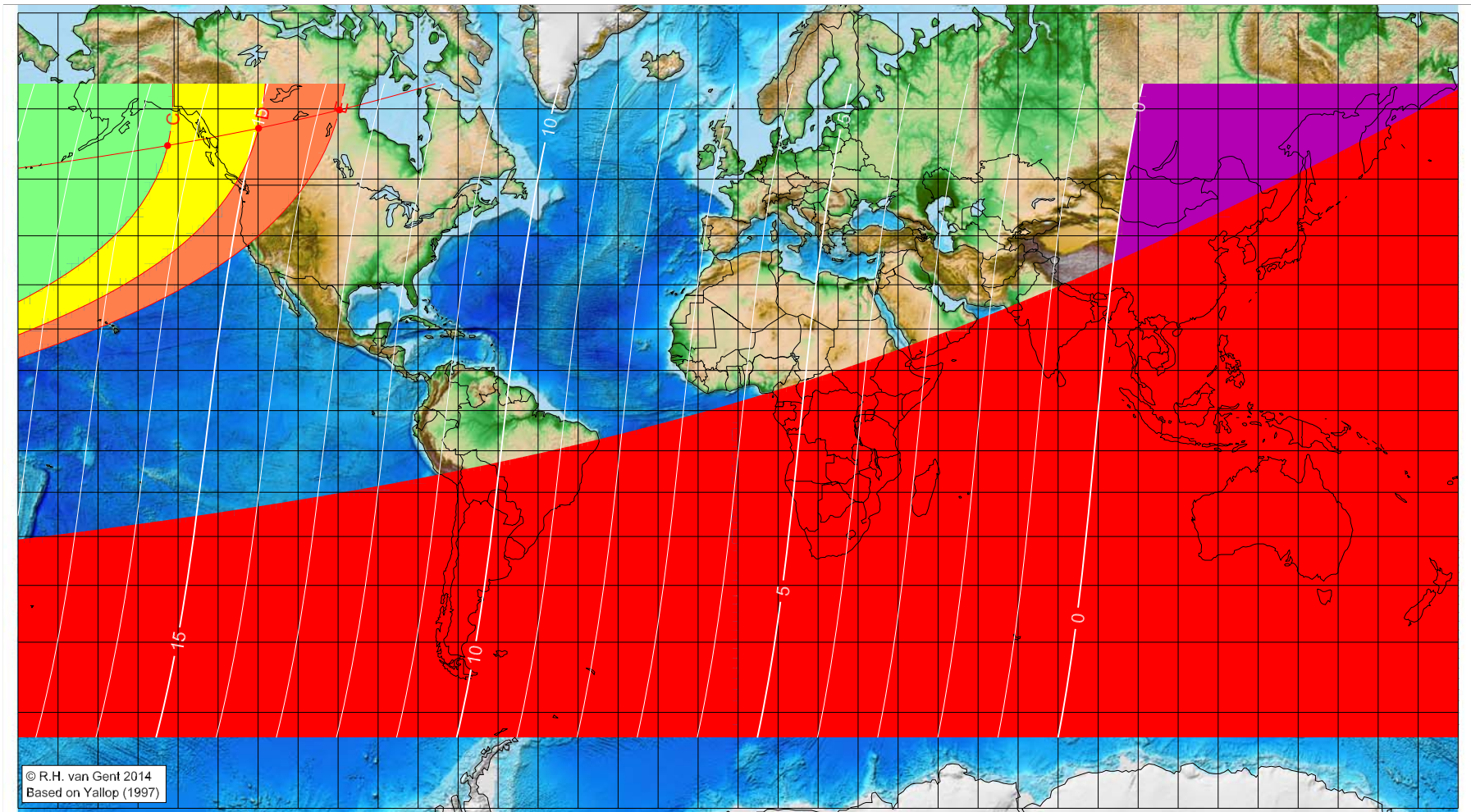


First visibility lunar crescent for Muḥarram 11 AH

Global visibility map for 26 March 632 [Thursday]
Day of luni-solar conjunction



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

Astronomical New Moon: 26 March 632, 12h 2.9m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-142.62	55.08	16.43
-119.88	57.48	14.95
-99.66	59.86	13.65

Astronomical (Brown) Lunation Number = -15964
Islamic Lunation Number = 121
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

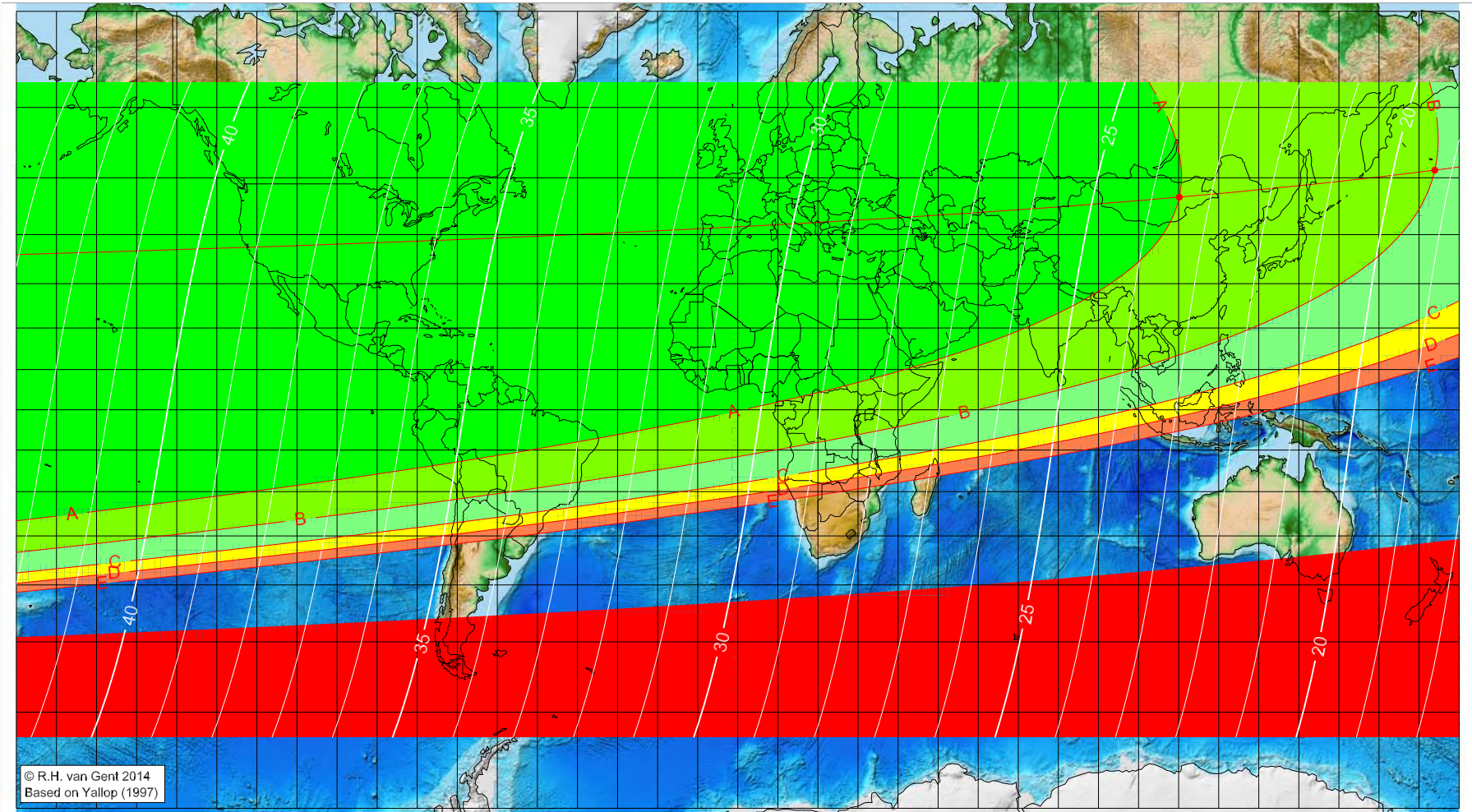
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Muḥarram 11 AH

Global visibility map for 27 March 632 [Friday]
Day after luni-solar conjunction



Astronomical New Moon: 26 March 632, 12h 2.9m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
110.17	46.79	23.53
173.93	51.20	19.29
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

Astronomical (Brown) Lunation Number = -15964
Islamic Lunation Number = 121
TT - UT [= ΔT] = 1.25 h

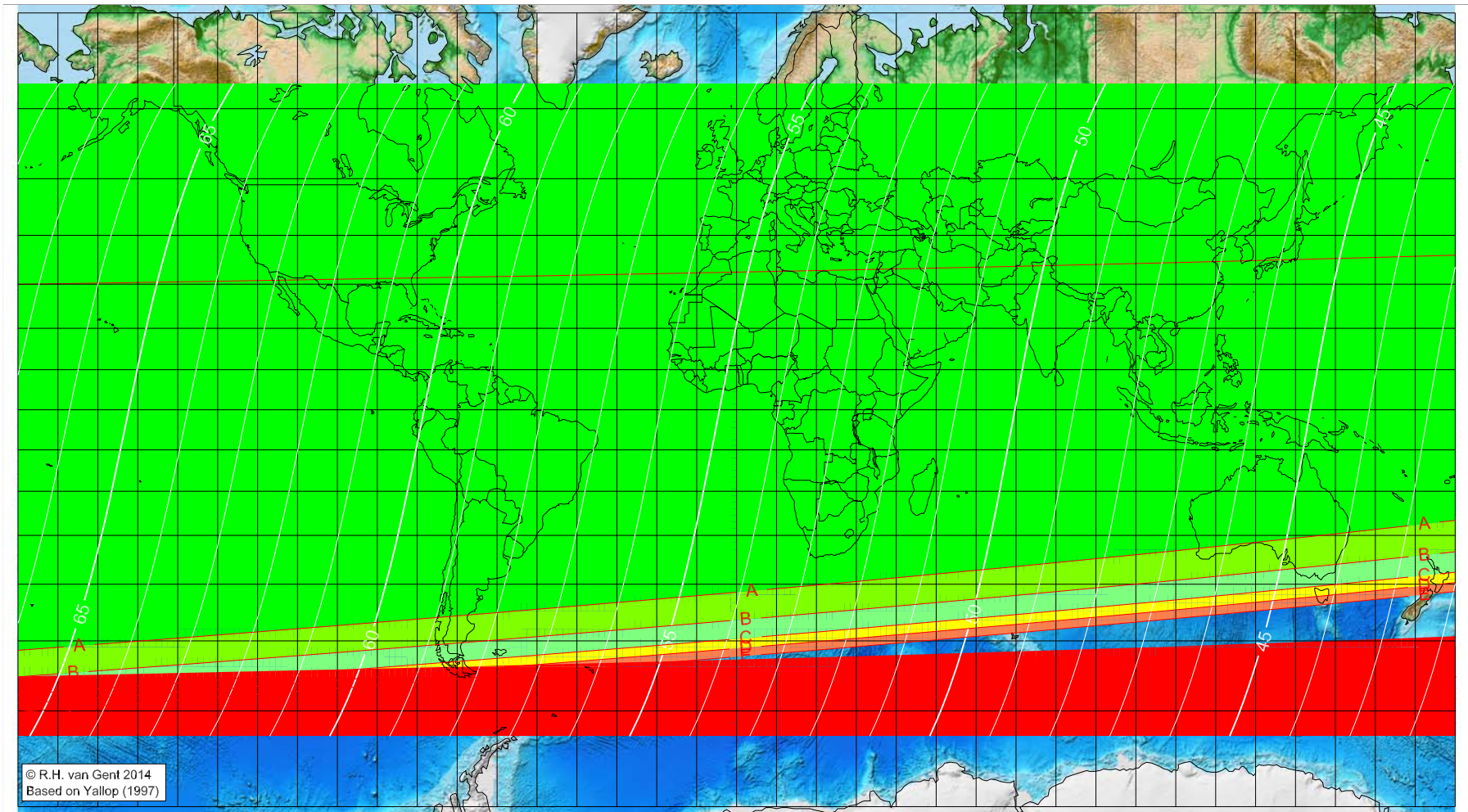
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 11 AH

Global visibility map for 28 March 632 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 26 March 632, 12h 2.9m (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)

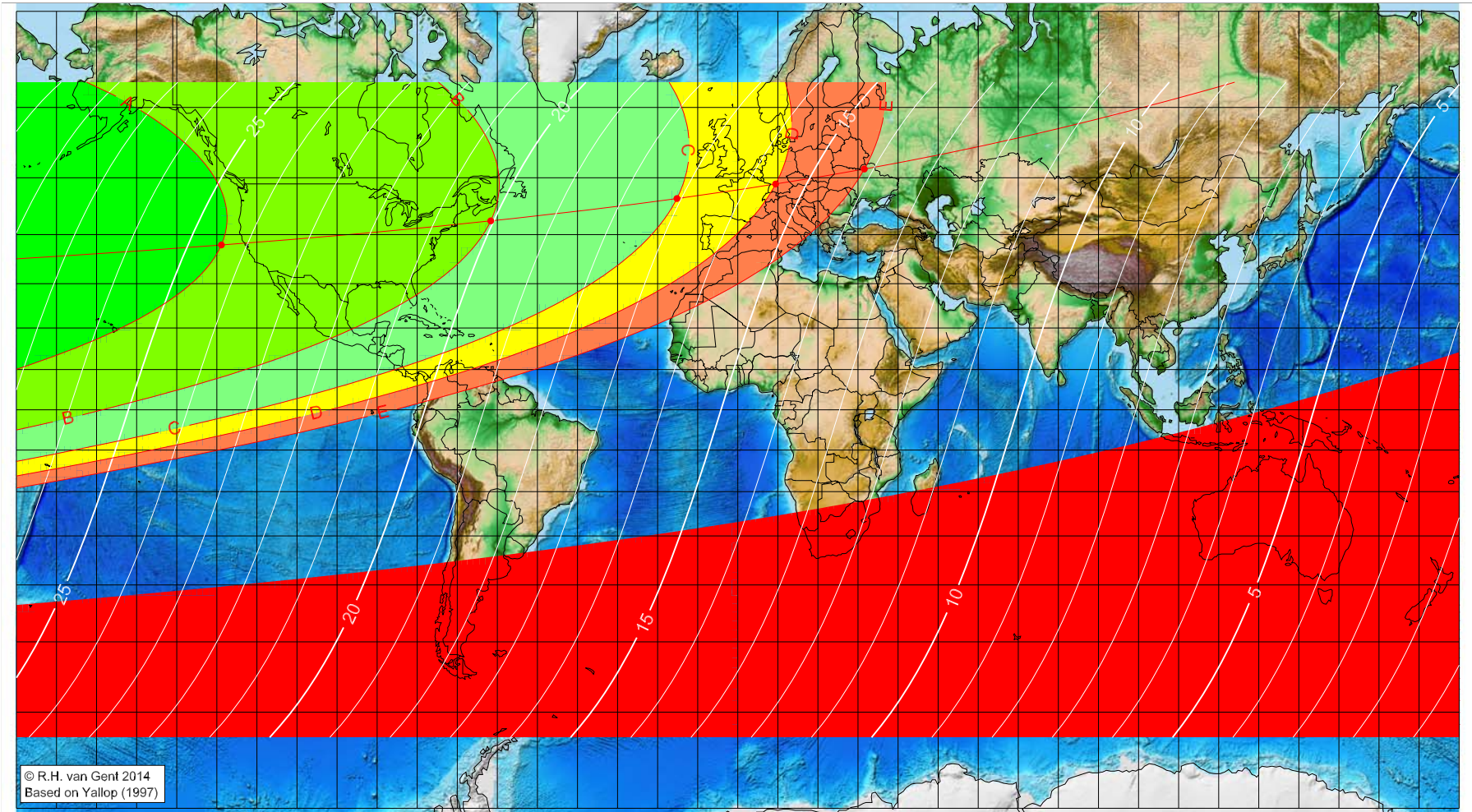
Astronomical (Brown) Lunation Number = -15964
Islamic Lunation Number = 121
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 11 AH

Global visibility map for 25 April 632 [Saturday]
Day of luni-solar conjunction



Astronomical New Moon: 25 April 632, 3h 23.6m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15963
Islamic Lunation Number = 122
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)
-128.86	38.00	24.43
-61.65	42.58	20.05
-15.18	46.55	17.07
9.44	48.98	15.53
31.57	51.38	14.16

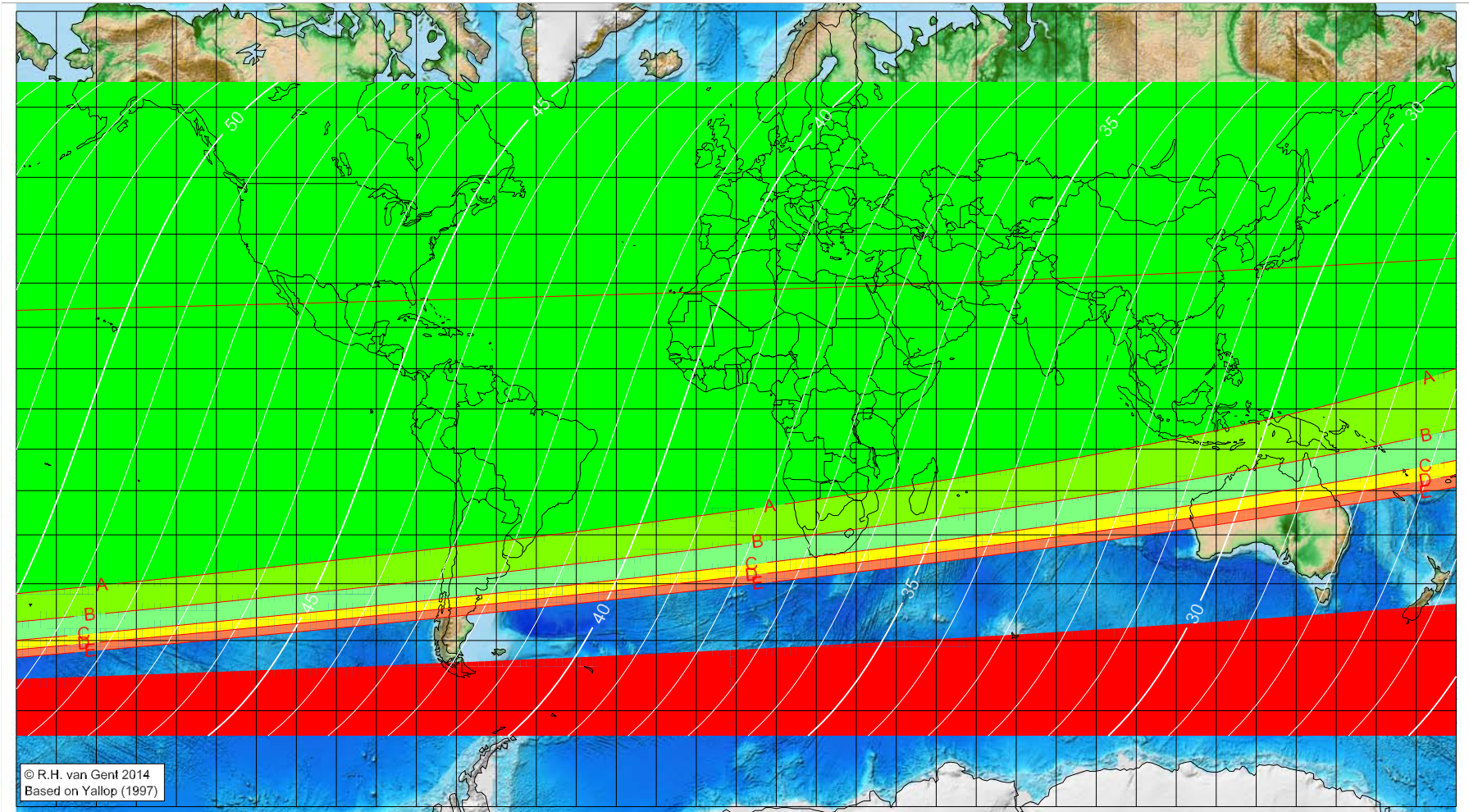
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

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

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

First visibility lunar crescent for Şafar 11 AH

Global visibility map for 26 April 632 [Sunday]
Day after luni-solar conjunction



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

Astronomical New Moon: 25 April 632, 3h 23.6m (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 = -15963
Islamic Lunation Number = 122
TT - UT [= ΔT] = 1.25 h

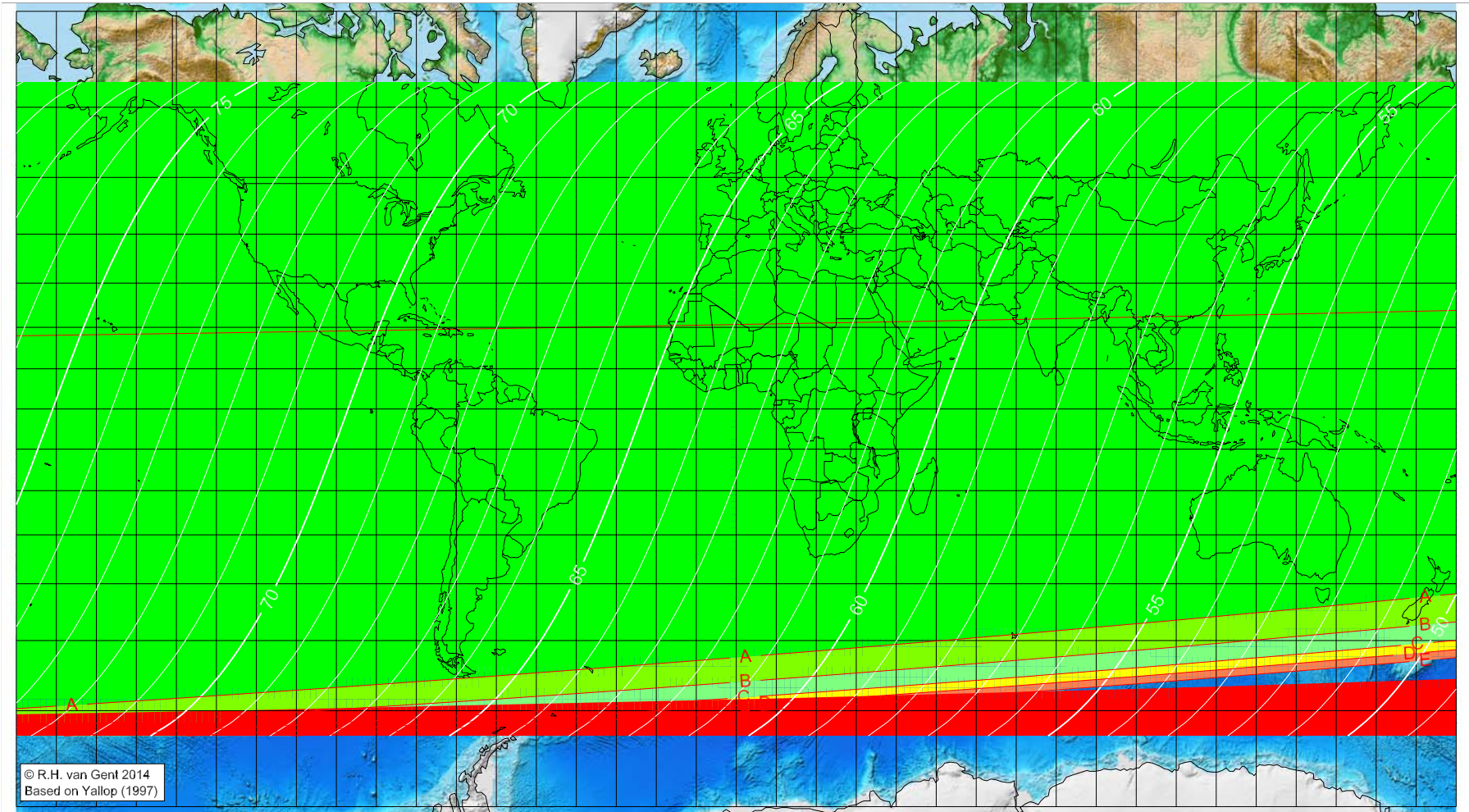
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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 Şafar 11 AH

Global visibility map for 27 April 632 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 25 April 632, 3h 23.6m (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)

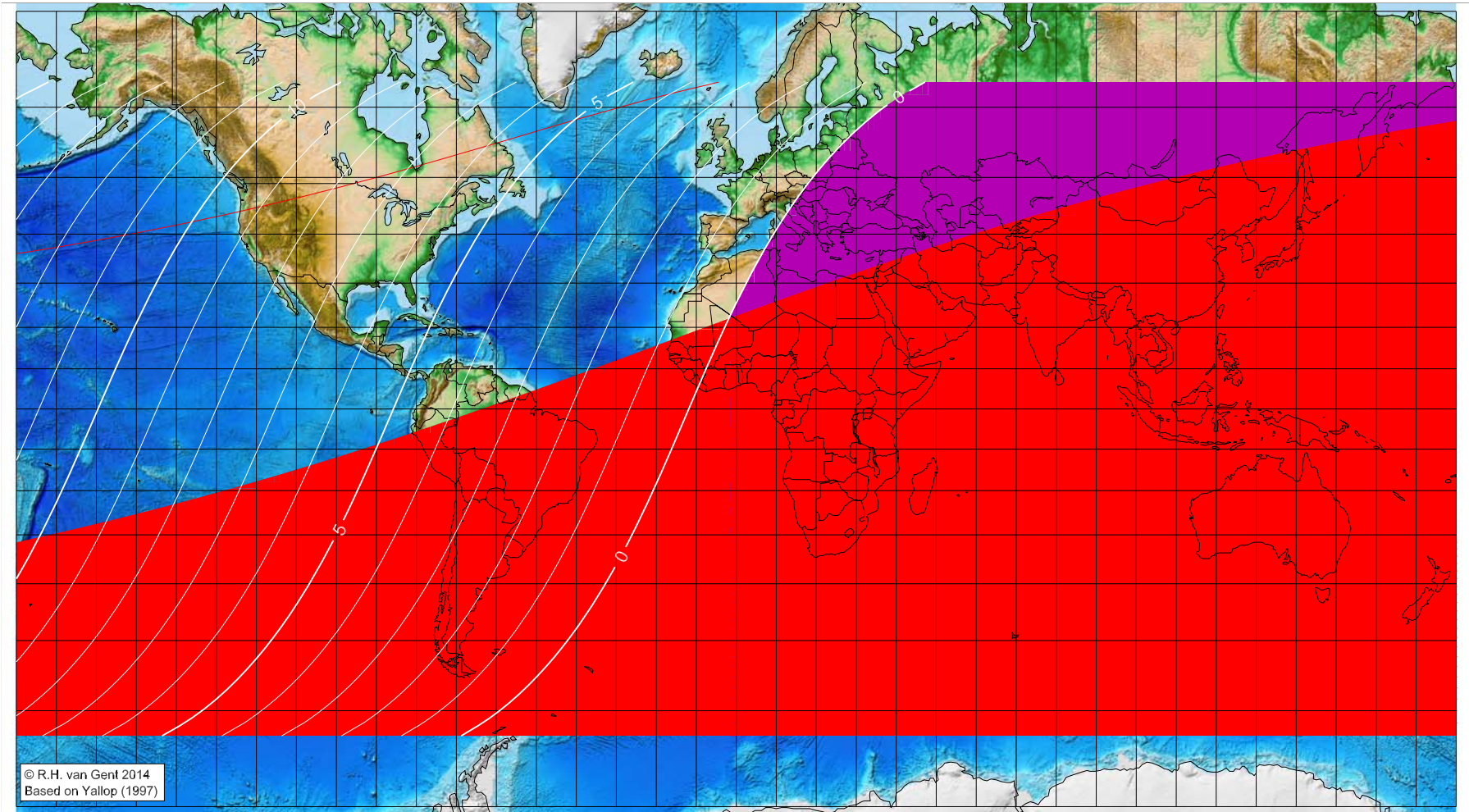
Astronomical (Brown) Lunation Number = -15963
Islamic Lunation Number = 122
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 Rabīʿ al-Awwal 11 AH

Global visibility map for 24 May 632 [Sunday]
Day of luni-solar conjunction



Astronomical New Moon: 24 May 632, 18h 42.1m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15962
Islamic Lunation Number = 123
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

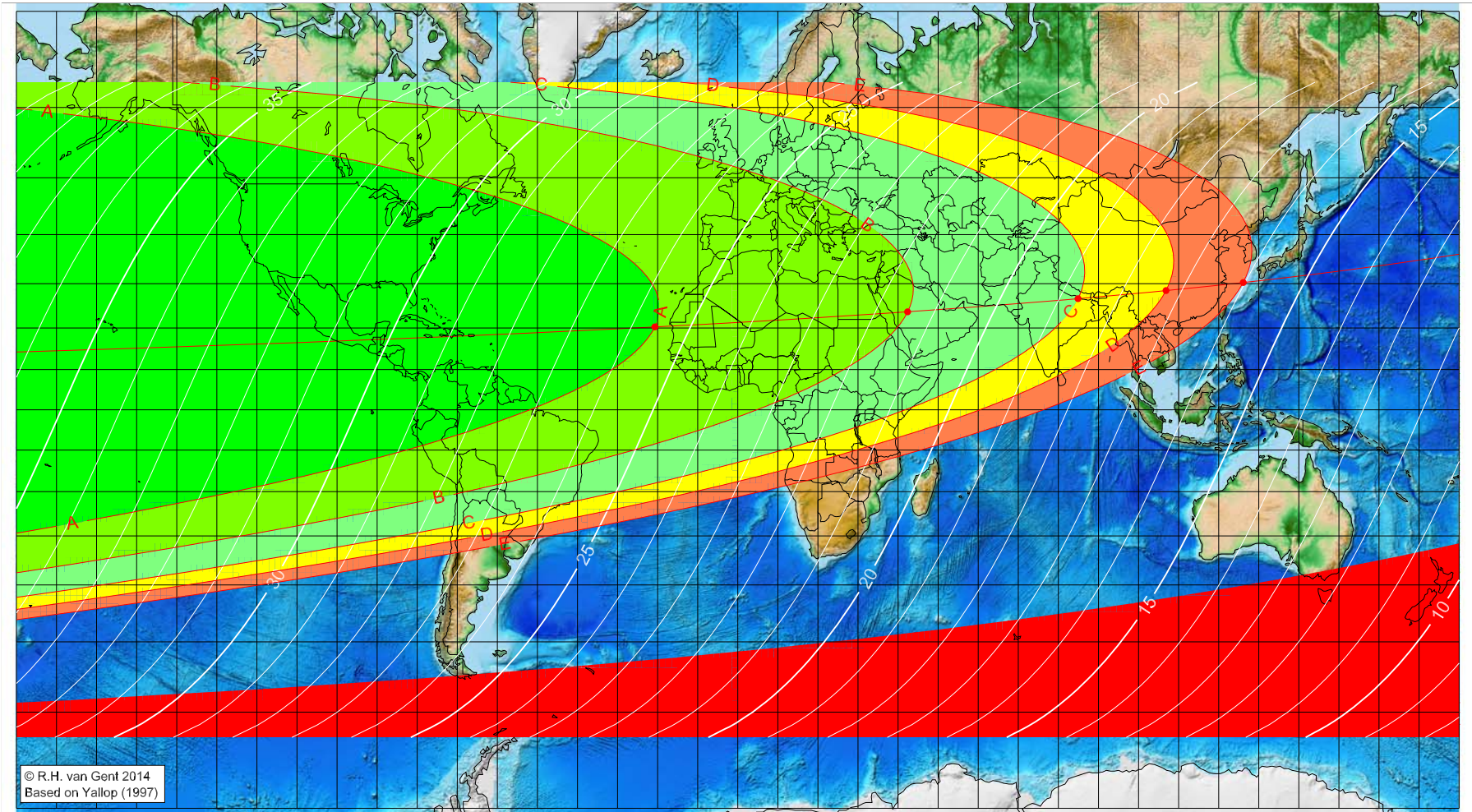
Longitude (°) Latitude (°) Lunar age (h)
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rabīʿ al-Awwal 11 AH

Global visibility map for 25 May 632 [Monday]
Day after luni-solar conjunction



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

Astronomical New Moon: 24 May 632, 18h 42.1m (UTC)

First visibility (●)

Astronomical (Brown) Lutation Number = -15962
Islamic Lutation Number = 123
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)
-20.69	20.25	25.60
42.37	23.74	21.45
84.90	26.71	18.68
106.86	28.50	17.27
126.13	30.25	16.03

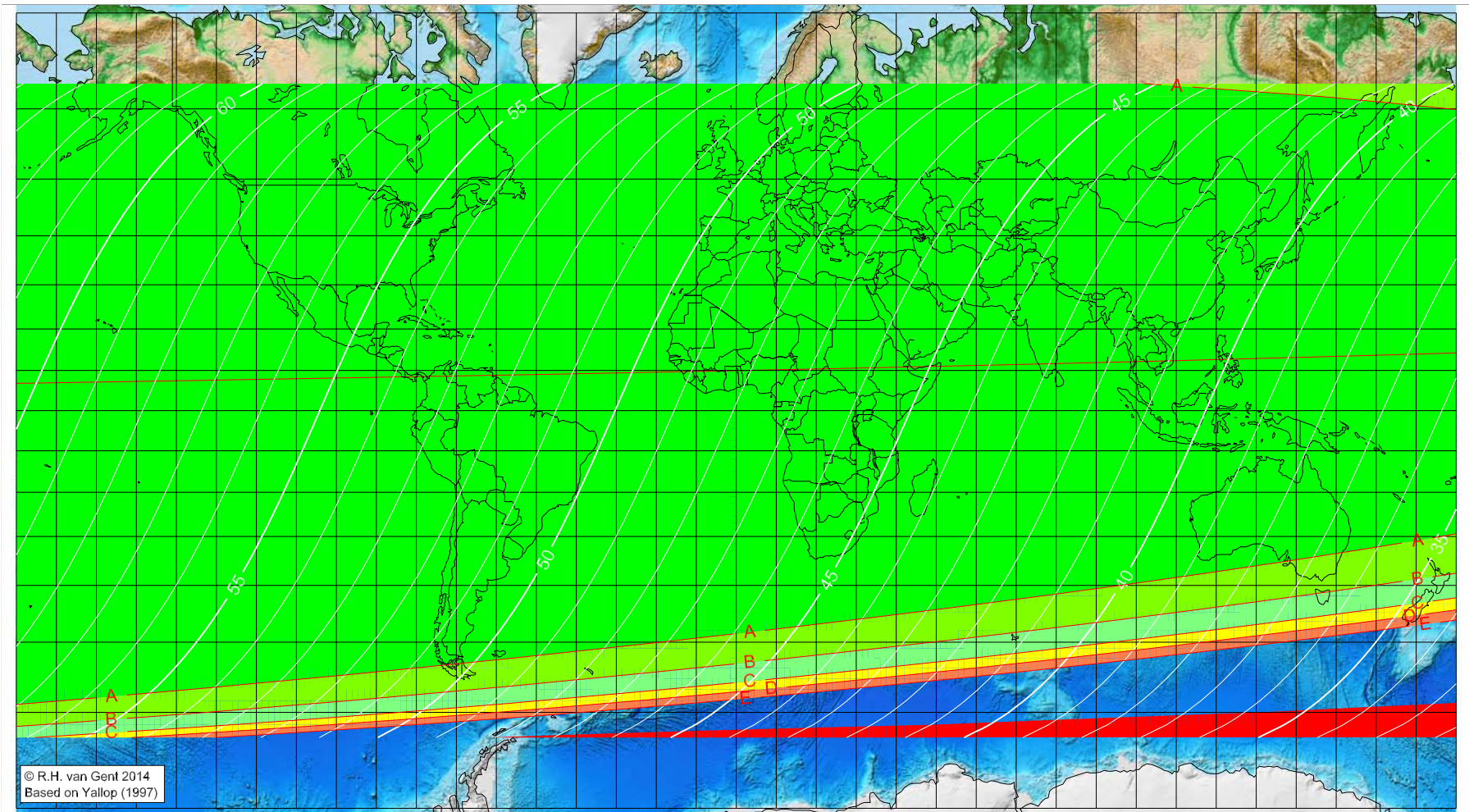
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

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

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

First visibility lunar crescent for Rabīʿ al-Awwal 11 AH

Global visibility map for 26 May 632 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 24 May 632, 18h 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)

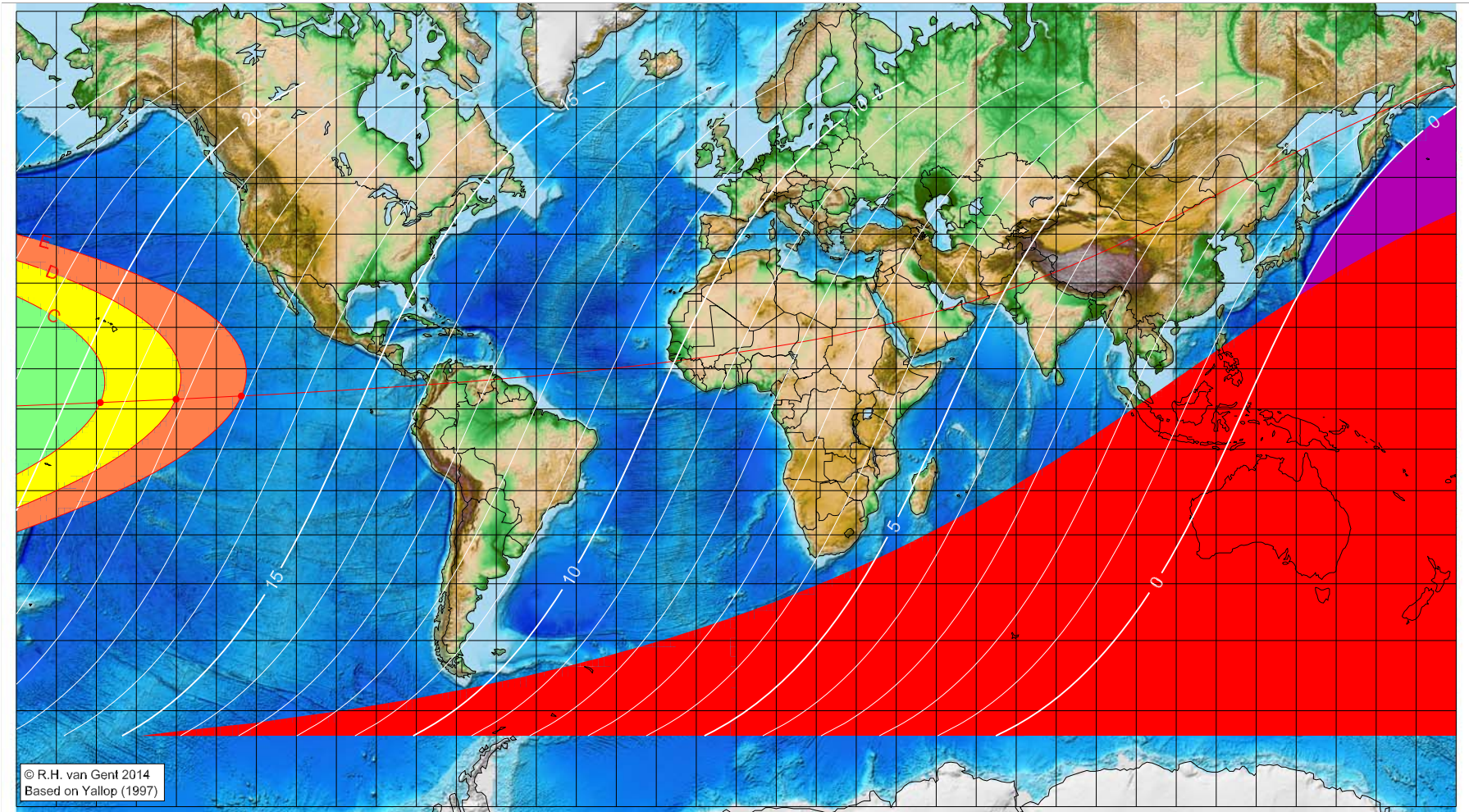
Astronomical (Brown) Lunation Number = -15962
Islamic Lunation Number = 123
TT – UT [= ΔT] = 1.25 h

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 11 AH

Global visibility map for 23 June 632 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 23 June 632, 9h 33.8m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-159.02	1.60	19.41
-140.08	2.44	18.15
-123.75	3.24	17.07

Astronomical (Brown) Lunation Number = -15961
Islamic Lunation Number = 124
TT - UT [= ΔT] = 1.25 h

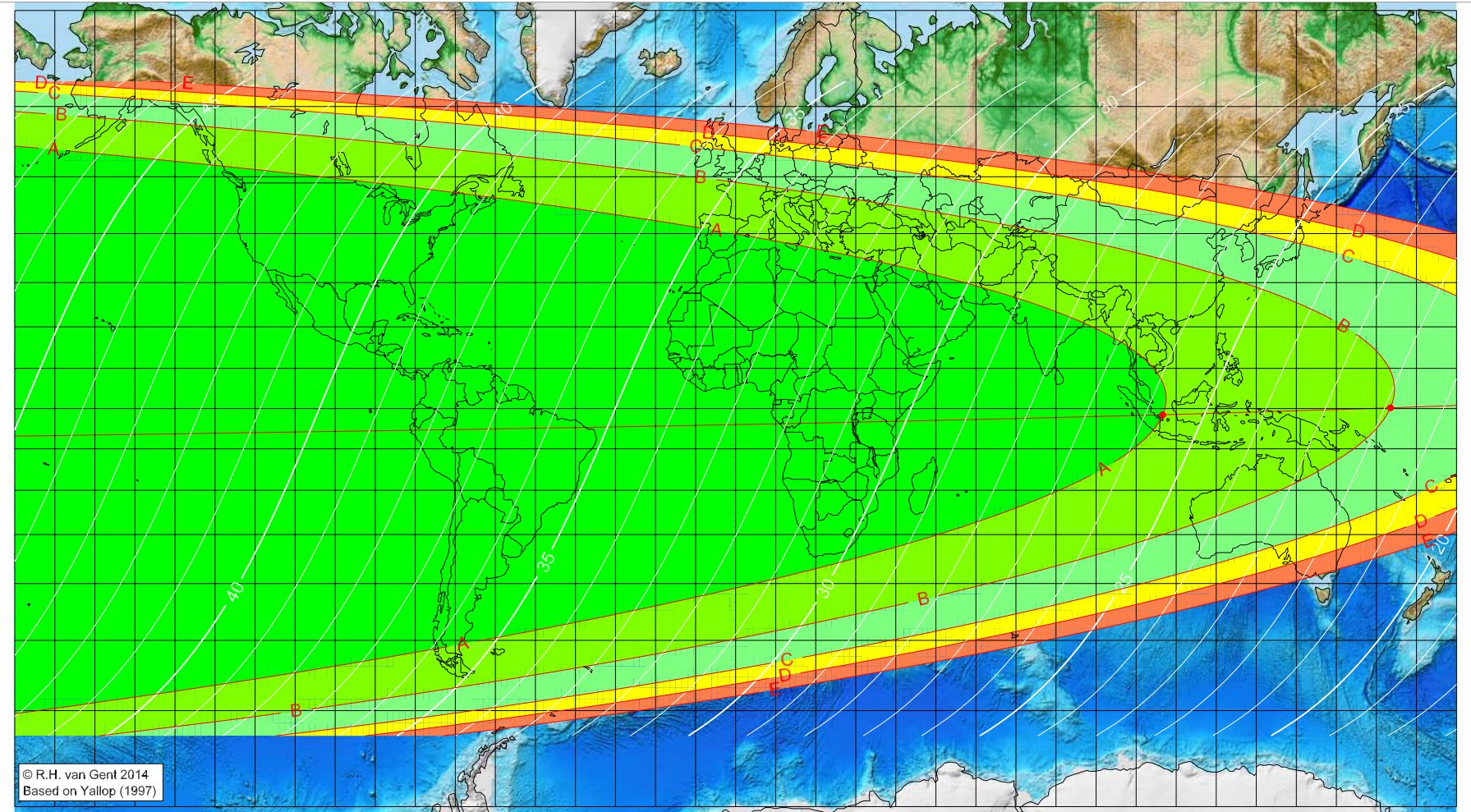
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 11 AH

Global visibility map for 24 June 632 [Wednesday]
Day after luni-solar conjunction



Astronomical New Moon: 23 June 632, 9h 33.8m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
106.64	-1.56	25.70
163.51	0.18	21.90
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = -15961
Islamic Lunation Number = 124
TT - UT [= ΔT] = 1.25 h

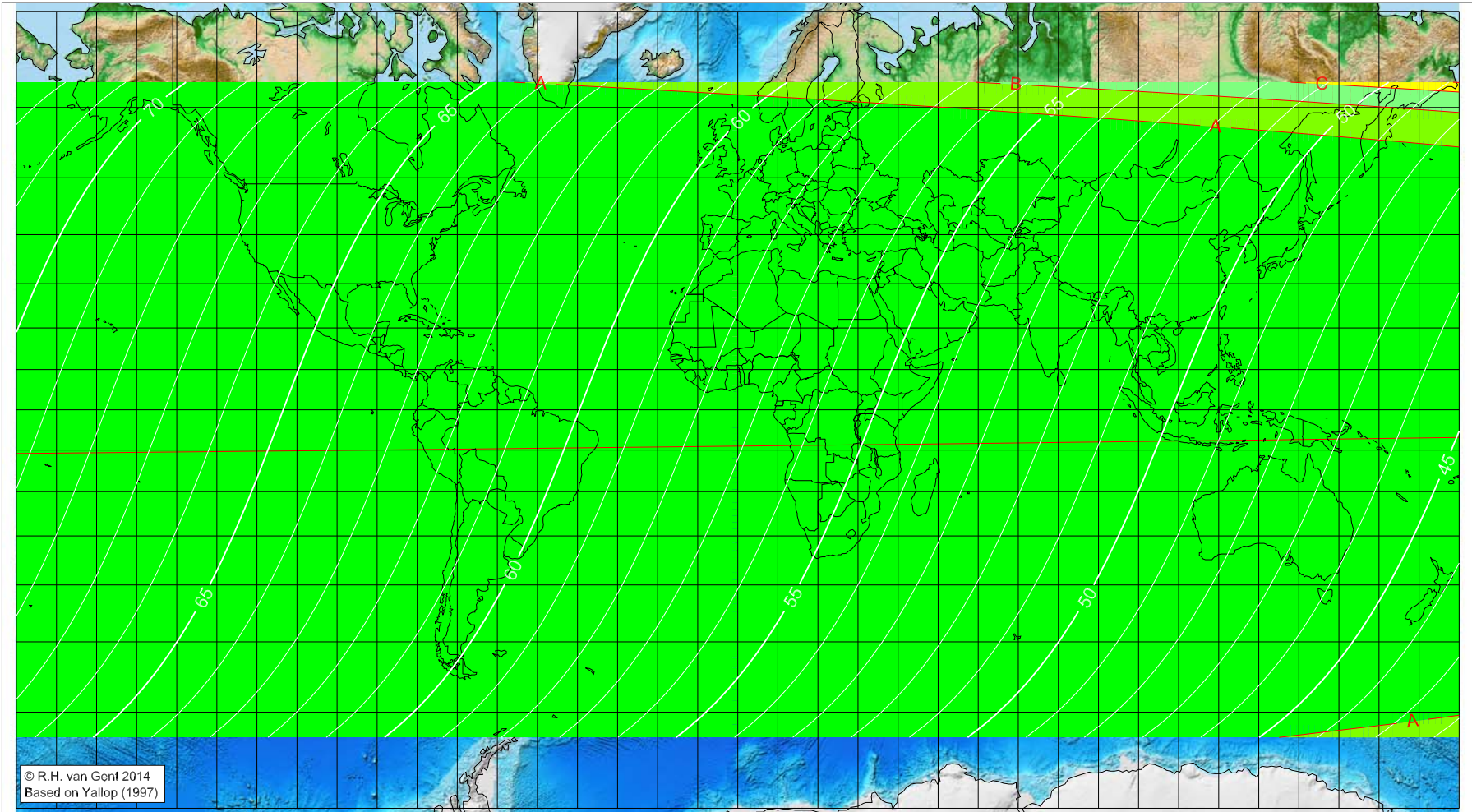
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 11 AH

Global visibility map for 25 June 632 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 23 June 632, 9h 33.8m (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)

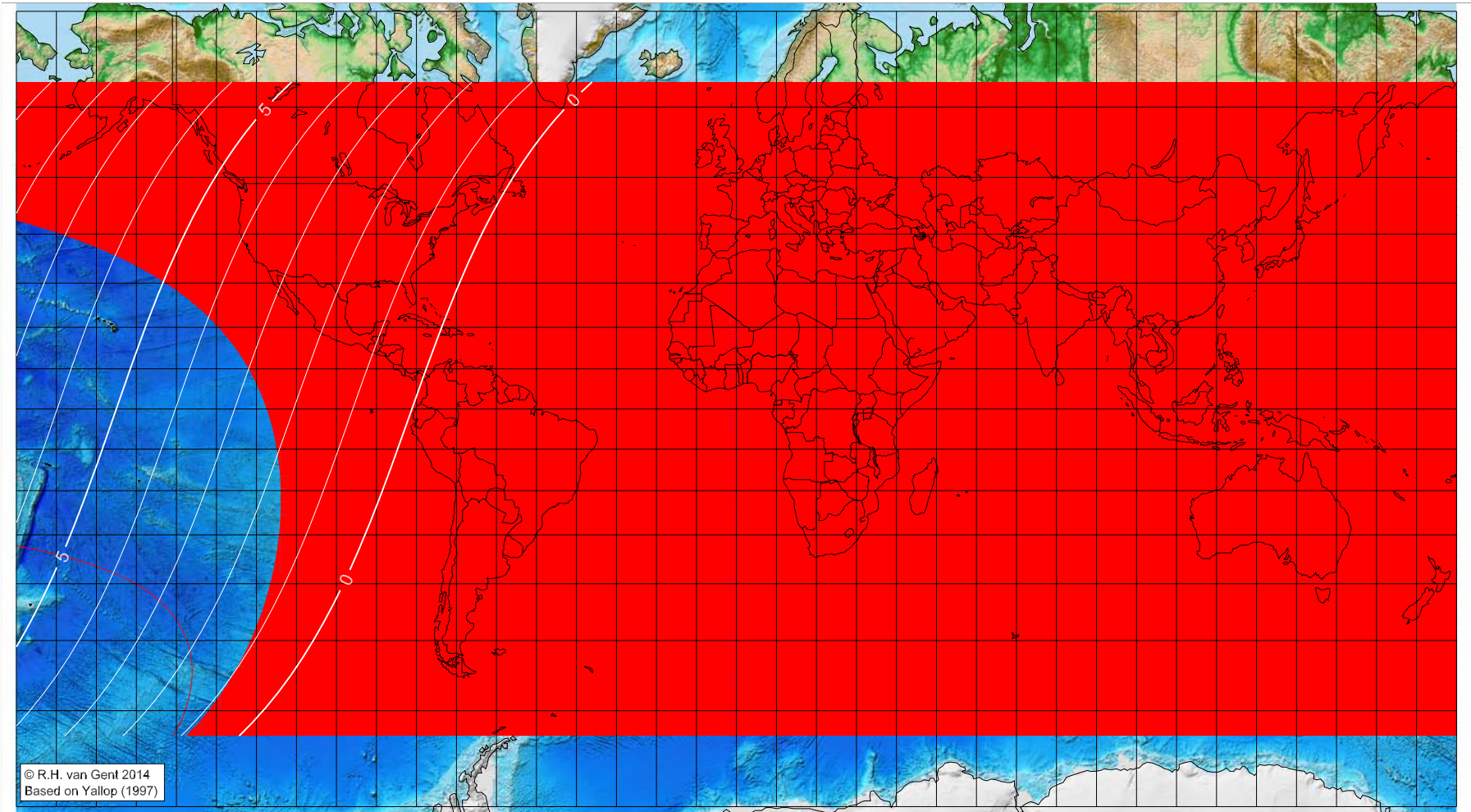
Astronomical (Brown) Lunation Number = -15961
Islamic Lunation Number = 124
TT – UT [= ΔT] = 1.25 h

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 'l-Ūlā 11 AH

Global visibility map for 22 July 632 [Wednesday]
Day of luni-solar conjunction



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

Astronomical New Moon: 22 July 632, 23h 29.7m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15960
Islamic Lunation Number = 125
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)

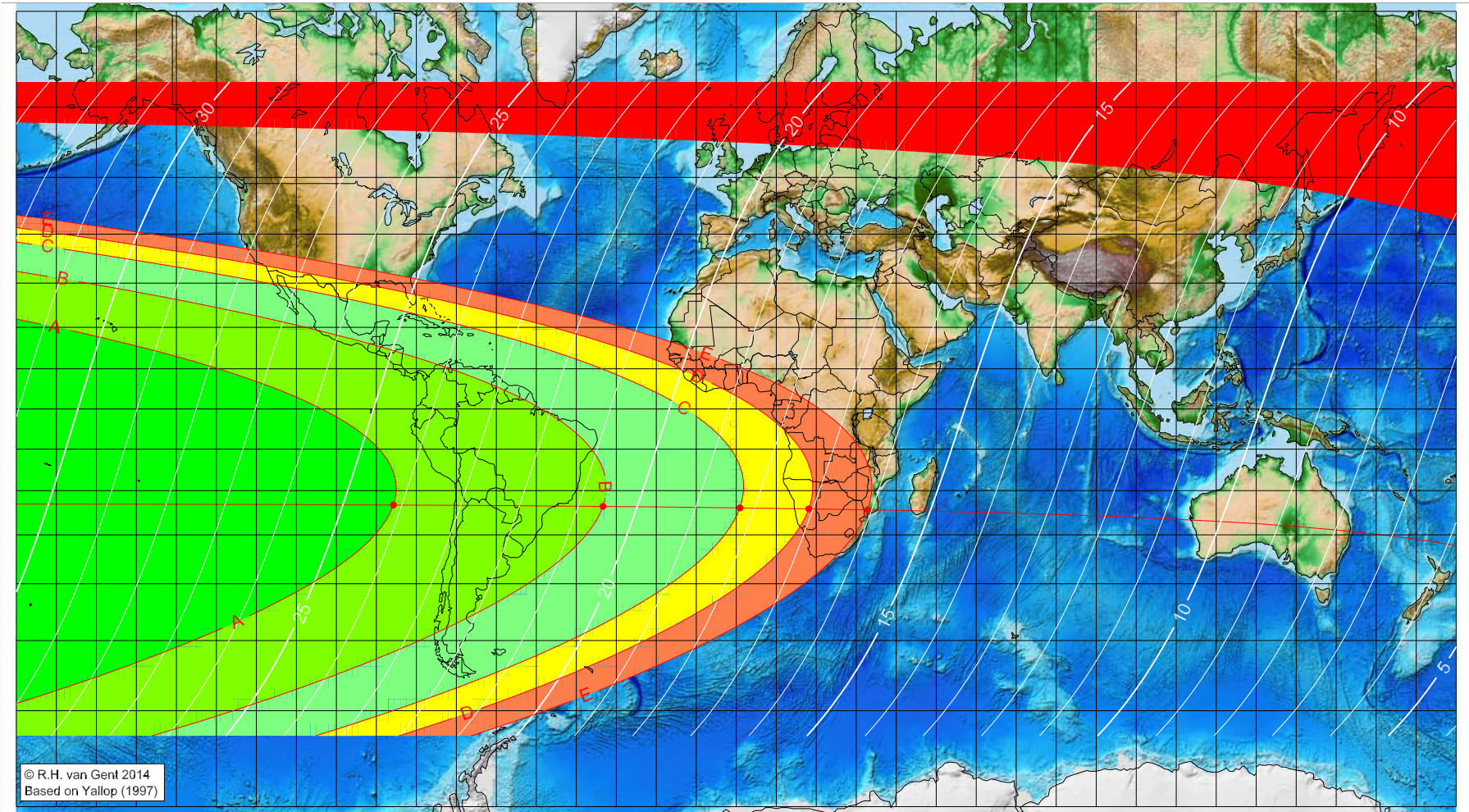
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening

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-Ūlā 11 AH

Global visibility map for 23 July 632 [Thursday]
Day after luni-solar conjunction



Astronomical New Moon: 22 July 632, 23h 29.7m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15960
Islamic Lunation Number = 125
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)
-85.72	-23.34	24.14
-33.34	-23.67	20.58
0.90	-24.00	18.25
18.11	-24.22	17.07
32.85	-24.45	16.07

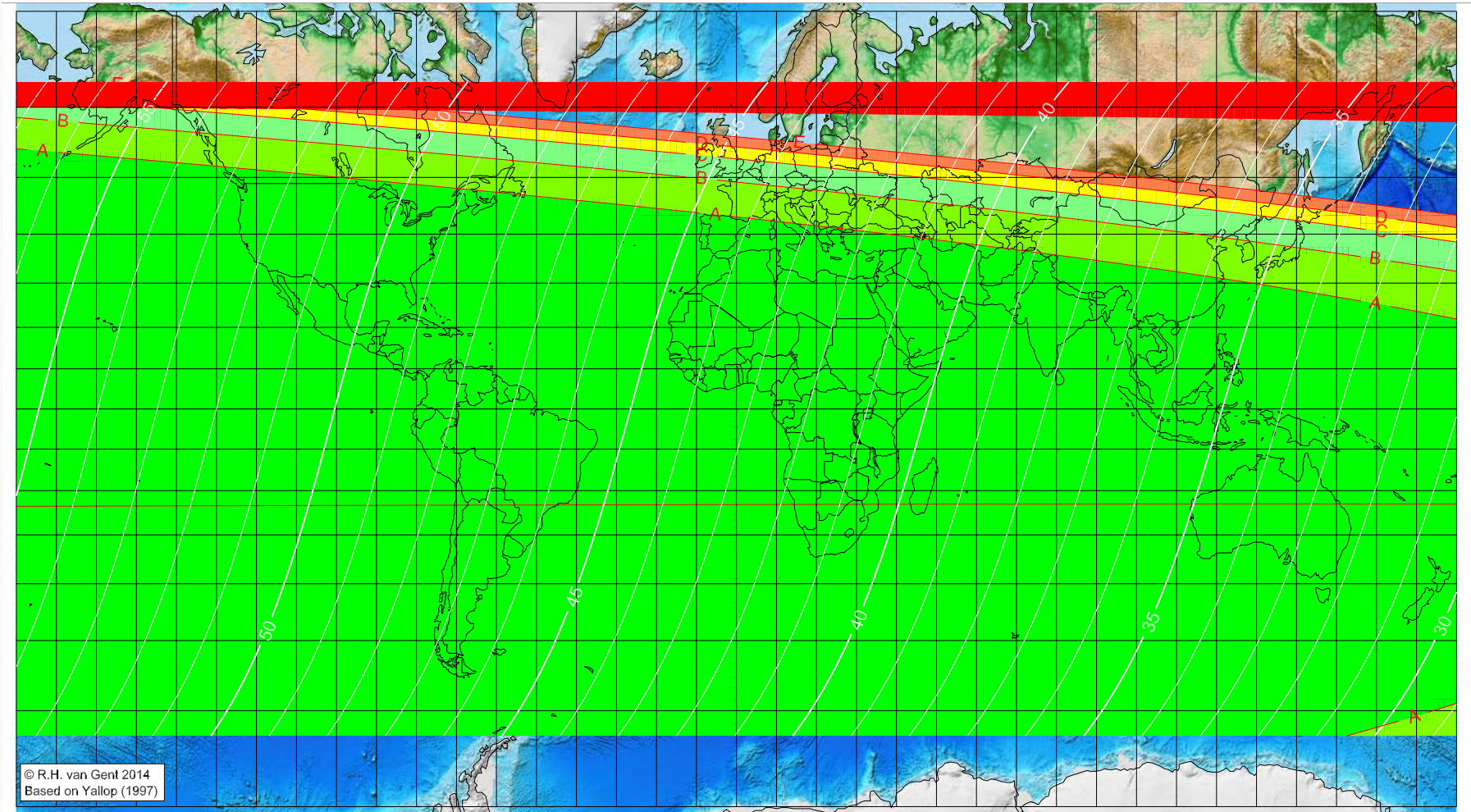
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

- 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 11 AH

Global visibility map for 24 July 632 [Friday]
Second day after luni-solar conjunction



Astronomical New Moon: 22 July 632, 23h 29.7m (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)

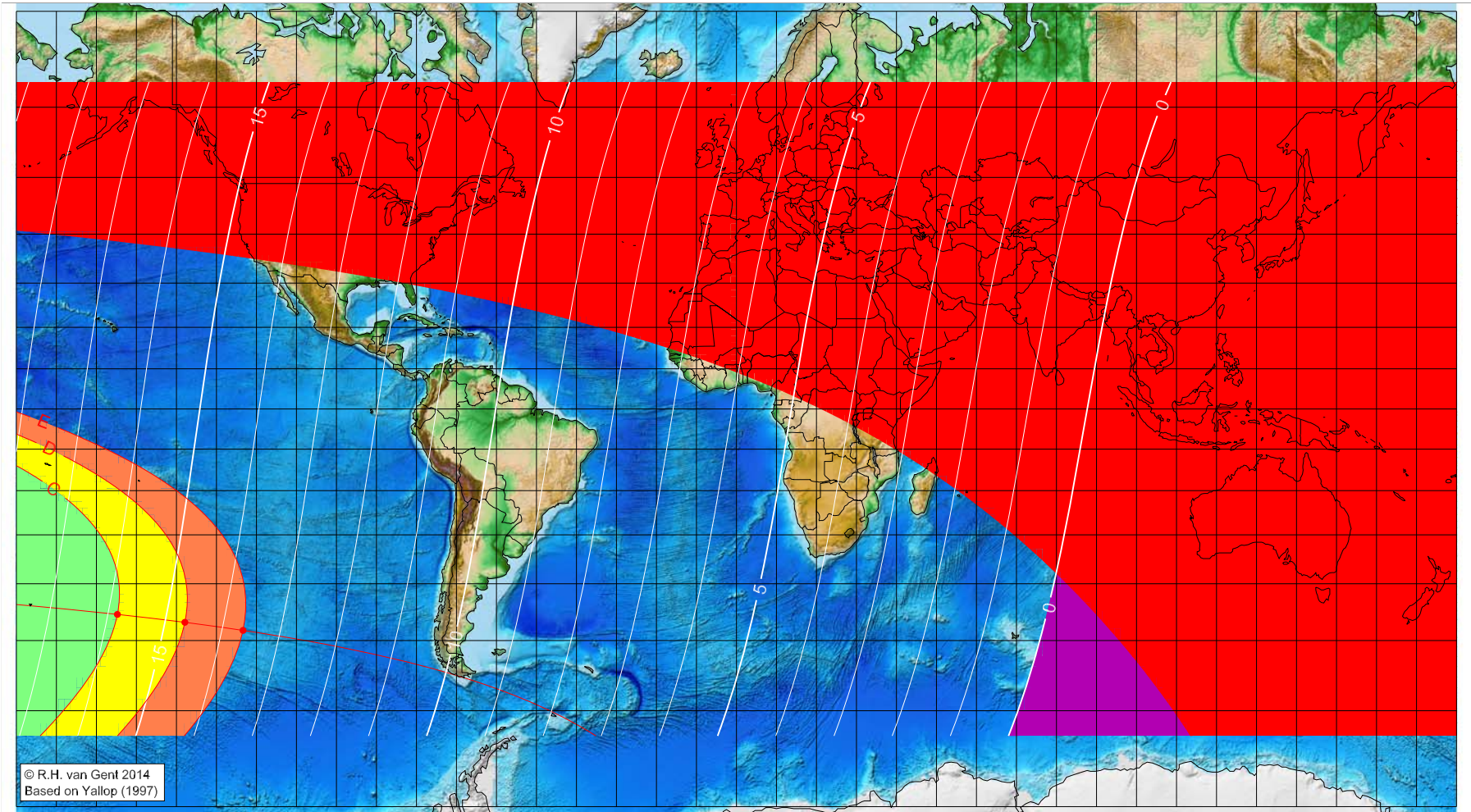
Astronomical (Brown) Lunation Number = -15960
Islamic Lunation Number = 125
TT – UT [= ΔT] = 1.25 h

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 'l-Ākhira 11 AH

Global visibility map for 21 August 632 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 21 August 632, 12h 9.6m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15959
Islamic Lunation Number = 126
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)

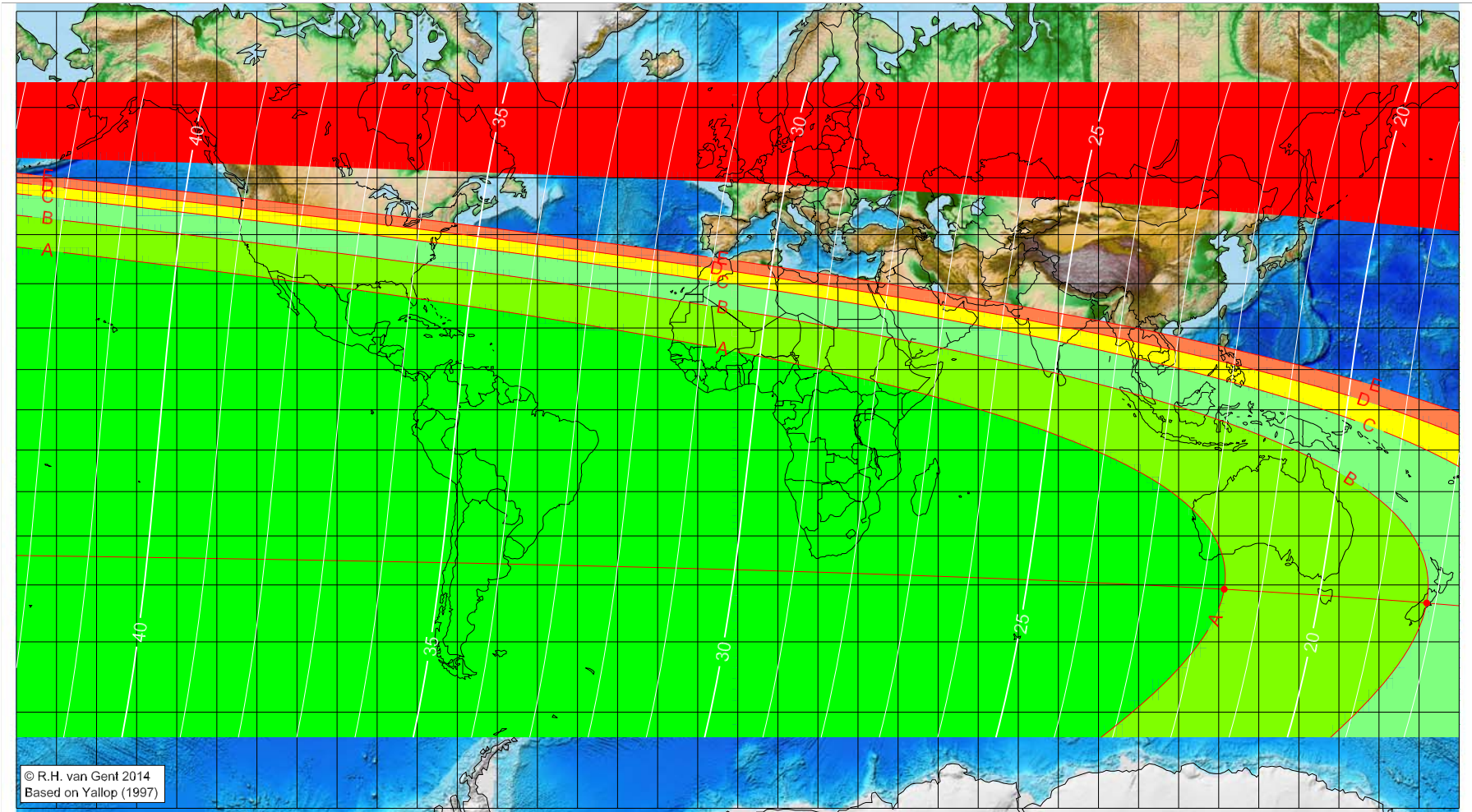
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
-154.76	-45.61	15.84
-137.89	-46.98	14.66
-123.35	-48.34	13.64

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 11 AH

Global visibility map for 22 August 632 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 21 August 632, 12h 9.6m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
121.37	-40.81	21.64
171.90	-43.36	18.15
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = -15959
Islamic Lunation Number = 126
TT - UT [= ΔT] = 1.25 h

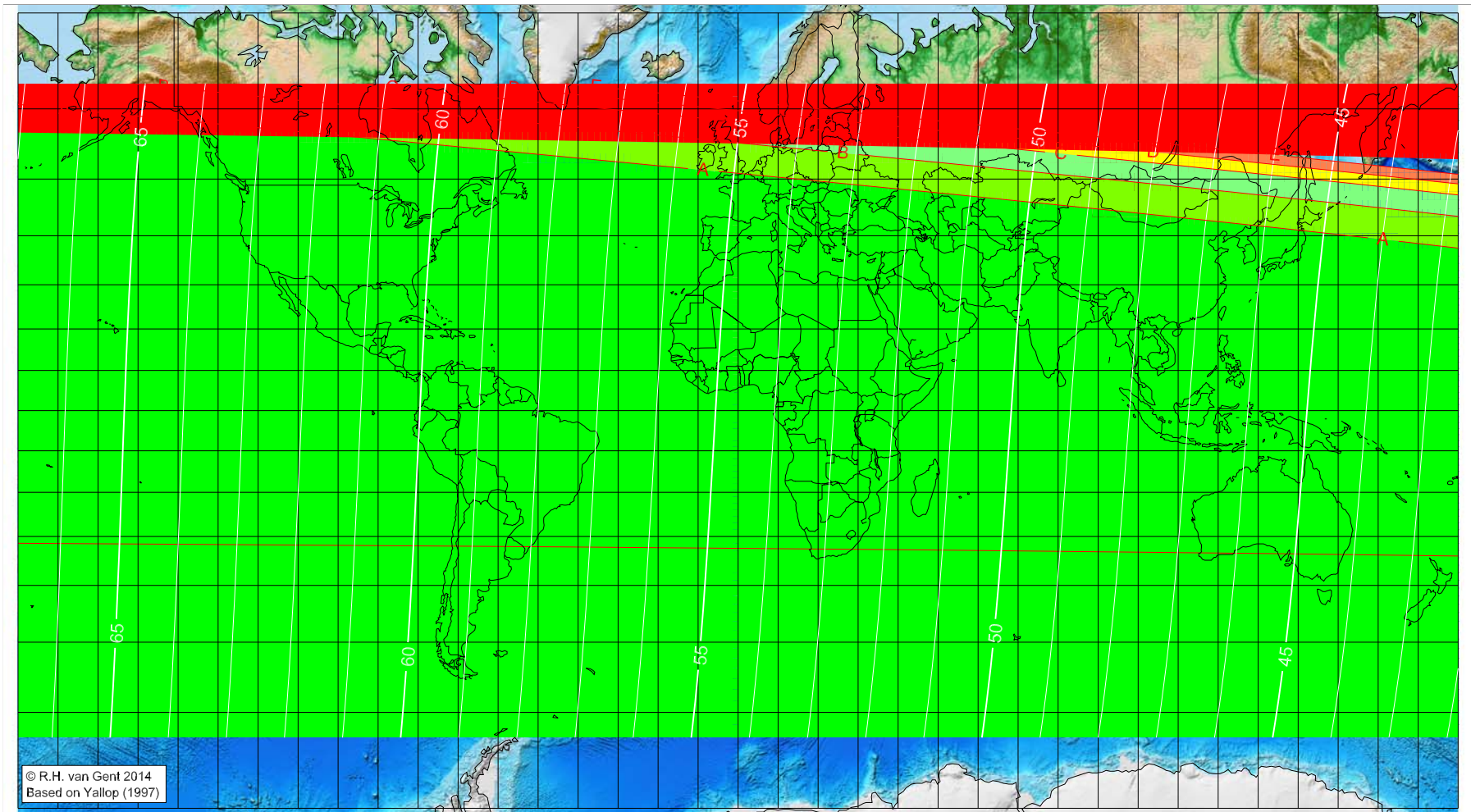
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 11 AH

Global visibility map for 23 August 632 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 21 August 632, 12h 9.6m (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)

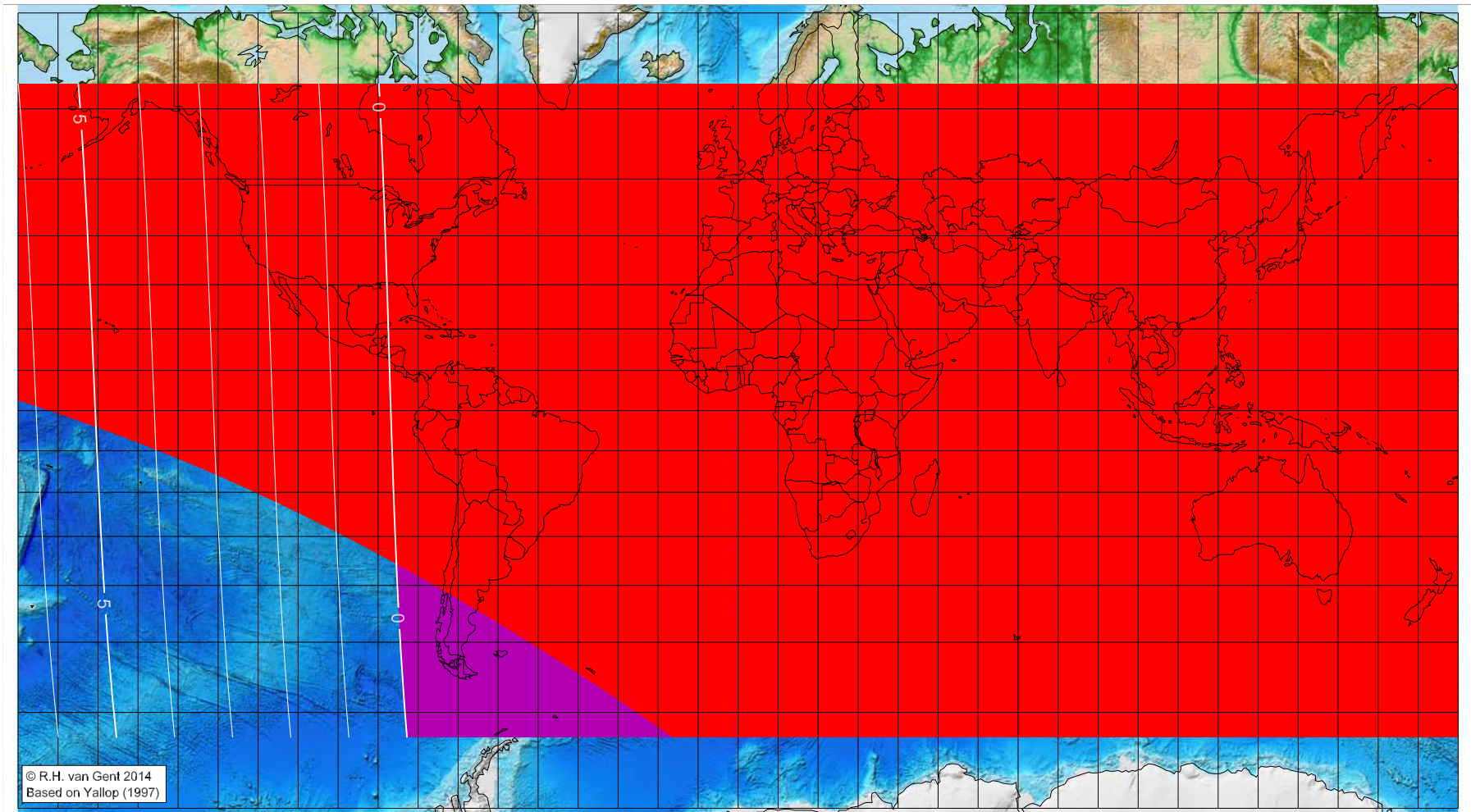
Astronomical (Brown) Lunation Number = -15959
Islamic Lunation Number = 126
TT – UT [= ΔT] = 1.25 h

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 11 AH

Global visibility map for 19 September 632 [Saturday]
Day of luni-solar conjunction



Astronomical New Moon: 19 September 632, 23h 37.7m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15958
Islamic Lunation Number = 127
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)

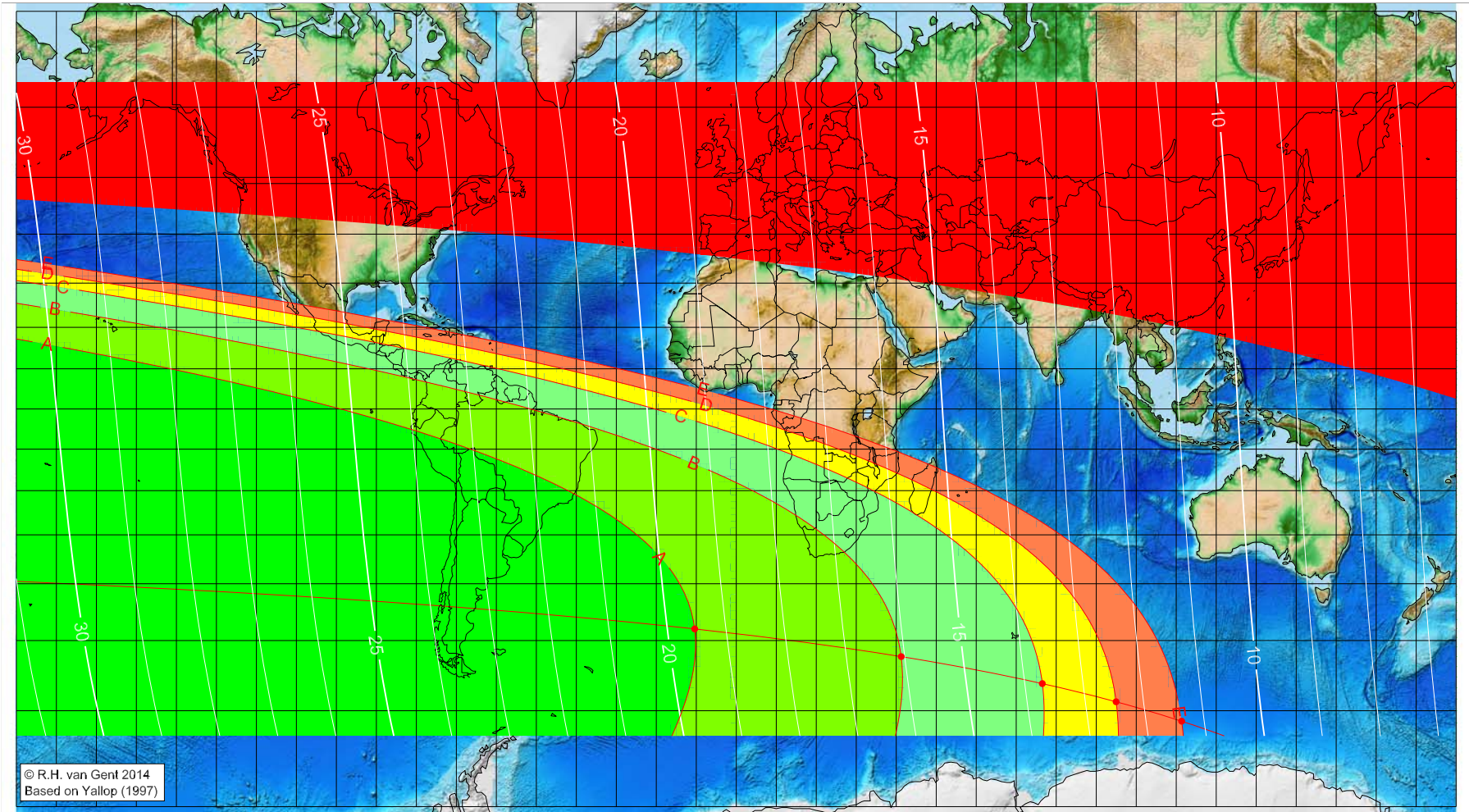
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening

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 Rajab 11 AH

Global visibility map for 20 September 632 [Sunday]
Day after luni-solar conjunction



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Based on Yallop (1997)

Astronomical New Moon: 19 September 632, 23h 37.7m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15958

Islamic Lunation Number = 127

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°)

Longitude (°)	Latitude (°)	Lunar age (h)
-10.40	-48.09	19.53
41.24	-52.51	16.06
76.52	-56.43	13.70
94.97	-58.86	12.47
111.36	-61.28	11.39

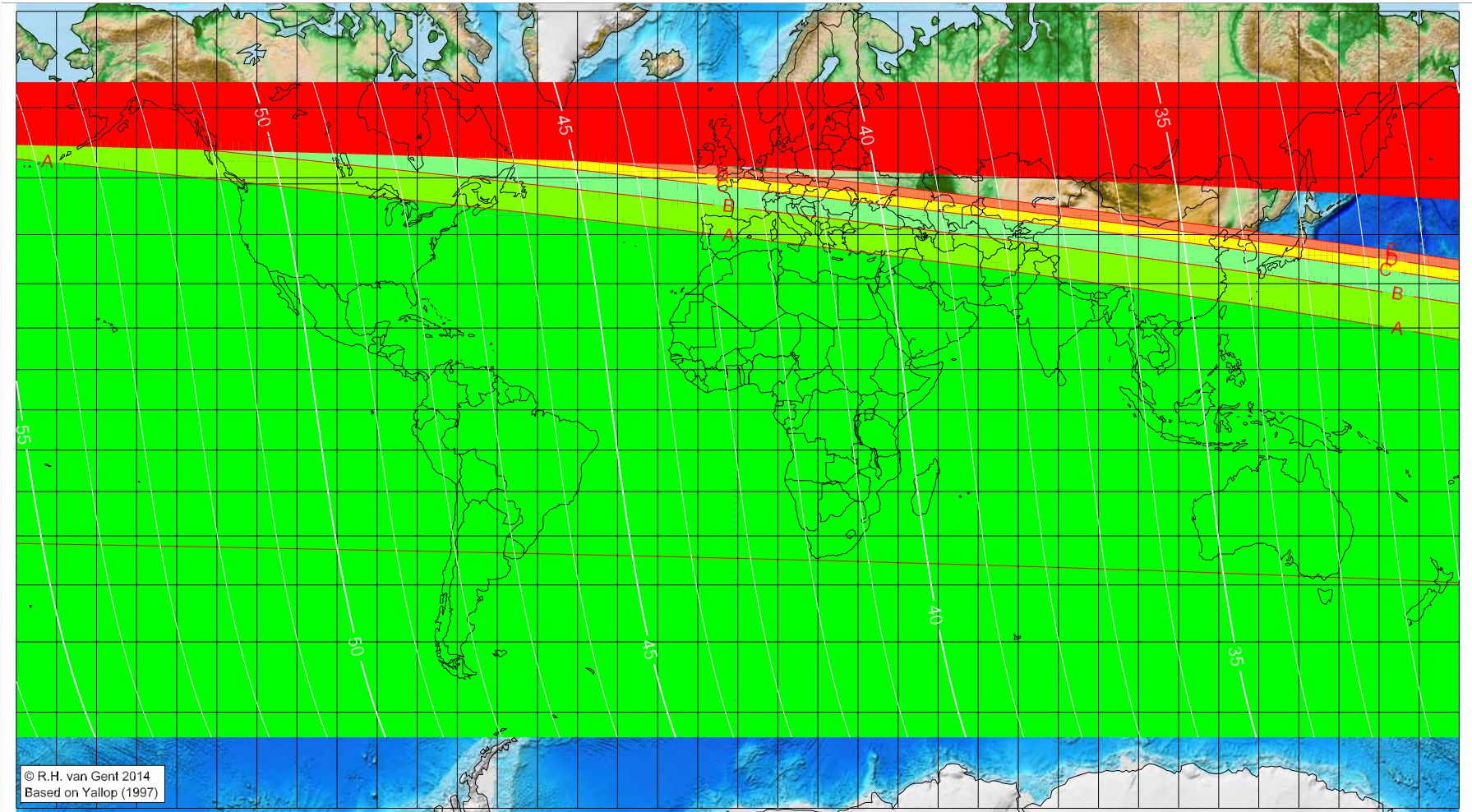
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rajab 11 AH

Global visibility map for 21 September 632 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 19 September 632, 23h 37.7m (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)

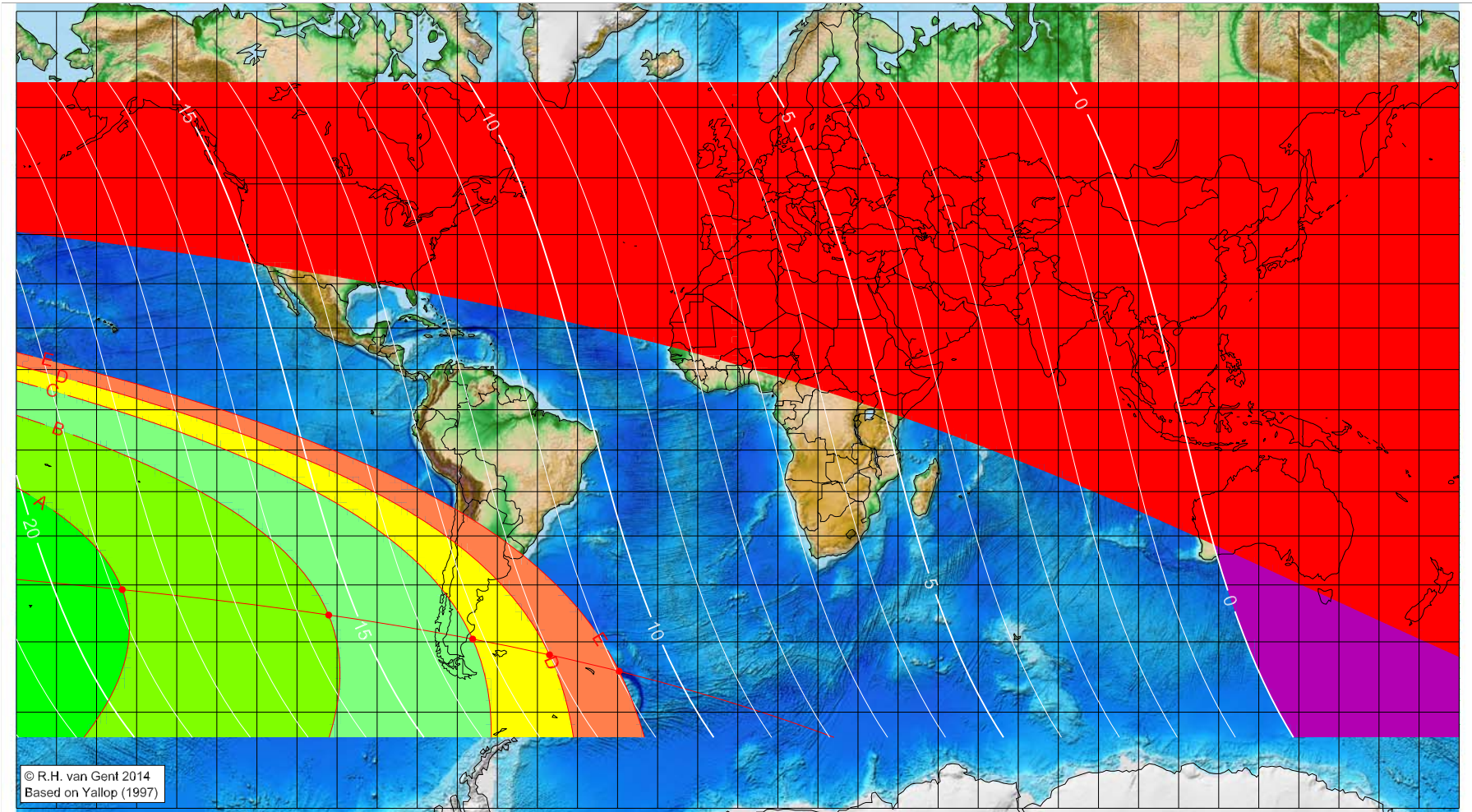
Astronomical (Brown) Lunation Number = -15958
Islamic Lunation Number = 127
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 11 AH

Global visibility map for 19 October 632 [Monday]
Day of luni-solar conjunction



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

Astronomical New Moon: 19 October 632, 10h 23.0m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15957
Islamic Lunation Number = 128
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)

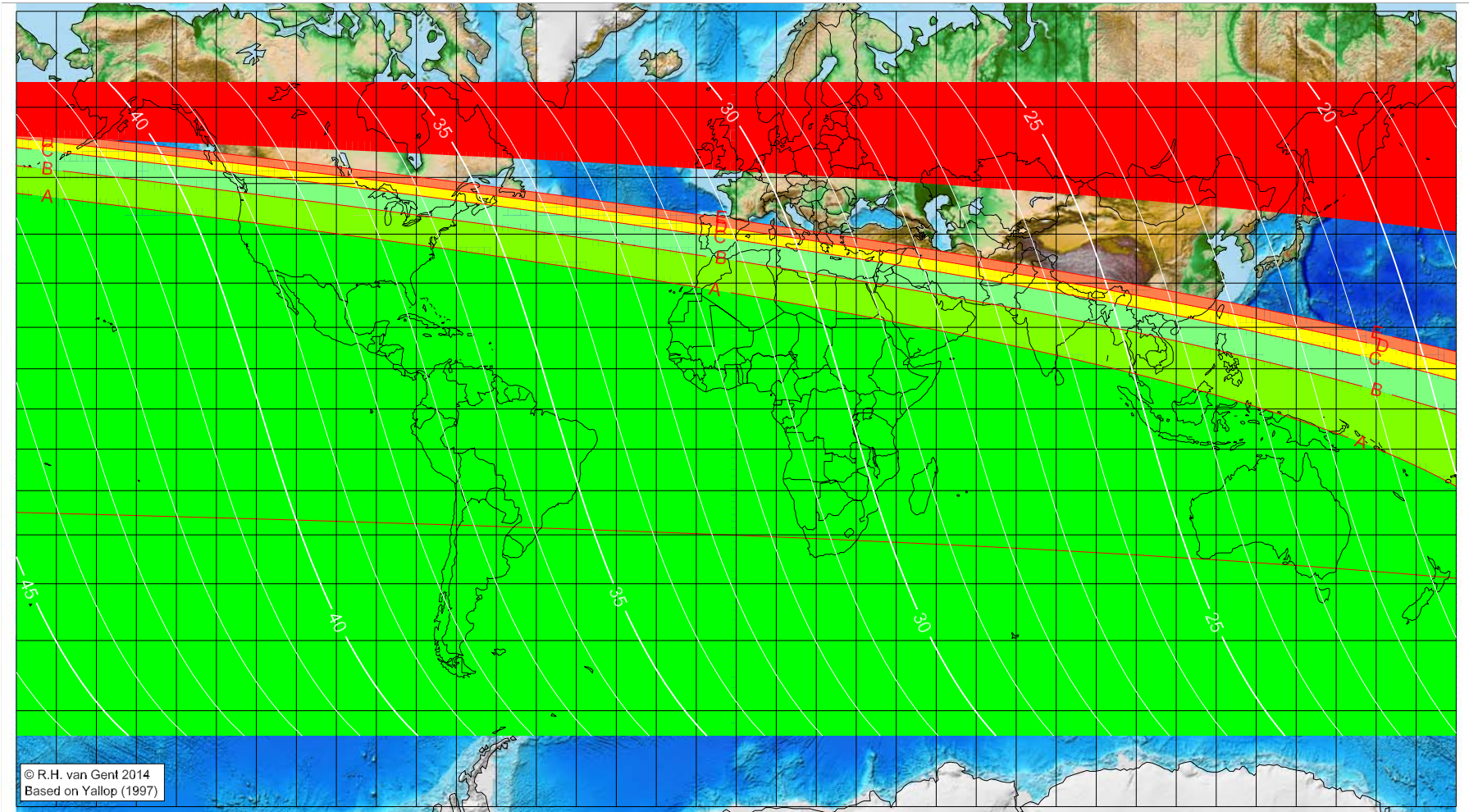
Longitude (°)	Latitude (°)	Lunar age (h)
-153.59	-40.88	18.84
-102.08	-45.51	15.49
-66.16	-49.55	13.20
-46.98	-52.03	12.01
-29.61	-54.48	10.95

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 11 AH

Global visibility map for 20 October 632 [Tuesday]
Day after luni-solar conjunction



Astronomical New Moon: 19 October 632, 10h 23.0m (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 = -15957
Islamic Lunation Number = 128
TT - UT [= ΔT] = 1.25 h

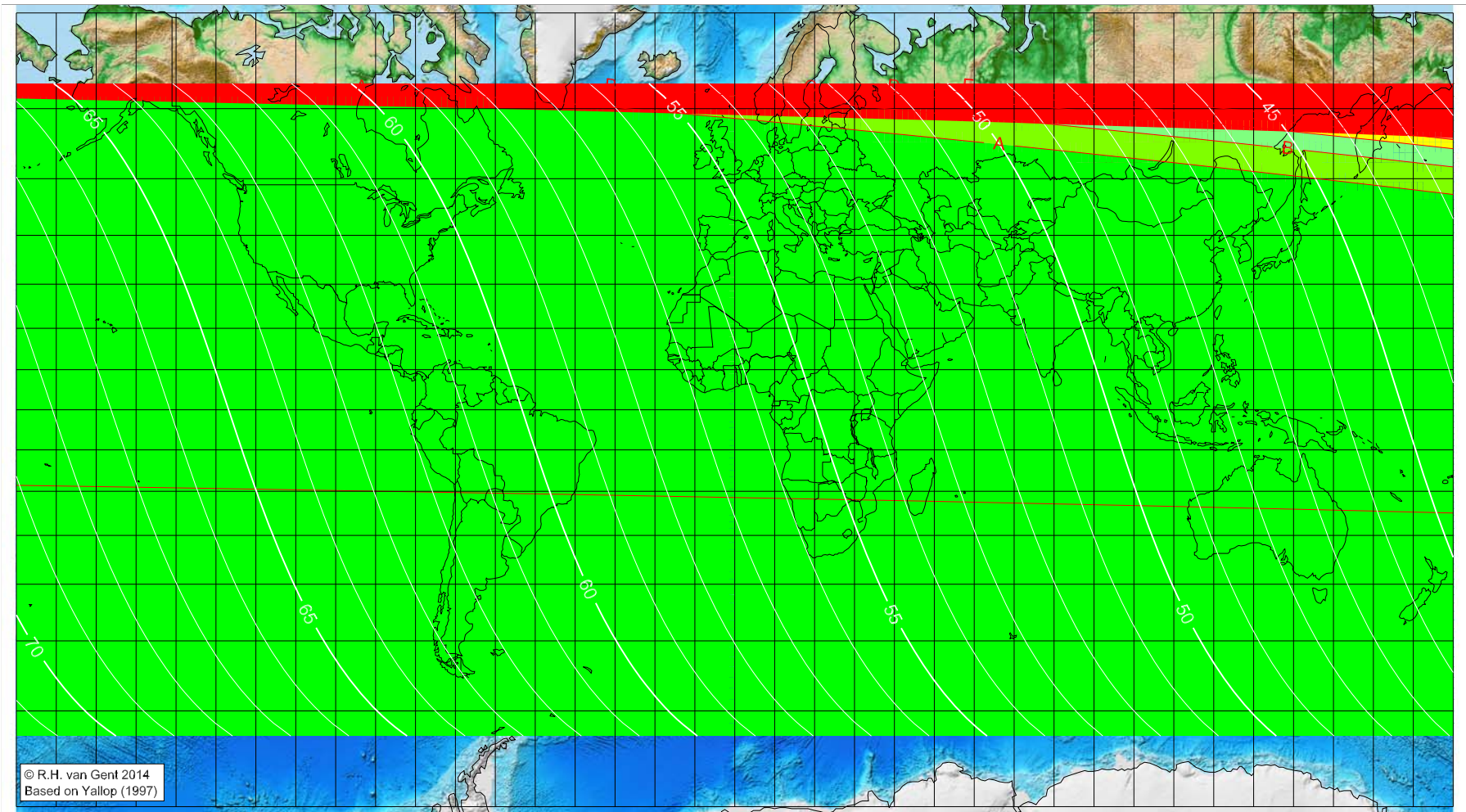
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 Shaʿbān 11 AH

Global visibility map for 21 October 632 [Wednesday]
Second day after luni-solar conjunction



Astronomical New Moon: 19 October 632, 10h 23.0m (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)

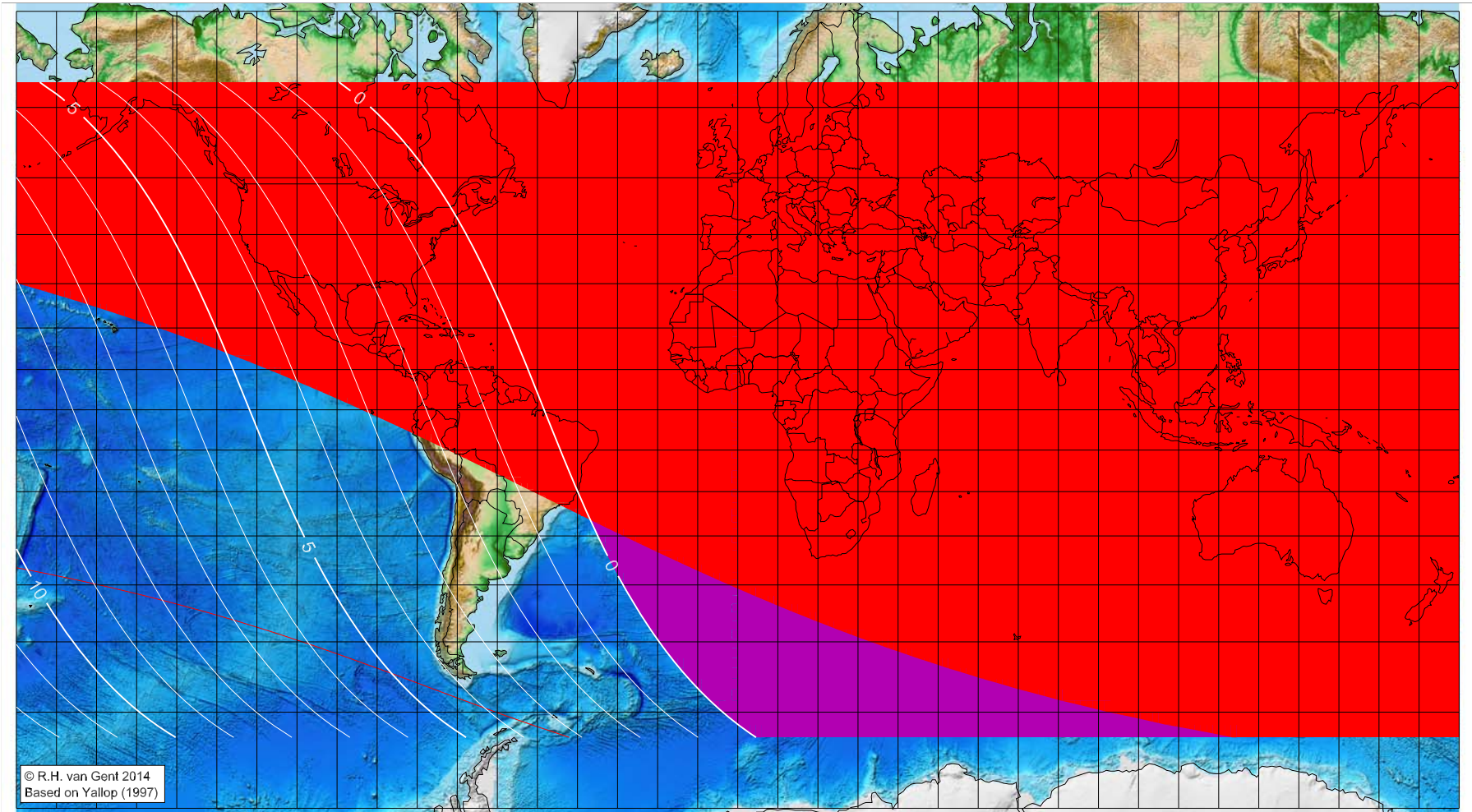
Astronomical (Brown) Lunation Number = -15957
Islamic Lunation Number = 128
TT – UT [= ΔT] = 1.25 h

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 11 AH

Global visibility map for 17 November 632 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 17 November 632, 21h 1.4m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15956
Islamic Lunation Number = 129
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)

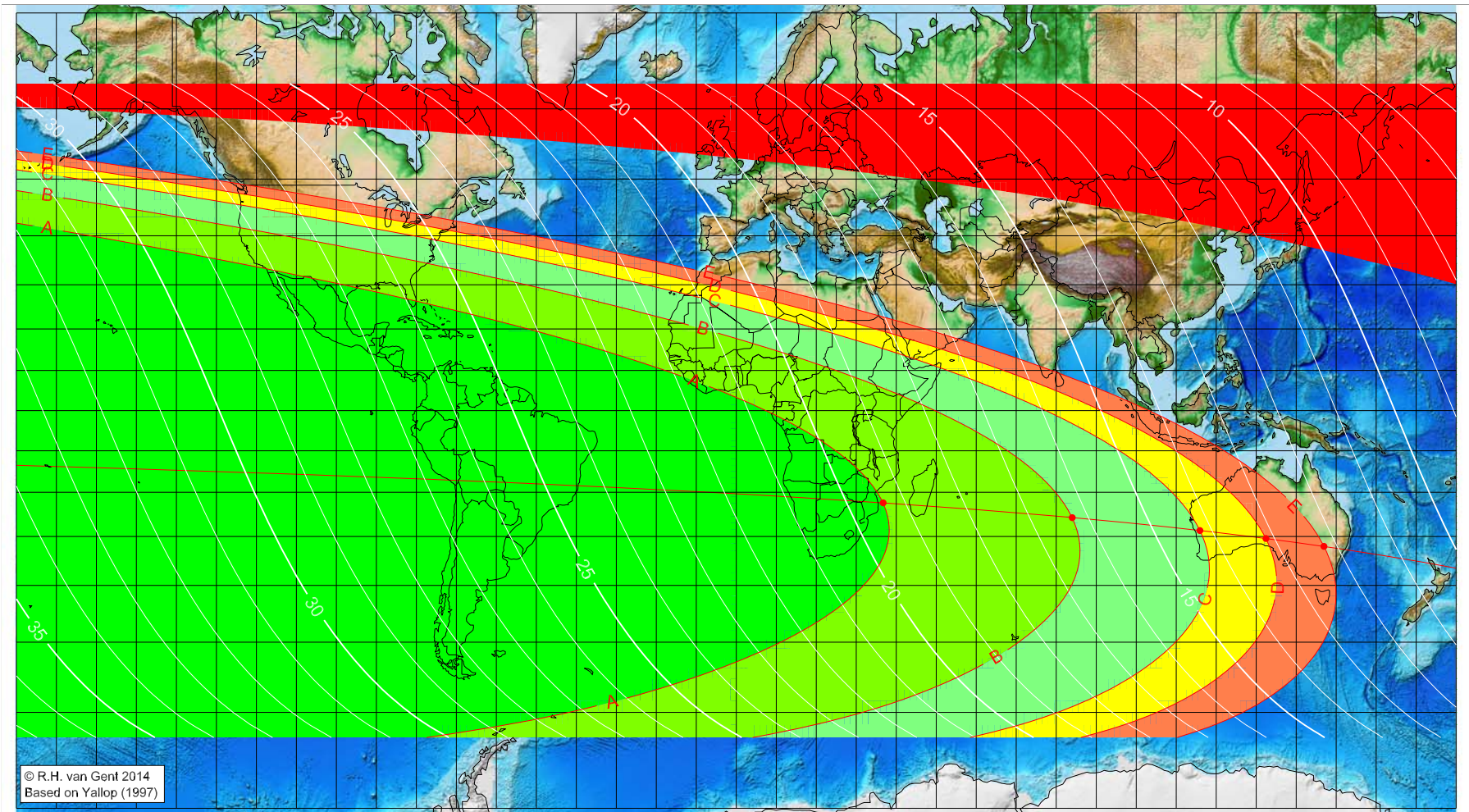
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening

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 Ramaḍān 11 AH

Global visibility map for 18 November 632 [Wednesday]
Day after luni-solar conjunction



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

Astronomical New Moon: 17 November 632, 21h 1.4m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
36.72	-22.46	19.38
84.00	-25.84	16.28
115.93	-28.71	14.21
132.44	-30.44	13.15
146.94	-32.12	12.23

Astronomical (Brown) Lunation Number = -15956
Islamic Lunation Number = 129
TT - UT [= ΔT] = 1.25 h

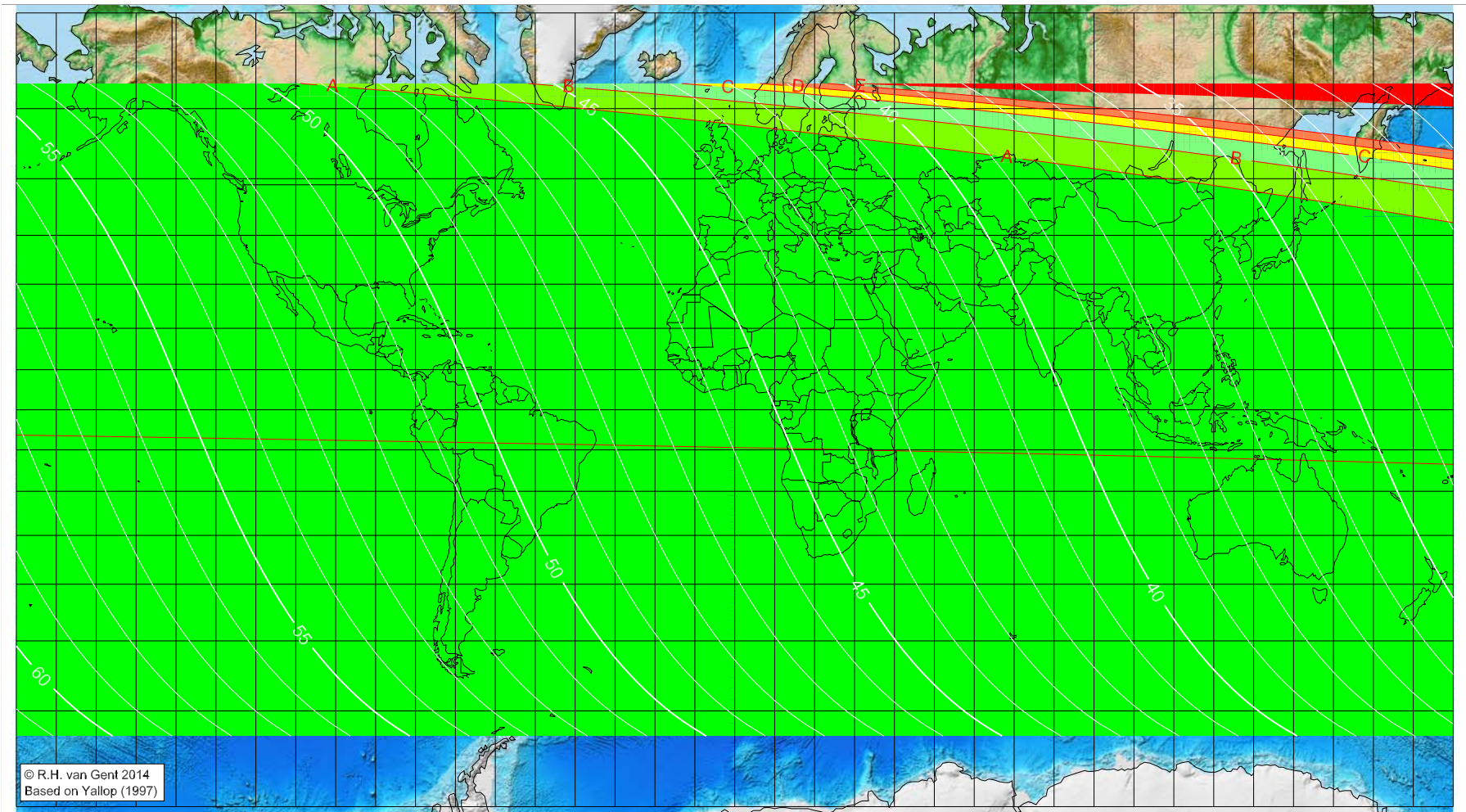
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 Ramaḍān 11 AH

Global visibility map for 19 November 632 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 17 November 632, 21h 1.4m (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)

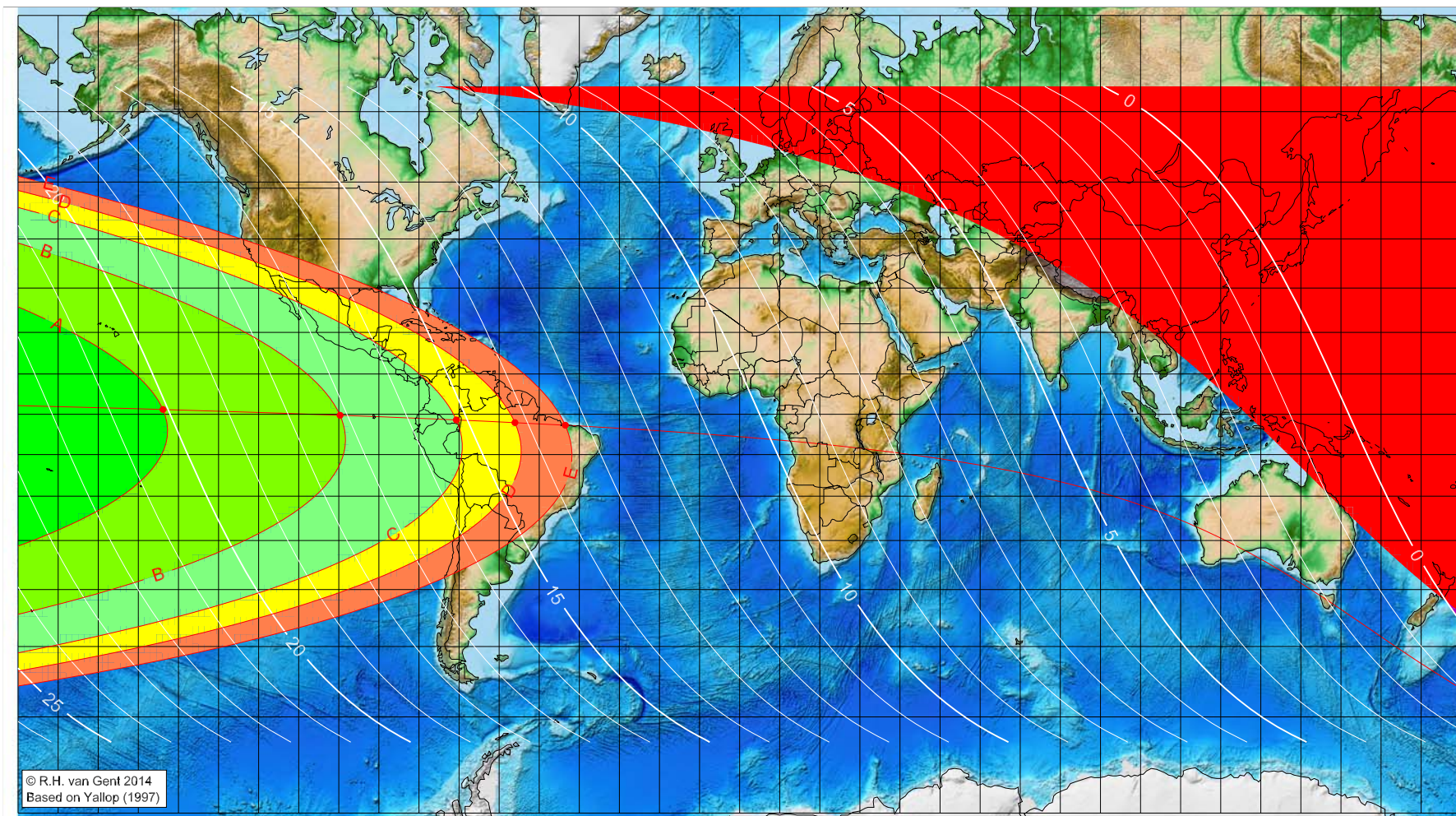
Astronomical (Brown) Lunation Number = -15956
Islamic Lunation Number = 129
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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 11 AH

Global visibility map for 17 December 632 [Thursday]
Day of luni-solar conjunction



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

Astronomical New Moon: 17 December 632, 7h 54.7m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-143.86	1.19	20.09
-99.68	-0.25	17.12
-70.69	-1.41	15.19
-56.06	-2.08	14.21
-43.48	-2.73	13.38

Astronomical (Brown) Lunation Number = -15955
Islamic Lunation Number = 130
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°)

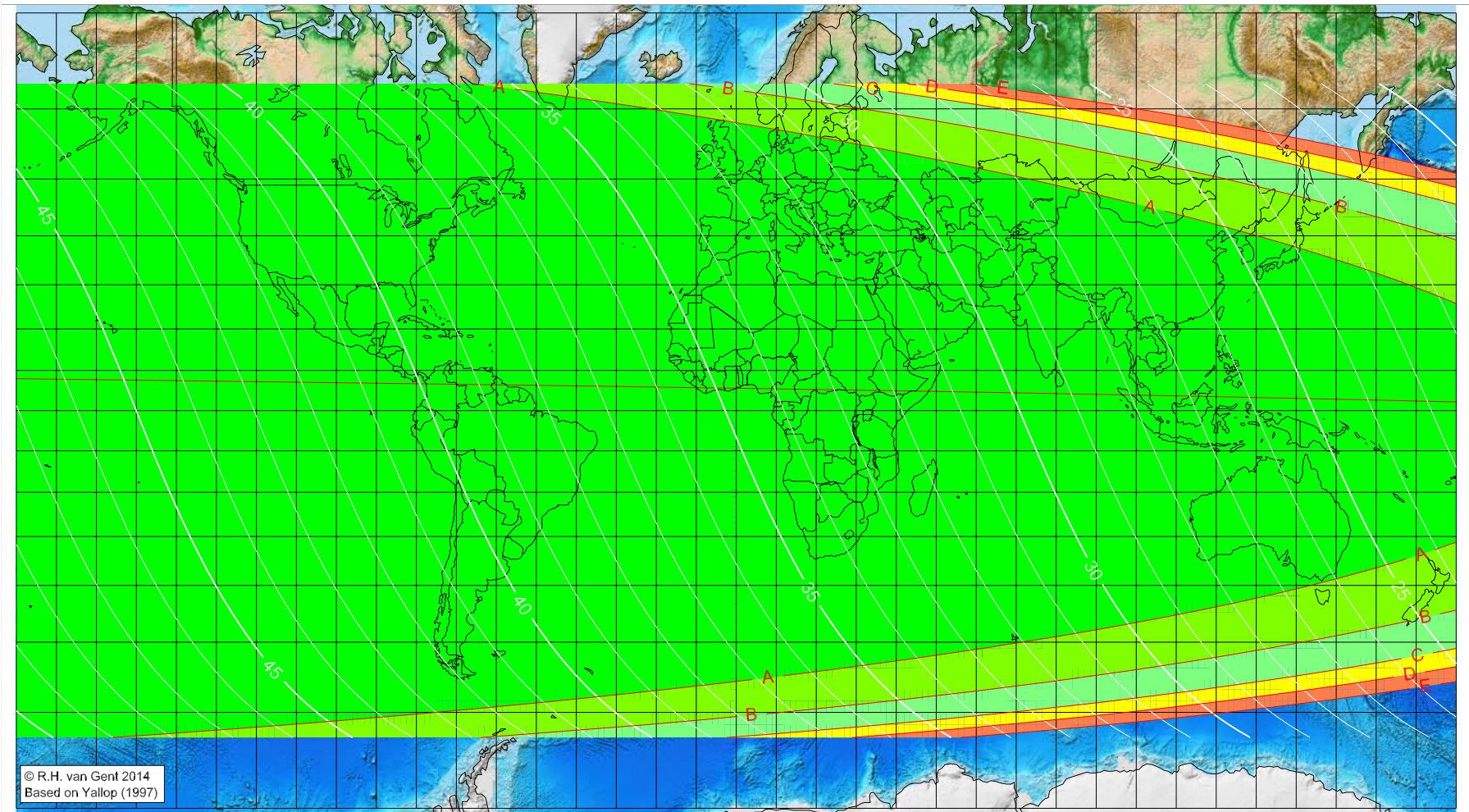
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

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

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

First visibility lunar crescent for Shawwāl 11 AH

Global visibility map for 18 December 632 [Friday]
Day after luni-solar conjunction



Astronomical New Moon: 17 December 632, 7h 54.7m (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 = -15955
Islamic Lunation Number = 130
TT - UT [= ΔT] = 1.25 h

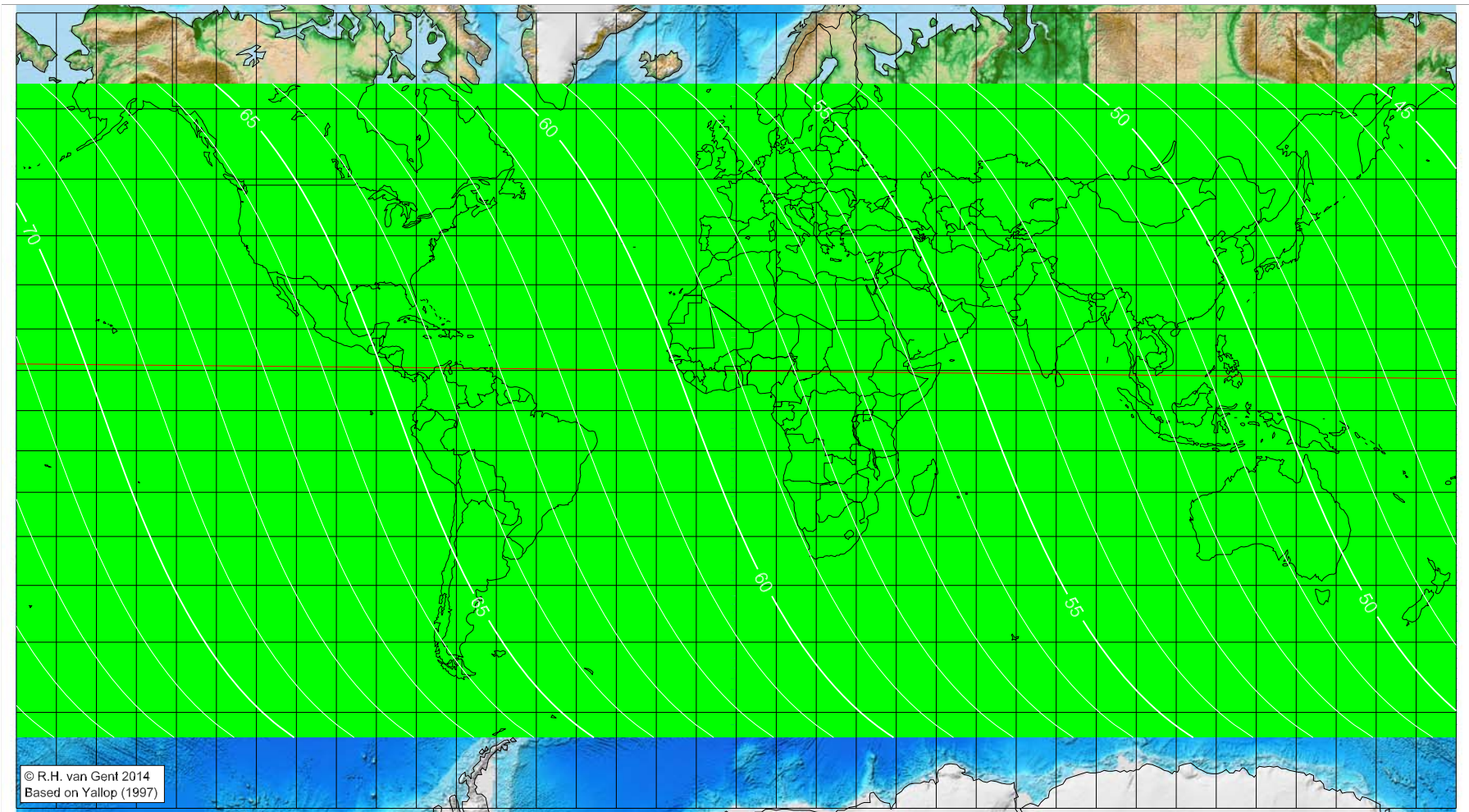
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 11 AH

Global visibility map for 19 December 632 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 17 December 632, 7h 54.7m (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)

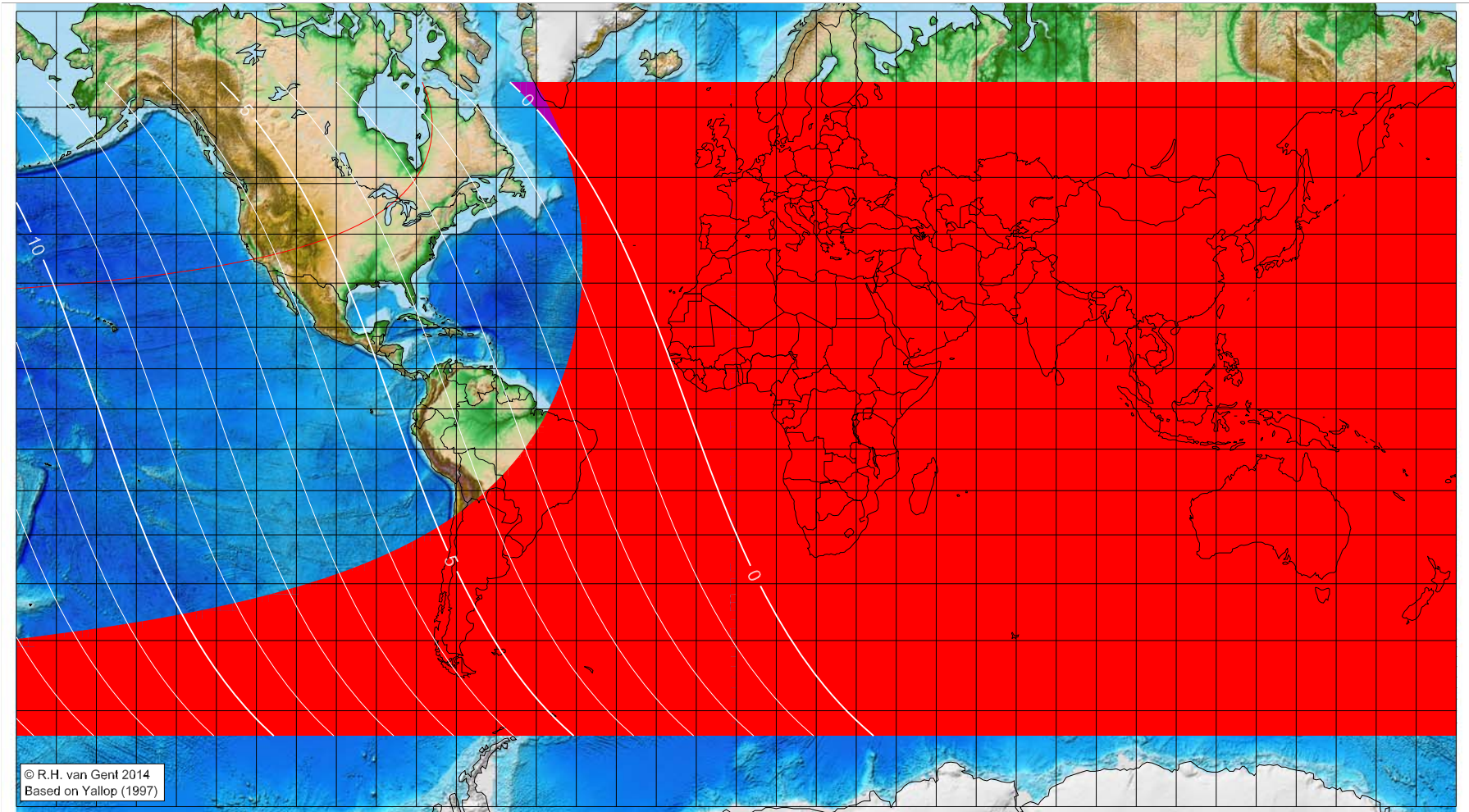
Astronomical (Brown) Lunation Number = -15955
Islamic Lunation Number = 130
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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'ḍa 11 AH

Global visibility map for 15 January 633 [Friday]
Day of luni-solar conjunction



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

Astronomical New Moon: 15 January 633, 19h 3.2m (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 = -15954
Islamic Lunation Number = 131
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°)

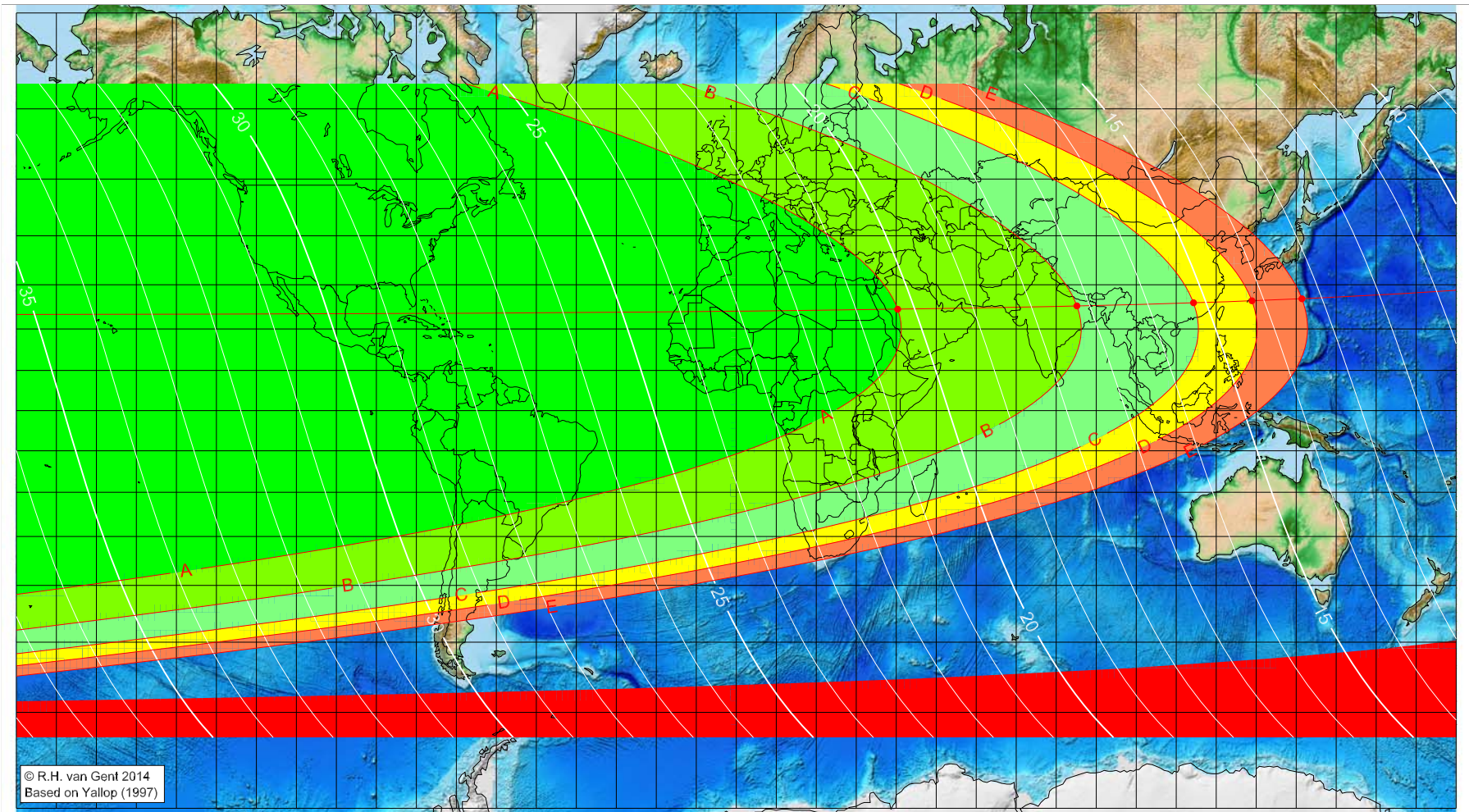
Lunar age (in hours) is given for the 'best time', defined as the moment 4/9ths between sunset and moonset

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

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

First visibility lunar crescent for Dhū 'l-Qa'ḍa 11 AH

Global visibility map for 16 January 633 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 15 January 633, 19h 3.2m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = -15954
Islamic Lunation Number = 131
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)

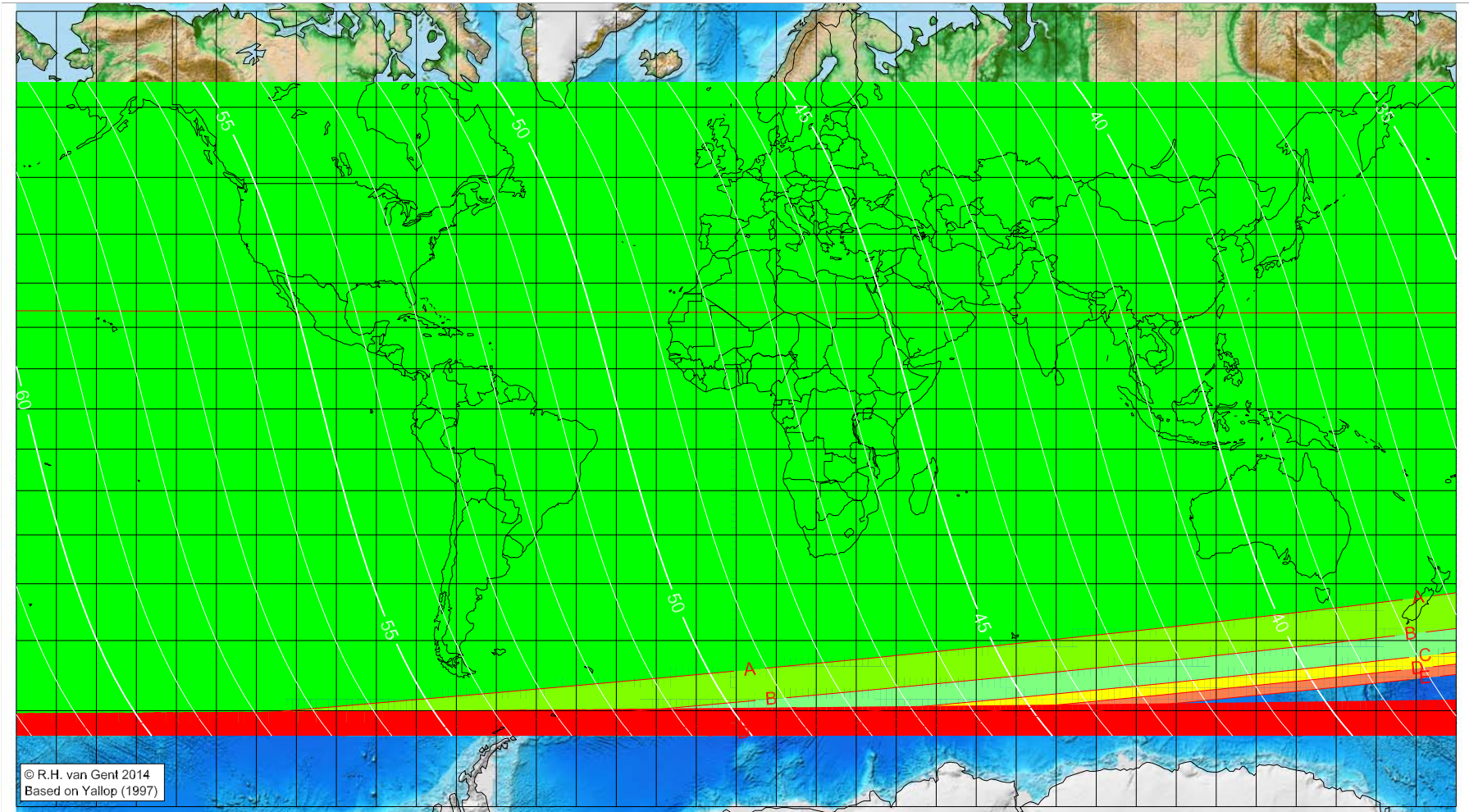
Longitude (°)	Latitude (°)	Lunar age (h)
40.36	24.56	20.29
85.17	25.32	17.22
114.33	26.02	15.21
128.94	26.47	14.21
141.44	26.92	13.34

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'ḍa 11 AH

Global visibility map for 17 January 633 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 15 January 633, 19h 3.2m (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)

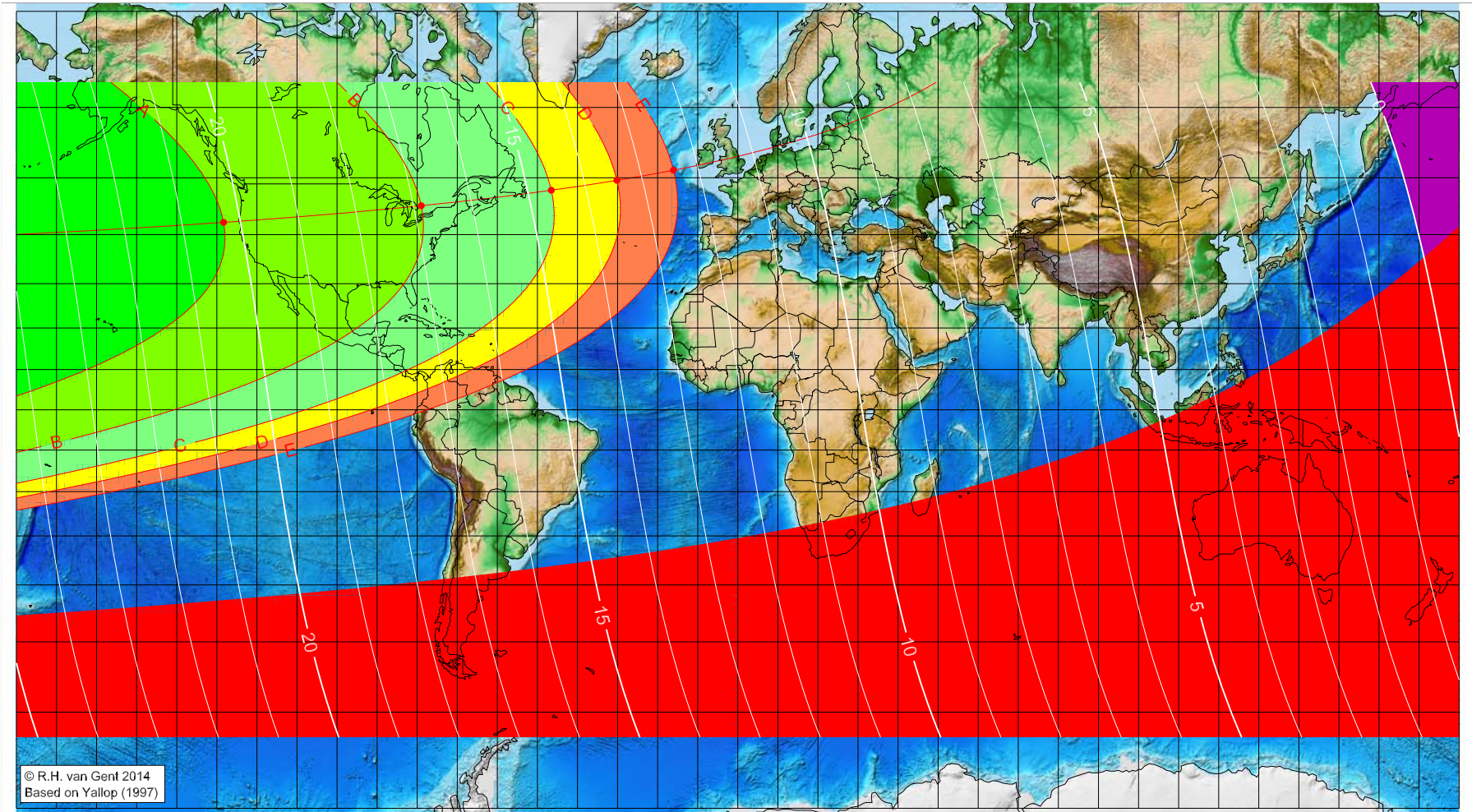
Astronomical (Brown) Lunation Number = -15954
Islamic Lunation Number = 131
 $TT - UT [= \Delta T] = 1.25$ h

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 Dhū 'l-Hijja 11 AH

Global visibility map for 14 February 633 [Sunday]
Day of luni-solar conjunction



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

Astronomical New Moon: 14 February 633, 6h 20.4m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15953
Islamic Lunation Number = 132
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)
-128.31	42.31	20.29
-78.97	45.30	16.87
-46.54	47.95	14.60
-30.16	49.58	13.44
-16.06	51.19	12.43

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

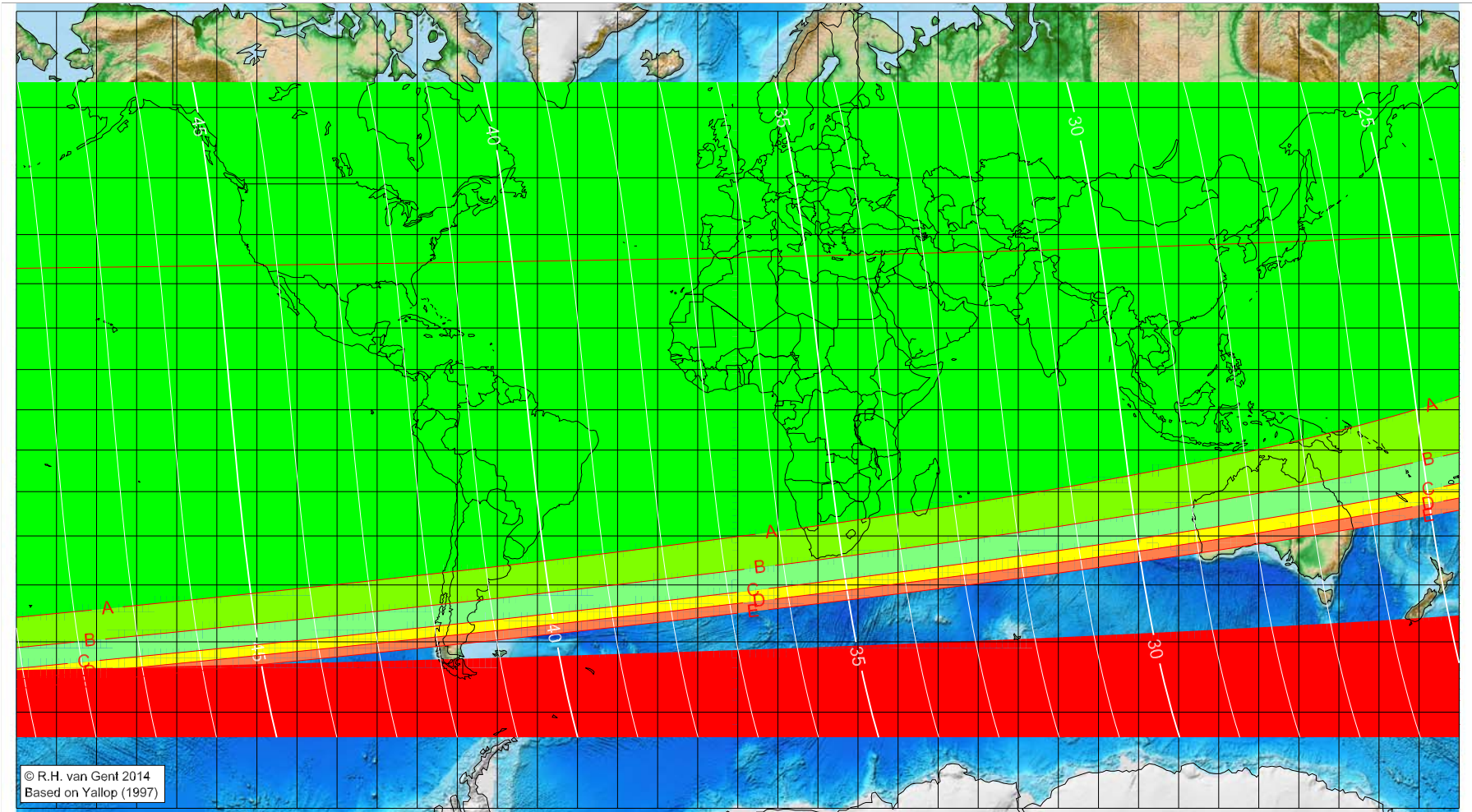
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Dhū 'l-Hijja 11 AH

Global visibility map for 15 February 633 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 14 February 633, 6h 20.4m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = -15953
Islamic Lunation Number = 132
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)

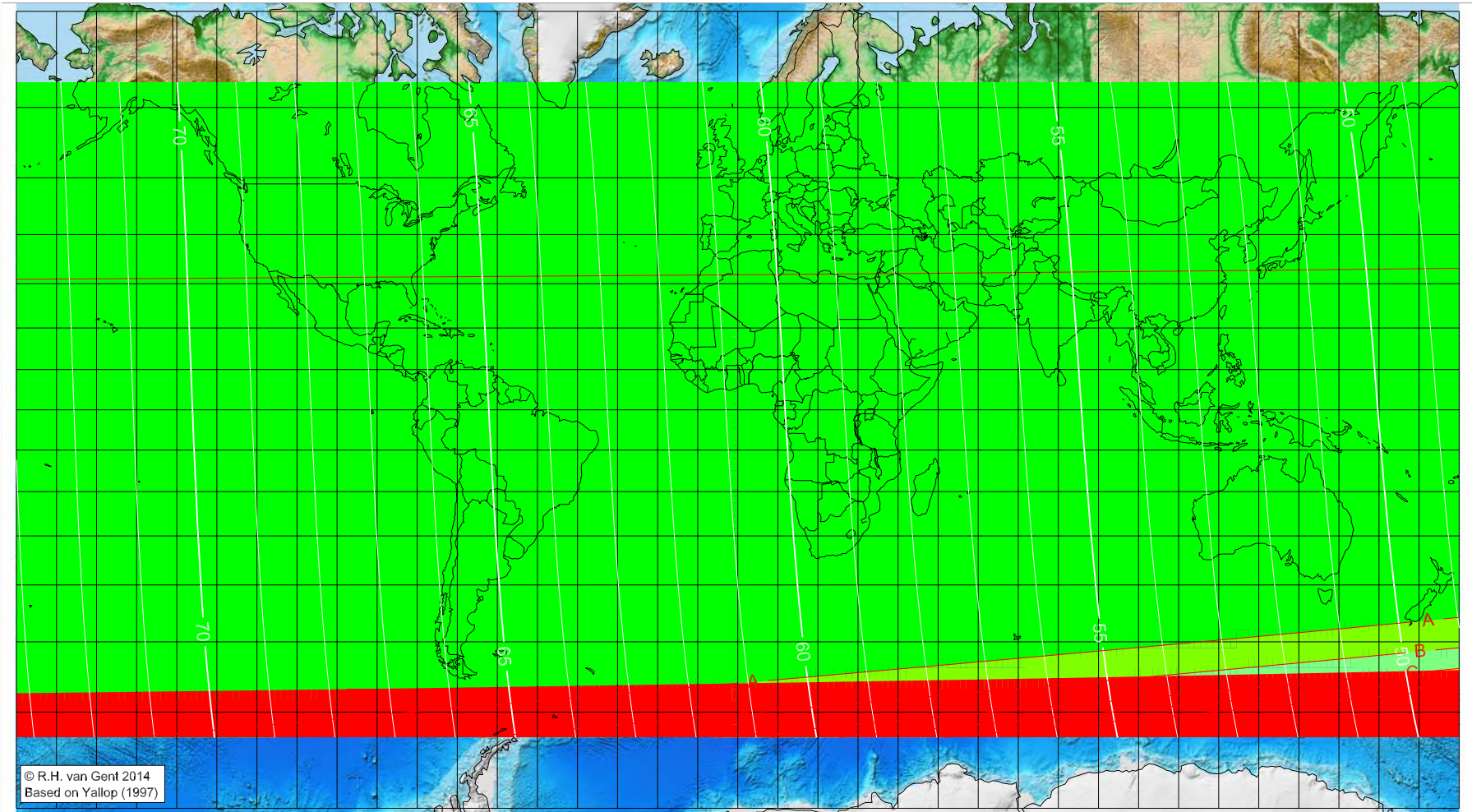
Longitude (°) Latitude (°) Lunar age (h)
 visible on the previous evening
 visible on the previous evening
 visible on the previous evening
 visible on the previous evening
 visible on the previous evening

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 Dhū 'l-Hijja 11 AH

Global visibility map for 16 February 633 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 14 February 633, 6h 20.4m (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 = -15953
Islamic Lunation Number = 132
 $TT - UT [= \Delta T] = 1.25 \text{ h}$

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/>