

HILAL (CRESCENT MOON SIGHTING)

INTRODUCTION

The mas'ala of sighting of the moon itself is not an issue of *Taqleed*. Aayatullah Al-Seestani Dama Dhillihu has stated that, quote: "The first day of any month will not be proved by the verdict of a Mujtahid and it is better to observe precaution". But it is certainly a matter directly involving *Taqleed* on its prerequisite requirements in establishment of the new crescent which one has to adhere according to the dictate of his *Muqallad*.

Indeed, the fact remains that sighting of the new crescent is a matter of personal satisfaction which boils down to the fact that moon sighting is an "infiradi" mas'ala and acceptance of astronomer's statement should not be imposed and made an obligation to follow especially to those who neither have the capability nor the resources to establish and get conviction and assurance that their calculation is always 100% correct.

METHOD OF ASCERTAINING THE FIRST DAY OF A MONTH

NEW MOON

The New Moon phase is defined as the moment when the Moon is almost directly between the Earth and the Sun. At this moment the Moon's dark surface faces the Earth and is completely invisible. The exact date and time of this invisible New Moon is commonly found in Almanacs, diaries and newspapers.

NEW CRESCENT

The Islamic month begins with the first visibility of the lunar crescent with naked eyes. Sighting of the new moon is ascertained by knowledge of the actual sighting or through reliable news of such sighting. However, sighting of the new moon is not recognized by the evidence of women, or by the evidence of one just witness, even with oath, or by the words of astrologers.

PROOF OF CRESCENT SIGHTING

The Marja' are unanimous that crescent sighting is proved:

- When one personally sees it.
- By certainty or conviction. For example when many people say that they saw the crescent, or by some other way one becomes convinced about the appearance of the crescent.
- When two ' *Adil* (righteous) male persons stand witness to the fact that they saw the crescent.
- When 30 days of a lunar month are completed.

Ayatullah al Uzama Syed Ali al Husaini Seestani further states that:

- The 1st day of any month will not be proved by the verdict of a Mujtahid and it is better to observe precaution.
- The first of a month will not be proved by the prediction made by the astronomers. However, if a person derives full satisfaction and certitude from their findings, he should act accordingly.
- If the moon is high up in the sky, or sets late, it is not an indication that the previous night was the first night of the month. Similarly, if there is a halo round it, it is not a proof that the new moon appeared in the previous night.
- If the first day of the month is proved in a city, it is also proved in other cities if they are united in their horizon. And the meaning of having a common horizon in this matter is that if new moon was sighted in a city, there would be a distinct possibility of sighting it in the other cities, if there were no impediments, like the clouds etc..

Note: In the past, if the moon was sighted in the east, it was good for the west irrespective of the fact whether they were north or south of the point of sighting. Now, with the issue of science showing us the range of visibility in a curve/egg shaped form, the *fatawa* of Ayatullah Sistani reflect that by making "the possibility of sighting" as the condition for the points in the west, north and south of where the moon was sighted.

ADVICE OF AYATULLAH AL-SISTANI

There is no escaping the different beginnings of a lunar month as it is a direct consequence of differences in rulings by respected Jurists related to the beginning of a lunar calendar month. Every person must act according to the rules of his/her Marja-e-Taqlid as is the case with rulings on all other Fiqh issues on which Jurists differ. It is important to educate Mumineen to accept these differences and not allow these to be a source of discord and animosity between them.

THE VALIDITY OF ASTRONOMICAL DATA

Our jurists have also addressed the question of the validity of astronomical data in determining the new lunar month. Based on the experts who provide astronomical data, they emphasize that their data does not predict the visibility of the moon with certainty; they can only calculate with high precision the time of birth of the new moon. Therefore, it cannot be relied on with certainty in determining the sighting of the new crescent moon. In addition, we can rely on astronomical data to verify where the new crescent moon cannot be seen.

SHARING CURVE OF SIGHTING THE CRESCENT MOON

A sighting of the new crescent moon in a city can be used to determine the beginning of the new month in that city and its vicinity. According to the view of His Eminence Grand Ayatollah Sayid Ali Al-Sistani, if the new crescent moon was sighted in one area, the sighting can also be used to determine the beginning of the month in areas sharing the same curve of sighting. In such areas, the altitude and size of the new crescent moon is close to one another.

USE OF SCIENTIFIC DATA TO DETERMINE THE FIRST OF EACH LUNAR MONTH.

The question that arises is: Can we use scientific data to determine the first of each lunar month?

Sayyid Muhammad Rizvi writes:

This is an issue hotly debated among the Muslim scholars all over the world. I myself have been following the debate and also observing the scientific method for the last ten years. There are some aspects of the Islamic calendar which can be surely based on the scientific data; however, there still are issues which science has not been able to solve for us as yet.

At this stage, science is able to provide for us all the details about the movement and position of the moon around the earth: it can precisely predict when the birth of the new moon will occur, at what angle and at what location in relation to our earth.

We are also told by the experts that when and where the moon will be visible; and where it cannot not be sighted. For example, we are told that the first sighting of the crescent is possible only sixteen hours after the birth of the new moon. Experts can also give us a graph showing the location where the sighting will be possible.

I personally have confidence in such predictions based on the scientific data. BUT the problem lies in the following:

- (a) the 16 hour criterion by the experts is based on the observation done by the scientists in North America and Europe during the last 90+ years.
- (b) reliable witnesses in the Middle East have claimed the sighting of the moon when the new moon was just 9 hours old.

When I look at this situation, I am faced with two possibilities: EITHER the sixteen hours criterion is valid only in the western hemisphere and that it might be possible to sight the moon of an age lesser than sixteen hours in desert areas where the atmosphere is much more clear. OR the reliable people in the Middle East have seen something but not the moon!

In conclusion, although I trust and have faith in the scientific data regarding the sighting of the crescent, we still need further confirmation from the scientific world about the universality of the sixteen hours criterion for moon sighting. When this criterion becomes universal, then it will be definitely possible for us to predict the beginning of the Islamic months well in advance.

