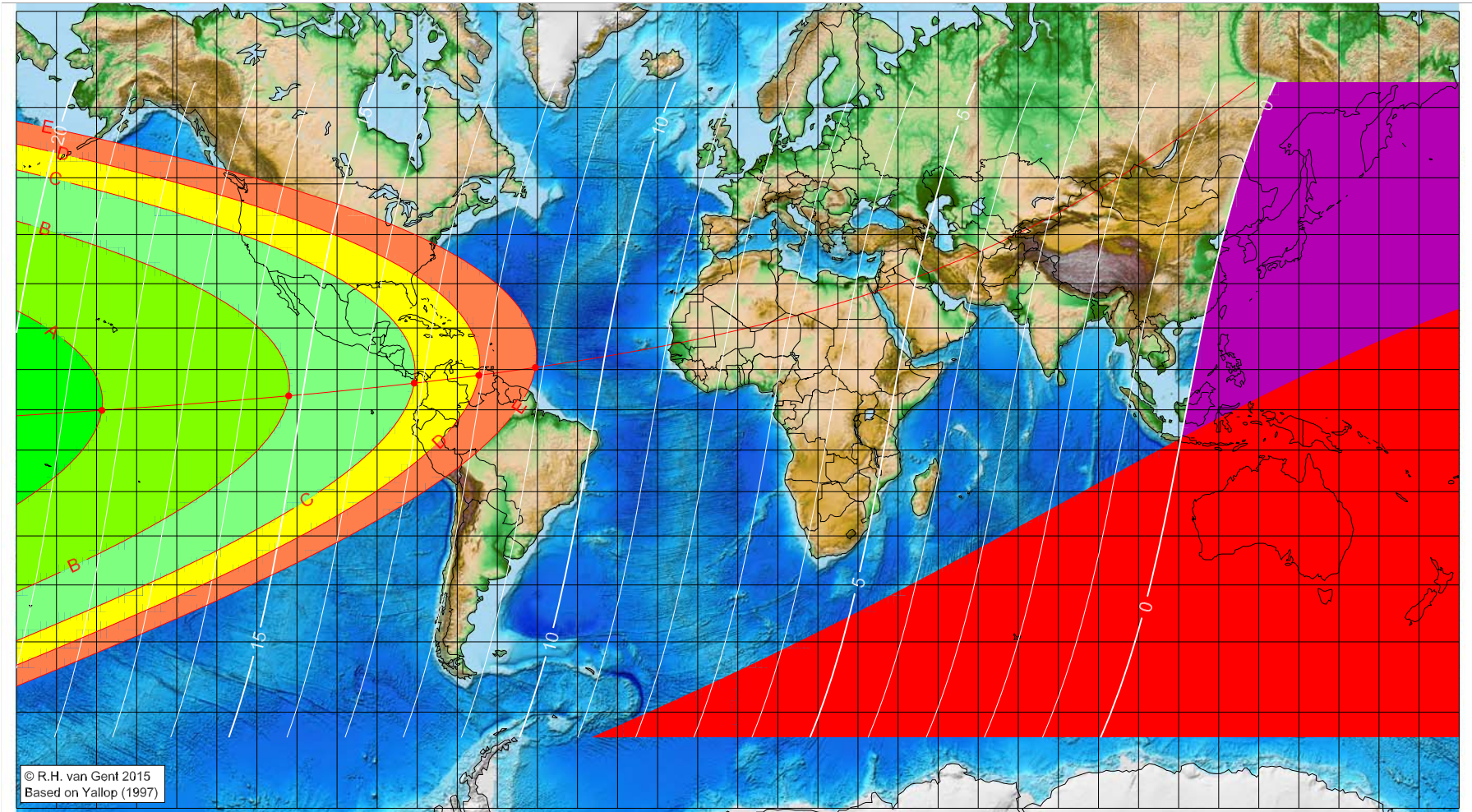


First visibility lunar crescent for Muḥarram 1441 AH

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



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

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°)

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

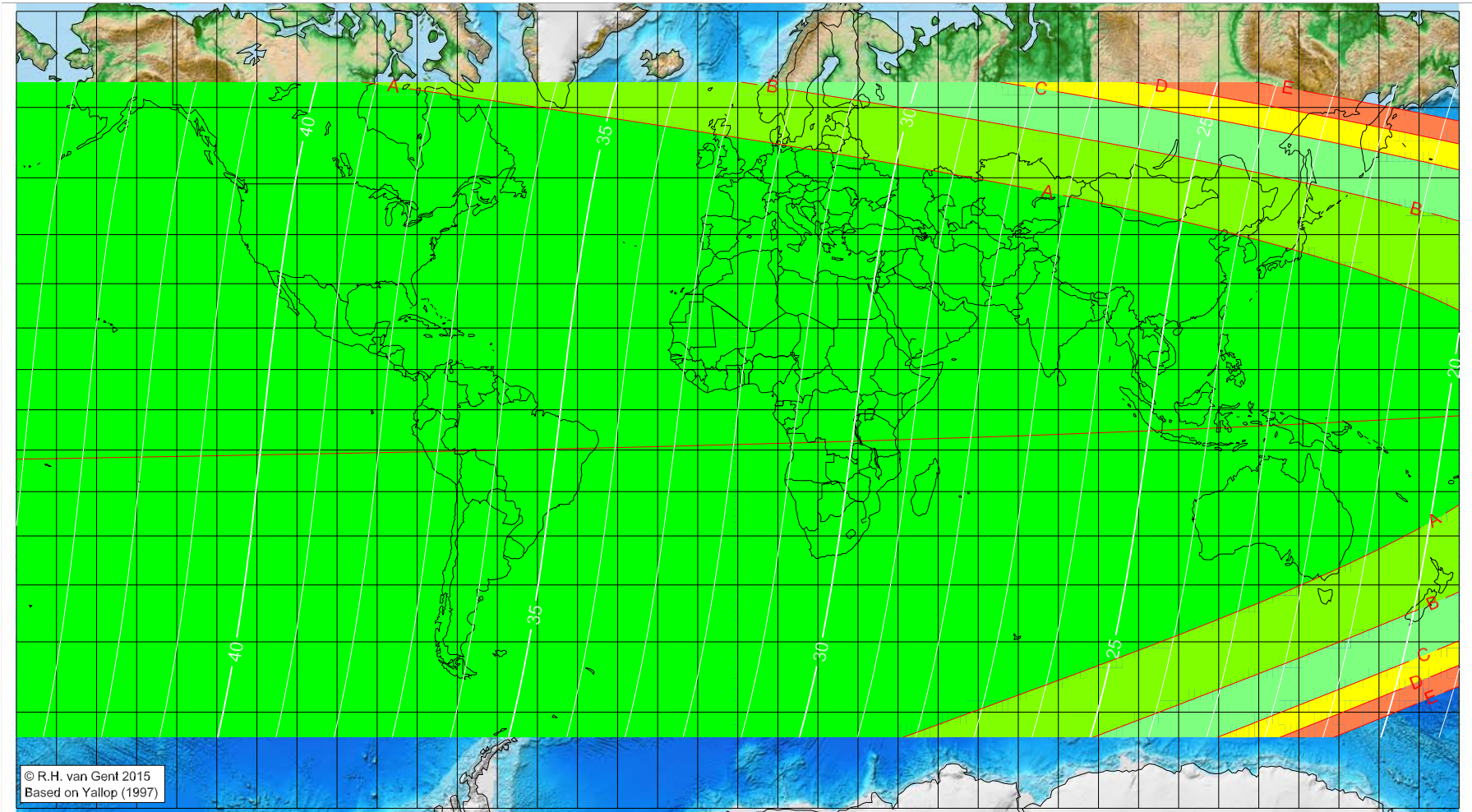
■ moonset before sunset

■ before conjunction (astronomical new moon)

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



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

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

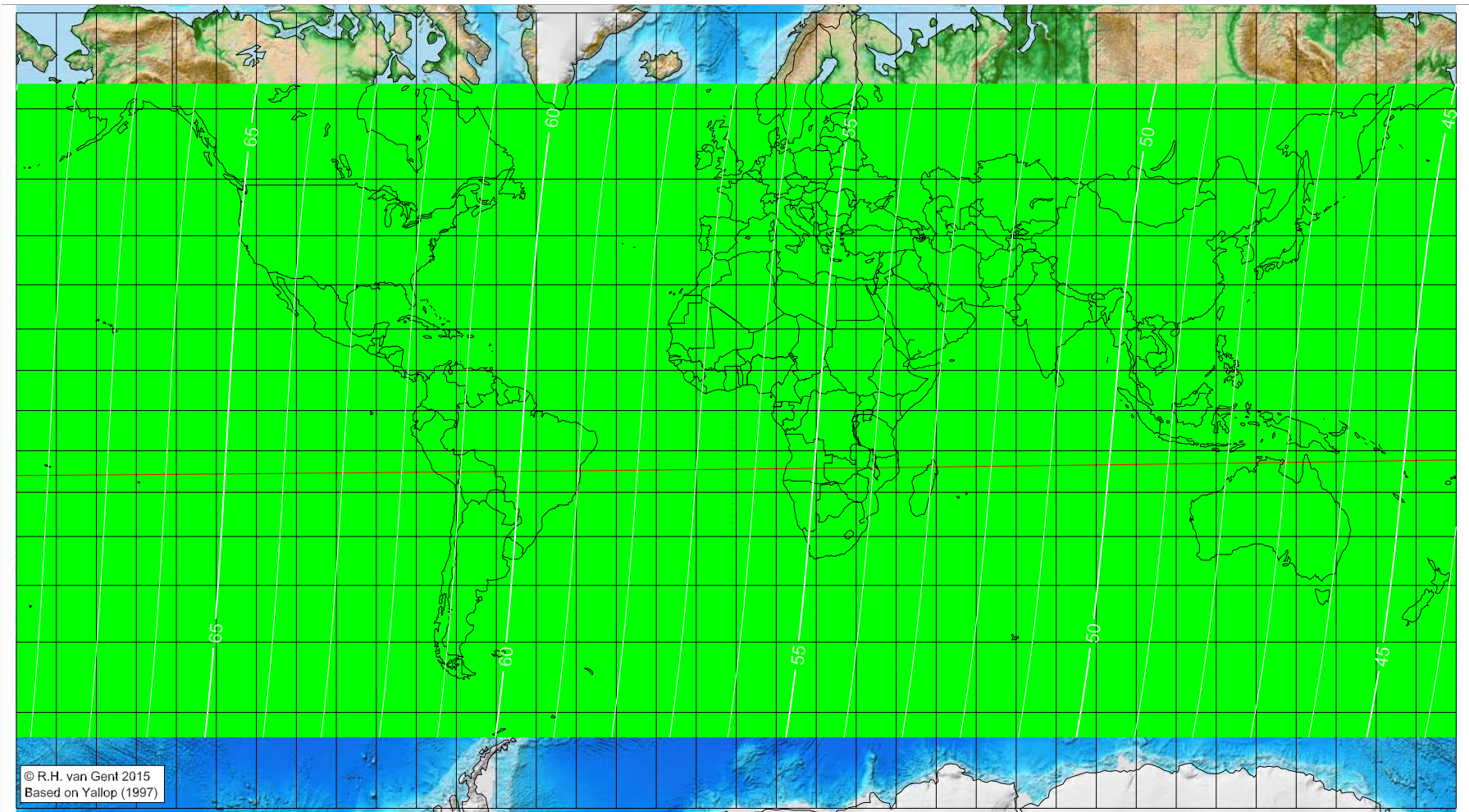
- A – easily visible to the unaided eye
- B – visible under perfect atmospheric conditions
- C – visible to the unaided eye after found with optical aid
- D – only visible with binoculars or conventional telescopes
- E – not visible with conventional telescopes
- F – below Danjon limit (7°)
- moonset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