Introduction
Often we read in books about events long ago. Sometimes such information is specific enough to allow determination of an exact date and hour for an event of interest. However, computations may be required to make the event have greater meaning.

Astronomers have written books to make the dating of events on the earth and in the heavens objective. An example is the fine book called *Astronomical Algorithms* by Jean Meeus and published by the Willman-Bell, Inc. of Richmond, Virginia in 1991. It was first recommended to me by an astronomer of the U. S. Naval Observatory in Washington, D. C.

What have astronomers done to aid in dating events? One thing is to invent the Julian Day number, which is also called the Julian Day and abbreviated JD. By tradition, January 1st of 4713 B. A. D. at the stroke of midnight is day number 1. So, January 2nd of 4713 B. A. D. at the stroke of midnight would be day number 2. On September 11, 1993, it will be Julian Day number 2,449,241.5. Scientists have written computer programs to convert actual calendar dates into Julian Day numbers for both the Gregorian calendar and the Julian calendar. The Julian calendar was established by Julius Caesar in the Roman Empire in the year 46 B.C. and placed in its final form in 8 A. D. But the practice of astronomers has been to extend the Julian calendar indefinitely into the past [for purposes of discussing ancient dates].

The moon is often spoken about in literature and is a key to dating ancient events. Why is this so? It is because a new moon occurs (on the average of) each 29 days, 12 hours, 44 minutes, and 2.78 seconds. That is, there is a new moon each 29.530597731 days, and that is called the lunation period of the moon. While the moon has been known under rare circumstances to be off schedule by as much as 8 hours, it always catches up with its schedule quickly. The sun is also important in dating events, and we can utilize the solar year which is 365.2425 days. The solar year is also called the tropical year, which is very closely tied to the civilian year. It is the time elapsed between two consecutive passages of the sun at the vernal equinox. The average Gregorian year contains 365 days, 5 hours, 49 minutes, and 12 seconds. I have written a computer program called MOONS AGO Version 6 which allows very precise dating of ancient events based upon the phases of the moon and the period of the sun. One can look back or ahead many moons or years from a reference date to obtain precise information about events in time.

A utility program which I provide also is EQUINOX.COM which can compute the Julian Day number for any year of the Spring Equinox. The Spring Equinox is the day when the sun appears to set exactly West, and the daylight equals the night at the equator in March or April. The utility also computes the Julian Day numbers for Nisan 1 and Nisan 14 of the sacred Jewish calendar. Nisan was the first month of the sacred calendar. It is found by finding the new moon [the barely 1% illuminated moon] which is closest to the Spring Equinox.

During the period of the astronomer's new moon, the moon follows the sun closely. It starts to lag behind the sun after one or two days. According to Kim Long, who wrote the book called *The Moon Book* (1988), the first, visible crescent moon (with the crescent of the right) is generally spotted two or three days after the astronomer's new moon. It is seen by observers as the young crescent moon just
after sunset, with the moon following the sun down over the western horizon. Kim Long says that the earliest that an observer on the earth has seen the young crescent moon is fourteen hours after the astronomer's new moon.

Israelites used to begin at sundown watching for the just barely visible crescent moon at the time of the Spring Equinox. They knew when to look for it, as each sacred year had either 12 or 13 months in it.

**Application to Chronology of Jesus Christ and John the Baptizer**

**Fixing the Period for the Beginning of the Preaching of John the Baptizer**

I started by examining the Holy Bible at Luke 3:1-3, where it says in my Revised Standard Version the following:

" 3 In the fifteenth year of the reign of Tiberius Caesar, Pontius Pilate being governor of Judea, and Herod being tetrarch of the region of Iturae'a and Trachoni'tis, and Lysa'nias tetrarch of Abile'ne and Ca'liaphas, the work of God came to John the son of Zechari'ah in the wilderness; and he went into all the region about the Jordan, preaching a baptism of repentance for forgiveness of sins."

This key piece of information places the beginning of John the Baptizer's ministry in the fifteenth year of the reign of Tiberius Caesar. So, then I referred to The New Encyclopedia Britanica which says about Tiberius Caesar the following:

"In AD 14, on August 19, Augustus [the first emperor] died. Tiberius, now supreme, played politics with the Senate and did not allow it to name him emperor for almost a month, but on September 17 he succeeded to the principate."

Now, notice that we have a Julian Calendar date for the beginning of the reign of Tiberius Caesar. The date is September 17, 14 A. D. Using JULIAN.COM, a utility program which translates calendar dates into Julian Day numbers, the beginning of the reign of Tiberius was JD = 1,726,430.5. Fourteen years later would have been that Julian Day number plus 14X365.2425, or 1,731,543.9 [which translates to Julian Calendar date, September 16, 28 A. D. by means of the utility to convert Julian Day numbers to calendar dates]. So, in summary, we know from secular history and the Holy Bible that John the Baptizer commenced his ministry between September 16, 28 A. D. and September 16, 29 C. E.

**Ministry of Jesus and John Indexed to Passovers**

Now, we know that Jesus Christ attended several Passover celebrations. A most notable one occurred when he drove traders from the temple [John 2:13-25]. In fact, that was the first one which he attended after being baptized by John the Baptist. Now, the Passover of 28 A. D. was after September 16, 28 A. D. (the earliest date on which John the Baptist could have been baptizing). The next Passover was the one in 29 A. D. So, I ran the program called EQUINOX.COM to find the dates of the Passovers in 29 A. D. through 35 A. D., because these are the Passovers which are the prime candidates for application to the preaching days of Jesus and John. I would note that Jesus turned over the tables of the money changers a second time at the Passover of 33 A. D. In fact, it may have been the third time. All such Passovers are on Nisan 14, and these were the results as follows:
Candidate Passover Dates for the Death of Jesus Christ

29 A. D. Friday, April 15.91
30 A. D. Wednesday, April 5.28
31 A. D. Sunday, March 25.64
32 A. D. Saturday, April 12.54
33 A. D. Wednesday, April 1.9
34 A. D. Monday, March 22.28
35 A. D. Sunday, April 10.17

Identification of the Passover on Which Jesus Died on a Torture Stake on Friday
Now, the first duty is to identify the Passover on which Jesus died on a torture stake. Luke 23:44-56 tells us that Jesus died on a torture stake on Friday afternoon at 3 P. M. [also known as the sixth hour of daylight]. The next day, which began at sundown, was Saturday or the sabbath for the Jews. We would call it Friday until midnight, but they called it Saturday at sundown. Of course, we call the day which Jesus died on a torture stake Good Friday. So, then the Last Supper had been on Thursday at sundown, though we would call it Friday until midnight. Only one of the computed Passover times for the years 29 A. D. through 35 A. D. qualifies. The one in 30 A. D. was too early, and the scriptures mention at least three passovers before Jesus died on a torture stake. All the other dates are Sunday, Saturday, and Monday. None of those could qualify. However, the one in 33 C. E. could be the one (in fact must be the one).

Confirming the Death Date of Jesus via ALMANAC.EXE
So, I ran the program ALMANAC.EXE from Willman-Bell, Inc. to examine the year of 33 A. D. astronomically. It gave a Spring equinox on March 22nd and an astronomer’s new moon on March 19th at 15 hours and 41 minutes. But, the astronomer’s new moon is invisible, so the next day, March 20th was Nisan 1, after sunset. The Passover was then 13 days later, or April 2nd after sunset. To us, that was the evening of Thursday, April 2nd of 33 A. D. To them, after sunset it was Friday, April 3rd of 33 A. D. And, yes, this fits perfectly Good Friday. In fact, it was the only time from 29 A. D. through 35 A. D. that the Passover [which became the Last Supper for Christians] came at the proper time for the description in the Holy Bible. The next day, Jesus died on a torture stake at 3 P. M. on Friday, April 3rd of the Julian Calendar. Saturday, which was a sabbath [which did not begin until sunset].

Regarding the death of Jesus, I further ran the program CALENDAR.EXE provided by Willman-Bell, Inc. It showed that on April 3rd of 33 A. D. the sun rose just as the moon set. Further, for about 3/4 of an hour, at about 3 P. M. there was a total eclipse of the moon. As the sun was darkened on a bright day, according to witnesses, both the sun and the moon failed to give their light as prophesied. I suspect that God turned the entire earth 180 degrees for 45 minutes, while he examined closely the death of his son, Christ Jesus, and to fulfill the prophecy. Of course, Almighty God can do whatever he wants and in whatever way desired. Just a guess!