بسم الله الرحمن الرحيم

برنامج التقويم الإسلامي الدولي

International Islamic Calendar Programme

فروكزيم كليندر إسلام أنتارابغسا

Founded 1395H / 1974C.E.: ***Founder Convenor*** **MOHAMMAD ILYAS, Ph. D.**

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Albiruni Environment and Science Development Centre

IICP CIRCULAR

VOLUME

37

IICP PHASE 9: CONSOLIDATION

9 Sha'aban 1431 / 21 July 2010

Assalamualaikum

Allah subhanahu wa Taala in His infinite mercy tied up science and technology to our needs for discharging our duties to Him in the usage of TIME in such a way that it helped develop science and technology as an urgent need for the community.

Unity of TIME is so important that Allah uses Time as an element of 'Oath' in Surah Al-Asr. During the Last Pilgrimage the issue of the correct calendar basis was among the important messages delivered. It thus shows the critical nature of unity of correct Time and why we all are devoting our time and energy to try and handle this issue of development and re-establishment of correct Islamic calendar on globalised setting.

Accordingly, our primary focus under IICP is:

i) To standardize the basis for calculating the beginning of each Islamic calendar month;

ii) This basis to be imkane Ru'yah fil hilal or expected visibility of the new lunar crescent

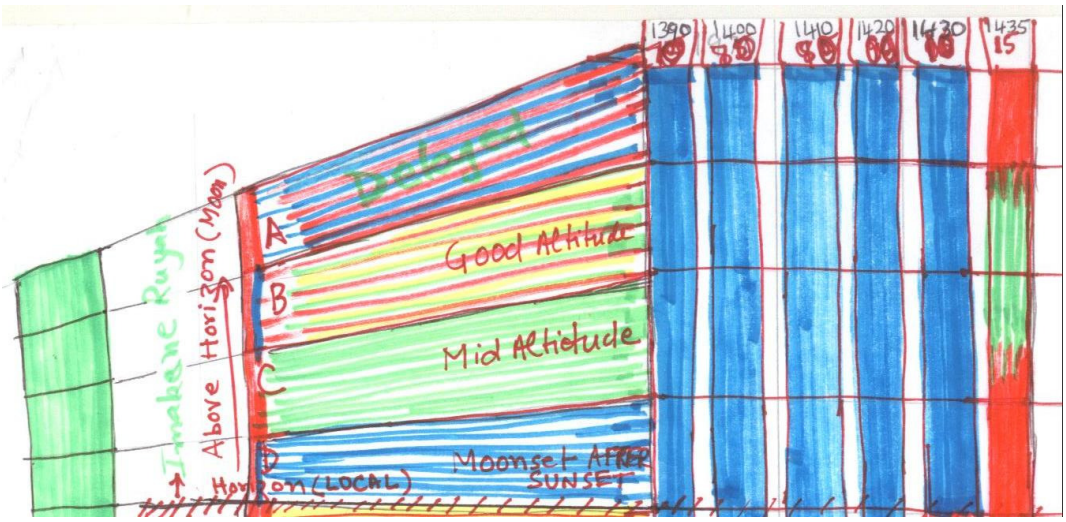
iii) Use of this information through the systematic use of International Lunar Date Lines (ILDL) in determining sighting reports and the beginning of all months but in particular the months of Ramadhan, Shawwal and Dhul Hijjah.

We need to implement 'same expected visibility criterion' for every place or region but simplified in usage with *ikhtalafe matale sharia'* consideration. It is easy to ascertain sighting reports against moonset after sunset and expected visibility considerations (OIC Jeddah RESOLUTION, PENANG DECLARATION, Saudi Arabia Decree, Islamabad Resolution, Delhi Resolution, Comstech Pakistan Resolution 32- 83, Virginia Declaration, ..and many other similar agreements over many years) with the help of global visibility ILDL data and regional calendar data using "one sighting sufficient for the region sharing same night" consideration (refer to Islamic Lunar Date Line -- ILDL—plots ; inside the curve).

Alhamdolillah with the re-affirmation of moonset after sunset as a minimum basis in the Middle East region after many years of work by individuals in these regions helps us greatly in moving towards our objective and moving to the positive half of the 'fan of criterion range' involving a family of about 50 different versions. We can all be proud and grateful to Allah for making this progress possible. I should think that about 70% of our task is done in approaching the convergence of the criterion. I have done a quick sketch on the broad progress in a schematic way which is shown below (a better version to be done). The last column's green is the target we like to reach inshaAllah. This also means that some regions are using delayed sighting of sorts which needs to be worked on.

Personal use only: Pls. do not cite this picture until we produce a better version

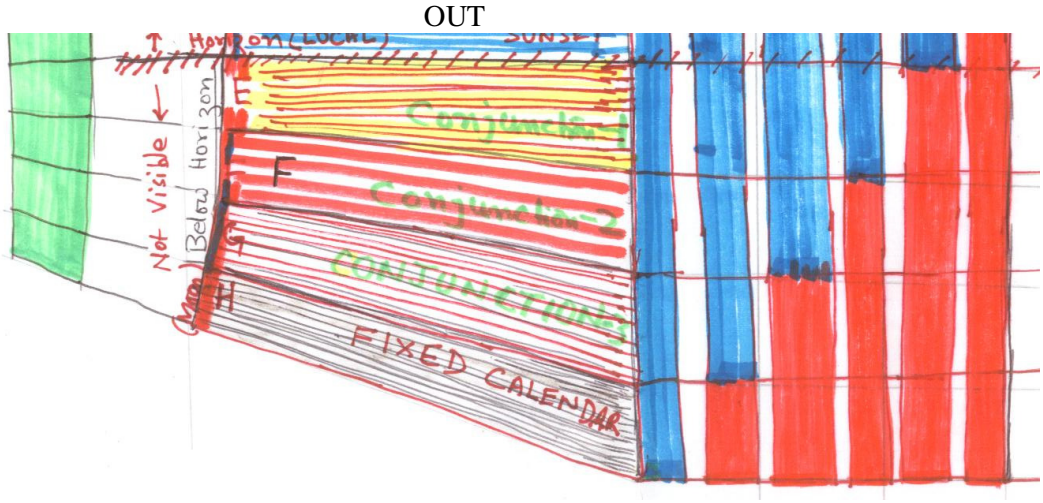
Needs convergence



Key blue colour : progression of criterion in use with time
een colour between red and blue at the end left side need to narrow the criterion use globally

The above part of criteria needs our attention in the coming years to bring it to converge on green part in the red section at the right side.

OUT



Key blue colour : progression of criterion in use with time
Red colour : series of wrong criteriona being abandoned through education
This set of wrong criteria have been put in to the history, alhamdolillah.

There is some confusion because some people are presenting presenting slightly altered forms of the basic physics based ‘altitude-azimuth’ (or its other forms) criterion by tinkering some minor adjustments and putting numerous zones. This micro tuning is generally undesirable and unnecessary since the practical use of the criterion on global scale, in view of sharia’ consideration mentioned above, makes things much simpler.

Accordingly, a criterion and resultant ILDL are a good starting point for practical simplification for a unified calendar as illustrated through these dispaches. There have also been some visibility zones added based on optical aids although there is very little physical basis and limited localized observations and the Sharis ‘s ikhtalafe Matale takes care of much of this. In any case optical aids have marginal effect due to moon being an extended object we could achieve much of this by using a long hollow tube to observe the new crescent which provide focus and cut outside distraction.

Some extracts on technical aspects are incorporated to respond to many queries which I have received but have been unable to respond to them individually. The best course of action is for individuals to get hold of the publications and skim through. The key publications are given exposure in the following input for such action.

Alhamdolillah, the Arabic book project had been successfully completed thanks to a dedicated group of people in Saudi Arabia. Another book is being positioned for the same. There are several activities which are being acted upon in consultation with specific regional/ national groups.

I like to thank you all for your dedicated contribution towards the success of this programme via education, transmission and implementation efforts and I look forward to further input on this.

Wassalam

Dr Mohammad Ilyas, IICP

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بسم الله الرحمن الرحيم

الدورة الثامنة للجنة التقويم الهجري الموحد

The Eighth Session of The Committee of Unified Hegiri Calendar

Jeddah 18-20/7/1419H 7-9/11/1998

UHC/8-98/REP.1

DRAFT REPORT OF THE EIGHTH SESSION OF THE COMMITTEE TO ESTABLIS A UNIFIED HIJRI CALENDAR FOR THE BEGINNINGS OF LUNAR MONTHS AND ISLAMIC FESTIVALS

JEDDAH, KINGDOM OF SAUDI ARABIA 7-9 NOVEMBER, 1998 (18-20 RAJAB 1419H)

Conference of Foreign Ministers;

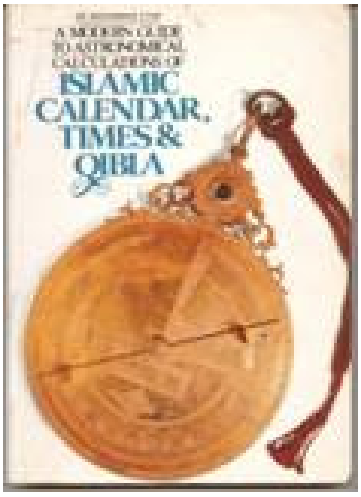
Recommends the following:

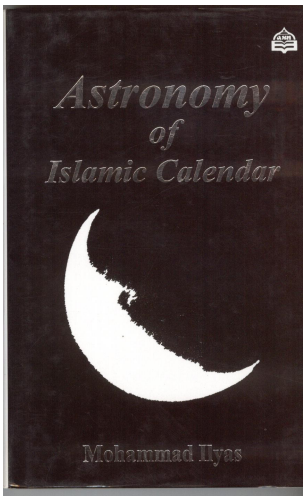
1. Preparation by a Specialized Committee, of a unified Hijri Calendar to be adhered to by the Islamic States based on the appearance of the new moon before sunset and its disappearance after sunset according to Makkah Al-Mukarramah time or to the any Islamic country that shares upon the Holy City a sufficient part of the night.

2. Observance of Friday as an Islamic festival and a weekly holiday for Muslims in all countries.

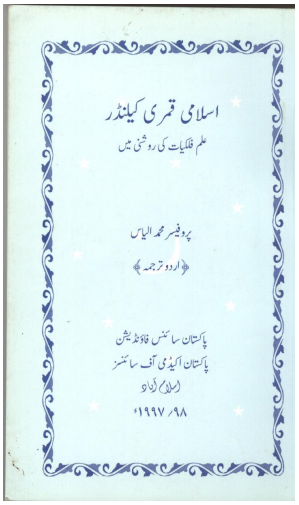
3. Ascertaining the beginning and end of month of Ramadan as well as the beginning of the month of Dhul Hijjah through Shariah sighting that is irrefutable by scientific sensory or mental proof, pursuant to the Hadith of the Prophet (Peace be upon him): “Fast and break your fast as a result of sighting the crescent. However, if the sky is overcast, consider the month of Shaaban to be thirty days”, and to the Hadith: “Do not fast until you sight the new moon”.

4. Publication in Arabic, English and French, of a quarterly scientific journal on astronomy with articles to be contributed by eminent Shariah

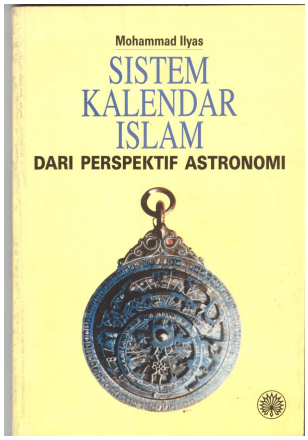




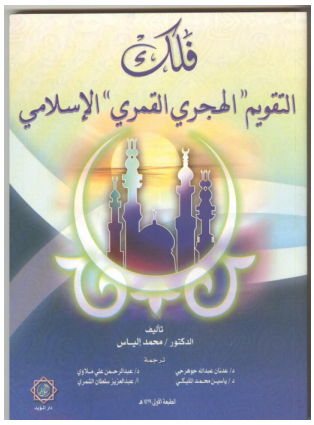
A S Noordeen, Kuala Lumpur (asnoordeen@yahoo.com)



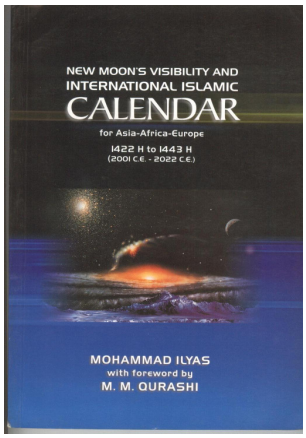
Pakistan academy of sciences , Islamabad ("Qurashi -G Shabir" <g_shabir05@yahoo.com>



Dewan bahasa dan Pustaka, kuala Lumpur



AlMoayyad Publishing, Riyadh
(abdulelah@almoayyad.com)



Pakistan Academy sciences, Islamabad (" Qurashi - G Shabir" <g_shabir05@yahoo.com>

Astronomy of Islamic calendar and translations including recent Arabic version pubished by Darul Muayyad in Riyadh (Saudi Arabia) and recent 21 year

calendar which is also going through translation exercise. These books may be obtained directly from publishers for local use.

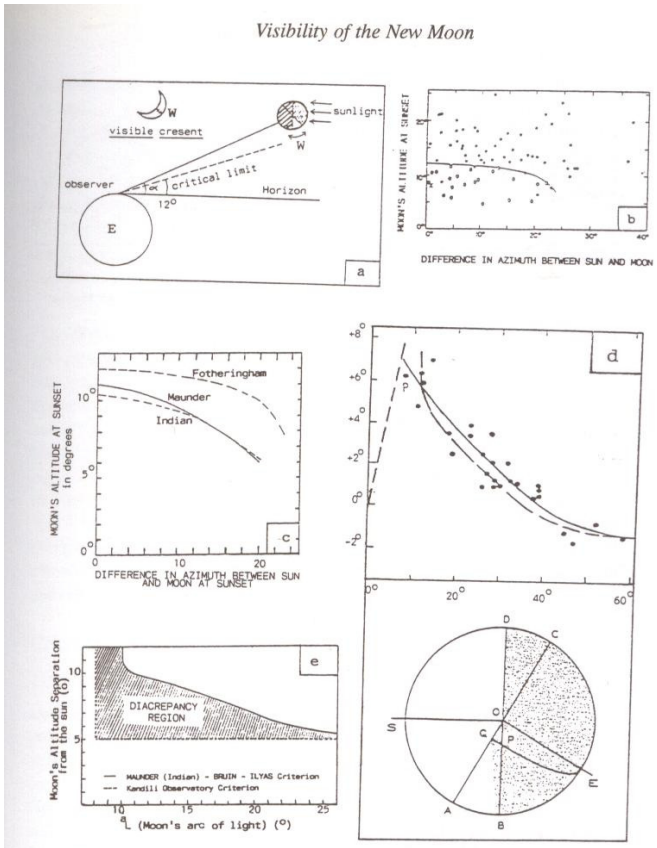


Figure 4.1b. Examples showing the evolution of 'observational' criterion: (a) Ancients, 100 B.C.: the 12° marked on the Fig. refers to the a value adopted as a standard for criterion of earliest visibility; (b) Fotheringham, 1910; (c) Maunder & Indian (Schoch) modifications, 1911/1960; (d) Danjon, 1932 and Ilyas, 1983 & Danjon Limit's geometrical configuration; (e) Istanbul/Danjon 1978.

The evolution of criterion and global visibility of the new crescent moon forming the basis of ILDL during last 3000 years including theoretical physics and observations

The evolution of criterion and global visibility of the new moon forming the basis of ILDL during last 3000 years including theoretical physics and observation

Astronomy of Islamic Calendar

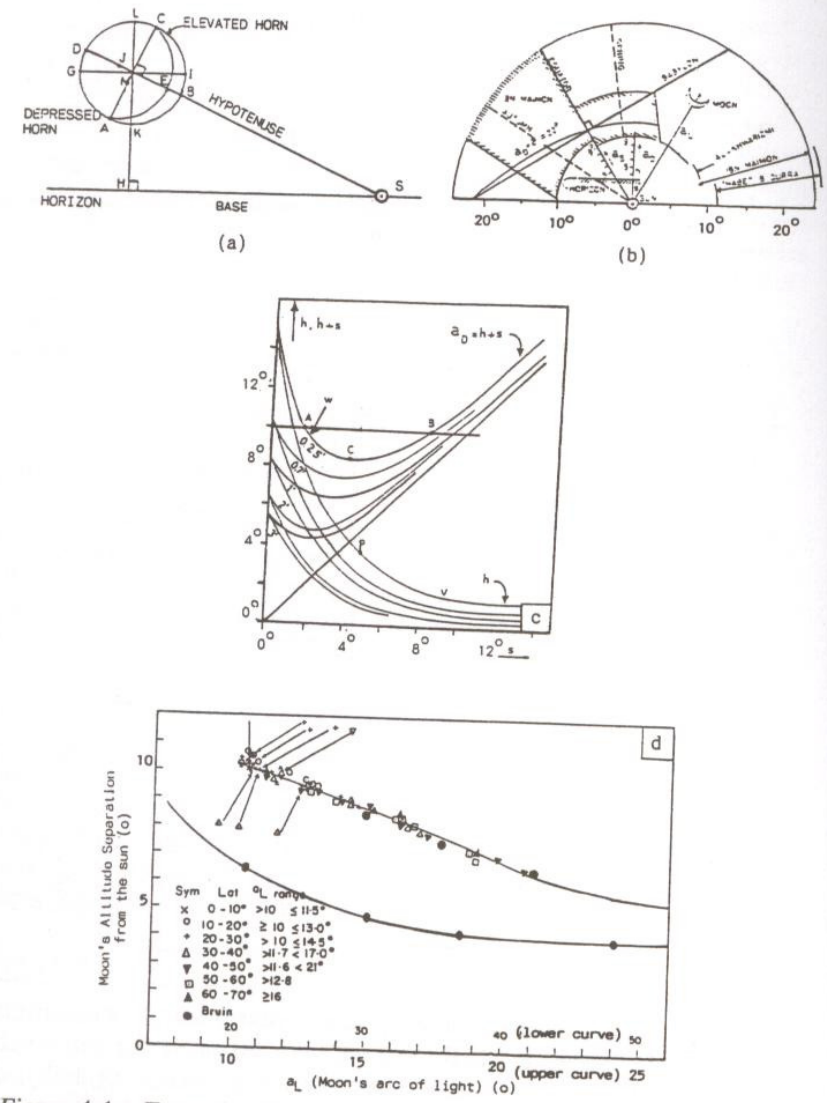


Figure 4.1c. Examples showing the evolution of 'theoretical' criterion: (a) Hindus, 500 A.D.; (b) Muslims, 800-1500 A.D.; (c) Bruin, 1977; (d) Ilyas (Bruin / Fotheringham composite), 1981.

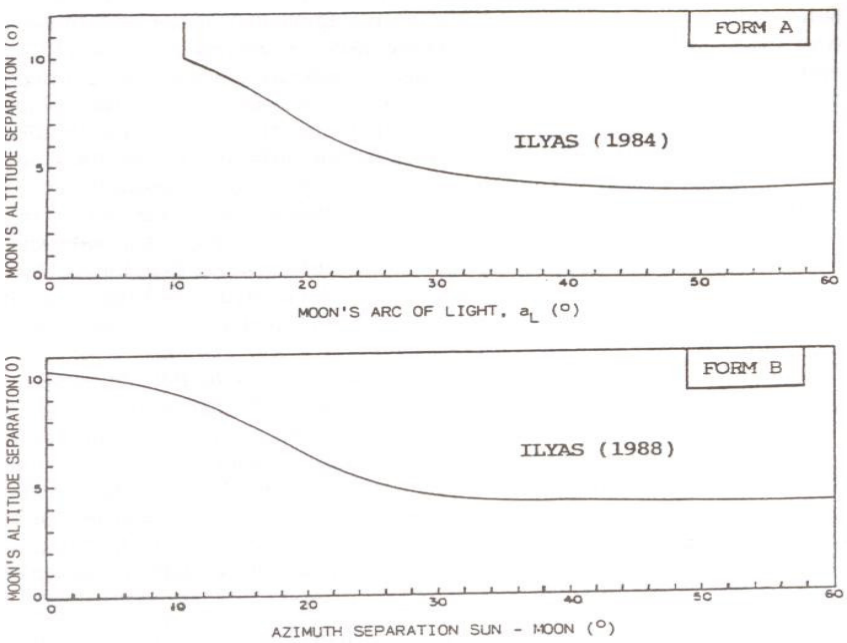


Figure 1.2. Composite extended modern criterion (Ilyas, 1988).

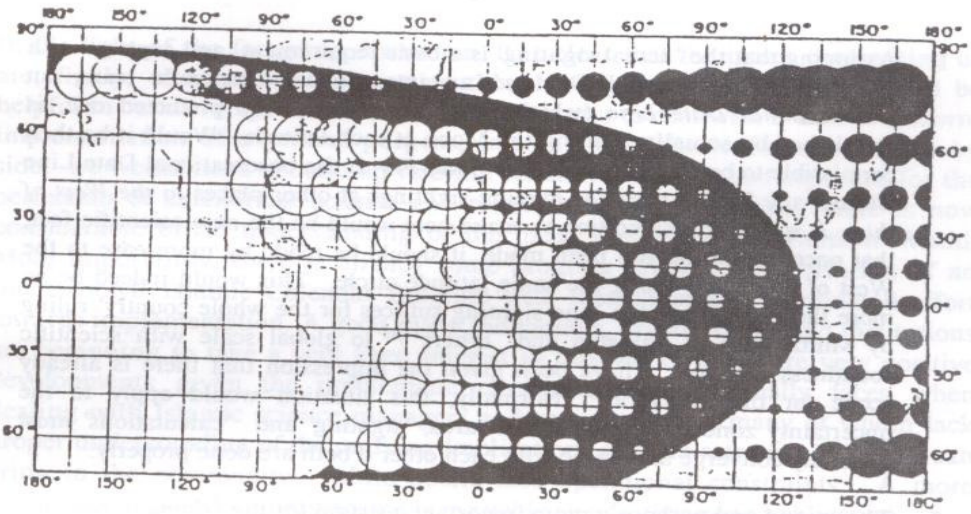
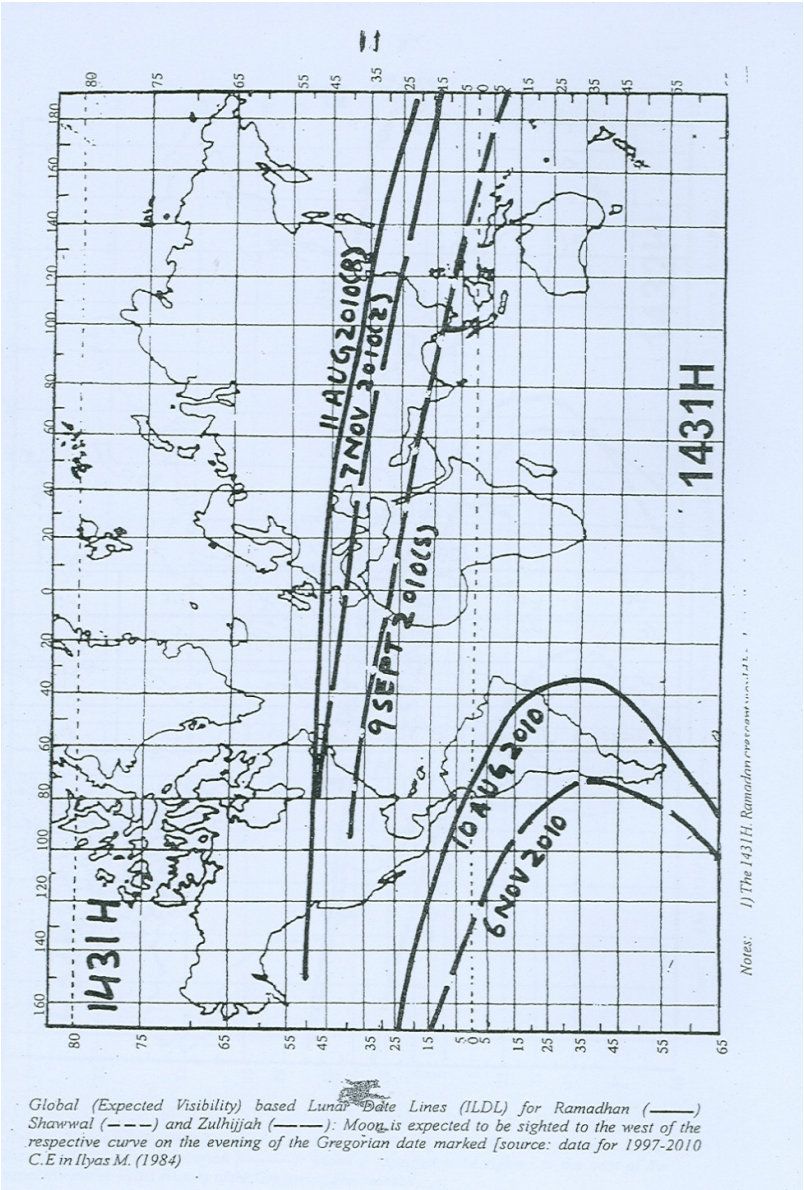


Fig. 2: Schematically illustrates how along the latitude circles, the probability of visibility decreases to the east of ILDL (growing dark circles) and increases to the west of ILDL (growing white circles).



Global (Expected Visibility) based Lunar Date Lines (ILDL) for Ramadhan (——) Shawwal (– – –) and Zulhijjah (——): Moon is expected to be sighted to the west of the respective curve on the evening of the Gregorian date marked [source: data for 1997-2010 C.E in Ilyas M. (1984)

We must remember that the expected visibility for a particular month using the chart above can be easily ascertained by noting the marked date on the particular line: for example the line marked Z (zulhijjah) shows that the new moon is expected to be visible in the zone inside the curve—southern part of Africa and south American region on the evening of 17 November (close to the situation for Shawwal moon on 19 september evening)

LUNAR CYCLE
Islamic Lunation Number: 17169
Astronomical Lunation Number: 1084

LUNAR CONJUNCTION
Julian Day: 2455409.76
Solar Day: Aug 10:0309 (UT)**

First Evening Visibility Of The New Moon: 2010 Wed 11 August

Hijrah Day 490000++	Islamic (Lunar) Date+ Year	Day#	WkDay	Date		Gregorian (Solar) Date+ Year	Day#	WkDay	Date		Julian Day 2440000++
16980	1431	238	Thu	1	Ramadhan	2010	224	Thu*	12*	Aug	15419.5
16981		239	Fri	2			225	Fri*	13*		15420.5
16982		240	Sat	3			226	Sat*	14*		15421.5
16983		241	Sun	4			227	Sun*	15*		15422.5
16984		242	Mon	5			228	Mon*	16*		15423.5
16985		243	Tue	6			229	Tue*	17*		15424.5
16986		244	Wed	7			230	Wed*	18*		15425.5
16987		245	Thu	8			231	Thu*	19*		15426.5
16988		246	Fri	9			232	Fri*	20*		15427.5
16989		247	Sat	10	رمضان المبارک		233	Sat*	21*		15428.5
16990		248	Sun	11			234	Sun*	22*		15429.5
16991		249	Mon	12			235	Mon*	23*		15430.5
16992		250	Tue	13			236	Tue*	24*		15431.5
16993		251	Wed	14			237	Wed*	25*		15432.5
16994		252	Thu	15			238	Thu*	26*		15433.5
16995		253	Fri	16			239	Fri*	27*		15434.5
16996		254	Sat	17			240	Sat*	28*		15435.5
16997		255	Sun	18			241	Sun*	29*		15436.5
16998		256	Mon	19			242	Mon*	30*		15437.5
16999		257	Tue	20			243	Tue*	31*		15438.5
17000	1431	258	Wed	21	Ramadhan	2010	244	Wed*	1*	Sep	15439.5
17001		259	Thu	22			245	Thu*	2*		15440.5
17002		260	Fri	23			246	Fri*	3*		15441.5
17003		261	Sat	24			247	Sat*	4*		15442.5
17004		262	Sun	25			248	Sun*	5*		15443.5
17005		263	Mon	26			249	Mon*	6*		15444.5
17006		264	Tue	27			250	Tue*	7*		15445.5
17007		265	Wed	28			251	Wed*	8*		15446.5
17008		266	Thu	29			252	Thu*	9*		15447.5

\+ The Islamic day & date begin at the sunset on the evening previous to the Gregorian day and date shown. The '*' sign signifies that it began on the previous sunset. For details, refer to 'Introduction to the Tables'.

++ Add the number at the head of the column to the number in the column against a date.

** UT (Universal Time, also known as Greenwich Mean Time - GMT): UT + Zone Time (ZT) = Local Standard Time (LST)

LUNAR CYCLE
Islamic Lunation Number: 17172
Astronomical Lunation Number: 1087

LUNAR CONJUNCTION
Julian Day: 2455508.38
Solar Day: Nov 06:0453 (UT)**

First Evening Visibility Of The New Moon: 2010 Sun 7 November

Hijrah Day 490000++	Islamic (Lunar) Date+ Year	Day#	WkDay	Date		Gregorian (Solar) Date+ Year	Day#	WkDay	Date		Julian Day 2440000++
17068	1431	326	Mon	1	Z'hjah	2010	312	Mon*	8*	Nov	15507.5
17069		327	Tue	2			313	Tue*	9*		15508.5
17070		328	Wed	3			314	Wed*	10*		15509.5
17071		329	Thu	4			315	Thu*	11*		15510.5
17072		330	Fri	5			316	Fri*	12*		15511.5
17073		331	Sat	6			317	Sat*	13*		15512.5
17074		332	Sun	7			318	Sun*	14*		15513.5
17075		333	Mon	8			319	Mon*	15*		15514.5
17076		334	Tue	9			320	Tue*	16*		15515.5
17077		335	Wed	10			321	Wed*	17*		15516.5
17078		336	Thu	11			322	Thu*	18*		15517.5
17079		337	Fri	12	ذوالحجه		323	Fri*	19*		15518.5
17080		338	Sat	13			324	Sat*	20*		15519.5
17081		339	Sun	14			325	Sun*	21*		15520.5
17082		340	Mon	15			326	Mon*	22*		15521.5
17083		341	Tue	16			327	Tue*	23*		15522.5
17084		342	Wed	17			328	Wed*	24*		15523.5
17085		343	Thu	18			329	Thu*	25*		15524.5
17086		344	Fri	19			330	Fri*	26*		15525.5
17087		345	Sat	20			331	Sat*	27*		15526.5
17088		346	Sun	21			332	Sun*	28*		15527.5
17089		347	Mon	22			333	Mon*	29*		15528.5
17090		348	Tue	23			334	Tue*	30*		15529.5
17091	1431	349	Wed	24	Z'hjah	2010	335	Wed*	1*	Dec	15530.5
17092		350	Thu	25			336	Thu*	2*		15531.5
17093		351	Fri	26			337	Fri*	3*		15532.5
17094		352	Sat	27			338	Sat*	4*		15533.5
17095		353	Sun	28			339	Sun*	5*		15534.5
17096		354	Mon	29			340	Mon*	6*		15535.5

\+ The Islamic day & date begin at the sunset on the evening previous to the Gregorian day and date shown. The '*' sign signifies that it began on the previous sunset. For details, refer to 'Introduction to the Tables'.
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It is up to the local organizations to decide whether to use local sighting only at their place or use it at national or regional level in starting the key months like Ramadhan but refer to the ILDL plots for better reflection and clarity. OIC and other Resolutions clearly state the need for ascertaining sighting reports in an irrefutable way.