

In the Name of Allah, Most Compassionate, Most Merciful

***FAJAR AND ISHA
TIMES
&
TWILIGHT***

By: Molvi Yaqub Ahmed Miftahi

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I Seek Protection of Allah from Shaytan, the Rejected One

In the Name of Allah, Most Compassionate, Most Merciful

*Praise Be To Allah,
The Cherisher and Sustainer of the Worlds;
Most Gracious; Most Merciful;
Master of the Day of Judgement;
Thee Do We Worship,
And Thine Aid We Seek,
Show us the Straight Way,
The Way of Those On
Whom Thou Hast Bestowed Thy Grace,
Those whose (portion) is Not Wrath,
And who go not Astray.*

(Holy Qur'an, 1:1-6)

*Oh Ye Who Believe! Obey Allah,
And Obey the Messenger,
And Those Charged with
Authority Among You,
If Ye Differ in Anything Among Yourselves Refer it to Allah
And His Messenger
If ye do Believe in Allah
And the Last Day,
That is Best and Most Suitable
For Final Determination*

(Holy Qur'an, 4:59)

*May Peace and Blessings be upon
The Final Prophet of Allah,*

*Who was sent as a Mercy for the World,
And Peace and Blessings be upon his Noble Companions, who
understood his Message
And practiced on it and became
Stars for us to follow.
May Peace and Blessings be
Upon all the Messengers of Allah
And their Companions.*

*May Allah Accept the Sincere Efforts of Those Who Strive in his
Cause*

(Ameen)

**NB: This book contains extra information added to the
previous changes, which are published and available on the
website www.moonsighting.com.**

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DEDICATION

It is only befitting that I dedicate this humble work to the noble Prophet Mohammad *SallallahuAlaihiWasallam*, addressed by Allah *SubhanahuWata'Ala* as the "Unlettered" Prophet, yet, the master of the most extensive knowledge, foretold in previous scriptures, and the mercy for the worlds.

It is the Holy Prophet *SallallahuAlaihiWasallam* who took the Arabs out of the depths of ignorance and elevated them to unprecedented heights of glory. The Arabs who buried their daughters alive in pre Islamic days were now the advocates of love and compassion. Allah took mercy on them and accepted them as the best of all people. Their Master was the greatest teacher of all, teaching not only the highest form of morality but also the most sublime acts of devotion to Allah *SubhanahuWata'Ala*. One of these acts of devotion is one with which this book is mainly focused on i.e. Salat, the act of worship which connects the devotee to his Maker, at least five times a day. The Master performed the Salat perfectly and this is the one practice of the Prophet *SallallahuAlaihiWasallam* that we should all try to emulate so that we can please Allah *SubhanahuWata'Ala* and gain nearness to him.

*"...We sent thee not (Oh Mohammad), but as a Mercy
for all creatures"*

(Holy Qur'an, 21:107)

Oh Allah! Lord of this perfect call, and of the Salaah to be offered presently, grant Mohammad *SallallahuAlaihi Wasallam* the way of approach and rights of intercession, eminence, distinction and highest class in paradise, and raise him to the glorious position and rank you have promised him (Maqamam Mahmooda), and afford us his intercession on the Day of Judgement. Surely, you never go back on your word or promise. Aameen.

*“And pray (Oh Mohammad),
in the small watches of the morning:
(it would be) an additional prayer
(for spiritual profit) for thee:
Soon will thy Lord raise thee to
Maqamam Mahmooda,
(a station of praise and glory) “*

(Holy Qur'an, 17:79)

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FOREWORD

The following are excerpts from professionals and academics:

"Wa alaikumus salam Yes, I have looked it over. Have read through. It is Masha-Allah a very good effort. I have put it on my web site." **Khalid Shaukat** (31st October 2005)

Observations of Subh-Sadiq and disappearance of Shafaq at various locations on earth have confirmed that to calculate Fajr & Isha, assuming any fixed degree (whether 18° or 15°) or any fixed minutes (like 90 minutes or 75 minutes) is not right. Research and observations by Moonsighting.com members have also held this opinion for quite some time.

This has also been confirmed by Hizbul Ulama UK, 74 Upton Lane, London E7 9LW, and Telephone 0786-646-4040, email: info@hizbululama.org.uk.

Read a detailed book, "[Fajr and Isha](#)" written by Molvi Yaqub Ahmed Miftahi from UK.... all collected observations, it came very close to the observations at all latitudes. Moonsighting.com uses this function of latitude and seasons for calculating Fajr and Isha times.

(Extract taken from website www.moonsighting.com prayer time section by Dr. Khalid Shaukat)

I begin in the Name of Allah, Most Beneficent, Most Merciful. May Allah enlighten me and enlighten others with true knowledge & wisdom and forgive my errors and blot out my sins. May Allah accept my efforts and grant full sincerity in all my actions. Ameen.

1 Background

Salat, one of the key pillars of Islam has a unique attachment to the religion of Islam and no other religion is able to boast a form of worship which parallels the daily Salat of the Muslim. Held in congregation as well as individually, Salat forms an integral part of the daily life of the Muslim. It holds the key to paradise and delivers salvation from hell. It links the devotee to his maker and establishes a personal relationship and spiritual bond with the Creator of the Universe. It is so important to Allah that its neglect brings down the wrath of Allah and the one who neglects Salat will be questioned on the day of judgement by Allah Almighty. On the other hand there are countless bounties and rewards from Allah *Subhanahuwata'ala* for those who fulfil their obligations regarding Salat.

Allah requires his servants to perform Salat within prescribed times. If Salat is performed before or after its fixed times, it will need to be repeated as Kaza, and even then it will not completely atone for the missed prayer. The performance of Salat within the time limits set by Shariah should therefore be a prime concern for all Muslims particularly for Muslims in Europe and the UK where prayer times have historically been the subject of debate and dispute, especially in relation to the timings of Fajar and

Isha. This book focuses on these two Salats, mainly from a Hanafi perspective.

“... Salaah is enjoined on the believers at fixed times”

(Holy Qur'an, 4:103)

Most prayer times in Britain are derived from HM Nautical Almanac Office (also known as the Royal Greenwich Observatory) and in terms of the times of Zohar, Asar, Sunset and Sunrise, these are generally acceptable by the Ulama as the correct times of prayer as it is fairly easy to observe these times and to verify them.

Determination as far as these prayer times are concerned relies on sighting of the position of the sun and length of shadow (i.e. for Asar). However, where even these times appear with naked eyes to be wrong, it will be incumbent upon us to ensure that the times are rectified.

It is not so easy, however, determining times of Fajar and Isha as it is for the remainder of Salaah. This is because Fajar and Isha times are observed not by the position of the sun but by the **level of illumination in the night sky**. For Fajar this is the time of Subha Sadiq and for Isha this is the time of Shafaq. In English terminology these are known generally as 'Dawn' and 'Dusk' respectively.

The term twilight is also used to refer to the illuminated sky after sunset or before sunrise. Observatory terminologies often refer to stages of illumination conditions and may not fit conveniently with Shariah definitions of Subha and Shafaq i.e. morning and night.

There is universal agreement amongst the Ulama on the phenomenon of Subha Sadiq (dawn) but not so for Shafaq (dusk). Shafaq for Imam Abu Hanifah RA is when light is completely extinguished or Shafaq Abyadh. For the other Imam's (including the Sahibayn Imam Abu Yusuf and Imam Mohammad, who were disciples of Imam Abu Hanifah RA) Isha time begins at the end of Shafaq Ahmar i.e. when the red glow of the sun disappears after sunset.

HM Nautical Almanac Office itself accepts difficulties in prescribing the times for Fajar and Isha for the Muslim Community as will be shown later. Historically, therefore, times for Fajar and Isha have varied widely within the UK with timetables using Solar Depression angles (i.e. degrees) provided by the Nautical Almanac Office. These have ranged mainly from 12 degrees to 18 degrees and Ulama have been divided about the correct times for Isha and Fajar, not just in Britain and Europe but throughout the world. See Table 1, Page 30.

In 1987 a group of Ulama in Blackburn including myself, desired to solve, once and for all, this problem for the Muslims in Britain and sacrificed their valuable time by diligently striving to determine the correct times for Subha Sadiq and Isha by the method of Mushahahadah i.e. observation by naked eyes. This is the method practised by Rasoolullah *SallallahuAlaihiWasallam* and the Noble Companions (Peace Be upon Them) and by many generations after them. The practice of Islam is for all mankind whether they are living in the jungle or in a city run on modern technology and until Qiyamah.

Our Prophet *SallallahuAlaihiWasallam* has therefore taught us to practise religion with ease and not to rely on the constraints that science and technology can bring. Science and technology are only to be used to support Islam and not as an end in itself and certainly not for setting rigid standards as is done by those who

furiously support their positions on prayer timings using computation.

Hazrat Qari Mohammed Tayyab RA says in his book "Science & Islam":

"Whoever uses science to support Islam will be strengthening Islam, but whoever brings the service of science as a purpose and a goal within Islam, will be hurting and weakening his own soul and there will be no loss to the religion of Islam itself"

In the rest of this booklet it will be clearly demonstrated that Mushahadah is the most appropriate form of deciding prayer timings for Fajar and Isha and that the use of degrees particularly where Mushahadah has been carried out will be shown to be entirely incorrect and affect the permissibility of our prayers.

Please note that the group of Ulama that carried out the Mushahadah in Blackburn, Lancashire, UK, of which I was part of, did so during a complete year and did not set out to test Degree times, thereby disregarding the times provided by the Observatory and starting from a clean sheet. We were, therefore, not psychologically swayed by already given Observatory times.

Many other Mushahadah have tended to determine the level of solar depression level to use for the prayer times and the Ulama have made limited test observations at the times provided by the Observatory.

Our observations, therefore, unlike the observations of others did not seek to confirm or reject any of the Observatory degree times but to provide prayer timings based purely on what we observed.

What our observations show is that the prayer timings do not conform to any given degrees but fluctuate throughout the year between approximately 12 to 16 degrees. This is in accord with the findings of experts as will be proved later. Suffice it to say I tend to prefer not to equate the results of our observations to any given degrees at all.

This booklet has been produced with extensive help of a close intellectual friend and associate of Hizbul Ulama UK, whose knowledge of English, grasp of theological issues and understanding of astronomical research made this work possible. May Allah accept his anonymous efforts. Aameen.

I would like to thank Professor Ilyas for his synopsis, and advice on potential follow-up practical research to this work.

Molvi Yaqub Ahmed Miftahi
General Secretary of Hizbul Ulama UK
the day of Jummuaa 14th Muharram 1428/ 2nd February 2007

2 Importance and Virtues of Salat

Allah has made compulsory five daily prayers for the Ummah of the final Prophet of Allah. These were given by way of a gift from Allah Almighty and the importance of this most noble form of Ibadat cannot be understated. Salat was given directly as a gift to our Prophet *SallallahuAlaihiWasallam* when he visited Allah during Miraaj (Ascension to Heaven). The fifty Salaah that Allah at first ordained were reduced during the visit to five but Allah in his infinite mercy and wisdom grants virtue to his servants for fifty prayers and not just five.

Salat was obligatory on all the Prophets and not a new form of Ibadat revealed only to this Ummah. Allah, said to Musa AS, in highly majestic terms:

“I have chosen you. Listen then, to the inspiration sent to you. Verily, I am Allah! There is none worthy of worship but I, so serve thou me (only), and establish regular Salat for celebrating my praise”

(Holy Qur'an 20: 13-14)

The effect of regular prayers is deep and results in altering human intellect and behaviour. If performed with full devotion, Salat can result in creating a condition in the devotee which allows the worshipper to strive successfully against all evils and to maintain modesty in ones actions.

Allah promises to keep his devoted servants away from sins through regular Salaah:

“..and establish regular Salat: for Salat restrains from shameful and unjust deeds”

(Holy Qur'an 29: 45)

“Truly, man was created very impatient, fretful when evil touches him and niggardly when good reaches him. Not so those devoted to Salat, those who remain steadfast in their Salat....”

(Holy Qur'an 70: 19-23)

There are numerous Ahadith on the virtues and important position of Salat. Some of these are given below:

1. Ibn Masud RA says that he enquired from the Prophet *SallallahuAlaihiWasallam* what the best deed in the sight of Allah was. The Prophet *SallallahuAlaihiWasallam* replied, “To say the prescribed Salat at stated hours”. I asked what the next best was. He said, “To be good to parents”. I again asked what deed ranked next. He said, “To do Jihad in the way of Allah”. Ibn Masud says, if he had gone on asking, the Prophet *SallallahuAlaihiWasallam* would have told him more. (Bukhari, Muslim)

2. Jabir reports that the Prophet *SallallahuAlaihiWasallam* said, “Between man and disbelief stands only the wall of prayers. Giving up Salat removes the partition” (Muslim)

3. Abu Zar Ghifari RA says that one day in autumn when leaves of trees were falling, the Prophet *SallallahuAlaihiWasallam* went out and caught hold of two branches of a tree and its leaves started falling. He said, “Abu Zar”, I said, “Here I am, O Prophet of Allah!”. The Prophet *SallallahuAlaihiWasallam* said, “When a Muslim devoutly says the prescribed Salat his sins fall off him as these leaves fall from the tree” (Ahmad)

4. Ibn Umar RA narrates that the Prophet *SallallahuAlaihiWasallam* said “To say Salat at the commencement of the stated hour earns the appreciation of Allah and to say it even while the hour is receding evokes his forgiveness” (Tirmizi)

5. Abu Hurairah RA reports the Prophet *SallallahuAlaihiWasallam* said, “If people only knew the reward of giving the Adhaan or the merit of standing in the first row of the congregational Salat, they would insist on drawing lots for finding a place therein. And if they knew the merit of repairing to the Mosque early for noon Salat, they would go there running and if they were to know the blessings of the night and early morning Salat, they would go to the Mosque even if they had to crawl” (Bukhari, Muslim)

6. Usman RA narrates that the Prophet *SallallahuAlaihiWasallam* said, “Whoso says his night Salat along with the congregation, he has prayed as if for half the night, and whoso says the early morning Salat with the congregation, he has prayed, as though for the whole night” (Muslim)

7. Abu Hurairah RA reports that the Prophet *SallallahuAlaihiWasallam* said “There are seven persons who would be under the shelter of Allah on the day when there would be no other shelter. Firstly, a just ruler, secondly, a young man who spends his youth in Salat, thirdly a man whose heart is in the Mosque and on coming out of it, he is again eager to go back, fourthly, those who meet or go different ways for Allah’s sake, Fifthly, the man who remembers Allah in solitude and whose eyes well up in his remembrance, sixthly, the man who is tried to be seduced by a pretty woman of gentle birth and he declines for fear of Allah, and seventhly, the man who so secretly spends in charity that his left hand does not know what his right hand disbursed”

(Bukhari, Muslim)

3 What does the Shariah say about the time of Fajar?

There is general agreement amongst the Ulama about the beginning time of Fajar (which is also the end time of Suhr i.e. the beginning of the Fast). Fajar is defined as the time of 'Dawn' i.e. when daylight begins to show. This is the time at which whiteness in the sky appears horizontally, on the length and breadth of the horizon known within Shariah as Subha Sadiq or True Dawn.

Many Scholars have described the onset of Fajar from their interpretation of the Qur'an and Hadith and on this point the Ulama are generally united.

Hazrat Molana Ashraf Ali Thanvi RA describes it as follows in Bahishti Zewar:

“In the last part of the night, at the approach of dawn, some whiteness can be noticed on the length of the horizon towards the east, i.e. from the direction in which the sun rises. After a little while, whiteness can be noticed on the breadth of the horizon. This whiteness begins to spread very rapidly. After a little while it becomes completely bright. From the time that this broad whiteness becomes visible, the time of Fajar Salat commences and remains until the rising of the sun.”

The late Sheikh Ad Darsh RA, Imam at the Islamic Cultural Centre, Regents Park, London, described Fajar as follows:

“As far as Fajr is concerned, its starting time is indicated, in the words of the Prophet *Sallallahu alaihi Wasallam*, by the true

twilight. This is when light appears across the full width of the sky, as opposed to in an isolated spot on the horizon. Once the full light is clear in the sky, that is the beginning time of the Fajr prayer. The four schools all agree on this”.

(Sheikh Ad Darsh RA, Q&A in QN, 13 December 1996)

The Hadith makes it even clearer by saying what it is not i.e. it is not the light which appears vertically in the sky like pillars before the horizontal light known as Subha Kadhib or False Dawn.

Subha Kadhib is often described as a vertical column or pyramid of light, or like the tail of a Wolf which appears first on the horizon. This is not the end of Suhr nor is it the beginning of Fajar. It is referred as Subha Kadhib or False Dawn to signify that the Shariah does not base its worship on this occurrence. This i.e. Subha Kadhib is what Molana Ashraf Ali Thanvi RA refers to above as the “whiteness on the length of the horizon”, which is not the beginning time of Fajar, but the beginning of Fajar is signified by the “broad whiteness...on the breadth of the horizon”.

Some people have associated many other phenomena during the late hours of the night such as Aurora (a glow caused by the plasma from the sun by way of the Van Allen belt of ions), Gegenschein (faint hazy patch of reflected sunlight from the interplanetary dust outside the earth’s orbit), or Zodiacal light (sunlight reflected from interplanetary dust), as Subha Kadhib (as had Molana Ahmed Raza Barelvi who determined from observation that Subha Kadhib occurred as early as the solar depression level of 33 degrees) but it is difficult to be precise in astronomical terms about the phenomenon of Subha Kadhib. Suffice it to say it takes place shortly before Subha Sadiq and appears in vertical columns.

Some Verses of the Qur'an and a collection of Hadith are produced below on Subh:

1. *“Establish regular Salat, at the sun’s decline till the darkness of the night, and the Morning Prayer and reading; for the prayer and reading in the morning carry their testimony”*

(Holy Qur'an 17:78)

2. *“And eat and drink until the white thread of dawn appear to you distinct from its black thread; then complete your fast until the night appears”*

(Holy Qur'an 2: 187)

3. “Fajar is not what appears in the sky like this (and the Messenger *SallallahuAlaihiWasallam* raised his hands upward) until like this (and the Messenger *SallallahuAlaihiWasallam* made his fingers widespread)

(Bukhari)

4. The Prophet *SallallahuAlaihiWasallam* said: “There are two dawns, the dawn when food becomes haram and Salat becomes permissible, and the dawn when prayer is haram and food is permitted”

(Narrated by Al-Hakim and Al-Bayhaqi from the Hadith of Ibn Abbas)

5. And the Prophet *SallallahuAlaihiWasallam* said: “There are two dawns. With regard to the dawn which is like the tail of a wolf, this does not make it permissible to pray and haraam to eat. With regard to the dawn which appears horizontally in the sky, this makes it permissible to pray and forbidden to eat”

(Narrated by Al-Hakim and Al-Bayhaqi from the Hadith of Jaabir)

6. Also, The Prophet *SallallahuAlaihiWasallam* said: “Do not let the Adhaan of Bilal stop you from eating Suhoor, or the vertical dawn, but the dawn which appears along the horizon”

(Narrated by Abu Dawood and Al-Tirmidhi)

7. The Prophet *SallallahuAlaihiWasallam* said: “Bilal pronounces Adhaan at night so keep on eating and drinking till Ibn Umm Makhtum pronounces Adhaan”

(Bukhari)

8. It is related by Rafeh Bin Khadeej RA that the Messenger of Allah said: Offer up the Salat of Fajr in Isfar (i.e. when the light of the morning has spread) for there is greater reward on it.

(Abu Dawood, Tirmizi and Daarmi)

9. Yahya RA related to me from Malik from Zayd Ibn Aslam that Ata Ibn Yasar said, “A man came to the Messenger of Allah, and asked him about the time of the Fajar Salat. The Messenger of Allah did not answer him, but in the morning he prayed Fajar at first light. The following morning he prayed Fajar when it was much lighter, and then said, “Where is the man who was asking

about the time of the Salat?" The man replied, "Here I am, Messenger of Allah". He said, "The time is between these two".

(Maliks Muwatta)

10. Yahya RA related to me from Malik from Yahya Ibn Saeed from Amira Bint Abd Ar-Rahman that Aisha, the wife of the Prophet *SallallahuAlaihiWasallam*, said, "The Messenger of Allah, used to pray Fajar and the women would leave wrapped in their garments and they could not yet be recognised in the darkness"

(Maliks Muwatta)

11. Yahya RA related to me from Malik from Zayd Ibn Aslam from Ata Ibn Yasar and from Busr Ibn Said and from Al Araj RAA - all of whom related it from Abu Hurairah RA that the Messenger of Allah said, "Whoever manages to do a Rakah of Fajar before the sun has risen has done Fajar in time, and whoever manages to do a Rakah of Asr before the sun has set has done Asr in time"

(Maliks Muwatta)

"...the prayer and reading in the morning carry their testimony"

(Holy Qur'an 17:78)

4 What does the Shariah say about the time of Isha?

There is no disagreement amongst the Ulama that Isha time is the prayer when Shafaq (night) sets in. There are, however, two levels of Shafaq identified from within the Ahadith – these are commonly referred to as Shafaqe Ahmar and Shafaqe Abyadh. Both these phenomena are at different times and represent two distinct levels of illumination in the night sky. Shafaqe Ahmar occurs before Shafaqe Abyadh.

According to Imam Abu Hanifah RA the beginning time of Isha is when there is no trace of light left in the sky. This is Shafaqe Abyadh. However, according to the other Imams, and the Sahibayn (Imam Mohammed and Imam Abu Yusuf RA, who were disciples of Imam Abu Hanifah RA), Isha time begins when the Sun's red afterglow disappears or Shafaqe Ahmar. This means that followers of Imam Hanifah RA perform their Isha prayer somewhat later than the followers of the other Imams, as the red glow of the sun disappears much earlier than the disappearance of the whiteness in the sky.

Notably there was also disagreement amongst the Sahaba Kiram Ajmaeen on this issue. The Sahaba Kiram RA who consider the Isha beginning time at Shafaqe Ahmar i.e. the disappearance of the Sun's red afterglow include Hazrat Ibn Abbas, Hazrat Umar, Hazrat Ali, Ibadah Bin Thamit, Moosa Ashari and Ibn Umar RA Ajmaeen. Those who hold the view that Isha begins at Shafaqe Abyadh i.e. the disappearance of the whiteness in the sky include Hazrat Abu Bakr, Muadh Bin Jabal, Ubay Ibn Kab, Abdullah Bin Zubair, Anas, Abu Hurairah, and Aisha RA Ajmaeen.

This issue has therefore led, also, to differences amongst the Tabeein and the Fuqaha. Suffice it to say followers of the

respective Madhabs need not get into any debate or controversy on this subject, as there is always wisdom in any differences amongst the Fuqaha.

It is worth pointing out however that followers of Imam Abu Hanifah RA who in general are expected to observe Isha at Shafaqe Abyadh may, in certain circumstances, when permitted by the Hanafi Ulama, observe Isha earlier i.e. at Shafaqe Ahmar. This is likely to be in circumstances when Isha is so late e.g. in some North European Countries notably in summer months, that they would encounter considerable hardship. This is in accord with the ruling of the Sahibayn who concur that Isha begins at the disappearance of Shafaqe Ahmar and the Hanafi jurists may follow the rulings of the Sahibayn in special circumstances. No Hanafi Alim however is likely to permit Isha any earlier than the time of Shafaqe Ahmar. This is a point that needs to be clearly noted particularly by the Imam's of Hanafi Masajids.

Some selected Ahadith on the time of Isha are given below:

1. Narrated Jabir Bin Abdullah: The Prophet *SallallahuAlaihiWasallam* used to pray the Zuhar at mid-day, and the Asr at a time when the sun was still bright, the Maghrib after sunset (at its stated time) and the Isha at a variable time. Whenever he saw the people assembled (for Isha Salat), he would pray earlier and if the people delayed, he would delay the Salat. And they or the Prophet *SallallahuAlaihiWasallam* used to offer the Fajar Salat when it was still dark.

(Bukhari)

2. Narrated Ibn Shihab from Urwa: Aisha said, "Once Allah's Apostle *SallallahuAlaihiWasallam* delayed the Isha Salat till Umar reminded him by saying, "The Salat!" The women and children have slept. Then the Prophet *SallallahuAlaihiWasallam* came out

and said, "None amongst the dwellers of the earth have been waiting for it (the Salat) except you". Urwa said, "Nowhere except Madinah had the Salat used to be offered (in those days). He further said, "The Prophet *SallallahuAlaihiWasallam* used to offer the Isha Salat in the period between the disappearance of the twilight and the end of the first third of the night".

(Bukhari)

3. Narrated Ibn Juraij from Nafi: Abdullah Bin Umar said, "Once Allah's Apostle *SallallahuAlaihiWasallam* was busy (at the time of Isha), so the Salat was delayed so much so that we slept and woke up and slept and woke up again. The Prophet *SallallahuAlaihiWasallam* came out and said, "None amongst the dwellers of the earth but you have been waiting for the Salat". Ibn Umar did not find any harm in praying earlier or in delaying it unless he was afraid that sleep might overwhelm him and he might miss the Salat, and sometimes he used to sleep before the Isha Salat. Ibn Juraij said, "I said to Ata, I heard Ibn Abbas saying: Once Allah's Apostle *SallallahuAlaihiWasallam* delayed the Isha Salat to such an extent that the people slept and got up and slept again and got up again. Then Umar bin Al-Khattab stood up and reminded the Prophet *SallallahuAlaihiWasallam* of the prayer.

Ata said, Ibn Abbas said: The Prophet *SallallahuAlaihiWasallam* came out as if I was looking at him this time, and water was trickling from his head and he was putting his hand on his head and then said, "Hadn't I thought it hard for my followers, I would have ordered them to pray (Isha prayer) at this time". I asked Ata for further information, how the Prophet *SallallahuAlaihiWasallam* had kept his hand on his head as he was told by Ibn Abbas. Ata separated his fingers slightly and put their tips on the side of the head; brought the fingers downwards approximating them till the thumb touched the lobe of the ear at the side of the temple and the beard on the face. He neither

slowed nor hurried in this action but he acted like that. The Prophet *SallallahuAlaihiWasallam* said: “Hadn’t I thought it hard for my followers I would have ordered them to pray at this time”.

(Bukhari, Muslim)

4. Narrated Muadh Ibn Jabal: We waited for the Prophet *SallallahuAlaihiWasallam* to offer the night prayer. He delayed until people thought that he would not come out and some of us said that he had offered the prayer. At the moment when we were in this condition the Prophet *SallallahuAlaihiWasallam* came out. People said to him as they were already saying. He said: Observe this prayer when it is dark, for by it you have been made superior to all the peoples, no people having observed it before you.

(Sunan Abu Dawud)

5. Yahya related to me from Malik from Nafi from the Mawla of Abdullah Ibn Umar that Umar Ibn Al-Khattab wrote to his governors saying, “The most important of your affairs in my view is the prayer. Whoever protects it and observes it carefully is protecting deen, while whoever is negligent about it will be even more negligent about other things”. Then he added, “Pray Zuhar any time from when the afternoon shade is the length of your forearm until the length of your shadow matches your height. Pray Asr when the sun is still pure white, so that a rider can travel two or three farsakhs before the sun sets. Pray Maghrib when the sun has set. Pray Isha any time from when the redness in the western sky has disappeared until a third of the night has passed - and a person who sleeps, may he have no rest, a person who sleeps, may he have no rest. And pray Subh when all the stars are visible and like a haze in the sky”

(Maliks Muwatta)

6. Malik said, “This is what I have found the people and men of knowledge doing in our community”. Malik explained that shafaq was the redness in the sky after the sun had set, and said “When the redness has gone then the Isha Salat is due and you have left the time of Maghrib”

(Maliks Muwatta)

7. It is related by Abu Hurairah RA that the Messenger of Allah said: But for the consideration of the inconvenience of the Ummah, I would have ordered it to celebrate the service by delaying it till one third or one half of the night.

(Musnad-I-Ahmad, Tirmizi, and Ibn-I-Majah)

Molana Manzoor Nomani RA comments from this last Hadith that:

“From this saying and the course of conduct of the Prophet *SallallahuAlaihiWasallam* we know about the Golden Rule that if much hardship is likely to be caused to the people in carrying out a collective deed at a better time and in a superior manner it is wiser to forgo that time and manner for the sake of their convenience and the reward on the lenity and indulgence thus shown will Insha-Allah be greater than what will be lost by forgoing the better time and form. Or, in other words, comfort and ease of the people enjoys preference over superiority of form or time”

(Molana Manzoor Nomani, Meaning and Message of Traditions, Vol II)

Molana applies this ruling not only to Isha but also in the case of Fajar prayer prefers Fajar Salat to be performed late i.e. at Isfar, as there is more convenience for the people in performing Fajar late, except in situations where most of the people perform Tahajjud. It will then be better to hold Fajar early. The Hanafi practice is in accordance with this advice i.e. that Fajar is held late during the year except during Ramadhan when it is held at beginning time.

One must carefully note, however, that this Golden Rule referred to by Molana Nomani is limited to the confines set by Shariah and cannot be extended to cover the whims and fancies of individuals. Convenience itself is limited within boundaries set by Shariah and those boundaries cannot be crossed. An example of this is whether or not to hold Isha even earlier than Shafaq Ahmar for the sake of convenience. The view of the Ahnaaf is that this will not be permitted. (More on this in Section 9, Mushahadah of Hizbul Ulama UK, Page 84)

“Observe this prayer when it is dark, for by it you have been made superior to all peoples, no people having observed it before you”

(Sunan Abu Dawud)

5 Determining the Times for Fajar and Isha

Our starting point in determining the times of Fajar (Subha Sadiq) and Isha must first begin with a look at what Shariah prescribes are the beginning times for these prayers and we may then attempt to examine the definitions offered by the Observatory. This should help us to conclude whether Observatory definitions can safely be used to determine Salat timings for Isha and Fajar, as is normally done for the other Salat timings. If Observatory timings can be verified conclusively by Mushahadah (observations by naked eye) then there is certainly no harm in using the times provided by the Observatory as we do with the Salaah times for Zohar, Asar and Maghrib. This is because, in Shariah, Mushahadah has precedence over Hisab (calculation, computation, degrees etc) and **degrees may only be used if verified to be correct through Mushahadah**. If, however, there are any doubts raised by this method i.e. by the method of Hisab/calculation, then the only method must necessarily be observation by naked eyes and the preparation of a chart based on those observations.

One major aim of this book will be to show that one cannot rely blindly on solar depression times provided by the Observatory for Isha and Fajar, whether that is at 18, 15, 12 or any other given degrees. No observatory in the world, including the Royal Greenwich and the US Naval, is able to precisely determine and advise Muslims of the correct times for both Fajar and Isha. Far from it, the observatories acknowledge the difficulties in advising Muslims on these times due to the nature of the phenomena of twilight and the limitations of science in this field. This will be made crystal clear later, with evidence cited directly from the Observatory and other leading experts. (See Section 7, What Does the Observatory & other Experts say about Twilight? Page 47)

Not surprisingly, therefore, we find a myriad of different depression levels used depending on the authority one follows as illustrated in the table below. Tragically, in recent times, internet based organisations have introduced computation of prayer times based on the personal preference of the enquirer, resulting in a range of different timings. Clearly a confused situation prevails throughout the Muslim World for our twilight prayers.

Table 1: Selection of Modern Day Degree based Calculation Methods

Authority	Angle of the sun below the Horizon (Fajar)	Angle of the sun below the Horizon (Isha)	Followed By
University Of Islamic Sciences, Karachi	18 Degrees	18 Degrees	Pakistan, Bangladesh, India, Afghanistan, Parts of Europe
Various	15 Degrees	15 Degrees	Parts of the USA, Canada, Parts of the UK
Muslim World League	18 Degrees	17 Degrees	Europe, The Far East, Parts of the USA
Umm Al-Qura Committee	19 Degrees	90 minutes after the Sunset Prayer 120 minutes (in Ramadan only)	The Arabian Peninsula
Egyptian General Authority of Survey	19.5 Degrees	17.5 Degrees	Africa, Syria, Iraq, Lebanon, Malaysia, Parts of the USA

At this stage a fleeting glance at the differences amongst famous Muslim astronomers of the past will demonstrate the point that computation and Hisab have historically been an issue on which Muslims have been divided. Table 2 below shows the position of past famous Muslim astronomers on the levels of solar depression to be used for twilight prayers:

Table 2: Solar Depression Levels by Famous Muslim Astronomers

ASTRONOMERS	FAJAR	SHAFaq
Abu Rayhan Al Biruni	15-18	16-18
Al Qaini	17	17
Ibn Yunus, Al Khalili, Ibn Al Shatir, Tusi, Mardeni, All Muwaqits of Syria, Maghreb, Egypt, Turkey, since 15 th C	19	17
Habash, Muadh, Ibn Al Haithim	18	18
Al Marrakushi, Makkah, Tunis, Yemen	20	16
Abu Abdullah Al Sayyid Al Moeti	19	18
Abu Abdullah Ibn Ibrahim Ibn Riqam	19	19
Chagmini, Barjandi, Kamili	15	15

(Source: “When to Pray Fajr and Isha? By Omar Afzal, Khalid Shaukat and A. Imam; Y. Miftahi, Bartaniya Me Isha Ka Sahih Waqt; Mufti R.A. Ludhianvi, Subha Sadiq, Ahsanul Fatawa)

It is important to note that despite considerable advance in Islamic astronomy during the Islamic medieval era, not only were there differences between the opinion of Muslim astronomers on the time of twilight but the Muslim masses largely ignored the computation methods of astronomers and determined their prayers on direct observance. (See section “Further Reflection on Medieval Islamic Timekeeping, Page 74)

The world becoming a global village has resulted in an unprecedented adherence to adopting methods for setting prayer times available through the internet which may not necessarily

be correct and not always based on the sound advice of the Ulama, and which do not conform to the strict requirements and standards expected by the Shariah. Careful scrutiny of the solar depression angle is therefore necessary before the level is adopted for use in our prayer timings.

Mushahadah has Precedence over Degree Times

It is important to point out very firmly that Mushahadah has precedence over degree times and this is the unanimous view of the Ulama. A Mushahadah of a Muslim regarding Salat time will be accepted over scientific findings and this will be true even where the whole world will be convinced that the scientific finding is totally accurate. The weaknesses in using science as a basis for determining prayer times especially of Fajar and Isha appear throughout this booklet and the section that follows, entitled "Science is not Infallible" (Page 32) provides a convincing argument against reliance on theoretical science generally.

Islamic scholars have ruled on this issue stating plainly that Mushahadah has precedence over Hisab. Numerous rulings (Fataawa) appear in my Urdu book, "Bartaniya Me Isha Ka Shahih Wakt", Y. Miftahi, and a small fraction of these rulings are produced below:

1. Mufti Abdullah Kawi, Darul Uloom Bharuch, India, has ruled that the basis of determining Salat times is on Mushahadah according to Sharee guidance and boundaries. The determination of Salat times are not based on scientific findings. Where Mushahadah confirms the times provided through scientific findings then it will be permissible to follow these times. However, where there are differences between these two, then Mushahadah will take precedence and the times determined through scientific methods will have to be ignored.

2. Mufti Abdusshakoor Tirmizi, Madrassah Arabiya Haqaniyah, Sargodha, Pakistan, said, “The knowledge of Mushahadah is more reliable and in using Hisabat there is an element of doubt”.

3. Mufti Mohammad Farid, Darul Uloom Haqaniyah, Pakistan, said, “Every month you should carry out a Mushahadah on two or three days. Leave aside the use of degrees as even in Indo-Pak it has been shown to contradict Mushahadah”.

4. Mufti Shafi’ RA, in answer to a question about the use of degrees replied that “it is permissible to use degrees provided that the times have been verified by Mushahadah”.

5. Hazrat Molana Ashraf Ali Thanvi RA ruled that it is not possible to determine Subha Sadiq without carrying out Mushahadah (Bawadirun Nawadir, Assa’at Li’ta’at, Page 429)

6. Mufti Mohammad Amin, Mazahirul Uloom, Sahranpur, India, states that “Salat times are related to Mushahadat. Mushahadah will be given precedence. Mushahadah is the original basis of determining Salat times and these will be taken as the correct times. In the Hadith Mushahadah is the method enshrined in the Shariah and there is no mention of degrees and no other formula for approximation. Shariah basis the determination of Salat times on the simplicity contained within nature. Therefore, in the determination of Shafaq and Subha it is not necessary to go in the middle of a mountain or board an aeroplane or a rocket or to go in the middle of the ocean to find out the precise times. But, where there is a populace one may carry out a Mushahadah with plainness and simplicity and according to the guidelines in Shariah. This will be sufficient”.

What an amazing level of simplicity and ease is displayed within this ruling of Mufti Sahib! This is how you would expect it to be

so within the final and noble deen of Allah, the deen which is invariably based on human nature (Insaani Fitrat). This opens up the very practice of determining of Salat times to all sane adults and does not confine it to the learned Ulama or the scientists. This piece of guidance from an eminent Aalim such as Mufti Mohammad Amin goes totally against the campaign being waged, sometimes very ferociously, by the advocates of computation and degrees. What this ruling says is quite clear, there is no need for sophistication or micro-precision in determining Salat times but Mushahadah must be done with ease and simplicity and this may be carried out by anyone.

Certainly, the elaborate use of degrees is unnecessary and analysis about the precise time at which light is extinguished and the sophistication of factors such as light refraction, diffusion, flux levels, scattering etc fall flat on their face! The Shariah is simply interested in what the human eye is able to easily observe. Is this at 18 degrees? Or 15 or 12? Only Mushahadah can verify that. All the books written by the advocates of science and computation and experts on astronomy about the precise times at which prayer times take place become absolutely meaningless when faced with this simple procedure which is the envy of the deen of Islam.

How amazingly simple is the deen of Islam! May Allah be praised and may his countless blessings descend upon his beloved Messenger *SallallahuAlaihiWasallam* who brought us this amazingly pragmatic way of life. Aameen.

Let me tell you that advanced astronomical knowledge existed well before the advent of Islam going back as far as 2500 years ago at the very least, when the Babylonians, amongst other things, predicted New Moon conjunction dates. Even the Arabs in the days before Islam were aware of the practical uses of astronomy and used it for practical purposes. Yet, our Holy

Prophet *SallallahuAlaihiWasallam* did not encourage or permit determining Salat times through astronomical means nor did he stipulate the use of new moon conjunction dates for determining start of Islamic months.

Note what David King has said about this:

“The Arabs of the peninsula in the time before Islam possessed an intimate knowledge of the apparent motions of the sun, moon, and stars across the heavens, the months and seasons, the changing night sky throughout the year, and associated meteorological phenomena”.

He observed from his very extensive research of the subject that:

“In folk astronomy which could be practised by any man in the street, the basis of timekeeping was observance. By day this involved using rough estimates of shadow lengths and by night using the risings and settings of the lunar mansions; direct observation of sunset, nightfall, daybreak and sunrise”.

(David A King, *In Synchrony with the Heavens: The Call of the Muezzin*, Brill, 2004)

Let us revive this practice of *Mushahadah* or ‘folk astronomy’ as referred to by David King and leave aside the use of *Hisabat* so that our Salat and Sawm are based on the pristine principles of our deen, and not on the uncertainty and constraints that is inherent in computation. The rest of this book will focus on this uncertainty in using degrees and present evidence beyond any doubt whatsoever the pitfalls in determining Fajar and Isha times through computation.

6 Science is not infallible

Scientific knowledge and theories have their limitations particularly in determining the time of Subha Sadiq and Isha even though we are living in an era of immense technological advancement and scientific discovery.

In this chapter I aim to ensure that there is absolutely no trace of doubt remaining in the minds of readers that science is not infallible. It is not just the case when determining twilight as will be thoroughly demonstrated in later chapters but this is generally the case with science and the theories of experts.

Theories are always changing

There is always room for scientists to discover new things and to revise their positions on what they believe. Scientists are constantly revising their theories and hardly a day goes by when their understanding of nature and the universe we live in does not undergo alteration:

1. Not long ago scientists believed that the universe was static, now they believe in an ever expanding, ever evolving universe. The Holy Qur'an has already told us this over 1400 years ago:

“With power and skill did we construct the firmament, and, it is we who are steadily expanding it”

(Holy Qur'an, 51:47)

2. Scientists once thought that the sun did not move, now all that has changed and the current belief is that not only the whole solar system we live in but also the whole Milky Way galaxy is moving. According to this theory, the Sun itself orbits the centre of the galaxy.

If some years go a Muslim was to argue with a Non Muslim that the Sun is moving in an Orbit, that person would have been torn down and the Muslim would have required a strong level of Iman to stick to his position that the sun definitely does move in its own orbit.

The Holy Qur'an, once again, revealed this in the time of the Prophet *SallallahuAlaihiWasallam*:

“And he it is who created the night and the day, the sun and the moon. They swim along, each in it's rounded course”

(Holy Qur'an, 21:33)

3. And what about the current theory of the Big Bang? This is a relatively recent shift in scientific thinking, and, as argued, scientists are constantly changing their beliefs as they discover new facts.

“Do not the unbelievers see that the heavens and the earth were joined together (as one unit of creation) before we clove them asunder?”

(Holy Qur'an, 21:30)

4. On Darwin's theory of evolution, we all know how flawed that theory is not just from an Islamic point of view but also from the common sense angle. The theory is also not backed up with water-tight empirical evidence. Fortunately, not all scientists accept Darwin's theory of evolution as the following excerpts show:

“These are a few of the embarrassing questions asked today by the French rebels: If the giraffe with its eight-foot long neck is the product of natural selection and an example of the survival of the

fittest, what about the sheep with its neck no longer than a few inches? Aren't giraffes and sheep very close cousins, almost brethren in the animal kingdom...? But then can they live side by side two cousins, each of them fitter than the other, one because its neck is longer, the other because its neck is shorter?"

(Article in Science Digest, "Should We Burn Darwin", January 1961)

"Scientists have raised a number of objections against complete acceptance of Darwin's theory....1. The theory does not account for all the known facts of heredity. For example the theory does not clearly explain why some variations are inherited and others are not. Many variations are so trivial that they could not possibly aid an organism in its struggle for existence. 2. The theory does not explain how the gradual accumulation of trivial variations could result in the appearance of some of the more complex structures found in higher organisms"

(S.B. Clark and J.A. Mould, "Biology for Today")

The rapid progress in research into genetic coding lays rest to Darwin's theory of evolution as encapsulated by renowned molecular biologist Professor Michael Denton in his book "Evolution: A Theory in Crisis":

"To the sceptic, the proposition that the genetic programmes of higher organisms, consisting of something close to a thousand million bits of information, equivalent to the sequence of letters in a small library of one thousand volumes, containing in encoded form countless thousands of intricate algorithms controlling, specifying, and ordering the growth and development of billions and billions of cells into the form of a complex organism, were composed by a purely random process is simply an affront to reason".

In fact, Darwin himself foresaw the demise of his own absurd theory:

“So wonderful an instinct as that of the hive-bee making its cells will probably have occurred to many readers, as a difficulty sufficient to overthrow my whole theory”

(Charles Darwin, “The Origin of Species: A Facsimile of the first Edition, 1964)

5. The world renowned Muslim Astronomer Dr Ilyas visited Dewsbury several years ago and the issue of moon sighting was discussed with a group of Muslim Scholars in the home of Molana Musa Qarmadi Qasmi. To a question about moon sighting of a crescent which is only five hours old, Dr Ilyas replied that the sighting of a five hour moon is against astronomical findings and research but as a Muslim he said he was prepared to accept any decision of the Ulama who understood Deen very well and were its guardians and that the Deen of Islam will be the same until Qiyamah, *whereas scientific research was continuously changing.*

6. The same Dr Ilyas, in his book “A Modern Guide to Astronomical Calculations of Islamic Calendar, Times and Qibla” (Page 69), cautions readers on the limitations of science (and scientists) by pointing out that:

“there are numerous ill informed astronomers assuming the role of experts who on occasions have made claims about astronomical calculability of the visibility far beyond the limit permitted by the then status of our standing of the underlying physical phenomenon...the ability ‘to land man on the lunar surface’ has been wrongly assumed to be a valid defence of the astronomical calculability. This reflects the lack of understanding of the physical aspects of a New Moon’s first visibility as distinct from locating the body accurately”.

Dr Ilyas rejects arguments about using observatory calculations on the basis that we have advanced hugely in scientific knowledge by pointing at its limitations and by reminding us that sufficient astronomical knowledge of this kind existed well before the advent of Islam:

“The astronomical reasoning... is improper, since we know that not only the science of positional astronomy for the two bodies (sun & moon) but even (approximate) physical rules for Crescent Visibility conditions were well known even as early as the Babylonian era”.

Take careful note that predicting the visibility of the crescent is not definitive or conclusive; rather it is dependent on many factors, mostly optical in nature. The observatory will confirm this often misunderstood and misrepresented point.

Similarly, there are limitations in measuring twilight presenting problems when using science to determine our Fajar and Isha times. This line of reasoning will form a major part of the section that follows and a greater level of evidence will be presented along these lines but if I may permit myself to borrow a quotation from that section (Section 7, page 47) to illustrate my point:

“Despite a persistent interest in twilight, knowledge of the phenomenon has always lagged considerably behind that of the day and night periods. One reason is the complexity and variety of twilight processes and their sharply defined dynamical character - features which seriously impede scientific analysis and call for application of the most advanced technical and theoretical research tools.”

(G.V.Rozenberg, Twilight: A Study in Atmospheric Optics)

The limits of human knowledge

So, scientists have still got a lot to learn and discover and we have by far not yet reached the limits of learning and discovery. A recent report emphasised that in the animal kingdom alone there are 15,000 to 20,000 new species identified annually.

“...there are still millions of species that have yet to be discovered and documented. The quest to complete a comprehensive directory of all life on earth goes on”

(BBC Internet Newsmagazine, 2005).

On the limitations of human knowledge and understanding, Hazrat Syed Abul Hasan Ali Nadwi RA in his book, Faith Versus Materialism said:

“...how much is life mysterious and unpredictable: how incomprehensible and enigmatic are the mysteries of the Universe; but man is hot-headed enough to claim that his knowledge compasses all, the secrets of man as well as of Universe, down to their core and inner-most realities...life is ever on the move, presenting us with situations and new realities in every age from its inexhaustible store of secrets and mysteries...knowledge is limitless, beyond the scope of human comprehension”

And what does the Qur'an say about the limits of human knowledge?

“...over all endowed with knowledge is one, the All-Knowing”

(Holy Qur'an, 12: 76)

Use of science and technology in religion

The Prophet *SallallahuAlaihiWasallam* negated the unquestioned use of technology when he said:

“We are an unlettered nation; we neither read, nor do we calculate; a month is like this (29 days) and like this (30 days) “

(Narrated by Bukhari and Muslim)

Consider also the following:

1. Shah Waliullah RA says that:

“Shariah is not bound by the findings of experts. The nature of deen contains simplicity and ease which will remain an integral part of deen forever. The Holy Qur'an is the basis of Islam and it was not revealed to confirm science. The purpose of science is for one to know Allah and take inspiration from the wonders of nature and the perfection of the universe. Science should not be used to change the nature of religion otherwise it will become heresy.”

(Shah Waliullah, Hujjatullahul Baligha)

2. Hakimul Ummat Hazrat Thanvi RA in Husnul Aziz speaks about the annihilation of religion by admission of science in the Qur'an. Hazrat says that scientific findings are continually changing. If a research is recognised unanimously today, tomorrow it is proved to be false, and the same people to whom that research belonged, laugh upon it.

3. Imam Al-Ghazali RA, fondly remembered by the Ummah as the Hujjatul Islam i.e. the Proof of Islam because of his vast knowledge and sacrifice in fighting the theorists and

philosophers of his time, philosophers who were taking Muslims out of the fold of Islam, referred to scientific knowledge as false uncertainties:

“.....Knowledge is of three kinds: One is purely rational, which the Shariah neither incites nor invites to; such as arithmetic, geometry, astronomy, and other such kinds of learning. This is situated between false uncertainties, which are unworthy”.

(Al Ghazali, Al Mustusfa Min Ilm Al Usul)

4. Mufti Mohammed Shafi' RA in Mukalima Sunnat Wa Bidat, says that “all those instruments and methods, invented daily for the natural and worldly needs, are lawful and approved, provided that they are not against any Sharee order. This is the meaning of innovation in religion, bidat. And if we use anything from scientific innovations or any new methods by regarding them as part of the religion, then it being bidat, is totally prohibited”.

5. On the issue of moon sighting, where again, there are a number of Ulama adhering to the infallibility of science, Sharee principles collide as can be seen from the following Fatwa:

“It is true that in its place there is absolutely no reliance of astronomers' principles in the matter of crescent sighting. So if they declare from their calculations, the crescent sighting on a particular day to be impossible, but if the sighting on that day is established from Sharee witness, then their principles will not be relied upon. Instead the decision will be taken according to the witness”

(Fataawa Shami; Fataawa Hindiya, Mufti Mahmud Bulandshari, Darul Uloom, Deoband, UP, India)

6. Molana Muhammad Makki Hijazi, an eminent Urdu lecturer in Haram Makkah, said in a lecture that:

“For the sake of Allah, remember that Islam does not accept **existence** of the crescent, instead it accepts the **witnessing** of the crescent: Fast if it is seen, and if not seen, complete thirty”.

(Extract from Final Word on the Controversy on Crescent Sighting, M Ayub Surti Qasmi).

On the issue of Subha Sadiq and Isha this is precisely the principle which some Ulama are opposing when they say that according to the observatory twilight begins or ends at a certain solar depression level. **Both these phenomena must be verified by actual observation.** Science may precisely predict no trace of light at 18 degrees (although even this precision has been proved to be questionable as will later sections demonstrate) but the Shariah, nevertheless, does not bind itself to precise scientific findings in this way, in the determination of our prayers.

Science is therefore constantly changing and evolving, and it never reaches perfection. This is why science is inappropriate in determining the affairs of the Deen. Those Ulama who constantly and vociferously use scientific knowledge and theories to challenge the acceptance of our prayers and our fasts are straying away from the simple and pristine principles on which our deen is based. The division in the name of science is making a mockery of Islam and Muslims. The accusations heaped by the advocates of science and computation on the Ulama who perform their prayers on Mushahadah are going against the practice of the Prophet *SallallahuAlaihiWasallam* and the Khulafa-E-Rashedeen who ignored scientific knowledge and practiced worship with the simplicity with which it was revealed.

The Ulama are well aware that during the Prophet *SallallahuAlaihiWasallam's* time, knowledge of astronomy was very advanced particularly amongst the Jews of Madinah. Ulama are also well aware of the time of the Khilafat of Hazrat Umar RA who conquered lands that were very advanced in scientific knowledge e.g. Persia, Syria and Egypt but Hazrat Umar chose to ignore the treasures of knowledge that he came across during his noble conquest. This fact is well known and recorded in the annals of history. Hazrat Umar RA, if he so wished could have gathered the scientists of the Islamic empire and asked them to compute the times of prayer or calculate moon dates but he refrained from doing so. This was the approach of the Khalifah who was responsible for significant strides recognised by the historians of the world and a Khalifah from whom the world, especially the West, learned so much in the affairs of government and administration. Yet, when it came to using science and computation for the determination of prayer times, the Khalifah RA due to his unparalleled humble disposition and intimate understanding of Deen chose to rely on the method taught by his Master, the Prophet *SallallahuAlaihiWasallam*.

Use of science in the affairs of the world

It is true that using science and technology for the benefit of mankind is not forbidden or shirked on by Islam. Was it not the Muslims who made significant advances in science and technology? Is it not because of the progress made by Muslims in the field of astronomy, mathematics, medicine etc that the West is now where it is - Masters of the world? The Holy Qur'an (31:20) repeatedly makes mention of using what Allah has provided for the benefit of mankind.

“Do you not see that Allah has subjected to your use all things in the heavens and on earth and has made his bounties flow to you in exceeding measure, both seen and unseen?”

In the case of non-religious matters, science may be used to full effect. The example of an incident in the Prophet *SallallahuAlaihiWasallam's* time is a good example. Once the Prophet *SallallahuAlaihiWasallam* guided the Sahabas to sow dates in an alternative manner. This resulted in a bad crop. The Prophet *SallallahuAlaihiWasallam* then made clear that in the affairs of the world he could be wrong and the Sahaba may differ with him, but in the affairs of Deen the Prophets instructions must be diligently followed. If Allah willed, despite the fact that the Prophet *SallallahuAlaihiWasallam's* method of sowing the dates was incorrect, the crop may have been abundant. However, Allah *SubhanahuWata'Ala*, in his infinite wisdom used this incident to convey a message. It has been made perfectly clear by this incident that in the affairs of duniya the Ummat may strive towards what is best and use science and technology to derive full benefits but in the affairs of deen science must bow to the supremacy of the Shariah of Islam.

What is however undisputed by the Ulama is that science must be used in the confines, boundaries and framework set by the Shariah. Science must not be allowed to dominate the affairs of Shariah but Shariah principles must be the final arbiter.

The True Science

Imam Al-Ghazali RA in his *Ihya Ul Ulum Ad Deen*, reminded the Ummah of this most basic but extremely important message:

“The science which is beneficial up to the end is the science of knowing Allah, his attributes and his works....This is the science which is sought for its own attributes and by which the blessings of the hereafter is gained. To exert oneself to the utmost of one's capacity to gain it falls far short of what is required, because it is such a sea of which the depth is unlimited. Those who search it are remaining constantly in its shores and edges....This is the

hidden science which can never be recorded in books. For it, precaution shall have to be taken, efforts shall have to be made and the condition of the learned men of the hereafter shall have to be examined. For this science, a great deal of efforts, purification of mind, renunciation of the world and the following of Prophets and friends of Allah are necessary. He who does all these things earns it according to his fate and not to his efforts, but there is no escape from efforts as efforts are the only keys of guidance and there is no other key.”

Whilst undoubtedly, Allah has made nature and all its bounties subservient to the service of man, ultimately, science and the knowledge of nature is for the purpose of knowing Allah and to thank him for his favours. Man is frequently told in the Holy Qur'an to reflect on the beauty and perfection in nature and within the vastness of the universe:

1. *“Behold! In the creation of the heavens and the earth; in the alternation of the night and day; in the sailing of the ships through the ocean for the profit of mankind; in the rain which Allah sends down from the skies, and the life which he gives therewith to an earth that is dead; in the beasts of all kinds that he scatters through the earth; in the change of winds, and the clouds which they trail like their slaves between the sky and the earth; (here) indeed are signs for people that are wise”*

(Holy Qur'an 2:164)

2. *“No want of proportion wilt thou see in the creation of (Allah) Most Gracious. So turn thy vision again: Seest thou any flaw? Again, turn thy vision a second time, (thy) vision will come back to thee dull and discomfited, in a state worn out!”*

(Holy Qur'an 67:3-4)

3. *“Behold! In the creation of the heavens and the earth and the alternation of night and day, there are indeed signs for men of understanding, men who celebrate the praises of Allah, standing, sitting, and lying down on their sides, and contemplate the (wonders of) creation, in the heavens and the earth, (with the thought): Our Lord! Not for naught hast thou created (all) this!”*

(Holy Qur'an 3:190-191)

The true purpose, therefore, of acquiring knowledge of nature through science is to develop an appreciation of the majesty and awesome power of Almighty Allah, and to enrich and deepen a believer's consciousness of the Creator of the Universe.

A truly astounding piece of work by renowned thinker and writer Harun Yahya on the beauties and amazing complexity within nature, which provides graphically detailed and awe-inspiring information about Allah's creation, can be found on the website:

www.evidencesofcreation.com

This website is highly recommended and is well worth exploring as it allows one to fully appreciate the wonders of Allah's creation, and to fulfil the divine words of Almighty Allah *SubhanahuWata'Ala*:

“And contemplate the (wonders of) creation”

(Holy Qur'an, 3:191)

Observational Evidence

Scientists usually are very practical in how they perceive and present a theory. Its strength and ability to withstand challenge within the scientific community is an important facet. Most scientists would agree that a falsification method must exist for a theory to hold, otherwise we would have countless ideas and none would be taken seriously.

The Qur'an challenges mankind to produce a surah or a verse like those contained in the Qur'an as a falsification method against the Qur'anic claim of divine revelation. And since no-one has achieved it, the Qur'an's claim of divine inspiration stands valid. Of course as Muslims we know the challenge cannot or will not be met, but the idea of a falsification method exists in the Qur'an.

Moving on, we have countless observational data to present a serious case to falsify theoretical new moon calculations. Will they be accepted?

The Prophet, *SallallahuAlaihiWasallam*, witnessed his journey to the Al-Aqsa Mosque, and his journey to the heavens. For him this was absolute truth, even if the disbelievers could not understand it by logic or validate his various experiences by scientific methods. For the Prophet, this was absolute truth as a responsible human being and as a Messenger of Allah.

Similarly, if an individual or a group witness the new moon, then this becomes absolute for them, again as responsible human beings. If new moon calculation guides disagree, the scientific method is to re-investigate the theory. Mr. B. D. Yelop of the Greenwich Observatory agrees with this principle, he says, "I'm not saying that you (these people) are lying, but we reject these

sightings by people other than our own sightings..." That is he accepts that sightings are possible outside of the theoretical parameters.

There are many instances, both nationally and internationally, where sightings have happened before the theoretical new moon conjunction, and seen less than 15 hours, which the Greenwich Observatory has accepted (in their own independent sightings).

In particular I personally contacted and met in Britain those who sighted the Hilal of which we have numerous records.

Here are some specific cases:-

1. In Blackburn, Lancashire 13 people including 2 women and 4 people in Batley, Yorkshire sighted the Hilal of Shawwal 1407 H after maghrib on 27th May 1987. Mufti Ahmed Devlavi the Muhtamim of Darul Qur'an Jambusar Gujrat India listened to and accepted their testimonies at Masjide Tawhidul Islam, Blackburn on the same night after Isha Salat. As for Batley, the late Qari Muhammad Suleyman (R) and I personally travelled there and took the testimonies from the witnesses. The moon's theoretical age was 4 and half hours.
2. There was a meeting of the Ruyate Hilal Committee, which consists of different organisations including The Central Moon Sighting Committee Of Great Britain - Hizbul Ulama UK - Jamiatul Ulama Briton, (as General Secretary, I my self was present) at the Islamic Cultural Centre (ICC), Regents Park Masjid on 2nd April 1989 organised by the ICC. The chair of the committee Shaikh Jamal Mannae the then head Imam of the Centre stated that the Hilal of Shaaban 1409h had been sighted after maghrib on the 7th of March 1989 in Aswan, Egypt by the

Imam and the Musaleen whose testimony had been accepted by the Governor and Shaykhul Azhar, Mufti Jadul Haqqe Alli Jadul Haque (R.) and therefore the 1st of Shaban there was on the 8th March 1989. When I told the Shaikh that this sighting of the moon was against the rules of the Observatory because it was seen (2 hr . 25 minutes) before the theoretical new moon conjunction, the Shaykh replied that the sighting of the Islamic new moon is not subject to the theoretical calculation.

3. At Holcombe Hall (near Ramsbottom, Bury) Lancashire, Eight Ulema of Darul Uloom Bury sighted the Hilal of Dhul Hijjah 1419H on 17th of March 1999 after Maghrib from the tower of Holcombe Hall. Their testimony was taken by Molana Yusuf Motala (principal of Darul Uloom) and Mufti Shabbir Ahmed, teacher of Hadith. This sighting was 19 minutes before theoretical new moon.
4. Lastly my three young sons and I, with hundreds of people saw the Hilal of Dhul Hijjah 1409 on the 3rd of July 1989 after Maghrib in Madina Munawarah. We were standing outside the Haram (completed in 1957) on the opposite side of Qiblah and the Hajj was announced after 3 days according to the sighting we and others saw.

When I returned to London I wrote to the Greenwich Observatory (GWO) about this experience, they replied that the age of the moon was 11hr 15 m. at Madinah, and it couldn't be seen, and it would be difficult to see even with binoculars or telescope. Mr D. Yelop of the Greenwich Observatory told me, "that I'm not saying that you (these) people are lying, but we reject these kinds of sightings by people other than our own sightings." That is sightings by the observatory's official members.

The Saudi Arabian airlines sponsored an umrah/tour of the al-Haramain ash-Shareefain for European and American based Ulema in Ramadhan 1412. There was a welcome meeting after Taraweeh Salat, organised outside the Prophet's Masjid in a camp next to the grave of holy Prophet (S.W.).

In a group conversation about a related matter with Saudi Arabia concerning Hilal sighting, Hajj, Ramadhan and Eid dates, I took the opportunity to point out my above experience to the Governor of Madinah His Excellency, Prince Abdul Majid bin Abdul Aziz.

The Ulama came from all Eastern European countries, Turkey also from Canada, Imam Molana Khalil Ahmed Sufi Lajpuri of Toronto; from America Imam Hafez A. Waheed of Houston Texas; and from the UK, Molana Yakub Qasmi, Molana Abul Mahmood Nashter (the then Imam of Jamiah Masjid Hanfiyah Bradford Yorkshire) and Imam Mohammed A. Waheed of Wensley.

Finally there are early moon sightings in direct contradiction with new moon conjunction and visibility time recorded in the Royal Greenwich Observatory's Astronomical Information Sheet No 67, but after many years, some now say the dates the results were observed on are inaccurate.

A Key Usool of Fiqh

A key Usool of Fiqh dictates that observation by the people will have precedence over the judgement of scientific experts as experts rules are not only rigid causing difficulties for people (Haraj), which is against the Sharee principle of ease in deen, but their findings can be wrong. Even where scientific finding is not wrong it can sometimes be over precise and Shariah does not normally require such an accurate level of precision in determining Fajar and Isha prayers.

I deduce from the above principle that the insistence of some Ulama within the UK who hold that the fast and Salat of Muslims are not accepted if they do not follow a certain degree time from the Observatory, is incorrect and that these Ulama need to seriously consider the method of the Messenger of Allah and the Sahaba Kiram RA in determining Salat times by Mushahadah i.e. observation by naked eye.

To re-emphasise the point, rigid adherence to scientific and technological standards is against basic Sharee principles and should not be used to disunite the Ummah and for Muslims to doubt the validity of their Salat. Allah does not seek to increase unnecessary burden (Haraj) on the Ummah by requiring it to follow scientific standards even where that science is very precise.

The example of sighting the moon and not determining whether or not it exists behind the clouds has already been illustrated. What we have learnt from that is that even if the crescent moon exists it needs to be sighted, and if we are unable to sight the moon we count 30 days. The scientists may say that the moon is there and it is only due to cloud cover that we have not been able

to sight it but it is the **process** and result of sighting which is critical in determining the days of the month.

Another simple example I would like to give is that of judging the purity of water. Consider the Sharee definition of water that is Paak or Mutlak (pure) for personal purification. Shariah does not require water to be scientifically pure but pure enough for the common people to distinguish that it is so. The Sharee rule is that unless there is noticeable change in smell, taste or colour, the water for purification will be considered pure (paak).

Now if someone says that we are living in a world of scientific progress and that the water coming from our tap is not totally pure as it contains impure elements or that the reservoirs contain the bones of cows, will the rantings of that person be accepted by the Ulama to issue a fatwa that water from our tap is impure? No, of course not, as the Shariah is interested in applying standards and definitions that are easy to apply by the Ummah.

“On no soul doth Allah place a burden greater than it can bear”

(Holy Qur'an 2:286)

“Abu Hurairah RA reported the Prophet SallallahuAlaihiWasallam saying: Religion is very easy. If anyone adopts hardness in religion it will overpower him”

(Bukhari)

7 What does the Observatory and other Experts say about Twilight?

The aim in this chapter is to present clear, reliable and unambiguous evidence that determining our twilight prayers using solar depression angles or degrees is inappropriate and readers will be left with no doubt at all that current practices of determining our Fajar and Isha Salats using degree based calculation methods are incorrect.

Definition of Twilight

Due to the earth having an atmosphere, it does not get completely dark immediately upon sunset nor does it become light immediately when the sun rises. The interval between the sun setting and total darkness, and the interval from darkness to sunrise is known as twilight. During these intervals the atmosphere above the earth's surface is still illuminated. Twilight is therefore the visual appearance of the sky between total darkness and sunrise (morning twilight) and between sunset and total darkness (evening twilight). These time periods are often referred to as dawn and dusk respectively. The light illumination is caused by the scattering caused by sunlight and decreases continuously from sunset until it gets totally dark and the night has set in. Conversely, it gets brighter from total darkness well before the sun rises and the day is said to have set in when the sun has risen.

Figure 1: Twilight Sequence

Sunset-----**Total Darkness**-----**First Light**-----**Sunrise**
(Start of Evening) (End of Evening) (Beginning of Morning) (End of Morning)

Twilight)

Twilight)

Twilight)

Twilight)

The HM Nautical Almanac Office, the US Naval Observatory and other observatories of the world tabulate standard depression levels to provide a guide to these illumination conditions. These are described as a guide only and meteorological conditions will often dictate the actual levels of illumination in the night sky.

The US Naval Observatory gives the following description of the three standard levels of Solar Depression. The HM Nautical Almanac definition is also provided as shown in brackets:

Civil Twilight (Up to 6 Degrees)

This is the time when illumination is sufficient, under good weather conditions, for terrestrial objects to be clearly distinguished; at the beginning of morning civil twilight or end of evening civil twilight, the horizon is clearly defined and the brightest stars are visible under good atmospheric conditions in the absence of moonlight or other illumination. In the morning before the beginning of civil twilight and in the evening after the end of civil twilight,

artificial illumination is normally required to carry on ordinary outdoor activities. Complete darkness, however, ends sometime prior to the beginning of morning civil twilight and begins sometime after the end of civil twilight.

(Large terrestrial objects, but no detail, can be distinguished; the sea horizon is clearly defined and the brightest stars and planets are visible)

Nautical Twilight (6-12 Degrees)

At the beginning or end of nautical twilight, under good atmospheric conditions and in the absence of other illumination, general outlines of ground objects may be distinguishable, but detailed outdoor operations are not possible, and the horizon is indistinct.

(It is dark for all normal practical purposes and the sea horizon is not normally visible)

Astronomical Twilight (12-18 Degrees)

Before the beginning of astronomical twilight in the morning and after the end of astronomical twilight in the evening the Sun does not contribute to sky illumination; for a considerable interval after the beginning of morning twilight and before the end of evening twilight, sky illumination is so faint that it is practically imperceptible.

(The illumination due to scattered light from the Sun is rather less than that from starlight and other minor and natural sources)

In lay practical terms, at the end of Civil Twilight i.e. at 6 degrees, it is dark enough for people to use artificial light to carry out outdoor activities and streetlights come on, and, drivers are required to put vehicle headlights on. Notice that the US Naval Observatory refers to it as “**complete darkness**”, so for ordinary folk it is dark for normal practical purposes; during the course of Nautical Twilight, it is truly dark for all intents and purposes and it is so dark at sea that mariners will need aid to navigate ships; whilst during the course of Astronomical Twilight i.e. from 12-18 degrees, it is technically dark so that in order to detect any light one normally needs to use optical instruments. At the end of this phase i.e. at 18 degrees there is no trace of light detectable with even optical instruments.

In terms of using these levels for determining Salat times the Ulama have tended to contact the Observatory and have attempted to obtain the most appropriate level of depression in so far as they think it fits the description of Fajar and Isha conditions in the Shariah. It has not been easy however to receive a definitive answer from the Observatory which is why there is so much discrepancy in the Muslim world on the Salat timings for the twilight prayers.

Path of the Sun

Of course, it is the sun, primarily, which determines the illumination of the night sky but the sun's path from east to west in causing light effects is not as simple as an observer might at first imagine.

“We have seen that, relative to the earth, the sun appears to describe an elliptic orbit around the earth and the rate at which its direction in the orbit changes is not constant. It follows that the sun appears to describe the ecliptic at a non-uniform rate; in other words, the sun appears to move somewhat irregularly

against the background of the stars. Due to this and also to the fact that it is moving in the ecliptic and not along the celestial equator (the fundamental great circle with which the measurement of hour angle or time is associated) **its right ascension does not increase uniformly.**" (Emphasis Mine)

(William Smart, Textbook on Spherical Astronomy)

Below is a description given by A & M Meinel:

"The sun follows a well-defined path across the sky each day, a path that sweeps from east to west with the eastward rotation of the earth. Each day, however, the sun is in a slightly different place with reference to the stars, which daily out-speed the sun by 4 minutes and 55 seconds. Thus the sun completes its annual journey in about 365.25 days to return to the same place against the background stars. This slow march of the sun through the celestial sphere is along a path called the ecliptic, a sinusoidal path reaching its northernmost point on 21 June and its southernmost on 21 December (the solstices).

The daily sweep of the sun crosses the meridian (the imaginary line from the south point of your horizon through the zenith and the north point) at an angle above the horizon that depends on your latitude. On the equinoxes this angle is 90 degrees minus your latitude. It is largest at the equator, being 90 degrees, which means that the sun passes through the zenith. Your shadow falls at your feet at noon on these days at the equator. At the 41 degree latitude of New York this angle is 49 degrees, and you cast a shadow about equal to your height.

Latitude makes a big difference in the duration of sunset effects. At the rising and setting points of the sun the diurnal path is tilted with respect to the vertical by the angle of the latitude of the observer. At the equator this angle is zero, and the sun plunges quickly below the horizon because the solar altitude

is decreasing at its greatest rate. At high latitudes this angle becomes large, and the sun sets more slowly because the solar altitude is decreasing slowly. This makes twilight pass into night rapidly in the tropics and slowly in high latitudes, even though the sun moves along its diurnal path at essentially the same rate” (Emphasis Mine)

(A & M Meinel, Sunsets, Twilights and Evening Skies)

The most significant point made by the Meinel’s is regarding the difference between the movement of the sun at the equator and at high latitudes. Most of us who live in Europe and North America and who have travelled to Asia and the Middle East have first hand experience of the main differences. Here in Britain, for instance we experience the setting of the sun during winter at around 4.00PM and in summer just before 10.00PM. The situation is similar with the rising of the sun which ranges from about 4.30AM in summer and 8.30AM in winter. The variation in tropical countries during the seasons is far smaller. Twilight is rapid in the tropics whilst it is slow in high latitudes such as Europe. This is an important point as it presents a strong argument against using one solar depression level for the whole globe.

Problems in Measuring Twilight

Rozenberg says in his book ‘Twilight: A Study in Atmospheric Optics’ that twilight is not easily quantifiable due to enormous variation in illumination conditions and technical difficulties with measurement:

“During the course of twilight the illuminance at the earth’s surface varies by a factor of almost a billion. This situation greatly impedes measurement of the phenomenon, and so far comparatively few such investigations have been made”.

He further states:

“One must recognise that the measurements entail considerable difficulties. In particular, the brightness varies over an immense range; the glow becomes extremely faint when the sun is depressed far below the horizon, necessitating receivers of radiation having very high sensitivity; the processes take place so rapidly as to prevent the use of cumulative-type receiving systems, such as photographic plates, which require long exposures; operations must be carried out under field conditions; and the waiting time for favourable meteorological conditions can be very lengthy”

and,

“Despite a persistent interest in twilight, knowledge of the phenomenon has always lagged considerably behind that of the day and night periods. One reason is the complexity and variety of twilight processes and their sharply defined dynamical character - features which seriously impede scientific analysis and call for application of the most advanced technical and theoretical research tools.”

(G.V.Rozenberg, *Twilight: A Study in Atmospheric Optics*)

This point by Rozenberg, that twilight is extremely difficult to measure, is a major argument offered in this book against the use of solar depression levels.

An even stronger argument, against using solar depression levels i.e. degrees, which may come as a surprise to many, is based on the fact that the HM Nautical Almanac Office is, by its own admission, itself unable to provide a precise degree time for when Dawn occurs:

“There is no precise definition of “dawn”. If it is interpreted as the time of “first light”, dawn corresponds to a depression between 18 and 12 degrees but it is not possible to be more precise”

(RGO Astronomical Information Sheet No. 7, by Yallop & Hohenkerk)

Take very careful note that even the Royal Greenwich Observatory, the most famous observatory in the world, is unable to determine the time at which even “first light” occurs. With regard to this “first light” the RGO gives an approximation from 12 to 18 degrees. This by any standards is not precise at all. The smallest time lag between 12 and 18 degrees is 40 minutes in Britain. So, even if we accept “first light” as Subha Sadiq, instead of the condition of Tabayyun, it is still possible that Subha Sadiq begins at least 40 minutes before the 18 degrees being expounded by some Ulama, i.e. it is possible that Subha Sadiq is as early as 12 degrees, at which time, according to the US Naval Observatory is the time when:

“It is dark for all normal practical purposes and the sea horizon is not normally visible”.

In fact Yallop, from the Royal Greenwich Observatory, in answer to a query about the time of dawn in Bolton, suggested setting Subha Sadiq only half an hour before sunset! This would equate to Civil Twilight at which according to standard definitions represents **complete darkness** for ordinary people and appears to be understandable from the point of view of the Observatory.

At this stage, i.e. at Civil Twilight, it is dark from a practical point of view and hence it is called Civil Twilight i.e. that which applies to the common people. It is the time when headlights are required on motor vehicles and the time at which birds perch for

the night and hence colloquially referred to as “Cock-shut”. Having said that, in the light of Shariah, and according to observations, Civil Twilight, which is only to 6 degrees, would appear to be too early for Shafaq and too late for Subha Sadiq.

Although Yallop suggested setting Fajar time half an hour before sunrise, in an information sheet he acknowledges a fundamental problem with this in relation to lighting up times:

“Before 1 November 1989 the Road Traffic Acts defined the beginning and the end of the lighting-up period to occur at half-an-hour after sunset and half-an-hour before sunrise. These times are always within the period of civil twilight, but the corresponding depression of the sun, and hence the illumination conditions at these times, vary considerably throughout the year even when the sky is clear”

(RGO Astronomical Information Sheet No. 7, by Yallop & Hohenkerk)

Consider also what M Minnaert has said about measuring light and colour in the sky:

“The theory of light and color distribution in the sky is complex, because each volume of air is lit not only by the sun, but also by the blue sky. Moreover, the exact effect of particles and droplets of water is difficult to ascertain”.

(Marcel Minnaert, Light and Color of the Sky)

Shariah, however, is not interested in such complexity, sophistication and micro precision in determining the level of sky illumination to determine Shafaq and Subha. Shariah is interested in simple observation using the naked eye. This is all that it requires for our worship to be accepted.

Minnaert in his book provides a table of solar altitude and the time at which sunset occurs at latitudes of about 50 degrees. He makes it clear that the table does not take into account effects caused by the curvature of the earth. Demonstrating, once again that the use of degrees to fix prayer times for Isha and Fajar can be folly.

Dr Ilyas notes,

“Undoubtedly, the most variable and least studied quantity in the context of Islamic times is the ‘end of the twilight period’, which marks the beginning of Isha and Fajr times. The latter is particularly important because Fajr time also marks the beginning of the dawn-to-dusk Islamic fasting period, which lasts for a whole month.”

Dr Ilyas concludes that:

“Perhaps the most important problem which has adversely affected the calculation of Islamic times is the vacuum that has existed in the area of Islamic scientific expertise. Also, the non-availability of a comprehensive scientific guide on the subject matter and a reliable global reference data-set have aggravated the situation”

(M Ilyas, Astronomy of Islamic Times for the Twenty First Century)

The Use of Optical Instruments

One also need to take into account the difference between observing with the naked eye and using photometric instruments as both methods of measurements produce varying results. The eye being logarithmic and the instrument produce a linear image.

This is a hugely important point in so far as the principles of Shariah are concerned.

“This automatic adjustment of the eye to the brilliance of the scene can cause another instance of misjudgement: the expected performance of a solar collection device. A hazy or overcast day may seem almost as bright as a clear one. On the clear day your solar device works fine, but on the overcast day you may not collect much usable energy because, like photographic film, the solar collection device is relatively linear compared with your eye, which is logarithmic.....the eye is a logarithmic detector; hence, the sense of brightness change is not as dramatic as the reduction of brightness shown...”

(Sunsets, Twilights and Evening Skies, A & M Meinel)

Consider also the point made by Dr Ilyas regarding the use of optical instruments:

“Even more importantly, the way the human eye detects light flux, which is subsequently registered by the brain, is different from that of a general light detector. Besides, the theological defining system for Fajr (and Isha) is dependent upon a certain observed phenomenon- a whitish envelope of about 30 degree width above the eastern horizon”

(M Ilyas, Astronomy of Islamic Times for the Twenty First Century)

Dr Ilyas as we can see from this statement, being a knowledgeable Muslim, recognises the importance of Mushahadah over scientific finding. How then, can we rely on solar depression levels to determine our Fast, and our Fajar and Isha Salats?

No Single Degree Time for the Whole Year and for the Whole Globe

One crucial yet obvious point to note and one which is often overlooked by those who rely on Observatory degree times for their prayers of Fajar and Isha is that degree times represent Solar Depression levels giving the times at which the sun is at a **certain height below the horizon**. The Shariah is interested in the **amount of light** in the sky for the twilight prayers and not the height of the sun below the horizon per se. Solar depression levels may be appropriate for the other prayer times but not so for Fajar and Isha. This point needs to be etched in people's minds.

This is confirmed by Dr Ilyas:

“...the situation of twilight phenomena is different from the sunset and sunrise phenomena because in the former case it is not the position of the sun (upper limb or disc centre) but the light of the evening sky which we are primarily interested in....”

(M Ilyas, Astornomy of Islamic Times for the Twenty First Century”)

Although solar depression levels will affect the amount of light there is in the sky, by no means does this imply consistency throughout the regions of the world and through the seasons. Both latitude and seasons affect twilight conditions. This possibly explains why there are variations in Mushahadah results between different countries and even variations within a single country. An example is Pakistan where Mufti Shafi' RA and Mufti Rashid Ahmed Ludhianvi RA and others confirmed 15 degrees from their observations but later sightings by Abdul Latiff and others confirmed 18 degrees (More on this later).

Although twilight levels are defined by the Observatory and broken down into Civil, Nautical and Astronomical, these are only **approximations**. At a given solar depression level (degree) the illumination of the sky may not necessarily equate to a consistent level of illumination over the course of the year. Illumination levels will vary during the year. And it is level of illumination which the Shariah is interested in - not, I repeat, the position of the sun below the horizon per se.

The US Naval Observatory acknowledges the fact that the standard definitions are approximations only:

“Before sunrise and again after sunset there are intervals of time, twilight, during which there is natural light provided by the upper atmosphere..... it is possible to establish useful, *though necessarily approximate*, limits applicable to large classes of activities by considering *only* the position of the sun below the local horizon. Reasonable and convenient definitions have evolved.” (Emphasis mine)

[Http://aa.usno.navy.mil](http://aa.usno.navy.mil)

This point, which is worth labouring, is that a certain solar depression level say 15 or 18 degrees, at a certain time of the year, might not produce the same level of illumination of the sky at another time of the year. This is particularly relevant during warmer and colder seasons as illumination conditions can vary due to the seasons. This therefore makes a mockery of our prayer times as the level of illumination at a certain degree time at a certain time of the year may not be the same level of illumination at another time of the year. How can you then safely apply one solar depression level to be used throughout the year?

Let me remind of you of what William Smart has said about the movement of the sun in his book: Textbook on Spherical Astronomy:

“... the fact that it is moving in the ecliptic and not along the celestial equator its right ascension does not increase uniformly”

Undoubtedly, it becomes necessary to carry out actual Mushahadah of twilight and not to rely on degree times from the observatory which are only provided by the observatory as an approximate guide to illumination conditions and not invented for, or intended to be used for, the setting of prayer times for Isha and Fajar. Muslims in recent times have started to use degrees mainly due to its convenience, and have not had careful regard to their accuracy as Dr Ilyas has pointed out.

In answer to a question about the application of degrees, this is what Mufti Ebrahim Desai of Madrasah In'aamiyah, South Africa said:

“The difference in the method of calculation is largely based on the difference of geographic location, as the degree of the sun for Fajr and Esha twilight changes according to location. Therefore, the most appropriate method will be for the Ulama of your region to visually witness the twilights for a few days and based on the times observed, obtain the exact degree of the sun through the bureau. When the exact degree is established, then based on that degree the exact time for the duration of the year could be obtained from the weather bureau.”

(www.ask-imam.com)

And a reminder about what the Meinel's have said:

“Latitude makes a big difference in the duration of sunset effects”

(A&M Meinel, Sunsets, Twilights and Evening Skies)

However, the situation is not as simple as that as degrees fluctuate even through the seasons as I have already mentioned. It is understood that the fluctuation in tropical countries is less than that in non tropical countries like Europe and North America. This is in accordance with the results of Mushahadah carried out in various parts of the world.

A similar view is held by Khalid Shaukat, an eminent Muslim Scientist in the United States and consultant to ISNA (Islamic Society of North America), the Shura Council of North America and the Fiqh Council of America.

Dr Shaukat says:

“The phenomenon of Subha Sadiq will vary in degrees at different latitudes and different seasons, because of the sun travelling (apparently) along a specific latitude on a specific date. The sun (apparently) travels between Tropic of Cancer and Tropic of Capricorn in different seasons. People in different locations around the globe have made observations about Subha Sadiq and the results are anywhere between 13.5 degrees to 18 degrees”.

Khalid Shaukat cautions his readers thus:

“Calculations of Fajr and Isha based on 18 or 15 degrees or fixed minutes before sunset or after sunrise are wrong. Observations of Subh-Sadiq at various locations throughout the globe have confirmed that any fixed minutes or fixed degree for Subh-Sadiq (whether 18 or 15) is not right. Similarly, the disappearance of Shafaq for Isha does not occur at any fixed minutes or fixed degree (whether 18 or 15).”

Khalid Shaukat elaborates:

“...for areas at or near equator shafaq disappearance and subh sadiq occurs in 75 minutes or at 18 degrees in all seasons. As you move to other latitudes, subh sadiq and disappearance of shafaq occurs at different degrees in different seasons. Shafaq disappears at 66 to 100 minutes (9 to 13.6 degrees) at higher latitudes (like England) in different seasons. Subh sadiq at higher latitudes is observed at 94 to 122 minutes (14.5 to 10.6 degrees) in different seasons”

(www.moonsighting.com)

Also, the eminent Muslim Astronomer Dr Ilyas, whilst questioning values as low as 15 degrees particularly in view of the sanctity of the fast, nevertheless, comments on a piece of work by another scholar Latiff who suggests the use of 18 degrees for universal application:

“Unfortunately, Latiff has argued for a fixed 18 degrees/18degrees case for all over the globe-no less and no more. This, it seems, may not be the true situation either as there seems to be some room for geographical variability and perhaps 18 degrees serves as a good upper limit only”

Dr Ilyas further stresses this critical point:

“Since the term ‘Astronomical Twilight’ has been reserved for the instant when the solar depression at the ‘surface horizon’ is 18 degrees, it is necessary to introduce a separate term which relates to the beginning of Isha and Fajr and which can be assigned, if necessary, different solar depression values, depending upon the geographical location and other considerations”

“We have noted that for astronomical purposes, a uniform 18 degree solar depression has been established as a general guide

for the end of astronomical twilight, irrespective of the latitude, local atmospheric conditions (specially air-cleanliness), or season.”

(Dr Ilyas, “Astronomy of Islamic Times for the Twenty First Century”)

It should therefore now be absolutely clear that degrees represent at best only an approximate guide to illumination conditions and fearfully an inconsistent guide to conditions throughout the seasons and may vary throughout the regions of the world; therefore degrees prove to be highly unreliable and dangerous in determining our prayer times, in accordance with the Shariah. Using degrees in the absence of observation is fine up to a point but it will be incumbent upon Muslims to carry out Mushahadah at the first opportune time and not to permanently rely on the convenience provided by degrees. Organisations providing internet based calculations of Subha Sadiq and Isha must take heed and as a minimum display caution on the use of degrees on their websites.

Astronomical Twilight is NOT 18 Degrees

Another common misconception amongst even the Ulama who are versed in astronomy is that Astronomical Twilight is at 18 Degrees but this is not entirely correct. The twilight definitions are a **range**, so Civil Twilight is up to 6 degrees, Nautical Twilight is 6 degrees to 12; and Astronomical Twilight 12 to 18 degrees. The conditions described for Astronomical Twilight apply therefore from 12 degrees. 18 degrees is the end of Astronomical Twilight. So why is it that those who advocate using Astronomical Twilight refer only to 18 degrees? Even 15 degrees, and of course 12 degrees, are within the range of Astronomical Twilight.

Consider the definition provided by Rozenberg:

“From the practical need to estimate conditions of visibility at various times of day, there has historically grown up a tradition of dividing twilight into three **stages**, depending on the amount of twilight illumination. The brightest portion of twilight, when the natural light in an open place is enough to allow any task, including reading, to be carried on, has received the name Civil Twilight. There is no unanimous agreement regarding its boundary; depressions of the sun from 6 to 8 degrees below the horizon have been variously adopted. In recent years however, most authors have preferred the first figure. Next comes Nautical Twilight, during which small details are lost in darkness, but outlines of large objects such as shorelines are fairly distinct. The recognised boundaries are solar depressions of **6 and 12 degrees** below the horizon, so that by the end of nautical twilight one can only make out clearly the horizon line. Finally, nautical twilight gives way to astronomical twilight, **which continues until the sun is depressed by 18 degrees** below the horizon, whereupon night sets in, **during this period** the illumination conditions can hardly be distinguished from night, but the sky is still noticeably bright enough to hinder astronomical observations” (Emphasis mine)

(G.V.Rozenberg, Twilight: A Study in Atmospheric Optics)

Rozenberg clearly refers to the definitions as **stages** as do the majority of other books on the twilight phenomena, including the Explanatory Supplement to the Ephemeris.

So **Astronomical Twilight** refers to a solar depression level of **12-18 degrees and is not fixed at 18 degrees**. This is the time (i.e. between 12-18 Degrees) at which:

“sky illumination is so faint that it is practically imperceptible”

(US Naval Observatory).

Even at Nautical Twilight i.e. at Solar Depression levels of 6-12 degrees:

“It is dark for all normal practical purposes and the sea horizon is not normally visible”. (US Naval Observatory).

And what about Civil Twilight which is as early as 6 degrees? Even at this level the US Naval Observatory refers to it as:

“Complete darkness...ends sometime prior to the beginning of morning civil twilight and begins sometime after the end of civil twilight”.

Why it is incorrect to use 18 Degrees

Notice also that in the definition provided of Astronomical Twilight (i.e. 12 to 18 degrees) the US Naval Observatory states that:

“For a **considerable interval** after the beginning of morning twilight and before the end of evening twilight, sky illumination **is so faint that it is practically imperceptible**”.

This tells us two things about the use of 18 degrees. Not just that at 18 degrees it is practically very difficult, perhaps impossible, to observe twilight but that this is the case for a **considerable length of time** up to 18 degrees. So how then can Subha Sadiq possibly begin at precisely 18 degrees which is the very end time of Astronomical Twilight? Shariah requires clear observation of Subha Sadiq and evidence suggests it is not possible to observe Subha Sadiq at 18 degrees with only the naked eye.

Another point worth noting at this stage is the following definition provided by the National Maritime Museum (which is part of HM Nautical Almanac Office) on 18 degrees:

“Astronomical Twilight- when the Sun’s centre is 18 degrees below the horizon is when it is truly dark and no remnant of the Sun’s afterglow can be seen. It is possible to see the Zodiacal light which comes from the Sun reflected by small particles between the Earth and the Sun; this can be mistaken for the Sun’s afterglow”

This clearly shows that any observation at 18 degrees may be mistaken for Zodiacal light which occurs before First Light of morning or Subha Sadiq.

This is precisely what Mufti Shafi’ RA as well as Mufti Rashid Ahmed Ludhianvi RA suspected. Both eminent scholars of deen have commented that the timetables using 18 degrees for Subha Sadiq are likely to be using either the time of Zodiacal light or Subha Kadhib, and whilst this is acceptable as far as sawm (fasting) is concerned, the Fajar prayer is affected if performed at beginning time. Both have advised that Fajar, in these circumstances, should be performed at least 20 minutes after the beginning time shown in Pakistan timetables.

Joe Rao in his article, “False Dawn”, has also commented on how Zodiacal light can be mistaken for Dawn Break:

“Over the centuries countless individuals have been fooled into thinking the zodiacal light was the first vestige of morning twilight”

(Joe Rao, “False Dawn, All about the zodiacal light”, www.space.com)

Marcel Minnaert has also described the zodiacal light and this is what he says about this phenomenon:

“You will be well repaid if you take the trouble to devote a whole night to observing the zodiacal light and admiring the beautiful variations of the changing scene. ...when the sun’s position is -17 degrees, a very faint, wedge shaped cone of light becomes visible, rising obliquely, towards the southwest.”

(M Minnaert, Light and Color in the Outdoors)

So advocating 18 degrees when it is possible according to the observatory and experts such as Minnaert, that the zodiacal light may be visible at 17/18 degrees is futile and caution needs to be adopted in the use of 18 degrees for the onset of Fajar. If zodiacal light is visible at 17/18 degrees, twilight obviously occurs at a lower depression level and not at 18 degrees.

Marcel Minnaert in his book puts twilight proper at 16-17 and not 18 degrees, hence a difference emerging amongst the experts. Of course, this 16-17 degrees advocated by Minnaert itself is arrived at by use of photometric instruments, so in my opinion, the true level would be far lower when observations by the naked eye are carried out.

This is something Dr Ilyas has commented on:

“We find that the flux decreases rapidly until about 16 degrees and then the change is rather small. Although with an optical detector, a small change such as the one between 16 and 18 degrees can be recorded, it may not make an appreciable difference to the human eye.”

(Dr Ilyas, “Astronomy of Islamic Times for the Twenty First Century”)

Omar Afzal, Khalid Shaukat and A Imam in their article “When to Pray Fajr and Isha?” explain the historical (albeit recent) and universal use of 18 degrees instead of reliance on the traditional Mushahadah as follows:

“The Astronomical Twilight (18 degrees and technically night) appealed to a number of Muslim Ulama like Maulana Thanvi RA, for the beginning of Fajar and Isha. In their eagerness to be “safe” they agreed to extend the limits to the mathematically calculated night rather than observational night, though a large number of Ulama from Halwani to Molana Gangohi showed their inclination towards ‘extensive horizontally spread white glow’ for Imsak.

Translating the Arabic terms of Fajr, Isha, Subh Sadiq, Subh Kazib, Shafaq etc into English, morning, night, dawn, false dawn, dusk etc, further compounded the problem. The astronomical terms were adapted at the turn of this century, mostly in Egypt, Turkey and the Indian Sub Continent under the British rule to felicitate the preparation of prayer time-tables. This was done without closely examining the experimental data and observational facts. This culminated in the adoption of the astronomical twilights as an easy and safe way out for preparing these tables. As a matter of fact, the scientific observational data regarding the twilights became available somewhere around the fourth decade of this century.”

Omar Afzal Et Al are clear about 18 degrees that it does not represent the time of Subha Sadiq:

“In the Qur'an the words ‘Tala’a’ and ‘Tabayyana’ are used for Fajar and Imsak.....for observational purposes Tala’a’ and Tabayyana both are defined as refracted beams of light which everyone should be able to observe on an unobstructed horizon. Mathematically calculated and instrumentally recorded Astronomical Twilight is outside the scope of these terms” .

They conclude in their extensively researched paper that:

“Recent researches in quantification of the diffused light at various stages of the twilight contradict or totally reject many of the visual observations and assumptions made to justify 18 or 15 degrees as the earliest limits of Isha and Fajar.”

I would advise strong caution, however, in attributing 18 degrees to Hazrat Thanvi RA, as the authors have done. It is assumed that Hazrat advocated the use of 18 degrees on the basis that he, in responding to an enquirer from Scotland, sent a chart showing 18 degrees. A study of Molana Thanvi’s works on this subject show that Molana preferred Mushahadah and did not advocate the use of degrees. Molana’s initial response to the questioner on Isha was to carry out a Mushahadah. When the questioner responded by saying it was difficult to carry out Mushahadah in Britain (Imdadul Fatawa Volume 1 P115) that Molana asked the Munjim to respond by preparing a chart and the Munjim sent a chart based on Astronomical Twilight from the Almanac. The record does not explicitly suggest that Hazrat himself instructed the Munjim to use 18 degrees. At that time there were barely any Muslims in Britain and the meteorological conditions appeared to be highly different to conditions in India. Relying on almanac times was perhaps the only appropriate solution at the time.

A careful study of Hazrat’s writings suggests that he equated 18 degrees to Subha Kadhib and not Subha Sadiq as illustrated in Imdadul Ahkam Volume 1 Page 415, “...the time gap between sun set and setting of shafaq abyadh is the same as the time gap between subha kadhib (18 degrees) and sun rise”. Here, Hazrat refers to subha kadhib as 18 degrees so clearly he did not believe subha sadiq to be at 18 degrees and this was based on careful mushahadah as Hazrat preferred determining times derived through mushahadah. (Please also refer to “Bartaniya Me Isha Ka Sahih Wakt”, Y. Miftahi, for a fuller exploration of this issue (pages 90-96)).

I have already mentioned above what Muslim Astronomer Dr Ilyas, has said:

“Unfortunately, Latiff has argued for a fixed 18 degrees/18degrees case for all over the globe-no less and no more. This, it seems, may not be the true situation either as there seems to be some room for geographical variability and perhaps 18 degrees serves as a good upper limit only”

(Dr Ilyas, “Astronomy of Islamic Times for the 21st Century”)

The historical legacy of the use of solar depression levels which culminated in finally settling on 18 degrees emanated from the Islamic medieval period when Islamic Astronomy was at its peak. This does not necessarily make 18 degrees automatically correct for all locations and all seasons. It is possible for instance that the Muslim astronomers were wrong or that their findings do not apply to the countries Muslims settled in during recent years e.g. Northern Europe and North America. We also know that even during the height of Muslim knowledge on astronomy, famous Muslim astronomers differed in the level at which twilight should be set for the Fajar and Isha Salats. (See Table 2, Page 31 above)

“The remarkable medieval achievements in mathematical astronomy mark the highpoints of Islamic astronomy, from which, it seems, Islamic astronomy began to slide downwards, reaching the level of mere copying by the early 20th century due to lack of scientific competence.....the situation gradually went from bad to worse, as Muslims continued to use old variables for new locations without any of the necessary research work being initiated.....The data on astronomical twilight for 18 degrees depression became standard for the night (Isha) and morning (Fajr) prayers as a close approximation in the absence of any proper work and guidance.this parameter indeed presents a

serious scientific challenge to modern researchers. Overall, a confused situation has prevailed”

(Dr Ilyas, “Astronomy of Islamic Times for the Twenty First Century”)

Technical Observations by Omar Afzal Et Al

In their analysis of technical data on the transition from day to night Omar Afzal Et Al present further interesting facts:

1. Brightness decreases after sunset almost linearly until the sun reaches 11 Degrees whereupon it is slowly lost against the natural illumination of the night sky
2. Instrumental measurements show that at 13.5 degrees the ‘limiting night value’ is reached i.e. darkness equals that of night
3. The change in illumination from 13 to 18 degrees is so negligible that, without instruments that were only available from the 1940’s, the change would not make any appreciable difference to the naked eye

They offer a strong argument for values that are far lower than 18 or even 15 degrees in fixing prayer timetables. Khalid Shaukat, in fact, prefers careful verification by Mushahadah and repudiates the unconditional use of degrees to fix the twilight prayer times.

Discrepancies in Time Tables for Fajar and Isha

About the Observatory times, Sheikh Muhammad Salih Al-Munajjid, says in answer to a question:

“In defining the times of prayer, the astronomers’ calculations do not matter. For determining the time of Fajr, what counts is the appearance of a horizontal light on the eastern horizon”.

(Fataawa Al-Lajnah Al-Daaimah, 6/143, www.islam-qa.com)

Sheikh Al-Munajjid further states:

“Note that the time for Fajr prayer begins when the second dawn starts, which is the white line that spreads horizontally along the horizon right and left. The time lasts until the sun rises. The first dawn is the false dawn, which is whiteness that appears vertically in the sky like pillars. This happens approximately twenty minutes before true dawn, and it increases and decreases according to the season.....From this explanation given by the Prophet *SallallahuAlaihiWasallam*, we know that the definition of the time of Fajr is based on observation, not on astronomical calculations or on timetables whose authors are unknown as far as their trustworthiness and knowledge are concerned, especially, if it is proven that they do not give correct times”.

The Sheikh goes on to say about the use of observatory times,

“This mistake does not occur only in Egypt, rather it seems that most of the timetables do not give the correct time of Fajar and are based on the false dawn i.e. Subha Kadhib. This means that there is the risk that the Muslims prayers are invalid, especially in the case of those who pray in their houses immediately after hearing the Adhaan”.

(www.islam-qa.com)

The Sheikh points out that a group of scholars and researchers in Saudi Arabia, Syria, Egypt and Sudan have attempted to find out the time of the true dawn. From that it became clear to them that the timetables in use at present are incorrect. As was advised by Mufti Shafi' RA and Mufti Ludhianvi, Sheikh Al-Munajjid also advises that where timetables are being used with these discrepancies, Muslims should delay their Fajar prayers for 20-30 minutes from the beginning times given within the timetables. The Sheikh urges Muslims to appoint groups of trustworthy

scholars to determine the exact times for Fajar prayer and thus discard the use of the timetables that are currently incorrect.

Shaykh Al-Baani RA has found similar discrepancies in the times:

“I have seen that myself many times in my house, in the Hamlaan mountains to the South East of Amman, and that enables me to confirm what some of those who are keen that the Muslims worship should be correct have said, that the Adhaan of Fajar in some Arab countries is given 20-30 minutes before the time of the true dawn”

(Shaikh Al Baani, Al-Silsilah Al-Saheehah, 5/25)

Further Reflection on Medieval Islamic Timekeeping

It is often cited that during the Medieval Islamic period degrees came to be used. At that time Islamic astronomy and science were at its glorious heights.

It is true that from the 7th Century onwards Muslim knowledge of science exceeded that of the contemporary world and significant scientific and technological achievements were secured by the Muslim world. This does not however, alter the pristine nature of Islam. Its simplicity and purity has been established for all time and no matter how much scientific knowledge and progress is made, these fundamental principles will always take precedence. Science is there to serve mankind provided it is done within the framework established by the unique Shariah.

David King has extensively researched the use of science for timekeeping and other religious applications during the medieval period. He has studied countless manuscripts and zijes (astronomical handbooks and tables) from the bygone era. He

has surveyed all known examples of a category of Islamic astronomical tables preserved in scientific manuscripts located mainly in libraries of Europe and the Middle East.

Some of his findings and conclusions are quoted:

“In the medieval Islamic world there were two separate traditions of astronomical knowledge. The first was a simple, non-technical, essentially practical tradition, devoid of theories. The second was a mathematical tradition in which theories, tables and computation featured prominently....geometric models for the sun, moon and planets...these approaches are a far cry from the methods advocated by the legal scholars....certainly I am not aware of any legal text in which it is suggested that one should consult an astronomer on the prayer times or use any of the astronomical tables or instruments...in the Kutub Al-Muwaqit timekeeping and the regulation of the prayer times are discussed in terms of simple folk astronomy rather than sophisticated mathematical astronomy”.

King has found that astronomical timekeeping for prayer was “practised only by a select minority”, whilst the application of the simple tradition of folk astronomy was, “....practised throughout the Islamic world”.

King finds direct evidence of Muslim scholars shunning the practice of calculations and computation:

“The legal scholars Ibn Rahiq and Al-Asbahi state that one should determine the prayer times by observation with one’s own eyes, not using an astrolabe or any of this astronomy nonsense (tanjim) and they warn their readers against the techniques of the astronomers...”

(Extracts: D King from *In Synchrony with the Heavens: The Call of the Muezzin*, Brill, 2004)

In another earlier piece of work King paints the following picture of Islamic regulation of prayer times during the medieval period:

“Folk astronomy, based on what could be seen in the sky throughout the year and innocent of any underlying theory or associated computus, thus became widespread in the Islamic Near East and remained so throughout medieval times”

It is worth taking a reflective pause to admire how brilliantly David King has described, probably unknowingly, the principle enshrined within Shariah, by using the words “innocent of underlying theory”. Alas if all of us Muslims realised and understood this most basic message. He goes on:

“The period from the eighth to the fourteenth or fifteenth centuries saw the flourishing in the Near East of a different kind of astronomical knowledge. Muslim astronomers, heirs to the Hellenistic world, and also of Iran and India, made new observations, developed new theories, compiled new tables and invented new instruments...but the scientists did not have a wide audience...the solutions they proposed for problems relating to religious ritual were generally considered to be too complicated or even completely irrelevant...the simple techniques of folk astronomy were applied...by the legal scholars, (who)..had far greater control over the practice of the people than had the astronomers”

(David King, *Astronomy in the Service of Islam*, Variorum, 1993)

So, contrary to popular belief, degrees were not widely used in the medieval period (See also Table 2, Page 31 above). The scholars of today have allowed the drift towards the use of degrees in recent times allowing scientists to dominate the time setting agenda, but as this paper has mentioned, some eminent scholars are now beginning to question the accuracy of degrees.

It is high time the use of degrees is checked by way of Mushahadah, to ensure the accuracy of our Salat and Sawm.

It is also worth noting that many Muslim astronomers from the medieval era referred to Subha Kadhib as Fajar (notably Fajar Mutlaq) and this sometimes caused confusion with those who are unfamiliar with the meaning of terms used. The solar depression level therefore used for Subha Kadhib was sometimes mistaken for Subha Sadiq by some contemporary analysts. (See Mufti R. A. Ludhianvi's Ahsanul Fatawaa, Volume 2, Page 194. Also, my Urdu book, "Bartaniya Me Isha Ka Sahih Wakt", Y.Miftahi, which refers to Al Biruni's description of Fajar, Page 75).

The Final Conclusion

What this chapter has clearly done is to unequivocally expose the weaknesses of using degrees to fix our prayer times for Fajar and Isha. The arguments using reliably worthy evidence has been compelling and is sufficient for us all to act quickly to rectify our prayer timings for Fajar and Isha.

It should now be abundantly clear that we cannot blindly rely on fixing prayer times using solar depression levels without verifying them with Mushahadah.

We know now, without any doubt at all, that Subha Sadiq according to the Observatory and other experts, is difficult to pinpoint and quantify, and falls, anywhere between 12 to 18 degrees, and fluctuates through the seasons, and can vary throughout the world.

How do you determine, then, when this phenomenon occurs, in the absence of any reliable guidance from the Observatory or the experts? This is where the trustworthy practice of our Prophet *SallallahuAlaihiWasallam* and his beloved companions (May Peace Be Upon Them) comes in i.e. observation by naked eyes.

8 Observations around the World

Dr Omar Afzal Et Al in their article “When to Pray Fajar and Isha?” have said:

“There is no dispute that the Qur'an and the Sunnah did not fix any degrees of the sun's depression for these prayers.....calculations especially those based on the degree of sun's depression are a very recent phenomenon”.

As I mentioned earlier the Ulama have failed to stop the dangerous drift towards the unrestrained use of degrees. This has resulted in the tragic abandonment of the use of Mushahadah to verify the accuracy of calculation/degree based methods.

Consider also the response of Khalid Shaukat on this issue:

“Observations (Mushahadah) made by many Ulama confirm that these phenomena (i.e. that of Shafaq for Isha and Subh Sadiq) occur at different degrees for different latitudes” and that,

“The phenomenon of Subha Sadiq will vary in degrees at different latitudes and different seasons”.

On the use of degrees and fixed times Khalid Shaukat says:

“Fajr and Isha are calculated by others using different criteria, all over the world. Some use 17, 19 or even 21 degrees. Others use 90 minutes, 75 minutes or 60 minutes criteria. Research by moonsighting.com shows that any fixed degree is not correct for Subh-Sadiq or disappearance of Shafaq for Isha. This can only be seen if a whole year observation is conducted. Many places in the world {Riyadh, (Saudi Arabia), Tano Adam, (Pakistan), South Africa, New Zealand, Buffalo (New York), Toronto (Canada)},

have done limited observations that are misleading to apply for the entire year.....different organisations use degree based calculations, because they do not have complete year observations for Subh-Sadiq and disappearance of Shafaq. Muslims have resorted to some easy solution of choosing specific degrees, but that is not right.”

On the use of 18 degrees in world prayer timetables Khalid Shaukat says:

“This does not agree with the observed phenomenon of Subha Sadiq or disappearance of Shafaq. Most places in the world do not follow 18 degrees. What they follow is 1 hour and 30 minutes. When checked out for suns position, it comes out about 18 degrees, only at latitudes near equator. **At high latitudes it varies quite a bit from 12 degrees to 18 degrees”**

(www.moonsighting.com)

So it must be clear from this that:

1. We cannot rely on fixing one level of solar depression throughout the year, and
2. Apply the same standard throughout the world.

This is why it is necessary for Observations with naked eye (Mushahadah) to be carried out either starting with a clean sheet, or the next best thing is to carry out observations to confirm a particular level of solar depression but this must be carried out comprehensively throughout the year, ensuring changes in solar depression levels are carefully detected.

Observations around the world have produced results equating to solar depression levels ranging from 12 to 18 degrees, sometimes resulting in a fluctuation (over the course of a full year) from 12-18 degrees within one country, thus confirming not only what Dr Khalid Shaukat and Dr Ilyas but other experts have

found. It also confirms the results of Hizbul Ulama UK's Mushahadah which came out roughly equating to 12-16 degrees for Subha Sadiq.

Observations in Pakistan by Mufti Shafi' RA and Mufti Ludhianvi RA received strong support from other prominent Ulama showing Subha Sadiq at about 15 degrees. This was later challenged by Abdul Latiff who conducted his own observations with a group, and as a result of those observations most people in Pakistan reverted back to the use of 18 degrees. My view is that had a full year Mushahadah been carried out fluctuations due to the seasons may have explained the differences in the two sets of observations. Scientists like Dr Ilyas and Khalid Shaukat as discussed previously, confirm fluctuations due to seasons (and latitude).

Mufti Shafi' RA undertook observations with a team of eleven Ulama including Mufti Rashid Ahmed Ludhianvi RA in Tano Adam. Mufti Ludhianvi has recorded in his book "Subha Sadiq" that on June 12 they noticed some faint light at 4.00AM which they determined was similar to Subha Kadhib. Subha Sadiq itself was observed at 4.17AM. The observations were carried out during June 11-13 in 1970. Mufti Ludhianvi RA issued a Fatwa based on these observations:

"The time of Subh Sadiq, given in the charts based on 18 degrees, and in common use in Karachi is undoubtedly not of the real Subha Sadiq. It is probably the time of Subh Kadhib, and given as an extreme precaution for the Muslims to stop Suhur in Ramadhan.....therefore the time given in these charts are incorrect. If Adhan is called at least 20 minutes later and Fajr Salat held after this, then it will be correct and valid in all seasons"

(Mufti Rashid Ahmed Ludhianvi, Subha Sadiq, Ahsanul Fatawa, Volume 2)

Mufti Ludhianvi also carried out further observations on 23 and 24 December 1971. Mufti Sab explains in graphic detail his observations which included the Milky Way Galaxy and the effect of the Surayya (Seven Stars constellation) on the night sky. Also observed was the zodiacal light helping him to conclude that what may at first have been thought to be subha kadhif was not subha kadhif but the zodiacal light which Mufti sab concurs are two separate and distinct phenomena.

In Ahsanul Fatawa Mufti Shafi' RA also ruled that the timetables in use in Pakistan based on 18 degrees appeared to be incorrect:

“This fact is undisputable that the use of 18 degrees in timetables for Subha Sadiq is not of the true Subha Sadiq but possibly of Subha Kadhif which is probably used for the end of fast due to safety reasons. After that time there is a period of time which is not always 21 minutes but varies in different seasons and different locations. Therefore those men and women who perform their Fajar prayer immediately after the 18 degree beginning time are wrong to do so. If azan is called after 20 minutes and Fajar performed after that, it will be acceptable to do so in all seasons.”

(Mufti Shafi' RA, Ahsanul Fatawa)

Between April 1973 and March 1975, Latiff carried out nine observations accompanied by a minimum of three to a maximum of seventeen observers. Eight of these observations were in Pakistan whilst one was in Saudi Arabia. The first two observations were not actual observations but were observations to determine the correct location and therefore the practical observations were seven in total. Latiff's conclusion was that Subha Sadiq was much nearer to 18 Degrees and that the illumination at 15 Degrees was far greater.

Dr Omar Afzal Et Al are however highly critical of the assumptions made by A. Latiff in his book, *Subha Sadiq Wa Subha Kazib*, to back the use of 18 degrees and the apparent disregard of some of his own findings detailed within that book. Mufti Rashid Ludhianvi too rejects any claim that Subha Sadiq occurs at 18 degrees, either by Latiff or anyone else (*Ahsanul Fatawa*, Volume 2, Page 190). In support of 18 degrees Latiff quotes from the Farsi book "Bist Bab" by Nasiruddin Tusi (597-672 Hijri, 1201-1274 CE). Nasiruddin Tusi is famous for assisting Halaku Khan by capturing and killing Shaikh Ruhooddin of Hashishin. He then became a close advisor and later Wazir of Halaku Khan and helped to capture Baghdad with the help of Alquami, a Shia Wazir of the last Sunni Abbasid Khalifa Musta'sim Billah.

In the United States a team in Chicago found via observations made in 1985 that Subha Sadiq fell between 13 to 15 degrees. Other observations in the US show that it occurred a little earlier than even 12 degrees. Whilst other limited observations in Buffalo, Toronto, Montreal, San Francisco, Tempe, Houston, Washington DC confirm 13 to 15 degrees. In Eastern Australia observations have equated to 13/14 degrees.

We have earlier discussed the views of Sheikh Al Munajid and Al-Baani RA on the timetables within Arab countries which they have deemed to be incorrect, based on observations. The timetables in Jordan, Saudi Arabia, Egypt and others in the region are based on 19 degrees for Subha Sadiq. These have been observed to be incorrect by 20-30 minutes by several eminent personalities, equating to approximately 14/15 degrees. Recent comprehensive observations for the whole year carried out in Riyadh, Saudi Arabia by a group with Sheikh Abdul Aziz Fauzan revealed that Subha Sadiq occurred at about 15 degrees and not the 19 degrees that timetables currently advocate.

Over several decades a range of test observations were carried out by different sets of Ulama in different parts of the UK before the comprehensive year long Mushahadah of Hizbul Ulama UK. Most of these observations, however, were not recorded and endorsed for practical use in any systematic way at the time, other than ones that were carried out by Molana Manzoorul Haq RA and Mufti Abdul Baqi RA, both confirming that 12 degrees was the appropriate twilight level. Molana Y.I. Qasmi, Kawiwala of Dewsbury advocates the use of 18 Degrees using astronomical research and data and has written profusely on this subject.

As far as the United Kingdom (and most of Europe) is concerned we can confidently stress that degrees fluctuate significantly through the seasons (which may not necessarily be true for tropical countries) as experts have themselves acknowledged and this explains why observations carried out by various groups of Ulama have produced different results. This is why any Mushahadah must be carried out throughout the whole year ensuring seasonal fluctuations are covered.

“There is no precise definition of ‘dawn’.
If it is interpreted as ‘first light’, dawn
corresponds to a depression between 18 and 12
degrees, but it is not possible to be more precise”

(Royal Greenwich Observatory)

9 Mushahadah of Hizbul Ulama UK

Variations in Mushahadah

As we have learnt, the phenomenon of both Subha Sadiq and Shafaq are not easily quantifiable (even with scientific instruments!) but in Shariah, it is okay for different groups of people to follow different times according to their own naked eye observations.

Dr Khalid Shaukat says:

“The variation you may see is not an alarming variation. Remember, in the time of Prophet *SallallahuAlaihiWasallam*, there were no watches. Much more variations were in practice..... Qur'an mentions Fajar time as when you can differentiate a black thread from a white thread. Some Sahabi (RA) was observed to physically take two threads and trying to see them; the Prophet *SallallahuAlaihiWasallam* clarified to him that this is not the intent of Shariah. It is when the very faint light of morning begins to spread horizontally in the darkness of night. This phenomenon is not very strictly quantifiable. Similarly, for Isha, the Hadith mentioned the disappearance of Shafaq. Shafaq is not a phenomenon that can be strictly quantified. Remember, there cannot be any variation in Maghrib time, but Fajar and Isha times are not that precisely defined by Qur'an and Hadith. Allah (SWT) has given us great relief in Fajar and Isha times. This should be considered as a blessing not a burden”.

(www.moonsighting.com)

What we learn from an examination of Mushahadah carried out throughout the world is that it is not an exact science, and it need not be as the intention of Shariah is to provide Muslims with a

reliable end time for Sawm (Fasting) and beginning time for Fajr as well as the beginning time for Isha. Shariah has never intended us to locate the most scientifically precise times of the twilight phenomenon and base our worship on those times. Also, Mushahadah relies on the skill and visual acumen of the observers so different observers may find variations (albeit small) in results. This is acceptable in Shariah and variation in practice may exist not only in the same country but perhaps within the same town or locality, as we see in the life of the Sahabah Kiram Ajmaeen in Madinah.

Variations amongst the Sahaba were also due to differences in interpretation of the Qur'anic verse: *"...and eat and drink until the white thread of dawn appears to you distinctly from the black thread..."* (2:187) as well as the practice of the Prophet *SallallahuAlaihiWasallam*, with some Sahabis who partook in the meal of Sehri until First Light whilst others continued a little longer until the condition of Tabayyun was reached.

With regard to the issue of First Light vs Tabayyun, Mufti Saeed Ahmed Palanpuri with the support of Mufti Mohammad Amin and Mufti Abdur-Rauf says that there is disagreement in Hanafi Fiqh on whether the beginning of Fast is from Fajare Haqiqi or from its Tabayyun (i.e. when the light has spread along the horizon). Whilst the beginning of the Fast at First Light is the safer of the two, the time of Tabayyun allows ease and is permissible. This ruling is supported by Mufti Saeed Ahmed who referred to Hazrat Molana Binori's *Marifuss Sunan*, Volume 5, Page 323, which itself is based on *Fatawa Hindiyah*, the *Fatawa Alamghiri*, which uses Halwani, Al Muhiti and *Khazanatul Fatawa* in support of this ruling.

Although reasonable variations are acceptable my personal wish is for timetables within the UK to follow the same guidelines and for Masajids within the same town to use similar times for

practical purposes and unity. This is especially important when Muslims are fasting collectively during the months of Ramadhan. May Allah unite this divided Ummah. Aameen.

The world Muslim community needs to change its view about the unrestrained use of degrees and carry out Mushahadah to determine correct Salat times for Subha Sadiq and Isha. Once again, I urge the countless proliferation of internet based methods appearing on Islamic websites to display caution when advocating the use of degrees and to encourage the practice of careful verification by way of Mushahadah, observation by naked eyes.

So, observation of twilight for determining Subha Sadiq and Isha is not an exact science and it need not be as different people will have different visual capacity. Different people's observations may produce reasonably different results in terms of timings and as has already been stated, Shariah does not set rigid standards to be followed in determining the times for Subha Sadiq and Isha.

Shariah may require precision of timing for end of Fajar and the Maghrib prayer as the rising of the sun and the setting of it is fairly precise and most likely to be observable and easy to calculate. But this is not so for Subha Sadiq and Shafaq as both of these phenomena are not absolute occurrences easily measured. Even scientists from the Observatory have acknowledged this fact i.e. that sighting of twilight (even first light) cannot be precise - even with its advanced instruments!

As mentioned already in an earlier section, Mufti Mohammad Amin, Mazahirul Uloom, Sahranpur, India, states that:

“Shariah basis the determination of Salat times on the simplicity contained within nature. Therefore, in the determination of Shafaq and Subha it is not necessary to go in the middle of a

mountain or board an aeroplane or a rocket or to go in the middle of the ocean to find out the exact times. But, where there is a populace one may carry out a Mushahadah with plainness and simplicity and according to the guidelines in Shariah. This will be sufficient.”

Confidence in the Mushahadah of the Ulama

The Mushahadah carried out in Blackburn by a group of Ulama was carried out under the direction of Hizbul Ulama UK and had the blessing of Jamiatul Ulama, Bartaniyah, and Markazi Jamiatul Ulama Bartaniyah, at a meeting of all leading Ulama at Blackburn, UK at which there was unanimous agreement in adopting the times proposed at that meeting. This is how unity was reached on the issue that divided the Muslim community in Britain for far too long.

Admittedly, that unity was later broken by people who preferred to base their prayer timings on Degree times provided by the Observatory. Some Masajid chose the easy route by adopting 15 Degrees whilst others adopted 18 Degrees believing that 15 or 18 degrees represented the correct timings. There were also those who held Isha one hour after Maghrib all year round, whilst some held Isha one hour after Maghrib only during the summer. There were those who followed degrees and other methods simply for the sake of convenience, as the internet made it so easy to produce instant computations of Salat times for their own locality.

As this book has demonstrated basing our times on Observatory Degree times is incorrect and there is now an urgent need to revive the unity achieved during the late 1980's, with the Mushahadah carried out during 1987-1988 in Blackburn, UK, so that we can achieve consistency in prayer timings and ensure

that the Awaam do not feel confused by contradictory messages from the Ulama they adhere to and respect.

What is important and necessary is to ensure that the Ummah is able to perform the worship of Allah *Subhanahuwata'ala* with ease and constancy. The Mushahadah carried out by Ulama in Blackburn during Muharram 1408 to Muharram 1409 Hijri (September 1987 and August 1988) should provide confidence in the Ummah and the eminent Ulama. The timetable prepared from this Mushahadah offer this ease and constancy for the Muslims of the UK.

My advice to any dissenting Ulama is for them to place their trust in the sincerity with which the Ulama carried out the Mushahadah. All that the Deen requires are simplicity, ease, constancy and unity. They certainly should not use science and technology to prove the Mushahadah wrong as this leans towards rejecting key Sharee principles and towards causing unnecessary dissension. In fact, science and technology actually supports the results of the Mushahadah of Hizbul Ulama as will be demonstrated later. What they need to ponder is why would a group of Ulama risk shouldering the burden of responsibility for the Salat and Sawm of millions of Muslims? The Mushahadah chart approved by the Ulama of UK in 1988 provides a basis for unity and is based on a fundamental desire to correct our Salat timings. The Mushahadah carried out was done with a great deal of sacrifice on the part of those who participated in this noble and worthy task. May Allah *Subhanahuwata'ala* grant his full pleasure to those who strove to rectify the Salat and Sawm of the Muslims in the U.K., and protect their families and descendents from all harm and the clutches of shaytan. Aameen.

This is what Khalid Shaukat, after careful scrutiny of the Hizbul Ulama observations, has said about the Mushahadah:

“A decade long research by Moonsighting.com found that the Subha or disappearance of Shafaq is a function of latitude and seasons. When this function is checked against round the year observations of Blackburn, UK, the calculations matched observations with amazing accuracy.” (Emphasis mine)

There are very many findings that justify the results of the observations, some of which are outlined below. For instance, observations of Isha (Shafaq Abyadh) and Subha Sadiq were found to have differences in their respective time lengths. This was at first puzzling as Shafaq Abyadh and Subha Sadiq were considered to be opposites, and should logically have the same time length. However, later study revealed why there is this difference in the time length of both. More on this in the section, “Differences between dawn and dusk”, Page 91.

The Mushahadah of the Sun - Is it necessary?

It is clearly established that Mushahadah is necessary to establish correct times. These may be either careful confirmation of degree times through Mushahadah or Mushahadah may be carried out in its own right starting with a blank sheet as was done by Hizbul Ulama UK. However, Shariah does not require the Ruyat (sighting) of the sun or sighting of the conditions before each prayer is performed as it is the case for the Ruyat of the crescent moon to determine the beginning of the months. It is necessary to sight the crescent moon to begin fasting and the celebration of Eid, but it is not necessary to sight the sun or illumination conditions before performing Salat. So, for instance, when it is cloudy and the sunset could not be seen, it will be sufficient to be confident that the sun has set. This is the conclusion we can draw from Hadith Jibraeel in which the Angel Jibraeel AS reveals to the Prophet *SallallahuAlaihiWasallam* how to determine the beginning and end of Salat times.

Once Mushahadah has been carried out a chart based on the results of the Mushahadah will suffice for the performing of Salat on the same day in another year. A timetable for a full year can therefore be prepared on this basis and this timetable can be used in perpetuity.

The Mushahadah

The Mushahadah carried out under the guidance and auspices of Hizbul Ulama UK, in Blackburn, Lancashire, during Muharram 1408 to Muharram 1409 (September 1987 to August 1988), was perhaps the most comprehensive Mushahadah carried out by a group of Ulama within the UK. The Ulama carried out the observations over the course of a full year and almost every month there were sufficient successful observations carried out. Admittedly, due to weather conditions, there were some days in a month when observations were unsuccessful. However, in practical terms no Mushahadah in the world is ever likely to produce successful observations of shafaq abyadh, shafaq ahmar, and subha sadiq for all 365 days of the year. This is acceptable in Shariah.

In our approach, we did not set out to confirm or reject any given degrees and therefore approached this most noble task with a blank sheet and an open mind.

What we set out to observe were mainly the following:

1. First Light of Morning (irrespective of whether this is Subha Kadhib or Subha Sadiq)
2. The spreading of first light (Tabayyun)
3. End of Shafaq Ahmar (Sun's red afterglow)
4. End of Shafaq Abyadh (whiteness in the sky)

Observations to locate positions of sunrise and sunset were also carried out to determine both the eastern and the western horizon.

Some of what we found is outlined below.

Differences between Dawn and Dusk

Technically, Shafaq Abyadh is the opposite of Subha Sadiq. This is the belief of scientists. So, in technical terms, the solar depression level (degree) associated with Shafaq Abyadh for Isha would be the same for Subha Sadiq. The time length between Subha Sadiq and sunrise and between sunset and Isha would therefore be the same. Those using degrees would use the same degree for both Fajar and Isha.

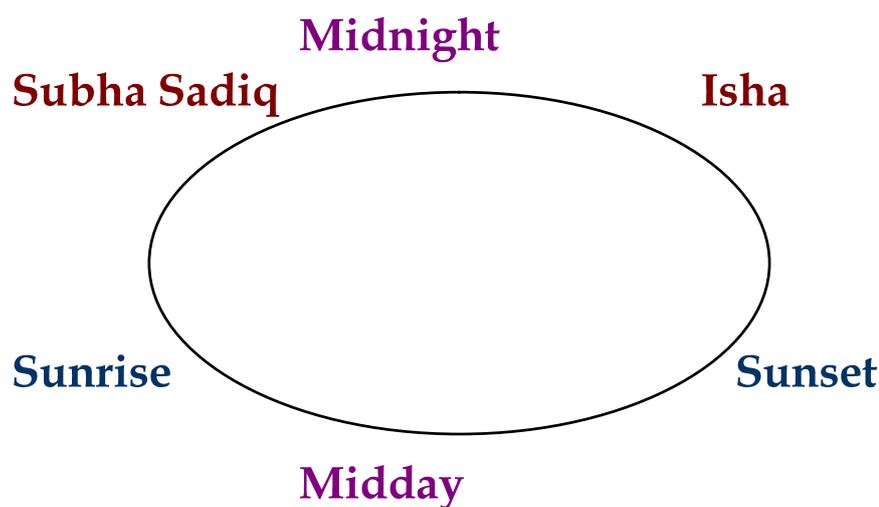


Figure 2 **Technical Opposites**

The above proposition appears to make perfect sense in the pure technical context. However, when observing with the naked eye, as is the requirement of Shariah, this technicality becomes subject to factors which impact on the time of observance of these two phenomena, resulting in variations between technical times and the times observed through Mushahadah, and it is observance by

naked eye which has precedence over any other technical consideration.

One of the main criticisms directed by critics of the Mushahadah of Hizbul Ulama UK is precisely this point i.e. why does the Mushahadah of Hizbul Ulama UK produce differences in the time length of Subha Sadiq and Isha? Critics use this to nullify the Mushahadah and question the integrity of the Ulama that carried out the Mushahadah. The simple answer to critics is that had we based our setting of Isha time on the assumption that the time length would be equal, the criticism would not have arisen. All we needed to do is to observe Subha Sadiq only and apply the time length determined from Subha Sadiq to sunrise, to that of sunset to determine the time for Isha. This would have made life easier for the observers. We however, chose to carry out a full Mushahadah and test that assumption. In doing so we found a variation in the time length between the two prayers. At first we could not answer the assumed anomaly but further research into why there is this variation made it much clearer to us and increased our understanding and challenged the belief that what may be technically true is not necessarily true also in reality. Look how Allah, the Wise, increases the depth of knowledge of those who seek the truth!

Let me demonstrate this point by looking at the differences between dawn and dusk from the perspective of various experts.

1. Consider what Marcel Minnaert has found:

“One important thing however, is that the eye is completely rested in the morning and sees the light intensity increase continuously, so that it is more sensitive to dawn phenomena than to dusk phenomena. The latter have generally a greater richness of colour on account of the greater humidity of the air,

and because the air is a little more turbulent and contains more particles of dust than in the morning”

(M Minnaert, Light and Color in the Outdoors)

2. In NewScientist.com the following answer was provided to a questioner about the differences:

“At sunset the air is still warm. There is more dust, water vapour, pollution and insect life in the air than at sunrise. However, although these can certainly change the colour of the visible sunlight, the main difference between the light at dusk and the light at dawn is the overall distribution of it, as artists and photographers will appreciate. At sunrise in a graveyard the scene shows contrast: the shadows are bluer, slightly darker and appear sharper than at sunset. The sky towards the east will still be quite cyan. At sunset, however, the scene is warmer and softer because the light from the west is coming from a broader area of the sky, diffused by the dust from the atmosphere.”

3. An alternative answer to the same question by another respondent was:

“Sunrise and sunset are not created in identical ways and it is possible, in principle, to tell the difference between them by optical means alone. However, in practice this can be difficult. The difference between sunrise and sunset is caused by differences in the compositions of night air and daytime air.”

4. Let us also consider what Muslim Astronomer Dr Ilyas says about this phenomenon:

“Another factor which may be of some importance in determining the Isha and Fajr times is the asymmetry in thermal and light conditions between evening and morning times. During

the early morning, we deal with an environment which is cooler and has greater stability and the eye must be considerably adapted to much lower flux conditions when trying to detect an increasing flux. In the evening case, not only will the environment be warmer and less stable, but the eye may not be so well adapted and it will be attempting to detect a decreasing light flux. “

The conclusion from this analysis is simple. The results of the Mushahadat carried out by Hizbul Ulama UK are in accordance with the findings of experts and the variance between the time length of morning twilight - Subha Sadiq, and night - shafaq, is valid.

It is wrong to perform Isha one hour after sunset

There are some Masajids in Britain that perform Isha one hour after Maghrib throughout the year and this is totally incorrect. These Masajids have misinterpreted a Fatwa by Molana Zafar Ahmed Thanvi RA given about 70 years ago and a Fatwa by Mufti Yahya, Mazahirul Uloom Sahranpur, 25 years ago.

These Masajids perform their Isha on the assumption that Sahafaqe Ahmar disappears one hour after Maghrib. This is not the case in Britain throughout the year as our Mushahadah has shown. Even if Shafaqe Ahmar did disappear one hour after sunset throughout the year, according to Hanafi jurists one may only perform Isha after Shafaqe Ahmar in times of Haraj (excess hardship). It is obvious that Haraj is not applicable during winter months when Isha begins fairly early.

So performing Isha after the disappearance of Shafaqe Ahmar unconditionally throughout the year is impermissible under Hanafi jurisdiction.

The Imams and Committee members of these Masajids must take note of this very important point and reflect on the folly of their practice, otherwise they, as the learned and the leaders within the community will be answerable to Almighty Allah.

There are also countless Masajids that perform Isha one hour after Maghrib during the summer months only. These Masajids have also misinterpreted the ruling by believing that Shafaqe Ahmar disappears one hour after Maghrib and that due to Haraj during summer months one may follow the ruling of Sahibayn and perform their Isha one hour after Maghrib.

Both these methods are incorrect and affect the permissibility of our prayers as both Mufti Sabs' Fataawa are based on the assumption that Shafaqe Ahmar disappears one hour after sunset. Shafaqe Ahmar actually fluctuates throughout the year.

I will explain further about this issue. According to Imam Abu Hanifah RA Isha time begins when the whiteness on the horizon disappears - Shafaqe Abyadh. However, according to the other Imam's and also the Sahibayn, Imam Mohammed and Imam Abu Yusuf RA (disciples of Imam Abu Hanifah), Isha time begins earlier when Shafaqe Ahmar (red glow of the sun) disappears. The position of the Hanafi Ulama is quite clear. Isha time must be performed at Sahafaqe Abyadh. However, in certain circumstances e.g. Haraj or considerable difficulties, Hanafis may follow the ruling of the Sahibayn. This ruling permits performing Isha after the disappearance of Shafaqe Ahmar i.e. at an earlier time. Now, the question is: does Shafaqe Ahmar disappear one hour after sunset in Britain?

Please note very firmly that no Hanafi jurist will permit performing Isha before the disappearance of Shafaqe Ahmar, and the actual Fatwa by Mufti Zafar Ahmed Thanvi RA states the following: That one may follow the ruling of the Sahibayn and

Isha may be performed one hour after sunset as Shafaqe Ahmar disappears one hour after sunset. (Imdadul Ahkam). It is clear from this Fatwa that the intention of Hazrat was the disappearance of Shafaqe Ahmar and it was Hazrat's sincere belief that Shafaqe Ahmar ended one hour after sunset. Mushahadat as well as scientific finding refutes this belief that Shafaqe Ahmar ends one hour after sunset throughout the year in the UK. The true situation is that it decreases and increases in time length through the seasons as many other Ulama have observed.

One crucial point to embed into our minds is that if Haraj is used to vary prayer times without due regard to the boundaries set by Shariah then there will be a time when people will start to ask the Ulama to vary the time of Fajar, which, unarguably, is the most difficult time of prayer. People may also start to argue that due to Haraj during the time of fasting in long summer months that the time of fast should be fixed according to the clock. Naoozobillah all these sorts of arguments are contrary to the spirit of Shariah, which although reasonably allows ease in deen, also sets some boundaries so that people do not over indulge with their whims and let their nafs get away with unacceptable flexibilities within the Deen of Islam.

Performing Isha one hour after sunset all year round or only during summer months and ignoring both Shafaqe Abyadh and Shafaqe Ahmar is a great folly and totally negates the foundation of deen. The Bani Israeel were fond of behaving in a way which negated the spirit of Deen and introduced very many changes which became an established part of their deen. We must not let ourselves follow a similar course of action and refrain from this baseless practice of setting Isha time one hour after sunset either during the summer or throughout the year. We must only do so where Shafaqe Ahmar disappears one hour after sunset and only during the time when this causes excessive hardship, haraj. This

will apply to some summer months during the summer if the Mushahadah chart of Hizbul Ulama UK, is followed. A number of rulings on this issue are provided below:

1. Mufti Abdullah Kawiwala of Darul Uloom Bharuch, India says that any Qiyas (Islamic reasoning) which leads to easing the hardship of the Isha Salat to avoid missing Fajar prayer by varying the time gap from sunset is not correct and is tantamount to being compared to the acts carried out by the Bani Israeel who changed the principles of Shariah to suit their own desires. Performing Isha or any other Salat before its time is not permitted. Isha is not permissible before the end of Shafaqe Ahmar (red afterglow). Mufti Sab stresses further that if any Fatwa is against Sharee principles, that Fatwa is Wajibuttark. Mufti Sab believes that if Molana Zafar Thanvi RA were alive today he would revoke his Fatwa in the light of the knowledge on Shafaqe Ahmar in the UK.

2. Mufti Wali Hasan Tonki RA and Molana Yusuf Binori RA, in answer to a questioner from Britain ruled that in Shariah there are only two shafaq, Shafaqe Ahmar and Shafaqe Abyadh. To some scholars the end of Maghrib is the disappearance of Shafaqe Ahmar and the beginning of Isha time. In Britain and countries on latitudes of 45 or over, where the disappearance of Shafaqe Abyadh is delayed for longer periods, they may perform Isha according to the ruling of Sahibayn and perform Isha at the end of Shafaqe Ahmar. This way they will not have to wait for too long to perform Isha and the length of time between Isha and Subha will be increased.

3. Mufti Ismail Wadee, Jamiah Husainiah, Rander, India, states that the gap between sunset and shafaq is not always constant, but it increases and decreases. This means setting one fixed time length throughout the whole year is not permitted (Isbah). He further elaborates that permitting Isha earlier than its time on the

excuse that people will go to sleep and neglect their Isha prayer is not a valid reason for performing Isha before its beginning time. Hazrat says that the two eminent scholars, Mufti Zafar Ahmed Thanvi and Mufti Yahya sahib who permitted the practice of holding Isha one hour after sunset were from India and were ruling on the conditions prevailing within a country like UK. On the basis that Mushahadah rejects the proposition that Shafaq Ahmar sets in one hour after sunset, then this ruling of the two scholars cannot be applied.

4. Mufti Mohammad Ibrahim Palanpuri, Jamia Islamiya, Anand, India, says that the nature of Islam is intertwined with the nature of man. Therefore, a great many Masails are based on this nature of man including Mushahadat. Disappearance of shafaq and the onset of Subha Sadiq etc are based on the Mushahadah of the people. During the seasons shafaq decreases and increases and therefore fixing Isha beginning time one hour or one hour 15 minutes or so throughout the year will be incorrect.

5. Mufti Ahmed Khanpuri, Jamiah Islamiyah, Dabhel, India, has ruled that in locations where the disappearance of Shafaq Ahmar occurs, then Isha may only be performed when Shafaq Ahmar disappears. It will not be correct to perform it before then. It will not be permissible to perform Isha earlier than this on the fear that people may miss Isha due to sleep overtaking them.

6. Sheikh Muhammad Salih Al-Munajjid RA has said:

“So long as the times of the prayers are distinct from one another, each prayer must be performed in its own time, even if the times are close together. Being patient in doing this is a kind of jihad, and Allah does not cause the reward of the one who does good to be lost”

(www.islam-qa.com)

In my book, “Bartaniya Me Isha Ka Sahih Wakt”, Y. Mifthai, there are many other Fatwas by the eminent Ulama in a similar vein which I recommend you read.

So, the ruling of the Hanafi scholars is clear. The general rule is to perform Isha at Shafaq Abyadh, but where there is excess hardship; one may follow the ruling of Sahibayn and perform Isha earlier when Shafaq Ahmar disappears. However, no Hanafi scholar will permit performing Isha any earlier than this. Ulamae Bartaniya please take very careful note of this most salient point and rectify your Isha times based on the rulings of our most eminent scholars.

There are other Masajids in the UK that use “Takdir” i.e. fixing of prayer time for Isha during the months when “twilight persists”. These Masajids use either 18 or 15 degrees during the year for Isha during the summer months, on the argument that twilight does not occur in some weeks, the time is fixed using several different methods including one hour after Maghrib, Akrabul Ayyam, Akrabul Balad, Aadal Ayyam, Tansifullayl etc.

Please note very carefully that the term “**twilight persists**” which is a term given by the observatory has been misunderstood generally by Muslims in the UK. “Persisting Twilight” does not mean that night does not set in i.e. conditions of shafaq do not occur. It means that during some weeks in the summer the **sun does not go below a certain height**. So if one determines Isha using degrees, especially between 15 and 18 degrees, there will be some weeks during the summer when the sun does not reach these levels, and that **night conditions associated with these levels of solar depression** will not occur.

Let me make this absolutely clear. During a few weeks in summer within the UK, the sun does not go below the horizon

more than a certain level e.g. 18 degrees or even 15 degrees. This applies to many parts of Britain particularly the Northern areas. According to the observatory this means the level of darkness during these weeks will be less than at other times of the year. The observatory does not say that the condition of darkness or night will not occur. What it says is that the **level of darkness** normally associated with 18 degrees or 15 degrees etc will not exist.

As has already been argued, based on the results of careful observations in Blackburn, UK, and scientific findings, 18 degrees is not equated by this author to Shafaq Abyadh. Consequently, within the UK the conditions of Shafaq Abyadh (whiteness in the sky) occur throughout the year (albeit very late in the night during summer months) and evening light merges with the morning light only on a limited number of days before and after the Summer Solstice.

As for the disappearance of Shafaq Ahmar i.e. the red afterglow of the sun, this occurs throughout the year. This proposition may be easily tested by observing the disappearance of the red glow in summer at the horizon (ufooqe) of sunset. It will then be made clear to you that the red glow disappears and Shafaq Ahmar conditions do take place. Try observing the disappearance of the red glow in the middle of June and you will be able to detect the disappearance of the red after glow even at the peak of summer, Insha Allah. During our Mushahadah we observed the end of the red afterglow at the height of summer on 12 and 13 June. It is therefore totally incorrect to use Takdir or any other method to fix Salat timings for Isha, and Takdir should only be used in the absence of reliable information.

It will be necessary to aim to perform Isha at Shafaq Abyadh when it occurs or to use Shafaq Ahmar where Shafaq Abyadh does not occur or where there is Haraj i.e. considerable hardship

at Shafaq Abyadh. If these conditions exist i.e. Shafaq Abyadh and Shafaq Ahmar it will be incumbent upon Muslims in the UK to determine these times and not to rely on Takdir. This is what Hizbul Ulama UK did and determined both these occurrences in order to bring accuracy to the worship of Muslims.

Joining of prayers and fixing the times of prayers

Shariah requires the performance of Salat at stated times. This is enshrined in the Qur'an and Hadith and is accepted by all scholars. However, there is one exception which all scholars agree to. This is during Hajj when it is required to join prayers at Arafat and Muzdalifa. Another exception amongst some scholars is the joining of prayers during travel. This is known as Jamma'h Baines Salatain. Imam Abu Hanifah disagrees with the concept of Jamma'h and points out that the only permitted Jamma'h is Jamma'h Soori (as opposed to Jamma'h Haqeeqi) when a traveller stops at the end of a prayer time, performs that prayer, waits a little while, and immediately on the beginning of the next prayer, performs that prayer. Consider the following:

1. Abdullah Ibn Masud RA relates the Messenger of Allah combined two prayers whilst on a journey. He would combine Maghrib and Isha by delaying Maghrib until just before its expiry time, and performing Isha immediately as its time entered.

(Musannaf Ibn Abi Shayba 2:458)

2. Aisha RA narrates: The Messenger of Allah, whilst on a journey, would delay Zuhr and perform Asr early and would delay Maghrib and perform Isha early (i.e. perform each prayer in its own time).

(Sharh Ma'ani'l-athar, 1:164, Musannaf Ibn Abi Shayba 2: 457)

3. Imam Abu Dawud RA has transmitted that Abdullah Ibn Umar's Muezzin informed him that it was time for prayer. Ibn Umar RA instructed the Muezzin to continue with the journey. When the red of sunset (Shafaqe Ahmar) had almost disappeared, he got from his mount and performed Maghrib, after which he waited until the redness had completely disappeared and then performed Isha Salat. He then said, Whenever the Messenger of Allah was in a hurry for some reason he would do just as I have done.

(Sunan Abu Dawud 1:178)

4. Sheikh Muhammad Salih Al-Munajjid RA in answer to a question from Britain on the use of Jamma'h during times when Isha and Fajar are so close together answered thus:

“So long as the times of the prayers are distinct from one another, each prayer must be performed in its own time, even if the times are close together. Being patient in doing this is a kind of jihad, and Allah does not cause the reward of the one who does good to be lost”

(www.islam-qa.com)

Another exception to the injunction of the Qur'an to perform prayer at its stated times is the application of the Hadith Dajjal. Hadith Dajjal refers to a time of the Dajjal when a day would be like a year. At that time, it will be permitted to fix prayer times by the clock and not by the rising and setting of the sun as this would mean only five prayers during what in effect would be a whole year.

This Hadith is often used for locations where the sun does not rise or set on a daily basis. In those areas, the Muslims may fix the times of prayer so that the five daily prayers are performed during 24 hours.

This application does not apply to most of Europe, and it certainly does not apply to the UK where the sun rises and sets every single day of the year. The whole land mass of Britain is within the range of 50-60 degrees Latitude and it is not until 66 degrees Latitude when the Arctic Circle is reached and special circumstances apply.

Note that even as near as 70 miles from the pole, there are 10 days when the sun rises and sets. Whilst at the beginning of the Arctic Circle, the sun rises and sets for a full 308 days.

A table is produced on the following page, Table 3, which gives details about the geographic locations where the sun does not rise and set for a complete year and where the principles of Hadith Dajjal may be applied.

“So long as the times of the prayers are distinct from one another, each prayer must be performed in its own time, even if the times are close together. Being patient in doing this is a kind of jihad, and Allah does not cause the reward of the one who does good to be lost”

(Sheikh Muhammad Salih Al-Munajjid RA)

Table 3: Locations where the sun does not rise and set for every day of the year

LATITUDE	LOCATION	DISTANCE (MILES) FROM NORTH POLE	DATES SUN REMAINS BELOW HORIZON	DATES SUN REMAINS ABOVE HORIZON	NO.OF DAYS SUN RISES AND SETS
66:30N	Arctic Circle	1575	17 Dec-26 Dec	29 May-13 July	308
70:00N	Dead Horse, Alaska	1400	25 Nov-16 Jan	17 May- 27 July	240
80:00N	Franz Josef Land, North Russia	700	21 Oct- 19 Feb	14 Apr- 19 Aug	115
84:00N	Northern most Greenland	420	10 Oct- 2 March	2 Apr- 9 Sept	60
89:00N	0:0 Longitude, No Land Mass	70	27 Sept- 15 March	20 March- 21 Sept	10
89:45N	0:0 Longitude, Near North Pole, no Land Mass	20	26 Sept- 17 March	18 March- 23 Sept	2

Source: www.moonsighting.com

Criticisms directed at Hizbul Ulama's Mushahadat

Despite the agreement of all the attending Ulama at the meeting in Blackburn, there were some who later cast criticism on the Mushahadah carried out by the Ulama during 1408 to 1409 Hijri.

The following amount to the primary objections to the Mushahadat:

1. That 18 degrees is the correct depression level for the beginning of Fajar and Isha
2. That it is impossible to carry out reliable Mushahadah within Britain
3. That the Mushahadah carried out was not Musalsal for 365 days
4. That the Mushahadah carried out in Blackburn cannot be applied to the rest of the Country

Let us examine each of these arguments in turn.

That 18 degrees is correct for Subha Sadiq and Isha

We have already demonstrated by using evidence from the observatory and other eminent experts, both Muslim and Non Muslim, that fixing prayer time at 18 degrees is incorrect. 18 degrees is the uppermost level at which light remains in the sky and this is detected by using advanced instruments and not the naked eye. This is also the time, perhaps even somewhat earlier, at which zodiacal light may be noticed, and we know that dawn break or Subha Sadiq occurs later than zodiacal light.

Molana Y Qasmi Kawiwala in his writings uses information from the observatory to support his claim of basing Salat timings for Fajar and Isha at 18 degrees, but by now I hope I have convinced

readers that the observatory degree times cannot be used to fix Fajar and Isha times. The evidence Molana uses from the Observatory is superficial and subject to negligent misinterpretation, and he has not undergone the depth of cross examination of observatory information that is necessarily required for an important issue such as the times of Salat.

Critics also cite eminent scholars to justify the use of 18 degrees but many of those scholars themselves have pointed out when giving their fatwa that this view is not binding as it is based on scientific evidence. Although there are Ulama who believe 18 degrees is correct, there are other Ulama who have rejected the use of 18 degrees.

That it is impossible to carry out reliable observations in Britain

This is also an incorrect assumption on the part of critics, as observing twilight is not similar to observing the crescent moon. Observing the crescent moon has to be an absolute observation. Once observed, it establishes the start of a new day. Sometimes it is not possible to observe the crescent moon even in clear conditions as it is the existence of the crescent moon and weather conditions that will determine the possibility of it being observed. However, twilight is always a daily occurrence and it is only bad weather conditions that may preclude a successful observation. With twilight you also have a second chance and even repeated chances, as if bad weather makes an observation unsuccessful on one day you can repeat the observation on another day. One can then use the successful observation to determine the time for the day that observation was unsuccessful knowing that there is normally a minute or two difference in one day.

The fact is Mushahadah is possible in this country and anyone can look at the sky and see that for themselves that it is possible to determine the disappearance of Shafaq and the appearance of Subha Sadiq. Despite some difficulties in bad weather we successfully conducted a year long Mushahadah with limited gaps in observance.

That the Mushahadah was not Musalsal i.e. for a continuous 365 days

Hizbul Ulama UK has been criticised for not carrying out Mushahadah for each and every day of the year. Some people have wrongly assumed that only twelve days of Mushahadah were carried out. This belief is possibly based on the publication of the twelve month chart which gives an abridged results record (See Table 4, Page 123). This is a totally incorrect assumption. Mushahadah was attempted for each and every day of the year. Successful observations were sufficient to enable the preparation of a full year chart. The full record of results was available for all the Ulama at the meeting at Masjid Anisul Islam, Blackburn. The Mushahadah carried out by Hizbul Ulama UK is perhaps the most comprehensive ever carried out in the UK or possibly within Europe and many other countries of the world. Hizbul Ulama UK have full confidence in the extensive set of observations that were carried out, allowing us to determine with sufficient reliability the Fajar and Isha times for the Muslims of the United Kingdom.

Let me make it absolutely clear that by Sharee principles it is not incorrect to carry out Mushahadah on a number of days each month and to use the results to fill in the missing days. This is not only rational and methodically correct but correct according to Shariah. It is unnecessary to carry out observations for a full 365 days as many Ulama including Hakimul Ummat Hazrat Molana Ashraf Ali Thanvi RA have advocated i.e. to carry out

observations on two or three days a month and to use that as a basis for preparing a chart for the whole year (Imdadul Fatawa Vol 1, Page 98).

Let me make this point even clearer. After three months of Mushahadah in Blackburn, we wrote to the Muftiyane Kiram of Indo-Pak stating that so far the results of Mushahadah have contradicted the degrees. The responses received indicated that Mushahadah is the original basis of determining Salat times and these have precedence over degrees etc. An example of a response was from Mufti Mohammed Farid of Darul Uloom Haqaniyah, Akora Khatak, Pakistan, advising us to leave aside the use of degrees and carry out Mushahadah on two/three days a month and prepare a chart for a full year based on the results. This is what Mufti Farid and other eminent Scholars classify as Musalsal. Despite this advice from Mufti Sab we continued to carry out Mushahadah for each and every day, although we could have done so for only two or three days a month as advised.

Both Mufti Shafi' and Mufti Ludhianvi RA certified as musalsal the limited number of observations that they carried out in Pakistan (three days). So too were the limited Mushahadah carried out by Latiff, (seven days) which had long time gaps between them and carried out in two different countries.

Critics have carried out a limited set of observations and have argued for 18 degrees based on those limited set of observations, yet they criticise the Mushahadah of Hizbul Ulama UK which by far have been the most "Musalsal Mushahadat" of any observations carried out either in the UK, Europe or to my knowledge, the Indian Sub Continent. I ask, why is there then, this double standard from critics?

That the Mushahadah carried out in Blackburn cannot be applied to the rest of the Country

I would like to ask why it is correct to use one degree time (notably 18 degrees) for the whole country, nay, for the whole world, and not correct to apply the results of observations in one location to the rest of Britain, which is only a small country with a latitude range of just 10 degrees?

What we did not do is to advise other cities to adopt the same times as Blackburn. This obviously would have been inappropriate as the actual times for Blackburn of Subha Sadiq and Shafaq would differ (as too would other times such as sunset and sunrise) with those of other cities. It is very misleading to imply that what we advocate is using the actual results of observations in Blackburn and to apply that in other cities and towns e.g. that if we observed that Subha Sadiq was at 3.00am in Blackburn that this is the time to use for the whole country. Obviously this would be wrong as the actual time for Blackburn will be different from towns and cities at a distance from Blackburn.

What we have done is to **measure the gap between Subha Sadiq and sunrise** to determine the beginning of Fajar and advocated the application of that length in time. Similarly, for determining Isha we have **measured the gap between sunset and Shafaq** and advocate the application of that length in time. So, if for instance we have found in Blackburn that Subha Sadiq was observed at 3.00am and sunrise on that day was 5.00am, the gap of two hours would be applied and so, in a town where sunrise was 5.15am, Subha Sadiq would be set at 3.15am.

Critics mislead and give the wrong impression to people that we advocate using the actual observations results of Blackburn i.e. the actual times, which obviously would be wrong.

The Agreement of the Eminent Ulama in Blackburn, Lancashire

A number of eminent Ulama carried out Mushahadah of Subha Sadiq and Isha (both Shafaq Ahmar and Shafaq Abyadh). After seven months of Mushahadah, and responses from Muftiyane Kiram of the Indo-Pak, a meeting was held in Masjid Anisul Islam, Troy Street, Blackburn, United Kingdom, on Saturday 15th Shaban 1408 (2 April 1988). The meeting was attended by countless Ulama from all over the Country.

This meeting was conducted under a joint Imarat of Molana Musa Karmadi, Ameer of Hizbul Ulama UK, and Molana Ubaidurrahman Camelpuri RA, Executive Member of Jamiatul Ulama Bartaniyah and member of Central Moonsighting Committee of Great Britain.

Present at this gathering were the Mushahedeen (observers) including myself and many eminent personalities including Molana Abdur Rashid Rabbani, Molana Fateh Mohammad Laher, Molana Lutfurrahman, Molana Mohammad Hassan Tai, Molana Fazle Haq Wadi, Molana Musa Qasmi, Molana Ismail Makoria, Molana Ismail Bhuta, Mufti Mustupha, Mufti Abdus Samad, Molana Ahmed Sidat, and many others too numerous to mention.

At this meeting the Ulama who carried out the Mushahadah disclosed what they had observed to the point that it was not left as fait accompli that they had observed a particular phenomenon, e.g. Subha Sadiq. It was left to the meeting to decide what was observed e.g. whether the observations were that of Subha Sadiq, Subha Kadhib or some other phenomenon.

The following provides an outline of what we observed through the Mushahadat during the first seven months (September-March):

1. The first light of morning which began as a broad band of light on the horizon from its beginning and spread very quickly at the breadth of the horizon (reaching the condition of Tabayyun within a few minutes), and continuing to increase in broadness and intensity until sunrise
2. During the seven months we did not see any light which resembled the description of Subha Kadhib i.e. light on the length of the horizon appearing like the tail of a Wolf or in the shape of a pyramid, and then diminishing slowly and then completely disappearing before the onset of Subha Sadiq
3. We observed, at the western horizon, the end of the sun's red afterglow after sunset followed by the complete disappearance of the whiteness in the sky

After a thorough examination by the Ulama lasting about three hours, the Ulama determined from the description given what phenomena were Subha Kadhib, Subha Sadiq, Shafaqe Ahmar, Shafaqe Abyadh etc.

The following resolutions were then agreed:

1. That in the light of the numerous and consistent Fataawa of Muftiyane Kiram which were received after the first three months of Mushahadah, that Mushahadah is the original basis of determining prayer times, and that against this background, relying on the accuracy of observatory times was incorrect.

2. It was unanimously resolved that Mushahadah be completed for the rest of the remaining five months after which another meeting of the Ulama be held.

3. That, in the meantime, the Muslims of the UK prepare forthwith their timetables according to the chart prepared based on the Mushahadah of seven months.

4. That for the remaining five months not covered by Mushahadah, the prayers are fixed on the basis of Takdir, as was proposed by Hizbul Ulama UK, but only for a temporary period. When the Mushahadah of the remaining five months be completed, a comprehensive chart be prepared based on observance of Subha Sadiq and Isha for a complete year

5. It was also resolved that once the full year Mushahadah is completed that any unobserved days due to bad weather conditions be filled by the method of Takdir of Akrabul Ayyam, i.e. for the days before and after the observed days, as is permitted by Shariah, (and as ruled by Hazrat Thanvi RA in Imdadul Fatawa Vol 1 Page 98)

Likewise, the Ulama continued their Mushahadah and after completing this most noble project on behalf of the Muslims of the UK, held another meeting on Monday 24 JamaDilAwwal 1409 Hijri (2 January 1989).

At this meeting details of the Mushahadah of the last five months (April-August) were given, as follows, especially where differences existed between the two sets of Mushahadat:

1. On 2nd and 6th May a very narrow light was observed on the length of the sky which resembled a pyramid. This light then died down slowly and merged with the First Light of morning

2. The gaps between the Subha Sadiq times and sunrise; and between sunset and end of the red afterglow (shafaq ahmar) were much wider during the latter five months than observed during the first seven months Mushahadat. It appeared there were differences between the Mushahadat carried out in winter and the Mushahadat carried out in the summer months.

3. A unique phenomenon was observed from the end of May until 6th of June. An apparition in the form of an arc was noticed. It appeared to be 'vapoury' in appearance and was not visually as distinct to enable us to confidently describe it as a light phenomenon. The "arc" appeared to slowly inch towards the east i.e. at the location of sunrise, along the edge of the earth and sky. As First Light appeared, this image disappeared.

4. In the middle of June we observed the disappearance of the red afterglow (shafaq ahmar) but the whiteness in the sky remained throughout the night becoming brighter and covering an extensive area of the sky. Subha Sadiq was not possible to observe as it seemed that conditions of Shafaq did not end and merged with the light of dawn.

5. During May and June the First Light of morning took incredibly longer to spread along the horizon than observed before. Instead of reaching Tabayyun in only a few minutes as observed during previous months, the condition of Tabayyun took much longer averaging from 20 minutes to over one hour and fifteen minutes, during these two months.

At this meeting the following was agreed:

1. The beginning time of Fajar be determined by Akrabul Ayyam for those days where the whiteness of Isha merged with the light of morning

2. For May and June Fajar beginning time be set at the recorded time of Tabayyun as is permitted by Muftiyane Kiram.

3. During summer months, due to Haraj, and as permitted by the Sahibayn (Imam Mohammed and Imam Abu Yusuf) Isha time be phased in using the disappearance of the red afterglow, Shafaqe Ahmar, as a basis, and towards the end of summer, phase out towards Shafaqe Abyadh.

Accordingly, a chart based on the agreement of the Ulama was distributed to UK Masajids.

Below is a table that provides a summarised record of results (Table 4). After that two other tables, Tables 5 and 6 consist of charts, one for determining Subha Sadiq and one for Isha. Please note that the Ulama, in their wisdom, decided to apply Shafaqe Ahmar during summer months for Isha but this is phased in at the approach of summer and accordingly phased out as summer recedes, as previously mentioned.

Please note that Brother Mohammed Arshad Baig, an eminent Muslim academic and researcher, has kindly produced a computer programme which automatically works out the times of Subha Sadiq if you enter the time of sunrise for your town/city, and the time of Isha if you enter the time of sunset for your town/city. For a copy of this software programme please send me an email at hizbululama@yahoo.co.uk or info@hizbululama.org.uk

Alternatively, there is an accompanying directory with this book, "*Salat Timetables for Towns and Cities in the UK*" which gives beginning times for all prayer times for major Muslim population centres. If your location is not listed in the directory please send an email to me at info@hizbululama.org.uk or to Brother Dr Khalid Shaukat, shaukat@moonsighting.com for a timetable for your location.

Table 4: Chart showing Summary Observation Record of time lengths of Shafaqe Ahmar, Abyadh and Subha Sadiq from the Mushahadah carried out in Blackburn UK

Longitude W 02.29 Latitude N53.45

MONTH/YEAR	SHAF AQE AHMAR ^^	SHAF AQE ABYADH ^^	SUBHA SADIQ ^
Muharram/Safar 1408 (September 1987)	55m to 1hr	1hr 20m to 1hr 22m	1hr 22m to 1hr 26m
Safar/RabiAlAwwal 1408 (October 1987)	58m to 1hr 8m	1hr 15m to 1hr 25m	1hr 25m to 1hr 31m
RabiAW/RabiAlThani 1408 (November 1987)	1hr 8m	1hr 12m to 1hr 28m	1hr 32m to 1hr 45m
RabiAT/JamadilAwwal 1408 (December 1987)	53m to 1hr 20m	1hr 17m to 1hr 40m	1hr 39m
JamA/JamadilThani 1408 (January 1988)	50m to 1hr 06m	1hr 31m to 1hr 38m	Unable to observe successfully
JamT/Rajab 1408 (February 1988)	Unable to observe successfully	1hr 19 m	1hr 37m to 1hr 39m
Rajab/Shaban 1408 (March/April 1988)	56m	1hr 25m	1hr 37m
Shaban/Ramadan 1408 (April 1988)	Unable to observe successfully	1hr 24m to 1hr 27m	1hr 35m
Ramadan/Shawal 1408 (May 1988)	57m to 1hr 15m	1hr 55m to 3hrs 16m	1hr 33m to 1hr 44m **
Shawal/ZulQaida 1408 June 1988 #	1hr 21m to 1hr 24m *	3hr 7m on 5 June *	1hr 43m to 1hr 54m **
ZulQ/ZulHajja 1408 (July 1988) ***	Unable to observe successfully	Unable to observe successfully	Unable to observe successfully
ZulH/Muharram 1409 (August 1988)	1hr 07m to 1hr 08m	2hr 11m to 2hrs 12m	1hr 23m to 1hr 24m

Notes:

1. Time length from beginning of first light (at Eastern horizon) to sunrise which was agreed as Subha Sadiq[^]; and time length of end of red afterglow (Shafaqe Ahmar) from sunset, and time length of the disappearance of whiteness in the sky (Shafaqe Abyadh) shown in hours and minutes ^{^^}
2. 6-11 June unable to successfully observe both Shafaqe Ahmar and Shafaqe Abyadh *
3. On 12 and 13 June conditions of night - Shafaqe Abyadh - did not occur. Typically, therefore Subha Sadiq too was not possible as it was light throughout, with shafaq and subha merging. Shafaqe Ahmar was however observed on these dates #
4. Months of May/June only, the Tabayyun time of Fajar is shown**
5. Whole of July was a rainy month and therefore unable to observe successfully although we tried our best to attempt successful observation ***
6. Subha Kadhib was observed on two days only- 2nd and 6th May

Two charts appear on the following pages to help determine local times for Subha Sadiq and Isha.

To fix the time of Subha Sadiq for your city, look at the **Sunrise time** for your city and **deduct** the time shown on the chart for that day. E.g. if Sunrise in your city on say 6 June is 4.30am, deduct 2 hours as shown on the chart for 6 June giving you 2.30 am as your city's time for Subha Sadiq on that day. **Alternatively send an email to Hizbul Ulama, UK, for a software programme which will automatically generate the time if you enter the time of sunrise.**

To fix the time of Isha for your city, look at the **Sunset time** for your city and **add** the time shown on the chart for that day. E.g. if Sunset in your city on say 25 February is 5.30pm, add 1 hour and 30 minutes as shown on the chart for 25 February giving you 7.00pm as your city's time for Isha on that day. **Alternatively send an email to Hizbul Ulama, UK, for a software programme which will automatically generate the time if you enter the time of sunset.**

Table 5: TIME TABLE OF SUBHA SADIQ IN UK

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1-40	1-40	1-40	1-35	1-41	1-57	1-59	1-45	1-35	1-31	1-40	1-45
2	-	-	-	-	-	1-58	1-58	-	-	-	-	-
3	-	-	-	-	1-42	-	-	1-44	-	-	-	-
4	-	-	-	-	-	1-59	1-57	-	-	-	1-41	-
5	-	-	-	-	1-43	-	-	1-43	-	1-32	-	-
6	-	-	-	-	-	2-00	-	-	-	-	-	-
7	-	-	-	-	1-44	-	1-56	-	-	-	1-42	-
8	-	-	-	-	-	2-01	-	1-42	-	1-33	-	-
9	-	-	-	-	1-45	-	1-55	-	-	-	-	-
10	-	-	-	-	-	2-02	-	-	-	-	1-43	-
11	-	-	-	-	1-46	-	-	1-41	-	1-34	-	-
12	-	-	-	-	-	2-03	1-54	-	-	-	-	-
13	-	-	-	-	1-47	2-04	-	-	-	-	1-44	-
14	-	-	-	-	-	-	1-53	1-40	-	1-35	-	-
15	-	-	-	-	1-48	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	1-34	-	1-45	1-44
17	-	-	-	-	1-49	-	1-52	1-39	-	1-36	-	-
18	-	-	-	1-36	-	-	-	-	-	-	-	-
19	-	-	-	-	1-50	-	1-51	-	1-33	-	-	-
20	-	-	1-39	-	-	2-03	-	1-38	-	-	-	1-43
21	-	-	-	1-37	1-51	-	-	-	-	1-37	-	-
22	-	-	1-38	-	-	-	1-50	-	1-32	-	-	-
23	-	-	-	-	1-52	2-02	-	1-37	-	1-38	-	-
24	-	-	-	1-38	1-53	-	1-49	-	-	-	-	-
25	-	-	-	-	1-54	-	-	-	1-31	-	-	-
26	-	-	1-37	-	-	2-01	1-48	1-36	-	1-39	-	1-41
27	-	-	-	1-39	1-55	-	-	-	-	-	-	-
28	-	-	1-36	-	-	2-00	1-47	-	1-30	-	-	-
29	-	-	-	-	1-56	-	-	1-35	-	1-40	-	1-40
30	-	-	-	1-40	-	-	1-46	-	-	-	-	-
31	-	-	1-35	-	1-57	1-59	-	-	-	-	-	-

Table 6: TIME TABLE OF ISHA IN UK

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1-40	1-38	1-29	1-20	1-08	1-19	1-15	1-07	1-14	1-21	1-31	1-40
2	-	-	-	-	1-05	1-20	-	-	-	-	-	-
3	-	1-37	1-28	1-19	-	-	-	-	-	1-22	1-32	-
4	-	-	-	-	1-00	-	1-14	-	1-15	-	-	-
5	-	1-36	1-27	-	-	1-21	-	-	-	-	1-33	-
6	-	-	-	-	-	-	-	1-08	-	-	-	-
7	-	1-35	1-26	-	1-05	-	1-13	-	1-16	1-24	1-34	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	1-34	1-25	1-18	1-08	1-22	-	-	-	-	1-35	-
10	-	-	-	-	-	-	1-12	-	-	-	-	-
11	-	-	-	-	1-10	1-23	-	1-09	1-17	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	1-33	1-24	-	1-13	1-24	1-11	-	-	1-26	1-36	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	1-18	-	-	-
16	-	-	-	-	1-14	1-23	1-10	1-10	-	-	-	-
17	-	1-32	1-23	1-17	-	-	-	-	-	-	1-37	-
18	-	-	-	-	-	1-22	-	-	-	-	-	-
19	-	-	-	-	1-15	-	1-09	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	1-31	1-22	-	-	1-21	-	1-11	1-19	1-28	1-38	-
22	-	-	-	-	1-16	1-20	1-08	-	-	-	-	-
23	-	-	-	1-16	-	-	-	-	-	-	-	-
24	-	-	-	-	-	1-19	-	-	-	-	-	-
25	-	1-30	1-21	-	1-17	-	1-07	1-12	1-20	1-30	1-39	-
26	-	-	-	1-15	-	-	-	-	-	-	-	-
27	-	-	-	-	-	1-18	-	-	-	-	-	-
28	-	-	-	-	1-18	-	1-06	-	-	-	-	-
29	-	1-29	1-20	1-13	-	1-17	-	1-13	-	-	1-40	-
30	-	-	-	-	-	1-16	-	-	-	-	-	-
31	-	-	-	1-10	1-19	-	-	-	-	-	-	-

CONCLUDING REMARKS

Alhamdulillah, we have reached the end of this interesting yet compelling subject. As human beings, however, we are prone to committing errors and mistakes and I pray to Allah *SubhanahuWata'Ala* that he forgives my mistakes and the mistakes of those involved in the production of this material. As Allah is my witness I have tried my very best to understand the subject and to convey as effectively as possible my own understanding to readers. I am however of no doubt that there will be many things that I have not been able to put across as succinctly as the subject deserves and I seek forgiveness from Allah as well as from readers of this book for my frailties. For many readers the topic will have raised many questions, some that perhaps no one may be able to answer. However, I do hope that readers will be able to approach me to seek greater clarity where they are unable to fully comprehend the subject matter.

The task we set ourselves way back in 1987 began as a raw zeal to do something to rectify Salat timings for the twilight prayers. This turned into perhaps the most challenging activity most of us have ever undertaken, sacrificing valuable time and braving British weather conditions. It was well worth it in the end as we were confidently able to provide reliable prayer timings for the Muslims of Britain and in the process invoke Allah's blessings and mercy. Undoubtedly at times we encountered the full ferocity of sceptics who for reasons best known to them and to Allah, challenged and criticised, which was fine as is their right to do so, but sadly they also cast aspersions on the integrity of the Ulama who carried out this noble and worthy task. May Allah forgive our critics and open up their hearts and increase them in understanding. *Ameen*. They say that no task is without its critics but it is Allah who is the final arbiter and it is to Allah we turn to for solace and reward.

“For us Allah sufficeth, and he is the best disposer of affairs”

(Holy Qur'an, 3:173)

Finally, I make Dua for the Mushahedeen who gave up their valuable time to achieve successful Mushadadah to benefit the Muslims of the UK and the Ummah generally. May Allah reward firstly the main Mushahedeen (Observers) who remained steadfast with me throughout the full course of the Mushahadah diligently and with an incredible amount of commitment, the late Molana Qari Mohammed Suleman RA, Imam of Masjid Anisul Islam and late Molana Ismail Mecodia Kantharia RA. Also other Mushahedeen who although unable to participate for the full Mushahadah took active part for a substantive length of time e.g. Molana Ismail Manubari, Mohtamim of Darul Uloom Bharuch, India, who took active part during the first seven months of Mushahadah and would have continued with us if it were not for the need for him to travel to India for important commitments, and the countless others who accompanied the primary Mushahedeen on many occasions. May Allah *SubhanahuWata'Ala* also accept the practical and moral support given by brothers and sisters of Masjid Anisul Islam and those who participated in any way in not only achieving successful Mushahadah but also those that have contributed in the completion of this piece of work. May they and their families be granted success in this world and success in the hereafter. Aameen.

Molvi Yaqub Ahmed Miftahi
Muharram 1428

AL HIDAYAH WAD DUA

*O Ye Who Believe! Obey Allah and His Messenger,
And Turn Not Away from Him When Ye Hear (Him
Speak).*

Nor be like those who say "we hear", but Listen Not

(Holy Qur'an, 8:20-21)

*And Cover Not Truth with Falsehood,
Nor Conceal the Truth when ye know
(what it is)*

(Holy Qur'an, 2:42)

*Allah is the Protector of those who have Faith:
From the Depths of Darkness He will lead them Forth
into Light*

(Holy Qur'an, 2:257)

*Our Lord! Accept (this service) from us:
For thou art the All Hearing, the All Knowing.
Our Lord! Make of us Muslims, bowing to thy (will);
And show us our places for the Celebration of (due)*

*And turn unto us (in mercy);
For thou art oft Returning, Most Merciful*

(Holy Qur'an, 2: 127-128)

*Oh ye who believe! Persevere in patience and constancy;
Vie in such perseverance; and fear Allah, that ye may
prosper*

(Holy Qur'an, 3: 200)

*Our Lord! Condemn us not if we forget or fall into
error;
Our Lord! Lay not on us a burden like that which thou
didst lay on those before us;
Our Lord! Lay not on us a burden greater than we can
bear.*

*Blot out our sins, and grant us forgiveness,
Have mercy on us, thou art our protector;
Help us against those who stand against faith*

(Holy Qur'an, 2:286)

*Peace and Blessings be upon Mohammad, the Final
Prophet of Allah, His Family, His Descendents, and his
Companions*

The Hizbul Ulama UK (The Society of Muslim Scholar in UK) and Central Moon Sighting Committee of Great Britain was established in 1403H/1984CE by Ulama-e-Deen of Britain.

Since then both organisations are working towards clarifying and helping Muslims in issues such as Masail of Ibadat (rules of worship), Salat and fasting times, supporting and alleviating the day to day problems of Muslims whilst practising their religion.

Hizbul Ulama played a vital leadership role in exposing the blasphemy of Mardood Salman Rushdi in his book Satanic Verses. Subsequently, Hizbul Ulama raised awareness amongst Muslims to protest and demonstrate against the Satanic Verses.

In direct consequences of the Satanic Verses, the author of this book was one of five person delegation of the UK Action Committee on Islamic Affairs, which attended and submitted a resolution dossier against the Satanic Verses in the 18th Organisation of Islamic Countries (OIC) Foreign Ministers conference in 1989, Riyadh, Kingdom of Saudi Arabia.

The Author's other books are, *Britianiya me Isha ka sahih waqt* (Urdu), *Aalamat-e-Mazahib aur music ka falsafa* (Urdu and Gujurati), *Ruyut-e-Hilal* (Urdu and English).