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Frank W. Nelte

### **THE PROBLEMS WITH 'A MOVING DATELINE'**

Some people who have recognized the problems with the current Jewish calendar have proposed solutions that involve "a moving dateline". Thus they reject that every day starts and ends at "the International Dateline" (at approximately 180 degrees away from Greenwich).

Instead they propose something like this:

1) Every month starts with a new moon conjunction. This conjunction can be determined to an accuracy of within a few seconds. The timing of this conjunction is NOT influenced by where on this earth we happen to be, be it in America or in Africa or in Asia or in Europe or somewhere in the Pacific Ocean. The conversion of that new moon time into our LOCAL time zone will obviously vary by where we are; but we will always be talking about the exact same point in time.

2) Whatever time that new moon is calculated to occur, it will be sunset SOMEWHERE ON EARTH at that point in time. Wherever that may be, THAT PLACE will become "the dateline", i.e. the point where the new month (i.e. Day 1 of that month) will start. Such a "dateline" will obviously shift every single month.

3) Every place to the EAST of that location will already have gone past the time of sunset, and will therefore still be on the last day of the previous month.

4) Every place to the WEST of that location will come to the first day of the new month AS THEY REACH SUNSET.

5) This continues for a whole month, until the time of the next new moon.

6) Then Steps 2-4 are again repeated.

7) This continues without interruption from one month to the next, and from one year to the next; and we have our calendar.

There are a number of problems with a calendar based on this system. Let's first of all notice what this would look like in real life!

#### **ACCURATE DATA FOR THE YEAR 2000 A.D.:**

Here are the new moons for 2000 A.D., expressed in "ephemeris time", which is within one minute of "Greenwich Mean Time" (GMT). For the sake of the demonstration, let's accept these times as being the same as GMT, which is the "Zero Meridian".

- January 6 = 6:14:40 p.m.

- February 5 = 1:04:18 p.m.

- March 6 = 5:17:45 a.m.

- April 4 = 6:13:03 p.m.
- May 4 = 4:13:08 a.m.
- June 2 = 12:15:01 p.m.
- July 1 = 7:20:59 p.m.
- July 31 = 2:26:13 a.m.
- August 29 = 10:20:21 a.m.
- September 27 = 7:54:00 p.m.
- October 27 = 7:59:03 a.m.
- November 25 = 11:12:20 p.m.
- December 25 = 5:22:39 p.m.

So notice:

#### ON JANUARY 6:

6:14:40 p.m. GMT in London U.K. will be the same moment in time as 6:14:40 p.m. in Accra, Ghana.

But in England it will ALREADY BE DARK AT 6:14 p.m. on January 6. In Reykjavik, Iceland it will only be 5:14 p.m.; but because of its latitude north, it will ALSO already be past sunset in Iceland at that time.

But in Accra, Ghana, which is almost at the equator, it may not yet be sundown at all.

THEREFORE: Does the new month start with sunset on January 6 at Accra, Ghana (just a few minutes after 6:14 p.m.) (which is on the Greenwich meridian) ... OR does the new month only start at 45 degrees west in Brazil (since the UK and Ireland and Iceland and Greenland) are already PAST sunset at 6:14 GMT?

#### ON FEBRUARY 5:

1:04 p.m. GMT is equal to 5:04 p.m. in Mauritius (at 60 degrees east time-zone) and still before sunset. At the same time it is also 5:04 p.m. in Uzbekistan (part of the former USSR) and there it is already well past sunset (being winter).

THEREFORE: At sunset on February 5 the new month may start in Mauritius, but at the same degree longitude in Uzbekistan in the northern hemisphere the new month can't start till 24 hours later.

#### ON MARCH 6:

5:17 a.m. GMT will be the same as 5:17 p.m. in Fiji at 180 degrees. So the new month will start at 180 degrees, pretty well at the International dateline.

#### ON APRIL 4:

At 6:13 p.m. it will still be before sunset in London England at this time of the year, but it may already be dark in Ghana?

Therefore: Based on London U.K., the new month can start at sunset on April 4, but for Ghana (on the same meridian) it can only start at sunset on April 5.

etc. ....

#### ON DECEMBER 25:

It will be dark long before 5:22 p.m. in Glasgow, Scotland. But it will still be more than another hour before sunset in Cape Town, South Africa, which is further east than Glasgow.

This should illustrate some of the problems with "a moving dateline". Thus:

1) ON THE SAME DEGREE OF LONGITUDE it may already be past sunset in the Northern Hemisphere while it is still several hours before sunset in the Southern Hemisphere. Similarly, the sun may already have set in Santiago, Chile in June, while it is still BEFORE sunset in Halifax, Nova Scotia, which is further east than Santiago, Chile.

THEREFORE a calendar based on "local sunsets" with a moving dateline would require one calendar for the Northern Hemisphere, and a different one for the Southern Hemisphere. This is confusion. You could have 8:00 a.m. at exactly the same point in time, but in South Africa that would be on the FIRST day of the month, and in Finland it would be already the SECOND day of the month, even though both countries are at the same longitude (30 degrees east).

2) A dateline based on local sunsets means that SOMETIMES the new month starts in London U.K., sometimes in Mauritius, sometimes in Bombay India, sometimes in Perth Australia and sometimes in Los Angeles and sometimes in Miami. That is confusion.

When a new month starts in Los Angeles, then you will have cities in the same country functioning on different days. Thus: when it is 9:00 a.m. on Day 14 of the first month in Los Angeles, it may sometimes only be 12:00 noon on Day 13 of the first month in New York, and in that type of situation people around the USA would end up keeping the Passover on different days. Again: this is confusion!

3) The same happens when the new month starts in Denver Colorado. It means that people in Denver and west of Denver would observe the Holy Days one day before people in Omaha Nebraska and in Memphis Tennessee and in Charlotte North Carolina. This is also confusion.

4) A calendar based on local sunsets is a rather selfish institution, with absolutely no concern for people in any other part of the world, even just ONE HOUR east of them! It says: "I couldn't care less about anyone else in any other part of the world. Let them sort out their own problems; I'm okay, Jack!"

5) A moving dateline defies any kind of clarity and uniformity. It places full control over the dateline into the hands of each local group around the world. Ultimately they decide for themselves where on earth the dateline should be for any given month. This may or may not conform to the decisions reached by other groups in other areas. It makes any planning ahead very difficult by constantly "moving the goalposts".

And while it could perhaps work for a small localized and isolated group, that is totally unconcerned with anyone else in the world, IT COULD NEVER WORK for people who are concerned about a whole country, like the USA or Canada, which spans several time-zones.

6) We already observe the Sabbath days based on the International Dateline. Without the International Dateline you simply would not know when to observe the Sabbath days.

Someone who intends to go strictly by sunsets in counting the passing days, should consider the following example:

Honolulu, Hawaii is very close to halfway between Tokyo, Japan and New Orleans, Louisiana. From Honolulu it is about 4075 miles to New Orleans, and about 4050 miles to Tokyo. The coordinates for these three locations are as follows:

Honolulu = 20 degrees NORTH, 155 degrees WEST

Tokyo = 35 degrees NORTH, 140 degrees EAST

New Orleans = 30 degrees NORTH, 90 degrees WEST

A flight of 4000 miles takes about 7-8 hours in a modern jet. So you could fly as follows:

A) Leave New Orleans Sunday morning at 10:00 a.m. and arrive in Honolulu about 2:00 p.m. on the same day, which will be Sunday (you have flown across several time-zones).

B) Leave Honolulu Sunday morning at 10:00 a.m. and arrive in Tokyo at 2:00 p.m.. To YOU that will also still be the same day, Sunday. But you will arrive in Tokyo on MONDAY AFTERNOON at 2:00 p.m.! You will in effect land in Tokyo on the day AFTER you left Honolulu! This is due totally to you having crossed the International Dateline.

So two people can go on a journey of approximately the same distance and the same duration (New Orleans to Honolulu, and Honolulu to Tokyo); both can start their journey at the same time of day and both can complete their journey at the same time of day ... yet one will finish his journey a few hours later on the same day on which he started the journey, while the other finishes a few hours later ON THE FOLLOWING DAY.

That is the way things are because of the International Dateline.

But IF the person who flew to Tokyo chooses to ignore the International Dateline, THEN he will have to keep the next Sabbath on the day that will be known as SUNDAY in Tokyo! By the time he has travelled further east to Europe, he will still be keeping his Sabbaths on SUNDAYS! And by the time he has travelled back to the USA, he will still be observing his Sabbaths on SUNDAYS! That is, IF he relies exclusively on the sunsets that have passed!

Now even if you yourself never travel, but you have brethren come to visit you, and THEY have in their journey crossed the International Dateline, THEY would be at variance with you regarding which day is the Sabbath, IF they relied ONLY on the sunsets that have passed, which is what accepting a moving dateline amounts to.

People who appeal to using nothing other than the times of LOCAL SUNSETS in their particular locality on earth show that they want to be a law unto themselves, even if it does result in chaos, when viewed from a worldwide perspective.

**THE EXISTENCE OF A FIXED DATELINE IS AN ABSOLUTE REQUIREMENT FOR ALL CALENDARS!  
WITHOUT A FIXED DATELINE YOU HAVE CONFUSION!**

It is only the existence of the International Dateline that makes it possible for us to avoid such confusion.  
We absolutely need a dateline that is permanently fixed.

Frank W. Nelte