Question: Should we observe the visual new moon crescent: as observed locally, or as it is seen from Jerusalem, which?

Analysis: This is not a simple question. It is not really a question about the rules of the calendar, but about the administration of applying the rules over a full 360 degree earth. I will attempt to break it out logically. There are two basic approaches:

1) is to "Use An International Date Line Approach", and
2) is to "Keep It As You Observe It Approach".

Use An International Date Line Approach:

Here are the steps in logic:

1.) Consider a location in Bend Oregon, which is 121.30 degrees west, and Jerusalem is about 35.22 east. This nets about 156.52 degrees separation from Jerusalem. Half around the globe would be 180 degrees from Jerusalem, or at about longitude 144.78 degrees west. Thus, Bend Oregon is about 23.5 degrees short of being half way around the earth from Jerusalem.

2.) It takes about 12 hours for the earth to rotate half way around. This is 15 degrees every hour. So 156.52 degrees means that Bend Oregon sunsets are about (156.52 / 15) 10.43 hours after Jerusalem's sunsets.

3.) Since Bend Oregon is about 10.43 (from now on I will use 11) hours after Jerusalem, the moon has around 11 hours of time to grow visually thicker and brighter in its new crescent visibility, by the time I try to see it in Bend Oregon.

4.) The extra 11 hours means: that if Jerusalem observers can see the crescent, then I certainly can see it.

5.) The extra 11 hours means: that if Jerusalem observers cannot see the crescent, then 11 hours later I may possibly be able to see it, even though they did not.

Now, what if the Jerusalem observers do not see the crescent, but I do? The critical questions is:

5a.) Do they accept my report, or
5b.) Do I ignore my own sighting, and wait a full 24 hours, letting the Jerusalem observers finally see it?

6.) Before the above can be answered, this question must be answered first:

"How far west of Jerusalem do the Jerusalem observers allow others to see the new crescent for them, so that the observers in Jerusalem will accept their sightings as being valid for themselves too?"

7.) Look at this question from the reverse direction. If you were standing 1 mile east of other people in Jerusalem, and did not see the crescent, but those other people, 1 mile west of you, did see it, would you (just 1 mile away from them) decide to wait 24 hours , insisting that you have to see it for yourself?

8.) Also, one needs to keep in mind that sighting a new crescent is in itself a "lucky" event. The "luck" comes in the form of "no clouds", "no haze or dust", "no humidity", "not too windy", "the moon was bright enough", and "the moon was above the horizon long enough for it to get dark enough". This is to say, that it is easy for one person to spot the new crescent while the people "right over there" do not. In practice we must all be willing to accept the sighting of another person, as if it were our own.

9.) Therefore, most would think it is reasonable that people be willing to accept a sighting from someone only 1 mile from themselves. In fact, the Jerusalem synod would allow witnesses to come and give testimony of the new crescent 18 hours later, all the way up to 12 noon the next day. **The main point is that sightings from western observers were considered valid by the synod**.

10.) But the question becomes: “How far west of themselves were the observers in Jerusalem willing to accept?” How about 100 miles? How about ¼ the way around the earth? How about ½ the way around the earth? Half way around the earth would effectively establish an International Date Line in the Pacific Ocean, beyond the Oregon coast but before Hawaii.

11.) Now, half way around the earth means that the Jerusalem observers will accept a westerner's sighting, 12 hours later, all the way up until the next morning their time. For example, they would accept a report from Bend Oregon. Without telephones and the Internet, the people in Jerusalem will have 12 hours of “uncertainty”, wondering if that night was a new moon night or not.

> Note, that some suggest that the International Date Line be at Jerusalem. In this approach, a new crescent is observed over Jerusalem, and then instantaneously the whole earth is informed of the new month.
>
> But notice that this approach has exactly the same uncertainty of 12 hours, just for someone else. Those ½ day east of Jerusalem have the 12 hours of uncertainty. That is, those east of Jerusalem, towards China, are already into their night, but they will not know if it’s a new moon night or not, until it is Jerusalem’s turn at trying to see the new crescent.
>
> <u>Thus, it does not matter where you place the International Date Line, as ½ of the earth will have the (up to) 12 hours of uncertainty problem</u>.
>
> Also, as an additional problem, with setting Jerusalem as the International Date Line: if Jerusalem does not see the crescent, then everyone west of it must wait. This means

that those west may actually see the new crescent in their sky, but are prevented from observing this event for up to 24 hours, as they must wait for Jerusalem to see it first.

Thus, in conclusion:
with the International Date Line at Jerusalem, ½ of the earth is not allowed to observe their own new crescent event, and the other ½ of the earth has up to 12 hours of uncertainty.

Most should agree that placing the International Date Line at Jerusalem is a very poor administration.

12.) But what about the observers that live 1 mile on the far side of "half way around the earth"? If no westerner's saw the crescent, do they still have to wait a full 24 hours before they keep the new moon, even though they saw it in their own sky?

13.) For these reasons, it is hoped that most will agree that the solution to #12 is that those observers beyond the International Date Line need to observe the new moon as they see it. For example, those in China or Babylon would observe it as they see it, knowing that Jerusalem will do the same in a few hour. **This administration is exactly how the Sabbath sunset is kept, it is observed as it comes to your location**.

14.) In summary, there are two primary administrations:

Administration #1, allow only new crescent sightings made in Jerusalem, so that:
- ½ of the earth west of Jerusalem is not allowed to observe the new crescent event, and the other
- ½ of the earth east of Jerusalem has up to 12 hours of uncertainty, wondering if those in Jerusalem will see it.

Administration #2, allow everyone to observe it as it comes to them.

15.) Another administration decision is to try to have the whole earth keep the new moon on the same Gregorian calendar day as in Jerusalem. However, this is not really a serious consideration. The ancient observed calendar has nothing to do with our modern Gregorian calendar.

16.) Another administration decision is to try to force the whole earth to be subject to the observers in Jerusalem. This goal sounds Biblical, until you consider that everyone living prior to our modern Internet and telephones could not have been able to keep this administration. Prior to these modern tools, people outside of Jerusalem would have no way to know what the folks in Jerusalem could or could not see. **Only in our modern times is this administrative approach even a consideration. This fact alone suggests that this administration method is not what was used in ancient times.**

B.) Keep It As You Observe It Approach:

Note that this is also the same approach that ½ of the earth must use anyway to implement the International Dateline Approach (step 14 above). Here are the steps in logic:

17.) Just as with the Sabbath, sunset occurs and the next day begins. So also each observer keeps the new month as it comes to them. When they see the new crescent, they start the new month.

18.) Individuals and groups will also accept other observer's sightings. Since we have telephones and the Internet, we can assume instant communication of validated sightings. This acceptance has two directions: accepting sightings east of yourself, and accepting sightings west of yourself. These will be addressed starting with #22 below.

19.) Thus, with this approach the new month begins starting at some " first observers' " longitude on the earth. Those west of the "first observers" know that it is the new moon night, while those more than about 10 degrees east of the "first observers" know that their region could not see it yet. If no one in your region could see it, then there is nothing to celebrate until the next night anyway.

20.) The advantages to this approach is that it is very simple, has a historical basis in that it is the same method as Sabbath observance, and there is no delay in knowing if the new month has started.

21.) One disadvantage to this approach is that some observers may decide to accept a sighting, while other observers "next door" decide to wait a day. This looseness goes against the idea that God's Holy Days must be on a specific day for everyone, or else.

A similar disadvantage is that some larger Church groups may not want to have the Holy Days scheduled on different Gregorian calendar dates. For example, Denver on one date and New York (who did not see the crescent yet) waiting to the next day. One solution is to allow any sighting on the west coast of California or Oregon to be acceptable for the whole group in the United States, so both New York and Denver are scheduled on the same Gregorian date.

One of the biggest objections to this approach is that the whole earth is not synchronized to keeping the new moon as it is proclaimed as sanctified in Jerusalem.

22.) Accepting sightings east of yourself: If the crescent is sighted east of yourself, then that means that you have even a better chance to see it then did they. The eastern observer saw the crescent first, more time elapses while the earth spins to your more western longitude, the moon grows even brighter, and then you can see it. Therefore sightings by an observer at a specified longitude are accepted by all others at or after (west of) that observer's longitude. For example, if observers in Denver see the crescent, then everyone west of Denver would accept the sightings too.

23.) Accepting sightings west of yourself: As explained in #8 above, it is only practical that each of us accept a sighting from a more western observer. The question posed is: "How far west of yourself do you allow observers to see the new crescent, so that you will also accept their sightings as being valid for yourself?" This is the same question as posed in #6 above, with the International Date Line Approach. The answer in #6 is "12 hours". But we can establish an authoritative basis for an answer

24.) The first question to ask is one of motives: "Am I waiting for another observer because it was cloudy and I just could not verify the crescent, or, do I know that there was really no way I could have seen the crescent, but I am still waiting because I want to keep the same day as those who are west of me?" This question of motives is very important, but it does not matter how we would answer. What matters is how the astronomy scholars of the Second Temple Era would have answered. Our logic should be based upon the authority of their calendar (not ours).

25.) It can be argued that the observed calendar of the Second Temple Era, by allowing witnesses all the way until noon the next day, 18 hours later, demonstrates that they not only were willing to accept 18 hours of uncertainty, but also suggests that they would accept a western sighting even though they knew it was improbable for the crescent to be seen over Jerusalem.

26.) Okay, lets analyze this. They did not have telephones back then, so what exactly does 18 hours mean in terms of walking or riding a horse? But it's not really 18 hours, as the observer might decide to sleep first, before a long trip to Jerusalem. If we allow 6 hours of sleep, then we are allowing 12 hours of travel time. If your walking that's only about 15 to 30 miles. If your riding a horse that's about 60 to 200 miles.

That's not very far, so lets be generous and allow witnesses on really fast horses with incredible endurance that can race 300 miles of lateral western longitude (they would have to dip down towards Cairo Egypt to avoid the Mediterranean Sea, so that the actual distance traveled would be much greater) over sand within 18 hours. I am being most generous to make a point.

The reality is that 300 miles of lateral western longitude on the ground only represents about ((((300 / 25000) * 360) / 15) * 60) = 17.28 minutes of solar time (earth's spin).

That is, if you were standing in Jerusalem at sunset, and you said: "sunset is now", and then you waited 17.28 minutes, the western witness waiting on his super fast horse of incredible endurance will then at that moment also say: "sunset is now".

27.) Thus, we see that allowing 18 hours for witnesses to arrive in Jerusalem is the same as only allowing the crescent to grow in visibility by 17.28 minutes or less.

Now, can a western witness better see a crescent that grows by 17 minutes? In 17.28 minutes the crescent will only grow in illumination by about 0.022%, which is completely

indiscernible. Because I exaggerated the 300 miles, I can now strongly argue that: by waiting for witnesses, the calendar priests were not attempting to give the western observer any advantage due to having greater visibility. The only purpose for allowing others to be witnesses was to compensate for cloudy or otherwise obscured conditions over Jerusalem. Their motive was not to cheat the moon's visibility. Mathematically, the strength of this argument does not diminish until you allow witnesses to travel about 700 miles to Jerusalem, in the allowed 18 hours.

28.) Since we are not trying to allow significant extra time to elapse so that the moon's visibility becomes more likely to be seen by a western observer, it then follows that the 18 hours of uncertainty experienced by the Temple's synod was due to travel time, not because they wanted to wait that long. Certainly, if they witnessed the crescent themselves they would not wait another second. **Therefore, it is not a tenet of the observed calendar that we must have uncertainty**.

29.) So, how far west can we allow without giving the western observer a significant advantage because the moon is brighter? As one example: in Jerusalem on September 18, 2001 in the evening near 19:30, looking for the new crescent of the 7th month, the moon grew in visibility at the rate of about 0.1% illumination per 39 minutes. That is not much change in 39 minutes, but twice this value (0.2%) is potentially large enough to represent an advantage. **So, about 40 minutes, that is about 10 degrees of longitude, which is also the time it takes after sunset for twilight to end, is an astronomically based, reasonable, and unassuming value**.

30.) Therefore, it is reasonable and unassuming to allow 40 minutes of uncertainty, in which time you wait to find out if a more western observer has better visibility than yourself. Thus, accepting sightings which are 10 degrees (about 700 miles) or less more western than yourself is astronomically acceptable. Accepting a western observer to be up to 40 minutes, 10 degrees longitude, after yourself, will effectively allow communities and regions to be synchronized on the same lunar day.

The Answer:

Although the "Use An International Date Line Approach" seems more logical to the western mind, it is the most frustrating. The advantage of the whole earth being synchronized on the same Gregorian calendar day with Jerusalem is arbitrary (that is, who cares about keeping the same Gregorian date), and requires the penalty that ½ the earth waiting up to 12 hours in uncertainty, while the other half are not allowed to observe it as it comes to them. Notice that another way of saying this is: ½ of the earth's population does not really observe the new crescent, they are waiting up to 12 hours to see if Jerusalem does. Thus for ½ of the earth this administrative approach is not really an observed calendar, while for the other half of the earth it is.

A way to avoid this penalty is for Jerusalem to declare the new month based upon the mathematical probability that the new crescent will be seen by someone by the time it gets to the west coast of America. This would solve the problem, but then, is this approach still to be considered an observed calendar? The new month would be declared by calculations, not observations.

Because International Date Line approach splits the earth into implementing two different methods, one side waiting and the other side observing, this approach seems a very poor administration.

The "Keep It As You Observe It Approach" is the most practical. This approach has the whole earth using the same method, with little uncertainty for local observers, and has everyone using a truly observed calendar. Further, this method may be used even without modern communications. **It would be the only method you could use if your community were isolated, or for those living over a hundred years ago**.

1.) The disadvantage posed to larger groups is actually not a real problem. It is arbitrary to insist that everyone within a large region (like the size of the United States) all must keep the same Gregorian calendar date. Gregorian dates are used for scheduling reservations at hotels, not for keeping the Sabbaths, nor for keeping the new months.

There really is no problem with letting each new month begin at some movable longitude (meaning each month the new month starts at a different place on the earth). If it turns out that in some years Denver keeps the Holy Days one Gregorian calendar day ahead of New York, then so what? For New York (because they did not see the crescent) it is still nighttime of their 30^{th} day of the lunar month. For Denver (because they did see the new crescent) it is nighttime of their first day of the next lunar month. But then later, for New York it will become nighttime of their first day of the next lunar month. **The observed calendar should assume a sunset-to-sunset definition of: "The Same Lunar Day"**.

The issue is: "The Same Lunar Day": In our culture we do not like to think about a Holy Day phone call from Denver to a friend in New York who is not keeping that same Gregorian day Holy. But this is exactly how the Sabbath works. A phone call between New York and Denver can occur on two different sunset-to-sunset dates, one person is keeping the Sabbath while the other is not keeping it yet.

This perceived problem is only a problem because we have the potential for instantaneous communication over large distances. The fact that you can communicate instantaneously over large distances is not a calendar problem, it is a social problem.

2.) The other disadvantage, that of the potential for "looseness", is somewhat troubling, but then again, for what reason did the observers "next door" decide to wait a day? Why did they not accept the sightings of others? If they are "separatists", and "all that independent", then are they really part of the consideration process for everyone else

anyway? Achieving 100% cooperation from 100% of everyone may not be an attainable goal. Lack of cooperation between groups is certainly not a problem the lunar calendar can try to solve.

As the new crescent's visibility gets greater and greater as time elapses, sightings east of yourself should be immediately acceptable to everyone really wanting to participate in keeping unity. If it turns out that Dallas waits a Gregorian day while Sacramento keeps a different Gregorian day, is that "disunity" or is that "the natural result of implementing a truly sunset-to-sunset calendar"?

3.) In response to the biggest objection: that the whole earth is not waiting for the new moon to be sanctified in Jerusalem. This objection is based upon the concept of the signal fires spreading out from Jerusalem to tell all of the other communities that "it is sanctified". The idea being that Jerusalem must first proclaim that: "it is sanctified" before anyone else can say it too. But, is this really "true", historically?

This objection is based upon the assumption that only the priesthood residing in Jerusalem can determine the calendar. But historically this assumption is not valid. The numerous ancient academies trained the astronomy scholars to be scribes and priests. Those graduates lived and officiated throughout the greater region and beyond. They knew the calendar's rules. It was their responsibility to determine the calendar for their community, even while submitting themselves to the supremacy of Jerusalem's decisions on "close-calls". When visibility was unclear, they communicated with others. We have some of these letters, so we know this to be a fact. Seeing a signal fire, either initiated in Jerusalem or Babylon, was great confirmation, but "the calendar" is still "the calendar" even if those signal fires never appeared. That is, if no signal fire ever got there, then the local community did not just stop keeping the calendar and Holy Days. They figured the calendar out on their own too.

Please carefully read the footnote of "Hananiah Was Ruled Wrong, So Therefore Hillel Was Wrong Too", found in ENC202. This historical evidence demonstrates that the calendar was indeed proclaimed locally, by each community's local scholars. The bissextile years and "close calls" were made by the central synod.

Because the greater region around Jerusalem spanned about 30 degrees (about 1 solar hour in each direction), synchronization around Jerusalem was astronomically valid. What they accomplished with signal fires is very similar to what we would accomplish today by using an Internet Web Site tracking the new crescent sightings for a local region. We would be communicating for the purpose of synchronizing with those around us in our same general longitude.

It is not a tenet of the observed calendar that we must wait for a priest in Jerusalem to sanctify the crescent first. We can see it for ourselves in our own sky. Because our communication methods are even faster than signal fires, confirmations and synchronization can be accomplished region by region, and worldwide.

More Administration:

I. Observation should be made with the "naked eye", ONLY. Binoculars should not be allowed to sight a new crescent. The reason is simple. Consider that the purpose of using binoculars is so that you can see a thinner crescent, sooner after conjunction (the Molad). Thus, the "ultimate super binocular" would allow someone to see a super thin crescent only moments after conjunction. Allowing such sightings would effectively render the calendar to become a Molad calendar instead of a new crescent calendar. The original observed calendar was based upon observing the new crescent, 15 or so hours after the Molad. It is not desirable to shift the calendar towards the Molad. Thus, binoculars should not be allowed.

II. How Far South Is Acceptable For New Crescent Sightings?:

Recently many have come to understand that the administration of an observed calendar over a 360° earth has several administrative complications. Since the earth spins on a tilted axis, and since the moon orbits on a tilted plane; when an observer seeks to see the new crescent at twilight the moon may be astronomically positioned in either the northern or southern hemisphere. When the moon is orbiting in the southern hemisphere, a northern hemisphere observer may not see the crescent because his local moon-set comes too soon, while at the same time and at the same longitude, an observer in a lower latitude (for example Baja Mexico) has more time before his local moon-set, and so he can see the new crescent. On the wall-clock it is the same time of day, but, those in the more northern latitudes may not see the crescent while those in the more southern latitudes can.

What this common astronomical lunar phenomenon magnifies is the debate over local observation versus Global Observation. Some feel that if they cannot themselves see the crescent, then it never happened. Others allow someone else to see it for them, but then they arbitrarily limit who and where that other person must be standing. Still others feel that any observation of the new crescent anywhere in the world is valid, and starts the new month day from that sighting forward.

Here is an Argument for Administrating the Observed Calendar Using Global Observation

1. Consider the Sabbath. When the sun sets you start the Sabbath. Okay, some start the Sabbath as the sun rises, but it is still the same principle. You watch the sun and make a decision when to start the Sabbath.

2. Consider what happens if you live in Alaska: You cannot keep the Sabbath by using the rule of physically observing sunset. Sometimes the sun does not set for months. What do you do? You must use the wall-clock instead, and watch 24 hours tick by. By doing this you understand that sunset for "most people" living at the lower latitudes is about 6pm on Friday, so you start your Alaskan Sabbath when your clock reaches 6pm on

Friday, even though the sun may be high in the Alaskan sky. **Thus, you are no longer observing sunset, you are understanding astronomy to make an administrative decision**.

3. Consider what this administrative decision is doing astronomically: You are understanding that the earth is a slightly flattened ball, and that at the higher latitudes you cannot administer the beginning of the Sabbath using the same observation rules as everyone else. That is, **you must calculate what is happening at the lower latitudes in your same general longitude**. Even though this calculation is simple, you just look at the clock, an understanding of astronomy is still being applied for proper administration. For example, you living in Alaska understand that you want to keep the Sabbath synchronized with San Diego, and so you start your Alaskan Sabbath when those in San Diego start theirs. **An observer physically seeing the sun's setting in Alaska has nothing to do with when the Sabbath begins in Alaska. Thus you are administrating the Sabbath using Global Observation**. You know that the Sabbath has started for those south of you, and so therefore the Sabbath has started for you too.

4. Consider what happens if you do not use Global Observation: Well, Alaska would be keeping Sabbaths completely differently than the rest of the earth's population. Some Alaskan Sabbaths would be quite short, some would last for months, and the Alaskan Sabbaths would never be in synchronization with most of the earth. Thus, in the more extreme regions of the earth it would be chaos to use an administration insisting upon only local observation.

5. Consider that such an unsynchronized Sabbath situation gets more and more synchronized with the rest of the earth as you travel south: The farther you get away from the north pole the more synchronized you will be with everyone else. Eventually you can travel to a lower latitude that has sunsets very common with the majority of the rest of the earth. **Thus, those living in the higher latitudes must make personal judgments as to when they can administer the start of Sabbath by either watching the wall-clock or by actual observation**.

6. Consider that the observation of the new crescent has exactly the same circumstance as does the Sabbath: Instead of talking about a sunset you are talking about the moon's faint light just before it sets, and instead of starting a Sabbath day you are starting a new month day.

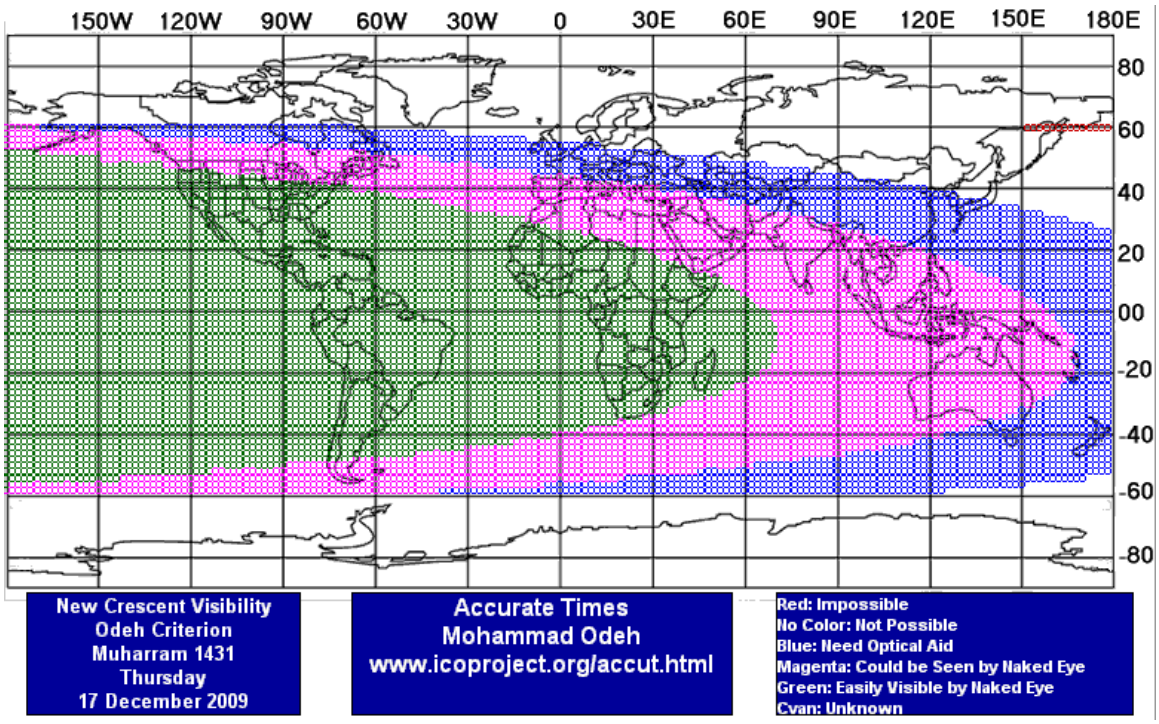
7. Consider that the observation of the new crescent has exactly the same administration decision as does the Sabbath: Those in the higher latitudes, for example Oregon, Washington, and Alaska, are in the situation that the rotating flattened ball they are standing on may cause the moon to set or not set completely differently than it does for the lower latitudes. As a fact, in some months every year the Torah keeping people in South Africa will see the new crescent, but those in Florida will not be able to see it. Further, in some months those living in Alaska may never see the moon at all. Therefore,

just as with the Sabbath, **they are compelled to administer the "start-rules" using an understanding of astronomy rather than a strict reliance upon personal observation**.

8. Consider that: just as when the earth spins so that the Alaskan wall-clock reaches 6pm to start the Sabbath day; so too **when the observed new crescent moon starts to sweep across the skies in the lower latitudes, those in the higher latitudes understand that the new moon day has begun on earth for them too**. You keep the Sabbath as it comes to your general longitude, and so also you start the new month day as it comes to your general longitude, even if you personally do not see the crescent.

9. The earth has two hemispheres. Jerusalem is only in the northern hemisphere. The moon's first visibility may be seen by people in either hemispheres. Thus, the sunset and evening of the new moon starts as people of either hemisphere starts to see it.

As time progresses from the first sighting in either hemisphere, everyone else has an even easier opportunity to see it. Therefore, people making sightings of the new crescent, begin a sweep that has a starting place, and then increases in breadth across the planet as time progresses. The following chart demonstrates this.



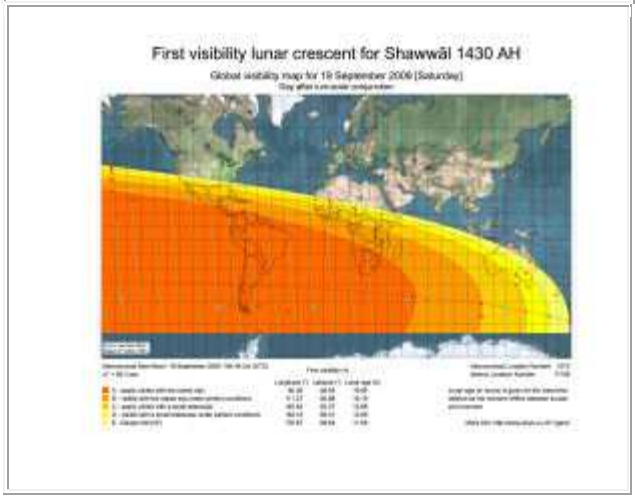
This chart is just one example to make the point. Every month there is a different sweep that starts somewhere on the globe, and then gets ever-easier to see for those more west. (Another source: http://www.moonsighting.com/ .)

Notice that the moon can be seen first (the magenta area) starting in the southern hemisphere near Australia. People in South Africa have no trouble at all seeing the new

crescent. Notice that those in Jerusalem are on the edge, they may not see it. Because people in Jerusalem do not see it, does that mean that the new crescent sightings south of them do not exist?

Below is another example:

Second day after conjunction [20 September 2009]



Notice that this sweep starts in Australia, and those in South Africa have no trouble seeing the new crescent. But those in the Jerusalem area have no chance at all. **The Point: it is irrelevant if anyone in the northern hemisphere near Jerusalem sees the new crescent or not. The sightings have already started south of them**. Somewhere on earth at sunset people are starting their next lunar day, and will see the new crescent and start that same lunar day as their next lunar month's day too. It is simple. **Those in Jerusalem can accept the witness of those south of themselves, even those in South Africa.**

10. **Therefore, just as with the Sabbaths, administrating the new crescents using Global Observation is exactly what needs to be done, both for consistency in administration, and for synchronization of the months and Holy Days for everyone living on the 360° earth**.

Here is a Counter-Argument for Administrating the Observed Calendar Using Global Observation

The Southern Hemisphere has the opposite seasons as in the Northern Hemisphere. This being a fact, the new crescent seen in the Southern Hemisphere is for declaring the months and seasons opposite of those occurring in the Northern Hemisphere.

For example: the new crescent designating “The Spring” new growth season in the Northern Hemisphere, that is Nisan 1, is instead the new crescent of Tishri 1, designating “The Autumn” fall harvest season, in the Southern Hemisphere.

Since in each Hemisphere the new crescent observation is designating a different season of the year, **there is no necessity** for each lunar month to be observed in both Hemispheres on the exact same solar day.

Therefore, let the Southern Hemisphere observe the new crescents and seasons on “there own solar day”, and let the Northern Hemisphere observe the new crescents and season on “there own solar day”. Each Hemisphere allows others to see the new crescent “for them”, but only to the equator.