January 21, 2017

Dear Don Roth ( at [www.biblicalcalendarproof.com](http://www.biblicalcalendarproof.com/)):

Happy New Year!

I read your Biblical Calendar Proof with great amusement. I had just spent the last five years studying cubits and calendars and your calculations reminded me of a common error that engineers and scientists seem prone to make when regarding the Bible as scientifically sound information, but with the failure to discern the essential nature of scriptures as being more God centered and theologically based in content.

Persons like Carl Sagan, who in writings such as Bocca's Brain, where he takes literally both Velikovsky's theories of catastrophism and the Biblical inference that a generation is 40 years, proves himself to be strictly opposed to us who have studied the Bible diligently and consider ourselves to be in the know on such matters. We merely affirm that 40 years is used as a convention of those times to denote a question mark in regards to the exact time element involved. The 40 years could have also been more or less than 40 years. So stating that it had rained for 40 days and 40 nights is just another instance of an inexact number in this same pattern that probably should not be taken too literally.

Forcing the Biblical text into conformity with one’s own stance is something that gets us all into hot water eventually. It pays to be skeptical in terms of getting it right the first time, until you view the problem from within a larger historical context. That said, I was initially impressed by your theory of the year of the flood being exactly 385 days long, until I noticed the extra 56 days added in the following year. This is one of those cases of taking the account too literally, of making the flood much longer in duration than it needs be. The same type of error as Sagan's looking for a literal 480 years, or 12 cycles of 40 years, to pinpoint the coming of Velikovsky's comet or some other extra-terrestial event to explain Biblical events from a more scientific perspective, a fool’s errand.

My own findings are that the Flood period was exactly 371 days, but I would also settle for a rounding down to 370 days. This even number of days makes the possibility of fractions less likely than in using an odd number when doing calculations. I'm not greatly interested in exact numbers, as you can see from this previous example of 40 days notation, as I am in getting numbers that consistently work in the effort of practical problem solving.

Below I have shown how I think the flood should be regarded by using Kevan's (\*) numbers. This keeps intact the reasoning that the basic year unit was 360 days, and not of an intercalcated 385 days as you have interpreted it. The flood period can then be seen to be 10 or 11 days longer than a single year, but of course it carries on to the end of the 56 days of the following year because it started 47 days into the first year's reckoning. There is no need here to produce exact numbers. Either number will work, the 370 or the 371. If Moses wanted an exact number, he would have given it to us, as he does with the age of Adam and others in the primary age of the father at the birth of a son. These numbers cannot be regarded as changeable. However, the secondary age of the father at death from the birth of the son is always seen to be 800 years (with an exception, for another reason which I won't go into) and is more subject to interpretation as a multiple of 40. Exactly 800 years? No, not at all. A guesstimate is involved!

You can't be accused of getting the numbers wrong if you do not ascribe to a literal viewpoint for years that is set in stone for eternity. The Christian hope is not based on certainties, but upon faith. I hope you enjoy the following exercise which I feel encouraged to share after reading your proof.

Basic math:

600 (365.25) = 6939.75 (600 / 19) = 219150

/ 2922 = 75

385 + 219150 = 219535 days

/ 601 = 365.2828 (over the solar constant)

601 / 128 = 4.695 (leap days, minus .0078 / yr)

219530

48 (75) = 3600

46 + 40 + 150 + 150 = 385, 57 - 1 = 56 (Roth)

40 + 110 + 74 + 40 + 21 + 29 + 57 = 371 (Kevan)

Criticism: Roth adds more days than Kevan by failing to subtract 40 days from the first 150 days period, 371 + 40 = 385 + 56

The course of the flood should be as follows:

46 + 40 + 110 + 74 + 40 + 21 + 29 = 360 (1st yr of flood = 314) days

+ 57 - 1 = 56 days (2nd yr)

601 (360) + 56 = 216416 days

101 (360) + 56 = 36416 = 371.6 (98)

101 (354) + 56 = 35810 = 365.4 (98)

(35810 / 2922) 8 = 98.0424 = 35810 / 365.25

(Shem's age at end of flood)

Background:

Babylonian discovery (1000 BC): 365.25 (8) = 354 (8) + 90 days = 2922 days

Metonic cycle: 19 years (410 BC)

Moses would not be conscious of this 19 years cycle at the time of the writing of Genesis, which occurred quite before Meton was born. He might however be aware of the Babylonian mathematical discovery of the luni-solar equivalents, if Genesis was written down during the Babylonian exile or afterwards. This is acknowledged by the age of Shem after the flood, the first instance of an age reckoned with 2922 days. (Otherwise he would be the same age as Noah from his birth, 101 yrs and 56 days.)

The knowledge of 235 months of lunar is equal to 19 years of solar (Mesopotamian origins) is not possible for the Hebrews, who did not use fractions and thereby would have no understanding of how 6939.75 days (235 x 354.3636) were equal to 19 years (365.2422). This would be a nonsense statement to them.

The 2922 days cycle would make more sense to their minds, and Moses gives evidence of such in the age of Shem at the end of the flood. Nothing else makes much sense. The only other possibility is a scribal error of copying down the numbers incorrectly. 101 years and 56 days does not equal 98 years in any math course I have taken.

219530 - 216416 = 3114 days (margin of error)

371.6 - 365.4 = 6.2

Year of the flood = 360 days (confirmed)

Drying after the flood = 56 days into 2nd year (602nd)

The Hebrew prophetic calendar is based on 360 days per year. This is achieved by adding an imaginary half day at the end of each month. Each month has exactly 30 days, with 6 days of the year being merely place holders. When doing computations for the 360 days calendar one must remember to substitute 2970 days for 2922 days, an extra 48 days per 8 year cycle. Thus:

8 (360) + 90 = 2970 days

Genesis talks of 5 months equaling 150 days. Revelation talks of 1260 days being equal to 3.5 yrs. It is obvious that a 30 day month and a 360 days yr are the basis for this kind of prophetic figuring. How can you explain this if the Hebrew calendar alternated between 29 and 30 days? In the incalulated calendar months successive months need to have 30 days each. How is this going to average out to be 29.5 days per month? This can only be achieved as an average over time, transcendentally and not literally month by month. 60 days does not equal 59 days according to Hoyle.

The shortest cycle of sabbath months is 210 days or 7 months before the clock resets to zero. This means that 3 days are added for regular days and .5 day for sabbaths, for a total of 3.5 add on days. Subtracting 3.5 from 210 is 206.5 days, the equivalent of 7 months of 29.5 days.

Without using fractions, the shortest cycle would increase to 420 days or 14 months, resulting in 7 add on days, or one week. (I haven't done the actual work to find out if there is a shorter cycle than 14 months that would be possible, but 420 seems correct to me at this time.)

A cycle of 84 months or 7 yrs would be 12 x 3.5 = 42 add on days or 6 weeks. All of these add on days do not add any literal time value to the 354 days per year constant, but are merely place holders

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Trying to get the Hebrew calendar to match up with the Mesopotamian calendar is a waste of time, as it doesn't really figure into the Flood period reckoning. The true value is 360 days, but 6 days of the calendar are pure fluff for the purpose of doing math without fractions or decimals.

You can see a parallel in the figuring of Hebrew cubits. The number of cubits in a second are rounded up to 70 from 69.something. All figuring of Hebrew cubits is going to have that small margin of error. It cannot be avoided. An Egyptian cubit (royal) is exactly 1/12th of a circle, or 30 degrees. This allows for exact computations of the earth in the Great Pyramid at 1/8640 scale. The Hebrews did not have this advantage. The Ark in representing the same earth dimensions is slightly greater than the actual earth's equatorial circumference and northern hemisphere. The royal cubit is .525 meters (The GPU is 6.28 / 12 = .5236 m.). The common or Greek cubit is 6/7's of the royal cubit, or .45 m. (The Hebrew or Roman cubit is a shorter version of this, .4439 m., 5/6's of the Mesopotamian cubit.). One would have to assume that the Hebrews are using a shorter radius (r) for the circle than 1 for 2 TT (r) = C. .4439 (12) = 5.3268. How they came upon this is hard to understand without using fractions. Regardless, it is not an exact science for the Hebrews, as it was for the Egyptians as attested to by the Great Pyramid dimensions with the socle or base figured into them.

References:

Don Roth, author of Biblical Calendar Proof, 2017

where he states that the year of Great Flood = 385 days

\* E. F. Kevan, commentary on Genesis in The New Bible Commentary, 1953

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