

# Prediction of the Start of Month of Ramadhan 1429 Hejriah

The Calculations are done for the Longitude and Latitude of Makkah AlMukarramah Area and the times are for the Local Time of Saudi Arabia (GMT+3)

Makkah Al-Mukarramah: Latitude = 21.45 ° N , Longitude = 39.82 ° E

Prediction: [ (30 Shaaban 1429 Hejriah, 31 August 2008) ]  
[ (01 Ramadhan 1429 Hejriah, 01 September 2008) ]

New Moon of Ramadhan occurs on Saturday 30 August 2008 at 10:59 p.m.

Day	(2008) Date	Moon Rise	Sun Rise	Moon Set	Sun Set	Moon altitude & azimuth at sunset	According to:	
							UmmUIQura	Prediction
Sat	30 / 8	5:27	6:04	18:22	18:39	Below horizon	29 Shaaban	29 Shaaban
Sun	31 / 8	6:25	6:04	18:58	18:38	4.0 ° , 270 °	30 Shaaban	30 Shaaban
Mon	01 / 9	7:20	6:04	19:32	18:37	11.8 ° , 260 °	01 Ramadhan	01 Ramadhan

According to the astronomical calculations, the birth of the new moon (conjunction) occurs about three hours and twenty minutes after the sunset on Saturday 30 August 2008. Also the moon sets before the sun by about seventeen minutes on that day in Makkah AlMukarramah, therefore and according to calculations and actual sighting, it is predicated to be impossible to sight the moon on that evening due to its absence (It is below the horizon) as indicated in the above table. But on the evening (just after the sunset) of Sunday 31 August 2008, the crescent may be sighted but with extreme difficulty by using optical aids only (in the west and the southwest of Saudi Arabia), where the age of the moon will be about 19 hours and 40 minutes, it stays about 20 minute, it is about 4 ° above the horizon, its elongation with the Sun is about 10 °, and its visible part (phase) is about 0.86%. Therefore, Inn-Shaa-Allah, Monday 1 September 2008 is **predicated** to be the first day of the month of Ramadhan 1429 H, and Allah has the knowledge (wAllahuAllam).

Note that birth of the "visible" crescent happens after the new moon (conjunction) which may not exceed half a day or it may extend to a day or more depending on the Moon location relative to the Sun, duration of its presence above the horizon, its luminosity (phase), crescent width, and of course the atmospheric condition just after sunset. Adding to that, the physical, psychological, health conditions, eye sensitivity and its speed of adaptation to light and accumulated experience of the person doing the sighting should be considered as important factors.

**For crescent sighting**, provided that the sky is clear, free of clouds, dust, and humidity: just after the sunset, the altitude of the moon above the horizon will be about 4 degrees, its elongation with the sun is about 10 degrees, it is about 9 degrees to left (south) of the setting sun (West direction), and the shape of the crescent moon will be slightly tilted to the left as shown in the figure.

**The above prediction is based on astronomical formulas and calculations and theoretical possibility of sighting the crescent which may be used for the purpose of a general guidance and one should go with the method of actual sighting of the crescent, the method which, our Prophet Mohammad SallallahuAlihiWassallam (ﷺ) guided and ordered us to observe and follow, and Allah has the knowledge.**

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