

10. If the sunset and moonset times coincide then a sighting on that day is impossible.

In all of the above ten circumstances, Saudi Arabia has always maintained the following phrase and made their declaration.

"Two Witnesses have testified and a decision was made..."

The information as to WHEN, WHERE and by WHOM in Saudi Arabia the claim was made is seldom disclosed.

آپ کے صدقہ فطر، زکوٰۃ اور دیگر صدقات کے مستحق

ہمارے درج ذیل اداروں کے طلبہ ہیں

☆ دارالعلوم قمر الاسلام سلیمانیہ پنجاب کالونی (فون نمبر 5376793)

☆ جامعہ سلیمانیہ، کلفٹن (فون نمبر 5371901)

☆ مدرسہ ضیاء القرآن، اعظم بستی (فون نمبر 5381821-29)

☆ مدرسہ معین الاسلام، مسجد غریب نواز کینٹ اسٹیشن (فون 5212997)

علاوہ ازیں ہمارے ہاں

قمر الاسلام ہاسپٹل پنجاب کالونی میں

غریب اور نادار مریضوں کا علاج معالجہ زکوٰۃ فنڈ سے مفت کیا جاتا ہے۔

الاعلیٰ الخیر : ابوالحسن شان منظور بدانی

آپ کے عطیات، صدقات اور زکوٰۃ کی امین

انجمن قمر الاسلام سلیمانیہ۔ پنجاب کالونی کراچی

کسی سر زمین پر ایک حد کے نفاذ کی برکت وہاں چالیس روز نازل ہونے والی بارش کی برکت سے بہتر ہے

a sighting as the sunset and moonset times coincide. On 23rd March, the crescent will remain on the horizon in Makkah for about 8 minutes.<sup>4</sup> Fix your gaze on the horizon and search for the crescent for the next 15 minutes. If you do not see the crescent however, don't be disappointed. If the weather is clear and the crescent is not sighted then celebrating Eid-ul-Fitr the following day will only mean that you have missed an obligatory fast of the blessed month of Ramadan.

### **TEN INSTANCES OF IMPOSSIBLE SIGHTING IN THE LIGHT OF ASTRONOMY AND EXPERIENCE.**

1. If the moon is seen after SUBH-E-SADIQ and prior to sunrise towards the end of the Islamic month, then it will be impossible to see it on the eve of that day because the moonset will be before the sunset.
2. On the basis of a sighting testimony the new Islamic month was commenced on the 29th day of the ongoing month. If on the next day there is no general sighting (pending good weather) then the testimony of the previous day will have to be rejected because the CRESCENT MOON seen on the previous evening must also be seen on the subsequent evening.
3. The claimed sighting of a few people despite the sky being clear of dust, fog, clouds etc., will not be accepted because if the crescent was really on the horizon a general sighting would have been inevitable.
4. If the claimed sighting is made at a time when, according to the basic fundamental astronomical rules and calculations a sighting is not possible, then that claim will have to be rejected.
5. The Islamic month was commenced on the testimonies of a few people on the 29th of a month on a day when it was cloudy. If on the completion of 30 days, the CRESCENT MOON was not seen despite a clear sky then the testimonies will have been proved false. At the completion of 30 days of the lunar month (commenced on the basis of a true sighting) a definite CRESCENT MOON sighting is inevitable.
6. A claimed sighting at the time of a SOLAR ECLIPSE is absolutely impossible. (e.g. Saudi Arabia claimed a sighting on 1st Muharram 1412, 12 July 1991 when there was a total eclipse in America.)
7. If places on the west of "the place" where the sighting is first made, do not confirm the sighting despite good weather conditions then the sighting on "the place" is false.
8. A sighting before the birth of the CRESCENT MOON (i.e. before CONJUNCTION TIME) is totally incorrect.
9. If the moonset is before sunset then a sighting is impossible.

<sup>4</sup> Saudi Arabia claimed crescent moon sighting on Monday 22nd March, 1993 even before the CONJUNCTION TIME which was 10:14 local Saudi time.

not confirmed at places on the west of the place of "claimed sighting" than such a claim should be rendered dubious and must be rejected.

WE understand that SHARI'AH RULING should be based on the testimony which is genuine and totally free from any sense of doubt.

### FINAL WORD

In view of recent epidemics of dubious and unreliable reports of moon sighting and over reliance on "prematurely imported" CRESCENT MOON from Saudi Arabia (even before the birth of CRESCENT MOON), the British Muslim community is left with no other plausible alternative than to rely heavily on THE ACCURATE PREDICTABILITY OF CRESCENT MOON SIGHTING IN THE UNITED KINGDOM based on ASTRONOMICAL CALCULATIONS (as confirmed by Greenwich Royal Observatory) before VALIDATING the news of any "claimed moon sighting", especially from abroad.

Regarding the orbit of the moon, astronomical calculations allow accuracy to the 1/1000th of a second for all places on the earth. However, other factors and restrictions may come in the way of a possible sighting by the naked eye. These limiting factors do not nullify the astronomical calculations nor will Ramadan or Eid be commenced solely on the basis of the calculated predictions of a sighting under circumstances of clear visibility. In clear weather conditions the Islamic month starts/ends upon the sighting of the crescent moon by the naked eye.

There has never been a disagreement amongst the expert astronomers, both past and present, muslim and non-muslim about basic astronomical facts. All, including the publisher of the Umm-ul-Quraa calendar of Saudi Arabia, are agreed upon the fact that the sighting of the crescent moon is impossible before or immediately after the CONJUNCTION TIME at any place on the globe. Any person can experience this fact practically and be convinced of its correctness. Those residing in Saudi Arabia or those who will be fortunate to be there from Ramadan to Hajj (1413) may wish to note the following dates:

- (1) 21st February 1993 (Ramadan)
- (2) 23rd March 1993 (Eid-ul-Fitr)
- (3) 21st May 1993 (Dhul Hijja)

For at least 30 minutes after sunset on these dates they should try to endeavour sighting the crescent moon. On 21 February and 22 May there is no possibility of

- (3) Accept a witness's claim of sighting while the moon has gone beneath the horizon at this time.
- (4) Accept yet another person's claim of sighting when the moon has not even taken the form of a crescent (i.e. before the CONJUNCTION time). Believing this is like believing someone who claims to have seen a baby playing in its mother's lap before birth.

There are some people who without question accept Saudi Arabia's declaration as a valid Ru'yah. Have they ever taken the trouble of enquiring from the Saudi Arabian sources whether at the time of their claimed sighting there is a possibility of crescent moon sighting or whether the moon is even present on the horizon.

For example: 1st Ramadan 1992 (1412 A.H.) according to Saudi Arabia was on 4th March. This means that the crescent in Saudi Arabia was sighted on the 3rd of March. The CONJUNCTION TIME was on Tuesday 4th March, 4:22 pm local Saudi time. Enquire from any observatory in the world whether a sighting was likely anywhere on the globe on Monday 3rd March 1992. Their unanimous answer will be in the negative. The moon cycle for the previous month (Sha'baan, 1412 A.H.) had not yet completed. How could it be seen by the naked eye when the crescent moon was not even present on the horizon!! If their claim was correct, it would have been surely confirmed by places on the west of Saudi Arabia on the same evening. In reality it was not even seen on the next day (4th March 1992). All over the globe the actual sighting was confirmed 2 or 3 days after the claimed sighting of Saudi Arabia.

## TESTIMONY OF SIGHTING

Pre-requirements for a valid testimony of sighting includes the following:

- (1) The qualifications of the witness (e.g. justice and truthfulness, reliability and validity, freedom from calumny and slander, good eyesight).
- (2) Predictability of crescent moon sighting as verified by the Observatory. i.e. what was the possibility of sighting like? Since for the crescent moon to be sighted, it has to be present on the horizon.
- (3) Another rule of thumb for accepting a claimed sighting is that the sighting should be confirmed (pending good weather) at places on the west of the place where the claim was made. If despite good visibility the sighting is

## **AN ISLAMIC CALENDAR BASED ON ACTUAL CRESCENT MOON SIGHTING**

Countries like India, Pakistan, Bangladesh, Morocco and Some African countries base their months on the actual sighting of the crescent moon. They adopt this natural way of determining Ramadan and Eid and other Islamic lunar months. Their yearly calendar is based on the principle of PREDICTABILITY OF CRESCENT MOON SIGHTING. This is the very reason why the months of these countries are usually 1 day later than the Egyptian or Saudi Arabian calendar which are based on the principle of CONJUNCTION TIME which sometimes results in the Islamic lunar month starting even before birth of the new crescent.

Today's modern Media Information technology (TV, Satellite, cable etc.) allows news to travel all over the globe within seconds. Whilst this advancement has brought with it comforts and luxuries for the human society, it has also produced new Religious problems. Among these is the issue of conflicting news regarding Ramadan and Eidain coming from various muslim countries.

Muslims are naturally inclined to be influenced by the news coming from Saudi Arabia because of the high respect and honour for, the Two Holy Cities (Makkah and Medinah), the respect of the Ka'ba, and the dignity of the places of Pilgrimage. The premature declaration of Crescent Moon Sighting (at occasions of Ramadan and Eid) emanating from Saudi Arabia is therefore accepted throughout the Muslim world and especially by muslim minorities residing under the rule of others (in Europe, USA and other countries). This information does not usually tally with the news coming from the rest of the Muslim countries. This causes a sense of confusion among Muslim communities which often leads to heated arguments and unnecessary division in the Ummah.

An Analysis of the Saudi Arabian declaration regarding Ramadan and Eid shows that in order to accept their claims as valid, one has to swallow the following unbelievable factors:

- (1) Accept that Allah (The Almighty) has not ordained any specific laws for the moon and thus it orbits the earth randomly.
- (2) Accept a witness's claim of having sighted the crescent moon for the MONTH OF RAMADAN even on the 27th of Sha'baan.

کسی سر زمین پر ایک حد کے نفاذ کی برکت وہاں چالیس روز تاثر ہونے والی بارش کی برکت سے بہتر ہے

## **ANALYSIS OF THE UMM-UL-QURAA CALENDAR**

Dr Fadl Ahmed has confirmed that the Umm-ul-Quraa calendar is prepared on the basis of CONJUNCTION TIME rather than on PREDICTABILITY OF CRESCENT MOON SIGHTING. As explained earlier, the solar month commences from midnight and the lunar month commences from sunset after sighting of the crescent moon. This basic fact is not taken into consideration in the preparation of the Umm-ul-Quraa calendar. Furthermore, the calendar is based on Greenwich Mean Time (GMT) and does not take into account the local Saudi time. For example, if the CONJUNCTION TIME is at 23:59 GMT, the new Umm-ul-Quraa calendar month is commenced from the previous evening even though in Saudi Arabia the CONJUNCTION TIME is on the next solar day (3:00 am local Saudi time). A recent study has further highlighted this problem in Saudi Arabia.<sup>3</sup>

## **BEGINNING OF THE LUNAR MONTH**

When a crescent moon is not sighted on the 29th day of a month, the 1st day of the next Islamic lunar month will commence only after 30 days of the ongoing month are completed. This is the standard accepted principle for beginning of the next month when the previous month commenced on the basis of a GENERAL PUBLIC sighting of the CRESCENT MOON by the naked eye. However, when the month was commenced due to the claimed sighting of a FEW WITNESSES, and a subsequent sighting on the 30th day was not made despite a clear sky, then according to FIQH principle in this case, the next month will not commence merely on completion of 30 days. Rather it will be accepted retrospectively that the ongoing month was commenced on doubtful or false sighting of the witnesses. If their claimed sighting was correct then surely, a general public sighting of the crescent moon on the 30th day of the month would have been confirmed. There is no FIQH principle which says that the new month commences simply because 30 days of the ongoing month have been completed without referring to Ru'yah.

<sup>3</sup> A. H. Maniar, "Study and analysis of the Ummul Qura Calendar", paper distributed at the world conference on International Islamic calendar, Penang, October 8-10, 1991.

کسی سر زمین پر ایک حد کے نفاذ کی حرکت وہاں چالیس روز نازل ہونے والی بارش کی حرکت سے بہتر ہے

this formula (based on CONJUNCTION TIME rather than CRESCENT MOON SIGHTING) to prepare the Umm-ul-Quraa calendar."

Yours... Fadi Ahmed.

From Dr Fadi Ahmed's above correspondences, the following can be inferred:

1. The Crescent is formed after the CONJUNCTION and not before.
2. The crescent is not visible immediately after CONJUNCTION. (While Saudi Arabia has claimed crescent moon sighting on many occasions immediately after CONJUNCTION or even before.)
3. For the CRESCENT MOON to be sighted there has to be a distance of at least 10.5 from the sun.
4. The CONJUNCTION TIME (unobservable ASTRONOMICAL NEW MOON) itself has been accepted as Ru'yah in Saudi Arabia for the Umm-ul-Quraa calendar.
5. By astronomical calculations any sighting of the moon can be accurately predetermined (the actual sighting of the crescent moon by the naked eye is not necessary).
6. In the Umm-ul-Quraa calendar, the day after the CONJUNCTION TIME is taken as the first day of the new month.

1st of Islamic Date	Date of ANM	CALENDAR		Difference between sunset and moonset in Makkah	Predicted sighting calendar
		Um-ul-Qura	Egyptian		
Muh'm 1413	30.6.92	1.7.92	2.7.92	-3 min	2.7.92
Safar	29.7.92	30.7.92	30.7.92	-20 min	1.8.92
Rab Awwal	28.8.92	29.8.92	30.8.92	+6 min	30.8.92
Rab Akhar	26.9.92	27.9.92	28.9.92	-11 min	29.9.92
Jamad Awwal	25.10.92	26.10.92	27.10.92	-28 min	28.10.92
Jamad Akhar	24.11.92	25.11.92	26.11.92	+3 min	26.11.92
Rajjab	24.12.92	25.12.92	25.12.92	+19 min	26.12.92
Sha'baan	22.1.93	23.1.93	24.1.93	-9 min	24.1.93
Ramadan	21.2.93	22.2.93	22.2.93	together	23.2.93
Shawwaal	23.3.93	24.3.93	24.3.93	+8 min	25.3.93
Dhul Qa'da	21.4.93	22.4.93	23.4.93	-21 min	24.4.93
D Hija 1413	21.5.93	22.5.93	22.5.93	together	23.5.93

sighting. In this case Ramadan and Eid in Egypt are a day later as was witnessed in 1992.

## THE SAUDI ARABIAN UMM-UL-QURAA CALENDAR

In my 1989 (1410 AH) correspondence with Dr Fadl Ahmed (originally from Pakistan but now a resident in Saudi Arabia), the publisher of the Umm-ul-Quraa calendar wrote:

"Alhamdulillah, due to the grace of Almighty Allah, in 1972 I was able to make the first Islamic calendar based on astronomical data which is accepted as the official calendar in Saudi Arabia....."

The term "New Moon" means the time when the sun, moon and earth are in one plane. It is called IQTIRAAAN in Arabic and CONJUNCTION in technical terminology. A crescent shape comes into existence after this time. When it moves away from this CONJUNCTION by 6 to 7 degrees, it will be possible to observe the crescent given favourable weather conditions....."

Generally, in a clear sky, the crescent will be sighted by the naked eye if it is away from the sun by 10.5 degrees. i.e. If the moonset is around 42 minutes after sunset it will be visible pending good visibility."

(2 reply)..

"WHAT do you mean by the sighting of the crescent? This is a very complex question. The answer demands a lot of explanation considering several factors. This sighting will have to be decided by the Muslim Scholars...."

With the aid of astronomical calculations one is able to predetermine an accurate sighting...."

Whilst explaining further about sighting He wrote:

3 deg. after CONJUNCTION, 6 deg., 10.5 deg. etc. can all be calculated for any place. Only the time of CONJUNCTION (not the crescent moon sighting by the naked eye) is independent of place and time of observation. This astronomical phenomena (CONJUNCTION TIME) occurs at the same time throughout the world. It can be adopted universally thus I have used

☆ ایسا عمل جو شرعاً ثابت ہو وہ مقدم ہوتا ہے ایسے عمل پر جو شرط سے ثابت ہو ☆



After sunset, the moon should be at least 11-12 degrees further away from the sun on the horizon. At the time of sunset, the moon should be at least 8 degrees high on the horizon. By this time there will be sufficient darkness on the horizon for the human eye to differentiate between the natural light and the light of the sun reflecting from the crescent. If during the initial 15 minutes after sunset the moon is only 4-5 degrees high on the horizon, its sighting will be difficult by the naked eye. This is due to the fact that there is still sunlight present on the lower horizon and that only 1/100th of the moon is illumined (for the 1st night crescent).

**NATURAL LIGHT ON THE HORIZON :** People with normal vision will be able to distinguish between the natural light on the horizon and the light of the crescent if, together with other factors being favourable, the age of the new crescent is about 20 hours. When factors are exceptionally favourable the crescent may be sighted earlier than 20 hours. (e.g. favourable angle and altitude, exceptionally clear sky, weather free from storms and dusty winds etc.).

**THE PERSON SIGHTING THE CRESCENT:** A keen and an observant eye together with past experience and knowledge of the shape of the crescent in quest are all factors which effect the sighting. e.g. The moon is in the north of a particular place at sunset and the people are searching for it in the south, thus there will be no chance of a sighting.

## THE EGYPTIAN CALENDAR

Due to the influence of the late Jamaal Abd-un-Naasir, the scholars of Egypt had accepted a calendar based on the CONJUNCTION TIME (Astronomical New Moon). They adopted a unique principle according to which the mere presence of the crescent on the horizon for 5 minutes or more will automatically be assumed as a sighting irrespective of an actual sighting of crescent moon by the naked eye. This would lead to the next month commencing the following day. From 1986 onwards, the previous 5 minutes criterion was further reduced to 1 minute.

In Egypt to date, the principle of MERE PRESENCE of moon on the horizon rather than the ACTUAL SIGHTING is used to base Ramadan and Eid. Therefore one finds their calendar running hand in hand with the Saudi Arabian calendar. Ramadan and Eid sometimes differ in Egypt when Saudi Arabia makes a declaration even before the CONJUNCTION TIME based on a falsely claimed

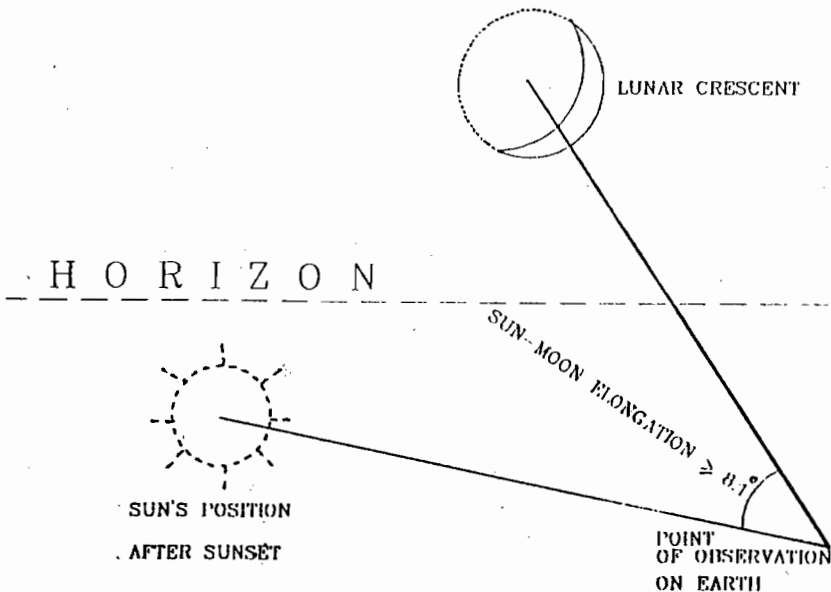
یلزم مراعاة الشرط بقدر الامکان ☆ شرط کی رعایت بقدر امکان لازم ہوتی ہے

that on the day when Saudi Arabia has claimed Ru'yah, places on the west e.g. Morocco, Tunis, Europe and as far away as the USA do NOT confirm this sighting on the same day and on some occasion not even on the next day. This is unequivocal and cogent evidence that the claimed sighting of Saudi Arabia is inaccurate.

## IMPORTANT FACTORS FOR CRESCENT MOON SIGHTING

There are many governing factors for the moon to be sighted as a crescent from ground level. Some of these are detailed below:

1. Moon's elongation (angular distance from the sun).
2. The time difference between sunset and moonset.
3. The age of the moon after the Conjunction.
4. Weather conditions.
5. Aid and assistance of instruments.



کسی سر زمین پر ایک حد کے نفاذ کی برکت وہاں چالیس روز نازل ہونے والی بارش کی برکت سے بہتر ہے

is full and then decreases in the reverse order until it is a crescent moon seen early in the morning in the EAST. During the lunar month, the moon is always seen half complete on the 7th night and complete (BADR) on the 14th night. The following Qur'anic verse points to this principle of moon cycle.

"And the Moon,- We have measured for her stations to traverse till she returns like the old (and withered) lower part of a date-stalk."  
(Al-Qur'an S36:A39)

7. When a crescent is sighted, the 1st date of a particular lunar month begins. On the 30th day of the same month the crescent moon for the next month will invariably be sighted after sunset. If the crescent is not sighted on the 30th day despite a clear sky then the claim of previous sighting for the month is rendered false (HUKM-E-SHAR'EE). Hence to commence Ramadan or Eid by saying that 30 days have been completed irrespective of moon sighting, is totally against the principles of Ru'yah. Furthermore it is against the opinions of the illustrious Muslim scholars (FUQAHA).

### **CRESCENT MOON SIGHTING FROM ALL OVER THE GLOBE**

1. The beginning of the crescent moon sighting is always from a different place every month. Unlike the solar IDL, there is no definite INTERNATIONAL LUNAR DATE LINE (ILDL) fixed for a particular latitude/longitude marking (e.g. Makkah Mukarrama). The initial place of sighting changes every month both latitudinally and longitudinally.
2. The first sighting of the crescent from a point x is in an elliptical shape (unlike observing the sun which is north-south), increasing towards the western zenith. This ellipsoid becomes wider in a north-south direction covering 0-45 degrees (latitude north and south) in 24 hours. A further day will be required before it is seen in the areas outside this ellipsoid circle.
3. When a sighting is made at a point, then all places on the west of it and within the elliptical range will definitely witness the sighting (Provided the atmospheric conditions (clarity etc.) are about the same). It can never happen that after a definite sighting at a place, the sighting is not confirmed at places on the west of this place. This incidentally has been the case with the claimed sighting of Saudi Arabia. Time and again we have witnessed

الاصل ان القول قول الامين ☆ بنیادی طور پر امین کا قول ہی معتبر ہوتا ہے

## **SOME BASIC PRINCIPLES OF RU'YAH AFTER SUNSET (CRESCENT MOON SIGHTING)**

1. The world is like a globe and not a flat field. Hence a sighting at one place does not necessarily mean a sighting throughout the globe at the same time (Crescent moon sighting is after sunset and sunset occurs at different times around the globe).
2. The moon has no light of its own. The rays of the sun are reflected from it. This light is dim with respect to the reflection of other celestial bodies. On the first night the moon is only 1% illumined.
3. Only one half of the moon is facing the earth. The other half is unseen and it is this half which faces us at the time of Conjunction. Hence the Conjunction is unobservable by the naked eye. A claim of having seen a crescent moon at this time is absolutely false and is most certainly an optical illusion.
4. The surface of the moon is uneven (mountains, craters). Hence there is a delay in the reflection of the sun's rays after the Conjunction caused by the obstruction of these mountains and craters. This delay is in the range of 14-50 hours depending upon the place on the globe.
5. Basic fundamental rules of Astronomy allow us to calculate the orbit of the moon very accurately (1/1000th of a second). These calculation are not based on guess work, estimates or astrological predictions. The HOLY QUR'AN has removed this doubt by the verse :

**"The Sun and the Moon follow courses (exactly) computed."  
(Al-Qur'an S55:A5)**

6. One day before and after the CONJUNCTION TIME , the moon can rarely be sighted by the naked eye (SOLAR ECLIPSE is a form of conjunction; the day the solar eclipse is noted, after sunset the crescent moon is never sighted anywhere on the globe). Occasionally one can see a crescent on the day of CONJUNCTION i.e. when CONJUNCTION is in the early hours (just past midnight) and sunset is late (say around 1800.1900 hours). The moon would be about 16-18 hours old and may be sightable if in proper configuration. It appears as a crescent moon (after sunset in the WEST) on the 29th or the 30th day of the ongoing month. Its brightness grows until it

## AN ANSWER TO A QUERY

Throughout the Muslim world, the month of Ramadan (1412 A.H., 1992 C.E.), commenced on the following four days based on claimed sightings :

CONJUNCTION TIME (Astronomical New Moon): Wednesday, 4 March 1992, 1:22 GMT.

1. Claimed sighting in Saudi Arabia: Tuesday, 3 March 1992, 22 hours prior to CONJUNCTION TIME. Ramadan commenced in Saudi Arabia on Wednesday, 4 March 1992. (also some places in USA and Europe who followed Saudi Arabia).
2. Claimed sighting in Egypt: Wednesday, 4 March 1992, 2 hours 34 min after CONJUNCTION. Ramadan commenced in Egypt on Thursday, 5 March 1992.
3. Morocco, Lisbon (Portugal), Pakistan, a number of African countries: Sighting on 5 March 1992, approximately 30 hours after Conjunction. Ramadan commenced in Morocco on Friday, 6 March 1992.
4. India, Pakistan, Reunion, Bangladesh, Mauritius, New Zealand: Sighting on Friday, 6 March 1992. Ramadan commenced on Saturday, 7 March 1992.

As per the above, there were 4 different claims of sighting. Which one from these is correct? Besides astronomical calculation, is there a Shar'ee and Fiqhi basis upon which this question may be answered? If we are to accept all of the above as valid then should we accept the difference in geographical locations (Ikhtilaf-e-mataale') and follow the FIQH rule (Every country has its own sighting)? Or are we to ignore the difference in locations and accept the earliest claim of sighting; Thereby those who fasted later will have to compensate fasting of 1, 2 or 3 days?

The question arises -

Is it really possible that the crescent moon is sighted in different places of the globe with the difference of 3 to 4 days? Or are we to understand that the crescent moon is sighted after sunset at one place (say Riyadh). There is no sighting the next day. On the third day it is sighted in another place (say Rabaat).

the fact that the Muslims did not have an exclusive calendar of their own at the time. Upon this basis they criticised the Holy Prophet (S.A.W.) and His Ummah as illiterate (may Allah forbid) and unsuitable for the leadership of mankind.

3. In the light of this background, if we look at the saying of the Holy Prophet (S.A.W.); "We are an un-lettered nation", we learn not to follow the method of the Jews and thereby make our months of 29.5 or 29.75 days duration. On the contrary, we are to adopt a simple, natural and universally applicable formula in the determination of the lunar month. i.e. Commence fasting by the sighting of the crescent moon by the naked eye and end fasting by means of a similar sighting of the crescent moon. In the case where a sighting is not reported, we are instructed to complete the 30 days of the on-going month.

Furthermore, the Muslim Ummah is clearly advised to be cautious against the Jewish method of dubiously miscalculating the lunar months. To take the literal meaning of the above Hadeeth (whilst deliberately ignoring the great wisdom and true lesson being delivered to the Ummah) in support of the argument that we should remain ignorant of the physical sciences is to go against the Qur'anic teaching: "He (Allah) taught man of what he knew not". (Al-Qur'an, S94:A5)

4. Some latterday Muslims have mistakenly thought it wrong to use the astronomical knowledge and a few even considered it as an innovation in Religion. Whilst the clear aim of the Holy Prophet (S.A.W.) in the above saying is simply to advise us not to follow the Jewish calendar in which the month commences with the Astronomical New Moon as against to the Islamic calendar in which the month begins with the sighting of the crescent moon.
5. Astronomers, both modern and old, and renowned Comentators of the Qur'an are all agreed that towards the end of every month the moon goes through a stage of alignment. The period when the moon is invisible by the naked eye, is a reality and that at the CONJUNCTION TIME it is impossible to observe the crescent moon from anywhere on the earth. At no time in history has there been a difference of opinion amongst the astronomers about this basic fact. Even today, it is universally illustrated.

## قارئین فقہ اسلامی کو عید مبارک

لا اجتہاد عند ظہور النص ☆ نص کی موجودگی میں اجتہاد جائز نہیں

The difference between lunar and conventional solar day/date/s may be summarised as follows:

LUNAR DAY/DATE: From SUNSET TO SUNSET=one day (sunset-night-sunrise-day-sunset).

CONVENTIONAL DAY/DATE: From MIDNIGHT TO MIDNIGHT=one day (midnight-sunrise-day-sunset-midnight).

This means that the lunar day (Islamic day) always cycle between two solar dates.

## BACKGROUND TO THE ISLAMIC LUNAR CALENDAR

There was no standard calendar in the Arabian Peninsula before Islam. Every Tribe and Area had its own method. Among these, a version of the "Nasa'ee" calendar was also in use. When the Holy Prophet (S.A.W.) arrived in Medina and met the Jewish clans, he found them using the Hebrew solar/lunar calendar which differed in some ways to the Arab calendars. In the 4th Century (C.E.), Hillel, a Jewish leader took into account the past 1000 years and formulated a calendar which he recommended to the Jews the world over. This calendar is still in use to date by the Jews.

The Jewish calendar is a lunar/solar calendar similar to the "Nasa'ee". Every third year an extra month is added to bring the year in accord with the solar year and with the season. In this calendar The new month is commenced with the Astronomical New Moon (unobservable by the naked eye). This is the reason why there used to be a difference of usually one and sometimes 2 days between their months and the months of the Muslim (Arab) calendar.

## HADEETH: "WE ARE AN UN-LETTERED UMMAH"

1. The Jews based their months on the Astronomical New Moon (ANM, as discussed earlier). It is well known that the ANM occurs at any time during the day and night. Thus such a lunar month will be of 29.5 or 29.75 days duration.
2. Whilst the Jews have used many other ways to perpetuate their hatred for the Holy Prophet (the final Messenger of God, S.A.W.), they have also exploited

کسی سرزمین پر ایک حد کے نفاذ کی برکت وہاں چالیس روز نازل ہونے والی بارش کی برکت سے بہتر ہے

## THE LUNAR DAY/DATE

The reference point for the Islamic day/date almost everywhere is the time of sunset. In this way 24 hours will have elapsed on the following day at sunset. There are two days (day of Arafat & day of Qurbaani) which are an exception and even these are only for the Pilgrim in Makkah. The 9th of Dhul Hijjah (Arafat day) commences at SUBH-E-SAADIQ and ends at SUBHE-E-SAADIQ of the 10th Dhul Hijjah. Similarly, the day of Qurbaani (10th of Dhul Hijjah) commences from day break.

## CONVENTIONAL DAY/DATE

In contrast to the lunar day, the conventional solar day begins at 12 o'clock midnight and continues until 12 o'clock on the subsequent night. This conventional day has been divided into 24 time zones. All places in one zone will have a common time (eg 12 o'clock) while a place which is only a few meters away in the west will be an hour behind (11 o'clock) and a place on the east will be an hour ahead (1 o'clock).

San Francisco	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6	7	8	Hours
Boston	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1	2	3	4	5	Hours
MEZ	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Hours
Tokyo	16	17	18	19	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Hours

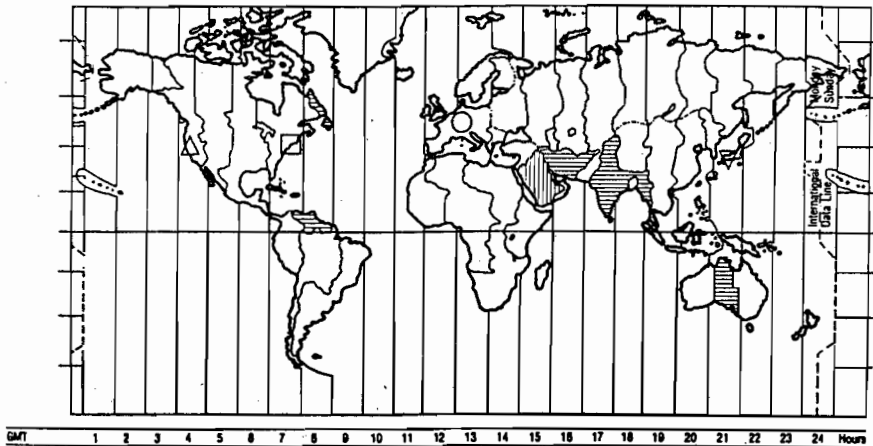


Figure 3

رسول اللہ ﷺ نے فرمایا : حدود اللہ قرسی اور دوری تمام لوگوں پر قائم کرو



when we learn that the moon moves in different orbits during every month and thus passes over different places of the globe.

When there is a sighting at a place that is within the elliptical circle, there will also be a positive sighting on the same day at all places that lie on the west. Places that are outside this elliptical circle (North, South and East of the place of sighting) will observe the crescent moon on the following day. This is the "law of nature" as defined by Allah (S.W.T.) regarding sighting of the crescent moon (Ru'yat-ul-Hilaal).

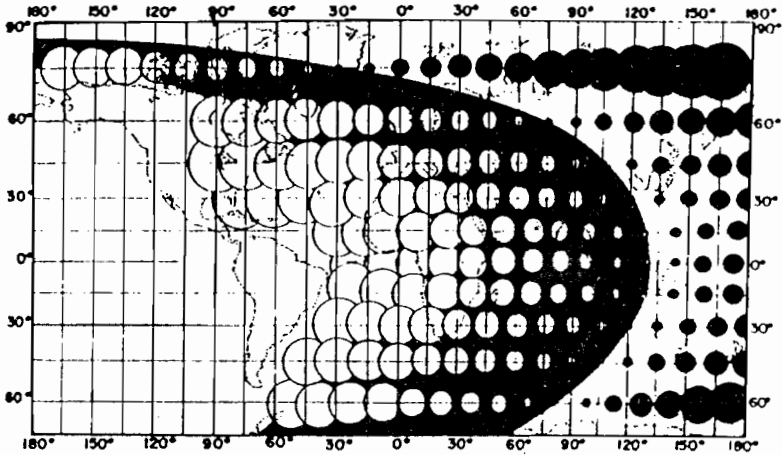


Fig. 1 Schematically illustrates how along the latitude circles, the probability of visibility decreases to the east of IDL (growing dark circles) and increases to the west of IDL (growing white circles).

Figure 2.

If the Islamic world follow this authentic sighting for Ramadan and Eidain, then most places will celebrate Ramadan & Eidain on the same day. Furthermore with respect to their geographical locations (East or West) there will at the most be a difference of one lunar day (not solar day). With respect to the lunar day, there occurs a difference of two and sometime three days between Middle Eastern countries and the rest of the Islamic world due to the unauthentic manner in which Ru'yah is made.

the moon is towards the earth hence it is unobservable at this juncture. Whilst explaining the verse:

"By the sky, with its constellations." (Al-Qur'an, S85:A1)

many Comentators have mentioned the twelve prescribed paths on which the Sun and the Moon orbit throughout the days and nights. The sun completes its 12 paths (1 path per month) in a year due its slower speed whereas the moon completes its paths in a month. The example of the sun is like that of the small hand in the clock and the moon that of the bigger hand.

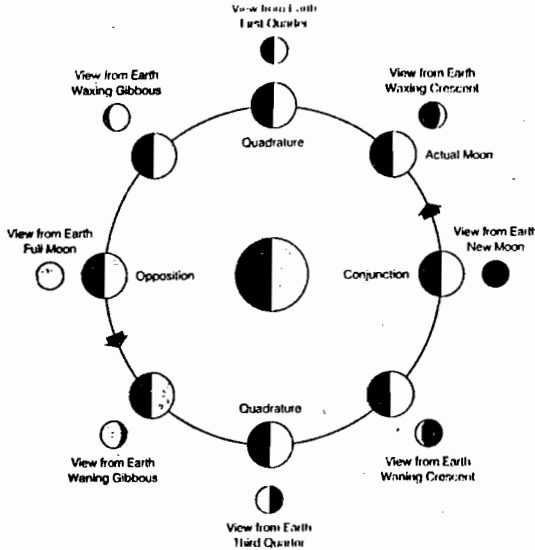


Figure 1:

Every month, the moon orbits the earth until a stage where it confronts the sun. The sun rises in the east. Its rising place moves uniformly north-south during the year. As opposed to this, the visibility of the crescent moon is not uniform. Its visibility areas if plotted from the earth, looks like an ellipsoid (egg shaped). This ellipsoid again is not uniform. It moves north-south throughout the year. Sometimes it covers northern areas (Alaska, Japan) and sometimes the southern areas (South Africa, New Zealand). The sighting of the crescent moon is completed all over the world in 24 hours. The reason for this becomes obvious

shape of the crescent  
position in sky and altitude  
time of observation  
sky conditions

(f) Sighting must be carried out in an organized way for each month.

(g) There is an inherent strength in the Islamic system, which helps avoid accumulation of an error. Shari'ah also allows for the correction of a mistake; suppose on the 28th of an Islamic month, the new moon has been sighted, a correction will be made to the beginning of the month since a month should have 29 or 30 days only. Suppose the concerned month is Ramadan, then an extra fast would have to be completed after Eid.

The Islamic lunar month commences at the time of sunset upon sighting of the crescent moon and ends on the first sighting of the next crescent moon which can be after 29 or 30 days. In his book "Bidayat-ul-Mujtahid", Allama Ibn Rushd (renowned Muslim scholar and jurist) has quoted the unanimous opinion of the Ulema that the Islamic month has 29 or 30 days and that the basis of its start and finish is upon the physical sighting of the crescent moon. Furthermore, the sighting has to occur after the period (2 days) when the moon is hidden because of its conjunction with the sun; one day before conjunction and one day after. Revered Muslim scholars also maintain that the Islamic month is never 28 or 31 days. Islamic Shari'ah states therefore, that the beginning and the ending of the Islamic month depends on the physical sighting of the crescent moon. This will only occur on the 29th day of the on-going month after the MAHAAQ (CONJUNCTION TIME, Astronomical New Moon), when the moon has moved such a distance out of the sun's rays that it can be seen by the naked eye in the form of a crescent after sunset. From this it is also clear that one cannot see the moon (in the form of a crescent) before or immediately after the Astronomical New Moon. A claim of sighting at or around this time would be termed extremely dubious if not completely false.

### **MAHAAQ (CONJUNCTION=ASTRONOMICAL NEW MOON, ANM)**

The term "New Moon" in astronomical terms means the position when the Sun, Moon and Earth are in conjunction (in one plane). At this time the dark side of

## THE ISLAMIC CALENDAR

The Islamic legal system includes the administration of Islamic calendar with appropriate machinery. The Islamic State places a special emphasis on Astronomical Research and it becomes a standard element in formal religious and legal education. Dr Mohammed Ilyas, Head of Astronomy and Atmospheric Research, University of Science, Malaysia, describes the following general rules in his recent publication.<sup>2</sup>

- (i) Length of month:  
not less than 29 days  
not more than 30 days
- (ii) Length of year:  
not less than 354 days  
not more than 355 days
- (iii) Maximum number of consecutive months of one type:  
30 days-months: 4  
29 days-months: 3
- (iv) (a) Each new month begins with the first moon-light of the new crescent on the western horizon after sunset.  
  
(b) Try sighting on the 29th but if can not be sighted (even due to cloud), then complete the month as of 30 days.  
  
(c) The sighting report must be supported through a witness report according to Shari'ah rule.  
  
(d) The person must be reliable, adult, truthful, sane with good eye-sight (implied).  
  
(e) The sighting report should not conflict with basic scientific understanding and natural laws; indeed professional scientist's involvement is essential to ascertain the reliability of the reported sighting. The scientific test would include a check on related parameters:

کسی سر زمین پر ایک حد کے نفاذ کی برکت وہاں چالیس روز نازل ہونے والی بارش کی برکت سے بہتر ہے

proper place to explain in detail this contribution; "For this ocean a big ship is required". It is great pity to find a large group amongst us who ignorant of their own past achievements have fallen under the influence of the West and are engrossed in mental and intellectual anarchy.

*The house that once illumined the whole world  
Alas! has within it no lamp today. (poetic couplet)*

Here I give you a few examples of Muslim contributions to science. In the 8th century (Christian Era=C.E.), Abu Ishaq ibne Jundub was the first astronomer in history to invent an ASTROLABE (before the invention of SEXTANT) to observe the altitudes of celestial bodies above the horizon and so determine the observer's position on earth. Muhammed ibne Ahmed Al-Baironi, another astronomer of the 8th century (C.E.) calculated the circumference of the earth for the first time. Using modern day computer technology, this figure was found to be erroneous by only 0.3% which is insignificant bearing in mind the difference in the instrumentations.

## **RAMADAN AND EIDAIN IN MODERN TIMES**

In determining days of Ramadan and Eidain, many countries, especially the gulf states such as Dubai, Abu Dhabi, Qatar, Oman, Kuwait, Bahrain, Lebanon, and Jordan adopt a casual approach in sighting the crescent moon within their own frontiers and instead rely upon the declaration of Saudi Arabia. For this reason it is submitted that Ramadan and Eidain in the Middle East is more of a political issue than a Religious one. On the contrary, the Religious scholars of countries such as India, Pakistan, Bangladesh and Morocco etc. have always treated the Saudi announcement with scepticism and to date have relied more strongly on the actual sighting of the crescent moon within their own countries.

The experience of the past 26 years has shown that in Saudi Arabia the declaration of Ramadan and Eidain is usually one or two days and sometimes even 3 days before the declaration made on the basis of "True Ru'yah" in the rest of the Muslim world. Many people including some religious scholars, due to their emotional and sentimental links with Saudi Arabia have started to claim that the Ru'yah in Saudi Arabia which occurs one or two days ahead of anywhere else is not just a possibility but a certainty. Their ignorance only goes to show that people are willing to accept something which is wholly improbable and a figment of their imagination. This complex paradox is explained in some detail in the following paragraphs.

"We have made the night and the day as two (of OUR) signs: the sign of the night we have made dark while the sign of the day we have made light, that ye may seek bounty from your Lord and that ye may know the number and count of the years." (Al-Qur'an, S17:A12).

Among the various commands of Shari'ah, there are some which are associated with the Sun. e.g. times of Salaat depends upon sunset sunrise and midday, crops and vegetation are linked with the seasons, and the Fasting is dependent upon Subh-e-sadiq and sunset. Similarly, the stay in Arafat during Hajj together with the other Arkaan of Hajj are linked with particular days which are dependent upon sunset and sunrise. Besides these, there are other commands which are associated with the lunar months. e.g. Commencing and ending Ramadan, Eid-ul-Adhaa, Qurbani, The days of Hajj are all dependent on the determination of the lunar month. In addition, the Zakat of wealth, gold and silver also depends on the lunar year. The Iddat after Talaq (specific period after divorce) or death of the husband, age of puberty etc. are likewise determined by the lunar calendar.

In Islam, the start of a particular month is dependent on the sighting of the crescent moon (by the naked eye="RU'YAH"). This is the simple, practical and straight forward way for all times because it is possible to sight the crescent moon from anywhere on the globe. be it the desert or an urban city.

The lunar year is shorter than the solar year by eleven days. This is why the lunar months circulate throughout all seasons of the solar year. Inevitably, this results in occasions such as Ramadan, Eidain and Hajj falling in winter as well as summer. Another benefit of the lunar year is that when Zakat on wealth, Gold and Silver is based on it, an extra years due will be given to the poor and the needy every 33 solar years thus providing additional help.

## ISLAM AND SCIENCE

There is absolutely no contradiction between Islam and science especially Astronomy. In actual fact science is of service to Islam, verifying many of its realities and mysteries.

Modern day progress of the West and all its impact upon society is greatly indebted to those muslim philosophers and scientists who utilised their God-given talents and opened the doors of the different branches of knowledge. Whilst accepting the scientific advance of the west, we are not ready in the least to forget and forgo our inherited contribution. An article of this size is not the

## An Overview of Crescent Moon Sighting

By: Maulana Yaqoob Qasmi

Allah (S.W.T.) has revealed the religion of Islam as a source of guidance for the whole of mankind for all places and all times. The HOLY QUR'AN and the Noble sayings of Sayyidina Muhammed (S.A.W.) (The AHADEETH-E-NABAWIYYA) are two torches which illuminate the Straight Path (the Siraat-e-Mustaqem) for the mankind. Verily, the Qur'an is a book full of Guidance and an ailment for the diseased hearts. It is not a text book on Medicine, Astronomy, Mathematics, Physics or Chemistry. Nor was it revealed to explain in detail these various branches of knowledge.

The Holy Qur'an is an ocean of knowledge. It enlightens the ways for universal research and encourages its law-abiding fellows to discover the beauties and wonders of the world thereby giving mankind universal control. When a person ponders into the unprecedented signs of the universe while accepting the call of the Qur'an, his nature compels him to submit to the one and only Creator and thus out of true emotion he screams:

*In every atom there is the noor of the Sustainer  
Certainly there is a supreme creator for all things. (poetic couplet)*

It is impossible for the human eye to see Almighty Allah (S.W.T.) while remaining in this world. However, the people with Imaan and Yaqeen do experience the Noor and manifestation of Allah and thereby gain an increase in their faith. For the non-muslim, the Qur'an details the amazing and magnificent creations of Allah together with His explicit inward and outward "signs". Doing so it invites him to the Belief in the Oneness of Allah.

**"Soon will We show them our signs in the (furthest) regions (of the earth), and in their own souls, until it becomes manifest to them that this is the truth." (Al-Qur'an, S41:A53).**

It is the wonderful miracle of the Qur'an that it provides guidance to people of all ages at one and the same time. It addresses the Bedouin of the bygone camel era and at the same time addresses the modern day intellectual of the sputnik age. In this manner it shall continue until the day of judgement.

The Sun and the Moon are two out of the innumerable "signs" of the Almighty Allah (S.W.T.). They have been created for the well being of mankind. Both have been ordained predetermined orbits by which the night & day and months & years comes into existence.

☆ امام مالک بن انس رحمۃ اللہ علیہ کی ولادت سن ۹۳ ہجری میں اور وفات ۷۶ ہجری میں ہوئی ☆