

Biblical Calendar Basics

“God said, ‘Let there be lights in the vault of heaven to divide day from night, and let them indicate festivals, days and years’” —Gen 1:14, NJB.

Many Christians are interested in observing the biblical festivals mentioned in Leviticus 23 and many other Old and New Testament verses. The Bible gives specific numbered days of various months when these festivals are to be observed. But how do we know when these Biblical months begin? Did the Jews preserve a divinely inspired calendar? Does the Bible explain a specific calendar? How can believers fellowship together if they use a variety of calendars?

By Norman S. Edwards

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Scripture quotations are from the New International Version (NIV) unless otherwise noted.

What Are the Biblical Festivals?

While some readers of this paper may have observed the biblical feasts for many years, others may be just beginning to learn about them. This brief introductory section is intended to introduce one to the biblical feasts (also called “festivals” or sometimes “holy days”, but by no means covers all the Scriptures on the subject.

Throughout the centuries, many individuals have come to the point in their lives when they say, “I want to shed man-made religious tradition and learn what God wants for my life”. This is a wonderful thing. They will frequently begin reading the Bible with renewed zeal. They may get an exhaustive concordance or a computerized Bible so they can find every place where the Bible mentions a certain word.

Some people have done this, looked up the traditional Christian festivals and have been shocked. The word “Christmas” does not show up at all. Yes, the story of Jesus’ birth is in the Bible, but Christmas trees, Santa Claus, wreaths, Yule logs, mistletoe, exchanging presents, and most other Christmas tradition is not. Similarly, the word “Easter” is not in any modern translation. The story of the resurrection of Christ is there, but there is nothing about Easter bunnies, egg hunts or sunrise services. The King James Version does include the word Easter in Acts 12:4, but every other translation there says “Passover”—which brings us to the first of the annual biblical feasts or festivals.

All of the Feasts of the Eternal can be found in Leviticus 23, which begins by saying:

The LORD said to Moses, “Speak to the Israelites and say to them: ‘These are my appointed feasts, the appointed feasts of the LORD, which you are to proclaim as sacred assemblies’” (Lev 23:1-2).

The rest of Leviticus 23 explains all of the various days and when they are observed. It is well worth reading. However, it does not always explain the meaning of the days. For that, we must go to other scriptures. And as you might expect, there are multiple opinions among Bible students as to the meaning of some of these days. Rather than debate those meanings here, we have included several of the more common meanings in the following chart. The reader is encouraged to study the biblical Feast days elsewhere, as the rest of the paper will concentrate on the issue of **when** to celebrate them.

Feast Day	Verses	Meaning
Passover 14th day of 1st month	Lev 23:5; Ex 12; Luke 2:39-42; John 11:55; 1Cor 5:7	When Moses led Israel out of Egypt, a lamb was sacrificed for each family and its blood protected the firstborn from death. These lambs were a symbol of our individual need for Christ’s blood as a sacrifice for our sins.
Feast of Unleavened Bread 15th to 21st of 1st month	Lev 23:5-8; Ex 12; John 6:48-58; Acts 12:3; 20:6; 1Cor 5:6-8 (called “the Passover” (Luke 22:1))	The Israelites were told to eat unleavened bread for 7 days and assemble together on the first and seventh day. The practice continued in the New Testament, symbolizing the putting out of sin (leaven) and taking in the unleavened bread of Christ. The seventh day symbolizes Christian victory over sin.
Feast of Firstfruits or Wavesheaf (varies)	Lev 23:9-14; Matt 28:1-3; Rom 8:29; 1Cor 15:20-23	The Israelites raised (waived) the first of their harvest to the Eternal on “the day after the Sabbath”. There is debate as to whether this “Sabbath” is the First or Last Day of Unleavened Bread, the weekly Sabbath in the 7 days or the first Sabbath after grain is ripe. Christ is the firstfruits; He may have risen from the dead on this day.
Feast of Weeks or Pentecost (50 days after Feast of Firstfruits.)	Lev 23:15-22; Acts 2:1-41; 20:16; 1Cor 16:8	The Israelites counted 50 days after the Wavesheaf to Pentecost (means “fiftieth”). There is evidence that the 10 commandments were given on this day. The day represents the first harvest of believers. The Holy Spirit was given to Christ’s disciples and their ministry began.
Feast of Trumpets or Feast of Loudness or Rosh Hashanah 1st day of the 7th month	Lev 23:23-25; Ezra 3; Neh 8; 1Cor 15:52? Rev 8:2; 10:7?	This is the first of the seventh month, the beginning of the civil year. Sacrifices began at the rebuilt temple and the <i>Book of the Law</i> was found on this day. The word “trumpets” in this day’s biblical title, but it is a “loud sound”, such as a trumpet or crowd would make. It pictures a warning. Some believe creation was completed on this day; some say Christ was born on it. Some look for Christ’s return and the first resurrection on this day.

Feast Day	Verses	Meaning
Day of Atonement or Yom Kippur 10 th day of the 7 th month	Lev 23:26-32; 16:1-34; 25:8-55; Acts 27:9 1Cor 15:52? Rev 8:2; 10:7?	The Israelite nation was reconciled to the Eternal once a year at a special ceremony. The Israelites fasted and confessed their sins. Slaves were set free and people who lost their land received it back. Trumpets were also blown on this day, leading many to look for Christ's return and the first resurrection on it.
Feast of Tabernacles or Feast of Ingathering, also Feast of Shelters or Feast of Booths 15 th to 21 st day of the 7 th month	Lev 23:33-44; Deut 31:9-13; Zech 14:3-4,16-21 John 7:1-52 Last day: John 6:39-40,44,54; 7:37; 11:24; 12:48	The Israelites gathered for 7 days of rejoicing, living in tabernacles or shelters, symbolizing the way the Eternal protected them in the wilderness leaving Egypt. The law was read every seven years. This Feast symbolizes the great harvest of believers, how he shelters those who come to him. The last day of the Feast is referred to as the "last day" and represents the resurrection to judgment and the Eternal's plan of salvation for nearly all mankind.
The Eighth Day 22 nd day of the 7 th month	Lev 23:39; 2Chr 7:9-10; Is 66:22-24; Rev 21	Very little is said about this day, only that the Israelites were to assemble on the eighth day, after the seven days of the Feast of Tabernacles. Some people attribute the above "last day" scriptures to this eighth day. To this author, the last day of a 7-day Feast must be the 7 th day. This author believes this day pictures the New Heavens and the New Earth.

A Calendar Is Needed

Most of the Feast days are given as a specific day of a specific month. A few Bible students have simply taken those instructions and applied them to the world's present calendar. But that causes them to celebrate the Feasts in our first and seventh months—January and July—not the Spring and Fall harvests pictured by the Bible. The biblical festivals must be celebrated as connected to the seasons:

Celebrate the Feast of Weeks with the firstfruits of the wheat harvest, and the Feast of Ingathering at the turn of the year (Ex 34:22).

The Eternal specifically instructed Moses to use a calendar with months and years:

"This month is to be for you the first

month, the first month of your year" (Ex 12:2).

The basis for a calendar whereby one might keep the festivals of the Eternal was clearly spelled out at creation:

"God said, 'Let there be lights in the vault of heaven to divide day from night, and let them indicate festivals, days and years'" (Gen 1:14, NJB).

The New Jerusalem Bible (NJB) was used in the above quotation because it accurately translates the Hebrew *moed* as "festivals" here. The word means "appointed times", which can refer to divinely or humanly appointed times, but it is most often used to signify the biblical festivals or Feasts. The same word here in Leviticus 23:2:

Speak to the Israelites and say: (The solemn festivals [*moed*] of Yahweh to which you will summon them are my sacred assemblies.) "These are my solemn festivals [*moed*]" (Lev 23:2, NJB)

These verses, and the many other Bible references to specific years, months and days show that the Eternal intended us to use a calendar.

Purpose of this Article

We hope this article will give readers an understanding of the facts regarding calendars and introduce the major arguments for a variety of calendar systems, including the Jewish system. Also, we will point out many questions that must be answered if we are to construct a calendar from the scriptures. We hope that the reader will realize the complexity of the issue and the diversity of sincere opinions—and be tolerant of brethren that use other calendars. Finally, we hope that readers will see the difference between assembling with other believers for the Feasts and determining the calendar—and then put those things in their proper relationship.

What is a Day, Week, Month and Year?

The most fundamental unit of time is a **day**—determined by one rotation of the Earth compared to the sun. "God called the light 'day,' and the darkness he called 'night.' And there was evening, and there was morning—the first day" (Gen 1:5). From our perspective on Earth, we see the sun set and rise—it gets dark then it gets light outside. Everyone older than a toddler, in every culture, understands what a day is. The Earth's turning is an extremely consistent natural event. You can set your clock by it!

However, there is a little more difficulty answering the question, "Exactly when does a day

begin?” On a personal basis, our day exists from the time we wake up till the time we go to sleep. Indeed, someone who stays up for 36 hours in a row may say: “I had a very long day.” Also, people awake at 2 AM will talk about what they are going to do tomorrow (when they wake up), even though it is technically the same day. Personal days typically span from around sun-up to several hours after dark, but can be very different in unusual circumstances. Both biblical and modern languages make allowance for this.

But for historical, legal and biblical purposes, there must be a definition of the beginning and ending of a day that all can agree upon. The Eternal taught the Israelites to put a man to death for blatantly working on the Sabbath (Num 15:32-36). For such a crucial event, they had to know when the Sabbath began and ended. They did: “It *shall be* to you a sabbath of *solemn* rest, and you shall afflict your souls; on the ninth *day* of the month at evening, **from evening to evening, you shall celebrate your Sabbath**” (Lev 23:32). Our present Roman system uses midnight to begin a new legal day; some other systems have used sunrise. But the biblical teaching here is to use “evening to evening”, which is probably best understood as when the sky becomes dark, till the next time it becomes dark. (Some recon a day from sunset to sunset, which may be about 40 minutes different. We will forgo a long discussion of that point here, but certainly the Israelites knew when their Sabbath legally began and ended.)

If you measure the time with a watch, from one period of darkness to the next, you would probably find it either slightly longer or shorter than 24 hours. The length of an observable darkness-to-darkness day varies by a couple of minutes because the Earth’s axis is tilted and the angle at which the sun’s light strikes the Earth varies slightly as the Earth goes around the sun. Darkness-to-darkness days are slightly longer in the Winter and Spring and slightly shorter in the Summer and Autumn. (Do not confuse this with the total daylight part of the day, which is longest on the first day of summer and shorter on the first day of Winter.) However, if we would accurately compute the average length of every day of the year, it would be exactly 24 hours.

The following table summarizes the relationship between days, weeks, months and years. All of these terms are found in the Bible and they all appear to be given by the Eternal, not inventions of men. Each is briefly discussed be-

low and they much more detail is given on biblical months and years in future sections.

Period	Number of Days	Physical Definition	Bible Definition
Hour	1/24th	1/24th of a whole day	1/12 of daylight (John 11:9)
Day	1 exactly	Earth rotates around its axis in respect to the sun	Evening & morning (Gen 1:5), evening to evening (Lev 23:32)
Week	7 exactly	None now—7 creation days	Labor 6 days, rest 1 (Ex 20:9-10).
Month	29 days, 12 hours, 44 minutes, 2.841 sec.	One revolution of the moon around the earth in respect to the sun	Months begin on “new moons,” but the Bible contains no precise definition of them.
Year	365 days, 5 hours, 48 minutes, 46.069 sec.	One revolution of the Earth around the Sun	Begins with the month Abib in the spring (Ex 12:2)—but no specific formula.

The **7-day week** pictures the 7 days of creation (Ex 20:10-11). There is no astronomical phenomena that we can observe on a weekly basis. However, many living things have 7-day internal cycles (request *The Mysterious 7-Day Cycle*—see contact info on last page). Furthermore, the seven-day week is found nearly everywhere throughout the Earth. Half of the languages of the world have a something sounding like “Sabbath” for the name of the seventh day of the week. There is no disagreement around the world as to what day of the week it is (except for International Date Line Issues—see the section by that name near the end of this paper.)

The table above also shows that the **month** and the **year** do not correspond to an exact number of days. This is where the difficulty lies in determining a calendar. If the Eternal had moved the moon slightly further away from the Earth, and moved the Earth a little closer to the sun, He could have made months that were exactly 30 days, and years that were exactly 360 days. There would have been twelve months in every year, and 10-year old children could explain the system in detail. Speeding up the rotation of the earth by about 1.6% would give us a day that is about 23 minutes shorter, but would also get very close to producing a 30-day month and a 360-day year. Maybe it was that way at some time in the past. But now, our Creator has

given us a years that are about 365¼ days, and months that are about 29½ days.

One might ask, “Who cares about the ¼ or ½ days? What would happen if we just ignored them?” Bad results! If a year were always considered to be 365 days, the calendar would effectively slip one day forward every four years. After 360 years of that system, the calendar would be 90 days off from the true seasons: Winter would end in June rather than in March. If a moon cycle were assumed to be 29 or 30 days, rather than 29½, the months would be off 6 days in one year—it would be useless.

Our Current Gregorian Calendar

It is important to understand the calendar in common use today before trying to understand the biblical ones. When looking at a new thing, there is a great tendency to see its faults, pronounce it “miserable” and walk away from it. When we see complexity in something that we use personally, then we are more likely to want to understand it and accept it—and be more ready to understand something else.

We are all fairly familiar with how our Roman calendar solves the problem of the extra ¼ day in the year. Every four years we have a leap year. This would allow our calendar to operate perfectly if years were exactly 365 years and 6 hours long. But, our years are really 365 days, 5 hours, 48 minutes, 46.069 seconds long. Our Calendar would move away from the natural seasons 11.235 minutes every year or 1 day every 128 years.

The average man in the street might say: “Don’t worry about it, I’ll be dead before it gets one day off.” But mathematicians, purists that they are, have devised a system of occasionally missing leap years that will keep our present calendar synchronized with the seasons for millions of years to come. It was the ignoring of these 11 minutes each year that created trouble for the Julian Calendar (implemented by Julius Caesar). Pope Gregory finally fixed that calendar in 1582. He took 10 days out of the calendar that year. October 4 was followed by October 15th that year. Removing these days compensated for all of the unnecessary “leap years” from the Council of Nicea till that time. Hence, our present calendar is called “Gregorian.”

With this precise math that is now used to preserve the exact relationship between our months and the seasons, exactly what are we preserving? And who decided when the Gregor-

Eliminate 7-Day Week?

Some Bible students have seen where the Bible refers to the annual Feast days as “Sabbaths” and have concluded that counting of the seventh-day Sabbath should restart with each Feast day. Others conclude that the counting of the Sabbath should restart with the beginning of each new month. These doctrines have a massive impact on daily lives—requiring workers to have a different weekly day off either every month or every few months. While believers should be willing to accept a massive impact upon their lives in order to follow God, we must be sure that such an impact actually results from **really following God**, not simply following a teacher’s assumptions of scripture.

It is reasonable to ask, “How should the Feast-days (annual Sabbath’s) work with the weekly Sabbaths?” First, let us understand that Feast days always occur on the 1st, 10th and 15th day of the seventh month (Lev 23:24; 27; 34-35). These cannot possibly all be 6-days-inbetween weekly Sabbaths (if they were the 1st, 8th and 15th, they all could be, but no Bible says that). There simply are only 4 days between the 10th day and the 15th day. This is clearly incompatible with Exodus 20:9-10 which says we should work 6 days and rest the 7th. If the Annual Sabbaths follow rules that do not fit the Weekly Sabbaths, then we must conclude that they are separately calculated, and exist in addition to the weekly Sabbath. When a Feast day occurs between Sabbaths, then there are only 5 workdays that week because the Eternal have given us His work to do on one of those work days.

Similarly, since lunar months are 29 or 30 days long, restarting the week at the beginning of the month would require a week of either one or two days—or else eight or nine days. Neither Scripture nor history mentions this.

In fact, Roman records indicate that a seven day week was in use during the time of Christ. The Romans certainly did not restart their week based upon Jewish Feast days or new moons. The Jewish leaders, who used the same week as the Romans, frequently argued with Christ about what He did on the Sabbath, but never debated which day was the Sabbath. We will not spend any more time with these calendar systems as few people use them and they do not appear to fit either the Bible or history.

ian year would start? Is there a way to look up into the sky and know when January 1 arrives? Not easily. With precise measurements and calculations, it is possible to recognize any day of the year by the positions of the sun or stars, but January 1 is no easier than any other day.

The events that are easy to observe with the solar year are the **solstices**. The **Winter solstice**, usually December 22, is the day of the year with the shortest daylight portion. The **Summer solstice** occurs on the longest daylight portion of the year, usually June 21. (In the Southern Hemisphere, these events are reversed—We will deal only with the Northern Hemisphere for simplicity.) If you can see the sunrise and sunset each day, and accurately record the lengths of them, you will find the shortest and longest daylight portions will always occur mentioned on the days above. Another way to determine these days is to put a thin, but strong (so it won't move), stick in the ground and mark the shortest shadow each day (about noon time). The day with the shortest noon-time shadow is Summer solstice and the day with the longest noon-time shadow is the Winter solstice.

There are two other periods of note: the **Spring equinox** and **Fall equinox**. These days are halfway between the solstices, usually March 21 and September 22. These days mark the beginning of spring and fall. The length of the day will be halfway between the longest and shortest day.

We use the word “usually” with the equinox and solstice dates because these dates can vary by one day based on the slightly irregular shape of the Earth's orbit and the current phase of the leap-year cycle.

The calendar that Pope Gregory replaced was the Julian Calendar, named after Julius Caesar. However, it is likely Julius appropriated a much older solar calendar already known. If the original calendar was created around 1000 BC, its first day of its first month was probably the first day of winter—January 1st. When Julius Caesar was around, December 25th would have usually been the first day of winter. (Yes, “Christmas” comes from a winter solstice celebration.) At the time of the Council of Nicea, December 22nd was typically the first day of winter—as it still is today, thanks to Pope Gregory's correction. Before his change, the first day of winter was December 12th! It is interesting to note that Pope Gregory was probably the last Pope to be recognized well enough to invoke such a change

Solar-Only Calendar In the Bible?

Some claim that the biblical calendar should be completely solar: They say months should be a fixed number of days having nothing to do with moon cycles and the year should be started based completely on the sun's position. They use some of these ideas for support:

1. Even though the Hebrew word *chodesh*, is translated “new moon” in nearly every Bible, they say it is an erroneous meaning supplied by Jews and has nothing to do with the moon, but simply means “month”. They further claim that Hebrew has a completely different word, *yereach*, to refer to the visible disk of the moon. That is usually the case, but Psalm 104:19 says: “The moon [*yereach*] marks off the seasons [*moed*—“appointed times” or “feasts”], and the sun knows when to go down.

2. The flood waters were on the Earth for 150 days, also stated as “5 months” (Gen 7:11; 8:3-4) From this, some conclude that all months should have exactly 30 days, which means that cannot be moon cycles.

3. Other groups start every third month on either the solstice or equinox, adding a 31 or 32nd day to the last month as necessary.

These ideas are not new. Calendars described in the Dead Sea Scrolls indicate that solar calendars that claimed to be Bible-based are over 2000 years old. But these calendars were apparently used only by small Jewish sects, the are not mentioned in the New Testament. There is more evidence that they are wrong. These points refute the above points:

1. There is little historic evidence that *chodesh* means anything other than New Moon. The Septuagint, a Greek translation of the Old Testament made before Christ, says uses the word *neomenia* to translate the Hebrew *chodesh*—*neomenia* clearly means “new moon”. If the Septuagint translators thought *chodesh* had nothing to do with the moon, they could have come up with another Greek word.

2. Genesis 7 is not calendar instruction. It is possible that God changed the earth or moon orbits/rotation at that time. Rarely, it is possible to observe five 30-day lunar months in a row due to the elliptical moon orbit (between several 29-day months). It is also possible that the flood made moon sighting difficult, so Noah used 30-day months until he could see it.

3. This system makes an effective calendar, but the Bible just does not confirm it.

Whatever other reasons there may be for a solar calendar, the Bibles says that the moon was to be used for determining Feast days (Pslm 104:19; 81:3). History confirms this.

throughout the world. The Protestant Reformation had taken many countries completely out of his control and more soon followed. As it was, some countries did not accept the wisdom of his calendar correction till over 100 years later. Yes, there was some chaos with two 10-day-apart, calendars being used at the same time.

The months in the Gregorian calendar are very simple to deal with. They do not correspond to the moon at all. Except for February, they are the same fixed number of days each year, each month simply follows the previous. February is always 28 or 29 days. Leap years (29-day months) occur every four years with a special rule for years ending in “00”: If a “00” year is evenly divisible by 400 then it is a leap year, otherwise it is not. There is no scientific (or Biblical) reason why each month has its specific number of days—history records a few emperors stealing a day from February so that their favorite month had a full 31 days.

In summary, our current Gregorian calendar is a solar calendar (it is based only on the length of a year as determined by the sun). The starting day of the year and the length of months are not based on any physical or Biblical principles but merely a happenstance of history.

How the Biblical Calendar Works

The calendar described in the Bible is almost certainly a lunar-solar calendar. I say “almost” because there are some people who claim to find a solar-only calendar in the Bible (see box on previous page). Nevertheless, the Bible clearly says that the moon is given to mark Feasts—which are usually explained as a certain day of a certain month in the Bible:

He appointed the moon for **seasons** [Hebrew *moed* means “festivals”]; The sun knows its going down (Pslm 104:19, NKJV).

Blow the trumpet at the time of the New Moon, At the full moon, on our solemn feast day (Pslm 81:3, NKJV).

Genesis 1:14-16 also states that the sun and moon are the two great lights to indicate “festivals, days and years”. The sun marks the days and years, but festivals are in certain days of certain months—marked by the moon. The first day of a month (“new moon”) was observed with a special meal in the Old Testament (1Sam 20:5, 2Kngs 4:23, Amos 8:5). That practice continued on into the New Testament period (Col 2:16). The practice will continue during the new heavens and new earth (Isa 66:23, Ezk 46:1,6).

New moons were not the same as the annual Feast days in Leviticus 23—there is no specific command and explanation of how to keep them. But many verses say they were observed.

No Bible verse says, “You shall know a new month begins when you see...”. Consequently, many different opinions exist as to exactly how a new moon is determined (calculated conjunction, when it is dark, first crescent, last crescent, full, etc). We will cover these various methods in the next section. Using the moon to determine months does provide a way for anyone with a clear view of the night sky to know approximately what month it is. The rest of this paper will assume that the biblical months are based upon moon cycles—observed or calculated.

Moon cycles are not exactly easy to deal with. They are not an even number of days, nor do they evenly fit into a year.

Since the moon cycle is about 29½ days, and since nobody seems interested in switching months in the middle of a day, alternating months of 29 and 30 days will approximate the moon cycles very closely. However, the moon’s orbit is elliptical and also wobbles to some de-

One Approach: Adapt the Calendar In Use Where You Are

The Church of God & Saints in Christ (with about 30 congregations) takes an interesting approach to the calendar: The Bible does not specify a calendar. In general, it makes no distinctions between a “religious dates” and “historical dates”. While the Eternal commanded the Israelites to change many customs from the nations around them, he did not command them to change calendars, but simply to recognize Abib as the first month (Ex 12:2), which was obviously in the Spring. So, this group recognizes April as the first month, and October as the Seventh month, and they observe the Feast days accordingly.

While this method is indeed simple, predictable, and requires no special calendars or administration, it does largely ignore the bible concept of the “new moon” beginning new months. It is hard to imagine celebrating new moons or even the Feast of Trumpets at the beginning of months of the Roman calendar—which have nothing to do with anything that the Eternal made. This is not a good system to use to help brethren meet together as most Feast-keepers would never agree to it.

gree. This causes its cycles to vary quite noticeably; beside 29 and 30 days, there are sometimes only 28 days between “calculated” new moons. Further complexity occurs in observing the moon, and 27 or 31 days between sightings are possible with some calendar systems.

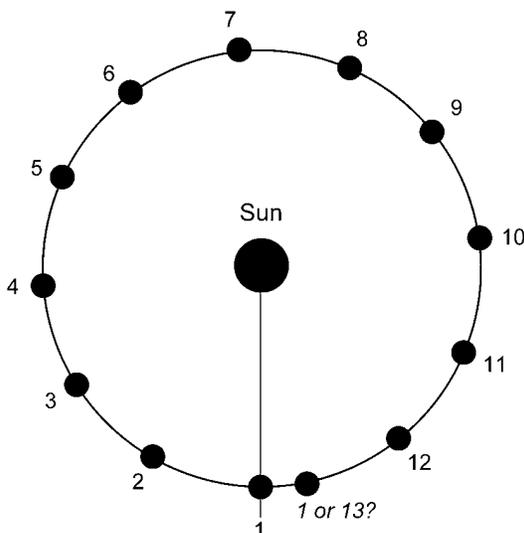
Determining a year from lunar months is also not simple. Twelve $29\frac{1}{2}$ -day months would make a 354-day year. This is quite a bit short of the $365\frac{1}{4}$ days in a solar year. The problem is illustrated in the diagram below. The earth has not quite made it around the sun for a whole year when 12 months are over. With only 12 lunar months in every year, it would only take 15 years for the Spring Feasts to become Fall Feasts and vice versa. (The Islamic religious calendar is completely lunar; their holy month of Ramadan, rotates through all of the seasons in about 30 years.) But if a 13th month is included, the year will be $383\frac{1}{2}$ days—too long. The solution is to have some years with 12 months and some years with 13 months.

There is no specific Bible reference saying, “a year is this long,” or, “this is when you begin the year.” 1 Chronicles 23:1-15 certainly conveys that there are 12 months in the year, but nothing forbids adding a 13th month when necessary. The box at right gives a Bible example of a year that had 13th months.

The question is, “Exactly when should the 13th month be added?” This is no trivial matter, even though there are only two possibilities:

- 1) Start the new year after the 12th month of the previous year.
- 2) Declare a 13th month and start the new year after the 13th month.

New Moon Positions in a Year



However, the results of this decision are very far-reaching. Since all the Feast days are figured from the start of the year, adding or not adding the 13th month will make a whole month's difference when the Feast days are kept that year.

This bible concept of a year is a little different than the more precise year of the Gregorian calendar where the new year **always** begins after December 31 of the previous year. We must realize that a single Biblical year is more of an approximate measure. If someone said “my child is one year old today,” few people would stop to think about whether he is 365 or 366 days old. Under the Bible calendar, however, the child could be 12 months or 13 months old. But over the course of many years, it all averages out. About one out of three years will have

Is there any Bible proof that a biblical year can sometimes have 13 months?

Yes. Ezekiel 1:1 through 8:1 describes a continuous sequence of events. Notice the total number of days, then we will compare the starting date and ending date:

7 Ezekiel “astonished seven days” (Ezk 3:15-16).
390 Ezekiel lies on his left side to bear the sins of the House of Israel for 390 days (Ezk 4:4-5).

40 Ezekiel lies on his right side to bear the sins of the House of Judah for 40 days (Ezk 4:6).

437 Total days mentioned. The events of chapters 5-7 probably took a few more days.

Ezekiel 1:1-2 gives the start of this time as **year 5, month 4, day 5**, according to the year of Jehoiachin's captivity. Most of the dates in the book are from the same starting point. Ezekiel 8:1 gives the date as **year 6, month 6, day 5**. This would be exactly 14 months later, if there were 12 months in one year. But can that be right? Notice below:

413 days = 14 months x 29.5 days per lunar month.

427 days = 14 months x 30.5 day months—the longest average month used in solar calendars.

442 days = 15 months x 29.5 days per lunar month.

As can be seen, the only way for **437 days** to fit between the dates given in Ezekiel 1:1-2; 8:1 is for there to be **15 months**, which would mean that the fifth year had **13 months**. There is no specific command in the Bible to create a calendar of any number of months. But 1 Kings 4:7 shows that there were normally 12 months in a year, and these verses in Ezekiel show that there are sometimes 13.

13 months. When someone is said to be 27 years old, few people would care if he is 526 or 527 months old.

Exodus 12:2 states: “This month shall be your beginning of months; it shall be the first month of the year to you,” but it does not say exactly **how** we can recognize that first month of the year. Many different methods have been put forth for doing that.

Before expounding the methods of beginning months and years, we will establish the names to be used. Most references to dates in the Bible are similar Genesis 7:11: “In the six hundredth year of Noah’s life, in the second month, the seventeenth day of the month...” The day and the month are numbered, but the year is given as a year of the persons’ life, the year of a king’s life, or the year from some big event. There is no **undisputed** way to assign a “BC” date, or even a “years since Adam and Eve date” to every event in the Bible.

Although months are generally referred to by number, there are two systems of naming them in the Bible. The first system uses Hebrew names, the second largely Babylonian names acquired when the Jews were in captivity in Babylon. The four Hebrew names are:

Abib	the first month (Ex 13:4, 23:15, 34:18, Deut 16:1)
Zif	the second month (1Kngs 6:1,37)
Ethanim	the seventh month (1 Kings 8:2)
Bul	the eighth month (1Kngs 6:38)

The original Hebrew names for the other months are apparently unknown.

In this paper, we will use the Modern Hebrew names (which come from the Babylonian names) since there is a complete set of them. While some will claim that the current Jewish Calendar is completely Babylonian and therefore corrupt, it is difficult to accept that when we see so many of the Babylonian names used in scripture. If one believes that the Eternal inspired the Bible, it should have been possible for him to put in month names acceptable to Him, or to tell us why the ones biblical characters were using are not acceptable. On the other hand, it is very clear that the origins of some month names are not the best—there is a month named for Tammuz, listed elsewhere as an abomination (Ezk 8:14-15). The following table shows the Modern-Hebrew/Babylonian month names and where they are found:

No. of Month in year	Modern Jewish Name & Alternate Spelling	Referenced in Bible:
1	Nisan	Esth 3:7
2	Iyar	
3	Sivan	Esth 8:9
4	Tammuz	
5	Ab, Av	
6	Ellul, Elul	
7	Tishri	
8	Heshvan	
9	Kislev, Chislev in NKJV	Neh 1:1, Zech 7:1
10	Tebeth, Tebet	Esth 2:16
11	Shebat, Shebet	Zech 1:7
12	Adar	Ezra 6:15, Esth 3:7,13, 8:12, 9:1, etc.
13	Adar II	[Added occasionally]

When Does a New Month Begin?

Most every one agrees that a month should begin on the new moon, but when is a new moon? Unfortunately, **we do not have a scripture that clearly says: “Begin the month when the moon looks like.”** Some calendar systems use each of the following approaches:

1. The first crescent is visible. This is the method that Jewish history claims was in use when they had the temples in Jerusalem. This author believes this to be the most likely method to have been used historically.

2. The last crescent disappears. (In other words, the first night when the moon is not visible after it has been previously visible.)

3. Full Moon. Some researchers believe that the month should start when the moon is full, rather than when it is almost dark. This is easy to observe.

4. Conjunction or “dark moon”. This is when the sun, earth and moon are in a straight line. It can be calculated easily by modern science and this “new moon” is indicated on many calendars today. However, it would have been difficult to determine by observation or ancient science. The easiest way to observe it is to pick the middle day between the last crescent and the first crescent—the main problem being that one does not know when the month begins until after it has already begun.

5. Set first day of month so that the full moon occurs on the 15th. While this is possible to calculate today, it would have been very dif-

difficult to observe accurately. The number of days between the “new moon” and the “full moon” are not always the same due to the moon’s elliptical orbit. One would either have to wait till the middle of the month to know when it began, or have to be willing to accept some “misses” now and then..

While there is no Bible command saying, “You shall start your month like this...”, there are a few indications:

Also in the day of your gladness, in your appointed feasts, and at the beginning of your months, you shall blow the trumpets over your burnt offerings and over the sacrifices of your peace offerings; and they shall be a memorial for you before your God: I am the LORD your God (Num 10:10, NKJV).

This shows that a trumpet was to be blown at “the beginning of months.” The Hebrew for “beginning” in this verse is *roshe*, which is usually translated “head” or “top”. What is the top of a month? Most people think it is when the moon just begins to show—we say the moon “waxes and wanes” (grows bigger, then grows smaller). But would it not also make sense to say that the full moon is the “top” or “head” because that is when the moon is largest? It all depends on what we are used to.

Psalms 81:3 addresses the subject directly, but its exact meaning is in dispute:

Blow the trumpet for the new month, for the full moon, for our feast day! (Psm 81:3, NJB).

The last three Hebrew words in this verse are *chodesh* (“new moon”), *keceh* (“full moon”) and *chag* (“feast day”). There is no “and” or other connector between them to signify if these are all the same event or separate events. If one assumes that they are all the same event, then indeed the New Moon would be the full moon and the Feast day must refer to the Feast of Trumpets (or “Feast of Loud sounds”) This would be strong support for idea #3, above. However, this is poetic Hebrew, and there are other biblical examples of passages where unconnected items like this are separate events.

The more commonly accepted explanation of this verse is that it refers to two “trumpet blowings”. The two blowings are the Feast of Trumpets on the new moon and the Feast of Tabernacles on the full moon (which would usually occur on the 15th of the month).

There is some etymological evidence for saying that the new moon begins when the first

crescent is observable. The Hebrew *chodesh* (“month” or “new moon”) is from a root *chadash* which means “to renew”—seeing the first crescent is seeing a “renewed moon”. The words can also be used for polishing a sword. Some will say that this definition fits a new moon that looks like a curved, shining sword. It is arguments like this that frequently fill calendar papers—and should help us realize that we are not dealing with clear Biblical commands.

Other researchers point out how many false religions have Feast days when the crescent moon appears and show how the crescent moon is used as an occult and Pagan symbol. They conclude that one must use the dark moon (usually calculated) to avoid the Paganism. Our intuition tells us that there were crescent moons in the sky long before the first Pagan was born. Similarly, our creator made the planets and the days of the week, but they have now been given Pagan names. If we can prove that the Eternal intends us to begin the month with a dark (or a full) moon, and then we change to a Pagan crescent moon custom, we have erred. But if the Eternal originally gave the crescent moon for the start of the new month, and the Pagans appropriated it for their own celebrations, it would be a mistake to cease using it.

Yet other research will try to determine what calendar was in use by the people among whom Israel lived and conclude that that was the system the Eternal wanted them to follow. Some will say that since the Eternal identified the first month to them in Exodus 12:2 when they were living in Egypt, that it must be the Egyptian calendar they were using. Others will point to later times and say the Hebrew Calendar is the same as the Babylonian calendar. Still others take the opposite argument and say that the Eternal would use nothing from these “pagan nations”. This author thinks that we should be very slow to change our practices and the people with whom we fellowship based upon guesses about history.

The major problems with methods #4 and #5, above, is that the calculations required to determine them were not available to the ancients as far as we know. It is very difficult to imagine the Eternal expected mankind to keep a calendar using math that nobody understood at that time. Some will use the argument that, “In the past, they had to do the best they could, but today we can calculate it exactly, so we should.” But this still says that for thousands of years, the Eternal

accepted man's best efforts to incorrectly determine the calendar on their own. Like so many other arguments, there is neither historical nor biblical evidence that any ancient people were ever able to accurately calculate the true conjunction of the moon and use it for a calendar.

There are quite a few other scriptures that some researchers will use to aid in establishing the time of the new month, but they all seem to weigh heavily on **an interpretation** of the Scripture, not what the Scripture plainly says.

When Does a New Year Begin?

The new year always begins on a new month.

This month *shall be* your beginning of months; it *shall be* the first month of the year to you (Ex 12:2).

The question is, "which month do you call the new year?" Since 12 months averaging 29.5 days (a moon cycle) adds up to only 354 days, an additional month must be added occasionally to keep the calendar in its proper seasons. The practical decision that must be made is this: "When the 12th month ends, should it be followed by a 13th month or the first month of the next year? Clear scriptural information on how to do this is also hard to find. The most commonly cited verses to establish this time are:

These *are* the **feasts** of the LORD, *even* holy convocations, which ye shall proclaim in their **seasons** (Lev 23:4, KJV).

Let the children of Israel also keep the passover at his **appointed season** (Num 9:2, KJV).

We deliberately used the King James here because so many other Bible students rely on it. They think of the meaning of the English "season"—Spring, Summer, Fall and Winter—and apply it here. They believe that the calendar should be set so that the Passover falls in the Spring season—always after the spring equinox. While this approach agrees well with Jewish and Christian tradition, these Scriptures do not specifically command it. The Hebrew word translated "seasons" here is *moed*, which, as we have said before is an "appointed-time," not specifically seasons of the year. Exodus 34:22, quoted before, does indicate that the Feasts should be related to seasons of the year, but an exact relation is not spelled out.

Because of this, many calendar papers will go to great lengths to extract much meaning from a few words. For example, some say because Exodus 12:2 says "the first month **of** the

year", that the whole first month must be past the spring equinox. But the verse really does not say that. Others feel that it is only necessary to ensure that Passover is after the spring equinox, while yet others say that the new year should begin on the closest full moon to the spring equinox. Lots of arguments are generated, but it is difficult to find a clear scripture. It is extremely difficult for this author to believe that the Eternal is going to reward some believers and punish others based upon their ability to guess at the right meaning of some of these verses.

Verses like Exodus 24:22, "Celebrate the Feast of Weeks with the firstfruits of the wheat harvest, and the Feast of Ingathering at the turn of the year" do show that the Feasts are linked to the seasons, but the links are not as precise as necessary for everyone to agree how to do it.

Still another approach to determining the beginning of the year is derived from the Hebrew word for the first month: *Abib*. Some lexicons will give the meaning of this word as "green ears" and a few will attempt to define it as a very narrow stage of growth, that can be pinpointed to just a few days. Proponents of this approach say that the first month begins when there is barley in the "*abib*" stage. They point out that this also helps to ensure that the grain will be ready for the wavesheaf and Pentecost offerings. There is some historical evidence for this method and some people actually use it today. On the other hand, there are ancient Hebrew writings showing that *abib* cannot refer to any such specific stage.

There is no clear Bible command to, "declare the month when grain is in a certain state". Furthermore, a decision-making body is utterly required to decide which barley in what location will be used to decide if the new year should be started or not. Barley in different locations in Israel can vary more than 30 days in its maturity. This can both be demonstrated today and verified from historical harvest records. (For much more information on this subject, ask for the article *Exodus 9 and the First Biblical Month* by Herb Solinsky—see the last page for ordering info.)

To add one more approach to determining the start of a year, some believe the position of the moon or sun among the stars (constellations) should be used to mark the new year. Some believers may cry "astrology, evil!", but the Bible does mention constellations: "He [the Eternal] is

the Maker of the Bear and Orion, the Pleiades and the **constellations** of the south” (Job 9:9—see other constellation references in: Job 38:2,31-32; 2Kngs 23:5; Isa 13:10; Amos 5:8). The historian, Josephus records the Passover being kept “on the fourteenth day of the lunar month, when the sun is in Aries” (Antiquities 3:10:5). But Josephus does not say that this was the method that the Eternal gave or even what the Israelites used to determine the start of the year. Also, the position of the stars in the sky relative to our four seasons slips about 8 days every thousand years. If this calendar were used for many thousands of years, the Feast days would move to completely different seasons of the year.

There are other methods used to determine the beginning of new year, but these should give an idea of the diversity.

Local Observation, Jerusalem Observation or Calculation?

The methods for determining the start of the month and year are further complicated when we ask these questions: From where should the necessary observations/calculations be made? Who makes a decision when the normal method fails? Who gets to determine the rules which are clearly not in the Bible?

It is a fact of science. People in different geographic locations do not all see the sun and moon in the same place on the same day. The day the first new moon is visible (whether you are looking for crescent, full, or dark) varies depending on the part of the Earth where you live. The observance of the equinox, if done locally and not mathematically, is quite complex and may vary a day in different parts of the world. Furthermore, there are cloudy days when moon observation is impossible. What should people do when that happens? Should they just wait until the next day? Should they make their best guess? Should they call someone else who can see the moon? If so, should they call someone who lives east or west of them? (They might get a different answer depending on whom they call.)

Even the determination of a “day” can make a difference. Supposing the spring equinox occurs at 6:30 PM on the 1st day of a new month. The sun is below the horizon, but it is not dark at this time. If we reckon days from sunset to sunset, then the solstice is not yet passed when the month begins and many people might want

to wait a month before declaring the new year. On the other hand, if one reckons days from dark to dark, then the solstice has occurred before the new month and hence a new year would be declared. (While this is a picky point, if two groups each take a different perspective to it, they will be keeping the Feast days a month apart that year.)

The vary nature of planetary observation makes uniformity of events impossible and some decision making mandatory. People who live many thousands of miles away from each other on earth will almost certainly see new moons, equinoxes and other astronomical events at different times—even different days. The closer they live together, the more similar there observations will be. How close do they have to be to ensure that their observations are identical? There is no definite answer. People who live a mile away, could, in maybe 1 out of 10,000 times, see a specific new-moon differently. Certainly one might have clouds while the other does not. No serious calendar student believes that everyone (or even everyone in a congregation) would come up with the same Feast days if they were all keeping a calendar by local observation.

Some calendar writers accept that by saying that the calendar was intended to be a more personal thing, observed by individuals and followed as a part of their relationship with the Creator. They watch the moon and the seasons as reminders of the Eternal’s plan for us. This author knows of people who plant their own barley to determine when to recognize the new year, and when (14 days later) to keep the Passover. There is no doubt that there are lessons to be learned by this, and that such a plan would be good to use if one were cut off from the rest of civilization.

However, the reality is that people live together in communities and nations and this individual approach would mean that there is **no national standard as to when the Feast days are**. It does not fit well with the clear scriptures we have already quoted with instructions to blow trumpets (sounds that could be heard a very long distance) on the New Moons. Also, the priests were commanded to offer certain sacrifices on certain Feast days—they had to be using a single calendar system. Furthermore, without some kind of official calendar, is there any meaning to the day and month that the Bible gives for numerous historical events? (What

does “the first day of the fifth month” mean if there were different months in different places?) The Bible gives many dates, citing years from various events, but never once clarifies what calendar was used or says “according to the months of the Pharisees”, etc. There is certainly no mention of separate legal and religious calendars.

The other question we must ask about any locally determined calendar system is, “Did the congregations of the Eternal have the mathematical and astronomical ability to implement such a system throughout the ages?” While it may be possible for every congregation today to have their own computer or their own book of mathematical tables, our Father has had believers throughout all of the ages which kept His Feasts by one method or another. It is a bit presumptuous to label something “God’s True Calendar” if it could not possibly be kept by most of the Eternal’s people throughout the ages?

The alternatives to local observation are either observation from a central site (usually Jerusalem) or a calendar computed by calculation. This writer has heard of groups that send people to Jerusalem to look at barley or to observe the moon in the spring. Observed systems such as these still have the problem of cloudy days. Even people that observe locally admit to “using a little math” to predict when the moon would probably be visible. Most people who see the need for a predictable calendar prefer to calculate it. The question then becomes, “Who has authority to determine the precise calculations?” All of the issues we have raised in this paper must be considered, plus a host of other problem situations that are infrequent, but do occur.

Another reason for a central calendar is for fulfillment of prophecies such as those in the books of Haggai and Zechariah. They refer to specific days of the month in which things will occur in the future. Will these things occur at one time corresponding to some well-known calendar, or will they occur at different times based on whatever local calendars people are using? It would seem that a prophecy for a specific date is of little use unless there is some recognized calendar to which it applies.

Was the Biblical Calendar Predictable?

Another calendar characteristic that can be separately considered is: “Was it possible to predict the calendar in advance?” In other words, could anyone know exactly how many

days would be in each month and each year in the future? This writer has not been able to find a clear statement anywhere in the Bible like: “After 120 days it will be the tenth day of the sixth month”. On the other hand, there seems to be no statement declaring that the future calendar is uncertain. It does seem clear, beyond any doubt that the present calendar was always predictable. In other words, the situation would **never** occur where people would observe the moon and figure out that “the first day of the new month was yesterday.” These and several other scriptures indicate that sacrifices had to be offered on the day that was determined to be the beginning of the month or New Moon:

At the **beginnings of your months** you shall present a burnt offering to the LORD: two young bulls, one ram, and seven lambs in their first year, without blemish (Num 28:11)

And whenever burnt offerings were presented to the LORD on Sabbaths and at **New Moon festivals** and at appointed feasts. They were to serve before the LORD regularly in the proper number and in the way prescribed for them (1Chr 23:31).

Was Noah able to determine the beginning of the month and year without barley or stable ground when he was on the ark?

And it came to pass in the six hundred and first year, in the first *month*, the first *day* of the month, that the waters were dried up from the earth; and Noah removed the covering of the ark and looked, and indeed the surface of the ground was dry (Gen 8:13).

Most primitive means of determining the equinox would not work well aboard a ship that moves around and changes angles from day to day. Since Noah had to look out through a window, he may not have been able to see the moon. On the other hand, the Eternal may have told him what day it was, or Noah may have simply counted days and then figured out the months later. Again, we must recognize that these verses were not written as calendar instruction, but explanation of other points, from which we can derive rather uncertain conclusions about the calendar.

There are two scriptures that rather clearly indicate that some biblical figures knew in advance when months would begin, even if only by a day.

And David said to Jonathan, “Indeed **tomorrow is the New Moon**, and I should not fail to sit with the king to eat. But let me go,

that I may hide in the field until the third day at evening (1Sam 20:5).

Then Jonathan said to David, "Tomorrow is the New Moon; and you will be missed, because your seat will be empty" (1Sam 20:18).

They each knew a day in advance when the new moon would come. We do not know if this were something that everyone knew, or just maybe those like David and Jonathan who had access to the priests or the educated people of the King's court. We also do not know if they always knew it, or only sometimes. For example, if they were using the first crescent for the new moon and if there had been three moonless nights in a row, then the next night would have to be the new moon; but if there had been only one moonless night, they might not know.

These verses alone only tell us that **sometimes** it is possible to know the new moon date in advance. Unfortunately, that is true of nearly all calendar systems. Calendar systems which make it easy to know the beginning of the next month in advance like to use these verses as proof that a calendar like theirs was in use, but we do not know if David and Jonathan's ability to predict was normal or an exception this time.

Finally, there are places where the Eternal asked people to do some fairly major things on the first of the month:

Then the LORD spoke to Moses, saying:
"On the first day of the first month you shall set up the tabernacle of the tent of meeting"
(Ex 40:1-2).

One would think a lot of preparation would be required to set up the tabernacle. Did the Eternal require Moses to be all set up and ready to go with this task, only to find that the first of the year might be a day, or even a whole month, later? Or did He just tell Moses when the new year would begin that time. But if the Eternal did specifically intervene to predict starts of months for a calendar system that did not provide such information, the Bible does not record it. Furthermore, it does not seem that the Eternal is miraculously providing much calendar information today.

How Does the Jewish Calendar Work?

The single biggest group of people who keep the biblical festivals are Jews. Much of the tradition they observe in keeping them is not in the Bible, but from the "oral law"—oral tradition supposedly passed down from Moses through the rabbis and eventually recorded in the

"Mishna" and other works, then enhanced with much commentary to form the "Talmud". It is the opinion of this writer that the Jewish "oral law" is like so many main-stream Christian writings in that they are a mixture of spiritual wisdom, good common sense, some non-sense, some clear error and some self-serving sin. Unfortunately, it is not always easy to distinguish what is what.

But for millennia, Jews have had a stable working calendar. It has changed at times, and now works from calculations that closely follow (though not perfectly) the cycles of the moon and sun. They have found answers to all of the infrequent, but existing calendar problems. They also clearly added a few ideas of their own that are obviously **not** from the Bible.

During the second temple period, the Jewish Talmud indicates that they used a combination of secret calculations and observation to determine their calendar. They would accept witnesses of the first observable crescent of the moon to start their months. They would use both the solstice and the progress of the barley in determining the start of the year.

When the Sanhedrin (the Jewish governing body) broke up in the fourth century, the calendar calculations were made public. The calendar was fixed to a certain set of calculations and has been in use, with some minor modifications, since that time. Rules determine when the months and new years begin. The rabbinical calculation for the cycle of the moon was off only by half a second—it is accurate enough for all known history.

Their estimate of the length of a year was off by about seven minutes. This has caused the average Jewish year to begin about 7 days later than it did when the calendar was apparently set in the fourth century. However, many people believe that the calendar at that time allowed the first of the year to start too early, before the spring equinox, so the error in Jewish Calendar is gradually solving that problem. The sequence of years is in a fixed 19-year cycle, with years 3, 6, 8, 11, 14, 17 and 19 having 13 months, and all the others having 12.

The most distressing thing to people who study the Jewish Calendar is the four "postponement" rules. The start of the year (Tishri 1) is postponed (delayed 1 or 2 days) to prevent the Day of Atonement from falling on a Sunday or Friday and to prevent the Last Day of the Feast of Tabernacles from falling on a Sabbath. To

explain: their normal rules for determining a new moon might place the first of the Tishri, the seventh month, on Wednesday, but since that would put the 10th day—the day of Atonement—on Friday, the first day of the month is postponed till Thursday. Since most of the rest of the months are usually fixed in length, all of the Feast days for that year will be one day different. In order to avoid years that are more than a day shorter or longer than the rest, the beginning of some other years also must also be postponed. Sometimes, that technical postponement conflicts with the desired dates for feasts, described above, so the start of the year is postponed a second day. As it turns out, about 60% of the Jewish years are postponed in some way.

The Jewish calendar and these postponements were not something the Eternal inspired thousands of years ago and have been unaltered ever since. There are several references in the Jewish Talmud (Shabbath 1114b, footnote 16; Menachoth 100b, footnote 12; K'rithoth 19a, footnote 10) and other histories explaining what to do when the Day of Atonement was on Friday—something which never happens with the current Jewish calendar.

It is understandable why the Jews wanted to prevent the Day of Atonement from falling on a Friday. When many of them were slaves, they had to work during the day, and had to tend to their own needs at night. If the

Jewish Calendar Technical Explanation

The present Jewish Calendar does **not** attempt to match the historic method (found in both the Talmud and Babylonian history) of sighting the first observable crescent. The present Jewish Calendar is based upon Molads—an **average** moon conjunction assuming that the moon's orbit takes 29 days, 12 hours, 44 minutes and 3.3 seconds. This time differs from the modern scientific calculation by only .492 seconds per moon cycle, or about 10 hours in 6000 years. This very first Molad is assumed to be Jewish year 1 (3760 BC), at 11:11PM (Jerusalem time) Sunday night (5:11 hours into the second Hebrew day—Hebrew days begin at 6:00 PM). This author has never seen any biblical or historical proof how anyone arrived at this value. But the Bible does not say where in its cycle the moon was at creation; the Eternal could put it anywhere.

The months of the Jewish calendar are based upon these Molads that occur every 29 days, 12 hrs, 44 min and 3.3 sec. This is the **average** time of a moon orbit; but in reality, the moon's orbit is elliptical and tilted about the earth. This causes the time between actual conjunctions (the earth moon and sun being lined up together) to vary considerably. While most cycles are 29 days (plus a fraction), 30- and 28-day orbits also occur. These actual moon conjunctions can be found as "new moons" on many regular calendars published today. However, these differ from the Jewish Molad most of the time. Nor do the Jewish Molads match "first crescent moons" observed from anywhere on earth. Actually, the Jewish "postponements" from the Molads sometime bring the Jewish Calendar more in line with calculated conjunctions or observed first crescents.

This can be demonstrated by comparing a Jewish calendar to a home calendar with new moons. (The web site www.calendarzone.com has links to lots of this information.) As an example, the Molad of Tishri occurred on October 3, 1986, at 18:16 (Hebrew time), but the astronomical conjunction did not occur until the next day on October 4 at 7:11 (UTC). If one believes in starting the month with the conjunction, the Jewish postponement of one day corrects the Molad to the 4th, the day of the conjunction. But the crescent will not be visible until 1 to 2 days after the conjunction, so if one believes in observing the crescent, the Molad is wrong, postponements or not.

An opposite case is the year 2000 where the astronomical new moon is on September 27th, the Molad of Tishri is **after** it on the 28th and the postponements move the first of Tishri to September 30th. In other words, the Hebrew first of the month is 3 days after the astronomical "new moon" date on most calendars. For the next two months, the astronomical new moon and the Hebrew firsts of months remain 3 days apart. But by December the astronomical new moon is the 25th and the Hebrew month Tebeth begins December 27. In January and February, only 1 day separates the astronomical new moon and the start of the Hebrew month. And then on March 25, **both** the astronomical new moon **and** the first of Nisan (Abib) are on the same day! If one observed the calendar by ignoring the Hebrew double-postponement and kept the Feast days 2 days earlier, he would bring the fall days more in line with the conjunction or observed calendar, but would find themselves keeping the spring Feast 2 or 3 days earlier than an observed crescent or conjunction would place them.

This turn of events is caused by partly by the irregularity of the moon and partly by the Hebrew calendar having three 29-day months in a row that year (Kislev normally has 30 days). There are also times when the Hebrew calendar has three 30-day months in a row. These sequences of longer and shorter months are used partly to correct for postponements and partly to correct for the fact that the moon cycle is actually 44 minutes 2.841 seconds longer than 29.5 days. The Hebrew Calendar is a complex, involved package. Anyone who proposes to modify it ought to understand it all before doing so. Its parts are designed to work together. Either a person accepts it all, or sets out to design a new calendar.

Day of Atonement fell on a Friday, they could not prepare Sabbath Food on Thursday night when Atonement began or Friday night when the Sabbath began. They would have to prepare it Wednesday night, which would mean keeping it two days until Friday night and Saturday. This was not as easy without refrigeration. The other postponement rules do not appear to be as important as this, but in general, they greatly reduce the number of times that Feast days fall on Friday and Sunday, thereby reducing associated preparation conflicts and the simple need for slaves to have two days in a row “off”.

Upon discovering the postponements, some believers, simply decide that they will keep the Jewish calendar without postponements. However, it is very important to realize that the Jewish calendar, with or without the postponements **does not follow any of the following:**

1. Any biblically prescribed formula.
2. Any observable cycle of the moon.
3. Actual calculated moon conjunctions.
4. Any ancient calendar formula dating back to the time of Christ and before. Even the Talmud gives a different explanation for what was done before the present-day Jewish Calendar.

Anyone who feels the biblical calendar can be determined by following the Jewish Calendar without postponements should read the rather complex box, above.

Do Jewish Leaders Have Authority to Set the Calendar?

There is no specific scripture that gives anyone “authority to set the calendar”. Some claim that the Jews were given authority to set the calendar. Others claim that the Jews from Babylon incorporated many corrupt practices and are deliberately trying to subvert true worship of the Creator by both Jews and Christians. Some will say the Babylonians originally got the calendar from the Jews, but then it was later corrupted by postponements. The truth of the matter is probably somewhere in between. The prophecy of the good and bad figs in Jeremiah 24 shows the nature of the Jews who were about to go into captivity in Babylon. Some were very good and some were very bad.

This dichotomy apparently continued to the time of our Messiah, who found corrupt Jews who wanted to kill him for political gain (John 11:47-53), and also faithful Jews whom He could use to take the Gospel to the ends of the

Earth, even if it meant their untimely death (book of Acts). Until the conversion of Cornelius (Acts 10), nearly every convert was a Jew. A good number of Priests were actually converted (Acts 6:7). We have relied on the Jews to maintain the Old Testament Scriptures and the Sabbath day. We cannot find an uninterrupted line of “Christian” Sabbath-keepers, Feast-keepers, or Bible copiers. The Eternal used the big Jewish groups, in spite of their errors, to do these things.

Furthermore, there is no question that the Calendar in Old Testament times was under control of the priests and leaders. Chapters 28 and 29 of the book of Numbers list numerous offerings that the priests were to give on specific days. The Day of Atonement ceremony (Lev 16) was to be done only once per year. **There was no provision for an individual to determine the calendar for himself and a priest perform these sacrifices for him on what he felt was the right day.** This does not mean that the priests had authority to change the Eternal’s laws. But since the Eternal had not clearly written the method of determining the calendar for the people. He may well have intended to leave that task in the hands of the priests.

The main scriptures that people use to show that the calendar should remain in the hands of Jewish leaders are the following:

Then Jesus spoke to the multitudes and to His disciples, saying: “The scribes and the Pharisees sit in Moses’ seat. Therefore whatever they tell you to observe, that observe and do, but do not do according to their works; for they say, and do not do” (Matt 23:1-4, NKJV).

While the rest of the chapter goes on to condemn some of the practices of the Jewish leaders, these verses still appear to give them some ongoing authority. If Christ intended to recognize their authority in some specific area only, he probably would not have said: “...**whatever** they tell you to observe...”. On the other hand, the first commandment, “**You shall have no other gods before me**” was well known to all whom Jesus was addressing. From Genesis to Revelation, the Bible shows that one should obey the clear teachings of the Eternal even when human leaders oppose them. If there is not a clear teaching on how to form a calendar in the Bible, then it may be that the Eternal has left this job in the hands of human leaders.

What advantage then has the Jew, or what is the profit of circumcision? Much in

every way! Chiefly because to them were committed **the oracles of God** (Rom 3:1-2).

The question here is, “What are the ‘oracles of God?’” See Acts 7:38, Hebrews 5:12 and 1 Peter 4:11 for all the other uses of this term. Most agree that it means every word that the Eternal spoke. To most Christians, that is the Bible and possibly things that the Eternal speaks to individual believers. To the Jew, that includes the “Oral Law,”—now largely written down in the Mishna and Talmud. As stated previously, the Mishna and Talmud appear to contain a lot of wisdom and things that are probably from the Eternal, but also things that are apparent error. Nevertheless, there is no New Testament record or Jesus or the apostles disagreeing with the Jewish leaders as to what the calendar should be. Some will claim that these verses about going to the Feast of Tabernacles are such a record:

Therefore Jesus told them [his disciples], “The right time for me has not yet come; **for you any time is right**.... You go up to this feast. I am not yet going up to this feast, for My time has not yet fully come” (John 7:6,8).

But the context of John 7 is not, “When do the true Feast days begin?” The issue is whether or not the Jewish leaders will find and kill Jesus. Even if one takes the difficult position that Christ went to the feast later in order to keep the “true days”, we still see His clear instruction for his disciples to keep the Feast at the time the Jewish leaders were keeping it.

Now this still may be a bit of a paradox. How can Christ want us to follow the instruction of those who are trying to kill Him? The answer is that the Eternal still can work through people to which he has given a job, even though they may be personally corrupt. Notice these incredible verses:

Then one of them, named Caiaphas, who was high priest that year, spoke up, “You know nothing at all! You do not realize that it is better for you that one man die for the people than that the whole nation perish.” **He did not say this on his own, but as high priest that year he prophesied that Jesus would die for the Jewish nation**, and not only for that nation but also for the scattered children of God, to bring them together and make them one. So from that day on **they plotted to take his life** (John 11:49-53).

Yes, we have the high priest plotting to kill Jesus, but still prophesying on behalf of the

Eternal. As the priests were a continuation of the religious leadership that the Eternal gave to Moses, the Jewish Sanhedrin claims to be a continuation of the civil leadership that the Eternal gave to Moses. The Sanhedrin consisted of seventy elders chosen to rule the nation:

The LORD said to Moses: “Bring me **seventy** of Israel's elders who are known to you as leaders and officials among the people. Have them come to the Tent of Meeting, that they may stand there with you. I will come down and speak with you there, and I will take of the Spirit that is on you and put the Spirit on them. They will help you carry the burden of the people so that you will not have to carry it alone (Num 11:16-17)

The Sanhedrin of Christ's day did not go all the way back to Moses. In fact, it was the very body that agreed to kill Jesus. But as John 11:51 shows, their evil on the one hand does not stop the Eternal from using them. Jewish history indicates that the Sanhedrin was responsible for calendar decisions and approved the fixed Jewish Calendar in the fourth century A.D. Christian persecution caused the Sanhedrin to disband in the early fifth century. The Jews were persecuted and widely dispersed among many nations at this time. There was no good way to communicate the new months or years to these people in this condition.

We should mention that there have been and still are some Jewish sects, such as the Karaites, that reject the “Oral Law” and the Jewish Calendar. However, they are small in number and their own calendars suffer from the same problems as many calendars devised by Christian Sabbatarians. They, too, must produce a very narrow definition of certain Bible verses and extract more meaning from them than is actually in the text.

I believe that it was a merciful thing on the part of the Eternal to cause the Sanhedrin to give a fixed calendar so that Jews and Christians could observe his Feast days in a way that is predictable into the future. Observing the Feasts was not a burden in Israel no matter what kind of calendar was in use there—it was recognized by all. But today, when most of the world does not know about the Feast days, it is much less of a burden to arrange for time away from jobs and schools. Renting meeting space in which to observe the Feast is much more likely when one knows in advance exactly when the Feast days will be.

The Feast days were intended to be a blessing, not a time of great persecution for believers. Also, it is a much better witness to non-feast keepers if we can tell them exactly when the Feast days are. While I would hope to be the first to say that Christians should obey the Eternal rather than men, even when it is inconvenient; there is no point in obeying men when their religious ideas are inconvenient..

It is important to realize that the beginning of months and years are the areas where the Scriptures are largely silent. These are the areas where a central body is needed to make decisions so that believers can meet together. Other issues, such as the timing of Passover, the Feast of Firstfruits and Pentecost are explained in the Scripture in much more detail. One can disagree with the Jewish timing and method of keeping these days, and still use the Jewish calendar (beginning of months of years). This is little different that Christians using the Old Testament Scriptures, maintained by Jews, to show that Jesus (Yeshua) was the Christ, even though most Jews reject the idea.

Today, Christians can look to the Sanhedrin's decisions on the Calendar without looking to them for other spiritual guidance. If there were a body that represented most Feast-keeping Christians, we might look to it to determine a calendar, instead. But there is none. We should have at least some respect for the ability of numerous Jewish sects to get together to form a Sanhedrin, and then abide by its decisions.

Most Christian groups that keep the Feasts (there are hundreds of them of all sizes) tend to be puffed up with their knowledge and too often regard themselves as the only or "main" group that the Eternal uses. Many have a difficult time acknowledging that the other groups contain believers and would have an even more difficult time agreeing to meet with them. For many "Christians", it is almost impossible to accept the idea that someone **outside** their own group could have a better grasp of a biblical issue than those **inside** their group.

In order for Christian Feast keepers to meet together and decide on a common calendar, the vast majority of the groups would have to agree in advance to abide by the results of the conference (as long as the conference was conducted fairly). If everyone comes to the conference simply hoping to impose their view of the calendar on others (which is what one might expect

if they feel their denomination is more "right" than the others), little will be accomplished. (This writer was involved in a small calendar conference involving about 70 people and 7 different calendar systems in 1996. All of the calendar teachers were from very small groups and they could have easily changed their teaching—but I know of none that did.)

The purpose of the Feast days is to meet together (Lev 23:1-4). One group, imperfect, but without evil intent, is more helpful in producing a calendar or common meetings than dozens of other groups, all claiming to seek the Eternal's will, but all coming up with different results.

A New Sanhedrin Coming?

As the Jews in Israel complete their preparations to begin building a temple (see *The Temple Institute's* website: www.templeinstitute.org), they will certainly need a Sanhedrin to make some decisions. (An organization already exists that has the goal of forming a Sanhedrin: The Israel Torah Foundation, P.O. Box 9433, 25 Misgav Ladakh Street, Jerusalem 97500 Israel; Phone: 972-2-289023.) The Sanhedrin will be composed of learned men from all of the major Jewish sects that are willing to cooperate. While its scope of authority will be limited, these Jewish groups probably will abide by its decisions.

These Jewish leaders are well aware of the difficulties and errors of the present Jewish Calendar. They will want their Feast day offerings to be performed on the right days, to the best that they can figure. They know that the high priest must enter the "most holy place" only once per year on the Day of Atonement (Ex 30:10). If a new Sanhedrin convenes and changes the existing Jewish Calendar, it will be a trial for many Feast-observing Christian groups. Many groups wrongly teach that the existing Jewish Calendar is **the** divine, perfect calendar given by the Eternal millennia ago. They may have a hard time acknowledging that it was the creation of the Sanhedrin and is not perfect. A decision will have to be made—here are some of the most likely possibilities:

1. Continue to use the old Jewish Calendar, pretending that it was "the Eternal's true calendar", but knowing that anyone who seriously studies the issue will find that to be untrue. (As it is, many religious groups have multiple doctrines that are easy to disprove if one looks into them—but most members do not, so the group goes on for

- centuries with erroneous doctrine.)
2. Accept the new Jewish Calendar, possibly acknowledging that the Eternal has left it to the Jews to determine. Such changes usually create splits in religious groups—some within them will not accept the change and form a new group that is “faithful to the old teachings”.
 3. Join the number of other groups that produce their own calendar.
 4. Work to form a Christian body that will set a calendar whereby the Feast days may be observed. (The writer would hope that this will happen; but as explained in the previous section, considers it unlikely.)

Thinking about what we would do if certain future events occur sometimes helps us understand why we do what we do today. If we follow the Jewish Calendar, we should know whether we do it because we think it is **the right** calendar, because we believe that the Eternal gave that job to those Jewish leaders, because we want to do what most other believers do, or for some other reason. If we do not follow the Jewish Calendar, we also ought to know why. What changes would we want them to make in order for us to follow their calendar? Or would we want our own calendar no matter what?

Can Men Set the Time of “Holy Days”?

The above discussion might lead us to ask, “What right do men have to designate ‘Holy

Time’?” Indeed many groups that keep the Feast days call them “Holy Days” and teach that the Eternal himself proclaims these days. Some will cast members out of their group if they miss attending one of these days. But what does the Bible say? “These are the **LORD’s appointed feasts**, the sacred assemblies **you are to proclaim** at their appointed times”. These are the Eternal’s Feasts, but the people were to do the proclaiming. Now there is much further instruction in other scriptures giving the day of the month to proclaim them, but God apparently did not give too many rules on when the months begin.

We have exact instructions as to when, within each year and month, the biblical festivals should be kept. But, we have very few specifics about exactly when the year and months begin. Some have thought of the Feast days as a blueprint for a house. They give us certain things to do at certain intervals to build our spiritual house. A builder can position a building on a level piece a land in any number of places, but it will still be the same building—just a little further or closer to the edge of the property. Similarly, we can learn the lessons from the Feast days no matter when we start the year. Once we begin the year, we must stay with it, we cannot decide to begin the Feast of Tabernacles on the day after the Day of Atonement so we can hurry up and get back to work. That would be deviating from the “blueprint.”

An Uncertain Way to Compare Calendars

In the first edition of this paper, I thought a good way to compare calendar systems would be to attempt to see which the Eternal is using from the events of history. The idea was to find significant events of history and see if they occurred on Bible Feast days according to various calendars. Here are some examples:

- In 1917, General Allenby entered Jerusalem in 1917 on Kislev 24 (Jewish calendar), a date spoken of as a time of restoring (Hag 2:10, 18).
- The Persian Gulf War ended on Purim in 1991, the day Jews traditionally celebrate victory over their enemies.
- The State of Israel became a nation in 1948 on Iyar 5 and 6 by the Jewish Calendar. By an observed calendar, that year would have begun a month earlier and the nation would have been “reborn” on Sivan 6, the Jewish Pentecost.

After thinking about this more thoroughly, I am not at all sure that it would be a way to verify a calendar. It is full of likely points of disagreement:

- What are the important dates of history? Each calendar researcher is free to choose their own—the Bible does not say.
- Exact when did each event occur? One person might note the day General Allenby entered Jerusalem, someone with a different calendar might note the next day when he set up his headquarters—which happens to correspond to his calendar.
- The exact dates of all calendars cannot be known into the past. This is especially true for observed calendars, but may also be true for the Jewish Calendar due to minor adjustments.
- We do not know if the Eternal has deliberately honored erroneous human calendar’s. He may have caused events to happen on dates of various calendars for the benefit of the people keeping them, even though He would rather that they be using another system.

It seems that what is needed is humility and agreement among believers, not more ways to argue that one’s calendar is right.

So does that mean that if we are free to keep the Feast days when we determine it best, are we free to keep the Sabbath on whichever day seems best? Or as one researcher asks, “If we can postpone the Feasts a day, can we postpone the Sabbath to Sunday?” The answer is “No!” The Feast days and the Sabbath have very different methods of observance that are clearly spelled out in the scriptures. Notice these four points:

- 1) **The Bible formula for keeping the Sabbath is so easy a young child can follow it** (work 6, rest 1) and it is clearly given in scripture (Ex 20:9-10; 23:12). By contrast, there is no single area of scripture that explains how to determine a calendar, start a month or start a year.
- 2) **There is no issue of, “From where shall we begin counting the Sabbath?”** While some anti-Sabbath tracts may ask that question, there is little historical doubt of the current seven-day cycle back to the time of Christ. Jews throughout the world observe the same day, even though some have been cut off from each other for centuries. The historic “Church fathers” for the second through fifth centuries occasionally argued about Saturday versus Sunday, but never argued about which was the seventh day. Even most non-Jewish, non-Christian peoples with a seven-day week agreed, until the last century when many Europeans knowingly changed their calendars to place Sunday as the seventh day of the week—rather than simply keep the seventh-day Sabbath.
- 3) **Answers to the Sabbath-Sunday question are clear in the Bible, not so with the calendar question.** Most people who continue to keep Sunday because they have not studied the Sabbath—they think Sunday is in the Bible, but do not know where. But if they looked, they would probably find the answer. In every major city, there are believers meeting on the Sabbath. Most people keep the Jewish Calendar because they are ignorant or any other—they may even think it is in the Bible. When a person realizes that the Jewish Calendar is not perfect, they can study for years and not find a clear “right answer”. If they adopt an obscure calendar, there may be nobody within driving distance with which to assemble for the Feast days.
- 4) **The Feast days are not declared “holy” in the same way the Sabbaths are.** The Sabbath day is declared to be holy many times (Ex 16:23; 20:8,11; 31:14-15; 35:2; Num 9:14; Is 58:13). But there is no such declaration for the annual Feast days. With the exception of Catholic Bibles, there is only one place in Scripture where the term “holy day” refers to something other than the Sabbath Day: “When the neighboring peoples bring merchandise or grain to sell on the Sabbath, we will not buy from them **on the Sabbath or on any holy day...**” (Neh 10:31). It is not clear exactly which days Nehemiah is referring to as “holy days”, and we still do not have a place where the Eternal pronounces the Feast days “holy” as he did the Sabbath. It is important to realize that Nehemiah uses some different terminology sometimes. Three verses later, he refers to a “wood offering” (Neh 10:34), which is not mentioned in the books of Moses—the priests were simply told to always have wood for the fire (Lev 6:12).

The above points show that determining the time to observe the weekly Sabbath is very different than determining the time to observe the Feast days. Some people have used the following scripture as a “proof” that the Eternal does not accept Feasts that are not held at the right time:

Stop bringing meaningless offerings! Your incense is detestable to me. New Moons, Sabbaths and convocations—I cannot bear your evil assemblies. Your New Moon festivals and your appointed feasts my soul hates. They have become a burden to me; I am weary of bearing them (Is 1:13-14).

Is this a condemnation for keeping the wrong days for new moons and Feasts? Possibly, but nothing here or in the chapter says anything about the wrong days. We know that Christ did not fault the Jews for keeping the Sabbath or Feast days at the wrong time, but did fault them for their tradition that made the Sabbath a burden. The message in Isaiah 1 is the same. They were doing all manner of commanded religious things: sacrifices, new moons, Sabbaths, feasts, assemblies and prayers, but their motives and private actions were evil. Just keep reading:

When you spread out your hands in prayer, I will hide my eyes from you; even if you offer many prayers, I will not listen. Your

hands are full of blood; wash and make yourselves clean. Take your evil deeds out of my sight! Stop doing wrong, learn to do right! Seek justice, encourage the oppressed. Defend the cause of the fatherless, plead the case of the widow (Is 1:15-17).

Even today, this writer has been amazed to find church leaders willing to go to great extremes to find some obscure “truth of God”, but be totally unwilling to talk to someone in their congregation about unjust treatment from them.

On the other hand, we must realize that the Eternal is not careless about his Feasts. When Jeroboam changed the Feasts of the seventh month to the eighth month to prevent people from going to Jerusalem, the Eternal was very unhappy and sent him a punishment (1Kngs 12:32-13:5). The Eternal had little tolerance for deliberate alteration of his Feasts for evil.

But our Father accepts some changes in Feast days when the purpose and attitude is good. A somewhat uncertain, but interesting case occurs in 1Kngs 8:65-66 and 2Chr 7:8-10. Solomon held a Feast of 7 days to dedicate the Temple immediately before the Feast of Tabernacles (there were 14 days of Feasting, followed by the assembly on the “eight day” and then he sent the people away on the 23rd of the seventh month.) This meant that the dedication feast for the temple went from the 8th to the 14th of the month—right through the Day of Atonement (10th day of the month). These verses do not utterly say that the Day of Atonement was bypassed for the occasion, but it makes no effort to mention how it was kept among the otherwise similar 14 feast days.

A clear case of feast-date changing occurred during the time of Hezekiah. The entire nation of Israel had forgotten to keep the true date of Passover (2Chr 30). All the people should have learned the law from their parents (Deut 4:10) and should have known when to be ready to keep it. Certainly, all of them did not meet the exception conditions for taking a month-late Passover as spelled out in Numbers 9:9-14. Yet, the Eternal allowed the entire nation to keep the Passover a month late (2Chr 30:2), and keep 14 days of unleavened bread instead of seven (v 23).

What was the Eternal’s reaction to these humanly devised changes to His Feast days? Did He punish them for “keeping the wrong days”?

There was great joy in Jerusalem, for since the days of Solomon son of David king

of Israel there had been nothing like this in Jerusalem. The priests and the Levites stood to bless the people, and God heard them, for their prayer reached heaven, his holy dwelling place (2Chr 30:26-27).

Today, we may be further removed from knowing the originally intended biblical Feast days than the people of Hezekiah’s day. The scripture indicates that they had no trouble knowing when the month began, only in being physically ready for the Passover. Hezekiah came to power only 16 years after the last righteous king, Jotham, and only a few hundred years after David. The truth of the calendar was certainly known by many people. Today, we are thousands of years away from that time, virtually no original records about the Biblical calendar have survived, and we must peer into the scant information in the Bible or into the sometimes-doubtful records of history to try to figure out how to establish a calendar.

If our Father was merciful in helping the Israelites getting back to following Him after a very short apostasy, will not He be even more merciful in helping us recover truth lost over millennia?

International Date Line Issues

Strictly speaking, this is not a “calendar issue”, but it has nearly all the same characteristics as one, so I have included it here. Disagreements about the International Date Line affect not only the Feast days, but also the Sabbath. Therefore, some will say it is much more critical. Nevertheless it is another issue where the Bible is largely silent, but some teachers try to get people very excited about “not keeping the wrong day”. The Bible says nothing about time zones or the International Date Line—whether they should exist or where they should be. The International Date Line, like the calendar, is partly determined by scientific reality and partly by the decisions of men.

Let us briefly cover the **scientific reality**. There are only two basic methods of telling time on our planet. One is **Universal Time** (also called “Greenwich Mean Time”), where it is always the same day and time for everyone everywhere on the planet. This is actually used by ham radio operators, the military, global networks and other globe-spanning operations. The difficulty is that in some parts of the world, the sun rises at 6:00, in others at 12:00, in others at 17:00 and in others at 23:00. Terms such as

“morning”, “noon” and “night” have no Universal Time associated with them. In some places the new date begins right in the middle of daylight hours. There is no example of this kind of system in the Bible, and it would have nearly impossible to use without modern communication.

The other method is **local time**—noon is when the sun is directly overhead, and all the other 24 hours are numbered around it. Morning starts about 6:00 AM and afternoon ends around 6:00 PM. (In biblical Hebrew time, sunrise is 0:00 and noon is 6:00, but the concept is the same.) For most of history, each city had its own time, but today most areas use a local time corresponding to one of 24 “time zones”. As one travels west, one has to continually set one’s watch backward an hour for each time zone. If this travel were done in a supersonic plane, could one go all the way around the world and go backward a day in time? Obviously not! With a super-fast jet, one might leave from London at 8:00 AM Monday flying west, backing up an hour each time zone until it would be late Sunday night over the western half of the USA. But as the flight continues, and it becomes earlier on Sunday night, the International Date Line will be crossed and it will now be Monday night. If our plane is infinitely fast, we would keep going through earlier time zones on Monday till we would be back in London at 8:00AM Monday, the same time we left. We cannot go backward or forward in time, but merely visit all of the various time zones that exist across the earth.

The Bible always uses local time—it is the only sensible thing for non-industrial societies. **Therefore, an International Date Line (IDL) is a mathematical necessity.** Yet, this writer has heard people claim that since the IDL is not mentioned in the Bible, it should not exist. All I can suggest for those people is that they make a chart with the names of cities scattered around the globe and put down what date and time they think it should be in all those places “right now”. Then write what date and time it should be in all those places one hour from now. Continue writing each hour for each place until there are entries for 25 hours. If they have made time go forward evenly in all locations (not skipping hours or days), the location of their “International Date Line” will be evident on their chart.

Other groups accept the concept of an International Date Line, but think it should be

somewhere else. **The most common idea seems to be that the IDL should be just east of the Garden of Eden or east of Jerusalem.** This means that the Sabbath and Feast Days would be begin in Jerusalem first. Proponents this idea ask questions like, “How could other nations be keeping the Passover before Christ kept it?” Also, “How can they be celebrating the Feast of Trumpets before Christ actually returns on the Feast of Trumpets in Jerusalem?” They will claim that people between Jerusalem and the present IDL (Asia, Australia, New Zealand, Philippines, Japan, and many Pacific Island nations) are actually keeping the Sabbath and Feast days one day early and need to switch to doing it a day later. That means that they think they should be keeping the Sabbath on what is Sunday to everyone else. I believe the following refutations are very important:

1. There is no Bible verse that says that the Sabbath or Feast days must be observed in Jerusalem first. No verse establishes an IDL in any particular place.

2. There are several sets of biblical instructions to go everywhere preaching the Gospel, but none warning the believers to begin keeping the Sabbath a day later as soon as they travel east. Some cities mentioned in the New Testament, and certainly some of the “12 tribes scattered abroad” (Jms 1:1) were east of Jerusalem. Yet there is no instruction about an IDL in between them and Jerusalem. Whereas, with the IDL located in the Pacific ocean, as it is today, the Apostles could have traveled East all the way through Asia, and West all the way through Africa and Europe, and then caught a boat to the Americas—with no need to know about an IDL.

3. There is no difficulty with people east of Jerusalem keeping the Passover before Jesus did in Jerusalem. They had been keeping it for many years before He came. The year that Christ died as the Passover sacrifice, they did know it, so they kept the Passover as they always did in the past—so did those west of Jerusalem. The *next year*, if someone reached them with the Gospel, they kept the Passover with the understanding of what Jesus did, just as those west of Jerusalem would do for the first time that second year. The “Lamb of God” was “slain from the foundation of the world” (Rev 13:8). This same reasoning applies to all Feast days.

4. The IDL was not universally recognized until the 1800’s, but there was probably little need for it as transportation and communication

were so slow before that time that people could not plan trips to the nearest day anyway. Transpacific travel through the IDL was rather rare. There was no need for the Eternal to put it in the Bible or bring up the issue until this time.

5. Placing the IDL just East of Israel would send it through populated areas of Russia, Turkey and several African countries. This would create a great deal of confusion there. Millions of people would be able to travel a few miles east to cross the IDL, work a “second” Friday, then travel back west and go to work on Sunday. The idea that God expected mankind to put the IDL there for the past 6000 years with no specific instruction from the Bible is ludicrous. Most people back then had no grasp that the world was round or that an IDL was even necessary. Man’s ability to survey and maintain such a line at that time in history is questionable. The current IDL misses nearly all populated areas—it is in the best possible place in that regard.

6. This author has never seen any historic reference of an IDL in the Middle East. If Jesus taught this to the apostles, all record of it is gone. At one time, Jewish rabbinic sources put the IDL off the coast of China—reasonable when no Jews lived in that part of the world, but not the best for now.

7. With the present IDL, Jerusalem is close to the middle of the world’s time zones. When the Sun rises in Jerusalem on a given Feast day, **it is some time during that Feast day everywhere in the world** (with the exception of Alaska and a few Pacific Islands). If the Eternal plans some great world-wide-noticed event at a future Feast day, having Jerusalem on the other side of the world from the IDL works much better than having it near the IDL. If the IDL were immediately east of Jerusalem, the Feast in Jordan would be just beginning as it were concluding in Jerusalem.

The present IDL seems to have been placed in the most logical place, and is not contrary to any scripture or based on any pagan or evil practice. Teaching some Sabbatarians and Feast keepers to recognize a different IDL just divides them and produces a bad witness of keeping “the Sabbath” on Sunday in those areas.

The Fruit of Calendar Research

This article has been an attempt to learn what the scriptures do say, and **do not say** about the calendar needed to keep the Feast days. If the Jewish Calendar provides the best way for be-

lievers to meet together now, should anyone even study the calendar? The Bible says:

It is the glory of God to conceal a matter; to search out a matter is the glory of kings (Prov 25:2, NKJV).

And you shall know the truth, and the truth shall make you free (John 8:32).

Do your best to present yourself to God as one approved, a workman who does not need to be ashamed and who correctly handles the word of truth (2Tim 2:15).

It is important to study to know the truth. If nobody ever studied the calendar from the Bible and history, nobody (including the Jews) would have any idea if what we are doing is clearly right, clearly wrong or uncertain. But we must know how to “correctly handle the word of truth”. It is good to share the truth at an appropriate time. Even our Savior **withheld truth from his Apostles until they were ready**:

I still have many things to say to you, but you cannot bear *them* now (John 16:12).

May the Eternal bless all of those who have labored at calendar research, and have told the truth about what they have learned in their writings, whether it agreed with their conclusions or not.

May the Eternal curse all of those people who did calendar research for the purpose of creating a religious following for themselves. Christ will judge the motives of all men’s hearts. Many may think the Eternal is “inspiring” them and that they have “the truth”, so they teach nothing contrary to their calendar concepts because they think it must be “error”. But woe to those teachers who know they are withholding information just so “their people” stay in their group and do not ask questions that the teachers cannot answer.

It has long been the concept of many Christians that either the Eternal is completely “with” a certain teacher and nearly everything he teaches is “of God”; or else He is not, and that person is a false teacher and not worth listening to at all. This concept may have been valid when comparing the original true Apostles to the false apostles (2Cor 11:13). But toward the end of the first century after most of the apostles were dead, the church contained many groups with a mixture of truth and error (Rev 2 & 3). It is like that today. Christ taught individuals to hold on to true teachings, discard the erroneous, and to trust Him to guide them in that process.

Calendar researchers ought not to see them-

selves in a war for followers and church members, but in an effort to learn and share as much information as possible. This author has been utterly amazed at how some calendar researchers will loudly condemn the Jews for leading people astray to keep the “wrong days”, but not see any need for repentance when they make a change to their own calendar system, which means that prior to the change, they were teaching people to keep the “wrong days”. Somehow, it is easy to excuse ourselves by saying “we were doing the best we could”, without even bothering to check another system that we condemned to see if its author was “doing the best he could”.

I could cite many real examples of calendar teachings that claim people are unconverted or have accepted the “mark of the Beast” if they are not keeping the right calendar. I have seen papers that will condemn an existing calendar as “a work of Satan”, but then go on to admit that they don’t have the “true calendar” worked out yet. Some teachings contain what may sound like great statements of faith, but that do not correspond to reality. Two examples:

- If you are willing to do what God says, you do not have to worry about a 13th month. (But there is no explanation of how twelve 29 or 30 day months will ever equal a 365¼-day year.)
- If we can trust God’s definition of a month as 30 days (Gen 7:11; 8:3-4), the moon cycles will correspond to it. (While I believe someone with the faith of Christ could slow the moon down from its 29.5-day orbit to a 30-day orbit, it does not appear to be His will at this time.)

On the other hand, there are some very patient calendar researchers who seem willing to consider every possibility and who are interested in sharing what they have learned, even if it does not fit their theory. Independent researchers, who are not writing the “official doctrine” for a particular group, seem to be the most honest. The research that I consider to be the most thorough is that of **Herb Solinsky, 1911 Lansdown Ct, Carrollton, TX 75010-4014; e-mail: herb_so@yahoo.com; tel: 972-492-3244**. He has written a paper *The Calendar that God Gave to Moses* as well as several other articles. His research goes far beyond his writings. He also has recorded some lectures on audio and video tapes, but does not all of them are being mass-duplicated and distributed. I believe he has good historical evidence showing that biblical months began by observing the first

crescent moon from Israel, and that years began with the first month after the spring equinox. However, I also have read some writings refuting his conclusions. Because of the sheer volume of these things—many hundreds of pages and hours of tape—I personally do not believe I have the time to check into all of them well enough to answer everyone’s questions. And if I, a Christian writer and researcher by trade, do

History of this Article

The first edition of this article was written in 1995. I had read many papers on biblical calendars and found what I considered two major problems with most of them:

1. They usually claimed that the subject was simple and only a few scriptures were needed to establish a calendar. Most papers generally ignored scriptures and evidence that opposed their conclusions, and almost never acknowledged that other views were possible.

2. The papers usually began by telling the reader that if he keeps the wrong calendar, he is keeping the wrong day for Passover and therefore will be cut off from his people—lose his salvation (Num 9:13). This scare-tactic was useful for recruiting members to a small group and proclaiming it the “true church”, but it did not encourage people to look at the facts objectively.

When I first wrote the original paper, the title page said: “Preliminary Version, Expanded Version to Follow”. I hoped that with enough study, I would be able to figure out the “right” calendar and write about it. I did find many better papers and much more useful information. But over the years I also came to the realization that I might grow old and die before I could exhaustively study everything. During this time I also wrote a paper, *What Does the Bible Say About Eternal Judgment?* (See contact info on back to obtain a copy). I realized that of the many things for which the Bible says we will be judged, determining the calendar is not “high on the list”. There is a great tendency for believers to want to feel righteous by being in the right group with the right calendar. But Christ seems far more interested in what we put first in our life; how we treat our family, brethren, and friends; how truthful we are; how we help those in need; etc.

I hope this article will help many people to see that the calendar is not the most important issue in their spiritual lives, that calendar decisions need to be made for groups of believers, and that there are many other more important things Christ expects of His followers.

not have time to look into them, how much time does the average believer have to do this? I am not saying that nobody should take the time, but I do not believe that the Eternal wants me to do it—I think there are many other issues to which I must attend. At this point, I do not plan on writing another calendar paper, but I do not know the future and that may change.

But if someone believes the Eternal is stirring them to study the calendar, please do it with honesty and love for all that do not have the same understanding that you do. Please be very careful to think about the commands for believers to assemble on the Feast days before trying to convince people of a different calendar. There are hundreds of individual Sabbatarians who do not attend Feast assemblies with their congregation because they observe a different calendar. I know of small Sabbatarian fellowships where every family in it observes a different calendar. There are even families where husband and wife do not keep the Feast days together.

Creating a new calendar system almost always creates division. A system that is “less wrong” than others has little value. If someone is sure beyond all doubt that their system is right, then they should make it their life’s mission to write a book clearly documenting the evidence and refuting the errors of other systems. This way, the information will be available to any body of believers seriously considering the calendar in the future. It makes sense to live by one’s own calendar to know for sure that it works. If one really believes that the Eternal wants them to teach their system, it is probably better to teach whole congregations than it is to teach individuals. If the whole group accepts the calendar, than at least they can meet together on the Feast days. “Not many of you should presume to be teachers, my brothers, because you know that we who teach will be judged more strictly” (Jms 3:1).

Christ will be the ultimate judge, but I see little difficulty in standing before Him and saying, “I was not sure about which day was the first of the month, but I observed the Feast days with those in my congregation because You commanded us to assemble.” What scripture will he say that I broke? (By contrast, I continually discover ways where I am not dealing in a Christ-like way with my own habits, my family and my friends. I can easily see Christ saying about these things “you did not always do what you could have done, and you did call ask Me to do

what you couldn’t do”.) We all need to be very careful that our knowledge is not a stumbling block to others. At the same time, we need to be patient and encourage everyone to keep the Feast days, even if they do not use our calendar.

Let Us Keep the Feasts

The purpose of the Feast days is for believers to assemble together and worship the Eternal. While the Bible may be unclear about when years and months begin, the command to keep the Feasts is **very clear**. The Eternal promises to judge believers for everything that we do (Matt 12:36-37, Rom 14:10; 2Cor 5:10). If we plan to tell the Eternal that we did not keep his Feast days because we did not know when he wanted us to keep them, He may well ask us why we did not simply keep them with the other believers who were keeping them—or when we thought was best to keep them. I see no good answer for that. But if we keep them on the wrong days and He asks us why we did that, we can tell Him that we studied the issue and it was not clear. What can He say to that? Is our loving Father one who has hidden the calendar in the Bible so that only the most brilliant can figure out—and He is hoping to “get” everyone who cannot figure it out?

All calendars require some decisions that the Bible does not perfectly spell out. Observed calendars require standards for observation: Who must see the moon? Where must they be? Can they use telescopes or devices to shade out the sun’s light? What happens when it is cloudy? What are the rules for when the new moon and/or the equinox is near sunset? Who decides which barley to use and when it is ripe? Calculated calendars require exact formulas—which are not in the Bible. Who writes them?. **Because of this very nature of calendars, the most relevant question about calendars may not be “What is the calendar?” but “Who will make calendar decisions?”**

It would have been an easy thing for the Eternal to specify a calendar in great detail. Look at the detailed plans he gave for His temples. **Is it possible that he left the calendar intentionally obscure to see whether his people would work together or fight each other over the issue?** Is it possible that we are not doing very well? What is the point of saying, “I’m not 100% sure that my calendar is right, but I know it is better than the next guys”? My prayer is not for the Eternal to show me the right

calendar so I can know and everybody else can come to me, but that Feast-keepers everywhere will learn to work together in love, peace, truth and understanding—in regard to calendars and other issues as well.

The following points should help most believers in dealing with each other over the Calendar issue:

1. **Keep spiritual feasts.** Do not let calendar concerns keep us from observing the Feast somewhere. “Therefore let us keep the Festival, not with the old yeast, the yeast of malice and wickedness, but with bread without yeast, the bread of sincerity and truth” (1Cor 5:8).
2. **Make calendar decisions slowly and carefully.** Study as thoroughly as you intend to before breaking up a congregation to use a different calendar. “Then we will no longer be infants, tossed back and forth by the waves, and blown here and there by every wind of teaching and by the cunning and craftiness of men in their deceitful scheming” (Eph 4:14).
3. **Observe the Feast days in faith; do not observe a calendar that you believe is sin.** We must do what we understand to be the Eternal’s will for us. “...For whatever is not from faith is sin” (Rom 14:23).
4. **Do not judge others for how they observe the calendar.** If brethren want to participate in your Sabbath services but not Feasts, or just certain days of your Feasts, make them welcome. “You, then, why do you judge your brother? Or why do you look down on your brother? For we will all stand before God’s judgment seat” (Rom 14:10).
5. **Do not be upset if brethren cannot agree on the calendar you use.** “So let no one judge you in food or in drink, or regarding a festival or a new moon or Sabbaths. These are a shadow of the things that were to come; the reality, however, is found in Christ.” (Col 2:16-17).
6. **Do not let calendar issues monopolize one’s spiritual life.** Note previous verse and Christ’s comment to the Pharisees “...But you have neglected the more important matters of the law—justice, mercy and faithfulness...” (Matt 23:23).
7. **Be care how we speak to other believers, especially new believers, about calendar issues.** “The Lord GOD has given Me the tongue of the learned, that I should know how to speak a word in season to *him who is weary...*” (Is 50:4, NKJV). “But if anyone causes one of these little ones who believe in me to sin, it would be better for him to have a large millstone hung around his neck and to be drowned in the depths of the sea (Matt 18:6).
8. **Realize that calendars will be with us for a long time to come and that the Eternal promises to straighten it all out:** “For as the new heavens and the new earth Which I will make shall remain before Me,’ says the LORD, ‘So shall your descendants and your name remain. And it shall come to pass *That* from one New Moon to another, And from one Sabbath to another, All flesh shall come to worship before Me,’ says the LORD” (Is 66:22-23).

As we keep the Feasts and study the issue of calendars, may the Eternal grant us love and truth, in that order.

List other literature: govhum, locong, ejudge, asabb, Solinsky, sasabb, bs1or7, myst7?

Exodus 9 and the First Biblical Month by Herb Solinsky

Distributed by *Church Bible Teaching Ministry*, PO Box 107, Perry, Michigan 48872-0107
Tel: 517-625-7480 Fax: 517-625-7481 E-mail: Info@ShelterInTheWord.com