## How do we know "when"?

## Biblical Observed Calendar as Beginning of: used by Karaite Jews \& others:

Month First sighting of New Moon.
( See "Hodesh")

Year
Exo 12:2 \& 9:31-32
Exo 13:4, 23:15, 34:18
and Deut 16:1

7th Month
(See "Yarhinai equinox")

13th month
(See "Metonic cycle")

Why?

Accuracy

New moon after 12th month if no Abib barley is found in Israel.

Totally biblically based.

Self correcting every month and every year.

## Rabbinical Calculated Calendar as used by most Church of God groups:

Calculated lunar conjunctions ( +4 rules of postponement)

The 7th lunar conjunction is calculated using Yarhinai equinox estimates, rounded to nearest calculated lunar conjunction, combined with 4 rules of postponement. Count backwards 6 months to find 1st lunar conjunction. Never allowed to fall on Monday, Wednesday or Friday.

Fall Equinox is calculated from Yarhinai equinox number. This date is rounded to nearest calculated lunar conjunction. That 7th month date is used with the following exceptions:
(1.) If conjunction is on a Sunday, Wednesday or Friday postponed to the following day.
(2.) If conjunction is at noon or later - postponed to next day. If next day is Sunday, Wednesday or Friday - (See Rule 1). postponed to the following day.
(3.) If conjunction in 12 month year is Tuesday after 3 AM postponed to Wednesday. (See Rule 1). Postpone to Thursday.
(4.) When a 12 month year follows a 13 month year and the conjunction is Monday after 9 AM, postponed to next day.

Uses pagan Greek Metonic 19 year lunar cycle estimates to set 13 month years on year $3,6,8,11,14,17$ and 19 .

So that Day of Atonement never is a Friday or Sunday and So that 7th day of Feast of Tabernacles is never a Saturday Strictly to maintain traditions of men. Not biblically based.

Manmade, not self correcting and growing in inaccuracy at a rate of 1 day every 100 years for the past 1,700 years. Presently approximately 17 days off in equinox estimate.

## Appointments with God:

## Biblical Observed Calendar as

Month 1, Day 13 (evening) Observed Calendar.
A lively potluck meal followed by ceremony.
Uses raised bread. (Karaite Jews don't do this)

Month 1, Day 14 (evening)
A solemn feast, uses unleavened bread.

Month 1, Day 15 through Day 21
Day 1 and Day 7 are annual Sabbaths.

Unleavened Bread
Lev 23:6-8

## When:

Lords Supper
Last Supper
John 13:1-2
John 18:28 used by Karaite Jews \& others:

Passover
Lev 23:5

## Sunday (morning) during Unleavened Bread Eat no bread that day until offering. <br> Festival of Firstfruits <br> (Wave Sheaf) <br> Lev 23:9-14, 1 Cor 16:2 <br> (See "Bullinger Companion Bible footnotes")

Festival of Weeks
(Pentecost)
Lev 23:15-21

Feast of Trumpets
Lev 23:23-25

Day of Atonement
Lev 23:26-32

Feast of Tabernacles
Lev 23:33-36
Lev 23:39-43

Count 50 days from the Wave Sheaf Annual Sabbath

Month 7, Day 1
Annual Sabbath

Month 7, Day 10
Fasting \& Most holy time of year.
Annual Sabbath

Month 7, Day 15 through 21
First day is annual Sabbath.

Month 7, Day 22
Annual Sabbath

## Rabbinical Calculated Calendar as used by most Church of God groups:

Not observed, or kept as a Church Potluck, a lively meal and called "Night to be much observed".

Month 1, Day 15 through Day 21 on Rabbinical Calendar. Day 1 and Day 7 are annual Sabbaths

Month 1, Day 16 on Rabbinical calendar. Not observed by most Church of God groups.

Month 3, Day 6 on Rabbinical calendar. Church of God groups count 50 days from the Sunday (or Monday) during Unleavened Bread on Rabbinical calendar. Annual Sabbath.

Month 7, Day 1 of Rabbinical calendar. Annual Sabbath

Month 7, Day 10 of Rabbinical calendar. Fasting
Annual Sabbath

Month 7, Day 15 through 21 of Rabbinical calendar. First day is annual Sabbath.

Month 7, Day 22 of Rabbinical calendar. Annual Sabbath


The Biblical New Moon is the "First Crescent"

* Hodesh " (New Moon), is derived from the root H.D.SH. . T. T. ${ }^{\boldsymbol{T}}$. meaning "new" or "to make new/ renew". The Crescent New Moon is called Hodesh because it is the first time the moon is seen anew after being concealed for several days at the end of the lunar cycle. At the end of the lunar month the moon is close to the sun and eventually reaches the point of "conjunction" when it passes between the Sun and the Earth. As a result, around the time of conjunction very little of the moon's illuminated surface faces the Earth and it is not visible through the infinitely brighter glare of the sun. After the moon moves past the sun it continues towards the opposite side of the Earth. As it gets farther away from the sun the percentage of its illuminated surface facing the Earth increases and one evening shortly after sunset the moon is seen anew after being invisible for 1.5-3.5 days. Because the moon is seen anew after a period of invisibility the ancients called it a "New Moon" or "Hodesh" (from Hadash meaning "new").
* (From www.karaite-korner.org/new_moon.shtml)


## Yarhinai equinox:

Samuel Yarhinai was a third century Talmud scholar \& astronomer. He measured the length of the tropical (sun) year to 365 days 6 hours. Yarhinai divided this time by 4 and assigned 91 days 7 hours and 30 minutes to each of the four seasons. Then by successively adding this time to any given equinox or solstice, he reasoned that all future equinoxes or solstices could be calculated. Once the date and time of the fall equinox was established, selecting the new moon nearest it would begin the 7th month. If you count backwards from this date 6 lunar conjunctions you arrive at the lst month of the year. Hillel II used this Yarhinai equinox calculation method in his published Rabbinical calendar used today by Rabbinical Jews.

The problem with this math starts with the length of the tropical (sun) year. Yarhinai came up with 365 days, 6 hours. The correct length of a year is 365 days 5 hours 46.069 minutes: which is about 14 minutes less than Yarhinai used. The times of Yarhinai equinoxes have drifted away from the true equinox times at the rate of about 14 minutes per year. These 14 minutes per year add up to about one day every 100 years. That was 1,700 years ago. Today Yarhinai's equinox dates have moved 16.5 days from the actual equinox.

The real problem is the Yarhinai equinox isn't even used biblically. Gods Word tells us to "Watch and be ready". The signs God gives us require faith \& vigilance, not calculators.

## Metonic Lunar Cycle estimate:

Greek astronomer Meton of Athens, Greece discovered in 432 BC that 235 lunar months made up approximately 19 solar years. This 19-year lunar cycle became known as the Metonic cycle. 12 lunar months equal 354.367 days or about 11 days less than a solar year. An additional lunar month was needed to synchronize these cycles. This extra month was added in years $3,6,8,11$, 13, 17, and 19 of the cycle. The Metonic cycle formed the basis for the pagan Greek calendar until 46 BC when the Julian calendar was introduced.

## Bullingers Companion Bible footnotes

The following verses show the "Wave Sheaf" or "Festival of Firstfruits" as it was recorded in the Bible after the death of Christ. This day is a day that believers did observe. This day was always kept on a Sunday. E.W. Bullinger explains in the footnotes of The Companion Bible:

Foothote of John 20:1 The first day of the week = On the first (day) of the Sabbaths(plural). Greek Te mia ton sabbaton. The word "day" is rightly supplied, as mia is feminine, and so must agree with the feminine noun understood, while sabbaton is neuter. Luke 24.1 has the same. Matthew reads, "towards dawn on the first (day) of the Sabbaths", and Mark (16.2), "very early on the first (day) of the Sabbaths". The expression is not a Hebraism, and "Sabbaths" should not be rendered "week", as in A.V. and R.V. A reference to Lev. 23.15-17 shows that this "first day" is the first of the days for reckoning the seven Sabbaths to Pentecost. On this day, therefore, the Lord became the firstfruits (Lev. 23:10-11) of God's resurrection harvest (1 Cor. 15:23).

Footnote of Acts 16:13 on the sabbath $=$ on the (first) day of the sabbaths. See note on John 20.1.

Foothote of Acts 20:7 first, \&c.=first day of the sabbaths, i.e. the first day for reckoning the seven sabbaths to Pentecost. It depended upon the harvest (Deut. 16:9), and was always from the morrow after the weekly sabbath (Sunday)* when the wave sheaf was presented (Lev. 23:15). In John 20:1 this was the fourth day after the Crucifixion, "the Lord's Passover."

* Added by the author for clarity.

Footnote of (Cor. 16:2 first, \&c. See John 20:1. Acts 20:7.
...and finally a note about the "History of the Jewish Calendar" from Wikipedia, a free encyclopedia available on the internet.

## History of Jewish Calendar *

Two major forms of the calendar have been used: an observational form used before the destruction of the Second Temple in 70 AD** and a rule-based form first fully described by Maimonides in 1178. The period between 70 and 1178 is a transition period between the two forms, with the gradual adoption of more and more of the rules characteristic of the modern form. The modern Hebrew calendar cannot be used for Biblical dates because new moon dates may be in error by up to four days and months may be in error by up to four months. The latter accounts for irregular intercalation such as the three successive years which were given extra months during the early second century according to the Talmud.

* (From Wikipedia, the free encyclopedia - http://en.wikipedia.org/wiki/Hebrew_calendar)
** (Observational calendar was used during the time of Christ)

