

How long was Noah on the Ark?

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A lunar year lasts exactly 354.36 days. Yet most commentaries assume 360 days for a lunar year. This proves problematic if we say that Noah spent 370 days on the Ark (one lunar year on the Ark, plus ten days, according to Genesis 7:11–13 and 8:14–20), because it implies that the biblical author was ignorant of the real length of a lunar year! I solve the discrepancy by showing how Noah probably made estimates based on a 30-day month when the moon couldn't be seen, which he later adjusted to reality when the moon was visible again.

The chart below summarizes the events and activities which took place during the time Noah was on the Ark, as told in Genesis 7–8. Take note of the number of days given as the total amount of time Noah was on board the Ark with his family and the animals: 364, not 370 or 377, as is usually supposed. Note that this analysis assumes that Noah did not enter the Ark until the rains actually began to fall and the fountains of the deep began to open, pairing verses 7:11 and 7:13 as referring to the same day.

At the time of the worldwide Flood, the Hebrew calendar was based on the movement of the moon (lunar),

rather than the sun (solar). Each month had 29.53 days,¹ but this was rounded to 29 days for some months and to 30 for others.² The lunar year was 354.36 days long, compared to the solar year of 365.3 days.³

One solar year on board the Ark

I propose that Noah was on board the Ark exactly one year minus one day, rather than the usual 370 (or 377 days by some commentators who include Genesis 7:6–10 as seven more days on board) which are calculated by a strict

Bible text	(Date on the lunar calendar) Events and activities	Length of time mentioned	Running total of days
7:6–10	Noah gathered the animals onto the Ark and waited.	7 days	0 days on board
7:11–16	(2 nd month, 17 th day) Rain began to fall, so Noah entered the Ark with his family.	Heavy rain for 40 days	40 days on board the Ark
7:17–24	The waters swelled on the earth until all of the mountains were covered and all the land creatures and people had died.	150 days	150 days on the Ark
8:1–4	(7 th month, 17 th day) God sends a wind and stops the water and rain. The Ark runs aground at Ararat.	The end of 150 days	150 days (same as above)
8:5	(10 th month, 1 st day) The waters keep receding and the mountain tops appear.	No length of time mentioned	220 days (29.53 x 8 – 16)
8:6–9	Noah sent out a raven and then a dove, but both return to the Ark unsuccessful.	40 days	260 days
8:10–11	Noah sends out the dove again and it brings back an olive branch.	7 days later	267 days
8:12	Noah sent out the dove and it did not return to the Ark.	7 days later	274 days
8:13	(1 st month, 1 st day) Noah removed the Ark's covering and saw dry ground.	No length of time mentioned	309 days (29.53 x 11 – 16)
8:14–20	(2 nd month, 27 th day) The earth had dried out sufficiently and Noah left the Ark with all of the animals.	No length of time mentioned	A total of 364 days on board (29.53 x 12 + 10)

multiplication of 12 months times 30 days, plus ten.⁴ The reason this is possible is because Noah began by counting days from event to event, allowing exactly 30 days to a month because, at first, the rain and fog prevented him from seeing the moon. Finally, he was able to rectify his running account of time elapsed through an actual sighting of the moon after the rain stopped and the mountain tops appeared on day 220 of being in the Ark (Genesis 8:5).

Why would the difference between being in the Ark for 364 days instead of 370 be significant? Because, if we count each month as consisting of exactly 30 days, our lunar year ends up having 360 days, rather than the 354.36 which it has in reality. The people of the Ancient Near East were very familiar with the movements of the sun, moon and stars and were capable of keeping very accurate records of the passage of time. In fact, God told the Hebrew people that he was placing the sun, moon and stars in the sky for this very reason (see Genesis 1:14)!

We cannot blame any miscalculations on Noah, or even on Moses, since no total is given for the number of days in the Ark. We only get the lunar starting time and the lunar ending time. When we multiply 12 months by 29.53 days, it gives us 354.36 days. Then we add the ten-day difference between the beginning and ending days and the result is exactly 364.36 days: one solar year minus one day!

Notice in the chart above that the first 150 days are counted out on a 30-day/month basis: from the 2nd month, 17th day, until the 7th month, 17th day, equals five months; multiplied by 30 equals 150. However, starting with day 220, as calculated by the appearance of a new moon on the 1st day of the 10th month, Noah does not mention the number of days which have transpired. Why? Because now he has an accurate sighting of a new moon which rectifies the previous day count based on an estimated 30-day month.

After this rectification, we get some more day counts having to do with the drying of the land and the sending of the birds. However, Noah makes no reference to the day of the month because he is counting actual days from one event to the next. Afterwards, when we are told the calendar date for the next two events, again there is no specific mention of the number of days gone by. It is unnecessary, because, as before, we have references to actual sightings of the new moon. No artificial count of days, which after a year would be off by six whole days, needs to be used. Taking this progression of the alternation between numbers of days and actual calendar dates into account, it seems obvious to me that Noah spent only 364 days on the Ark with his family and the animals (providing, of course, he entered on the 17th day of the 2nd month, and not seven days earlier, as some theologians interpret). This analysis is based on the Masoretic text. After consulting different sources, I found no reference to the section being dealt with here in the Qumrân scrolls.⁵⁻⁷

Examination of the Septuagint revealed a few interesting variations. Although the text differs slightly from the Masoretic, every translation I checked (KJV,

NASV, NIV, Reina Valera, Dios habla hoy, Louis Segond, Bible en Français courant, Today's Arabic Version), follows the Masoretic text. In verse 7:11, the Septuagint reads, 'In the sixth hundredth year of Noah's life, in the second month and the 27th day of the month ...'.⁸ Later, in verses 8:4-5, it says, 'And the ark settled in the seventh month, on the 27th of the month, on the mountains of Ararat. And the water was decreasing until the tenth month, and in the tenth month, on the first day of the month, the tops of the mountains were seen.' Note that in both cases it says '27th day', rather than '17th day'. Lastly, in verses 8:13-14, we read, 'And it happened in the six hundred and first year of Noah's life, in the first month, on the first of the month, the water had disappeared from the earth ... But in the second month, on the 27th day of the month, the earth was dry.'

As a net result, we observe that the initial 150-day period, calculated as 30 days times five months, remains the same. On the other hand, the Septuagint has now subtracted ten days from the total time on board, as calculated from the Masoretic text, leaving 354 days by my rendering (29.53 × 12). If we assume, as all the translations have done, that the Masoretic text has the correct dates, then how are we to understand the Septuagint's insistence on the 27th day of the month in verses 7:11, 8:4, and 8:14? Could the translator, who lived many hundreds of years after the text was originally penned in Hebrew, have confused a lunar year (354 days) with a solar year (365 days) and then adapted the text to fit his interpretation? Or maybe he added the first seven days, which I have omitted, to the total time on the Ark to make it match a lunar year of 360 days (354 + 7 = 361); thus having Noah leave the Ark on the first day after completing a full year on board? Or perhaps he simply thought the time should match a 360-day, lunar year, because he wasn't aware that a lunar year is shorter than that in reality! The fact remains that, no matter how we slice it, it still comes out a one year total, lunar or solar, and not 370 days (or 377) as has been taught for so long.

What about dissenting voices?

What do other commentators say about this passage? Here I only examine two, by way of illustration. The analysis presented in this article contrasts with Walvoord and Zuck, for example, who insist on a 360-day year for the Jewish calendar. They give evidence from their calculation of 69 weeks of years from Daniel 9,⁹ compared to Revelation 11:3 and 12:6, where three and one half years are equated with 1,260 days.⁹ 1,260 divided by 42 months equals 30 days per month. However, this could be from a convention of rounding the cumbersome 29.53 to 30, or because the Jewish system changed during the captivity in Babylonia.² Thus, their argument does not necessarily preclude this new understanding.

Vila and Escuain agree on the 360-day year, but attribute it to cosmic changes in the motion of the moon around the earth.¹⁰ Although this is not impossible, it leaves us



Ark model by Rod Welsh

Noah is normally assumed to have been on the Ark for 370 days. However, a case can be made that he was on the ark for a year minus 1 day.

in doubt about when and why such a change took place. Would it have happened during Noah's time as part of the provocation for the Flood? Or did it, as they suggest, occur during Joshua's time? Later, they contradict themselves concerning the length of a year. First they affirm that the months during the Flood were 30 days long, and then they explain that the months could be 29 or 30 days long 'although formally considered to be 30 days long'.¹¹ Thus, they inadvertently confirm the possibility of a year which is shorter than 360 days for Noah's Flood. More could be cited, but these two samples summarize the main arguments for a 360-day, lunar year: not conclusive.

Conclusion

Therefore, although it would seem that the Hebrew people counted a month as consisting of 30 days when making a generalized application, they were fully aware that it was slightly shorter than that. Since Noah had 600 years of experience viewing the night skies before the Flood began, I'm sure he also possessed this knowledge and knew how to calculate time quite accurately by the moon. What convinces me even more of this fact is that the Flood, as calculated by lunar months, ended after almost exactly one solar year. This would have been remarkable, if he entered the Ark, say, on the day of fall equinox (for the sake of illustration), and left it exactly a year later, the very day before fall equinox eve. Thus, his first full day on dry land would be the completion of one full solar year on board the Ark!

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