



# Astrodienst Ephemeris Tables for the year 1721

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming  
Dieter Koch and Alois Treindl  
based on Swiss Ephemeris  
Code D5EPX

ASTRODIENST EPHEMERIS for the year 1721  
geocentric

JANUARY 1721

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
W 1	6 42 7	10°36'48	16°45	29°R10	11°48	3°24	1°58	2°34	19°37	20°R11	21°R21	0°5	1°11	11°II 5	16°51	W 1
T 2	6 46 4	11°37'59	0°42	28°21	13° 2	4° 6	2° 6	2°40	19°38	20°R10	21°R20	0° 6	1° 7	11°12	16°53	T 2
F 3	6 50 0	12°39'10	14°12	27°41	14°16	4°48	2°14	2°46	19°39	20° 9	21°20	0° 8	1° 4	11°19	16°55	F 3
S 4	6 53 57	13°40'20	27°16	27°12	15°30	5°29	2°22	2°52	19°41	20° 8	21°20	0° 9	1° 1	11°25	16°57	S 4
S 5	6 57 53	14°41'30	9°57	26°53	16°44	6°11	2°30	2°58	19°42	20° 7	21°19	0°R10	0°58	11°32	16°59	S 5
M 6	7 1 50	15°42'40	22°19	26°43	17°58	6°53	2°37	3° 4	19°43	20° 6	21°19	0° 9	0°55	11°39	17° 2	M 6
T 7	7 5 46	16°43'48	4°27	26°D42	19°12	7°34	2°44	3°10	19°44	20° 5	21°19	0° 9	0°52	11°45	17° 4	T 7
W 8	7 9 43	17°44'57	16°24	26°50	20°26	8°16	2°52	3°16	19°45	20° 5	21°18	0° 7	0°48	11°52	17° 6	W 8
T 9	7 13 39	18°46'05	28°16	27° 6	21°39	8°58	2°59	3°21	19°45	20° 4	21°18	0° 6	0°45	11°59	17° 8	T 9
F 10	7 17 36	19°47'12	10°II 6	27°28	22°53	9°40	3° 6	3°27	19°46	20° 3	21°17	0° 4	0°42	12° 5	17°11	F 10
S 11	7 21 33	20°48'18	21°57	27°57	24° 7	10°22	3°13	3°33	19°47	20° 3	21°16	0° 3	0°39	12°12	17°13	S 11
S 12	7 25 29	21°49'24	3°52	28°32	25°20	11° 4	3°19	3°38	19°48	20° 2	21°16	0° 1	0°36	12°19	17°16	S 12
M13	7 29 26	22°50'30	15°54	29°12	26°34	11°46	3°26	3°44	19°48	20° 1	21°15	0° 1	0°33	12°25	17°18	M13
T 14	7 33 22	23°51'35	28° 3	29°57	27°47	12°28	3°32	3°49	19°49	20° 1	21°15	0°D 1	0°29	12°32	17°21	T 14
W15	7 37 19	24°52'39	10°II 22	0°47	29° 1	13°10	3°38	3°54	19°49	20° 0	21°14	0° 1	0°26	12°39	17°23	W15
T 16	7 41 15	25°53'43	22°52	1°40	0°14	13°52	3°44	4° 0	19°50	20° 0	21°13	0° 1	0°23	12°46	17°26	T 16
F 17	7 45 12	26°54'46	5°III 34	2°36	1°27	14°34	3°50	4° 5	19°50	19°59	21°12	0° 1	0°20	12°52	17°28	F 17
S 18	7 49 9	27°55'48	18°30	3°36	2°41	15°16	3°56	4°10	19°51	19°59	21°12	0° 2	0°17	12°59	17°31	S 18
S 19	7 53 5	28°56'50	1°41	4°39	3°54	15°58	4° 2	4°15	19°51	19°59	21°11	0° 2	0°13	13° 6	17°34	S 19
M20	7 57 2	29°57'52	15° 7	5°44	5° 7	16°40	4° 7	4°20	19°51	19°58	21°10	0°R 2	0°10	13°12	17°37	M20
T 21	8 0 58	0°58'53	28°50	6°51	6°20	17°22	4°13	4°25	19°51	19°58	21° 9	0°D 2	0° 7	13°19	17°39	T 21
W22	8 4 55	1°59'53	12°50	8° 1	7°33	18° 4	4°18	4°30	19°52	19°58	21° 8	0° 2	0° 4	13°26	17°42	W22
T 23	8 8 51	3° 0'53	27° 6	9°13	8°46	18°47	4°23	4°35	19°52	19°57	21° 7	0° 2	0° 1	13°32	17°45	T 23
F 24	8 12 48	4° 1'53	11°35	10°26	9°59	19°29	4°27	4°40	19°52	19°57	21° 6	0° 2	29°58	13°39	17°48	F 24
S 25	8 16 44	5° 2'52	26°15	11°41	11°12	20°11	4°32	4°44	19°52	19°57	21° 5	0° 3	29°54	13°46	17°51	S 25
S 26	8 20 41	6° 3'50	10°35	12°58	12°25	20°54	4°37	4°49	19°52	19°57	21° 4	0° 3	29°51	13°52	17°54	S 26
M27	8 24 38	7° 4'47	25°40	14°16	13°38	21°36	4°41	4°53	19°51	19°57	21° 3	0°R 4	29°48	13°59	17°57	M27
T 28	8 28 34	8° 5'43	10°33	15°35	14°50	22°18	4°45	4°58	19°51	19°57	21° 2	0° 3	29°45	14° 6	18° 0	T 28
W29	8 32 31	9° 6'38	24°30	16°56	16° 3	23° 1	4°49	5° 2	19°51	19°57	21° 1	0° 3	29°42	14°12	18° 3	W29
T 30	8 36 27	10° 7'32	8°27	18°17	17°15	23°43	4°53	5° 6	19°51	19°D56	21° 0	0° 2	29°39	14°19	18° 6	T 30
F 31	8 40 24	11° 8'24	22°11	19°34	18°28	24°26	4°56	5°11	19°50	19°R57	20°R59	0°0	29°35	14°II 26	18° 9	F 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	23s 3	17s17	1s31	20s14	3n14	18s59	1s46	20s43	0n 9	11s 2	1n13	18s54	1n50	7s 6	0n38	16n 5	1s47	17n40	15n33	20n10	19n56	18n13	1s20	4n12	
T 2	22 58	13 45	2 41	20 12	3 16	18 37	1 46	20 52	0 8	11 5	1 13	18 55	1 50	7 6	0 38	16 5	1 47	17 41	15 33	20 9	19 56	18 15	1 19	4 12	
F 3	22 52	9 37	3 40	20 12	3 15	18 15	1 46	21 0	0 7	11 7	1 13	18 57	1 50	7 7	0 38	16 5	1 47	17 42	15 34	20 9	19 57	18 16	1 19	4 11	
S 4	22 46	5 9	4 26	20 14	3 13	17 53	1 45	21 8	0 7	11 10	1 13	18 58	1 50	7 7	0 38	16 5	1 47	17 42	15 34	20 9	19 58	18 18	1 18	4 11	
S 5	22 40	0 36	4 57	20 18	3 9	17 30	1 45	21 16	0 6	11 12	1 13	18 59	1 50	7 7	0 38	16 5	1 47	17 43	15 35	20 9	19 58	18 19	1 18	4 11	
M 6	22 33	3n51	5 14	20 23	3 3	17 7	1 44	21 24	0 5	11 15	1 14	19 0	1 50	7 8	0 38	16 5	1 47	17 43	15 35	20 9	19 59	18 21	1 17	4 11	
T 7	22 26	8 4	5 16	20 29	2 57	16 43	1 43	21 32	0 5	11 17	1 14	19 1	1 51	7 8	0 38	16 4	1 47	17 44	15 36	20 9	20 0	18 22	1 16	4 10	
W 8	22 18	11 55	5 4	20 37	2 50	16 19	1 43	21 39	0 4	11 19	1 14	19 2	1 51	7 8	0 38	16 4	1 47	17 45	15 36	20 9	20 0	18 24	1 16	4 10	
T 9	22 9	15 16	4 39	20 45	2 42	15 55	1 42	21 46	0 3	11 22	1 14	19 3	1 51	7 9	0 38	16 4	1 47	17 45	15 37	20 10	20 1	18 25	1 15	4 10	
F 10	22 1	18 0	4 3	20 54	2 33	15 30	1 41	21 53	0 3	11 24	1 14	19 4	1 51	7 9	0 38	16 4	1 47	17 46	15 37	20 10	20 2	18 27	1 14	4 10	
S 11	21 52	19 58	3 16	21 3	2 24	15 4	1 40	22 0	0 2	11 26	1 15	19 5	1 51	7 9	0 38	16 4	1 47	17 47	15 38	20 10	20 2	18 28	1 14	4 9	
S 12	21 42	21 5	2 20	21 13	2 15	14 38	1 39	22 7	0 1	11 28	1 15	19 6	1 51	7 10	0 38	16 4	1 47	17 47	15 38	20 10	20 3	18 29	1 13	4 9	
M13	21 32	21 15	1 18	21 23	2 5	14 12	1 37	22 13	0 1	11 30	1 15	19 7	1 51	7 10	0 39	16 4	1 47	17 48	15 39	20 11	20 4	18 31	1 12	4 9	
T 14	21 22	20 24	0 11	21 33	1 55	13 46	1 36	22 20	0s 0	11 32	1 15	19 8	1 51	7 10	0 39	16 4	1 47	17 49	15 39	20 11	20 5	18 32	1 12	4 9	
W15	21 11	18 35	0n57	21 43	1 46	13 19	1 35	22 26	0 1	11 34	1 15	19 8	1 51	7 10	0 39	16 3	1 47	17 50	15 40	20 11	20 5	18 34	1 11	4 8	
T 16	21 0	15 52	2 4	21 52	1 36	12 52	1 33	22 31	0 2	11 36	1 15	19 9	1 51	7 10	0 39	16 3	1 46	17 50	15 40	20 11	20 6	18 35	1 10	4 8	
F 17	20 48	12 21	3 5	22 1	1 26	12 24	1 32	22 37	0 2	11 38	1 16	19 10	1 51	7 10	0 39	16 3	1 46	17 51	15 41	20 11	20 7	18 37	1 9	4 8	
S 18	20 36	8 12	3 58	22 9	1 16	11 56	1 30	22 43	0 3	11 40	1 16	19 11	1 51	7 11	0 39	16 3	1 46	17 52	15 41	20 10	20 7	18 38	1 8	4 8	
S 19	20 24	3 37	4 40	22 17	1 6	11 28	1 28	22 48	0 4	11 41	1 16	19 12	1 52	7 11	0 39	16 3	1 46	17 53	15 42	20 10	20 8	18 39	1 8	4 7	
M20	20 11	1s14	5 7	22 24	0 57	10 59	1 27	22 53	0 5	11 43	1 16	19 13	1 52	7 11	0 39	16 3	1 46	17 53	15 42	20 10	20 9	18 41	1 7	4 7	
T 21	19 58	6 7	5 18	22 30	0 47	10 31	1 25	22 58	0 5	11 45	1 16	19 14	1 52	7 11	0 39	16 3	1 46	17 54	15 43	20 10	20 9	18 42	1 6	4 7	
W22	19 45	10 47	5 10	22 36	0 38	10 2	1 23	23 2	0 6	11 46	1 17	19 14	1 52	7 11	0 39	16 3	1 46	17 55	15 43	20 10	20 10	18 44	1 5	4 7	
T 23	19 31	14 57	4 43	22 40	0 29	9 32	1 21	23 7	0 7	11 48	1 17	19 15	1 52	7 11	0 39	16 3	1 46	17 56	15 44	20 10	20 11	18 45	1 4	4 6	
F 24	19 17	18 17	3 58	22 44	0 20	9 3	1 19	23 11	0 8	11 49	1 17	19 16	1 52	7 11	0 39	16 3	1 46	17 56	15 44	20 10	20 11	18 46	1 3	4 6	
S 25	19 2	20 28	2 57	22 47	0 11	8 33	1 16	23 15	0 8	11 50	1 17	19 17	1 52	7 11	0 39	16 3	1 46	17 57	15 44	20 10	20 12	18 48	1 2	4 6	
S 26	18 47	21 17	1 44	22 48	0 2	8 3	1 14	23 19	0 9	11 52	1 17	19 17	1 52	7 11	0 39	16 3	1 46	17 58	15 45	20 10	20 13	18 49	1 1	4 6	
M27	18 32	20 38	0 24	22 49	0s 6	7 33	1 12	23 22	0 10	11 53	1 18	19 18	1 52	7 11	0 39	16 3	1 46	17 59	15 45	20 10	20 13	18 51	1 0	4 6	
T 28	18 16	18 37	0s56	22 48	0 14	7 3	1 9	23 26	0 11	11 54	1 18	19 19	1 53	7 10	0 39	16 3	1 46	18 0	15 46	20 10	20 14	18 52	0 59	4 5	
W29	18 0	15 26	2 12	22 46	0 22	6 32	1 7	23 29	0 11	11 55	1 18	19 19	1 53	7 10	0 39	16 3	1 46	18 0	15 46	20 10	20 15	18 53	0 58	4 5	
T 30	17 44	11 27	3 17	22 43	0 30	6 2	1 4	23 32	0 12	11 56	1 18	19 20	1 53	7 10	0 39	16 3	1 46	18 1	15 46	20 10	20 15	18 55	0 57	4 5	
F 31	17s27	7s 0	4s10	22s39	0s37	5s31	1s 2	23s34	0s13	11s57	1n18	19s21	1n53	7s10	0n39	16n 3	1s46	18n 2	15n47	20n11	20n16	18n56	0s56	4n 5	

# ASTRODIENST EPHEMERIS for the year 1721

## geocentric

FEBRUARY 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 44 20	12 <sup>28</sup> 9'15	5 <sup>12</sup> 12	21 <sup>3</sup> 4	19 <sup>14</sup> 40	25 <sup>1</sup> 8	5 <sup>11</sup> 0	5 <sup>1</sup> 15	19 <sup>1</sup> 50	19 <sup>1</sup> 57	20 <sup>1</sup> 58	29 <sup>1</sup> 59	29 <sup>1</sup> 52	14 <sup>1</sup> 32	18 <sup>1</sup> 12	S 1
S 2	8 48 17	13 <sup>10</sup> 0'05	17 <sup>59</sup>	22 <sup>29</sup>	20 <sup>52</sup>	25 <sup>51</sup>	5 <sup>3</sup>	5 <sup>19</sup>	19 <sup>1</sup> 49	19 <sup>1</sup> 57	20 <sup>1</sup> 56	29 <sup>1</sup> 57	29 <sup>1</sup> 29	14 <sup>39</sup>	18 <sup>16</sup>	S 2
M 3	8 52 13	14 <sup>10</sup> 5'3	0 <sup>26</sup>	23 <sup>55</sup>	22 <sup>5</sup>	26 <sup>33</sup>	5 <sup>6</sup>	5 <sup>23</sup>	19 <sup>49</sup>	19 <sup>57</sup>	20 <sup>55</sup>	29 <sup>56</sup>	29 <sup>26</sup>	14 <sup>46</sup>	18 <sup>19</sup>	M 3
T 4	8 56 10	15 <sup>11</sup> 4'0	12 <sup>36</sup>	25 <sup>22</sup>	23 <sup>17</sup>	27 <sup>16</sup>	5 <sup>9</sup>	5 <sup>27</sup>	19 <sup>48</sup>	19 <sup>57</sup>	20 <sup>54</sup>	29 <sup>56</sup>	29 <sup>23</sup>	14 <sup>53</sup>	18 <sup>22</sup>	T 4
W 5	9 0 7	16 <sup>12</sup> 2'5	24 <sup>35</sup>	26 <sup>50</sup>	24 <sup>29</sup>	27 <sup>58</sup>	5 <sup>12</sup>	5 <sup>30</sup>	19 <sup>48</sup>	19 <sup>57</sup>	20 <sup>53</sup>	29 <sup>56</sup>	29 <sup>19</sup>	14 <sup>59</sup>	18 <sup>25</sup>	W 5
T 6	9 4 3	17 <sup>13</sup> 0'9	6 <sup>12</sup> 27	28 <sup>18</sup>	25 <sup>41</sup>	28 <sup>41</sup>	5 <sup>14</sup>	5 <sup>34</sup>	19 <sup>47</sup>	19 <sup>57</sup>	20 <sup>52</sup>	29 <sup>57</sup>	29 <sup>16</sup>	15 <sup>6</sup>	18 <sup>29</sup>	T 6
F 7	9 8 0	18 <sup>13</sup> 5'1	18 <sup>17</sup>	29 <sup>48</sup>	26 <sup>52</sup>	29 <sup>24</sup>	5 <sup>17</sup>	5 <sup>38</sup>	19 <sup>46</sup>	19 <sup>58</sup>	20 <sup>50</sup>	29 <sup>58</sup>	29 <sup>13</sup>	15 <sup>13</sup>	18 <sup>32</sup>	F 7
S 8	9 11 56	19 <sup>14</sup> 3'1	0 <sup>28</sup> 9	1 <sup>18</sup> 19	28 <sup>4</sup>	0 <sup>28</sup> 6	5 <sup>19</sup>	5 <sup>41</sup>	19 <sup>45</sup>	19 <sup>58</sup>	20 <sup>49</sup>	29 <sup>59</sup>	29 <sup>10</sup>	15 <sup>19</sup>	18 <sup>35</sup>	S 8
S 9	9 15 53	20 <sup>15</sup> 1'0	12 <sup>7</sup>	2 <sup>50</sup>	29 <sup>16</sup>	0 <sup>49</sup>	5 <sup>21</sup>	5 <sup>45</sup>	19 <sup>45</sup>	19 <sup>58</sup>	20 <sup>48</sup>	0 <sup>1</sup> 1	29 <sup>7</sup>	15 <sup>26</sup>	18 <sup>39</sup>	S 9
M10	9 19 49	21 <sup>15</sup> 4'7	24 <sup>15</sup>	4 <sup>22</sup>	0 <sup>1</sup> 27	1 <sup>32</sup>	5 <sup>23</sup>	5 <sup>48</sup>	19 <sup>44</sup>	19 <sup>59</sup>	20 <sup>46</sup>	0 <sup>1</sup> 2	29 <sup>4</sup>	15 <sup>33</sup>	18 <sup>42</sup>	M10
T 11	9 23 46	22 <sup>16</sup> 2'3	6 <sup>12</sup> 36	5 <sup>56</sup>	1 <sup>39</sup>	2 <sup>15</sup>	5 <sup>24</sup>	5 <sup>51</sup>	19 <sup>43</sup>	19 <sup>59</sup>	20 <sup>45</sup>	0 <sup>2</sup>	29 <sup>0</sup>	15 <sup>39</sup>	18 <sup>46</sup>	T 11
W12	9 27 42	23 <sup>16</sup> 5'7	19 <sup>11</sup>	7 <sup>30</sup>	2 <sup>50</sup>	2 <sup>57</sup>	5 <sup>26</sup>	5 <sup>55</sup>	19 <sup>42</sup>	19 <sup>59</sup>	20 <sup>44</sup>	0 <sup>1</sup>	28 <sup>57</sup>	15 <sup>46</sup>	18 <sup>49</sup>	W12
T 13	9 31 39	24 <sup>17</sup> 2'9	2 <sup>11</sup> 2	9 <sup>5</sup>	4 <sup>1</sup>	3 <sup>40</sup>	5 <sup>27</sup>	5 <sup>58</sup>	19 <sup>41</sup>	20 <sup>0</sup>	20 <sup>42</sup>	29 <sup>58</sup>	28 <sup>54</sup>	15 <sup>53</sup>	18 <sup>53</sup>	T 13
F 14	9 35 36	25 <sup>18</sup> 0'0	15 <sup>7</sup>	10 <sup>40</sup>	5 <sup>12</sup>	4 <sup>23</sup>	5 <sup>28</sup>	6 <sup>1</sup>	19 <sup>40</sup>	20 <sup>0</sup>	20 <sup>41</sup>	29 <sup>55</sup>	28 <sup>51</sup>	15 <sup>59</sup>	18 <sup>56</sup>	F 14
S 15	9 39 32	26 <sup>18</sup> 3'0	28 <sup>27</sup>	12 <sup>17</sup>	6 <sup>23</sup>	5 <sup>6</sup>	5 <sup>29</sup>	6 <sup>4</sup>	19 <sup>38</sup>	20 <sup>1</sup>	20 <sup>39</sup>	29 <sup>51</sup>	28 <sup>48</sup>	16 <sup>6</sup>	19 <sup>0</sup>	S 15
S 16	9 43 29	27 <sup>18</sup> 5'8	12 <sup>1</sup> 0	13 <sup>55</sup>	7 <sup>34</sup>	5 <sup>49</sup>	5 <sup>30</sup>	6 <sup>6</sup>	19 <sup>37</sup>	20 <sup>2</sup>	20 <sup>38</sup>	29 <sup>47</sup>	28 <sup>45</sup>	16 <sup>13</sup>	19 <sup>3</sup>	S 16
M17	9 47 25	28 <sup>19</sup> 2'4	25 <sup>43</sup>	15 <sup>33</sup>	8 <sup>45</sup>	6 <sup>32</sup>	5 <sup>30</sup>	6 <sup>9</sup>	19 <sup>36</sup>	20 <sup>2</sup>	20 <sup>36</sup>	29 <sup>43</sup>	28 <sup>41</sup>	16 <sup>19</sup>	19 <sup>7</sup>	M17
T 18	9 51 22	29 <sup>19</sup> 5'0	9 <sup>11</sup> 37	17 <sup>13</sup>	9 <sup>55</sup>	7 <sup>15</sup>	5 <sup>30</sup>	6 <sup>12</sup>	19 <sup>35</sup>	20 <sup>3</sup>	20 <sup>35</sup>	29 <sup>40</sup>	28 <sup>38</sup>	16 <sup>26</sup>	19 <sup>10</sup>	T 18
W19	9 55 18	0 <sup>1</sup> 20'14	23 <sup>38</sup>	18 <sup>54</sup>	11 <sup>6</sup>	7 <sup>58</sup>	5 <sup>1</sup> R31	6 <sup>14</sup>	19 <sup>33</sup>	20 <sup>3</sup>	20 <sup>33</sup>	29 <sup>39</sup>	28 <sup>35</sup>	16 <sup>33</sup>	19 <sup>14</sup>	W19
T 20	9 59 15	1 <sup>20</sup> 3'6	7 <sup>1</sup> 45	20 <sup>35</sup>	12 <sup>16</sup>	8 <sup>41</sup>	5 <sup>31</sup>	6 <sup>17</sup>	19 <sup>32</sup>	20 <sup>4</sup>	20 <sup>32</sup>	29 <sup>39</sup>	28 <sup>32</sup>	16 <sup>39</sup>	19 <sup>18</sup>	T 20
F 21	10 3 11	2 <sup>20</sup> 5'8	21 <sup>57</sup>	22 <sup>17</sup>	13 <sup>26</sup>	9 <sup>24</sup>	5 <sup>30</sup>	6 <sup>19</sup>	19 <sup>31</sup>	20 <sup>5</sup>	20 <sup>30</sup>	29 <sup>40</sup>	28 <sup>29</sup>	16 <sup>46</sup>	19 <sup>21</sup>	F 21
S 22	10 7 8	3 <sup>21</sup> 1'8	6 <sup>1</sup> 13	24 <sup>1</sup>	14 <sup>36</sup>	10 <sup>7</sup>	5 <sup>30</sup>	6 <sup>21</sup>	19 <sup>29</sup>	20 <sup>6</sup>	20 <sup>29</sup>	29 <sup>41</sup>	28 <sup>25</sup>	16 <sup>53</sup>	19 <sup>25</sup>	S 22
S 23	10 11 4	4 <sup>21</sup> 3'6	20 <sup>28</sup>	25 <sup>45</sup>	15 <sup>46</sup>	10 <sup>50</sup>	5 <sup>29</sup>	6 <sup>23</sup>	19 <sup>28</sup>	20 <sup>6</sup>	20 <sup>27</sup>	29 <sup>42</sup>	28 <sup>22</sup>	16 <sup>59</sup>	19 <sup>28</sup>	S 23
M24	10 15 1	5 <sup>21</sup> 5'3	4 <sup>1</sup> 41	27 <sup>31</sup>	16 <sup>56</sup>	11 <sup>33</sup>	5 <sup>28</sup>	6 <sup>26</sup>	19 <sup>26</sup>	20 <sup>7</sup>	20 <sup>26</sup>	29 <sup>43</sup>	28 <sup>19</sup>	17 <sup>6</sup>	19 <sup>32</sup>	M24
T 25	10 18 58	6 <sup>22</sup> 0'8	18 <sup>48</sup>	29 <sup>17</sup>	18 <sup>6</sup>	12 <sup>16</sup>	5 <sup>27</sup>	6 <sup>28</sup>	19 <sup>24</sup>	20 <sup>8</sup>	20 <sup>24</sup>	29 <sup>41</sup>	28 <sup>16</sup>	17 <sup>13</sup>	19 <sup>36</sup>	T 25
W26	10 22 54	7 <sup>22</sup> 2'2	2 <sup>1</sup> 44	1 <sup>1</sup> 5	19 <sup>16</sup>	12 <sup>59</sup>	5 <sup>26</sup>	6 <sup>29</sup>	19 <sup>23</sup>	20 <sup>9</sup>	20 <sup>23</sup>	29 <sup>38</sup>	28 <sup>13</sup>	17 <sup>20</sup>	19 <sup>39</sup>	W26
T 27	10 26 51	8 <sup>22</sup> 3'3	16 <sup>27</sup>	2 <sup>53</sup>	20 <sup>25</sup>	13 <sup>42</sup>	5 <sup>25</sup>	6 <sup>31</sup>	19 <sup>21</sup>	20 <sup>10</sup>	20 <sup>21</sup>	29 <sup>32</sup>	28 <sup>10</sup>	17 <sup>26</sup>	19 <sup>43</sup>	T 27
F 28	10 30 47	9 <sup>1</sup> 22'43	29 <sup>1</sup> 53	4 <sup>1</sup> 43	21 <sup>1</sup> 34	14 <sup>1</sup> 25	5 <sup>1</sup> 23	6 <sup>1</sup> 33	19 <sup>1</sup> 19	20 <sup>1</sup> 11	20 <sup>1</sup> 20	29 <sup>1</sup> 26	28 <sup>1</sup> 6	17 <sup>1</sup> 33	19 <sup>1</sup> 47	F 28

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	17s11	2s20	4s48	22s33	0s45	5s 0	0s59	23s37	0s14	11s58	1n19	19s21	1n53	7s10	0n39	16n 3	1s45	18n 3	15n47	20n11	20n17	18n57	0s55	4n 5	4s48	22s33	
S 2	16 53	2n17	5 10	22 27	0 52	4 29	0 56	23 39	0 15	11 59	1 19	19 22	1 53	7 10	0 39	16 4	1 45	18 4	15 48	20 11	20 17	18 59	0 54	4 4	4s48	22s33	
M 3	16 36	6 42	5 17	22 19	0 58	3 58	0 53	23 41	0 15	12 0	1 19	19 22	1 53	7 9	0 39	16 4	1 45	18 4	15 48	20 12	20 18	19 0	0 53	4 4	4s48	22s33	
T 4	16 18	10 44	5 9	22 10	1 5	3 27	0 50	23 43	0 16	12 1	1 19	19 23	1 53	7 9	0 39	16 4	1 45	18 5	15 48	20 12	20 19	19 2	0 52	4 4	4s48	22s33	
W 5	16 0	14 17	4 48	21 59	1 11	2 55	0 47	23 45	0 17	12 1	1 20	19 23	1 53	7 9	0 39	16 4	1 45	18 6	15 49	20 12	20 19	19 3	0 51	4 4	4s48	22s33	
T 6	15 42	17 14	4 15	21 47	1 17	2 24	0 44	23 46	0 18	12 2	1 20	19 24	1 54	7 9	0 39	16 4	1 45	18 7	15 49	20 11	20 20	19 4	0 50	4 4	4s48	22s33	
F 7	15 23	19 27	3 31	21 34	1 23	1 52	0 41	23 47	0 19	12 3	1 20	19 25	1 54	7 8	0 39	16 4	1 45	18 8	15 49	20 11	20 21	19 6	0 48	4 4	4s48	22s33	
S 8	15 4	20 51	2 38	21 20	1 28	1 21	0 38	23 48	0 19	12 3	1 20	19 25	1 54	7 8	0 39	16 4	1 45	18 8	15 50	20 11	20 21	19 7	0 47	4 4	4s48	22s33	
S 9	14 45	21 18	1 37	21 4	1 33	0 49	0 34	23 49	0 20	12 4	1 20	19 25	1 54	7 8	0 39	16 4	1 45	18 9	15 50	20 11	20 22	19 8	0 46	4 4	4s48	22s33	
M10	14 26	20 46	0 32	20 47	1 38	0 18	0 31	23 49	0 21	12 4	1 21	19 26	1 54	7 7	0 39	16 5	1 45	18 10	15 50	20 10	20 23	19 10	0 45	4 4	4s48	22s33	
T 11	14 6	19 14	0n36	20 28	1 42	0n14	0 28	23 49	0 22	12 4	1 21	19 26	1 54	7 7	0 39	16 5	1 45	18 11	15 51	20 10	20 23	19 11	0 44	4 4	4s48	22s33	
W12	13 47	16 44	1 44	20 8	1 46	0 45	0 24	23 49	0 23	12 5	1 21	19 27	1 54	7 6	0 39	16 5	1 45	18 12	15 51	20 11	20 24	19 12	0 43	4 4	4s48	22s33	
T 13	13 27	13 22	2 47	19 47	1 50	1 17	0 21	23 49	0 24	12 5	1 21	19 27	1 55	7 6	0 39	16 5	1 45	18 13	15 51	20 11	20 25	19 14	0 41	4 4	4s48	22s33	
F 14	13 6	9 18	3 43	19 24	1 53	1 48	0 17	23 49	0 24	12 5	1 21	19 28	1 55	7 6	0 39	16 5	1 45	18 13	15 52	20 12	20 25	19 15	0 40	4 4	4s48	22s33	
S 15	12 46	4 43	4 28	19 0	1 57	2 20	0 13	23 48	0 25	12 5	1 22	19 28	1 55	7 5	0 39	16 5	1 45	18 14	15 52	20 13	20 26	19 16	0 39	4 4	4s48	22s33	
S 16	12 25	0s10	4 58	18 35	1 59	2 51	0 10	23 47	0 26	12 5	1 22	19 28	1 55	7 5	0 39	16 6	1 45	18 15	15 52	20 14	20 27	19 18	0 38	4 4	4s48	22s33	
M17	12 4	5 6	5 12	18 8	2 2	3 23	0 6	23 46	0 27	12 5	1 22	19 29	1 55	7 4	0 40	16 6	1 44	18 16	15 52	20 14	20 27	19 19	0 36	4 4	4s48	22s33	
T 18	11 43	9 50	5 9	17 40	2 4	3 54	0 2	23 44	0 28	12 5	1 22	19 29	1 55	7 4	0 40	16 6	1 44	18 17	15 53	20 15	20 28	19 20	0 35	4 4	4s48	22s33	
W19	11 22	14 5	4 46	17 10	2 5	4 25	0n 2	23 43	0 29	12 5	1 22	19 29	1 55	7 3	0 40	16 6	1 44	18 17	15 53	20 15	20 28	19 22	0 34	4 4	4s48	22s33	
T 20	11 1	17 35	4 7	16 39	2 6	4 56	0 6	23 41	0 30	12 5	1 23	19 29	1 56	7 3	0 40	16 7	1 44	18 18	15 53	20 15	20 29	19 23	0 33	4 4	4s48	22s33	
F 21	10 39	20 2	3 12	16 6	2 7	5 27	0 9	23 39	0 31	12 4	1 23	19 30	1 56	7 2	0 40	16 7	1 44	18 19	15 53	20 15	20 30	19 24	0 31	4 4	4s48	22s33	
S 22	10 17	21 15	2 5	15 32	2 8	5 58	0 13	23 37	0 31	12 4	1 23	19 30	1 56	7 1	0 40	16 7	1 44	18 20	15 54	20 15	20 30	19 26	0 30	4 4	4s48	22s33	
S 23	9 56	21 5	0 50	14 57	2 7	6 29	0 18	23 34	0 32	12 4	1 23	19 30	1 56	7 1	0 40	16 7	1 44	18 21	15 54	20 15	20 31	19 27	0 29	4 4	4s48	22s33	
M24	9 33	19 34	0s27	14 20	2 7	7 0	0 22	23 31	0 33	12 3	1 24	19 30	1 56	7 0	0 40	16 8	1 44	18 21	15 54	20 14	20 32	19 28	0 27	4 4	4s48	22s33	
T 25	9 11	16 50	1 42	13 42	2 6	7 30	0 26	23 28	0 34	12 3	1 24	19 31	1 56	7 0	0 40	16 8	1 44	18 22	15 54	20 15	20 32	19 29	0 26	4 4	4s48	22s33	
W26	8 49	13 9	2 50	13 3	2 5	8 1	0 30	23 25	0 35	12 2	1 24	19 31	1 56	6 59	0 40	16 8	1 44	18 23	15 54	20 16	20 33	19 31	0 25	4 4	4s48	22s33	
T 27	8 26	8 50	3 47	12 22	2 3	8 31	0 34	23 22	0 36	12 1	1 24	19 31	1 57	6 58	0 40	16 9	1 44	18 24	15 54	20 17	20 34	19 32	0 23	4 4	4s48	22s33	
F 28	8s 4	4s10	4s30	11s40	2s 0	9n 1	0n38	23s18	0s37	12s 1	1n24	19s31	1n57	6s58	0n40	16n 9	1s44	18n25	15n55	20n18	20n34	19n33	0s22	4n5	4s48	22s33	

ASTRODIENST EPHEMERIS for the year 1721  
geocentric

MARCH 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 34 44	10♌22°51	12♏59	6♌34	22♏43	15♌9	5°R21	6♌34	19°R18	20♌12	20°R18	29°R19	28♌3	17♏40	19♌51	S 1
S 2	10 38 40	11°22'57	25°46	8°25	23°52	15°52	5♌19	6°36	19♌16	20°13	20♏16	29♌11	28° 0	17°46	19°54	S 2
M 3	10 42 37	12°23'00	8♌14	10°18	25° 1	16°35	5°17	6°37	19°14	20°14	20°15	29° 5	27°57	17°53	19°58	M 3
T 4	10 46 33	13°23'02	20°26	12°12	26°10	17°18	5°15	6°38	19°12	20°15	20°13	29° 1	27°54	18° 0	20° 2	T 4
W 5	10 50 30	14°23'02	2♏26	14° 7	27°18	18° 2	5°13	6°40	19°10	20°16	20°12	28°58	27°50	18° 6	20° 6	W 5
T 6	10 54 27	15°22'59	14°18	16° 2	28°27	18°45	5°10	6°41	19° 8	20°17	20°10	28°D57	27°47	18°13	20° 9	T 6
F 7	10 58 23	16°22'54	26° 8	17°59	29°35	19°28	5° 7	6°42	19° 6	20°19	20° 8	28°57	27°44	18°20	20°13	F 7
S 8	11 2 20	17°22'47	8♌0	19°56	0♌43	20°12	5° 4	6°43	19° 4	20°20	20° 7	28°59	27°41	18°26	20°17	S 8
S 9	11 6 16	18°22'38	20° 0	21°54	1°50	20°55	5° 1	6°43	19° 2	20°21	20° 5	29° 0	27°38	18°33	20°20	S 9
M10	11 10 13	19°22'26	2♏12	23°52	2°58	21°38	4°57	6°44	19° 0	20°22	20° 4	29°R 0	27°35	18°40	20°24	M10
T 11	11 14 9	20°22'13	14°41	25°51	4° 5	22°22	4°54	6°45	18°58	20°24	20° 2	28°59	27°31	18°46	20°28	T 11
W12	11 18 6	21°21'57	27°29	27°50	5°12	23° 5	4°50	6°45	18°56	20°25	20° 0	28°55	27°28	18°53	20°32	W12
T 13	11 22 2	22°21'39	10♏37	29°50	6°19	23°49	4°46	6°45	18°53	20°26	19°59	28°49	27°25	19° 0	20°35	T 13
F 14	11 25 59	23°21'19	24° 5	1°Y48	7°26	24°32	4°42	6°46	18°51	20°28	19°57	28°41	27°22	19° 6	20°39	F 14
S 15	11 29 56	24°20'57	7♌52	3°47	8°32	25°16	4°38	6°46	18°49	20°29	19°55	28°32	27°19	19°13	20°43	S 15
S 16	11 33 52	25°20'33	21°53	5°44	9°39	25°59	4°34	6°R46	18°47	20°30	19°54	28°23	27°16	19°20	20°47	S 16
M17	11 37 49	26°20'07	6♏3	7°41	10°45	26°43	4°29	6°46	18°44	20°32	19°52	28°14	27°12	19°26	20°50	M17
T 18	11 41 45	27°19'39	20°18	9°36	11°50	27°26	4°24	6°46	18°42	20°33	19°51	28° 7	27° 9	19°33	20°54	T 18
W19	11 45 42	28°19'10	4♌34	11°29	12°56	28°10	4°19	6°46	18°40	20°35	19°49	28° 2	27° 6	19°40	20°58	W19
T 20	11 49 38	29°18'39	18°47	13°20	14° 1	28°53	4°14	6°45	18°37	20°36	19°47	28° 0	27° 3	19°46	21° 2	T 20
F 21	11 53 35	0°Y18'06	2♌55	15° 7	15° 6	29°37	4° 9	6°45	18°35	20°38	19°46	27°D59	27° 0	19°53	21° 5	F 21
S 22	11 57 31	1°17'31	16°57	16°52	16°11	0♌20	4° 4	6°44	18°33	20°40	19°44	28° 0	26°56	20° 0	21° 9	S 22
S 23	12 1 28	2°16'55	0♌52	18°33	17°15	1° 4	3°59	6°44	18°30	20°41	19°43	28°R 0	26°53	20° 6	21°13	S 23
M24	12 5 25	3°16'17	14°40	20°10	18°20	1°48	3°53	6°43	18°28	20°43	19°41	27°59	26°50	20°13	21°16	M24
T 25	12 9 21	4°15'37	28°20	21°43	19°24	2°31	3°47	6°42	18°25	20°44	19°40	27°56	26°47	20°20	21°20	T 25
W26	12 13 18	5°14'55	11♌51	23°11	20°27	3°15	3°41	6°41	18°23	20°46	19°38	27°49	26°44	20°26	21°24	W26
T 27	12 17 14	6°14'11	25°11	24°33	21°31	3°59	3°35	6°40	18°20	20°48	19°36	27°40	26°41	20°33	21°27	T 27
F 28	12 21 11	7°13'25	8°Y18	25°51	22°34	4°42	3°29	6°39	18°18	20°50	19°35	27°29	26°37	20°40	21°31	F 28
S 29	12 25 7	8°12'37	21°11	27° 2	23°37	5°26	3°23	6°38	18°15	20°51	19°33	27°17	26°34	20°46	21°35	S 29
S 30	12 29 4	9°11'47	3♌48	28° 7	24°39	6°10	3°17	6°37	18°13	20°53	19°32	27° 4	26°31	20°53	21°38	S 30
M31	12 33 0	10°Y10'54	16♌11	29°Y 7	25♌41	6♌53	3♌10	6♌35	18♌10	20♌55	19♏30	26♌53	26♌28	21♏0	21♌42	M31

Day	☉	☽		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	7s41	0n34	4s57	10s56	1s57	9n31	0n42	23s14	0s38	12s 0	1n25	19s31	1n57	6s57	0n40	16n 9	1s44	18n25	15n55	20n20	20n35	19n35	0s21	4n 0	
S 2	7 18	5 10	5 9	10 11	1 54	10 0	0 47	23 10	0 39	11 59	1 25	19 31	1 57	6 56	0 40	16 10	1 44	18 26	15 55	20 21	20 36	19 36	0 19	4 0	
M 3	6 55	9 27	5 5	9 25	1 50	10 29	0 51	23 6	0 40	11 58	1 25	19 31	1 57	6 56	0 40	16 10	1 44	18 27	15 55	20 22	20 36	19 37	0 18	4 0	
T 4	6 32	13 15	4 48	8 37	1 46	10 59	0 55	23 1	0 41	11 57	1 25	19 31	1 57	6 55	0 40	16 10	1 44	18 28	15 55	20 23	20 37	19 38	0 16	4 0	
W 5	6 9	16 27	4 18	7 48	1 41	11 27	1 0	22 57	0 42	11 56	1 25	19 31	1 57	6 54	0 40	16 11	1 44	18 28	15 55	20 24	20 37	19 40	0 15	4 0	
T 6	5 46	18 57	3 38	6 58	1 35	11 56	1 4	22 52	0 42	11 55	1 25	19 32	1 58	6 53	0 40	16 11	1 43	18 29	15 55	20 24	20 38	19 41	0 14	4 0	
F 7	5 23	20 37	2 48	6 7	1 29	12 24	1 8	22 46	0 43	11 54	1 26	19 32	1 58	6 53	0 40	16 11	1 43	18 30	15 56	20 24	20 39	19 42	0 12	4 0	
S 8	5 0	21 23	1 51	5 15	1 22	12 52	1 13	22 41	0 44	11 53	1 26	19 32	1 58	6 52	0 40	16 12	1 43	18 31	15 56	20 24	20 39	19 43	0 11	4 0	
S 9	4 36	21 11	0 48	4 22	1 15	13 20	1 17	22 35	0 45	11 52	1 26	19 32	1 58	6 51	0 40	16 12	1 43	18 31	15 56	20 23	20 40	19 45	0 9	4 0	
M10	4 13	19 59	0n17	3 28	1 7	13 48	1 22	22 30	0 46	11 50	1 26	19 31	1 58	6 50	0 40	16 12	1 43	18 32	15 56	20 23	20 41	19 46	0 8	4 0	
T 11	3 49	17 47	1 23	2 33	0 59	14 15	1 26	22 23	0 47	11 49	1 26	19 31	1 58	6 49	0 40	16 13	1 43	18 33	15 56	20 24	20 41	19 47	0 7	4 0	
W12	3 26	14 40	2 27	1 37	0 50	14 42	1 30	22 17	0 48	11 48	1 27	19 31	1 58	6 48	0 40	16 13	1 43	18 33	15 56	20 24	20 42	19 48	0 5	4 0	
T 13	3 2	10 45	3 24	0 41	0 40	15 8	1 35	22 11	0 49	11 46	1 27	19 31	1 59	6 48	0 40	16 14	1 43	18 34	15 56	20 26	20 42	19 50	0 4	3 59	
F 14	2 39	6 12	4 12	0n16	0 30	15 34	1 39	22 4	0 50	11 45	1 27	19 31	1 59	6 47	0 40	16 14	1 43	18 35	15 56	20 27	20 43	19 51	0 2	3 59	
S 15	2 15	1 15	4 46	1 12	0 20	16 0	1 44	21 57	0 51	11 43	1 27	19 31	1 59	6 46	0 40	16 15	1 43	18 35	15 56	20 29	20 44	19 52	0 1	3 59	
S 16	1 51	3s51	5 3	2 9	0 9	16 26	1 48	21 50	0 52	11 41	1 27	19 31	1 59	6 45	0 40	16 15	1 43	18 36	15 56	20 31	20 44	19 53	0n 0	3 59	
M17	1 28	8 48	5 2	3 6	0n 3	16 51	1 52	21 43	0 53	11 40	1 27	19 31	1 59	6 44	0 40	16 15	1 43	18 37	15 56	20 33	20 45	19 54	0 2	3 59	
T 18	1 4	13 18	4 43	4 2	0 14	17 16	1 57	21 35	0 54	11 38	1 27	19 31	1 59	6 43	0 40	16 16	1 43	18 37	15 56	20 34	20 46	19 56	0 3	3 59	
W19	0 40	17 4	4 6	4 57	0 26	17 40	2 1	21 27	0 55	11 36	1 28	19 30	1 59	6 42	0 40	16 16	1 43	18 38	15 56	20 35	20 46	19 57	0 5	3 59	
T 20	0 16	19 47	3 13	5 51	0 38	18 4	2 6	21 19	0 56	11 35	1 28	19 30	2 0	6 41	0 40	16 17	1 43	18 39	15 56	20 36	20 47	19 58	0 6	3 59	
F 21	0n 7	21 17	2 10	6 45	0 51	18 28	2 10	21 11	0 57	11 33	1 28	19 30	2 0	6 41	0 40	16 17	1 43	18 39	15 56	20 36	20 47	19 59	0 8	3 59	
S 22	0 31	21 26	0 59	7 36	1 3	18 51	2 14	21 3	0 58	11 31	1 28	19 30	2 0	6 40	0 40	16 18	1 43	18 40	15 56	20 36	20 48	20 0	0 9	3 59	
S 23	0 55	20 15	0s15	8 26	1 15	19 13	2 18	20 54	0 59	11 29	1 28	19 30	2 0	6 39	0 40	16 18	1 43	18 40	15 56	20 35	20 49	20 2	0 10	3 59	
M24	1 18	17 51	1 28	9 14	1 27	19 36	2 23	20 46	1 0	11 27	1 28	19 29	2 0	6 38	0 40	16 19	1 43	18 41	15 56	20 36	20 49	20 3	0 12	3 59	
T 25	1 42	14 29	2 34	10 0	1 39	19 57	2 27	20 37	1 1	11 25	1 28	19 29	2 0	6 37	0 40	16 19	1 42	18 42	15 56	20 36	20 50	20 4	0 13	3 59	
W26	2 5	10 22	3 31	10 44	1 51	20 19	2 31	20 28	1 2	11 23	1 28	19 29	2 0	6 36	0 40	16 20	1 42	18 42	15 56	20 38	20 50	20 5	0 15	3 59	
T 27	2 29	5 49	4 15	11 25	2 2	20 40	2 35	20 18	1 3	11 21	1 29	19 28	2 1	6 35	0 40	16 20	1 42	18 43	15 56	20 39	20 51	20 6	0 16	3 59	
F 28	2 52	1 4	4 45	12 3	2 12	21 0	2 39	20 9	1 4	11 18	1 29	19 28	2 1	6 34	0 40	16 21	1 42	18 43	15 55	20 42	20 52	20 8	0 18	3 59	
S 29	3 16	3n38	5 0	12 38	2 22	21 20	2 43	19 59	1 5	11 16	1 29	19 28	2 1	6 33	0 40	16 21	1 42	18 44	15 55	20 44	20 52	20 9	0 19	3 59	
S 30	3 39	8 6	5 0	13 11	2 31	21 40	2 47	19 49	1 6	11 14	1 29	19 27	2 1	6 32	0 40	16 22	1 42	18 44	15 55	20 47	20 53	20 10	0 20	3 59	
M31	4n 2	12n 9	4s45	13n40	2n40	21n59	2n51	19s39	1s 7	11s12	1n29	19s27	2n 1	6s31	0n40	16n22	1s42	18n45	15n55	20n49	20n53	20n11	0n22	3n59	

# ASTRODIENST EPHEMERIS for the year 1721

## geocentric

APRIL 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 36 57	11°10'00	28°20	29°59	26°43	7°37	3°R 4	6°R34	18°R 8	20°57	19°R29	26°R43	26°25	21°II 6	21°46	T 1
W 2	12 40 53	12° 9'03	10°II 19	0°46	27°44	8°21	2°M 57	6°32	18°5	20°59	19°M 27	26°37	26°22	21°13	21°49	W 2
T 3	12 44 50	13° 8'04	22°10	1°26	28°45	9° 5	2°50	6°30	18° 3	21° 0	19°26	26°33	26°18	21°20	21°53	T 3
F 4	12 48 47	14° 7'03	3°358	1°58	29°46	9°48	2°43	6°29	18° 0	21° 2	19°24	26°31	26°15	21°26	21°56	F 4
S 5	12 52 43	15° 6'00	15°49	2°25	0°II 46	10°32	2°36	6°27	17°57	21° 4	19°23	26°D30	26°12	21°33	22° 0	S 5
S 6	12 56 40	16° 4'54	27°48	2°44	1°46	11°16	2°29	6°25	17°55	21° 6	19°22	26°R30	26° 9	21°40	22° 3	S 6
M 7	13 0 36	17° 3'46	10°II 1	2°57	2°45	11°59	2°22	6°23	17°52	21° 8	19°20	26°30	26° 6	21°46	22° 7	M 7
T 8	13 4 33	18° 2'35	22°32	3°R 3	3°44	12°43	2°15	6°21	17°50	21°10	19°19	26°28	26° 2	21°53	22°10	T 8
W 9	13 8 29	19° 1'23	5°M 25	3° 3	4°43	13°27	2° 8	6°18	17°47	21°12	19°17	26°23	25°59	22° 0	22°14	W 9
T 10	13 12 26	20° 0'08	18°45	2°56	5°41	14°11	2° 1	6°16	17°45	21°14	19°16	26°16	25°56	22° 6	22°17	T 10
F 11	13 16 22	20°58'51	2°27	2°44	6°39	14°54	1°53	6°14	17°42	21°16	19°15	26° 6	25°53	22°13	22°20	F 11
S 12	13 20 19	21°57'32	16°34	2°26	7°36	15°38	1°46	6°11	17°39	21°18	19°13	25°55	25°50	22°20	22°24	S 12
S 13	13 24 16	22°56'11	1°M 0	2° 2	8°32	16°22	1°38	6° 9	17°37	21°20	19°12	25°43	25°47	22°26	22°27	S 13
M14	13 28 12	23°54'48	15°37	1°35	9°28	17° 6	1°31	6° 6	17°34	21°22	19°11	25°32	25°43	22°33	22°31	M14
T 15	13 32 9	24°53'23	0°19	1° 3	10°24	17°49	1°23	6° 3	17°32	21°24	19°10	25°23	25°40	22°40	22°34	T 15
W16	13 36 5	25°51'56	14°57	0°28	11°19	18°33	1°16	6° 0	17°29	21°26	19° 8	25°16	25°37	22°46	22°37	W16
T 17	13 40 2	26°50'28	29°27	29°Y50	12°13	19°17	1° 8	5°58	17°27	21°28	19° 7	25°13	25°34	22°53	22°40	T 17
F 18	13 43 58	27°48'58	13°34	29°10	13° 7	20° 1	1° 1	5°55	17°24	21°30	19° 6	25°11	25°31	23° 0	22°44	F 18
S 19	13 47 55	28°47'27	27°47	28°29	14° 0	20°45	0°53	5°52	17°22	21°32	19° 5	25°11	25°27	23° 6	22°47	S 19
S 20	13 51 51	29°45'54	11°35	27°48	14°53	21°28	0°45	5°48	17°19	21°34	19° 4	25°11	25°24	23°13	22°50	S 20
M21	13 55 48	0°44'19	25° 9	27° 7	15°45	22°12	0°38	5°45	17°17	21°36	19° 3	25° 9	25°21	23°20	22°53	M21
T 22	13 59 45	1°42'43	8°30	26°27	16°36	22°56	0°30	5°42	17°14	21°39	19° 1	25° 5	25°18	23°26	22°56	T 22
W23	14 3 41	2°41'05	21°39	25°49	17°26	23°40	0°22	5°39	17°12	21°41	19° 0	24°59	25°15	23°33	22°59	W23
T 24	14 7 38	3°39'26	4°Y37	25°13	18°16	24°23	0°15	5°35	17° 9	21°43	18°59	24°49	25°12	23°40	23° 2	T 24
F 25	14 11 34	4°37'44	17°23	24°40	19° 5	25° 7	0° 7	5°32	17° 7	21°45	18°58	24°37	25° 8	23°46	23° 5	F 25
S 26	14 15 31	5°36'01	29°58	24°10	19°53	25°51	29°59	5°28	17° 4	21°47	18°57	24°24	25° 5	23°53	23° 8	S 26
S 27	14 19 27	6°34'17	12°21	23°45	20°41	26°34	29°52	5°25	17° 2	21°49	18°56	24°11	25° 2	24° 0	23°11	S 27
M28	14 23 24	7°32'30	24°34	23°23	21°27	27°18	29°44	5°21	17° 0	21°52	18°55	23°59	24°59	24° 6	23°14	M28
T 29	14 27 20	8°30'42	6°II 36	23° 6	22°13	28° 2	29°37	5°18	16°57	21°54	18°54	23°48	24°56	24°13	23°17	T 29
W30	14 31 17	9°28'52	18°II 30	22°Y53	22°II 58	28°45	29°29	5°14	16°55	21°56	18°M 53	23°41	24°53	24°II 20	23°20	W30

Day	☉	☽		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	4n25	15n38	4s18	14n 6	2n47	22n17	2n55	19s29	1s 8	11s 9	1n29	19s27	2n 1	6s30	0n40	16n23	1s42	18n45	15n55	20n51	20n54	20n12	0n23	3n59			
W 2	4 49	18 25	3 39	14 28	2 54	22 35	2 59	19 19	1 9	11 7	1 29	19 26	2 1	6 29	0 40	16 23	1 42	18 46	15 55	20 52	20 55	20 13	0 25	3 59			
T 3	5 12	20 23	2 51	14 47	2 59	22 53	3 3	19 8	1 10	11 5	1 29	19 26	2 1	6 28	0 40	16 24	1 42	18 46	15 55	20 53	20 55	20 15	0 26	3 59			
F 4	5 35	21 28	1 57	15 3	3 4	23 10	3 7	18 58	1 11	11 2	1 29	19 26	2 2	6 27	0 40	16 24	1 42	18 46	15 55	20 53	20 56	20 16	0 28	3 59			
S 5	5 57	21 36	0 56	15 15	3 7	23 26	3 10	18 47	1 12	11 0	1 29	19 25	2 2	6 26	0 40	16 25	1 42	18 47	15 54	20 53	20 56	20 17	0 29	3 59			
S 6	6 20	20 45	0n 7	15 24	3 9	23 42	3 14	18 36	1 13	10 57	1 29	19 25	2 2	6 25	0 40	16 25	1 42	18 47	15 54	20 53	20 57	20 18	0 30	3 59			
M 7	6 43	18 54	1 11	15 29	3 9	23 58	3 17	18 24	1 14	10 55	1 29	19 24	2 2	6 24	0 40	16 26	1 42	18 48	15 54	20 53	20 58	20 19	0 32	3 59			
T 8	7 5	16 7	2 13	15 30	3 9	24 13	3 21	18 13	1 15	10 52	1 29	19 24	2 2	6 23	0 40	16 26	1 42	18 48	15 54	20 54	20 58	20 20	0 33	3 59			
W 9	7 28	12 29	3 10	15 28	3 6	24 27	3 24	18 1	1 16	10 50	1 29	19 23	2 2	6 22	0 40	16 27	1 42	18 48	15 54	20 54	20 59	20 21	0 35	3 59			
T 10	7 50	8 8	3 59	15 22	3 3	24 41	3 27	17 50	1 17	10 47	1 29	19 23	2 2	6 21	0 40	16 27	1 42	18 49	15 53	20 56	20 59	20 22	0 36	3 59			
F 11	8 12	3 14	4 36	15 13	2 58	24 54	3 30	17 38	1 18	10 45	1 29	19 22	2 2	6 20	0 40	16 28	1 42	18 49	15 53	20 58	21 0	20 24	0 37	3 59			
S 12	8 34	1s57	4 56	15 0	2 51	25 7	3 33	17 26	1 19	10 42	1 29	19 22	2 2	6 19	0 40	16 28	1 42	18 49	15 53	21 0	21 1	20 25	0 39	3 59			
S 13	8 56	7 10	4 59	14 45	2 43	25 19	3 36	17 14	1 20	10 40	1 29	19 21	2 3	6 18	0 40	16 29	1 42	18 50	15 53	21 2	21 1	20 26	0 40	3 59			
M14	9 18	12 2	4 42	14 26	2 33	25 31	3 39	17 1	1 21	10 37	1 29	19 21	2 3	6 17	0 40	16 30	1 42	18 50	15 53	21 4	21 2	20 27	0 41	3 59			
T 15	9 39	16 13	4 7	14 5	2 23	25 42	3 42	16 49	1 22	10 35	1 29	19 20	2 3	6 17	0 40	16 30	1 42	18 50	15 52	21 6	21 2	20 28	0 43	4 0			
W16	10 0	19 23	3 15	13 41	2 10	25 53	3 45	16 36	1 23	10 32	1 29	19 20	2 3	6 16	0 40	16 31	1 42	18 51	15 52	21 7	21 3	20 29	0 44	4 0			
T 17	10 22	21 17	2 12	13 15	1 57	26 3	3 47	16 24	1 24	10 29	1 29	19 19	2 3	6 15	0 40	16 31	1 42	18 51	15 52	21 7	21 4	20 30	0 45	4 0			
F 18	10 43	21 46	1 0	12 48	1 43	26 12	3 50	16 11	1 25	10 27	1 29	19 18	2 3	6 14	0 40	16 32	1 42	18 51	15 52	21 8	21 4	20 31	0 47	4 0			
S 19	11 4	20 52	0s14	12 19	1 28	26 21	3 52	15 58	1 26	10 24	1 29	19 18	2 3	6 13	0 40	16 32	1 42	18 51	15 51	21 8	21 5	20 32	0 48	4 0			
S 20	11 24	18 42	1 26	11 49	1 12	26 29	3 54	15 45	1 27	10 21	1 29	19 17	2 3	6 12	0 40	16 33	1 42	18 52	15 51	21 8	21 5	20 33	0 49	4 0			
M21	11 45	15 32	2 31	11 19	0 55	26 37	3 56	15 32	1 28	10 19	1 29	19 17	2 3	6 11	0 40	16 33	1 42	18 52	15 51	21 8	21 6	20 35	0 51	4 0			
T 22	12 5	11 36	3 28	10 49	0 38	26 45	3 58	15 18	1 30	10 16	1 29	19 16	2 3	6 10	0 40	16 34	1 42	18 52	15 50	21 9	21 7	20 36	0 52	4 0			
W23	12 25	7 10	4 12	10 19	0 21	26 51	4 0	15 5	1 31	10 14	1 29	19 15	2 3	6 9	0 40	16 35	1 41	18 52	15 50	21 10	21 7	20 37	0 53	4 0			
T 24	12 45	2 29	4 42	9 50	0 4	26 57	4 1	14 51	1 32	10 11	1 29	19 15	2 3	6 8	0 40	16 35	1 41	18 52	15 50	21 12	21 8	20 38	0 54	4 0			
F 25	13 5	2n15	4 58	9 22	0s13	27 3	4 3	14 37	1 33	10 8	1 29	19 14	2 3	6 7	0 40	16 36	1 41	18 52	15 50	21 14	21 8	20 39	0 56	4 0			
S 26	13 24	6 48	4 59	8 56	0 29	27 8	4 4	14 23	1 34	10 6	1 29	19 13	2 4	6 6	0 40	16 36	1 41	18 52	15 49	21 16	21 9	20 40	0 57	4 0			
S 27	13 44	11 2	4 46	8 31	0 46	27 13	4 5	14 9	1 35	10 3	1 29	19 13	2 4	6 5	0 40	16 37	1 41	18 53	15 49	21 19	21 9	20 41	0 58	4 0			
M28	14 3	14 44	4 19	8 9	1 1	27 17	4 6	13 55	1 36	10 1	1 29	19 12	2 4	6 4	0 40	16 38	1 41	18 53	15 49	21 21	21 10	20 42	0 59	4 0			
T 29	14 22	17 48	3 42	7 48	1 17	27 21	4 6	13 41	1 37	9 58	1 29	19 11	2 4	6 4	0 40	16 38	1 41	18 53	15 48	21 22	21 11	20 43	1 1	4 1			
W30	14n40	20n 5	2s55	7n30	1s31	27n24	4n 7	13s27	1s38	9s55	1n29	19s11	2n 4	6s 3	0n40	16n39	1s41	18n53	15n48	21n24	21n11	20n44	1n 2	4n 1			

# ASTRODIENST EPHEMERIS for the year 1721

## geocentric

MAY 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 35 14	10 <sup>8</sup> 27'00	0 <sup>5</sup> 19	22°R45	23 <sup>II</sup> 42	29 <sup>≈</sup> 29	29°R22	5°R10	16°R53	21 <sup>8</sup> 58	18°R53	23°R36	24 <sup>5</sup> 49	24 <sup>II</sup> 26	23 <sup>≈</sup> 23	T 1
F 2	14 39 10	11°25'06	12° 6	22°D42	24°24	0 <sup>≈</sup> 13	29 <sup>≈</sup> 14	5 <sup>≈</sup> 6	16 <sup>≈</sup> 50	22° 0	18 <sup>≈</sup> 52	23 <sup>≈</sup> 34	24°46	24°33	23°25	F 2
S 3	14 43 7	12°23'11	23°56	22°Y43	25° 6	0°56	29° 7	5° 2	16°48	22° 3	18°51	23°D33	24°43	24°40	23°28	S 3
S 4	14 47 3	13°21'13	5 <sup>Ω</sup> 54	22°49	25°47	1°40	29° 0	4°58	16°46	22° 5	18°50	23°33	24°40	24°46	23°31	S 4
M 5	14 51 0	14°19'13	18° 5	23° 0	26°27	2°23	28°53	4°54	16°44	22° 7	18°49	23°R33	24°37	24°53	23°34	M 5
T 6	14 54 56	15°17'12	0 <sup>≈</sup> 34	23°15	27° 5	3° 7	28°45	4°50	16°42	22° 9	18°49	23°32	24°33	25° 0	23°36	T 6
W 7	14 58 53	16°15'08	13°26	23°35	27°42	3°50	28°38	4°46	16°40	22°12	18°48	23°29	24°30	25° 6	23°39	W 7
T 8	15 2 49	17°13'03	26°46	24° 0	28°18	4°34	28°31	4°42	16°37	22°14	18°47	23°24	24°27	25°13	23°41	T 8
F 9	15 6 46	18°10'56	10 <sup>≈</sup> 33	24°28	28°53	5°17	28°24	4°38	16°35	22°16	18°47	23°16	24°24	25°20	23°44	F 9
S 10	15 10 43	19° 8'47	24°49	25° 1	29°26	6° 1	28°18	4°34	16°33	22°18	18°46	23° 7	24°21	25°26	23°46	S 10
S 11	15 14 39	20° 6'37	9 <sup>≈</sup> 28	25°37	29°58	6°44	28°11	4°30	16°31	22°21	18°45	22°58	24°18	25°33	23°49	S 11
M12	15 18 36	21° 4'25	24°23	26°18	0 <sup>≈</sup> 29	7°28	28° 4	4°25	16°29	22°23	18°45	22°49	24°14	25°40	23°51	M12
T 13	15 22 32	22° 2'12	9 <sup>≈</sup> 26	27° 2	0°58	8°11	27°58	4°21	16°27	22°25	18°44	22°41	24°11	25°46	23°53	T 13
W14	15 26 29	22°59'57	24°27	27°50	1°25	8°54	27°52	4°17	16°25	22°27	18°44	22°36	24° 8	25°53	23°56	W14
T 15	15 30 25	23°57'42	9 <sup>≈</sup> 17	28°41	1°51	9°37	27°45	4°13	16°24	22°30	18°43	22°33	24° 5	26° 0	23°58	T 15
F 16	15 34 22	24°55'25	23°51	29°35	2°15	10°21	27°39	4° 8	16°22	22°32	18°43	22°D33	24° 2	26° 6	24° 0	F 16
S 17	15 38 18	25°53'07	8 <sup>≈</sup> 5	0 <sup>≈</sup> 33	2°37	11° 4	27°33	4° 4	16°20	22°34	18°42	22°33	23°59	26°13	24° 2	S 17
S 18	15 42 15	26°50'48	21°57	1°34	2°58	11°47	27°27	4° 0	16°18	22°36	18°42	22°R34	23°55	26°20	24° 5	S 18
M19	15 46 12	27°48'28	5 <sup>≈</sup> 29	2°38	3°17	12°30	27°21	3°55	16°16	22°39	18°42	22°34	23°52	26°26	24° 7	M19
T 20	15 50 8	28°46'06	18°42	3°46	3°33	13°13	27°16	3°51	16°15	22°41	18°41	22°32	23°49	26°33	24° 9	T 20
W21	15 54 5	29°43'44	1°Y39	4°56	3°48	13°57	27°10	3°46	16°13	22°43	18°41	22°28	23°46	26°40	24°11	W21
T 22	15 58 1	0 <sup>II</sup> 41'21	14°21	6° 8	4° 1	14°40	27° 5	3°42	16°12	22°45	18°41	22°22	23°43	26°46	24°13	T 22
F 23	16 1 58	1°38'57	26°51	7°24	4°12	15°23	26°59	3°37	16°10	22°48	18°41	22°14	23°39	26°53	24°14	F 23
S 24	16 5 54	2°36'32	9 <sup>≈</sup> 10	8°42	4°21	16° 5	26°54	3°33	16° 8	22°50	18°40	22° 5	23°36	27° 0	24°16	S 24
S 25	16 9 51	3°34'06	21°19	10° 3	4°27	16°48	26°49	3°28	16° 7	22°52	18°40	21°56	23°33	27° 6	24°18	S 25
M26	16 13 47	4°31'38	3 <sup>II</sup> 21	11°27	4°32	17°31	26°44	3°24	16° 6	22°54	18°40	21°47	23°30	27°13	24°20	M26
T 27	16 17 44	5°29'10	15°15	12°53	4°R33	18°14	26°40	3°20	16° 4	22°56	18°40	21°40	23°27	27°20	24°22	T 27
W28	16 21 41	6°26'41	27° 5	14°22	4°33	18°57	26°35	3°15	16° 3	22°59	18°40	21°35	23°24	27°26	24°23	W28
T 29	16 25 37	7°24'10	8 <sup>≈</sup> 52	15°54	4°30	19°39	26°31	3°11	16° 1	23° 1	18°40	21°33	23°20	27°33	24°25	T 29
F 30	16 29 34	8°21'39	20°40	17°28	4°25	20°22	26°27	3° 6	16° 0	23° 3	18°D40	21°D32	23°17	27°40	24°26	F 30
S 31	16 33 30	9 <sup>II</sup> 19'06	2 <sup>Ω</sup> 31	19 <sup>≈</sup> 5	4 <sup>≈</sup> 18	21 <sup>≈</sup> 4	26 <sup>≈</sup> 23	3 <sup>≈</sup> 2	15 <sup>≈</sup> 59	23 <sup>≈</sup> 5	18 <sup>≈</sup> 40	21 <sup>≈</sup> 32	23 <sup>≈</sup> 14	27 <sup>≈</sup> 46	24 <sup>≈</sup> 28	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	14n59	21n28	2s 0	7n15	1s44	27n26	4n 7	13s13	1s39	9s53	1n29	19s10	2n 4	6s 2	0n40	16n39
F 2	15 17	21 55	1 1	7 2	1 57	27 29	4 7	12 58	1 40	9 50	1 28	19 9	2 4	6 1	0 40	16 40
S 3	15 35	21 23	0n 2	6 51	2 9	27 30	4 7	12 44	1 41	9 48	1 28	19 8	2 4	6 0	0 40	16 40
S 4	15 52	19 53	1 5	6 43	2 20	27 31	4 7	12 29	1 42	9 45	1 28	19 8	2 4	5 59	0 40	16 41
M 5	16 10	17 27	2 7	6 38	2 30	27 32	4 7	12 14	1 43	9 43	1 28	19 7	2 4	5 58	0 40	16 42
T 6	16 27	14 9	3 4	6 35	2 39	27 32	4 6	11 59	1 44	9 41	1 28	19 6	2 4	5 58	0 40	16 42
W 7	16 43	10 6	3 53	6 35	2 48	27 32	4 5	11 45	1 45	9 38	1 28	19 5	2 4	5 57	0 40	16 43
T 8	17 0	5 27	4 32	6 37	2 55	27 31	4 4	11 30	1 46	9 36	1 28	19 5	2 4	5 56	0 40	16 43
F 9	17 16	0 22	4 56	6 41	3 1	27 30	4 2	11 15	1 47	9 34	1 28	19 4	2 4	5 55	0 40	16 44
S 10	17 32	4s55	5 4	6 48	3 7	27 29	4 0	10 59	1 48	9 31	1 27	19 3	2 4	5 55	0 40	16 44
S 11	17 48	10 3	4 51	6 57	3 12	27 27	3 58	10 44	1 49	9 29	1 27	19 2	2 4	5 54	0 39	16 45
M12	18 3 14	42 42	4 19	7 8	3 15	27 24	3 56	10 29	1 50	9 27	1 27	19 2	2 4	5 53	0 39	16 46
T 13	18 18	18 27	3 29	7 21	3 18	27 21	3 53	10 14	1 51	9 25	1 27	19 1	2 4	5 52	0 39	16 46
W14	18 33	20 57	2 24	7 36	3 21	27 18	3 50	9 58	1 52	9 23	1 27	19 0	2 4	5 52	0 39	16 47
T 15	18 47	21 59	1 10	7 52	3 22	27 15	3 47	9 43	1 53	9 21	1 27	18 59	2 4	5 51	0 39	16 47
F 16	19 2 21	29 36	7 8	11 3	3 23	27 11	3 43	9 27	1 54	9 19	1 26	18 59	2 4	5 50	0 39	16 48
S 17	19 15	19 0s	1 22	8 31	3 22	27 6	3 39	9 12	1 55	9 17	1 26	18 58	2 4	5 50	0 39	16 48
S 18	19 29	16 35	2 31	8 53	3 22	27 2	3 35	8 56	1 56	9 15	1 26	18 57	2 4	5 49	0 39	16 49
M19	19 42	12 45	3 29	9 16	3 20	26 56	3 30	8 40	1 57	9 13	1 26	18 56	2 4	5 48	0 39	16 50
T 20	19 55	8 23	4 15	9 41	3 18	26 51	3 25	8 25	1 58	9 11	1 26	18 55	2 4	5 48	0 39	16 50
W21	20 7	3 44	4 47	10 7	3 15	26 45	3 20	8 9	1 59	9 9	1 25	18 55	2 4	5 47	0 39	16 51
T 22	20 19	1n 0	5 4	10 35	3 11	26 39	3 14	7 53	2 0	9 7	1 25	18 54	2 4	5 47	0 39	16 51
F 23	20 31	5 37	5 6	11 3	3 7	26 32	3 8	7 37	2 1	9 6	1 25	18 53	2 4	5 46	0 39	16 52
S 24	20 43	9 56	4 53	11 33	3 2	26 25	3 1	7 22	2 2	9 4	1 25	18 52	2 4	5 45	0 39	16 52
S 25	20 54	13 48	4 28	12 3	2 57	26 18	2 54	7 6	2 2	9 2	1 24	18 51	2 4	5 45	0 39	16 53
M26	21 5 17	5 3	5 10	12 35	2 51	26 10	2 47	6 50	2 3	9 1	1 24	18 51	2 4	5 44	0 39	16 54
T 27	21 15	19 37	3 3	13 7	2 44	26 2	2 39	6 34	2 4	8 59	1 24	18 50	2 3	5 44	0 39	16 54
W28	21 25	21 18	2 8	13 40	2 37	25 54	2 30	6 18	2 5	8 58	1 24	18 49	2 3	5 43	0 39	16 55
T 29	21 35	22 3	1 8	14 14	2 30	25 45	2 21	6 2	2 6	8 57	1 24	18 48	2 3	5 43	0 39	16 55
F 30	21 44	21 48	0 5	14 48	2 22	25 36	2 12	5 46	2 7	8 55	1 23	18 48	2 3	5 42	0 39	16 56
S 31	21n53	20n36	0n59	15n23	2s13	25n26	2n 2	5s30	2s 8	8s54	1n23	18s47	2n 3	5s42	0n39	16n56

Julian Day Number = 2349762.5, Delta T = 10.48 sec  
 Ecliptic obliquity = 23°28'28", Nutation = - 0°00'17", out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°51'00", Lahiri = 19°58'01"Greg. Calendar





ASTRODIENST EPHEMERIS for the year 1721  
geocentric

JULY 1721

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	18 35 43	8°54'22	18°21	21°50	19°R27	12°V23	25°Δ43	1°R 2	15°Δ46	24°R 7	18°V56	20°Ω58	21°Ω36	1°Ω13	24°R49	T 1
W 2	18 39 40	9°51'34	1°Δ11	23°46	19°II 8	13° 2	25°45	0°Δ59	15°47	24° 8	18°57	20°58	21°32	1°19	24°K48	W 2
T 3	18 43 37	10°48'45	14°23	25°39	18°52	13°41	25°46	0°56	15°47	24°10	18°58	20°R58	21°29	1°26	24°48	T 3
F 4	18 47 33	11°45'56	27°59	27°31	18°37	14°21	25°48	0°54	15°48	24°12	18°59	20°58	21°26	1°33	24°48	F 4
S 5	18 51 30	12°43'07	12°M 0	29°20	18°26	15° 0	25°51	0°51	15°48	24°13	19° 0	20°57	21°23	1°39	24°48	S 5
S 6	18 55 26	13°40'18	26°26	1°Ω 8	18°16	15°38	25°53	0°48	15°49	24°15	19° 1	20°57	21°20	1°46	24°47	S 6
M 7	18 59 23	14°37'28	11°Δ14	2°53	18° 9	16°17	25°55	0°46	15°49	24°17	19° 3	20°56	21°17	1°53	24°47	M 7
T 8	19 3 19	15°34'39	26°17	4°37	18° 5	16°56	25°58	0°43	15°50	24°18	19° 4	20°55	21°13	1°59	24°46	T 8
W 9	19 7 16	16°31'50	11°Ω26	6°18	18°D 2	17°34	26° 1	0°41	15°51	24°20	19° 5	20°55	21°10	2° 6	24°46	W 9
T 10	19 11 13	17°29'02	26°34	7°58	18° 3	18°12	26° 4	0°38	15°52	24°21	19° 6	20°D55	21° 7	2°13	24°45	T 10
F 11	19 15 9	18°26'13	11°Δ31	9°36	18° 5	18°51	26° 7	0°36	15°53	24°23	19° 8	20°55	21° 4	2°19	24°44	F 11
S 12	19 19 6	19°23'25	26° 9	11°11	18°10	19°28	26°10	0°34	15°54	24°24	19° 9	20°55	21° 1	2°26	24°43	S 12
S 13	19 23 2	20°20'38	10°K23	12°45	18°16	20° 6	26°14	0°32	15°55	24°26	19°10	20°55	20°57	2°33	24°43	S 13
M14	19 26 59	21°17'51	24°10	14°17	18°25	20°44	26°17	0°30	15°56	24°27	19°11	20°R55	20°54	2°39	24°42	M14
T 15	19 30 55	22°15'05	7°V31	15°46	18°37	21°21	26°21	0°28	15°57	24°28	19°13	20°55	20°51	2°46	24°41	T 15
W16	19 34 52	23°12'20	20°28	17°14	18°50	21°58	26°25	0°26	15°58	24°30	19°14	20°D55	20°48	2°53	24°40	W16
T 17	19 38 48	24° 9'35	3°R 3	18°40	19° 5	22°35	26°29	0°24	15°59	24°31	19°16	20°55	20°45	2°59	24°39	T 17
F 18	19 42 45	25° 6'51	15°20	20° 3	19°22	23°12	26°33	0°23	16° 0	24°32	19°17	20°56	20°42	3° 6	24°38	F 18
S 19	19 46 41	26° 4'08	27°23	21°25	19°41	23°49	26°38	0°21	16° 2	24°34	19°19	20°56	20°38	3°12	24°37	S 19
S 20	19 50 38	27° 1'26	9°II18	22°44	20° 2	24°25	26°42	0°19	16° 3	24°35	19°20	20°57	20°35	3°19	24°36	S 20
M21	19 54 35	27°58'45	21° 7	24° 1	20°25	25° 1	26°47	0°18	16° 4	24°36	19°22	20°57	20°32	3°26	24°35	M21
T 22	19 58 31	28°56'05	2°Ω54	25°16	20°49	25°37	26°52	0°17	16° 6	24°37	19°23	20°58	20°29	3°32	24°33	T 22
W23	20 2 28	29°53'26	14°43	26°29	21°15	26°13	26°57	0°16	16° 7	24°39	19°25	20°58	20°26	3°39	24°32	W23
T 24	20 6 24	0°Ω50'47	26°35	27°39	21°42	26°49	27° 2	0°15	16° 9	24°40	19°26	20°R58	20°23	3°46	24°31	T 24
F 25	20 10 21	1°48'09	8°Ω34	28°47	22°11	27°24	27° 8	0°13	16°10	24°41	19°28	20°58	20°19	3°52	24°29	F 25
S 26	20 14 17	2°45'32	20°40	29°52	22°42	27°59	27°13	0°13	16°12	24°42	19°30	20°57	20°16	3°59	24°28	S 26
S 27	20 18 14	3°42'55	2°V57	0°V55	23°14	28°34	27°19	0°12	16°14	24°43	19°31	20°55	20°13	4° 6	24°26	S 27
M28	20 22 11	4°40'19	15°25	1°54	23°47	29° 8	27°25	0°11	16°15	24°44	19°33	20°53	20°10	4°12	24°25	M28
T 29	20 26 7	5°37'44	28° 7	2°52	24°21	29°43	27°31	0°10	16°17	24°45	19°35	20°51	20° 7	4°19	24°23	T 29
W30	20 30 4	6°35'10	11°Δ 4	3°46	24°57	0°R17	27°37	0°10	16°19	24°46	19°36	20°50	20° 3	4°26	24°22	W30
T 31	20 34 0	7°Ω32'36	24°Δ18	4°V37	25°II34	0°R50	27°Δ43	0°Δ 9	16°Δ21	24°R47	19°V38	20°Ω49	20°Ω 0	4°Ω32	24°K20	T 31

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	lat	lat
T 1	23n10	8n43	4n28	23n34	1n53	18n48	4s16	2n34	2s32	8s48	1n15	18s28	1n59	5s38	0n38	17n11	1s42	18n28	15n22	21n50	21n44	21n40	1n45	4n10
W 2	23 6	4 6	4 59	23 14	1 53	18 39	4 24	2 48	2 33	8 48	1 15	18 27	1 59	5 38	0 38	17 11	1 42	18 27	15 22	21 50	21 45	21 41	1 45	4 10
T 3	23 2	0s50	5 15	22 52	1 52	18 31	4 31	3 3	2 33	8 49	1 14	18 27	1 58	5 39	0 38	17 11	1 42	18 27	15 21	21 50	21 45	21 42	1 46	4 10
F 4	22 57	5 52	5 15	22 29	1 50	18 23	4 37	3 18	2 34	8 50	1 14	18 26	1 58	5 39	0 38	17 12	1 42	18 26	15 21	21 50	21 46	21 43	1 46	4 10
S 5	22 52	10 45	4 56	22 5	1 48	18 16	4 43	3 32	2 35	8 51	1 14	18 26	1 58	5 39	0 37	17 12	1 42	18 25	15 21	21 50	21 46	21 43	1 46	4 10
S 6	22 46	15 11	4 19	21 39	1 45	18 10	4 48	3 47	2 35	8 52	1 13	18 26	1 58	5 39	0 37	17 13	1 42	18 24	15 20	21 50	21 47	21 44	1 46	4 11
M 7	22 40	18 48	3 23	21 11	1 41	18 5	4 53	4 1	2 36	8 53	1 13	18 25	1 58	5 40	0 37	17 13	1 42	18 23	15 20	21 51	21 47	21 45	1 46	4 11
T 8	22 34	21 13	2 13	20 43	1 37	18 0	4 58	4 15	2 36	8 55	1 13	18 25	1 57	5 40	0 37	17 13	1 42	18 23	15 19	21 51	21 48	21 46	1 45	4 11
W 9	22 27	22 7	0 52	20 13	1 33	17 56	5 1	4 29	2 37	8 56	1 13	18 25	1 57	5 40	0 37	17 14	1 42	18 22	15 19	21 51	21 48	21 46	1 45	4 11
T 10	22 20	21 23	0s31	19 43	1 28	17 53	5 5	4 43	2 37	8 57	1 12	18 24	1 57	5 41	0 37	17 14	1 42	18 21	15 19	21 51	21 49	21 47	1 45	4 11
F 11	22 12	19 9	1 52	19 11	1 22	17 50	5 8	4 57	2 38	8 59	1 12	18 24	1 57	5 41	0 37	17 14	1 42	18 20	15 18	21 51	21 49	21 48	1 45	4 11
S 12	22 4	15 42	3 4	18 39	1 16	17 48	5 10	5 11	2 38	9 0	1 12	18 24	1 57	5 41	0 37	17 14	1 43	18 19	15 18	21 51	21 50	21 49	1 45	4 12
S 13	21 56	11 25	4 2	18 7	1 9	17 47	5 12	5 25	2 39	9 2	1 12	18 24	1 56	5 42	0 37	17 15	1 43	18 18	15 18	21 51	21 50	21 49	1 45	4 12
M14	21 47	6 40	4 44	17 34	1 2	17 46	5 14	5 39	2 39	9 3	1 11	18 23	1 56	5 42	0 37	17 15	1 43	18 18	15 17	21 51	21 51	21 50	1 45	4 12
T 15	21 38	1 45	5 9	17 0	0 55	17 45	5 15	5 52	2 40	9 5	1 11	18 23	1 56	5 43	0 37	17 15	1 43	18 17	15 17	21 51	21 51	21 51	1 44	4 12
W16	21 29	3n 6	5 18	16 26	0 47	17 46	5 16	6 6	2 40	9 6	1 11	18 23	1 56	5 43	0 37	17 16	1 43	18 16	15 16	21 51	21 52	21 51	1 44	4 12
T 17	21 19	7 40	5 11	15 52	0 39	17 46	5 16	6 19	2 41	9 8	1 11	18 23	1 56	5 44	0 37	17 16	1 43	18 15	15 16	21 51	21 52	21 52	1 44	4 12
F 18	21 9	11 50	4 50	15 18	0 30	17 48	5 16	6 32	2 41	9 10	1 10	18 23	1 55	5 44	0 37	17 16	1 43	18 14	15 16	21 51	21 53	21 53	1 44	4 12
S 19	20 58	15 27	4 16	14 43	0 21	17 49	5 16	6 45	2 42	9 12	1 10	18 23	1 55	5 45	0 37	17 17	1 43	18 13	15 15	21 51	21 53	21 53	1 43	4 13
S 20	20 47	18 24	3 31	14 9	0 12	17 51	5 16	6 58	2 42	9 14	1 10	18 23	1 55	5 45	0 37	17 17	1 43	18 12	15 15	21 50	21 54	21 54	1 43	4 13
M21	20 36	20 33	2 38	13 34	0 2	17 54	5 15	7 11	2 42	9 16	1 9	18 23	1 55	5 46	0 37	17 17	1 43	18 11	15 15	21 50	21 54	21 55	1 43	4 13
T 22	20 24	21 48	1 39	13 0	0s 8	17 56	5 14	7 24	2 43	9 18	1 9	18 23	1 54	5 46	0 37	17 17	1 43	18 11	15 14	21 50	21 55	21 55	1 42	4 13
W23	20 12	22 5	0 35	12 26	0 18	17 59	5 12	7 36	2 43	9 20	1 9	18 22	1 54	5 47	0 37	17 17	1 43	18 10	15 14	21 50	21 55	21 56	1 42	4 13
T 24	20 0	21 23	0n31	11 52	0 28	18 3	5 11	7 49	2 43	9 22	1 9	18 22	1 54	5 48	0 37	17 18	1 43	18 9	15 14	21 50	21 56	21 57	1 41	4 13
F 25	19 47	19 42	1 36	11 18	0 39	18 6	5 9	8 1	2 44	9 24	1 8	18 22	1 54	5 48	0 37	17 18	1 43	18 8	15 14	21 50	21 56	21 57	1 41	4 13
S 26	19 34	17 6	2 37	10 45	0 50	18 10	5 7	8 13	2 44	9 26	1 8	18 23	1 53	5 49	0 37	17 18	1 43	18 7	15 13	21 50	21 57	21 58	1 41	4 14
S 27	19 21	13 44	3 32	10 13	1 1	18 13	5 5	8 25	2 44	9 29	1 8	18 23	1 53	5 50	0 37	17 18	1 43	18 6	15 13	21 51	21 57	21 59	1 40	4 14
M28	19 7	9 43	4 18	9 41	1 13	18 17	5 3	8 37	2 45	9 31	1 8	18 23	1 53	5 50	0 37	17 19	1 43	18 5	15 13	21 51	21 57	21 59	1 40	4 14
T 29	18 53	5 13	4 52	9 10	1 24	18 22	5 0	8 49	2 45	9 33	1 7	18 23	1 53	5 51	0 37	17 19	1 43	18 4	15 12	21 51	21 58	22 0	1 39	4 14
W30	18 39	0 14	5 12	8 39	1 36	18 26	4 57	9 0	2 45	9 36	1 7	18 23	1 53	5 52	0 37	17 19	1 43	18 3	15 12	21 51	21 58	22 1	1 39	4 14
T 31	18n25	4s32	5n16	8n10	1s47	18n30	4s54	9n12	2s45	9s38	1n 7	18s23	1n52	5s53	0n36	17n19	1s43	18n 2	15n12	21n52	21n59	22n 1	1n38	4n14



# ASTRODIENST EPHEMERIS for the year 1721

## geocentric

AUGUST 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	20 37 57	8♌30°03	7♍51	5♍24	26♊12	1♉24	27♎49	0°R 9	16♎23	24♏48	19♍40	20°D48	19♎57	4♌39	24°R18	F 1
S 2	20 41 53	9°27'31	21°43	6° 9	26°51	1°57	27°56	0♊ 9	16°25	24°49	19°42	20♎48	19°54	4°46	24♋16	S 2
S 3	20 45 50	10°24'59	5♌55	6°49	27°31	2°30	28° 3	0° 9	16°27	24°50	19°43	20°49	19°51	4°52	24°15	S 3
M 4	20 49 46	11°22'28	20°24	7°26	28°13	3° 2	28° 9	0°D 9	16°29	24°50	19°45	20°51	19°48	4°59	24°13	M 4
T 5	20 53 43	12°19'58	5♌ 8	7°59	28°55	3°35	28°16	0° 9	16°31	24°51	19°47	20°52	19°44	5° 6	24°11	T 5
W 6	20 57 40	13°17'30	20° 1	8°28	29°38	4° 7	28°24	0° 9	16°33	24°52	19°49	20°R52	19°41	5°12	24° 9	W 6
T 7	21 1 36	14°15'02	4♌56	8°52	0♌22	4°39	28°31	0° 9	16°35	24°53	19°51	20°52	19°38	5°19	24° 7	T 7
F 8	21 5 33	15°12'35	19°45	9°12	1° 8	5°10	28°38	0° 9	16°37	24°53	19°53	20°50	19°35	5°25	24° 5	F 8
S 9	21 9 29	16°10'09	4♌21	9°27	1°54	5°41	28°46	0°10	16°40	24°54	19°54	20°47	19°32	5°32	24° 3	S 9
S 10	21 13 26	17° 7'44	18°37	9°37	2°40	6°12	28°53	0°10	16°42	24°55	19°56	20°44	19°28	5°39	24° 1	S 10
M 11	21 17 22	18° 5'21	2°Y29	9°R42	3°28	6°42	29° 1	0°11	16°44	24°55	19°58	20°40	19°25	5°45	23°59	M 11
T 12	21 21 19	19° 3'00	15°55	9°41	4°16	7°12	29° 9	0°12	16°47	24°56	20° 0	20°36	19°22	5°52	23°56	T 12
W 13	21 25 15	20° 0'40	28°56	9°35	5° 6	7°42	29°17	0°12	16°49	24°56	20° 2	20°34	19°19	5°59	23°54	W 13
T 14	21 29 12	20°58'21	11♌33	9°23	5°56	8°11	29°25	0°13	16°52	24°57	20° 4	20°32	19°16	6° 5	23°52	T 14
F 15	21 33 8	21°56'04	23°51	9° 6	6°46	8°40	29°33	0°14	16°54	24°57	20° 6	20°D31	19°13	6°12	23°50	F 15
S 16	21 37 5	22°53'49	5♊54	8°43	7°38	9° 9	29°41	0°15	16°57	24°58	20° 8	20°32	19° 9	6°19	23°47	S 16
S 17	21 41 2	23°51'36	17°47	8°14	8°29	9°37	29°50	0°17	16°59	24°58	20°10	20°34	19° 6	6°25	23°45	S 17
M 18	21 44 58	24°49'24	29°35	7°40	9°22	10° 5	29°58	0°18	17° 2	24°59	20°12	20°35	19° 3	6°32	23°43	M 18
T 19	21 48 55	25°47'14	11♌23	7° 1	10°15	10°33	0♌ 7	0°19	17° 5	24°59	20°14	20°37	19° 0	6°39	23°40	T 19
W 20	21 52 51	26°45'06	23°15	6°17	11° 9	11° 0	0°16	0°21	17° 7	24°59	20°16	20°R37	18°57	6°45	23°38	W 20
T 21	21 56 48	27°42'59	5♌14	5°29	12° 3	11°26	0°25	0°22	17°10	24°59	20°18	20°36	18°54	6°52	23°36	T 21
F 22	22 0 44	28°40'54	17°22	4°38	12°58	11°52	0°34	0°24	17°13	25° 0	20°21	20°33	18°50	6°59	23°33	F 22
S 23	22 4 41	29°38'50	29°43	3°45	13°54	12°18	0°43	0°26	17°16	25° 0	20°23	20°28	18°47	7° 5	23°31	S 23
S 24	22 8 37	0♍36'48	12♍16	2°50	14°50	12°43	0°52	0°28	17°19	25° 0	20°25	20°22	18°44	7°12	23°28	S 24
M 25	22 12 34	1°34'47	25° 3	1°54	15°46	13° 8	1° 1	0°30	17°21	25° 0	20°27	20°15	18°41	7°18	23°25	M 25
T 26	22 16 31	2°32'48	8♌ 4	0°59	16°43	13°32	1°11	0°32	17°24	25° 0	20°29	20° 8	18°38	7°25	23°23	T 26
W 27	22 20 27	3°30'50	21°17	0° 7	17°41	13°56	1°20	0°34	17°27	25° 0	20°31	20° 2	18°34	7°32	23°20	W 27
T 28	22 24 24	4°28'54	4♌44	29♌17	18°38	14°19	1°30	0°36	17°30	25° 0	20°33	19°56	18°31	7°38	23°18	T 28
F 29	22 28 20	5°26'59	18°22	28°31	19°37	14°42	1°40	0°38	17°33	25°R 0	20°35	19°53	18°28	7°45	23°15	F 29
S 30	22 32 17	6°25'06	2♌13	27°51	20°35	15° 4	1°49	0°41	17°36	25° 0	20°38	19°D52	18°25	7°52	23°12	S 30
S 31	22 36 13	7♍23'14	16♌15	27♌17	21♌34	15♌26	1♌59	0♌43	17♌39	25♌ 0	20♍40	19♎52	18♎22	7♎58	23♋10	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
F 1	18n10	9s23	5n 2	7n42	1s59	18n34	4s51	9n23	2s45	9s41	1n 7	18s23	1n52	5s53	0n36	17n19
S 2	17 55	13 51	4 31	7 14	2 11	18 38	4 48	9 35	2 46	9 43	1 7	18 23	1 52	5 54	0 36	17 19
S 3	17 39	17 39	3 43	6 48	2 23	18 43	4 45	9 46	2 46	9 46	1 6	18 24	1 52	5 55	0 36	17 20
M 4	17 24	20 28	2 40	6 24	2 35	18 47	4 41	9 57	2 46	9 48	1 6	18 24	1 51	5 56	0 36	17 20
T 5	17 8	21 57	1 26	6 1	2 47	18 51	4 37	10 7	2 46	9 51	1 6	18 24	1 51	5 57	0 36	17 20
W 6	16 51	21 54	0 5	5 39	2 58	18 55	4 34	10 18	2 46	9 54	1 6	18 24	1 51	5 57	0 36	17 20
T 7	16 35	20 18	1s17	5 19	3 10	18 59	4 30	10 28	2 46	9 57	1 5	18 25	1 51	5 58	0 36	17 20
F 8	16 18	17 19	2 32	5 2	3 21	19 3	4 26	10 39	2 46	9 59	1 5	18 25	1 50	5 59	0 36	17 20
S 9	16 1	13 17	3 37	4 46	3 32	19 6	4 21	10 49	2 46	10 2	1 5	18 25	1 50	6 0	0 36	17 20
S 10	15 43	8 35	4 26	4 33	3 42	19 10	4 17	10 59	2 47	10 5	1 5	18 26	1 50	6 1	0 36	17 20
M 11	15 26	3 34	4 58	4 22	3 52	19 13	4 13	11 9	2 47	10 8	1 4	18 26	1 50	6 2	0 36	17 21
T 12	15 8	1n28	5 13	4 13	4 1	19 16	4 9	11 19	2 47	10 11	1 4	18 26	1 49	6 3	0 36	17 21
W 13	14 50	6 16	5 10	4 8	4 10	19 19	4 4	11 28	2 47	10 14	1 4	18 27	1 49	6 4	0 36	17 21
T 14	14 32	10 40	4 53	4 5	4 18	19 21	3 59	11 38	2 46	10 17	1 4	18 27	1 49	6 5	0 36	17 21
F 15	14 13	14 31	4 22	4 5	4 24	19 24	3 55	11 47	2 46	10 20	1 4	18 28	1 49	6 6	0 36	17 21
S 16	13 54	17 42	3 41	4 8	4 30	19 26	3 50	11 56	2 46	10 23	1 3	18 28	1 49	6 7	0 36	17 21
S 17	13 35	20 5	2 50	4 15	4 34	19 27	3 45	12 5	2 46	10 27	1 3	18 28	1 48	6 8	0 36	17 21
M 18	13 16	21 36	1 53	4 25	4 37	19 29	3 41	12 14	2 46	10 30	1 3	18 29	1 48	6 9	0 36	17 21
T 19	12 57	22 9	0 50	4 38	4 39	19 30	3 36	12 23	2 46	10 33	1 3	18 29	1 48	6 10	0 36	17 21
W 20	12 37	21 42	0n14	4 54	4 38	19 30	3 31	12 31	2 46	10 36	1 3	18 30	1 48	6 11	0 36	17 21
T 21	12 17	20 16	1 19	5 13	4 36	19 31	3 26	12 40	2 46	10 40	1 2	18 31	1 47	6 12	0 36	17 21
F 22	11 57	17 53	2 21	5 36	4 33	19 31	3 21	12 48	2 45	10 43	1 2	18 31	1 47	6 13	0 36	17 21
S 23	11 37	14 39	3 17	6 0	4 27	19 30	3 16	12 56	2 45	10 46	1 2	18 32	1 47	6 14	0 36	17 21
S 24	11 16	10 43	4 4	6 27	4 19	19 29	3 11	13 4	2 45	10 50	1 2	18 32	1 47	6 15	0 36	17 21
M 25	10 56	6 15	4 40	6 56	4 9	19 28	3 6	13 11	2 44	10 53	1 2	18 33	1 46	6 17	0 36	17 21
T 26	10 35	1 26	5 2	7 26	3 58	19 27	3 0	13 19	2 44	10 57	1 1	18 34	1 46	6 18	0 36	17 21
W 27	10 14	3s32	5 9	7 57	3 45	19 25	2 55	13 26	2 44	11 0	1 1	18 34	1 46	6 19	0 36	17 21
T 28	9 53	8 25	4 59	8 28	3 30	19 22	2 50	13 33	2 43	11 4	1 1	18 35	1 46	6 20	0 36	17 21
F 29	9 32	12 58	4 32	8 58	3 14	19 19	2 45	13 40	2 43	11 7	1 1	18 36	1 45	6 21	0 36	17 21
S 30	9 10	16 54	3 49	9 28	2 57	19 16	2 40	13 47	2 43	11 11	1 1	18 36	1 45	6 22	0 36	17 21
S 31	8n49	19s55	2n52	9n57	2s39	19n12	2s34	13n54	2s42	11s14	1n 0	18s37	1n45	6s24	0n36	17n21

Julian Day Number = 2349854.5, Delta T = 10.48 sec  
 Ecliptic obliquity = 23°28'29, Nutation = - 0°00'15, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°51'13, Lahiri = 19°58'13Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1721  
geocentric

SEPTEMBER 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	22 40 10	8 <sup>h</sup> 21'24"	0 <sup>h</sup> 32'28"	26°R51	22 <sup>h</sup> 33'4	15 <sup>h</sup> 8'47	2 <sup>m</sup> 9	0 <sup>h</sup> 7'46	17 <sup>h</sup> 42	25°R 0	20 <sup>h</sup> 42	19 <sup>h</sup> 53	18 <sup>h</sup> 19	8 <sup>h</sup> 5	23°R 7	M 1
T 2	22 44 6	9°19'35	14°51	26 <sup>h</sup> 32	23°34	16° 7	2°19	0°49	17°46	25 <sup>h</sup> 8 0	20°44	19°R54	18°15	8°12	23 <sup>h</sup> 4	T 2
W 3	22 48 3	10°17'47	29°20	26°21	24°34	16°28	2°30	0°51	17°49	25° 0	20°46	19°54	18°12	8°18	23° 1	W 3
T 4	22 52 0	11°16'01	13 <sup>h</sup> 52	26°D19	25°35	16°47	2°40	0°54	17°52	25° 0	20°48	19°52	18° 9	8°25	22°59	T 4
F 5	22 55 56	12°14'17	28°21	26°26	26°36	17° 6	2°50	0°57	17°55	24°59	20°51	19°47	18° 6	8°32	22°56	F 5
S 6	22 59 53	13°12'34	12 <sup>h</sup> 41	26°42	27°37	17°24	3° 1	1° 0	17°58	24°59	20°53	19°40	18° 3	8°38	22°53	S 6
S 7	23 3 49	14°10'53	26°47	27° 7	28°39	17°42	3°11	1° 3	18° 2	24°59	20°55	19°32	18° 0	8°45	22°50	S 7
M 8	23 7 46	15° 9'14	10 <sup>h</sup> 33	27°41	29°41	17°59	3°22	1° 7	18° 5	24°59	20°57	19°23	17°56	8°52	22°48	M 8
T 9	23 11 42	16° 7'37	23°57	28°23	0 <sup>h</sup> 43	18°15	3°33	1°10	18° 8	24°58	20°59	19°14	17°53	8°58	22°45	T 9
W10	23 15 39	17° 6'03	6 <sup>h</sup> 57	29°13	1°46	18°31	3°44	1°13	18°12	24°58	21° 2	19° 6	17°50	9° 5	22°42	W10
T 11	23 19 35	18° 4'30	19°36	0 <sup>h</sup> 11	2°49	18°46	3°54	1°17	18°15	24°57	21° 4	19° 0	17°47	9°11	22°39	T 11
F 12	23 23 32	19° 2'59	1 <sup>h</sup> 15	1°16	3°52	19° 1	4° 5	1°20	18°18	24°57	21° 6	18°56	17°44	9°18	22°36	F 12
S 13	23 27 29	20° 1'31	13°58	2°28	4°56	19°14	4°16	1°24	18°22	24°56	21° 8	18°55	17°40	9°25	22°34	S 13
S 14	23 31 25	21° 0'05	25°52	3°46	6° 0	19°27	4°28	1°28	18°25	24°56	21°11	18°D54	17°37	9°31	22°31	S 14
M15	23 35 22	21°58'41	7 <sup>h</sup> 40	5°10	7° 4	19°40	4°39	1°31	18°29	24°55	21°13	18°55	17°34	9°38	22°28	M15
T 16	23 39 18	22°57'19	19°29	6°38	8° 9	19°51	4°50	1°35	18°32	24°55	21°15	18°R55	17°31	9°45	22°25	T 16
W17	23 43 15	23°55'59	1 <sup>h</sup> 23	8°11	9°13	20° 2	5° 1	1°39	18°36	24°54	21°17	18°55	17°28	9°51	22°22	W17
T 18	23 47 11	24°54'42	13°28	9°47	10°18	20°12	5°13	1°43	18°39	24°54	21°19	18°52	17°25	9°58	22°19	T 18
F 19	23 51 8	25°53'27	25°46	11°26	11°24	20°21	5°24	1°47	18°43	24°53	21°22	18°46	17°21	10° 5	22°17	F 19
S 20	23 55 4	26°52'13	8 <sup>h</sup> 20	13° 8	12°29	20°29	5°36	1°51	18°46	24°52	21°24	18°38	17°18	10°11	22°14	S 20
S 21	23 59 1	27°51'02	21°12	14°51	13°35	20°37	5°47	1°56	18°50	24°51	21°26	18°28	17°15	10°18	22°11	S 21
M22	0 2 58	28°49'53	4 <sup>h</sup> 21	16°37	14°41	20°44	5°59	2° 0	18°54	24°51	21°28	18°17	17°12	10°25	22° 8	M22
T 23	0 6 54	29°48'46	17°45	18°23	15°47	20°50	6°11	2° 4	18°57	24°50	21°31	18° 5	17° 9	10°31	22° 5	T 23
W24	0 10 51	0 <sup>h</sup> 47'41	1 <sup>h</sup> 23	20°11	16°54	20°55	6°23	2° 9	19° 1	24°49	21°33	17°54	17° 5	10°38	22° 3	W24
T 25	0 14 47	1°46'38	15°11	21°59	18° 0	20°59	6°34	2°13	19° 4	24°48	21°35	17°45	17° 2	10°45	22° 0	T 25
F 26	0 18 44	2°45'36	29° 6	23°48	19° 7	21° 3	6°46	2°18	19° 8	24°47	21°37	17°38	16°59	10°51	21°57	F 26
S 27	0 22 40	3°44'37	13 <sup>h</sup> 7	25°36	20°14	21° 5	6°58	2°23	19°12	24°46	21°39	17°35	16°56	10°58	21°54	S 27
S 28	0 26 37	4°43'39	27°10	27°25	21°21	21° 7	7°10	2°27	19°15	24°45	21°41	17°33	16°53	11° 4	21°52	S 28
M29	0 30 33	5°42'43	11 <sup>h</sup> 16	29°13	22°29	21°R 8	7°23	2°32	19°19	24°45	21°44	17°33	16°50	11°11	21°49	M29
T 30	0 34 30	6 <sup>h</sup> 41'49	25 <sup>h</sup> 23	1 <sup>h</sup> 1	23 <sup>h</sup> 36	21 <sup>h</sup> 8	7 <sup>m</sup> 35	2 <sup>h</sup> 37	19 <sup>h</sup> 23	24 <sup>h</sup> 44	21 <sup>h</sup> 46	17 <sup>h</sup> 33	16 <sup>h</sup> 46	11 <sup>h</sup> 18	21 <sup>h</sup> 46	T 30

Day	☉	☽		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	8n27	21s45	1n43	10n23	2s20	19n 8	2s29	14n 1	2s42	11s18	1n 0	18s38	1n45	6s25	0n35	17n21	1s45	17n32	15n 7	22n 0	22n13	22n19	1n11	4n16	
T 2	8 5	22 12	0 27	10 48	2 1	19 3	2 24	14 7	2 41	11 21	1 0	18 39	1 45	6 26	0 35	17 20	1 45	17 31	15 7	22 0	22 14	22 19	1 10	4 16	
W 3	7 43	21 9	0s51	11 9	1 42	18 58	2 19	14 13	2 41	11 25	1 0	18 39	1 44	6 27	0 35	17 20	1 45	17 30	15 7	22 0	22 14	22 20	1 9	4 16	
T 4	7 21	18 41	2 5	11 28	1 23	18 52	2 13	14 19	2 40	11 29	1 0	18 40	1 44	6 28	0 35	17 20	1 45	17 29	15 7	22 0	22 15	22 20	1 8	4 16	
F 5	6 59	15 4	3 12	11 43	1 4	18 46	2 8	14 25	2 39	11 33	1 0	18 41	1 44	6 30	0 35	17 20	1 45	17 28	15 7	22 1	22 15	22 21	1 7	4 16	
S 6	6 36	10 35	4 5	11 55	0 46	18 39	2 3	14 31	2 39	11 36	0 59	18 42	1 44	6 31	0 35	17 20	1 46	17 28	15 6	22 2	22 15	22 21	1 5	4 16	
S 7	6 14	5 36	4 42	12 3	0 28	18 32	1 58	14 36	2 38	11 40	0 59	18 43	1 43	6 32	0 35	17 20	1 46	17 27	15 6	22 3	22 16	22 22	1 4	4 16	
M 8	5 51	0 27	5 2	12 7	0 11	18 25	1 53	14 42	2 37	11 44	0 59	18 44	1 43	6 34	0 35	17 20	1 46	17 26	15 6	22 4	22 16	22 22	1 3	4 16	
T 9	5 29	4n35	5 5	12 8	0n 5	18 17	1 47	14 47	2 36	11 48	0 59	18 45	1 43	6 35	0 35	17 20	1 46	17 25	15 6	22 6	22 17	22 22	1 2	4 16	
W10	5 6	9 16	4 51	12 4	0 20	18 8	1 42	14 52	2 36	11 51	0 59	18 45	1 43	6 36	0 35	17 20	1 46	17 24	15 7	22 7	22 17	22 23	1 1	4 16	
T 11	4 43	13 26	4 24	11 57	0 33	17 59	1 37	14 57	2 35	11 55	0 59	18 46	1 43	6 37	0 35	17 19	1 46	17 23	15 7	22 8	22 17	22 23	1 0	4 16	
F 12	4 20	16 55	3 44	11 45	0 46	17 50	1 32	15 2	2 34	11 59	0 58	18 47	1 42	6 39	0 35	17 19	1 46	17 22	15 7	22 8	22 18	22 24	0 59	4 16	
S 13	3 57	19 36	2 56	11 30	0 58	17 39	1 27	15 6	2 33	12 3	0 58	18 48	1 42	6 40	0 35	17 19	1 46	17 21	15 7	22 8	22 18	22 24	0 57	4 16	
S 14	3 34	21 24	2 0	11 12	1 8	17 29	1 22	15 11	2 32	12 7	0 58	18 49	1 42	6 41	0 35	17 19	1 46	17 21	15 7	22 8	22 19	22 24	0 56	4 16	
M15	3 11	22 15	1 0	10 50	1 17	17 18	1 17	15 15	2 31	12 11	0 58	18 50	1 42	6 43	0 35	17 19	1 46	17 20	15 7	22 8	22 19	22 25	0 55	4 16	
T 16	2 48	22 6	0n 3	10 25	1 25	17 6	1 12	15 19	2 30	12 15	0 58	18 51	1 42	6 44	0 35	17 19	1 46	17 19	15 7	22 8	22 20	22 25	0 54	4 15	
W17	2 25	20 57	1 6	9 57	1 32	16 54	1 7	15 23	2 29	12 19	0 58	18 52	1 41	6 45	0 35	17 18	1 46	17 18	15 7	22 8	22 20	22 26	0 53	4 15	
T 18	2 1	18 50	2 7	9 26	1 38	16 42	1 2	15 27	2 28	12 23	0 57	18 53	1 41	6 47	0 35	17 18	1 46	17 17	15 7	22 9	22 20	22 26	0 52	4 15	
F 19	1 38	15 49	3 3	8 52	1 43	16 29	0 57	15 30	2 26	12 27	0 57	18 54	1 41	6 48	0 35	17 18	1 46	17 16	15 7	22 9	22 21	22 26	0 50	4 15	
S 20	1 15	12 2	3 51	8 17	1 47	16 15	0 52	15 34	2 25	12 30	0 57	18 55	1 41	6 49	0 35	17 18	1 46	17 16	15 7	22 11	22 21	22 27	0 49	4 15	
S 21	0 51	7 37	4 29	7 39	1 49	16 1	0 47	15 37	2 24	12 34	0 57	18 56	1 41	6 51	0 35	17 17	1 46	17 15	15 7	22 12	22 22	22 27	0 48	4 15	
M22	0 28	2 45	4 53	7 0	1 51	15 47	0 42	15 40	2 23	12 38	0 57	18 57	1 40	6 52	0 35	17 17	1 46	17 14	15 7	22 14	22 22	22 27	0 47	4 15	
T 23	0 4	2s19	5 2	6 19	1 52	15 32	0 37	15 43	2 21	12 42	0 57	18 58	1 40	6 54	0 35	17 17	1 46	17 13	15 7	22 15	22 22	22 28	0 46	4 15	
W24	0s19	7 23	4 54	5 37	1 52	15 17	0 33	15 46	2 20	12 46	0 57	18 59	1 40	6 55	0 35	17 17	1 46	17 13	15 7	22 17	22 23	22 28	0 44	4 15	
T 25	0 42	12 8	4 28	4 54	1 52	15 1	0 28	15 48	2 18	12 50	0 56	19 0	1 40	6 56	0 35	17 17	1 46	17 12	15 8	22 18	22 23	22 29	0 43	4 15	
F 26	1 6	16 18	3 47	4 9	1 50	14 45	0 23	15 51	2 17	12 55	0 56	19 1	1 40	6 58	0 35	17 16	1 47	17 11	15 8	22 19	22 24	22 29	0 42	4 14	
S 27	1 29	19 34	2 52	3 25	1 49	14 28	0 19	15 53	2 15	12 59	0 56	19 3	1 39	6 59	0 35	17 16	1 47	17 10	15 8	22 19	22 24	22 29	0 41	4 14	
S 28	1 53	21 41	1 46	2 39	1 46	14 11	0 14	15 55	2 13	13 3	0 56	19 4	1 39	7 1	0 35	17 16	1 47	17 10	15 8	22 19	22 24	22 30	0 40	4 14	
M29	2 16	22 27	0 33	1 53	1 43	13 53	0 10	15 57	2 12	13 7	0 56	19 5	1 39	7 2	0 35	17 15	1 47	17 9	15 8	22 19	22 25	22 30	0 38	4 14	
T 30	2s40	21s46	0s41	1n 7	1n40	13n35	0s 6	15n59	2s10	13s11	0n56	19s 6	1n39	7s 3	0n35	17n15	1s47	17n 8	15n 8	22n19	22n25	22n30	0n37	4n14	

ASTRODIENST EPHEMERIS for the year 1721  
geocentric

OCTOBER 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	0 38 26	7♂40'56	9♂31	2♂49	24♂44	21°R 7	7♂47	2♂42	19♂27	24°R43	21♂48	17°R32	16♂43	11♂24	21°R43	W 1
T 2	0 42 23	8°40'06	23°37	4°36	25°52	21♂ 5	7°59	2°47	19°30	24♂41	21°50	17♂28	16°40	11°31	21♂41	T 2
F 3	0 46 20	9°39'17	7♂40	6°22	27° 0	21° 2	8°11	2°52	19°34	24°40	21°52	17°21	16°37	11°38	21°38	F 3
S 4	0 50 16	10°38'29	21°36	8° 8	28° 9	20°59	8°24	2°57	19°38	24°39	21°54	17°12	16°34	11°44	21°35	S 4
S 5	0 54 13	11°37'44	5♂20	9°54	29°17	20°54	8°36	3° 3	19°41	24°38	21°57	17° 0	16°31	11°51	21°33	S 5
M 6	0 58 9	12°37'01	18°50	11°38	0♂26	20°49	8°49	3° 8	19°45	24°37	21°59	16°47	16°27	11°58	21°30	M 6
T 7	1 2 6	13°36'20	2♂ 2	13°22	1°35	20°42	9° 1	3°13	19°49	24°36	22° 1	16°35	16°24	12° 4	21°28	T 7
W 8	1 6 2	14°35'41	14°55	15° 5	2°44	20°35	9°14	3°19	19°53	24°35	22° 3	16°23	16°21	12°11	21°25	W 8
T 9	1 9 59	15°35'04	27°30	16°47	3°53	20°27	9°26	3°24	19°57	24°33	22° 5	16°14	16°18	12°18	21°23	T 9
F 10	1 13 55	16°34'30	9♂46	18°29	5° 3	20°18	9°39	3°30	20° 0	24°32	22° 7	16° 8	16°15	12°24	21°20	F 10
S 11	1 17 52	17°33'58	21°49	20°10	6°12	20° 9	9°52	3°35	20° 4	24°31	22° 9	16° 4	16°11	12°31	21°18	S 11
S 12	1 21 49	18°33'28	3♂42	21°50	7°22	19°58	10° 4	3°41	20° 8	24°30	22°11	16° 2	16° 8	12°37	21°15	S 12
M13	1 25 45	19°33'01	15°30	23°30	8°32	19°46	10°17	3°47	20°12	24°28	22°13	16° 2	16° 5	12°44	21°13	M13
T 14	1 29 42	20°32'36	27°19	25° 9	9°42	19°34	10°30	3°52	20°15	24°27	22°15	16° 2	16° 2	12°51	21°10	T 14
W15	1 33 38	21°32'13	9♂14	26°47	10°52	19°21	10°43	3°58	20°19	24°26	22°17	16° 1	15°59	12°57	21° 8	W15
T 16	1 37 35	22°31'52	21°20	28°25	12° 2	19° 7	10°55	4° 4	20°23	24°24	22°19	15°58	15°56	13° 4	21° 6	T 16
F 17	1 41 31	23°31'34	3♂43	0♂ 2	13°13	18°53	11° 8	4°10	20°27	24°23	22°21	15°53	15°52	13°11	21° 4	F 17
S 18	1 45 28	24°31'17	16°26	1°39	14°23	18°37	11°21	4°16	20°31	24°22	22°23	15°44	15°49	13°17	21° 1	S 18
S 19	1 49 24	25°31'03	29°31	3°14	15°34	18°21	11°34	4°22	20°34	24°20	22°25	15°34	15°46	13°24	20°59	S 19
M20	1 53 21	26°30'51	12♂57	4°50	16°45	18° 4	11°47	4°28	20°38	24°19	22°27	15°22	15°43	13°31	20°57	M20
T 21	1 57 18	27°30'41	26°44	6°24	17°56	17°47	12° 0	4°34	20°42	24°17	22°29	15° 9	15°40	13°37	20°55	T 21
W22	2 1 14	28°30'34	10♂48	7°59	19° 7	17°29	12°13	4°40	20°46	24°16	22°31	14°58	15°36	13°44	20°53	W22
T 23	2 5 11	29°30'28	25° 3	9°32	20°18	17°10	12°26	4°46	20°49	24°14	22°33	14°48	15°33	13°51	20°51	T 23
F 24	2 9 7	0♂30'24	9♂23	11° 5	21°29	16°51	12°39	4°52	20°53	24°13	22°35	14°41	15°30	13°57	20°49	F 24
S 25	2 13 4	1°30'21	23°44	12°38	22°41	16°32	12°52	4°59	20°57	24°11	22°36	14°37	15°27	14° 4	20°47	S 25
S 26	2 17 0	2°30'21	8♂ 2	14°10	23°52	16°12	13° 5	5° 5	21° 1	24°10	22°38	14°36	15°24	14°10	20°45	S 26
M27	2 20 57	3°30'22	22°14	15°42	25° 4	15°52	13°19	5°11	21° 4	24° 8	22°40	14°D36	15°21	14°17	20°43	M27
T 28	2 24 53	4°30'25	6♂19	17°13	26°16	15°31	13°32	5°18	21° 8	24° 6	22°42	14°R36	15°17	14°24	20°41	T 28
W29	2 28 50	5°30'29	20°16	18°44	27°28	15°10	13°45	5°24	21°12	24° 5	22°44	14°35	15°14	14°30	20°39	W29
T 30	2 32 47	6°30'34	4♂ 4	20°14	28°39	14°49	13°58	5°31	21°15	24° 3	22°45	14°32	15°11	14°37	20°37	T 30
F 31	2 36 43	7♂30'42	17♂44	21♂44	29♂52	14♂28	14♂11	5♂37	21♂19	24♂ 2	22♂47	14♂27	15♂ 8	14♂44	20♂36	F 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
W 1	3s 3	19s43	1s53	0n21	1n36	13n17	0s 1	16n 0	2s 8	13s15	0n56	19s 7	1n39	7s 5	0n35	17n15
T 2	3 27	16 28	2 58	0s26	1 32	12 58	0n 3	16 1	2 6	13 19	0 56	19 8	1 38	7 6	0 35	17 15
F 3	3 50	12 17	3 52	1 12	1 27	12 38	0 7	16 3	2 4	13 23	0 55	19 9	1 38	7 8	0 35	17 14
S 4	4 13	7 29	4 31	1 59	1 22	12 19	0 11	16 4	2 2	13 27	0 55	19 11	1 38	7 9	0 35	17 14
S 5	4 36	2 23	4 54	2 45	1 17	11 59	0 15	16 5	2 0	13 31	0 55	19 12	1 38	7 11	0 35	17 14
M 6	5 0	2n46	5 0	3 31	1 11	11 38	0 19	16 5	1 58	13 35	0 55	19 13	1 38	7 12	0 35	17 13
T 7	5 23	7 40	4 50	4 16	1 6	11 17	0 23	16 6	1 56	13 39	0 55	19 14	1 38	7 13	0 35	17 13
W 8	5 46	12 7	4 25	5 2	1 0	10 56	0 27	16 6	1 53	13 43	0 55	19 15	1 37	7 15	0 35	17 13
T 9	6 9	15 57	3 47	5 47	0 54	10 35	0 31	16 6	1 51	13 47	0 55	19 16	1 37	7 16	0 35	17 12
F 10	6 32	19 0	2 59	6 31	0 48	10 13	0 35	16 6	1 49	13 52	0 55	19 18	1 37	7 18	0 35	17 12
S 11	6 54	21 9	2 5	7 16	0 41	9 50	0 38	16 6	1 46	13 56	0 55	19 19	1 37	7 19	0 35	17 12
S 12	7 17	22 20	1 5	7 59	0 35	9 28	0 42	16 6	1 44	14 0	0 54	19 20	1 37	7 21	0 35	17 11
M13	7 40	22 32	0 3	8 42	0 28	9 5	0 45	16 5	1 41	14 4	0 54	19 21	1 37	7 22	0 35	17 11
T 14	8 2	21 42	0n59	9 25	0 22	8 42	0 49	16 4	1 39	14 8	0 54	19 23	1 36	7 23	0 35	17 11
W15	8 25	19 54	2 0	10 7	0 15	8 18	0 52	16 3	1 36	14 12	0 54	19 24	1 36	7 25	0 35	17 10
T 16	8 47	17 11	2 55	10 48	0 8	7 54	0 58	16 2	1 33	14 16	0 54	19 25	1 36	7 26	0 35	17 10
F 17	9 9	13 38	3 44	11 29	0 1	7 30	0 58	16 1	1 30	14 20	0 54	19 26	1 36	7 28	0 35	17 10
S 18	9 31	9 24	4 23	12 9	0s 6	7 6	1 1	16 0	1 27	14 24	0 54	19 27	1 36	7 29	0 35	17 9
S 19	9 53	4 37	4 49	12 48	0 12	6 41	1 4	15 58	1 24	14 28	0 54	19 29	1 36	7 31	0 35	17 9
M20	10 15	0s30	5 1	13 27	0 19	6 16	1 7	15 56	1 21	14 32	0 54	19 30	1 36	7 32	0 35	17 8
T 21	10 36	5 44	4 55	14 5	0 26	5 51	1 10	15 54	1 18	14 37	0 54	19 31	1 35	7 33	0 35	17 8
W22	10 58	10 47	4 31	14 42	0 33	5 26	1 13	15 52	1 15	14 41	0 54	19 32	1 35	7 35	0 35	17 8
T 23	11 19	15 19	3 51	15 19	0 39	5 0	1 15	15 50	1 12	14 45	0 53	19 34	1 35	7 36	0 35	17 7
F 24	11 40	19 0	2 55	15 54	0 46	4 34	1 18	15 48	1 9	14 49	0 53	19 35	1 35	7 38	0 35	17 7
S 25	12 1	21 31	1 48	16 29	0 52	4 8	1 20	15 45	1 6	14 53	0 53	19 36	1 35	7 39	0 35	17 7
S 26	12 22	22 39	0 35	17 3	0 59	3 42	1 23	15 43	1 3	14 57	0 53	19 37	1 35	7 40	0 35	17 6
M27	12 42	22 18	0s41	17 36	1 5	3 16	1 25	15 40	0 59	15 1	0 53	19 39	1 35	7 42	0 35	17 6
T 28	13 3	20 33	1 53	18 9	1 12	2 49	1 27	15 37	0 56	15 5	0 53	19 40	1 35	7 43	0 35	17 5
W29	13 23	17 34	2 58	18 40	1 18	2 22	1 29	15 34	0 53	15 9	0 53	19 41	1 34	7 45	0 35	17 5
T 30	13 43	13 37	3 51	19 11	1 24	1 56	1 31	15 31	0 49	15 13	0 53	19 42	1 34	7 46	0 35	17 5
F 31	14s 2	9s 1	4s31	19s40	1s30	1n29	1n33	15n28	0s46	15s17	0n53	19s44	1n34	7s47	0n35	17n 4

Julian Day Number = 2349915.5, Delta T = 10.48 sec  
Ecliptic obliquity = 23°28'30", Nutation = - 0°00'17", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°51'21", Lahiri = 19°58'22Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1721  
geocentric

NOVEMBER 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 40 40	8♍30'50	1♏14	23♌14	1♌ 4	14°R 6	14♌24	5♌44	21♌23	24°R 0	22♏49	14°R18	15♏ 5	14♏50	20°R34	S 1
S 2	2 44 36	9°31'01	14°33	24°42	2°16	13♌45	14°38	5°50	21°26	23♌58	22°50	14♏ 8	15° 2	14°57	20°R32	S 2
M 3	2 48 33	10°31'13	27°40	26°11	3°28	13°23	14°51	5°57	21°30	23°57	22°52	13°56	14°58	15° 4	20°31	M 3
T 4	2 52 29	11°31'27	10♌33	27°39	4°41	13° 2	15° 4	6° 4	21°34	23°55	22°54	13°45	14°55	15°10	20°29	T 4
W 5	2 56 26	12°31'42	23°12	29° 6	5°53	12°40	15°17	6°10	21°37	23°54	22°55	13°35	14°52	15°17	20°28	W 5
T 6	3 0 22	13°32'00	5♏36	0♌33	7° 6	12°19	15°31	6°17	21°41	23°52	22°57	13°26	14°49	15°24	20°26	T 6
F 7	3 4 19	14°32'19	17°46	1°59	8°18	11°58	15°44	6°24	21°44	23°50	22°58	13°20	14°46	15°30	20°25	F 7
S 8	3 8 16	15°32'40	29°46	3°25	9°31	11°37	15°57	6°30	21°48	23°49	23° 0	13°17	14°42	15°37	20°24	S 8
S 9	3 12 12	16°33'03	11♏37	4°50	10°44	11°17	16°10	6°37	21°51	23°47	23° 1	13°D16	14°39	15°44	20°22	S 9
M10	3 16 9	17°33'28	23°24	6°14	11°57	10°56	16°24	6°44	21°55	23°45	23° 3	13°16	14°36	15°50	20°21	M10
T 11	3 20 5	18°33'55	5♏11	7°37	13°10	10°36	16°37	6°51	21°58	23°43	23° 4	13°17	14°33	15°57	20°20	T 11
W12	3 24 2	19°34'24	17° 5	8°59	14°23	10°17	16°50	6°58	22° 2	23°42	23° 6	13°R18	14°30	16° 3	20°19	W12
T 13	3 27 58	20°34'54	29°10	10°21	15°36	9°58	17° 4	7° 5	22° 5	23°40	23° 7	13°18	14°27	16°10	20°18	T 13
F 14	3 31 55	21°35'27	11♏32	11°41	16°49	9°39	17°17	7°12	22° 9	23°38	23° 9	13°16	14°23	16°17	20°17	F 14
S 15	3 35 51	22°36'01	24°15	13° 0	18° 3	9°21	17°30	7°18	22°12	23°37	23°10	13°11	14°20	16°23	20°16	S 15
S 16	3 39 48	23°36'37	7♌23	14°18	19°16	9° 3	17°43	7°25	22°16	23°35	23°11	13° 5	14°17	16°30	20°15	S 16
M17	3 43 45	24°37'14	20°57	15°34	20°30	8°46	17°57	7°32	22°19	23°33	23°12	12°57	14°14	16°37	20°14	M17
T 18	3 47 41	25°37'53	4♌56	16°48	21°43	8°30	18°10	7°39	22°22	23°32	23°14	12°49	14°11	16°43	20°13	T 18
W19	3 51 38	26°38'34	19°17	18° 0	22°57	8°14	18°23	7°46	22°26	23°30	23°15	12°41	14° 8	16°50	20°13	W19
T 20	3 55 34	27°39'17	3♌55	19°10	24°10	7°59	18°36	7°53	22°29	23°28	23°16	12°35	14° 4	16°57	20°12	T 20
F 21	3 59 31	28°40'00	18°41	20°17	25°24	7°45	18°49	8° 0	22°32	23°27	23°17	12°30	14° 1	17° 3	20°11	F 21
S 22	4 3 27	29°40'45	3♌29	21°21	26°38	7°32	19° 3	8° 7	22°35	23°25	23°18	12°28	13°58	17°10	20°11	S 22
S 23	4 7 24	0♌41'32	18°11	22°21	27°51	7°19	19°16	8°14	22°38	23°23	23°20	12°D28	13°55	17°17	20°10	S 23
M24	4 11 20	1°42'19	2♌42	23°18	29° 5	7° 7	19°29	8°21	22°42	23°21	23°21	12°29	13°52	17°23	20°10	M24
T 25	4 15 17	2°43'07	16°58	24° 9	0♌19	6°56	19°42	8°29	22°45	23°20	23°22	12°31	13°48	17°30	20°10	T 25
W26	4 19 14	3°43'56	0♌57	24°56	1°33	6°45	19°55	8°36	22°48	23°18	23°23	12°R31	13°45	17°36	20° 9	W26
T 27	4 23 10	4°44'46	14°41	25°37	2°47	6°36	20° 8	8°43	22°51	23°16	23°24	12°31	13°42	17°43	20° 9	T 27
F 28	4 27 7	5°45'37	28° 8	26°11	4° 1	6°27	20°21	8°50	22°54	23°15	23°25	12°29	13°39	17°50	20° 9	F 28
S 29	4 31 3	6°46'28	11♏20	26°38	5°15	6°19	20°34	8°57	22°57	23°13	23°26	12°25	13°36	17°56	20° 9	S 29
S 30	4 35 0	7♌47'21	24♏17	26♌56	6♌29	6♌12	20♌47	9♌ 4	23♌ 0	23♌12	23♏27	12♏20	13♏33	18♏ 3	20°R 8	S 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
S 1	14s22	4s 1	4s55	20s 9	1s35	1n 2	1n35	15n25	0s42	15s21	0n53	19s45	1n34	7s49	0n35	17n 4
S 2	14 41	1n 5	5 3	20 36	1 41	0 34	1 37	15 22	0 39	15 25	0 53	19 46	1 34	7 50	0 35	17 3
M 3	15 0	6 4	4 55	21 3	1 46	0 7	1 38	15 19	0 36	15 29	0 53	19 48	1 34	7 51	0 35	17 3
T 4	15 19	10 43	4 31	21 29	1 52	0s20	1 40	15 16	0 32	15 33	0 53	19 49	1 34	7 53	0 35	17 2
W 5	15 37	14 49	3 55	21 53	1 57	0 48	1 41	15 12	0 29	15 36	0 53	19 50	1 34	7 54	0 35	17 2
T 6	15 55	18 12	3 7	22 16	2 1	1 15	1 42	15 9	0 25	15 40	0 52	19 51	1 33	7 55	0 35	17 2
F 7	16 13	20 43	2 12	22 39	2 6	1 43	1 44	15 6	0 22	15 44	0 52	19 53	1 33	7 57	0 35	17 1
S 8	16 31	22 17	1 12	23 0	2 10	2 10	1 45	15 3	0 19	15 48	0 52	19 54	1 33	7 58	0 35	17 1
S 9	16 49	22 49	0 9	23 20	2 14	2 38	1 46	15 0	0 15	15 52	0 52	19 55	1 33	7 59	0 35	17 0
M10	17 6	22 20	0n54	23 38	2 18	3 5	1 47	14 56	0 12	15 56	0 52	19 56	1 33	8 1	0 35	17 0
T 11	17 23	20 52	1 55	23 56	2 21	3 33	1 48	14 53	0 9	16 0	0 52	19 57	1 33	8 2	0 35	17 0
W12	17 39	18 28	2 52	24 12	2 24	4 1	1 49	14 50	0 5	16 3	0 52	19 59	1 33	8 3	0 35	16 59
T 13	17 55	15 14	3 42	24 27	2 27	4 28	1 49	14 47	0 2	16 7	0 52	20 0	1 33	8 5	0 35	16 59
F 14	18 11	11 17	4 22	24 41	2 29	4 56	1 50	14 45	0n 1	16 11	0 52	20 1	1 33	8 6	0 35	16 58
S 15	18 27	6 45	4 51	24 53	2 31	5 23	1 50	14 42	0 4	16 15	0 52	20 2	1 33	8 7	0 35	16 58
S 16	18 42	1 45	5 6	25 4	2 32	5 51	1 51	14 39	0 7	16 19	0 52	20 4	1 33	8 8	0 35	16 57
M17	18 57	3s28	5 5	25 13	2 32	6 18	1 51	14 37	0 11	16 22	0 52	20 5	1 32	8 10	0 35	16 57
T 18	19 12	8 42	4 46	25 21	2 33	6 45	1 52	14 34	0 14	16 26	0 52	20 6	1 32	8 11	0 35	16 57
W19	19 26	13 36	4 8	25 28	2 32	7 12	1 52	14 32	0 17	16 30	0 52	20 7	1 32	8 12	0 35	16 56
T 20	19 40	17 48	3 13	25 33	2 31	7 39	1 52	14 30	0 19	16 33	0 52	20 8	1 32	8 13	0 35	16 56
F 21	19 54	20 55	2 5	25 36	2 29	8 6	1 52	14 28	0 22	16 37	0 52	20 10	1 32	8 14	0 35	16 55
S 22	20 7	22 37	0 49	25 38	2 27	8 33	1 52	14 26	0 25	16 41	0 52	20 11	1 32	8 16	0 35	16 55
S 23	20 20	22 45	0s31	25 38	2 23	9 0	1 51	14 25	0 28	16 44	0 52	20 12	1 32	8 17	0 35	16 55
M24	20 32	21 20	1 48	25 37	2 19	9 26	1 51	14 23	0 31	16 48	0 52	20 13	1 32	8 18	0 35	16 54
T 25	20 44	18 35	2 57	25 34	2 14	9 52	1 51	14 22	0 33	16 51	0 52	20 14	1 32	8 19	0 35	16 54
W26	20 56	14 47	3 53	25 30	2 8	10 18	1 50	14 21	0 36	16 55	0 52	20 15	1 32	8 20	0 35	16 53
T 27	21 7	10 17	4 36	25 24	2 0	10 44	1 50	14 20	0 38	16 59	0 52	20 17	1 32	8 21	0 35	16 53
F 28	21 18	5 22	5 2	25 17	1 51	11 10	1 49	14 20	0 41	17 2	0 52	20 18	1 32	8 22	0 35	16 53
S 29	21 28	0 17	5 11	25 7	1 41	11 35	1 49	14 20	0 43	17 5	0 52	20 19	1 32	8 24	0 35	16 52
S 30	21s38	4n42	5s 5	24s56	1s30	12s 0	1n48	14n19	0n46	17s 9	0n52	20s20	1n32	8s25	0n35	16n52

Julian Day Number = 2349946.5, Delta T = 10.48 sec  
Ecliptic obliquity = 23°28'30, Nutation = - 0°00'18, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°51'25, Lahiri = 19°58'26Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1721

## geocentric

DECEMBER 1721

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	4 38 56	8°48'14	78 2	27°R 6	7M43	6°R 6	21M 0	9°11	23A 3	23°R10	23M27	12°R14	13A29	18A10	20°D 8	M 1
T 2	4 42 53	9°49'08	19°35	27°A 5	8°57	6B 0	21°13	9°18	23° 6	23B 8	23°28	12A 8	13°26	18°16	20°H 8	T 2
W 3	4 46 49	10°50'03	1II56	26°54	10°12	5°56	21°26	9°25	23° 9	23° 7	23°29	12° 2	13°23	18°23	20° 9	W 3
T 4	4 50 46	11°51'00	14° 7	26°32	11°26	5°52	21°39	9°32	23°11	23° 5	23°30	11°58	13°20	18°30	20° 9	T 4
F 5	4 54 43	12°51'57	26° 8	25°58	12°40	5°49	21°52	9°39	23°14	23° 4	23°31	11°55	13°17	18°36	20° 9	F 5
S 6	4 58 39	13°52'55	8A 2	25°13	13°55	5°47	22° 5	9°46	23°17	23° 2	23°31	11°D54	13°14	18°43	20° 9	S 6
S 7	5 2 36	14°53'54	19°51	24°18	15° 9	5°45	22°18	9°54	23°20	23° 0	23°32	11°54	13°10	18°50	20° 9	S 7
M 8	5 6 32	15°54'54	1A237	23°12	16°23	5°D45	22°30	10° 1	23°22	22°59	23°33	11°56	13° 7	18°56	20°10	M 8
T 9	5 10 29	16°55'56	13°25	21°59	17°38	5°45	22°43	10° 8	23°25	22°57	23°33	11°57	13° 4	19° 3	20°10	T 9
W10	5 14 25	17°56'58	25°19	20°40	18°52	5°46	22°56	10°15	23°28	22°56	23°34	11°59	13° 1	19°10	20°11	W10
T 11	5 18 22	18°58'01	7M22	19°18	20° 7	5°48	23° 8	10°22	23°30	22°54	23°34	12° 1	12°58	19°16	20°11	T 11
F 12	5 22 18	19°59'05	19°41	17°55	21°21	5°50	23°21	10°29	23°33	22°53	23°35	12°R 1	12°54	19°23	20°12	F 12
S 13	5 26 15	21° 0'10	2A19	16°34	22°36	5°54	23°33	10°36	23°35	22°51	23°35	12° 1	12°51	19°29	20°12	S 13
S 14	5 30 12	22° 1'16	15°21	15°18	23°51	5°58	23°46	10°43	23°37	22°50	23°36	11°59	12°48	19°36	20°13	S 14
M15	5 34 8	23° 2'22	28°50	14°10	25° 5	6° 2	23°58	10°50	23°40	22°49	23°36	11°57	12°45	19°43	20°14	M15
T 16	5 38 5	24° 3'30	12M46	13°10	26°20	6° 8	24°11	10°57	23°42	22°47	23°37	11°55	12°42	19°49	20°15	T 16
W17	5 42 1	25° 4'38	27° 9	12°21	27°35	6°14	24°23	11° 4	23°44	22°46	23°37	11°52	12°39	19°56	20°16	W17
T 18	5 45 58	26° 5'47	11A55	11°42	28°49	6°21	24°36	11°11	23°47	22°44	23°37	11°50	12°35	20° 3	20°17	T 18
F 19	5 49 54	27° 6'57	26°56	11°13	0A 4	6°29	24°48	11°18	23°49	22°43	23°38	11°49	12°32	20° 9	20°18	F 19
S 20	5 53 51	28° 8'07	12B 4	10°56	1°19	6°37	25° 0	11°24	23°51	22°42	23°38	11°D48	12°29	20°16	20°19	S 20
S 21	5 57 47	29° 9'17	27° 9	10°D49	2°33	6°46	25°12	11°31	23°53	22°40	23°38	11°49	12°26	20°23	20°20	S 21
M22	6 1 44	0B10'28	12A 4	10°52	3°48	6°55	25°24	11°38	23°55	22°39	23°38	11°50	12°23	20°29	20°21	M22
T 23	6 5 41	1°11'38	26°40	11° 3	5° 3	7° 6	25°36	11°45	23°57	22°38	23°38	11°51	12°20	20°36	20°22	T 23
W24	6 9 37	2°12'49	10A55	11°23	6°18	7°17	25°48	11°52	23°59	22°37	23°38	11°51	12°16	20°43	20°23	W24
T 25	6 13 34	3°13'59	24°46	11°50	7°33	7°28	26° 0	11°59	24° 1	22°35	23°38	11°52	12°13	20°49	20°25	T 25
F 26	6 17 30	4°15'09	8V13	12°24	8°48	7°40	26°12	12° 5	24° 3	22°34	23°R38	11°R52	12°10	20°56	20°26	F 26
S 27	6 21 27	5°16'19	21°19	13° 4	10° 2	7°53	26°24	12°12	24° 5	22°33	23°38	11°52	12° 7	21° 3	20°27	S 27
S 28	6 25 23	6°17'29	4B 5	13°50	11°17	8° 6	26°35	12°19	24° 7	22°32	23°38	11°51	12° 4	21° 9	20°29	S 28
M29	6 29 20	7°18'39	16°35	14°40	12°32	8°20	26°47	12°26	24° 8	22°31	23°38	11°51	12° 0	21°16	20°30	M29
T 30	6 33 16	8°19'48	28°52	15°34	13°47	8°34	26°59	12°32	24°10	22°30	23°38	11°50	11°57	21°22	20°32	T 30
W31	6 37 13	9B20'57	10II59	16A32	15A 2	8B49	27M10	12A39	24A12	22B29	23M38	11A50	11A54	21A29	20H34	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	21s48	9n25	4s43	24s44	1s17	12s25	1n47	14n19	0n48	17s12	0n52	20s21	1n31	8s26	0n35	16n51
T 2	21 57	13 40	4 8	24 30	1 3	12 50	1 46	14 20	0 50	17 16	0 52	20 22	1 31	8 27	0 35	16 51
W 3	22 6	17 17	3 22	24 14	0 48	13 14	1 45	14 20	0 52	17 19	0 51	20 23	1 31	8 28	0 35	16 51
T 4	22 15	20 6	2 27	23 57	0 31	13 38	1 44	14 21	0 54	17 23	0 51	20 25	1 31	8 29	0 35	16 50
F 5	22 22	22 0	1 26	23 38	0 13	14 2	1 43	14 22	0 56	17 26	0 51	20 26	1 31	8 30	0 35	16 50
S 6	22 30	22 53	0 21	23 17	0n 6	14 25	1 42	14 23	0 58	17 29	0 51	20 27	1 31	8 31	0 35	16 50
S 7	22 37	22 43	0n44	22 55	0 26	14 48	1 41	14 24	1 0	17 32	0 51	20 28	1 31	8 32	0 35	16 49
M 8	22 44	21 34	1 47	22 32	0 46	15 11	1 39	14 26	1 2	17 36	0 51	20 29	1 31	8 33	0 35	16 49
T 9	22 50	19 27	2 45	22 7	1 7	15 33	1 38	14 28	1 4	17 39	0 51	20 30	1 31	8 34	0 35	16 48
W10	22 56	16 30	3 37	21 43	1 26	15 55	1 37	14 30	1 6	17 42	0 51	20 31	1 31	8 35	0 35	16 48
T 11	23 1	12 50	4 20	21 18	1 45	16 16	1 35	14 32	1 7	17 45	0 51	20 32	1 31	8 36	0 35	16 48
F 12	23 6	8 34	4 52	20 54	2 2	16 37	1 33	14 34	1 9	17 48	0 51	20 33	1 31	8 37	0 35	16 47
S 13	23 10	3 50	5 12	20 31	2 17	16 58	1 32	14 37	1 11	17 52	0 51	20 34	1 31	8 37	0 35	16 47
S 14	23 14	1s12	5 16	20 11	2 30	17 18	1 30	14 40	1 12	17 55	0 51	20 35	1 31	8 38	0 35	16 47
M15	23 17	6 21	5 3	19 52	2 41	17 38	1 28	14 43	1 14	17 58	0 51	20 36	1 31	8 39	0 35	16 46
T 16	23 20	11 23	4 32	19 37	2 49	17 58	1 27	14 46	1 15	18 1	0 51	20 37	1 31	8 40	0 35	16 46
W17	23 23	15 56	3 43	19 25	2 55	18 16	1 25	14 49	1 16	18 4	0 51	20 38	1 31	8 41	0 35	16 46
T 18	23 25	19 38	2 38	19 16	2 58	18 35	1 23	14 53	1 18	18 7	0 51	20 39	1 31	8 42	0 35	16 45
F 19	23 27	22 5	1 22	19 11	3 0	18 53	1 21	14 57	1 19	18 10	0 51	20 40	1 31	8 42	0 35	16 45
S 20	23 28	22 57	0s 1	19 9	3 0	19 10	1 19	15 0	1 20	18 13	0 51	20 41	1 31	8 43	0 35	16 45
S 21	23 28	22 8	1 24	19 10	2 58	19 27	1 17	15 5	1 22	18 16	0 51	20 42	1 31	8 44	0 36	16 45
M22	23 28	19 46	2 40	19 13	2 55	19 43	1 15	15 9	1 23	18 18	0 51	20 43	1 31	8 45	0 36	16 44
T 23	23 28	16 9	3 44	19 19	2 51	19 59	1 12	15 13	1 24	18 21	0 52	20 44	1 31	8 45	0 36	16 44
W24	23 27	11 41	4 33	19 27	2 46	20 14	1 10	15 18	1 25	18 24	0 52	20 45	1 31	8 46	0 36	16 44
T 25	23 26	6 44	5 4	19 36	2 39	20 29	1 8	15 23	1 26	18 27	0 52	20 46	1 31	8 47	0 36	16 44
F 26	23 24	1 36	5 17	19 47	2 33	20 43	1 6	15 28	1 27	18 30	0 52	20 46	1 31	8 47	0 36	16 43
S 27	23 22	3n29	5 13	20 0	2 25	20 57	1 3	15 33	1 28	18 32	0 52	20 47	1 31	8 48	0 36	16 43
S 28	23 20	8 17	4 54	20 13	2 18	21 9	1 1	15 38	1 29	18 35	0 52	20 48	1 31	8 49	0 36	16 43
M29	23 16	12 38	4 21	20 27	2 10	21 22	0 59	15 43	1 30	18 38	0 52	20 49	1 31	8 49	0 36	16 43
T 30	23 13	16 24	3 37	20 41	2 1	21 33	0 56	15 49	1 31	18 40	0 52	20 50	1 31	8 50	0 36	16 42
W31	23s 9	19n26	2s43	20s55	1n53	21s44	0n54	15n54	1n32	18s43	0n52	20s51	1n31	8s50	0n36	16n42

Julian Day Number = 2349976.5, Delta T = 10.49 sec  
 Ecliptic obliquity = 23°28'29", Nutation = - 0°00'18", out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°51'30", Lahiri = 19°58'30"Greg. Calendar