A Discussion on Methods for Determining the New Moon

What follows is a letter I received via e-mail and my response. The subject was a comparison of some of the various methods used by the Churches of God to determine the New Moon for the purpose of establishing the Holy Calendar. "There is one body and one Spirit...one hope of your calling, one Lord, one faith, one baptism, one God and Father of all", and you can be sure the time is coming when there will be one Calendar too! God speed that day!

...Jim

Subject:
Greetings, Jim
Date:
Sun, 08 Apr 2001 09:54:25 -0600
From:
Bernie Monsalvo <monsalva@acnet.net>
To:
james.h@sympatico.ca

Hi Jim,

I saw your fine ad in the Journal. Yours was a sensible explanation, and then you gave the days. By the way, your dates agree with the karaite Jews dates and William Dankenbring and others.

The other two flavors of starting dates that I have seen are as follows:

1) The beginning day of the month begins on the following sunset after the day in which the new moon conjunction occured.

For example, March 25, 2001, the new moon was at 1:24 GMT, which was 3:45 Jerusalem time. Therefore, the begining day of the month was March 26, 2001. This is what I call a "deterministic method."

Because from 3:45 AM, JT until sunset at, say, 6:00 PM there are not enough hours, chances are that the next day, March 27.2001 is when "visibility" of the crescent moon is posssible.

2) Visibility of the new moon in the American continent. This is the method

I refer as the "local visibility" method. People start the month when they see the crescent moon locally.

It just so happens that in 2001, on March 25, 2001, the new moon was at 1:24 GMT, "local visibility" in America was possible after sunset on March 26, 2001. The net effect this year was that the "deterministic" method and the "local visibility" method agree.

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I was wondering if you could explain in your web site the pros and cons of the five methods of determining the new moon day:

1) Whenever the new moon conjunction happens, that is the begining day of the month. This new moon conjunction is typically invisible. No postponements of any kind.

In 2001, on March 25, 2001, the new moon was at 1:24 GMT. Under this method March 25th, 2001 was Nisan 1.

2) Ignore the new moon altogether, use a mathematical algorithm. This is the method used by the Calculated Jewish Calendar. Use a molad calculation from a target date and go from there.

In 2001, the new molad of Tishri calculates to Sept 18, 4h 106 parts. From there subtract 177 days and calculate Nisan 1. Under this method March 25th, 2001 was Nisan 1.

3) Uses crescent visibility of the new moon wherever you happen to be --for example, in the American continent. No postponements of any kind.
This is the method I refer as the "local visibility" method. People start the month when they see the crescent moon locally.

It just so happens that in 2001, on March 25, 2001, the new moon was at 1:24 GMT, "local visibility" in America was possible after sunset on March 26, 2001. If you use this method, but you happen to be in Jerusalem, then this method will determine the same dates as method 4. Actually, method 3 and method 4 yield the same results if you are in Jerusalem.

4) Uses crescent visibility of the new moon in Jerusalem. The Karaite Jews use this method. No postponements of any kind.
This is the method I refer as the "Jerusalem visibility" method. People start the month when they see the crescent moon in Jerusalem. In the internet age, the Karaites will send e-mails.

It just so happens that in 2001, on March 25, 2001, the new moon was at 3:45 JT. March 27, 2001 was probably the first day where the moon crescent was seen.

5) The beginning day of the month begins on the following sunset after the day in which the new moon conjunction occured.

For example, March 25, 2001, the new moon was at 1:24 GMT, which was 3:45 Jerusalem time. Therefore, the begining day of the month was March 26, 2001. This is what I call a "deterministic method."

What it is to be noted is that at times, Method 1 will agree with the CJC, but not with method 3 and 4. At other times the CJC will agree with method 4 but not with method 3 or method 1. I've seen also that at times Method 1 will agree with Method 4, but not with Method 3. I could give specific examples. It all depends on the time the new moon conjunction occurs.

For example a new moon conjunction of 6:50 PM GMT, will probably yield methods 1, 3 and 4 to agree. If method 2, the CJC, also agrees it is a miracle.

I'll be looking forward to some of your comments. I appreciate the time and effort you made to help God's people with this important issue.
What it is surprising to me are the feeble and misguided efforts of those who support the CJC. I've read papers in which, basically, they claim divine origins of the CJC calculations and any other way is "anti-God."

Thanks and have a profitable Spring festival season.

Hi Bernie,

Thank you for your kind remarks regarding the Journal ad and my work. I would be happy to offer my assessment of the several methods which you mention for determining the New Moons.

Deterministic Method

I believe that anciently, New Moons were determined solely on the basis of visibility. Selecting the sunset immediately following the conjunction means that sometimes the

crescent would be visible on the following sunset if the conjunction occurred early enough (about 14 h. or more) before sunset, and sometimes it would not be possible to observe the crescent. This takes observation completely out of the picture. Perhaps with clearer atmosphere and less light pollution, it was possible to observe the crescent after only 12 h. separation in ancient Israel. (The Jews use 12:00 Noon as the separation point in the calculated Jewish Calendar, i.e. if the conjunction occurs before noon the current day is sanctified, if after noon the following day is sanctified.)

The downside to this method is that there is no consistency. Some days the New Moon will coincide with the visible crescent and some days it will not. Also it becomes imperative to know exactly when the conjunction takes place. In the case of the CJC if the conjunction occurs at 12:01 PM a different day is sanctified than if it occurs at 11:59 AM. The same problem is doubly difficult for the deterministic method you describe. You must know exactly when the conjunction takes place AND you must know exactly when sunset occurs. If sunset is at 5:58, do you sanctify a different day if conjunction is at 5:57 one month and 5:59 on another month? The hair-splitting arguments would surely be divisive. Now add to this mess the question of where to observe and declare the sunset time and you really have trouble! You don't have to go far to see a one minute difference in sunset time, especially on a globe which is not perfectly level!

Local Visibility

This method has the same elements of confusion as the one previously described if one looks at the Church in a global sense. Obviously this was the only method available in ancient times for believers who migrated out of range of signal fires and messengers dispatched from the Temple in Jerusalem. Under those circumstances, the various congregations and individuals were not getting together regularly, as communication and transportation were not as immediate as what we enjoy today. When the entire congregation lived together in the wilderness, or even when they all lived in Palestine, they could receive timely New Moon reports from the Temple. Consequently, they were able to celebrate Festivals in unison, and God's Calendar, which was also the national calendar, kept everybody in step for religious, social, and business appointments.

This of course is now again possible in our modern world. We can receive instant global notification of New Moon sightings and therefore can co-ordinate festival dates world-wide. Since many people are able to travel to distant lands to keep the Feast, there is a definite need for a co-ordinated global calendar. Also many Churches are utilizing telephone, satellite and internet hook-ups to conduct services globally. A global Calendar is a must.

In addition, any people living in the arctic or antarctic would have extended periods of time each year when they would not see the moon at all since it travels roughly the same path as the sun. Local visibility is impossible under these conditions. They would have to tie their calendar to some remote location.

Day of Conjunction

Sanctifying the day of conjunction includes all of the above difficulties if the conjunction and sunset are extremely close in time. It becomes necessary to know to the second when each event occurs since a conjunction one second after sunset shifts the New moon Day 24 hours later than if the conjunction occurs one second before sunset. Since seconds and minutes count, the difficulty would be to agree on where to mark sunset, or whose sunset prediction tables to use. In addition, this method would seldom agree with an observed crescent moon and therefore is out of step with historical tradition and the Scriptural command to observe the New Moon (Deut 16:1).

Calculated Jewish Calendar

This method is of course dealt with extensively in my article God's Holy Calendar but the basic objections are as follows. It does not resemble any Scriptural instruction, and depends on the belief that complicated mathematical instructions were preserved accurately for centuries by word of mouth, and that Calendar instruction is not included in the Scriptures - both of which are not true. It has been significantly altered with the addition of new postponement rules over the centuries. The calculations do not compensate for the wobble of the earth on its axis or the elliptical nature of the Moon's and Earth's orbits, hence the predicted times and dates of the molad (conjunction) are really only approximations and are often out of step with the true astronomical conjunction. The calculations also do not correct any changes in the dating of the equinox, so the Spring and Fall Holy Days often fall outside of their appointed seasons. The entire process of calculating the calendar is too complicated to be accessible to the average believer. This contradicts the simplicity of God's Law which we encounter everywhere else. It also precludes any hope of teaching this law to our children. In fact we are told that for centuries these calculations were kept secret so that the average believer could not know them even if he wanted to. They were the sole realm of the elite. This is not consistent with God's dispensation of any other part of His Law which was read regularly to all the people.

Jerusalem Visibility

We know that the Holy Days were originally instituted in Egypt. That was where the government of God (Moses and Aaron) was administered from at the time of the Exodus. And that was where the entire congregation was assembled. When they migrated to Palestine, they eventually established permanent government headquarters at Jerusalem, however the entire congregation did not dwell at Jerusalem. A large portion of the congregation resided East of Jerusalem across the Jordan River. We can safely assume that they all celebrated Holy Days in unison based on sanctification of the New Moons at Jerusalem regardless of local visibility.

We know that there is a point on Earth each month where crescent visibility first occurs

(disregarding local weather for now), and that points East cannot observe it, but points West can (this is an over simplification). If Jerusalem was that point of first visibility, then those in Jordan would not be able to see it. Yet they certainly would celebrate the Holy Days together according to Jerusalem sightings. We also know that reports of sanctification of the New Moon were sent by messengers and signals as far as possible throughout the land so that as many people as possible could celebrate in unison with Jerusalem. Clearly remote locations deferred to headquarters for sanctification of the New Moon rather than local visibility. The limiting factor at that time was obviously the range of messengers and signals. Beyond that range, local visibility was the only viable option.

Today, with global communication, we can go back to receiving reports from Jerusalem. But do we need to? Remember that when the headquarters of the congregation was in Egypt, it was Egyptian not Jerusalem observations which were sanctified. What should a congregation do if their headquarters are in Dallas, or Pasadena, or London, or Toronto, or Sydney? A look into the future might help us to understand.

"And it shall come to pass, *that* every one that is left of all the nations which came against Jerusalem shall even go up from year to year to worship the King, the LORD of hosts, and to keep the feast of tabernacles." (Zechariah 14:16 A.V.)

Where shall they go to keep the Feast? Verse 17 tells us it is Jerusalem! All nations keeping the same feast, at the same time in the same place! Why Jerusalem? It will be where God will dwell and administer the Law (Isaiah 2:2,3). It will be World headquarters and universe headquarters for the government of God (Revelation 21:10). All of the physical temples which have ever been built, or ever will be built, are at Jerusalem.

Church headquarters at Dallas or Pasadena etc., are only temporary, just as the one in Egypt at the time of the Exodus. The difference of course is that all of the congregation at the time of the exodus resided at headquarters too. Churches of God today tend to be widespread globally in membership and in their work. Some have merged corporately, and some co-operate at Feast time, sharing facilities and speakers, so there is a need for unity in scheduling calendar events. Those Churches in the southern hemisphere use a calendar based on northern hemisphere harvests. They celebrate Passover in what is locally Fall, and Tabernacles in what is locally Spring. They obviously are deferring to a Jerusalem schedule. Remember all nations both north and south of the equator will keep the Feast together at Jerusalem in the future (Zec 14) The key is unity.

If we can agree on where to sanctify the New Moons, and if we agree that it should be Jerusalem, then who should sanctify them? Most Churches of God do not have witnesses stationed at Jerusalem who can perform this function. It is possible to determine local crescent visibility at Jerusalem in advance using computer programs, or else we can obtain this information easily from several sources who publish this data. Using this

information, any minister or lay member can work out the Holy Day Schedule for himself or others simply by counting according to Leviticus chapter 23. If we all start with the same New Moons for the first and seventh months, then we can all arrive at the same Holy Day schedule.

The Karaite Jews do observe and publish actual visual sightings of the crescent moon in Jerusalem, and so it is even easier to have a globally unified Calendar. Last Fall we had a situation where visibility was going to be a very close call for the seventh New Moon, so we reserved our facility for the Feast of Tabernacles for nine days instead of eight. When we received the actual sighting report of the New Moon from the Karaite website on the earlier day, we merely cancelled the un-needed ninth day. Had the sighting been delayed to the following day, we would have cancelled the first day of our reservation. Had the facility been inflexible, we would have simply paid for the nine days anyway and happily counted it as the cost of obedience to God.

There is no good excuse not to use Jerusalem visibility. It is easy, convenient and globally unifying. It has both an historical and a prophetic precedent. It exemplifies simplicity, unity, accessibility and constancy, which are hallmarks of God's Law. There is no Scriptural directive to do anything else.

Sincerely,
Jim Hollands

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