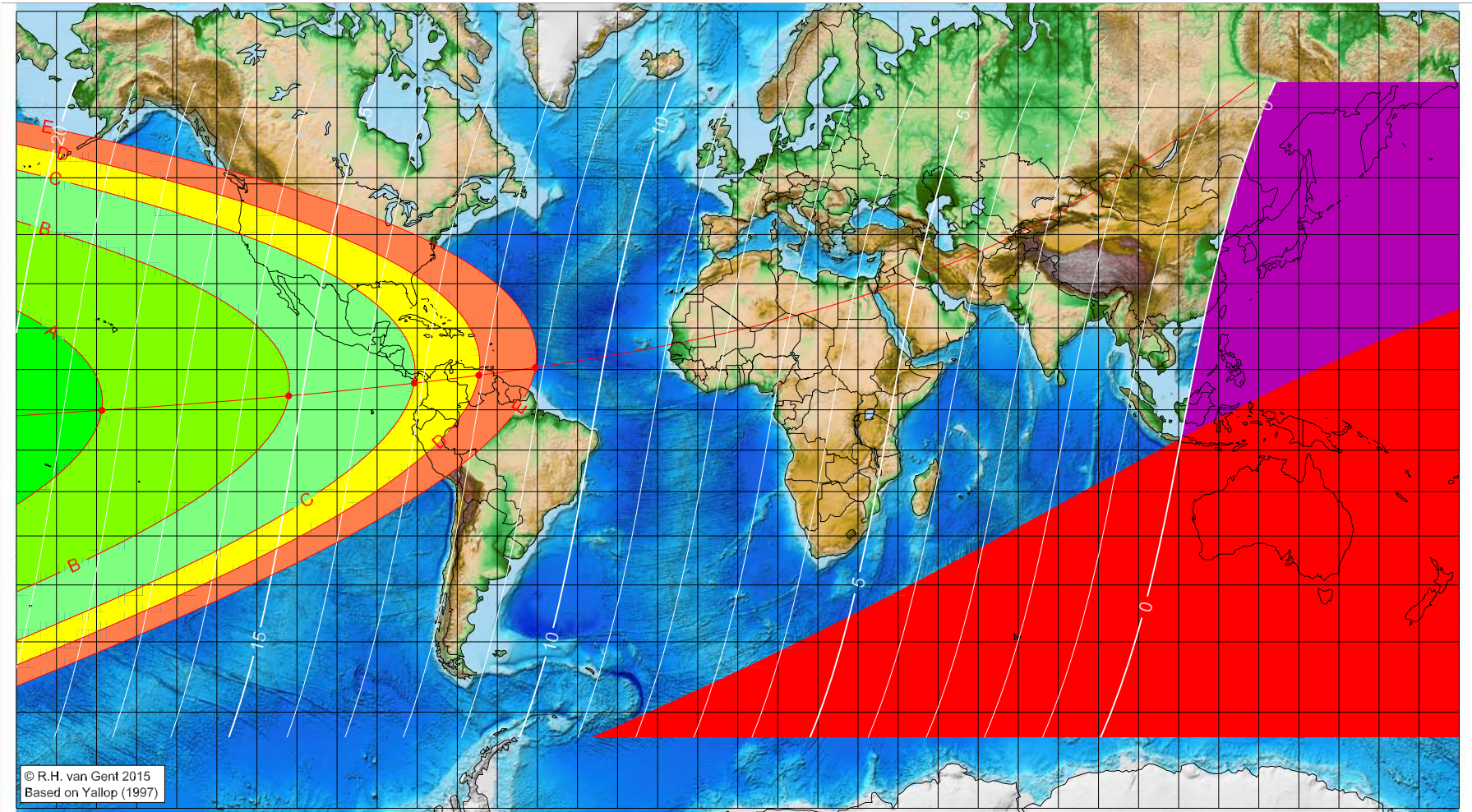


First visibility lunar crescent for Muḥarram 1441 AH

Global visibility map for 30 August 2019 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 30 August 2019, 10h 37.2m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1196

Islamic Lunation Number = 17281

TT - UT [= ΔT] = 1.2 min

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

- 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

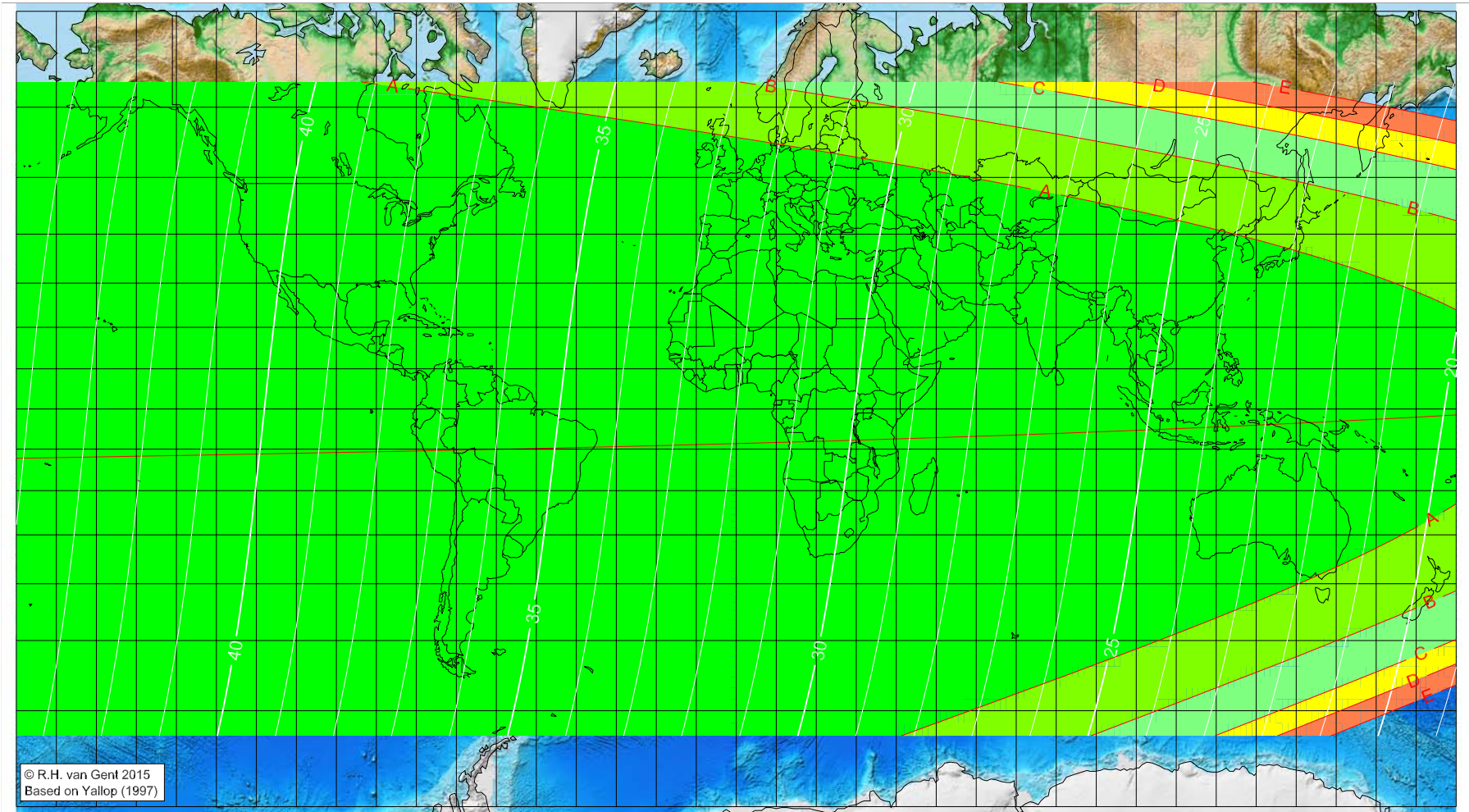
■ before conjunction (astronomical new moon)

Longitude (°)	Latitude (°)	Lunar age (h)
-158.68	-0.14	18.35
-112.07	3.49	15.23
-80.74	6.65	13.14
-64.62	8.59	12.07
-50.50	10.49	11.14

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

First visibility lunar crescent for Muḥarram 1441 AH

Global visibility map for 31 August 2019 [Saturday]
Day after luni-solar conjunction



Astronomical New Moon: 30 August 2019, 10h 37.2m (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 = 1196
Islamic Lunation Number = 17281
TT - UT [= ΔT] = 1.2 min

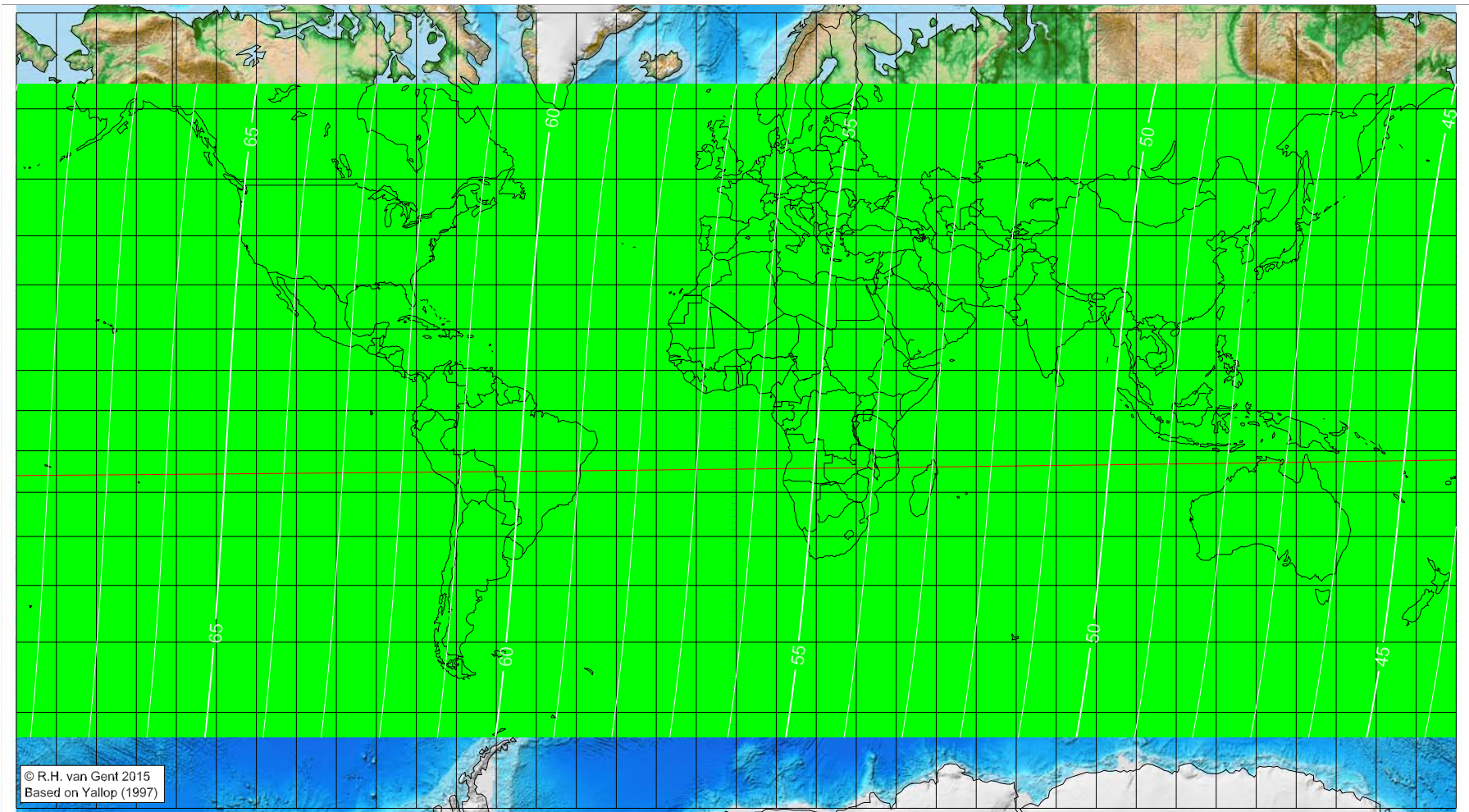
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 1441 AH

Global visibility map for 1 September 2019 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 30 August 2019, 10h 37.2m (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)

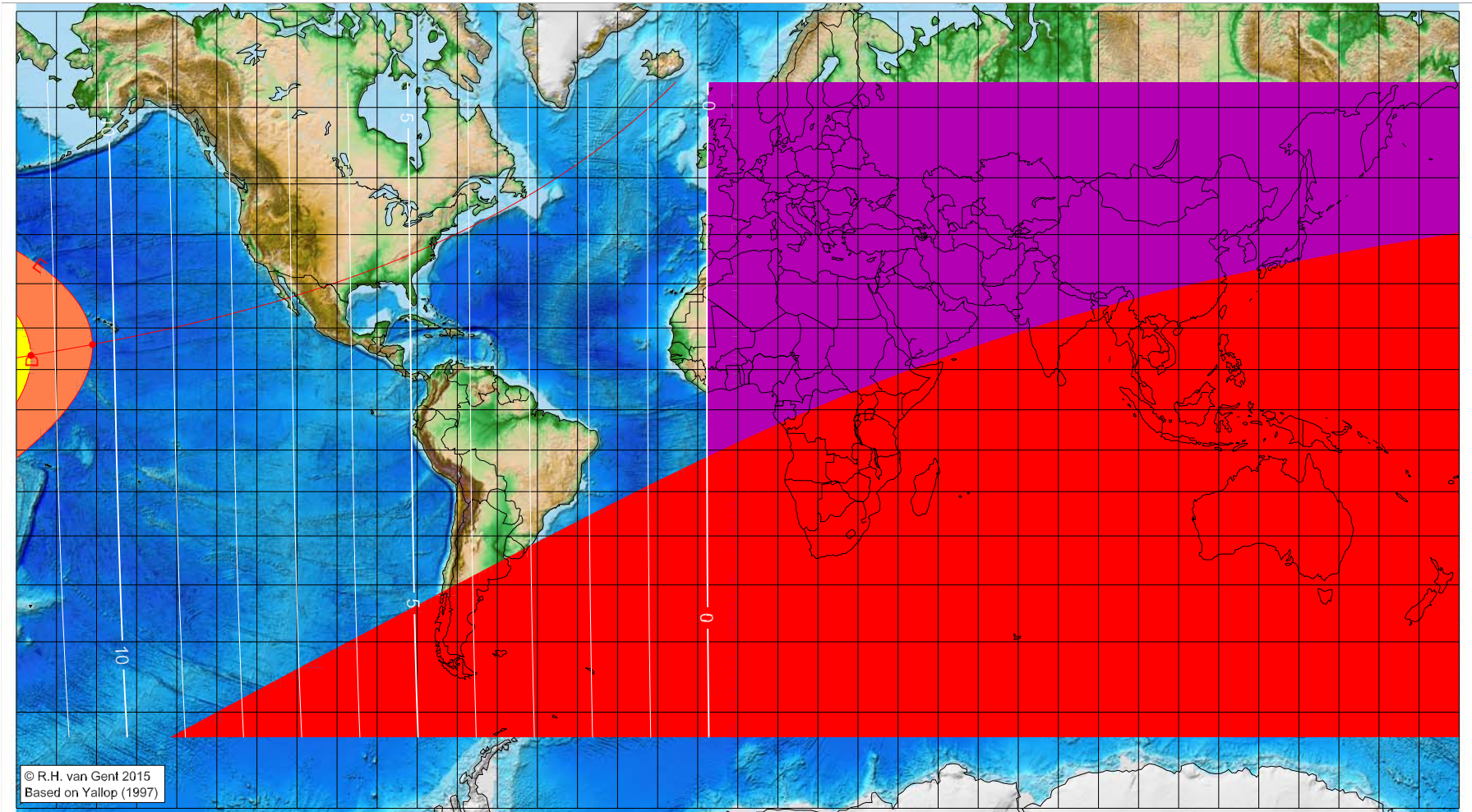
Astronomical (Brown) Lunation Number = 1196
Islamic Lunation Number = 17281
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Şafar 1441 AH

Global visibility map for 28 September 2019 [Saturday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 28 September 2019, 18h 26.5m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1197
Islamic Lunation Number = 17282
TT - UT [= ΔT] = 1.2 min

- 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)
-176.39	13.44	11.41
-161.02	16.06	10.36

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

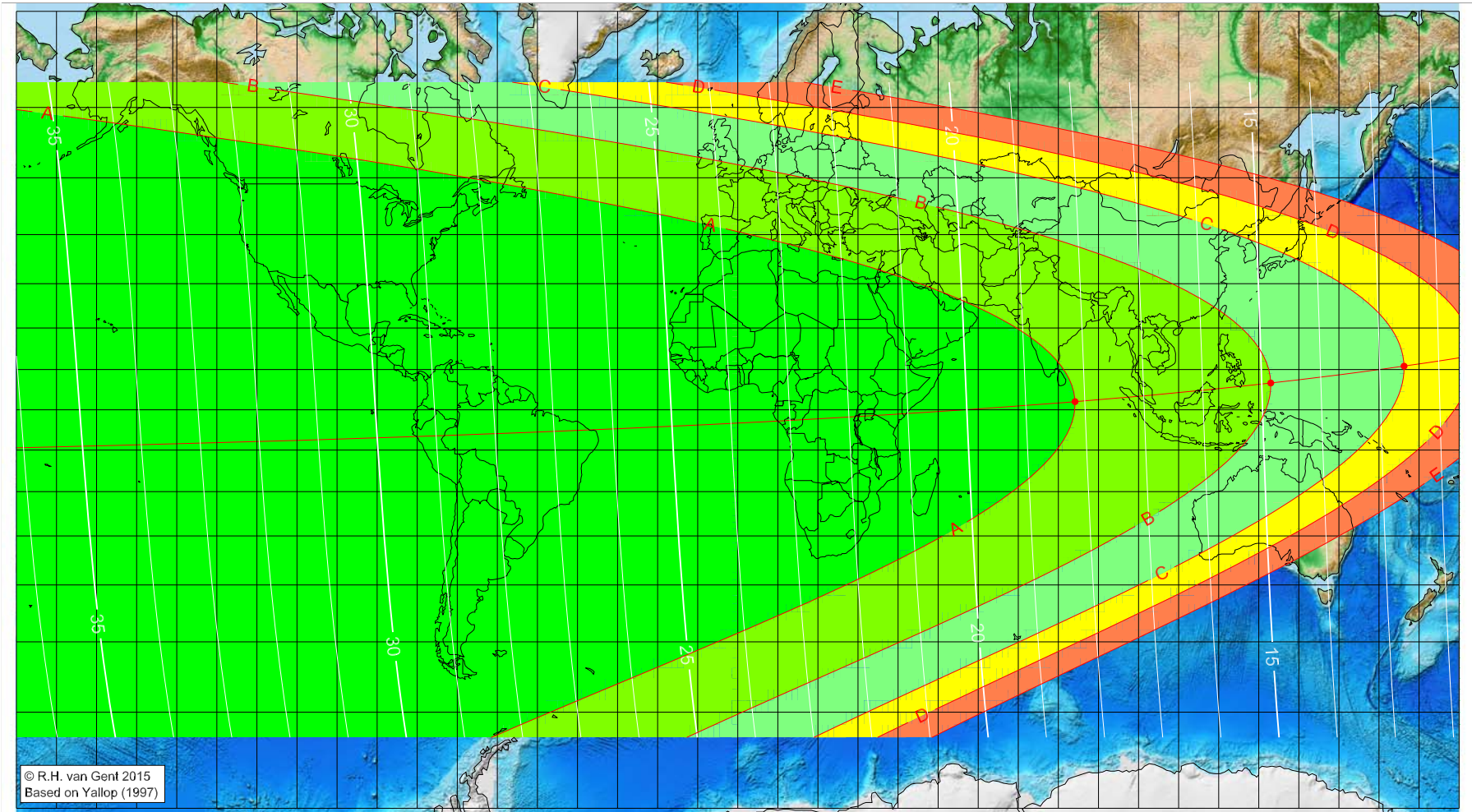
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Şafar 1441 AH

Global visibility map for 29 September 2019 [Sunday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 28 September 2019, 18h 26.5m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1197

Islamic Lunation Number = 17282

TT - UT [= ΔT] = 1.2 min

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

- 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)

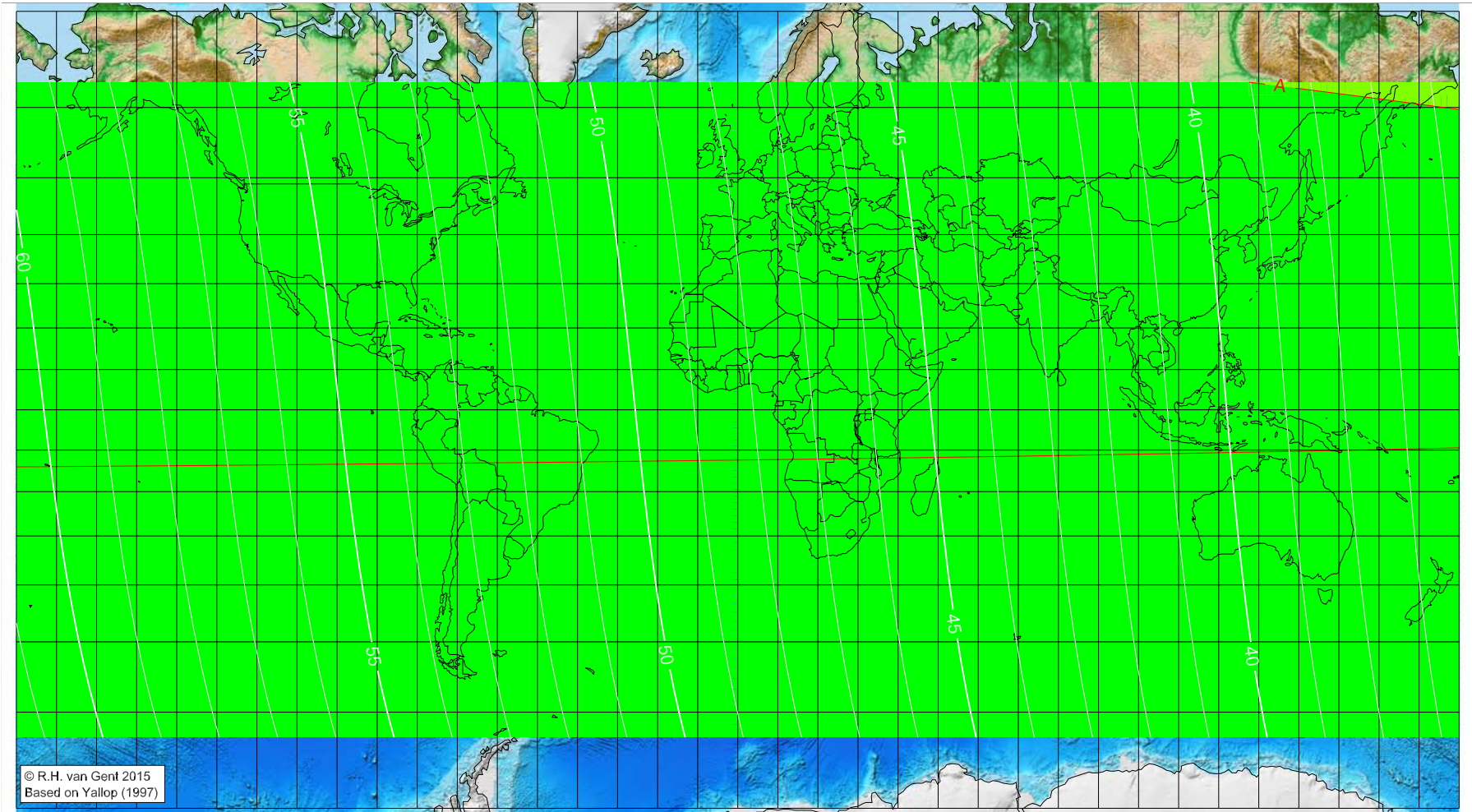
Longitude (°)	Latitude (°)	Lunar age (h)
84.15	2.04	18.17
133.00	6.67	14.85
166.26	10.83	12.59

visible on the previous evening
visible on the previous evening

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

First visibility lunar crescent for Şafar 1441 AH

Global visibility map for 30 September 2019 [Monday]
Second day after luni-solar conjunction



Astronomical New Moon: 28 September 2019, 18h 26.5m (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)

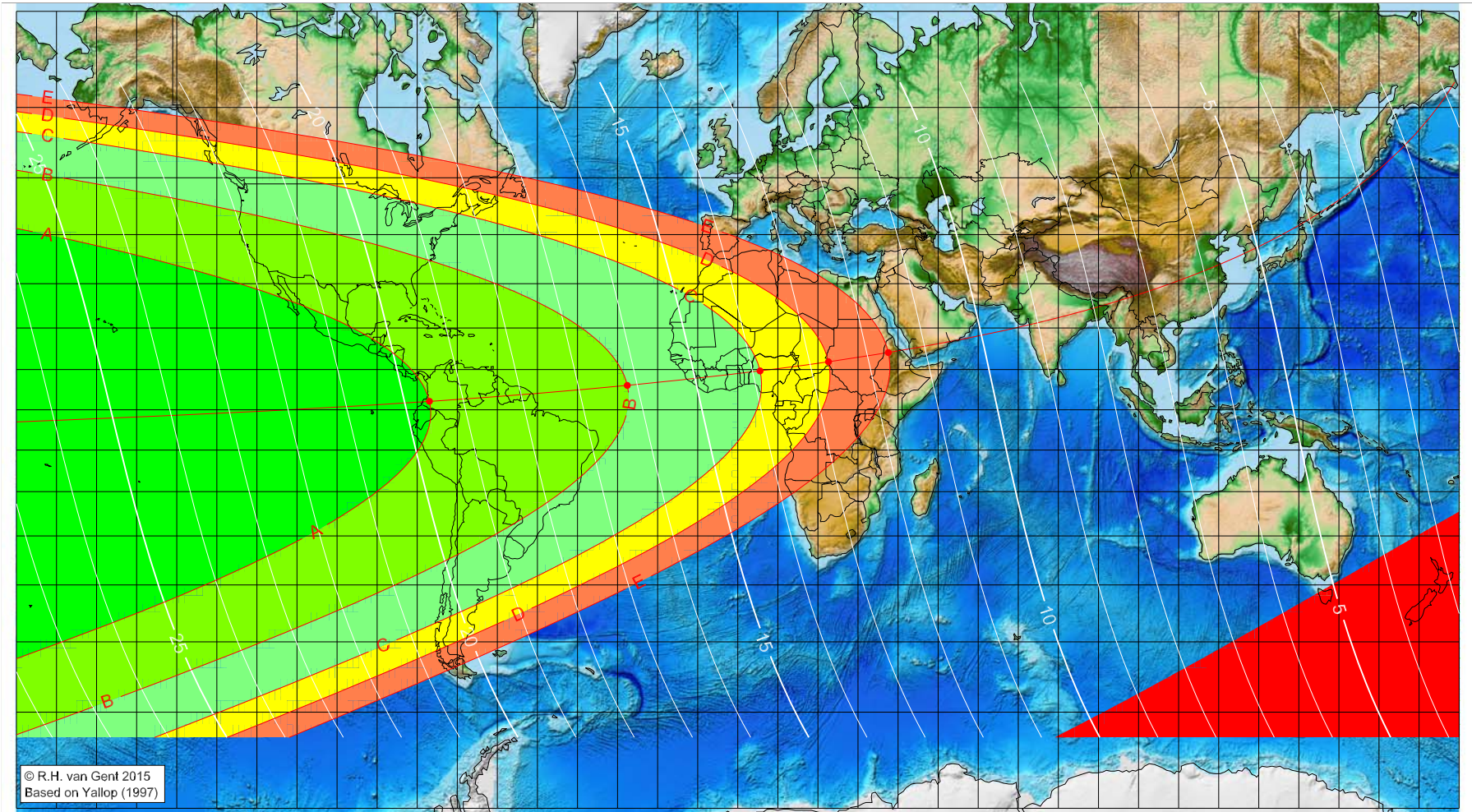
Astronomical (Brown) Lunation Number = 1197
Islamic Lunation Number = 17282
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Rabīʿ al-Awwal 1441 AH

Global visibility map for 28 October 2019 [Monday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 28 October 2019, 3h 38.6m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1198

Islamic Lunation Number = 17283

TT - UT [= ΔT] = 1.2 min

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

- 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)
-76.95	2.12	19.58
-27.57	6.07	16.17
5.56	9.65	13.87
22.63	11.89	12.68
37.57	14.14	11.64

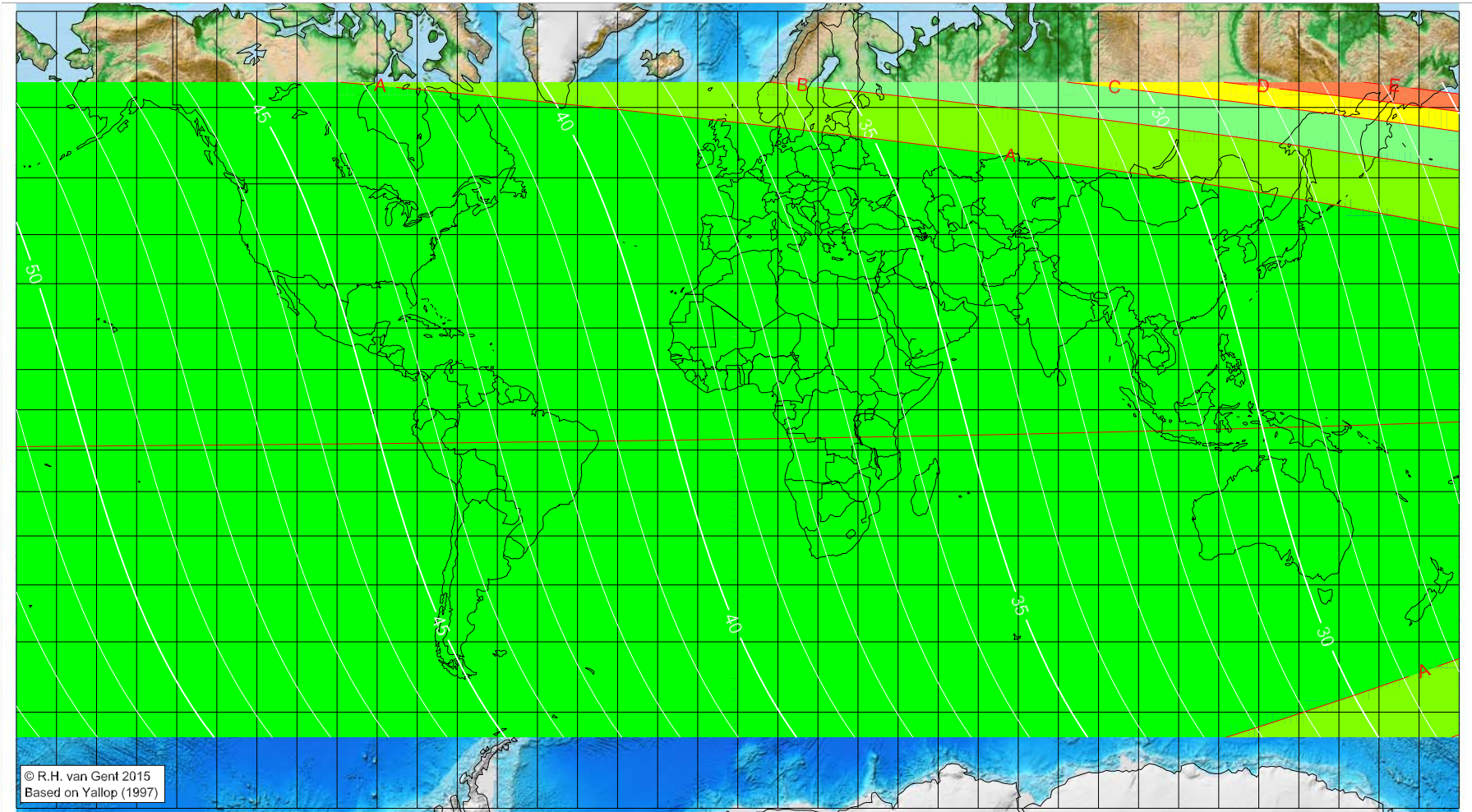
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rabīʿ al-Awwal 1441 AH

Global visibility map for 29 October 2019 [Tuesday]
Day after luni-solar conjunction



Astronomical New Moon: 28 October 2019, 3h 38.6m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1198

Islamic Lunation Number = 17283

TT - UT [= ΔT] = 1.2 min

- 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)

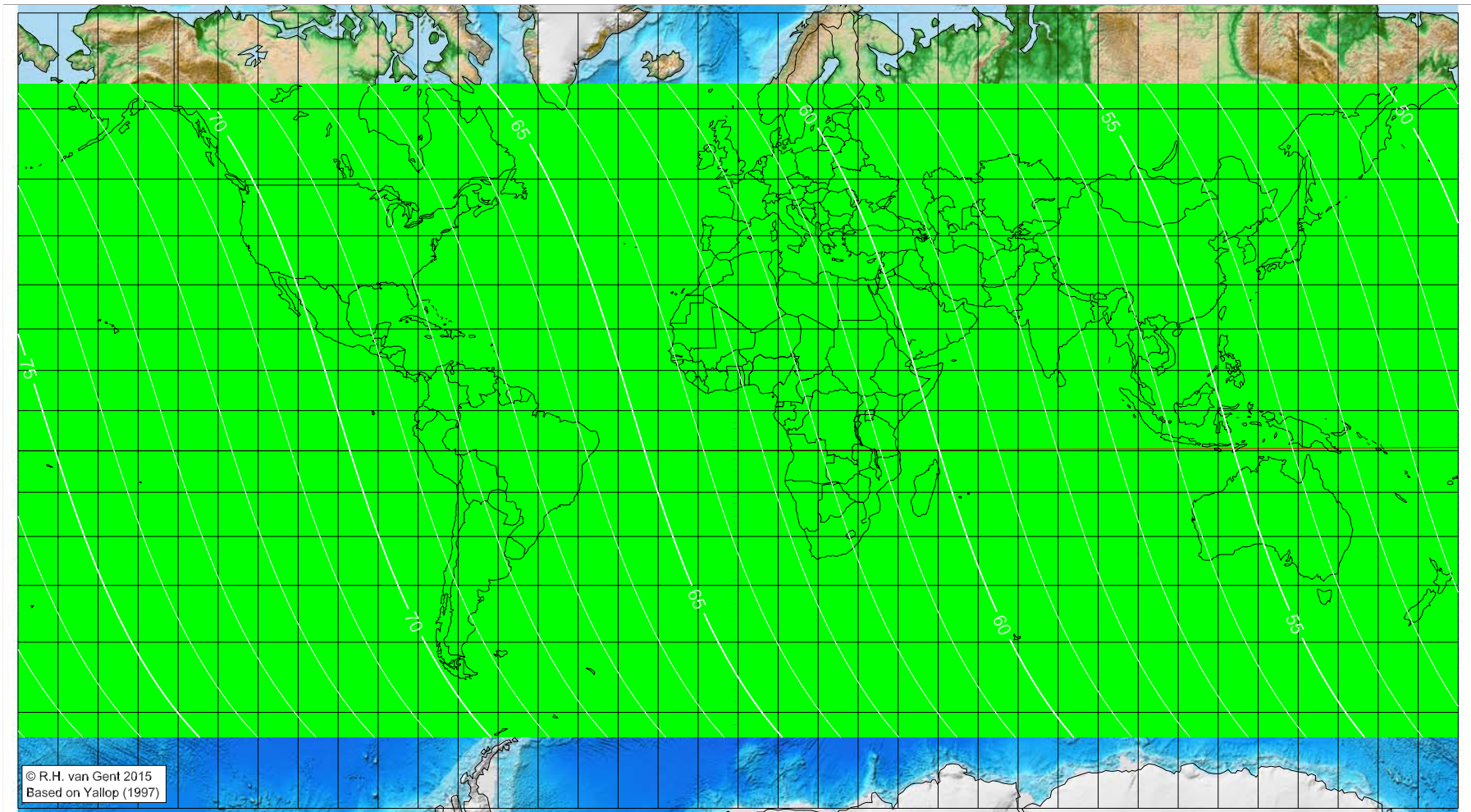
Longitude (°)	Latitude (°)	Lunar age (h)
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

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 Rabīʿ al-Awwal 1441 AH

Global visibility map for 30 October 2019 [Wednesday]
Second day after luni-solar conjunction



Astronomical New Moon: 28 October 2019, 3h 38.6m (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)

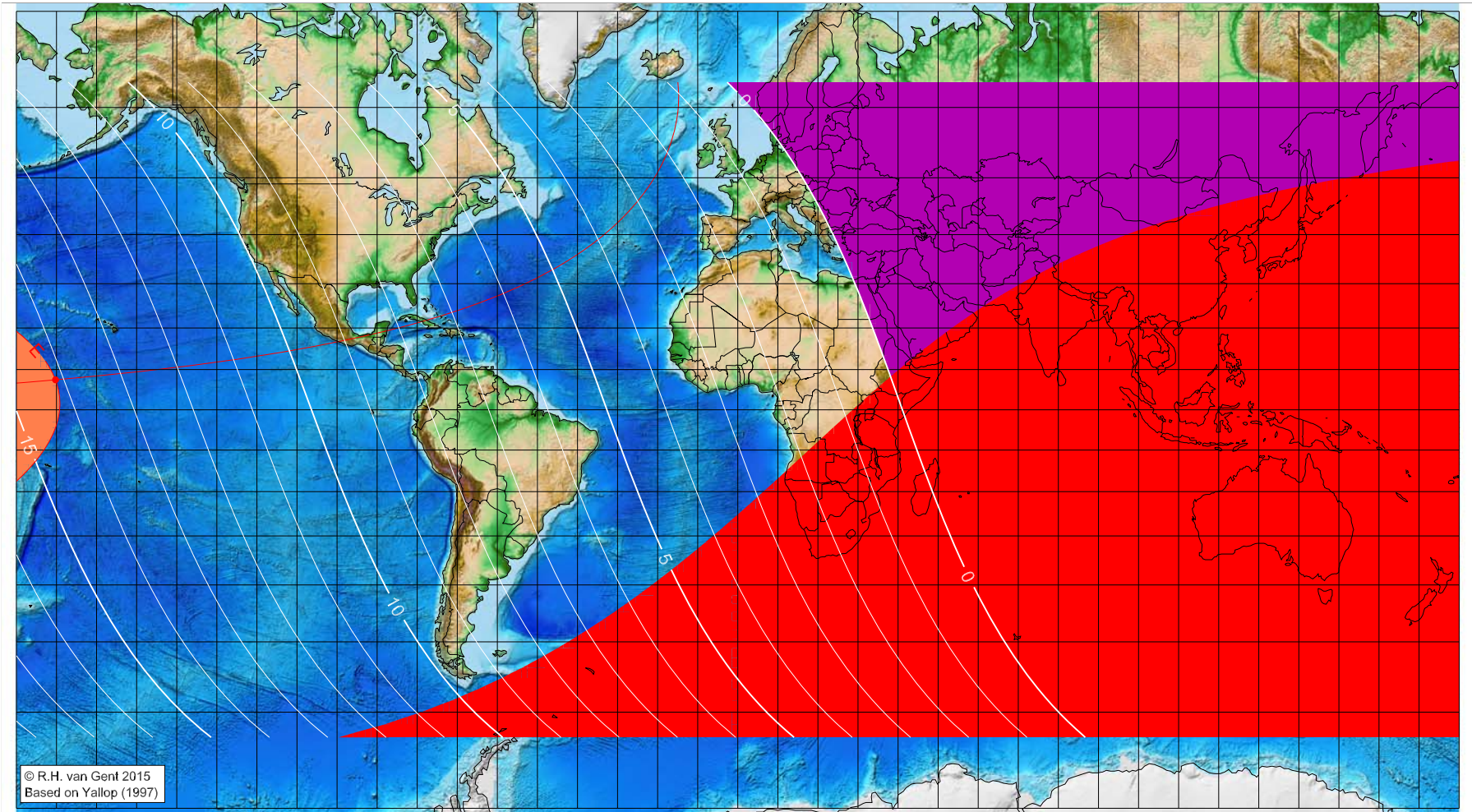
Astronomical (Brown) Lunation Number = 1198
Islamic Lunation Number = 17283
TT – UT [= ΔT] = 1.2 min

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

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

First visibility lunar crescent for Rabī' al-Ākhir 1441 AH

Global visibility map for 26 November 2019 [Tuesday]
Day of luni-solar conjunction



Astronomical New Moon: 26 November 2019, 15h 5.6m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1199
Islamic Lunation Number = 17284
TT - UT [= ΔT] = 1.2 min

- 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)
-170.25	7.46	14.14

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

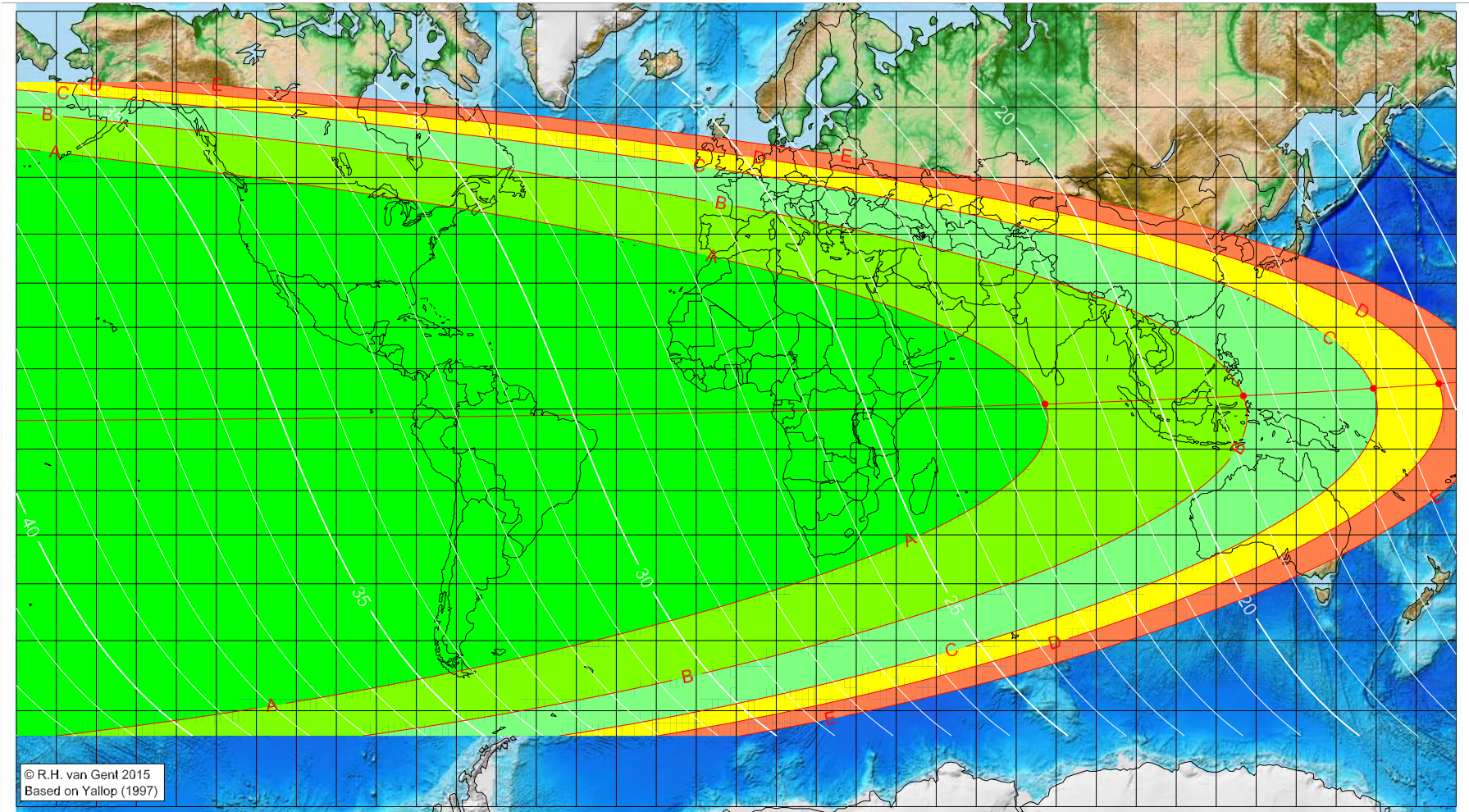
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rabīʿ al-Ākhir 1441 AH

Global visibility map for 27 November 2019 [Wednesday]
Day after luni-solar conjunction



Astronomical New Moon: 26 November 2019, 15h 5.6m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1199

Islamic Lunation Number = 17284

TT - UT [= ΔT] = 1.2 min

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

- 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)

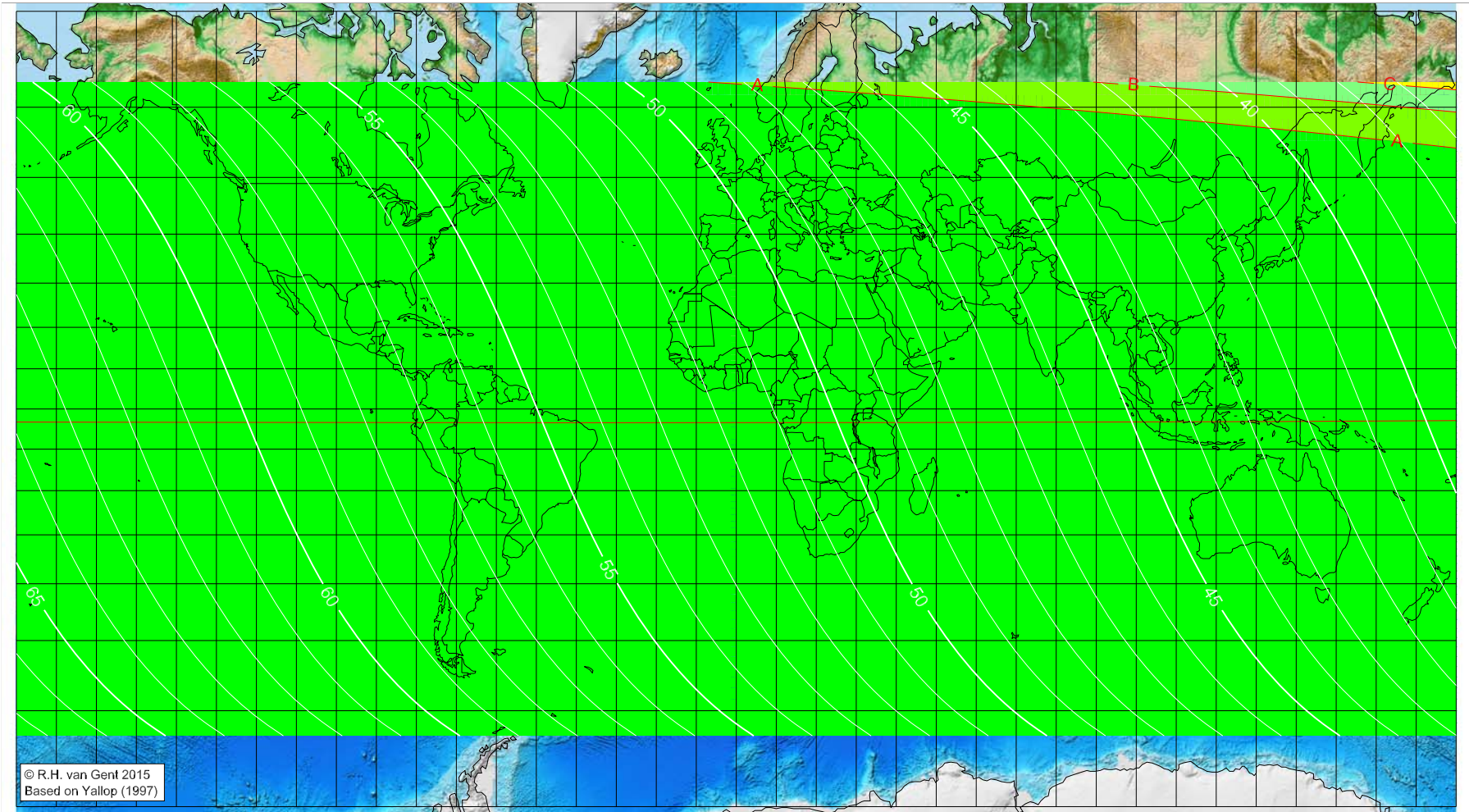
Longitude (°)	Latitude (°)	Lunar age (h)
77.19	1.22	21.93
126.80	3.28	18.52
159.29	5.14	16.27
175.67	6.31	15.13

visible on the previous evening

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

First visibility lunar crescent for Rabī al-Ākhir 1441 AH

Global visibility map for 28 November 2019 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 26 November 2019, 15h 5.6m (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)

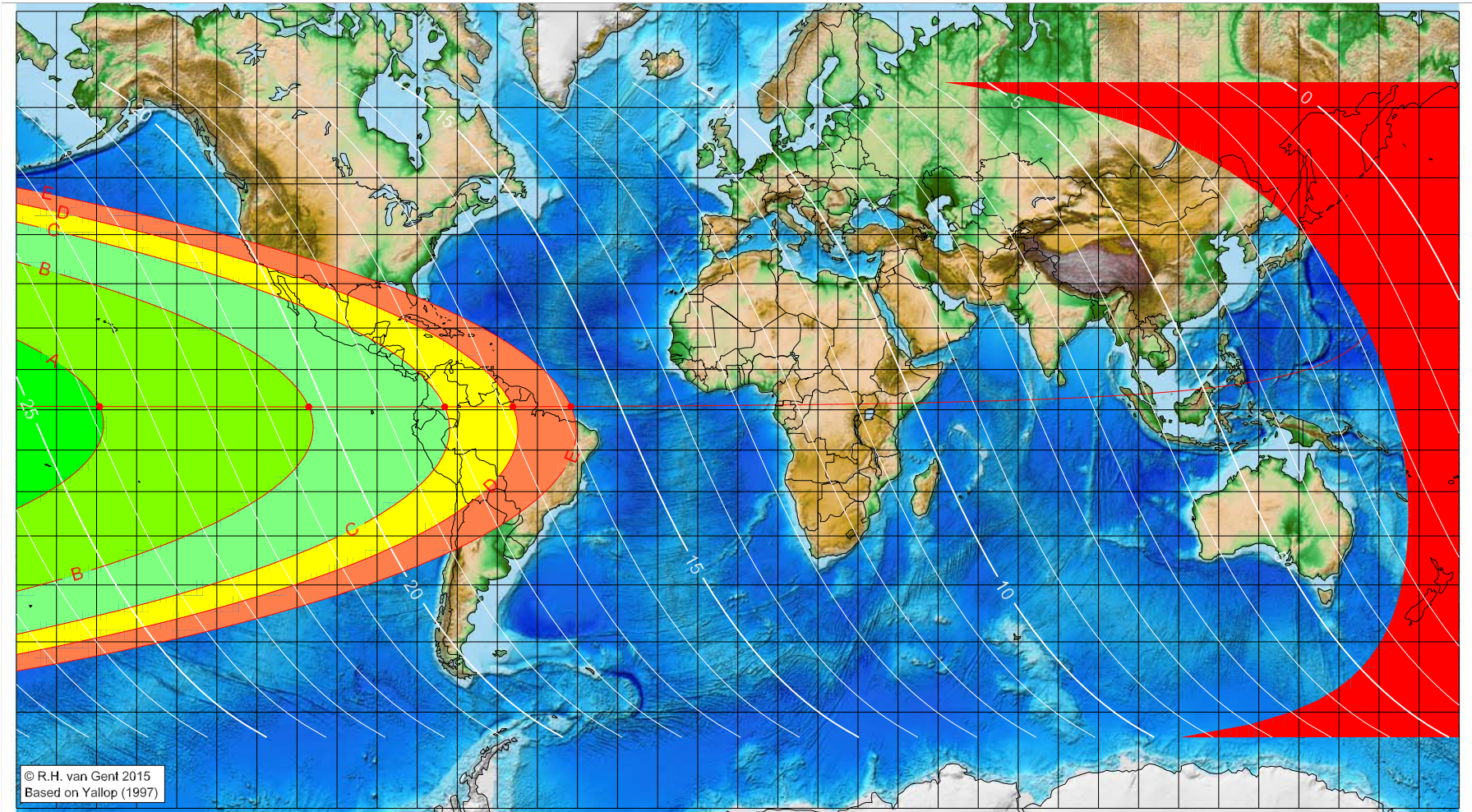
Astronomical (Brown) Lunation Number = 1199
Islamic Lunation Number = 17284
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Jumādā 'l-Ūlā 1441 AH

Global visibility map for 26 December 2019 [Thursday]
Day of luni-solar conjunction



Astronomical New Moon: 26 December 2019, 5h 13.1m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1200

Islamic Lunation Number = 17285

TT - UT [= ΔT] = 1.2 min

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

- 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)
-159.22	0.80	23.81
-107.05	0.73	20.27
-73.13	0.74	17.97
-56.16	0.78	16.82
-41.63	0.82	15.83

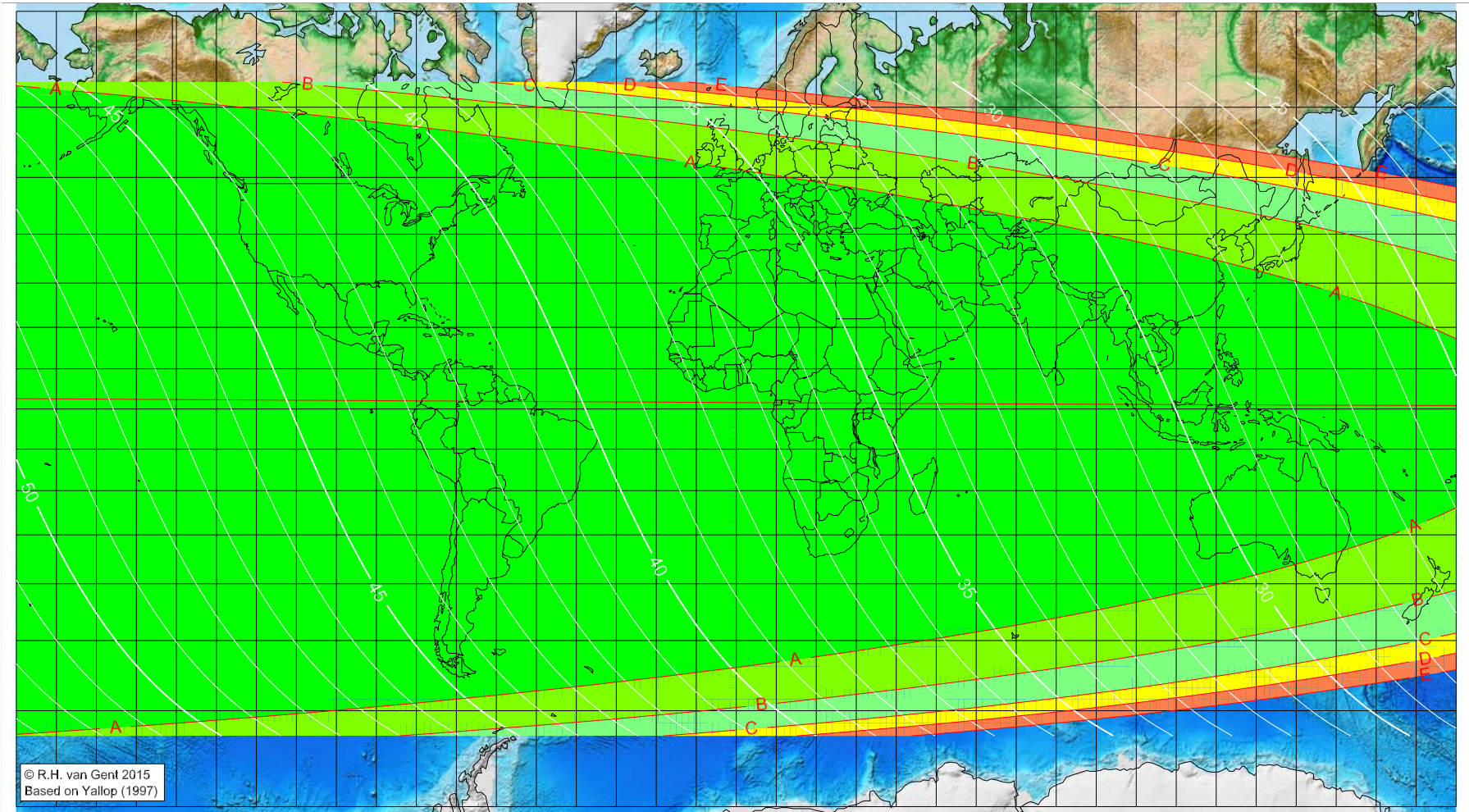
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Jumādā 'l-Ūlā 1441 AH

Global visibility map for 27 December 2019 [Friday]
Day after luni-solar conjunction



Astronomical New Moon: 26 December 2019, 5h 13.1m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1200

Islamic Lunation Number = 17285

TT - UT [= ΔT] = 1.2 min

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

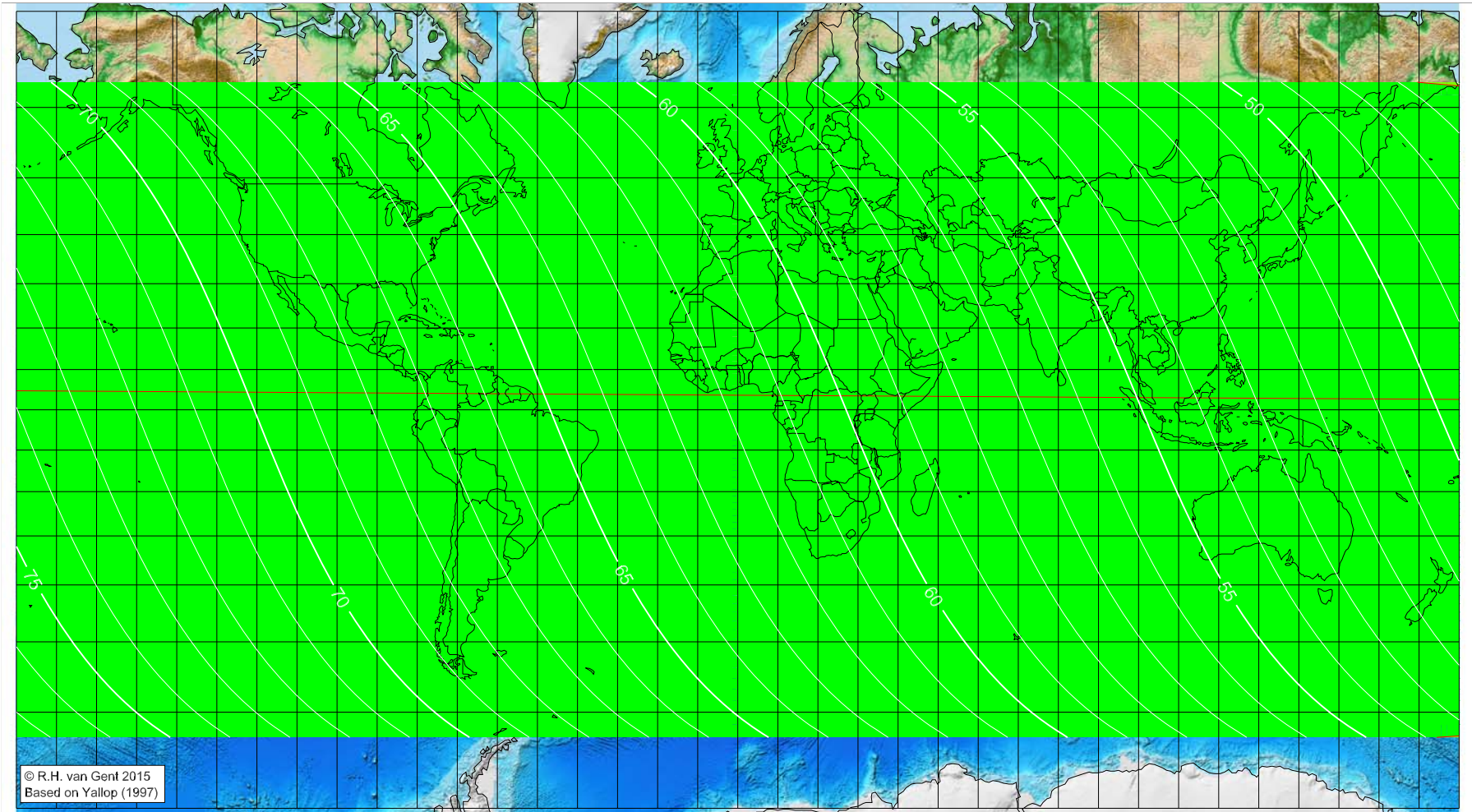
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

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

First visibility lunar crescent for Jumādā 'l-Ūlā 1441 AH

Global visibility map for 28 December 2019 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 26 December 2019, 5h 13.1m (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)

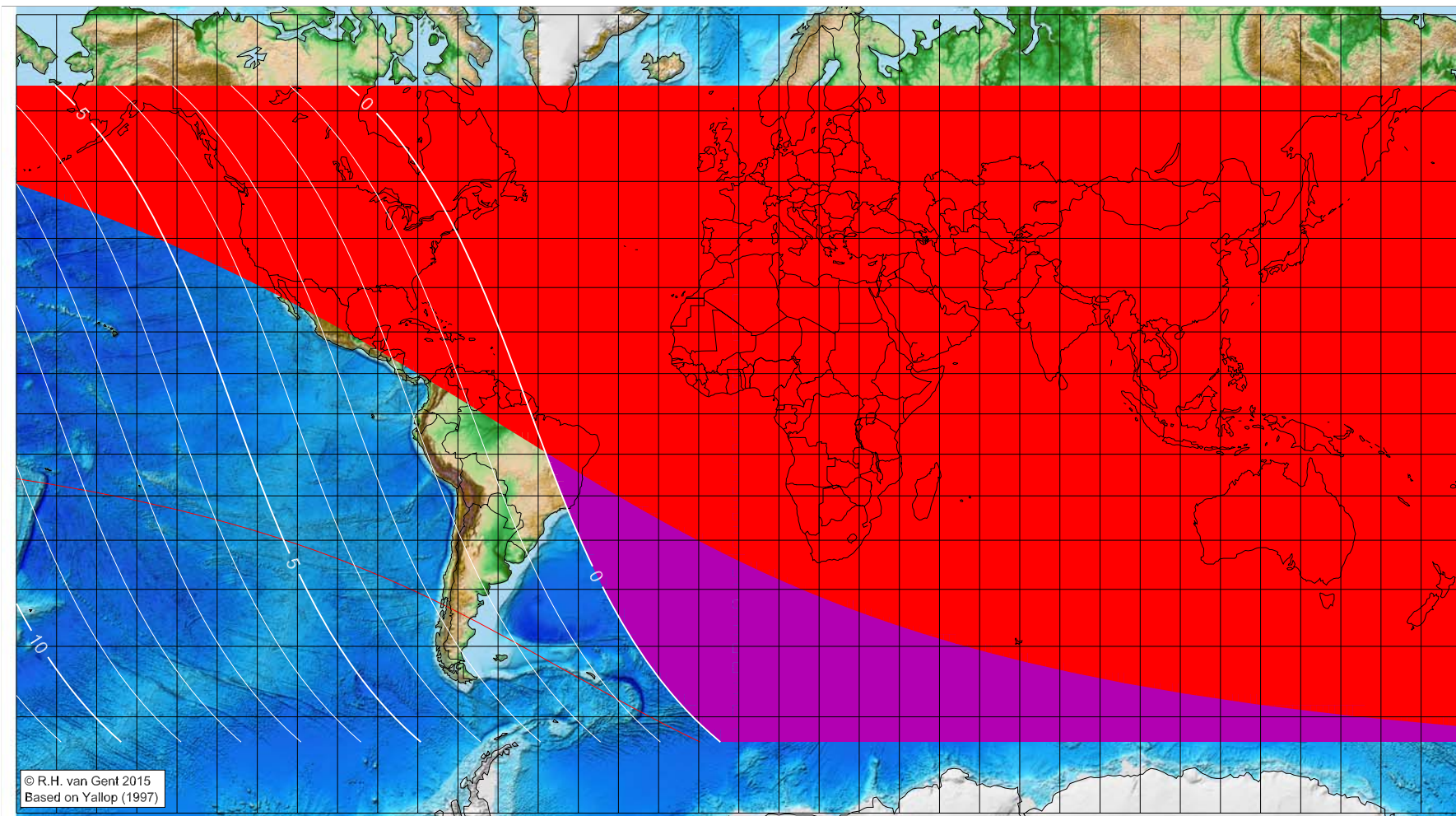
Astronomical (Brown) Lunation Number = 1200
Islamic Lunation Number = 17285
TT – UT [= ΔT] = 1.2 min

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

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

First visibility lunar crescent for Jumādā 'l-Ākhira 1441 AH

Global visibility map for 24 January 2020 [Friday]
Day of luni-solar conjunction



Astronomical New Moon: 24 January 2020, 21h 41.9m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1201
Islamic Lunation Number = 17286
TT - UT [= ΔT] = 1.2 min

- 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)

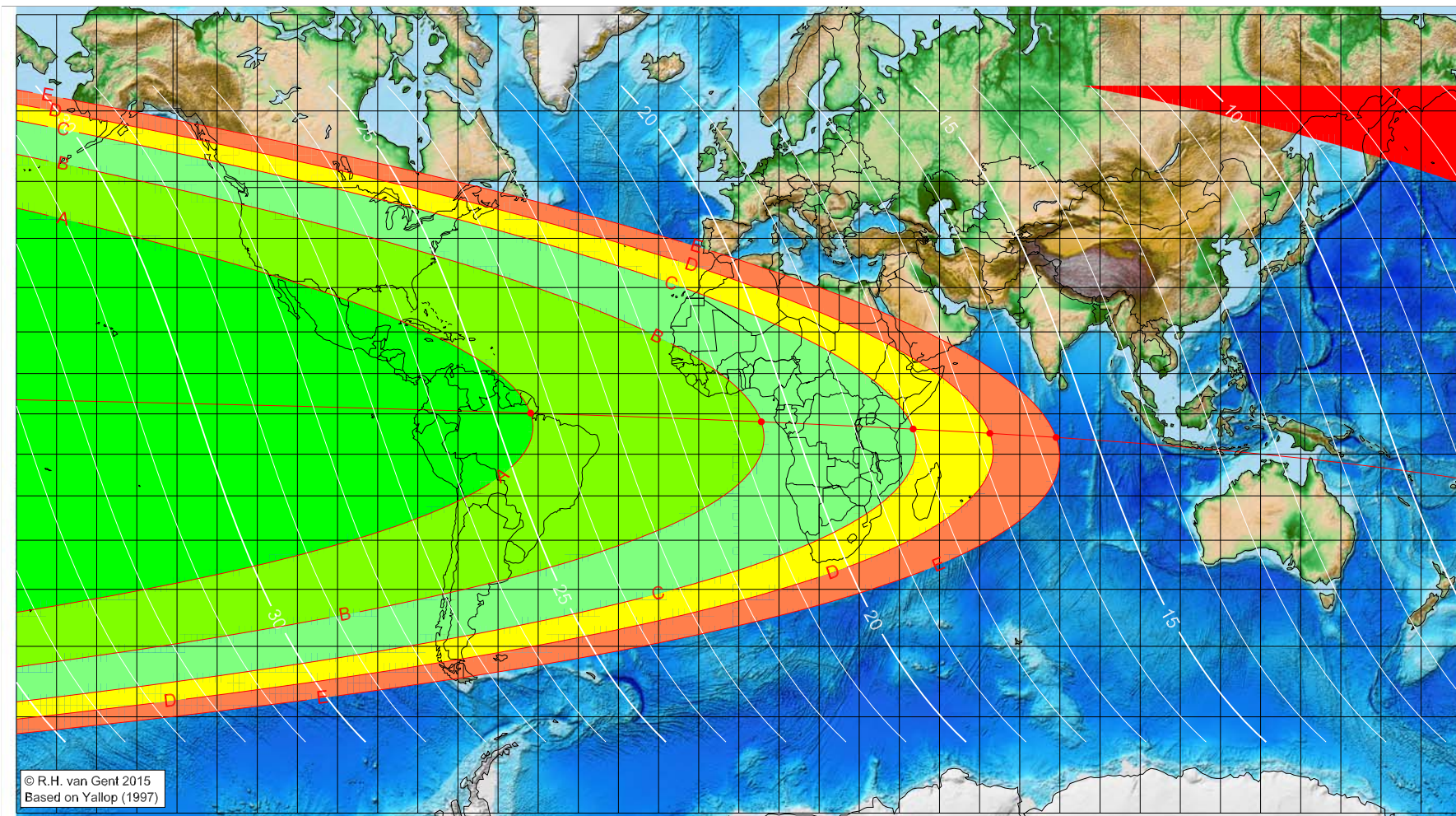
Longitude (°)	Latitude (°)	Lunar age (h)
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening
		not visible until the next evening

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 Jumādā 'l-Ākhira 1441 AH

Global visibility map for 25 January 2020 [Saturday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 24 January 2020, 21h 41.9m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1201
Islamic Lunation Number = 17286
TT - UT [= ΔT] = 1.2 min

- 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)

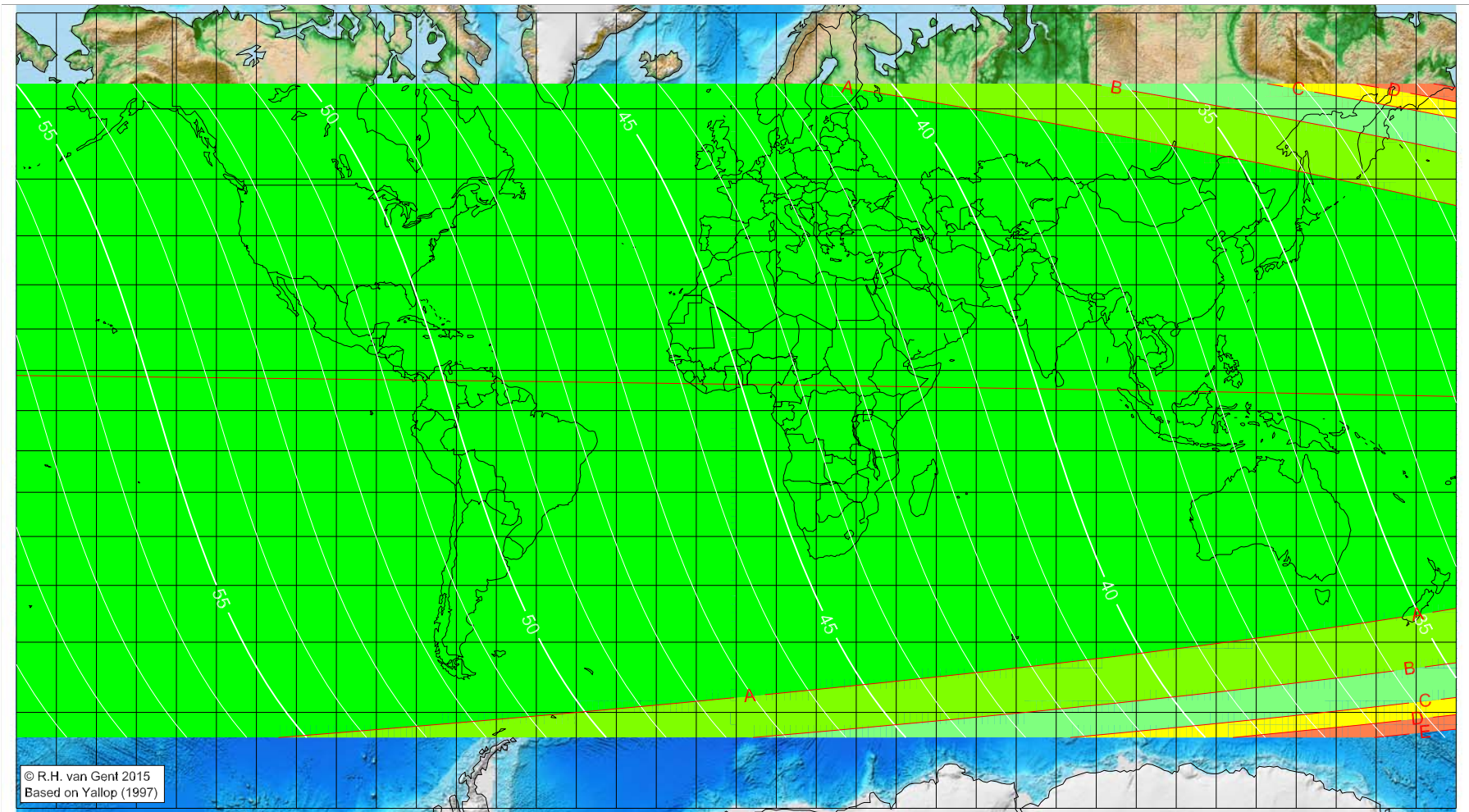
Longitude (°)	Latitude (°)	Lunar age (h)
-51.89	0.19	24.37
5.60	-1.97	20.53
43.43	-3.77	18.02
62.55	-4.84	16.75
79.05	-5.87	15.66

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 1441 AH

Global visibility map for 26 January 2020 [Sunday]
 Second day after luni-solar conjunction



Astronomical New Moon: 24 January 2020, 21h 41.9m (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)

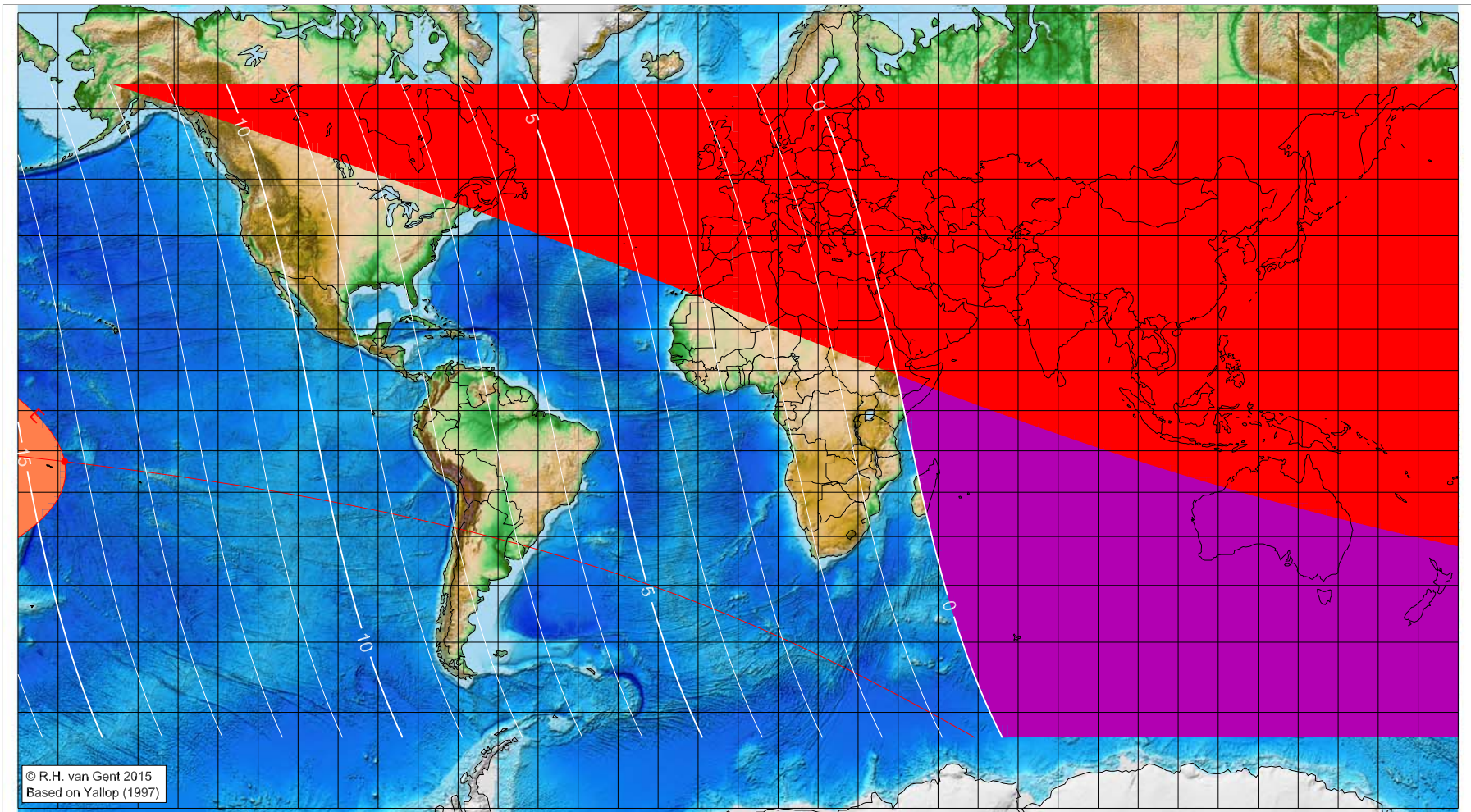
Astronomical (Brown) Lunation Number = 1201
 Islamic Lunation Number = 17286
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Rajab 1441 AH

Global visibility map for 23 February 2020 [Sunday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 23 February 2020, 15h 31.8m (UTC)

First visibility (•)

Longitude (°)	Latitude (°)	Lunar age (h)
-168.37	-12.62	14.34

Astronomical (Brown) Lunation Number = 1202
Islamic Lunation Number = 17287
TT - UT [= ΔT] = 1.2 min

- 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

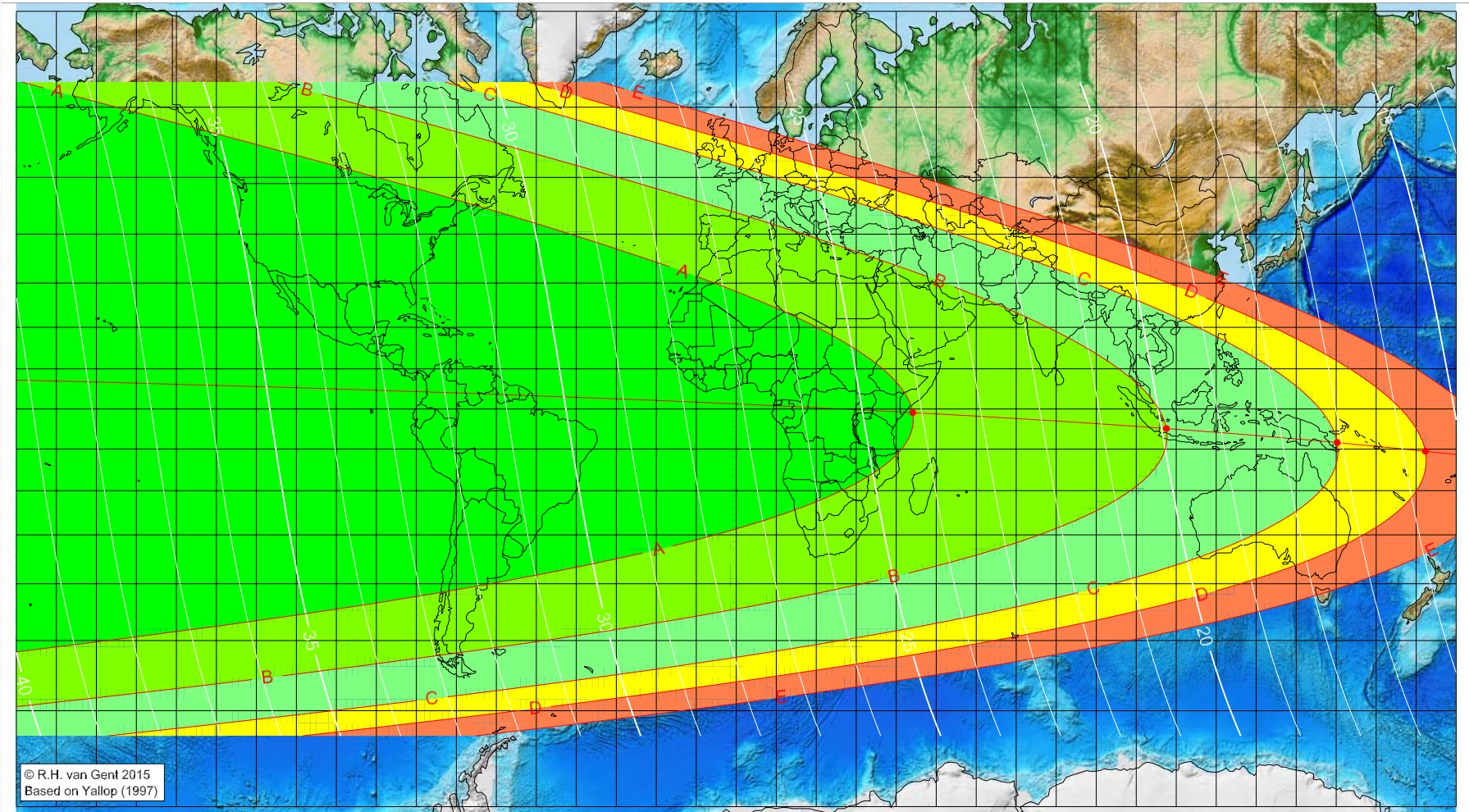
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rajab 1441 AH

Global visibility map for 24 February 2020 [Monday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 23 February 2020, 15h 31.8m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1202

Islamic Lunation Number = 17287

TT - UT [= ΔT] = 1.2 min

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

- 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)
44.13	-0.90	24.15
107.55	-4.88	19.92
150.25	-8.37	17.08
172.30	-10.51	15.62

visible on the previous evening

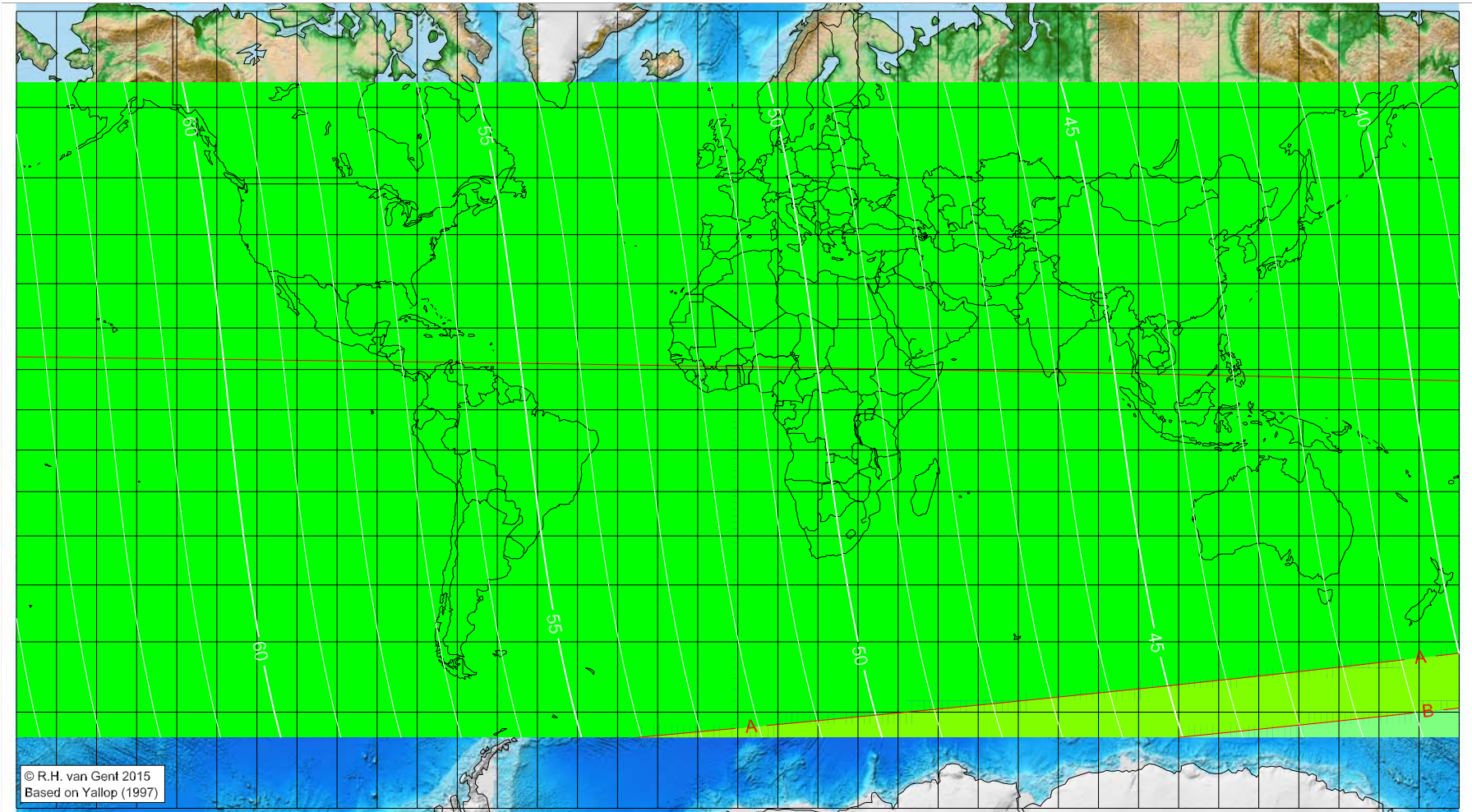
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Rajab 1441 AH

Global visibility map for 25 February 2020 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 23 February 2020, 15h 31.8m (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)

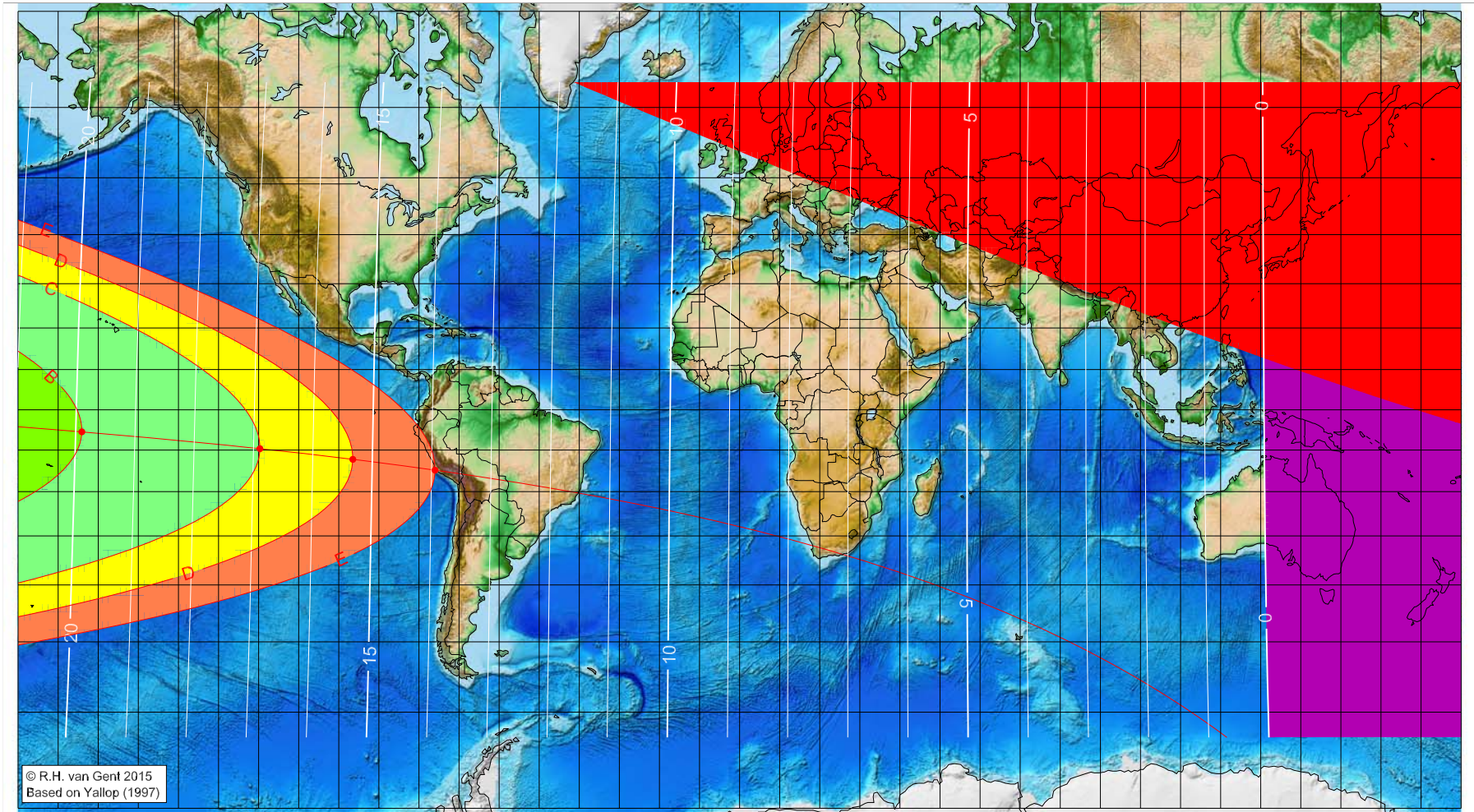
Astronomical (Brown) Lunation Number = 1202
Islamic Lunation Number = 17287
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Shaʿbān 1441 AH

Global visibility map for 24 March 2020 [Tuesday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 24 March 2020, 9h 28.1m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1203

Islamic Lunation Number = 17288

TT - UT [= ΔT] = 1.2 min

- 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)
-164.10	-5.49	19.89
-119.67	-9.66	16.89
-96.50	-12.27	15.33
-75.98	-14.90	13.94

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

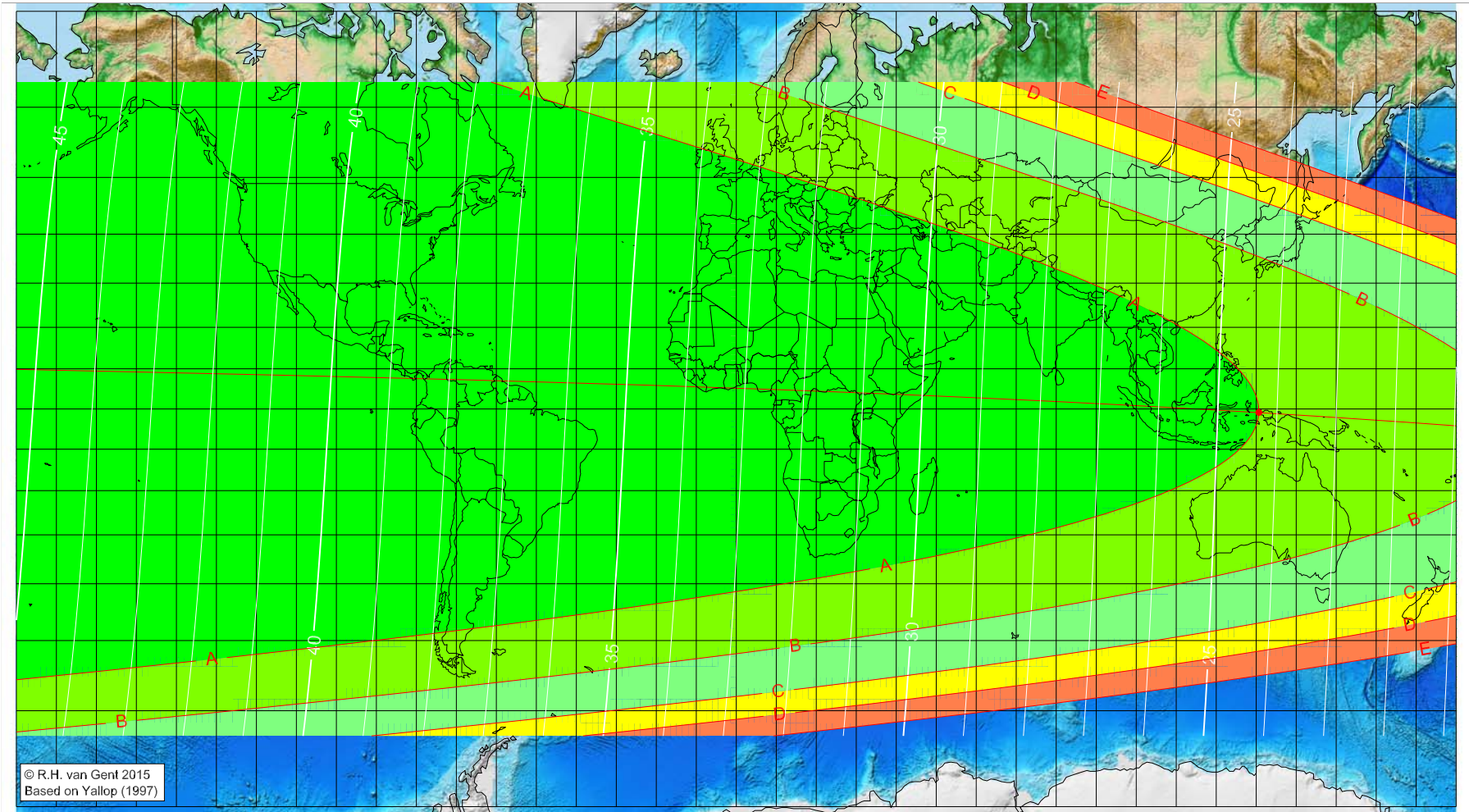
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Shaʿbān 1441 AH

Global visibility map for 25 March 2020 [Wednesday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 24 March 2020, 9h 28.1m (UTC)

First visibility (●)

Longitude (°)	Latitude (°)	Lunar age (h)
130.66	-0.87	24.31
visible on the previous evening		
visible on the previous evening		
visible on the previous evening		

Astronomical (Brown) Lunation Number = 1203
Islamic Lunation Number = 17288
TT - UT [= ΔT] = 1.2 min

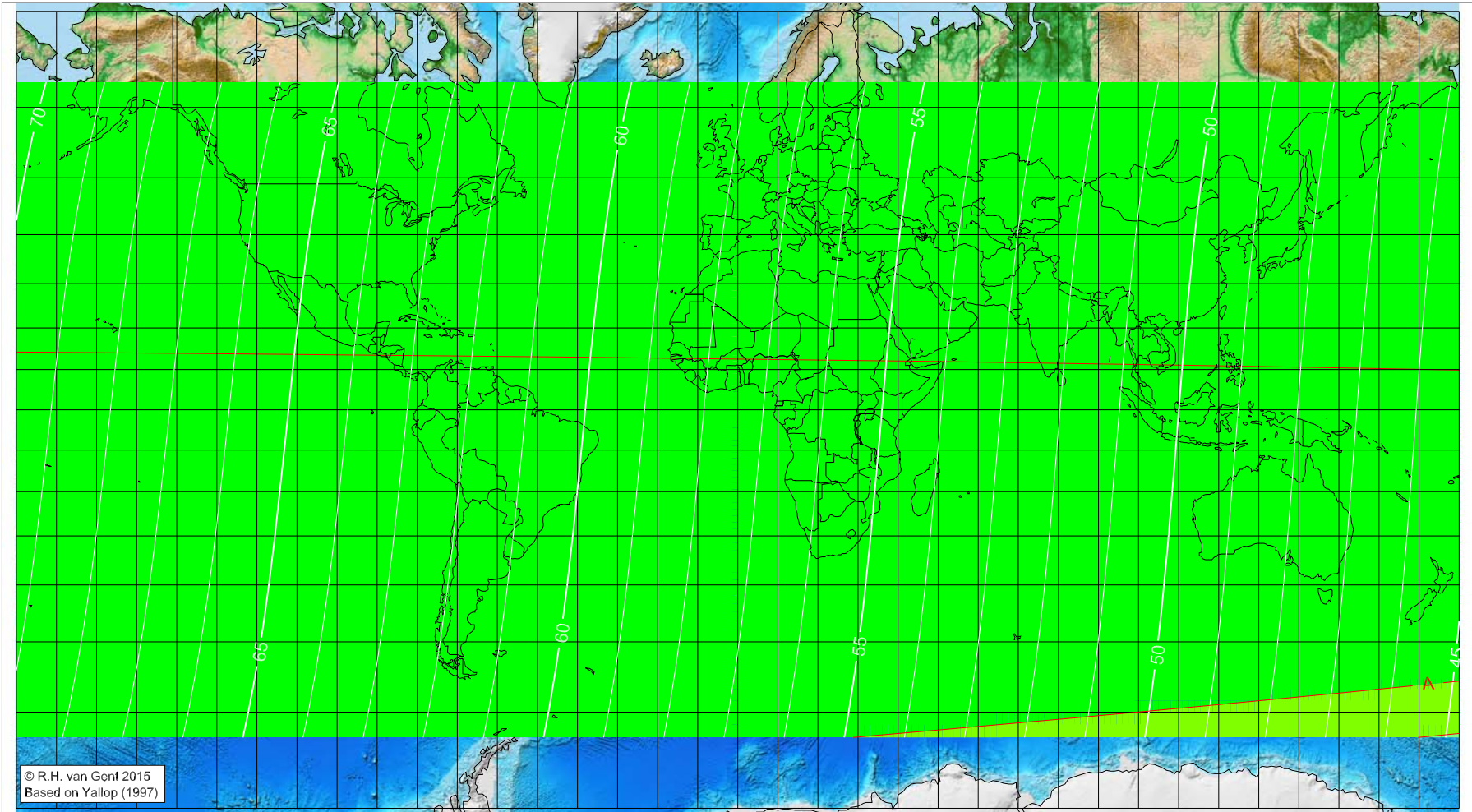
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset 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 1441 AH

Global visibility map for 26 March 2020 [Thursday]
Second day after luni-solar conjunction



Astronomical New Moon: 24 March 2020, 9h 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)

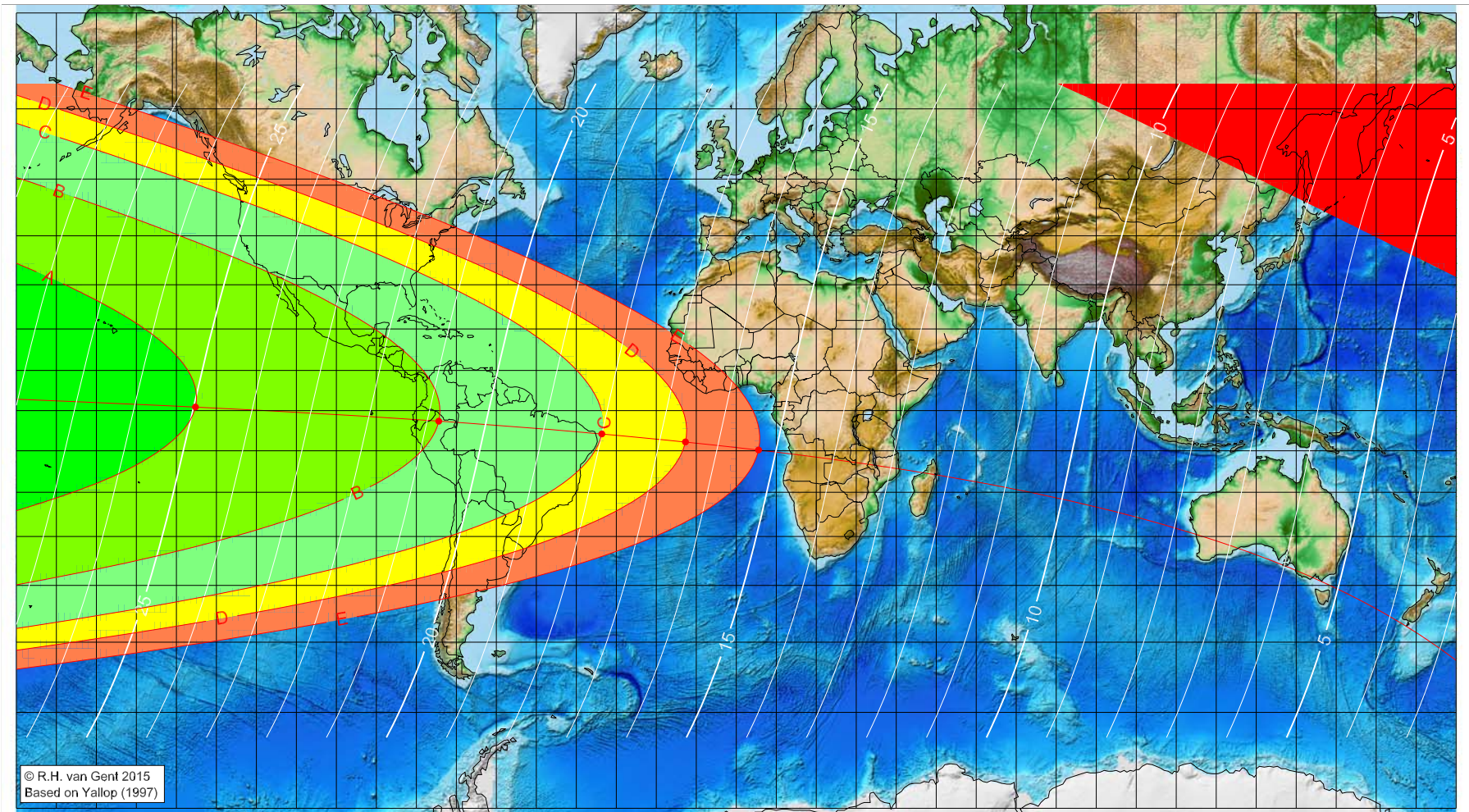
Astronomical (Brown) Lunation Number = 1203
Islamic Lunation Number = 17288
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Ramaḍān 1441 AH

Global visibility map for 23 April 2020 [Thursday]
Day of luni-solar conjunction



Astronomical New Moon: 23 April 2020, 2h 25.8m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1204

Islamic Lunation Number = 17289

TT - UT [= ΔT] = 1.2 min

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

- 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)
-135.23	0.90	24.97
-74.40	-2.64	20.80
-33.63	-5.82	18.00
-12.71	-7.81	16.56
5.57	-9.80	15.30

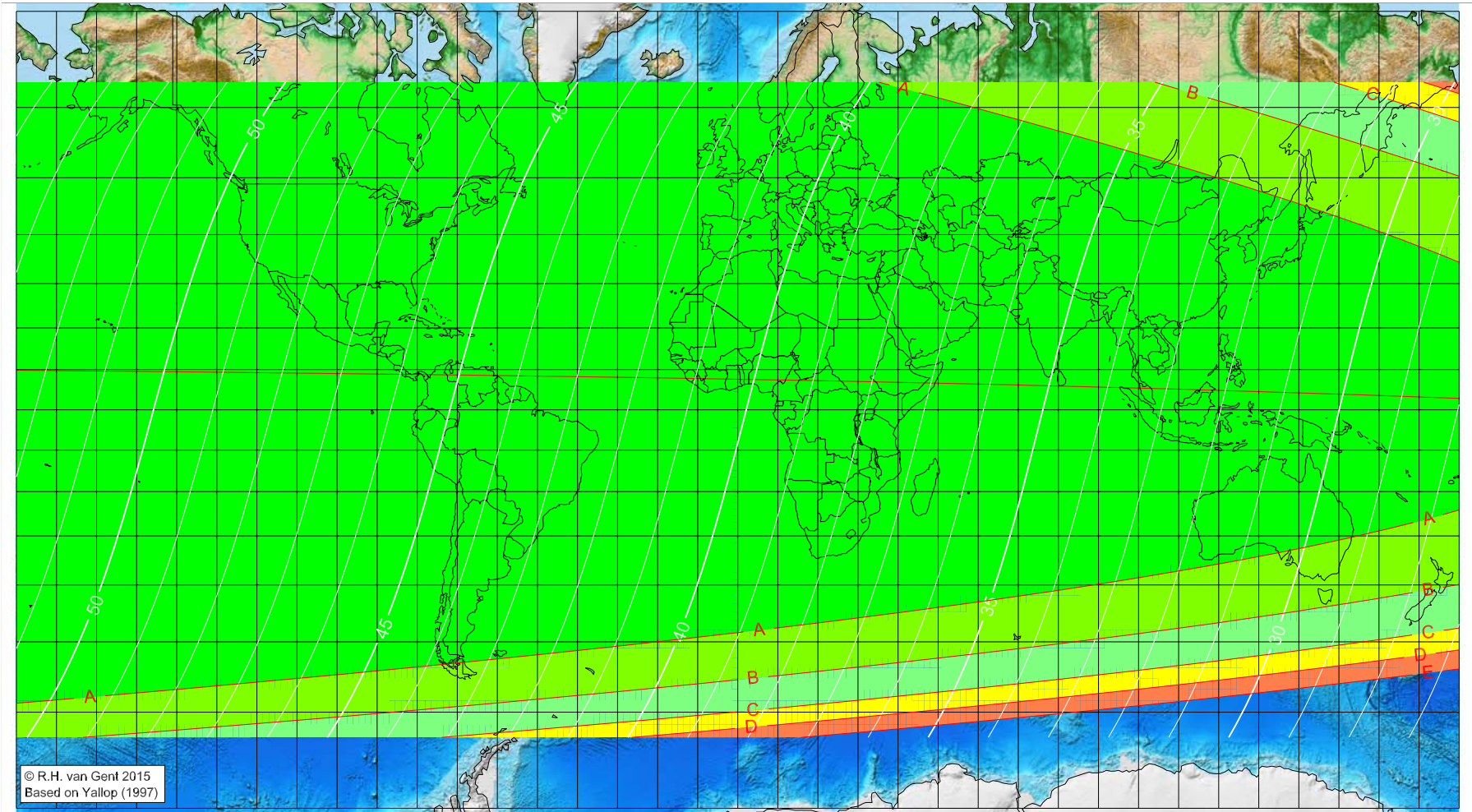
■ moonset before sunset

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Ramaḍān 1441 AH

Global visibility map for 24 April 2020 [Friday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 23 April 2020, 2h 25.8m (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 = 1204
Islamic Lunation Number = 17289
TT - UT [= ΔT] = 1.2 min

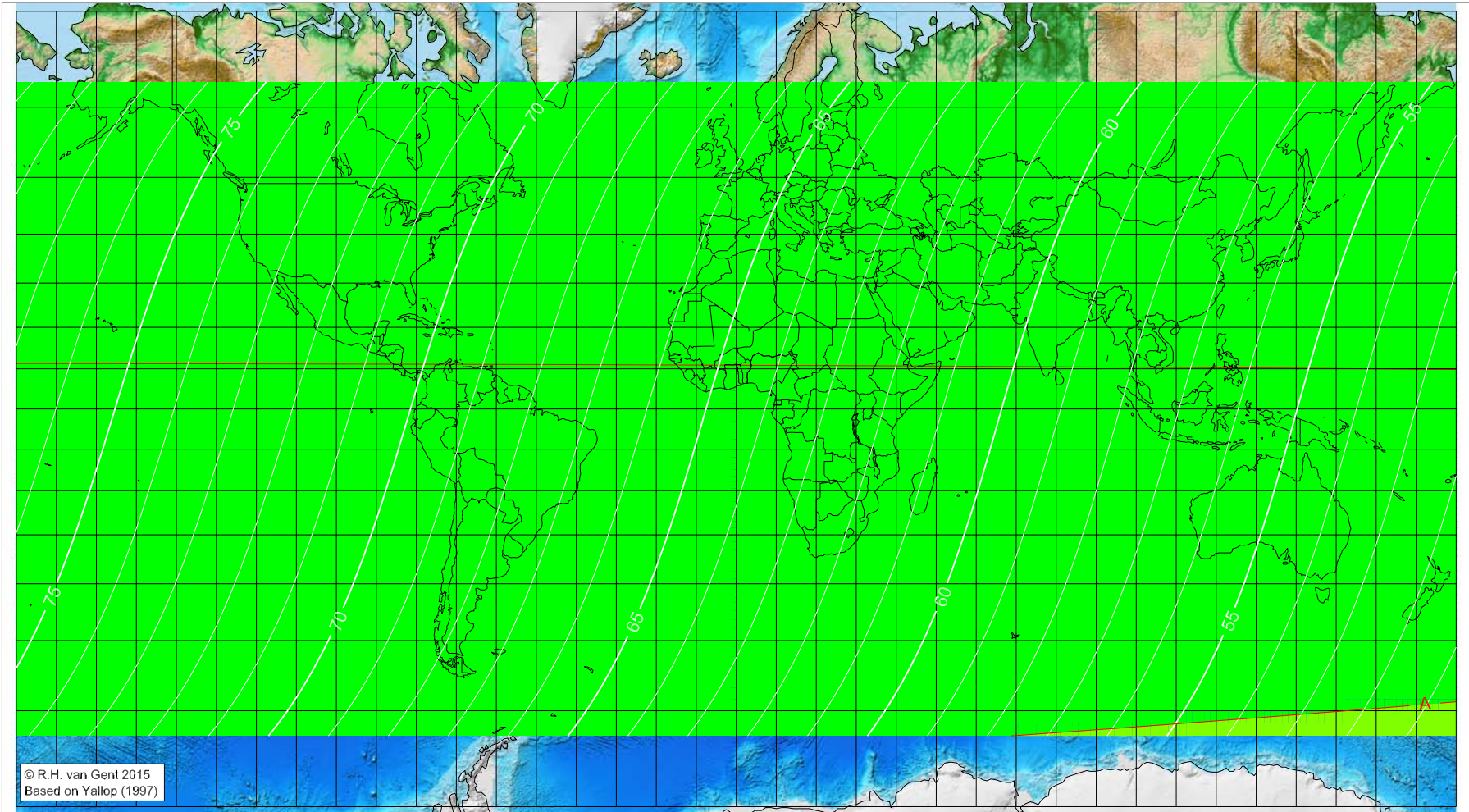
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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 Ramaḍān 1441 AH

Global visibility map for 25 April 2020 [Saturday]
Second day after luni-solar conjunction



Astronomical New Moon: 23 April 2020, 2h 25.8m (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)

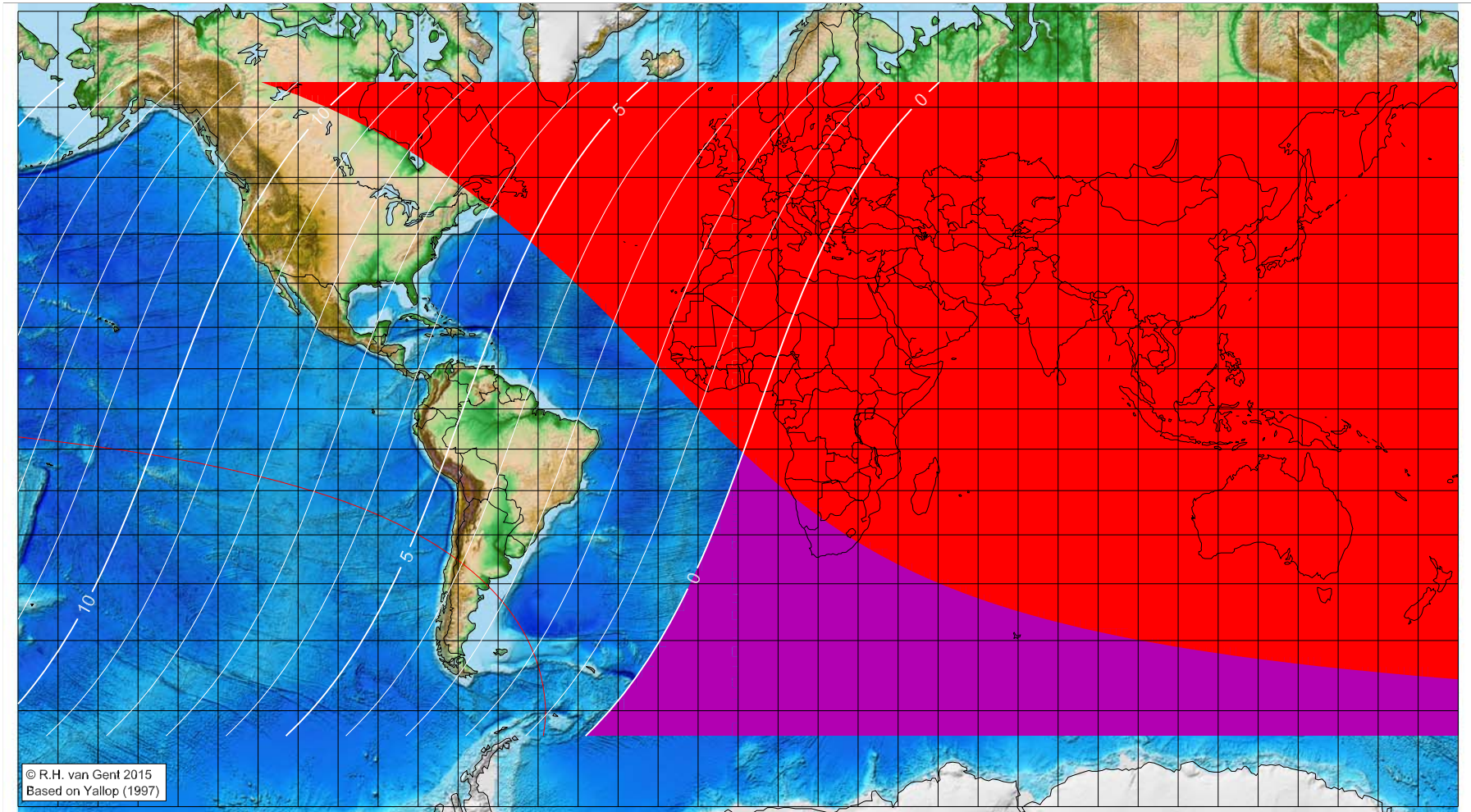
Astronomical (Brown) Lunation Number = 1204
Islamic Lunation Number = 17289
 $TT - UT [= \Delta T] = 1.2 \text{ min}$

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

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

First visibility lunar crescent for Shawwāl 1441 AH

Global visibility map for 22 May 2020 [Friday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 22 May 2020, 17h 38.8m (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
		not visible until the next evening

Astronomical (Brown) Lunation Number = 1205
Islamic Lunation Number = 17290
TT - UT [= ΔT] = 1.2 min

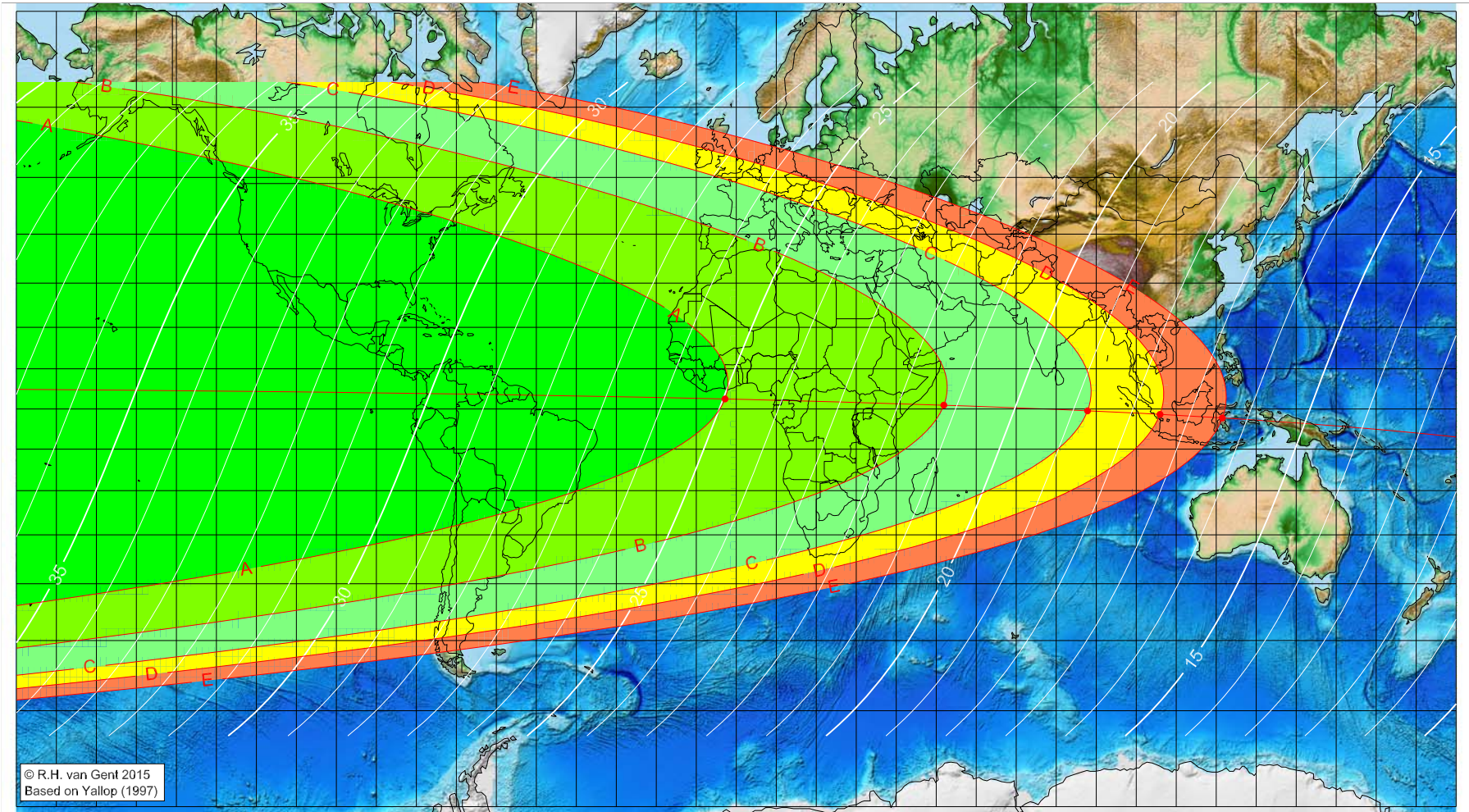
Lunar age (in hours) is given for the 'best time',
defined as the moment 4/9ths between sunset
and moonset

- 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 Shawwāl 1441 AH

Global visibility map for 23 May 2020 [Saturday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 22 May 2020, 17h 38.8m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1205

Islamic Lunation Number = 17290

TT - UT [= ΔT] = 1.2 min

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

- 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

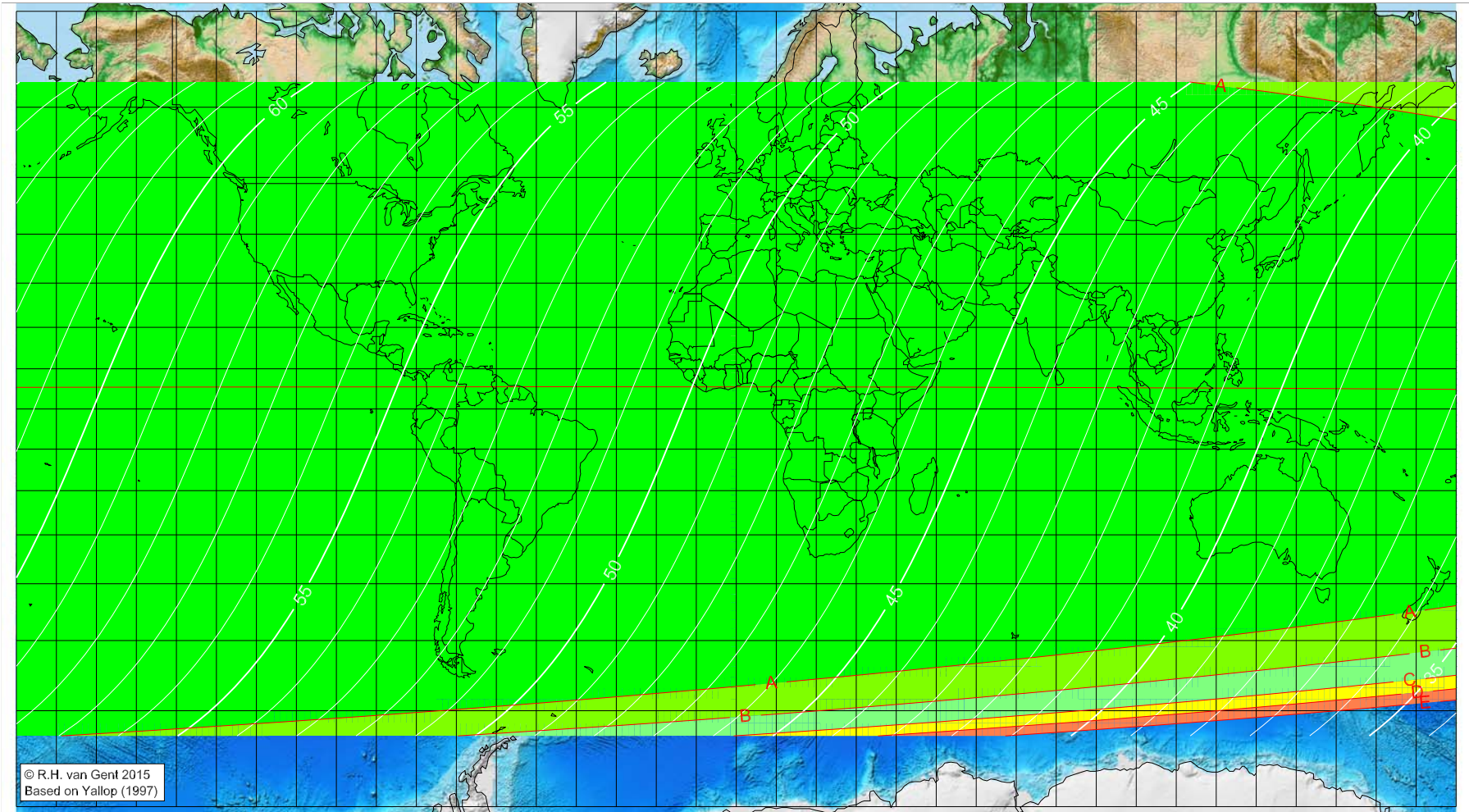
■ before conjunction (astronomical new moon)

Longitude (°)	Latitude (°)	Lunar age (h)
-2.81	2.50	24.97
51.90	0.95	21.22
87.84	-0.47	18.75
105.95	-1.36	17.50
121.53	-2.24	16.43

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

First visibility lunar crescent for Shawwāl 1441 AH

Global visibility map for 24 May 2020 [Sunday]
Second day after luni-solar conjunction



Astronomical New Moon: 22 May 2020, 17h 38.8m (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)

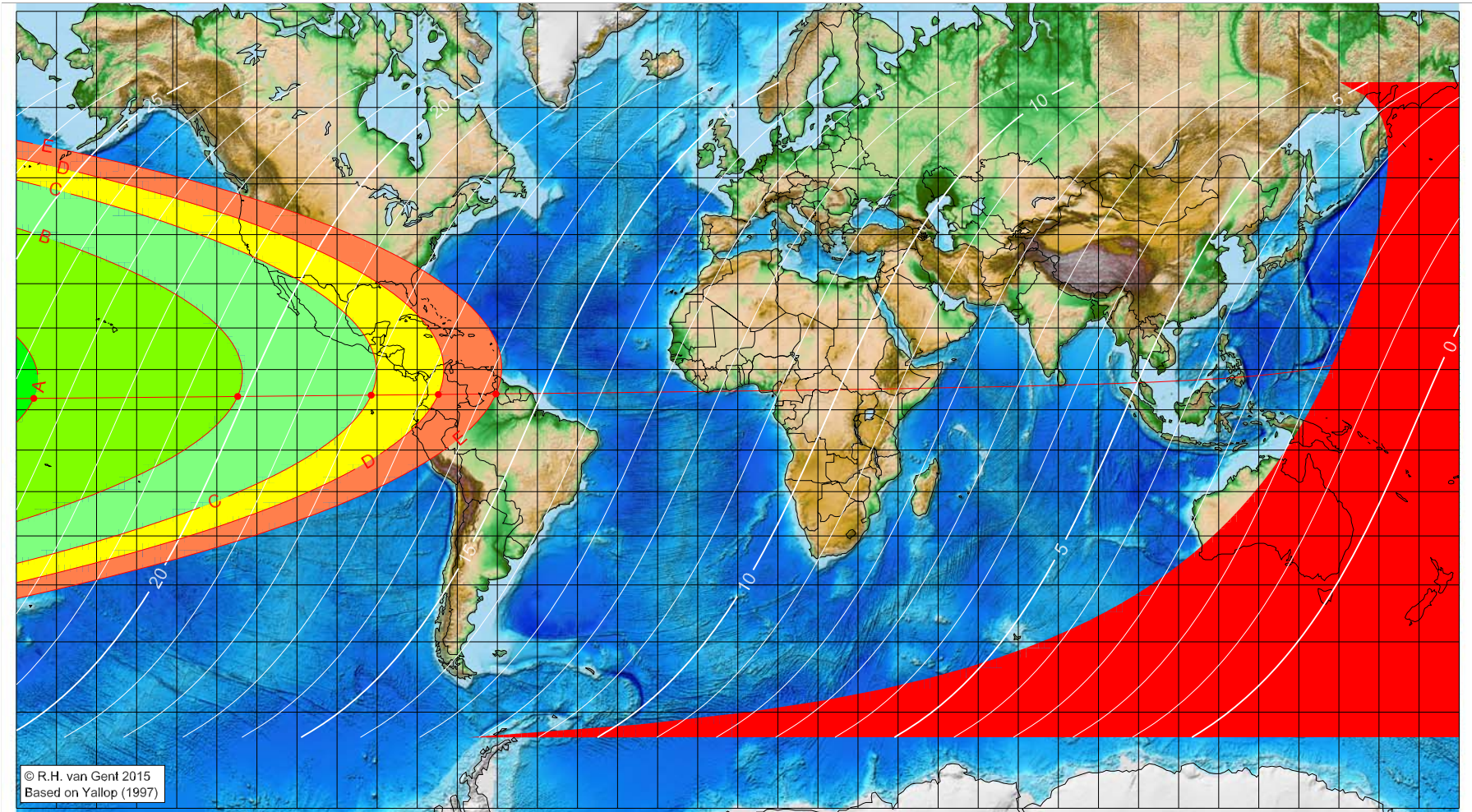
Astronomical (Brown) Lunation Number = 1205
Islamic Lunation Number = 17290
TT – UT [= ΔT] = 1.2 min

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

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

First visibility lunar crescent for Dhu 'l-Qa'da 1441 AH

Global visibility map for 21 June 2020 [Sunday]
Day of luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 21 June 2020, 6h 41.4m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1206

Islamic Lunation Number = 17291

TT - UT [= ΔT] = 1.2 min

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

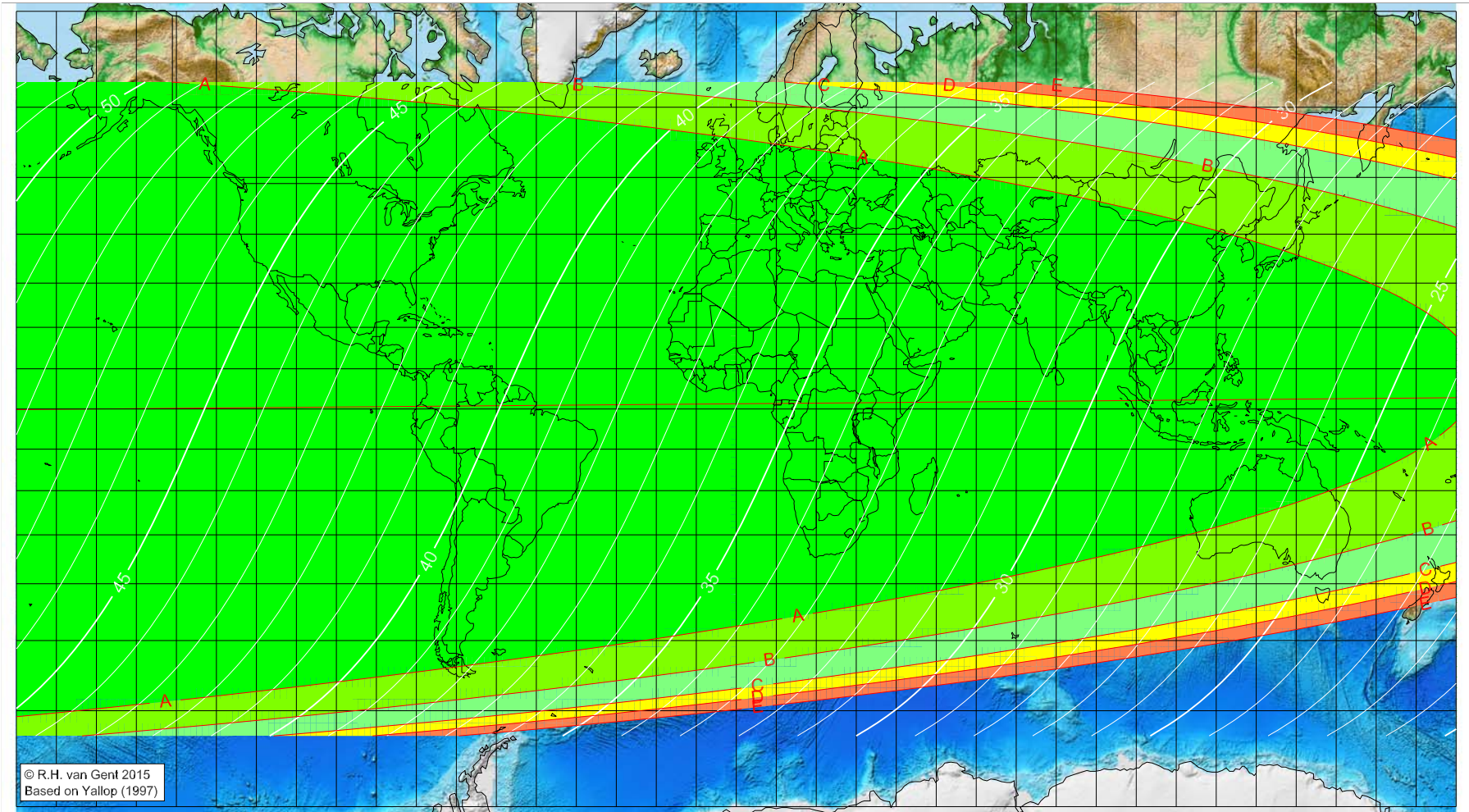
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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

Longitude (°)	Latitude (°)	Lunar age (h)
-175.67	2.85	23.56
-124.79	3.32	20.12
-91.48	3.64	17.87
-74.73	3.81	16.74
-60.37	3.96	15.77

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

First visibility lunar crescent for Dhu 'l-Qa'da 1441 AH

Global visibility map for 22 June 2020 [Monday]
Day after luni-solar conjunction



Astronomical New Moon: 21 June 2020, 6h 41.4m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1206
Islamic Lunation Number = 17291
TT - UT [= ΔT] = 1.2 min

- 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)

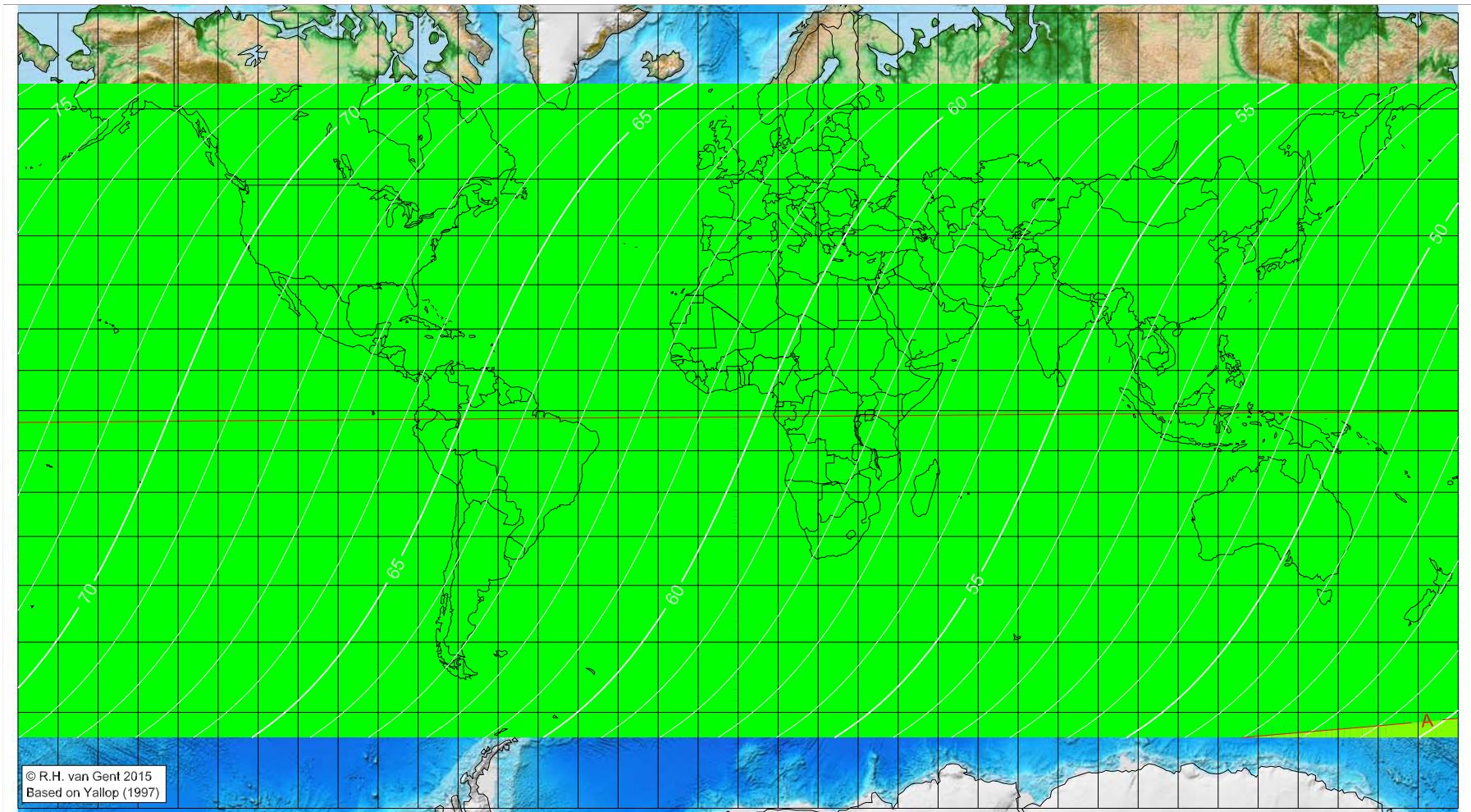
Longitude (°)	Latitude (°)	Lunar age (h)
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening
		visible on the previous evening

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 Dhu 'l-Qa' da 1441 AH

Global visibility map for 23 June 2020 [Tuesday]
Second day after luni-solar conjunction



Astronomical New Moon: 21 June 2020, 6h 41.4m (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)

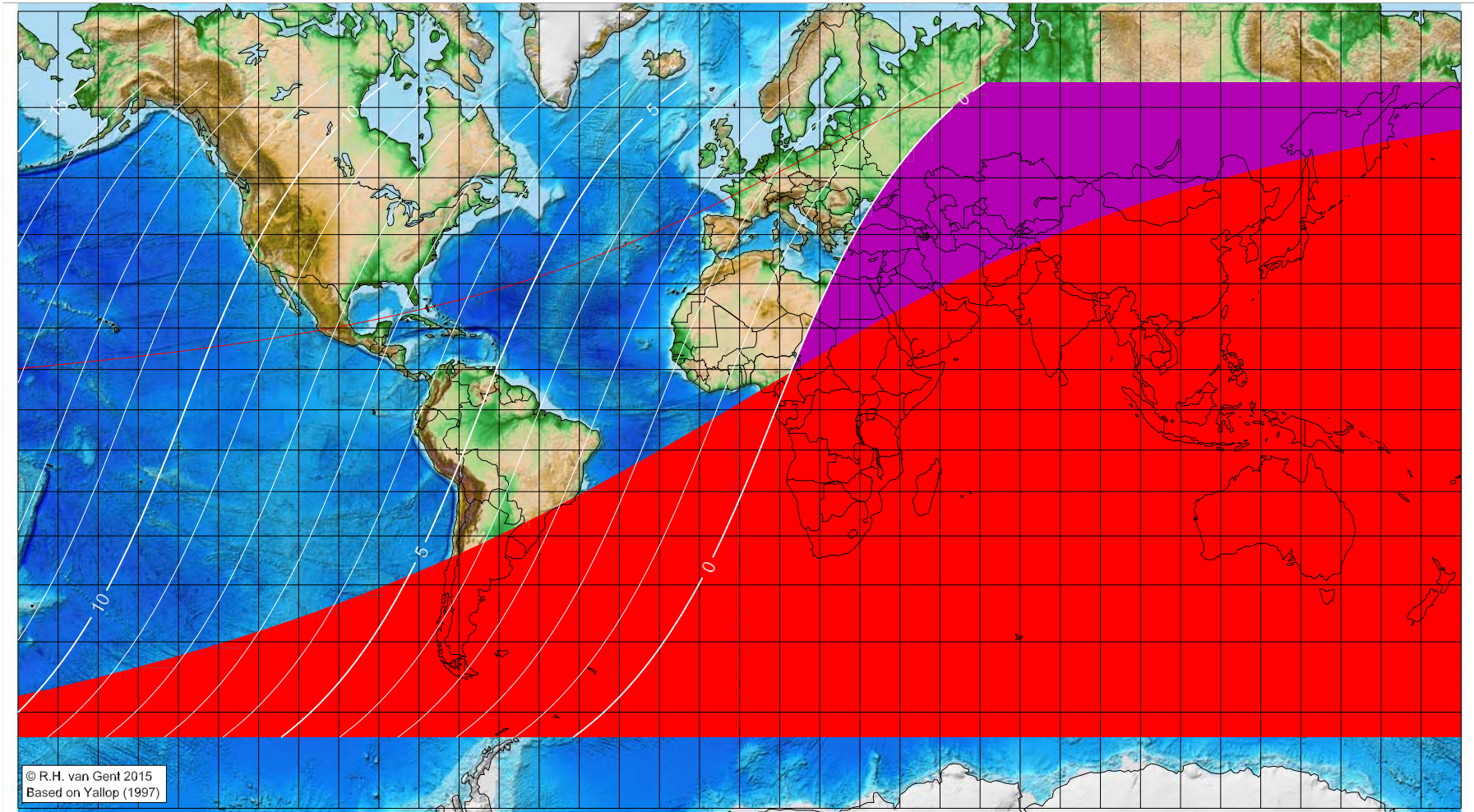
Astronomical (Brown) Lunation Number = 1206
Islamic Lunation Number = 17291
TT – UT [= ΔT] = 1.2 min

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

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

First visibility lunar crescent for Dhu 'l-Hijja 1441 AH

Global visibility map for 20 July 2020 [Monday]
Day of luni-solar conjunction



Astronomical New Moon: 20 July 2020, 17h 33.0m (UTC)

First visibility (•)

Astronomical (Brown) Lunation Number = 1207
Islamic Lunation Number = 17292
TT - UT [= ΔT] = 1.2 min

- 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

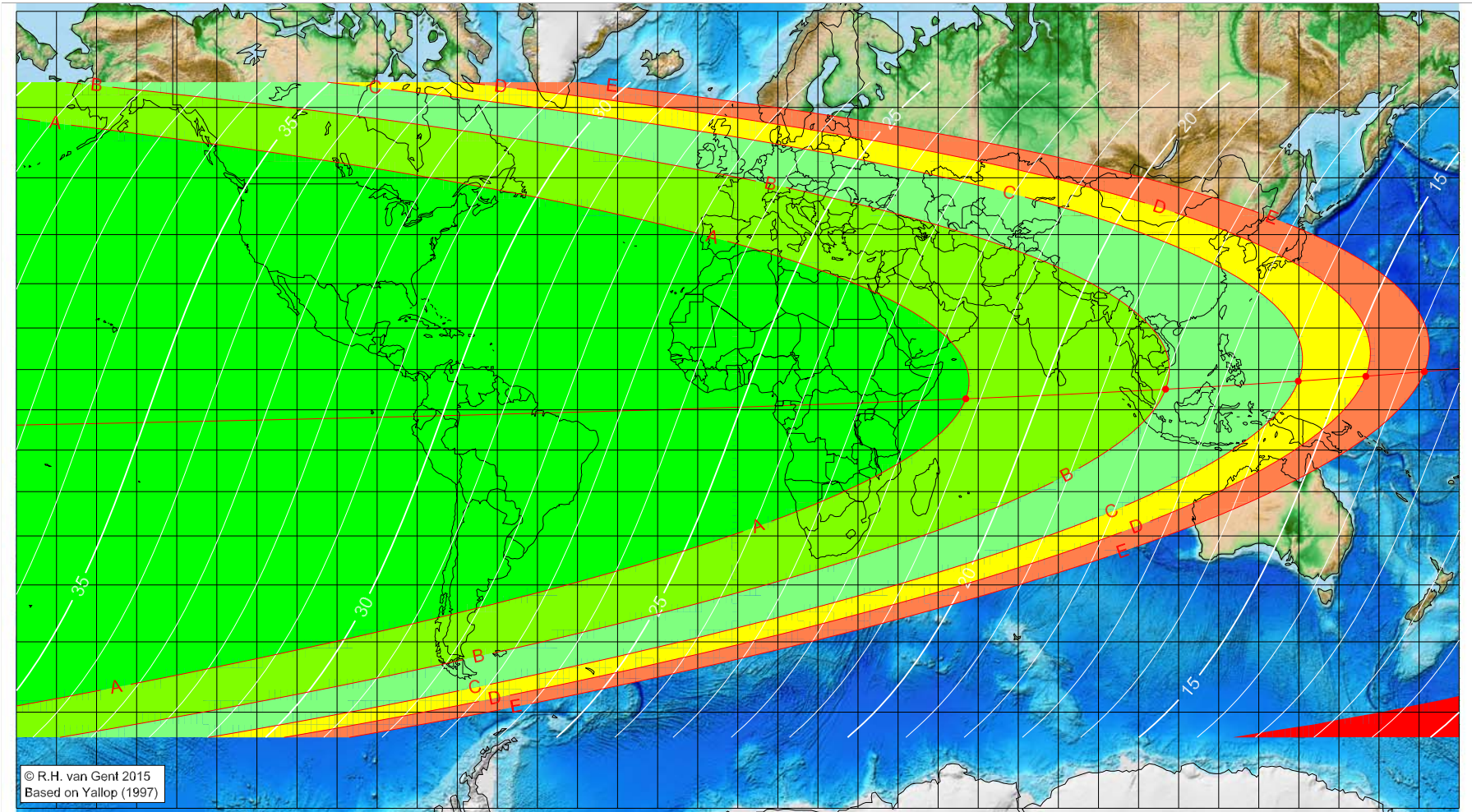
Longitude (°) Latitude (°) Lunar age (h)
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening
not visible until the next evening

■ before conjunction (astronomical new moon)

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

First visibility lunar crescent for Dhu 'l-Hijja 1441 AH

Global visibility map for 21 July 2020 [Tuesday]
Day after luni-solar conjunction



© R.H. van Gent 2015
Based on Yallop (1997)

Astronomical New Moon: 20 July 2020, 17h 33.0m (UTC)

First visibility (●)

Astronomical (Brown) Lunation Number = 1207
Islamic Lunation Number = 17292
TT - UT [= ΔT] = 1.2 min

- 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)

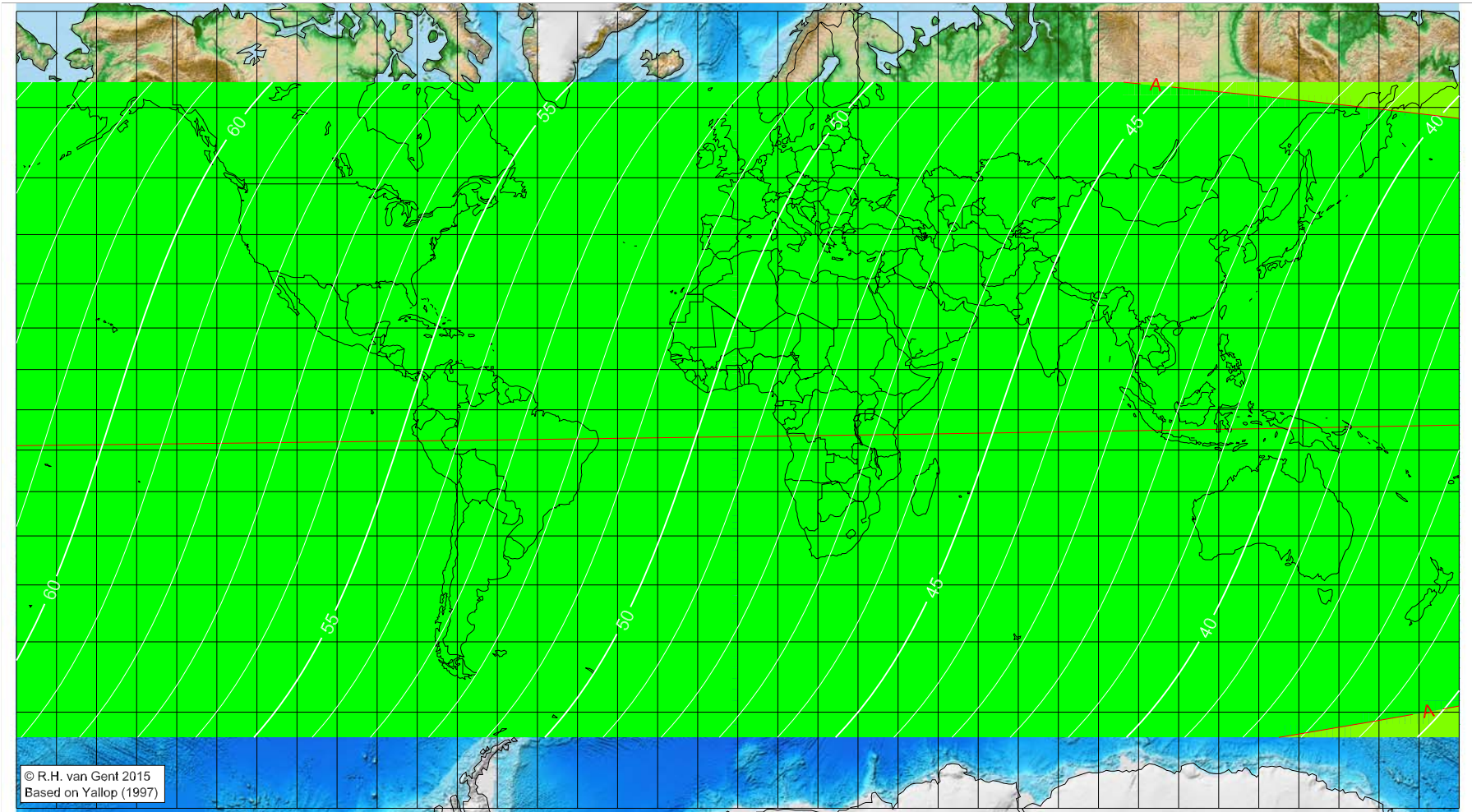
Longitude (°)	Latitude (°)	Lunar age (h)
56.90	2.75	21.24
106.75	5.13	17.93
139.86	7.13	15.73
156.72	8.32	14.62
171.33	9.47	13.66

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 Dhu 'l-Hijja 1441 AH

Global visibility map for 22 July 2020 [Wednesday]
Second day after luni-solar conjunction



Astronomical New Moon: 20 July 2020, 17h 33.0m (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 = 1207
Islamic Lunation Number = 17292
TT – UT [= ΔT] = 1.2 min

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

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