

Vernal Equinoctial Full Moons		Veadar Months	Paschal Full Moons	Passover Day	Atonement Day					
[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
A.D.						Nisan Days Tishri				
28	Mar 29	6 A.M.	Mon + 30 =	Apr 29	Thur	= 14 +	17 1/4 =	10 =	Oct 19	Tues
29	[Apr 17]	5 A.M.	Mon	Apr 18	Mon	= 14 +	17 1/4 =	10 =	Oct 8	Sab
30	[Apr 6]	10 P.M.	Fri	Apr 7	Fri	= 14 +	17 1/4 =	10 =	Sep 27	Wed
31	Mar 27	2 P.M.	Tues + 30 =	Apr 27	Fri	= 14 +	17 1/4 =	10 =	Oct 17	Wed
32	[Apr 14]	11 A.M.	Tues	Apr 15	Tues	= 14 +	17 1/4 =	10 =	Oct 5	Sun
33	[Apr 3]	5 P.M.	Sab	Apr 4	Sab	= 14 +	17 1/4 =	10 =	Sep 24	Thur
34	Mar 23	3 P.M.	Tues + 30 =	Apr 23	Fri	= 14 +	17 1/4 =	10 =	Oct 13	Wed
35	[Apr 11]	11 A.M.	Tues	Apr 12	Tues	= 14 +	17 1/4 =	10 =	Oct 2	Sun
36	Mar 30	5 P.M.	Fri + 30 =	Apr 30	Mon	= 14 +	17 1/4 =	10 =	Oct 20	Sab
37	[Apr 18]	2 P.M.	Fri	Apr 19	Fri	= 14 +	17 1/4 =	10 =	Oct 9	Wed
38	[Apr 8]	6 A.M.	Tues	Apr 8	Tues	= 14 +	17 1/4 =	10 =	Sep 28	Sun
		d h m								
39	Mar 28	-28 13 24	Sab + 30 =	Apr 27	Mon	= 14 +	17 1/4 =	10 =	Oct 17	Sab
40		15 10 27	Sab	Apr 16	Sab	= 14 +	17 1/4 =	10 =	Oct 6	Thur
41		4 19 46	Wed	Apr 5	Wed	= 14 +	17 1/4 =	10 =	Sep 25	Mon
42	Mar 26	25 4 34	Mon + 30 =	Apr 25	Wed	= 14 +	17 1/4 =	10 =	Oct 15	Mon
43		13 2 7	Sun	Apr 14	Sun	= 14 +	17 1/4 =	10 =	Oct 4	Fri
44		1 10 55	Thur	Apr 2	Thur	= 14 +	17 1/4 =	10 =	Sep 22	Tues
45	Mar 22	21 19 44	Mon + 30 =	Apr 21	Wed	= 14 +	17 1/4 =	10 =	Oct 11	Mon
46		9 17 16	Sun	Apr 10	Sun	= 14 +	17 1/4 =	10 =	Sep 30	Fri

NOTE: The 17 1/4 days between the Passover and the Atonement includes the 14th Nisan and 10th day of Tishri. The years from 28 to 38 A.D. are copied from the Dr. Eichelberger Table
 And from 39 to 46 I worked out from the Guinness' Tables of Mean New Moon
 Dr. Eichelberger says that the Table is correct within 2 to 3 hours. The same I claim for the Guinness' Tables
 Both tables are based upon Jerusalem Civil Time
 That means you must reckon the day from midnight to midnight.

J.H. Wierts

NOTE: All figures and words inserted in brackets are for purposes of reference and comparison.

Bracketed dates in column b were copied from the original letter sent by the U.S. Observatory to E.E. Frank, Jan. 16, 1919, and cited by J.H.W. These dates were not in his original copy.

Columns d and e show that 31 days, and not 30 days, were added in each embolismic year, except the year 39.

The 308th 19 Year Lunar-Solar Cycle Since Creation

[Cycle [a] Year]	OLD STYLE			Astr. Autumnal Equinoctial New Moons				NEW STYLE		
	[b] A.M.	[c] A.D.	[d] [e] ¹ A.D. Tisri	[f] d.	[f] h.	[f] m.	[g] ² Days	[h] ³ [Tisri 10]	[i] ⁴	
[1]	5835 = 1834	- 35	10 Thur Oct	19	21	12 17	+	12 = Oct 31	Sab	
[2]	5836 = 1835	- 36	10 Wed Oct	8	10	1 28	+	12 = Oct 21	Fri	
[3]	5837 = 1836	- 37	10 Sun Sep	27	29	8 0	+	12 = Oct 10	Tues	
[4]	5838 = 1837	- 38	10 Sun Oct	17	18	2 25	+	12 = Oct 30	Tues	
[5]	5839 = 1838	- 39	10 Wed Oct	5	7	2 13	+	12 = Oct 18	Fri	
[6]	5840 = 1839	- 40	10 Mon Sep	24	25	6 20	+	12 = Oct 7	Wed	
[7]	5841 = 1840	- 41	10 Wed Oct	13	14	4 26	+	12 = Oct 26	Fri	
[8]	5842 = 1841	- 42	10 Thur Oct	2	3	18 23	+	12 = Oct 15	Sab	
[9]	5843 = 1842	- 43	10 Tues Oct	20	22	19 35	+	12 = Nov 2	Thur	
[10]	5844 = 1843	- 44	10 Sun Oct	9	11	11 23	+	12 = Oct 22	Tues-29=Sep.23 Mon.	
[11]	5845 = 1844	- 45	10 Thur Sep	28	30	22 58	+	12 = Oct 11	Sab	
[12]	5846 = 1845	- 46	10 Wed Oct	17	19	19 43	+	12 = Oct 30	Fri	
[13]	5847 = 1846	- 47	10 Sun Oct	6	8	21 6	+	12 = Oct 19	Tues	
[14]	5848 = 1847	- 48	10 Fri Sep	25	26	21 35	+	12 = Oct 8	Sun	
[15]	5849 = 1848	- 49	10 Fri Oct	15	15	17 13	+	12 = Oct 28	Sun	
						[Nov.]				
[16]	5850 = 1849	- 50	10 Tues Oct	4	3	14 40	+	12 = Oct 17	Thur [Nov. 17]	
[17]	5851 = 1850	- 51	10 Fri Sep	22	24	18 11	+	12 = Oct 5	Sun	
[18]	5852 = 1851	- 52	10 Fri Oct	11	12	19 14	+	12 = Oct 24	Sun	
[19]	5853 = 1852	- 53	10 Tues Sep	30	Oct 2	10 17	+	12 = Oct 13	Thur	

Note.--The Astr. New Moons are copied from the Ephemeris Royal Observatory Greenwich, London, England. At the U.S. Naval Observatory, Washington, D.C.
J.H. Wierds

Note: The bracketed letters and figures are for reference, and were not in the original copy.

Corrections on the foregoing Table:

¹ The dates in column e are all in Jerusalem civil time, because computed in that time in chart A. But the dates in column f are taken from the British Nautical Almanac, computed in Greenwich mean noon time, or 14^h 21^m earlier. Hence the dates in column e should be changed to the same clock time as column f. This would change Nos. 1, 2, 4, 5, 8, 10, 11, 12, 13, 15, 16, and 17 to a day earlier. Among them, October 9, 1844, in column e, should be October 8.

² The intention of chart B is to add 12 days to the dates in column e. Instead, with the exception of the first year, 13 days are added in every year.

³ If, instead of adding 13 days, 12 days were added to the dates in column e, to compute the dates in column h, and if both sets of dates were computed in the same clock time, then 12 dates in column h would occur 2 days earlier, and among them, October 22, 1844.

⁴ The days of the week in column i should be the same as in column d, for the attempt is here made to change from Julian time to Gregorian, and the order of the days of the week cannot be changed.

The 308th 19-Year Lunar-Solar Cycle Since Creation

[Cycle [a] Year] A.M.	[b] A.D.	[c] Nisan	[d]	Astr. ¹ Vernal Equinoctial → Moon Filled			[g] Days	[h]	[i]	[j] Days	[k]	[l]
				[e]	[f] d h m	[f] Days						
[1] 5835 ³ = 1834 - 35		14	Sun	Apr 12	12 19 16	- 12 ⁴	Mar.30	Fri	30	Apr 29	Sun	
[2] 5836 = 1835 - 36		14	Sun	May 1	30 3 59 ⁵	- 12	Apr 18	Fri		Apr 18	Fri	
[3] 5837 = 1836 - 37		14	Wed	Apr 19	20 8 39	- 12	Apr 6	Mon		Apr 6	Mon	
[4] 5838 = 1837 - 38		14	Tues	Apr 10	9 14 6	- 12	Mar 28	Sun	30	Apr 27	Tues	
[5] 5839 = 1838 - 39		14	Sun	Apr 28	28 7 24	- 12	Apr 15	Fri		Apr 15	Fri	
[6] 5840 = 1839 - 40		14	Fri	Apr 17	16 7 55	- 12	Apr 4	Wed		Apr 4	Wed	
[7] 5841 = 1840 - 41		14	Tues	Apr 6	5 13 31 ⁶	- 12	Mar 24	Sun	30	Apr 23	Tues	
[8] 5842 = 1841 - 42		14	Mon	Apr 25	24 11 27	- 12	Apr 12	Sab		Apr 12	Sab	
[9] 5843 = 1842 - 43		14	Fri	Apr 13	14 2 29	- 12	Mar 31	Wed	30	Apr 30	Fri	
[10] 5844 = 1843 - 44		14	Thur	May 2	2 18 57 ⁷	- 12	Apr 19	Tues		Apr 19	Tues	
[11] 5845 = 1844 - 45		14	Mon	Apr 21	21 19 12	- 12	Apr 8	Sab		Apr 8	Sab	
[12] 5846 = 1845 - 46		14	Sab	Apr 11	11 5 54	- 12	Mar 29	Thur	30	Apr 28	Sab	
[13] 5847 = 1846 - 47		14	Fri	Apr 30	30 1 25	- 12	Apr 17	Wed		Apr 17	Wed	
[14] 5848 = 1847 - 48		14	Tues	Apr 18	18 2 31	- 12	Apr 5	Sun		Apr 5	Sun	
[15] 5849 = 1848 - 49		14	Sun	Apr 8	7 3 49	- 12	Mar 26	Fri	30	Apr 25	Sun	
[16] 5850 = 1849 - 50		14	Sab	Apr 27	25 23 20	- 12	Apr 14	Thur		Apr 14	Thur	
[17] 5851 = 1850 - 51		14	Wed	Apr 16	15 10 35	- 12	Apr 3	Mon		Apr 3	Mon	
[18] 5852 = 1851 - 52		14	Sun	Apr 4	4 2 23	- 12	Mar 22	Fri	30	Apr 21	Sun	
[19] 5853 = 1852 - 53		14	Sab	Apr 23	23 3 11	- 12	Apr 10	Thur		Apr 10	Thur	

Note--The Astr. Full moons are copied from the Ephemeris, Royal Observatory Greenwich London England.

At the U.S. Naval Observatory, Washington, D.C.

Corrections:

J.H. Wierts

- ¹Not all the moons in column f are "vernal equinoctial full moons." Some are the second full moon after the equinox, e.g., Nos. 2,5,8,13,16,19.
- ²The days of the week in column i should be exactly the same as in column d; for in changing from the Gregorian calendar to the Julian, the day of the week is not changed.
- ³The year 5835 A.M., according to the Wierts system of reckoning, equals 307 cycles and 2 years over, thus showing that the year 1834-35 is 2 years later, or the third cycle year, and not the first. See "Analysis," pp.11,12.
- ⁴In each year in column g, 13 days are actually subtracted instead of 12.
- ⁵The date, Apr. 30 3^h 59^m, is an error. The British Nautical Almanac gives Apr. 30 19^h 57^m for the year 1836, p. 79.
- ⁶If the date in the year 1840-41 is to be embolismic, as indicated in column j, then May 5 2^h 5^m is the true embolismic moon, according to the British N.A.
- ⁷This date should be corrected to May 2 3^h 16^m, as given in the B.N.A. for 1844, p. 101.

LETTER OF CONVEYANCE

RE: "Examination of the Wierts So-Called
'True' Tables for the Years 1843-1844"

To the Officers of the General Conference:

That the ^{meaning and} ~~purpose and~~ significance of the accompanying "Examination" of the Wierts Tables may be more easily grasped, the historical background and setting is here given, together with certain explanatory remarks. Following the challenge ^{to} the "Report of the Research Committee on October 22, 1844, and Related Dates," ^{the} ~~made~~ by J.H. Wierts on July 10, 1859, a series of consultations was held with him by arrangement. These were, first, between ^{the} the Committee as a whole and ^{Brother Wierts and} ~~Brother~~ Wierts, and then between ^{him} ~~Brother~~ Wierts and a subcommittee. These conferences were held in the hope of reconciling differences of position and method, and finding, if possible, a common platform upon which we might stand unitedly.

This endeavor ^{has been apparently} ~~was, we regret to say,~~ unsuccessful, because of differences ^{have as yet} that proved to be irreconcilable. When certain basic errors in the Wierts (public presentation and irregularities in his supporting) tables, were pointed out by the committee, some were admitted by him, but minimized, while others were denied. Declining to continue ^{further} discussion with the Committee ~~at that time,~~ more time was requested by Brother Wierts ^{in order} ~~to check upon certain errors and irregularities we~~ ^{over his cycles.} had indicated in his tables. This was granted ~~with the understanding that we were~~ to be notified when he was ready to rejoin us. Considerable time passed, but no notification was received by the Committee in accordance with this promise.

^{In the mean} ~~(Because of a further challenge made in this committee by Brother Wierts, we)~~ ^{time,} the Committee ~~re-examined certain "cycle" tables formerly left with us by him.~~ ^{to our} ~~These "cycle"~~ ^{which Brother Wierts first submitted before he went south} ~~tables had never been seriously considered by us, because from the outset they had~~ ^{(of the impressions made when Brother Wierts gave his} ~~appeared erroneous in principle and argument.)~~ ^{(However, after the chapel meeting, first presentation before the Committee,} ~~a careful "Analysis" was then~~ ^{drafted,} ~~This opened up a~~ ^{showing a similar} series of mistakes and irregularities in these early tables, ^{and revealed the fact that they were not only out of agreement with each other,} ~~together with conflicts with the later so-called "true" tables of last~~ ^{but that they also were in conflict}

summer. This Analysis, a copy of which is attached, was presented to Brother Wierts, who ^{by request} joined us again on October 23, ~~upon our urgent request~~. Brother Wierts declared that he knew at the moment the answer to the apparent conflicts and errors in his tables, but ^{requested} ~~demanded~~ two or three months in which to frame an answer to ~~the problems~~ ^{problems raised by the "Analysis."} presented ~~to the Analysis~~. This extension of time was

likewise granted, but under date of November 5, 1939, Brother Wierts wrote as follows: ~~(Possibly referring to the 308th cycle covering the 1844 period)~~

"I am sorry that those tables and the manuscript relative to those tables I sent you last year from Florida are calendrically and astronomically not correct."

"Therefore my advice to you and the committee, would be to disregard and forget all about those tables, as they are not only faulty in one place but all through, because with calendrical astronomical tables it is the same as with a problem in arithmetic. If you make an error at the beginning, the error will follow you all through."--Letter from J.H. W. to L.E.F., November 5, 1939.

In a second letter, dated November 27, 1939, Brother Wierts suddenly refused to meet further in direct ^{conference} ~~negotiation~~ with the Committee, cancelling his express promise made both to the Committee and to Elder McElhany, by declaring--

^{over and over} "The more I think of it, the more I become convinced and determined not to deliver any more information to you nor your Research Committee."--Letter from J.H.W. to L.E.F., November 27, 1939.

^{seemingly} Having exhausted our resources in ~~an~~ earnest, painstaking effort, to reconcile our divergent positions, and having become fully persuaded of fundamental errors ⁱⁿ ~~both of~~ Brother Wierts' method of calculation and in his entire series of computations, it ^{has become} ~~then became~~ incumbent upon the Committee to present to the officers a clear statement of our reasons for rejecting the Wierts criticisms, his substitute tables, and formulae ~~of procedure~~ offered publicly last July, and at the same time to reaffirm the original positions of our Report. This has now been done, and is submitted in the accompanying "Examination."

The appended tables "^B1" and "^E1" are ~~simply~~ the Wierts tables, as submitted ^{last} July 10, ^{but} duplicated for reference, with ^{the Committee's} ~~corrections by the Committee~~ inserted in brackets. The two additional documents attached--(1) "Uniform Witness of Millerites to 'Change of Moon' on 'Evening of October 11,'" including "All Ephemerides

Reckoned from 'Moon to Noon' Prior to January, 1925," and (2) "Millerite Understanding of Moon's Translation Period," including "Instances of Short Translation Periods"--were submitted to Brother Wierts at his first meeting with the Committee following the July ^{assembly} challenge. They are presented here in supporting reference.

The 12-hour error running throughout Brother Wierts "True" tables was frankly admitted by him, but he insisted that this made no difference in his conclusions.

On the contrary,
This admitted error, however, completely nullifies his second main contention of July concerning the true length of the translation period ^{which} marking the beginning of the 7th Mosaic month in 1844. ^{The} ~~the propriety and validity of which~~ ^{the true compilation of the trans-} Millerite ^{lations period} position is ~~substantiated by our findings,~~ according to incontrovertible ^{is in harmony} authorities. ^{with the Millerite} ^{and also with our} ^{own findings, and} ^{is in accordance with}

While nearly six months have elapsed since July, a comparatively small portion of this time has been consumed in examination of the Wierts errors. But these months have afforded the requisite time for a complete review ~~by the Committee~~ of the entire ground of our report, and have enabled us not only to completely check upon our positions with ~~the authorities~~ of the Naval Observatory, but to secure many supplemental ^{sources} ~~authorities~~ as well, all of which give support and amplification to the positions ^{originally} ~~formerly~~ taken.

As Brother Wierts offered no ^{documentation} ~~supporting authorities~~ for his contentions, from either history or astronomy, but relied solely upon the authority of his own cycles and calculations, the accompanying Examination is of necessity confined to the study of the tables submitted in July, together with the stenographic report of his explanatory remarks at the time, which tables must accordingly stand or fall upon their own intrinsic merit. It should ~~also~~ be added that the Committee has been unable to accept Brother Wierts as an authority in his own right upon Hebrew calendation, chronology, and astronomy.

Neither has our Committee been able to concede the indispensability of

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the Wierts cycle tables merely because of the correction of a one-year mistake in the chronology appearing in the Encyclopaedia Britannica, which the editor acknowledged to Brother Wierts, when this same mistake had been previously pointed out by others (see ^{Wierts}), without the knowledge or employment of ~~Brother Wierts'~~ particular [^] 19-year cycle. Obviously, his special 19-year cycle was not essential either to the detection or correction of the error.

We have likewise been compelled to dissent from his claim as to its indispensability in the determination of the October 22, 1844, date, when the Millerites, using the method we have also ^{employed} ~~pursued~~, came to right conclusions three-quarters of a century before Brother Wierts' tables and formulae were devised. These Millerite positions in 1844 have, as our Report indicates, been vindicated by the soundest scientific support the centuries have produced--ancient, mediaeval, ^{presented in the} ~~and modern.~~

That the Wierts tables seemingly came out correctly upon the October 22 date ^{is without significance,} ~~is without significance,~~ and does not constitute proof of the validity of the ^{his} ~~method pursued.~~ The mere fact that the date cited agrees happily with the authoritative Spirit of prophecy ~~"... shall be the day of the Lord"~~ does not ~~condene or~~ rectify the series of errors running throughout the line of computation leading up to the desired date. ^{It} ~~neither constitutes~~ scientific proof as to the validity of the method, nor can it be considered evidence of the accuracy and reliability of the concluding date. In fact, the committee has ^{as yet,} found no evidence of proof ~~inherent~~ ^{inherent} in the ^{Wierts} ~~proffered~~ tables. (over)

Considering the Wierts incident closed, our Committee is now ^{continuing} proceeding with the revision of our original Report, ^{in the attempt} attempting to rearrange ~~certain~~ of the facts ^{with} ~~for the sake of~~ greater clarity, logical progression, and the avoidance of repetition, [^] as well as to simplify and make most practical the findings presented. To this end we are progressing as rapidly as consistent with thorough work.

In closing, it is but fair to the Committee to state that this discussion, which was not of our seeking, has been conducted without prejudice and with no desire to retaliate, or to discredit ~~or eliminate~~ the brother who projected it. It has been a matter of ~~sincere~~ disappointment to us that, ~~with~~ seeking the establishment ~~of one~~ of the cardinal truths of this message, we were unable to find common ground in its defense. ~~But the championship of truth cannot be carried forward by faulty arguments, and truth cannot compromise with patent error.~~

Our methods of proof are utterly dissimilar to those of Brother Wierts. ^{have} We follow a wholly different path of research, especially as pertains to the translation periods. We have not used ^{the Wierts} a nineteen-year cycle in our approach to the problem, and have worked out our translation periods without recourse to such, ~~for a nineteen-year cycle has a one or two day leeway that is fatal to the required accuracy.~~ Our postulates ^{are} ~~are not~~ wholly different ~~from those of Brother Wierts, who has denied and challenged our positions and arguments, from the first.~~ ~~But~~ ^{On the other hand,} We have implicitly followed the sources of history and the sound principles and facts of astronomy, fully documenting each step in the process of proof, and checking ^{the standard astronomical} ~~our positions with astronomical reports.~~

Respectfully submitted in behalf of the Committee, and by its authorization.

constantly checking our concluding dates with known positions of the sun and moon.

Chairman

Secretary

December 11, 1939
General Conference
Takoma Park, D.C.

STATEMENT READ TO RESEARCH COMMITTEE
OCTOBER 23, 1939, AND COPIED
AT ELDER Mc'ELHANY'S REQUEST

1. This report was very interesting to me.
2. I would like to have sufficient time to write my answer to this report.
3. Dr. Wilkinson is leaving on Wednesday, probably for a whole month.
4. We leave for Florida in two weeks from today, November 6.
5. When I read my final answer to this report, it will not be read to this committee alone.
6. It will be read before a representative body of men, Mathematicians and Bible students, men of unbiased minds, of good judgment and understanding, and appreciating truth when they hear truth.

3 hours

7. You as a committee have had over three months' time to work out this report.
8. I would ask for the privilege also of having three months to write my answer to this report.
9. I may tell you as a committee right now, that, from the information I have gathered from this report, I see that you have been hairsplitting for over three months; namely, your hairsplitting has been on the old moon's devious motions, keeping close check on her not to overdo it.
10. You have wasted your valuable time for over three months in checking on the time of the moon's motions, hours and minutes. Unfortunately, however, because of your close checking of those moon's hours and minutes, you have missed and overlooked the great important Biblical rule of calendrical time keeping in terms of the moon's motions.
11. Last summer I was more than willing, yes, anxious to help this committee to carefully take your house apart. Of which I informed you that you had built it on a wrong foundation with windows and doors in wrong places.
12. I worked for three days, during six meetings with that appointed subcommittee, but without avail.
13. But when I saw after three days' earnest effort on my part, that I could make no headway, and having delivered much valuable information to the subcommittee, I decided to leave them alone, and to let them work out the problem by themselves.

14. The result, however, is this report.
15. And now from this report I further gather that you not only have been hairsplitting on the hours and minutes of the moon's motions, but that you also have wasted your valuable time in pursuing a flea, and have shamefully overlooked the great lion in your pathway.
16. You have done all this laborious work for over three long months in order to find aught against my findings, which I had so abundantly delivered into your hands. Which of course you have shamefully mis-treated as this report shows.
17. Therefore, because of all this, I am now determined to make use of a few sticks of argumentative dynamite. And when the proper time will have arrived, I will blow your expensive, costly constructed house, which you have been rearing up during more than eleven months, to splinters. And the blow will be to such an extent that the astronomical structure of your house shall become a complete wreck. And from the wreckage you shall not be able to salvage one single splinter to be of any benefit in the solving of our present problem. HAW
HAW
18. And when that is all over, I will then endeavor to present to that representative body of men a complete, uniform, beautiful structure of Biblical prophetic time predictions of shorter and longer duration, which must be fulfilled, and carried out at the appointed year, month, day and hour in the fulfillment of every divinely appointed event in the great program in the great plan of redemption.
19. And when finally this problem of our message, namely, the day and date of the crucifixion of our Lord and Saviour Jesus Christ, and that important Oct. 22, 1844, question shall have been written up, as based upon the infallible prophetic time predictions, as interpreted in our message. And when that interpretation is corroborated and strengthened by scientific astronomical evidence of planetary motion, such a work should delight and encourage every honest Bible student who may read and investigate our findings as correct.
20. Yes, that work should be of such an impregnable nature and character, that even our adversaries cannot find any fault with it. These adversaries who even to the present day are proudly boasting that the challenge they have put forth to the S.D.A. denomination relative to those above questions have not been answered by the denomination. And their boasting claim is that they cannot be answered. May God help us to hasten the day when a satisfactory answer to the challenge of our adversaries may be published as a defence in the hands of our good people.
21. Knowing then of a surety that the truth will finally gloriously triumph over every false theory--
22. My earnest desire and prayer for every one of us is that we may all do our very best to advance God's truth and to let the Holy Spirit have His own way with us. This, brethren, is my earnest prayer.

A. E. Amadon

REPORT UPON WIERTS CRITICISM OF PART FIVE OF COMMITTEE'S REPORT

To Elder J.L. McElhany, President
The General Conference of S.D.A.

After the presentation of the Report of the "Research Committee on the October 22, 1844, and Related Dates," rendered in July, 1939, and the J.H. Wierls criticism thereof, several sessions were held with Brother Wierls, upon your request, in an attempt to harmonize the differences involved. At the first session, Brother Wierls acknowledged his 12-hour error in computing each of the more than 100 dates he had taken from the British Nautical Almanac. Nevertheless, he reaffirmed his former criticisms against the Committee's Report. He also questioned why apparently little attention had been given to certain charts and tables he had previously submitted in reference to the crucifixion date and the 1844 event of prophecy.

As the deliberations with Brother Wierls progressed, it became apparent that his challenge was based entirely upon his own form of the 19-year cycle. Subsequently, the Committee gave special consideration to every feature of the Wierls computations, and ultimately sent to him a critical "Analysis"--herewith attached-- of his cycle tables "213" and "308." These are two 19-year segments of his whole cycle series, which begins with his set year for creation. They cover respectively the period of Christ's ministry and the 1844 movement. In transmitting this "Analysis," the Committee stated to Brother Wierls that it could not accept his computations because of the many errors therein. In reply, the Chairman received from Brother Wierls a letter which contained the following:

"Therefore my advice to you and the Committee would be to disregard and forget all about those tables, as they are not only faulty in one place but all through, because with calendrical astronomical tables it is the same as with a problem in arithmetic. If you make an error at the beginning, the error will follow you all through."¹

At the same time, Miss Amadon also received a letter from Brother Wierls, in which he repeated the same thought.²

¹ Letter dated Nov. 5, 1939, Catonsville, Maryland.

² Letter dated Nov. 5, 1939, Catonsville, Maryland.

But three weeks later, Elder Froom received a second letter, in which Brother Wierts stated that his cycle "213," which covers the period of the crucifixion, "is and always has been calendrically and astronomically correct."³ If this statement as to correct reckoning in reference to cycle "213" be granted, there must be an exact number of cycles between the respective years of his "True" Table D,⁴ and the similarly placed years of cycle "213." Furthermore, the embolismic (or leap-year) series in the one cycle must correspond exactly to the leap-year series in the other. This is the recognized law of the 19-year cycle.⁵ But this principle is violated in the Wierts cycles; for in his cycle "213," he makes embolismic the lunar year 38-39 A.D., while 95 cycles (or 1805 years) later, he makes the corresponding year, 1843-44, common. Again, in cycle "213," he makes the year 37-38 common, but 1805 years later, he makes the corresponding year, 1842-43, embolismic. (Cf. "True" Table D, page 5, and note the presence of the Jewish leap-month, Veadar, in the spring of 1843.)

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The designation of the right leap years for the 1844 period is of vital importance, as on this factor the whole chronology of the Millerite seventh month move-

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ment turns. For if the spring of 1844 had been a common year, as Brother Wierts contends, then the Adventists would have looked to September, instead of October, for the tenth day of the seventh month. But--

(1) They had accepted the barley harvest principle of intercalation, upon the testimony of such authorities as Jahn, Horne, Michaelis, Buhle's "Economic [Agricultural] Calendar" and the demands of Scripture;

(2) They refused to accept the Jewish calendar date of the Rabbinical Passover, which in 1844 fell on April 4, as too early for the barley harvest; and

(3) They chose, instead, the next moon, bringing the true Passover on May 2. Reckoned from this date, the day of atonement rightly fell upon October 22.

Therefore, the Mosaic sacred year, when applied to the civil year 1844, began at the end of an embolismic month in the spring of that civil year. This is in harmony with the Millerite reckoning. On the other hand, although Brother Wierts arrives at the correct atonement date, October 22, so many errors are involved in his process of calendation, that his conclusion is without valid proof.

The table which we have marked "E" for reference, also submitted by Brother Wierts last July in the General Conference Chapel, purported to represent the Committee's calculation of the 1844 problem. But this table definitely misrepresents the Committee's Report in the following particulars:

WIERTS TABLE "E"
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On the last page of Table "E," Brother Wierts gives his substitute translation periods for the October new moon on three meridians--Jerusalem, Greenwich, and Boston. These periods are intended to point out the important first day of Tisri, in 1844. On the contrary, not one of these translation periods is correct, for all three conjunction dates, which were computed from the British Nautical Almanac, have been treated as civil time, when they were, in fact, astronomical time, as reckoned from noon to noon, in agreement with 1844 calendation. This error completely nullifies all the Wierts translation periods for the Tisri moon in 1844.

In summation, the patent fallacies of the Wierts 19-year cycles and tables are here epitomized, and the validity of his supporting tables called in question on the following counts:

1. Erroneous computation of the many moon dates taken from the British Nautical Almanac, placing all dates 12 hours too early, and hence often on a wrong calendar date.
2. Use of irregular and unaccepted rules of chronology, relative to the length of the Jewish months, which dislocate the true first day of the month.
3. Faulty calculation of the translation periods of the moon (on various meridians) for October, 1844, which therefore shifts the true place of the Mosaic New Year. ²computed on erroneous dates,
4. Error in embolism for the lunar cycle involving the 1844 period, which dislocates the actual position of the month.

In view of these fatal discrepancies in computation, as well as others not included in this Report, your "Research Committee on the October 22, 1844, and Related Dates," is compelled to reject the Wierts contentions and his supporting tables, offered last July in challenge to the Committee's Report.

Respectfully Submitted,

Available Members of Research Committee on the
October 22, 1844, and Related Dates.

L.E. Froom, Chairman, L.H. Wood, Secretary
M.E. Kern, M.L. Andreason, Grace Amadon

Washington, D.C.

February 29, 1940

REPORT UPON WIERTS CRITICISM OF PART FIVE OF COMMITTEE'S REPORT

To Elder J.L. McElhany, President
The General Conference of S.D.A.

After the presentation of the Report of the "Research Committee on the October 22, 1844, and Related Dates," rendered in July, 1939, and the J.H. Wierls criticism thereof, several sessions were held with Brother Wierls, upon your request, in an attempt to harmonize the differences involved. At the first session, Brother Wierls acknowledged his 12-hour error in computing each of the more than 100 dates he had taken from the British Nautical Almanac. Nevertheless, he reaffirmed his former criticisms against the Committee's Report. He also questioned why apparently little attention had been given to certain charts and tables he had previously submitted in reference to the crucifixion date and the 1844 event of prophecy.

As the deliberations with Brother Wierls progressed, it became apparent that his challenge was based entirely upon his own form of the 19-year cycle. Subsequently, the Committee gave special consideration to every feature of the Wierls computations, and ultimately sent to him a critical "Analysis"--herewith attached--of his cycle tables "213" and "308." These are two 19-year segments of his whole cycle series, which begins with his set year for creation. They cover respectively the period of Christ's ministry and the 1844 movement. In transmitting this "Analysis," the Committee stated to Brother Wierls that it could not accept his computations because of the many errors therein. In reply, the Chairman received from Brother Wierls a letter which contained the following:

"Therefore my advice to you and the Committee would be to disregard and forget all about those tables, as they are not only faulty in one place but all through, because with calendrical astronomical tables it is the same as with a problem in arithmetic. If you make an error at the beginning, the error will follow you all through."¹

At the same time, Miss Amadon also received a letter from Brother Wierls, in which he repeated the same thought.²

¹ Letter dated Nov. 5, 1939, Catonsville, Maryland.

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But three weeks later, Elder Froom received a second letter, in which Brother Wierts stated that his cycle "213," which covers the period of the crucifixion, "is and always has been calendrically and astronomically correct."³ If this statement as to correct reckoning in reference to cycle "213" be granted, there must be an exact number of cycles between the respective years of his "True" Table D,⁴ and the similarly placed years of cycle "213." Furthermore, the embolismic or leap-year series in the one cycle must correspond exactly to the leap-year series in the other. This is the recognized law of the 19-year cycle.⁵ But this principle is violated in the Wierts cycles; for in his cycle "213," he makes embolismic the lunar year 38-39 A.D., while 95 cycles (or 1805 years) later, he makes the corresponding year, 1843-44, common. Again, in cycle "213," he makes the year 37-38 common, but 1805 years later, he makes the corresponding year, 1842-43, embolismic. (Cf. "True" Table D, page 5, and note the presence of the Jewish leap-month, Veadar, in the spring of 1843.)

It is to be particularly observed that this disagreement in embolism between the Wierts cycle "213" and his "True" Table D^{is} precisely the same violation that existed between cycles "213" and "308," which two cycles the Committee found to be out of alignment with each other by two years.⁶ This latter cycle is the one which Brother Wierts afterward admitted was faulty throughout. But "True" Table D and the repudiated cycle "308" have the same identical error in embolism, so that if one is faulty, the other is likewise faulty. Consequently, the mimeographed "True" Table D, which Brother Wierts offered in criticism of the Committee's Report, cannot be accepted.

The designation of the right leap years for the 1844 period is of vital importance, as on this factor the whole chronology of the Millerite seventh month move-

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Washington, D.C.

February 29, 1940

J. L. MCELHANY, PRESIDENT

W. E. NELSON, TREASURER

E. D. DICK, SECRETARY

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GENERAL CONFERENCE OF SEVENTH-DAY ADVENTISTS
TAKOMA PARK, WASHINGTON, D. C.

TELEGRAPHIC ADDRESS
"GENERAL CONFERENCE"
WASHINGTON, D. C.

March 8, 1940

CABLE ADDRESS
"ADVENTIST" WASHINGTON

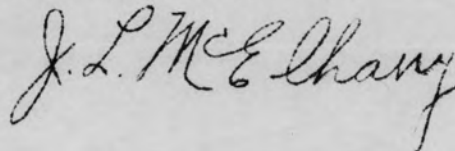
My dear Fellow Worker:

We are inclosing herewith a statement prepared by the committee that has been working on the dates of the crucifixion and also of October 22, 1844. You will recall that in our meeting held last July when the report of this committee was under consideration, Elder J.H.Wierts raised some objections to the report of the committee. The statement herewith inclosed deals with his objections.

In the first page of this statement there is a reference made to an analysis, with the phrase, "herewith attached." This is a more voluminous document consisting of eleven pages. It is of course more technical. We are not sending it out except where it may be requested, as it was prepared more especially for Elder Wierts.

With best wishes, I remain

Sincerely your brother,



JLM:mgp
Incl.

RENUNCIATION OF WIERTS CRITICISM OF PART FIVE OF COMMITTEE'S REPORT

At the presentation of PART V of the Committee's Report on July 10, 1939, in the General Conference Chapel, five points of criticism were offered by Bro. J.H. Wierls, as follows:

Point One.--The claim that the October conjunction in 1844, which pointed to the first day of the Jewish seventh month Tisri, was a morning conjunction in Boston. The Committee's Report dated this conjunction in the evening at 6:40 p.m., Boston local time. Wierls Table "D," page 9. (1)

Point Two.--The emphatic statement that "it matters not where you are, you can never see the moon 22 hours after conjunction." (Stenographic Report, page 10.)

Point Three.--The contention that Friday, April 7, 30 A.D., was the day of the Jewish passover on Nisan 14. (Stenographic Report, page 17.)

Point Four.--The assertion that Tisri 1 in 1844 did not occur in Jerusalem on October 13/14, and Tisri 10 on October 22/23. (Stenographic Report, p. 1.)

Point Five.--The insistence that Wierls Table "E" represents the Committee's method of proof for the tenth day of the seventh month in 1844.

ERROR OF EACH CONTENTION

Point 1 (Date of the October Conjunction in Boston, 1844).--Prior to the year 1925, the standard almanacs reckoned their dates from noon to noon. In order to convert these to civil time, that is, from midnight to midnight, 12 hours had to be added. Bro. Wierls failed to do this, and consequently in his mimeographed tables, which we have numbered for reference, as "D" and "E", he has misrepresented more than 100 dates taken from the British Nautical Almanac, and called them "civil time," when they were erstwhile astronomical time from noon to noon. Hence the Committee's Report was correct in placing the date of the Boston October conjunction at 6:40 clock time in the evening. The Millerites understood this, and frequently mentioned the "change of the moon" on the evening of October 11.¹

¹ The mimeographed pages attached give the records of both standard and contemporary almanacs with reference to the October conjunction in 1844.

Point Two (Shortest Translation Periods).--We have many instances of even shorter translation periods than 22 hours.² This depends entirely upon the place of the moon in the sky, and of the observer upon the earth.³ An important Karaite rule counted the first day of the month as taking place "in case the age of the moon, as from conjunction until the hour of sunset, is over 22 hours."⁴ This was on the basis that the moon at such an age "receives a great share of its light from the sun, so that it can be seen even simultaneously with the sun on the horizon at sunset on the first evening."⁵ On the evening of October 12 in 1844, the moon set within a very few minutes after the sun dipped below the horizon in New England. Hence she was practically on the horizon with the sun, and this ancient Karaite ruling is of special significance in so northern a latitude, where observation of the moon would be different from that in Palestine.

The Adventist literature in 1844 makes no mention of any attempt to "observe" the moon's phasis in order to establish the first day of Tisri. Doubtless the moon could not be seen in such northern cities as Boston, in the ten minutes that intervened between sunset and moonset. But in other parts of America, where many thousands of people were looking for the Lord to come--in localities about the same latitude as Jerusalem--the moon could be seen on the first evening after conjunction, for in the south, the interval between sunset and moonset on October 12 was about 30 minutes. On the other hand, in both Montreal and Greenwich, cities about 10° north of Boston, the October moon could not be seen at all on the first evening, for she set before the sun.⁶ And at Jerusalem, 20° farther south than Greenwich, the moon could not be seen at the first sunset, for on that meridian, not enough time had elapsed

² Gerhardt, Oswald, "The Date of the Crucifixion," Astronomische Nachrichten, Band 240, pp. 150, 151. [50.]

³ Schoch, Karl, "The Crucifixion of Christ on 14 Nisan," Biblica, Jan. 31, 1928, pp. 49.

⁴ Kokiseff, Juhuda, "Brief Information on the Karaite Calendar," p. 38. Odessa, 1880.

⁵ Idem. The Karaite experience in observation in the northern parts of Europe is of value in Boston, which is about the same latitude.

⁶ The moonsets for this investigation were computed by Glenn Draper, Associate Astronomer of United States Observatory, Washington, D.C.

Karaite computers lay it down "as a necessary condition that the moon shall not set before the sun." Poznanski, Samuel, Encyclopedia of Religion and Ethics, edited by Hastings. New York, 1913.

since conjunction. Only in parts of America, where the "true midnight cry" was also sounding, were the conditions just right in October, 1844, for the moon's phasis to point out the first day of the seventh month at the first sunset after conjunction. And this was at the end of so short a period as 22^h 24^m hours from conjunction, and at such a time it was so "reckoned" by the Millerites,⁷ and so understood by the Spirit of prophecy.⁸

Point Three (Friday, April 7, 30 A.D., on Nisan 14?).--The full moon in Jerusalem in 30 A.D. was Apr. 6 20^h 9^m, and in 31 A.D., it was Apr. 25 22^h 45^m.⁹ Both moons fullled about the same hour, near midnight. The difference in time between the two, and also between their previous new moons (March 22 and April 10, respectively) gives the same length of year--384 days. It was therefore a common embolismic year, that, excluding Adar, alternated 29 and 30 days throughout.¹⁰ Knowing the length of the year, it is a simple matter to lay down the calendar backward from April 25, as Nisan 12, 31 A.D., to April 6, the full moon of 30 A.D.¹¹ (Cf. Table on page 4.)

The full moons of the years 30 and 31 were both after-sunset moons, and both occurred toward the end of the week. Ordinarily the Jews kept the Passover on the evening that ended the day of full moon--the day when the full moon rose at sunset.¹² But the evangelists have left a record of that which was customary in their day, among the various sects and peoples, in case the moon fullled after sunset, and at the end of the week. For, according to their testimony, not only the disciples, but the

⁷ "Reckoning from this moon [the new moon of April], the seventh Jewish month commenced with the appearance of the moon on the 13th of October; so that the tenth day of the seventh month synchronized with the 22nd of that month."--Advent Shield, January, 1845, pp. 278, 279.

⁸ Great Controversy, "Conflict of the Ages Series," Vol. V, p. 400.

⁹ Computed from the Ginzel tables: Ginzel, F.K., "Handbuch der Mathematischen und Technischen Chronologie," p. 573.

¹⁰ Wierter Cycle "213" agrees that the spring of 31 A.D. was embolismic.

¹¹ These dates are the same as the moons in the Wierter chart "A."

¹² Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 8; Eusebius Pamphilus, "Ecclesiastical History," ch. VII, p. 322. London, 1847; Nancel, Nicolaus, "Analogia Microcosmi ad Macrocosmon." Ad Lillios Fratres, col. 1204, Paris, 1611; Sidersky, David, "Etude sur chronologie juive," p. 636; Charles, R.H., "The Apocrypha and Pseudepigrapha of the Old Testament," p. 244. Oxford, 1913.

The following from Nancel is relevant: "Since there are two equinoxes, in spring and autumn, that are separated by equal distances, and the festival was appointed on the 14th day of the first month, after the evening, in which the moon is caught in the region opposite the sun, as even the eyes may see . . ." Loc. cit.

common folk generally were planning for the sacrifice of the lamb, not on the day of full moon (which was Wednesday, April 25, near midnight, in 31), but on the day after, or Thursday "evening."¹³ Hence these circumstances point to the way in which the year 30 should be treated, which, from a ^{Jewish} calendar standpoint, was exactly like the year 31, in that its paschal full moon occurred after sunset and toward the week's end. The following table shows the parallel between the two years:

Showing that Friday, April 7, 30 A.D., was on Nisan 13, not Nisan 14

As proved in PART V	Nisan 14	equals	April 27, Friday, 31 A.D., Jerusalem	
Hence	Nisan 13	"	April 26	civil time
"	Nisan 12	"	April 25 22 ^h 45 ^m	= after-sunset full moon
	-- 12		-- 12	
Last day of 13th mo.	Veadar 29	"	April 13	29 days
			-- 29	
" "	12th mo. Adar 30	"	March 15	30 "
			-- 30	
" "	11th mo. Shebat 30	"	Feb. 13	30 "
			-- 30	
" "	10th mo. Tebet 29	"	Jan. 14	29 "
			-- 29	
" "	9th mo. Kisleu 30	"	Dec. 16	30 "
			-- 30	
" "	8th mo. Hesvan 29	"	Nov. 16	29 "
			-- 29	
" "	7th mo. Tisri 30	"	Oct. 18	30 "
			-- 30	
" "	6th mo. Elul 29	"	Sept. 18	29 "
			-- 29	
" "	5th mo. Ab 30	"	Aug. 20	30 "
			-- 30	
" "	4th mo. Tamuz 29	"	July 21	29 "
			-- 29	
" "	3rd mo. Sivan 30	"	June 22	30 "
			-- 30	
" "	2nd mo. Iyar 29	"	May 23	29 "
			-- 29	
" "	1st mo. Nisan 30	"	April 24	30 "
	-- 16		-- 16	
Therefore	Nisan 14	equals	April 8	384 days
Therefore	Nisan 13	"	April 7, Friday, which was <u>not</u> the day of the Passover in 30 A.D.	

Consequently, it must be concluded that in 30 A.D., the Passover would be eat-

¹³ Matt.26:17; Mark 14:12; Luke 22:7.

The Wierts method of working out the year 30-31 A.D. is wrong, both from a chronological standpoint, and from that of the circumstances set forth by the synoptists. In order to make the civil day, April 7, coincide with Nisan 14 in the year 30, the Wierts reckoning adds an extra day to the year, by giving it a length uncalled for by either new moon or full moon, and thereby making Veadar 30 days long, instead of the 29 days required by the rules of chronology, and thus making his 19-year cycle too long by one day. Whether so designed or not, this Friday paschal date of the Wierts tables actually concedes the year 30 A.D. to be a rival year to the crucifixion Friday of 31 A.D.

Consequently, it must be concluded that in 30 A.D. the Passover would be eaten, not on the evening of April 6, the day of full moon, but on Friday evening, April 7. Therefore, the Passover day in this year must have come on Sabbath, April 8. This was evidently the custom in the time of Christ, in case of an after-sunset full moon happening near the week end.¹⁴

Point Four (Date of Tisri 10 in Jerusalem).--From an astronomical standpoint the question of festival dating in both Jerusalem and America was definitely understood by the Millerites. They openly asserted that they were not following the Rabbinical computations, that they would as soon appeal to the monks of the dark ages to decide concerning the gospel of Christ, as to ask the Rabbins to decide in matters pertaining to the Mosaic law.¹⁵ When, doubtless mainly by "reckoning," they had determined in New England the evening of the phasis which pointed to the first day of Tisri, they followed this day westward to Jerusalem, and designated the time of the moon's first appearance on that meridian, plainly indicating that they considered it to be a sunset later than in America--even "17 hours" later, the difference in time between Boston and Jerusalem as one goes west.¹⁶ They knew the time of the Jerusalem conjunction,¹⁷ and so must have known that there the moon could

¹⁴ The Sadducean priests, who were planning to eat the Passover on Friday, show evidence of controversy over the calendar question in the time of Christ. Chvolson, Daniel, "Die Letzte Passamah!, " pp. 37-40.

¹⁵ ¹⁶ Midnight Cry, Oct. 31, 1844, p. 141, col. 1. ". . . the new moon being probably seen in Judaea on the second evening from its change, when it would be ^{one} day and 17 hours old, and which corresponded with 11 a.m. in Boston."

¹⁷ Midnight Cry, October 19, 1844, p. 132, col. 2. [Conjunction was Oct. 12 12^h 45^m . . .]

not be seen at the first sunset, for the period was too short. Anyway, they oft repeated their simple translation rule--"usually the second evening after the change"--and in this instance it was that way in Jerusalem. They calculated the 10th day of Tisri as October 22/23 in Jerusalem,¹⁸ while again and again they declared it to be October 22 in the land of the seventh month "cry." Astronomical-^{even}ly they were correct, for no day of the week, or festival day, can have the same civil date on all meridians.

The Wierts tables, which are based on an elastic 19-year cycle, call for uniform festi^{val} dating on every longitude, like the modern Jewish calendar, and like other ecclesiastical reckoning.^S From a civil calendrical standpoint, this may seem reasonable, and is possibly practical. But such systems of computation are not astronomically accurate, and cannot with exactness point to the positions of the sun and moon, that are able to verify the assured dates of prophecy in 1844. No lunar calendar can do this; for in this 20th century, luni-solar time in general has capitulated to the formulae of a 19-year cycle, which is not in strict harmony with the moon's phasis. For this reason the Wierts challenge against the Jerusalem dating on the Committee's Clock Chart is altogether out of agreement with the rules of astronomy¹⁹ that point out Tisri 10 as October 22/23 in Jerusalem, and with the Millerite calculations that also discovered the same date, and doubtless caused the oft repeated mention of October 23 as a proximate date of Tisri 10.²⁰

We turn now to the fallacies of the Wierts substitute tables.

EXAMINATION OF THE WIERTS "TRUE" TABLES FOR 1843-1844

The validity of the Wierts "True" tables for 1844, which were presented by him in the General Conference Chapel, in criticism of the Committee's Report and Charts

¹⁸ "Time at Jerusalem.--If that is to be the standard, we may not see the tenth till Oct. 23d . . ."--Midnight Cry, October 19, 1844, p. 132, col. 2.

¹⁹ Men have spent a lifetime in deciphering these rules. They have been written on ancient tablets and parchments, which have come down to later centuries, and have been confirmed by such men as Maimonides, Hevelius, Scaliger, Lilius, Kugler, Strassmaier, Epping, Baneth, von Littrow, Sidersky, Schoch, Neugebauer, and Fotheringham.

²⁰ This date, of course, was reckoned from Tisri 1 as October 13/14 in Jerusalem.

illustrating the Millerite argument, is called in question on the following counts:

1. Erroneous computation of moon dates taken from the British Nautical Almanac.
3. Wrong date of the 10th day of the seventh month on eastern meridians.
4. Faulty calculation of the translation of the moon for October, 1844.
5. Table "E."
2. Use of new and irregular rules of chronology.

1. Errors in the Wierds Dates.--Since the meeting of July 10, 1939, in the Conference Chapel, Bro. Wierds has fully acknowledged the errors in his reckoning of the dates taken from the British Ephemeris.

2. Irregular Rules of Chronology.-- In the Wierds tables under discussion, there are at least three prominent irregularities in the use of technical rules of chronology: (1) The number of days in an embolismic year is given 31 additional days by the Wierds reckoning, contrary to the customary 30 days required by luni-solar computation. (2) The length of the Mosaic year is at times made to conform with the modern Jewish calendar in being 353 or 385 days long. As for example, the year 30 A.D. is made to be 385 days in length.²¹ (3) Violation of embolismic rules governing a 19-year cycle. This third irregularity is illustrated by the introduction of Veadar²² into the year 1842-43, which is thus made embolismic, contrary to the formula of Cycle "213." This, Bro. Wierds claims, "is and always has been calendarically and astronomically correct."²³ And yet its leap-year in 38-39 A.D. is exactly 95 cycles (or 1805 years) distant from the year 1843-44, which therefore must be the corresponding cycle embolismic year. Hence, the Wierds "True" tables contradict their own formula in making the year 1842-43 embolismic.²⁴

3. Wrong Festival Date on Eastern Meridians.--The Wierds error in civil dating

²¹ Cf. Chart "A," which has 385 days from April 7, 30 A.D. to April 27, 31 A.D.

²² Cf. Table "D," page 5.

²³ Personal letter to Chairman of the Committee, Nov. 27, 1939.

²⁴ Reinach, Theodore, "Origin of the Jewish Calendar," Revue des Etudes Juives, Vol. 18. Paris, 1889.

is not wholly responsible for his error in festival dating. For, although it is possible, astronomically, as also calendrically, to have the same festival date in the east as in the west, yet in the event of 1844, the moon demanded one day difference between the eastern and western meridians. The rules for the translation of the moon, when applied to the meridians of America and Jerusalem, definitely prove this fact. Furthermore, the date of the conjunction in Boston was such as to allow a 24-hour earlier phasis of the moon on that meridian, ^{than in the east,} although this did not at all change the length of the ^{Mosaic} year, as laid down for America by the moon's lunations. The Millerites apparently recognized this meridional problem, and openly discussed in their periodicals the difference between both civil and festival time in Jerusalem and America.²⁵ They named the civil date on the calendar for Tisri 10 in Jerusalem as October 23, and for America, October 22. Astronomy does likewise. The Jewish reckoning misses the true Mosaic time by a whole month. The Wierts reckoning comes short of the true eastern festival dates by one day, and his computations are so irregular that he does not prove the date of Tisri 10 for America.

4. Faulty Translation Periods.-- The following table represents the Wierts calculation of the moon's phasis on three meridians in 1844:²⁶

WIERTS CALCULATION OF THE OCTOBER PHASIS IN 1844

Meridian	Conjunction	Time	[Phasis] ²⁷	[Tisri 1]	Translation		Difference in	
					Period		Longitude	
		h m	h m		h m		h m	
1. Greenwich	Oct. 11	11 23	"G.C.T." ^a	[Oct. 12 17 32]	[Oct. 13]	30 9		
2. Boston	Oct. 11	6 39	"B.C.T." ^b	[Oct. 12 17 32]	[Oct. 13]	34 53	4	44
3. Jerusalem	Oct. 11	13 43	"J.C.T." ^c	[Oct. 12 17 32]	[Oct. 13]	27 49	2	20

(^a "Greenwich civil time" ^b "Boston civil time" ^c "Jerusalem civil time")

According to the foregoing table, a uniform phasis is demanded at 5:32 p. m., clock time (17^h 32^m astronomical time), on October 12, causing Tisri 1 to occur on

²⁵ There are at least three references on this point: Midnight Cry, Oct. 19, 1844, p. 132, col. 2; Letter of Orlando Squires to William Miller, Nov. 4, 1844; Midnight Cry, Oct. 31, 1844, p. 141, col. 1.

²⁶ This table was arranged from the facts given on page 9 of Chart "D."

²⁷ The Committee computed the dates in this column by adding the translation periods to the conjunction dates.

the same day--October 15--on all three meridians--Greenwich, Boston, and Jerusalem. But this conclusion could only be reached on the basis that the conjunction dates were true civil time. They are, on the contrary, noon to noon reckoning, and this fact gives the phasis for October, 1844, an entirely different setting. The Wierds argument in reference to the dating of the phasis will not hold when the conjunction dates are corrected to true civil time by adding the required 12 hours to each date. If the moon's phasis, in the instance of the October conjunction in 1844, should be placed calendrically on the same civil date in Jerusalem and Greenwich as in America, then (1) either the harmony between the moon and her phasis is broken in Judaea, causing her--by calendar reckoning--to make a first appearance on the day of conjunction itself, three times in the summer of 1844--in June, August, and October; or (2) the Jewish feast period in America is broken, by advancing it one day, and thereby causing Tisri 10 to occur on October 22/23 in the land of the "midnight cry." In regard to the first, the moon's position was such, throughout the whole summer of 1844, that she could not even show herself once on the civil date of conjunction--an astronomical event of very rare occurrence.²⁸ With reference to the second alternative, no argument is needed, for the Wierds computations are based upon a fixed Jewish feast period. Therefore it must be concluded and understood that his calculation of the festival dates in 1844 on the eastern meridians is entirely out of agreement with the course of the moon, and with the Millerite testimony.

5. Table "E".--The Wierds table marked "E," was submitted by Bro. Wierds in the Conference Chapel as representing the Committee's calculation of the 1844 problem on the Greenwich and Jerusalem meridians. But there are differences as follows between Table "E" and the Committee's Report:

²⁸ "In truth, these three requisites together . . . so that the moon may be in the signs of long settings, in perigee, and in the northern border [Zodiac], clearly in the time of conjunction, or of the phasis, very rarely concur . . . Yet, within a period of nine years, these three requisites with difficulty break in together, even though all the new moons are examined, except in the year of our Lord, 1654, in the month of April and May, when the first phasis of the moon could be seen so quick, and indeed on the very day after the conjunction with the sun, if only a cloudless sky appeared in the heaven."--Johannes Hevelius, "Selenographia," page 277.

WIERTS TABLE "E"

COMMITTEE'S REPORT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Year 1842-43 is embolismic, with Passover on May 14 in wheat harvest. 2. Year 1843-44 is common, out of agreement with the Wierds mnemonic for his cycle "213." 3. Veadar = 30 days in an embolismic year, and Adar=30, contrary to the rules of chronology. 4. Adar = 30 days in common year.²⁹ 5. Tisri new moon = Oct. 11 11^h 23^m, "Greenwich civil time." | <ol style="list-style-type: none"> 1. Year 1842-43 is common, with Passover on April 14 in barley harvest. 2. Year 1843-44 is embolismic, in harmony with barley harvest intercalation, and with the Mill-erite reckoning. 3. Veadar = 29 days in an embolismic year, and Adar=30, in harmony with chronology and lunar calculation. 4. Adar = 29 days in common year. 5. Tisri new moon = Oct. 11 23^h 23^m, Greenwich civil time, according to the British Ephemeris. |
|---|--|

If the dates in table "E" were corrected, and Veadar and Adar given their true length, according to the accepted demands of chronology, then Tisri 10 would, according to table "E," coincide with October 22 in Greenwich. This date is contrary to the method of computation used by the Committee in its Report on July 9, 1939.

²⁹ Cf. table "E," page 5.

THE MOSAIC FEAST PERIOD -- APRIL TO OCTOBER, 1844

CONJUNCTION

PASSOVER

CONJUNCTION

ATONEMENT

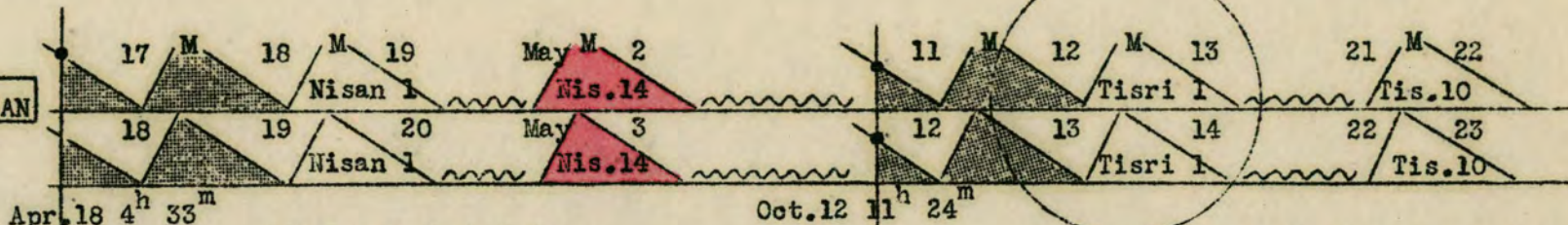
Apr. 17 4^h 33^m

Oct. 11 11^h 24^m

OCTOBER

180th MERIDIAN

Civil Day changes



9^h 40^m

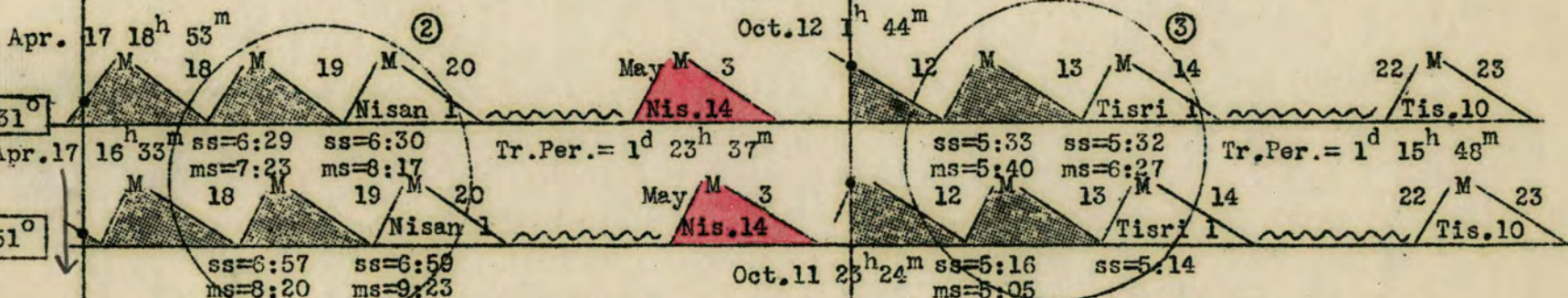
APRIL MOON --
Sign = Aries
Declination = 16° north
April 19 = Apogee

OCTOBER MOON --
Sign = Libra
Declination = 18° south
October 13 = Perigee

JERUSALEM -- From May 3 (Passover) to October 23 (Atonement) = 173 days

JERUSALEM 31°

2^h 20^m Apr. 17



GREENWICH 51°

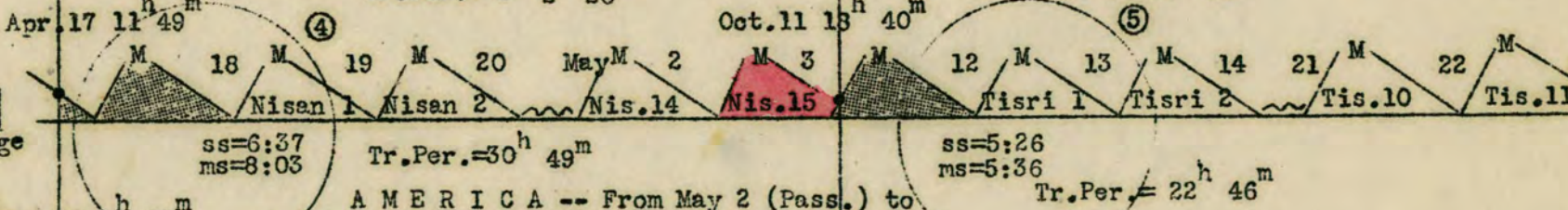
4^h 44^m



BOSTON 42°

Lunar Change

7^h 16^m



180th MERIDIAN



AMERICA -- From May 2 (Pass.) to October 22 (Atonement) = 173 days

RENUNCIATION OF WIERTS CRITICISM OF PART FIVE OF COMMITTEE'S REPORT

At the presentation of PART V of the Committee's Report on July 10, 1939, in the General Conference Chapel, ^{four} five points of criticism were offered by Bro. J.H. Wierts, as follows:

Point One.--The claim that the October conjunction in 1844, which pointed to the first day of the Jewish seventh month Tisri, was a morning conjunction in Boston. The Committee's Report dated this conjunction in the evening at 6:40 p.m., Boston local time. ^{of Oct. 12,} (Wierts Table "D," page 9.)

Point Two.--The emphatic statement that "it matters not where you are, you can never see the moon 22 hours after conjunction." (Stenographic Report, page 10.)

Point Three.--The contention that Friday, April 7, 30 A.D., was the day of the Jewish passover on Nisan 14. (Stenographic Report, page 17.)

Point Four.--The assertion that Tisri 1 in 1844 did not occur in Jerusalem on October 13/14, and Tisri 10 on October 22/23. (Stenographic Report, p. 1.)

Point Five. ~~The insistence that Wierts Table "E" represents the Committee's method of proof for the tenth day of the seventh month in 1844.~~

ERROR OF EACH CONTENTION

Point 1 (Date of the October Conjunction in Boston, 1844).--Prior to the year 1925, the standard almanacs reckoned their dates from noon to noon.¹ In order to convert these to civil time, that is, from midnight to midnight, 12 hours had to be added. Bro. Wierts failed to do this, and consequently in his mimeographed tables, which we have numbered for reference, as "D" and "E", he has misrepresented more than 100 dates taken from the British Nautical Almanac, and called them "civil time," when they were erstwhile astronomical time from noon to noon. Hence the Committee's Report was correct in placing the date of the Boston October conjunction at 6:40 clock time in the evening.^{Ref.} The Millerites understood this, and frequently mentioned the "change of the moon" on the evening of October 11.

¹ The mimeographed pages attached give the records of both standard and contemporary almanacs with reference to the October conjunction in 1844.

Point Two (Shortest Translation Periods).--We have many instances of even shorter translation periods than 22 hours.² This depends entirely upon the place of the moon in the sky, and of the observer upon the earth.³ An important Karaite rule counted the first day of the month as taking place "in case the age of the moon, as from conjunction until the hour of sunset, is over 22 hours."⁴ This was on the basis that the moon at such an age "receives a great share of its light from the sun, so that it can be seen even simultaneously with the sun on the horizon at sunset on the first evening."⁵ On the evening of October 12 in 1844, the moon set within a very few minutes after the sun dipped below the horizon in New England. Hence she was practically on the horizon with the sun. And this ancient Karaite ruling is of earliest beginning of a festival day, especially certain significance on a meridian marking the \wedge where observation of the moon were to be different from that in Palestine, as in northern latitudes.

The Adventist literature in 1844 ^{seems to} makes no mention of any attempt to "observe" the moon's phasis in order to establish the first day of Tisri. Doubtless the moon could not be seen in such northern cities as Boston, in the ten minutes that intervened between sunset and moonset. But in other parts of America, where many thousands of people were looking for the Lord to come--in localities about the same latitude as Jerusalem--the moon could be seen on the first evening after conjunction, for in the south, the interval between sunset and moonset on October 12 was about 30 minutes. *(Maimonides allows 34' for Jerusalem)* On the other hand, in both Montreal and Greenwich, cities about 10° north of Boston, the October moon could not be seen at all on the first evening, for she set before the sun.⁶ And at Jerusalem, 20° farther south than Greenwich, the moon could not be seen at the first sunset, for on that meridian, not enough time had elapsed

² Gerhardt, Oswald, "The Date of the Crucifixion," Astromische Nachrichten, Band 240, pp. 150, 151. *Also mention "Gazette"* [50.]
³ Schoch, Karl, "The Crucifixion of Christ on 14 Nisan," Biblica, Jan. 31, 1928, pp. 49,
⁴ Kokisoff, Juhuda, "Brief Information on the Karaite Calendar," p. 38. Odessa, 1880.
⁵ Idem. The Karaite experience in observation in the northern parts of Europe is of value in Boston, which is about the same latitude.
⁶ The moonsets for this investigation were computed by Glenn Draper, Associate Astronomer of United States Observatory, Washington, D.C. Karaite computers lay it down "as a necessary condition that the moon shall not set before the sun." Poznanski, Samuel, Encyclopedia of Religion and Ethics, edited by Hastings. New York, 1913.

heart of
 since conjunction. Only in the Δ of America, where the "true midnight cry" was also sounding, were the conditions just right in October, 1844, for the moon's phasis to point out the first day of the seventh month at the first sunset after conjunction. And this was at the end of so short a period as 22^h 24^m from conjunction; and at such a time it was so "reckoned" by the Millerites,⁷ and so implied by the Spirit of prophecy.⁸

Point Three (Friday, April 7, 30 A.D., on Nisan 14?).--The full moon in Jerusalem in 30 A.D. was Apr. 6 20^h 9^m, and in 31 A.D., it was Apr. 25 22^h 45^m.⁹ Both moons full about the same hour, near midnight. The difference in time between the two, and also between their previous new moons (March 22 and April 10, respectively) gives the same length of year--384 days. It was therefore a common embolismic year, that, excluding Adar, alternated 29 and 30 days throughout.¹⁰ Knowing the length of the year, it is a simple matter to lay down the calendar backward from April 25, as Nisan 12, 31 A.D., to April 6, the full moon of 30 A.D.¹¹ (Cf. Table on page 4.)

The full moons of the years 30 and 31 were both after-sunset moons, and both occurred toward the end of the week. Ordinarily the Jews kept the Passover on the "evening" that next followed the day of full moon--the day when the full moon rose at sunset.¹²

But the evangelists have left a record of that which was customary in their day, among the various sects and peoples, in case the moon ^{note re moonrise} full after sunset, and at the end of the week. ^{as happened in year of crucifixion} For, according to their testimony, not only the disciples, but the

⁷ "Reckoning from this moon [the new moon of April], the seventh Jewish month commenced with the appearance of the moon on the 13th of October; so that the tenth day of the seventh month synchronized with the 22nd of that month."--Advent Shield, January, 1845, pp. 278, 279.

⁸ Great Controversy, "Conflict of the Ages Series," Vol. V, p. 400.

⁹ Computed from the Ginzel tables: Ginzel, F.K., "Handbuch der Mathematischen und Technischen Chronologie," p. 573.

¹⁰ Wierds Cycle "213" agrees that the spring of 31 A.D. was embolismic.

¹¹ These dates are the same as the moons in the Wierds chart "A."

¹² Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 8; Eusebius Pamphilus, "Ecclesiastical History," ch. VII, p. 322. London, 1847; Nancel, Nicolaus, "Analogia Microcosmi ad Macrocosmon." Ad Lillios Fratres, col. 1204, Paris, 1611; Sidersky, David, "Etude sur chronologie juive," p. 636; Charles, R.H., "The Apocrypha and Pseudepigrapha of the Old Testament," p. 244. Oxford, 1913.

The following from Nancel is relevant: "Since there are two equinoxes, in spring and autumn, that are separated by equal distances, and the festival was appointed on the 14th day of the first month, after the evening, in which the moon is caught in the region opposite the sun, as even the eyes may see Loc. cit.

Two full moons are noted here, one of which points to the crucifixion Passover

common folk generally were planning for the sacrifice of the lamb, not on the day of full moon (which was Wednesday, April 25, near midnight, in 31), but on the day after, or Thursday "evening." Hence these circumstances point to the way in which the year 30 should be treated, which, ^{Jewish} from a calendar standpoint, was exactly like the year 31, in that its paschal full moon occurred after sunset, and toward the week's end. The following table shows the parallel between the two years:

Showing that Friday, April 7, 30 A.D., was on Nisan 13, not Nisan 14

As proved in PART V		Nisan 14	equals	April 27, Friday, 31 A.D., Jerusalem	
<i>Wierts tables agree with Nisan 14 = Apr. 27.</i>	Hence	Nisan 13	"	April 26	civil time
	"	Nisan 12	"	April 25 22 ^h 45 ^m	= after-sunset full moon
		-- 12		-- 12	
Last day of 13th mo.	Veadar 29	"	April 13	29 days	
			-- 29		
" "	12th mo. Adar 30	"	March 15	30 "	
			-- 30		
" "	11th mo. Shebat 30	"	Feb. 13	30 "	
			-- 30		
" "	10th mo. Tebet 29	"	Jan. 14	29 "	
			-- 29		
" "	9th mo. Kisleu 30	"	Dec. 16	30 "	
			-- 30		
" "	8th mo. Hesvan 29	"	Nov. 16	29 "	
			-- 29		
" "	7th mo. Tisri 30	"	Oct. 18	30 "	
			-- 30		
" "	6th mo. Elul 29	"	Sept. 18	29 "	
			-- 29		
" "	5th mo. Ab 30	"	Aug. 20	30 "	
			-- 30		
" "	4th mo. Tammuz 29	"	July 21	29 "	
			-- 29		
" "	3rd mo. Sivan 30	"	June 22	30 "	
			-- 30		
" "	2nd mo. Iyar 29	"	May 23	29 "	
			-- 29		
" "	1st mo. Nisan 30	"	April 24	30 "	
	-- 16		-- 16		
Therefore	Nisan 14	equals	April 8	384 days	
Therefore	Nisan 13	"	April 7, Friday, which was not the day of the Passover in 30 A.D.		

13 Matt. 26:17; Mark 14:12; Luke 22:7.

The Wiererts method of working out the year 30-31 A.D. ^{fails,} ~~is wrong,~~ both from a chronological standpoint, and from that of the circumstances set forth by the synoptists. In order to make the civil day, April 7, coincide with Nisan 14 in the year 30, the Wiererts reckoning adds an extra day to the year, by giving it a length uncalled for by either new moon or full moon, and thereby making Veadar 30 days long, contrary to the 29 days required by the rules of chronology, and to the established length of ^{made thus} the 19-year cycle, too long by one day. Whether so designed or not, this Friday paschal date of the Wiererts tables actually concedes the year 30 A.D. to be a rival year ^{of} to the crucifixion Friday of 31 A.D.

Consequently, it must be concluded that in 30 A.D. the Passover would be eaten, ^{Thursday,} ^{an after-sunset} not on the evening of April 6, the day of full moon, but on Friday evening, April 7, as in 31 A.D., ^{30 A.D.,} ^{on the second civil day after full moon,} or Therefore, ^{the Passover day} in this year ^{must have come} on Sabbath, April 8. Such was evidently the custom in the time of Christ, in case of an after-sunset full moon, ¹⁴ happening near the week end. ^{on page four} And such the accompanying table demonstrates.

Point Four (Date of Tisri 10 in Jerusalem).---From an astronomical standpoint the question of festival dating in both Jerusalem and America ^{seems to have been} was definitely understood by the Millerites, ^{although their statements were not always in technical harmony with the actual chron.} They openly asserted that they were not following the Rabbinical computations, that they would as soon appeal to the monks of the dark ages to decide concerning the gospel of Christ, as to ask the Rabbins to decide in matters pertaining to the Mosaic law. ¹⁵ When, doubtless mainly by "reckoning," they had determined in New England the evening of the phasis which pointed to the first day of Tisri, they followed this day westward to Jerusalem, and designated the time of the moon's first appearance on that meridian, plainly indicating that they considered it to be a sunset later than in America--even "17 hours" later, the difference in time between Boston and Jerusalem as one goes west. ¹⁶ They knew the time of the Jerusalem conjunction, ¹⁷ and so must have known that there the moon could

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¹⁵ ¹⁶ Midnight Cry, Oct. 31, 1844, p. 141, col. 1. ". . . the new moon being probably seen in Judaea on the second evening from its change, when it would be one day and 17 hours old, and which corresponded with 11 a.m. in Boston."

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not be seen at the first sunset, for the period was too short. Anyway, they oft repeated their simple translation rule--"usually the second evening after the change"--and in this instance it was that way in Jerusalem. They calculated the 10th day of Tisri as October 22/23 in Jerusalem,¹⁸ while again and again they declared it to be October 22 in the land of the seventh month "cry." Astronomical-
evenly they were correct, for no day of the week, or [^] festival day, can have the same civil date on all meridians.

The Wierter tables, which are based on an elastic 19-year cycle, call for uniform ^{val} dating on every longitude, like the modern Jewish ^{reckoning} calendar, and like other ecclesiastical ^{calendars} ~~reckoning~~. From a civil calendrical standpoint, this may seem reasonable, and ~~is~~ possibly practical. But such systems of computation are not astronomically accurate, and cannot with exactness point to the positions of the sun and moon, that are able to verify the assured dates of prophecy ~~in 1844~~. No lunar calendar can do this; for in this 20th century, luni-solar time in general has capitulated to the formulae of a 19-year cycle, which is not in strict harmony with the moon's ^{note Karolik modern rule} phasis. [^] For this reason the Wierter challenge against the Jerusalem dating on the Committee's Clock Chart is altogether out of agreement with the rules of astronomy¹⁹ that point out Tisri 10 as October 22/23 in Jerusalem, and with the Millerite calculations that also discovered the same date, and doubtless caused the oft repeated mention of October 23 as a proximate date of Tisri 10.²⁰

We turn now to the fallacies of the Wierter substitute tables.

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The validity of the Wierter "True" tables for 1844, which were presented by him in the General Conference Chapel, in criticism of the Committee's Report and Charts

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¹⁹ Men have spent a lifetime in deciphering these rules. They have been written on ancient tablets and parchments, which have come down to later centuries, and have been confirmed by such men as Maimonides, Hevelius, Scaliger, Lilius, Kugler, Strassmaier, Epping, Baneth, von Littrow, Sidersky, Schoch, Neugebauer, and Fotheringham.

²⁰ This date, of course, was reckoned from Tisri 1 as October 13/14 in Jerusalem. *Ref.*
give references for October 23.

illustrating the Millerite argument, is called in question on the following counts:

1. Erroneous computation of moon dates taken from the British Nautical Almanac.
3. Wrong date of the 10th day of the seventh month on eastern meridians.
4. Faulty calculation of the translation of the moon for October, 1844.
5. Table "E."
2. Use of new and irregular rules of chronology.

1. Errors in the Wierter Dates.--Since the meeting of July 10, 1939, in the Conference Chapel, Bro. Wierter has fully acknowledged the errors in his reckoning of the dates taken from the British Ephemeris.

2. Irregular Rules of Chronology.-- In the Wierter tables under discussion, there are at least three prominent irregularities in the use of technical rules of chronology: (1) The number of days ^{intercalated} in an embolismic year is ~~given~~ 31 additional days, by the Wierter reckoning, contrary to the customary 30 days required by luni-solar computation. (2) The length of the Mosaic year is at times made to conform with the modern Jewish calendar, in being 353 or 385 days long. As for example, the year 30 A.D. is made to be 385 days in length. (3) Violation of embolismic rules governing a 19-year cycle. This third irregularity is illustrated by the introduction of Veadar into the year 1842-43, which is thus made embolismic, contrary to the formula of his Cycle "213," ^{which} ~~this~~, Bro. Wierter claims, "is and always has been calendrically and astronomically correct."²³ And yet its leap-year in 38-39 A.D. is exactly 95 cycles (or 1805 years) distant from the year 1843-44, which therefore must be the corresponding cycle embolismic year.²⁴ Hence, the Wierter "True" tables contradict their own formula in making the year 1842-43 embolismic.

3. Wrong Festival Date on Eastern Meridians.--The Wierter error in civil dating

²¹ Cf. Chart "A," which has 385 days from April 7, 30 A.D. to April 27, 31 A.D.

²² Cf. Table "D," page 5.

²³ Personal letter to Chairman of the Committee, Nov. 27, 1939.

²⁴ Reinach, Theodore, "Origin of the Jewish Calendar," Revue des Etudes Juives, Vol. 18. Paris, 1889. Cf. Theorem 1.

is not wholly responsible for his error in festival dating. For, although it is possible, astronomically, as also calendrically, to have the same festival date in the east as in the west, yet in the event of 1844, the moon demanded one day difference between the eastern and western meridians. The rules for the translation of the moon, when applied to the meridians of America and Jerusalem, definitely prove this fact. Furthermore, the ^{local time} ^{October} ^{date}s of the ^{conjunction} in America were such as to allow a 24-hour earlier phasis of the moon here ^{than in the east, 24 1/2} ^{way} ^{Mosaic} ^{country} ^{any} ^{change} the length of the ^{year}, as indicated for this ^{by} the moon's lunations. The Millerites apparently recognized this meridional problem, and openly discussed in their periodicals the difference between both civil and festival time in Jerusalem and America.²⁵ They named the civil date on the calendar for Tisri 10 in Jerusalem as October 23, and for America, October 22. Astronomy does likewise. The Jewish reckoning misses the true Mosaic time by a whole month. The Wiersts reckoning comes short of the true eastern festival dates by one day, and his computations are so irregular that he does not ^{at all} ^{prove} the date of Tisri 10 for America.

4. Faulty Translation Periods.-- The following table represents the Wiersts calculation of the moon's phasis on three meridians in 1844:²⁶

WIERTS CALCULATION OF THE OCTOBER PHASIS IN 1844

<u>Meridian</u>	<u>Conjunction</u>	<u>Time</u>	<u>[Phasis]</u> ²⁷	<u>[Tisri 1]</u>	<u>Translation</u>	<u>Difference in</u>	
						<u>Period</u>	<u>Longitude</u>
		h m	h m		h m	h	m
1. Greenwich	Oct. 11 11 23	"G.C.T." ^a	[Oct. 12 17 32]	[Oct. 13]	30 9		
2. Boston	Oct. 11 6 39	"B.C.T." ^b	[Oct. 12 17 32]	[Oct. 13]	34 53	4	44
3. Jerusalem	Oct. 11 13 43	"J.C.T." ^c	[Oct. 12 17 32]	[Oct. 13]	27 49	2	20

(^a "Greenwich civil time" ^b "Boston civil time" ^c "Jerusalem civil time")

According to the foregoing table, a uniform phasis is demanded at 5:32 p. m., clock time (17^h 32^m astronomical time), on October 12, causing Tisri 1 to occur on

²⁵ There are at least three references on this point: Midnight Cry, Oct. 19, 1844, p. 132, col. 2; Letter of Orlando Squires to William Miller, Nov. 4, 1844; Midnight Cry, Oct. 31, 1844, p. 141, col. 1.

²⁶ This table was arranged from the facts given on page 9 of Chart "D."

²⁷ The Committee computed the dates in this column by adding the translation periods to the conjunction dates.

the same day--October 13--on all three meridians--Greenwich, Boston, and Jerusalem. But this conclusion could only be reached on the basis that the conjunction dates were true civil time. They are, on the contrary, noon to noon reckoning, and this fact gives the ^{time} phasis for October, 1844, an entirely different setting. The Wiererts argument in reference to the dating of the phasis will not hold when the conjunction dates are corrected to true civil time by adding the required 12 hours to each date. If the moon's phasis, in the instance of the October conjunction in 1844, should be placed calendrically on the same civil date in Jerusalem and Greenwich as in America, then (1) either the harmony between the moon and her phasis is broken in Judaea, causing her--by calendar reckoning--to make a first appearance on the day of conjunction itself, three times in the summer of 1844--in June, August, and October; or (2) the Jewish feast period in America is broken, by advancing it one day, and thereby causing Tisri 10 to occur on October 22/23 in the land of the "midnight cry." In regard to the first, the moon's position was such, throughout the whole summer of 1844, that she could not even show herself once on the civil date of conjunction--an astronomical event of very rare occurrence.²⁸ With reference to the second alternative, no argument is needed, for the Wiererts computations are based upon a fixed Jewish feast period, ^{of 172 days between Passover and Atonement.} Therefore it must be concluded and understood that his calculation of the festival dates in 1844 on the eastern meridians is entirely out of agreement with the course of the moon, and with the Millerite testimony.

5. Table "E".--The Wiererts table marked "E," was submitted by Bro. Wiererts in the Conference Chapel as representing the Committee's calculation of the 1844 problem on the Greenwich and Jerusalem meridians. But there are differences as follows between Table "E" and the Committee's Report:

²⁸ "In truth, these three requisites together . . . so that the moon may be in the signs of long settings, in perigee, and in the northern border [Zodiac], clearly in the time of conjunction, or of the phasis, very rarely concur . . . Yet, within a period of nine years, these three requisites with difficulty break in together, even though all the new moons are examined, except in the year of our Lord, 1654, in the month of April and May, when the first phasis of the moon could be seen so quick, and indeed on the very day after the conjunction with the sun, if only a cloudless sky appeared in the heaven."--Johannes Hevelius, "Selenographia," page 277.

FIVE POINTS OF CRITICISM
ON PART FIVE

POINT ONE--Was the Tisri Conjunction in 1844--Boston meridian--in the morning?

ANSWER--The British Ephemeris shows that it was in the evening of
October 12 at 6:40 P.M.

POINT TWO--Is it possible that the translation of the moon can be as short as
22 hours?

ANSWER--We have many instances of ^{such} shorter translations, all of which
depend upon the position of the conjunction and the position of
the moon in reference to the sun and the equator. The Adventist
literature in 1844 apparently makes no mention of any attempt to
"observe" the moon in order to establish the first day of Tisri.
Although this moon probably was not seen in Boston, yet south and
west in the territories of the "seventh month movement" she could
doubtless be seen. Furthermore the translation periods of the new
moons of September and November, the two adjacent translations of
the Tisri translation in October, each reach to the second sunset,
and thereby establish the first day of each new month respectively.
In this manner the fixing of these new moons and their phases, with
no chance for an alternative position, makes immovable the first
day of Tisri in October.

POINT THREE--Is Friday, April 7, 30 A.D., Nisan 14?

ANSWER--The accompanying Table, which is computed backward from Nisan in
31 A. D. to Nisan in 30 A.D., starting with April 27, 31 A.D. as
Nisan 14, ends with April 7, Friday, 30 A.D. as Nisan 13. A day
by day check-up of the same period reaches the same result.

POINT FOUR--If the Nisan conjunction is always placed on the 13th of Nisan, will
some of the translation periods in a nineteen year cycle run short?

ANSWER--In order to test out the translation of the moon on the basis of
this postulate, a day-by-day check-up of the years 1838 to 1845 was
made, in which the Mosaic year was tied day by day to the Gregorian
calendar. The embolismic years were placed in the spring of the
years 1839, 1842, and 1844, in harmony with the barley-harvest in-
tercalation. The Jewish years were made the same length as in the
Tables offered in criticism on this POINT. The Calendar started
with Nisan 13, April 10, 1838, Jerusalem civil time, ending Kisleu
19, December 31, 1844. All the translation periods were sufficiently
long, meeting fully the stipulations of Hevelius, Geminus and Fother-
ingham that the translation of the moon is from 1 to 4 days.

Another check-up was made from the years 1914 to 1934, placing
all the Nisan moons on the 13th of the month. On this basis not one
translation period came under 22 hours, and only once was one found
that short.

POINT FIVE--Is it true that Tisri 1, Boston civil time, was October 13, and in Jeru-
salem October 14, making the 10th day of Tisri in Boston October 22,
and in Jerusalem October 23? That is, in the year 1844?

ANSWER--The Jewish festival days are governed by the moon's phasis, in con-
tradistinction to the week days, which are marked off by the sun.

*5 this variation in the moon's phasis, on
different meridians, has always existed. She can't
be seen every where at the same time.*

POINT FIVE, Continued--

When the position of the conjunction is such that its place on the Boston meridian is near enough to the sunset hour to make possible an earlier phasis of the moon, then the new moon day" (Jewish calendar term) in Boston, as October 13, 1844, will be a day earlier than in Jerusalem. On the other hand, when the position of the conjunction in Jerusalem is such that the corresponding conjunction date in Boston does not allow of an earlier phasis of the moon, then the new moon day in Jerusalem is the same date as in Boston.

The "seventh month movement" was in reality a movement confined to America, where but one date prevailed.

ANALYSIS OF THE WIERTS TABLES

Before making any comparison between computations that are the basis of Part V of the Research Committee's Report and those of the tables which J. H. Wierdsma has presented in criticism, it is essential to understand the foundation upon which both calculations are made.

The computations and conclusions of PART V of the Report of the Research Committee are based entirely upon the astronomical 19-year cycle, whose new moons and full moons are those of standard ephemerides, both for the first century and the 19th century. The length of the Mosaic year is taken from paschal full moon to paschal full moon, making the common year either 354 or 355 days long, and the embolismic year, 383 or 384 days long. This is in harmony with Jewish chronology for ancient times.¹ The leap year is determined by the barley harvest intercalation, and the astronomical cycle formula. When the lunar year, day by day, is laid down on this basis, the paschal full moons, Jerusalem civil time, regularly fall on Nisan 13.² This form of the Jewish sacred year harmonizes with the technical statements and specific dates of the Millerites in 1844.

When, on this same basis, the years of Christ's public ministry are spread over the calendar, day by day, only one single year offers a Friday passover--the year 31 A.D., on April 27. There seems to be no other reckoning with reference to the crucifixion date than that submitted here, which has thus far offered proof concerning one year only as the death year of Christ. Others have at least one alternative.

¹"In the modern Jewish calendar greater variations are found in the lengths of the ordinary and embolismic years, respectively, especially the ordinary short year of 353 days and the abundant embolismic year of 385 days, issues of the system of postponements inaugurated later by the Jewish doctors of Babylon, but which did not then exist in the first century."--Sidersky, David, "Etude sur l'origine astronomique de la chronologie juive," Paris, 1913, page 633.

²Report of the Committee, Part V, page 38.

The Wiertz Tables are supported by a special form of an ecclesiastical 19-year cycle, which goes back 212 cycles before the baptism of Christ, and is dated at 4000 years before the beginning of the Christian era. The first year of cycle "213" is represented as coinciding with the year 27-28 A.D., which is taken as the year of the baptism of Christ, and the cycle continues on to the year 45-46 A.D. The cycle pertaining to the year 1844 is numbered "308," and extends from 1834-35 to 1852-53. These cycles are understood to belong to a continuous series of cycles covering the Christian era.

The list of 19 "paschal full moons" belonging to cycle "213" in the first century was computed, partly from a table of full moon dates sent to E.E. Franke by the United States Naval Observatory, January 16, 1919, and partly from the Guinness series of mean new moons. The dates for Tisri 10 in cycle "213" were obtained by adding 174 days inclusive to each paschal full moon date, and this series in turn was transferred to cycle "308" of the 19th century. To each date 12 days were then added, in an endeavor to change over to the Gregorian calendar, as indicated in Chart B, and the resultant list of 19 dates is offered as Tisri 10 of cycle "308" in the 19th century. By this method of computation, the date sought, October 22, 1844, seems to have been determined. Similarly, the passover moon dates of the "308th" cycle are obtained by subtracting 12 days from each paschal full moon of the 19-year cycle, and adding 30 days to each resultant March moon of the series. The leap years are thus found by this so-called March rule, which makes embolismic any year having a full moon in March after the "vernal equinox,"³ Julian time. The length of year employed in these tables is the same as found in the modern Jewish

³This "March rule" changes the moon dates from Gregorian to Julian time in the 19th century, by subtracting the 12 days, but leaves the vernal equinox in Gregorian time, thus arbitrarily changing the fixed interval between the vernal equinox and any moon date.

calendar.⁴

The computations in Tables A, B, and C are of such a nature, that--due to the length of lunar year employed, the embolismic rule followed, and irregular methods of computation, which are without astronomical support in the final analysis--three years during the public ministry of Christ appear to have a Friday passover. These tables also appear to be out of harmony with certain Adventist statements and calculations in 1844.⁵

1. VEADAR PERIOD.--In the first century table accompanying chart A, the dates given in column e comprise a series of 19-year cycle full moons, each one of which is listed as Nisan 14, and most of which are one day in advance of the astronomical full moons. With but one exception, in every embolismic year of the cycle, the period between the vernal equinoctial full moon in March, (e.g., March 29), and the succeeding paschal cycle^{moon} (e.g., April 29) on Nisan 14 is actually 31 days, and is named in column d, "Veadar Month." In chart C, on the contrary, the period between a cycle full moon in March, (e.g., March 30, column h), and the next succeeding cycle full moon in April, (e.g., April 29, column k), is reckoned as 30 days, and this column also is named "Veadar." In the mimeographed calendar table D (page 2) for the year 1843, the month of Veadar is listed as 30 days.

⁴The Wierts Bible Time reckoning in chart A allows 385 days from April 7, 30 A.D. to April 27, 31 A.D.; and in chart C, 353 days are allowed from April 27, 1838 to April 15, 1839. According to Sidersky (Reference 1), years that are 353 or 385 days long are the result of postponements, which did not exist in the first century Jewish computation. In the tenth century, Saadiah Gaon maintained the opposite, in his fierce polemic with Ben Meir, but Poznanski says that in so doing, "he [Saadiah] was contradicted, not only by all Karaites, but also by many Rabbanites," and that he went "against his own authorities."--"Jewish Quarterly Review," Vol. X, p. 271.

⁵There are two main points of difference between the Wierts computations and those of the Adventists in 1844: (1) The Adventists reckoned the year 1844 as embolismic, while the Wierts calendar tables make the year 1843 a Jewish leap year; (2) the Adventists figured the tenth day of the seventh month as October 21/22 in Boston, and October 22/23 in Jerusalem; but the Wierts tables represent it as October 22 on both meridians, and in fact all over the world.

The first "Veadar" period--31 days--runs from an astronomical full moon to a cycle full moon; the second--30 days--from cycle full moon to cycle full moon; the third--30 days--from new moon to new moon. Not one of the three irregular forms of a Veadar period used in these tables agrees with the true Veadar month, which, according to standard chronology, runs from new moon day to new moon day, and is always 29 days long.⁶ If the true length of Veadar were substituted for the irregular embolismic periods employed in these tables, the conclusions would be annulled.

2. NISAN 14 IN THE SPRING OF 30 AND 31 A.D.--The Wiert's 19-year cycle "213," extending from 27-28 A.D. to 45-46 A.D., agrees with the corresponding astronomical cycle in its total length--6940 days. There is also agreement in the length of their respective years, except in the following eight years, taken from cycle "213."

Cycle Year	Lunar Year	Days in Wiert's Cycle	Days in Astro. Cycle
		(I)	(II)
1	27-28	385 ⁷	384 ⁸
2	28-29	354	355
4	30-31	385	384
5	31-32	354	355
11	37-38	354	355
13	39-40	355	354
14	40-41	354	355
15	41-42	385	384
		2926	2926

The variations in the length of year in columns I and II particularly concern our problem in reference to the Jewish year 30-31 A.D., which in cycle "213" differs from the year in the astronomical cycle by one day. The reason for this may be seen by noting the spring of 31 A.D. in chart A, where an actual period of 31 days extends from March 27 to April 27, although the table represents that "30 days" only are to be added to March 27. When these figures are corrected, April 27 would

⁶All standard authorities give the length of Veadar as 29 days.

⁷Reckoned from cycle full moon to cycle full moon, which is taken as Nisan 14, sometimes 1 day or 2 days after the astronomical moon, and sometimes on it.

⁸Reckoned from astronomical paschal full moon to astronomical paschal full moon, in harmony with barley harvest.

read April 26, and this correction would place the length of the cycle year in harmony with the astronomical--384 days. But if it is contended that in 31 A.D., April 27 is a fixed date, then the paschal moon date, April 7, in the spring of 30 A.D., would have to be advanced one day, causing April 8 to coincide with Nisan 14. This is the most reasonable adjustment to be made, in order to conform with the so-called "30 day" embolismic rule of cycle "213," since the paschal full moon dates of both the years 30 and 31 occur after sunset, near midnight. To be consistent, they should be treated alike by allowing in each year that Nisan 14 occur on the second calendar day after the fulling of the moon, and not on the first in 30 A.D., and on the second in 31 A.D. As the table stands, its figures clash with its own rules.

3. EMBOLISM.--In chart A, cycle "213," the dates April 4 (33 A.D.), April 5 (41 A.D.), and April 2 (44 A.D.) are considered to be paschal moons on Nisan 14. These dates are too early for barley harvest, even in the first century. Therefore they are too early for the passover. They are not in harmony with the Bible ruling, which shows from Joel 2:23 that the latter rain extended over into the first month (Nisan); and, from the song in Canticles 2:11, that the rain was over when the passover came--"the season so beautifully pictured by the sacred singer." ("Patriarchs and Prophets," p. 537.) This fact is confirmed by the agricultural and meteorological reports of Palestine.⁹

Cycle "213" makes the spring of 34 A.D. embolismic, whereas the astronomical cycle corresponding with the barley harvest makes it necessary for the embolism to be placed in the spring of 33 A.D. A Jewish leap year in 33 A.D. helps much to

⁹"During the first part of the year, which is called . . . harvest, and which extends from the middle of April to the middle of June, the sky is serene . . . From the time of harvest or the middle of April to the middle of September, there is neither rain nor thunder, Prov. 26:1; I Sam. 12:17."
--Johann Jahn, "Biblical Archaeology," trans. by Thomas Upham, Andover, 1823, p. 22.

establish the year 31 A.D. as the crucifixion date, and rules out 33 A.D., in which the embolismic paschal full moon occurs, not on a Friday, April 3, but on Sunday, May 3. The previous full moon on Friday, April 3, 33 A.D., has long been the favorite date of both Catholics and Jews¹⁰ for a Friday passover in the time of Christ; and Catholics largely favor this day as the date of the crucifixion.¹¹ But an embolism in the spring of 33, as pointed out by the moon, defers the paschal moon in that year to Sunday, May 3, and removes the possibility of its marking the Friday passover on which Christ died.

4. CYCLES "213" and "308"--In the tables under discussion, cycles "213" and "308" are both said to date from the creation of the world, and therefore they should both belong to the same continuity of cycles. For example, from cycle "213" to "308" there are 95 cycles, or 1805 years. Obviously there should be the same difference in years between the respective years of the two cycles, as from the initial year 27-28 of cycle "213" to the initial year 1834-35 of cycle "308." There are, however, 1807 years between any two corresponding years of the cycles, thus revealing an apparent discrepancy of two years. Either cycle "213" should begin later, or cycle "308" earlier. This necessary adjustment will radically change the position of the embolismic years as outlined by the Wierts tables.¹²

¹⁰Sidersky, David, "Chronologie Juive," p. 636.

¹¹The pope of Rome in 1933 proclaimed a holy year, to extend from Passion Sunday (April 2, 1933) to Easter Sunday (April 2, 1934) in commemoration of the death of Christ. "It is clear that a theory, in itself so reasonable and well founded as that which regards April 3, 33 A.D., as the day of the crucifixion, must gain enormously in prestige by the direct support of our Holy Father."--Patrick Canon Boylan, "The Date of the Crucifixion," p. 11.

¹²Wierts claims for his 19-year cycle the following mnemonic for the embolismic years; viz. 1-4-7-9-12-15-18. Since the year 38-39 A.D. is No. 12 in cycle "213," then 1805 years later (19 times 95 cycles) would make the year 1843-44, the 12th year of cycle "308," as embolismic. This would disturb his passover date and Tisri 10 date for the year 1843. However, the passover date for the year 1843, in chart D, page 2, is given as May 14, while in chart C, column e, for 1843, it is April 13. The two dates do not agree.

5. OLD STYLE AND NEW STYLE.--In the three SERIES tabulated below, all of the moons in the 19th century belong to years which are exactly 95 times 19 years (or 1805 years) distant from their corresponding cycle years in the first century. Each series tells the same story; namely, that a moon date in the 19th century is 5 or 6 days later in point of calendar time than the same cycle moon in the first century. These first century moons are reckoned according to the Julian calendar as used in the time of Christ, and are also true according to astronomical time. There is a definite astronomical reason for this 5 or 6 days difference between the cycle moons of the first and 19th centuries. In the first place, the moon itself takes 8 days longer to accomplish its course through 95 cycles of time than does the sun, or 95 times $2^h 4^m$ (the moon's delay every 19 years). These 8 days tend to set the moon dates that much later in the 19th century than they are in the first. But in the years 100 and 200 A.D., 2 leap days were added to the calendar by the Julian reckoning, which Gregory XIII did not correct in 1582--his correction of 10 days extending back to the year 300 A.D. only. These 2 days, which the calendar did not need, set the moon back just that much. Therefore the moon's cycle dates in the 19th century were delayed but 6 days instead of 8. There are also other irregularities in the motion of the moon which cause this difference to fluctuate a few hours.

THE DIFFERENCE IN DAYS BETWEEN THE 19TH CENTURY FULL MOONS AND THEIR CORRESPONDING CYCLE MOONS IN THE FIRST CENTURY IS 5 OR 6 DAYS - NOT 12

S E R I E S I			S E R I E S II			S E R I E S III		
Gregorian	Julian	Difference	Gregorian	Julian	Difference	Gregorian	Julian	Difference
1838	33 A.D.	in Days	1844	39 A.D.	in Days	1851	46 A.D.	in Days
1805 yrs.--95 cycles			1805 yrs.--95 cycles			1805 yrs.--95 cycles		

F U L L M O O N S				F U L L M O O N S				F U L L M O O N S			
Jan	10.30 ¹	minus 3.93 ²	1 = 6.37 days	Jan	5.23 ¹	-- 29.86 ²	XII = 6.37 days	Jan	17.19 ¹	-- 10.81 ²	1 = 6.38 days
Feb	9.07	" 2.69	II = 6.38 "	Feb	3.86	-- 28.47	I = 6.39 "	Feb	15.64	-- 9.24	II = 6.40 "
Mar	10.86	" 4.44	III = 6.42 "	Mar	4.37	-- 26.96	II = 6.41 "	Mar	17.05	-- 10.60	III = 6.55 "
Apr	9.58	" 3.12	IV = 6.46 "	Apr	2.78	-- 28.33	III = 5.45 "	Apr	15.44	-- 8.96	IV = 6.48 "
May	9.23	" 2.70	V = 6.53 "	May	2.13	-- 26.66	IV = 5.47 "	May	14.86	-- 8.35	V = 6.51 "
June	7.70	" 1.19	VI = 6.51 "	May	31.44	-- 25.94	V = 5.50 "	June	13.28	-- 6.78	VI = 6.50 "
July	7.09	" 30.59	VII = 6.50 "	June	29.76	-- 24.24	VI = 5.52 "	July	12.80	-- 6.30	VII = 6.50 "
Aug	5.43	" 29.94	VIII = 6.49 "	July	29.10	-- 23.59	VII = 5.51 "	Aug	11.40	-- 4.92	VIII = 6.48 "
Sep	3.76	" 28.29	IX = 6.48 "	Aug	27.52	-- 22.05	VIII = 5.47 "	Sep	10.07	-- 3.63	IX = 6.44 "
Oct	3.11	" 26.66	X = 6.45 "	Sep	26.05	-- 20.62	IX = 5.73 "	Oct	9.77	-- 3.38	X = 6.39 "
Nov	1.51	" 26.09	XI = 6.42 "	Oct	25.71	-- 20.32	X = 5.39 "	Nov	8.47	-- 2.10	XI = 6.37 "
Nov	30.98	" 24.59	XII = 6.39 "	Nov	21.48	-- 19.14	XI = 5.34 "	Dec.	8.14	-- 1.78	XII = 6.36 "
Dec	30.52	" 24.15	XIII = 6.37 "	Dec.	24.31	-- 18.95	XII = 5.36 "	Jan	6.75	-- 31.39	XIII = 6.36 "

¹The 19th century full moons are computed decimally from the British Nautical Almanac for the years 1838, 1844, and 1851. ²The first century full moons, in decimal form, are taken from the Ginzel "Handbuch," pp. 573,574.

From the foregoing table it can be plainly seen that there are not 12 days difference between the synchronous years of a 19th century cycle in Gregorian time and a first century cycle in Julian time. Consequently it would appear that the hypothesis--"the location of Old Testament yearly festivals in the 19th century must be reckoned in Old and ¹³New Style"--does not accord with the facts.

The calculations in the Wierds charts B and C, which represent an attempt to change moon dates over to Old Style, and vice versa, are in error in three respects: (1) In each instance, except one, 13 days, and not 12, were either added to, or subtracted from, the dates given, in order to change from one calendar to another in the 19th century. (2) In each instance also, the computation actually changed the days of the week, thus breaking their inviolable sequence. (3) Cycles "213" and "308" are 2 years out of alignment with the continuity of cycles, since their corresponding years are separated by 2 years more than the 95 cycles involved, and therefore the results sought and obtained are not accurate.

There is no point in attempting
And of what use would it be to transfer the moon dates of the Gregorian calendar to Julian time of the 19th century? The subtraction of 12 days does not change them over to Julian time in the first century, as the calculation in Series I, II, and III in the accompanying outline shows, which gives a difference of only 5 or 6 days between the moon dates of the first century, and those in the corresponding 19-year cycle to which the year 1844 belongs. But this difference of 5 or 6 days is of importance in the 1844 problem in reference to the calendar. It accounts for the fact that the Adventists in 1844 learned to reject the full moons occurring around the first of April as too early for the true passover, and were led to refuse April 4, 1844, of the Rabbinical calendar as the right time, seeing that it really belonged to Veadar, the Jewish month of the "latter rain" in March. In so doing, they acted in harmony with the astronomical principles which direct the moon's motion over these 19 centuries of time, and which caused the full moons of the 19th century to appear 5 or 6 days later than the corresponding moons of the first century, and not 12 days!

¹³Wierds, J.H., "Bible Time Is Planetary Motion Time," p. 5.

CONCLUSION: The 12-day difference between Old Style and New Style in the 19th century does not represent the difference in days between a paschal moon date in the time of Christ, and its corresponding paschal cycle moon in the year 1844. Therefore this difference is an irrelevant factor in locating the true position of the paschal month.

6. CIVIL DATE OF TISRI 10 ON TWO MERIDIANS.--It has been suggested that a 19-year cycle would make it possible for a Jewish festival to have the same civil date all over the world. But this ideal has never materialized since the dispersion of the Jews, even though their fixed calendar is based on a 19-year cycle. In the East, Rosh Hashana is observed on two successive days; in the West, usually on one day, though custom varies.¹⁴ The "double moon day of the diaspora" is the answer to an attempt at unification of festival observance on a round world.¹⁵ This problem led to the well-known tenth century rivalry between Rabbanites and Karaites over a fixed meridian for determining Jewish festival dates. As a matter of fact, on account of the ever changing conjunction date and its accordant

¹⁴The two-day observance of the Jewish New Year in the East, in contrast to one day in the West, is very old. The Syrian historian, Elias of Nisibis, mentions that in the year 1046 a schism occurred between the Eastern and Western Jews in reference to their feasts, so that the Eastern Jews began their year on a Thursday, and the Western on a Tuesday.--"Jewish Quarterly Review," Vol. X, p. 154.

Samuel Poznanski quotes from Sahl b. Mazliach as saying that the dispute in the 10th century between Saadiah Gaon and Ben Meir resulted in some Rabbanites keeping two days of the festival--"one according to the observance of the moon, and one according to the fixed calendar."--"Jewish Quarterly Review," Vol. X, p. 159.

"Among the Karaites of the present day, accordingly, the determination of new moons and festivals depends wholly on the interval between conjunction and sunset, thus approximating--in theory--very closely to the method of the Rabbanites. In practice, however, the difference in the dating of festivals may amount to one or even two days."--Poznanski, "Encyclopaedia of Religion and Ethics," edited by James Hastings, Article, "Jewish Calendar."

"Thus until this day the Karaites in the Orient, and in the Crimea, are seen to have their religious festivals celebrated on different days by different communities."--Sidersky, David, "Chronologie juives," p. 623.

"The moon which will show herself the first night after new moon in the Crimea, cannot appear the same evening everywhere."--Juhuda Kokisoff, "Brief Information on the Karaite Calendar," trans. from the Russian.

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a recognition of the fact that it is impossible to celebrate a given Jewish festival on the same civil date simultaneously all around the world.

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¹⁵Poznanski, "Hastings Encyclopaedia of Religion and Ethics," article, "Jewish Calendar."

phasis, the Jewish New Year does not have a constant meridian such as has been accepted for the civil day. Ref.

It has been disturbing to some to see ^{the figures} "Tisri 10" ^{marked} as October 22/23 ^{Committee's} on the [^] Clock Chart in Jerusalem, and as October 21/22 in Boston. The Wierds mimeographed table marked "True" has been offered in correction, ^{but} every date of [^] this table which is in error, according to standard almanacs. The table is itself out of alignment with the cycle series by two years. The Adventists of 1844 have left no record of any series of 19-year cycle dates that have been worked out from the creation of the world. Nevertheless, scholarship will accept their computations for the very reason that their festival dates are in harmony with the position of the moon as mapped out by standard ephemerides for various meridians. We have no other standard for determining the accuracy of these dates than the recorded movement of the stars, and the inviolable rulings governing the Mosaic sacred year.

In the specific instance of the October conjunction in 1844, the new moon day, which first appeared in the western hemisphere as Tisri 1/October 13, left New England, crossed the day line as October 14, and came to Jerusalem about 17 hours later. It was still the same lunar festival day, Tisri 1. Its civil date only had changed. Naturally, in its course westward, October 14, as we see it in Jerusalem, could not become October 13 in Boston; but at the end of 24 hours, this festival day, Tisri 1/October 14, returns to America, its starting place, ready for the next day, Tisri 2/October 14. In only one part of the world was Tisri 1 marked by the civil date, October 13, and that was America, the land of the "seventh month movement," where alone, a specific date seems to have been set for the coming of Christ.

The Adventists in 1844 carefully worked out their problem on two meridians, Boston and Jerusalem. The new moon of Tisri was apparently reckoned to be an October moon, by counting it as the seventh moon inclusive from the April conjunction--April 17, Boston civil time. November 11 was cited as the last day.

of Tisri;¹⁶ the conjunction on the 10th being too late for a phasis on that day. The November phasis, therefore, which had to come on November 11, the "second evening after the change," fixed the October phasis in Boston on the first evening after, making Tisri 1 to fall on October 13. Tisri 1 in Jerusalem was in like manner figured as beginning at the second sunset, the moon setting "one day and seventeen hours old." This point of time was then found to coincide with "11 a.m. in Boston," which was still October 13.¹⁷ This "strengthened" the Millerites that they had chosen the right "month." This same coincidence between the two meridians did not pertain to the September conjunction, whose translation periods in Boston and Jerusalem were entirely different from those of the October new moon.

And so the first day of the seventh month was October 12/13 in Boston, and 13/14 in Jerusalem; while the tenth day in Boston was October 21/22, and in Jerusalem it was October 22/23. In the ancient land of Israel, the day, Tisri 10, had seven hours in common with the day in America.

S U M M A R Y.--The crucifixion year, 31 A.D., has in reality but two possible competing dates, the years 30 and 33 A.D. The Day of Atonement in 1844 had one competing month, the Rabbinical month Tisri, which came in September. The following is a summary of the argument which the Wierds tables present in reference to these questions:

1. The 19-year cycle "213" marks a passover on Friday, April 7, 30 A.D., and whether so designed or not, this Friday paschal date actually concedes a rival year to the crucifixion Friday of 31 A.D.
2. The year 34 A.D. is made embolismic by cycle "213," in contrast to the year 33 A.D., which the Mosaic rule and the astronomical cycle point out as embolismic. By taking embolism away from the spring of 33 A.D., the passover moon is dated on Friday, April 3, in 33, and in this way cycle "213" lends aid to a second rival year of the crucifixion. The astronomical cycle points to Sunday, May 3, as the paschal moon of that year, and takes away any opportunity of its being the death year of Christ.
3. According to the embolismic rule by which cycles "213" and "308" are governed, the spring of 1843 is marked as being embolismic, while the Mosaic rule,

¹⁶The Advent Shield, Vol. 1, 1844-45, p. 273.

¹⁷Midnight Cry, Oct. 31, 1844, p. 141, col. 1.

astronomy, and Millerism called for the spring of 1844 to be embolismic. On the contrary, if the Adventists had reckoned the spring of 1844 as belonging to a common year, Jewish time, then April 3 would perforce have been their passover on Nisan 14, and September 23 their Day of Atonement.

4. The Wierts mimeographed calendar tables, marked "true," and charts A, B, and C, which have been offered in correction of Part V of the committee's report, are in error on the following counts:

a. The three irregular forms of a 30- and 31-day "veadar" period used in these tables and charts are entirely out of harmony with the accepted veadar month established by chronology as 29 days.

b. Cycle "213" is out of alignment by two years with cycle "308," or vice versa. If 2728 is the 1st year of the 213th cycle, his first cycle should begin with the year 4002-1 B.C. instead of the year 4000 B.C.¹⁸

c. The embolismic years, therefore, in both the first and 19th centuries are called in question by the authority of the barley-harvest ruling of the Mosaic law.

d. The argument in these tables in reference to Old Style and New Style is wholly irrelevant to the location of the Jewish passover.

e. In the Wierts calendar, more than 100 new moons and full moons have been incorrectly computed from the British Nautical Almanac. As a result many of the calendar days are not correctly dated, and among them the 10th day of the seventh month on the Greenwich meridian.

f. In changing from Gregorian to Julian time, the order of the days of the week is changed.

¹⁸Wierts, J.H., "Bible Time Is Planetary Motion Time," p. 9. In the computation here referred to, the equation " $4000 + 1843 = 5843 \div 19 = 307 \frac{10}{19}$ " is wrong, because it does not recognize the problem involved in changing from B.C. to A.D. time.

APPENDIX: CHANGING FROM A.D. TO B.C. TIME. The Wierts calendar tables start their "213th" cycle with the year 27-28 A.D. Consequently their "212th" cycle would begin 19 years earlier, or with the year 8-9 A.D. The following table shows that the first cycle should start with the year 4002-4001 B.C., instead of the year 4000 B.C.; and that the "308th" cycle should begin with the year 1832-33 instead of the year 1834-35 A.D.

LOGICAL BEGINNING OF THE WIERTS CYCLES

Cycle	Year	Cycle "1"		Cycle "210"	B.C. Cycle "211"	A.D. Cycle "212"	Cycle "213"	← 1805 years →	Cycle "308"
1	4002-4001		$-(209 \times 19)$ or $(3971) =$	31-30	12-11	8-9*	27-28	$+(95 \times 19)$ or $(1805) =$	1832-33
2	1-0		"	30-29	11-10	9-10	28-29	"	1833-34
3	4000-3999		"	29-28	10-9	10-11	29-30	" 1807 "	1834-35
4	3999-98		"	28-27	9-8	11-12*	30-31	"	1835-36
5	98-97		"	27-26	8-7	12-13	31-32	"	1836-37
6	97-96		"	26-25	7-6	13-14	32-33	"	1837-38
7	96-95		"	25-24	6-5	14-15*	33-34	"	1838-39
8	95-94		"	24-23	5-4	15-16	34-35	"	1839-40
9	94-93		"	23-22	4-3	16-17*	35-36	"	1840-41
10	93-92		"	22-21	3-2	17-18	36-37	"	1841-42
11	92-91		"	21-20	2-1	18-19	37-38	"	1842-43
12	91-90		"	20-19	B.C. 1-1	A.D. 19-20*	38-39	"	1843-44
13	90-89		"	19-18	A.D. 1-2	20-21	39-40	"	1844-45
14	89-88		"	18-17	2-3	21-22	40-41	"	1845-46
15	88-87		"	17-16	3-4	22-23*	41-42	"	1846-47
16	87-86		"	16-15	4-5	23-24	42-43	"	1847-48
17	86-85		"	15-14	5-6	24-25	43-44	"	1848-49
18	85-84		"	14-13	6-7	25-26*	44-45	"	1849-50
19	84-83		"	13-12	7-8	26-27	45-46	"	1850-51

The Wierts order of leap years, or mnemonic, is 1-4-7-9-12-15-18 (cf. chart A). The years marked with an asterisk in the foregoing table are therefore the corresponding embolismic years. In harmony with this formula, but contrary to the Wierts reckoning, the year 1843-44 must be embolismic. It thus agrees with the barley harvest intercalation and the Millerite reckoning. Because of the error made in changing from B.C. to A.D. time, and in miscalculating the end year of the "212th" cycle, the validity therefore, of the whole Wierts series of charts, tables, notes, and computations is hereby called in question.

Note: The years underscored in red are "first cycle years" in the Wierts tables. From Jan. 1, 1 A.D., to the fall beginning of 27-28 A.D., are only $26\frac{3}{4}$ years, and not 28 full years, as Wierts figures.

[CHART A]

4028 + 19 = 212
THE 213th 19 YEAR LUNAR--SOLAR CYCLE [J.C.T.]

Vernal Equinoctial Full Moons		Veadar Months		Paschal Full Moons		Passover Day		Atonement Day		
[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]
A.D.						Nisan Days Tishri				
27-	28	Mar 29	6 A.M.	Mon	+ 30 =	Apr 29	Thur	= 14 + 174 = 10 =	Oct 19	Tues
28-	29	[Apr 17]	5 A.M.	Mon		Apr 18	Mon	= 14 + 174 = 10 =	Oct 8	Sab
29-	30	[Apr 6]	10 P.M.	Fri		Apr 7	Fri	= 14 + 174 = 10 =	Sep 27	Wed Apr. 12 - 6 = Apr. 6
30-	31	Mar 27	2 P.M.	Tues	+ 30 =	Apr 27	Fri	= 14 + 174 = 10 =	Oct 17	Wed Apr. 30 - 5 = " 25
31-	32	[Apr 14]	11 A.M.	Tues		Apr 15	Tues	= 14 + 174 = 10 =	Oct 5	Sun Apr. 20 - 6 " 14
32-	33	[Apr 3]	5 P.M.	Sab		Apr 4	Sab	= 14 + 174 = 10 =	Sep 24	Thur Apr. 9 - 6 " 3
33-	34	Mar 23	3 P.M.	Tues	+ 30 =	Apr 23	Fri	= 14 + 174 = 10 =	Oct 13	Wed Apr. 28 - 6 " 22
34-	35	[Apr 11]	11 A.M.	Tues		Apr 12	Tues	= 14 + 174 = 10 =	Oct 2	Sun Apr. 16 - 5 " 11
35-	36	Mar 30	5 P.M.	Fri	+ 30 =	Apr 30	Mon	= 14 + 174 = 10 =	Oct 20	Sab May 5 - 6 " 29
36-	37	[Apr 18]	2 P.M.	Fri		Apr 19	Fri	= 14 + 174 = 10 =	Oct 9	Wed Apr. 24 - 6 " 18
37-	38	[Apr 8]	6 A.M.	Tues		Apr 8	Tues	= 14 + 174 = 10 =	Sep 28	Sun Apr. 14 - 6 " 8
a h m										
38-	39	Mar 28	-28 13 24	Sab	+ 30 =	Apr 27	Mon	= 14 + 174 = 10 =	Oct 17	Sab May 2 - 5 " 27
39-	40		15 10 27	Sab		Apr 16	Sab	= 14 + 174 = 10 =	Oct 6	Thur Apr. 21 - 6 " 15
40-	41		4 19 46	Wed		Apr 5	Wed	= 14 + 174 = 10 =	Sep 25	Mon Apr. 11 - 6 " 5
41-	42	Mar 26	25 4 34	Mon	+ 30 =	Apr 25	Wed	= 14 + 174 = 10 =	Oct 15	Mon Apr. 30 - 6 " 24
42-	43		13 2 7	Sun		Apr 14	Sun	= 14 + 174 = 10 =	Oct 4	Fri Apr. 18 - 5 " 13
43-	44		1 10 55	Thur		Apr 2	Thur	= 14 + 174 = 10 =	Sep 22	Tues Apr. 7 - 6 " 1
44-	45	Mar 22	21 19 44	Mon	+ 30 =	Apr 21	Wed	= 14 + 174 = 10 =	Oct 11	Mon Apr. 25 - 6 " 19
45-	46		9 17 16	Sun		Apr 10	Sun	= 14 + 174 = 10 =	Sep 30	Fri Apr. 15 - 6 " 9

NOTE: The 174 days between the Passover and the Atonement includes the 14th Nisan and 10th day of Tishri. The years from 28 to 38 A.D. are copied from the Dr. Eichelberger Table
 And from 39 to 46 I worked out from the Guinness' Tables of Mean New Moon
 Dr. Eichelberger says that the Table is correct within 2 to 3 hours. The same I claim for the Guinness' Tables
 Both tables are based upon Jerusalem Civil Time
 That means you must reckon the day from midnight to midnight.

J.H. Wierts

NOTE: All figures and words inserted in brackets are for purposes of reference and comparison.

Bracketed dates in column b were copied from the original letter sent by the U.S. Observatory to E.E. Frank, Jan. 16, 1919, and cited by J.H.W. These dates were not in his original copy.

Columns d and e show that 31 days, and not 30 days, were added in each embolismic year, except the year 39.

38-39
 1805-05

1
 4
 7
 9
 12
 15
 18

The 308th 19 Year Lunar-Solar Cycle Since Creation

[Cycle [a] Year]	OLD STYLE				Astr. Autumnal Equinoctial New Moons			NEW STYLE			
	[b] A.M.	[c] A.D.	[d] A.D. Tisri	[e] ¹	[f] d.	[f] h.	[f] m.	[g] ² Days	[h] ³ [Tisri 10]	[i] ⁴	
[1]	5835 = 1834	- 35	10 Thur	Oct 19	21	12	17	+	12 = Oct 31	Sab	
[2]	5836 = 1835	- 36	10 Wed	Oct 8	10	1	28	+	12 = Oct 21	Fri	
[3]	5837 = 1836	- 37	10 Sun	Sep 27	29	8	0	+	12 = Oct 10	Tues	
[4]	5838 = 1837	- 38	10 Sun	Oct 17	18	2	25	+	12 = Oct 30	Tues	
[5]	5839 = 1838	- 39	10 Wed	Oct 5	7	2	13	+	12 = Oct 18	Fri	
[6]	5840 = 1839	- 40	10 Mon	Sep 24	25	6	20	+	12 = Oct 7	Wed	
[7]	5841 = 1840	- 41	10 Wed	Oct 13	14	4	26	+	12 = Oct 26	Fri	
[8]	5842 = 1841	- 42	10 Thur	Oct 2	3	18	23	+	12 = Oct 15	Sab	
[9]	5843 = 1842	- 43	10 Tues	Oct 20	22	19	35	+	12 = Nov 2	Thur	
[10]	5844 = 1843	- 44	10 Sun	Oct 9	11	11	23	+	12 = Oct 22	Tues-29=Sep.23 Mon.	
[11]	5845 = 1844	- 45	10 Thur	Sep 28	30	22	58	+	12 = Oct 11	Sab	
[12]	5846 = 1845	- 46	10 Wed	Oct 17	19	19	43	+	12 = Oct 30	Fri	
[13]	5847 = 1846	- 47	10 Sun	Oct 6	8	21	6	+	12 = Oct 19	Tues	
[14]	5848 = 1847	- 48	10 Fri	Sep 25	26	21	35	+	12 = Oct 8	Sun	
[15]	5849 = 1848	- 49	10 Fri	Oct 15	15	17	13	+	12 = Oct 28	Sun	
[16]	5850 = 1849	- 50	10 Tues	Oct 4	3	14	40	+	12 = Oct 17	Thur [Nov. 17]	
[17]	5851 = 1850	- 51	10 Fri	Sep 22	24	18	11	+	12 = Oct 5	Sun	
[18]	5852 = 1851	- 52	10 Fri	Oct 11	12	19	14	+	12 = Oct 24	Sun	
[19]	5853 = 1852	- 53	10 Tues	Sep 30	Oct ₂	10	17	+	12 = Oct 13	Thur	

Note.--The Astr. New Moons are copied from the Ephemeris Royal Observatory Greenwich, London, England. At the U.S. Naval Observatory, Washington, D.C.
J.H. Wierds

Note: The bracketed letters and figures are for reference, and were not in the original copy.

Corrections on the foregoing Table:

¹ The dates in column e are all in Jerusalem civil time, because computed in that time in chart A. But the dates in column f are taken from the British Nautical Almanac, computed in Greenwich mean noon time, or 14^h 21^m earlier. Hence the dates in column e should be changed to the same clock time as column f. This would change Nos. 1, 2, 4, 5, 8, 10, 11, 12, 13, 15, 16, and 17 to a day earlier. Among them, October 9, 1844, in column e, should be October 8.

² The intention of chart B is to add 12 days to the dates in column e. Instead, with the exception of the first year, 13 days are added in every year.

³ If, instead of adding 13 days, 12 days were added to the dates in column e, to compute the dates in column h, and if both sets of dates were computed in the same clock time, then 12 dates in column h would occur 2 days earlier, and among them, October 22, 1844.

⁴ The days of the week in column i should be the same as in column d, for the attempt is here made to change from Julian time to Gregorian, and the order of the days of the week cannot be changed.

The 308th 19-Year Lunar-Solar Cycle Since Creation

Astr.¹
NEW STYLE Vernal OLD STYLE
Equinoctial
Moon Filled

Mnemonic = 1-3-6-9-11-14-17

	[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]	[l]
	Year	A.M.	1832 1833 A.D.	Nisan		d h m	Days		Days			
- 1	14	[1]	5835 ⁵ = 1834 - 35	14	Sun	Apr 12	12 19 16	- 12 ⁴	Mar.30	Fri	30	Apr 29 Sun
2	13	[2]	5836 = 1835 - 36	14	Sun	May 1	30 3 59 ⁵	- 12	Apr 18	Fri		Apr 18 Fri
3	15	[3]	5837 = 1836 - 37	14	Wed	Apr 19	20 8 39	- 12	Apr 6	Mon		Apr 6 Mon
- 4	13	[4]	5838 = 1837 - 38	14	Tues	Apr 10	9 14 6	- 12	Mar 28	Sun	30	Apr 27 Tues
5	14	[5]	5839 = 1838 - 39	14	Sun	Apr 28	28 7 24	- 12	Apr 15	Fri		Apr 15 Fri
- 6	13	[6]	5840 = 1839 - 40	14	Fri	Apr 17	16 7 55	- 12	Apr 4	Wed		Apr 4 Wed
7	13	[7]	5841 = 1840 - 41	14	Tues	Apr 6	5 13 31 ⁶	- 12	Mar 24	Sun	30	Apr 23 Tues
8	13	[8]	5842 = 1841 - 42	14	Mon	Apr 25	24 11 27	- 12	Apr 12	Sab		Apr 12 Sab
- 9	15	[9]	5843 = 1842 - 43	14	Fri	Apr 13	14 2 29	- 12	Mar 31	Wed	30	Apr 30 Fri
10	14	[10]	5844 = 1843 - 44	14	Thur	May 2	2 18 57 ⁷	- 12	Apr 19	Tues		Apr 19 Tues
11	14	[11]	5845 = 1844 - 45	14	Mon	Apr 21	21 19 12	- 12	Apr 8	Sab		Apr 8 Sab
- 12	14	[12]	5846 = 1845 - 46	14	Sab	Apr 11	11 5 54	- 12	Mar 29	Thur	30	Apr 28 Sab
13	14	[13]	5847 = 1846 - 47	14	Fri	Apr 30	30 1 25	- 12	Apr 17	Wed		Apr 17 Wed
- 14	14	[14]	5848 = 1847 - 48	14	Tues	Apr 18	18 2 31	- 12	Apr 5	Sun		Apr 5 Sun
15	13	[15]	5849 = 1848 - 49	14	Sun	Apr 8	7 3 49	- 12	Mar 26	Fri	30	Apr 25 Sun
- 16	12	[16]	5850 = 1849 - 50	14	Sab	Apr 27	25 23 20	- 12	Apr 14	Thur		Apr 14 Thur
17	13	[17]	5851 = 1850 - 51	14	Wed	Apr 16	15 10 35	- 12	Apr 3	Mon		Apr 3 Mon
- 18	14	[18]	5852 = 1851 - 52	14	Sun	Apr 4	4 2 23	- 12	Mar 22	Fri	30	Apr 21 Sun
19	14	[19]	5853 = 1852 - 53	14	Sab	Apr 23	23 3 11	- 12	Apr 10	Thur		Apr 10 Thur

Note--The Astr. Full moons are copied from the Ephemeris, Royal Observatory Greenwich London England.

At the U.S. Naval Observatory, Washington, D.C.

Corrections:

J.H. Wierts

- ¹Not all the moons in column f are "vernal equinoctial full moons." Some are the second full moon after the equinox, e.g., Nos. 2,5,8,13,16,19.
- ²The days of the week in column i should be exactly the same as in column d; for in changing from the Gregorian calendar to the Julian, the day of the week is not changed.
- ³The year 5835 A.M., according to the Wierts system of reckoning, equals 307 cycles and 2 years over, thus showing that the year 1834-35 is 2 years later, or the third cycle year, and not the first. See "Analysis," pp.11,12.
- ⁴In each year in column g, 13 days are actually subtracted instead of 12.
- ⁵The date, Apr. 30 3^h 59^m, is an error. The British Nautical Almanac gives Apr. 30 19^h 57^m for the year 1836, p. 79.
- ⁶If the date in the year 1840-41 is to be embolismic, as indicated in column j, then May 5 2^h 5^m is the true embolismic moon, according to the British N.A.
- ⁷This date should be corrected to May 2 3^h 16^m, as given in the B.N.A. for 1844, p. 101.

JEWISH FEAST CYCLE (1843 and 1844)*
(Boston Civil Time)

	1	2	3	4	5	
	Jewish Month	New Moon	Full Moon	Festivals	Moon's Time	
1843	10 Tebet	Dec. 31	to Jan. 16		=15d-13h- m	
	11 Sebat	Jan. 30	" Feb. 14		=15 - 8 8	
	12 Adar	Mar. 1	" Mar. 16		=14 -23 -56	
<u>MOSAIC</u> also <u>Rabbinical</u>	1 Nisan	Mar. 30	" Apr. 14	Passover	-14 -40 -40	172 days between Passover 1843 and Atonement
	2 Iyar	Apr. 29	" May 13	(Apr. 15=)	-14 - 6 -15	
	3 Sivan	May 29	" June 12	(Nisan 14)	-14 - 0 -16	
	4 Tammuz	June 27	" July 11		-13 -21 -45	
	5 Ab	July 27	" Aug. 9		-13 -23 -11	
	6 Elul	Aug. 25	" Sept. 8	Tisri 10	=14 - 4 -22	
	7 Tisri	Sept. 23	" Oct. 8	=Oct. 4	=14 -12 -23	
1844	8 Heshvan	Oct. 23	" Nov. 7		-14 -21 -46	
	9 Kisleu	Nov. 21	" Dec. 6		-15 - 6 -27	
	10 Tebet	Dec. 21	" Jan. 5		-15 -12 -25	
	11 Sebat	Jan. 19	" Feb. 4	Rabbinical	-15 -14 -24	
	12 Adar I	Feb. 18	" Mar. 4	Passover	-15 -12 -16	
	13 Adar II	Mar. 18	" Apr. 3	April 4	-15 - 6 -40	
	<u>MOSAIC</u> <u>only</u>	1 Nisan	Apr. 17	" May 2	Passover	-14 -22 -43
2 Iyar		May 17	" May 31	(May 3=)	-14 -13 -53	
3 Sivan		June 15	" June 30	(Nisan 14)	-14 - 5 -50	
4 Tammuz		July 15	" July 29		-14 - 0 -10	
5 Ab		Aug. 13	" Aug. 27		-13 -22 - 2	
6 Elul		Sept. 12	" Sept. 26	Tisri 10	-13 -23 -57	
7 Tisri		Oct. 11	" Oct. 25	=Oct. 22	=14 - 5 -41	
	8 Heshvan	Nov. 10	" Nov. 24		-14 -14 - 5	
	9 Kisleu	Dec. 9	" Dec. 24		-14 -23 -16	

* Moon's phases computed from the British Nautical Almanac

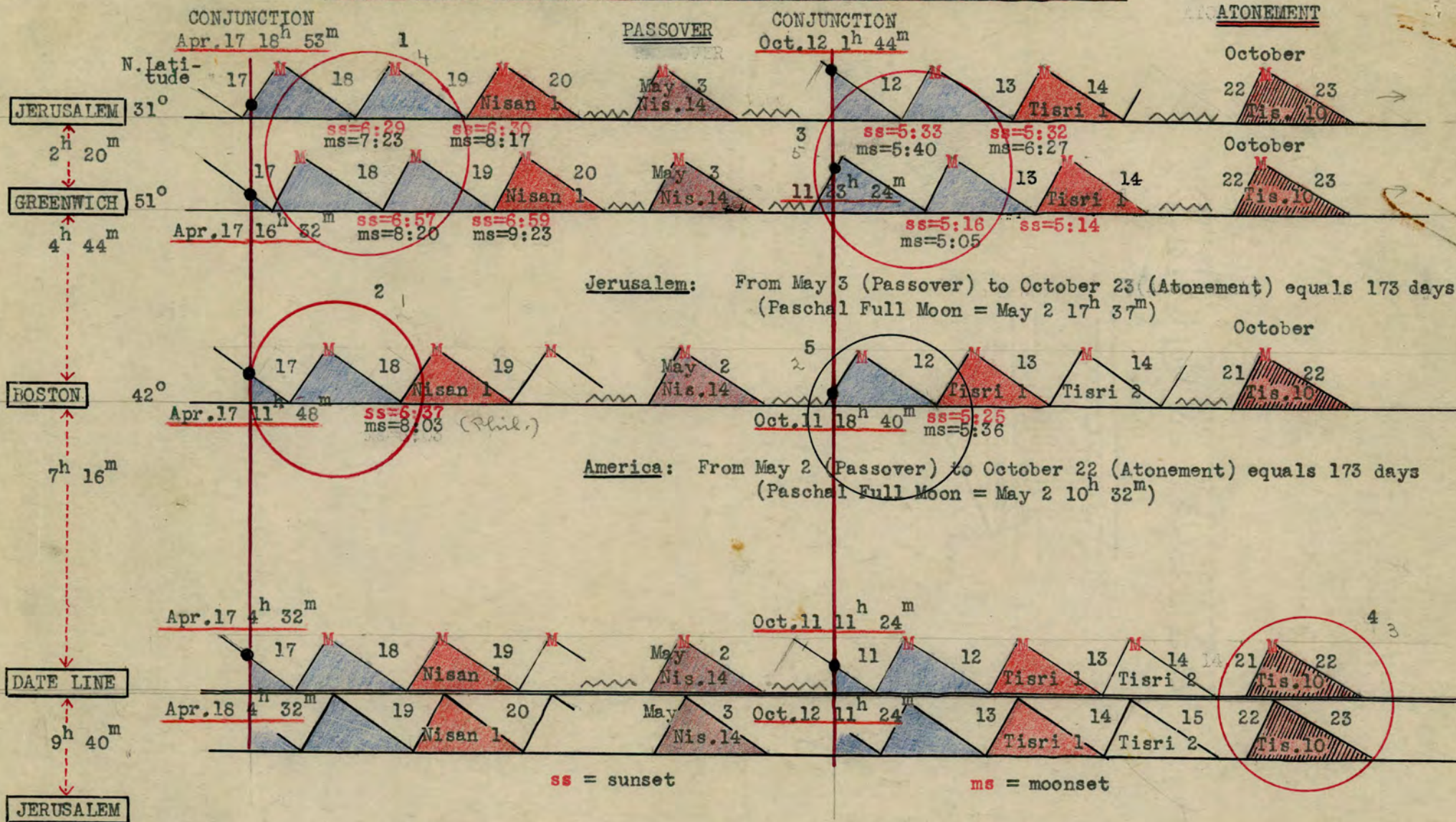
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The spring of 1843 offers only one date that can possibly correspond to the new moon of Nisan -- March 30. From this spring moon, the Jewish year in 1843 began, the Passover coming on April 15, and after 172 days, Tisri 10 coming on October 4. Column 2 shows that the time from March 30 (the first new moon after the vernal equinox in 1843), to March 18, inclusive, the last new moon before the vernal equinox in 1844), is exactly 13 moons. In order to coalesce with the extra moon, the Jewish year should intercalate a second Adar, whose full moon would then come on April 3, 1844. This Adar moon could not be the Mosaic paschal moon, for it is too early--the latter rain not yet being ended, and the barley corn not yet being ripe in Palestine. Hence the next new moon, whose conjunction is on April 17, must mark the month Nisan in 1844. The Passover would therefore come on May 3, the day following full moon; and the Tisri new moon would of necessity fall in October, the day of atonement coming on October 22 at the end of 172 days from Passover. The one place for the new moon of Nisan on March 30, 1843, and also of the full moon of April 3, 1844--which must belong to Adar because it is too early for Nisan--represent two fixed positions of the moon that exactly determine the date of Tisri 10 in 1844 to be the 22nd day of October.

EMBOLOSIMIC

THE MOSAIC FEAST PERIOD

DIAGRAM OF THE PHASIS ON FOUR MERIDIANS -- APRIL AND OCTOBER, 1844



Jerusalem: From May 3 (Passover) to October 23 (Atonement) equals 173 days
(Paschal Full Moon = May 2 17^h 37^m)

America: From May 2 (Passover) to October 22 (Atonement) equals 173 days
(Paschal Full Moon = May 2 10^h 32^m)

APRIL MOON ---

OCTOBER MOON --

Sign = Aries
Declination = 18° north
April 19 = Apogee

Sign = Libra
Declination = 16° south
October 13 = Perigee

ANALYSIS OF THE WIERTS TABLES

Before making any comparison between computations that are the basis of Part V of the Research Committee's Report and those of the tables which J. H. Wierdsma has presented in criticism, it is essential to understand the foundation upon which both calculations are made.

The computations and conclusions of PART V of the Report of the Research Committee are based entirely upon the astronomical 19-year cycle, whose new moons and full moons are those of standard ephemerides, both for the first century and the 19th century. The length of the Mosaic year is taken from paschal full moon to paschal full moon, making the common year either 354 or 355 days long, and the embolismic year, 383 or 384 days long. This is in harmony with Jewish chronology for ancient times.¹ The leap year is determined by the barley harvest intercalation, and the astronomical cycle formula. When the lunar year, day by day, is laid down on this basis, the paschal full moons, Jerusalem civil time, regularly fall on Nisan 13.² This form of the Jewish sacred year harmonizes with the technical statements and specific dates of the Millerites in 1844.

When, on this same basis, the years of Christ's public ministry are spread over the calendar, day by day, only one single year offers a Friday passover--the year 31 A.D., on April 27. There seems to be no other reckoning with reference to the crucifixion date than that submitted here, which has thus far offered proof concerning one year only as the death year of Christ. Others have at least one alternative.

¹"In the modern Jewish calendar greater variations are found in the lengths of the ordinary and embolismic years, respectively, especially the ordinary short year of 353 days and the abundant embolismic year of 385 days, issues of the system of postponements inaugurated later by the Jewish doctors of Babylon, but which did not then exist in the first century."--Sidersky, David, "Etude sur l'origine astronomique de la chronologie juive," Paris, 1913, page 633.

²Report of the Committee, Part V, page 38.

The Wiertz Tables are supported by a special form of an ecclesiastical 19-year cycle, which goes back 212 cycles before the baptism of Christ, and is dated at 4000 years before the beginning of the Christian era. The first year of cycle "213" is represented as coinciding with the year 27-28 A.D., which is taken as the year of the baptism of Christ, and the cycle continues on to the year 45-46 A.D. The cycle pertaining to the year 1844 is numbered "308," and extends from 1834-35 to 1852-53. These cycles are understood to belong to a continuous series of cycles covering the Christian era.

The list of 19 "paschal full moons" belonging to cycle "213" in the first century was computed, partly from a table of full moon dates sent to E.E. Franke by the United States Naval Observatory, January 16, 1919, and partly from the Guinness series of mean new moons. The dates for Tisri 10 in cycle "213" were obtained by adding 174 days inclusive to each paschal full moon date, and this series in turn was transferred to cycle "308" of the 19th century. To each date 12 days were then added, in an endeavor to change over to the Gregorian calendar, as indicated in Chart B, and the resultant list of 19 dates is offered as Tisri 10 of cycle "308" in the 19th century. By this method of computation, the date sought, October 22, 1844, seems to have been determined. Similarly, the passover moon dates of the "308th" cycle are obtained by subtracting 12 days from each paschal full moon of the 19-year cycle, and adding 30 days to each resultant March moon of the series. The leap years are thus found by this so-called March rule, which makes embolismic any year having a full moon in March after the "vernal equinox,"³ Julian time. The length of year employed in these tables is the same as found in the modern Jewish

³This "March rule" changes the moon dates from Gregorian to Julian time in the 19th century, by subtracting the 12 days, but leaves the vernal equinox in Gregorian time, thus arbitrarily changing the fixed interval between the vernal equinox and any moon date.

calendar.⁴

The computations in Tables A, B, and C are of such a nature, that--due to the length of lunar year employed, the embolismic rule followed, and irregular methods of computation, which are without astronomical support in the final analysis--three years during the public ministry of Christ appear to have a Friday passover. These tables also appear to be out of harmony with certain Adventist statements and calculations in 1844.⁵

1. VEADAR PERIOD.--In the first century table accompanying chart A, the dates given in column e comprise a series of 19-year cycle full moons, each one of which is listed as Nisan 14, and most of which are one day in advance of the astronomical full moons. With but one exception, in every embolismic year of the cycle, the period between the vernal equinoctial full moon in March, (e.g., March 29), and the succeeding paschal cycle^{moon} (e.g., April 29) on Nisan 14 is actually 31 days, and is named in column d, "Veadar Month." In chart C, on the contrary, the period between a cycle full moon in March, (e.g., March 30, column h), and the next succeeding cycle full moon in April, (e.g., April 29, column k), is reckoned as 30 days, and this column also is named "Veadar." In the mimeographed calendar table D (page 2) for the year 1843, the month of Veadar is listed as 30 days.

⁴The Wiersts Bible Time reckoning in chart A allows 385 days from April 7, 30 A.D. to April 27, 31 A.D.; and in chart C, 353 days are allowed from April 27, 1838 to April 15, 1839. According to Sidersky (Reference 1), years that are 353 or 385 days long are the result of postponements, which did not exist in the first century Jewish computation. In the tenth century, Saadiah Gaon maintained the opposite, in his fierce polemic with Ben Meir, but Poznanski says that in so doing, "he (Saadiah) was contradicted, not only by all Karaites, but also by many Rabbanites, and that he went "against his own authorities."--"Jewish Quarterly Review," Vol. X, p. 271.

⁵There are two main points of difference between the Wiersts computations and those of the Adventists in 1844: (1) The Adventists reckoned the year 1844 as embolismic, while the Wiersts calendar tables make the year 1843 a Jewish leap year; (2) the Adventists figured the tenth day of the seventh month as October 21/22 in Boston, and October 22/23 in Jerusalem; but the Wiersts tables represent it as October 22 on both meridians, and in fact all over the world.

The first "Veadar" period--31 days--runs from an astronomical full moon to a cycle full moon; the second--30 days--from cycle full moon to cycle full moon; the third--30 days--from new moon to new moon. Not one of the three irregular forms of a Veadar period used in these tables agrees with the true Veadar month, which, according to standard chronology, runs from new moon day to new moon day, and is always 29 days long.⁶ If the true length of Veadar were substituted for the irregular embolismic periods employed in these tables, the conclusions would be annulled.

2. NISAN 14 IN THE SPRING OF 30 AND 31 A.D.--The Wiersts 19-year cycle "213," extending from 27-28 A.D. to 45-46 A.D., agrees with the corresponding astronomical cycle in its total length--6940 days. There is also agreement in the length of their respective years, except in the following eight years, taken from cycle "213."

Cycle Year	Lunar Year	Days in Wiersts Cycle (I) ⁷	Days in Astro. Cycle (II) ⁸
1	27-28	385 ⁷	384 ⁸
2	28-29	354	355
4	30-31	385	384
5	31-32	354	355
11	37-38	354	355
13	39-40	355	354
14	40-41	354	355
15	41-42	385	384
		2926	2926

The variations in the length of year in columns I and II particularly concern our problem in reference to the Jewish year 30-31 A.D., which in cycle "213" differs from the year in the astronomical cycle by one day. The reason for this may be seen by noting the spring of 31 A.D. in chart A, where an actual period of 31 days extends from March 27 to April 27, although the table represents that "30 days" only are to be added to March 27. When these figures are corrected, April 27 would

⁶All standard authorities give the length of Veadar as 29 days.

⁷Reckoned from cycle full moon to cycle full moon, which is taken as Nisan 14, sometimes 1 day or 2 days after the astronomical moon, and sometimes on it.

⁸Reckoned from astronomical paschal full moon to astronomical paschal full moon, in harmony with barley harvest.

read April 26, and this correction would place the length of the cycle year in harmony with the astronomical--384 days. But if it is contended that in 31 A.D., April 27 is a fixed date, then the paschal moon date, April 7, in the spring of 30 A.D., would have to be advanced one day, causing April 8 to coincide with Nisan 14. This is the most reasonable adjustment to be made, in order to conform with the so-called "30 day" embolismic rule of cycle "213," since the paschal full moon dates of both the years 30 and 31 occur after sunset, near midnight. To be consistent, they should be treated alike by allowing in each year that Nisan 14 occur on the second calendar day after the fulling of the moon, and not on the first in 30 A.D., and on the second in 31 A.D. As the table stands, its figures clash with its own rules.

3. EMBOLISM.--In chart A, cycle "213," the dates April 4 (33 A.D.), April 5 (41 A.D.), and April 2 (44 A.D.) are considered to be paschal moons on Nisan 14. These dates are too early for barley harvest, even in the first century. Therefore they are too early for the passover. They are not in harmony with the Bible ruling, which shows from Joel 2:23 that the latter rain extended over into the first month (Nisan); and, from the song in Canticles 2:11, that the rain was over when the passover came--"the season so beautifully pictured by the sacred singer." ("Patriarchs and Prophets," p. 537.) This fact is confirmed by the agricultural and meteorological reports of Palestine.⁹

Cycle "213" makes the spring of 34 A.D. embolismic, whereas the astronomical cycle corresponding with the barley harvest makes it necessary for the embolism to be placed in the spring of 33 A.D. A Jewish leap year in 33 A.D. helps much to

⁹"During the first part of the year, which is called . . . harvest, and which extends from the middle of April to the middle of June, the sky is serene . . . From the time of harvest or the middle of April to the middle of September, there is neither rain nor thunder, Prov. 26:1; I Sam. 12:17."
--Johann Jahn, "Biblical Archaeology," trans. by Thomas Upham, Andover, 1823, p. 22.

establish the year 31 A.D. as the crucifixion date, and rules out 33 A.D., in which the embolismic paschal full moon occurs, not on a Friday, April 3, but on Sunday, May 3. The previous full moon on Friday, April 3, 33 A.D., has long been the favorite date of both Catholics and Jews¹⁰ for a Friday passover in the time of Christ; and Catholics largely favor this day as the date of the crucifixion.¹¹ But an embolism in the spring of 33, as pointed out by the moon, defers the paschal moon in that year to Sunday, May 3, and removes the possibility of its marking the passover on which Christ died.

4. CYCLES "213" and "308"--In the tables under discussion, cycles "213" and "308" are both said to date from the creation of the world, and therefore they should both belong to the same continuity of cycles. For example, from cycle "213" to "308" there are 95 cycles, or 1805 years. Obviously there should be the same difference in years between the respective years of the two cycles, as from the initial year 27-28 of cycle "213" to the initial year 1834-35 of cycle "308." There are, however, 1807 years between any two corresponding years of the cycles, thus revealing an apparent discrepancy of two years. Either cycle "213" should begin later, or cycle "308" earlier. This necessary adjustment will radically change the position of the embolismic years as outlined by the Wiertz tables.¹²

¹⁰Sidersky, David, "Chronologie Juive," p. 636.

¹¹The Pope of Rome in 1933 proclaimed a holy year, to extend from Passion Sunday (April 2, 1933) to Easter Sunday (April 2, 1934) in commemoration of the death of Christ. "It is clear that a theory, in itself so reasonable and well founded as that which regards April 3, 33 A.D., as the day of the crucifixion, must gain enormously in prestige by the direct support of our Holy Father."--Patrick Canon Boylan, "The Date of the Crucifixion," p. 11.

¹²Wiertz claims for his 19-year cycle the following mnemonic for the embolismic years; viz. 1-4-7-9-12-15-18. Since the year 38-39 A.D. is No. 12 in cycle "213," then 1805 years later (19 times 95 cycles) would make the year 1843-44, the 12th year of cycle "308," as embolismic. This would disturb his passover date and Tisri 10 date for the year 1843. However, the passover date for the year 1843, in chart D, page 2, is given as May 14, while in chart C, column e, for 1843, it is April 13. The two dates do not agree.

5. OLD STYLE AND NEW STYLE.--In the three SERIES tabulated below, all of the moons in the 19th century belong to years which are exactly 95 times 19 years (or 1805 years) distant from their corresponding cycle years in the first century. Each series tells the same story; namely, that a moon date in the 19th century is 5 or 6 days later in point of calendar time than the same cycle moon in the first century. These first century moons are reckoned according to the Julian calendar as used in the time of Christ, and are also true according to astronomical time. There is a definite astronomical reason for this 5 or 6 days difference between the cycle moons of the first and 19th centuries. In the first place, the moon itself takes 8 days longer to accomplish its course through 95 cycles of time than does the sun, or 95 times $2^h 4^m$ (the moon's delay every 19 years). These 8 days tend to set the moon dates that much later in the 19th century than they are in the first. But in the years 100 and 200 A.D., 2 leap days were added to the calendar by the Julian reckoning, which Gregory XIII did not correct in 1582--his correction of 10 days extending back to the year 300 A.D. only. These 2 days, which the calendar did not need, set the moon back just that much. Therefore the moon's cycle dates in the 19th century were delayed but 6 days instead of 8. There are also other irregularities in the motion of the moon which cause this difference to fluctuate a few hours.

THE DIFFERENCE IN DAYS BETWEEN THE 19TH CENTURY FULL MOONS AND THEIR CORRESPONDING CYCLE MOONS IN THE FIRST CENTURY IS 5 OR 6 DAYS - NOT 12

S E R I E S I			S E R I E S II			S E R I E S III		
Gregorian	Julian	Difference	Gregorian	Julian	Difference	Gregorian	Julian	Difference
1838	33 A.D.	in Days	1844	39 A.D.	in Days	1851	46 A.D.	in Days
1805 yrs.--95 cycles			1805 yrs.--95 cycles			1805 yrs.--95 cycles		

F U L L M O O N S				F U L L M O O N S				F U L L M O O N S			
Jan	10.30 ¹	minus 3.93 ²	1 = 6.37 days	Jan	5.23 ¹	-- 29.86 ²	XII = 6.37 days	Jan	17.19 ¹	-- 10.81 ²	1 = 6.38 days
Feb	9.07	" 2.69	II = 6.38 "	Feb	3.86	-- 28.47	I = 6.39 "	Feb	15.64	-- 9.24	II = 6.40 "
Mar	10.86	" 4.44	III = 6.42 "	Mar	4.37	-- 26.96	II = 6.41 "	Mar	17.05	-- 10.60	III = 6.55 "
Apr	9.58	" 3.12	IV = 6.46 "	Apr	2.78	-- 28.33	III = 5.45 "	Apr	15.44	-- 8.96	IV = 6.48 "
May	9.23	" 2.70	V = 6.53 "	May	2.13	-- 26.66	IV = 5.47 "	May	14.86	-- 8.35	V = 6.51 "
June	7.70	" 1.19	VI = 6.51 "	May	31.44	-- 25.94	V = 5.50 "	June	13.28	-- 6.78	VI = 6.50 "
July	7.09	" 30.59	VI = 6.50 "	June	29.76	-- 24.24	VI = 5.52 "	July	12.80	-- 6.30	VII = 6.50 "
Aug	5.43	" 29.94	VII = 6.49 "	July	29.10	-- 23.59	VII = 5.51 "	Aug	11.40	-- 4.92	VIII = 6.48 "
Sep	3.76	" 28.29	VIII = 6.48 "	Aug	27.52	-- 22.05	VIII = 5.47 "	Sep	10.07	-- 3.63	IX = 6.44 "
Oct	3.11	" 26.66	IX = 6.45 "	Sep	26.05	-- 20.62	IX = 5.73 "	Oct	9.77	-- 3.38	X = 6.39 "
Nov	1.51	" 26.09	X = 6.42 "	Oct	25.71	-- 20.32	X = 5.39 "	Nov	8.47	-- 2.10	XI = 6.37 "
Nov	30.98	" 24.59	XI = 6.39 "	Nov	21.48	-- 19.14	XI = 5.34 "	Dec.	8.14	-- 1.78	XII = 6.36 "
Dec	30.52	" 24.15	XII = 6.37 "	Dec.	24.31	-- 18.95	XII = 5.36 "	Jan	6.75	-- 31.39	XII = 6.36 "

¹The 19th century full moons are computed decimally from the British Nautical Almanac for the years 1838, 1844, and 1851. ²The first century full moons, in decimal form, are taken from the Ginzol "Handbuch," pp. 573, 574.

From the foregoing table it can be plainly seen that there are not 12 days difference between the synchronous years of a 19th century cycle in Gregorian time and a first century cycle in Julian time. Consequently it would appear that the hypothesis--"the location of Old Testament yearly festivals in the 19th century must be reckoned in Old and New Style"¹³--does not accord with the facts.

The calculations in the Wierds charts B and C, which represent an attempt to change moon dates over to Old Style, and vice versa, are in error in three respects: (1) In each instance, except one, 13 days, and not 12, were either added to, or subtracted from, the dates given, in order to change from one calendar to another in the 19th century. (2) In each instance also, the computation actually changed the days of the week, thus breaking their inviolable sequence. (3) Cycles "213" and "308" are 2 years out of alignment with the continuity of cycles, since their corresponding years are separated by 2 years more than the 95 cycles involved, and therefore the results sought and obtained are not accurate.

And of what use would it be to transfer the moon dates of the Gregorian calendar to Julian time of the 19th century? The subtraction of 12 days does not change them over to Julian time in the first century, as the calculation in Series I, II, and III in the accompanying outline shows, which gives a difference of only 5 or 6 days between the moon dates of the first century, and those in the corresponding 19-year cycle to which the year 1844 belongs. But this difference of 5 or 6 days is of importance in the 1844 problem in reference to the calendar. It accounts for the fact that the Adventists in 1844 learned to reject the full moons occurring around the first of April as too early for the true passover, and were led to refuse April 4, 1844, of the Rabbinical calendar as the right time, seeing that it really belonged to Veadar, the Jewish month of the "latter rain" in March. In so doing, they acted in harmony with the astronomical principles which direct the moon's motion over these 19 centuries of time, and which caused the full moons of the 19th century to appear 5 or 6 days later than the corresponding moons of the first century, and not 12 days!

¹³Wierds, J.H., "Bible Time Is Planetary Motion Time," p. 5.

CONCLUSION: The 12-day difference between Old Style and New Style in the 19th century does not represent the difference in days between a paschal moon date in the time of Christ, and its corresponding paschal cycle moon in the year 1844. Therefore this difference is an irrelevant factor in locating the true position of the paschal month.

6. CIVIL DATE OF TISRI 10 ON TWO MERIDIANS.--It has been suggested that a 19-year cycle would make it possible for a Jewish festival to have the same civil date all over the world. But this ideal has never materialized since the dispersion of the Jews, even though their fixed calendar is based on a 19-year cycle. In the East, Rosh Hashana is observed on two successive days; in the West, usually on one day, though custom varies.¹⁴ The "double moon day of the diaspora" is the answer to an attempt at unification of festival observance on a round world.¹⁵ This problem led to the well-known tenth century rivalry between Rabbanites and Karaites over a fixed meridian for determining Jewish festival dates. As a matter of fact, on account of the ever changing conjunction date and its accordant

¹⁴The two-day observance of the Jewish New Year in the East, in contrast to one day in the West, is very old. The Syrian historian, Elias of Nisibis, mentions that in the year 1046 a schism occurred between the Eastern and Western Jews in reference to their feasts, so that the Eastern Jews began their year on a Thursday, and the Western on a Tuesday.--"Jewish Quarterly Review," Vol. X, p. 154.

Samuel Poznanski quotes from Sahl b. Mazliach as saying that the dispute in the 10th century between Saadiah Gaon and Ben Meir resulted in some Rabbanites keeping two days of the festival--"one according to the observance of the moon, and one according to the fixed calendar."--"Jewish Quarterly Review," Vol. X, p. 159.

"Among the Karaites of the present day, accordingly, the determination of new moons and festivals depends wholly on the interval between conjunction and sunset, thus approximating--in theory--very closely to the method of the Rabbanites. In practice, however, the difference in the dating of festivals may amount to one or even two days."--Poznanski, "Encyclopaedia of Religion and Ethics," edited by James Hastings, Article, "Jewish Calendar."

"Thus until this day the Karaites in the Orient, and in the Crimea, are seen to have their religious festivals celebrated on different days by different communities."--Sidersky, David, "Chronologie juives," p. 623.

"The moon which will show herself the first night after new moon in the Crimea, cannot appear the same evening everywhere."--Juhuda Kokisoff, "Brief Information on the Karaite Calendar," trans. from the Russian.

¹⁵Poznanski, "Hastings Encyclopaedia of Religion and Ethics," article, "Jewish Calendar."

phasis, the Jewish New Year does not have a constant meridian such as has been accepted for the civil day.

It has been disturbing to some to see the figures Tisri 10 as October 22/23 on the Clock Chart in Jerusalem, and as October 21/22 in Boston. The Wierts mimeographed table marked "true" has been offered in correction, every date of which is in error, according to standard almanacs. The table is itself out of alignment with the cycle series by two years. The Adventists of 1844 have left no record of any series of 19-year cycle dates that have been worked out from the creation of the world. Nevertheless, scholarship will accept their computations for the very reason that their festival dates are in harmony with the position of the moon as mapped out by standard ephemerides for various meridians. We have no other standard for determining the accuracy of these dates than the recorded movement of the stars, and the inviolable rulings governing the Mosaic sacred year.

In the specific instance of the October conjunction in 1844, the new moon day, which first appeared in the western hemisphere as Tisri 1/October 13, left New England, crossed the day line as October 14, and came to Jerusalem about 17 hours later. It was still the same lunar festival day, Tisri 1. Its civil date only had changed. Naturally, in its course westward, October 14, as we see it in Jerusalem, could not become October 13 in Boston; but at the end of 24 hours, this festival day, Tisri 1/October 14, returns to America, its starting place, ready for the next day, Tisri 2/October 14. In only one part of the world was Tisri 1 marked by the civil date, October 13, and that was America, the land of the "seventh month movement," where alone, a specific date seems to have been set for the coming of Christ.

The Adventists in 1844 carefully worked out their problem on two meridians, Boston and Jerusalem. The new moon of Tisri was apparently reckoned to be an October moon, by counting it as the seventh moon inclusive from the April conjunction--April 17, Boston civil time. November 11 was cited as the last day

of Tisri;¹⁶ the conjunction on the 10th being too late for a phasis on that day. The November phasis, therefore, which had to come on November 11, the "second evening after the change," fixed the October phasis in Boston on the first evening after, making Tisri 1 to fall on October 13. Tisri 1 in Jerusalem was in like manner figured as beginning at the second sunset, the moon setting "one day and seventeen hours old." This point of time was then found to coincide with "11 a.m. in Boston," which was still October 13.¹⁷ This "strengthened" the Millerites that they had chosen the right "month." This same coincidence between the two meridians did not pertain to the September conjunction, whose translation periods in Boston and Jerusalem were entirely different from those of the October new moon.

And so the first day of the seventh month was October 12/13 in Boston, and 13/14 in Jerusalem; while the tenth day in Boston was October 21/22, and in Jerusalem it was October 22/23. In the ancient land of Israel, the day, Tisri 10, had seven hours in common with the day in America.

S U M M A R Y.--The crucifixion year, 31 A.D., has in reality but two possible competing dates, the years 30 and 33 A.D. The Day of Atonement in 1844 had one competing month, the Rabbinical month Tisri, which came in September. The following is a summary of the argument which the Wierds tables present in reference to these questions:

1. The 19-year cycle "213" marks a passover on Friday, April 7, 30 A.D., and whether so designed or not, this Friday paschal date actually concedes a rival year to the crucifixion Friday of 31 A.D.
2. The year 34 A.D. is made embolismic by cycle "213," in contrast to the year 33 A.D., which the Mosaic rule and the astronomical cycle point out as embolismic. By taking embolism away from the spring of 33 A.D., the passover moon is dated on Friday, April 3, in 33, and in this way cycle "213" lends aid to a second rival year of the crucifixion. The astronomical cycle points to Sunday, May 3, as the paschal moon of that year, and takes away any opportunity of its being the death year of Christ.
3. According to the embolismic rule by which cycles "213" and "308" are governed, the spring of 1843 is marked as being embolismic, while the Mosaic rule,

¹⁶The Advent Shield, Vol. 1, 1844-45, p. 273.

¹⁷Midnight Cry, Oct. 31, 1844, p. 141, col. 1.

astronomy, and Millerism called for the spring of 1844 to be embolismic. On the contrary, if the Adventists had reckoned the spring of 1844 as belonging to a common year, Jewish time, then April 3 would perforce have been their passover on Nisan 14, and September 23 their Day of Atonement.

4. The Wierts mimeographed calendar tables, marked "true," and charts A, B, and C, which have been offered in correction of Part V of the committee's report, are in error on the following counts:

a. The three irregular forms of a 30- and 31-day "Veadar" period used in these tables and charts are entirely out of harmony with the accepted Veadar month established by chronology as 29 days.

b. Cycle "213" is out of alignment by two years with cycle "308," or vice versa. If 2728 is the 1st year of the 213th cycle, his first cycle should begin with the year 4002-1 B.C. instead of the year 4000 B.C.¹⁸

c. The embolismic years, therefore, in both the first and 19th centuries are called in question by the authority of the barley-harvest ruling of the Mosaic law.

d. The argument in these tables in reference to Old Style and New Style is wholly irrelevant to the location of the Jewish passover.

e. In the Wierts calendar, more than 100 new moons and full moons have been incorrectly computed from the British Nautical Almanac. As a result many of the calendar days are not correctly dated, and among them the 10th day of the seventh month on the Greenwich meridian.

f. In changing from Gregorian to Julian time, the order of the days of the week is changed.

¹⁸Wierts, J.H., "Bible Time Is Planetary Motion Time," p. 9. In the computation here referred to, the equation " $4000 + 1843 = 5843 \div 19 = 307 \frac{10}{19}$ " is wrong, because it does not recognize the problem involved in changing from B.C. to A.D. time.

Rejection of
THE WIERTS CRITICISM OF PART FIVE OF THE COMMITTEE'S REPORT

At the presentation of PART V of the Committee's Report on July 10, 1939 in the General Conference Chapel, four points of criticism were offered by Bro. J.H. Wierst, ~~they were~~ as follows:

POINT ONE.--The claim that the October conjunction in 1844, which pointed to the first day of the Jewish seventh month Tisri, was a morning conjunction ^{in Boston.} The Committee's Report placed this conjunction in the evening at 6:40 p.m.

POINT TWO.--The emphatic statement that "it matters not where you are, you can never see the moon 22 hours after conjunction." (Stenographic Report, page 10.)

POINT THREE.--The contention that Friday, April 7, 30 A.D., was the day of the Jewish passover on Nisan 14.

POINT FOUR.--The ~~question whether~~ ^{assertion that} Tisri 1 in 1844 could ~~be~~ ^{not occur in Jerusalem} ~~October 12/13,~~ ^{on} ~~and~~ ^{and Tisri 10 on} ~~October 13/14,~~ ^{Jerusalem civil time.} ~~and~~ ^{October 22/23.}

^{The Error of Each Contention}
(Date of the October Conjunction in Boston, 1844).--
POINT ONE.--Prior to the year 1925, the standard almanacs reckon their dates

from noon to noon. In order to convert these to civil time, that is, from ~~midnight~~ ^{had to be} to midnight, 12 hours ~~must be~~ added. Bro. Wierst failed to do this, and consequently in his mimeographed tables, numbered Charts "D" and "E," he has misrepresented more than 100 dates taken from the British Nautical Almanac, and called them "civil time," when they are in fact ^{erect while} astronomical time from noon to noon. Hence the Committee's Report was correct in placing the October conjunction at 6:40 in the evening, ^{Boston civil} time.

The Millerites understood this, and frequently mentioned the "change of the moon" on the evening of October 11.¹ (~~The accompanying page 2~~ ^{attached mimeographed pages} give the testimony of both standard and ~~local~~ ^{contemporary} almanacs with reference to the October conjunction in 1844.)
^{(Shortest Translation Periods).--}

POINT TWO.--We have many instances of even shorter translation periods than 22 hours.² The standard Karaite rule counted the first day of the month as taking

¹ Midnight Cry, Oct. 11, 1844, p. 117; Oct. 19, 1844, p. 133, etc.

² Gerhardt, Oswald, "Astronomische Nachrichten," Vol. 240. "The Date of the Crucifixion of Jesus Christ," par. 17. Gerhardt mentions that Ginsel found several cases of short translations both in the Assuan parchments and in Ptolemaus' Almagest. In the piercingly clear atmosphere of Jerusalem the moon can at times be seen in even less than 22 hours.

EXAMINATION OF WIERTS "TRUE" TABLES FOR 1843-1844

The validity of the Wiert's "true" tables for 1844, which were presented by him in the General Conference Chapel, July 10, 1939, in criticism of the Committee's Report and Charts illustrating the Millerite argument, is called in question by our Committee on the following counts:

1. Erroneous computation of the moon dates taken from the British Nautical Almanac.
2. Errors in the length and position of the Jewish leap-month, Veadar.
3. Wrong date of the 10th day of the seventh month on the Greenwich meridian.
4. Faulty calculation of the translation of the moon, "From Conjunction of the Moon to the Phasis for October, 1844."

I. ERRONEOUS COMPUTATION OF DATES.--In the Wiert's mimeographed calendar tables,¹ there are, altogether, 107 moon dates, which were taken from the British Nautical Almanac.² In the ephemeris itself, they are presented in astronomical time, from noon to noon, 12 hours earlier than common civil time.³ These same dates are introduced, however, into the Wiert's tables as from midnight to midnight,⁴ instead of from noon to noon, as tabulated in the standard almanac and ephemeris. This 12-hour error in computation causes about half the conjunctions (new moons) and oppositions (full moons) in the Wiert's calendar to miss the correct civil date by one day. The conjunction in Boston, which was preliminary to the first day of Tisri in 1844, is given as a morning event, 6:39 a.m., October 11, instead of the

¹Charts "D" and "E"--so marked for reference.

²Chart "D," p. 1.

³"The Nautical Almanac and Astronomical Ephemeris for the year 1844," pp. 564, 565. London, 1840. [The British Almanac was first issued in 1767, and from that year to the year 1924 inclusive, all the dates were given in astronomical mean noon time, that is, from noon to noon. The "American Ephemeris," "Connaissance des temps," and "Berliner Jahrbuch" also followed this dating. But in the year 1925, all standard almanacs changed to civil time reckoning, as from midnight to midnight.]

⁴Chart "E," p. 9.

true time at 6:40 in the evening.⁵ But this is out of harmony with all the local almanacs of New England, as well as with the Millerite testimony, which repeatedly speaks of the change of the moon "on the evening of October 11th."⁶ Moreover, this 12-hour mistake in the dates makes it impossible for the Wiert's figures to be correct, which define the translation period and phasis (or first appearance) of the moon in Greenwich, Boston, and Jerusalem, following the October conjunction in 1844.⁷

II. ERRORS IN LENGTH AND POSITION OF THE EMBOLISMIC MONTH, VEADAR.--In the Wiert's tables under discussion, the Jewish leap-month, Veadar, is always given a mistaken length of 30 days, contrary to the technical chronology involved.⁴ The moon accomplishes 354.367 days in 12 lunar months (12 X 29.530588 days). But the solar year = 365.2421987 days. Hence, in a cycle of 19 solar years, or 6939.601 days (19 X 365.2421987), the total lunar years, or 6732.973 days (19 X 354.367) are less than the solar by 206.628 days. This period of 206.628 days has to be added to the moon's course in order to make her cycle end on the same day as that of the sun.

By intercalating a month seven times in 19 years, Kisleu and Hesvan, and adjusting the difference between 19 solar and 19 lunar years is adjusted within 2 hours and 4 minutes at the end of the cycle. To this ^{intercalated} month, known as Veadar, ~~the standard~~ correction for embolism always allows 29 days,⁸ and also gives an extra day to the

⁵"British Nautical Almanac, 1844," page 211. Here the October conjunction, from noon to noon, Greenwich meridian, is given Oct. 11 11^h 24^m. Add 12 hours to change to civil time; then subtract 4^h 44^m to correct the longitude, and get Oct. 11 18^h 40^m, or 6:40 p.m., Boston civil time.

⁶Midnight Cry, October 11, 1844, p. 117; October 19, 1844, p. 133.

⁷Chart "E" p. 9. The Wiert's translation period is fully discussed under Point 4. ⁸Albiruni declares that the Second Adhar, or Veadar, is the original month of Adhar, and that . . . "the number of its days is not liable to any change from the original Adhar," which was 29 days. (Albiruni, "Chronology of Ancient Nations," p. 63. Tr. by C. Eduard Sachau.)

b. Sachau, in his notes to Albiruni, page 273, states that Adhar II has 29 days.

c. Zuckermann, B., "Anleitung und Tabellen," p. 38 (table). Breslau, 1893.

d. Ideler, Ludwig, "Handbuch der mathematischen und technischen Chronologie,"

Vol. I, p. 539. Berlin, 1826. Veadar = 29 days.

e. Wieseler, Karl, "Chronological Synopsis of the Four Gospels," p. 434. London, 1864. Gives 29 days to Veadar in 29 A.D. [Veadar.

f. Sidersky, D., "Etude de la chronologie juive," p. 602. Table gives 29 days to

g. Encyclopedia Britannica, Vol. IV, p. 668. Werner Co., Chicago, 1894. Art. ^{end}Gal-

h. Signs of the Times, July 12, 1843, p. 149. Millerites reckon an embolismic month as 29 days.

previous Adar, making it 30 days. In this manner, 30 days are added seven times in a 19-year cycle, or 210 days in all, thus causing an excess of 3,372 days (210 - 206.628). These additional three days, and some ^{more,} have to be taken from the variable Jewish month Kislev, as the moon may indicate. The common years in such cycles are either 354 or 355 days long, ^{whereas} The leap-years are usually 384 days long, but about once in every cycle there will be a leap-year of 383 days. Thus the ancient Mosaic year, without postponements,⁹ had a simple method that would easily conform to the joint demand of observation and reckoning. It is outlined as such in Scaliger's notable table of Jewish cycles in the first and sixth centuries. Here the leap-years are nearly all 384 days long.¹⁰

The Wiert's 19-year cycle, on the contrary, not only makes ^{use of} the standard correction of 210 days for embolism, with its resultant 3,372 days in excess, but adds 7 days more, by always giving to Veadar 30 days. The excess days in the Wiert's cycle ~~are~~ therefore ^{total} 7 + 3,372, or 10,372 days, and these he has to take from Kislev or Hesvan, a day at a time, in order to keep the cycle correct in length. ^{his} The leap-years are consequently often 385 days long; and they would be characterized by four consecutive 30-day months--Shebat, Adar ¹, Veadar, and Nisan. This irregularity would cause the Passover to occur, at times, two full days, and even more, after the astronomical full moon. ^{whereas} Thus the "lesser light" is robbed of its supreme function of always pointing out the day of the Passover, a fact that is confirmed by both history and astronomy.¹¹

The Wiert's cycle is also characterized by an excessive series of three consecutive

⁹"Postponements" belong to the modern Jewish calendar. They correspond to the system of rejecting certain days of the week as unsuitable for passover and new moon days. (Cf. Poznanski, in Hastings's "Encyclopedia of Religion and Ethics," art. Jewish Calendar.

¹⁰Scaliger, "De Emendatione Temporum," p. 107. The length of each year is obtained by counting the number of days from the new moon of one year to that of the following year.

¹¹Cf. footnote, ¹⁹p. 6.

14th day of Adar
 1st day of Nisan
 1st day of Iyar
 1st day of Sivan
 1st day of Tamuz
 1st day of Av
 1st day of Elul
 1st day of Tishri
 1st day of Cheshvan
 1st day of Kislev
 1st day of Tevet
 1st day of Shevat
 1st day of Adar

short months of 29 days each, making from time to time a year only 353 days long, a year-length which historical chronology denies was a form employed in the ancient Jewish year.¹² All of these extremes and anomalies follow from the Wierts error in making Veadar uniformly 30 days long. We have found no record of such an adjustment between lunar and solar time among the calendars of the nations using the luni-solar year.

As regards the position of the Veadar month, and the order of its occurrence in the 19-year cycle, the Wierts embolismic formulae disagrees with the Millerite computation. Although the Adventists definitely understood the complex subject of intercalation, and its bearing upon the Jewish feasts,¹³ yet, the reason usually offered by them for designating Nisan in 1844 as coincident with April and May, instead of the earlier Rabbinical season, was the simple fact that barley was not ripe in Judaea before the middle of April.¹⁴ Thus, in marking out the latter part of April for Nisan, the spring of 1844 was in reality made embolismic, in contrast to the Wierts table, which outlines the spring of 1843 as embolismic.

It was thereupon concluded by the Millerites that March passovers, and those of early April, like the Rabbinical April 4 for Passover in 1844, did not belong to the Mosaic year. And one of the first steps taken toward determining the time of the true seventh Jewish month was the definite stand by the Adventist leaders that the three great festival days of the Jews did not coincide with March and September.¹⁵

¹² Scaliger says that "there was no such year in nature." ("De Emendatione Temporum," p. 6). Cf. also Sidersky, "Etude sur l'origine astronomique de la chronologie juive," p. 636.

¹³ "The Jews, we are told commenced their months with the first appearance of the moon. . . Their years consisted sometimes of twelve and sometimes of thirteen moons, an intercalary moon being added about once in three years. If, on the appearance of the moon at the end of Adar, the 12th moon of the preceding year, there was a probability that the barley would be ripe by the fourteenth day of the month, they made that moon the first month of their year; but if the barley would not probably be ripe till after the fourteenth day, they added the whole of that moon to the old year, calling it Ve-Adar, or the second Adar." --Advent Shield, January, 1845, p. 274. [There are also important earlier references to "intercalation" in the Millerite literature.]

¹⁴ Midnight Cry, Oct. 19, 1844, editorial note, p. 133.

¹⁵ Advent Herald, March 27, 1844, p. 60. [Offers convincing argument of J.D. Michaelis, who locates the Jewish feasts, in general, a month later than the Rabbis.--"De Mensibus Hebraeorum, Commentatio Recitata," pp. 17, 18. Commentationes Societati Regiae Scientiarum Goettingensi, 1764.]

On the other hand, for the spring of 1843, the Wierts tables not only conform their new moon days and embolism to the modern Jewish calendar, but they go further afield, placing Nisan wholly in May, and the Passover on May 15, during wheat harvest in Judaea.¹⁶ Such conflict with the ancient form of the Mosaic year calls in question not only the embolism of all the Wierts cycles, but the calendar dates as well, and nullifies any proof the tables may attempt to offer for their festival dates in 1844.

III. DATE OF THE TENTH DAY OF THE SEVENTH MONTH ON THE GREENWICH MERIDIAN.--In the Wierts tables, the April full moon date, 1844, Greenwich meridian, is given as May 2 3^h 16^m, Nisan 14, civil time.¹⁷ It is actually, however, astronomical time, and therefore, for 1844, is reckoned from noon to noon in the British Nautical Almanac, from which the date is taken.¹⁸ To it should be added 12 hours in order to change to true civil time, making May 2 15^h 16^m, still as of Nisan 14, because it does not pass the sunset hour, when the Jewish day changes. By further adding 2^h 21^m, correction is made for the longitude of Jerusalem, and we get the full moon date, as of May 2 17^h 37^m, even still Nisan 14, Jerusalem civil time. From this date the Wierts table counts forward to Tisri 10, making its civil date to fall on October 22 in Jerusalem.

What is wrong with this date? Simply that in the spring of 1844 the Wierts ~~calendar~~^{tables} placed the day of full moon in Jerusalem on the day of the Passover, instead of the day before it on Nisan 13. This position of the moon is contrary to both history and astronomy.

History confirms the postulate of placing the full moon on Nisan 13, the day before the Passover in Jerusalem. We have united testimonies from Aristobulos, a Jew and peripatetic philosopher (B.C. 181-117), Philo Judaeus (time of Christ), Eusebius, bishop of Caesarea (314 A.D.), Anatolius, bishop of Laodicea (300), the

¹⁶Chart "D" p. 5. This date is too late for barley harvest, which comes two weeks earlier in Judaea.

¹⁷Chart "D," p. 5.

¹⁸British Nautical Almanac, 1844, pp. V, Preface, and 101.

brothers Lilius (the brains of the Gregorian correction in the 16th century), and Caspari and Sidersky, of modern times, that the paschal ^{full} moon occurs the day before the Passover.¹⁹ Astronomy also confirms this principle of the Mosaic calendar, and it is one that also supports the Millerite dates in 1844. On the contrary it completely disproves the festival dates of the Wiert's calendar both for Greenwich and Jerusalem.²⁰

IV. FAULTY CALCULATION OF THE TRANSLATION OF THE MOON.--Under the Wiert's title, "From Conjunction of the Moon to the Phasis for October, 1844," the problem considered on the last page of Table "E," relates to the October new moon and her phasis, which ^{recomputes} ~~is determined~~ on three meridians--Greenwich, Boston, and Jerusalem. The following outline presents in brief form the basic figures of this Wiert's calculation of the phasis:

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- ¹⁹ a. Aristobulos maintained . . . that the day of the paschal festival began on the 14th Nisan, after the evening, when the moon stands diametrically opposed to the sun, as anyone can see at the time of full moon."--Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 8. Tr. from German, M. Evans.
- b. Philo Judaeus, in "Decalog," T. II. p. 206, edition, Mangey.
- c. Eusebius Pamphilus, "Ecclesiastical History," ch. VII, p. 322. London, 1847.
- d. "Since there are two equinoxes, spring and autumn, separated by equal distance, and the festival [Passover] was set for the 14th day ~~at~~ ^{after the} evening, when the moon is caught in the region opposite to the sun, as even it is permitted to the eyes to see, certainly the sun is found holding a segment of the spring equinox, but the moon, on the contrary, the autumnal. Whence, he [Anatolius] concludes that on the day of the Passover it must be observed that the sun passes over the spring equinox, but also the moon [over the autumnal]." Marginal note: "The day of the Passover ought to be after the equinox of the sun and moon."--Nancel, Nic., "Analogiae Nicrocosmi ad Macrocosmon," Lib. VII, Ad Lilius Fratres, Col. 1204. Paris 1611.
- e. Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 15. [Important reference to Wurm on the ancient translation periods of the Jews. Has relation to time of Passover.]
- f. Sidersky, David, "Etude sur chronologie juive," p.

²⁰ This point is discussed in detail under Division 4.

Brachis

Examination of the Wiert's "true" Tables for 1843-1844--7.

WIERTS CALCULATION OF THE OCTOBER PHASIS IN 1844

TABLE I

Meridian	Conjunction	Time	[Phasis] ²¹	[Tisri 1]	Translation		Difference in	
					Period	Longitude		
		h m			h m	h m	h m	
1. Greenwich	Oct. 11 11 21 ³	"G.C.T." ^a	[Oct. 12 17 32]	[Oct. 13]	30 9			
2. Boston	Oct. 11 6 39	"B.C.T." ^b	[Oct. 12 17 32]	[Oct. 13]	34 53	4	44	
3. Jerusalem	Oct. 11 13 43	"J.C.T." ^c	[Oct. 12 17 32]	[Oct. 13]	27 49	2	20	

(^a "Greenwich civil time" ^b "Boston civil time" ^c "Jerusalem civil time")

There are three specific errors in the foregoing computation of the moon's phasis:

- (1) Error in the conjunction dates, and (2) consequently in the translation periods; and (3) therefore error in argument in reference to the time or date of the phasis.

The first error consists in the fact that the dates are here presented as from midnight to midnight, when in reality ~~the corresponding figures given in the British Nautical Almanac~~ ^{they} are from noon to noon,²² Therefore, not one of the three translation periods as tabulated is correct, although they are set forth as marking the beginning of the seventh month Tisri, in 1844, ~~on the~~ ^{on the respective} meridians.

According to this Wiert's table, which ~~has~~ ^{demands} a uniform phasis at 5:32 p.m., clock time. (17^h 32^m astronomical time), on October 12, Tisri 1 would occur on October 13 on all three meridians--Greenwich, Boston, and Jerusalem. But this conclusion could only be

~~drawn~~ ^{reached} on the basis that these conjunction dates were actually civil time. Then, all three dates would be located between ~~morning and 2:00 p.m.~~ ^{6:39 am and 1:43 p.m. (See Table I, "Conjunctions")} With that understanding, the conjunction dates would be ~~on the same side of the sunset point, that is, on the same~~ ^{located between midnight and sunset} civil date, ~~as~~ ^{and} also on the same Jewish date. ~~It would then be possible for the phasis to~~ ^{under such conditions,} occur on the same civil date on all three longitudes.²³ However, the true calculation

²¹The dates in this column are computed by adding the translation periods to the conjunction dates. *Tisri 1 would then occur on the following day*

²²British Nautical Almanac, 1844, p. 211. The conjunctions for Boston and Jerusalem can be computed from the Greenwich conjunction by adjusting the difference in longitude.

²³"For, frequently, new-moon is not seen in some place, whilst she is seen in another place not far to the west; and frequently she is seen in both places at once."

--Albiruni, "Chronology of Ancient Nations," p. 77.

10/13

One date phasis

Examination of the Wiert's "true" Tables for 1843-1844--8.

of the October phasis in 1844 had an entirely different setting, as Table II, in correction of the Wiert's computation, will show:

TABLE II *correct* TRUE ASTRONOMICAL RECKONING OF THE OCTOBER PHASIS IN 1844 (~~True~~ Civil Time)

Meridian	Conjunction	Phasis	Translation		Difference		Sunset	Moonset	Tisri 1
			Period	in Longitude	h m	h m			
1. Greenwich	Oct. 11 23 24	Oct. 13 17 14	41	50			5:14	6:16	Oct. 14
2. Boston	Oct. 11 18 40	Oct. 12 17 26	22	46	4	44	5:26	5:36	Oct. 13
3. Jerusalem	Oct. 12 1 44	Oct. 13 17 32	39	47	2	20	5:32	6:25	Oct. 14

(On October 13, the moon was 18° south of the equator, in perigee, and in the sign Libra. ²⁴)

The conjunction dates in Table II were computed *by the Committee* by adding the required 12 hours to the Wiert's dates in Table I, thereby changing them to ~~true~~ *the correct* civil time. The sunsets were taken from the American Ephemeris. ²⁵ The moonsets were reckoned from the moon's position as given in the British Nautical Almanac. *for 1844, (p 571)* The three phasis dates were then computed *according to* by argument, based on the position of the moon and the Jewish feasts. In this discussion, the same sequence of meridians is followed as in the Wiert's Table I, but it should be particularly noted that the meridian of Boston ought ~~really~~ *defend* to begin the series, because its conjunction date and phasis come first in point of time. The argument (Cf. Table III) is as follows:

1. GREENWICH.--Since the conjunction date in Greenwich was ~~at~~ Oct. 11 23^h 24^m, leaving only 17^h 23^m to sunset on the 12th, then it must be concluded that the moon could not possibly be seen on the first evening after conjunction, because she was too far south (18°), and Greenwich too far north (51° north latitude). But, the moon was in perigee, and this favorable factor made it easy for her to be seen at sunset on October 13. The moon set that evening ~~(7)~~ minutes after the sun, thus showing that she was old enough to be seen.

2. BOSTON.--On the Boston meridian, though the conjunction was 4^h 44^m earlier than in Greenwich, it cannot be argued, as in the Wiert's calculation in Table I, that therefore the translation period is that much longer, and the phasis as much later, for the reason that other factors came into play, in America, which had to take precedence over a difference in longitude between America and England. In the spring of 1844, the Passover on May 2, in America, ²⁶ as Nisan 14, fixed the Day of Atonement exactly 173

²⁴ ~~It may frequently, new moon is not seen in some pla~~ British Nautical Almanac, pp. 207, 211 (1844).

²⁵ American Ephemeris, 1939.

²⁶ In 1844, the April new moon was on April 17 11^h 40^m, Boston civil time. The moon could have been seen the first sunset, if she had not been so near apogee. All the other factors were favorable for an early first appearance--she was 18° north, and in the sign Aries. Therefore, she certainly could be seen at the second sunset on April 18. Hence April 19 was Nisan 1, and May 2, Nisan 14 in America.

not

days hence.²⁷ This of necessity put Tisri 1 on October 13, and the phasis at sunset on October 12, at the end of a translation period of only 22^h 46^m, or 22^h 55^m to moonset. Hence the phasis in America had to come a sunset earlier than in Greenwich, on account of the position of the Passover. With this reckoning, ancient Jewish time was in full harmony, for it counted that the moon, even when on the horizon with the sun, could be seen if over 22 hours old.²⁸ This, moreover, was in agreement with the Millerite decision, which definitely fixed upon October 13 in America as the first day of the seventh month Tisri.²⁹

Therefore, it must be concluded that Tisri 1, in its 24-hour journey around the world, started first in America, and that the land of the "seventh month movement," marked the very beginning of the atonement month Tisri. On longitudes farther east, the conjunction date was so placed that the phasis had to occur at the second sunset. But in America, the conjunction date receded across the sunset point, thereby causing the phasis to take place a day earlier, or at sunset of October 12.

3. JERUSALEM.--The Jerusalem conjunction can be computed as either 2^h 20^m east of Greenwich, or 21^h 40^m west, as the day travels. It should not be forgotten, however, that in calculating the conjunction date as west of Greenwich, account has to be made of crossing the 180th meridian, where 24 hours are added to the civil date, in going west. Either method gets the same result--Oct. 12 1^h 44^m as the date of the Jerusalem conjunction. The date itself was a day later than in America, where the conjunction was on October 11. It need not be surprising to find that the phasis also came a day later in Jerusalem than in the west; for, in like manner, as in Greenwich, the moon could not be seen at the first sunset after conjunction, the time being only 16^h 16^m, and the moon was 16° south of the equator. But she was in perigee on October 13, and this favorable factor enabled her to be seen at the second sunset, thus placing Tisri 1 on October 14, and Tisri 10 on October 23 in Jerusalem. This is in harmony with the Millerite reckoning, which counted that the moon was "one day and 17 hours old" at the second sunset after conjunction in Jerusalem.³⁰

The Wierts translation argument in reference to the dating of the phasis ~~would~~ not hold ^{when} ~~if~~ the conjunction dates in Table I ^{are corrected to} ~~had been~~ true civil time. By placing the phasis in Jerusalem and Greenwich on the same civil date as in America, in the instance of the October conjunction in 1844, the harmony between the moon and the phasis would have been broken in Judaea, causing her--by calendar reckoning--to make a first appearance on the day of conjunction itself, three times in the summer of 1844--

²⁷Encyclopedia Britannica, 11th edition, art. Calendar (Hebrew). (Note)

²⁸"In case the age of the moon as from the new moon until the hour of sunset is over 22 hours, then the first of the month always is counted the first evening--on the grounds that the moon at an age of over 22 hours from the new moon (conjunction) receives a great share of its light from the sun, so that it can be seen even simultaneously with the sun on the horizon at sunset on the first evening."--Kokisoff, Juhuda, "Brief Information on the Karaite Calendar," p. 38.

²⁹"Here, then, we rest in the assurance that the true seventh month began October 13th."--Midnight Cry, October 31, 1844, p. 142, col. 3. The phasis, then, must have been on the 12th, at sunset.

³⁰Midnight Cry, October 31, 1844, p. 141. Note

in June, August, and October. This was impossible. The moon's position was such, all through that summer, that she could not even show herself once on the day of conjunction, civil time--an astronomical event of rare occurrence.³¹ The following authoritative statements show how contrary to truth is the Wierts contention for a constant one-date phasis everywhere:

"The moon which will show herself the first night after new moon in the Crimea, cannot appear the same evening everywhere."³²

"Therefore now, their theory is quite utopian, viz. that the month of Ramadan [the Arabic month corresponding to the Hebrew month Kisleu] should always be complete, and that both its beginning and end should be identical in the whole inhabited world, as would follow from that table which they [the Arabs] use."³³

The errors in the Wierts conjunction dates are the main cause of his erroneous conclusions in regard to the translation of the moon and the true phasis, which determined the first day of Tisri in 1844, and doubtless led him to make the following emphatic statement before the assembly in the Conference chapel last summer:

"It matters not where you are. You can never see the moon 22 hours after conjunction. It has only 11 degrees above the horizon, and that is such a little space that the light of the setting sun is so small you cannot find the moon."³⁴

On the contrary, on October 12, in 1844, ~~the~~ the end of a translation period of only 22^h 46^m--the same length of time that Brother Wierts challenges--~~the moon in~~ ~~marked~~ the end of the old month Elul,³⁵ and Tisri 1 began, in harmony with ancient Jewish reckoning, that counted that the moon ~~could be~~ ^{as} seen after 22 hours when both luminaries were together on the horizon, as in this instance in Boston.

When the luni-solar calendar is constructed according to the ancient passover

³¹Hevelius mentions only one instance of such an astronomical event--occurring in the time of Amerigo Vespucci. ("Selenographis," p. 277.)

³²Kokisoff, Juhuda, "Brief Information on the Karaite Calendar," p. 38.

³³Albiruni, "Chronology of Ancient Nations," p. 78.

³⁴Stenographic report of the Wierts criticism in the Conference chapel on July 10.

³⁵Cf. Document, "Instances of Short Translation Periods." There is no record of any attempt on the part of the Millerites to actually observe the moon, in order to determine the beginning of Tisri. They frankly asserted that when the moon could not be seen, in ancient practice, "they reckoned by the previous months" (Advent Herald, Sept. 25, 1844, p. 60). The point made in the Committee's Report was not whether the moon was visually observed, but that the short translation of 22^h and 46^m could and did mark the first day of Tisri, in 1844.

principles,³⁶ and the stipulations of Moses, every new moon day falls in alignment with the moon's position, giving fit place to each astronomical conjunction, its translation period and phasis, in accordance with the demands of both history and astronomy. In agreement also are the Millerite computations. But in the Wiert's calendar tables, the demands of history and astronomy seem not to be regarded: for (1) his cycles are too long, like the ancient Metonic cycle; (2) his cycle dates are not the true astronomical dates of the moon, but differ from them by one or two days;³⁷ (3) in order to synchronize his tables with ^{the act 2 of date} known landmarks of history, wrong methods of calculation are introduced, which are unsubstantiated by any authority in history, or by any principle of chronology. We must therefore conclude that ^{the} presence of the October 22 date on the Wiert's calendar tables is without significance, ^{more because} ~~and void~~ ^{of proof, because his computations violate vital principles of the luni-solar calendar,} and ^{the} ignore basic facts of history and astronomy.

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Symposium

*Wiert's calendar is not astronomical
1941-42*

In offering this critical examination of the Wiert's computations, your Research Committee on the October 22, 1844, and Related Dates, would therefore go on record stating that we are compelled to reject the Wiert's criticism and supporting tables offered last July in challenge of the Committee's Report and Charts, and that upon comprehensive review and supplemental study, we herewith reaffirm each basic position of the original Report.

RESEARCH COMMITTEE ON THE OCTOBER 22, 1844, AND RELATED DATES.

³⁶One of the main postulates, in reference to these principles, places the astronomical paschal moon, on the Jerusalem meridian, always on Nisan 13. Nancel, Nic., "Analogia Microcosmi ad Macroscosmon." De Correctione anni Gregoriani ad Lilius Fratres. Col. 1204. Quoting from Lilius, Nancel declares that the festival on the 14th day of the first month--the Passover--was established after the evening when the moon is caught in the region opposite to the sun.

³⁷This very difference of one or two days between the Wiert's cycle moons and the astronomical makes it difficult to synchronize his cycle with the desired historical landmarks without the use of irregular methods, which are contrary to chronology.



Rejection of
THE WIERTS CRITICISM OF PART FIVE OF THE COMMITTEE'S REPORT

At the presentation of PART V of the Committee's Report on July 10, 1939 in the General Conference Chapel, four points of criticism were offered by Bro. J.R. Wierth, ~~They were~~ as follows:

POINT ONE.--The claim that the October conjunction in 1844, which pointed to the first day of the Jewish seventh month Tisri, was a morning conjunction. ^{in Boston.} The Committee's Report placed this conjunction in the evening at 6:40 p.m.

POINT TWO.--The emphatic statement that "it matters not where you are, you can never see the moon 22 hours after conjunction." (Stenographic Report, page 10.)

POINT THREE.--The contention that Friday, April 7, 30 A.D., was the day of the Jewish passover on Nisan 14.

POINT FOUR.--The ^{assertion that} ~~question whether~~ Tisri 1 in 1844 could ^{not occur in Jerusalem} be ~~October 12/13, Boston civil time,~~ and October 13/14, ~~Jerusalem civil time.~~ ^{and Tisri 10 on October 22/23.}

(Date of the October Conjunction in Boston, 1844).--
POINT ONE.--

Prior to the year 1925, the standard almanacs reckon their dates from noon to noon. In order to convert these to civil time, that is, from midnight to midnight, 12 hours ^{had to be} ~~was~~ added. Bro. Wierth failed to do this, and consequently in his mimeographed tables, numbered Charts "D" and "E," he has misrepresented more than 100 dates taken from the British Nautical Almanac, and called them "civil time," when they are in fact ^{erstwhile} astronomical time from noon to noon. Hence the Committee's Report was correct in placing the October conjunction at 6:40 in the ^{Boston civil} evening, ^{time.}

The Millerites understood this, and frequently mentioned the "change of the moon" on the evening of October 11.¹ (The ^{attached mimeographed pages} ~~accompanying page~~ ^{give} the testimony of both standard and ^{contemporary} local almanacs with reference to the October conjunction in 1844.)

(Shortest Translation Periods).--
POINT TWO.--

We have many instances of even shorter translation periods than 22 hours.² The standard Karaite rule counted the first day of the month as taking

¹ Midnight Cry, Oct. 11, 1844, p. 117; Oct. 19, 1844, p. 133, etc.
² Gerhardt, Oswald, "Astronomische Nachrichten," Vol. 240. "The Date of the Crucifixion of Jesus Christ," par. 17. Gerhardt mentions that Ginzel found several cases of short translations both in the Assuan papyrus and in Ptolemaeus' Almagest. In the piercingly clear atmosphere of Jerusalem the moon can at times be seen in even less than 22 hours.

place in case the age of the moon, as from conjunction until the hour of sunset is over 22 hours. This was on the basis that the moon at such an age receives a great share of its light from the sun, so that it can be seen even simultaneously with the sun on the horizon at sunset on the first evening.³ The Adventist literature in 1844 makes no mention of any attempt to "observe" the ^{phases of the} moon in order to establish the first day of Tisri. Doubtless the moon could not be seen in the ten minutes that ^{on the first evening after conjunction,} intervened between sunset and moonset in places so far north as Boston. But in other parts of America, where many thousands of Adventists were looking for the Lord to come, in places about the same latitude as Jerusalem, the moon's phase could ^{in the south,} be seen, for here the interval between sunset and moonset was about 30 minutes.⁴ On the other hand, in both Montreal and Greenwich, cities about 10° north of Boston, the moon could not be seen at all on the first evening, for she set before the sun.⁴ Furthermore, at Jerusalem, which is 20° farther south than Greenwich, even the moon could not be seen at the first sunset, for on that meridian, not enough time had elapsed since the conjunction. ^{where the "midnight cry" was sounding,} Only in parts of America were conditions just right for the moon's phase to establish the first day of the seventh month in 1844 on the first evening after the October conjunction.⁵ And at this time it was so "reckoned" by the Millerites.

(Was Friday, April 7, 30 A.D. on Nisan 14?)--

POINT THREE.--The Ginzél tables give the April full moon in 30 A.D. as April 6.34, and in 31 A.D., as April 25.35, Greenwich mean noon.⁶ By converting these dates to Jerusalem civil time, we get the full moon in 30 A.D. = Apr. 6 20^h 9^m, and in 31 A.D. the full moon = Apr. 25 22^h 45^m. Both moons full ^{at} about the same hour near midnight. ^{two} The difference in time between these full moons, and also between their previous new moons--March 22 and April 10--gives the same length of year as 384 days. It was therefore a common esebolismic year that alternated 29 and 30 days throughout.⁷ Know-

³ Kokiseff, Juhada, "Brief Information on the Karaite Calendar," p. 36. Odessa, 1860.

⁴ Computed by Glenn Draper, Associate Astronomer, U. S. Observatory, Washington.

⁵ "The moon cannot be seen the same evening everywhere"--Same reference as 3.

⁶ Ginzél, F.K., Handbuch der Mathematischen und Technischen Chronologie," p. 573.

⁷ The Wierts tables agree that the year 30-31 A.D. was esebolismic, but make it 385 days long, a year length that belongs only to the modern Jewish Calendar.

ing the length of each month, it is a simple matter to lay out the calendar backward from April 25, as Nisan 12, 31 A.D., with which dating Bro. Wierts agrees.

The table follows:

Showing that Friday, April 7, 30 A.D. was on Nisan 13

As proved in PART V	Nisan 14 equals	April 27, Friday, 31 A.D., Jerusalem	civil time
Hence	Nisan 13 "	April 26	
"	Nisan 12 "	April 25 22 ^h 45 ^m , " "	Full Moon
	--12	-- 12	
Last day of 13th mo.	Veadar 29 "	April 18 29 days	
		-- 29	
" "	12th mo. Adar 30 "	March 18 30 "	
		-- 30	
" "	11th mo. Shebat 30 "	Feb. 13 30 "	
		-- 30	
" "	10th mo. Tebet 29 "	Jan. 14 29 "	
		-- 29	
" "	9th mo. Kisleu 30 "	Dec. 16 30 "	
		-- 30	
" "	8th mo. Hesvan 29 "	Nov. 16 29 "	
		-- 29	
" "	7th mo. Tisri 30 "	Oct. 18 30 "	
		-- 30	
" "	6th mo. Elul 29 "	Sept. 18 29 "	
		-- 29	
" "	5th mo. Ab 30 "	Aug. 20 30 "	
		-- 30	
" "	4th mo. Tammuz 29 "	July 21 29 "	
		-- 29	
" "	3rd mo. Sivan 30 "	June 22 30 "	
		-- 30	
" "	2nd mo. Iyar 29 "	May 23 29 "	
		-- 29	
" "	1st mo. Nisan 30 "	April 24 30 "	
	-- 16	-- 16	
		384 "	
Therefore	Nisan 14 "	April 6	
Therefore	Nisan 13 equals	April 7, Friday, 30 A.D.	
Therefore	Nisan 12	April 6 20 ^h 9 ^m , 30 A.D., day of full moon.	

The full moons of the years 30 and 31 A.D. were both after-sunset moons, and both occurred toward the end of the week. Ordinarily the Jews kept the Passover on the evening of the day of full moon--the day when the moon rose full at sunset.⁸

⁸ (by Evans.
 Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 8. Tr. from the German Eusebius Pamphilus, "Ecclesiastical History," ch. VII, p. 322. London, 1847.
 Nancel, Nic., "Analogiae Microcosmi ad Macrocosmon," Ad Lillos Fratres, Col. 1204, Paris, 1611.
 Sidersky, David, "Etude sur chronologie juive," p. 636.

But when the moon full^{ed} after sunset, Jesus Himself left us an example of that which was ~~the~~ ^{an} custom in His day, ^{at least among the Pharisees} when He and His disciples ate the Passover in the year 51, ^{on Wednesday} not on the day of full moon, which was April 25 near midnight, but on the day ^{or} after, Thursday evening. Hence the Lord Himself has pointed out the way in which the year 50 should be treated, which, from a calendar standpoint, was just like ^{exactly} in that its paschal moon occurred after sunset, and near the week end. the year 51. ^{in this year} Consequently, it must be concluded that in 50 A.D. the Passover was eaten, not on the evening of April 6, the day of full moon, but on Friday evening, April 7, and that the Passover day, therefore came on Sabbath, April 8. This was evidently the custom in the time of Christ in case of an after-sunset full moon occurring ^{so near} ~~at~~ the week end.

The Wierds method of handling the year 50-51 A.D. is wrong, both from a chronological standpoint, and from ^{that of} the precedent set by Jesus and the disciples. In order to make the civil day, April 7, coincide with Nisan 14 in the year 50, the Wierds reckoning adds an extra day to the year, giving it a length uncalled for by either new moon or full moon, and making his 19-year cycle too long by one day. Whether so designed or not, this Friday paschal date actually concedes the year 50 A.D. to be a rival year to the crucifixion Friday of 51 A.D.

POINT FOUR.--From an astronomical standpoint the question of festival dating in both Jerusalem and America was definitely understood by the Millerites. They openly asserted that they were not following the Rabbinical computations. When, doubtless by reckoning, they had determined in New England the evening of the phase which marked out the beginning of the first day of Tisri, they followed this day westward to Jerusalem, and designated the time of the moon's first appearance on that meridian, ultimately stating plainly that it was a sunset later than in America--even "17 hours" later, the difference in time between Boston and Jerusalem as one goes west.⁹ They knew the time of the Jerusalem conjunction,¹⁰ and that there the moon could not be seen at the first sunset, for the period was too short. Anyway, they

⁹ Midnight Cry, Oct. 31, 1844, p. 141, col. 1. "The new moon being probably seen in Judaea on the second evening from its change, when it would be one day and 17 hours old, and which corresponded with 11 A.M. in Boston."

oft repeated the simple translation rule--"usually the second evening after the change"--and it was that way in Jerusalem. They calculated the 10th day of Tisri in Jerusalem as October 23, while again and again they declared it to be October 22 in the land of the "midnight cry."

Such was the Millerite reckoning, and as such it was in strict harmony with the rules of astronomy that govern the moon's first appearance after conjunction,¹¹ and that mark out the first day of every lunation on every meridian. The decisive dates for the east and the west, which the Millerites left on record, are in exact agreement with the course of sun and moon, and cannot be changed without denying the validity of the laws that govern these two stars.

The Wierds tables, which are based on an elastic 19-year cycle, like the modern Jewish calendar, call for a one-date phasis on every longitude. From a civil calendrical standpoint, this is not unreasonable, is possibly practical. But such a system of reckoning is not astronomically accurate, and cannot with exactness point to the positions of the sun and moon that ^{can} confirm the assured dates of prophecy in 1844. No lunar calendar can do this; for in this 20th century, the nations using luni-solar time have capitulated to the formulae of the 19-year cycle, which is not in strict harmony with the moon's performance. For this reason the Wierds challenge of the Jerusalem dating for Tisri 10 on the Committee's Clock Chart is ^{altogether} out of agreement with the rules of astronomy that point out Tisri 10 as October 23 in Jerusalem, and with the Millerite calculations that also discovered the same date.¹²

EXAMINATION OF THE WIERTS "TRUE" TABLES FOR 1843-1844

The validity of the Wierds "True" tables for 1844, which were presented by him in the General Conference Chapel, July 10, 1839, in challenge of the Committee's Report and Charts illustrating the Millerite argument, is called in question on the following counts:

¹¹ Men have spent a lifetime in deciphering these rules. They have been written on ancient tablets and parchments, which have come down to later centuries, and have been confirmed by such men as Ptolemy, Scaliger, Lilius, Regler, Strassmair, Epping, Baneth, von Littrow, Sidorsky, Schoch, Neugebauer and Fotheringham.

¹² This date of course was reckoned from Tisri 1 as October 14 in Jerusalem.

1. Erroneous computation of the moon dates taken from the British Nautical Almanac.
2. Use of new and irregular rules of chronology.
3. Wrong date of the 10th day of the seventh month on eastern meridians.
4. Faulty calculation of the translation of the moon for October, 1844.

1. Errors in the Wierds Dates.--Since the meeting of July 10, 1839, in the Conference Chapel, Brø, Wierds has fully acknowledged the errors in his reckoning of the dates taken from the British Ephemeris.

2. Irregular Rules of Chronology.--In the Wierds tables under discussion, there are at least three prominent irregularities in the use of the technical rules of chronology: (1) The number of days intercalated in an embolismic year, which is given 31 additional days by the Wierds reckoning, contrary to the customary 30 days required by luni-solar computation, (2) Length of the ancient Mesale year, which is made to conform with the modern Rabbinical calendar. (3) Violation of the embolismic rules governing the 19-year cycle. This third irregularity is illustrated by the introduction of Veadar in the spring of 1843 in the so-called "True" tables, which thus treat this year as embolismic. On the contrary, the Wierds Cycle "213," which he claims "is and always has been calendrically and astronomically correct," makes its 12th year--38-39 A.D.--a leap-year. Since the year 1843-1844 is exactly 1805 years (95 X 19) distant from the 12th year of Cycle "213," it must therefore be the corresponding cycle leap-year of the year 38-39 A.D., instead of the year 1842-1843, which the Wierds tables make embolismic, contrary to their cycle formula.

3. Wrong Festival Date on Eastern Meridians.-- The Wierds error in civil dating is not wholly responsible for his error in festival dating. For, although it is possible, astronomically, to have the same festival date in the east as in the west, yet in the event of 1844, the moon demanded one day difference between the eastern

¹⁴ The modern Jewish calendar has years 365 and 366 days long, but Jewish computers recognise that the ancient year, in this respect, did not follow the modern. Sidersky, D., "Etude de la chronologie juive," p.

¹⁵ Chart "D," page 2.

¹⁶ Personal letter to chairman of the Committee, dated Nov. 27, 1839.

and western meridians, because of the date of the conjunction in Boston, which allowed a 24-hour earlier phase of the moon. The Millerites apparently recognized this meridional lunar problem, and openly discussed in their periodicals the difference between both civil and festival time in Jerusalem and America.¹⁷

4. Faulty Translation Periods.-- The following table represents the Wier's calculation of the moon's phase on three meridians in 1844:¹⁸

WIERTS CALCULATION OF THE OCTOBER PHASE IN 1844

<u>Meridian</u>	<u>Conjunction</u>	<u>Time</u>	<u>[Phase]</u> ¹⁹	<u>[Tisri 1]</u>	<u>Translation</u> <u>Period</u>	<u>Difference in</u> <u>Longitude</u>
1. Greenwich	Oct. 11 11 23	"G.C.T." ^a	[Oct. 12 17 32]	[Oct. 13]	30 9	h m
2. Boston	Oct. 11 8 39	"B.C.T." ^b	[Oct. 12 17 32]	[Oct. 13]	34 53	4 44
3. Jerusalem	Oct. 11 13 45	"J.C.T." ^c	[Oct. 12 17 32]	[Oct. 13]	27 49	2 20

(^a "Greenwich civil time" ^b "Boston civil time" ^c "Jerusalem civil time")

According to the foregoing table, a uniform phase is demanded at 5:32 p.m., clock time (17^h 32^m astronomical time), on October 12, causing Tisri 1 to occur on October 13 on all three meridians--Greenwich, Boston, and Jerusalem. But this conclusion could only be reached on the basis that the conjunction dates were true civil time. They are, on the contrary, moon to moon reckoning, and this fact gives the calculation of the phase for October, 1844, an entirely different setting. The Wier's argument in reference to the dating of the phase will not hold when the conjunction dates are corrected to true civil time by adding the required 12 hours to each one. If the moon's phase, in the instance of the October conjunction in 1844, should be placed calendrically on the same civil date in Jerusalem and Greenwich as in America, then either (1) the harmony between the moon and her phase is broken in Judea, causing her--by calendar reckoning-- to make a first appearance on the day of conjunction itself, three times in the summer of 1844--in June, August, and

¹⁷ There are three references on this point: Midnight Cry, October 19, 1844, p. 132, col. 2; Letter of Orlando Squires to William Miller, Nov. 4, 1844; Midnight Cry, Oct. 31, 1844, p. 141, col. 1.

¹⁸ This table was arranged from the data given on page 9 of Chart "D."

¹⁹ The Committee computed the dates in this column by adding the translation periods to the conjunction dates.

October; or (2) the Jewish feast period in America is broken, by advancing it one day, and thereby causing Tisri 10 to occur on October 22/23 in the land of the seventh month cry. In regard to the first, the moon's position was such, throughout the whole summer of 1844, that she could not even show herself once on the civil day of conjunction--an astronomical event of rare occurrence.²⁰ With reference to the second alternative, no argument is needed, for the Wierts computations are based upon a fixed Jewish feast period. Therefore it must be concluded that his calculation of the festival dates in 1844 on the eastern meridians is entirely out of agreement with the course of the moon.

The table marked "E," was submitted by Bro. Wierts in the Conference Chapel as representing the Committee's calculation of the 1844 problem on the Greenwich and Jerusalem meridians. There are differences as follows between the Wierts reckoning and that of the Committee:

WIERTS TABLE "E"	COMMITTEE'S REPORT
1. Year 1842-43 is embolismic, with Passover on May 14 in wheat harvest.	1. Year 1842-43 is common, with Passover on April 14 in barley harvest.
2. Year 1843-44 is common, out of agreement with the Wierts mesonic for his cycle "213."	2. Year 1843-44 is embolismic, in harmony with the Millerite reckoning.
3. Veadar = 30 days in an embolismic year. Contrary to chronology.	3. Veadar = 29 days in an embolismic year, in harmony with chronology and the demands of lunar calculation.
4. Adar = 30 days in common year. ²¹	4. Adar = 29 days in common year.
5. Tisri new moon = Oct. 11 11 ^h 23 ^m , "Greenwich civil time."	5. Tisri new moon = Oct. 11 23 ^h 23 ^m , Greenwich civil time, according to the British Ephemeris.

If the dates in table "E" were corrected, and Veadar and Adar given their true length, according to the rules of chronology, then Tisri 10 would, according to table "E," coincide with October 22 in Greenwich, contrary to the reckoning of the Report of the Committee. Consequently, in no sense, does the Wierts table "E" represent the method of computation used by the Committee in its Report on July 9, 1839.

²⁰ Hevelius, Johannes, "Selenographia," p. 277.

²¹ Cf. table "E," page 5.

You will see the Jews in 1844, they celebrated their day of atonement upon this explanation of the Committee. On the 23d of September, Monday, the 9th day of Elul instead of the 10th. The Day of Atonement, the Millerites explained, is the 22d day of October. This is an important date, and this work has been done to prove October 22 to be the 10th day of Tisri, or that they should correspond.

You have the 22d of October running with the 9th day of Tisri, and the 23d of October you have here as Wednesday, the 10th of Tisri. You see that point? Upon the Committee's explanation you have the 22d day of October synchronizing with Tuesday, the 9th day of Tisri, and you have the 23d of October, Wednesday, synchronizing with the 10th day of Tisri, the Day of Atonement. Now the beginning of the 7th month, Tisri 1. On sunset on Sunday night, Tisri 1 has begun, and ends with sunset. Therefore, I tell you that here is the date which I said last night that the committee did not prove, but actually disproved. What do we want? We want the 10th day of Tisri, 1844, to synchronize with October 22, not with October 23, Wednesday, but October 22, Tuesday, you see that? If I had as much time as the Committee I would explain it on the blackboard, but my time is slipping.

Doctor Wilkinson: On page 47 of this Report the committee has said that on October 11, the conjunction occurred at 6:40 P.M.. You state that conjunction took place at 11:43. Now will you explain this, what are you proving here?

Elder Wierts: It proves that, that the Committee has 22 hrs. 55 m. because of that. And they say the conjunction translation, as we call it, translation period, ^(contrary to) ja which is absolutely all astronomical science. It does not stand the test. Coming to the year 30 and 31. Any questions, ask me after the meeting.

[Miss Paul next]

This was on the 10th day of April, but the 1st of Nisan does not begin until the 14th. This is Tuesday, 11; Wednesday, 12; Friday, 13; Sabbath is the 1st of Nisan. The 14th equals Nisan 1.

Here we have a translation period of 75h, 37m--3d, 3h, 37m. It is one of the long periods. This is a stumbling block, and was a stumbling block to many when I explained this to them. They say, "How can it be that we have a new moon on April 10, and Tisri 1 on April 14, only 3 days differente? The moon did not appear in the heavens until 75h, 37m later. The moon was high up in the sky. That is the difference. Observe that point. We have on the ²37th of April in the year 31, the crucifixion. The simple fact is that, that on the 25th of April there was a conjunction, and the new moon was seen on ¹the-14th-of Nisan, or on April 14. Coming down to the 25th of April, there we have the full moon, April 25. ^{w w}22--45. There was full moon. This moon that came on April 25, 22h 45m caused the lunar eclipse of 4 ^{? digits} inches, just about 24 hours before the arrest of our Lord in Gethsemane. The year after the death of Jesus is the year of the lunar eclipse. This is the only lunar eclipse, ~~of any consecutive years~~. It marks the year that Jesus was born by that eclipse. Here on April 25 we have the full moon. This was Wednesday. Then you have on this Wednesday night, just about 1 h and a few minutes before midnight you have Thursday beginning, and on Thursday sunset the 14th of Nisan. Thursday night sunset was the 26th of April, and on sunset, the 26th of April, Friday began. Friday went together with this April 26 for six hours and some ^{minutes} ~~minutes~~, and April 27 began at midnight, and Friday went with April 27 for almost 18 hours. And this Friday, April 27 is the day and date of the crucifixion of our Lord. This is established astronomically, historically, chronologically, prophetically, and typically. There has been controversy all through the centuries from the second century on to the present, and they have done their best to set the day and date of the crucifixion.

Wierds
7/10/39

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C.S.LONGACRE: Did you take these reckonings from the Jewish calendar?

No sir. I took my reckoning from the Ephemeris as far as these moons are concerned. And I worked this reckoning of the moons, the civil and the Bible months, I start here with October the 22nd which is Tuesday the tenth day of Tishri, and from this point you can go forward and you will always be in harmony with the civil days and with the Bible days and the Bible months and the civil months.

C.S.LONGACRE: Then your plan is not in harmony with the Jewish calendar?

In part. You see the point is this,--the corruption of the Jewish calendar is this: If you challenge a Jew he will say that they have a Jewish calendar which has been followed ever since the 4th century. I can tell you in detail how that change was made. That is history. The Jews would come in harmony with our reckoning for three or four years during 90 years. In the year 1844 the Bible Passover, the pioneers they said it was on the first of May. The moon, however, is full on the 2nd. And that is a point that our committee also rejected and they said that the 14th Nisan must never have a full moon

Now the Jews in 1844, they had a common year, not a leap year. 1843 was by the Jewish calendar a leap year, a year of 13 months. 1844 was a common year of 360 days. But the Jews have celebrated a month earlier on the 23rd of September, which is the 23rd (?) of Elul. The true Bible day of atonement comes on October 22. There you see the corruption of the Jewish calendar which is based on that change of calendar by the Romans in the fourth century. Back of that change of the calendar was that same spirit that prompted those men to change the calendar and make the present Roman Catholic calendar,--that is the same spirit that prompted that thing in Matthew 28 where they made a bribe to the men who watched the grave.

Wierds
7/10/39

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mgp

I contacted six of the foremost Jewish authorities the world over, rabbis, and they all claim that their calendar system is workable and

if you will but accept our reckoning. Every Jew will dispute you if you say, "You have a corrupted calendar." Why is this corruption?

To discredit the Messiahship of Christ. Now let me come back to the year 30. You have the full moon

J H WIERTS
7/10/39

III
-17-

5
mgp

Now these are the facts we should have. The historians differ, as I say, on 29 A.D. to 35 A.D., and you have the year 30. Let me tell you what difficulties you get in if you say the year 30 is not Friday the 14th Nisan. We agree that the year 30 was a 14 Nisan, a Friday, that the year 30 was recognized by commentators from the days of *Bengel*, and he was one that came shortly after Luther, a great preacher of the gospel. And then you have in 31, Davidson, Frothingham who has been mentioned several times, the Baltimore News speaks.

2
Now the next thing. The Protestant churches the world over in their universal Sunday School Lessons have adopted the year 30 as the year of the crucifixion. So in 1934 the April, May, June lessons, the question was, When was Jesus crucified? Ans. He was crucified on Friday about nine o'clock, April 7, A.D. 30. So if you should reject this and you put your committee report on record for the world, what would you have to do with these ministers? No, April 7 in the year 30 was the 14th Nisan. The moon full about four hours after the sunset. When the moon is full, the moon is in opposition. Just a centric in the middle of the earth and the sun is at conjunction with the same. This full moon in the year 30 passed that point of opposition about two hours before midnight. The Paschal lamb was slain from 3-5 in the afternoon. From 3-5 you have from here to before midnight, that is 12:14:17, you have 17 hours that the full moon has passed opposition until the lambs were slain. Here is a point that will stand the test.

One more thing. I must close with this. Now to show you that my work is not based upon hearsay. About three years ago while in Florida I wanted to know how Julius Cæsar has affected the change of the calendar. I had forty years from 11 B.C. day by day, month by month, year by year, and you can see what I tell you is the truth. While in Florida I wanted to know how Julius

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had worked his change of calendar, because there were eighty days that

Julius Caesar decreed that the new moon after the winter solstice should be the first of January. I began to look this thing up and I found this, that the Britannica says that in the year 46 B.C.

began the Julian Calendar. The moon of _____ years proved to me that the year 46 could not be the year when that change in the calendar was made.

If I had time I could explain to you how the moon stood because of the fact that the changes were on the 21st of March and the first of June and the first of January came on the 14th of October. That brought the first of January on the day of the winter solstice. Therefore we found when we came to the vernal equinox that the vernal equinox came on the 21st of March.

I wrote to the editor of the Britannica September 27, 1937, and appealed to him why the Britannica says that the new moon in 1 B.C. came on the first day of January. My cycle showed that in the year 1 B.C. the new moon came on the 26th of January. I worked that out in Florida. And when I came to the year 45

24.90

.597

25.497

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IV
-23-

7
mgp

And then I wrote to Ballenger and corresponded with him for a whole year.

I asked him and I found that he was unacquainted with all these things.

If you want to look it up in the Gathering Call the crucifixion date

I wrote to him and then he apologized, and in that apology he says this, "Our headquarters leaders are crowing because of that mistake." I replied that the leaders at the General Conference are not crowing, none of them knows anything about it.

But last year Conradi had to strike out, and he repeated what Ballenger had done. I brought a copy to Elder Wilcox, and I gave some to others. And then he said it is time that we do something. I said, Brethren, you do not need to be afraid, I have the proof and the evidence that we are right to the day. Historical facts, the Bible and the Testimonies, are in harmony with astronomical science. There is absolute harmony. As a people when the test comes we must base all these things that we have in the writings of Sister White upon such solid, good basis that we can stand of our own forde. There dare not be one thing that is wrong. Everything must be so correct and so sure as the sun is under the heavens. If you don't do that, you will be in trouble.

If that report that was read here yesterday would come in print in two weeks, I guarantee that in a few weeks time you would have more trouble on your hands. So any loopholes -- this Ballenger because of my correspondence and dealing with him in the field in which he never had been acquainted. I can show you his correspondence that this is so. He corresponded with learned Jews the world over, and they all gave him information according to their reckoning. And so this Ballenger is on the watch. Let anything come out where he could find a loophole, I tell you our position would be worse than ever. Therefore it is my burden and it has been the last five years, that

Wierds
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-24-

8
mgp

we as a people shall put something in print, something that is able to stand, something that no man can say this is wrong.

I have my contact with astronomers for more than forty years. I was a friend of Eisenberger (?). In the year 1913 I got his personal card, and with that personal card I could draw any book in the Congressional Library except books that are sealed in. He introduced me to all the men at the Observatory. A year ago this last winter I went for five long months five days a week, five to eight hours a day, working over the records, the best that are there--the German and the English--and I copied and I got the records of every eclipse that ever happened. Any eclipse that is mentioned in history I have records of from the best tables in existence. You can go to the astronomers. Right here I got this worked out on Boston time , and that should be so. All right, we will tell it. He says, yes, you are right. // Go with me if you want. You ask Mr. Draper if it is possible to have a transition period of 22 hours and 55 minutes, and see what he says.

I believe I have said all that I need to say, and any question you want to ask be free. I will be glad to explain anything, and thank you for your time.

C.S.LONGACRE: Did you submit your plan to Dr. Draper?

No. I know this, that my tables are based on the best tables in existence at the Naval Observatory. I compared the American, German, and English.

J. H. WIERTS - July 11, 1939 (1)

Turn to 1844. (Discussion as to which page until finally settled.)

You will see here on this page that the Jews in 1844 celebrated their Passover on the 4th day of April, the 15th Nisan. Do you see that ? Do you ? How many see that ? Let me see your hands. 1844 is the date of it - Nisan.

Now this is the page when the Jews (discussion and speaker clarified his remark by saying Rabbinical Jews) celebrated their Passover in the year 1844. It was said that the Jews had celebrated their Passover a month too early. Therefore, he said it was on the 1st of May when the actual Biblical Passover would have occurred, but the moon fell on May 2 -- as you see -- this round dot here -- the moon fell on May 2 - ^{3 16} 316 B. ~~3~~ which was three hours, 16 minutes after midnight in Greenwich, in the Ephemeris Royal Observatory, Greenwich, London, England, which is recognized the world over.

Coming from this 2nd day of May, the day of the Biblical Passover, to the Day of the Atonment^e, now you turn to next page and there you will see the Jews celebrated their Day of Atonment^e on the 23rd of September, which is here the 9th Elul. It should be the 10th of April. The reason for this is that the committee reported yesterday concerning the reckoning and 23rd of September which the Millerites mentioned.

We come to the next month, the Day of Atonment^e and this is as the committee gave us a report yesterday. You see here on the 10th of Tishri, that is Wednesday, and that is the 23rd of October. Do you see the point ? You see here on the 10th of Tishri, that is, Wednesday, and that is the 23rd of October.

(Turning to Page 5) Now the same in here. (Discussion as to page

1844 in 4 periods.) Here you see the Passover again. You see the Passover here again on the 4th of April, the 15th Nisan. The Jews celebrated their Passover on the 4th day which was Thursday, the 4th of April, the 15th Adar -- in Nisan. The Jews celebrated a month earlier. Now come to October.

(2)

Therefore, that ^{people} claim that there was a ^{translation} period of 22 hours and 55 minutes -- astronomers looking over it say that is not the truth because it cannot be possible. The moon cannot be seen for 22 hours and 15 minutes from the moment of the conjunction. I have watched the moon for years and know exactly how the moon does. You can do it too and you can see. Douyou see that point ? Do you see it ? How many see it ? (Some one asked whether the location would make any difference.) It matters not where you are. You can never see the moon 22 hours after the conjunction. It has only 11 degrees above the horizon and that is such a little space that the light of the setting sun is so small you cannot find the moon. It is impossible to see. (Some one asked if the conjunction took place at 11:43 in the morning and did not take place at 6:40 P.M., would that account for the difference). The sun is deep enough below the horizon 12 minutes before the moon from that position is down. That is a point that is all truth and astronomical facts. And I will go with you to any astronomer and I can ask and let him explain it. Now, that is the point that I make on that.

Now, when we take the position that on Saturday night, the 12th of with sunset as you give it here on this sheet, on Saturday night with sunset the 12th of October/in Jerusalem, we had a moon 2 hours (49 minutes)-- on Saturday night October in Jerusalem that is the point from which we reckon -- there the 1st Tishri started on Saturday night, which was the 12th day of October, and Sunday again made the 13th of October. Therefore, Tishri 1 began on Friday evening at

sunset and ran together with Friday until midnight for 6 hours and 28 minutes. Do you get that? Tishri 1 began on Saturday night with sunset in Jerusalem and went together with Saturday, the 12th of October, and at midnight on Saturday night, at midnight began October 13, and Sunday, the 1st Tishri, ran together with Sunday the 13th Tishri from midnight until sunset for 17 hours and 32 minutes. Yesterday the committee explained this -- that in Jerusalem the new moon began on Sunday night with sunset, the 13th. Therefore, you can see it here that because of that wrong interpretation we have Tishri 1 beginning on Sunday night, the 13th of October, and running together with October 13, Sunday from sunset to midnight for 6 hours and 28 minutes, and on that explanation of the committee we have the 1st Tishri running together from midnight on that Sunday, October 13, -- Monday to begin at midnight -- and Monday, the 14th of October and Tishri 1 ran together with the 14th of October with Monday from midnight until sunset for 17 hours and 32 minutes. Therefore, when you come here to the 10th of Tishri, on that explanation you have, as you see here on the wrong page --

(3)

That is when the moon ~~falls~~ in the year 30 -- April 7 -- that is denied by the committee. Why? The committee has formed a upon that basis claiming that it is impossible. It cannot -- it must not -- it will not be on the 14th night the moon shall fall. It must fall on the 13th before sunset. My dear friends, let me tell you, in the year 30, the moon ~~fell~~ ^{was} within 3 hours and 30 minutes after sunset on the 14th Nisan because the Friday Bible day began at sunset on the 6th day of April, ^{and} that Friday, that 14th Nisan, ran together with April 6 from sunset to midnight for 6 hours and about 20 minutes. And from midnight until sunset that 7th day of April, that

14th Nisan, which will go with that Friday, for nearly 18 hours. Now then, the committee stated that in 30 A.D. there was no Friday, the 14th Nisan. I say in 30 A.D. there was a 14th Nisan. That 14th Nisan in 30 does not in the least diminish from the fact that we had the crucifixion day in 31. To my mind that illuminates it -- brightens up the fact that in the year 30 was not the Passover but that in the year 31 there was the Passover which was the Passover when Jesus was crucified, and for this reason when we come to the year 31 we have a full moon in 31 on March 27 -- that is, in 31, that paschal moon that ~~was~~ ^{once} ~~was~~ ^{after} the equinox came in the year 31 on the 27th day of March, at 2:00 P.M. We add to this 30 days and that 30 days brings us to April 25 -- 22 hours and a few minutes. Now, listen to this point! As on April 25, there was a new moon and the new moon came on the 25th of April, the 22 hours and a few minutes that was about two hours after midnight.

(Illustrating)

Understand, the new moon. This is the full moon but this is the new moon.

I mean right here. The committee tells us, and tells us rightly, that in 31 we have the longest translation period almost on record and I think that was also providential. It is a fact that in 1844 we have a short translation as the committee said yesterday, but not 22 hours as was stated. That is impossible. We have a conjunction on April 25 ^{of} ~~of~~ 22 hours. Understand now, the 1st day of Nisan does not begin *until* on the 10th day of April, ~~22~~

(4)

And when I come to the year 45, I calculated the date which would be the proper date to start and I came to the year 45. And in the year 45 I had Wednesday, the 12th day of April, synchronizing with Nisan 14 and I said to my wife that should be the 13th but I have no tables. I must work it through. I went to the observatory in Washington the first of April and there

I verified it so that it makes no difference so I made it in harmony with the 13th. Then I wrote to the editor and I explained to him that in BRITANNICA the 1st of January in the year 1 B.C. the new moon *was not visible on the 25th* whereas it was on the 26th, and I said that the year of the change of the calendar of Ceaser was not in 46 but 45 and I gave explanation in detail how the moon stood and what position the new moon was in, and then he wrote back to me -- this is the first letter -- "Thank you" -- this was on September 23/^{next day}-- "Thank you for your statement of yesterday with reference to

It was very good of you to write us this letter for of course we wish in BRITANNICA to be as nearly perfect as any-^{space}work can be. I shall take the matter up with the proper person at once and make any changes in our ----- that are necessary. Again thanking you for writing, I remain". This is written on September 23 and it took 14 months before I got the final answer. Here is the final answer. It is an interestint thing I want to bring you. This answer came -- was written on 17th of "ovember. I received it on Saturday, last November 19th, and that was just about ~~14~~ 20 hours before I had to meet this committee. I had been asking the Lord to send me some evidence of my writings to this BRITANNICA. I had checked and rechecked and I was sure that I ~~was~~ was right but I had been waiting for 14 months. Then this letter came:

"November 12, 1938. I am today in receipt of the London office BRITANNICA to which you call attention. Our London office has been in touch with the Royal Astronomy Society and records that in both instances you were quite correct^{!!}- both instances you have referred to are quite correct. Is my word based upon hearsay or is my word based on facts £ What do you say £ Do you say that man is right £ Then he says: "We try to but as we are not infallible, some erros will creep in. I

am glad to say that the number of these in proportion to the size of BRITANNICA is very small. I am sorry that there is so much delay in answering your letter but I am very much obliged to you in pointing out the mistake and we shall correct this in future printing."

My dear friends, this is a challenge to you to say if my word is correct or if it is based on hearsay. Here is my work. You can examine it. It extends over 40 years. I have come to no irrational conclusions. I have worked this thing and re-worked it. I have checked and rechecked. I work a problem today. I lay it aside and do not look at it for a month. Then I work it again. I wait another month and work that thing again without looking at the other. And then when I see that these problems that I have worked out are correct -- the same -- then I go over the whole thing again and re-check and then I know that it is right.

(Some one asked for what purpose)-- For this purpose -- simply for the truth's sake.

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
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Greenwich
 Mean
 Noon

1842

1843

1842-43
 1843-44
 1844-45

Chisleu		Tebeth		Shebat		Adar	
1 S Dec	4 (5)	1 T Jan	3 (4)	1 W Feb	1 (2)	1 F Mar	3 (4)
2 M	5	2 W	4	2 T	2	2 S	4
3 T	6	3 T	5	3 F	3	3 S	5
4 W	7	4 F	6	4 S	4	4 M	6
5 T	8	5 S	7	5 S	5	5 T	7
6 F	9	6 S	8	6 M	6	6 W	8
7 S	10	7 M	9	7 T	7	7 T	9
8 S	11	8 T	10	8 W	8	8 F	10
9 M	12	9 W	11	9 T	9	9 S	11
10 T	13	10 T	12	10 F	10	10 S	12
11 W	14	11 F	13	11 S	11	11 M	13
12 T	15	12 S	14	12 S	12	12 T	14
13 F	16	13 S	0 15 20 27	13 M	13	13 W	0 15 17 58
14 S	0 17 6 40	14 M	16	14 T	0 14 8 9	14 T	16
15 S	18	15 T	17	15 W	15	15 F	17
16 M	19	16 W	18	16 T	16	16 S	18
17 T	20	17 T	19	17 F	17	17 S	19
18 W	21	18 F	20	18 S	18	18 M	20
19 T	22	19 S	21	19 S	19	19 T	21
20 F	23	20 S	22	20 M	20	20 W	22
21 S	24	21 M	23	21 T	21	21 T	23
22 S	25	22 T	24	22 W	22	22 F	24
23 M	26	23 W	25	23 T	23	23 S	25
24 T	27	24 T	26	24 F	24	24 S	26
25 W	28	25 F	27	25 S	25	25 M	27
26 T	29	26 S	28	26 S	26	26 T	28
27 F	30	27 S	29	27 M	27	27 W	29
28 S) 31 7 2	28 M) 30 0 1	28 T) 28 18 2	28 T) 30 11 48
29 S Jan	1	29 T	31	29 W Mar	1	29 F	31
30 M	2			30 T	2	30	1 April

58 dates
 49
 107

True

NEW STYLE

Ephemeris Royal Observatory, Greenwich, London, England
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1843

Veadar <i>(No Veadar)</i>		Nisan		Jyar		Givan										
1	Apr	1	M	May	1	(Apr. 2)	1	W	May	31	(May 2)	1	T	Jun	29	(May 31)
2	S	2	T	2	3	2	T	Jun	1	2	F	2	F	30		
3	M	3	W	3	4	3	F	2	3	3	S	3	S	1		
4	T	4	T	4	5	4	S	3	4	4	S	4	S	2		
5	W	5	F	5	6	5	S	4	5	5	M	5	M	3		
6	T	6	S	6	7	6	M	5	6	6	T	6	T	4		
7	F	7	S	7	8	7	T	6	7	7	W	7	W	5		
8	S	8	M	8	9	8	W	7	8	8	T	8	T	6		
9	S	9	T	9	10	9	T	8	9	9	F	9	F	7		
10	M	10	W	10	11	10	F	9	10	10	S	10	S	8		
11	T	11	T	11	12	11	S	10	11	11	S	11	S	9		
12	W	12	F	12	13	12	S	11	19	10	12	M	12	10		
13	T	13	S	13	10	34	M	12	13	13	T	11	5	5		
14	F	14	S	14	15	14	T	13	14	14	W	12	12			
15	S	15	M	15	16	15	W	14	15	15	T	13	13			
16	S	16	T	16	17	16	T	15	16	16	F	14	14			
17	M	17	W	17	18	17	F	16	17	17	S	15	15			
18	T	18	T	18	19	18	S	17	18	18	S	16	16			
19	W	19	F	19	20	19	S	18	19	19	M	17	17			
20	T	20	S	20	21	20	M	19	20	20	T	18	18			
21	F	21	S	21	22	21	T	20	21	21	W	19	19			
22	S	22	M	22	23	22	W	21	22	22	T	20	20			
23	S	23	T	23	24	23	T	22	23	23	F	21	21			
24	M	24	W	24	25	24	F	23	24	24	S	22	22			
25	T	25	T	25	26	25	S	24	25	25	S	23	23			
26	W	26	F	26	27	26	S	25	26	26	M	24	24			
27	T	27	S	27	28	27	M	26	27	27	T	25	25			
28	F	28	S	28	18	54	T	27	7	20	28	W	26	17	42	
29	S	29	M	29	30	29	W	28	29	29	T	27	27			
30	S	30	T	30	31	30	F	28	29	30	F	28	28	29		

True

NEW STYLE

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1843

Tammuz		Ab		Elul		Tishri	
1 S	<i>(June 30)</i> July 29	1 S	<i>(July 29)</i> Aug 27	1 T	<i>(Aug 28)</i> Sept 26	1 W	Oct 25 <i>(Sept. 26)</i>
2 S	30	2 M	28	2 W	27	2 T	26
3 M	31	3 T	29	3 T	28	3 F	27
4 T	Aug. 1	4 W	30	4 F	29	4 S	28
5 W	2	5 T	31	5 S	30	5 S	29
6 T	3	6 F	1	6 S	Oct. 1	6 M	30
7 F	4	7 S	2	7 M	2	7 T	31
8 S	5	8 S	3	8 T	3	8 W	1 <i>November</i>
9 S	6	9 M	4	9 W	4	9 T	2
10 M	7	10 T	5	10 T	5	10 F	3
11 T	8	11 W	6	11 F	6	11 S	4
12 W	○ 9 <i>B 54</i>	12 T	7	12 S	○ 7 23 16	12 S	5
13 T	10	13 F	○ 8 6 57	13 S	8	13 M	○ 6 17 21
14 F	11	14 S	9	14 M	9	14 T	7
15 S	12	15 S	10	15 T	10	15 W	8
16 S	13	16 M	11	16 W	11	16 T	9
17 M	14	17 T	12	17 T	12	17 F	10
18 T	15	18 W	13	18 F	13	18 S	11
19 W	16	19 T	14	19 S	14	19 S	12
20 T	17	20 F	15	20 S	15	20 M	13
21 F	18	21 S	16	21 M	16	21 T	14
22 S	19	22 S	17	22 T	17	22 W	15
23 S	20	23 M	18	23 W	18	23 T	16
24 M	21	24 T	19	24 T	19	24 F	17
25 T	22	25 W	20	25 F	20	25 S	18
26 W	23	26 T	21	26 S	21	26 S	19
27 T	24	27 F	22	27 S	☾ 22 19 35	27 M	☾ 20
28 F	☽ 25 235	28 S	☽ 23 10 52	28 M	23	28 T	21 5 23
29 S	26 27	29 S	24	29 T	24 25	29 W	22
		30 M	25 26			30 T	23 24

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
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1843

1844

Bul	Chisleu	Tebeth	Shebat
1 F Nov 24 (Oct. 26)	1 S Dec 23 (Nov. 24)	1 M Jan 22 (Dec. 24)	1 T Feb 20 (Jan. 22)
2 S 25	2 S 24	2 T 23	2 W 21
3 S 26	3 M 25	3 W 24	3 T 22
4 M 27	4 T 26	4 T 25	4 F 23
5 T 28	5 W 27	5 F 26	5 S 24
6 W 29	6 T 28	6 S 27	6 S 25
7 T 30	7 F 29	7 S 28	7 M 26
8 F Dec 1	8 S 30	8 M 29	8 T 27
9 S 2	9 S 31	9 T 30	9 W 28
10 S 3	10 M 1	10 W 31	10 T 29
11 M 4	11 T 2	11 T Feb 1	11 F Mar 1
12 T 5	12 W 3	12 F 2	12 S 2
13 W 6 12 0	13 T 4	13 S 3 20 42	13 S 3
14 T 7	14 F 5 5 34	14 S 4	14 M 4 9 2
15 F 8	15 S 6	15 M 5	15 T 5
16 S 9	16 S 7	16 T 6	16 W 6
17 S 10	17 M 8	17 W 7	17 T 7
18 M 11	18 T 9	18 T 8	18 F 8
19 T 12	19 W 10	19 F 9	19 S 9
20 W 13	20 T 11	20 S 10	20 S 10
21 T 14	21 F 12	21 S 11	21 M 11
22 F 15	22 S 13	22 M 12	22 T 12
23 S 16	23 S 14	23 T 13	23 W 13
24 S 17	24 M 15	24 W 14	24 T 14
25 M 18	25 T 16	25 T 15	25 F 15
26 T 19	26 W 17	26 F 16	26 S 16
27 W 20 17 8	27 T 18	27 S 17 20 45	27 S 17
28 T 21	28 F 19 6 18	28 S 18	28 M 18 12 17
29 F 22 (23)	29 S 20	29 M 19 (20)	29 T 19
	30 S 21 (22)	T	30 W 20 (21)

True

NEW STYLE

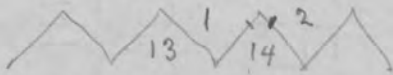
Ephemeris Royal Observatory Greenwich, London, England
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1844

*The month
 of Adar should
 here follow Adar*

*The year 1844-1845 runs
 from April 20 to April 9 = 355
 days.
 This means that both
 Hisleu and Heavan have
 each 30 days, but not Adar,
 as on "Chart D", page 8.*

Adar	Ni san	Jyar	Sivan
1 T Mar 21 (Feb. 21)	1 F Apr. 19 (Apr. 20)	1 S May 19 (May 20)	1 M Jun 17 (June 18)
2 F 22	2 S 20	2 M 20	2 T 18
3 S 23	3 S 21	3 T 21	3 W 19
4 S 24	4 M 22	4 W 22	4 T 20
5 M 25	5 T 23	5 T 23	5 F 21
6 T 26	6 W 24	6 F 24	6 S 22
7 W 27	7 T 25	7 S 25	7 S 23
8 T 28	8 F 26	8 S 26	8 M 24
9 F 29	9 S 27	9 M 27	9 T 25
10 S 30	10 S 28	10 T 28	10 W 26
11 S 31	11 M 29	11 W 29	11 T 27
12 M Apr. 1	12 T 30	12 T 30	12 F 28
13 T \bigcirc 2 18 57	13 W May 1 \times	13 F 31	13 S \bigcirc 29 18 16
14 W 3	14 T \bigcirc 2 3 16	14 S Jun 1	14 S 30
15 T 4	15 F 3	15 S 2	15 M Jul 1
16 F 5	16 S 4	16 M 3	16 T 2
17 S 6	17 S 5	17 T 4	17 W 3
18 S 7	18 M 6	18 W 5	18 T 4
19 M 8	19 T 7	19 T 6	19 F 5
20 T 9	20 W 8	20 F 7	20 S 6
21 W 10	21 T 9	21 S 8	21 S 7
22 T 11	22 F 10	22 S 9	22 M 8
23 F 12	23 S 11	23 M 10	23 T 9
24 S 13	24 S 12	24 T 11	24 W 10
25 S 14	25 M 13	25 W 12	25 T 11
26 M 15	26 T 14	26 T 13	26 F 12
27 T 16	27 W 15	27 F 14	27 S 13
28 W \smile 17 4 32	28 T \smile 16 20 53	28 S \smile 15 12 36	28 S 14
29 T 18 (17)	29 F 17	29 S 16 (17)	29 M \smile 15 2 23
	30 S 18 (17)		30 T 16 (17)



64

** If full moon at Greenwich civil time
 were May 2-3-16, then at Boston,
 it would be May 1-22-32 on Nissan 14,
 contrary to Ubert's reckoning 3.*

65

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844

Tammuz	Ab	Elul	Tishri
1 W Jul 17 <i>(July 18)</i>	1 T Aug 15 <i>(Aug 16)</i>	1 S Sept 14 <i>(Sept 15)</i>	1 S Oct 13 <i>(14)</i>
2 T 18	2 F 16	2 S 15	2 M 14
3 F 19	3 S 17	3 M 16	3 T 15
4 S 20	4 S 18	4 T 17	4 W 16
5 S 21	5 M 19	5 W 18	5 T 17
6 M 22	6 T 20	6 T 19	6 F 18
7 T 23	7 W 21	7 F 20	7 S 19
8 W 24	8 T 22	8 S 21	8 S 20
9 T 25	9 F 23	9 S 22	9 M 21
10 F 26	10 S 24	10 M 23	10 T <i>(23) - 22 - Oct. 22/23</i>
11 S 27	11 S 25	11 T 24	11 W 23
12 S 28	12 M 26	12 W 25	12 T 24
13 M 29 <i>○ 2 33</i>	13 T <i>○ 27 12 33</i>	13 T <i>○ 26 1 13</i>	13 F <i>○ 25 17 4</i>
14 T 30	14 W 28	14 F 27	14 S 26
15 W 31	15 T 29	15 S 28	15 S 27
16 T Aug 1	16 F 30	16 S 29	16 M 28
17 F 2	17 S 31	17 M 30	17 T 29
18 S 3	18 S Sept 1	18 T Oct 1	18 W 30
19 S 4	19 M 2	19 W 2	19 T 31
20 M 5	20 T 3	20 T 3	20 F Nov 1
21 T 6	21 W 4	21 F 4	21 S 2
22 W 7	22 T 5	22 S 5	22 S 3
23 T 8	23 F 6	23 S 6	23 M 4
24 F 9	24 S 7	24 M 7	24 T 5
25 S 10	25 S 8	25 T 8	25 W 6
26 S 11	26 M 9	26 W <i>☾ 9</i>	26 T 7
27 M 12	27 T 10	27 T 10	27 F 8
28 T <i>☾ 13 14 31</i>	28 W <i>☾ 11</i>	28 F 11 11 23	28 S <i>☾ 9 21 36</i>
29 W 14 <i>(15)</i>	29 T 12 1 16	29 S 12	29 S 10
	30 F 13 <i>(14)</i>		30 M 11 <i>(12)</i>

25-17-4
 12
 26-4-4

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844

1845

Bul		Chisleu		Tebeth		Shebat			
1 T	Nov	12		1 F	Jan	10 (Jan. 12)	1 S	Feb	8 (Feb. 10)
2 W		13		2 S		11	2 S		9
3 T		14		3 S		12	3 M		10
4 F		15		4 M		13	4 T		11
5 S		16		5 T		14	5 W		12
6 S		17		6 W		15	6 T		13
7 M		18		7 T		16	7 F		14
8 T		19		8 F		17	8 S		15
9 W		20		9 S		18	9 S		16
10 T		21		10 S		19	10 M		17
11 F		22		11 M		20	11 T		18
12 S		23		12 T		21	12 W		19
13 S	○	24 11 42		13 W		22	13 T		20
14 M		25		14 T	○	23 2 20	14 F	○	21 18 46
15 T		26		15 F		24	15 S		22
16 W		27		16 S		25	16 S		23
17 T		28		17 S		26	17 M		24
18 F		29		18 M		27	18 T		25
19 S		30		19 T		28	19 W		26
20 S	Dec	1		20 W		29	20 T		27
21 M		2		21 T		30	21 F		28
22 T		3		22 F		31	22 S	Mar	1
23 W		4		23 S	Feb	1	23 S		2
24 T		5		24 S		2	24 M		3
25 F		6		25 M		3	25 T		4
26 S		7		26 T		4	26 W		5
27 S		8		27 W		5	27 T		6
28 M	☾	9 8 12		28 T	☾	6 6 35	28 F	☾	7 18 36
29 T		10		29 F		7	29 S		8
				30 T		8	30 S		9

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844-1845 = Not "ambolismic" according to Wier's mnemonic

Adar

1	M	Mar	10	(Mar. 12)	
2	T		11		
3	W		12		
4	T		13		
5	F		14		
6	S		15		
7	S		16		
8	M		17		
9	T		18		
10	W		19		
11	T		20		
12	F		21		
13	S		22		
14	S	○	23	8 19	
15	M		24		
16	T		25		
17	W		26		
18	T		27		
19	F		28		
20	S		29		
21	S		30		
22	M		31		
23	T	Apr	1		
24	W		2		
25	T		3		
26	F		4		
27	S		5		
28	S	☾	6	7 40	
29	M		7		
30	T	?	8	Should be April 9.	

1844-1845

Nisan	30
Iyar	29
Sivan	30
Tammuz	29
Ab	30
Elul	29
Tisri	30
Heshvan	29 should be 30
Kislev	30
Tebat	29
Shebat	30
Adar	30 x
	<hr/>
	355

70

Should be 29 day 51

[Chart D]

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
Copied at U. S. Naval Observatory, Washington, D. C.

1842

1843

*error in 107 dates taken
from British
Ephemeris*

Chisleu		Tebeth		Shebat		Adar	
1 S Dec	4	1 T Jan	3	1 W Feb	1	1 F Mar	3
2 M	5	2 W	4	2 T	2	2 S	4
3 T	6	3 T	5	3 F	3	3 S	5
4 W	7	4 F	6	4 S	4	4 M	6
5 T	8	5 S	7	5 S	5	5 T	7
6 F	9	6 S	8	6 M	6	6 W	8
7 S	10	7 M	9	7 T	7	7 T	9
8 S	11	8 T	10	8 W	8	8 F	10
9 M	12	9 W	11	9 T	9	9 S	11
10 T	13	10 T	12	10 F	10	10 S	12
11 W	14	11 F	13	11 S	11	11 M	13
12 T	15	12 S	14	12 S	12	12 T	14
13 F	16	13 S	15 20 27	13 M	13	13 W	15 17 58
14 S	17 6 40	14 M	16	14 T	14 8 9	14 T	16
15 S	18	15 T	17	15 W	15	15 F	17
16 M	19	16 W	18	16 T	16	16 S	18
17 T	20	17 T	19	17 F	17	17 S	19
18 W	21	18 F	20	18 S	18	18 M	20
19 T	22	19 S	21	19 S	19	19 T	21
20 F	23	20 S	22	20 M	20	20 W	22
21 S	24	21 M	23	21 T	21	21 T	23
22 S	25	22 T	24	22 W	22	22 F	24
23 M	26	23 W	25	23 T	23	23 S	25
24 T	27	24 T	26	24 F	24	24 S	26
25 W	28	25 F	27	25 S	25	25 M	27
26 T	29	26 S	28	26 S	26	26 T	28
27 F	30	27 S	29	27 M	27	27 W	29
28 S	31 7 2	28 M	30 0 1	28 T	28 18 2	28 T	30 11 48
29 S Jan	1	29 T	31	29 W Mar	1	29 F	31
30 M	2			30 T	2		

True

NEW STYLE

Ephemeris Royal Observatory, Greenwich, London, England G.M.T.
 Copied at U. S. Naval Observatory, Washington, D. C.

1843

Veadar		Nisan		Jyar		Givan	
1 S Apr	1	1 M May	1 <i>may</i>	1 W May	31	1 T Jun	29
2 S	2	2 T	2	2 T Jun	1	2 F	30
3 M	3	3 W	3	3 F	2	3 S	1
4 T	4	4 T	4	4 S	3	4 S	2
5 W	5	5 F	5	5 S	4	5 M	3
6 T	6	6 S	6	6 M	5	6 T	4
7 F	7	7 S	7	7 T	6	7 W	5
8 S	8	8 M	8	8 W	7	8 T	6
9 S	9	9 T	9	9 T	8	9 F	7
10 M	10	10 W	10	10 F	9	10 S	8
11 T	11	11 T	11	11 S	10	11 S	9
12 W	12	12 F	12	12 S	11 19 10	12 M	10
13 T	13	13 S	13 10 34	13 M	12	13 T	11 5 5
14 F	14 2 29	14 S	14	14 T	13	14 W	12
15 S	15	15 M	15	15 W	14	15 T	13
16 S	16	16 T	16	16 T	15	16 F	14
17 M	17	17 W	17	17 F	16	17 S	15
18 T	18	18 T	18	18 S	17	18 S	16
19 W	19	19 F	19	19 S	18	19 M	17
20 T	20	20 S	20	20 M	19	20 T	18
21 F	21	21 S	21	21 T	20	21 W	19
22 S	22	22 M	22	22 W	21	22 T	20
23 S	23	23 T	23	23 T	22	23 F	21
24 M	24	24 W	24	24 F	23	24 S	22
25 T	25	25 T	25	25 S	24	25 S	23
26 W	26	26 F	26	26 S	25	26 M	24
27 T	27	27 S	27	27 M	26	27 T	25
28 F	28	28 S	28 18 54	28 T 29	27 7 20	28 W	26 17 42
29 S	29 4 18	29 M 30	29 ↓	29 W	28	29 T 30	27 ↓
30 S	30	30 T	30			30 F	28

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1843

Temmuz		Ab		Elul		Tishri	
1 S July	29	1 S Aug	27	1 T Sept	26	1 W Oct	25
2 S	30	2 M	28	2 W	27	2 T	26
3 M	31	3 T	29	3 T	28	3 F	27
4 T Aug.	1	4 W	30	4 F	29	4 S	28
5 W	2	5 T	31	5 S	30	5 S	29
6 T	3	6 F	1	6 S Oct.	1	6 M	30
7 F	4	7 S	2	7 M	2	7 T	31
8 S	5	8 S	3	8 T	3	8 W [Nov.]	1
9 S	6	9 M	4	9 W	4	9 T	2
10 M	7	10 T	5	10 T	5	10 F	3
11 T	8	11 W	6	11 F	6	11 S	4
12 W	○ 9 B 54	12 T	7	12 S	○ 7 23 16	12 S	5
13 T	10	13 F	○ 8 6 57	13 S	8	13 M	○ 6 17 21
14 F	11	14 S	9	14 M	9	14 T 15	7 ↓
15 S	12	15 S	10	15 T	10	15 W	8
16 S	13	16 M	11	16 W	11	16 T	9
17 M	14	17 T	12	17 T	12	17 F	10
18 T	15	18 W	13	18 F	13	18 S	11
19 W	16	19 T	14	19 S	14	19 S	12
20 T	17	20 F	15	20 S	15	20 M	13
21 F	18	21 S	16	21 M	16	21 T	14
22 S	19	22 S	17	22 T	17	22 W	15
23 S	20	23 M	18	23 W	18	23 T	16
24 M	21	24 T	19	24 T	19	24 F	17
25 T	22	25 W	20	25 F	20	25 S	18
26 W	23	26 T	21	26 S	21	26 S	19
27 T	24	27 F	22	27 S	☾ 22 19 35	27 M	☾ 20
28 F 29	☽ 25 2 35	28 S	☾ 23 10 52	28 M 29	23 ↓	28 T	21 5 23
29 S	26	29 S 30	24	29 T	24	29 W 30	22
		30 M	25			30 T	23

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U.S. Naval Observatory, Washington, D. C.

Uranus to Tauri 1 = 177
Tisri 30
Aswini 29
Phalgun 30
Tebeth 29
Shebat 30
Adar 29

 354

1843

1844

Bul	Chisleu	Tebeth	Shebat
1 F Nov 24	1 S Dec 23	1 M Jan 22	1 T Feb 20
2 S 25	2 S 24	2 T 23	2 W 21
3 S 26	3 M 25	3 W 24	3 T 22
4 M 27	4 T 26	4 T 25	4 F 23
5 T 28	5 W 27	5 F 26	5 S 24
6 W 29	6 T 28	6 S 27	6 S 25
7 T 30	7 F 29	7 S 28	7 M 26
8 F Dec 1	8 S 30	8 M 29	8 T 27
9 S 2	9 S 31	9 T 30	9 W 28
10 S 3	10 M 1	10 W 31	10 T 29
11 M 4	11 T 2	11 T Feb 1	11 F Mar 1
12 T 5	12 W 3	12 F 2	12 S 2
13 W 6 12 0	13 T 4	13 S 3 20 42	13 S 3
14 T 7	14 F 15 5 34	14 S 4	14 M 15 4 9 2
15 F 8	15 S 6	15 M 5	15 T 5
16 S 9	16 S 7	16 T 6	16 W 6
17 S 10	17 M 8	17 W 7	17 T 7
18 M 11	18 T 9	18 T 8	18 F 8
19 T 12	19 W 10	19 F 9	19 S 9
20 W 13	20 T 11	20 S 10	20 S 10
21 T 14	21 F 12	21 S 11	21 M 11
22 F 15	22 S 13	22 M 12	22 T 12
23 S 16	23 S 14	23 T 13	23 W 13
24 S 17	24 M 15	24 W 14	24 T 14
25 M 18	25 T 16	25 T 15	25 F 15
26 T 19	26 W 17	26 F 16	26 S 16
27 W 20 17 8	27 T 18	27 S 17 20 45	27 S 17
28 T 29 21 ↓	28 F 19 6 18	28 S 29 18 ↓	28 M 18 12 17
29 F 22	29 S 30 20	29 M 19	29 T 30 19 ↓
	30 S 21	T	30 W 20

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844

Adar		Nisan		Jyar		Sivan	
1 T Mar	21	1 F Apr.	19	1 S May	19	1 M Jun	17
2 F	22	2 S	20	2 M	20	2 T	18
3 S	23	3 S	21	3 T	21	3 W	19
4 S	24	4 M	22	4 W	22	4 T	20
5 M	25	5 T	23	5 T	23	5 F	21
6 T	26	6 W	24	6 F	24	6 S	22
7 W	27	7 T	25	7 S	25	7 S	23
8 T	28	8 F	26	8 S	26	8 M	24
9 F	29	9 S	27	9 M	27	9 T	25
10 S	30	10 S	28	10 T	28	10 W	26
11 S	31	11 M	29	11 W	29	11 T	27
12 M Apr.	1	12 T	30	12 T	30	12 F	28
13 T	2 18 57	13 W May	1	13 F	31	13 S	29 18 16
14 W	3	14 T	2 3 16	14 S Jun	1	14 S	30
15 T	4	15 F	3	15 S	2	15 M Jul	1
16 F	5	16 S	4	16 M	3	16 T	2
17 S	6	17 S	5	17 T	4	17 W	3
18 S	7	18 M	6	18 W	5	18 T	4
19 M	8	19 T	7	19 T	6	19 F	5
20 T	9	20 W	8	20 F	7	20 S	6
21 W	10	21 T	9	21 S	8	21 S	7
22 T	11	22 F	10	22 S	9	22 M	8
23 F	12	23 S	11	23 M	10	23 T	9
24 S	13	24 S	12	24 T	11	24 W	10
25 S	14	25 M	13	25 W	12	25 T	11
26 M	15	26 T	14	26 T	13	26 F	12
27 T	16	27 W	15	27 F	14	27 S	13
28 W	17 4 32	28 T	16 20 53	28 S	15 12 36	28 S	14
29 T	18	29 F	17	29 S	16	29 M	15 2 23
		30 S	18			30 T	16

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844

Greenwich is 2^h 21^m earlier than Jerusalem, and in the fall of 1844 would have same Jewish date

Tammuz	Ab	Elul	Tishri
1 W Jul 17	1 T Aug 15	1 S Sept 14	1 S Oct 13
2 T 18	2 F 16	2 S 15	2 M 14
3 F 19	3 S 17	3 M 16	3 T 15
4 S 20	4 S 18	4 T 17	4 W 16
5 S 21	5 M 19	5 W 18	5 T 17
6 M 22	6 T 20	6 T 19	6 F 18
7 T 23	7 W 21	7 F 20	7 S 19
8 W 24	8 T 22	8 S 21	8 S 20
9 T 25	9 F 23	9 S 22	9 M ¹⁰ 21
10 F 26	10 S 24	10 M 23	10 T 22
11 S 27	11 S 25	11 T 24	11 W 23
12 S 28	12 M 26	12 W 25	12 T 24
13 M 29 2 33	13 T 27 12 33	13 T 26 1 13	13 F 25 17 4 26 54
14 T 30	14 W ¹⁵ 28 ↓	14 F 27	14 S ¹⁵ 26 ↓
15 W 31	15 T 29	15 S 28	15 S 27
16 T Aug 1	16 F 30	16 S 29	16 M 28
17 F 2	17 S 31	17 M 30	17 T 29
18 S 3	18 S Sept 1	18 T Oct 1	18 W 30
19 S 4	19 M 2	19 W 2	19 T 31
20 M 5	20 T 3	20 T 3	20 F Nov 1
21 T 6	21 W 4	21 F 4	21 S 2
22 W 7	22 T 5	22 S 5	22 S 3
23 T 8	23 F 6	23 S 6	23 M 4
24 F 9	24 S 7	24 M 7	24 T 5
25 S 10	25 S 8	25 T 8	25 W 6
26 S 11	26 M 9	26 W 9	26 T 7
27 M 12	27 T 10	27 T 10	27 F 8
28 T ²⁹ 13 14 31	28 W 11	28 F ²⁹ 11 11 23	28 S 9 21 36
29 W 14 ↓	29 T ³⁰ 12 1 16	29 S 12	29 S ³⁰ 10 ↓
	30 F 13		30 M 11

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1844

1845

Bul		Chisleu		Tebeth		Shebat					
1 T	Nov	12		1 F	Jan	10	1 S	Feb	8		
2 W		13		2 S		11	2 S		9		
3 T		14		3 S		12	3 M		10		
4 F		15		4 M		13	4 T		11		
5 S		16		5 T		14	5 W		12		
6 S		17		6 W		15	6 T		13		
7 M		18		7 T		16	7 F		14		
8 T		19		8 F		17	8 S		15		
9 W		20		9 S		18	9 S		16		
10 T		21		10 S		19	10 M		17		
11 F		22		11 M		20	11 T		18		
12 S		23		12 T		21	12 W		19		
13 S	○	24	11 42	13 W		22	13 T		20		
14 M		25		14 T ¹⁵	○	23	2 20	14 F ¹⁵	○	21	18 46
15 T		26		15 F		24		15 S		22	↓
16 W		27		16 S		25		16 S		23	
17 T		28		17 S		26		17 M		24	
18 F		29		18 M		27		18 T		25	
19 S		30		19 T		28		19 W		26	
20 S	Dec	1		20 W		29		20 T		27	
21 M		2		21 T		30		21 F		28	
22 T		3		22 F		31		22 S	Mar	1	
23 W		4		23 S	Feb	1		23 S		2	
24 T		5		24 S		2		24 M		3	
25 F		6		25 M		3		25 T		4	
26 S		7		26 T		4		26 W		5	
27 S		8		27 W		5		27 T		6	
28 M	²⁹ ☾	9	8 12	28 T ²⁹	☾	6	6 35	28 F	☾	7	18 36
29 T		10		29 F		7		29 S ³⁰		8	↓
				30 T		8		30 S		9	

True

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
Copied at U. S. Naval Observatory, Washington, D. C.

1845

Adar

1	M	Mar	10		
2	T		11		
3	W		12		
4	T		13		
5	F		14		
6	S		15		
7	S		16		
8	M		17		
9	T		18		
10	W		19		
11	T		20		
12	F		21		
13	S		22		
14	S	15	23	8 19	
15	M		24		
16	T		25		
17	W		26		
18	T		27		
19	F		28		
20	S		29		
21	S		30		
22	M		31		
23	T	Apr	1		
24	W		2		
25	T		3		
26	F		4		
27	S		5		
28	S	29	6	7 40	
29	M		7		
30	T		8		

If Tishri 1 began at sunset on October 13, it would work upon the Jerusalem calendar as follows:

If Tishri 1 began at sunset October 13 Sunday evening
Tishri 1 would end at sunset October 14 Monday evening

"	2	"	"	"	"	"	15 Tuesday	"
"	3	"	"	"	"	"	16 Wednesday	"
"	4	"	"	"	"	"	17 Thursday	"
"	5	"	"	"	"	"	18 Friday	"
"	6	"	"	"	"	"	19 Sabbath	"
"	7	"	"	"	"	"	20 Sunday	"
"	8	"	"	"	"	"	21 Monday	"
"	9	"	"	"	"	"	22 Tuesday	"
"	10	"	"	"	"	"	23 Wednesday	" at Jerusalem

1842-1843
 38-339
 19 | 1804 | 94
 94
 76
 18

^{w m}
 2 4,43 = difference in 19 years.
 NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England.
 Copied at U. S. Naval Observatory, Washington, D. C.

1842

1843

Noon to Noon

Embolism in 1843 (spring) parts
 Nisan in May and Tisir in November

Chisleh		Elbeth		Shelbat		Adar	
1 S Dec	4	1 T Jan	3	1 W Feb	1	1 F Mar	3
2 M	5	2 W	4	2 T	2	2 S	4
3 T	6	3 T	5	3 F	3	3 S	5
4 W	7	4 F	6	4 S	4	4 M	6
5 T	8	5 S	7	5 S	5	5 T	7
6 F	9	6 S	8	6 M	6	6 W	8
7 S	10	7 M	9	7 T	7	7 T	9
8 S	11	8 T	10	8 W	8	8 F	10
9 M	12	9 W	11	9 T	9	9 S	11
10 T	13	10 T	12	10 F	10	10 S	12
11 W	14	11 F	13	11 S	11	11 M	13
12 T	15	12 S	14	12 S	12	12 T	14
13 F	16	13 S	15 20 27	13 M	13	13 W	15 17 58
14 S	17 6 46	14 M	16	14 T	14 8 9	14 T	16
15 S	18	15 T	17	15 W	15	15 F	17
16 M	19	16 W	18	16 T	16	16 S	18
17 T	20	17 T	19	17 F	17	17 S	19
18 W	21	18 F	20	18 S	18	18 M	20
19 T	22	19 S	21	19 S	19	19 T	21
20 F	23	20 S	22	20 M	20	20 W	22
21 S	24	21 M	23	21 T	21	21 T	23
22 S	25	22 T	24	22 W	22	22 F	24
23 M	26	23 W	25	23 T	23	23 S	25
24 T	27	24 T	26	24 F	24	24 S	26
25 W	28	25 F	27	25 S	25	25 M	27
26 T	29	26 S	28	26 S	26	26 T	28
27 F	30	27 S	29	27 M	27	27 W	29
28 S	31 7 2	28 M	30 0 1	28 T	28 18 2	28 T	30 11 48
29 S Jan	1	29 T	31	29 W Mar	1	29 F	31
30 M	2			30 T	2		

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
Copied at U. S. Naval Observatory, Washington, D. C.

1843

Veadar		Nison		Jyar		Livan	
1 S Apr	1	1 M May	1	1 W May	31	1 T June	29
2 S	2	2 T	2	2 T June	1	2 F	30
3 M	3	3 W	3	3 F	2	3 S July	1
4 T	4	4 T	4	4 S	3	4 S	2
5 W	5	5 F	5	5 S	4	5 M	3
6 T	6	6 S	6	6 M	5	6 T	4
7 F	7	7 S	7	7 T	6	7 W	5
8 S	8	8 M	8	8 W	7	8 T	6
9 S	9	9 T	9	9 T	8	9 F	7
10 M	10	10 W	10	10 F	9	10 S	8
11 T	11	11 T	11	11 S	10	11 S	9
12 W	12	12 F	12	12 S	11 19 10	12 M	10
13 T	13	13 S	13 10 34	13 M	12	13 T	11 5 5
14 F	14 2 29	14 S	14	14 T	13	14 W	12
15 S	15	15 M	15	15 W	14	15 T	13
16 S	16	16 T	16	16 T	15	16 F	14
17 M	17	17 W	17	17 F	16	17 S	15
18 T	18	18 T	18	18 S	17	18 S	16
19 W	19	19 F	19	19 S	18	19 M	17
20 T	20	20 S	20	20 M	19	20 T	18
21 F	21	21 S	21	21 T	20	21 W	19
22 S	22	22 M	22	22 W	21	22 T	20
23 S	23	23 T	23	23 T	22	23 F	21
24 M	24	24 W	24	24 F	23	24 S	22
25 T	25	25 T	25	25 S	24	25 S	23
26 W	26	26 F	26	26 S	25	26 M	24
27 T	27	27 S	27	27 M	26	27 T	25
28 F	28	28 S	28 18 54	28 T	27 7 20	28 W	26 17 42
29 S	29 4 18	29 M	29	29 W	28	29 T	27
30 S	30	30 T	30			30 F	28

57

58

59

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory, Washington, D. C.

1843

Tammuz	Ab	Elul	Tishri
1 S July 29	1 S Aug 27	1 T Sep 26	1 W Oct 25
2 S 30	2 M 28	2 W 27	2 T 26
3 M 31	3 T 29	3 T 28	3 F 27
4 T Aug 1	4 W 30	4 F 29	4 S 28
5 W 2	5 T 31	5 S 30	5 S 29
6 T 3	6 F Sep 1	6 S Oct 1	6 M 30
7 F 4	7 S 2	7 M 2	7 T 31
8 S 5	8 S 3	8 T 3	8 W Nov 1
9 S 6	9 M 4	9 W 4	9 T 2
10 M 7	10 T 5	10 T 5	10 F 3
11 T 8	11 W 6	11 F 6	11 S 4
12 W 9 10 54	12 T 7	12 S 7 23 16	12 S 5
13 T 10	13 F 8 6 57	13 S 8	13 M 6 17 21
14 F 11	14 S 9	14 M 9	14 T 7
15 S 12	15 S 10	15 T 10	15 W 8
16 S 13	16 M 11	16 W 11	16 T 9
17 M 14	17 T 12	17 T 12	17 F 10
18 T 15	18 W 13	18 F 13	18 S 11
19 W 16	19 T 14	19 S 14	19 S 12
20 T 17	20 F 15	20 S 15	20 M 13
21 F 18	21 S 16	21 M 16	21 T 14
22 S 19	22 S 17	22 T 17	22 W 15
23 S 20	23 M 18	23 W 18	23 T 16
24 M 21	24 T 19	24 T 19	24 F 17
25 T 22	25 W 20	25 F 20	25 S 18
26 W 23	26 T 21	26 S 21	26 S 19
27 T 24	27 F 22	27 S 22 19 35	27 M 20
28 F 25 2 35	28 S 23 10 52	28 M 23	28 T 21 5 23
29 S 26	29 S 24	29 T 24	29 W 22
	30 M 25		30 T 23

60

61

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England.
 Copied at U. S. Naval Observatory Washington, D. C.

1843

1844

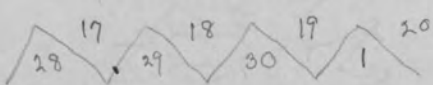
Bul	Chislén	Tebeth	Shebat
1 F Nov 24	1 S Dec 23	1 M Jan 22	1 T Feb 20
2 S 25	2 S 24	2 T 23	2 W 21
3 S 26	3 M 25	3 W 24	3 T 22
4 M 27	4 T 26	4 T 25	4 F 23
5 T 28	5 W 27	5 F 26	5 S 24
6 W 29	6 T 28	6 S 27	6 S 25
7 T 30	7 F 29	7 S 28	7 M 26
8 F Dec 1	8 S 30	8 M 29	8 T 27
9 S 2	9 S 31	9 T 30	9 W 28
10 S 3	10 M Jan 1	10 W 31	10 T 29
11 M 4	11 T 2	11 T Feb 1	11 F Mar 1
12 T 5	12 W 3	12 F 2	12 S 2
13 W 6 12 0	13 T 4	13 S 3 20 42	13 S 3
14 T 7	14 F 5 5 34	14 S 4	14 M 4 9 2
15 F 8	15 S 6	15 M 5	15 T 5
16 S 9	16 S 7	16 T 6	16 W 6
17 S 10	17 M 8	17 W 7	17 T 7
18 M 11	18 T 9	18 T 8	18 F 8
19 T 12	19 W 10	19 F 9	19 S 9
20 W 13	20 T 11	20 S 10	20 S 10
21 T 14	21 F 12	21 S 11	21 M 11
22 F 15	22 S 13	22 M 12	22 T 12
23 S 16	23 S 14	23 T 13	23 W 13
24 S 17	24 M 15	24 W 14	24 T 14
25 M 18	25 T 16	25 T 15	25 F 15
26 T 19	26 W 17	26 F 16	26 S 16
27 W 20 17 8	27 T 18	27 S 17 20 45	27 S 16
28 T 21	28 F 19 6 18	28 S 18	27 S 17
29 F 22	29 S 20	29 M 19	28 M 18 12 17
	30 S 21		29 T 19
			30 W 20
	62		63

NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory Washington, D. C.

1844

Adar	Nisan	Jyar	Livan
1 T Mar 21	1 S Apr 20	1 M May 20	1 T June 18
2 F 22	2 S 21	2 T 21	2 W 19
3 S 23	3 M 22	3 W 22	3 T 20
4 S 24	4 T 23	4 T 23	4 F 21
5 M 25	5 W 24	5 F 24	5 S 22
6 T 26	6 T 25	6 S 25	6 S 23
7 W 27	7 F 26	7 S 26	7 M 24
8 T 28	8 S 27	8 M 27	8 T 25
9 F 29	9 S 28	9 T 28	9 W 26
10 S 30	10 M 29	10 W 29	10 T 27
11 S 31	11 T 30	11 T 30	11 F 28
12 M Apr 1	12 W May 1	12 F 31	12 S 29 18 16
13 T 2 18 57	13 T 2 3 16	13 S June 1	13 S 30 16 16
14 W 3	14 F 3	14 S 2	14 M July 1
15 T 4 J P O	15 S 4	15 M 3	15 T 2
16 F 5	16 S 5	16 T 4	16 W 3
17 S 6	17 M 6	17 W 5	17 T 4
18 S 7	18 T 7	18 T 6	18 F 5
19 M 8	19 W 8	19 F 7	19 S 6
20 T 9	20 T 9	20 S 8	20 S 7
21 W 10	21 F 10	21 S 9	21 M 8
22 T 11	22 S 11	22 M 10	22 T 9
23 F 12	23 S 12	23 T 11	23 W 10
24 S 13	24 M 13	24 W 12	24 T 11
25 S 14	25 T 14	25 T 13	25 F 12
26 M 15	26 W 15	26 F 14	26 S 13
27 T 16	27 T 16 20 53	27 S 15 12 26	27 S 14
28 W 17 4 32	28 F 17	28 S 16	28 M 15 2 23
29 T 18 18 53	29 S 18	29 M 17	29 T 16
30 F 19 J.C.T.	30 S 19		30 W 17
64	65		66

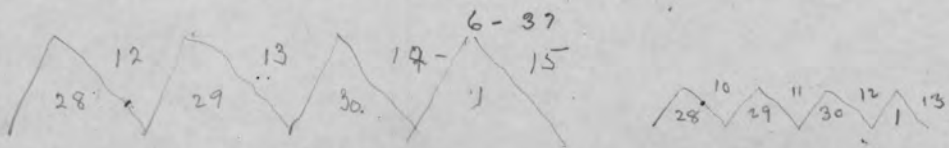


NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England
 Copied at U. S. Naval Observatory Washington, D. C.

1844

Tammuz	Ab	Elul	Tishri	Shevat
1 T July 18	1 F Aug 16	1 S Sept 15	1 M Oct 14	
2 F 19	2 S 17	2 M 16	2 T 15	
3 S 20	3 S 18	3 T 17	3 W 16	
4 S 21	4 M 19	4 W 18	4 T 17	
5 M 22	5 T 20	5 T 19	5 F 18	
6 T 23	6 W 21	6 F 20	6 S 19	
7 W 24	7 T 22	7 S 21	7 S 20	
8 T 25	8 F 23	8 S 22	8 M 21	Boston
9 F 26	9 S 24	9 M JDofA 23	9 T 22	22 10
10 S 27	10 S 25	10 T 24	10 W 23	23 11
11 S 28	11 M 26	11 W 25	11 T 24	24 12
12 M 29 2 33	12 T 27 12 13	12 T 26 1 13	12 F 25 17 4 26 14	
13 T 30	13 W 28 0 33	13 F 27	13 S 26 5 4	
14 W 31	14 T 29	14 S 28	14 S 27	
15 T Aug 1	15 F 30	15 S 29	15 M 28	
16 F 2	16 S 31	16 M 30	16 T 29	
17 S 3	17 S Sep 1	17 T Oct 1	17 W 30	
18 S 4	18 M 2	18 W 2	18 T 31	
19 M 5	19 T 3	19 T 3	19 F Nov 1	
20 T 6	20 W 4	20 F 4	20 S 2	
21 W 7	21 T 5	21 S 5	21 S 3	
22 T 8	22 F 6	22 S 6	22 M 4	
23 F 9	23 S 7	23 M 7	23 T 5	
24 S 10	24 S 8	24 T 8	24 W 6	
25 S 11	25 M 9	25 W 9	25 T 7	
26 M 12	26 T 10	26 T 10	26 F 8	
27 T 13 14 31	27 W 11	27 F 11 11 23	27 S 9 21 36	35
28 W 14	28 T 12 1 16	28 S 12 23	28 S 10 11 57 (J.C.T.)	20
29 T 15	29 F 13 15 37	29 S 13	29 M 11	
	30 S 14		30 T 12	



NEW STYLE

Ephemeris Royal Observatory Greenwich, London, England.
Copied at U. S. Naval Observatory, Washington, D. C.

1844

Bul

1	W	Nov	13	
2	T		14	
3	F		15	
4	S		16	
5	S		17	
6	M		18	
7	T		19	
8	W		20	
9	T		21	
10	F		22	
11	S		23	
12	S	O	24	11 42
13	M		25	
14	T		26	
15	W		27	
16	T		28	
17	F		29	
18	S		30	
19	S	Dec	1	
20	M		2	
21	T		3	
22	W		4	
23	T		5	
24	F		6	
25	S		7	
26	S		8	
27	M)	9	8 12
28	T		10	
29	W		11	

MADE IN U.S.A.

1844 OCTOBER CONJUNCTION

FROM CONJUNCTION OF THE MOON TO THE PHASIS FOR OCTOBER 1844

11-11-23
12
11-23-23

* Libra 13°

510

Based upon Greenwich time, Midnight to Midnight

Conjunction at Greenwich occurred on Friday, October 11^d 11^h 23^m = 11.23 A.M.

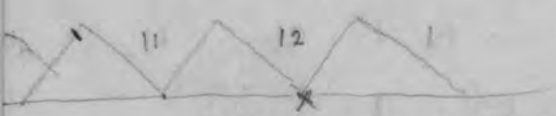
From conjunction to Sunset on Friday October 11 = 6^h 9^m

From Sunset on Friday to Sunset on Saturday = 24^h 00

11-23-23

Total 30^h 9^m

Therefore from conjunction to Phasis at Greenwich = 30^h 9^m



FROM CONJUNCTION TO PHASIS AT BOSTON

11-18-37

The difference between Greenwich and Boston time = 4^h 44^m

Therefore Greenwich 11:23 A.M. = Boston time 6:39 A.M.

Therefore conjunction at Boston occurred on Friday, Oct. 11 6.39 A.M.

12-1-55

From 6.39 A.M. to Sunset = 10^h 53^m

From Friday Sunset to Saturday Sunset = 24^h 00

11-18-39

Total 34^h 53^m

Therefore from conjunction to Phasis at Boston = 34^h 53^m

9^h-42^m



FROM CONJUNCTION TO PHASIS AT JERUSALEM

12-11-24

The difference between Greenwich and Jerusalem time = 2^h 20^m

At Greenwich conjunction occurred on Friday, Oct. 11^d 11^h 23^m

Therefore conjunction at Jerusalem occurred Oct. 11^d 13^h 43^m

October 11^d 13^h 43^m = 1.43 P.M. conjunction

From conjunction to Sunset = 3^h 49^m

From Friday Sunset to Saturday Sunset = 24^h 00

Total 27^h 49^m

Therefore from conjunction to Phasis at Jerusalem = 27^h 49^m

1860

12-1-45

FROM CONJUNCTION OF THE MOON TO THE PHASIS FOR OCTOBER 1844

Greenwich Paris -

Based upon Greenwich time, midnight to midnight

Conjunction at Greenwich occurred on Friday, October 11th 11h 23m = 11.38 A.M.

445

From conjunction to Sunset on Friday October 11 = 6h 30m

Mar 21

From Sunset on Friday to Sunset on Saturday = 12h 00m

Mar 25
Total

100 1282

200 305

Bargeton Mar 23

Therefore from conjunction to Phasis at Greenwich = 30h 30m

365.25

128

1282

FROM CONJUNCTION TO PHASIS AT BOSTON

Oct 11

The difference between Greenwich and Boston time = 15'

Paris

15'

Therefore Greenwich 11.38 A.M. = Boston time 12.13

74'

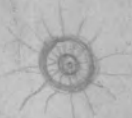
Therefore conjunction at Boston occurred on Friday, Oct. 11 6.38 A.M.

+ 76'

From 6.38 A.M. to Sunset = 10h 23m

From Friday Sunset to Saturday Sunset = 12h 00m

Total 22h 23m



Therefore from conjunction to Phasis at Boston = 22h 23m

FROM CONJUNCTION TO PHASIS AT JERUSALEM

The difference between Greenwich and Jerusalem time = 2h 20m

At Greenwich conjunction occurred on Friday, Oct. 11 11h 23m

Therefore conjunction at Jerusalem occurred Oct. 11 13h 43m

October 11 13h 43m = 1.43 P.M. conjunction

From conjunction to Sunset = 7h 43m

From Friday Sunset to Saturday Sunset = 12h 00m

Total 19h 43m

Therefore from conjunction to Phasis at Jerusalem = 19h 43m

The Ministry

FOR GREATER POWER AND MORE EFFICIENCY



EDITOR
LeRoy Edwin Froom
ASSOCIATE EDITORS
J. Lamar McElhany
Irwin H. Evans

TAKOMA PARK
WASHINGTON, D.C.

November 1, 1939

Miss Grace Amadon
Office

Dear Miss Amadon:

Here is the data gathered from Brother Wierts.

1. The year 457 was, according to Wierts, the 9th year in the cycle. I enclose his own sheet on which he indicated where the embolism occurred.

2. Brother Wierts told me he had worked out cycles one and two, the one covering the flood, next the exodus, next 457, then the period 50 B.C. to 123 A.D., and of course, the 1844 period. Whether he has one or two cycles in this modern time, I failed to ask. Incidentally, he said that every 1,040 years (according to Cheseaux), the moon repeats itself, even to the hour and minute.

3. Brother Wierts ^{said} that in 1920 the full and new moon were 17 days and 11 minutes apart in one instance, and in four other instances, 16 days. I will write him concerning the precise question as to whether it is between full and new moon or new and full moon.

4. During cycle 308, 12 times the moon full on the 14th of Nisan and 7 times on the 13th. He asked me to present that fact to you, and to ask why this was so.

5. In cycle 308, the Jewish reckoning or calendar synchronizing with the true six times or six years, the day of atonement is identical in the two reckonings.

6. The Wierts rule for determining the Veadar year is: 1, the equinox which is constant; and 2, the motion of the moon. When the full moon occurs within ten days after the equinox, that determines the Veadar year.

7. Brother Wierts contends that at the time of the exodus, the equinox occurred April 3. 457 B.C., March 6 or 7. At the time of Christ, March 21.

31 33 9
 May 2 10 3u
 April 17-11-48
 14 22 44

May 31 18 3
 May 17-4-9

14 13-54

June 15 19 42
 30 1 32
 14 5 50

July 15 9 39
 29 9 49
 14 0 10
 43

Aug 13-21-49
 27-19-49

13-22-2

Sept 12-8-32
 26-8-29
 31 8

13-23-57

Oct. 11-18-40
 26-0-21
 23 8
 14 5-41

Amadon--2.

8. The concluding statement from Gerhard (in his summary) which was omitted, was as follows: there were only two years left, 30 and 31. In the year 30, the Passover comes on Friday, the 14th of Nisan, April 7. And if the crucifixion was ^{not} in 30 A.D. then in 31 A.D., with the 14th of Nisan on Friday, April 27.

9. That the fifty days were numbered from 23rd of Sebat, which date ranged from January 31 to February 28. I think I have now placed in your hands all of the information secured from him. I did, however, call to his attention the conflict between his Nisan full moon for '43 on Chart C as April 13 and his date, May 14, occurring on his "true" mimeograph sheet distributed last summer. He was unable to explain but said he would look into this point.

Very sincerely yours,

L. E. Gram

LEF/n

24, Fusting Avenue, Catonsville, Md.

November 5, 1939

Elder L. E. Froom
Takoma Park, D.C.

Dear Brother Froom:

Yours of November 1st received. First of all I wish to state that I am sorry that those tables and manuscripts relative to those tables I sent you last year from Florida are calendrically and astronomically not correct. When last May I requested of you to return them to me I informed you then of the fact that those tables and description of them were not correct, and that I wanted to correct them. I told you this in Doctor Wood's office, and there at once you began to look for them, but could not find them, saying that you would return them to me as soon as you could locate them.

On May 21, 1939, I received a letter from you saying: "I am returning the tables which I at last located on the shelf where your folder had reposed ever since you left for Florida. Friday morning I suggested that Miss Amadon scan it through."

The next day I received a typewritten copy of my manuscript explaining those tables, but the tables I never received.

My dear Brother Froom it surely is a puzzle to me why you handed those tables to Miss Amadon for scanning, whereas I had told you that those tables were faulty and must be corrected. I am sorry to see that Miss Amadon has wasted so much of her valuable time on those faulty tables, because much of the last Committee's report was based upon those faulty tables.

Therefore my advice to you and the Committee would be to disregard and forget all about those tables, as they are not only faulty in one place but all through, because with calendrical and astronomical tables it is the same as with a problem in arithmetic. If you make an error at the beginning, the error will follow you all through. At the time I wrote those faulty tables out I did not have as yet developed the 308th cycle upon the purely natural 19-year lunar-solar cycle neither new nor old style, as I have them now, and have had them ever since last spring. Hence the errors in that 308th cycle, as I had sent it to you from Florida. And that was the simple reason I asked you as soon as I had returned from Florida, to give those tables back to me, which you did not do, but rather you have burdened Miss Amadon with much valueless, unnecessary work.

Even today I received a letter from Miss Amadon concerning the faulty 308th cycle, trying again to explain a whole lot of non-essential things about it. Please tell her to forget all about those faulty tables of that 308th cycle, and rather have her work at something more profitable.

Of course, you must see, Brother Froom, the fault is not with Miss Amadon, that she has wasted so much of her valuable time on those faulty tables, but rather yours, because you handed those faulty tables to her for scanning, notwithstanding the fact that I

had told you that these tables were faulty, and needed to be corrected.
me

Then furthermore you never asked for the corrected tables, because last spring in your own estimation you were absolutely sure that you neither needed me nor any of my work or tables.

How as regards these moon periods. These periods are from full moon to new moon.

	<u>Longest periods</u>	<u>Shorter periods</u>
1920	(16 ^d 19 ^h 36 ^m { 17 0 11 { 16 1 6 { 16 22 3	1924 (12 ^d 11 ^h 19 ^m (12 1 45
1923	16 2 59	1935 12 16 55
1928	17 1 14	1938 12 23 5
1931	16 14 38	
1939	(16 2 44 { 16 10 47 { 16 22 48 { 16 00 9	

These moon periods are astronomical periods, not cycle periods.

Please ask Miss Amadon to work out the 12 times full moon on the 14th Nisan, and only 7 times on the 13th Nisan during the true and natural 19-year lunar-solar 308th cycle. Tell her to find out the reason for it.

Must now close.

With best regards

Yours in the Master's service,

[Signed] J.H. Wierds

Our address until Nov. 22.

Valdosta, Ga.
Route 3
C/o Morrison's Shell Camp.

P.S. Please ask Miss Amadon to find out why it is that from new style to old style in the 19th century eleven days fit in the moon's motions better than 12 days.

November 9, 1939

Elder J.H. Wierts
Catonsville, Md.

Dear Brother Wierts:

Your interesting letter of November 5 has just been received, stating that the handwritten cycle tables sent last winter from Florida are "astronomically and calendrically" erroneous all the way through, because an error at the outset has rendered them incorrect from beginning to end. We had, of course, reached essentially the same conclusion from our study of them. It is not clear from your letter, however, whether you intended to confine the inaccuracies to your "cycle 308" (which we labeled Chart "C"), or whether your statement embraces "cycle 213" as well, and therefore includes all three tables, A, B, and C. Are we to understand that cycle 213 is accurate and reliable as it stands, or that it is also to be discarded?

It seems that in the two instances in which you have thus far provided tables--which at the time of presentation we were assured were true and accurate--you have later repudiated. First, there were those mimeographed tables you denominated "True," as distributed by you last summer; and now, second, the "cycle 308," concerning which you have just written. Do you wish to replace the tables we now have with accurate tables? I would think you would wish to do so, that we may understand your true position. Since you declare your cycle 308 is erroneous all the way through, I shall await your revised reckoning pertaining to October 22 with deep interest.

Frankly, Brother Wierts, my understanding and remembrance--together with that of Doctor Wood as well--is wholly different from yours relative to the tables of last winter. Neither of us have remembrance of the request as you present it. When you referred to returning your tables, we thought that of course you meant the large red-cover book with its tables and data that you left with us. It was this volume with its tables, which we asked Miss Amadon to scan after we had reached our own conclusions and had agreed upon our report. It was not our understanding that you were referring to the three smaller tables which were copied soon after submission to us.

It must be quite apparent that we did not follow nor in any sense use your tables, for the roads toward the common objective which we have separately travelled are entirely different. Your present revision of your cycle 308 in no way affects our independent conclusions. You can hardly blame us, can you, for not following last winter or spring, these three tables that you now say are wholly erroneous?

It is but fair to add, Brother Wiersts, that we do not feel Miss Amadon has been wasting her time in these recent months. On the contrary, her work has been far broader than the study of your tables and positions. We have been working on collateral lines of evidence that have proven most highly profitable and confirmatory, though not at all related to your line of argument. A comparatively small portion of Miss Amadon's time and effort has been bestowed on checking your "True" tables of last summer, and more recently these cycles 213 and 308. We are not interested in confuting your tables, Brother Wiersts, but only in finding the truth, and building up supporting lines of evidence that cannot be overthrown by our critics and enemies. As you challenged our positions and processes, and offered your own in correction, we were compelled to pause long enough to satisfy ourselves as to their validity and accuracy, and then have proceeded with our constructive work.

I have conveyed your special message to Miss Amadon concerning the full moons on the 11th and 13th of Nisan. It is only fair that you give her the accurate beginning-year of your corrected cycle 308, so as to avoid any further misunderstanding or unnecessary work. Please do this at once. Then she will respond as soon as she has studied this matter through.

Ours is a wonderful message, Brother Wiersts. And truly the Millerite leaders in the seventh month movement were guided by the Holy Spirit, for only thus could they have reached such sound and invulnerable positions in such a notably short time.

Most sincerely yours in service,

LEF/n

Ministerial Association
of SEVENTH-DAY ADVENTISTS



J. L. McELHANY, CHAIRMAN
I. H. EVANS, SECRETARY
L. E. FROOM, ASSOCIATE
MEADE MACGUIRE, ASSOCIATE

TAKOMA PARK, WASHINGTON, D.C.

CABLE ADDRESS
"ADVENTIST" WASHINGTON

October 11, 1939

Members of the Special Research Committee
on the October 22, 1844, and Related Dates.

Dear Brethren:

The background of the Wierts challenge of Part V of our Report is well known to you, together with subsequent attempts, both in committee and personally, to discuss and to reconcile the points of difference between the Report and the criticisms of Elder Wierts and Dr. Wilkinson. Marked progress has not, however, been made in these conferences.

The Committee then asked Miss Amadon to make a careful analysis, during Dr. Wood's absence on the coast, of the structure of the Wierts 19-year cycle, as set forth in his tabulated cycles "213" and "308," and to present in succinct form any major discrepancies in the premises, figures, and conclusions reached. Upon Dr. Wood's return, these have been checked through, and are now submitted to the members of the Committee, and to Elder Wierts and Dr. Wilkinson.

The Committee has given the officers assurance that we will seek to bring to a conclusion these discussions of differences. We have promised to, if possible, present a report to which both parties can subscribe. If this desired end cannot be attained, then we have promised (1) to make a report on the nature and scope of the differences, and (2) to put our Report in final form for transmission to the officers, and thus to complete our assigned task.

I ask you to study the accompanying "Analysis" most carefully, together with the three Wierts tables of which it is an examination.

There will be a meeting of the Committee with Brethren Wierts and Wilkinson as soon as possible after those of us in attendance at the Autumn Council have returned, probably in the week beginning October 22.

Most sincerely your brother

Chairman

LEF-m