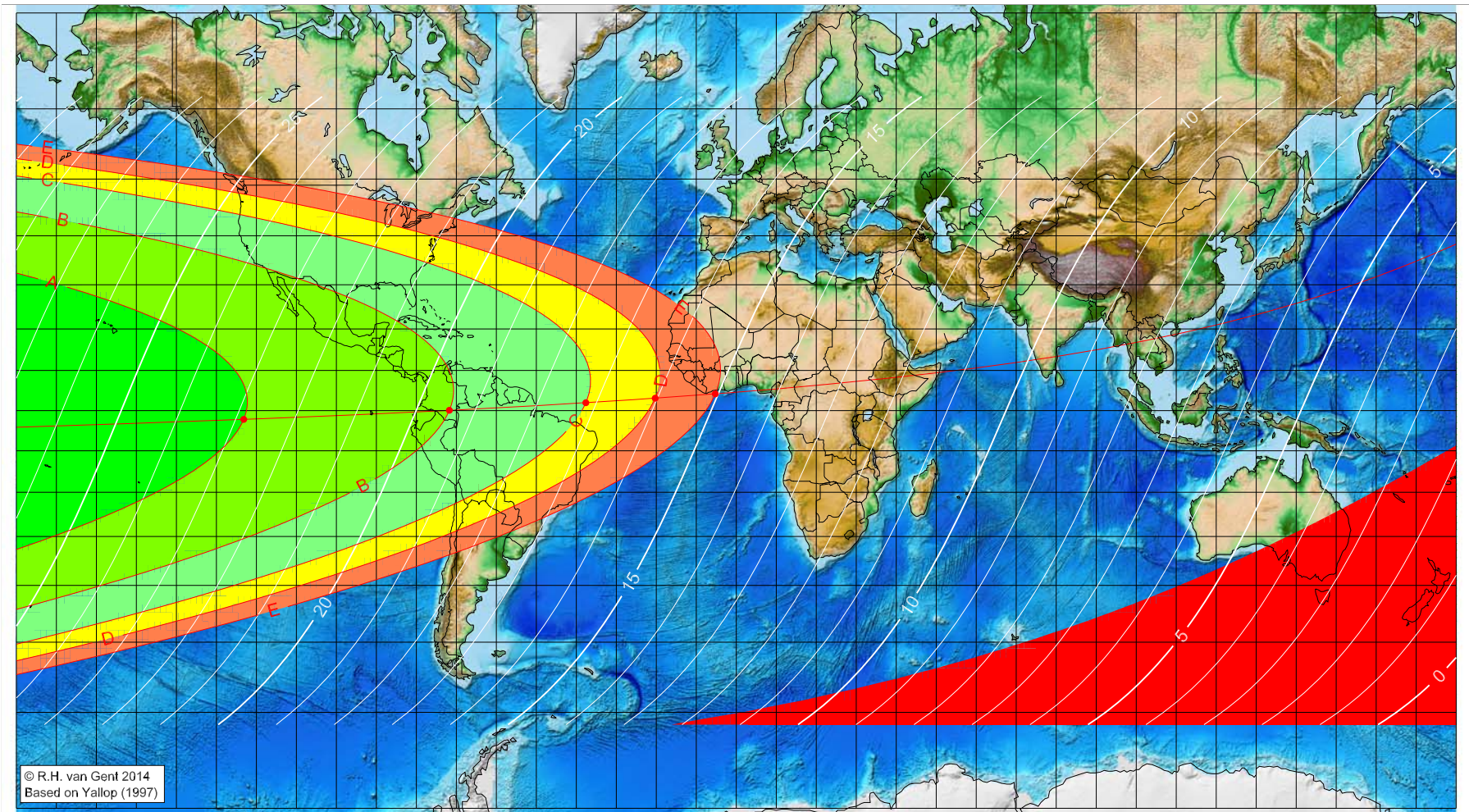
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 Rabīʿ al-Ākhir 10 AH (proleptic)

Global visibility map for 5 July 631 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 5 July 631, 3h 44.2m (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)
-123.16	-2.19	22.86
-71.74	0.08	19.44
-37.62	1.97	17.18
-20.27	3.10	16.04
-5.25	4.18	15.05

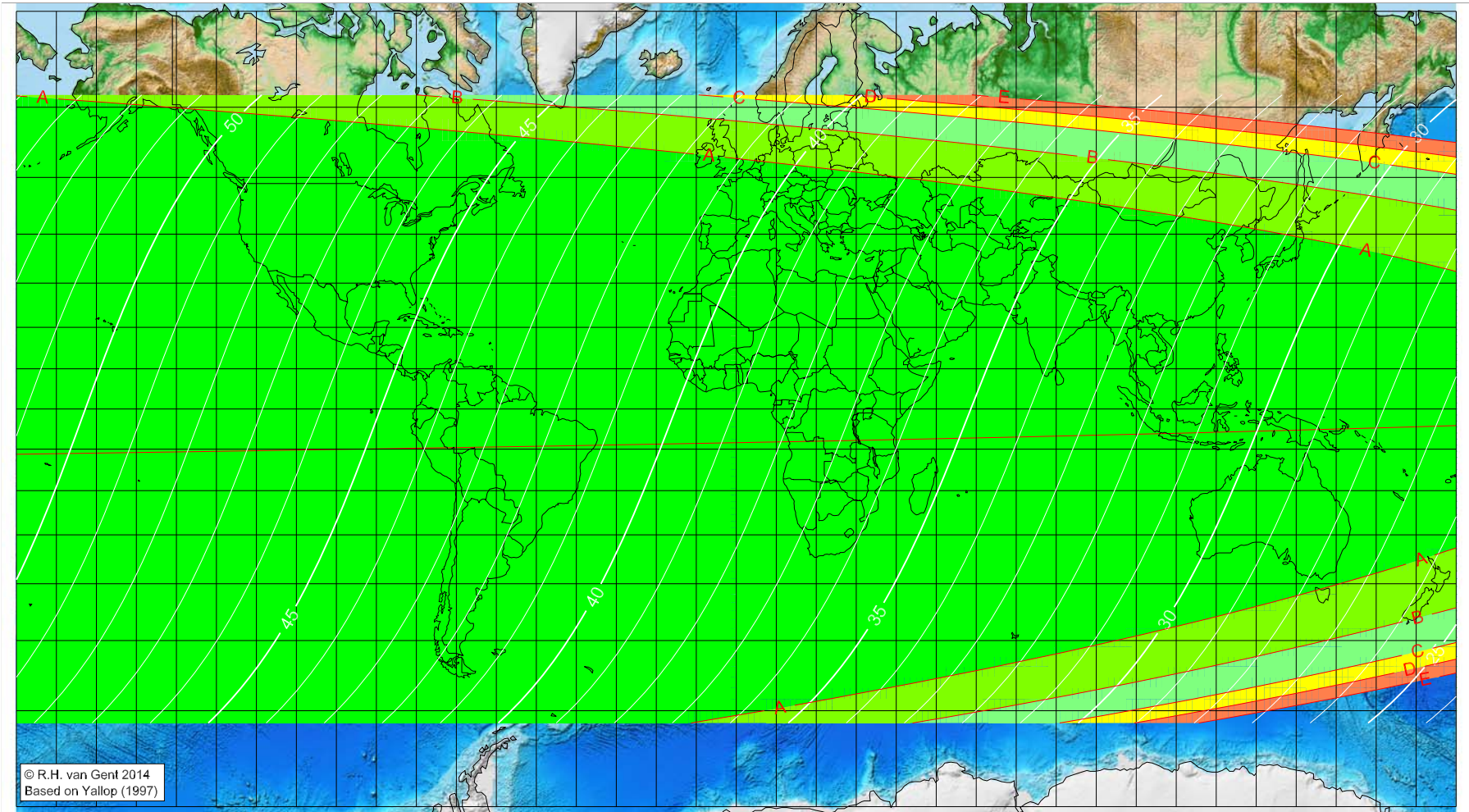
Astronomical (Brown) Lunation Number = -15973
Islamic Lunation Number = 112
TT – UT [= ΔT] = 1.25 h

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-Ākhir 10 AH (proleptic)

Global visibility map for 6 July 631 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 5 July 631, 3h 44.2m (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 ($^\circ$)	Latitude ($^\circ$)	Lunar age (h)
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

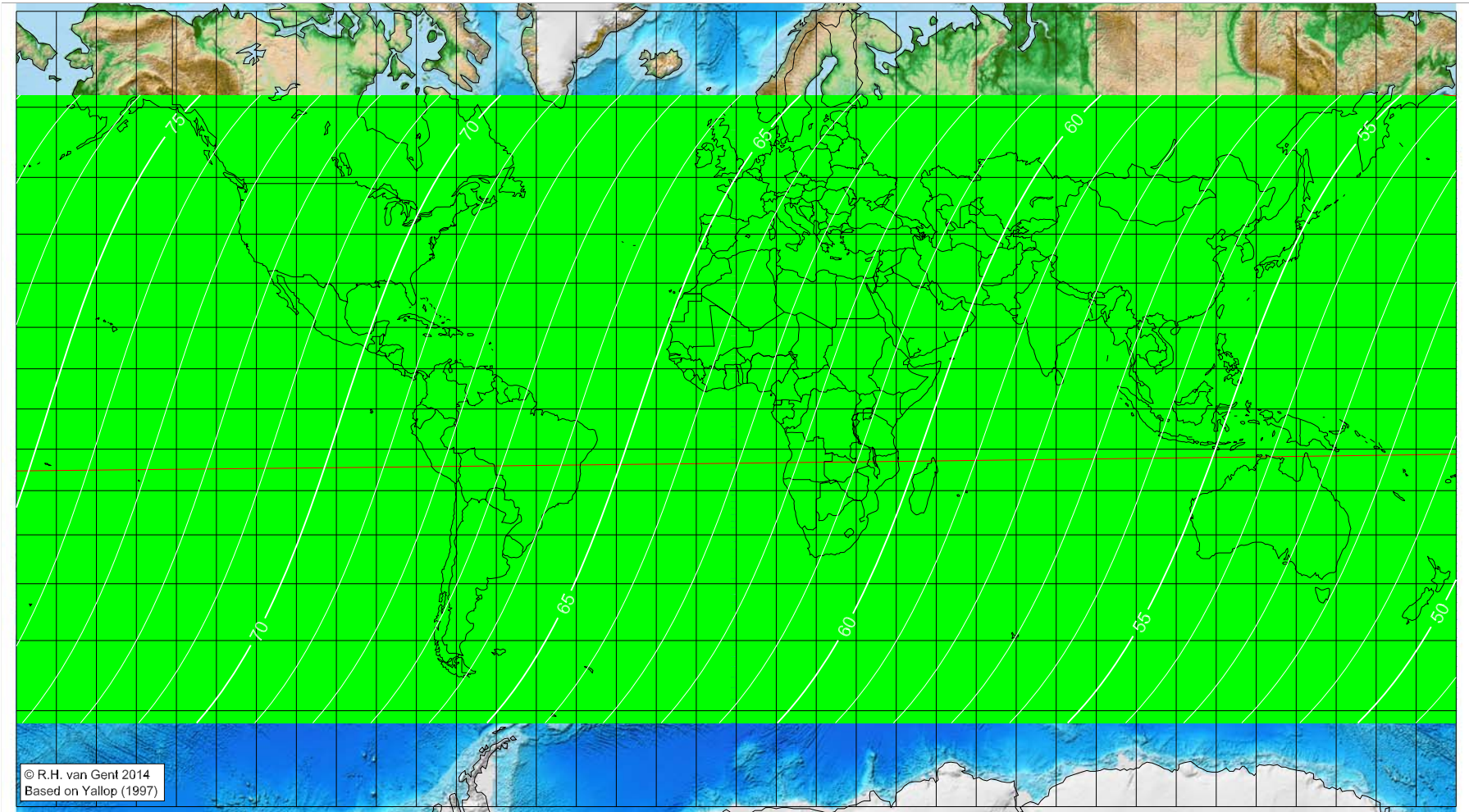
Astronomical (Brown) Lunation Number = -15973
Islamic Lunation Number = 112
TT – UT [= ΔT] = 1.25 h

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-Ākhir 10 AH (proleptic)

Global visibility map for 7 July 631 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 5 July 631, 3h 44.2m (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)

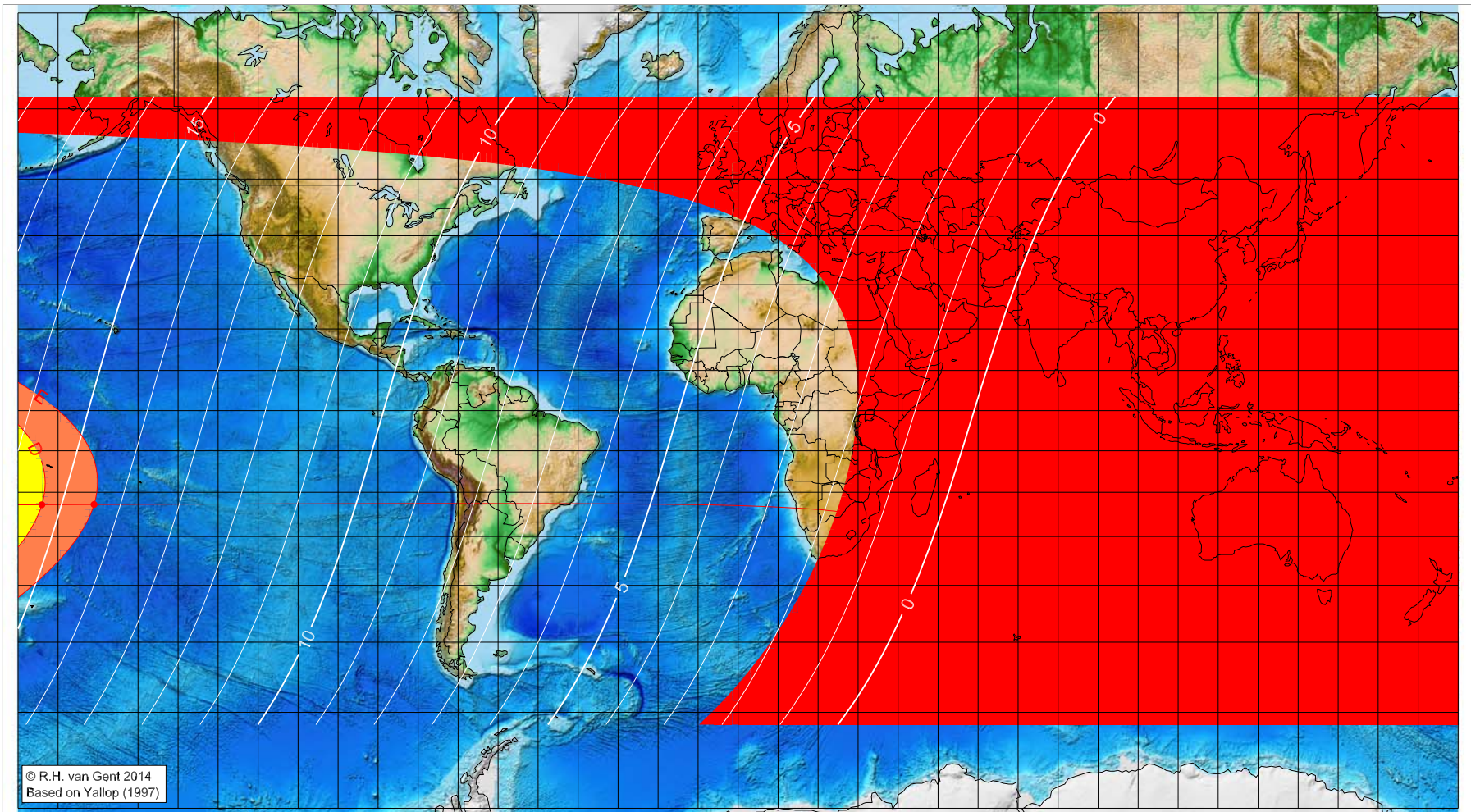
Astronomical (Brown) Lunation Number = -15973
Islamic Lunation Number = 112
TT – UT [= ΔT] = 1.25 h

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 Jumādā 'I-Ūlā 10 AH (proleptic)

Global visibility map for 3 August 631 [Saturday]
Day of luni-solar conjunction



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

Astronomical New Moon: 3 August 631, 14h 9.2m (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)
-174.05	-22.90	15.33
-161.00	-22.84	14.45

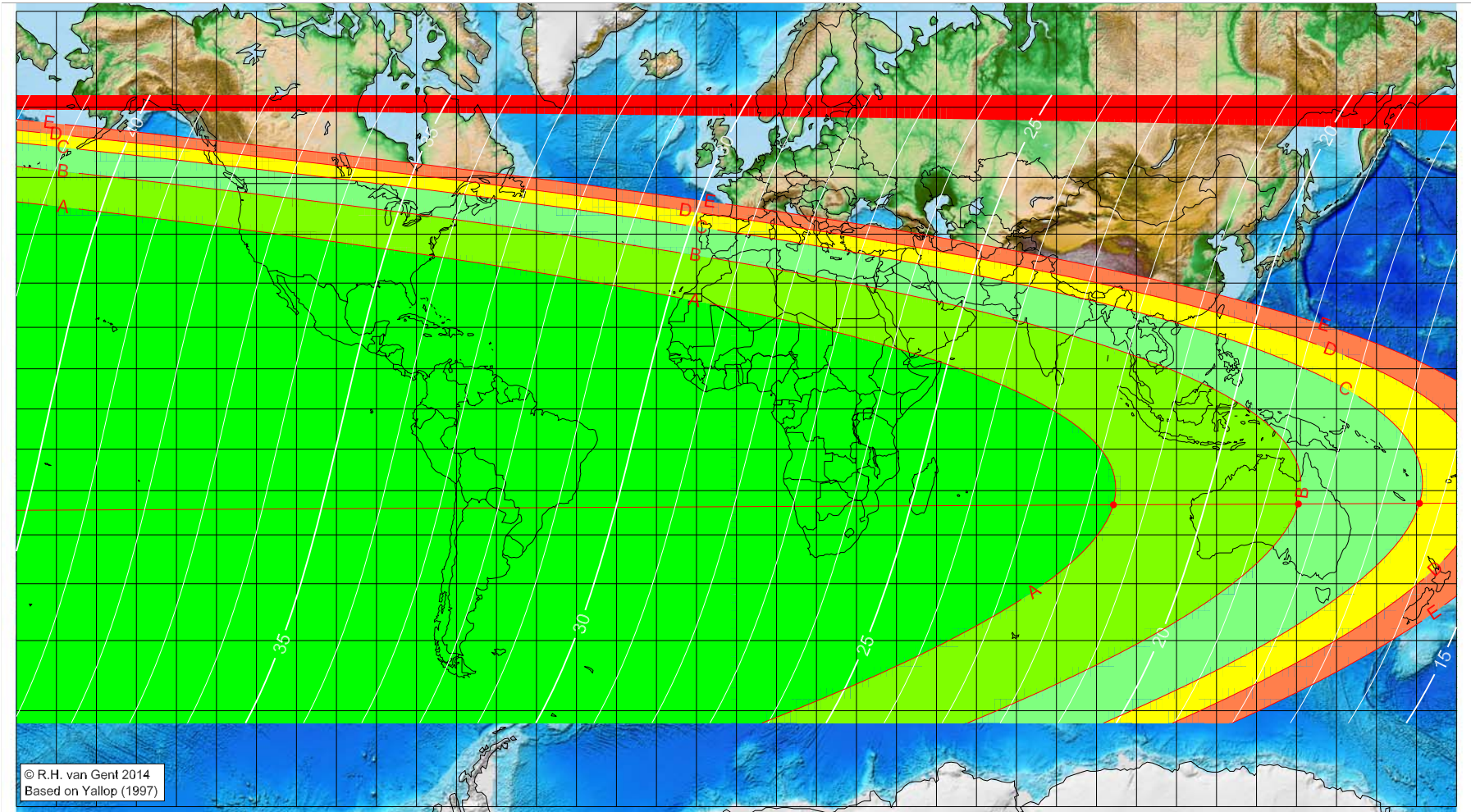
Astronomical (Brown) Lunation Number = -15972
Islamic Lunation Number = 113
TT – UT [= ΔT] = 1.25 h

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 Jumādā 'I-Ūlā 10 AH (proleptic)

Global visibility map for 4 August 631 [Sunday]
Day after luni-solar conjunction



Astronomical New Moon: 3 August 631, 14h 9.2m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15972
Islamic Lunation Number = 113
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)

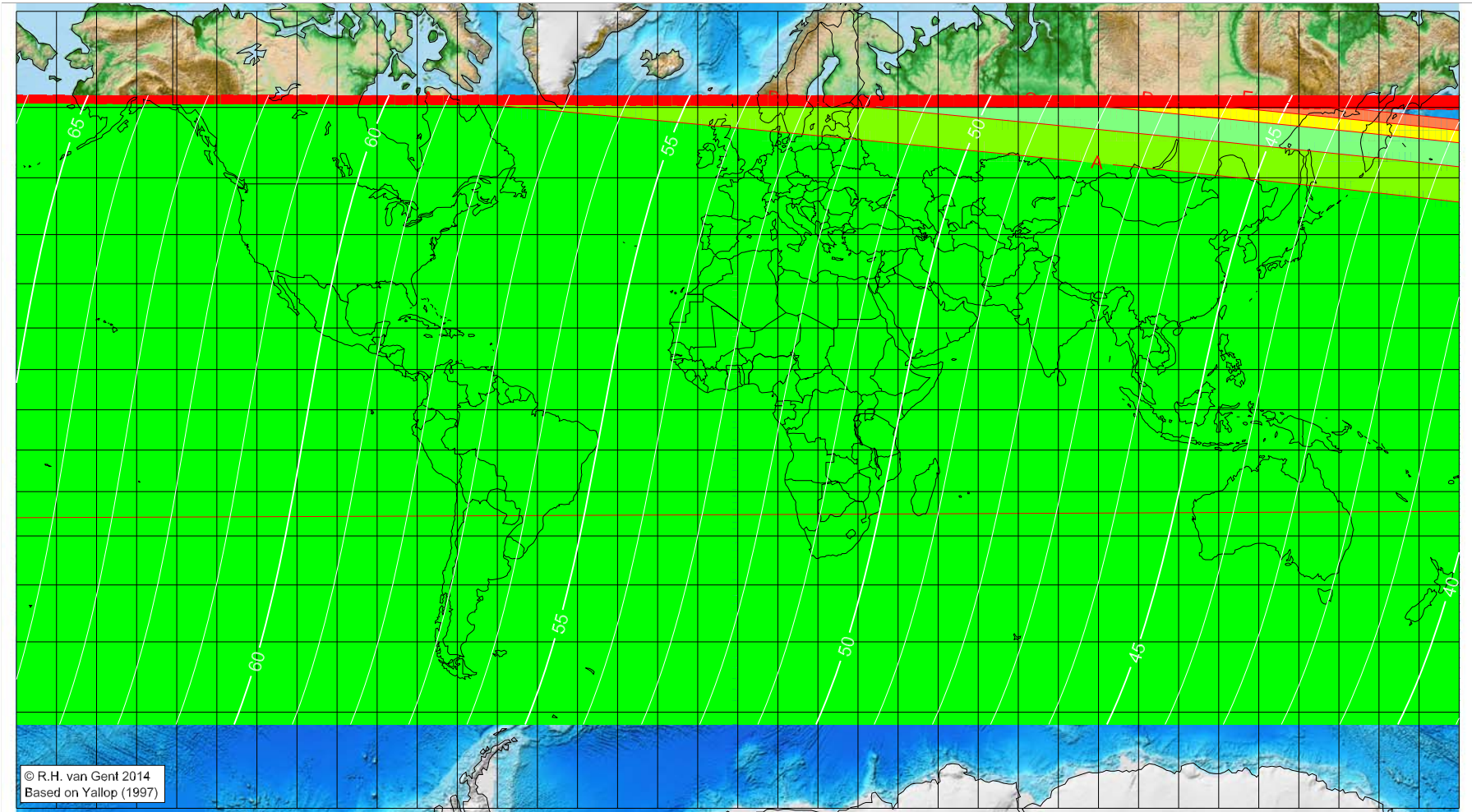
Longitude (°)	Latitude (°)	Lunar age (h)
94.24	-23.30	21.56
140.48	-23.09	18.42
170.74	-22.96	16.37

visible on the previous evening
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

First visibility lunar crescent for Jumādā 'l-Ūlā 10 AH (proleptic)

Global visibility map for 5 August 631 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 3 August 631, 14h 9.2m (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)

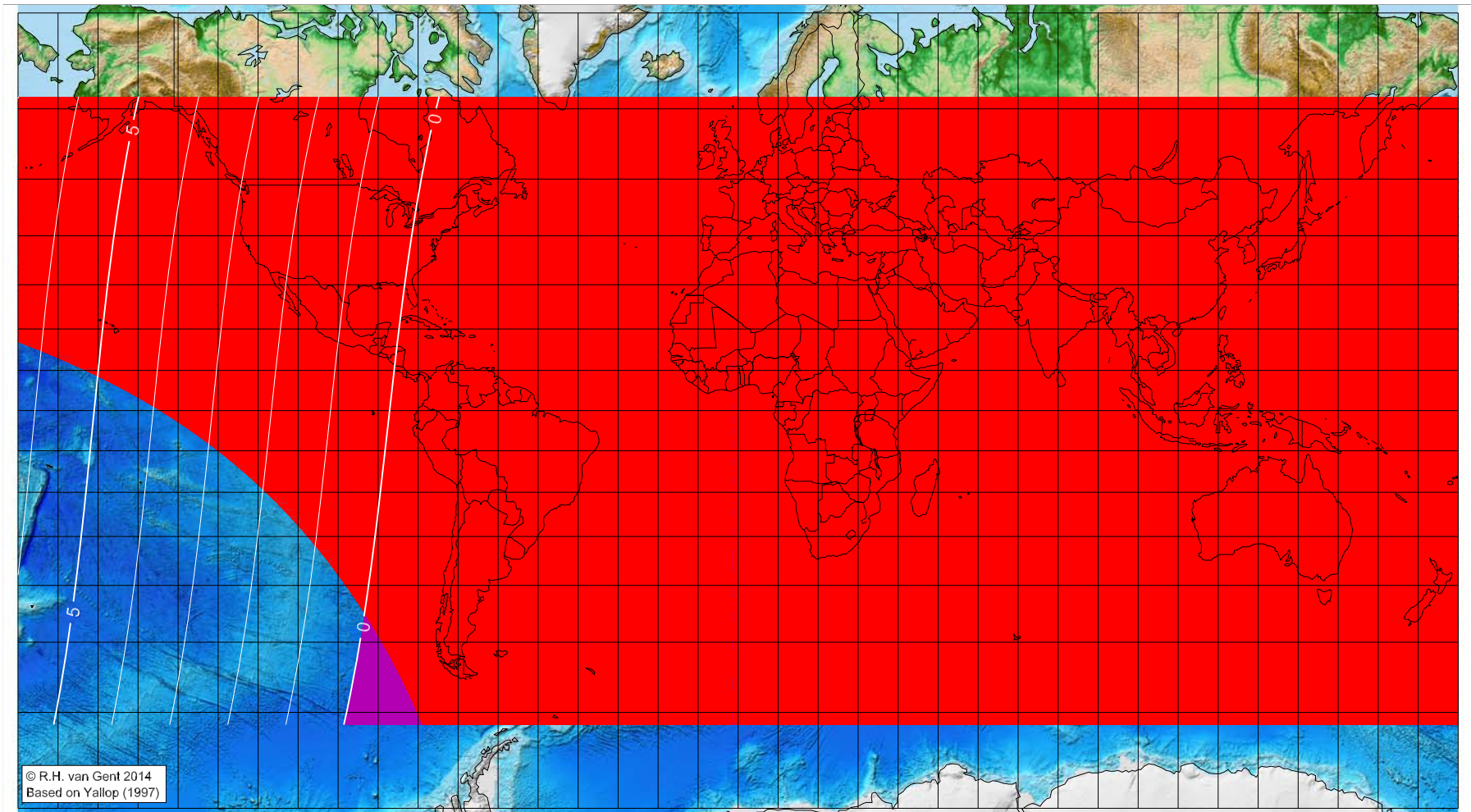
Astronomical (Brown) Lunation Number = -15972
Islamic Lunation Number = 113
 $TT - UT [= \Delta T] = 1.25$ h

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 Jumādā 'l-Ākhira 10 AH (proleptic)

Global visibility map for 1 September 631 [Sunday]
Day of luni-solar conjunction



Astronomical New Moon: 1 September 631, 23h 46.3m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15971
Islamic Lunation Number = 114
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)

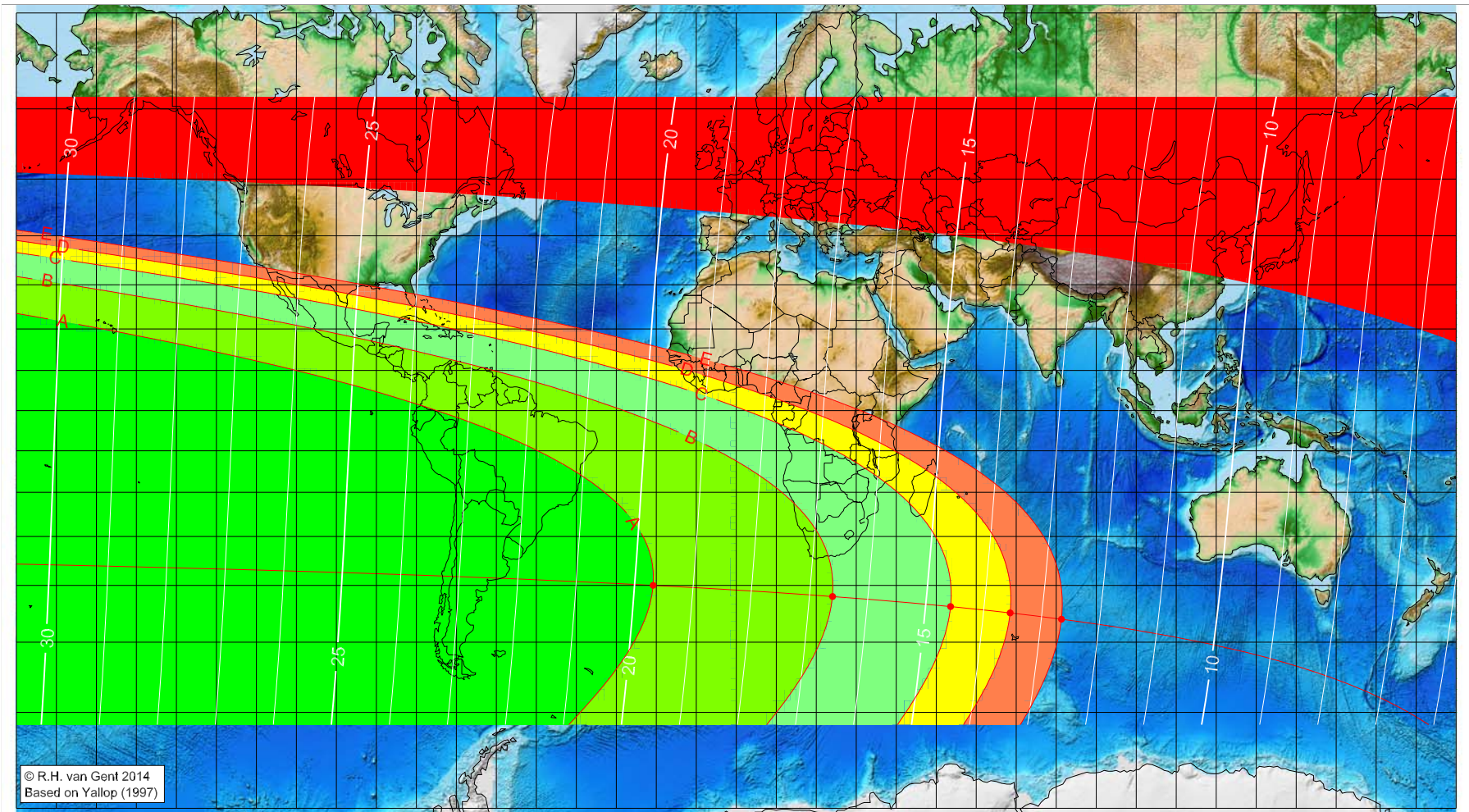
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening

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

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

First visibility lunar crescent for Jumādā 'l-Ākhira 10 AH (proleptic)

Global visibility map for 2 September 631 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 1 September 631, 23h 46.3m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15971
Islamic Lunation Number = 114
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)

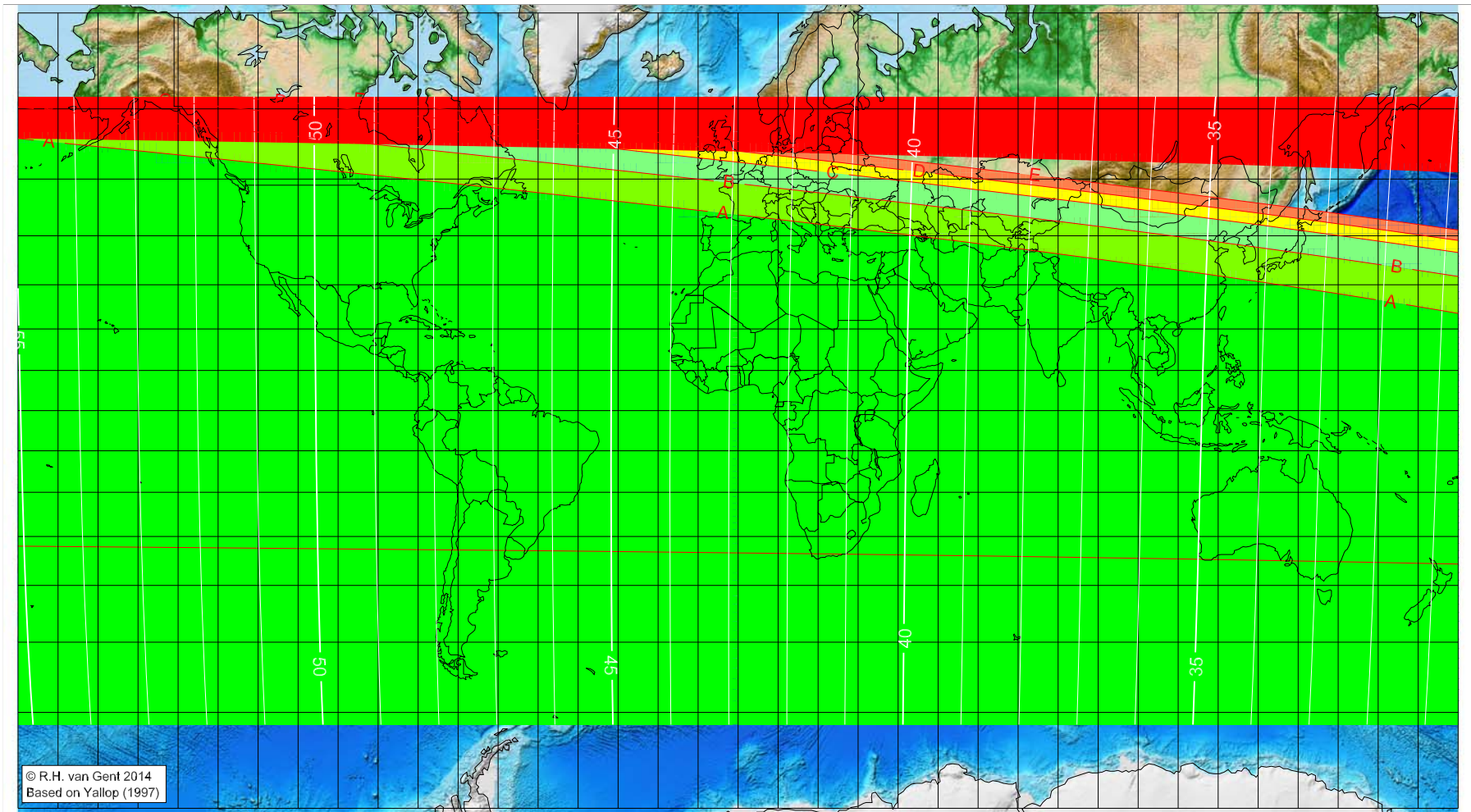
Longitude (°)	Latitude (°)	Lunar age (h)
-20.79	-39.98	19.68
24.07	-42.09	16.60
53.58	-43.93	14.57
68.48	-45.06	13.54
81.31	-46.16	12.65

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 10 AH (proleptic)

Global visibility map for 3 September 631 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 1 September 631, 23h 46.3m (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)

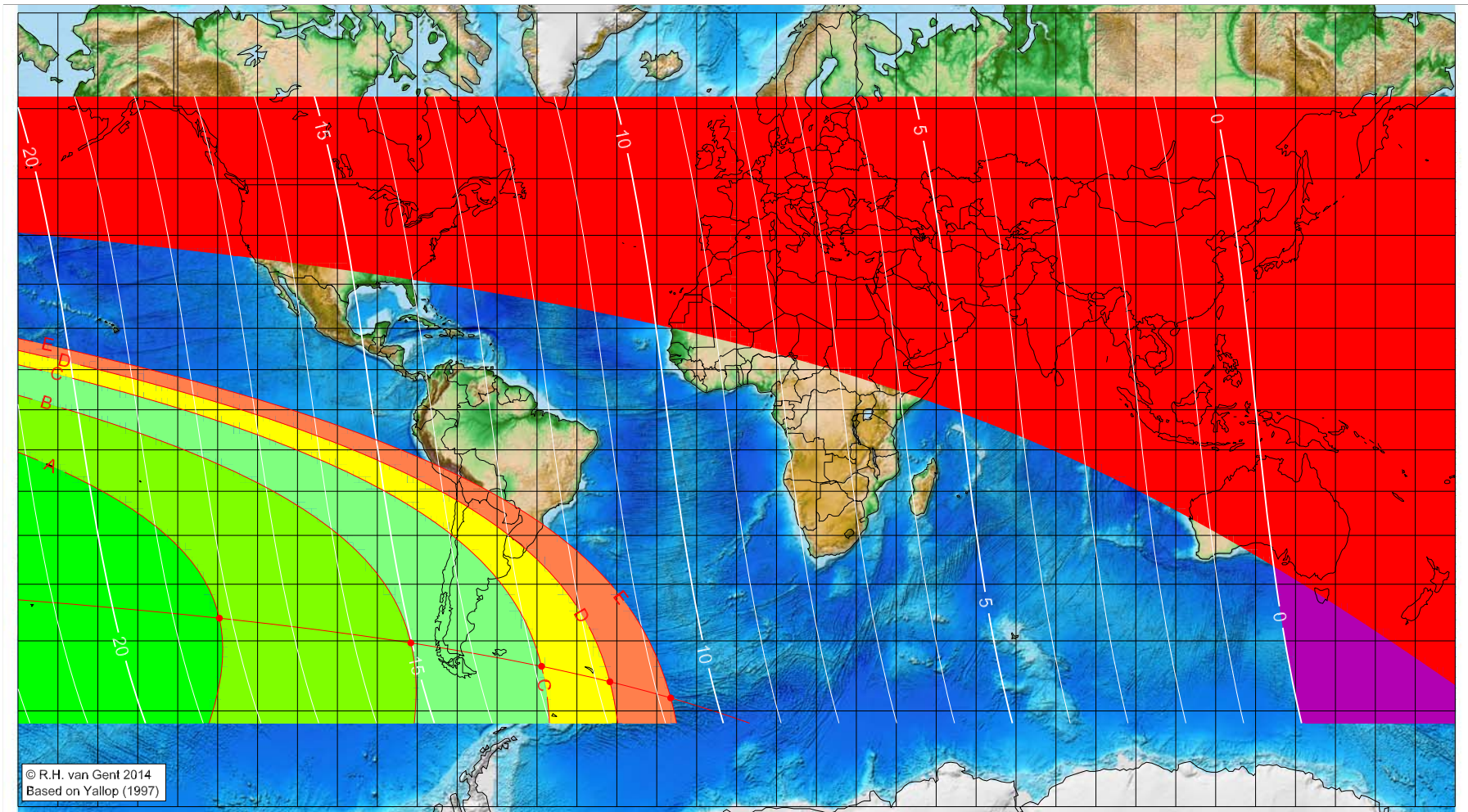
Astronomical (Brown) Lunation Number = -15971
Islamic Lunation Number = 114
TT – UT [= ΔT] = 1.25 h

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 10 AH (proleptic)

Global visibility map for 1 October 631 [Tuesday]
Day of luni-solar conjunction



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Based on Yallop (1997)

Astronomical New Moon: 1 October 631, 9h 7.4m (UTC)

First visibility (●)

	Longitude (°)	Latitude (°)	Lunar age (h)
A	-129.56	-46.20	18.21
B	-81.60	-50.32	15.02
C	-48.86	-53.92	12.87
D	-31.74	-56.14	11.76
E	-16.51	-58.33	10.79

Astronomical (Brown) Lunation Number = -15970
Islamic Lunation Number = 115
TT - UT [= ΔT] = 1.25 h

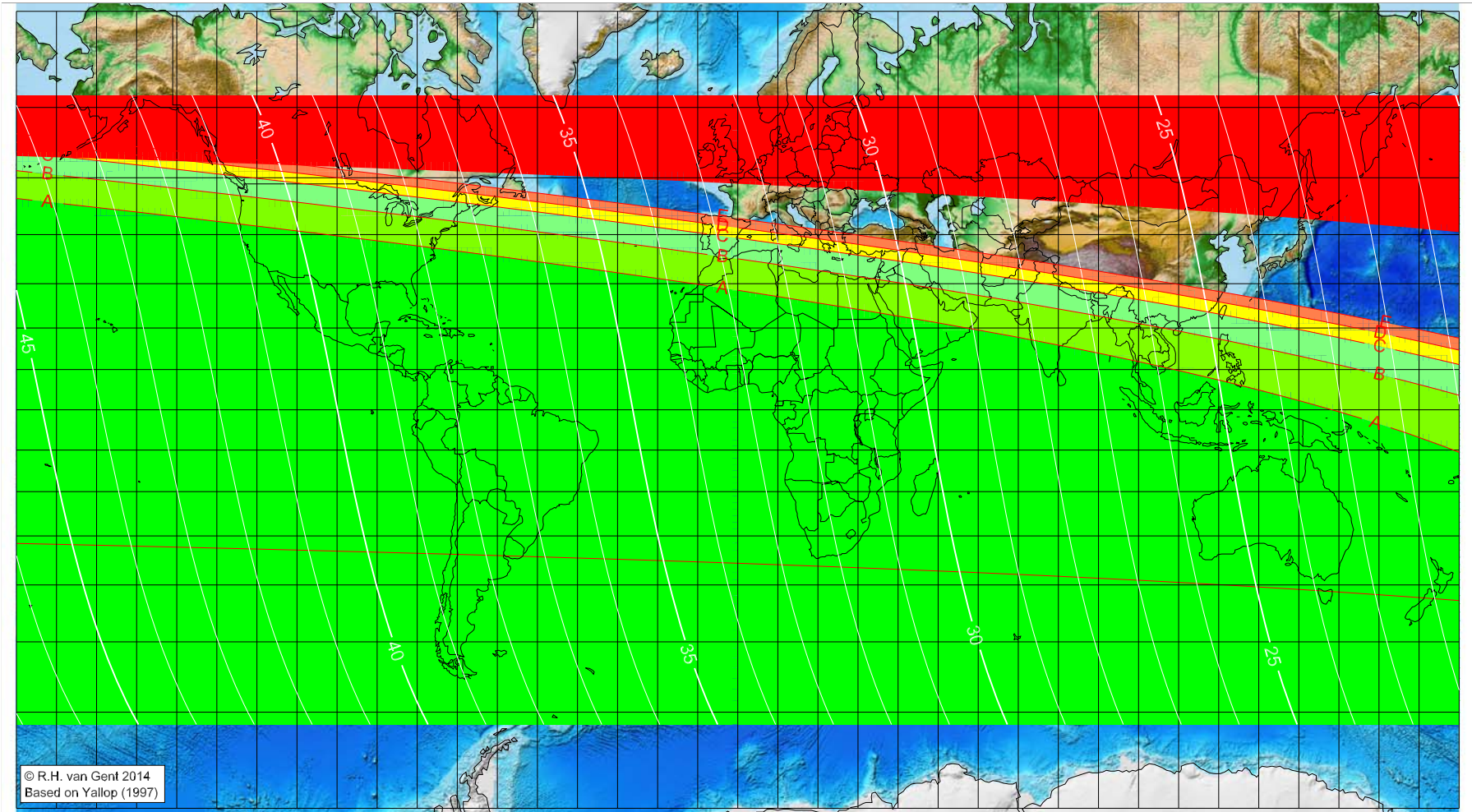
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 Rajab 10 AH (proleptic)

Global visibility map for 2 October 631 [Wednesday]
Day after luni-solar conjunction



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

Astronomical New Moon: 1 October 631, 9h 7.4m (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 = -15970
Islamic Lunation Number = 115
TT - UT [= ΔT] = 1.25 h

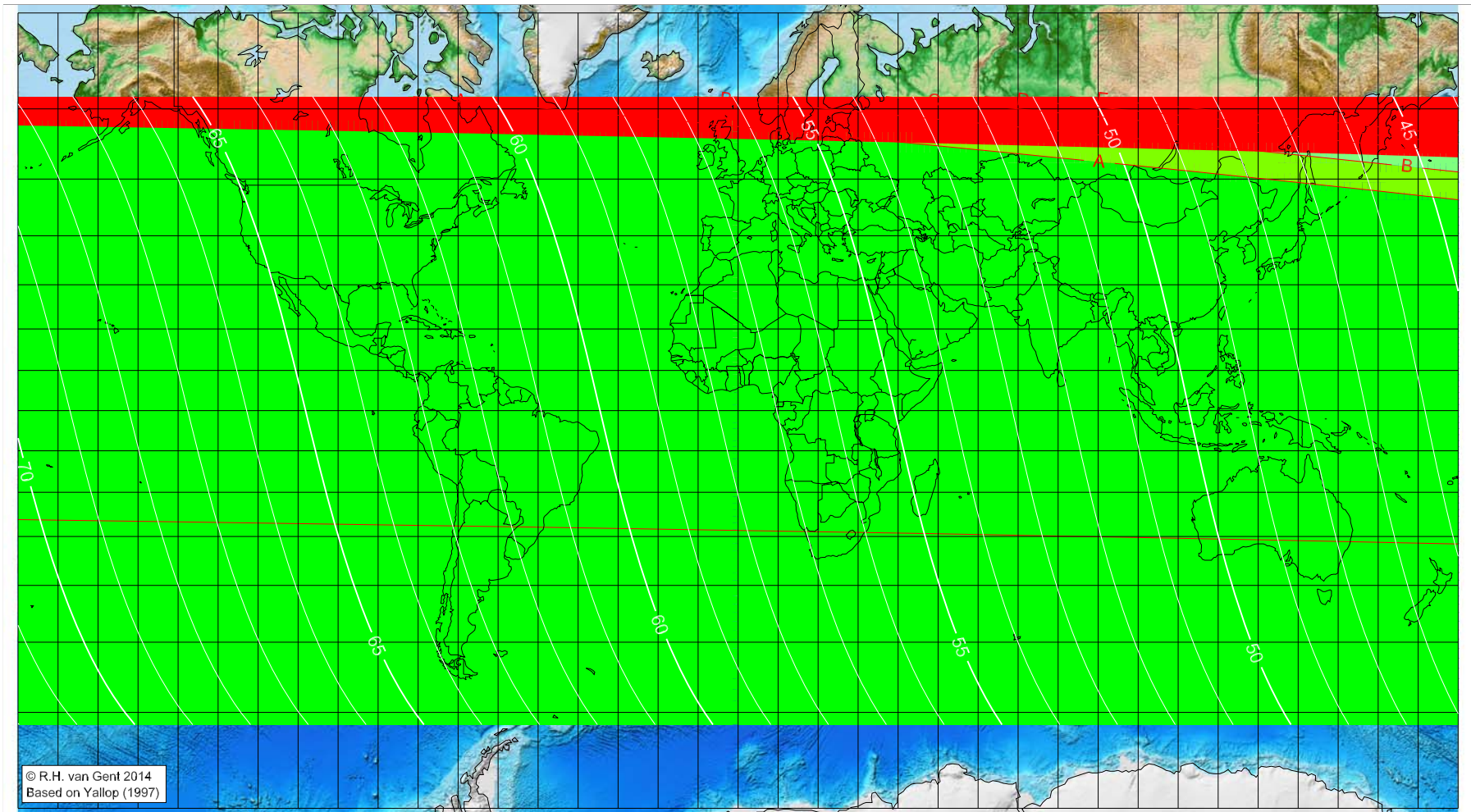
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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 10 AH (proleptic)

Global visibility map for 3 October 631 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 1 October 631, 9h 7.4m (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)

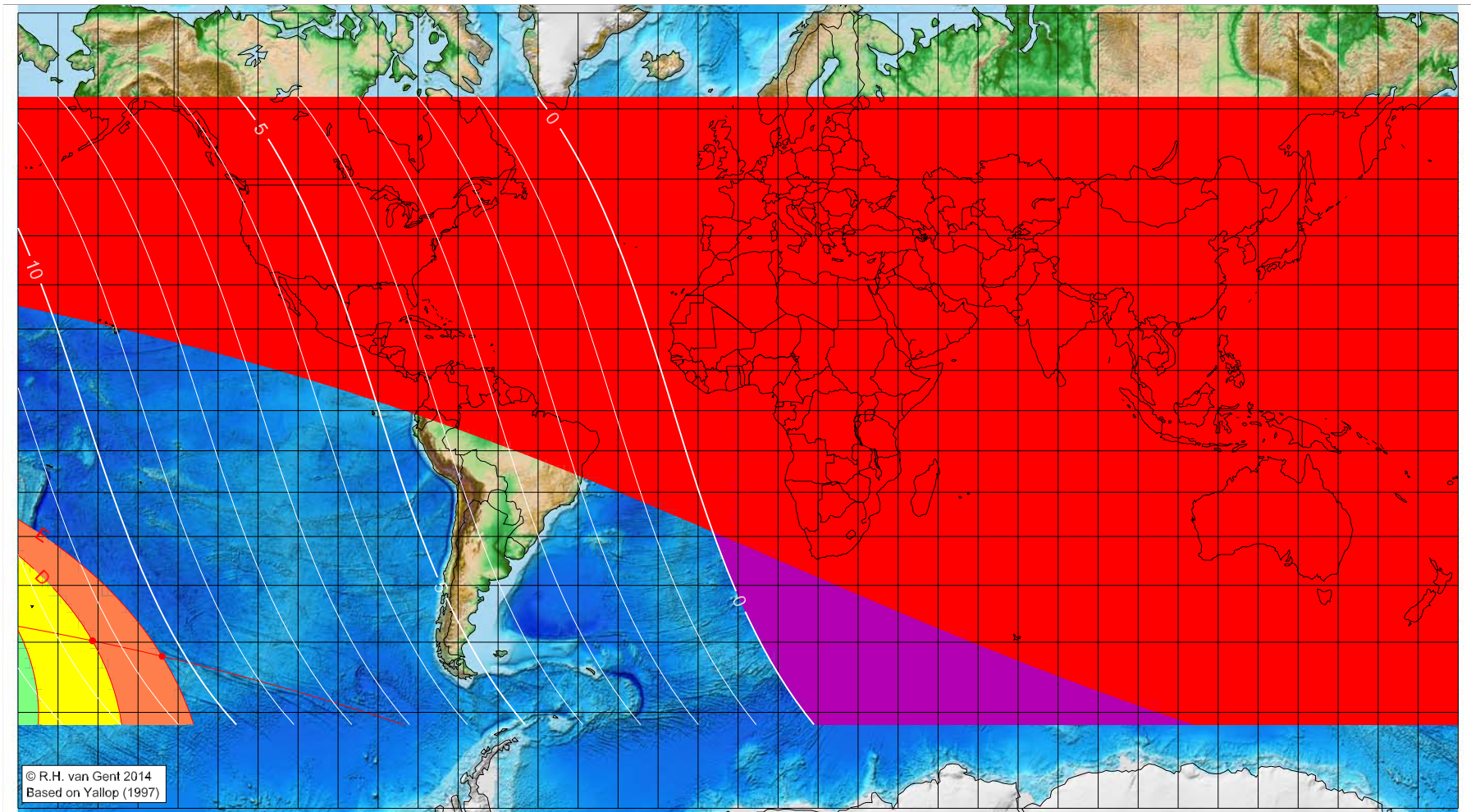
Astronomical (Brown) Lunation Number = -15970
Islamic Lunation Number = 115
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Sha'bān 10 AH (proleptic)

Global visibility map for 30 October 631 [Wednesday]
Day of luni-solar conjunction



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Based on Yallop (1997)

Astronomical New Moon: 30 October 631, 18h 48.4m (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
-161.40	-49.77	11.44
-143.98	-52.20	10.40

Astronomical (Brown) Lunation Number = -15969
Islamic Lunation Number = 116
TT - UT [= ΔT] = 1.25 h

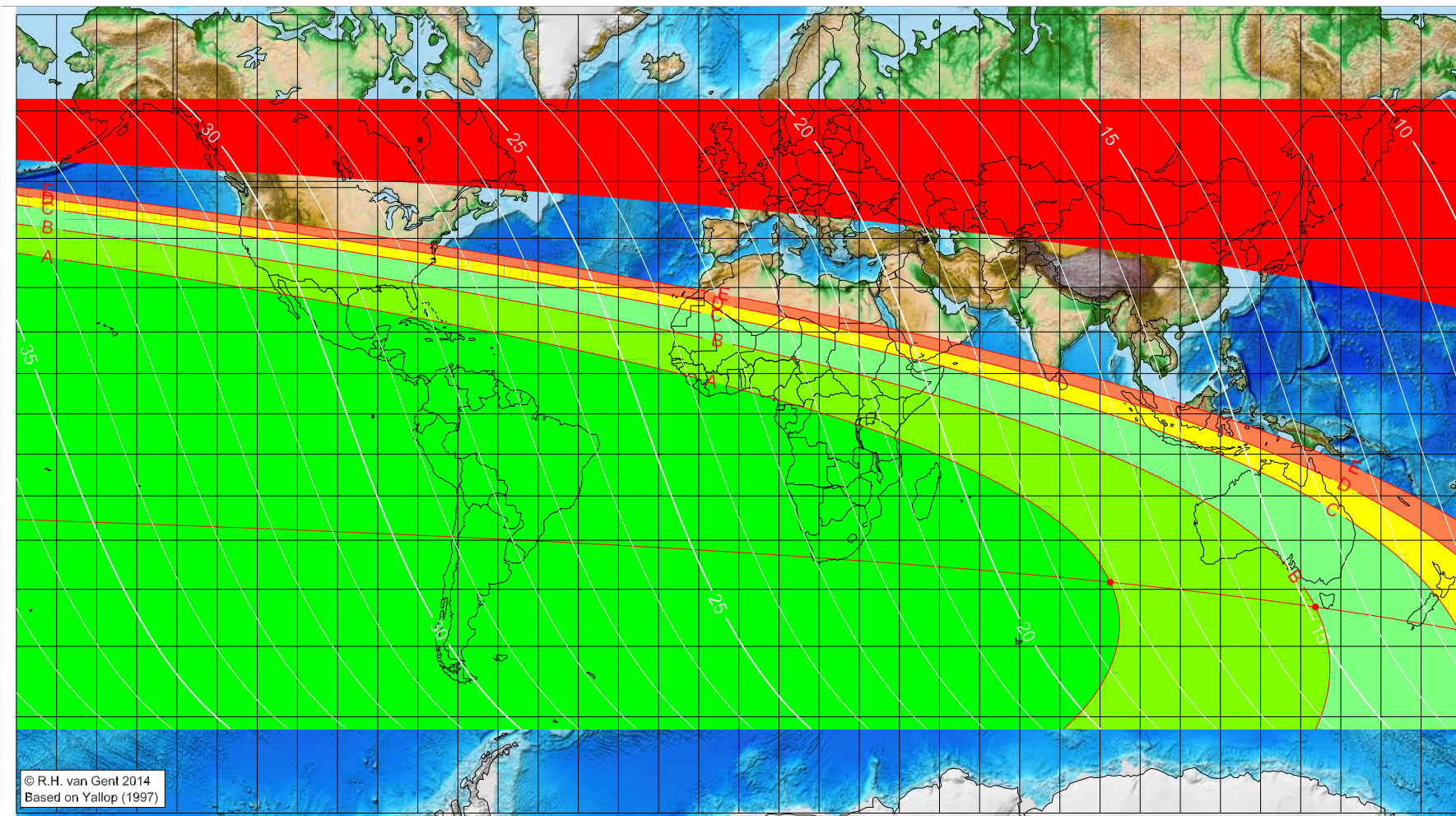
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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 Sha'bān 10 AH (proleptic)

Global visibility map for 31 October 631 [Thursday]
Day after luni-solar conjunction



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

Astronomical New Moon: 30 October 631, 18h 48.4m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15969
Islamic Lunation Number = 116
TT - UT [= ΔT] = 1.25 h

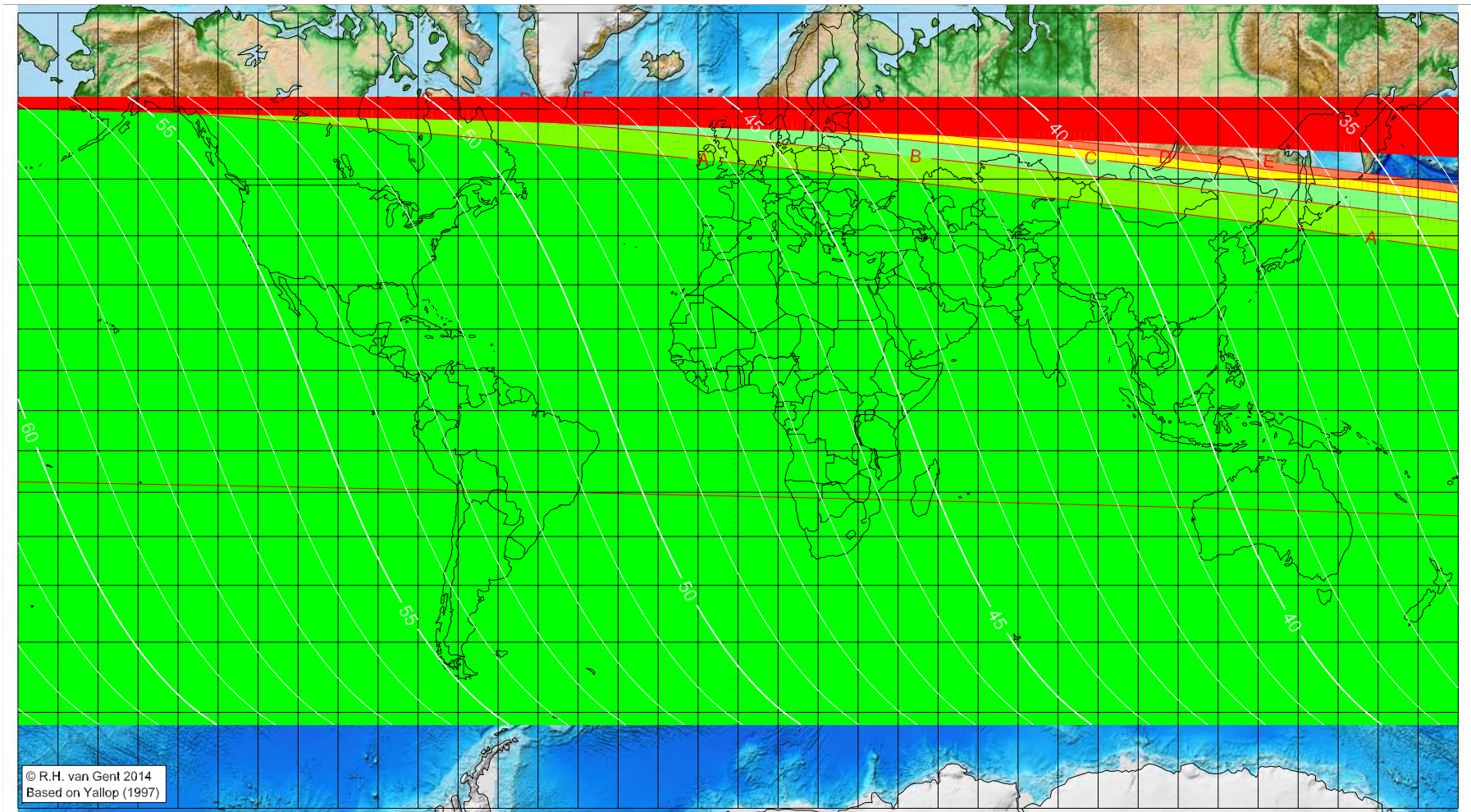
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

Longitude (°)	Latitude (°)	Lunar age (h)
92.55	-38.63	18.15
143.67	-43.27	14.86
179.43	-47.31	12.61
visible on the previous evening		
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

First visibility lunar crescent for Sha'bān 10 AH (proleptic)

Global visibility map for 1 November 631 [Friday]
Second day after luni-solar conjunction



Astronomical New Moon: 30 October 631, 18h 48.4m (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)

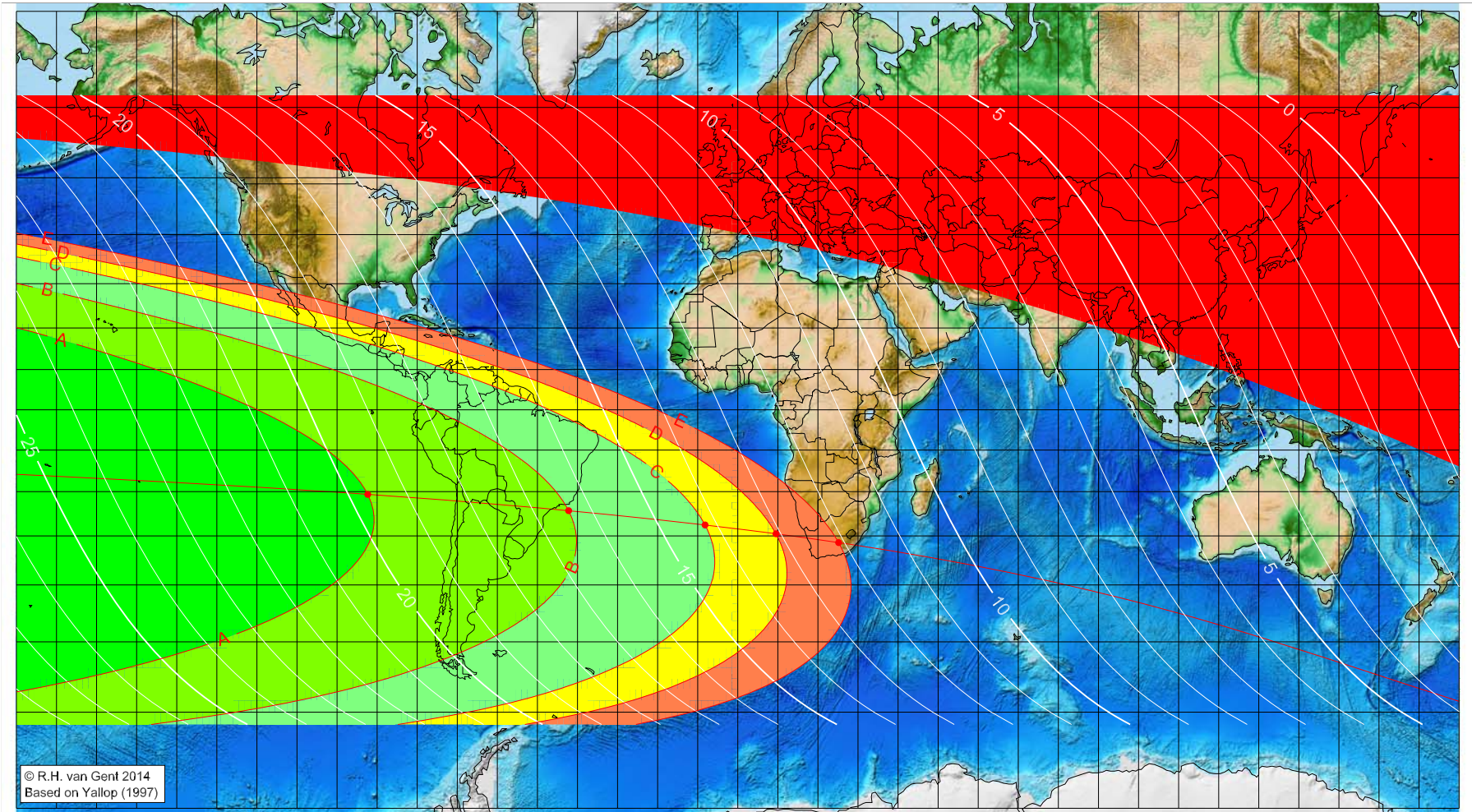
Astronomical (Brown) Lunation Number = -15969
Islamic Lunation Number = 116
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Ramaḍān 10 AH (proleptic)

Global visibility map for 29 November 631 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 29 November 631, 5h 24.5m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15968
Islamic Lunation Number = 117
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)

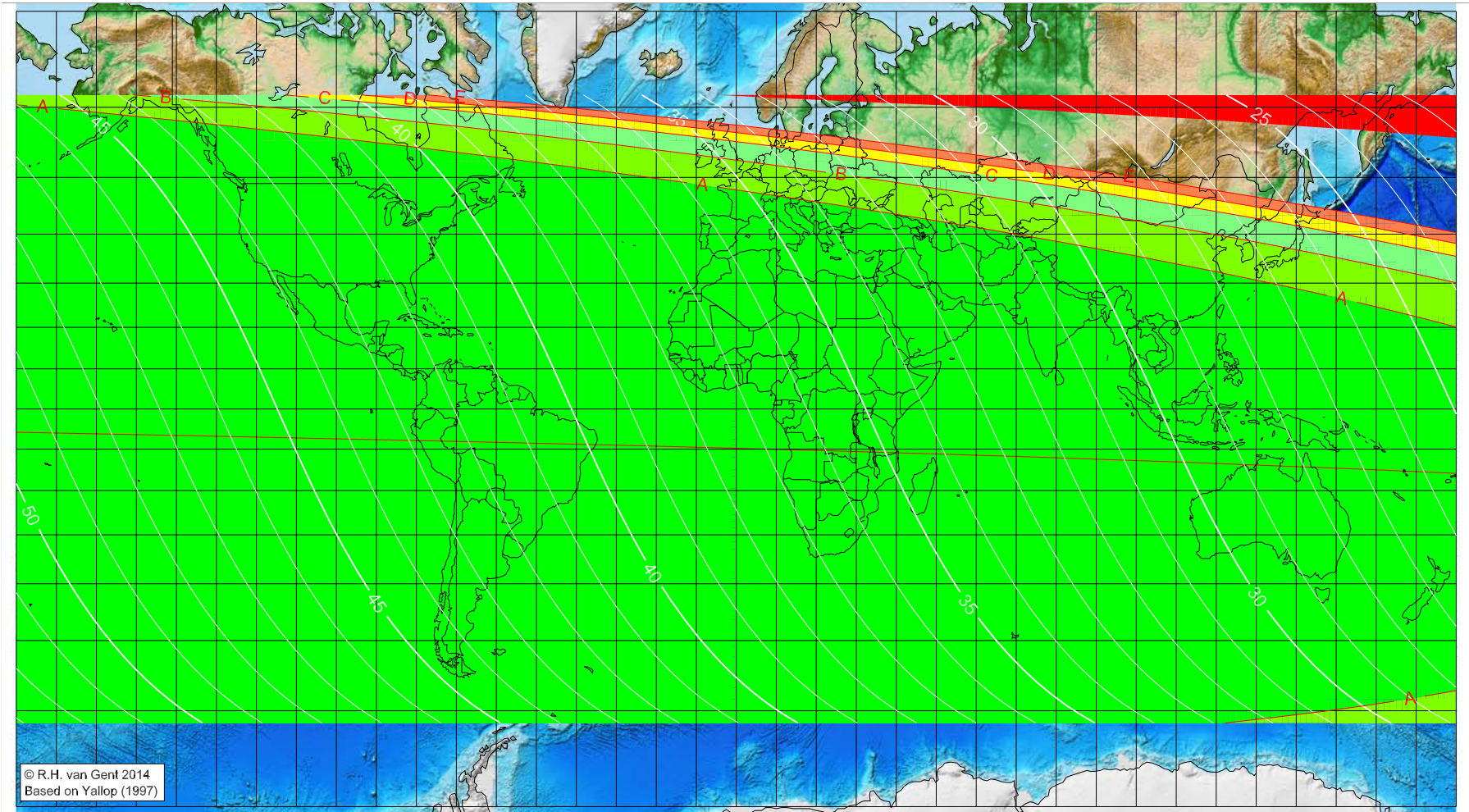
Longitude (°)	Latitude (°)	Lunar age (h)
-92.34	-20.65	19.67
-42.21	-24.40	16.40
-8.17	-27.60	14.21
9.53	-29.54	13.08
25.17	-31.43	12.10

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 10 AH (proleptic)

Global visibility map for 30 November 631 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 29 November 631, 5h 24.5m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15968
Islamic Lunation Number = 117
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)

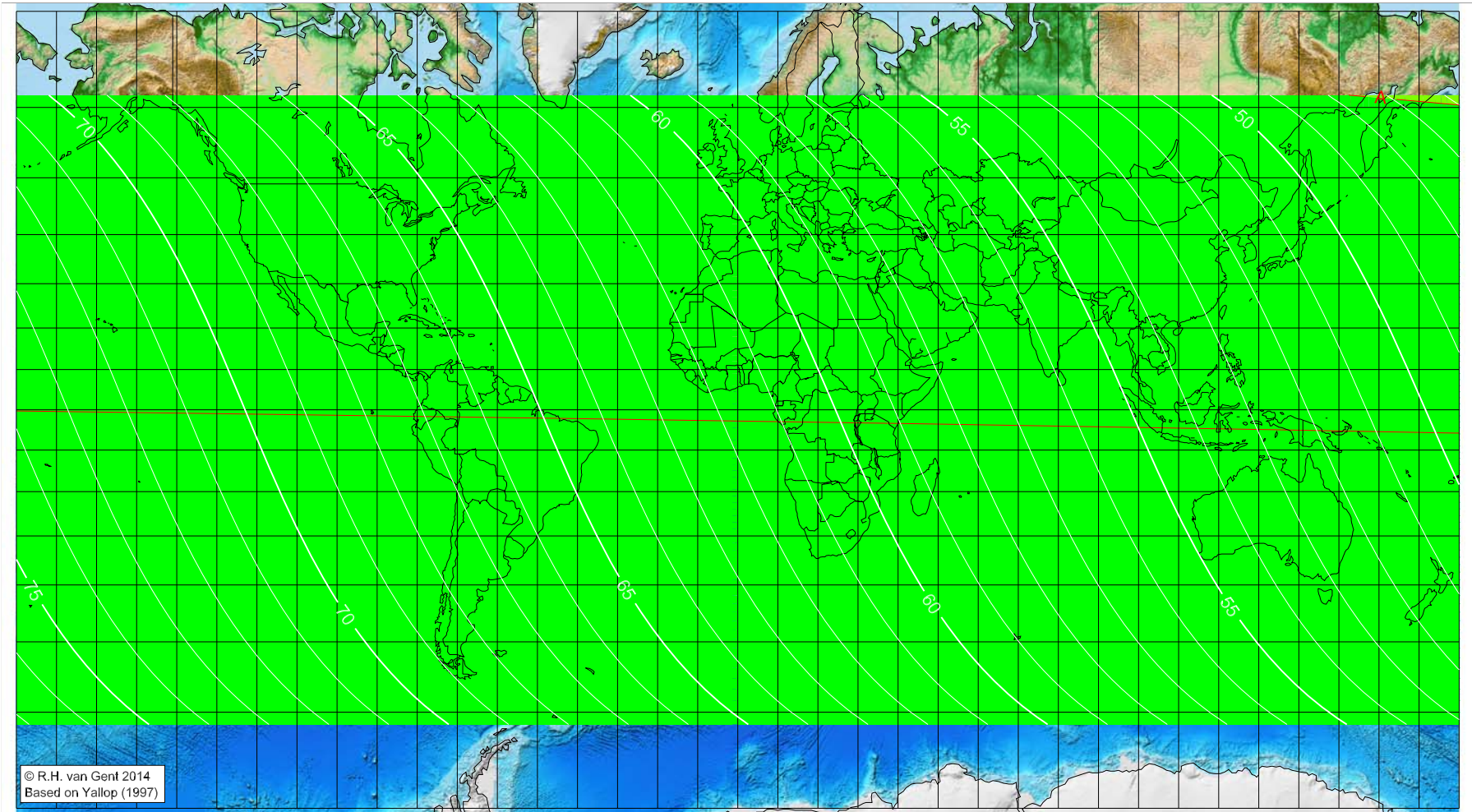
Longitude (°) Latitude (°) Lunar age (h)
visible on the previous evening
visible on the previous evening
visible on the previous evening
visible on the previous evening
visible on the previous evening

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 10 AH (proleptic)

Global visibility map for 1 December 631 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 29 November 631, 5h 24.5m (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)

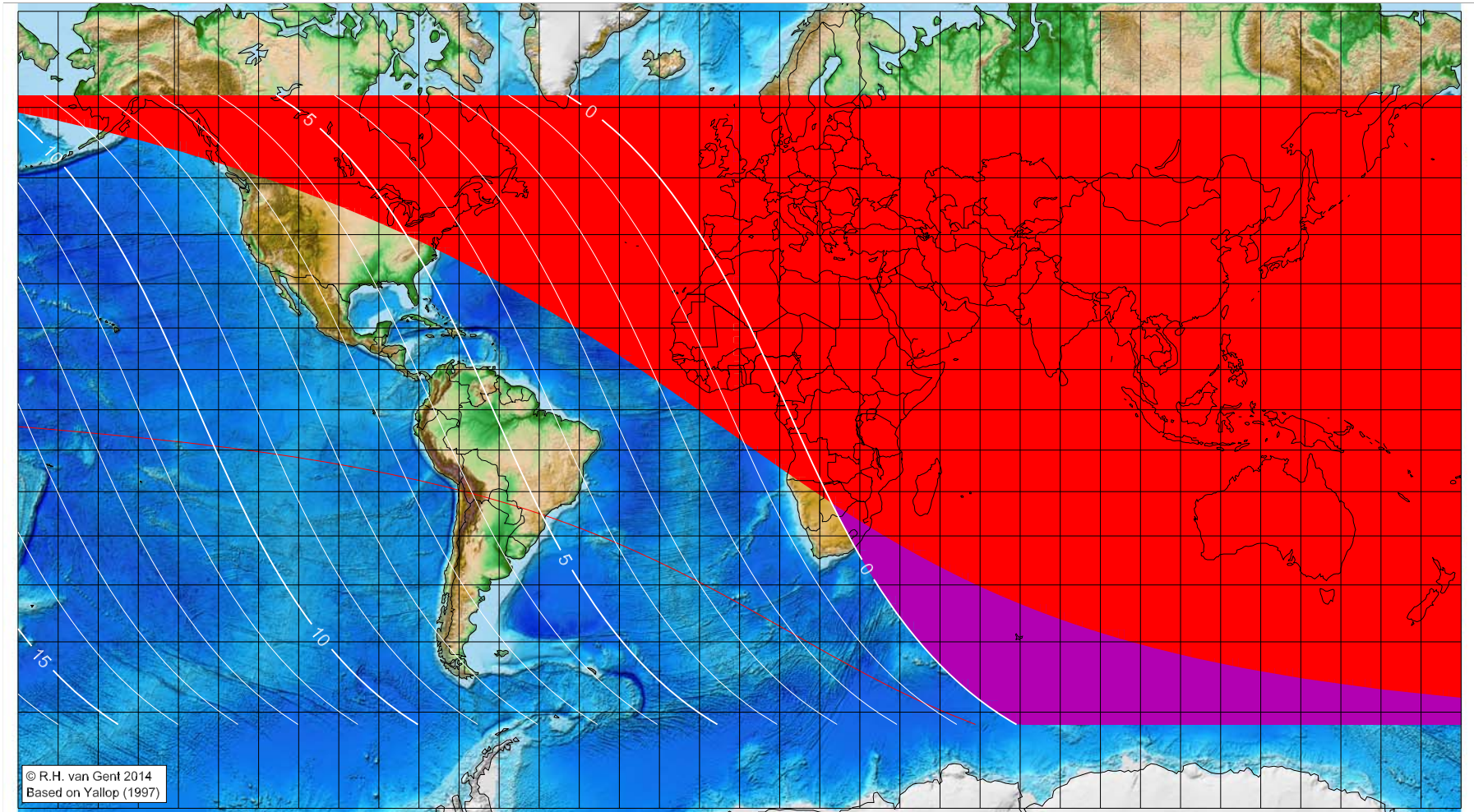
Astronomical (Brown) Lunation Number = -15968
Islamic Lunation Number = 117
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 10 AH (proleptic)

Global visibility map for 28 December 631 [Saturday]
Day of luni-solar conjunction



Astronomical New Moon: 28 December 631, 17h 19.8m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15967
Islamic Lunation Number = 118
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

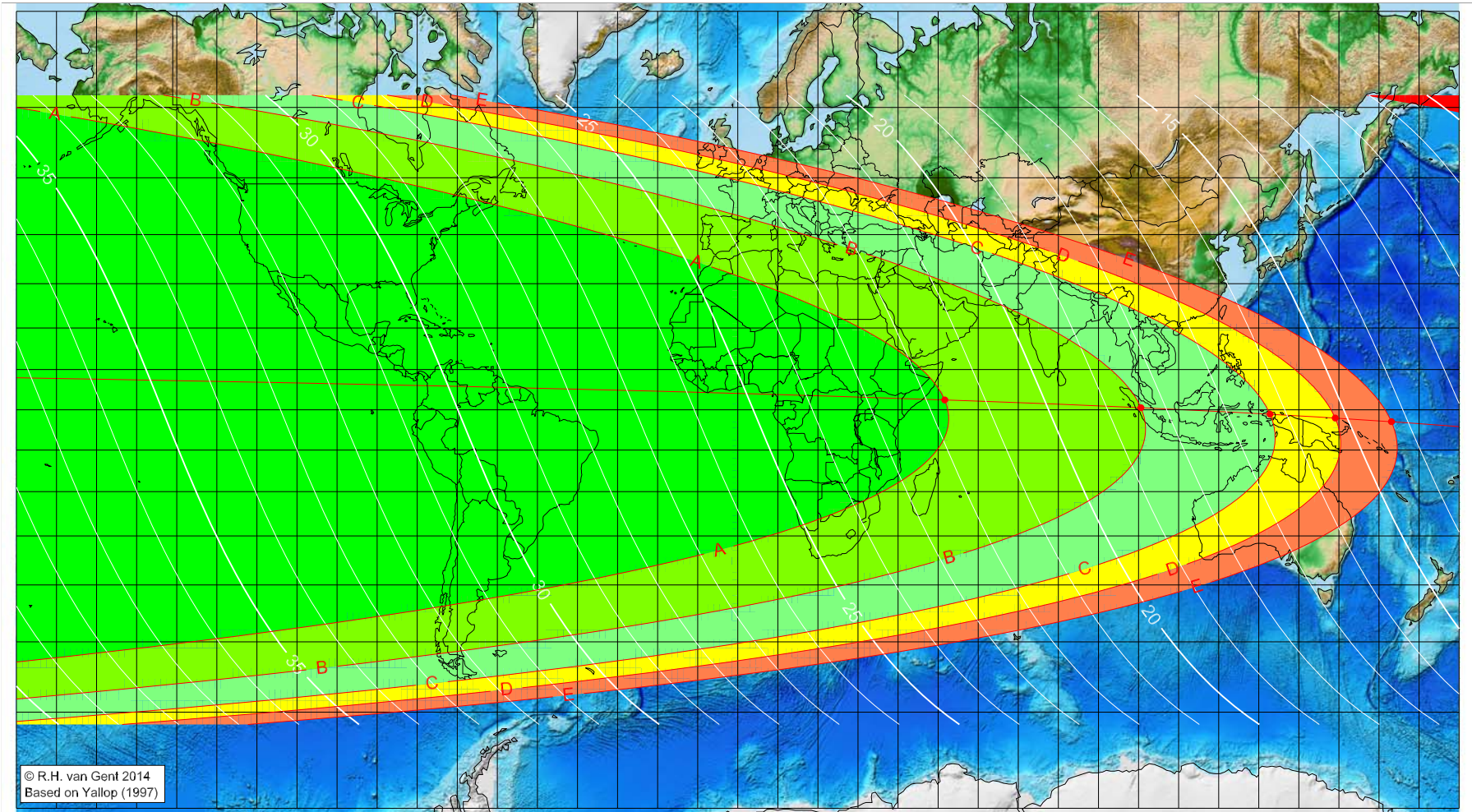
Longitude (°) Latitude (°) Lunar age (h)
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Shawwāl 10 AH (proleptic)

Global visibility map for 29 December 631 [Sunday]
Day after luni-solar conjunction



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

Astronomical New Moon: 28 December 631, 17h 19.8m (UTC)

First visibility (•)

	Longitude (°)	Latitude (°)	Lunar age (h)
A	51.64	2.46	21.69
B	100.61	0.51	18.42
C	132.80	-1.10	16.28
D	149.08	-2.05	15.21
E	163.11	-2.96	14.28

Astronomical (Brown) Lunation Number = -15967
Islamic Lunation Number = 118
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°)

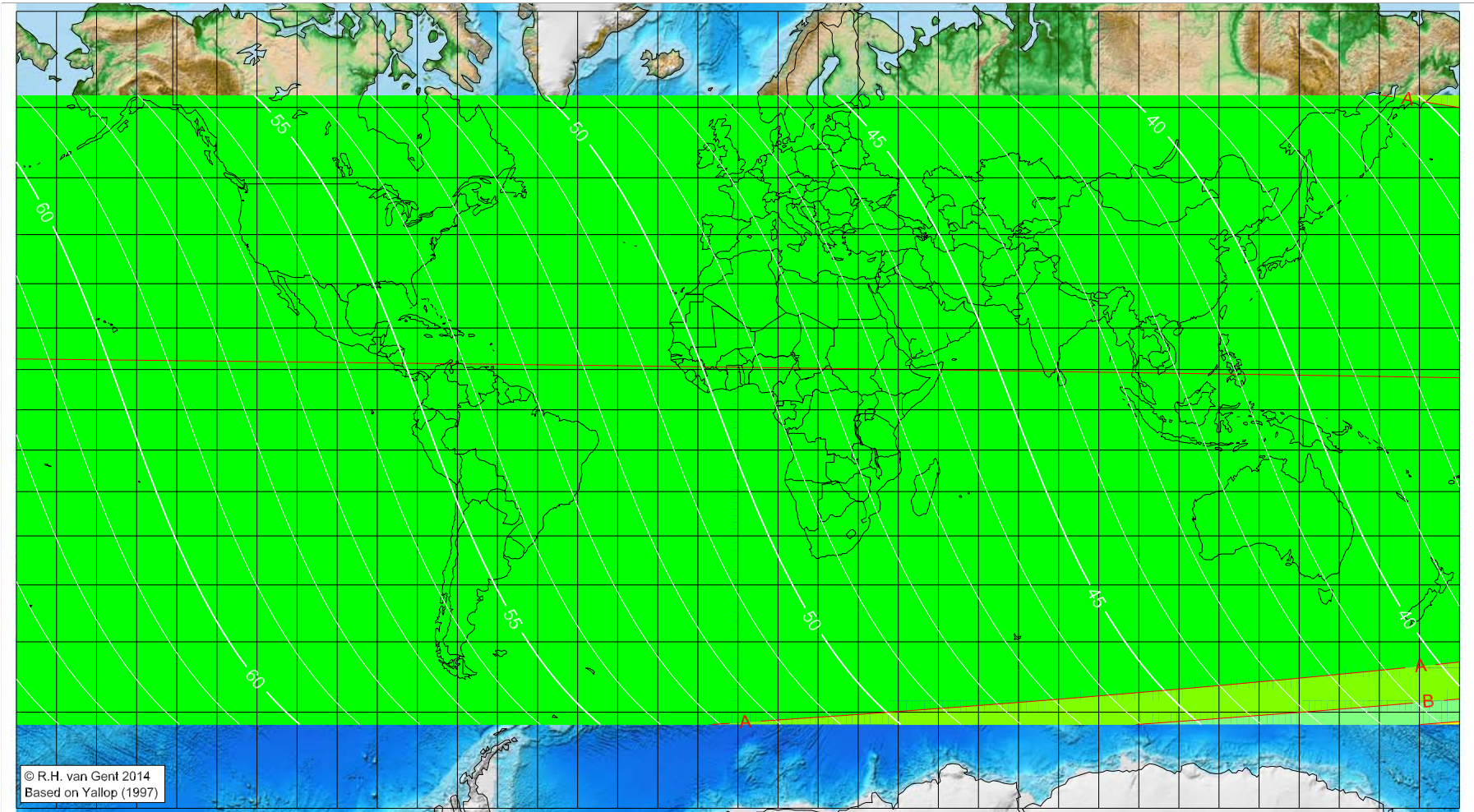
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

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

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

First visibility lunar crescent for Shawwāl 10 AH (proleptic)

Global visibility map for 30 December 631 [Monday]
 Second day after luni-solar conjunction



Astronomical New Moon: 28 December 631, 17h 19.8m (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)

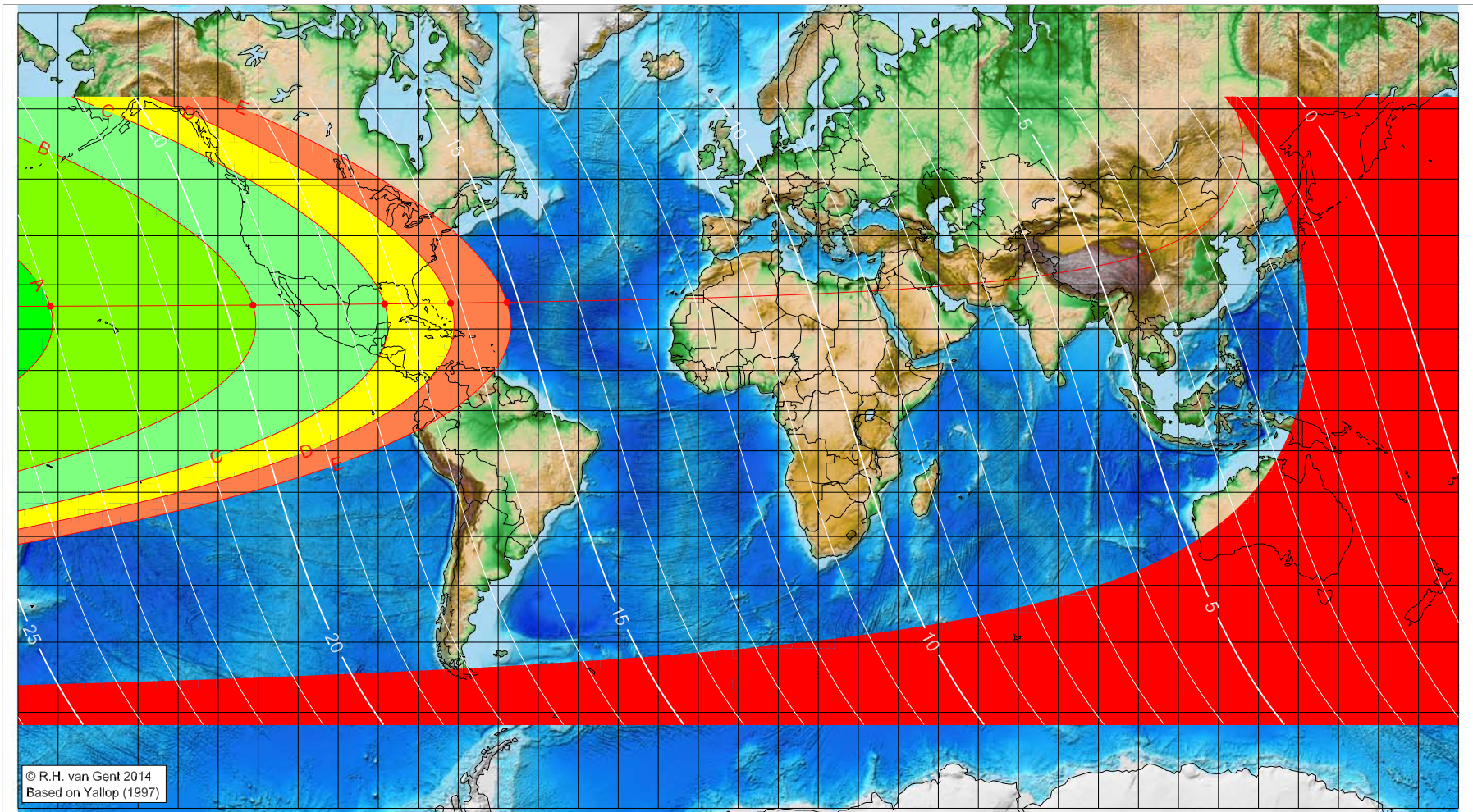
Astronomical (Brown) Lunation Number = -15967
 Islamic Lunation Number = 118
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 10 AH (proleptic)

Global visibility map for 27 January 632 [Monday]
Day of luni-solar conjunction



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

Astronomical New Moon: 27 January 632, 6h 37.6m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15966
Islamic Lunation Number = 119
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)

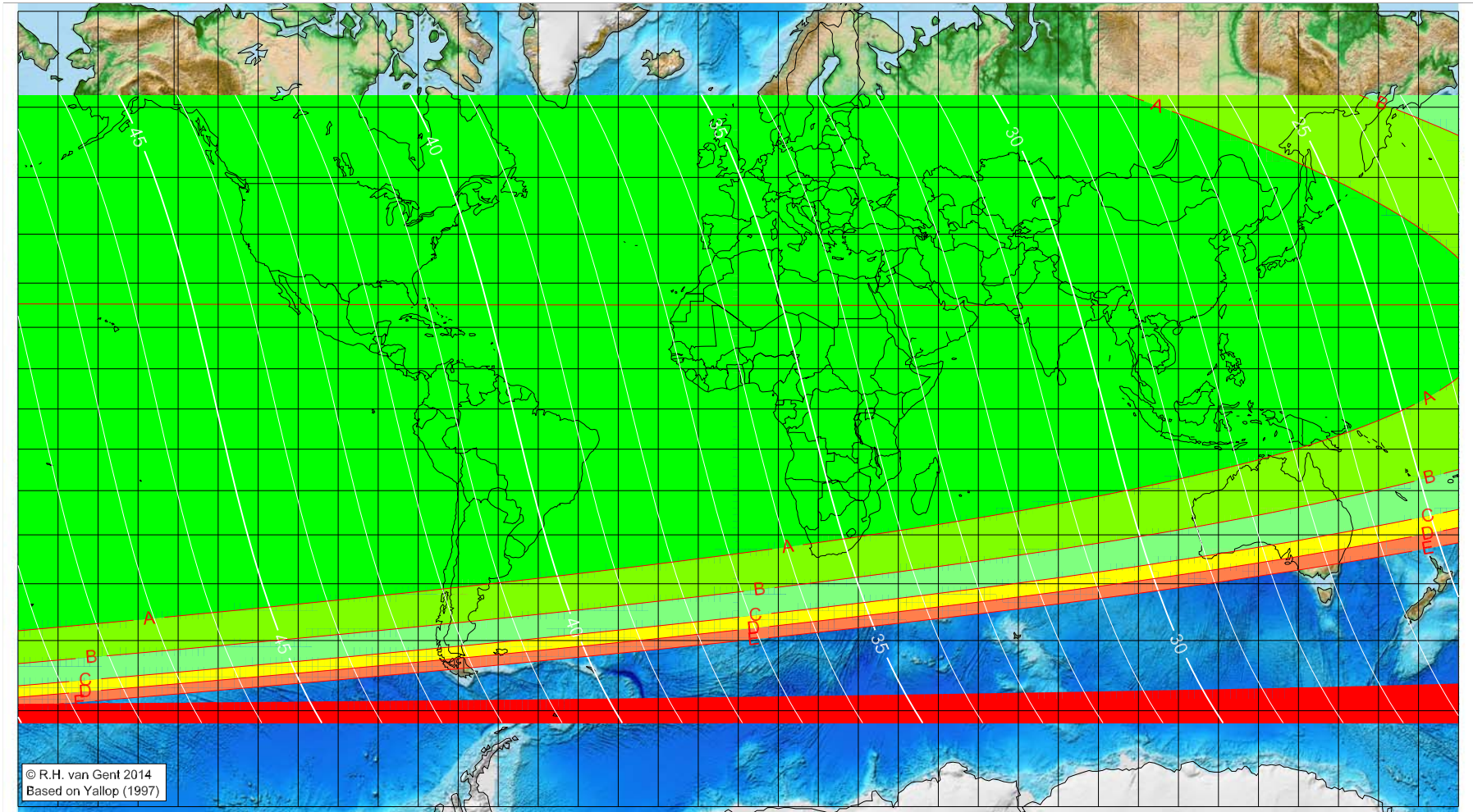
Longitude (°)	Latitude (°)	Lunar age (h)
-171.96	25.23	22.98
-121.30	25.49	19.53
-88.38	25.76	17.29
-71.90	25.94	16.17
-57.80	26.12	15.21

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 10 AH (proleptic)

Global visibility map for 28 January 632 [Tuesday]
Day after luni-solar conjunction



Astronomical New Moon: 27 January 632, 6h 37.6m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15966
Islamic Lunation Number = 119
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)

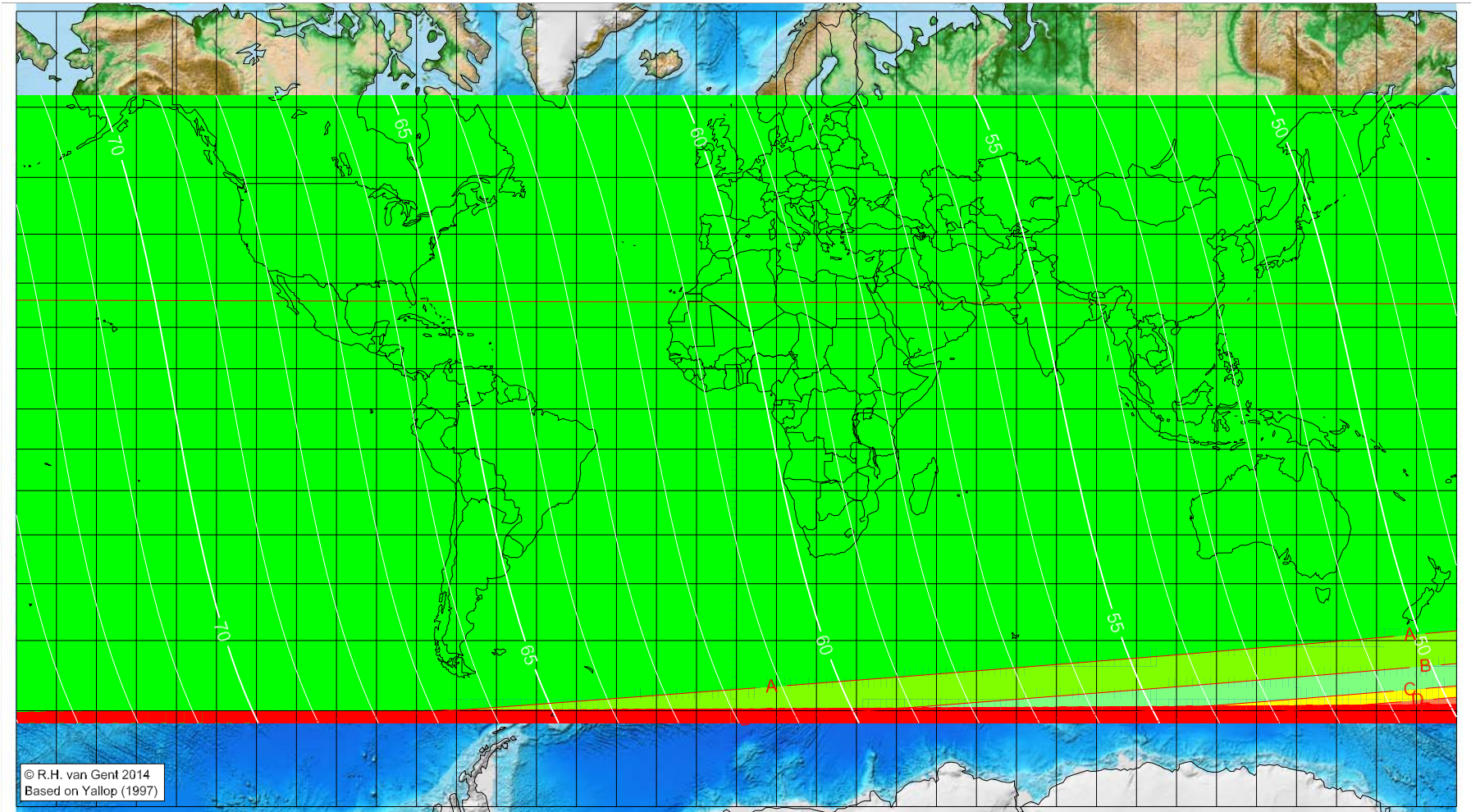
Longitude (°)	Latitude (°)	Lunar age (h)
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

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 Dhū 'l-Qa'da 10 AH (proleptic)

Global visibility map for 29 January 632 [Wednesday]
 Second day after luni-solar conjunction



Astronomical New Moon: 27 January 632, 6h 37.6m (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)

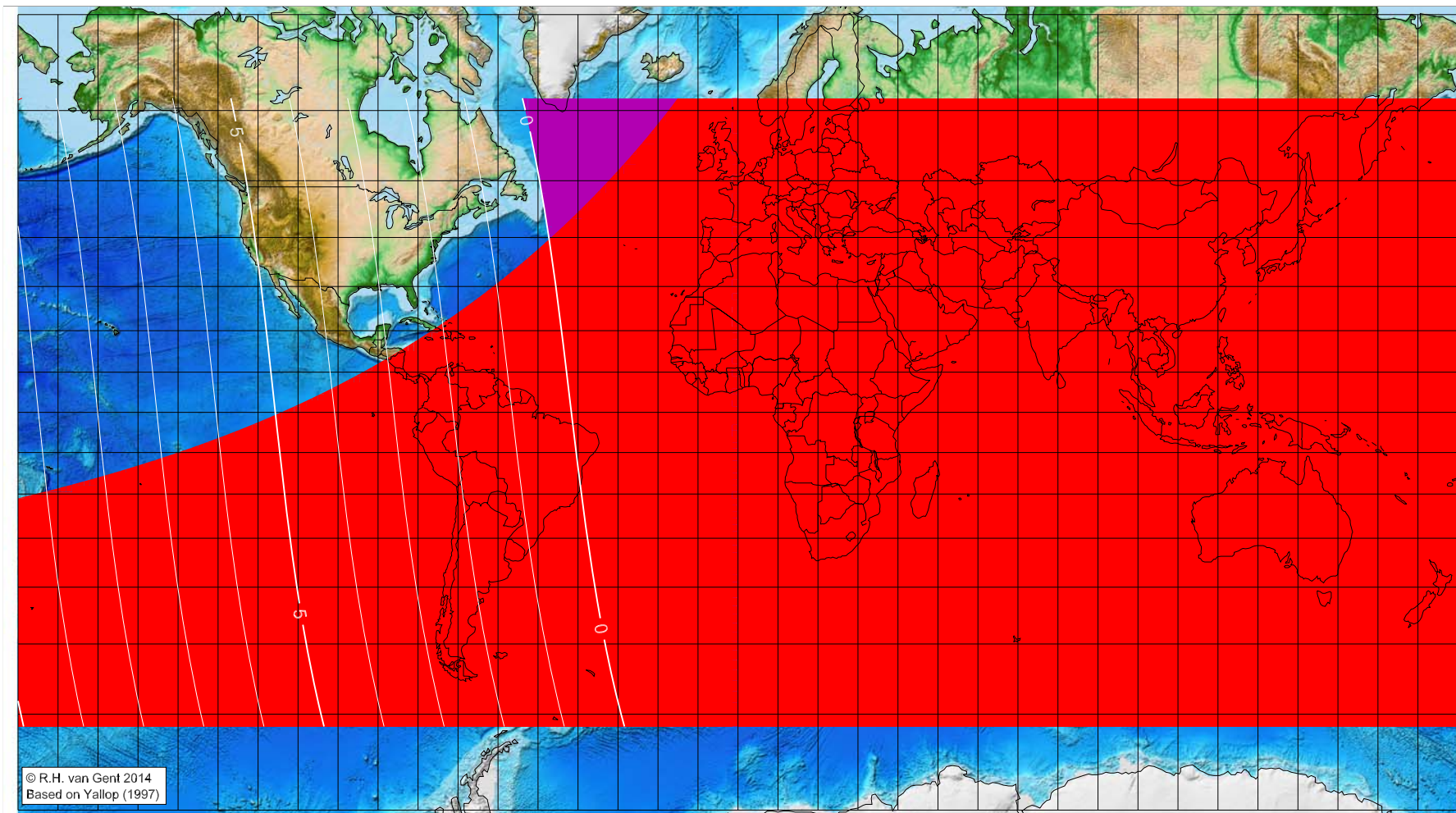
Astronomical (Brown) Lunation Number = -15966
 Islamic Lunation Number = 119
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 10 AH (proleptic)

Global visibility map for 25 February 632 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 25 February 632, 21h 0.3m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15965
Islamic Lunation Number = 120
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)

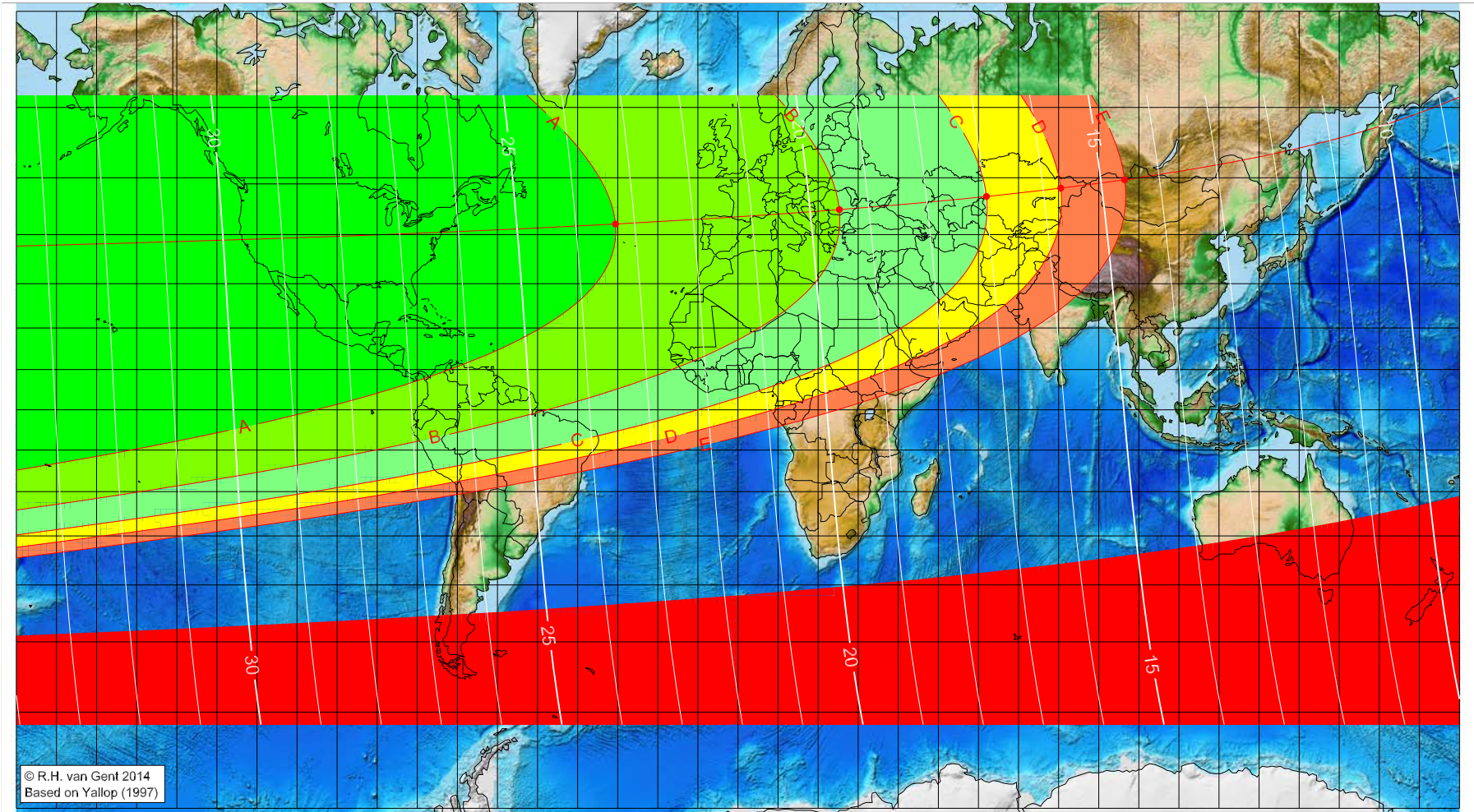
Longitude (°) Latitude (°) Lunar age (h)
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening

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

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

First visibility lunar crescent for Dhū 'l-Hijja 10 AH (proleptic)

Global visibility map for 26 February 632 [Wednesday]
Day after luni-solar conjunction



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Based on Yallop (1997)

Astronomical New Moon: 25 February 632, 21h 0.3m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-30.54	42.00	23.32
25.31	44.61	19.50
61.99	46.90	16.98
80.52	48.30	15.70
96.47	49.68	14.59

Astronomical (Brown) Lunation Number = -15965
Islamic Lunation Number = 120
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°)

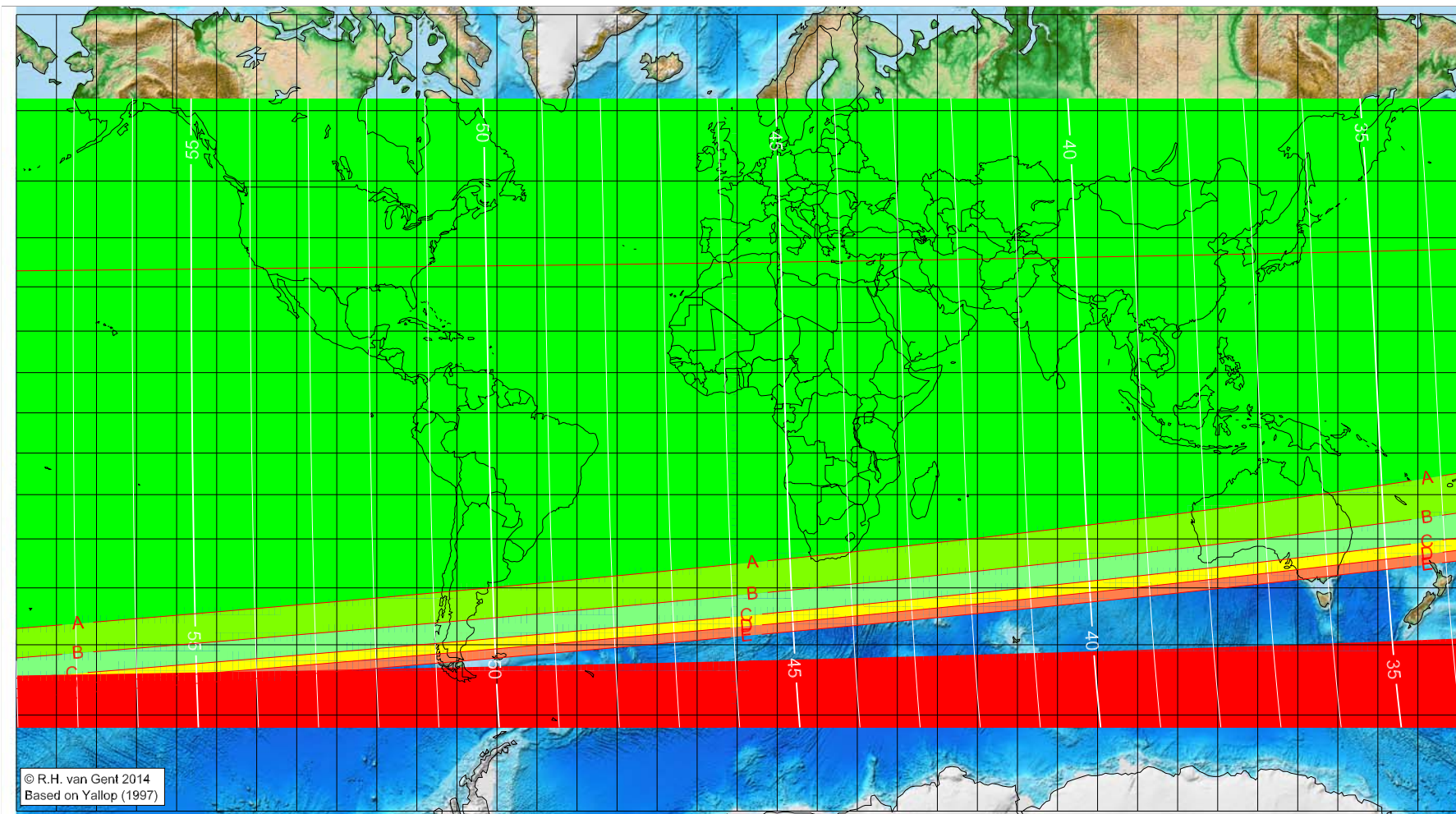
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

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

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

First visibility lunar crescent for Dhū 'l-Hijja 10 AH (proleptic)

Global visibility map for 27 February 632 [Thursday]
 Second day after luni-solar conjunction



Astronomical New Moon: 25 February 632, 21h 0.3m (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 = -15965
 Islamic Lunation Number = 120
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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/>