

Great Clocks from God

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The Phenomenon of God's Timing

God's plans for planet earth did not end when He completed creation week; instead, they had merely begun. We continue to learn what God planned from the beginning. Consider all God has done since creation and put that within the context of what God intended to do *before* He even made the world!

God did not create this world then abandon it. On the contrary, God planned for us to make heaven a little larger. God created Adam and Eve because he wanted them to experience the joy of children as he does. That is why He gave them the power to procreate.

When sin entered this world, it corrupted every good thing God had made. Sin's legacy has produced a degenerate order in every dimension on earth. God has not abandoned this world or His children like a deadbeat parent.

God is a mystery and, at times, His actions are baffling. He does not operate within our boundaries. His ways are not our ways. To say that God is incredible is an enormous understatement. His knowledge and wisdom have no limits.

One impressive, and yet confusing, feature of God is His foreknowledge. For example, a popular question is: "If God foreknew that Lucifer would become the devil, why did He create him?" One response to the question is that if God protected himself and His government from the possibility of rebellion, He would prove to be an eternal tyrant, forever secure in His position as dictator of the universe. However, the very presence of the devil proves that God is not an eternal tyrant. On the contrary, the drama of sin has convincingly revealed that God is love. Humanity's experience with sin will produce the positive benefit that everyone will know that God *alone* is worthy to forever be ruler of the universe. In other words, God's reaction to sin has earned Him the right to rule the universe and His children. At the end of sinful earth's history, God's subjects will give Him the honor, glory, and praise He is due.

When God created the world, He foreknew the elements He would need to accomplish His objectives. God knows the duration of each event, so He created the phenomenon we call time to measure every event. I define time as the duration between two events.

We measure time on earth in several ways. From the beginning, God foreknew how long sin would last. He has given man *great clocks* so we can measure and understand the duration of His plans. Daniel and Revelation students face the challenge of arranging predetermined periods that God ordained from the beginning. God has given us some prophetic periods that endure many centuries while some periods last for a few days. This is because each period reveals the timing of *His plans* that began at creation. We need to know about the 1,000 years of Revelation 20 *before* they come to pass; if they were not significant, God would not

have revealed them. What is so important about knowing the saints will reign with Jesus for a thousand years? As we consider the presence of a millennial week of seven thousand years for the duration of sin, then the 1,000 years of Revelation 20 implies the saints will reign with Jesus during earth's sabbatical rest from sin!

Many say, "Prophecy is not a matter that pertains to *my* salvation; therefore, why worry about it? Whatever will be, will be." No doubt, the antediluvians made similar statements in Noah's day. Consider the parallel: For 120 years, the antediluvians said the prophecies of Noah were not pertinent to salvation, but in one single day, everything changed.

How can this be? Did God send the antediluvians meaningless prophecies for 120 years and then suddenly send them meaningful prophecies? Of course not. Noah's message pertained to salvation from the beginning, but the scoffers drowned in their unbelief. (Matthew 24:39)

Likewise, the prophecies of Daniel and Revelation are pertinent now, even though we may not understand them. However, when the time for soul-saving clarity arrives, who will understand the way to eternal life—scoffers or students?

Each Time Period Has a Place

The books of Daniel and Revelation contain pertinent time periods. Daniel mentions:

- 10 days, 21 days, 30 days, 2,300 days, 1,290 days, and 1,335 days
- 3 weeks, 70 weeks
- 12 months, 3 years, and 70 years
- seven times
- · a time, times and half a time

Revelation also mentions several time periods. These include:

- 1,000 years
- 42 months, five months
- 1,260 days, 10 days, 3.5 days, one day
- one hour, half an hour
- a time, times and half a time

Revelation also includes one time reference that pinpoints a specific hour, day, month, and year. Given the many time periods in Daniel and Revelation, how does God determine these time periods? What do these time periods say about His actions? Is there a self-evident rule within the Bible that mandates how time should be calculated? Where does each time period belong in prophetic chronology? Why does God use different names for time periods?

When Bible students begin an investigation of Daniel and Revelation, they must include and interpret all the time periods in their study. Therefore, we must have a method to interpret these time periods.

The Day Clock

When God created earth, He devised four great clocks and four seasons to enable man to quantify and measure the passage of *earth time*. (Genesis 1:14–19) Three of the four clocks and all four seasons were perpetually synchronized with planetary motion.

God synchronized the *day clock* with sundown. (Genesis 1:5) The end of one day establishes the beginning of the next because the day clock is perpetually reset at sundown. (Genesis 1:8) God confirmed this point some 2,500 years after creation. (Leviticus 23:32)

Ancient Egyptians may have synchronized their day clock with sunrise, and the Romans may have synchronized their day clock with midnight, but God's *day clock* remains unchanged and operates from sundown to sundown.

The average length of earth's solar day is 23 hours, 56 minutes, and 4 seconds. The additional 3 minutes and 56 seconds needed to make up a 24-hour day is gained by traveling 1.728 million miles around the Sun. In other words, our orbital travel around the Sun plus the rotation of earth produces 24 hours between sunsets. The amount of darkness and light per day constantly changes throughout the year because our planet's axis is not vertical. Inclement weather also prevents the observation of sundown.

Further, the season of the year and geographical position also affect the local time for sundown. Even the horizon of the observer affects the time of sunset. Although sundown marks the end of one day and the beginning of another day, the observable moment of sundown is not fixed or precise, yet sundown is ideally suited to reset the *day clock*.

The Month Clock

God also created the *month clock* at creation. A month is determined by one complete cycle of the moon: a lunar month averages 29 days, 12 hours, 44 minutes, and 3 seconds in length or 29.53 days. God synchronized the beginning of a new month with the approximate conjunction of a new moon. In David's day, the second day after the new moon was called the second day of the month. (1 Samuel 20:24, 27) New moon conjunction occurs when the moon passes between earth and the Sun.

Individuals rarely acknowledge this event because the face of a new moon is dark. Even though the ancients could rarely see the new moon conjunction, they could calculate the approximate time of conjunction by subtracting the age of a full moon from 29.53 days. The result is the approximate time of conjunction. The number 29.53 is the number of days between full moons. Depending on the moon's orbit, a new moon waxes into a full moon over approximately 13.91 to 15.54 days.

The following example shows the relationship between full moons and new moons:



(Chart 1)

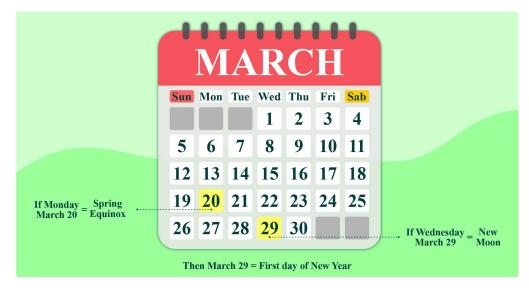
It may seem strange to suggest that God synchronized the beginning of the *month clock* with what cannot be seen: the *approximate* time of a new moon. The wisdom for starting the month with a calculated time is that calculation eliminates observational problems, including longitude, latitude, and inclement weather.

God synchronized the *month clock* to serve a world of many time zones. (See Isaiah 66:22-23.) Although the ancients could not calculate the new moon as accurately as we can today, the imprecision was not serious. If the ancients made an error, they could synchronize the time of the new moon the following month by making a simple adjustment.

When God's method for synchronizing the *month clock* for everyone on earth is considered, a calculated new moon is far superior to the ancient Babylonian practice of sighting the first crescent of a new moon to begin a month. The luminance of a full moon, as well as the phases of the moon, provide enough time for everyone on earth to correctly calculate the beginning of the following month without actually observing the new moon.

The Year Clock

God devised a third clock, the *year clock*, at creation. A year is determined by one complete orbit of earth around the Sun. A solar year is about 365 days, 5 hours, 48 minutes, and 46 seconds in length. God synchronized the yearly cycle with the beginning of the first new moon on or after the spring equinox (Chart 2).



(Chart 2)

Is the Record of Time in the Bible Reliable?

Some people suggest that the record of time given in the Bible is not reliable saying, "Time periods today are not like time periods at creation." They hypothesize that a day at creation could have lasted several years. Of course, such a comment presupposes enormous solar changes.

If the length of a day at creation were different from the present length, the rotation period of our planet would have to be different. If the length of a year at creation were different, then our orbit around the Sun would have to be different.

If our orbit around the Sun were different, our distance from the Sun (about 93 million miles) and velocity around the Sun (about 72,000 mph) would be different. This would cause the temperature of earth and the seasons to be substantially different.

If earth were 141 million miles from the Sun (like Mars), a year would take 687 earth days, and the temperature at the equator would be 100 degrees (F) below zero in the summer. If we were as close as Mercury, a year would be 88 earth days in length, and the temperature would quickly evaporate the oceans.

It is doubtful that life could endure on earth if it were any other distance from the Sun. *Any change in the measurement of time* requires a series of destructive changes in the physics of earth. God's definition of time at Creation, the Flood, the Exodus, and at Calvary produces the conclusion that earth's time has remained constant.

Man Abandoned God's Clocks

God synchronized the day, the month, and the year at creation. The timing of these great clocks cannot be separated from planetary motion. So, our understanding of prophetic time periods within Daniel and Revelation must include God's original timing for each clock. Later, we will see the significance of this point. We know that God is deliberate and purposeful in everything He does.

God designed and synchronized each clock to serve this planet. Unfortunately, history reveals that man abandoned God's perfect methods for measuring time. Many diverse and asynchronous calendars from ancient and modern history confirm this fact.

Ancient Calendars

Archeologists have found that ancient Egyptians used a 365-day solar calendar having 12 months of 30 days plus a 5-day appendage called *epagomenae*. Consequently, their calendar fell behind the position of the Sun one day every four years. This fact did not concern them because they did not correct their calendar every four years with a leap year.

New Year's Day in Egypt may have been aligned with the annual flooding of the Nile. The river was the source of life for arid Egypt, and the annual flood in June may have been the basis for their summer-to-summer calendar. Some have proposed that the Egyptians started their calendar each summer with the appearance of the star Sirius in July. Some scholars say the Egyptians synchronized their day with sunrise and the beginning of a month with the last sighting of the moon's crescent before it waned from sight.

Ancient Babylonians were excellent astronomers. From earliest times, they began a new month with the first sighting of a new moon crescent. This sighting usually occurs within a range of 15.5 to 60 hours after a new moon occurs (conjunction). The Babylonians also observed a spring-to-spring calendar established by the first new moon crescent on or after the spring equinox. Scholars believe they synchronized their day with sunset.

The Babylonians produced the first reliable solar-lunar calendar about 500 BC. They devised a clever schematic of months that kept months, seasons, and years in alignment with the Sun and moon. This calendar consisted of 235 lunar months and gained a mere 2 hours on the Sun's position over 19 years (an error of one day in 228 years).

Although the Babylonians did not have mechanical clocks as we do today, they could *compute* time down to a resolution of 1,080 parts per hour (a *halaqim* is the equivalent of 3.3 seconds)! By 125 BC, the Greek astronomer Hipparchus calculated the precise length of a solar year to within 6.5 minutes of what we know today.

The Week Clock

God's fourth clock at reation was the weekly cycle of seven days. The weekly cycle is not based on planetary motion, so we cannot physically observe the weekly clock. Nothing in the heavens or on the earth, or within the earth is synchronous with the weekly cycle. The weekly cycle cannot be determined by solar study or *test-tube* investigation because God synchronized the weekly cycle with the one-time week of creation that no human witnessed. Adam and Eve did see the seventh day of creation.

Each seventh day of the week is an anniversary of God's creation. The only way to accurately determine the repetition of the weekly cycle is to compare Scripture with history and observe man's actions! Man's knowledge of the weekly cycle uniquely conveyed from Eden – to Noah – to the Exodus – to the time of Jesus – to our day.

The passage of months, seasons, years, centuries, and millenniums has not disrupted the weekly cycle. In God's order, there are six days for work between the seven-day Sabbaths.

Man thinks nothing of starting a new month, a new year, or even a new century on a Thursday or a Monday. A seven-day cycle each week is one of the world's wonders. How did ancient man, separated for centuries by oceans, mountains, deserts, religion, language, and culture know the seven-day weekly cycle?

Many ancient nations knew of the weekly cycle and the alignment of their seventh day of the week with creation's seventh-day Sabbath. In 1886, researcher Dr. William Meade Jones entered a document titled, *A Chart of the Week*, into the Library of Congress. It lists 160 ancient languages identifying the seventh day of the week when translated means *Sabbath rest*. Surprisingly, 160 ancient nations knew that the seventh day of the week was a day of rest!

One powerful defense for creation as opposed to the theory of evolution is the perpetual presence of the weekly cycle among many nations, even though man's calendars have been diverse and temporary.

Prophecy Study Requires Knowledge of God's Clocks

We must understand God's clocks when studying the time periods in Daniel and Revelation. Each time period should be synchronized using the original clocks which our Creator devised. A month in prophecy begins with a new moon, and a year in prophecy begins in the spring. This is important because the relationship with God's clocks affects time periods He deliberately defined and placed in Daniel and Revelation. Even though the units of days, weeks, months, and years are widely used today, people ignore God's connections with the original time periods.

All four clocks, the day, the week, the month, and the year, are perpetual—three based on planetary motion and one based on divine decree. These four clocks do not operate at intervals of time that violate synchronization. God uses these four time periods as He created them. Therefore, a day always begins at sundown, not at midnight. (Leviticus 23:32) A month is not just any period of 30 days. God identified a month as a period from one new moon to another. (Numbers 10:10; Isaiah 66:23) A week may have seven days, but not just any seven days. (Exodus 20:8–11) A week is a period that is synchronous with creation week. If a week could be any seven days at man's whim, then the seventh day would occur randomly.

Man has previously attempted to redefine the weekly cycle, which would eliminate the weekly anniversary of creation, but God has expressly forbidden this in the fourth commandment.

For 40 years, God withheld manna on the seventh day of each week. He wanted Israel to understand His regard for the weekly cycle which He crowned with His Sabbath. (Exodus 16:29, 35) The Lord's day of rest is perpetually synchronous with creation's seventh day. (Genesis 2:1–3)

To preserve this relationship, God declared the seventh day holy at creation. God included the reminder in the Ten Commandments to observe the seventh day because the seventh day of the week synchronizes with the seventh day of creation. (Exodus 20:8–11) Fallen man is naturally inclined to reject, neglect, or ignore God's works, so our creator began the fourth commandment by saying, "Remember the Sabbath day, to keep it holy."

When God sees His children resting on a Sabbath synchronous with creation's Sabbath, He is pleased. (Exodus 20:8–11; Isaiah 58:13–14; Luke 4:16; Acts 13:44; Hebrews 4:9–11) No other seventh day satisfies the fourth commandment because no other seventh day is synchronous with creation week. Therefore, we are not to consider any other unit of time as a week except the seven-day period synchronous with creation week.

It also appears that from God's perspective, time periods should not be interpreted as a day, month, or year except those synchronous with God's great clocks. This has serious ramifications for prophetic time periods.

God Is Constant & His Time Is Constant

God's actions at one time in history are consistent with His actions at another time in history unless there is compelling evidence from Scripture stating otherwise. We must rely on God's consistent ways by faith because the Bible will not satisfactorily answer every question we may have about a given event. From the beginning, God designed how time should be measured by establishing a correlation between days, weeks, months, and years.

Adam and Eve lived in the Garden of Eden a period of time before they sinned. How did they mark the beginning of months and years? Likewise, how did Noah mark the beginning of a new month and a new year? If God's time synchronizes throughout the Bible, we can conclude that Adam and the antediluvians used the same basis for synchronizing days, weeks, months, and years as Israel.

God confirmed the synchronous operation of the day, week, month, and year to Moses 2,500 years after creation, so there could be no doubt about the original order of time that began at creation. (Exodus 12:1–2; 20:8–11; Leviticus 23:5,32; Numbers 10:10)

If you agree with my statements concerning the concept of perpetual synchronization of God's clocks and that God reaffirmed this relationship at the time of the Exodus, I can share some interesting connections. For example, if Noah entered the ark during the second month of the year (Genesis 7:11), he must have entered the ark during April or May because Israel's second month occurred during April or May. Therefore, Noah's year may have started in the spring (March or April) because Israel's new year began during those months. Of course, we cannot prove these conclusions. We can, however, consider the impact of the perpetual links between God's days, weeks, months, and years when studying the phenomenon of time.

God's Clocks for Israel

God imposed the Passover observance on Israel at the time of the Exodus. (Exodus 12:6) Israel was to celebrate Passover each year on the 15th day of the first month. God's method for counting time in days, months, and years began fifteen days *before* the death-angel passover occurred in the spring of the year. (Exodus 12:1–2) There is no record that God gave Israel a formal calendar for measuring months with a set number of days. Instead, evidence indicates He wanted Israel to observe the moon's phases and celebrate feasts according to the arrival of new moons. (Numbers 10:10; 28:14; Colossians 2:16) The Israelites were excellent timekeepers. (Exodus 12:41) They knew a lunar month was about 29.53 days in length by measuring the days between full moons. They also knew a solar year consisted of approximately 365.25 days by counting the days between spring equinoxes. However, their

ceremonial obligations required a more comprehensive calendar than either a solar calendar or a lunar calendar could provide. Therefore, they had to use a solar-lunar calendar.

Remember, God confirmed the original order for the weekly cycle shortly after the Exodus by withholding manna on the Sabbath day. (Exodus 16) God required the children of Israel to observe the seventh-day Sabbath, new moon celebrations, six annual feasts, sabbatical years, and years of Jubilee. So, God required Israel to maintain a timekeeping system to meet His obligations and preserve the record of time. He also has foreknowledge, knowing the last generation on earth will need encouragement during the Great Tribulation. Therefore, He included many time periods in prophecy for those living during the Great Tribulation.

The records of time in the Old Testament are essential to correctly understand the timing of each apocalyptic time period.

Full Moon Appearance and Appointed Feasts

Astronomers tell us that, depending on the moon's orbit in a given season of a year, full moons can occur as early as 13.91 days or as late as 15.54 days into a month. We also know that Passover and the first day of the Feast of Tabernacles occurred on the 15th day of the feast's respective month. Therefore, a full moon sometimes occurs *on* these feast dates. The Bible confirms this relationship with the monthly calendar and feast days by saying, "Sound the ram's horn at the New Moon, and when the moon is full, on the day of our festival." (Psalm 81:3)

Most of the time, a full moon occurred on the day *before* these two feasts. After their Babylonian captivity, the Jews abandoned God's timing for new moon feasts and created a calendar that regularly placed Passover and the Feast of Tabernacles on the day *after* a full moon. This deviation is well documented in history.

The Beginning of a New Year

God aligned the beginning of a new year with the beginning of the first month *on or after* the spring equinox. My conclusion is not confirmed with a single *proof text*. However, scriptural and historical evidence shows that God recognizes a year from spring to spring. Scholars have produced historical evidence showing that ancient Israel began their new year at the beginning of the first month *on or after* the spring equinox.

This is reasonable because the spring equinox is not challenging to observe. At the spring equinox, the Sun crosses the earth's celestial equator, as it rises from due east and sets due west. Also, the alignment of certain stars is *reset* at the spring equinox.

An equinox occurs twice a year, about March 21 in the spring and September 22 in the fall. Scholars have concluded that the Jews determined a new year started at the first of the month *closest* to the spring equinox. In contrast, other scholars have maintained that the Jews determined the beginning of a new year by watching the winter barley crop. A maturing barley crop enabled the Jews to present a sheaf of barley at Passover. (Leviticus 23:10–14)

If a new year begins with the first new moon *on or after* the spring equinox, this would place Passover, at the earliest, about April 5, and this timeframe allows enough growing time for the barley harvests.

Genesis 1:14 says, "And God said, 'Let there be lights in the vault of the sky to separate the day from the night, and let them serve as signs to mark sacred times, and days and years."

This verse does not reveal anything about determining a new year by the condition of a barley field. It refers to using the sun, moon, and stars to mark the seasons and the time segments of days and years instituted at creation. Seasons and years were measured in Eden before sin occurred, and the order of the day, week, month, and the new year has remained continuous since creation. This measurement of years occurred about 2,500 years before the Israelites left Egypt, and they were in the wilderness for 40 years before having a barley crop. Therefore, a barley crop could not be the basis for beginning a new year.

Three Clocks Added at the Exodus

A few centuries before the Exodus, Abraham's descendants measured time in days, months, years, and weekly cycles. (Genesis 29:14,20,27–28) At the time of the Exodus, God reaffirmed the existing relationship between His four great clocks. He also devised three other great clocks, bringing the total to seven. These clocks were built on the foundation of His existing clocks.

- 1. The week of seven months
- 2. The week of seven years
- 3. Seven weeks of seven years

God aligned these additional clocks with the existing four clocks that began with creation week so the seven clocks would operate harmoniously. (Exodus 12:1-2; 16:1-36; Leviticus 25:2-55).

The Week of Seven Months Clock

From the beginning, God planned to use the weekly cycle of seven days as a template for creating other clocks. The *week of seven months* is an obvious parallel to the weekly cycle. Of course, a week of seven months translates into a day of the week as a month. Therefore, this clock measures a period of seven months. It synchronized *with the year* of the Exodus and the first *day* of the new year for the Children of Israel. Remember, this day occurred at the first new moon on or after the spring equinox.

Bible chronologists call the first seven months of Israel's solar year the religious year or the ceremonial year. Do not confuse the end of the ceremonial year with the end of the solar year. (Exodus 23:16; 34:22) The ceremonial year operated for seven months, much like a school year runs for nine or ten months today.

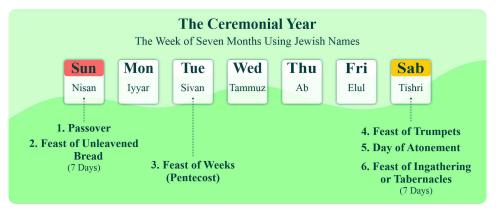
Passover, the first compulsory feast of the ceremonial year, occurred on the 15th day of the first month (in spring). The Israelites called the last compulsory feast the Festival of Ingathering or Feast of Tabernacles, and it began on the 15th day of the seventh month and lasted for seven days. (Exodus 23:14; Leviticus 23:34)

The Children of Israel celebrated two other feasts of enormous significance during the seventh month, the Feast of Trumpets on the first day and the Day of Atonement on the

tenth day. These three events during the seventh month, the last month of the ceremonial year, were theologically and prophetically preeminent.

For centuries, the Jews did not use names for the days of the week except to call the seventh day, *Sabbath*. Likewise, the Jews often referred to their months with numbers, although they did have names for them. (Deuteronomy 16:1; 1 Kings 6:1) After the Babylonian exile (605 BC - 538 BC), the Jews named all twelve or thirteen months with names derived from the Babylonians. For example, the Jewish name for the first month of the year became Nisan, taken from the Babylonian month of Nisanu. (Nehemiah 2:1)

The Jews called the seventh or last month of the ceremonial year Tishri coming from the Babylonian month of Tashritu. They called the ninth month of the calendar year Kislev (Zechariah 7:1) and the twelfth month Adar. (Ezra 6:15) If a calendar year had 13 moons, the Jews called it Ve-adar, whereas the Babylonians called it Adar II.



(Chart 3)

The Week of Seven Years Clock

God created the *week of seven years* clock from the weekly cycle template. The difference between a week of seven days, a week of seven months, and a week of seven years is the source of synchronization and scale. Whereas the weekly cycle of seven days synchronizes with creation week, the *week of seven months* clock and the *week of seven years* clock synchronize with the year of the Exodus *and* the first day of the Jewish new year. God aligned seven great clocks 15 days before the Exodus. (1/1/1 = Nisan 1, year 1).

Study the alignment between a new day, week, month, year, ceremonial year, and the week of seven years clock. A new day began (Sunday), a new week began (week 1), the first month of the year started (month 1), a new year began (year 1), the first month of the seven-month clock began (ceremonial year began), and the first year of the seven years clock began at 1/1/1. Remember, this alignment occurred in the spring of the year.

The *week of seven years* clock was notable. Enslaved people were to be set free each seventh year and the land was to lie fallow during this sabbatical year. God used this clock to explain how a day of prophetic time equals a year of literal time.

The following	diagrams	show	how the	three	clocks	align:
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		The We	ek of Sev	en Years	Clock		
Sun	Mon	Tue	Wed	Thu	Fri	Sab	
1437	1436	1435	1434	1433	1432	1431 BC	Week 1
Exodus	2	3	4	5	6	Sabbatical Year	
•	•	•	•	•	•	•	
Sun	Mon	Tue	Wed	Thu	Fri	Sab	
1.120	1429	1428	1427	1426	1425	1424 BC	Week 2
1430	2	3	4	5	6	Sabbatical Year	
:	:	:	:	:			
Sun	Mon	Tue	Wed	Thu	Fri	Sab	
1 100	1401	1400	1399	1398	1397	1396 BC	Week 6
1402	2	3	4	5	6	Sabbatical Year	

(Chart 4)

Note: The Exodus date of 1437 BC is a Sunday year and will be discussed later. The count of years is associated with each day of the week. Each year began in the spring. In this illustration, the first sabbatical year is 1431 BC and the first sabbatical year observed in Canaan was 1396 BC.



Note: This clock shows the first seven months of 1437 BC, the year of the Exodus. The death-angel pass-over occurred in the spring, on the 15th day of Nisan, during the first month of the year. The ceremonial year ends with Tishri 30.

TI	The Week of Seven Days Clock for 1437 BC											
	Sun	Mon	Tue	Wed	Thu	Fri	Sab					
	1	2	3	4	5	6	7		Week 1			
	1	2	3	4	5	6	7		Week 2			
Exodus 15th Day	1*	2	3	4	5	6	7		Week 3			
	1	2	3	4	5	6	7		Week 4			
	1	2	3	4	5	6	7		Week 5			
	1	2	3	4	5	6	7		Week 6			
	1	2	3	4	5	6	7		Week 7			
	1	2	3	4	5	6	7		Week 8			
	1	2	3	4	5	6	7**					
**On the	19th day	y in Wil	derness	God Sp	oke Te	n Com	mandm	ent	S			

(Chart 6)

Note: Israel's week was synchronized with creation week and the new moon at the time of the Exodus. (Exodus 12:1-2; Exodus 16) The Exodus occurred in the spring, on Sunday, the 15th day of the first month, year one (1/15/1). God visited Israel seven weeks later, on Sabbath—the 49th day of the Exodus, and spoke the Ten Commandments from Mt. Sinai. (Exodus 19 and 20)

Sabbatical Year: Emancipation of Slaves

God required Israel to free all slaves every sabbatical year. "If any of your people—Hebrew men or women—sell themselves to you and serve you six years, in the seventh year you must let them go free." (Deuteronomy 15:12)

Notice these verses: "If any of your fellow Israelites become poor and sell themselves to you, do not make them work as slaves. They are to be treated as hired workers or temporary residents among you; they are to work for you until the Year of Jubilee. Then they and their children are to be released, and they will go back to their own clans and to the property of their ancestors. Because the Israelites are my servants, whom I brought out of Egypt, they must not be sold as slaves. Do not rule over them ruthlessly, but fear your God. Your male and female slaves are to come from the nations around you; from them you may buy slaves. You may also buy some of the temporary residents living among you and members of their clans born in your country, and they will become your property. You can bequeath them to your children as inherited property and can make them slaves for life, but you must not rule over your fellow Israelites ruthlessly." (Leviticus 25:39–46)

All slaves were to be set free at the *beginning* of each sabbatical year. God not only insisted that the land rest during the seventh year, but He also insisted that all slaves go free. The emancipation of slaves was essential because the freeing of slaves at the beginning of the sabbatical year was a pattern of events to come. God will set His faithful children free from the curse of sin at the beginning of the seventh millennium! Additionally, freedom was possible if both parties were willing for a fellow Hebrew to sell his land and services to another Hebrew.

Since God is the master builder, templates are vital because He often reveals His ways and plans through patterns. For example, when Moses was about to build the sanctuary in the wilderness, God said, "Make this tabernacle and all its furnishings exactly like the pattern I will show you." (Exodus 25:9; Hebrews 8:5)

The weekly cycle is a template that goes beyond seven days. The sabbatical-year emancipation of slaves and the sabbatical rest for the land are templates of events to come. As we consider God's actions in terms of templates, many mysteries will vanish and insights will appear.

Sabbatical Year: Not for Agricultural Purposes

Review Chart 4 showing that God required the *promised land* to rest each seventh year as **a sabbath to the Lord.** (Exodus 23:10-11; Leviticus 25:4) The sabbatical rest for the land was as holy to God as was His Sabbath day for man. The mandated sabbatical for the land was not based on agricultural purposes, nor was it merely the mandate of civil government. On the contrary, God set the seventh year apart from the preceding six years, and would place a curse upon Israel if they failed to keep *His* sabbatical year. (Leviticus 26:32–38)

Some argue that God mandated the sabbatical year to improve agricultural yield. This claim makes no sense; the soil produced more during the sixth year than at any other time. (Leviticus 25:21) Just as the weekly cycle ends with its Sabbath rest for man, the week of years ends with its sabbatical year of rest for the land. Just as the interval between the seventh-day Sabbaths is six days, the period between sabbatical years was six years.

Just as man is called away from his servile duties to reflect on God's creative actions every seventh day, Israel was called away from its agricultural endeavors every seventh year to reflect on God's generous abundance and His mighty deliverance out of Egypt.

God used the sabbatical year to test the nation of Israel's faith. Therefore, God tested Israel's faith through their agricultural needs every seventh year, as He had tested their faith with their daily food every seventh day in the wilderness. (Exodus 16:4) Faith in God is the basis of a relationship with Him. Unfortunately, Israel failed the faith test. (Isaiah 24:5)

The Sun Determines Seasons

Earth's movement around the Sun determines when the four seasons begin. Spring begins at the vernal equinox. Summer starts at the summer solstice, the day having the longest period of daylight. fall starts at the fall equinox, and winter begins at the winter solstice, the day having the shortest period of light. God determined that the Jews should observe feasts based on new years, new moons, and sabbatical years every seventh year and every fiftieth year. So, the Jews had to maintain a solar-lunar calendar that followed the astronomical position of the Sun as well as the moon.

The Week of Seven Years Clock Defines A Time

The week of seven years clock translates each day of the week into one year (Chart 4). Because God's year is not fixed in length, a year was called a *time*. Our calendar today sets the length of a solar year at 365.256 days, but God's year can vary from 354 to 384 days (12 or 13 moons) depending on when the first new moon in the year occurs. The phrase, *a time*, is an expression for one year that synchronizes with God's great clocks. In other words, seven times represents a week of years.

However, seven years are not necessarily seven times! It all depends on the timing of the year. A seven-year period may be any seven years, but a week of years or seven times must be seven years that begin with a Sunday year and end with a Sabbath year. (Compare Ezekiel 39:9 and Daniel 4:16.)

Seven Asynchronous Years										
ĺ	Sun	Mon	Tue	Wed	Thu	Fri	Sab			
ĺ				4	5	6	7			
ſ	8	9	10							

(Chart 7)

Seven Synchronous Years										
	A Week of Years or Seven Times									
Sun	Mon	Tue	Wed	Thu	Fri	Sab				
15	16	17	18	19	20	21				

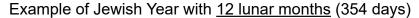
(Chart 8)

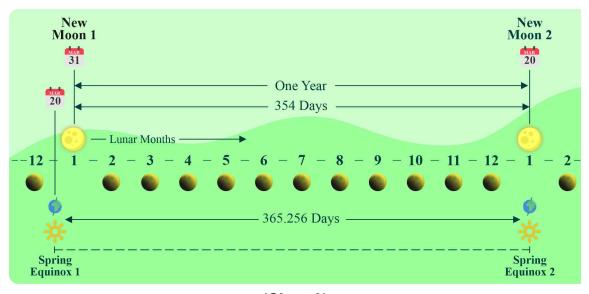
Variable Length Years

A solar year is about 365.256 days in length.

12 new moons x 29.53 days/lunar month = 354.36 days = a time

13 new moons x 29.53 days/lunar month = 383.89 days = a time

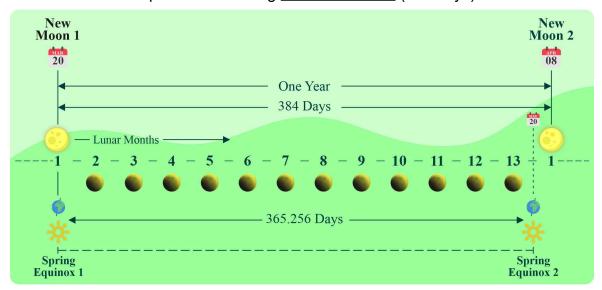




(Chart 9)

The time shown between the two spring equinoxes, March 20, spring equinox 1 to March 20, spring equinox 2, is one year. New Moon 1 occurs 11 days after spring equinox 1 on March 31. Therefore, the first new moon for the following year will appear on March 20. The year that passed contained 12 moons or 354 days. Incidentally, this example is identical to AD 29.

Example of Year having 13 lunar months (384 days)



(Chart 10)

Again, **there is one year between the** two spring equinoxes. A new month occurs on the spring equinox, March 20. Therefore, the first new moon after the following spring equinox will appear at New Moon 2 on April 8. This lunar year has 13 moons or 384 days. This example is identical to AD 30.

Summary: A time is an expression for a year, not a set number of days. Also, notice that Chart 9 and Chart 10 are two consecutive years. The first year is 354 days long; the second is 384 days long.

What about 360 Days per Year?

The Julian/Gregorian calendar we follow today is strictly a solar calendar. We observe a year that is 365.256 days in length without regard to moon phases, and we use leap years to correct our position with respect to the Sun and its seasons. Because God's calendar produces variable-length years, ancients regarded a year as one circle or *one time* of the sun in its travel around earth.

Until the 16th century, the ancients believed the earth stood still and the Sun traveled around earth. Likewise, as late as the 19th century, native Americans described a month as *one moon* and a year as *one time* or *one sun*.

When God sentenced seven *times* on King Nebuchadnezzar because of arrogance, God described the term of punishment as *seven times* because *a time* synchronizes with His seven-year clock. God could have said *seven years*, as he did with Daniel's contemporary, Ezekiel. Instead, God said *seven times* because of the synchronous timing that *seven times* require. (Ezekiel 39:9)

Ancient peoples used the 360-degree radius of a complete *circle* or cycle of the Sun to compute time. They could not use the number of days in a particular year for computation's sake because the number of days varied. Since the Sun moves almost 1 degree of arc per day in a year, using a 360-degree radius to represent a year is reasonable.

The Aramaic word *hiddan*, translated as *a time* in Daniel 4, 7, and 12, refers to *a set time* as in a year that begins at an appointed time. Daniel and Revelation both mention a time period called *a time*, *times and a half a time*. Revelation 12 indicates that this period is 1,260 days long. We can calculate this number of days by using the following formula:

- 1. One time of the Sun equals one circle of 360 degrees of radius.
- 2. Two times of the Sun equals two circles of 360 degrees of the radius or 720 degrees.
- 3. Half a time equals half a circle or 180 degrees of radius.
- 4. When added together, the total is 1,260 degrees of radius, or for purposes of counting years, 1,260 years.

No one has produced evidence of an ancient calendar based on a 360-day year. Even the ancients knew that such a calendar would be 31.5 days out of sync with the arrival of spring in just six years. Therefore, we have a mystery. Some Bible students have concluded that "a time, times and half a time" is 3.5 years because Revelation 12 appears to translate the time period "a time, times and half a time" into 1,260 days. But 3.5 years is 1,278 days, not 1,260 days. Given this discrepancy, others have wondered if perhaps there was a financial year or some civil calendar based on 360 days, but no one has found evidence to support this supposition. Perhaps God chose the language and defined the time periods in Daniel 7:25 and Revelation 12:14 because they uniquely conform to the great clocks He created.

Seven Times upon Nebuchadnezzar

During the operation of the week of seven years clock, we know that a day of the week represents a year. Therefore, the seven times pronounced on King Nebuchadnezzar could be seven years or a week of seven years that is synchronous with the week of seven years clock.

We would need to decide whether the seven times apply to a seven-year period or a week of seven years that begins with a Sunday year. If the seven times are synchronous with the *week of seven years* clock, they are synchronous then with the year of the Exodus and the 70 weeks of Daniel 9. We know from Scripture that when the time came to implement Nebuchadnezzar's sentence, it began immediately – at the end of 12 months of probation.

Notice: "Twelve months later, as the king was walking on the roof of the royal palace of Babylon, he said, 'Is not this the great Babylon I have built as the royal residence, by my mighty power and for the glory of my majesty?' As the words were on his lips, a voice came from heaven, 'This is what is decreed for you, King Nebuchadnezzar: Your royal authority has been taken from you.'" (Daniel 4:29–31) "Immediately what had been said about Nebuchadnezzar was fulfilled." (Daniel 4:33)

Granted, the words "twelve months later" do not prove a link with the 70 weeks of Daniel 9, but they do suggest *at year's end*. Further, the immediacy of execution suggests alignment with the beginning of a new month. If the execution of *seven times* occurred during 569-563 BC, it would have been near the end of the king's reign which occurred in 562 or 561 BC. Further, some historians place the end of Nebuchadnezzar's lengthy conquest of Tyre and Egypt at about 570 BC. (Ezekiel 29:18–19)

Most likely the king was so pleased with his successful conquests that he began to think of himself as invincible, and the words recorded in Daniel 4:30 reflect the ultimate deception of pride. King Nebuchadnezzar came to believe that *he* had established the mighty empire of Babylon based on *his* prowess. The years 569-563 BC seem to be a reasonable time in history to insert a week of seven times as the punishment on Nebuchadnezzar.

The Seven Times of Nebuchadnezzar?												
	Sun	Mon	Tue	Wed	Thu	Fri	Sab		s of Years e Exodus			
B.C.	1437	1436	1435	1434	1433	1432	1431		=Week 1			
	•	:	:		:							
	576	575	574	573	572	571	570		=Week 124			
	569	568	567	566	565	564	553	Seven Times	=Week 125			
	562	561		= End of Nebuchadnezzar's Reign								

(Chart 11)

The Seven Weeks of Seven Years Clock

The third clock God initiated just before the Exodus was a 49-year clock called the Jubilee cycle. Leviticus 25:8-55 described this clock as seven weeks of seven years – a total of 49 years. The year of Jubilee, or the 50th year celebration, was an exceptional sabbatical year. Not only was the 50th year a sabbatical rest for the land, but the land was also to be restored to its original owners. God wanted each generation in Israel to grasp that He *entrusted* the land to His people, and it was theirs if they kept His covenant. (Leviticus 25:23–55)

Recall when Israel entered the Promised Land, the land was divided according to the size of the tribes. (Joshua 14:5) During the 49 years, owners could sell or lease the land to their kinsmen, but God intended the right to use each parcel to belong to the family who initially *inherited* the land.

He required them to set every 50th year apart from all other years. During the first six months of the 50th year, God mandated the return of the land to its original family. At the end of the ceremonial year, when harvests were completed, the year of Jubilee was consecrated (set apart from the previous 49 years) on the Day of Atonement. (Leviticus 25:9–10) Consecration means *to set apart* from the common.

God wanted the Israelites to understand that employer/employee contracts could not endure beyond the next year of Jubilee. At that time, the land was to be freely returned to the original family, and the employee must be freed to return to his own. This was a pattern of events to come. God's children are not God's slaves. Instead, we are heirs who will receive our inheritance when the earth is made new and divided among His children!

After God had finished His work on six days, He consecrated the seventh day by setting it apart from the other weekdays. Similarly, Israel was required to consecrate the year of Jubilee after they had met God's restoration requirements.

49 or 50 Years?

Bible scholars have needlessly debated whether the Jubilee calendar followed 49 or 50-year cycles. Since there are never more than six years between two seventh-year sabbatical years, Jubilee cycles have to be 49 years in length. The synchronism of uninterrupted weeks including the years of Jubilee is confirmed in the fulfillment of the 70 weeks (490 years) of Daniel 9. This perpetual round of the weekly cycle eliminates the argument.

The year of Jubilee (year 50) occurred concurrently with the next Jubilee cycles' first year, the Sunday year, both years began at the same time. It may seem strange at first that Israel would count two years simultaneously. However, consider that the Feast of Weeks (Feast of Pentecost) occurring on day 50 always fell on a Sunday, the first day of the week after seven weeks had passed.

Remember, a week is a time period that is always synchronous with creation week. In this light, the Feast of Weeks on day 50 and the first day of the week, Sunday, align concurrently (Chart 12).

The year of Jubilee and the Sunday year of the next cycle of	exhibit a similar alignment.
--	------------------------------

Tl	ie Fea	ast of	Wee	ks, A	Mini	ature	Jubi	lee	Calendar
				Apı	il				
	Sun	Mon	Tue	Wed	Thu	Fri	Sab		
The Week of Passover	2	3	4	5	6	7			The 7th Day Sabbath of Passover Weel
Wave Sheaf Offering	1	2	3	4	5	6	7		Week 1 ← 1st Sabbath
	1	2	3	4	5	6	7		Week 2
	1	2	3	4	5	6	7	=	Week 3
Seven Weeks Contain	1	2	3	4	5	6	7	=	Week 4
49 Days	1	2	3	4	5	6	7	Ē	Week 5
	1	2	3	4	5	6	7		Week 6
	1	2	3	4	5	6	7		Week 7 ← 7th Sabbath
				Ma	y				
Pentecost	28	29	30	31	1	2	3		

(Chart 12)

Note: In this example of AD 30, Passover occurred on Thursday, April 6. The Wave Sheaf Offering occurred on Sunday, April 9, the first day for the count of seven full weeks. The **Feast of Weeks** (so called because the time of the feast is determined by complete Sunday through Sabbath weeks) occurs after seven weeks have passed on Sunday, May 28. The 50th day feast of Pentecost always occurred on the 1st day (Sunday) of a new week. (Leviticus 23:16) The 50th day and the 1st day of the week are on the same day.

A Jubilee Cycle Has Eight Sabbatical Years

During a Jubilee cycle of seven weeks of 49 years, there are eight sabbatical years. There are seven *Sabbath years* plus the year of Jubilee (also a sabbatical year), equalling eight (Chart 13). During Babylonian captivity, God used the *week of seven years* clock to make an important point. He required Ezekiel to lie on his left side for 390 days and on his right side for 40 days as a sign to indicate the apostasy of His people. The total number of days that Ezekiel *rested* was 430 days.

These 430 days represent 430 years of apostasy because *days* within the Jubilee calendar represent *years*. (Ezekiel 4:5–6) Since the Jubilee calendar was operating during Ezekiel's life, God's use of a day for a year is not arbitrary or surprising. The Babylonian captivity was exactly 70 years because Israel and Judah had violated 70 Sabbath years.

In 430 v	years of a	postasy,	there were	precisely	y 70 Sab	batical years.

Eight Sabbatical Years per Jubilee Cycle													
	Sun	Mon	Tue	Wed	Thu	Fri	Sab						
Year of Jubilee →	50/1	2	3	4	5	6	7		Week 1	of	7 Years		
	1	2	3	4	5	6	7		Week 2	of	7 Years		
	1	2	3	4	5	6	7		Week 3	of	7 Years		
	1	2	3	4	5	6	7		Week 4	of	7 Years		
	1	2	3	4	5	6	7		Week 5	of	7 Years		
	1	2	3	4	5	6	7		Week 6	of	7 Years		
	1	2	3	4	5	6	7		Week 7	=	49 Years		

(Chart 13)

Note: Seven Sabbath years + one year of Jubilee = eight sabbatical years for each 49-year Jubilee cycle.

	Ezekiel's 430 Years											
1	2	3	4	5	6	7	8	9		Jubilee Cycles		
49 +	49 +	49 +	49 +	49 +	49 +	49 +	49 +	38	=	430 Years		
8+	8 +	8 +	8+	8 +	8 +	8 +	8 +	6		70 Sabbatical Years		

(Chart 14)

God Warned Israel

Consider the warning God initially gave Israel in the wilderness: "If in spite of this you still do not listen to me but continue to be hostile toward me, then in my anger I will be hostile toward you, and I myself will punish you for your sins seven times over." (Leviticus 26:27–28) "[I will drive you out of the land] Then the land will enjoy its sabbath years all the time that it lies desolate and you are in the country of your enemies; then the land will rest and enjoy its sabbaths. All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived in it." (Leviticus 26:34–35, insertion mine)

God warned Israel that He would ensure the land would receive its rest, so notice what happened at the end of the 70 years of Babylonian captivity, "The land enjoyed its sabbath rests; all the time of its desolation it rested, until the seventy years were completed in fulfillment of the word of the Lord spoken by Jeremiah." (2 Chronicles 36:21)

The numbers God gave to Ezekiel prove the compelling mathematical point that God defines a Jubilee cycle to be 49 years in length. A 50-year cycle is impossible since there are not 70 sabbatical years within 430 years.

Fall-to-Fall Calendar Issues

Some scholars insist that the *week of seven years* clock and the Jubilee cycle used a fall-to-fall civil calendar. The Bible provides much evidence contrary to this claim. Scripture confirms that God always reckons a year with a spring-to-spring calendar.

God imposed a linkage between the *week of seven months* clock (the ceremonial year), the *week of seven years* clock, and the *seven weeks of seven years* clock (the 49-year Jubilee cycle). I will expand on these five introductory points on the following pages:

- God synchronized the week of seven years clock with spring and the Exodus year. God used this clock to sentence Israel to 40 years in the wilderness at Kadesh Barnea. For Israel's apostasy, God sentenced them to 40 years for 40 days, a year for a day. God imposed this sentence two years after this clock began.
- 2. According to the week of seven months clock, the end of the ceremonial year occurred on Tishri 30, at the end of the seventh month. Some advocates of a fall-to-fall calendar malign scriptural evidence and claim a Jewish civil calendar existed before the Babylonian captivity. Jews did observe a fall-to-fall civil calendar after their Babylonian captivity. Still, there is no evidence in scripture that God initiated a fall-to-fall civil calendar when He established the week of seven years clock or the seven weeks of seven years clock. The Jews did not observe fall-to-fall civil calendar before the Babylonian captivity.
- 3. Nehemiah and other prophets confirm that God's week of seven months clock continued when they double-dated events. In ancient times, it was not unusual for recordkeepers to date events with the calendar of the empire as well as the calendar of the tribal nation, but Bible writers never merged calendars. They never assigned the names for God's months to the numerical months of a fall-to-fall calendar. For example, Nisan (the first month of God's calendar) is never identified as the sixth month of a fall-to-fall calendar. (the seventh month) is never identified as the first month of a fall-to-fall calendar.
- 4. Artaxerxes issued the decree (Ezra 7 & 8) that fulfilled the prophecy of Daniel 9 in the spring of 457 BC. Therefore, the 70 weeks of Daniel 9 began in the spring.
- 5. Using spring-to-spring reckoning for the 70 weeks of Daniel 9, Jesus died in AD 30. Jesus' actions and the astronomical data for that year confirm that AD 30 is the only year that all the events surrounding His death could occur.

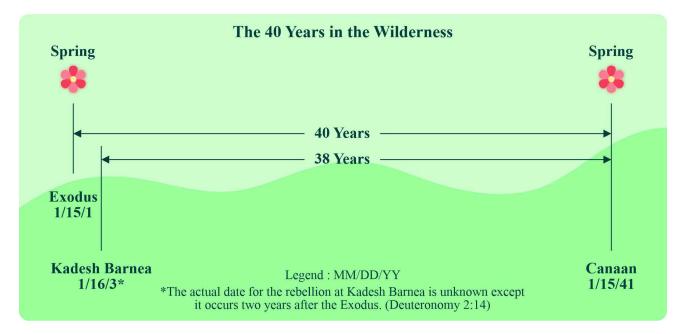
Point 1: The Week of Seven Years Clock Was Synchronized with Spring

The Bible indicates that Israel arrived at Kadesh Barnea after two years of wandering in the wilderness. At Kadesh Barnea, God told Moses to send 12 spies into Canaan. (Numbers 13:1-3) When the spies returned, 10 of the 12 and all of Israel murmured against God. Consequently, He sent Israel back into the wilderness for 38 more years. "Thirty-eight years passed from the time we left Kadesh Barnea until we crossed the Zered Valley.

By then, that entire generation of fighting men had perished from the camp, as the Lord had sworn to them. The Lord's hand was against them until he had completely eliminated them from the camp." (Deuteronomy 2:14–15)

When God sentenced that generation to die in the wilderness, He assigned a 40-year penalty that dates to the day of the Exodus and not from their insurrection at Kadesh Barnea! He told Moses and Aaron, "'For forty years—one year for each of the forty days you explored the land—you will suffer for your sins and know what it is like to have me against you.' I, the Lord, have spoken, and I will surely do these things to this whole wicked community, which has banded together against me. They will meet their end in this wilderness; here they will die." (Numbers 14:34–35)

We know from Joshua 5:11 that the 40 years were measured from the day of the Exodus (1/15/1 to 1/16/41).



(Chart 15)

Why did God begin counting 40 years of punishment from the month and day of the Exodus and not from Israel's failure at Kadesh Barnea? God calculated the years of punishment on a scale where a day of the week represents a year while Israel was in the wilderness because the week of seven years clock began operating at the time of the Exodus in the spring of the year. Even though this clock was operating while Israel was in the wilderness, they were only required to observe sabbatical-year rests once they entered the land of Canaan. (Leviticus 25:2)

Therefore, when God sentenced Israel to 40 years, He affirmed the operation of the weekly cycle of seven years by condemning Israel to *a year for a day*. God started the count of 40 years from the day of the Exodus because the generation that came out of Egypt rebelled from the beginning. Forty years later, to the very day, in the spring of year 41, a new generation of Hebrews entered Canaan. (Joshua 5:11)

Point 2: The Jews Did Use a Fall-to-Fall Calendar

We know that God imposed a spring-to-spring calendar on the Jews at the time of the Exodus. (Exodus 12:1–2) We have examined God's sentence of 40 years in the wilderness and His use of *the week of seven years clock* when a day represents a year. We also know that the length of punishment God imposed dated from the very day of the Exodus, which occurred in the spring. This supports a spring-to-spring operation for the *week of seven years clock* and the year of Jubilee.

The Jews adopted a fall-to-fall calendar for civil purposes after their Babylonian captivity. Although the Babylonians used a spring-to-spring calendar, their successors, the Medes and Persians, used a fall-to-fall calendar. In ancient times, tribal nations often used two calendars. One calendar was based on the year of the ruling monarch or king, which was used throughout the empire for dating purposes. (Nehemiah 2:1) Ruling emperors often allowed vassal nations to continue with their nation's calendars as long as they conducted federal business according to the calendar of the empire. After the Babylonian captivity, Israel used the Persian calendar and God's spring-to-spring calendar. (Nehemiah 1:1; 2:1) Archeologists have discovered documents from this period showing the same events inscribed on two calendars. This has been helpful because it allows researchers to align various calendars for dating purposes.

Some scholars claim the Jews used a fall-to-fall calendar before their Babylonian captivity to determine Jubilee years and civil matters, but no archeological evidence has verified this claim. A fall-to-fall versus a spring-to-spring calendar is an essential issue in this discussion for two reasons. If the Jews synchronized the Jubilee calendar and the week of seven years clock with a fall-to-fall calendar, it affects the dating of events in scripture including Christ's death during the 70th week. It also affects the interpretation and chronology of prophetic time periods in Daniel and Revelation. Therefore, we must have a correct understanding of God's clocks and His calendar.

The Question

Those who believe God initiated a fall-to-fall calendar understand that the beginning of the civil year, the week of seven years, and Jubilee cycles align with Tishri 1, the seventh month of God's spring-to-spring calendar. They support this conclusion with textual references that appear to support a fall-to-fall calendar. (See Exodus 23:16; 34:22; Leviticus 25:9–10.) However, when these references are aligned with the weight of biblical evidence, the fall-to-fall claim is invalid.

Notice these two translations of Exodus 34:22. God said:

- 1. "And thou shalt observe the feast of weeks, of the firstfruits of the wheat harvest, and the feast of ingathering at the year's end." (KJV)
- 2. "Celebrate the Festival of Weeks with the firstfruits of the wheat harvest, and the Festival of Ingathering at the turn of the year." (NIV)

The Hebrew word *tequwphah* (Strong's H8622) is translated *at the year's end* in the KJV and literally *at the turn of the year* in the NIV. The word *tequwphah* is derived from the verb *naqaph* (Strong's H5362), which can mean *to go around* or *to make a turning point*.

From Leviticus 23:34, we know Israel celebrated the Festival of Ingathering (or Tabernacles) on the fifteenth day of the seventh month, that is, in the fall of the year. Therefore, fall-to-fall advocates say that *tequwphah* in Exodus 34:22 suggests the operation of a fall-to-fall calendar because when one year ends, another year *logically* begins. However, if God speaks about the end of the ceremonial year, another year does not necessarily begin. If a school year ends in May, this does not mean that the next school year begins in June. The ceremonial year was seven months long, and the seventh month ended on Tishri 30, a few days *after* the Festival of Ingathering.

We know the Festival of Ingathering is near the halfway point or *the turning point* of the year, which occurs at the fall equinox (about September 22). Depending on the alignment of the Sun and moon, the seventh month can start as early as September 14 or as late as October 13. This would put the Festival of Ingathering as early as September 29 or as late as October 28. We need to understand Hebrew from the perspective of those who lived during Old Testament times.

The verb *naqaph* means *to make a turning point*, as in *the return* of a year. Consider how *tequwphah* and its root verb *naqaph* apply if the year starts in the spring and we observe the Sun's path.

At the spring equinox, the Sun's path begins moving north of due East a little each day. The summer solstice occurs when it reaches its northmost position (about June 21). Then, the Sun begins to return to earth's celestial equator, and by September 22, at the fall equinox, the Sun rises due East and sets due West. At this point, the Sun is halfway through its yearly cycle, so the autumnal equinox is the year's turning point.

After the fall equinox occurs, the observed path of the Sun begins moving south until the winter solstice occurs (about December 21). Then, the Sun starts moving northward until it reaches the celestial equator, about March 21, when it aligns with due East and due West. Thus, the midway point of the year (at the fall equinox) is marked by the Sun's crossing of the celestial equator, and *tequwphah* and its root verb *naqaph* reflect the *return* or a *turning point* of the Sun's path.

The KJV translators translated *tequwphah* in Exodus 34:22 to mean *at the end of the year* in a fall context, but they also translated *the same word* to mean *at the end of the year* in a spring context! (2 Chronicles 24:23) Does the KJV translation of *tequwphah* prove there are two different calendars in operation, or does the word mean there are two turning points in a year? There are two turning points (equinoxes) involving the Sun each year, and translators do their best to identify each one.

Perspective is Crucial

We must consider the ancients' perspective to understand their use of words. They observed the Sun crossing earth's celestial equator twice a year, once at the spring equinox and once at the fall equinox. Notice how *tequwphah* is used in four translations of 2 Chronicles 24:23. Keep in mind that the event described in this verse is known to be in the spring:

- 1. "At the turn of the year, the army of Aram marched against Joash." (NIV)
- 2. "And it came to pass at the end of the year that the host of Syria came up against him." (NIV)

3. "So it happened in the spring of the year that the army of Syria came up against him." (NKJV)

4. "Now it happened at the turn of the year that the army of the Arameans came up against him." (NASB)

The NIV and NASB translate *tequwphah* literally by saying, *at the turn of the year*, leaving the reader to figure out which turn of the year the verse is talking about. However, the KJV for 2 Chronicles 24:23 says *at the end of the year*, which reflects a springtime event.

Translators of the NKJV agree that this verse describes a springtime event. Why do the original KJV translators use the word *tequwphah* in Exodus 34:22 to indicate *the end* of a year in the fall, but later NKJV translators use the same word to describe the end of the year in the spring? Perhaps the original KJV translators based their translation of the earlier text (Exodus 34:22) on their understanding of Exodus 23:16, which we will examine in a moment.

For now, we know the word *tequwphah* means a turning of the year, but there are two instances where the Sun crosses the celestial equator. Which event marks the end of the year -- the one in the spring or the one in the fall?

Springtime is Wartime

Translators today know from historical sources that ancient kings went to war in the spring of the year to take advantage of favorable weather through summer and fall. The importance of good weather cannot be underestimated in ancient warfare. Consider these translations of 2 Samuel 11:1.

- 1. "In the spring, at the time when kings go off to war, David sent Joab out with the king's men and the whole Israelite army." (NIV)
- 2. "It happened in the spring of the year, at the time when kings go out to battle, that David sent Joab and his servants with him, and all Israel." (NKJV)
- 3. "Then it happened in the spring, at the time when kings go out to battle, that David sent Joab and his servants with him and all Israel." (NASB)
- 4. "And it came to pass, after the year was expired, at the time when kings go forth to battle, that David sent Joab, and his servants with him, and all Israel." (KJV)

Three translations indicate a springtime event, and the KJV could also indicate a springtime event saying, "after the year was expired," if the student makes provision for a spring-to-spring year. The Hebrew word in these four verses, *teshuwbah* (Strong's H8666), means at the return or at a recurrence of time.

Since it is well known that kings went to war in the spring, and because *teshuwbah* means *at the return* as in the Sun's position at the spring equinox, it is translated "in the spring of the year." One more look at *teshuwbah* by evaluating three translations of 1 Kings 20:22 should resolve this matter.

1. "And the prophet came to the king of Israel and said to him, 'Go, strengthen yourself; take note, and see what you should do, for in the spring of the year the king of Syria will come up against you.' " (NKJV)

2. "Afterward, the prophet came to the king of Israel and said, 'Strengthen your position and see what must be done, because next spring the king of Aram will attack you again.'" (NIV)

3. "And the prophet came to the king of Israel, and said unto him, Go, strengthen thyself, and mark, and see what thou doest: for at the return of the year the king of Syria will come up against thee." (KJV)

The predicted event was fulfilled in 2 Chronicles 36:10.

- 1. "In the spring, King Nebuchadnezzar sent for him and brought him to Babylon, together with articles of value from the temple of the LORD, and he made Jehoiachin's uncle, Zedekiah, king over Judah and Jerusalem." (NIV)
- 2. "And when the year was expired, king Nebuchadnezzar sent, and brought him to Babylon, with the goodly vessels of the house of the LORD, and made Zedekiah his brother king over Judah and Jerusalem." (KJV)
- 3. "At the turn of the year King Nebuchadnezzar summoned him and took him to Babylon, with the costly articles from the house of the LORD, and made Zedekiah, Jehoiakim's brother, king over Judah and Jerusalem." (NKJV)

NIV translators and most commentaries on Old Testament history place the event in 2 Chronicles 36:10 in the spring of the year. The Hebrew language leaves some uncertainty because there are two turns *in a year*. However, we can resolve the uncertainty by looking at the weight of the evidence. The choice of words used by the KJV translators in Exodus 34:22 could have been better. The weight of evidence indicates that the Hebrew word *tequwphah* in Exodus 34:22 means *at the turn of the year* or *mid-year*.

The last text we will examine that indicates an end of the year in the fall is found in Exodus 23:16. Notice *the end of the year* phrase in these four translations.

- 1. "And the feast of harvest, the firstfruits of thy labours, which thou hast sown in the field: and the feast of ingathering, which is in the end of the year, when thou hast gathered in thy labours out of the field." (KJV)
- 2. "Celebrate the Feast of Harvest with the firstfruits of the crops you sow in your field. Celebrate the Festival of Ingathering at the end of the year, when you gather in your crops from the field." (NIV)
- 3. "Also you shall observe the Feast of the Harvest of the first fruits of your labors from what you sow in the field; also the Feast of the Ingathering at the end of the year when you gather in the fruit of your labors from the field." (NASB)
- 4. "And the Feast of Harvest, the firstfruits of your labors which you have sown in the field; and the Festival of Ingathering at the end of the year, when you have gathered in the fruit of your labors from the field." (NKJV)

The Hebrew word used in this verse for year is *shaneh* (Strong's H8141). Shaneh means a year, *as in the revolution of time*. The root word *yatsa'* (Strong's H3318) is translated in various ways in the Old Testament. It is used in these verses to mean *at the end of*, and

it can mean *going out of.* One Interlinear of the Hebrew Old Testament (*The Interlinear Hebrew-Greek- English Bible*, Volume I, Jay P. Green, Sr.) transliterates this verse, saying when out goes the year.

Exodus 23:16 does not prove the operation of a fall-to-fall calendar when the weight of evidence is aligned. The Feast of Harvest (Pentecost) and the Festival of Ingathering are associated in this text because they identify two harvests. One occurred in the spring, and the other in the fall. The two feasts were directly connected with these principal harvests during the ceremonial year. Therefore, the ceremonial year ended when crops were gathered and feasts were finished.

Fall-to-fall advocates claim the year of Jubilee is part of the civil year which *starts* with the seventh month, Tishri 1. So how can the year of Jubilee *commence* on Tishri 1 when the feast that marks *the end* of the year lasts until Tishri 21? In other words, Exodus 23:16 places the Festival of Ingathering *at the end of the year*, so how can the Festival of Ingathering be considered to be at *the end* of a year and yet be 21 days into a new year? This contradiction ends the fall-to-fall argument.

Point 3: Nehemiah's Use of Calendars

God did not mandate a fall-to-fall civil year. Instead, God created spring-to-spring linkages between the *year clock*, the *week of seven months* clock, and the *week of seven years* clock. However, documents in ancient times often contained two calendar dates. Likewise, Bible writers referenced two calendars in the same verse, but they remained distinct—one, God's calendar, and second, man's calendar. The fall-to-fall calendar of the Persians and the spring-to-spring calendar of God align in the following two verses:

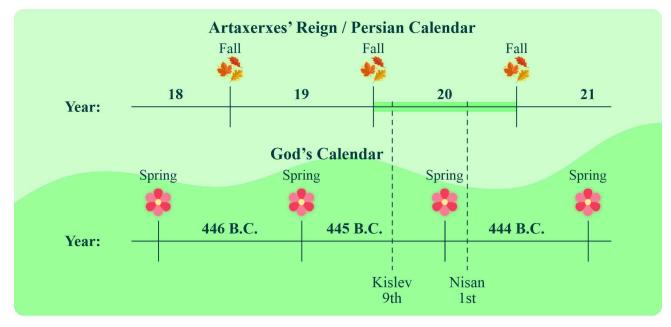
"The words of Nehemiah son of Hakaliah: In the month of Kislev [the ninth month of God's spring-to-spring calendar] in the twentieth year [using King Artaxerxes' fall-to-fall calendar], while I was in the citadel of Susa." (Nehemiah 1:1, insertions mine)

"[Months later] In the month of Nisan [in the spring, the first month of God's calendar] in the twentieth year of King Artaxerxes, when wine was brought for him, I took the wine and gave it to the king. I had not been sad in his presence before." (Nehemiah 2:1, insertions mine)

Here is the problem: In the first verse, Nehemiah associated the month of Kislev (the ninth month of God's spring-to-spring clock) with the twentieth year of Artaxerxes, which was based on a fall-to-fall calendar. Months later, after the Jewish new year began, Nehemiah describesd another event that also occurred during the twentieth year of Artaxerxes. Scholars have used these two verses to support the view that the Jews used a fall-to-fall civil calendar because Nehemiah placed the ninth month of Kislev and the first month of a new year (Nisan) within the twentieth year of Artaxerxes.

They say that if Nehemiah used a spring-to-spring calendar, he would have indicated the twenty-first year of Artaxerxes since Nisan is the first month of a new year. While this logic appears valid on the surface, it is not valid. Whenever Nehemiah and his contemporary, Ezra, dated an event with Jewish months, they *consistently* spoke in terms of a spring-to-spring calendar, not a fall-to-fall calendar. (See Nehemiah 8:14.)

Conversely, when they dated an event with Persian years, they consistently spoke in terms of a fall-to-fall calendar. (Nehemiah 5:14) Here is a chart showing how Nehemiah reconciled God's spring calendar with the Persian fall calendar:



(Chart 16)

Notice that Kislev is the ninth month and Nisan is the first month of God's spring calendar, and they fit within the twentieth year of Artaxerxes since the king's twentieth year was determined by the Persian fall-to-fall calendar. Nehemiah placed the month of Nisan in its rightful place in the spring of the first month of God's year.

Incidentally, we sometimes date events just as Nehemiah did. For example, suppose Bobby's tenth birthday is in September 2029. In the United States, we would date Christmas 2029 and Easter 2030 during Bobby's tenth year of life even though January 1, 2030, marks the beginning of a new year.

Point 4: Daniel 9 and Artaxerxes' Decree

While the Israelites were in Babylonian captivity, God predetermined a probationary time period for them using the *week of seven years clock*, seventy weeks. We know from creation week that the weekly clock of seven days is not a standalone unit of time. We also know from the Exodus that the *week of seven years clock* is not a standalone unit of time. Both clocks are aligned with other events.

In Daniel 9, God defined Israel's 490 years of probationary time in units of *70 weeks* because they perfectly synchronize with the calendar He initiated at the time of the Exodus. In other words, the *week of seven years* clock did not suddenly begin operating at the time of Artaxerxes' decree.

God chose to represent Israel's probationary time of 490 years in units of Jubilee weeks instead of actual years to *affirm* the synchronism of His calendar. He chose to use a period of 69 weeks plus one week, which totals 490 years using the *week of seven years clock*. However, He could have identified the time span as 490 days (as He did with the 2,300 days in Daniel 8:14), or He could have identified the time span as 490 years (as He does with the 1,000 years in Revelation 20:2). Instead, He synchronized a unit of time using the *week of seven years clock* that began with the year of the Exodus.

God is so specific! He foreknew there would be several decrees to restore and rebuild Jerusalem. These occurred in 536, 519, 457, and 445 BC. Many weak and deficient arguments have been offered in support of 445 BC. However, 457 BC terminates the argument because it is the only date that historically aligns with the specifications of the prophecy. God gave the 70-week prophecy to benefit those living before the Messiah's appearance.

Because God knew in advance that four decrees would be issued, He placed specifications within the prophecy so only one decree could meet its fulfillment. The correct decree is *the one* that synchronizes with the beginning of a Jubilee cycle.

King Artaxerxes issued the decree in the spring of 457 BC (Ezra 7 & 8). This is profoundly important. God divided the 69 weeks (until the appearance of Messiah) as **7 weeks + 62 weeks** in Daniel 9:25. Seven weeks of seven years (49 years) is one Jubilee cycle. God intended for His people to watch for the decree that would be issued in the spring *at the beginning* of a Jubilee cycle.

If they began counting Jubilee weeks from that decree, they could know the year Messiah would appear. This may have been how the wise men calculated the time of Messiah's birth. Indeed, history confirms the synchronism of God's calendar! King Artaxerxes issued the decree on or about the first day of the first month of a Jubilee year. (Ezra 7:9) Interestingly, Artaxerxes gave the order on the first day of the twenty-first Jubilee cycle since the Exodus.

Ezra departed from the Ahava Canal on Nisan 12 with the decree in hand. (Ezra 8:31) Four hundred eighty-three years later, Jesus affirmed the alignment of the Jubilee calendar when He appeared on the banks of the Jordan to be baptized by John at the beginning of the 70th week in AD 27, a Sunday year. (Luke 3) Jesus died on the cross, "causing sacrifices and oblations to cease" in the middle of the 70th week, AD 30. The following chart shows AD 30 in the middle of the 70th week of years.

		T.	The We	eeks of	Years	Counti	ng Fro	om 457 B.C.				
	Sun	Mon	Tue	Wed	Thu	Fri	Sab	Weeks	s of Years			
	Sun	WIUII	Tuc	Weu	Tilu	111	Sab	Since Decree	Since Exodus			
	1437	1436	1435	1434	1433	1432	1431	-	=Week 1			
D C												
B.C.	457	456	455	454	453	452	451	1st Week	=Week 141			
	450	449	448	447	446			2nd Week	=Week 125			
	27	28	29	30	31	32	33	70th Week	=Week 210			
A.D.	34	35	36	37	38	39	40	71st Week	=Week 211			
11.D.												
	538	539	540	541	542	543	544	143rd Week	=Week 283			

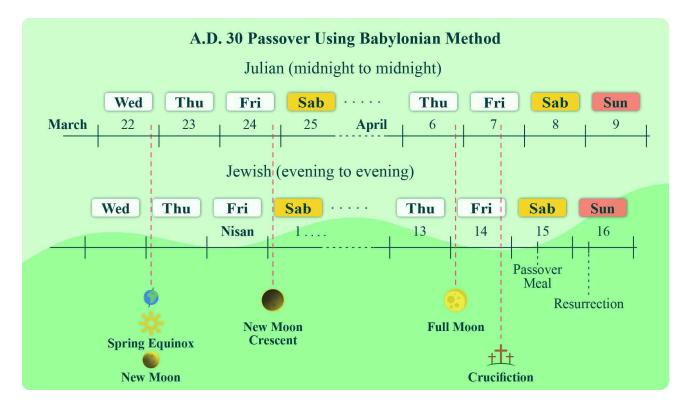
(Chart 17)

Note: 1437 BC is the year of the Exodus. 457 BC is the year of the decree that begins the 70 weeks (Ezra 7) that marks the beginning of the 141st sabbatical week since the Exodus. According to the specifications of the 70th week given in Daniel 9, Jesus began His ministry in AD 27, and was crucified in AD 30, the middle of the 70th week. Interestingly, AD 538, also a Sunday year, marks the beginning of a 1,260-year period which we will study later.

Point 5: The Death of Jesus

There is sufficient astronomical and scriptural evidence to conclude Jesus died in AD 30 on Friday, April 7. Furthermore, AD 30 is the *only* year during which the events described in scripture can occur. It is well known that post-exilic Jews abandoned God's method for calculating months and adopted the Babylonian practice of starting a new month with the sighting of a new moon crescent. The month's onset using the Babylonian method is usually one or two days later than God's method.

This difference causes much confusion in Scripture about the time of Christ's death. Jesus and His disciples observed Passover according to God's calendar for the month, while the nation of Israel observed Passover according to Babylon's calendar. The gospel writers did not address the two methods for determining a new month as they described the various events leading to Christ's death. Chart 18 shows the position of the Sun and moon during AD 30 as well as the course of events for Passover in April AD 30.



(Chart 18)

Spring equinox - Thursday night at midnight local time

New moon – Thursday night at Julian 8 pm local time

New moon Crescent - Seen on Sabbath night, Nisan 1

Full moon – Julian 10 pm = Jewish Friday and Julian Thursday

Friday afternoon – Crucifixion about 3 pm

Passover meal - About midnight

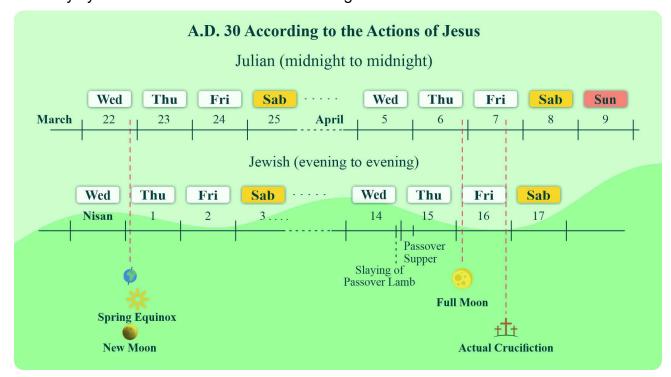
Resurrection – Just before sunrise

God's Calendar

The gospel writers indicated that Jesus ate the Passover meal on Thursday night with His disciples before going to His death on Friday afternoon. The disciples did not indicate anything unusual about celebrating Passover or beginning the Feast of Unleavened Bread at a time that was not in harmony with the national Passover. (Matthew 26:17; Mark 14:12)

They did not explain about killing the Passover lamb on Wednesday afternoon and celebrating Passover on Thursday night, even though the national Passover lamb was slain on Friday. Perhaps the reason for this divergence stems from a difference in marking the beginning of the month. Obviously, the Creator knew the proper time for Passover. Jesus' actions affirm what is truth, for He is the Truth. (John 14:6)

Jesus correctly observed Passover and the first day of the Feast of Unleavened Bread with His disciples on Thursday, the 15th day of the month—using God's method for reckoning monthly cycles. Because a new moon occurred on Thursday, the same night as the spring equinox in AD 30, the 15th of Nisan in AD 30 was Thursday. The Creator's actions were naturally synchronous with the instructions He gave to Moses in Exodus 12!



(Chart 19)

Spring equinox - Thursday, 12 am local time

New moon - Thursday, 8 pm local time

Slaying of Passover lamb – Wednesday twilight using Creator's timing

Passover supper – About Thursday midnight

Full moon – Friday night at 10 pm local time (Julian Thursday night)

Friday – Actual crucifixion of Jesus using Babylonian timing

The mystery is solved. Jesus celebrated Israel's final Passover with His disciples on Thursday night, precisely the right time, on the 15th day of the first month. Jesus' actions, the Jubilee calendar, the 70th week, and the alignment of the Sun and moon pinpoint Passover day as Thursday night, AD 30. Jesus' actions and the astronomical timings of the Sun and moon are two witnesses that confirm the truth. There is no wiggle room. AD 30 is the only year during the 70th week that satisfies all these specifications.

Jesus' actions on the Thursday night Passover confirmed the timing of the calendar *He* established at the Exodus. Jesus ended the paschal sacrifice that Thursday night. "While they were eating, Jesus took bread, and when he had given thanks, he broke it, and gave it to his disciples, saying, 'Take and eat; this is my body.' Then he took a cup, and

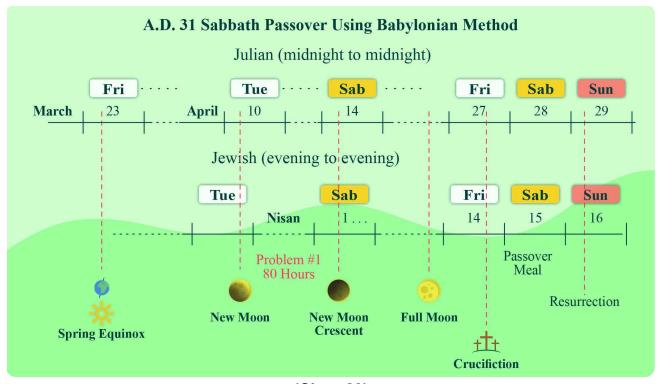
when he had given thanks, he gave it to them, saying, 'Drink from it, all of you. This is my blood of the covenant, which is poured out for many for the forgiveness of sins.'" (Matthew 26:26–28)

With these words, He pronounced the end of 1,467 years of paschal lamb sacrifices and initiated the Lord's supper. (John 13;1 Corinthians 11) The following day, He terminated Passover observance with His crucifixion. (Colossians 2:14; Hebrews 7:12) Scripture indicates that the nation of Israel at His first Advent was not observing Passover on the proper day according to God's will. It is ironic that now, just before His second Advent, most of the world again worships on days that are not according to God's will.

It is astronomically accurate and historically plausible for Passover to have occurred on Sabbath, April 8, AD 30, if we align Nisan 1 with the new moon crescent. It is astronomically accurate and historically plausible for the true Passover to have occurred on Thursday night, April 6, AD 30, if we interpret that Jesus' actions affirmed the timing of Nisan 15 with a new moon. The 70th week demanded that the Messiah's death be in a Wednesday year, and AD 30 uniquely meets this specification.

When these issues are aligned with Jesus' actions, no other year, month, or day is possible. The two Passovers mentioned in the gospels confirm the year AD 30 because no other year satisfies this astronomical setting within the range allowed by Daniel 9.

Some scholars defend AD 31 as the year of Christ's death because they insist on using a fall-to-fall calendar to synchronize the 70 weeks, and the Babylonian first-crescent method to begin the month. The Bible and astronomy refute both arguments. If a person assumes AD 31 is the year of Christ's death, the following chart describes the course of events necessary for a Friday crucifixion:



(Chart 20)

Spring equinox - Occurs on Friday, March 23, at 5 a.m. local time

New Moon after Equinox – Occurs on Tuesday, April 10, at 10 a.m. local time

New Moon Crescent – Seen on Sabbath night, April 14 = Nisan 1

Full Moon – Thursday, April 26 at 9:30 p.m. local time

Crucifixion – About 3 pm on Friday afternoon

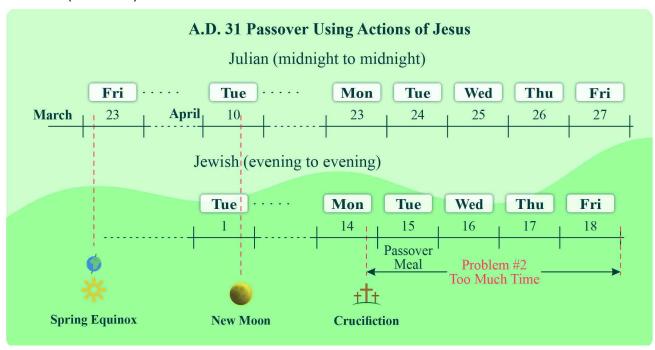
Passover meal - About midnight Sabbath night

Resurrection – Just before sunrise on Sunday

The first problem with this scenario is the number of hours between the new moon conjunction (Tuesday, April 10 at 10 a.m.) and the sighting of a new crescent (Sabbath evening at sundown, April 14). This requires a period of 80 hours at a minimum.

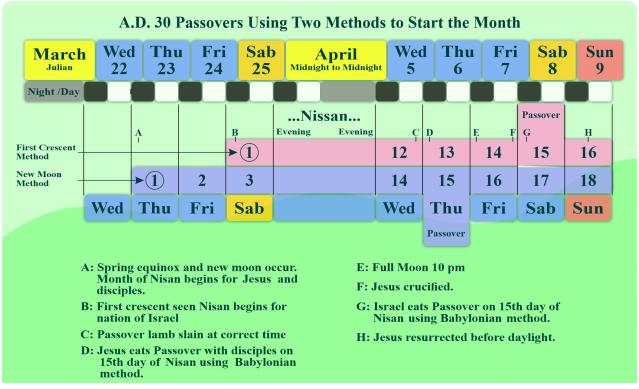
Some scholars have eliminated AD 31 as a possibility of this irregularity alone. However, the more significant problem is that Jesus would have moved Nisan 1 on the lower calendar to align with the New Moon on Tuesday, April 10, and He would have observed Passover with His disciples on Tuesday night, April 24 (Nisan 15).

This produces a span of 60+ hours between Passover with His disciples and His arrest in the Garden of Gethsemane on Friday night. This length of time does not align with the gospel account (Chart 21).



(Chart 21)

Remember, God's calendar operates from spring to spring. The month of Nisan which is the first month of the ceremonial year and the solar year always occur in spring. Also, God synchronized the week of years and the year of Jubilee with the Exodus year, which occurred in the spring. AD 31 is out of the question.



(Chart 22)

The 70 weeks of Daniel 9 also began in the spring. In early spring, 457 BC, King Artaxerxes issued the decree to restore and rebuild Jerusalem. Ezra crossed the Ahava River, leaving Babylon on the twelfth day of Nisan to journey to Jerusalem with the decree in hand. (Ezra 8:31) Therefore, AD 27, the first year of the 70th week, also began in the spring. This forces the AD 31 Passover to be a Thursday year. Since the Thursday year is not the *middle of the week*, AD 31 is eliminated from any further consideration. See below:

The Week of Years Counting From 457 B.C.										
	Sun	Mon	Tue	Wed	Thu	Fri	Sab			
B.C.	457	456	455	454	453	452	451		Week of Years #1	
D.C.	450	449	448	447	446		•••	=	Week of Years #2	
	•••	•••		23	24	25	26		Week of Years #69	
A.D.	27	28	29	30	31	32	33		Week of Years #70	
	34	35	36	37	38	39	40		Week of Years #71	

(Chart 23)

AD 30 is a Wednesday year, which is also the middle year of the 70th week. Jesus confirmed the proper timing of the Passover by His actions in AD 30. The positions of the Sun and

moon confirm that no other year meets these specifications except AD 30. All seven clocks that Jesus created align and eliminate all other possible dates for His death. The gospels eliminate any other possibility due to time constraints.

God's Calendar is Supreme

Egyptians, Babylonians, Persians, and Canaanites influenced Jewish timekeeping practices. The Jews lived in Egypt for 430 years, in Babylon for 70 years, under Persian dominion for 200 years, and in Canaan for more than 1,400 years. Therefore, we should not be surprised to find adaptations in Jewish methods for reckoning time during Old Testament history. We can see from the dating of annual feasts, sabbatical years, and the year of Jubilee that the Jews could not adopt another nation's calendar. All other calendars were inadequate for Jewish needs.

However, post-exilic Jews did adopt the practice of the Babylonians, who marked the beginning of a month by observing the *new moon crescent*. (Incidentally, Moslems continue to use the *new moon crescent* method today.) New moon crescent sightings at the time of Jesus were made near Jerusalem, where priests announced the beginning of a new month. This tradition continued until the destruction of Jerusalem in AD 70.

The Jubilee Calendar and the Timing of the 1,260 Years

Let's review some pertinent points to understand how God has synchronized His clocks.

- Each day of the week begins at sundown.
- A week begins with Sunday, the first day of the week, and ends with Saturday, the seventh day.
- Each day in the week of seven years represents a year beginning in the spring.
- Each year in the week of seven years clock represents a time.
- A time represents one complete rotation of the earth around the sun.
- A time, times and half a time represent 1,260 degrees of arc or 1,260 years.

We can use God's clocks to understand His methods of expressing bibilical units of time. For example, God said *time*, *times and half a time* in Daniel 7:25, and He said 2,300 days in Daniel 8:14. God could have said days in both instances. However, there is a difference between units expressed in *times* and units expressed in *days*. A *time* begins in the spring, a day starts at sundown, and a week begins with Sunday.

Remember, the seven weeks of the *week of seven years* clock provide the foundation for one 49-year Jubilee cycle. This cycle repeated continuously from the year God delivered Israel from Egypt in 1437 BC through the 70 weeks (490 years) of probationary time, which ended in AD 33. If we consider that the Jubilee cycle has continued past the 490 years, then there is an exciting relationship between *the time*, *times and half a time* in Daniel 7:25 and the 70 weeks of Daniel 9.

The Jubilee Calendar Chart at the end of this booklet shows how the *time*, *times and half a time* span of time prophesied in Daniel 7:25 and Revelation 12:14 fits the Jubilee calendar timing from AD 538 to 1798. Mathematically, we find that 1,260 years are 180 Jubilee weeks (7 days x 180 weeks = 1,260 days).

Begin with 1437 BC, the Sunday year of the Exodus, on the Jubilee Calendar Chart and continue to the beginning of the 70 weeks in 457 BC, which is also a Sunday year. AD 538 is also a Sunday year, and February 1798 (the month of the pope's capture) is the *last* month of a sabbatical year! Remember, on the Julian calendar, February 1798 is Jubilee February 1797 because the Jubilee calendar is a spring-to-spring calendar. In other words, the *time*, *times* and half a time period starts and stops exactly where it should be according to the continuous timing of the Jubilee calendar. There is perfect alignment within the Jubilee calendar for this period of 180 weeks, which marvelously confirms the timing implied by the Aramaic word *'hiddan*—a set time).

Little horn power = 1,260 years = 180 Jubilee weeks

Sun Mon Tue Wed Thu Fri Sab A.D. 538 539 540 541 542 543 544 Week 1 545 546 1789 1790 1791 1792 1793 1794 1795 1796 1797 Week 180

Time, Times and Half a Time = 1,260 Years

(Chart 24)

A Prophetic Catch-22

If we ignore or reject the alignment that God's seven clocks impose on biblical events, including future prophetic events, then we have no means, as in a rule, to manage the interpretation of time or time periods in Daniel and Revelation. Without a rule, a Bible student can interpret time periods according to a private schematic.

We must understand the relationship between multiple time periods and events when studying timing issues. Throughout the Bible, God identifies *a week* as a Sunday through Sabbath, based on creation week!

There are Bible texts in which God distinguishes between seven days and a week within the same conversation. (Leviticus 23:6, 15) We may call a seven-day period, such as Thursday through Wednesday, a week, but it does not make this time period a week. We may call April

15 through May 14 a month, but it does not make this time period a month. We may define a year as any number of days, but our time calculation may not be God's calculation of time.

This is a crucial point in studying prophetic time periods. God gave different names to the time periods to help us properly organize them according to His correct criteria. Each time period is literal because each has its criteria and duration. There is no such thing as symbolic time. We may express time as a figure of speech, but God does not represent a time period as symbolic in Scripture. Each time period has a specific duration and aligns with other time periods. Each time period has its beginning and ending point in time. Each clock has its unique unit of time.

For example, a prophetic time period of 42 literal months would begin with a new moon because God's months start with a new moon! The prophetic time period of 70 Jubilee weeks in Daniel 9 has to start with a Sunday year because the first year in the *week of seven years* clock is a Sunday year. A prophetic time period involving years has to begin in the spring because God's *year clock* always starts in the spring. The key to interpreting time periods in Daniel and Revelation is understanding *which clock* God is using.

A Valid Rule?

We must understand each time period in Daniel and Revelation within the context of its intended clock. For example, Daniel said, "In the third year of Cyrus king of Persia, a revelation was given to Daniel (who was called Belteshazzar). Its message was true and it concerned a great war. The understanding of the message came to him in a vision. At that time I, Daniel, mourned for three weeks." (Daniel 10–12) We must interpret the third year and the three weeks that occur within that year according to the year clock of the Persians. Likewise, the seven times decreed upon King Nebuchadnezzar are seven years because a time is one cycle of the earth around the Sun. Some students of scripture have argued that if a time, times and half a time equal 1,260 years, then seven times equals 2,520 years (7 x 360). Of course, the problem with this argument is that they use the wrong clock. Nebuchadnezzar did not live like a beast for 2,520 years.

Another interesting point is that the Aramaic word for *weeks* in Daniel 9:24 is identical to the word *weeks* in Daniel 10:2. How is it that a week is seven literal days in one verse, and in another, a week is seven literal years? The answer appears to be consistent with this rule: *Time periods must be interpreted according to the clock and alignment that God is using.*

Which Clock Is God Using?

How should we interpret the 1,000 years of Revelation 20? Does God mean 1,000 solar years according to His *year clock* that dates from creation, or does God mean 360,000 years using the day/year clock that dates from the Exodus (1,000 x 360)? These are fair questions. Even though the context of Revelation 20 is highly symbolic, remember that each time period is literal and each period has its critera an duration.

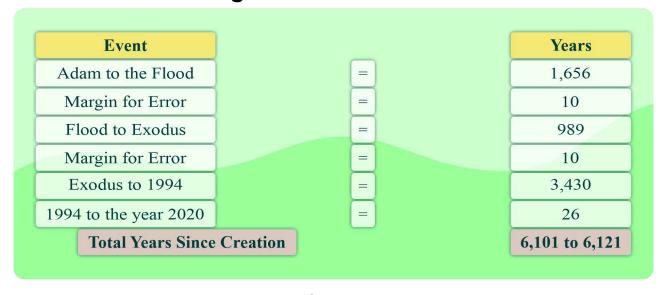
Furthermore, if the week of seven months, the week of seven years, and the seven weeks of seven years Jubilee clocks stop operating before the Second Coming, the year clock is the only one that continues to apply for an annual cycle.

Why is the devil bound for 1,000 years? Could it be that he is forced to rest from his evil work for a sabbatical millennium so that earth might rest? There appears to be an eighth clock, although Scripture does not directly say there is an eighth clock. There is a strong possibility for a week of seven millenniums clock. It appears that the seven-day creation week was a marvelous template revealing God's foreknowledge. Even before man sinned, God had a plan to rescue man from sin and restore him to Eden! God created the week of seven days clock to show us the joy of resting from our cares while in His care on His Sabbath. He then made a weekly clock of seven months which contains six feasts that foreshadow the essential events of the Plan of Salvation.

God also created a weekly clock of seven years to foreshadow earth's sabbatical millennium. He will free His faithful followers from the works of sin and emancipate them from the curse of sin at the beginning of the sabbatical millennium! God also created a clock of seven weeks of seven years to foreshadow a one-time Jubilee millenium, the restoration of the land to the heirs of Abraham. In light of these parallels, there is good reason to believe an eighth clock exists, a week of seven millenniums (Chart 26).

When genealogical data in the Bible dating from Adam to the Exodus is added to the Jubilee calendar and those time periods yet to be fulfilled during the Great Tribulation, plus the 1,000 years of Revelation 20, the total number of years is surprisingly close to 7,000 years:

Years Since Sin Began



(Chart 25)

- Assume Adam and Eve were in the garden about 100 years before sinning. When Seth
 was born, Adam and Eve were 130 years of age. Using this calculation, the time period
 for sin's existence on earth totals 6,001 to 6,021 years including the margin of error.
- Keep in mind this is only an estimate,

Do the Jubilee Clocks End?

God appears to terminate the three clocks He implemented at the Exodus (not the four clocks He established at creation) a few years before the Second Coming: (1) The week of seven months, (2) The week of seven years, and (3) The seven weeks of seven years (49-year Jubilee cycles). I understand that these three clocks ended in 1994 when 70 Jubilee cycles were completed after the Exodus (1437 BC - AD 1994 = 70 Jubilee cycles or 3,430 years). I believe the 1994 termination date is correct because:

- We know the week of seven years clock did not end at the Cross. Jesus died in the middle
 of the 70th week in AD 30. This means the week of seven years clock continued after
 Jesus' death, otherwise the prophecy in Daniel 9 would have ended at 69.5 weeks.
- 2. The week of seven years clock did not stop at the Cross because the time, times and half a time of Daniel 7:25 and Revelation 12:6,14 occurred long after the cross (AD 538 to 1798). This time period of 1,260 years does not span across the BC to AD line of demarcation. These prophecies use the day/year translation of the week of seven years clock. History proves the 1,260 years synchronized with the week of seven years clock.
- 3. The 70 weeks (490 years) of Daniel 9 and the 2,300 days of Daniel 8:14 operated concurrently until the 70 weeks expired at AD 33. Afterward, the count of the 2,300 days/years continued until 1844. In this case, the *week of seven years* clock must have continued until 1844 at a minimum.
- 4. Even though the obligation of observing feasts ended at the cross, I believe these three clocks continued to operate until the 70 Jubilee cycles completed in 1994. This may sound strange initially, but consider that although ancient Israel did not observe the sabbatical years God required for 430 years before the Babylonian captivity, God tracked the sabbatical years. The 70 years in Babylonian captivity prove that God's clocks operate whether humanity believes they exist or not.

I believe God ended the three Exodus clocks in 1994 because:

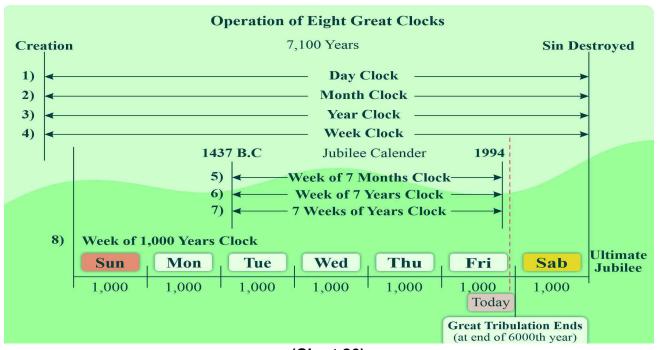
- a. Each time man fails, God increases the next probationary period of time.
 - God tested Israel on the observance of the Sabbath day. (Exodus 16:4)
 - God tested Israel for 40 days resulting in 40 years of wandering in the wilderness.
 - God tested Israel for 70 sabbatical years resulting in 70 years of captivity in Babylon.
 - God tested Israel for 70 weeks resulting in His final rejection of Israel as trustees.

Years granted to the Jews: **30 complete Jubilee cycles** (1437 BC - AD 33 = 1,470 years). Years granted to the Gentiles: **40 complete Jubilee cycles** (AD 34 - 1994 = 1,960 years). Total years granted to Jews and Gentiles: **70 complete Jubilee cycles** (ending in 1994). Possible years allotted for the duration of sin: **70 centuries** (7,000 years).

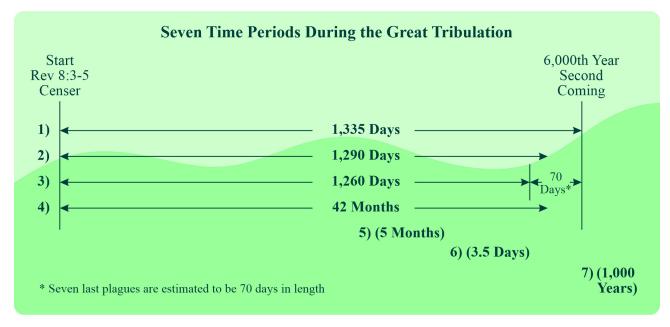
b. Assume that Jesus gave the seven angels of Revelation 8:2–7 the seven trumpets in March 1994 when the world's corporate allotted time of mercy ended. As the first four angels prepared to harm earth, Jesus told them to wait until the 144,000 were sealed. (Revelation 7:1–4) Because the seven trumpets are future judgments from God and Jesus gives the seven angels seven trumpets when God's patience with earth has expired, it seems rational that the seven angels are empowered in Revelation 8:2 in 1994 when 70 Jubilee cycles ended. So, we are currently living today in a delay from the end of corporate mercy for the world. The first four angels are waiting for Jesus to seal the 144,000 before the angels begin their harm. Jesus will declare the delay to be over at the appointed time. (Revelation 10:6) The seven trumpets could start any day. The Great Tribulation will be a maximum of 1,335 days in length (Daniel 12:11–12), and this time period will extend to the end of the 6,000th year of sin, to the very day.

c. Many time periods will occur during the Great Tribulation (Chart 27). Each of these requires planetary clocks instead of Jubilee clocks. Otherwise, these time periods would be translated into day/year units, which would make nonsense of the prophecies. For example, the fifth trumpet has a time period of 5 months which, according to the Jubilee clock, would equal 150 years (30 days per month x 5). This would frustrate the prophecy in Daniel 12:11–12, which establishes the length of the Great Tribulation as being 1,335 days.

Therefore, I support this rule of interpretation: "The presence or the absence of the Jubilee calendar determines whether God measures apocalyptic time in day/year units or literal units." If this approach is followed, there is ample time for several prophetic time periods during the Great Tribulation to be fulfilled. It also means the 6,000th year since sin began will occur very soon. Chart 26 outlines the harmonious operation of God's great clocks, including the possibility of an eighth clock, a week of millenniums:



(Chart 26)



(Chart 27)

References:

- 1. Daniel 12:12
- 2. Daniel 12:11
- 3. Revelation 11:3
- 4. Revelation 13:5
- 5. Revelation 9:5
- 6. Revelation 11:9

7. Revelation 20

Dating the Exodus—When Does the Count of Years Begin?

Some scholars claim the week of years and the Jubilee cycle began operating when Israel entered the Promised Land rather than at the Exodus. They base their assumption on this text: "Speak to the Israelites and say to them: 'When you enter the land I am going to give you, the land itself must observe a sabbath to the Lord.'" (Leviticus 25:2) On the surface, this text might mean that the Israelites were to begin counting seventh-year sabbaticals "when you enter the land." However, the text could be understood in the future tense, not the future indicative tense. To paraphrase this text, God says, "I know you are in the wilderness right now and sabbatical years are not necessary here, but when you enter the land I am going to give you, that land must observe my sabbatical years according to the calendar that I have given you."

The following text contains language similar to the above text. "Speak to the Israelites and say to them: 'When you enter the land I am going to give you and you reap its harvest, bring to the priest a sheaf of the first grain you harvest. He is to wave the sheaf before the Lord so it will be accepted on your behalf; the priest is to wave it on the day after the [seventh-day] Sabbath.'" (Leviticus 23:10–11, insertion mine) The children of Israel did not present the wave sheaf on the first day of the week in the wilderness because there was no harvest. However, the week of seven months clock that

determined the timing of the ceremonial year began operating at the time of the Exodus. God was firm about maintaining the linkages between His clocks before the actual feasts were observed. "But if anyone who is ceremonially clean and not on a journey fails to celebrate the Passover, they must be cut off from their people for not presenting the Lord's offering at the appointed time. They will bear the consequences of their sin." (Numbers 9:13)

During the wilderness sojourn of 40 years, it appears the Passover was not observed because the rite of circumcision had been suspended. Therefore, the younger generation could not participate in the Passover. (Exodus 12:48) Joshua had all of the males circumcised when the time came to enter Canaan. (Joshua 5:2–5) The *week of seven months* clock (the clock that marked off the ceremonial year) did not stop operating because Passover was not observed in the wilderness. On the contrary, the Israelites celebrated Passover according to this clock when the feast of Passover was resumed. (Joshua 5:9–12)

How, then, do we prove that we should begin counting from the year of the Exodus instead of the year of entry into Canaan? It is pretty simple to consider this question from three different approaches. Remember that each approach is not conclusive, but when combined, they become *airtight*.

Approach #1

First, let us assume that the Jubilee calendar is synchronized with a date for the Exodus. If so, the year of the Exodus needs to be a Sunday year (the weekly cycle begins with Sunday). Let us also assume the Sunday year is 1437 BC. Later, I will demonstrate the basis for this date. The 1437 BC date of the Exodus forces the entrance into Canaan on the 16th day of the first month on a Friday year, 1397 BC (Chart 28). After the Israelites spent precisely 40 years to the day in the wilderness, they entered Canaan on the 16th day of their 41st year of sojourn. (Joshua 5:11) Therefore, Israel's first full year in the Promised Land was a sabbatical year, just like Adam and Eve's first full day in Eden was a Sabbath.

God spoke of the generation that died in the wilderness. "'For forty years I was angry with that generation;' I said, 'They are a people whose hearts go astray, and they have not known my ways.' So I declared on oath in my anger, 'They shall never enter my rest.'" (Psalm 95:10–11) The generation that perished in the wilderness never experienced God's sabbatical years (His rest).

With these two dates in mind, consider what the Bible says: "In the four hundred and eightieth year after the Israelites came out of Egypt, in the fourth year of Solomon's reign over Israel, in the month of Ziv, the second month, he began to build the temple of the Lord." (1 Kings 6:1) If we subtract 480 years from the Exodus date of 1437 BC, we arrive at 958 BC, a very reasonable date for the fourth year of Solomon's reign (Chart 28). Reasonable because the regnal years of Israel's kings are a matter of dispute. It is impossible to assemble a perfect time frame for the reign of kings because of the problem of counting ascension and coregent years.

Lack of ancient data makes it impossible to date the Exodus accurately using historical records. Nevertheless, scholars who know nothing about the perpetual relationship between God's clocks have dated the beginning of Solomon's temple between 966 and 961 BC.

The researchers' painstaking work identifying these dates resulted in dates surprisingly close to the dates developed using God's calendar (958 BC). However, if a person using the Jubilee calendar counts backward 480 years from 966 BC, the Exodus date becomes a Friday year, 1446 BC. This date does not synchronize with the 70 weeks of Daniel 9 nor with Hezekiah's year of Jubilee in 702 BC.

Further, if we count the 480 years from Israel's entrance into Canaan in 1397 BC, the resulting date for Solomon's fourth year is several years beyond the window of time that history allows.

Lin	kages o	of Weel	ks that	Occur	with t	he Exc	dus in	14	37 B.C.	
	Sun	Mon	Tue	Wed	Thu	Fri	Sab		Weeks of Years Since Exodus	
Exodus	1437	1436	1435	1434	1433	1432	1431	=	Week #1	
	1430	1429	1428	1427				=	Week #2	
Canaan	1402	1401	1400	1399	1398	1397	1396	=	Week #6	
Solomon	961	960	959	958	957	956	955	=	Week #69	
Hezekiah's	709	708	707	706	705	704	703	=	Week #105	
Jubilee	702	701	700		•••	* * *	• • •	=	Week #106	
Zedekiah		596	595	594	593	592	591	=	Week #121	
Decree	457	456	455	454	453	452	451	=	Week #141	
Calvary	27	28	29	30	31	32	33	E	Week #210	×
Little	538	539	540	541	542	543	544	=	Week #283	
								γ		
Horn			***	***	1795	1796	1797	=	Week #462	

(Chart 28)

^{*} The 1st and the 70th week—The 70 weeks occurred between 457 BC and AD 33, began with the decree of Artaxerxes. (Ezra 7 and 8) This count totals 70 weeks inclusive. Solomon's fourth year (958 BC), 480 years after the Exodus, is also a Wednesday year. The year of Christ's death (AD 30) is also a Wednesday year, the middle of the 70th week. It is interesting that construction on Solomon's temple began in the middle of the 69th week after the Exodus. The temple of Jesus (His body) was destroyed in the middle of the 70th week after Artaxerxes' decree. (John 2:19)

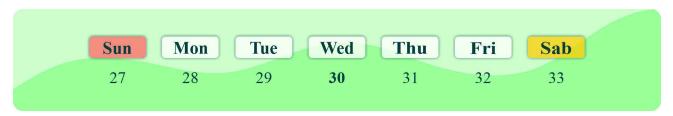
Approach #2

The second reason we should date the beginning of the Jubilee calendar from the Exodus is that God calculates the *week of seven years clock* from the year of Exodus. God's actions confirm the operation of the *weeks of years clock* and the Jubilee calendar because they share the same timing structure.

Approach #3

The third reason for dating the Jubilee calendar from the year of the Exodus is because of the compelling alignment between God's clocks and the timing of events. (Chart 28) If we establish the Exodus date in the spring of 1437 BC, and this is well within historical allowances, there is perfect alignment with a series of known dates such as the 70 weeks of Daniel 9 (spring 457 BC through AD 33), the seventh year of Zedekiah (591 BC), and the 14th and 15th years of Hezekiah (703 and 702 BC).

Even more, there is perfect alignment within the 70th week (spring AD 27 to spring AD 34). The 70th week began with the Sunday year AD 27 and, according to Daniel 9, Messiah would be *cut off* during the middle of the 70th week. Remember, the middle year of the 70th week is a Wednesday year, AD 30.



(Chart 29)

As presented earlier, there is sufficient astronomical and scriptural evidence to conclude that Jesus died on Friday, April 7, AD 30. In fact, AD 30 *exclusively satisfies* the alignment required by all seven clocks that the Creator imposed on earth! Furthermore, AD 30 is the only year during which the events described in Scripture occurred.

Integrating the Approaches

When these three aproaches are aligned, we cannot interpret Leviticus 25:2 to mean that the *week of seven years* clock began operating when the Israelites entered Canaan. If we establish Solomon's fourth year as 958 BC and the year of the Exodus as 1437 BC, there is perfect alignment with the Jubilee calendar. When we consider God used His existing *week of seven years* scale of time to punish Israel 40 years from the date of the Exodus, we have solid evidence showing that a day-for-a-year mechanism began operating at the year of the Exodus.

We know the week of years and the Jubilee calendar are not only synchronized with each other but also aligned with the four clocks God established at creation. When considering the harmony of all seven clocks at the death of Jesus during the 70th week, the Exodus date can only be 1437 BC.

Summary—Dating the Year of the Exodus

Five steps will produce a satisfactory date for the year of the Exodus.

Step 1. God established the relationship between the *week of years* and the Jubilee calendar two weeks before the Exodus by identifying the 1st day - 1st month - 1st year. (Exodus 12:1-12; 40:17.)

Step 2. The 70 weeks of Daniel 9 (457 BC through AD 33) synchronize with the *week of years* God established at the Exodus. Jesus was baptized during the Sunday year of the 70th week, AD 27. (Luke 3) Jesus confirmed the operation of the Jubilee calendar by dying in the middle of the 70th week, a Wednesday year, AD 30.

The Week of Years Counting From 457 B.C.										
	Sun	Mon	Tue	Wed	Thu	Fri	Sab			
B.C.	457	456	455	454	453	452	451		Week of Years #1	
B.C.	450	449	448	447	446		•••		Week of Years #2	
	•••		***	23	24	25	26		Week of Years #69	
A.D.	27	28	29	30	31	32	33		Week of Years #70	
	34	35	36	37	38	39	40		Week of Years #71	

(Chart 30)

Step 3. Since AD 27 is a Sunday year, and AD 30 is a Wednesday year, the following is also true.

(Chart 31)

The 70-weeks prophecy began in the spring of 457 BC with Artaxerxes' decree and ended with the 70th sabbatical year in AD 33. A total of 490 years, counting from spring to spring, elapsed. Artaxerxes issued the decree in the first days of spring, 457 BC (Ezra 7:9; 8:31), which also happens to be a Jubilee year.

Step 4. The Bible mentions a year of Jubilee during the 15th year of King Hezekiah. "In the fourteenth year of King Hezekiah's reign, Sennacherib king of Assyria attacked all the fortified cities of Judah and captured them. (Isaiah 36:1) [Isaiah said to King Hezekiah] "This will be the sign for you, O Hezekiah: 'This year [your 14th] you will eat what grows by itself, and the second year [your 15th] what springs from that. But in the third year sow and reap, plant vineyards and eat their fruit.'" (Isaiah 37:30, insertions mine.) Since the Jubilee cycles continue from the Exodus, we can accurately calculate this sabbatical/Jubilee year sign because Sennacherib had to be in power, and Jubilee years always begin on Sunday. In addition, we know that kings went to war in the spring. (2 Samuel 11:1; 1 Chronicles 20:1)

Sennacherib came to power around 705 BC. So, Hezekiah's 14th and 15th years must have occurred after 705 BC. The first Sunday year (using the beginning of the 70 weeks as a starting point) after 705 BC is 702 BC.

Heze	ekiah's	Jubile	e Year	-Week	s Since	Exodu	us		Weeks of Years		
	Sun	Mon	Tue	Wed	Thu	Fri	Sab		Since Exodus		
Exodus	1437	1436	1435	1434	1433	1432	1431		Week #1		
	1430	1429	1428	1427	• • •	•••			Week #2		
Canaan	1402	1401	1400	1399	1398	1397	1396	=	Week #6		
Solomon	961	960	959	958	957	956	955	=	Week #69		
Hezekiah's	709	708	707	706	705	704	703	=	Week #105		
Jubilee	702	701	700		•••		•••		Week #106		
Zedekiah	597	596	595	594	593	592	591		Week #121		
Decree	457	456	455	454	453	452	451	=	Week #141	1	
Calvary (A.D.)	27	28	29	30	31	32	33	=	Week #210	70	

(Chart 32)

We can determine if 703 / 702 BC is a reasonable time frame by backtracking to the well-known date of 586 BC when Nebuchadnezzar finally destroyed Jerusalem. Therefore, here is a list of kings, their regnal years of reign according to Scripture, and the actual years of rule computed as though 703 BC was Hezekiah's 14th year:

	Regnal*	Actual	Julian Year
1. Hezekiah**	14th	15	703-688 B.C.
2. Manasseh	55	54	692-638 B.C.
3. Amon	2	2	638-636 B.C.
4. Josiah	31	29	636-607 B.C.
5. Jehoiakim	11	10	607-597 B.C.
6. Jehoiachin	.25	.25	597-596 B.C.
7. Zedekiah	11	11	596-586 B.C.
Jerusalem 3rd Destruction			586 B.C.
Total	125*	118	

(Chart 33)

*A regnal year is counted as any part of a year on the throne. A regnal year is also credited to a king even if two kings reign simultaneously. For instance, David and Solomon (father & son) were kings of Israel at the same time. They each reigned for 40 regnal years, but the total number of years they reigned over Israel does not equal 80 years since their reigns ran concurrently for a few years. In ancient times it was often customary for the outgoing king to stay on the throne to ensure the transfer of power to the incoming king, especially if the new king were a young heir to the throne.

**During Hezekiah's 14th year, God promised him fifteen more years of life - so his total reign lasted 29 years. We know from Scripture that a Jubilee year occurred during his fifteenth year on the throne (702 BC) - leaving him fourteen more years of life. It is assumed that he placed his heir, Manasseh, on the throne when he turned twelve years old in 692 BC to teach him the ways of the court before he died. After all, Hezekiah foreknew the year of his death. Thus, Hezekiah reigned for 29 years, but he reigned alone for about 25 years.

Regnal Versus Actual

According to Scripture, the regnal years for the time period between Hezekiah's reign and Jerusalem's third destruction totaled 125 years, while the actual number of computed years

was 118. The seven-year difference is well within the ten years allowed by scholars for this time period. Therefore, the operation of God's clocks proves two significant points.:

- 1. Since Jesus died in the middle year of the 70th week (AD 30), we can determine the date of all sabbatical and Sunday years, forward and backward.
- 2. Hezekiah's 14th and 15th years are sabbatical and Jubilee years, respectively. These years had to occur *after* Sennacherib came to power in 705 BC. The only two dates satisfying this equation are 703 and 702 BC. Other Sunday years are too late or too early to meet historical specifications.

If 702 BC is correctly identified as a Jubilee year and a Sunday year, then Artaxerxes' decree in 457 BC was a Jubilee year since it aligns with the 49-year cycles dating from 702 BC! Earlier, we learned that Daniel 9 indicates the restoration decree occurs at the beginning of a Jubilee cycle because the 70 weeks are divided as 7 + 62 + 1. The *seven sevens* in Daniel 9:25 is a reference to the seven weeks of a 49-year cycle that constitutes one Jubilee cycle. (457 BC - 409 BC) God used this terminology (7 weeks + 62 weeks) to identify the decree from which He would begin counting. When one Jubilee year is known, all Jubilee years can be calculated. For example, 16 BC is a Sunday year, and it is also a Jubilee year.

Step 5. The alignment of God's clocks forces certain events to occur at certain times, but can we rely on this relationship between the clocks? To make sure our conclusions are reasonable, one more step is necessary to determine the year of the Exodus. We must test the validity of 958 BC against a widely known historical event. The Bible indicates Solomon began to build the temple in the 480th year after the Israelites came out of Egypt. (1 Kings 6:1)

According to Exodus 12:1–2, year one of the Exodus is also year one of the Jubilee calendar. It is a Sunday year because Sunday is the first day of the week and the first year in a Jubilee cycle. Therefore, the year of the Exodus has to synchronize with 702 BC, 457 BC, the 70 weeks, and of course, the 70th week. Good news, it does!

If we can confirm the approximate time of Solomon's reign through some external evidence, then we can count 480 years backward and determine the date of the Exodus with some degree of confidence. We also know that 702 BC, 457 BC, and the 70th week are perfectly synchronized.

So, one of the following dates must be the year of the Exodus because they land on 49-year cycles within reach of the 480 years dating from the fourth year of Solomon's reign:

1486 BC - 1437 BC - 1388 BC - 1339 BC

Providentially, there is a well-confirmed, widely-accepted date outside the Bible showing that Ahab, king of Israel, was killed during the 22nd year of his reign in 852 BC. The timing between Solomon's fourth year and Ahab's death is a maximum length of 120 regnal years. Based on the Jubilee calendar, the length of time proves to be 106 actual years. The regnal years from Solomon's 4th year to Ahab's 22nd year follow.

	Regnal Years
1. Solomon	36 Years
2. Jeroboam	22 Years
3. Nadab	2 Years
4. Baasha	24 Years
5. Elah	2 Years
6. Zimri	1 Week
7. Omri	12 Years
8. Ahab	22 Years
Total Regnal Years	120 Years

(Chart 34)

Beginning with Ahab's death in 852 BC and counting backward to Solomon's fourth year, we can calculate the following data:

Date of Ahab's Death	852 B.C.
Plus: Regnal Years that Date Back to Solomon's 4th Year	120
Plus: 480 Years that Date Back to Year of the Exodus	480
Equals: Approximate Date of the Exodus	1452 B.C.

(Chart 35)

However, 1452 BC is not a Jubilee year or a Sunday year. Moving forward in time to the closest Jubilee year, since regnal years always total more than actual years, we find:

Date of Ahab's Death	852 B.C.
Plus: 106 Actual Years (Reducing Regnal Years by 14)	106
Plus: 480 Years that Date Back to Year of the Exodus	480
Equals: Date of the Exodus	1437 B.C.

(Chart 36)

The variance between the regnal and actual years from Solomon to Ahab is 14. This is well within the tolerance allowed for the succession of these eight kings. Some scholars reduce the regnal years for this time period by five and say the actual years are 115 instead of 106. However, the records of co-regent reigns during this time period are virtually nonexistent. So, the actual years must remain within the realm of *educated guessing* unless we use the timing matrix of the Jubilee calendar to identify the date of the Exodus.

There are several reasons why 1437 BC is the only year that qualifies for the date of the Exodus. It is a Sunday year, the first year of the Jubilee calendar. In addition, 1437 BC occurred within the time frame allotted by Scripture. All other Jubilee years are too near or far from the regnal or actual reigns of the kings to qualify. Therefore, 1437 BC is the only synchronous date possible for the Exodus.

Simple but Profound

Time measurement can be complex because the planetary motion does not align conveniently. Fortunately, God's calendar was not based on a series of complex calculations; instead, it was based on observation and weekly cycles. Man has invented and used many types of calendars, but only God's calendar is perpetually self-correcting each month and each year.

God's calendar and the means for synchronizing it are adequate for the entire world. The accuracy of God's marvelous calendar is not affected by the fact that some years had 13 moons and others had 12. God's calendar is not frustrated by bad weather or global position. Even more, to ensure that the relationship of all seven units of time would not be lost or forgotten, God commanded Israel to observe feasts and rituals at appointed times each year that no manmade calendar could accurately determine in advance. Amazingly, God created His unique calendar.

Each obligation God imposed upon humanity contributes to the preservation of His timing. Nearly 6,000 years later, we are waking up to discover that we live at earth's last hour!

Defending the Jubilee Calendar

A great deal of misunderstanding exists on the nature, purpose, and alignment of the Jubilee calendar. I will attempt in to respond to five common arguments against the Jubilee calendar.

Argument 1 – No Biblical record exists from which Jubilee cycles can be determined. People claim the Bible gave no instances that Israel observed a year of Jubilee, and it provides no factual basis to compute Jubilee cycles. So, any choice of an initial date for the beginning of the Jubilee calendar is purely arbitrary.

Response to Argument 1 – God initialized and synchronized the Jubilee calendar with the Exodus and later confirmed that the Jubilee calendar was in operation.

The Bible does not support the assertion that the initial date for the Jubilee calendar is purely arbitrary. (Exodus 12:1–2) The Israelites understood the Jubilee calendar and knew when to observe sabbatical years and the year of Jubilee. Each Israelite knew when day 1, month 1, of year 1 occurred, and they defined their history by it. (1 Kings 6:1) God did not declare every seventh year holy, leaving Israel questioning which years were sabbatical. God did not allow Israel to decide by a committee vote when the year of Jubilee occurred or which day of the week was the seventh day.

God did not create a Sabbath rest and allow man to guess when it occurs. This claim treats the sabbatical years and the year of Jubilee as though they were an inferior creation. God declared the seventh day of the week holy at creation (Genesis 2:1–3), and declared the sabbatical years holy (Leviticus 25:2).

We know the penalty for having contempt for the seventh-day Sabbath (Exodus 35:3; Numbers 15:33–36), and we should be aware of the severe penalties for violating God's sabbatical years. (Leviticus 26:33–36)

God established and synchronized the Jubilee calendar just before the Exodus. (Exodus 12:1–2) God initiated the Jubilee calendar 14 days before Passover, and the Exodus occurred on the 15th day of the first month in the first year of His calendar.

Similarly, many Christians today do not observe the true seventh-day Sabbath claiming that the seventh day is an arbitrary date, and that we cannot currently compute the seventh-day Sabbath. They say, "There is no scriptural record of anyone keeping the seventh-day Sabbath from creation to the time of Moses." Their underlying argument is that we cannot determine the weekly cycle from creation. Therefore, no one can reliably prove from Scripture that Saturday is the seventh day of the week *since* creation.

We can quickly eliminate this argument since God confirmed the continuation of the seventh-day Sabbath about 2,500 years *after* creation when He withheld manna on the seventh day in the wilderness for 40 years. (Exodus 16:1–35) Indeed, God knows the operation of His calendar!

Only through alignment of the weekly cycle with creation week can we have any confidence as to which day of the week is God's seventh day! God did not impose the observance of seventh-year sabbaticals and the year of Jubilee upon Israel and then abandon the alignment between them.

By definition, a week always begins with a first day, and it always ends with a Sabbath rest. When God synchronized the weekly cycle with creation week, it was a deliberate act that made it possible to accurately identify the Sabbath rest. Similarly, when God synchronized the Jubilee calendar at the time of the Exodus, He made it possible for Israel to accurately schedule annual feasts, Sabbath years, and the year of Jubilee.

God established the perpetual relationship of the seven clocks—the day, month, year, week, week of months, week of years, and seven weeks of seven years.

God gave Israel the Jubilee calendar which was superior to any of man's calendars. God synchronized the Jubilee calendar with the Exodus for counting sabbatical years and with the Sun and Moon for planting crops.

God planned that Israel would flourish if His people observed His calendar. God's calendar was properly synchronized for maximum daylight, seasons of rain, and favorable weather patterns. The presentation of the firstfruits at Pentecost provided evidence of a harvest. In the wilderness, Israel observed the weekly cycle God established for forty years, which He demonstrated by not providing manna on the seventh day. Similarly, God marked the dates of the Jubilee calendar when the Israelites viewed the heavenly bodies. The setting sun marked a new day. A new moon marked the beginning of a new month, and the first new moon *on or*

after the spring equinox marked a new year. Before Israel entered Canaan, God instructed them about the alignment of days, weeks, months, years, and years of Jubilee.

Today, we often calculate time inappropriately. For example, a co-worker might say, "I'll be out of the office for a week, starting Wednesday and returning next Wednesday." However, according to God's timing, the worker will not be gone for a week. The co-worker will be gone for seven days. A week is not any seven-day time period. A week is a unit of time that requires alignment with the seven days of creation; therefore, the seven days, Sunday through Sabbath, make a week. Any other time period of seven days is simply seven days.

God has confirmed the alignment of the Jubilee calendar at least three times since the Exodus.

Daniel 9

Remember how the 70 weeks of Daniel 9 confirm the operation and timing of the Jubilee calendar. The specifications of Daniel 9 were fulfilled with Artaxeres' decree in 457 BC and Jesus' ministry and death during the 70th week. God confirmed the continuous nature of the Jubilee calendar by His actions during the 490 years of Daniel 9.

Isaiah 37:30

The dating of Isaiah 37:30 also confirms the continuity of the Jubilee calendar. God spoke to Hezekiah: "This year you will eat what grows by itself, and the second year what springs from that. But in the third year sow and reap, plant vineyards and eat their fruit." This language is identical in concept to the language used in Leviticus 25, when God said to Israel shortly after the Exodus, "You may ask, 'What will we eat in the seventh year if we do not plant or harvest our crops?' I will send you such a blessing in the sixth year that the land will yield enough for three years. While you plant during the eighth year, you will eat from the old crop and will continue to eat from it until the harvest of the ninth year comes in." (Leviticus 25:20–23) Isaiah 37:30 confirms the existence and timing of the 49th sabbatical year and its sequential 50th year of Jubilee. Isaiah 36:1 and Isaiah 37:30 indicate that Hezekiah's 14th year was the 49th sabbatical year.

At that time, Sennacherib was attempting to destroy Jerusalem. Scholars widely agree that Sennacherib came to power about 705 BC; therefore, dating this event is not difficult since we know Jubilee weeks continued from Daniel 9. This 49th Sabbatical year and the 50th year of Jubilee occurred during Hezekiah's reign in 703 and 702 BC. It is incredible how Bible dating synchronizes the seventy weeks of Daniel 9 precisely with the history of Hezekiah's reign.

God's words in Isaiah 37:30 confirm a few issues. First, they indicate that God was still marking the passage of time in sabbatical years and the year of Jubilee since the Exodus. Second, God confirmed the timing of His calendar to Hezekiah that year, in case the king's court had any doubt. Third, God's confirmation of the year of Jubilee affirms the continuing operation of the Jubilee calendar. Last, this statement to Hezekiah is 246 years before God implemented the seventy-weeks prophecy in

457 BC. Isaiah 37:30 confirms that the Jubilee calendar continued to operate, and the timing of the week of years and the year of Jubilee that began with the year of the Exodus synchronized with the Jubilee calendar.

Jeremiah 34:8–17

The book of Jeremiah offers additional evidence indicating that Israel knew about the week of seven years clock. Jeremiah confirmed that a seventh year existed during the time of Zedekiah. "The word came to Jeremiah from the Lord after King Zedekiah had made a covenant with all the people in Jerusalem to proclaim freedom for the slaves. Everyone was to free his Hebrew slaves, both male and female; no one was to hold a fellow Jew in bondage. So all the officials and people who entered into this covenant agreed that they would free their male and female slaves and no longer hold them in bondage. They agreed, and set them free. But afterward they changed their minds and took back the slaves they had freed and enslaved them again.

"Then the word of the Lord came to Jeremiah: 'This is what the Lord, the God of Israel, says: I made a covenant with your forefathers when I brought them out of Egypt, out of the land of slavery. I said, 'Every seventh year each of you must free any fellow Hebrew who has sold himself to you. After he has served you six years, you must let him go free.' Your fathers, however, did not listen to me or pay attention to me. Recently you repented and did what is right in my sight: Each of you proclaimed freedom to his countrymen. You even made a covenant before me in the house that bears my Name. But now you have turned around and profaned my name; each of you has taken back the male and female slaves you had set free to go where they wished. You have forced them to become your slaves again.

"Therefore, this is what the Lord says: You have not obeyed me; you have not proclaimed freedom for your fellow countrymen. So I now proclaim 'freedom' for you, declares the Lord—'freedom' to fall by the sword, plague and famine. I will make you abhorrent to all the kingdoms of the earth." (Jeremiah 34:8-17)

I have included this lengthy reference to demonstrate that God is referring to His calendar and its seventh-year Sabbatical operation since the Exodus. This text proves that God continued to hold Israel responsible for the observance of the seventh-year sabbaticals, which required, among other things, the release of slaves. Not only did God know when the seventh year Sabbatical was supposed to take place, but so did King Zedekiah and the people.

The operation of the Jubilee calendar was not lost or arbitrary, as some claim. God does not hold people accountable for violating what they do not know. Incidentally, because of the synchronism between the 70 weeks and Hezekiah's year of Jubilee, the only seventh-year sabbatical to occur during Zedekiah's reign was 591 BC.

Scriptural evidence eliminates the assertion that there is no record of an actual observance of a Jubilee or any factual basis from which to compute Jubilee cycles. The choice of an initial date is not purely arbitrary.

Argument 2—There is uncertainty on how many years constitute a Jubilee cycle.

Response to Argument 2—This statement is false. The Bible explicitly explains that there are 49 years within a Jubilee cycle. (Leviticus 25:8) A cycle consists of seven weeks of years. Thus, there are seven Sabbath years within a Jubilee cycle. The Bible also confirms that the year of Jubilee, the 50th year of celebration, occurs *concurrently* with the first year (Sunday year) of the following Jubilee week.

Weekly cycles continued without interruption, as the Bible demonstrated in the 70 consecutive weeks of Daniel 9. There are never more than six years between two seventh-year sabbatical years. This simple fact requires the year of Jubilee to occur during the first year of the next cycle. When seven Jubilee weeks end with the 49th Sabbath year, the next cycle of 49 years begins with a Sunday year, the first year of a new week of years and a new Jubilee cycle.

The perpetual repetition of the weekly cycle leaves no uncertainty on the length of a Jubilee cycle.

God installed a miniature Jubilee calendar within Israel's annual feast calendar to ensure that Israel would calculate Jubilee cycles correctly. This miniature is called the *feast of weeks* or Pentecost. Pentecost, the 50th-day feast, always fell on a Sunday, the first day of the week, after seven seventh-day Sabbaths had passed. (Leviticus 23:15–16) Just as the 50th day of Pentecost occurred on the first day of the following week, the 50th year of Jubilee occurred during the first year of the next Jubilee cycle. Incidentally, anniversaries are celebrated today the same way as they were in biblical times. For example, a married couple celebrates their first anniversary during the second year of marriage. If a couple was married on January 1, 2022, their first anniversary was celebrated on January 1, 2023, the first day of their second year of marriage.

Therefore, a Jubilee cycle is 49 years, not 50 years, and has a total of eight holy years within it: (1) year of Jubilee + (7) sabbaticals. The Bible mathematically confirms the repetitive cycle of 49 years. In Ezekiel 4:5–6, Ezekiel was told to lie, first on one side and then on the other, for a total of 430 days—each day representing one year of Israel and Judah's apostasy.

In 430 years, there are exactly 70 Sabbath years! The Babylonian captivity was precisely 70 years because, within a period of 430 years, Israel and Judah had violated 70 holy years. God had warned that He would evict them from the land if they did not keep the Sabbath years! (2 Chronicles 36:21; Leviticus 26:33–35)

Argument 3—The seventh-year sabbaticals and Jubilee cycles were civil institutions designed to regulate certain aspects of the nation's secular life. They were not integral to the sanctuary ritual system, as were the spring and fall festivals.

Response to Argument 3—The Bible shows that Israel observed the sabbatical and Jubilee cycles and considered them as sacred as seventh-day observance.

The Bible shows that God initiated and instituted the Jubilee cycle. (Leviticus 25:8) He who declared the seventh day of the week to be holy (Exodus 16:23) also declared the Day of Atonement to be holy (Leviticus 23:28). This same God also declared each seventh year and the year of Jubilee to be holy. (Leviticus 25:4–11)

What God sets apart from the common is neither secular nor civil. The Bible does not diminish the significance of the seventh-year sabbaticals and Jubilee cycles. On the contrary, God designated seventh-year sabbaticals and the year of Jubilee to be as important as the observance of any annual feast! This is proven by the severe penalty associated with failing to observe sabbatical years. (Leviticus 26:33–36; 2 Chronicles 36:21)

Argument 4—There is no initial date from which to figure Jubilee cycles. Calculating such cycles has focused on what we now know to have been sabbatical year dates, such as 457 BC, AD 27, and AD 34.

Response to Argument 4—God himself established the first day, first month, and first year of the Jubilee calendar, and it began operating fourteen days *before* the Passover in Egypt. (Exodus 12:1–2). Therefore, we should not be surprised to find the alignment between the week of months, the week of years, and the seven weeks of seven years dating from the year of the Exodus.

God's perfect timing and accuracy helps us date the decree mentioned in Daniel 9 that led to the restoration of Jerusalem, as well as the death of Christ. According to the synchronism of Jubilee weeks, the 70th week necessarily began with a Sunday year.

Argument 5—The Jubilee calendar has no relevance today.

Response to Argument 5—God calculated many prophetic periods in Daniel and Revelation in Jubilee units and literal units. The operation of the Jubilee calendar uniquely explains this variance.

This claim is interesting because many Christians believe the 70th week of Daniel 9 is yet future. While most Christians understand that the 70th week is a period of seven years, most have no clue as to the origin, timing, or function of the Jubilee calendar. Even worse, Christians who anticipate a future fulfillment of the 70th week have no problem disconnecting the 70th week from the earlier 69 weeks.

Many Christians believe this calculation is allowed or justified in Scripture. The insertion of a gap of time between the 69th and 70th weeks is unwarranted and a violation of God's clocks. Created beings cannot insert time between two sequential periods that God established. When Wednesday ends, Thursday begins. No one can insert time between days of the week, nor can anyone insert years between the week-of-years cycles established at the Exodus.

Summary

A correct understanding of God's clocks is of utmost importance in the process of interpreting Daniel and Revelation's time periods. Since God predecreed prophetic time periods in Daniel and Revelation, He evidently had established eight clocks *from the beginning of time*. He has set them in motion to measure the duration of time for this world. Today, like Moses on the mountain precipice of Mt. Nebo, we can see over the Jordan into the Promised Land. We can review 6,000 years of history and we are at the end of the age! We must understand God's great clocks. There are many scoffers within the Christian community. They ridicule the idea that we can know the end is here. They denigrate any study of God's timetables. Scoffers usually offer two texts to support their disbelief: "No one knows about that day or hour, not

even the angels in heaven, nor the Son, but only the Father." (Matthew 24:36) and "Then the King will say to those on his right, 'Come, you who are blessed by my Father; take your inheritance, the kingdom prepared for you since the creation of the world. For I was hungry and you gave me something to eat, I was thirsty and you gave me something to drink, I was a stranger and you invited me in, I needed clothes and you clothed me, I was sick and you looked after me, I was in prison and you came to visit me." (Matthew 25:34–36)

The first text, scoffers allege, means that we cannot know the timing of the return of Jesus, so do not discuss it. The second text, they say, means that Christians should focus on the world's suffering, not on a date for the second coming. While both statements have an element of truth, these texts are misused! Christians should be care about those who suffer. However, in this world, suffering never ends. The *only* solution to misery, sickness, death, sorrow, disease, and injustice is Jesus' return! Second, when Jesus told His disciples that "no one knows the day or hour," that was true at that time. It will not forever be unknown. The date of the second coming was not designed to be an event cloaked in mystery. On the contrary, there will be a host of rapid-fire prophetic fulfillments that will herald the return of Jesus! His return will not be secret. (1 Thessalonians 5:4)

When Jesus was on earth, He did not explain the lengthy prophetic time periods written in the book of Daniel. Otherwise, His disciples would have been discouraged. Jesus said to His disciples, "I have much more to say to you, more than you can now bear. But when he, the Spirit of truth, comes, he will guide you into all truth." (John 16:12–13) Later, the disciples pressed Jesus again about the time of His return. Jesus replied, "It is not for you to know the times or dates the Father has set by his authority." (Acts 1:7) These statements do not mean that Jesus' disciples will never know or understand the times or dates the Father has set. God placed prophetic time periods in Daniel and Revelation to expand our knowledge.

We will understand the times and dates the Father set *when* the time arrives. If the disciples knew in AD 30 that 2,000 years were ahead of the church, they would have lost faith. Now that we have reached the end of the age, a comprehensive understanding of the times and dates that the Father set is not harmful to our faith. This knowledge will be helpful during the Great Tribulation because understanding the duration of specific time periods will be a source of immeasurable encouragement.

I do not know the day or hour of our Lord's return, but I am confident that we have entered a whisker of time where the 6,000th year will occur. Also, I expect Jesus to return in the spring of the year since, in God's timing, a year begins in the spring! Shouldn't the 1,000 years begin in the spring? I anticipate the day, month, year, week, and millennial clocks to converge soon one future day, as God's clocks did at the time of the Exodus.

Jesus is coming. He will appear right on time! When He comes, we can joyfully say, "This is the day the Lord has made! Let us be glad and rejoice in it." (Psalm 118:24, KJV)

