

Arab Union for Astronomy and Space Sciences (AUASS)

In the Name of Allah, the Compassionate, the Merciful

### **This Year's Ramadan Has 30 Days**

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The astronomical calculations indicate that the duration of Ramadan in this year will be 30 days, as the geocentric conjunction of the month Shawwal will happen on Wednesday, 2 November at 1:25 a.m. UT. Concerning those states that started their fasting on Tuesday, 4 October, the day of looking out for the crescent of Shawwal will be Tuesday, 29 Ramadan, i.e. 1 November. On this day, a sighting of the crescent will be impossible in all states of the world, because of moonset before sunset and the occurrence of the conjunction after sunset. Consequently, those states have to complete their fasting on Wednesday, and Thursday, 3 November is the First of days of the happy 'Id al-Fitr in them, because of the completion of Ramadan by 30 days. Concerning those states that started their fasting on Wednesday, 5 October, and among them are Indonesia, Malaysia, Iran, Turkey, the Sultanate of Oman, Tunisia and Morocco, the day of looking out for the crescent of Shawwal in them will be Wednesday, 29 Ramadan, i.e. 2 November. On this day, sighting of the crescent is not possible from the whole continent of Asia and Europe, the larger part of the continent Africa, and the continent North America, whereas sighting of the crescent only by means of a telescope is possible from the extreme South of the continent Africa, Middle and South America. A sighting by naked eyes can be expected with difficulty from the western parts of the continent South America, and with ease from the Pacific Ocean. Because a sighting of the crescent is not possible from all Arabic and Islamic states on Wednesday, it can be expected that these states complete their fasting on Thursday, and Friday, 4 November is the First of days of the happy 'Id al-Fitr in those states. It should be mentioned that 'Id al-Fitr in Libya will be on Wednesday, because Libya doesn't rely on a sighting of the crescent, instead it takes as condition the occurrence of the conjunction before Fajr, as it announced officially.

Taking a look at the situation of the moon on Tuesday in some Islamic states: In the city Abu Zaby, the moon will set 30 minutes before sunset, and its age will be minus 10 hours and 30 minutes. In the city Makka al-Mukarrama, the moon will set 28 minutes before sunset, and its age will be minus 10 hours and 38 minutes. In the city 'Amman, the moon will set 28 minutes before sunset, and its age will be minus 10 hours and 32 minutes. In the city Cairo, the moon will set 28 minutes before sunset, and its age will be minus 10 hours and 16 minutes. In Rabat, the moon will set 25 minutes before sunset, and its age will be minus 7 hours and 49 minutes. Thus, a sighting of the crescent on Tuesday is impossible from all states of the world.

Concerning Wednesday: In the city Abu Zaby, the moon will set 8 minutes after sunset, and its age will be 12 hours and 19 minutes. In the city Makka al-Mukarrama, the moon will set 11 minutes after sunset, and its age will be 13 hours and 22 minutes. In the city 'Amman, the moon will set 6 minutes after sunset, and its age will be minus 13 hours and 27 minutes. In the city Cairo, the moon will set 7 minutes after sunset, and its age will be 13 hours and 43 minutes. In Rabat, the moon will set 8 minutes after sunset, and its age will be 16 hours and 10 minutes. Of course, all these values are insufficient to permit a sighting of the crescent even when using the largest telescopes, as the shortest lag of the crescent [after sunset] that ever permitted a sighting by means of a telescope was 29 minutes, this was on 20 September 1990 in Palestine, and Allah the Exalted knows it best.

(Translation: Ahmad Kaufmann – Germany – ICOP Member)