

## **THE NEW MOON NEAREST TO THE SPRING EQUINOX**

In an attempt to justify the Jewish calendar starting the year in the winter, some people in the churches of God have claimed, totally without any biblical support, that the Jewish calendar doesn't have to start in the spring, that it is okay as long as it uses the new moon "NEAREST TO THE SPRING EQUINOX" for the start of the year.

THAT ARGUMENT IS PATENTLY FALSE!

The motivation behind such claims is clearly to buy the Jewish calendar the right to start the year in the winter, as long as the first month doesn't go too far into the winter.

The facts are that neither did the present Jewish calendar at its inception by Hillel II start every year with the new moon "nearest to the spring equinox", nor yet today does the Jewish calendar start every year with the new moon "nearest to the spring equinox". Such a claim is just a foolish argument, intended to obscure the very real problem with the Jewish calendar starting some years in the winter.

Now since the Jewish calendar TODAY only starts six out of every 19 years in the winter, it is a fact that TODAY it will never start the year more than 9 days before the end of winter (i.e. never before March 12). However when Hillel II established the present Jewish calendar back in 358/359 A.D. there were some years that started 16 days before the end of winter, because since Hillel's time all the dates in the Jewish calendar have shifted to 7 days later in the annual seasons.

Here is the evidence that Hillel II did NOT establish a calendar that always started the year with the new moon nearest to the spring equinox.

The times below are all expressed in Local Jerusalem Time, 2 hours 21 minutes ahead of Greenwich Mean time.

THE YEAR 360 A.D.

The key new moons in the year 360 were:

Julian Calendar dates: 4 March at 6:17 a.m. and 2 April at 5:27 p.m.

Gregorian Calendar dates: 5 March at 6:17 a.m. and 3 April at 5:27 p.m.

In the Gregorian calendar the equinox was on March 21. So the new moon on March 5 was 16 days BEFORE the spring equinox, while the new moon on April 3 was only 14 days AFTER the spring equinox.

The Jewish calendar for 360 chose the new moon of March 5 to start the year, even though that new moon was in fact further away from the equinox than the next new moon on April 3.

However, since the Jewish calendar is based on molads, which theoretically are supposed to be the times of the lunar conjunctions, but which in practice differ by up to 15 hours from the real new moon conjunctions, we should also look at the Jewish molad times for the new moons in question.

Now while the Jewish calendar calculations focus on calculating the molad for the seventh new moon, it is in fact quite easy to calculate the exact molad time for every new moon in the year, and not just the seventh one. Of course those molad times for every new moon in the year will differ from the real new moons in the same way that the Molad of Tishri differs from the real new moon of the month Tishri. But that is the nature of molads; they are not really accurate.

But let's also examine the year 360 for the molad times for the two new moons around the spring equinox.

Gregorian calendar molad date and time in 360 = March 5 at 6:25:57 a.m.

Gregorian calendar molad date and time in 360 = April 3 at 7:10:00 p.m.

These Jewish molad times for those respective new moon conjunctions are reasonably close (within 9 minutes on March 5, and within 2 hours on April 3), so that nothing changes. Whether we use the real new moon times, or whether we use the theoretical Jewish molad calculations for the two new moon conjunctions in question in 360, the conclusion is the same: in 360 the Jewish calendar opted to use a new moon 16 days before the spring equinox to start the month Nisan, rather than using the closer-to-the-equinox new moon on April 3 to start the month Nisan.

But let's look at TODAY!

Today the Jewish calendar OBVIOUSLY does not start every year with "the new moon nearest to the spring equinox". That is immediately apparent from the fact that today no year in the Jewish calendar ever starts earlier than 9 days before the spring equinox. Therefore when there is a new moon 10 days before the equinox, then the following new moon is used to start the year; when there is a new moon 11 days before the equinox, then the following new moon is also used to start the year; when there is a new moon 12 days and 13 days and 14 days before the equinox, then in each case the following new moon is used to start the year. Therefore, whenever there is a new moon from 10 to 14 days before the equinox ( and thus obviously the new moon CLOSEST to the equinox), then in our age that new moon is NOT used to start the year, and instead the following (and further away from the equinox) new moon is used to start the year.

Here are three examples:

1) In 1989 there were the following new moons (Jerusalem time):

March 7 at 8:39 p.m.

April 6 at 5:54 a.m.

Spring equinox was on March 20 at 5:51 p.m.

So the March 7 new moon was just under 13 full days before the equinox, while the April 6 new moon was over 16 days after the equinox.

In 1989 the Jewish calendar started Nisan with the April 6 new moon.

2) In 1997 there were the following new moons :

March 9 at 3:36 a.m.

April 7 at 1:23 p.m.

Spring equinox was on March 20 at 4:17 p.m.

The March 9 new moon was just over 11 days before the equinox, while the April 7 new moon was over 17 days after the equinox.

In 1997 the Jewish calendar started Nisan with the April 7 new moon.

3) In 2005 there will be the following new moons :

March 10 at 11:32 a.m.

April 8 at 10:54 p.m.

Spring equinox will be on March 20 at 2:56 p.m.

The March 10 new moon will be just over 10 days before the equinox, while the April 8 new moon will be over 18 days after the equinox.

In 2005 the Jewish calendar will start Nisan with the April 8 new moon.

Now it happens to be correct that in each of these cases the year does start with the new moon that is further away from the equinox, but that also destroys the argument that the Jewish calendar supposedly starts the year with the new moon "nearest to the equinox".

Starting the year with the new moon "nearest to the equinox" has never been a consideration in determining the start of the year in the present Jewish calendar. The start of the year should most emphatically NOT be based on "the new moon nearest to the spring equinox"; otherwise the year should sometimes start as early as 14 days before the end of winter, and that would then see the Passover being observed in the winter.

Appeals to "the new moon nearest to the spring equinox" are contradicted by the facts.

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