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Frank W. Nelte

### **WHY WE USE 6:00 P.M. TO START THE DAY**

The Jewish calendar calculations always start and end a day with 6:00 p.m.. There are very good reasons for doing so. Therefore we should also use this principle.

Some people, who do not understand the reasons for this, sometimes react with indignation at wanting to start and end days at a fixed time like 6:00 p.m. instead of using "sunset", as the Bible so clearly indicates.

There is a considerable difference between WHAT WE LOCALLY OBSERVE and WHAT IS REQUIRED FOR A WORLDWIDE CALENDAR!

Thus, as far as Sabbath and Holy Day observance is concerned, we certainly observe the Sabbaths from sunset to sunset.

Here are 4 LOCATIONS which are all basically on the same longitude meridian. They are all basically 63 degrees west of Greenwich. BUT:

- Halifax, Nova Scotia, Canada is about 45 degrees NORTH,
- Ciudad Guayana, Venezuela is about 8 degrees NORTH,
- Santa Cruz, Bolivia is about 18 degrees SOUTH,
- Cordoba, Argentina is about 31 degrees SOUTH.

They will ALL have 6:00 p.m. at the same point in time, since they are all at the same longitude. But IN DECEMBER sunset may well be at 5:00 p.m. or earlier in Halifax, but only at 7:30 p.m. or later in Cordoba. And the other two locations will fit somewhere in between those extremes. And they will all observe the Sabbaths "from sunset to sunset".

Here are another 2 LOCATIONS which are also at the same longitude. They are both at about 25 degrees east of Greenwich. BUT:

- Helsinki, Finland is about 60 degrees NORTH,
- Port Elizabeth, South Africa is about 34 degrees SOUTH.

IN DECEMBER sunset will be very early indeed in Helsinki, less than 7 degrees away from the Arctic Circle. Perhaps around 3:00 p.m.? Or even earlier? In Port Elizabeth, however, the sun will not set until well after 7:00 p.m. in December. In June this scenario will be reversed, with the sun setting far earlier in Port Elizabeth than in Helsinki.

This relationship of sunset times for places at the same degree longitude, but in different hemispheres, will change throughout the year. As days get longer in the northern hemisphere, so they get shorter in the southern hemisphere, and vice versa.

AT THE EQUINOXES, however, most of the inhabited belt of this world (i.e. between 50 degrees north and 50 degrees south) will have approximately 12-hour days and 12-hour nights. The sun is basically "over the equator" at the time of the equinoxes. As the 1st month and the 7th month are both close to the equinoxes, therefore at both those months sunset will be very close to 6:00 p.m. LOCAL TIME for most places.

To be somewhat technical:

At the equinoxes "the days" will be slightly longer than "the nights". This is because "sunset" only takes place when the sun is ALREADY about half a degree below the horizon; i.e. we can still SEE the sun even after it has already gone down, because it takes about 7 minutes for light from the sun to reach us.

There is also a difference between "LOCAL TIME" and OFFICIAL TIME ZONE TIME. For example:

Chicago, Illinois and Brewster, Nebraska are both on CENTRAL STANDARD TIME (CST). So officially it will be 6:00 p.m. in both places at exactly the same time. Both places are very close to 42 degrees north of the equator. But CHICAGO is slightly less than 88 degrees west, whereas BREWSTER is slightly less than 100 degrees west.

This 12 degrees difference in longitude translates into a difference of about 48 minutes in local time.

So "officially" the sun rises about 48 minutes later in Brewster than it does in Chicago, and it also sets about 48 minutes later in Brewster than it does in Chicago. In other words: LOCAL TIME in Brewster is 48 minutes earlier than local time in Chicago; when it is local time 6:00 p.m. in Chicago it is actually only 5:12 p.m. LOCALLY in Brewster, even though we also "call it" 6:00 p.m..

So if instead of looking to the time we are given for "the time zone" we happen to be in, we look at THE REAL LOCAL TIME, we will find that at the equinoxes sunsets will be pretty well at 6:00 p.m. for most places.

#### FOR CALENDAR PURPOSES:

Since at the equinoxes sunsets will, in terms of the real local time, be very close to 6:00 p.m., therefore 6:00 p.m. represents A PRACTICAL WAY for delineating days from one another. It is simply not practical to say: "today goes from 6:01:47 p.m. until 6:02:36 p.m. tomorrow", because sunset tomorrow will be 49 seconds later than today. If we were to look at days for calendar purposes in such a way, then we would be faced with the situation of the length of "a day" never staying the same.

Notice also that Jesus Christ Himself said very clearly: "ARE THERE NOT TWELVE HOURS IN THE DAY?" (John 11:9) This statement makes quite clear that Jesus Christ here accepted that "the day", when referring to it in a general way, goes from 6:00 a.m. to 6:00 p.m., and "the night" goes from 6:00 p.m. to 6:00 a.m.. Jesus Christ was not talking about exact sunset times; He was not questioning that "the day" gets longer as we move from winter towards summer. But He accepted that "a day" has 12 hours, ending at 6:00 p.m..

Furthermore, while we may "use" 6:00 p.m. in our calculations to delineate days from one another, instead of the actual local sunset times, IN ACTUAL PRACTICAL TERMS this never leads to a different result or conclusion in arriving at which day will be the 1st Day of the 1st Month and the 1st Day of the 7th Month.

Using 6:00 p.m. to start and end our days for calendar determination purposes NEVER HAS AN EFFECT ON THE DAYS WE ACTUALLY OBSERVE! It is nothing more than a helpful tool in the process

of establishing the calendar. We don't "observe" any Sabbath, weekly or annual, based on the 6:00 p.m. to 6:00 p.m. rule; we observe all these days from sunset to sunset. But when calculating ahead, we have to have some "figure" to use for the end of a day, rather than waiting for that sunset to actually take place. And 6:00 p.m. is the best "figure" we could use for dates around the equinoxes.

Using 6:00 p.m. in our calculations is nothing more than a mathematical tool, just like representing an unknown number by the symbol "x" in a mathematical equation.

It is the same thing as in our worldly calendar using "midnight" as the precise point when one day is reckoned to have ended and the next day is said to have started.

Furthermore, IF in a specific situation the new moon for the first or the seventh month is actually "close to sunset" (i.e. in the 5:30 p.m. to 6:30 p.m. bracket), THEN we will certainly refer to the exact sunset time for Jerusalem, to be sure we determine correctly whether the new moon will actually be before or after sunset, because that will affect which days will be the Feasts and the Holy Days. But such "close to sunset" new moons are quite rare, allowing us to use the 6:00 p.m. standard most of the time without any fears of obtaining a wrong result.

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