INTERNATIONAL SYMPOSIUMS ON MOON SIGHTING AND SCIENCE OF THE MOON

With slight changes in terms of numbering and spelling mistakes, this section is a direct quotation from two websites considered to be most developed among many, dedicated for addressing and finding solution to Islamic dates (calendar) issue.

Numbers 1-8 it is from www.moonsighting.com initiated by Dkt Shaukat and 9-10 it is from www.islamicmoon.com

The questions answered in the Dkt Shaukat website as up to March 2007, are indeed representing the confusions concerning the matter in any muslim society. The answers is a much needed knowledge for reference by muslims anywhere in the world.How ever it is not clear if the web still hold the answers,as some are themselves controversial.

For the case of Islamic moon website,they have been open to explain the complexity of the issue and their readiness to collaborate with others interested in finding solutions ,while they already have worked on various suggestions as they see fit with Islamic sharia'nh. Meantime they have been critical of others suggested solutions they see them not as they are thought to be.

1. SIGHTING QUESTIONS

1.1 Question: What is the process one must use to correctly sight the moon? (Dec 29,1997)

Answer: Go after about 15 minutes after sunset. Look in the direction of the setting sun, just above it, also look to the right or left of it up to 30? in either direction of the setting sun. Keep looking until the time of moonset that you can obtain from local newspapers. Binocular helps. Have one or more persons with you, if possible. If you do this for a few months, you will know yourself about improving your procedure. What evening you should go to look, can be found from my web site, or if you know when was the moon sighted in your area for the previous month, then count 29 days from it.

1.2 Question: Why does the first crescent look thin in some months and thick in other months? (Oct 31,1997)

Answer: For a specific location where you are, the new crescent moon in some months has the least age, in other months has larger age, and yet in some other months, its age is just below the visibility range (say, e.g., 12 hours), and then the next day its age grows by 24 more hours (to 36 hours). Of course, this 36 hour old moon looks so big that people may say that it is definitely second day moon. For your locality, it is still first day moon. However, for some other localities, it may have been seen the day earlier (at the age of 17 hours), and for them, it is second day moon when it is 41 hours old. So, you see, a 36 hour old moon may be the first day moon and a 41 hour old moon which is not much different from 36 hours is a second day moon.

1.3 Question: After looking at your website, I started fasting on December 31 1997 in Detroit Michigan. On the evening of December 31, I was able to see the new moon even at 7:15pm in Detroit Michigan . I have got a share ware software (CyberSky). According to this software at 7:15pm the moon was about 5? above the horizon in Detroit Michigan. The point is that I think one can see the moon at 5? above the horizon which your software (on the web MOONCALC 4.0) does not take into account for global moon sighting. Now I check the software for the evening of December 29 1997. According to the results of this software, the moon was at 5? above the horizon after sunset in Detroit, Michigan. This makes me wonder that how no one of you was able to see moon in North America on December 29, 1997. For eid according to the software results the moon will be about 10? above the horizon in Detroit Michigan on January 28, 1997, so we should be able to see it easily which moonCalc 4.0 does not predict. (Jan 3,1998)

Answer: The moon-sighting prediction calculations are not that simple as you think. If the moon surface facing the earth is completely dark and the moon is above 5? or 10?, or even 20? it means it is there but is invisible. 5 or 10? above horizon is a function of curvature of the globe. But for visibility, the moon has to reflect sun's light. To do that the moon has to be at about 10? angle minimum from the sun (this angle is also called elongation, or arc of light). Elongation was 5.2? in Detroit on Dec. 29; That is why you did not see the moon on that day. On Jan 28, you will still not see the moon, because the elongation is less than 10?, and the age is 17 hours, and there are other parameters of the moon that make it impossible to see it on Jan 28. However, on Jan 29, you will see a big moon that is 41 hours old, that still does not mean that it was yesterday's moon, because yesterday, it was 17 hours old and was not visible in your area or on the east coast of USA.

1.4 Question: Why it is not possible to see a Crescent on Jan 28, 1998, when It will be 19 hours old in California, and possibly at good altitude above horizon.

Also, I just saw that sighting is possible on Wed Jan 28, 1998 at Hawaii. Will ISNA take it as a proof to celebrate EID on Jan 29, 1998 Thursday ? (Jan 6,1998)

Answer: To answer your brother's question, firstly, moon is not always visible when it is 19 hours old. In some months 23 hours old moon is not visible. Secondly, on Jan 28, 1998, the moonsighting is difficult but possible on West coast 30 minutes after sunset, only if the optimum weather conditions persist (no city lights on west, favorable humidity, favorable temperature, and atmospheric pressure etc.).

In Hawaii, it should easily be visible. However, ISNA and Shura Council of North America have decided to announce the beginning of Shawwal after moon is sighted in Continental North America. They will verify the claims of sighting from the main land of North America. We can not wait for reports of sighting from Hawaii, because, it will be past midnight on the East coast, by the time we confirm the sighting claims. That is a burden on Muslims of East coast, specially in Nova Scotia which is 1 more hour ahead of Eastern Time Zone. Just a statement of possible sighting in Hawaii is not enough for ISNA to make a decision before actual sighting.

1.5 Question: Can I determine the 14th of an Islamic month from the full moon time shown in Moon phases Tables?

Answer: It is not true that the 14th of an Islamic month falls on a full moon day. Full Moon can occur on 13th or 14th or 15th of the month, because the full moon occurs at one specific moment Universal Time (that can be in the day or night) and at every moment, there are two Gregorian dates in the world (parts of the world on either side of the International Dateline have different days at every moment) and those two dates correspond to three different dates in Islamic calendar depending upon

the location on the globe. Now, the sighting of the moon determines the beginning of the month not the moon birth. Sighting of the moon occurs on at least two different days on the entire globe, sometimes even three different days.

1.6 Question: If the moonset in Riyadh is 37 minutes after sunset on Dec 19, 1998, why you say that this moon cannot be seen?

Answer: If the moonset is 37 minutes after sunset, it does not mean it is visible for 37 minutes. All it means is that the moon is above horizon for 37 minutes, and if it is less than 7? to 10? from the sun, then it is not visible. Visibility depends upon angular separation of the moon from the sun. If the angular separation is not enough to make a crescent, just the presence of moon above horizon is not enough for it to be seen.

1.7 Question: If the astronomical calculation informs that the moon is definitely on the horizon after sunset then why is its visibility impossible before the age of 13 hours, or before the lag time of 24 minutes between moonset and sunset? (Dec 30, 1998)

Answer: The moon could be on the horizon before the birth of new moon. Therefore, new month can not start before the moon is born. If the moon is above horizon, its visibility may be impossible because of its relative position from the sun. If sun is in such a position that the crescent is not formed as seen from the earth, then moon cannot be seen, even if it remains above horizon after sunset. The visibility does not depend on age, but on the angular separation of moon and sun. A 13 hours age moon generally does not have enough angular separation for it to be visible. Also it takes about 20 to 25 minutes for the sun to go below horizon such that the background light of sun's glare diminishes to an extent that a crescent can be seen. However, a very thin crescent can not be seen until after 38 minutes past sunset.

1.8 Question: Is it possible to see the moon near the sun in the morning and during sunset in the same day? And when does that happen? (Dec 30, 1998)

Answer: No. But it is possible to see the moon on one morning before sunrise in the east, and then one the next day's evening (i.e. after about 36 hours) it can be seen after sunset in the west. This happens very seldom for a specific location. Usually the moon remains hidden for two days, a day before new moon, and a day after new moon.

1.9 Question: At what age the moon after getting out of the "Mahaq" (new moon phase) the hilal can be seen with: a) naked eyes? b) scientific instruments? Also, at what time the moon starts leaving the Mahaq (wane) for the current month i.e. Jan. 1999? (Jan 9, 1999)

Answer: The "Mahaq" is the time when the moon becomes invisible from any place. This period of Mahaq will vary for different places. The minimum period of Mahaq is about 30 hours (about 15 hours before new moon birth, and about 15 hours after it). But this does not mean that the moon is out of Mahaq for every place in that time. For some months and for some places it could remain in Mahaq for about 50 hours. For Shawwal 1419, the moment of new moon birth is Jan 17, 1999, 15:47 UT. Remember, the age of the moon is very wrong factor to look for visibility. The most important factor for visibility is the angular separation of the moon from the sun. This angle is not easy to calculate for everyone. That's why most people try to come up with an easy formula in terms of age or difference of moonset and sunset, and none of those formulae work. There is no answer for minimum age for sighting, either with naked eye or with instruments (telescope/binocular). However, there is

a minimum limit of 7? for angular separation of moon and sun (Danjon effect, meaning the mountains on the surface of the moon block the sunlight coming to the earth).

1.10 Question: Why the crescent is often described as "impossible to see" after it has passed the time of new moon? (Jan 17, 1999)

Answer: Let me clarify what "Birth of New Moon" means. It is the instant of time when the moon crosses a line between the earth and the sun, and since the moon does not have any light (it merely reflects sun's light) it is dark at this time and therefore, it can not be seen. The sun light falling on the moon reflects back to the sun and the earth is facing the dark side of the moon. As the time passes from birth of new moon, the moon move out from in-front of the sun and several hours later it can be seen as a crescent.

1.11 Question: Taking this Shawwal 1419, for example, the new moon was at 10:46AM, which means that at the time of Maghrib on the east coast, it was 6 to 7 hours old. It also set a few minutes after the sun in the mid-Atlantic region. Why is it then "impossible to see"? (Jan 17, 1999)

Answer: It was not possible to see this Shawwal moon on Jan 17, 1999 anywhere in the world, because the sun has to be at certain angle for its light falling on moon to come to earth, and this is not enough either. The background light on the skies at the horizon must also be lesser than the brightness of crescent moon. For these two reasons, the moon was not visible anywhere in the world on Jan 17. So, if the moon is above horizon after sunset, it just tells us that the moon is there, and it may be dark, but for it to be visible, the angle from sun and the background light of the horizon conditions must be sufficient to see that moon. 6 to 7 hours old moon is not visible as proven by the observatories of the world using even most powerful telescopes.

1.12 Question: Is it correct that the new moon (dark moon) was seen in Utah, Arizona & California Friday April 16, 1999? I was under the impression it was impossible to see the dark new moon. Apparently that is not correct, according to what you state. (April 18, 1999)

Answer: First you should understand, "new moon" and "new crescent moon". New moon is an instant of time; for example, this month it was at 4:21am Universal time on April 16, 1999. At that time it was 8:21pm on April 15, 1999 in California. At this time the moon is dark and cannot be seen. At that time there are different times at different locations in the world. Of course on April 16, in California it was 23 hours old, and was seen. So, looking at the date only for moon birth April 16 you are misleading yourself that if the moon is seen on April 16 anywhere in the world, it was a dark moon, since the moon was born on April 16, 1999.

1.13 Question: I came across a website "Virtual Reality Phase of the Moon" which shows photos of the current phase it appears a new moon can be seen. If one knows where to look and looks for it's faint contrast.

Do you know how many hours after the conjunction, that a faint sliver of light appears? (April 18, 1999)

Answer: If one knows where to look for the moon, it does not mean that the moon could be seen. Moon does not have any light. It reflects sunlight. At new moon phase the earth is on one side of the moon and the sun is on the other side, so no sunlight falling on moon can come to the earth.

The programs like "Virtual Reality Phase of the Moon" only show you a calculated geometry of the moon surface facing a particular spot at a specific time on the globe not the whole world. The faintest crescent it shows does not mean that it can be seen. It requires the crescent to be of sufficient thickness and brightness compared to the background light of the sun in the sky, which is present on the horizon even after sunset. Moreover, the sunlight falling on the surface of moon is not reflected to the earth until about the angle of sun-earth-moon becomes 7? because the mountains on the surface of the moon block the sunlight until the angle becomes 7?. It takes about at least 13 hours after "new moon phase" to see the crescent even from telescopes. For naked eye this time is about at least 15 hours or so. It does not mean the a 13 hour or 15 hour old moon will always be visible. In some months moon is not visible from any place on earth until it becomes 23 hours old.

1.14 Question: Are there some locations on the globe inherently better than others for sighting the new crescent? (May 2, 1999)

Answer: YES, and such locations have factors better for optics than other locations. Locations looking out over the ocean are better than looking over in a direction of a populated city. Poor air transparency due to molecules and dust suspended in the air is also bad for visibility. The air transparency is better for higher elevations like mountain tops. Urban and industrial areas are at a disadvantage compared with rural and more arid areas. The average cloud cover is significantly higher at high latitudes and near equator than in the subtropics and lower temperate zone.

The haze effect also known as light extinction, dims the crescent by a large factor. At the low altitude where the most marginal crescents would be seen, only about 5% of the light from the crescent can penetrate the air, and 95 percent is lost because it is scattered away in other directions, even in the cleanest air. In a humid or polluted environment, much less than 1 percent of the light of a thin crescent comes to the earth. If the background light from the rest of the sky is brighter than the thin crescent, it would render the crescent invisible.

1.15 Question: WHAT (astronomically, scientifically) could it possibly be, that people "see" as the HILAL, when there is no sighting possibility according to calculation? (Jan 10, 2000)

Answer: It could be one of the so many things people mistakenly think as the Hilal. In our times, there are numerous man-made flying objects, helicopters, air-planes, and satellites, which sometimes reflect sun light in such a way that people take it as a moon. A piece of c-shaped thin streak of cloud, a jet-smoke, or even a small piece of hair stuck to eye-glasses has been considered the Hilal by many sincere Muslims. Sometimes, the zeal of sighting, brings shear imagination that the person thinks (s)he has seen the moon.

1.16 Question: On Sept. 26, 2000 I was driving south on I-127 in Michigan and I saw a clear crescent on the east side at 6:40 am. Per your web site, the new moon will be born on Sept. 27 and it will be seen on Sept. 28, 2000. can you please explain? (Sep 28, 2000)

Answer: Yes, what you saw was an old crescent (meaning crescent before it becomes new). The new crescent is going to be born on Sep 27, 2000 at 19:54 UT i.e. 15:54 Eastern Daylight Time. What you saw was the moon about 33 hours and 14 minutes before new moon (from 6:40 EDT on 9/26/00 to 15:54 on 9/27/00). Of course a moon 33 hours before new would be easily seen and remember old moon is always visible on Eastern horizon near Fajr time and new moon will always be visible on Western horizon near Maghrib time.

1.17 Question: Do you know why countries other than America started Ramadan on Monday, Nov 27, 2000. Do you have the visibility map for Nov 27?

Answer: Visibility curve for Nov 27 will be the extension of the parabolas on left past the International dateline of the curves shown on Nov 26. So, most of the Eastern world would see the moon on Nov 27. There are three major reasons as to why Eastern countries started Ramadan on Nov 27:

1. Some one sees something other than moon on Nov 26 and reports it and the authorities accept it.
2. Some countries like Libya have some astronomical criteria to begin any month, e.g., if the conjunction has taken place before morning the new month begins.
3. Some countries (like Saudi Arabia) have a pre calculated calendar, by which Sha'ban 29 was on Nov 25, and no one reported seeing crescent on the 29th Sa'ban, so they decided that Nov 26 is the 30th Sha'ban and Ramadan Begins on Nov 27. This is the consequence of a pre calculated calendar not based on moon sighting. Bangladesh, India, Pakistan, Iran are among the countries which saw the real moon on Nov 27 and started Ramadan on Nov 28, 2000.

1.18 Question: How come Eid-al-Adha in Pakistan and India is also on March 6, 2001 same as in USA? I thought they see the moon a day later than USA sees the moon.

Answer: More often it is true that USA sees the moon a day before India, but not always. This time it was that exception. You will understand more if you learn "How to read the visibility curves,".click here.

1.19 Question: Is it possible to observe the crescent before sunrise and after sunset in the same day in the middle east region?

Answer: No, it is absolutely impossible anywhere in the world.

In rare occasions, it is possible to see the old moon before sunrise on one day and then a new moon after sunset on the next day (total time span between the two sightings being about 34-36 hours).

1.20 Question: What happened to the trust that if a Muslim brother or sister sighted the moon and take an oath to that effect is sufficient as evidence? (Feb 20, 2002)

Answer: The question is should we blindly accept it. If that is supposed to be so, then why Hadrat Umar asked another Sahabi to go wash his face and then come back to see if he could still see the moon? Sure enough, when he came back he did not see the moon, and no other person there was able to see the moon on a clear horizon.

Why did Imam Abu-Hanifa asked to accept testimony of moonsighting only when a large group of people confirm that? Imam Abu-Yusuf and Imam Muhammad required 50 Muslims from every community to confirm the sighting.

Why did Abdullah ibn Abbas, did not accept Hadrat Kuraib's sighting of Dimash and asked him to fast the 31st day in Medinah, when he had started his Ramadan 31 days ago in Dimashq (Hadith in Subulus-Salam).

All this shows that the Sahabah were all cautious to screen out the mistakes made by sincere Muslims who saw something and believed it to be the moon.

They all used whatever method was available to them for screening out mistakes. We use the methods available to us for screening out the same kind of mistakes. Past years experience of more than decade about sighting claims in North America shows us that mistaken claims are made many times.

The calculations we do are not final word; ISNA goes by actual sighting; we use calculations to screen out mistakes. Further substantiation of calculations is attained by actual sighting in places west of the claimed sighting, because it is scientific fact that if a moon is seen in one place, then it becomes easier and easier to see on places west of it. This is a good check of calculations, which have withstood this test for the past 9 years or so, almost every month. Calculations are checked by other Muslims (e.g. Dr. Monzur Ahmad of UK, and Mohammed Odeh of Jordan).

1.21 Question: What is the Dua (prayer) that a Muslim should say when he/she sees the crescent moon? (Sep 1, 2003)

Answer: When the Messenger of Allah (sallalahu alaihi wa sallam) would see the crescent he used to say the folowing Dua:
"Allahu akbaru, Allahumma 'ahillahu 'alaynaa bil-'yumni wal 'eemaani, was-salaamati wal-islaami, wat-tawfeeqi limaa tuhibbu wa tardhaa, rabbunaa wa rabbuka Allahu."

This Dua is translated to mean: Allah is the greatest, O my Lord! make this crescent moon for us to be in the right path and faith, for peace and Islam (submission), and give us ability to do what You love and approve of. Our Lord and Your Lord is Allah.

1.22 Question: I saw on your website that for ZilQada, on Dec 24, 2003, almost entire world will be able to see the moon but Europe will not be able to see the 30 hours old moon. The same was with start of Ramadan. the moon here in Holland was visible when it already was 51 hours old. Is Holland in such a geographic position on the globe, that this will always happen to us in Holland? Or is it just coincidence?? (Dec 3, 2003)

Answer: You are not at a disadvantage in Europe. It does not always happen like this for Europe. It happens when the moon is in Souhern hemisphere. From September 22 to March 21 the moon remains in Southern hemisphere. From March 22 to September 21 the moon will come in Northern hemisphere. During March 22 to September 21, the Southern hemisphere people will be able to see the moon like more than 48 hours old (although there is much less land mass in Southern hemisphere at high latitudes).

2. SIGHTING CRITERIA

2.1 Question: In South East Asia there's Mohammed Ilyas, currently residing in Pulau Pinang, Malaysia. I assumed you already knew him. I've read some of his books. His method in the determination of the new visible moon is highly complex. From what I gathered the criteria used by South East Asian countries to determine the hilal is, at sunset, at least 2? altitude for the moon, 8 hr. after conjunction and 3? hypotenuse difference between the sun and the moon. That criterion is used if the hilal is hidden behind the clouds. Can you please tell me if this method is feasible? (Oct 19,1997)

Answer: I know Dr. Ilyas personally. I have spent some days with him, attending conventions for moon-Sighting and Islamic calendar. His criteria are very approximate, and have failed many times since 1996, that I have monitored regarding actual moon-sighting. The criteria described by you are not his criteria.

They are the criteria adopted in South East Asian countries, and will not yield a visible crescent.

2.2 Question: Your model for predicting the new moon and the confirmation of the model by verification of moon sighting has demonstrated that we are on the right path. The problem is that many Middle Eastern countries and some of the U.S. & Canadian communities led by Middle Eastern immigrants assume Saudi decision on new moon as having sighted the new moon.

Your observations may be correct that the Saudi months start with the new moon and not observing the new crescent moon. This status will never change unless the source of the problem is corrected, which is the criterion used in decision making process in Saudi Arabia. You should increase your efforts to contact the right people. They will not listen to the Pakistanis or Indians (Rafiq's). The only way is to educate and convince influential Saudis visiting here. You need one right Royal family individual or a religious leader, who can understand your system. They may be able to make a difference, otherwise present chaos will continue. GOOD LUCK

If that can be done, I can foresee Muslim Ummah united in at least their observation of Ramadan and Eids. (Jan 1, 1998)

Answer: We are trying to educate Muslims all over the world as well as Saudi Arabia. In-sha-Allah with our sincere efforts something good will come out with the help of Allah. May Allah bless you for your concern, and show guidance to all of us including the decision makers all around the world.

2.3 Question: I compared your predicted moon dates with the US Naval Observatory data, unfortunately there are differences between these two. I am not an astronomer (I am Chem. Engineer) and don't know how you calculated those dates. Is there any reason that yours is not compatible with theirs?

Answer: It looks to me that you are confusing "New moon" reported by US Naval Obs. with a visible crescent. "New moon" reported by US Naval Obs. is totally invisible. Any Islamic dates based on that would be 1 or 2 days ahead. We calculated dates based on a crescent that could be seen.

2.4 Question: What is the minimum angular separation required to see the new crescent? How can I calculate it for a particular place and date for a new born moon? (Dec 21, 1998)

Answer: Minimum separation (elongation) for visibility, statistically known, is about 10.5 to 11? for naked eye, and about 7.5 to 8 for powerful telescopes. Remember, these are for perfect atmospheric conditions, which do not exist most of the times and places. To calculate this separation is not easy. It requires a lot of mathematical terms to calculate the positions of sun and moon based on local horizon in question, and then their separation angle is calculated using spherical trigonometry. The more accurate lunar theory and calculation methods you use, the better the results would be.

2.5 Question: How much time is required for the 1st hilal to remain in the sky after sunset for visibility according to your findings? Why it is invisible if it remains above the horizon for more than 40 minutes after sun set? (Jan 20, 1999)

Answer: Time varies for locations and months. On one particular evening a crescent

may be thinnest in Japan but the same crescent will be 15 hours to 18 hours thicker in USA, and would remain in the sky above horizon at different latitudes for different duration.

Sometimes the crescent may remain above horizon for more than 1 hour but it may not be seen, because it does not have any light of its own; it merely reflects sunlight, which it can only reflect if moon is at least a certain angle from the sun. Even when it meets minimum angle requirement, in some cases, the crescent is invisible because of being too low on the horizon, such that the background light of the setting sun on the horizon is brighter than the crescent.

If you understand that moon does not have its own light, then its presence on the sky does not mean it is visible. You should realize that on 28th or 29th evening of a lunar month the moon disappears from sight; this is mainly for the same reason that it is not at sufficient angle to reflect sunlight.

2.6 Question: How long it takes for the moon to get a separation of 7? from the sun, which is considered as the limit for which the sun light falling on moon cannot come to the earth, and moon remains invisible? (Nov 20, 2000)

Answer: It takes a minimum of approximately 8.5 hours to 15.5 hours for the moon to move 7? away from the sun. 8.5 hours is the case when the moon is closest to earth and is 5? from the ecliptic plane at the time of moon birth (example: Dec 14, 1955). 15.5 hours is the case when moon is farthest from the earth and is 0? from the ecliptic plane at the time of moon birth (example: Dec 10, 1977). The crescent will be visible to the high powered telescopes about 2.5 hours after it has attained 7? angle from sun, i.e., at 11 to 18 hours of age. To the naked eye it would be visible at 16 to 23 hours of age.

2.7 Question: The US Naval Observatory's site can provide the percentage of the moon's illuminated area for a given place and time. My question is, approximately, how much area (in terms of percentage) should be illuminated for the crescent to be seen? (Feb 2003)

Answer: Surface illumination is not the only factor that will make it visible. If that moon is too low on the horizon, such that the background sky illumination from the setting sun is more than moon's surface illumination then the moon will not be visible. Sky background illumination also depends on many other factors, like pressure temperature, humidity, particulates in the atmosphere, the distance the rays from moon travel in the atmospheric layer, the distance between moon and earth, the distance between sun and earth etc.

2.8 Question: What could be the safe lower limit on the age of the moon, so that any claim before that limit can be safely disregarded? Safe limit would mean that any claim before this should certainly be rejected but it does not mean that a claim after this should be accepted either. What would such safe limit be for naked eye and what would it be for telescope? (Feb 2003)

Answer: Safe limit to disregard any claim of sighting in terms of age of the moon in hours for naked eye is about 15 hours and for high powered telescope is about 11 hours and these are for experienced observers only, who have enough preparation and practice to see the moon. For a casual observer who just looks in the sky without any preparation, the lower limit for the naked eye is 17 hours and for high-powered telescope it is 13.5 hours. It should be clarified here that this limit means that any claims before this limit could be safely rejected or should be very critically examined.

However, it does not mean that after such limit any claim has a merit to be accepted either.

3. ITTIHAD-UL-MATALI' OR IKHTILAF-UL-MATALI'

3.1 Question: If the moon is sighted any place on earth, then why all Muslim Ummah cannot start the Islamic month on the same day. (Oct 1,1997)

Answer: When the moon is sighted in a place on earth, right at that moment there are two days and dates prevailing all over the globe. Some places have already started their next day. Those places can not start the month at that time. They have to wait for the next sunset time to start new month, and hence their month will not start on the same day as the place where the moon was sighted.

Suppose the moon is only possible to be seen in Hawaii and nowhere in the world. The time of starting Islamic month will be after sunset in Hawaii (around 6:00pm). At that time in Tokyo (with 19 hours difference), the time will be 1:00pm of the next day. If this was month of Ramadan, this is way past Suhoor time in Tokyo. They cannot start fasting before the sighting However, if for the unity of Muslims, Ulamaa' decide some convention, then all Muslim Ummah can start the Islamic month on the same day.

3.2 Question: ALL middle eastern countries, with the exception of Oman and Tunisia, have declared Ramadan to be Dec. 30, 1997. In sunnah Rasul-allah (SAAW), states that if 2 people had sighted the moon, then all Muslim Ummah should fast. And what is good for 1 Ummah is good for all. If 2 persons have sighted the moon, the astronomical calculations are not valid. (Dec 29,1997)

Answer: The 2 people criteria you mentioned is not in Sunnah; it is an opinion of Fiqh. Use common sense, that if 2 persons see something else, and we know by laws of nature that the moon was not there; what they saw was not the moon then why you insist that we should close our minds and not think rationally and accept a simple mistake that we know is going to affect thousands of Muslims starting the month at the wrong time. It does not make sense.

3.3 Question: I understand, that it is valid to say, that if the moon is sighted anywhere in the world, one may use that to start the month everywhere on the globe. If we know in advance that the moon could be seen from the far west of USA and Hawaii Islands. Why is it not okay to use this knowledge for begining the month in North America?

Answer: This "would be visible" knowledge is not considered sufficient by Ulemaa. Actual Sighting is required. But, in future, if Ulemaa agreed to this "would be visible" argument then that can be done. As long as actual sighting is required, by the time the moon is actually seen in Hawaii, it will be hardship for the people of East coast of Canada to wait past 3:00 or 4:00am for the confirmed news of sighting. Consider what would happen for Japan. The time in Japan would be past 2:00pm the next day. Muslims in Japan could not begin fasting on that day, if it was the month of Ramadan.

3.4 Question: If the moon is sighted on different dates in different parts of the world, are we to use different 'start' dates for the month or is the whole world supposed to use the same date?

Answer: Ikhtilaf-al-Matali' concept says, use different start dates. Ittihad-al-Matali'

concept says only relatively close areas should start on the same day; it was not for the whole globe or for large distances. Time differences in distant locations of the world prove that Ittihad-al-Matali' concept is not applicable for large distances.

3.5 Question: It is true that in North America, the CRESCENT known as HILAL was not visible on January 17, 1999? We do not have to see the moon to start a new month if one trustworthy Muslim on earth sees the first Hilal, the whole Muslim Ummah must follow. THIS IS ACCORDING TO QUR'AN. Prophet[pbuh] never wanted the Muslim Ummah to be disunited on any matter. In this day and age of Satellites, internet, and telephones, the sighting news of HILAL can be sent to any part of the globe. This way Muslims will start the first day of the month on the same day all over the world. What is wrong? (Jan 23, 1999)

Answer: First of all, Qur'an does not say, "The whole Muslim Ummah on the globe must follow one moon sighting." Just like prayer timings are different in different locations, month starting is also different. Let me give you the answer to your question from hadith of the Prophet [pbuh]. Hadrat Abdullah Ibn Abbas [RA] in Medinah did not start the month of Shawwal, when Hadrat Kuraib and Moaviah [RA} reported that 30 days are completed based on sighting in Dimashq, and Ibn Abbas [RA} and all other Sahaabah [RA} did not see in Medinah. Abdullah Ibn Abbas [RA] in Medinah and other Sahaabah in Dimashq did Eid on different days [Hadith from Sahih Muslim] and remember, that Hadrat Ibn Abbas [RA] in Medinah required Hadrat Kuraib [RA] to fast for the 31st day of his fasting, because Kuraib [RA] started his Ramadan in Dimashq, one day earlier than Medinah, and Ibn Abbas [RA] did not accept the argument of 30 days completed. [Hadith from Subulus-Salaam].

3.6 Question: Why did Makkah celebrate Eid-al-Fitr one day erlier than Malaysia? We in Malaysia are not too far away from Makkah. (Jan 25, 1999)

Answer: According to Saudi announcement, someone saw the moon on Friday, Dec 18, 1998, so they started Ramadan on Saturday. They were UNABLE TO SEE Shawwal crescent on Jan 17, 1999 after 30 days. Note that if the month started with correct moon sighting, then after 30 days it is always visible, given clear horizon. Yet, they used the argument that 30 days have been completed, so Jan 18, 1999 is Eid-al-Fitr in Saudi Arabia.

Of course, moon could not be seen on Jan 17 anywhere in the world, and you in Malaysia would not even see on Jan 18 according to my calculations, so your Eid should have been on Jan 20, 1999, just like most of India and Pakistan celebrated Eid on Jan 20, 1999, two days after Makkah, not one day after. We in USA celebrated it on Jan 19, 1999 according to the authentic sighting in USA.

3.7 Question: Is moon sighting really more important than the unity of the Muslims? Majority of Muslims celebrated Eid-al-Adha with Saudi. Why don't we all follow Hajj date for Eid-al-Adha?

Answer: Unity of Mulsims is very important. We should all try to achieve that. However, unity on the right thing is more important than the unity on the wrong thing. No Aalim from anywhere supports the position that Eid-al-Adha in the whole world is after the day of hajj.

As far as majority is concerned, it is wrong to say that the majority of Muslims celebrated on Feb 22, 2002 with Saudi Arabia. Malaysia, Bangladesh, Brunei, India, Iran, Morocco, South Africa (70%), Kenya, UK (60%), Norway, Bermuda, Guyana, Trinidad & Tobago, and USA & Canada (70%) celebrated Eid-al-Adha on Feb 23,

2002. There may be others that we don't know.

The following countries, that we know, celebrated Eid on Feb 22, 2002: [Indonesia, Maldives, Saudi Arabia, Yemen, Bahrain, Kuwait, Abu Dhabi, Qatar, Jordan, Syria, and Nigeria]

3.8 Question: What is Ikhtilaful-Matali' and what is Ittihadul-Matali'?

Answer: These are two Fiqh positions; both are considered valid Fiqh positions by the Ulamaa. Ikhtilaful-Matali' means every locality can rely on its local sighting of the moon. This was adopted by Imam Maalik, Imam Shafi'i and Imam Hanbal. Ittihadul-Matali' means if authentic moon sighting news comes from other areas, then local moon sighting is not necessary. This was adopted by Hanafi Imams and scholars. However, Ittihadul-Matali' position was only meant for short distances considering Matla' remains the same. It never meant to be for large distances, certainly not for the whole globe (It is physically not possible). Here, another point should be made clear that following Saudi Arabia is neither Ittihadul-Matali' nor Ikhtilaful-Matali'. Ittihadul-Matali' was for any locality that sees the moon first, not Makkah or Saudi Arabia. Following Saudi is a third position, which is not a valid Fiqh position, until Ulamaa do ijtihad and agree for it to become a valid Fiqh position.

Common sense tells us that Allah SWT created the globe and its rotation (with time differences). Matla' is different for far locations. Shari'ah, principles have never changed because of scientific inventions. Invention of watches did not change the prayer times that were in practice before watches. Telecommunications made it possible to know when Hujjaj are in Arafat. Before that, for centuries other locations did not know when was hajj. They were all celebrating Eid-al-Adha without knowing that based on local sighting. If it was important to know when is hajj, then the Prophet, Khulafae-Rashidoon and Khulafaa' after them could have send someone to Makkah and find out in 10 days when is Hajj. But this was never done in the 14 centuries.

3.9 Question: Is it not possible to have Eid on the same day throughout the whole world after the actual sighting of the crescent?

Answer: IT IS NOT POSSIBLE TO HAVE EID ON THE SAME DAY THROUGHOUT THE WHOLE WORLD AFTER THE ACTUAL SIGHTING OF THE CRESCENT, because, when the moon is sighted in Hawaii around 6:00pm, it will be 2:00pm of the next day in Japan, and 4:00pm of the next day in New Zealand.

4. EID-UL-FITR AND YAUMUL-ARAFAH

4.1 Question: The crescent for the new moon of Shawwal was not sighted (with the eye) by Muslims anywhere across the world today, Tuesday, Jan 27, 1998. Therefore we continue to fast tomorrow (Wednesday) to complete the 30 days. Why we cannot have Eid, when 30 days are completed? (Jan 27,1998)

Answer: This 30 day complete argument is wrong. If you start fasting before new moon was even born, then you did not start the month on the right day. 30 day complete argument is only good when the previous month began with the correct sighting of the moon, and not by mistaken claims.

All experts of the world about moon sighting are unanimous that moon can not be seen in Asia, Europe, Africa, South America, and East coast of North America on Jan 28, 1998 (Wednesday). Non-sighting of the moon after 30 days is a clear proof that

the month did not begin correctly, otherwise moon is always visible on 30th day, given clear skies.

4.2 Question: I have noticed that the moon was visible more than two hours after sunset, and it seems to be big. Some people may ask me about this, and I want to have an answer. Does this mean anything. Does it favor the fact that Eid is supposed to be on Friday, Jan 7, 2000 instead of Saturday. (Feb 13, 2000)

Answer: No, certainly not. It does not favor the Eid of Friday. Khalid Shaukat and many other tried to see the moon in Washington DC area even on Friday, Jan 7, 2000 and the finding was that despite very clear horizon (no clouds) and moon setting 1 hour after sunset, we could not see the moon even on Friday. That means the moon was impossible to see the day before.
The moon is visible all over the world within about 36 hours of the time it becomes visible first, except the polar regions. So, non-visibility in clear horizon on Jan 7, was a clear proof that it was not visible in that area the day before. Now moon was sighted in Texas, Arizona, and westward on January 7. So, even though it was not visible in Washington DC area we celebrated Eid on Jan 8, based on (Ittihadul-Matali) one horizon.

Now moon was visible more than 2 hours on Jan 8. Yes, of course; same thing happened in Washington DC area. Even on Jan 7, it was setting 1 hour after sunset, but it was still not visible. So, do not look at a big moon of Jan 8, and estimate when could it have been visible. On Jan 6, in Washington DC area it was 4 hours old; on Jan 7, it was 28 hours old still not visible, and on January 8, it was 52 hours old. Age is very misleading factor for visibility. Moonset after sunset also is misleading for visibility. Also remember that moon sets about 50 minutes later every day, so on the third day you can expect it to set after two hours.

4.3 Question: What is the definition of "YAWM ARAFAH" and how are we going to fast "YAWM ARAFAH" for example Monday, March 5, 2001 is 9th Dhul-Hijjah in North America and it is day of EID for Hujjaj.

Answer: Hujjaj do not have a day of Eid. They never pray Salatul-Eid. According to all four school of thoughts, fasting is on the 9th of Dhul-Hijjah based on local sighting. This has been the way for over 1300 years. Just 50 years ago, people in Iran, Afghanistan, and Far East did not know when YAWM ARAFAH was in Makkah. How were those Muslims fasting on YAWM ARAFAH, or was their fast invalid? Also remember, that Hajj was prescribed seven years after Eid-al-Adha was prescribed. so, saying that Eid-al-Adha has always been on the day after hajj is not right.

4.4 Question: Based on authentic moon sighting, when was Eid-al-Fitr 1423 AH?

Answer: On 4th Dec 2002, the crescent was invisible from almost all areas of the world. There was a remote chance of seeing it off the west coast of South America / Polynesian Islands on 4th Dec 2002 with optical aid but no reports were received. Reports from Hawaii say that moon was not seen in clear skies.

ISNA's methodology for determining the beginning of Ramadan and Shawwal for North America has been consistent since 1993. ISNA keeps telephone lines open to receive any witness of sighting on the relevant evenings. After receiving the witness ISNA asks its astronomer consultants to evaluate it by talking to the witness. If the witness of sighting contradicts with indisputable scientific evidence then only it is rejected. This time for Shawwal 1423, not a single claim came to ISNA on Dec 4. ISNA waited until 6:30pm PST which was 90 minutes after sunset on west coast

giving ample time to receive any witness of sighting. It was past 10:30pm on East coast of Canada and was getting too late in the night. Finally ISNA and Shura Council made their decision to call Dec 5 as 30th day of Ramadan, and Dec 6 to be Eid.

Based on authentic and correct moon sighting, Ramadan started in North America on Nov 6, 2002, while it started in India, Pakistan, & Bangladesh on Nov 7. Eid was celebrated on Friday Dec 6, in all the following countries:

(1) Japan (2) Indonesia (3) Malaysia (4) Singapore (5) Brunei (6) Bangladesh (7) India (8) Pakistan (9) Afghanistan (10) Iran (11) Oman (12) Mauritius (13) Kenya (14) Tanzania (15) South Africa (16) Morocco (17) UK (18) Trinidad and Tobago (19) USA (20) Canada

The problem is that when Saudi Arabia or any other country announced that Eid is on Thursday, Dec 5, 2002, people translated it as if the moon has been sighted there. In fact, about a week before moon sighting day, on Nov 27, Saudi Arabia declared Dec 5 as Eid day, as evident from a fax received by a prominent ISNA Shura member who mentioned it in the Shura Conference Call on Nov 27. How did Saudi Arabia see the moon a week before the 29th day of Ramadan?

Dr. Saleh AlSaab, former head of the Astronomy Department at the King Abdul Aziz City for Science and Technology in Riyadh, currently teaching at the Institute for Gifted and Talented in Riyadh, reported that NONE of the 6 official Hilaal sighting committees saw the Hilaal on Wednesday evening. Yet the official Saudi announcement was for Eid ul Fitr on Thursday, Dec 5! Jordanian Astronomical Society sent an airplane with expert observers with instruments to try to see the moon from above clouds, and they did not see anything on Dec 4.

Just because some cities or countries are celebrating Eid on Dec 5, 2002 does not mean they have seen the moon. They may be basing their decision on some calculations. A pious Muslim's testimony of spotting some other object for a moon does not fulfill Shari'ah requirement when he is clearly mistaken by scientific evidence as Allah (SWT) says, "Ashshamsu wal-qamaru bi-husbaan".

Abdul-Rashid Abdullah from Oahu Hawaii reported: "On Dec 4, five teams of at least 3 brothers each went to sight the Hilal all around the Leeward (west) side of Oahu and 1 team on Kauai. The skies were reasonably clear but there was no sighting of the Hilal." Remember, the most West has the best chances of visibility on any given day.

The conclusion is that moon was not sighted anywhere in North America nor any place East of it on Dec 4 2002. Any sighting claim has to be rejected because the moon was invisible, and people make mistakes in taking other objects (jet smoke, thin piece of cloud, helicopters, etc.) for the moon.

4.5 Question: I heard that Saudis have hilal sighting committees. Those committees did not see the moon on February 1, 2003. Hajj date, however, was announced by Saudi authorities as February 10. You say sighting was not possible. Was it based on Ummul-Qura calendar? (Feb 4, 2003)

Answer: Dr. Saleh Al Saab (Previous head of Astronomy and Geophysics Institute at KACST), (Consultant and Member of the 6 Official Saudi Hilal Sighting Committees of Saudi Arabia established by the Crown Prince/Shura Council in 1419 AH) reported: "The 6 Official Saudi Hilal Sighting Committees from Makkah, Riyadh, Qassim, Hail, Tabuk and Asir; attempted Hilal observation on the evening of Friday, January 31st,

2003 and on Saturday, February 1st, 2003. The Hilal was not seen by individuals and collective members of the 6 Committees under clear skies using naked eyes, telescopes and binoculars." This means that Saudi Hajj announcement is either based on Ummul-Qura calendar or false sighting claims.

5. WHY NOT WITH SAUDI ARABIA ?

5.1 Question: I've just received news that Saudi Arabia had a confirmed sighting of the Ramadan hilal on the 29/12/97. Hence their fasting will start on 30/12/1997. Some of the astronomical software showed that on 29/12/97 the moon and the sun set together almost at the same time for most part of the Middle East and the moon conjunction occurred about an hour after the sunset in most Saudi Arabia. It is therefore perplexing that they claimed to see the elusive hilal. (Dec 29,1997)

Answer: Moonsighting.com has been monitoring Saudi's announcements for about two decades, and consistently their month starts earlier than any place on earth month after month. The only explanation we can find is that they use a pre-calculated calendar based on "New-moon" that is invisible. Their Official Ummul-Qura calendar of 30 years (of which we have a copy) shows every month begins one day after New-moon date of Greenwich Mean time (now called Universal time).

The possibilities for Saudi's decision are:
1. A few claims of sighting an invisible moon come and the authorities accept them saying that a pious and credible Muslim has given the witness, so it completes Shari'ah requirement.
2. If they don't see on the 30th day, they use a justification that 30 days are completed.
In fact, the moon is always visible on 30th day, if the month started on actual and authentic moonsighting. If the moon is not visible on 30th day, it means that the beginning of the month was in error either due to pre-calculated date that was not based on moon sighting or due to mistaken sighting claims.

5.2 Question: Did someone try to tell the Saudi Arabian authorities that their calendar is totally wrong? This is causing ripple effect in the USA. I know several masajid that declared December 30, 1997 as the first day of Ramadan. Unless this is fixed in Saudi Arabia, we will continue to have two Eids. (Dec 29,1997)

Answer: Several groups of people have written to the Saudi authorities about this. Groups of people from India and Pakistan have gone to them at different times to talk face to face. ISNA's representatives have gone and discussed this matter with them. We are also trying to convey this message to the Saudi Authorities through some contacts in Saudi Arabia in the hope that something good will come out in near future.

5.3 Question: According to what was posted on your web page the Ramadan moon was not supposed to be visible in the Middle East on Dec 29, 1997. Yet there are reliable reports of relatives (not connected to the government officials) who saw the moon - in Syria, Turkey and Saudi Arabia. I hope you have your own sources who can confirm that. However I have not heard of anyone sighting the moon on that date in North America! Do you have an explanation for this? I am a regular visitor to your web page, I find it very informative and entertaining. May Allah bless you for the service you provide. (Jan 5,1998)

Answer: The moon was not even born in Saudi Arabia, and could not be seen in Middle East. That's why it was not visible several hours later in North America. People get the news from Middle East that Ramadan starts from Dec 30, so they assume that moon has been sighted on Dec 29. The announcement does not even talk about moon sighting. It says, "The supreme Judicial Council endorsed that December 30, 1997 will be the first day of the holy month of Ramadan for the lunar year 1418 AH according to a statement released by the Royal Court on Monday evening."

5.4 Question: Many Muslim countries in Middle-East have seen the moon on Friday (Dec 18, 1998). Why astronomers are saying that it is impossible. I would take the word of a Muslim over all the sciences, when I know that science theories change with time. (Dec 23, 1998)

Answer: Muslims in the Middle-East have made a mistake in seeing a cloud or jet smoke thinking it was the crescent moon. The moon was not even born on Dec 18, 1998. It could not even be seen on Dec 19, 1998 in Saudi Arabia, because its angular separation from the sun was 8.5? and it was too low on the horizon.

5.5 Question: The first day of Dhul-Hijjah was observed in Saudi Arabia two days before here in the U.S. and one day before its neighboring countries. How could that be possible? (April 20, 1999)

Answer: There is only one rational explanation for Saudi dates being ahead of USA, and that is their calendar is based on some convention and not the moon sighting. In fact it is quite contrary scientifically that Saudi date can see the moon and North America does not see on the same evening 8 to 11 hours later.

This Dhul-Hijjah, 1419AH, Saudi Arabia was only one day ahead of USA not two days. Pakistan and India are so close to Saudi Arabia, but they have every month at least one day behind Saudi; sometimes two days behind. The actual Islamic dates in India and Pakistan are checked by Moonsighting.com every month, and they have started their months according to scientific possibility of moon sighting, while Saudi dates seldome reflect possibility of sighting.

5.6 Question: Eid-al-Adha was celebrated in India and Pakistan on March 29, 1999, three days after Hajj, and two days after Eid-al-Adha in Middle East countries. Why there is difference of two days between the countries which are very close such as Pakistan and Saudi Arabia.

About Pilgrimage, Allah says in Holy Quran " They ask you (Mohammad)(peace be upon him) about the new moons: Say : These are signs to mark fixed periods of time for MANKIND and for the pilgrimage" (2:189). In Hadith Allah's Messenger says after sighting the crescent we have to begin the Ramadan fasting and similarly we have to end the fasting after sighting of the new crescent. In another Hadith Allah's Messenger says: We are unlettered people and we don't know writing and calculations and the lunar month is 29 days or 30 days. Both Ahadeeth are from Sahih Al-Bukhari. Based on the above verses from Holy Quran and two Ahadeeth I want to know your answer. (May 10, 1999)

Answer: The difference of two days between India-Pakistan and Saudi Arabia date for Eid-al-Adha is attributed to practices in the two countries. India-Pakistan had celebrated Eid-al-Adha based on correct and authentic moon sighting as far as our scientific knowledge tells us. Saudi Arabia is using a pre-calculated civil Islamic calendar that is sometimes adjusted for religious months (Ramadan, Shawwal, and Dhul-Hijjah). However, if 30 days are completed by their pre calculated civil calendar

then they start new month even if the moon is not sighted on 30th day. 30 days completed argument is also used even if the moon is not born yet.

Now there is only one moon. If it was seen in Saudi Arabia on March 17, then where did it go to be invisible in India or Pakistan on March 17, or 18. It is against all the known facts about moon sighting, science, astronomy, and mathematics. It certainly was not seen in India/Pakistan on March 18, and was subsequently seen there on March 19. While Saudi Arabia fixed their dates as if the moon was sighted on March 17, two days before India/Pakistan. Either they have set their dates based on a criterion other than moon sighting, or accepted claims from people who saw something else (like a streak of cloud, or a jets smoke) and believed it to be the moon.

We all know these things that you quoted from Quran and Hadith, and no one has any question about them. However, Quran or Hadith does not tell us to believe a Muslim blindly if we know that the moon was not there. The moon was not even born at Maghrib time of Saudi Arabia; it was born on March 17, 18:49 Universal Time that is 21:49 Saudi Time, which was 3 hours after Maghrib. The moon was not there to see. We know that for a fact. It is not a good argument that we should not look at the calculations; we believe calculations for prayer times; and we know that Allah (subhanahu wa ta'ala) said "Al-shamsu wal-qamaru bi-husbaan" (sun and moon follow course exactly completed) ; He also said, "li- ta'alamu 'adad al-sineena wa al-hisaab" (so that you may know the count of years and calculations). The Prophet (peace be upon him) said, "To seek knowledge is obligatory on all Muslims men and women". The first word form Allah was "Iqraa". If the Prophet (peace be upon him) said, "la naktub wa la nahsib" and meant it to be an order for all times, then why do we write; we should give up writing too if we were asked to give up calculations. Think rationally, that Allah has given us the knowledge which we must use for the benefit of mankind and for establishing the truth and justice, in the way Allah and His Rasool please. We must not remain blind from the facts of existence of science, mathematics, and all other uloom that Allah has bestowed upon us.

5.7 Question: Many mosques in USA individually announced Eid on Friday, Jan 7, 2000. How could the moon be sighted in so many places, not only in USA but also in Middle East? (Jan 15, 2000)

Answer: Decisions in many cities do not mean that moon has been sighted in many places. Most Middle Eastern countries acknowledge that they have not seen the moon. They went along with the decision of Saudi Arabia. Many of us take that news of beginning of the month in Middle Eastern countries and translate in our minds that the moon has been seen in all those places. That is a big fallacy. Mistakes have been made several times in the past when sincere trustworthy Muslims see something and believe it to be the moon. Imams of individual mosques in USA started making their own decisions based on any claim or news they hear from anywhere. ISNA and Shura Council of North America have a frame work for making sure that the true moon has been sighted and not any mistaken object that people believe moon. Making decision at individual mosques and not following a unified decision of Shura Council will keep the Ummah divided. Let us make efforts to follow unified Shura Council's decision to avoid such happenings in future, and to remain united.

5.8 Question: I spoke to my cousin in Saudi Arabia who said that today (Nov 25, 2000) is the 29th day of Shabaan. Hence they were looking out for the moon of Ramadan today. If the moon is sighted today then Ramadan will start for them on Tuesday (Nov 26) which according to you is not possible. Was there a mistake on their part regarding sighting of the moon for Shabaan?

Answer: They could not have started Sha'ban with the sighting of the moon. In Saudi Arabia, they have a pre calculated (Ummul-Qura) calendar. It is basically used for civil purposes. This calendar is based on new (invisible) moon calculations or moonset after sunset calculations. They do not follow their civil calendar for religious dates. However, on the 29th Sha'ban or 29th Ramadan of that calendar they look for the moon, and year after year someone mistakes something else for the moon or they just complete 30 days from the calculated calendar. Hence they observe the new month, sometimes ONE day earlier than what it should have been, if they follow authentic sighting.

5.9 Question: If we all agree on one Qibla, and if we have the state of the art in telecommunication, would that not be enough to follow Makkah in moonsighting. Do you think that Saudi Arabia does not have all the tools that are required for an accurate moon sighting? We should be one Islamic Umma at least for one day out of the whole year which is the day of Eidul Adha.

Answer: Telecommunication also tells us when Jumuah prayer is conducted in Makkah. Why do we not perform Jumuah in the whole world with them. If Saudis had all the tools for moon sighting as you believe, then they should know that the moon could not be sighted on Feb 23, 20001. Saudi Arabia Official announcement for Dhul-Hijjah did not mention anything about moon sighting. We should be one Ummah not for one day, but for all 365 days. The unity of the Ummah is not in praying Jumuah all over the world at the same time, and praying at different times does not break the unity. Similarly, the starting of a month at different times has nothing to do with unity; it is bound to be at different times in different locations, if we stick to moon sighting.

5.10 Question: Granted that Saudi Arabia may be wrong on their announced date (Feb 24, 2001) for the 1st of Dhul-Hijjah. But do you think that the other countries in that area, who did see the moon, are also wrong? Shouldn't we follow them if they saw it?

Answer: Other countries did not claim to see the moon on Feb 23, 2001. They just follow announcement of Saudi Arabia. When people get the news of Eid-al-Fitr or Eid-al-Adha, they themselves translate that news into "Moon must have been sighted," and that is a wrong assumption. The news of Eid is merely telling us that the decision to start Shawwal or Dhul-Hijjah has been made by the authorities.

5.11 Question: What is the basis of "Saudi Ummul-Qura (Calendar)"? (Feb 4, 2003)

Answer: Before 1420AH the UmmUlQura Calendar was based on the dark invisible astronomical new moon. More precisely it was based on the criterion, that if the moon is born any time (Greenwich time not Makkah time) on a Gregorian date, then the next day was the first day of the month. A major change in the UmmUlQura Calendar computation criteria occurred starting 1420AH. Starting 1420AH, the new criterion was that the Moonset be after Sunset in Makkah (even by one second). Starting 1423AH, it changed slightly to meet two conditions; moon must be born and Moonset be after Sunset in Makkah. The Saudi authorities say that the UmmUlQura Calendar is merely used for the official dates in the Ministries, schools, payrolls, Saudia Airlines, and indeed all over the country was for civil purposes only, but for religious purposes, they adjust the calendar by moon-sighting. However, the civil calendar sets the stage for the Saudi people in general to try to see the moon on the 29th of civil calendar. The 29 of civil calendar was actually 28th if moon-sighting was the basis. So, in most cases the moon is not sighted on the 29th of civil calendar and the Saudi announcement comes in one of the following forms:

1. "The Supreme Judicial Council endorsed that ..... (date) will be the first day of Ramadan or Shawaal."
2. "The Supreme Judicial Council announced that the moon was not seen, so 30 days will be completed and .... (date) will be the first day of Ramadan or Shawaal."
Note that there is no mention of moon sighting.

Once in a while, someone reports to have seen the moon on 29th day of their civil calendar (on the day of new moon birth, when the moon is completely dark) and the announcement then says:
"The Supreme Judicial Council announced that moon has been seen, so tomorrow will be the first day of Ramadan or Shawaal."

5.12 Question: Saudi authorities declared Saturday, Nov 13, 2004 as 1st Shawwal. Was it possible to see the moon on Friday evening anywhere in Saudi Arabia?

Answer: The moon was born at about 10 to 30 minutes before Maghrib time in every location in Saudi Arabia. Also moonset was 10 minutes before sunset. Now, it is very clear that they cannot see the moon. What more justification is required to accept that it was a false sighting? They saw something that was not the moon; a thin piece of cloud, a satellite, a jet smoke, an airplane, a planet making crescent, anything can be mistaken as a moon. Nigeria reports to have seen the moon on Thursday, Nov 11, 2004, which was 21 hours before the new moon was born. How did they see the moon? Of course, they saw something else.

6.METHODS OF BEGINNING ISLAMIC MONTHS IN DIFFERENT COUNTRIES

1. **Actual Sighting judged by Qadi, or Review Panel. (Bangladesh, India, Pakistan, Oman, Morocco)**
2. **Moon born & moonset after sunset in Makkah.(S. Arabia, sometimes deviates for Ramadan, Shawwal, and Dhul-Hijjah)**
3. **Follow Saudi Arabia. (Qatar, Kuwait, UAE, Bahrain, Yemen, Turkey)**
4. **Moon Born & moon sets at least 5 minutes after sunset. (Egypt)**
5. **News from neighbor countries. (New Zealand gets from Australia, and Suriname gets from Guyana)**
6. **Follow first Muslim country that announces it. (Some Carribean Islands)**
7. **Criteria, of age, or altitude, or sunset-moonset lag. (Algeria, and Tunisia)**
8. **Age > 8 hours, altitude > 2?, elongation > 3?. (Malaysia, Brunei and Indonesia)**
9. **Pre-calculated calendar. Bohra, Ismaiili, and Ahmadiyyah (Qadiani) community in the world.**

10. **No specific criterion! Decision varies year by year. (Nigeria)**
11. **Moon born before 12:00 UT. (USA & Canada - by Fiqh Council of North America and Islamic Society of North America 8/6/2006).**

Note: Countries in parentheses are examples.

Note: Countries shown in red have adopted pre-calculated Islamic calendar.

7.SUGGESTED GLOBAL ISLAMIC CALENDAR

(If Ulamaa' want to consider)

A Suggested Global Islamic Calendar based on Imkan-e-Ru'yah (sighting possibility) somewhere in the world is that if the moon is born before 12:00 UT [23:59 or less of the previous day at International Date Line (IDL)], then the month begins at sunset of that day everywhere in the world. If the moon is born after 12:00 UT, then the month begins on the next day's sunset everywhere. IDL has been universally accepted even by Muslims as the beginning of every day of the week. All Muslims pray Friday prayers on the same day starting at IDL. Global Islamic Calendar should also follow the same convention of the day, so that the whole world can start Ramadan or Eid on the same day.

The moon born before 12:00 UT has Imkaan-e-Ru'yah somewhere on earth, and

the moon is born before the day begins at IDL, so the whole world can start the month on the same day. This suggested Global Islamic Calendar is so easy to calculate for any ordinary Muslsim that no expertise of astronomy or science is required. All that is needed is Conjunction time which is easily available from many sources on the Internet. This suggested Global Islamic Calendar was also discussed at 1st Global Calendar Meeting in Morocco, November 2006 OPEN attended by representatives from various Islamic countries. People started understanding the importance of Global Islamic Calendar. See one web site

8.SUGGESTED GLOBAL ISLAMIC LUNAR CALENDAR

By Khalid Shaukat, prepared for

The Second Experts Meeting - Association Marocaine d'Astronomie

In Rabat (Morocco), on 15-16 October 2008

There are so many Ayaat in Qur'an emphasizing the Calculations (Hisaab) of the motions of the sun and moon:

هو اللذى جعل الشمس ضياء والقمرنورا وقدره منازل لتعلم وا عدد السنين والحساب ما خلق الله (ذالك الأ بالحق يفصل الأيااات لقوم يعلمون (يونس 5
(الشمس والقمر بحسبان (الرحمان 5
(يسألونك عن الأهلة قل هى مواقيت للناس والحج (البقرة 189

The prophet –peace be upon him-in explaining these rules told us how to begin and end the Islamic months.

سمعت أبا هريرة رضى الله عنه يقول قال النبى صلى الله عليه و سلم أو قال قال أبو القاسم صلى الله عليه عن نا فع عن عبد الله بن عمر رضى الله عنهما أنا رسول الله صلى الله عليه و السلم ذكر رممضان **فقال لا تصوموا حتى تروا الهلال و لا تفطروا حتى تروه فان غم عليكم فاقدروا له** (البخارى 1773)

The Prophet –peace be upon him– wanted that Muslims should make sure that the month has begun before they start their 'Ibadah of fasting so that they be united in their observance of this act of worship together. He also told us that we should make sure that this month has ended so that we may have our celebration of Eid together.

Muslims in general continued sighting the Crescent (Hilal) to begin and end their month of Ramadan and celebrate Eid. It is reported that among the great Tabi'in Mutarrif ibn Shikkhir held the opinion that calculations of Hilal can be used for Ramadan. Imam Taqiuddin al-Subki a great Shafi'i jurist even said that calculation were more reliable than eye sighting. When Muslims learned writing and calculations and became more knowledgeable about the Moon and its various phases, more voices were raised to rely on the calculations of the Hilal instead of its physical sighting. Most jurists did not accept calculations because they were not sure whether the calculations were correct or could be trusted. With the development of astronomical sciences in the last one hundred years more and more voices are being raised by jurists in support of calculations. One of the famous Muhaddith Shaikh Ahmad Muhammad Shakir wrote a long article emphasizing that calculation is the most appropriate method of determining the lunar months and it is permissible.

The astronomical sciences are highly advanced today and more reliable methods are available to know the beginning of the lunar months. On the basis of the principles of the Shari'ah just as the timetable for Salah and Siyam are prepared, it is possible to prepare the calendars for the lunar months. This knowledge is now available and can be used.

Suggested Approach for Global Islamic Lunar Calendar

The following approach was suggested in the First Experts Meeting in Rabat in 2006 as a combined position from Dr. Jamal Eddine Abderrazik (Morocco) and Khalid Shaukat (USA), and received consensus from Abdul-Aziz Al-Mermesh (Saudi Arabia), Hayman Mutawalli (Egypt), and Alireza Movahednejad (Iran). Islamic month begins with conjunction and it is desirable to have Hilal formation:

Three things are needed to construct a Global Islamic Lunar Calendar:

1.

Moon must have completed its cycle around the earth (conjunction has occurred, i.e., New moon must be born).

2.
Hilal must be formed and could be sightable somewhere on earth.
3.
Synchronizing with the day convention is desirable so that all Muslims in the world observe religious duties on the same week day that starts from International Date Line (IDL).

With these considerations a suggested Global Islamic Calendar is as follows:

•
If the moon is born between 0:00 - 12:00 Universal Time (UT), the Islamic month begins at sunset of that day of the week everywhere in the world.
•
If the moon is born between 12:00 - 23:59 UT the Islamic month begins at sunset of the next day of the week everywhere in the world.

Why cut-off is chosen as 12:00 UT?

•
IDL is currently used as a reference point for beginning of every day, which has been accepted by All Muslims e.g., to pray Friday prayers all over the world on a day that starts with IDL and ends with IDL.
•
12:00 UT means, it will be 0:00 local time at IDL. This would synchronize the day convention used by the whole world to the Islamic day, such that every Gregorian dates has one corresponding Islamic date. This also means that the moon is born before the day begins at the IDL, and is sightable somewhere in the world on that day (e.g., in the Pacific Ocean just east of IDL where the age would be 18+ hours).
•
If the moon is born between 12:00 to 23:59 UT, it means that the moon is born after the day begins at the IDL, and the monthly cycle of the moon is not completed yet. So, the month begins on the evening of the next day.

Strong Points of Suggested Global Islamic Lunar Calendar

•
The biggest advantage of this proposal is that it requires no calculations. It is easy to compare 12:00 UT with the Conjunction Time that is given as UT in Almanacs and other

observatories web sites. So, any ordinary Muslim will be able to make the Islamic Calendar without any calculations. Any other criteria will require more calculations which different computer programs calculate with differences up to 2 minutes (e.g., sunset, or moon set).
•
12:00 UT means 0:00 local time at IDL, where the day starts when it is 0:00 local time. So, this method would **synchronize day of the week** convention all over the world.

Negative Points for Other Suggestions

(1)
Conjunction Date without consideration of time: Some people suggest conjunction should be the basis such that if it is on January 1 (Universal Date and any time), then the

month begins. This will cause some places on earth to begin the month before the conjunction time when the moon is still in the waning phase.

(2)

Calculation of Conjunction Point: Some people suggest conjunction point should be the basis such that the world should be divided in two dates; one for the east of it and one for the West of it. This means we do **NOT** have a unified calendar. This defeats the purpose of this conference.

(3)

Conjunction before mid-night of Makkah or Medinah: Mid-night needs a clarification, whether it is astronomical mid-night or 0:00 Saudi Time. Astronomical midnight needs the calculation for every day of the year. This involves too many calculations. The 0:00 Saudi Time means it will be 9:00 pm UT (i.e., 21:00 UT) or 9:00 am at the IDL. So, if the conjunction is before 21:00 UT, the month starts everywhere on the globe. This is similar to my proposal, but lacks the possibility of sighting anywhere, because the age of the moon at sunset of a point just East of IDL (sunset around 18:00 local time at IDL) will be 9 hours only. This has no consideration of sighting possibility.

(4)

Conjunction before Dawn (Fajr) of Makkah: This will require calculation of Fajr at Makkah. Muslims calculate Fajr in many different ways (15°, 18°, 19° etc.). There is no unified definition of Fajr. Even if you choose one definition, someone, at some point in time later, can prove it is not the correct definition.

(5)

Conjunction before sunset of Makkah and moonset after sunset (Ummul-Qura): This will require lots of calculations. Experts and computer programs sometimes differ in the results of these calculations. Moreover, this Calendar has no consideration of sightability in Makkah or anywhere in the world. It may go against actual sighting somewhere on earth, when in some month the moon will be visible in some part of the world and month in this calendar does not start on the following day, e.g., Ramadan 1430 moon will be sightable on August 20, 2009 in Polynesian Islands, and 1st day of Ramadan should be August 21, 2009, but the Ummul-Qura Calendar shows it as August 22, 2009. Similar thing will happen in Dhul-Qi'dah moon can be easily seen in Polynesiam Island on October 18, 2009, and Ummul-Qura Calendar shows 1st Dhul-Qi'dah on October 20, 2009. This happens because the moon sometimes is in the Southern hemisphere, where it can be seen, but it is not above the horizon of Makkah.

6)

Calculation of Sightability: The calculations of sightability have not reached a stage of 100% accuracy and reasonable consensus among experts. It will never reach 100% accuracy, because of factors like human optics variability, atmospheric conditions (pressure temperature, and humidity) at the time of observation, and presence or absence of city lights on the horizon.

Conclusions

The best solution for Global Islamic Calendar is "**Conjunction before 12:00 UT**." This suggestion has a consideration of Hilal formation, and sightability somewhere in the world, meeting the Shari'ah requirement.

Allah subhanahu wa ta'ala has given us knowledge about calculations for motions of the earth and the moon, which are moving with Hisaab. Calculated calendar meets the intent of Qur'an and Sunnah and the benefits greatly surpass the consequences faced by false sighting claims and waiting for a decision by the authorities some time even past mid-night. Suggested Global Islamic Calendar will unite all Muslims in the world for religious observances without any chaos and confusion.
We pray to Allah subhanahu wa ta'ala to keep us on the right path and help us keep our minds open for ideas that are consistent with new knowledge without contradicting the basic principles of Islam. Ameen!.

9. *Why are Muslim Dates in a Mess?*

(from:www.islamicmoon.com)

Muslims around the world started Ramadan 2005 on four solar days/dates (instead of one lunar day/date).

1. **Monday**: Nigeria (some Sunday also)
2. **Tuesday**: Saudi Arabia, Egypt (Most of Middle East, and followers of Saudi dates)
3. **Wednesday**: Australia, Indonesia, Malaysia, Brunei, Turkey, Africa, Europe and Americas
4. **Thursday**: Bangladesh, India, Pakistan, Central Asia

This is not the first time it has happened. We at the CFCO have been witnessing this mess for more than thirty years, especially after the communication revolution.

Why are the Islamic dates in such a mess?

Islamic dates are confusing partly because of the crescent moon's physical observability, but more so because of human errors and deceptive practices.

Nigeria is known for starting Ramadan and fixing Eidain dates a day or two ahead of others.

S**audi Arabia and Egypt** agreed in 1999 Jeddah Conference to fix the Islamic dates by "Moonset with or after the sunset." Earlier, Saudi dates were fixed from the conjunction (the New Moon). The experts there ignored the fact that in some months their fixed date will be BEFORE the conjunction?

Most Middle Eastern states follow Saudi/Egyptian dates, though Oman sometimes waits for the Hilal to be visible.

Bangladesh, India, and Pakistan still follow the Hilal generally, though false witnesses some times create confusion.

Muslim communities in Europe and North America face the worst consequences. Every year they are divided, and their younger generation curses the elders for the mess. Those who follow the Saudi / Egyptian dates are unwilling to accept that the Saudi dates cannot be based on a 'sighted' moon there though they cannot see the same moon in N. America 8-11 hours later.

The Islamic dates can easily be calculated if Muslims adopt a few conventions:

1. The date should be based on a crescent moon's visibility somewhere in the world;

2. The date should begin at sunset from a fixed international dateline every month.

If the International Solar Dateline (180E) is adopted also as the lunar dateline then Muslim experts can easily calculate the first dates of each Islamic month when a crescent will be generally visible at 180E.

Of course, every nook and corner of the world will not see the crescent because its visibility is in a parabola. But from New Zealand to Hawaii most will see the Hilal on the same date at their sunset.

CFCO Intl. had calculated and circulated these dates for decades since 1986, but has yet to get public endorsement. It is also a co-signer on an appeal to King Abdullah of Saudi Arabia to seriously consider the proposal, and remove the bottleneck

10. SPECIAL ARTICLE:

(from www.islamicmoon.com)

Global Hijri Calendar Proposals

Every now and then, the Muslim astronomical experts suggest a "global Hijri Calendar", often without clearly spelling out their “criteria.” CFCO has responded to almost everyone who suggested a local or "global” Hijri Calendar since 1986. But the vacuous discussion continues because the Muslim experts do not agree on the basics:

1. Is your calendar based on Lunar Visibility or it is NOT required?
2. If your dates are calculated on the basis of visibility what is your criterion?
3. Is your lunar visibility “LOCAL” or “global”?
4. Does it require naked-eye, land-based visibility or space-based instrumental observation as well?
5. Where is the Lunar Dateline for your calendar dates?
6. If there is NO Dateline, then how do you divide the time into dates and months?
7. Is the Dateline FIXED or it REVOLVES every month with the earliest visibility?
8. Does your date EXTEND WESTWARD from the point of earliest visibility or goes BACKWARDS also?
9. Is the length of the Lunar month same for all regions of the globe or it differs by LOCAL visibility?

Apparently many miss the significance of each of these points. Some (Saudi Ummal-Qura, ISNA Fiqh Council, European Council for Fatwa, etc.) have dropped the lunar visibility Qur’anic requirement altogether. Some have replaced it by Imkaan (Slightest possibility). Some take "later" visibility (hours after the sunset, even on the next solar date) to start the “local” date instantly. Some (tri-zonal or bio-zonal calendars) move the dateline every month. As a result, each Islamic month is 29 and 30 days long simultaneously for different visibility regions.

The most naïve are those who "INSIST on LOCAL VISIBILITY" but see no logical contradiction when they extend it. (“36-48 miles: East, West, North, South”; or “to the cities located at the same latitude”, or “the "nearest Muslim country"; or “Caribbean for Canada, South Africa for UK; or “All Arab countries that share the night”, etc.).

It is a fact that two towns only 10 miles apart but on the two sides of the visibility parabola do NOT SEE the Hilal in the same evening of the solar date. The moon is NOT SEEN by country, continent, longitude, or latitude. Its visibility starts from a different place on the globe and extends in a parabola. The moon may become first visible as far north as Alaska and as far south as New Zealand, depending on the season.

Hijri Calendar Complications

The “Earliest” Lunar Visibility and “day /date” division of the “time” further complicate lunar calendars.

For Muslim and Jewish calendars, the day/date starts from the sunset. The Muslim date/day start from the sunset after the Hilal is confirmed SEEN "locally". The Jewish date starts from the New Moon BEFORE Jerusalem or 2 1/2 hours past Jerusalem (plus some more adjustments). The Muslim calendar-makers never specified where the Islamic date begins except that it is “by the “local visibility.”

Is it valid to begin the "local" Islamic day/date/month from any location X in the expectation that the Hilal might become visible hours later at location Y (even on the next solar date) somewhere on the globe?

Try to implement this rule in Makkah Mukarramah. Can they start Ramadan from the evening of the Conjunction date in the hope that Ramadan Hilal will become VISIBLE 12-23 hours later somewhere? Even the "solar date" will change in Makkah by the time Makkah Muslims get the

confirmation of the actual sighting.

To by-pass this hurdle, the definition of the Islamic “Hilal” – the earliest visible waxing crescent moon - was changed to “the moonset after the sunset” on the conjunction date. The conjunction occurs at all times of day and night. Therefore some went to the extreme of calling a “CCD image” of the moon at the Conjunction a Hilal.

Initial Lunar Visibility

The earliest visibility and "initial point of visibility" further complicate the Islamic calendar. No local or global calendar can be made on the base of strict lunar visibility. A look at the visibility maps of any two consecutive months on the Conjunction (solar) date, and the next two dates will convince anyone about this fact

1. Lunar visibility (by any criterion, from Yallop to Ilyas) takes 3+ solar dates to cover the entire globe;
2. The visibility curves of any two consecutive months show a westwards movement (almost 6-8 thousand miles). In other words, the previous month would be 30 days for this zone and only 29 days for the rest of the globe.
3. The visibility results in 3-4 parallel “local” Hijri calendars. (3-4 dates for the same "solar" date everywhere)

Where would the Islamic date (for example 1st of Ramadan) start by the earliest visibility criterion?

Let us take the Saudi Ummal Qura calendar. The moonset, for example, is one minute AFTER the sunset on the Conjunction date in Makkah. Will the month of Ramadan start from Makkah westwards or from where the Hilal will become visible 20+ hours later in the Pacific? Assuming that the black lunar disk at the Conjunction is the Islamic Hilal just ONE SECOND later then what about Taif and all regions EAST of Makka in Saudi Arabia? Should they start Ramadan with Makkah? What about Yemen, Pakistan India, Malaysia, Indonesia and Australia? Should they start with Makkah or wait till the next sunset? What if the Conjunction is with or one minute BEFORE the sunset at Makkah?

Contemporary Muslim Practices

Recent Muslim practices for fixing Ramadan, Eidain, etc. dates include:
- The “precise calculation of the lunar Conjunction “BEFORE dawn” (Libya)
- The moonset after sunset in Makkah on the New Moon date (S. Arabia, ISNA, ECFR, 2007)
- The Conjunction before 12:00 Noon GMT (a variation of #2: Khalid Shaukat for ISNA Fiqh Council 2006)
- CCD imaging or any other instrument-generated diagram of the moon at Conjunction (Martin, Odeh)
- A visible Hilal anywhere in the world.
- A “visible Hilal” at 180E (International solar Dateline), or 30W as the Intl lunar Dateline (Details follow)
- The new moon before midnight at the International Date Line.
- etc.

Chaos in the Islamic Dates

The present chaos about the Islamic dates is a result of some LOCAL (declared or kept secret) practices:

1. Saudi (Ummal Qura), ISNA (Khalid Shaukat) Calendars are calculated by: “the Conjunction (NM) +moonset AFTER sunset in Makkah.” (The Hilal CANNOT be seen in Makkah on those dates.)
2. Libya uses the “Conjunction before Dawn” to count the following sunlight hours as the first day

(for fasting).
3. Indonesia, Malaysia, Brunei, Turkey, Bosnia, Tunis, etc. calculate their first Islamic date by the lunar altitude of 2-5 degrees at sunset. (Never SEEN there)
4. European Fatwa Council (ECFR) and some Muslim organizations all over the world follow S. Arabia.
5. Some UK Muslim groups follow “Morocco” or “South Africa” sighting for UK.
6. Toronto Council (Canada, 2007) goes by a sighting in the Caribbean. (Some in New York, Buffalo also follow it).
7. The Shari’ah Boards (Chicago, New York, etc.) accept all claim of sighting. For them, Calculations showing non-sighting or non-sighting of the Hilal on the West Coast are “Not valid Shari’ah argument” to reject a claim.
8. Connecticut Council of Masaajid decides the dates strictly by “local” (Connecticut USA) sighting.
9. Locally sighted Hilal is the criterion in Bangladesh, India, Pakistan, Oman, Morocco, S. Africa, etc.

Islamic Calendar Solutions

There is no dearth of Muslim and non-Muslim “experts” suggesting “local” or “Global” Hijri Calendars.

1. Suggestion:
“If minimum Luni-solar Geocentric Elongation, anywhere in the world, at the moment of Fajr Sadiq at Makkah, is 10 degrees then the coming “day” is the first day of the new Islamic month and preceding night is the first night”

[Explanation: The night (sunset to true dawn) in which Hilal is observed, is counted as first night of the new Islamic month and the coming day (sunlight hours) is the first civil (solar) day. So Islamic solar and lunar dates fall globally on the same day, sharing common sun light hours.]

Naked-eye observation of a Hilal, which satisfies this criterion, is quite sure somewhere in the world, ensuring appearance of Young Crescent (Hilal) in the sky before Fajr Sadiq on International Date Line (180o E regarding MPM). The region of possible Hilal observation with naked-eye can be determined by precise calculations in certain computer programmes.]

2. Suggestion:
Decide local dates by Hilal Visibility curves, in addition and applying Hilal visibility in a city to all cities with equal or lower probability of sighting

[Explanation: Lunar visibility in each city + 48 miles being one Matla (Shafii Madhab) makes sense.]

3. Time & Strategy (following Khalid Shaukat):
"The new moon occurs before midnight at the International Date Line. The moon would be visible somewhere on the earth on that day."

[Explanation:“the visibility criteria applied "locally" to the IDL that results in a non-sighting, allows for the possibility of the application of the same visibility criteria to points west of the IDL to result in sighting the Hilal within a shared 24 hour time period.”]

4. Sharing the common sunlight hours
5. Sharing the same night.

These and many other “solutions” fail the validity tests or satisfy the two basic conditions of a lunar calendar. All ideas or conceptual assumptions about natural phenomena have to be discarded when systematic empirical observations can no longer support them.

The Muslim calendar experts should continue looking for alternative solutions that a) fulfill the

“Observed Hilal” condition; and b) Calculate the beginning of the month precisely.

CFCO Calendars for N. America

We at CFCO Intl. are open to any "reasonable" solution that creates a unified Islamic Lunar calendar “locally” or globally. At present there is NONE as you have found above.

For North America CFCO, in the absence of a better alternative, still follows the consensus developed in 1966:

“The Islamic month begins by a verifiable Hilal (seen after the sunset) anywhere in 48 contiguous US states”

CFCO practice of “48contiguous states” often elicit the response that CFCO also extends the lunar visibility. Please keep in mind that:

1. "Broad-regional” or strictly “Local” visibility-based Islamic calendars for N America result in two or three Hijri dates for each solar date every month in different regions.
2. The Hijri dates for Canada add further chaos. Southern Canada may have distinct dates not only from the USA but also from Northern Canada
3. The dates may be further complicated each month when adjusted for "local" cloudy conditions.

These were the main reasons that the "48-contiguous states" rule was adopted in 1966 for N. America. CFCO’s practice is "IMPERFECT "but it is the only practical solution and essential as an "administrative" necessity.

Those who insist on strictly "local" visibility are seen discarding their own rule by extending the visibility to "not-visible" areas in the name of "Qasr" distance, "a state or area governed by a Hakim", "Seen in the East" (Fatwa), “Seen on the same longitude (the recent decision to accept Caribbean sighting for Canada), "Seen in a nearby Muslim country", “Will be Seen on the same latitude”, etc.

CFCO Intl. Global Islamic Calendar

The dates given in the CFCO Global calendar (www.Islamicmoon.com) are calculated by the following rule:
A naked-eye sighted waxing crescent moon at 180E on the given solar date.

[Explanation: The first “global” date of the Islamic month starts at the sunset, moving westwards from 180E. The date ends at 180W at next sunset (24 hours day/lunar date).The “local” Islamic date (and month) begins from the local sunset on the same solar date. In other words, the Islamic date will cover a period of 24 hours from the Sunset to midnight of the solar date, continuing from midnight to the sunset of the next solar date (Two solar, but one lunar date of 24 hours). The Hilal may not be “locally” seen at the local sunset everywhere and may be delayed 24-72 hours in extreme northern and southern regions depending on where the initial visibility for that month began.

CFCO (1986) proposal fulfils both a) The lunar visibility of the Qur’an and the Sunnah, and b) A fixed Hijri calendar that can be calculated precisely. This proposal also combines the Fiqhi positions of “locally sighted” moon of the Ikhtilaf al-Matali and the universality of the Ittihad al-Matali.

We believe that the Muslims have to adopt the following two conventions:
a) A fixed international lunar dateline (180E or 30W);
b) A “positive lunar visibility” criterion.

For the International Lunar Dateline (ILDL) 180E is preferable to Makkah longitude or 30W because it is already recognized globally as the "dateline" (IDL) and is used for the civil calendars. IDL as ILDL allows a large "sea" area (Approx. 130W-160E) of “uninhibited space” sufficient to develop a criterion that fulfills the lunar "visibility" condition (of the Qur’an (2:189), the Sunnah and the uninterrupted practice of the Ummah).

For lunar visibility, we prefer 10 degrees lunar altitude at 180E (Yallop's original criterion) for ease of calculation.

The Islamic month will start from the sunset at 180E by an agreed upon "calculated/assumed" visibility at 180E. The moon will be “LOCALLY VISIBLE" as its ALTITUDE would be 10 degrees at the sunset at 180E. The Muslims all over the world will start their lunar month at their “local” sunset on the fixed solar date, though the moon might not be visible at every location on the globe because the earth is not flat but a globe. Every month the lunar visibility takes 2+ solar dates to cover the areas between 60 degrees N/S latitudes.

Allah (SWT) has prescribed the strategy of ISLAH --use of maximally beneficial practices, and avoidance of "Fasaad" --corruption-- in solving human civil issues. We urge the Muslims to base their mundane practices, including fixing the Islamic calendar on the well-established principle of Allah (SWT) [7:84, 26:152, 28:77, etc.] and not turn Islamic texts into insurmountable problem-creating strategy. Islam is for human progress towards a better disciplined life on earth, and not an obstacle.

Makkah Longitude as Dateline

Can we make Makkah longitude as the ILDL, as some suggest?

Please keep in mind that if we start the Islamic date/month from Makkah longitude then places east of Makkah longitude, even Taif will be a date behind. For example, when it is the day of Eid al-Fitr in Makkah it would be 29th or 30th of Ramadan in Taif. The same is true for all regions east of Makkah longitude. A lot of land mass north and south will end up into two-date regions.

ISNA and ECFR Fatwa Abandons Qur’anic Hilal

“The Fiqh Council of North America (ISNA) and the European Council for Fatwa and Research (ECFR) … have concluded …the Islamic lunar months (begins from the Conjunction). The criteria adopted by the two Councils are as follows: * The new Islamic lunar month begins after the moment of conjunction [or at the beginning of separation] on condition that the moon sets on that evening anytime after sunset….”

Do these Muftis realize the broad implications of their statement?

1. Allah (SWT) taught His Prophet (SAW) to begin the Islamic month by “Husbaan” = intensified computation of the Conjunction (55:5).
2. Na’udhu-billah, the Prophet (SAW) did not understand (or decided to ignore) Allah’s order of “Husbaan,”

Not only he himself did not practice “Husbaan” but instructed the Muslims: “La tasuumu … wa la tuftiruu …Hatta tara-vul Hilaala …” (See the Hilal to begin the Islamic month).

We know that the Jews in Medina knew the “Husbaan”. The Prophet (SAW) could (and should have by ISNA/EFCR Fatwa) easily adopted the Jewish calendar (calculated by the Conjunction) for the Islamic month. Ahadith mention that they taunted the Muslims, saying that the Prophet (SAW) could not be a “Navi”, because he did not know even what their Rabbis were proficient. Then Allah (SWT) revealed “… Ahilla…Qul hiya Mawaqeet-u lin-Naas wal Hajj (2:189). The crescent moons are the

determinants…

By ISNA /ECFR statement it also appears that nobody understood the secret of when to begin the Islamic date/month. Can ISNA FC and ECFR explain why had the Fuqaha of the Ummah remained oblivious of this meaning (calculate Islamic month from the Conjunction) for the last 15 centuries or so?

ISNA FC chairman's response:
From: Dr. Muzammil H. Siddiqi email@drsiddiqi.com To: Omar Afzal <omarafzal1@yahoo.com>
Sent: Tuesday, September 30, 2008 2:58:50 PM Subject: RE: For your comments

Respected brother Dr. Omar Afzal:

Eid Mubarak. The Prophet – peace and blessings of Allah be upon him – did not consult the Jews of Madina on this issue. This means that we have to rely on ourselves and learn this knowledge. He did not forbid us to seek this knowledge and using it for our own benefit. Is there any proof that he prohibited the Ummah to learn this knowledge and use it? --Muzammil Siddiqi –

CFCO: Of course, Allah and His Messenger (S) did not prohibit the Muslims from using the Husbaan (or learning how to write) as many interpret the Ummiyah Hadith. But the Muftis of the Ummah must carefully consider if the "Husbaan" (55:4) fulfils the required "Hilal" condition, mentioned in the Qur'an (2:189)?

Starting the Islamic month by 1) the "precise calculation of the lunar Conjunction", 2) the Conjunction before 12:00 Noon GMT 3) the Conjunction at Makkah + moonset after the sunset , 4) CCD imaging of the moon at the conjunction phase, or any other day-time, instrument-generated image of the moon, or 5) space-based photograph, etc. DO NOT appear to fulfill the Qur'anic command.

The Muslim Ulema and the calendar experts must look for alternate criteria and adopt the one that fulfills the "definitely observed Hilal" condition. It should also precisely calculate the beginning of the month.

Basics of Islamic month

Islamic Lunar Date

Local Islamic lunar date starts from the sunset the evening the crescent moon is SEEN in the western skies.

Islamic Month

Islamic month is 29 or 30 days long from the evening a crescent moon is sighted.

What is a Hilal (Crescent Moon)?

The Hilal is a crescent moon observed by the naked eye after the sunset on the 29th or 30th day from the last lunation. This is how the Prophet (S) did, and instructed the Ummah to follow.

Moon Not Seen on 30th Calendar date

In case, the Hilal is not visible on a calendar's 30th then the calendar date is INCORRECT. It may be 29th or even 28th of the Islamic lunar month.

What if a crescent is Claimed Sighted by a Few?

The Hilal should be visible to everyone looking for it from a given location, and to everyone, and every-where within the visibility curve. If it is not visible universally then the sighting claim is vacuous.

Islamic Dates

Islamic dates are messed up because Saudi Arabia, Libyan, ISNA, ECFR, etc. have abandoned the Hilal of the Qur'an and the Sunnah. They "FIX" their Hijri dates without carefully evaluating the options that satisfy both the Shari'ah requirements and the geophysical facts of the Earth being a globe.

Conjunction Date

Some Ulema and authorities in Muslim countries declare Ramadan and Eidain dates by the New Moon (Conjunction) date because they argue that the New Moon can be calculated precise (Hisab Qata'i). They forget that the Conjunction is not Hilal and occurs at all times of day and night, and often not around the sunset. The Conjuction-date followers do not answer: When (time) and from where (longitude, latitude, country??) the Islamic date shall start?

New Moon Before 12:00 Noon GMT

ISNA experts suggested "the conjunction BEFORE 12:00 Noon GMT" rule on June 10, 2006. They never answered the same two basic questions (besides any Shari'i or observational justification for discarding the visible moon (Hilal).

How to Fix Islamic Date

Islamic date, as the Qur'an and Sunnah define, begins post sunset after a Hilal is SEEN.

Muslim experts have to find a solution that satisfies both the Shari'ah and the calendar-making rules in the light of the recent advances in lunar visibility. The Muslims may either adopt the "Earliest Visibility separator curves" for "Most likely local visibility-based fixed 2 to 4 solar dates for the first date of every Islamic month" or follow either of the two alternate suggestions given below for a unified global lunar calendar (Afzal: 1986):

a) The Islamic date begins from the solar dateline when a Hilal most likely becomes visible at 180E (Pacific) at the sunset. or

b)The Islamic date starts from 30W if a Hilal is visible at sunset at 30W (Atlantic).

Both a) and b) have their advantages and drawbacks. The Muslim Ulema, calendar experts and political elite have to sort out the details before creating a consensus.

Makkah as the Meridian

A recent Islamic conference suggested Makka as the center of the Earth. Makkah Mukarramah as the Dateline suffers from a major drawback: It divides a lot of countries including Saudi Arabia into two-lunar-date states. For example, Taif (located east of Makkah) will always be a day/date behind, and so would be every country on the longitude of Makkah.

Waxing Crescent Moon (Hilal)

For more than three thousand years, astronomers took keen interest in the crescent moon for both the observable quantity (O) and calculated quantity (C). For centuries they calculated the Conjunction (not observable) lunar cycles but lost interest in chasing the (observable) crescent moon. They could locate the moon by various modern technical devices.

The Muslims (and Jewish, Hindu, Chinese, etc lunar calendars-makers) continue to take keen interest in an observable Hilal for religious observances. Despite slight variations, all define a Hilal (a crescent moon) as the visible moon sighted after the sunset. Implied in it was the direct human eye observation of the phenomenon.

CCD Imaging

All types of photometry and telemetry immediately before or after the Conjunction phase (New Moon) have no significance or value for a Hilal that starts/ends an Islamic month. These methods use special computer programs to synthesize the images of the phenomenon. Computer programs amplify and enhance the contrast. This process shows whatever one wishes to see. The phenomenon that these images are claimed to represent are not visible directly by the human eye or even through a huge telescope.

(An interesting addition in this discussion would be the processed images of the moon as illustrated in "An Introduction to the Study of the Moon" (1966: pp. 338.)

Implications for Islamic months

As far the "religious" value of May 5, 2008 and September 23, 2006 (Sonneberg Observatory) CCD images, there is none for very obvious reasons:

1. Islamic month ends and begins from the sunset after a Hilal is visible. (Islamic day and date starts from the sunset and continues till the next sunset)

2. Islamic day follows the night.

On the other hand, a solar date starts from 12:00 midnight, followed by the day and again by the night till 11:59 pm.

The Conjunction time (as well as the time CCD images are processed and synthesized) can occur at any instant in a 24 hour day /date. They will initiate the lunar date from the instant the first image was taken after the Conjunction. Thus dividing a lunar day / date into two unequal parts, one part being the last date of the 'old' Islamic month, and the other part till the sunset, being the first date of the new Hijri month. Thus the duration of the last date and the length of the first date of the month may vary from a few seconds to 24 hours less a few seconds.

(For example, if Dr. Qaradawi's Fatwa was accepted then the black moon disc seen at the solar eclipse was the Hilal of Shawwal. As a result, the month of Ramadan was over at 11.35 am when the eclipse began. As a result, the length of the first day of Shawwal would be reduced from 11:35 am till the sunset on the same date.)

ISNA INCORRECT Hijri Dates

For 2006 ISNA dates were calculated by: "the Conjunction before 12:00 Noon GMT."

On August 1, 2007 ISNA Fiqh Council (ISNA FC) changed its rules for Ramadan and Eidain again. Now ISNA Islamic calendar dates are by " the conjunction must take place before sunset in Makkah and moonset after sunset in Makkah" (Both calculations rejected the visible Hilal). The Muslim organizations, groups and some ME countries have dispensed with the Hilal-sighting requirement. They argue: "There is no need for the Muslims to resort to actual sighting." (Dr. Z Shah (Islamic Horizons (Sep/Oct. 2006) p. 51)

Saudi Dates of Ramadan, Eidain and Hajj

Saudi dates are not fixed by the crescent moon seen in Makka. Since 1999 (1420AH) Saudi first date of Ramadan, etc. begins at sunset of the 29th day if:

1. The geocentric conjunction (NM) occurs before sunset; and

2. The moon sets after the sun (in Makka).

ISNA followed Saudi dates for decades and has finally discarded the moon-sighting in the USA. Islamic Hijri dates published in the ISNA calendar and on the web of Mr. Khalid Shaukat (www.moonsighting.com) copy the Saudi dates and are incorrect. For correct dates (always fixed by Hilal in the US go to www.Islamicmoon.com.

CFCO Intl. moon-watch ensures that a Hilal is actually observed within the US.

Islamic Dates Mess

1. Saudi/ISNA Calendar are calculated by the Conjunction (NM) in Makkah;

2. Libya follows the Conjunction Before Dawn

3. Indonesia, Malaysia, Brunei, Turkey, Bosnia, Tunis, etc.: calculate by lunar altitude of 3-5 degrees at sunset (never seen).

4. European Fatwa Council (ECFR), and other Muslim organizations follow S. Arabia.

5. Some UK Muslim groups have adopted "Morocco sighting" as valid for UK.

6. Toronto Council in 2007 decided to go by a sighting in the Caribbean. Some Mosques in New York, Buffalo, etc. follow Toronto decision.

7. Chicago based Shari'ah Board accepts all claims of sighting. For them the Calculations or non-sighting of the Hilal in California (claimed seen in Chicago) are "Not valid Shari'ah arguments" to reject the Chicago claim.

8. Connecticut Council of Masajid (USA) decides dates strictly by local CT sighting.

9. Only Bangladesh, India, Pakistan, Morocco, Oman, South Africa, etc follow a locally sighted moon.

Fist Fights and Blame Games?

The yearly season for fistfights among the Muslims begins from Ramadan and ends with Muharram. The fasting month starts and Eids celebrated on 4 -5 different solar dates and the world laughs. But everyone blames the others for the mess.

Allah and His Messenger (S) have provided clear guidance of Ahilla (waxing crescent moons) for us to start / end the Islamic month. That is how the Muslims have determined the beginning of an Islamic month for fifteen centuries.

Islamic Dates – Basic Facts

The basic facts to consider in any Islamic moon-sighting debate are:

1. "Ahilla" (waxing lunar crescent moons):

They are the Mawaqeet (indicators) for religious observances and for Hajj (2:189)

2. Naked-eye observation:

The Messenger (SAW) continued the Arab (as well as the Jewish) Shari'ah tradition of clearly visible, mass-sighted local Hilal to begin the Islamic date and months. (Suumu li- ru'yatihi…) There were no eyeglasses or optical aids for observing the crescent moon. Binoculars, and telescopes were invented centuries later.

3. Local date:

Each location had to go by its earliest sighting. The means of communications was non-existent. (Fa-huwa li-lailatin ra'itumuu-hu, Ahadith of Kuraib, Ikrama, etc.)

4. Jewish lunar calendar

The modern-day (New Moon-based) Jewish lunar calendar was in use by the Jews in Medina. It was available for the Muslims during the time of the Prophet (SAW). The Prophet's practice of fixing the first date of the Islamic lunar month by a crescent moon, sighted by the naked eye (instead of adopting the fixed calculated dates based on the conjunction) generated tension between the Muslim and the local Jewish communities in Medina. (Nahnu Ummatun Ummiyah Hadith)

The Prophet (SAW) asked the Muslims to abide by the naked-eye-sighted Ahillah rule to begin / end their Islamic month and for fixing Islamic religious observances, and not go by the Jewish calendar for Islamic dates.

5. The Purpose of lunar observation:

The sole purpose of the observation is to begin / end the Islamic lunar month. (La Tasuumu ... wa la Tuftiru …Fa in ghumma alikum fa-kmilul-Iddata thalatheen).

The Muslim jurists added details such as 1, 2 or more witnesses, Ikhtilaaf : Ittihad al-Matali; etc. to facilitate the accuracy of the observances. With the advent of rapid means of communication and expansion of geophysical knowledge, many complications arose by the middle of the 20th century. Conflicting Fiqh positions evolved to solve local and regional Islamic calendars. All these attempts were made before a comprehensive understanding of the complications of a round earth for lunar calendars.

Earliest visibility

Fixing the Islamic date by the earliest lunar visibility means:

The Islamic month must start on 2,3, or more solar dates, because the lunar visibility takes 3+ days to cover most of the globe (with perfect clear skies everywhere); and

2) Each lunar month is concurrently 29 and 30 days long because the earliest visibility each month moves westwards and the month starts from a different location. The region that lies between the eastern-most tips of the visibility curves of two successive months has 30 days while the rest had only 29.

Optical aid Visibility

Naked-eye sighting, binocular and telescopic sighting, visual-light imaging and non-visual-light imaging have serious implications for fixing the first date of a lunar month. To realize a “real difference between a naked eye observation and that by an optical aid" and the CCD imaging please look at Odeh’s 3 July 2008 lunar visibility curves:

A (easily naked-eye) begins from east of Cuba and extends north / westwards to almost Vancouver (Canada) in the north;

B (Visible in perfect conditions) starts from western Africa and extends to cover most of Canada);

C (Need optical aid) begins from Chad (Central Africa);

D extends farther eastwards, covering Sudan and Egypt, etc.; and

E (optical aid) covers most of S. Arabia, southern Europe, etc.

(Keep in mind that the rest of the globe would see a Hilal only on July 4 and 5, 2008.)

The distance from the eastern-most tip of D (55E for Visual aid) to A (60W for Naked eye curves) on July 3, 2008 by Odeh’s own calculations was almost ten thousand miles, covering a time span of 10+ hours from Somalia to Cuba. The first date in this region could start anywhere depending on one’s preferred “earliest visibility” criterion.

Observation through eyeglasses DON’T change the first Islamic date. But other optical aids (binoculars, and telescopes) result in starting / ending the Islamic month a day early. Many observers have reported that they could see a first day lunar crescent through binoculars only, and not by naked eye, though they had tracked it till the moonset.

CCD Imaging

CCD imaging has introduced an irrelevant dimension to the debate. It is a processed image that is enhanced beyond the visibility limits of un-aided eye and optical-instruments. If the processed image of the morning Moon is invisible to the naked eye (or an optical aid) by the moonset then it is of no value for fixing an Islamic month.

Islamic date / month

An Islamic month has to be 29 or 30 days long, and not 29 1/2, 30 1/2 or any fraction (which is now very easy to calculate to the millionth of a second). The primary goal is to use "modern techniques / equipment) for the purpose of "accurate religious observance."

Many in the moon-sighting debate have totally ignored the primary purpose of "lunar observation" and have created baffling calendrical complications by their proposed solutions of (local, regional, zonal, continental, or global) Hijri dates. Any deviation from the original definition must be strongly supported by Shara'i and logical arguments.

Can we look at the issues dispassionately and help evolve a workable Islamic Hijri calendar, instead of confusing the Ummah further by new definitions of Hilal, visibility and fractional length of days for lunar months? May Allah help us. Ameen.

What to Do?

Now you decide what you wish to follow? The Islamic Hilal seen after the sunset locally or whatever moon some have suggested as stated above?

On May 5, 2008 ICOP@yahoogroups. Com reported an interesting observation:

"We are currently observing the crescent, again through near real-time imaging during the day. Currently 3.5 hours before conjunction and decreasing. We see a 90° arc of the crescent, at already less than 5° elongation. If the weather holds, we will capture the crescent AT conjunction. Regards, Martin"

A few hours later the observer reported:

"Our attempt to image the crescent around conjunction was quite successful. We captured it just 5 minutes from conjunction. Some hours earlier we still saw a 90° arc, at less than 5° elongation."

The imaging techniques used can definitely be improved to a near real-time experience. Also, the filters used this time captured some visible light, too. That might be of interest to someone."

Can someone tell this observer and all those chasing the youngest crescent moons to the point of the Conjunction (?) through imaging devices that for the Islamic dates /months:

1. The Muslims do not look for the moon's invisible disk;

2. The Muslims go by the Hilal that appears around the sunset, as the Islamic day, and Islamic date starts from the sunset after a crescent moon is clearly observed;

3. The Islamic day / date cannot be partial (i.e. the first part of the solar day 29 or 30th counted as part of the previous Islamic day / date / month and the rest of the day as part of the 1st of the next month from the point of the “imaged” crescent moon.)

4. Islamic month begins by a Hilal that can be seen by everyone with normal vision in clear skies; and

5. The regions east of the earliest sighted moon remain in the previous Islamic month.

The crescent moon that this device was "imaging" is worthless for the Muslim calendar.

An observer on the space shuttle could see a moon dozens of times during one solar day and so does an astronomer working with the Hubble.

Visibility Curves

The visibility curves generated by Dr Monzur’s excellent MoonCal.6 have helped the moon-watchers all over the world for the last two decades. Br. Mutoha of Indonesia has recently created another useful program that projects the location of the moon on the horizon on the Conjunction date at various locations on Earth. Our concern is that both raise 'expectations' of “easy visibility” in regions where a Hilal could not be seen. Our interest for the last 38 years was in testing the limits of the earliest lunar visibility.

The Muslim astronomical experts should realize that the lunar visibility is not only an "astronomical" phenomenon for the Muslims but is also tied to a "religious" function: Fixing the first date and beginning / ending of the Islamic month.

For example we mentioned on two places for Jumada 1, 1429 (May 2008) where we were pretty much sure the Hilal would not be visible on May 5, 2008 (LA) and May 6 (Cape Town, S. Africa) though Mutoha’s diagram for the two cities shows “easy naked eye sighting.” Our prediction proved right.

Unity of Muslims

For fourteen centuries, unity of Muslims was never a Shari’ah consideration for fixing the local observance of Islamic occasions.

Islamic dates always began from the local sunset that differed from place to place. By the middle of 20th century, the means of communication improved slightly, and what was vaguely known from the Hadith of Kuraib (Muslim) became a reality. Muslims realized that Ramadan or Eid crescent moon is not seen in all Muslim countries or towns on the same solar date. In 1980s, the Muslims were told (Afzal: 1987, Ilyas 1989) that the moon normally takes 2-3 days to become visible over the populated regions of the globe. Depending on the most northerly or southerly ecliptic latitude the moon sometimes may not be seen until five days after the conjunction. The Muslims living in England and Scotland experienced it for decades.

Bickering about which country or town started Ramadan or had Eid on the correct date intensified in1940s. By then, the “unity of Muslim Ummah” – a political need also became an obsession. Fuqaha used to justify the discrepancy of dates by Ikhtilaaf al-Mataali. But Shakir (1939) believed the “eye-witnesses” were the reason; the Ummah would unite if the Islamic dates were fixed by the “exact” (Qata’i) New Moon. In 1966, Gamal Nasser convinced the Ulema in Egypt that the New Moon is the Hilal of the Qur’an and that there is no need to wait for the moon’s actual visibility. The

knowledge of the existence of moon on the horizon is sufficient to begin the Islamic month from the sunset on the conjunction date. Egypt set the limit of “at least five minutes after the sun on the conjunction date” to declare the beginning of Islamic date in Egypt. In 1986, Egypt further reduced five minutes lag to ONE minute after the sunset.

To justify one date for the whole country or for all Arab nations, “Sharing the night” argument was invented. Both the “Unity” and “Sharing the night” rules clearly violated the Shariah norms and the consensus of the Ummah besides the physical facts of lunar visibility. Qaradawi (1987, 2005) went a step further to declare the beginning of Ramadan from the visible solar eclipse at noon. Ulema, the Muslim calendar-makers and political leadership ignored numerous facts including the following:

1. The conjunction does not occur at sunset (in Makka?) when Islamic date is suppose to begin. It happens at all times from mid-day to mid-night.

2. A calendar date must start from a fixed point in time and from a fixed location on earth every month.

3. A lunar date or an Islamic month cannot start from the conjunction as its time and place constantly change every month and do not repeat for thousands of months.

4. The Earth is a globe, and the Night is a continuum. The whole globe shares the same night.

Fast by Sighting the Moon

Uniform global lunar dates require lunar visibility from a) a fixed lunar dateline and b) a fixed time (sunset) to commence the Islamic date (Afzal: 1987, IIIT Herndon VA). It must also consider the following physical visibility factors:

* Lunar visibility parabola cuts across country and continent boundaries, and is not bound by longitudes or latitudes either.

*It takes 2-3+ solar dates for the lunar visibility to cover most of the globe.

* Rotating start of the Islamic month, either by visibility criterion or by the conjunction (New Moon) makes each month 29 and 30 days long for different regions of the globe.

Muslim experts have to find solutions to several knotty issues before proposing a unified global Hijri Calendar. Very few of then fully realize the Shari'ah scope of the "lunar visibility" and its relation with the Islamic observance. To solve the discrepancies of reported sightings some introducing “strict calculation”, "optical aid", or regional solutions. In our notes we repeatedly made two points very clear:

a. Earliest lunar visibility is "local" and is useless for any Islamic calendar-making; and

b. "Optical aids" advance the first date ahead.

(In other words, Ramadan on the last day of Sha'ban, Eid al-Fitr on the last day of Ramadan, Hajj on 8th D. Hijja, etc.

We have nothing against CCD imaging, optical aids, or any other devices. We ONLY want that the Muslims (Ulema and astronomical experts) first understand the

extent of the complications in 'local, regional, and global Hijri calendars, and then suggest a WORKABLE solution that is closer to the intent of the Qur'an, the Sunnah and the practice of the Ummah.

In the last 50-60 years we have seen most absurd solutions, like: Hisab Qata'i (the New Moon as the beginning of the Islamic date), moonset after the sunset, sharing the same night, tri and bi-zonal Islamic calendars, Makkah as the meridian, New Moon before 12:00 Noon GMT, etc. all because the experts and the Ulema DO NOT understand the issues fully, and their solutions add to the present chaos.

Please KEEP IN MIND that "a locally visible Hilal" is still the established criterion for the Muslim communities all over the world for Ramadan and Eidain. All groups, Islamic countries and established Islamic organizations ALWAYS say: Hilal SEEN /or 30 days completed. They never announce: "Sighting of a Hilal has been DISCARDED. Please also keep in mind that if 30 days of the lunar month are completed from the previous lunation then a waxing crescent moon is ALAWYS visible.

11.Why Are ISNA Fiqh Council Dates Often Wrong?

For Ramadan and Eid al-Fitr ISNA Fiqh Council declares that it relies solely on "sighted crescent moon" in 48 contiguous states of N. America. For Eid al-Adha it follows the date of Arafah in Makka as determined by the Saudi authorities.

Why are ISNA dates for USA and Canada often wrong?

1. Saudi dates are wrong 100% of time, and ISNA since 1978 followed Saudi dates most of the time.

2. ISNA accepted spurious claims of sighting against all known visibility criteria.

1965-1978

From 1965 to 1978 MSA Fiqh Committee (now ISNA Fiqh Council) fixed the Islamic dates for the USA and Canada by a confirmed sighted crescent moon (though some Muslim communities implemented Egyptian calendar dates as well).

1979-1986

Kahf (published 1980) convinced the MSA from 1979 Eid al-Fitr that Muslims in the USA and Canada follow "the first communication" ("Khabar" of these dates from any Muslim county) and faithfully implemented Saudi dates since then.

1981 Chicago Conference was wasted in the vacuous discussions of Ittihad vs. Ikhtilaf al-Matali and defending blatantly wrong Saudi announcements of Ramadan and Eidain. ISNA FC continued to faithfully force the Muslims to celebrate Islamic occasions on Saudi dates despite strong protest from Abdali, Saleem, Usmani, Afzal, and others.

1986 IIIT Conference

1986 IIIT conference was the first step in the direction of understanding the intricacies of lunar Islamic calendar. ISNA FC afterwards revised its decision to abide in principle by the "sighted in the USA" moon for Ramadan and Eidain, and the "day following Arafah in Makka" for Eid al-Adha. In practice, however, ISNA FC persisted in following Saudi dates by accepting the most bizarre claims of sighting.

In 2001-2002 ISNA Fiqh Council announced that it did not find any "Daleel" in the Qur'an, the Sunnah and the books of Fiqh to follow the "Day after Arafah in Makka" for Eid al-Adha. But this change of heart was temporary, and it reverted to the old practice within two years.