



# Astrodienst Ephemeris Tables for the year 1697

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 1697  
geocentric

JANUARY 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 45 21	11 <sup>32</sup> 27'53	22 <sup>27</sup> 20	29 <sup>27</sup> 28	11 <sup>28</sup> 11	1 <sup>28</sup> 14	24 <sup>24</sup> 32	27 <sup>27</sup> 25	24 <sup>24</sup> R43	26 <sup>26</sup> 12	5 <sup>5</sup> R59	16 <sup>16</sup> M39	15 <sup>15</sup> M20	24 <sup>24</sup> M38	9 <sup>9</sup> R50	T 1
W 2	6 49 18	12 <sup>29</sup> 29'02	6 <sup>6</sup> 12	1 <sup>1</sup> 3 0	12 <sup>12</sup> 26	2 <sup>2</sup> 2	24 <sup>24</sup> 39	27 <sup>27</sup> 32	24 <sup>24</sup> II41	26 <sup>26</sup> 13	5 <sup>5</sup> Q58	16 <sup>16</sup> 40	15 <sup>15</sup> 17	24 <sup>24</sup> 44	9 <sup>9</sup> Q47	W 2
T 3	6 53 14	13 <sup>30</sup> 30'11	19 <sup>19</sup> 55	2 <sup>2</sup> 33	13 <sup>13</sup> 40	2 <sup>2</sup> 49	24 <sup>24</sup> 46	27 <sup>27</sup> 39	24 <sup>24</sup> 38	26 <sup>26</sup> 14	5 <sup>5</sup> 56	16 <sup>16</sup> R41	15 <sup>15</sup> 13	24 <sup>24</sup> 51	9 <sup>9</sup> 43	T 3
F 4	6 57 11	14 <sup>31</sup> 20'20	3 <sup>3</sup> II29	4 <sup>4</sup> 6	14 <sup>14</sup> 54	3 <sup>3</sup> 36	24 <sup>24</sup> 52	27 <sup>27</sup> 46	24 <sup>24</sup> 36	26 <sup>26</sup> 15	5 <sup>5</sup> 55	16 <sup>16</sup> 39	15 <sup>15</sup> 10	24 <sup>24</sup> 58	9 <sup>9</sup> 39	F 4
S 5	7 1 7	15 <sup>32</sup> 29'29	16 <sup>16</sup> 53	5 <sup>5</sup> 39	16 <sup>16</sup> 8	4 <sup>4</sup> 24	24 <sup>24</sup> 58	27 <sup>27</sup> 53	24 <sup>24</sup> 33	26 <sup>26</sup> 16	5 <sup>5</sup> 54	16 <sup>16</sup> 35	15 <sup>15</sup> 7	25 <sup>25</sup> 4	9 <sup>9</sup> 35	S 5
S 6	7 5 4	16 <sup>33</sup> 33'36	0 <sup>0</sup> 6 6	7 <sup>7</sup> 13	17 <sup>17</sup> 22	5 <sup>5</sup> 11	25 <sup>25</sup> 4	28 <sup>28</sup> 0	24 <sup>24</sup> 31	26 <sup>26</sup> 17	5 <sup>5</sup> 53	16 <sup>16</sup> 29	15 <sup>15</sup> 4	25 <sup>25</sup> 11	9 <sup>9</sup> 31	S 6
M 7	7 9 0	17 <sup>34</sup> 44'44	13 <sup>13</sup> 8	8 <sup>8</sup> 47	18 <sup>18</sup> 36	5 <sup>5</sup> 58	25 <sup>25</sup> 10	28 <sup>28</sup> 7	24 <sup>24</sup> 29	26 <sup>26</sup> 18	5 <sup>5</sup> 51	16 <sup>16</sup> 20	15 <sup>15</sup> 1	25 <sup>25</sup> 18	9 <sup>9</sup> 27	M 7
T 8	7 12 57	18 <sup>35</sup> 51'51	25 <sup>25</sup> 57	10 <sup>10</sup> 21	19 <sup>19</sup> 50	6 <sup>6</sup> 45	25 <sup>25</sup> 16	28 <sup>28</sup> 14	24 <sup>24</sup> 26	26 <sup>26</sup> 19	5 <sup>5</sup> 50	16 <sup>16</sup> 8	14 <sup>14</sup> 57	25 <sup>25</sup> 24	9 <sup>9</sup> 23	T 8
W 9	7 16 54	19 <sup>36</sup> 58'58	8 <sup>8</sup> Q33	11 <sup>11</sup> 56	21 <sup>21</sup> 4	7 <sup>7</sup> 33	25 <sup>25</sup> 22	28 <sup>28</sup> 21	24 <sup>24</sup> 24	26 <sup>26</sup> 20	5 <sup>5</sup> 49	15 <sup>15</sup> 56	14 <sup>14</sup> 54	25 <sup>25</sup> 31	9 <sup>9</sup> 19	W 9
T 10	7 20 50	20 <sup>38</sup> 04'04	20 <sup>20</sup> 55	13 <sup>13</sup> 32	22 <sup>22</sup> 18	8 <sup>8</sup> 20	25 <sup>25</sup> 27	28 <sup>28</sup> 28	24 <sup>24</sup> 22	26 <sup>26</sup> 21	5 <sup>5</sup> 47	15 <sup>15</sup> 44	14 <sup>14</sup> 51	25 <sup>25</sup> 38	9 <sup>9</sup> 15	T 10
F 11	7 24 47	21 <sup>39</sup> 10'10	3 <sup>3</sup> M 5	15 <sup>15</sup> 8	23 <sup>23</sup> 32	9 <sup>9</sup> 8	25 <sup>25</sup> 33	28 <sup>28</sup> 35	24 <sup>24</sup> 20	26 <sup>26</sup> 22	5 <sup>5</sup> 46	15 <sup>15</sup> 33	14 <sup>14</sup> 48	25 <sup>25</sup> 45	9 <sup>9</sup> 10	F 11
S 12	7 28 43	22 <sup>40</sup> 16'16	15 <sup>15</sup> 5	16 <sup>16</sup> 45	24 <sup>24</sup> 45	9 <sup>9</sup> 55	25 <sup>25</sup> 38	28 <sup>28</sup> 43	24 <sup>24</sup> 17	26 <sup>26</sup> 23	5 <sup>5</sup> 45	15 <sup>15</sup> 24	14 <sup>14</sup> 45	25 <sup>25</sup> 51	9 <sup>9</sup> 6	S 12
S 13	7 32 40	23 <sup>41</sup> 21'21	26 <sup>26</sup> 57	18 <sup>18</sup> 22	25 <sup>25</sup> 59	10 <sup>10</sup> 42	25 <sup>25</sup> 43	28 <sup>28</sup> 50	24 <sup>24</sup> 15	26 <sup>26</sup> 25	5 <sup>5</sup> 43	15 <sup>15</sup> 18	14 <sup>14</sup> 42	25 <sup>25</sup> 58	9 <sup>9</sup> 2	S 13
M14	7 36 36	24 <sup>42</sup> 26'26	8 <sup>8</sup> Q46	19 <sup>19</sup> 59	27 <sup>27</sup> 13	11 <sup>11</sup> 30	25 <sup>25</sup> 48	28 <sup>28</sup> 57	24 <sup>24</sup> 13	26 <sup>26</sup> 26	5 <sup>5</sup> 42	15 <sup>15</sup> 15	14 <sup>14</sup> 38	26 <sup>26</sup> 5	8 <sup>8</sup> 57	M14
T 15	7 40 33	25 <sup>43</sup> 30'30	20 <sup>20</sup> 37	21 <sup>21</sup> 38	28 <sup>28</sup> 27	12 <sup>12</sup> 17	25 <sup>25</sup> 53	29 <sup>29</sup> 4	24 <sup>24</sup> 11	26 <sup>26</sup> 27	5 <sup>5</sup> 41	15 <sup>15</sup> 13	14 <sup>14</sup> 35	26 <sup>26</sup> 11	8 <sup>8</sup> 53	T 15
W16	7 44 29	26 <sup>44</sup> 34'34	2 <sup>2</sup> M34	23 <sup>23</sup> 16	29 <sup>29</sup> 40	13 <sup>13</sup> 5	25 <sup>25</sup> 57	29 <sup>29</sup> 11	24 <sup>24</sup> 9	26 <sup>26</sup> 28	5 <sup>5</sup> 39	15 <sup>15</sup> D13	14 <sup>14</sup> 32	26 <sup>26</sup> 18	8 <sup>8</sup> 49	W16
T 17	7 48 26	27 <sup>45</sup> 38'38	14 <sup>14</sup> 44	24 <sup>24</sup> 56	0 <sup>0</sup> X54	13 <sup>13</sup> 52	26 <sup>26</sup> 2	29 <sup>29</sup> 18	24 <sup>24</sup> 7	26 <sup>26</sup> 30	5 <sup>5</sup> 38	15 <sup>15</sup> R14	14 <sup>14</sup> 29	26 <sup>26</sup> 25	8 <sup>8</sup> 44	T 17
F 18	7 52 22	28 <sup>46</sup> 41'41	27 <sup>27</sup> 12	26 <sup>26</sup> 36	2 <sup>2</sup> 7	14 <sup>14</sup> 39	26 <sup>26</sup> 6	29 <sup>29</sup> 25	24 <sup>24</sup> 5	26 <sup>26</sup> 31	5 <sup>5</sup> 37	15 <sup>15</sup> 13	14 <sup>14</sup> 26	26 <sup>26</sup> 31	8 <sup>8</sup> 40	F 18
S 19	7 56 19	29 <sup>47</sup> 44'44	10 <sup>10</sup> X 2	28 <sup>28</sup> 16	3 <sup>3</sup> 21	15 <sup>15</sup> 27	26 <sup>26</sup> 10	29 <sup>29</sup> 32	24 <sup>24</sup> 3	26 <sup>26</sup> 33	5 <sup>5</sup> 35	15 <sup>15</sup> 11	14 <sup>14</sup> 22	26 <sup>26</sup> 38	8 <sup>8</sup> 35	S 19
S 20	8 0 16	0 <sup>0</sup> 48'46	23 <sup>23</sup> 17	29 <sup>29</sup> 58	4 <sup>4</sup> 34	16 <sup>16</sup> 14	26 <sup>26</sup> 14	29 <sup>29</sup> 40	24 <sup>24</sup> 1	26 <sup>26</sup> 34	5 <sup>5</sup> 34	15 <sup>15</sup> 5	14 <sup>14</sup> 19	26 <sup>26</sup> 45	8 <sup>8</sup> 31	S 20
M21	8 4 12	1 <sup>1</sup> 49'48	7 <sup>7</sup> 3 0	1 <sup>1</sup> 39	5 <sup>5</sup> 48	17 <sup>17</sup> 2	26 <sup>26</sup> 17	29 <sup>29</sup> 47	23 <sup>23</sup> 59	26 <sup>26</sup> 36	5 <sup>5</sup> 32	14 <sup>14</sup> 58	14 <sup>14</sup> 16	26 <sup>26</sup> 51	8 <sup>8</sup> 26	M21
T 22	8 8 9	2 <sup>2</sup> 50'49	21 <sup>21</sup> 8	3 <sup>3</sup> 22	7 <sup>7</sup> 1	17 <sup>17</sup> 49	26 <sup>26</sup> 21	29 <sup>29</sup> 54	23 <sup>23</sup> 57	26 <sup>26</sup> 37	5 <sup>5</sup> 31	14 <sup>14</sup> 47	14 <sup>14</sup> 13	26 <sup>26</sup> 58	8 <sup>8</sup> 22	T 22
W23	8 12 5	3 <sup>3</sup> 51'49	5 <sup>5</sup> 38	5 <sup>5</sup> 5	8 <sup>8</sup> 14	18 <sup>18</sup> 37	26 <sup>26</sup> 24	0 <sup>0</sup> 31	23 <sup>23</sup> 56	26 <sup>26</sup> 39	5 <sup>5</sup> 30	14 <sup>14</sup> 35	14 <sup>14</sup> 10	27 <sup>27</sup> 5	8 <sup>8</sup> 17	W23
T 24	8 16 2	4 <sup>4</sup> 52'47	20 <sup>20</sup> 22	6 <sup>6</sup> 49	9 <sup>9</sup> 28	19 <sup>19</sup> 24	26 <sup>26</sup> 27	0 <sup>0</sup> 8	23 <sup>23</sup> 54	26 <sup>26</sup> 40	5 <sup>5</sup> 28	14 <sup>14</sup> 23	14 <sup>14</sup> 7	27 <sup>27</sup> 11	8 <sup>8</sup> 12	T 24
F 25	8 19 58	5 <sup>5</sup> 53'45	5 <sup>5</sup> X11	8 <sup>8</sup> 33	10 <sup>10</sup> 41	20 <sup>20</sup> 12	26 <sup>26</sup> 30	0 <sup>0</sup> 15	23 <sup>23</sup> 52	26 <sup>26</sup> 42	5 <sup>5</sup> 27	14 <sup>14</sup> 12	14 <sup>14</sup> 3	27 <sup>27</sup> 18	8 <sup>8</sup> 8	F 25
S 26	8 23 55	6 <sup>6</sup> 54'42	19 <sup>19</sup> 59	10 <sup>10</sup> 18	11 <sup>11</sup> 54	20 <sup>20</sup> 59	26 <sup>26</sup> 33	0 <sup>0</sup> 22	23 <sup>23</sup> 50	26 <sup>26</sup> 43	5 <sup>5</sup> 25	14 <sup>14</sup> 4	14 <sup>14</sup> 0	27 <sup>27</sup> 25	8 <sup>8</sup> 3	S 26
S 27	8 27 52	7 <sup>7</sup> 55'37	4 <sup>4</sup> Y36	12 <sup>12</sup> 3	13 <sup>13</sup> 7	21 <sup>21</sup> 47	26 <sup>26</sup> 36	0 <sup>0</sup> 29	23 <sup>23</sup> 49	26 <sup>26</sup> 45	5 <sup>5</sup> 24	13 <sup>13</sup> 58	13 <sup>13</sup> 57	27 <sup>27</sup> 32	7 <sup>7</sup> 58	S 27
M28	8 31 48	8 <sup>8</sup> 56'31	18 <sup>18</sup> 59	13 <sup>13</sup> 49	14 <sup>14</sup> 20	22 <sup>22</sup> 34	26 <sup>26</sup> 38	0 <sup>0</sup> 36	23 <sup>23</sup> 47	26 <sup>26</sup> 47	5 <sup>5</sup> 23	13 <sup>13</sup> 55	13 <sup>13</sup> 54	27 <sup>27</sup> 38	7 <sup>7</sup> 54	M28
T 29	8 35 45	9 <sup>9</sup> 57'24	3 <sup>3</sup> X 4	15 <sup>15</sup> 36	15 <sup>15</sup> 33	23 <sup>23</sup> 21	26 <sup>26</sup> 40	0 <sup>0</sup> 44	23 <sup>23</sup> 45	26 <sup>26</sup> 48	5 <sup>5</sup> 21	13 <sup>13</sup> 54	13 <sup>13</sup> 51	27 <sup>27</sup> 45	7 <sup>7</sup> 49	T 29
W30	8 39 41	10 <sup>58</sup> '15	16 <sup>16</sup> 52	17 <sup>17</sup> 23	16 <sup>16</sup> 46	24 <sup>24</sup> 9	26 <sup>26</sup> 43	0 <sup>0</sup> 51	23 <sup>23</sup> 44	26 <sup>26</sup> 50	5 <sup>5</sup> 20	13 <sup>13</sup> 54	13 <sup>13</sup> 48	27 <sup>27</sup> 52	7 <sup>7</sup> 45	W30
T 31	8 43 38	11 <sup>59</sup> 05'05	0 <sup>0</sup> II24	19 <sup>19</sup> 10	17 <sup>17</sup> X59	24 <sup>24</sup> 56	26 <sup>26</sup> 44	0 <sup>0</sup> 58	23 <sup>23</sup> II42	26 <sup>26</sup> X52	5 <sup>5</sup> Q18	13 <sup>13</sup> M53	13 <sup>13</sup> M44	27 <sup>27</sup> M58	7 <sup>7</sup> Q40	T 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
T 1	22s59	10n40	2n 7	24s14	0s45	19s 7	1s45	21s 1	1s 8	8s20	1n17	21s 1	0s19	23n33	0n11	2s46	1s21	24n32	5n55	16s50	16s27	1s31	10n27	7s38							
W 2	22 53	14 29	0 56	24 20	0 52	18 46	1 45	20 50	1 8	8 22	1 17	21 0	0 19	23 33	0 11	2 45	1 21	24 32	5 55	16 51	16 27	1 33	10 27	7 38							
T 3	22 47	17 28	0s17	24 25	0 58	18 25	1 44	20 39	1 8	8 25	1 17	20 58	0 19	23 33	0 11	2 45	1 21	24 33	5 55	16 51	16 26	1 36	10 28	7 39							
F 4	22 41	19 26	1 29	24 28	1 4	18 3	1 44	20 28	1 8	8 27	1 17	20 57	0 19	23 33	0 11	2 44	1 21	24 33	5 55	16 50	16 25	1 38	10 29	7 39							
S 5	22 34	20 16	2 34	24 31	1 9	17 40	1 44	20 17	1 8	8 29	1 17	20 56	0 19	23 33	0 11	2 44	1 21	24 34	5 55	16 49	16 24	1 40	10 29	7 39							
S 6	22 27	19 58	3 30	24 31	1 15	17 17	1 43	20 6	1 7	8 31	1 18	20 54	0 19	23 33	0 11	2 44	1 21	24 34	5 56	16 47	16 23	1 42	10 30	7 40							
M 7	22 19	18 37	4 14	24 31	1 20	16 54	1 43	19 54	1 7	8 33	1 18	20 53	0 19	23 33	0 11	2 43	1 21	24 35	5 56	16 45	16 22	1 44	10 31	7 40							
T 8	22 11	16 20	4 45	24 29	1 25	16 30	1 42	19 42	1 7	8 35	1 18	20 52	0 19	23 33	0 11	2 43	1 21	24 35	5 56	16 42	16 21	1 46	10 32	7 40							
W 9	22 2	13 19	5 0	24 26	1 30	16 6	1 41	19 30	1 7	8 37	1 18	20 50	0 19	23 33	0 11	2 42	1 21	24 35	5 56	16 38	16 20	1 48	10 32	7 41							
T 10	21 53	9 47	5 2	24 21	1 34	15 41	1 40	19 17	1 7	8 38	1 19	20 49	0 19	23 33	0 11	2 42	1 21	24 36	5 56	16 35	16 19	1 50	10 33	7 41							
F 11	21 44	5 54	4 49	24 15	1 38	15 16	1 39	19 5	1 7	8 40	1 19	20 48	0 20	23 32	0 11	2 41	1 21	24 36	5 56	16 31	16 18	1 53	10 34	7 41							
S 12	21 34	1 50	4 24	24 7	1 42	14 50	1 39	18 52	1 7	8 42	1 19	20 46	0 20	23 32	0 11	2 41	1 21	24 37	5 56	16 29	16 17	1 55	10 35	7 41							
S 13	21 24	2s16	3 47	23 58	1 46	14 24	1 37	18 39	1 7	8 44	1 19	20 45	0 20	23 32	0 11	2 40	1 21	24 37	5 56	16 27	16 16	1 57	10 36	7 42							
M14	21 13	6 15	3 1	23 47	1 49	13 58	1 36	18 26	1 7	8 45	1 19	20 43	0 20	23 32	0 11	2 40	1 21	24 38	5 57	16 26	16 15	1 59	10 37	7 42							
T 15	21 2	10 1	2 7	23 35	1 53	13 31	1 35	18 12	1 6	8 47	1 20	20 42	0 20	23 32	0 11	2 39	1 21	24 38	5 57	16 26	16 14	2 1	10 38	7 42							
W16	20 50	13 26	1 7	23 22	1 55	13 4	1 34	17 59	1 6	8 48	1 20	20 41	0 20	23 32	0 11	2 38	1 21	24 39	5 57	16 26	16 13	2 3	10 39	7 42							
T 17	20 39	16 20	0 3	23 6	1 58	12 37	1 32	17 45	1 6	8 49	1 20	20 39	0 20	23 32	0 11	2 38	1 21	24 39	5 57	16 26	16 13	2 5	10 40	7 42							
F 18	20 26	18 32	1n 3	22 50	2 0	12 9	1 31	17 31	1 6	8 51	1 20	20 38	0 20	23 32	0 11	2 37	1 21	24 40	5 57	16 25	16 12	2 7	10 41	7 42							
S 19	20 14	19 53	2 8	22 31	2 2	11 41	1 29	17 17	1 6	8 52	1 21	20 36	0 20	23 32	0 11	2 37	1 21	24 40	5 57	16 25	16 11	2 9	10 42	7 42							
S 20	20 0	20 11	3 7	22 12	2 3	11 13	1 28	17 2	1 6	8 53	1 21	20 35	0 20	23 32	0 11	2 36	1 21	24 40	5 57	16 23	16 10	2 12	10 43	7 42							
M21	19 47	19 20	3 58	21 50	2 4	10 44	1 26	16 48	1 5	8 54	1 21	20 34	0 20	23 32	0 11	2 36	1 21	24 41	5 57	16 21	16 9	2 14	10 44	7 43							
T 22	19 33	17 16	4 36	21 27	2 4	10 15	1 24	16 33	1 5	8 55	1 21	20 32	0 20	23 32	0 11	2 35	1 21	24 41	5 57	16 18	16 8	2 16	10 45	7 43							
W23	19 19	14 5	4 57	21 2	2 5	9 46	1 22	16 18	1 5	8 56	1 21	20 31	0 20	23 31	0 11	2 34	1 21	24 42	5 57	16 14	16 7	2 18	10 46	7 43							
T 24	19 5	10 0	4 59	20 36	2 4	9 17	1 20	16 3	1 5	8 57	1 22	20 29	0 20	23 31	0 11	2 34	1 21	24 42	5 57	16 11	16 6	2 20	10 47	7 43							
F 25	18 50	5 16	4 41	20 8	2 4	8 47	1 18	15 48	1 5	8 58	1 22	20 28	0 21	23 31	0 11	2 33	1 21	24 43	5 58	16 8	16 5	2 22	10 48	7 43							
S 26	18 34	0 14	4 4	19 39	2 2	8 17	1 16	15 32	1 4	8 59	1 22	20 26	0 21	23 31	0 11	2 32	1 21	24 43	5 58	16 5	16 4	2 24	10 49	7 43							
S 27	18 19	4n46	3 12	19 8	2 1	7 47	1 14	15 17	1 4	9 0	1 22	20 25	0 21	23 31	0 11	2 32	1 21	24 43	5 58	16 3	16 3	2 26	10 51	7 43							
M28	18 3	9 25	2 8	18 36	1 59	7 17	1 12	15 1	1 4	9 0	1 23	20 23	0 21	23 31	0 11	2 31	1 21	24 44	5 58	16 2	16 2	2 28	10 52	7 43							
T 29	17 47	13 27	0 57	18 2	1 56	6 46	1 10	14 45	1 4	9 1	1 23	20 22	0 21	23 31	0 11	2 30	1 21	24 44	5 58	16 2	16 1	2 31	10 53	7 43							
W30	17 30	16 39	0s16	17 26	1 53	6 16	1 7	14 29	1 3	9 1	1 23	20 20	0 21	23 31	0 11	2 30	1 21	24 45	5 58	16 2	16 0	2 33	10 54	7 42							
T 31	17s13	18n52	1s26	16s49	1s49	5s45	1s 5	14s13	1s 3	9s 2	1n23	20s19	0s21	23n31	0n11	2s29	1s20	24n45	5n58	16s 2	15s59	2s35	10n55	7s42							

# ASTRODIENST EPHEMERIS for the year 1697

## geocentric

FEBRUARY 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 47 34	12 <sup>59</sup> 53'3	13 <sup>11</sup> 40	20 <sup>58</sup> 58	19 <sup>11</sup> 11	25 <sup>44</sup> 44	26 <sup>46</sup> 46	1 <sup>5</sup> 5	23 <sup>R41</sup>	26 <sup>53</sup> 53	5 <sup>R17</sup>	13 <sup>R51</sup>	13 <sup>11</sup> 41	28 <sup>11</sup> 5	7 <sup>R35</sup>	F 1
S 2	8 51 31	14° 0'40	26°43	22°46	20°24	26°31	26°48	1°12	23 <sup>11</sup> 40	26°55	5 <sup>16</sup> 16	13 <sup>11</sup> 46	13°38	28°12	7 <sup>12</sup> 31	S 2
S 3	8 55 27	15° 1'25	9 <sup>35</sup> 35	24°34	21°36	27°19	26°49	1°19	23°38	26°57	5°14	13°38	13°35	28°18	7°26	S 3
M 4	8 59 24	16° 2'09	22°16	26°21	22°49	28° 6	26°50	1°26	23°37	26°59	5°13	13°27	13°32	28°25	7°22	M 4
T 5	9 3 21	17° 2'51	4 <sup>12</sup> 47	28° 9	24° 1	28°54	26°51	1°33	23°36	27° 1	5°12	13°14	13°28	28°32	7°17	T 5
W 6	9 7 17	18° 3'32	17° 9	29°56	25°14	29°41	26°52	1°40	23°35	27° 2	5°10	12°59	13°25	28°38	7°13	W 6
T 7	9 11 14	19° 4'12	29°21	1 <sup>12</sup> 42	26°26	0 <sup>12</sup> 28	26°52	1°47	23°33	27° 4	5° 9	12°45	13°22	28°45	7° 8	T 7
F 8	9 15 10	20° 4'50	11 <sup>11</sup> 24	3°27	27°38	1°16	26°53	1°53	23°32	27° 6	5° 8	12°32	13°19	28°52	7° 4	F 8
S 9	9 19 7	21° 5'26	23°19	5°10	28°50	2° 3	26°53	2° 0	23°31	27° 8	5° 6	12°21	13°16	28°58	6°59	S 9
S 10	9 23 3	22° 6'02	5 <sup>12</sup> 9	6°52	0 <sup>12</sup> 2	2°50	26°R53	2° 7	23°30	27°10	5° 5	12°13	13°13	29° 5	6°55	S 10
M 11	9 27 0	23° 6'36	16°57	8°31	1°14	3°38	26°53	2°14	23°29	27°12	5° 4	12° 8	13° 9	29°12	6°50	M 11
T 12	9 30 56	24° 7'09	28°47	10° 8	2°25	4°25	26°52	2°21	23°28	27°14	5° 2	12° 5	13° 6	29°18	6°46	T 12
W 13	9 34 53	25° 7'40	10 <sup>11</sup> 42	11°41	3°37	5°12	26°52	2°28	23°27	27°16	5° 1	12°D 4	13° 3	29°25	6°42	W 13
T 14	9 38 49	26° 8'10	22°49	13°10	4°49	6° 0	26°51	2°34	23°27	27°18	5° 0	12°R 4	13° 0	29°32	6°37	T 14
F 15	9 42 46	27° 8'39	5 <sup>12</sup> 13	14°35	6° 0	6°47	26°50	2°41	23°26	27°20	4°58	12° 4	12°57	29°39	6°33	F 15
S 16	9 46 43	28° 9'07	17°59	15°54	7°11	7°34	26°49	2°48	23°25	27°22	4°57	12° 3	12°54	29°45	6°29	S 16
S 17	9 50 39	29° 9'33	1 <sup>13</sup> 11	17° 7	8°23	8°21	26°48	2°54	23°24	27°24	4°56	11°59	12°50	29°52	6°25	S 17
M 18	9 54 36	0 <sup>12</sup> 58	14°53	18°14	9°34	9° 9	26°46	3° 1	23°24	27°26	4°55	11°52	12°47	29°59	6°21	M 18
T 19	9 58 32	1°10'22	29° 4	19°14	10°45	9°56	26°45	3° 8	23°23	27°28	4°53	11°43	12°44	0 <sup>12</sup> 5	6°17	T 19
W 20	10 2 29	2°10'44	13 <sup>12</sup> 42	20° 6	11°56	10°43	26°43	3°14	23°23	27°30	4°52	11°33	12°41	0°12	6°13	W 20
T 21	10 6 25	3°11'04	28°40	20°49	13° 7	11°30	26°41	3°21	23°22	27°32	4°51	11°22	12°38	0°19	6° 9	T 21
F 22	10 10 22	4°11'23	13 <sup>12</sup> 49	21°24	14°17	12°17	26°38	3°27	23°22	27°34	4°50	11°12	12°34	0°25	6° 5	F 22
S 23	10 14 18	5°11'39	28°59	21°50	15°28	13° 4	26°36	3°34	23°22	27°37	4°49	11° 4	12°31	0°32	6° 2	S 23
S 24	10 18 15	6°11'54	13 <sup>12</sup> 59	22° 6	16°39	13°52	26°33	3°40	23°21	27°39	4°47	10°59	12°28	0°39	5°58	S 24
M 25	10 22 12	7°12'07	28°41	22°R12	17°49	14°39	26°31	3°46	23°21	27°41	4°46	10°56	12°25	0°45	5°54	M 25
T 26	10 26 8	8°12'17	13 <sup>13</sup> 2	22° 9	18°59	15°26	26°28	3°53	23°21	27°43	4°45	10°D56	12°22	0°52	5°51	T 26
W 27	10 30 5	9°12'26	26°59	21°57	20° 9	16°13	26°24	3°59	23°21	27°45	4°44	10°56	12°19	0°59	5°47	W 27
T 28	10 34 1	10 <sup>12</sup> 32	10 <sup>12</sup> 33	21 <sup>13</sup> 36	21 <sup>12</sup> 19	17 <sup>12</sup> 0	26 <sup>12</sup> 21	4 <sup>12</sup> 5	23 <sup>12</sup> 21	27 <sup>12</sup> 47	4 <sup>12</sup> 43	10°R57	12 <sup>12</sup> 15	1 <sup>12</sup> 5	5 <sup>12</sup> 44	T 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
F 1	16s56	19n59	2s30	16s10	1s44	5s14	1s 2	13s57	1s 3	9s 2	1n24	20s18	0s21	23n31	0n11	2s28	1s20	24n45	5n58	16s 1	15s58	2s37	10n57	7s42			
S 2	16 39	20 1	3 25	15 31	1 39	4 43	0 59	13 41	1 3	9 3	1 24	20 16	0 21	23 31	0 11	2 27	1 20	24 46	5 58	16 0	15 57	2 39	10 58	7 42			
S 3	16 21	18 59	4 9	14 49	1 33	4 12	0 57	13 24	1 2	9 3	1 24	20 15	0 21	23 31	0 11	2 27	1 20	24 46	5 58	15 57	15 56	2 41	10 59	7 42			
M 4	16 3	17 2	4 40	14 7	1 27	3 41	0 54	13 7	1 2	9 3	1 24	20 13	0 21	23 31	0 11	2 26	1 20	24 47	5 58	15 54	15 55	2 43	11 1	7 42			
T 5	15 45	14 18	4 56	13 23	1 20	3 10	0 51	12 51	1 2	9 3	1 25	20 12	0 21	23 31	0 11	2 25	1 20	24 47	5 58	15 50	15 54	2 45	11 2	7 42			
W 6	15 27	10 58	4 59	12 38	1 12	2 38	0 48	12 34	1 2	9 3	1 25	20 10	0 21	23 30	0 11	2 24	1 20	24 47	5 58	15 46	15 54	2 47	11 3	7 41			
T 7	15 8	7 14	4 47	11 53	1 4	2 7	0 45	12 17	1 1	9 3	1 25	20 9	0 22	23 30	0 11	2 24	1 20	24 48	5 58	15 41	15 53	2 49	11 4	7 41			
F 8	14 49	3 15	4 23	11 6	0 54	1 35	0 42	12 0	1 1	9 3	1 25	20 7	0 22	23 30	0 11	2 23	1 20	24 48	5 58	15 37	15 52	2 51	11 6	7 41			
S 9	14 29	0s50	3 48	10 19	0 45	1 4	0 39	11 42	1 1	9 3	1 25	20 6	0 22	23 30	0 11	2 22	1 20	24 48	5 58	15 34	15 51	2 53	11 7	7 41			
S 10	14 10	4 50	3 2	9 32	0 34	0 32	0 36	11 25	1 0	9 3	1 26	20 4	0 22	23 30	0 11	2 21	1 20	24 49	5 58	15 31	15 50	2 56	11 8	7 40			
M11	13 50	8 39	2 9	8 44	0 23	0 1	0 33	11 7	1 0	9 2	1 26	20 3	0 22	23 30	0 11	2 21	1 20	24 49	5 58	15 30	15 49	2 58	11 10	7 40			
T 12	13 30	12 9	1 10	7 57	0 11	0n31	0 29	10 50	1 0	9 2	1 26	20 1	0 22	23 30	0 11	2 20	1 20	24 50	5 58	15 29	15 48	3 0	11 11	7 40			
W13	13 10	15 10	0 7	7 10	0n 2	1 2	0 26	10 32	0 59	9 2	1 26	20 0	0 22	23 30	0 11	2 19	1 20	24 50	5 58	15 29	15 47	3 2	11 12	7 39			
T 14	12 50	17 35	0n57	6 23	0 15	1 34	0 23	10 14	0 59	9 1	1 27	19 59	0 22	23 30	0 11	2 18	1 20	24 50	5 58	15 29	15 46	3 4	11 14	7 39			
F 15	12 29	19 14	2 0	5 38	0 29	2 6	0 19	9 57	0 59	9 1	1 27	19 57	0 22	23 30	0 11	2 17	1 20	24 51	5 58	15 29	15 45	3 6	11 15	7 39			
S 16	12 8	19 58	2 58	4 54	0 43	2 37	0 16	9 39	0 58	9 0	1 27	19 56	0 22	23 30	0 11	2 16	1 20	24 51	5 58	15 28	15 44	3 8	11 16	7 38			
S 17	11 47	19 39	3 50	4 12	0 58	3 8	0 12	9 21	0 58	8 59	1 27	19 54	0 22	23 30	0 11	2 16	1 20	24 51	5 58	15 27	15 43	3 10	11 18	7 38			
M18	11 26	18 10	4 30	3 33	1 13	3 40	0 9	9 3	0 58	8 59	1 28	19 53	0 23	23 30	0 11	2 15	1 20	24 52	5 58	15 25	15 42	3 12	11 19	7 38			
T 19	11 4	15 34	4 55	2 55	1 28	4 11	0 5	8 44	0 57	8 58	1 28	19 51	0 23	23 30	0 11	2 14	1 20	24 52	5 58	15 23	15 41	3 14	11 21	7 37			
W20	10 43	11 55	5 2	2 21	1 43	4 42	0 1	8 26	0 57	8 57	1 28	19 50	0 23	23 30	0 11	2 13	1 20	24 52	5 58	15 19	15 40	3 16	11 22	7 37			
T 21	10 21	7 26	4 49	1 50	1 58	5 13	0n 3	8 8	0 56	8 56	1 28	19 48	0 23	23 30	0 11	2 12	1 20	24 52	5 58	15 16	15 39	3 18	11 23	7 36			
F 22	9 59	2 27	4 15	1 23	2 12	5 44	0 6	7 49	0 56	8 55	1 28	19 47	0 23	23 30	0 11	2 11	1 20	24 53	5 58	15 13	15 38	3 20	11 25	7 36			
S 23	9 37	2n43	3 24	1 0	2 26	6 15	0 10	7 31	0 56	8 54	1 29	19 46	0 23	23 30	0 11	2 11	1 20	24 53	5 58	15 10	15 37	3 22	11 26	7 35			
S 24	9 15	7 39	2 18	0 42	2 40	6 46	0 14	7 12	0 55	8 53	1 29	19 44	0 23	23 30	0 11	2 10	1 20	24 53	5 58	15 9	15 36	3 24	11 27	7 35			
M25	8 53	12 2	1 5	0 27	2 53	7 17	0 18	6 54	0 55	8 51	1 29	19 43	0 23	23 30	0 11	2 9	1 20	24 54	5 58	15 8	15 35	3 27	11 29	7 34			
T 26	8 30	15 36	0s11	0 18	3 4	7 47	0 22	6 35	0 54	8 50	1 29	19 41	0 23	23 30	0 11	2 8	1 20	24 54	5 58	15 8	15 34	3 29	11 30	7 34			
W27	8 8	18 8	1 25	0 13	3 14	8 17	0 26	6 17	0 54	8 49	1 29	19 40	0 23	23 30	0 11	2 7	1 20	24 54	5 58	15 8	15 33	3 31	11 31	7 33			
T 28	7s45	19n34	2s31	0s13	3n23	8n47	0n30	5s58	0s54	8s48	1n30	19s39	0s23	23n30	0n11	2s 6	1s20	24n54	5n58	15s 8	15s32	3s33	11n33	7s33			

Julian Day Number = 2340908.5, Delta T = 15.36 sec

Ecliptic obliquity = 23°28'36", Nut

# ASTRODIENST EPHEMERIS for the year 1697

## geocentric

MARCH 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 37 58	11 <sup>h</sup> 12'37"	23 <sup>h</sup> 11'45"	21°R 7	22°V29	17 <sup>h</sup> 11'47"	26°R18	4 <sup>h</sup> 11'11"	23°D21	27 <sup>h</sup> 11'50"	4°R42	10°R56	12 <sup>h</sup> 11'12"	1 <sup>h</sup> 11'12"	5°R40	F 1
S 2	10 41 54	12°12'39"	6 <sup>h</sup> 11'40"	20 <sup>h</sup> 11'30"	23°39	18°34	26°14	4°18	23°11'21"	27°52	4°14	10°15'33"	12°9	1°19	5°13'37"	S 2
S 3	10 45 51	13°12'39"	19°19	19°46	24°48	19°21	26°10	4°24	23°21	27°54	4°40	10°48	12°6	1°25	5°34	S 3
M 4	10 49 47	14°12'37"	1 <sup>h</sup> 11'45"	18°57	25°58	20°7	26°6	4°30	23°21	27°56	4°39	10°40	12°3	1°32	5°31	M 4
T 5	10 53 44	15°12'32"	14°1	18°3	27°7	20°54	26°2	4°36	23°21	27°58	4°38	10°30	12°0	1°39	5°28	T 5
W 6	10 57 41	16°12'26"	26°9	17°7	28°16	21°41	25°57	4°42	23°21	28°1	4°37	10°20	11°56	1°45	5°25	W 6
T 7	11 1 37	17°12'18"	8 <sup>h</sup> 11'10"	16°8	29°25	22°28	25°53	4°48	23°22	28°3	4°36	10°9	11°53	1°52	5°22	T 7
F 8	11 5 34	18°12'07"	20°6	15°10	0 <sup>h</sup> 11'34"	23°15	25°48	4°53	23°22	28°5	4°35	10°0	11°50	1°59	5°19	F 8
S 9	11 9 30	19°11'55"	1 <sup>h</sup> 11'57"	14°12	1°42	24°1	25°44	4°59	23°22	28°7	4°34	9°52	11°47	2°5	5°17	S 9
S 10	11 13 27	20°11'40"	13°46	13°16	2°51	24°48	25°39	5°5	23°23	28°10	4°33	9°46	11°44	2°12	5°14	S 10
M 11	11 17 23	21°11'24"	25°35	12°24	3°59	25°35	25°33	5°11	23°23	28°12	4°32	9°42	11°40	2°19	5°11	M 11
T 12	11 21 20	22°11'06"	7 <sup>h</sup> 11'26"	11°35	5°7	26°21	25°28	5°16	23°24	28°14	4°31	9°D41	11°37	2°25	5°9	T 12
W 13	11 25 16	23°10'46"	19°24	10°52	6°15	27°8	25°23	5°22	23°25	28°16	4°30	9°42	11°34	2°32	5°7	W 13
T 14	11 29 13	24°10'24"	1 <sup>h</sup> 11'38"	10°13	7°23	27°55	25°17	5°27	23°25	28°19	4°29	9°43	11°31	2°39	5°5	T 14
F 15	11 33 10	25°10'01"	13°55	9°41	8°30	28°41	25°12	5°33	23°26	28°21	4°29	9°44	11°28	2°46	5°2	F 15
S 16	11 37 6	26°9'36"	26°38	9°14	9°37	29°28	25°6	5°38	23°27	28°23	4°28	9°R45	11°25	2°52	5°0	S 16
S 17	11 41 3	27°9'09"	9 <sup>h</sup> 11'45"	8°53	10°45	0 <sup>h</sup> 11'14"	25°0	5°44	23°28	28°25	4°27	9°44	11°21	2°59	4°58	S 17
M 18	11 44 59	28°8'40"	23°19	8°39	11°51	1°0	24°54	5°49	23°29	28°28	4°26	9°41	11°18	3°6	4°57	M 18
T 19	11 48 56	29°8'10"	7 <sup>h</sup> 11'21"	8°30	12°58	1°47	24°48	5°54	23°29	28°30	4°26	9°37	11°15	3°12	4°55	T 19
W 20	11 52 52	0 <sup>h</sup> 11'7'38"	21°52	8°D28	14°5	2°33	24°41	5°59	23°30	28°32	4°25	9°32	11°12	3°19	4°53	W 20
T 21	11 56 49	1°7'04"	6 <sup>h</sup> 11'46"	8°31	15°11	3°20	24°35	6°4	23°31	28°35	4°24	9°26	11°9	3°26	4°52	T 21
F 22	12 0 45	2°6'27"	21°56	8°40	16°17	4°6	24°28	6°9	23°33	28°37	4°24	9°20	11°5	3°32	4°50	F 22
S 23	12 4 42	3°5'49"	7 <sup>h</sup> 11'12"	8°54	17°23	4°52	24°22	6°14	23°34	28°39	4°23	9°16	11°2	3°39	4°49	S 23
S 24	12 8 38	4°5'09"	22°24	9°14	18°29	5°38	24°15	6°19	23°35	28°41	4°22	9°13	10°59	3°46	4°48	S 24
M 25	12 12 35	5°4'27"	7 <sup>h</sup> 11'22"	9°38	19°34	6°24	24°8	6°24	23°36	28°44	4°22	9°D12	10°56	3°52	4°47	M 25
T 26	12 16 32	6°3'42"	21°58	10°7	20°39	7°11	24°1	6°29	23°37	28°46	4°21	9°13	10°53	3°59	4°46	T 26
W 27	12 20 28	7°2'56"	6 <sup>h</sup> 11'9	10°40	21°44	7°57	23°54	6°33	23°39	28°48	4°21	9°14	10°50	4°6	4°45	W 27
T 28	12 24 25	8°2'07"	19°53	11°17	22°49	8°43	23°47	6°38	23°40	28°50	4°20	9°15	10°46	4°12	4°44	T 28
F 29	12 28 21	9°1'15"	3 <sup>h</sup> 11'52"	11°58	23°53	9°29	23°40	6°42	23°42	28°53	4°20	9°R16	10°43	4°19	4°43	F 29
S 30	12 32 18	10°0'22"	16°8	12°43	24°57	10°15	23°33	6°47	23°43	28°55	4°19	9°16	10°40	4°26	4°43	S 30
S 31	12 36 14	10 <sup>h</sup> 11'59'25"	28 <sup>h</sup> 11'44"	13 <sup>h</sup> 11'31"	26 <sup>h</sup> 11'8	11 <sup>h</sup> 11'0	23 <sup>h</sup> 11'25"	6 <sup>h</sup> 11'51"	23 <sup>h</sup> 11'45"	28 <sup>h</sup> 11'57"	4 <sup>h</sup> 11'19"	9 <sup>h</sup> 11'15"	10 <sup>h</sup> 11'37"	4 <sup>h</sup> 11'32"	4 <sup>h</sup> 11'42"	S 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
F 1	7s22	19n52	3s28	0s18	3n30	9n17	0n34	5s39	0s53	8s46	1n30	19s37	0s24	23n30	0n11	2s 5	1s20	24n55	5n58	15s 8	15s31	3s35	11n34	7s32			
S 2	6 59	19 6	4 13	0 28	3 36	9 47	0 38	5 20	0 53	8 45	1 30	19 36	0 24	23 30	0 11	2 4	1 20	24 55	5 58	15 7	15 30	3 37	11 35	7 32			
S 3	6 36	17 24	4 44	0 42	3 39	10 16	0 42	5 2	0 52	8 43	1 30	19 35	0 24	23 30	0 11	2 4	1 20	24 55	5 58	15 5	15 29	3 39	11 37	7 31			
M 4	6 13	14 54	5 1	1 0	3 41	10 46	0 46	4 43	0 52	8 41	1 30	19 33	0 24	23 30	0 11	2 3	1 20	24 55	5 58	15 3	15 28	3 41	11 38	7 31			
T 5	5 50	11 47	5 4	1 21	3 40	11 15	0 50	4 24	0 51	8 40	1 31	19 32	0 24	23 30	0 11	2 2	1 20	24 56	5 58	15 0	15 27	3 43	11 39	7 30			
W 6	5 27	8 13	4 54	1 45	3 38	11 43	0 55	4 5	0 51	8 38	1 31	19 30	0 24	23 30	0 11	2 1	1 20	24 56	5 58	14 56	15 26	3 45	11 40	7 29			
T 7	5 4	4 21	4 30	2 12	3 33	12 12	0 59	3 46	0 51	8 36	1 31	19 29	0 24	23 30	0 11	2 0	1 20	24 56	5 58	14 53	15 26	3 47	11 42	7 29			
F 8	4 40	0 20	3 54	2 41	3 26	12 40	1 3	3 27	0 50	8 34	1 31	19 28	0 24	23 30	0 11	1 59	1 20	24 56	5 58	14 50	15 25	3 49	11 43	7 28			
S 9	4 17	3s40	3 9	3 11	3 18	13 8	1 7	3 8	0 50	8 32	1 31	19 27	0 24	23 30	0 11	1 58	1 20	24 56	5 58	14 48	15 24	3 51	11 44	7 27			
S 10	3 53	7 31	2 15	3 41	3 8	13 36	1 11	2 49	0 49	8 30	1 31	19 25	0 24	23 30	0 11	1 57	1 20	24 57	5 58	14 46	15 23	3 53	11 46	7 27			
M11	3 30	11 5	1 15	4 12	2 57	14 3	1 16	2 30	0 49	8 28	1 32	19 24	0 24	23 30	0 11	1 56	1 20	24 57	5 58	14 45	15 22	3 55	11 47	7 26			
T 12	3 6	14 12	0 12	4 42	2 44	14 30	1 20	2 11	0 48	8 26	1 32	19 23	0 25	23 30	0 11	1 56	1 20	24 57	5 58	14 44	15 21	3 57	11 48	7 25			
W13	2 43	16 46	0n52	5 10	2 31	14 57	1 24	1 52	0 48	8 24	1 32	19 21	0 25	23 30	0 11	1 55	1 20	24 57	5 58	14 44	15 20	3 59	11 49	7 25			
T 14	2 19	18 37	1 56	5 38	2 17	15 23	1 28	1 33	0 47	8 22	1 32	19 20	0 25	23 30	0 11	1 54	1 20	24 57	5 58	14 45	15 19	4 1	11 50	7 24			
F 15	1 55	19 37	2 55	6 4	2 2	15 49	1 33	1 14	0 47	8 20	1 32	19 19	0 25	23 30	0 11	1 53	1 20	24 57	5 58	14 45	15 18	4 3	11 51	7 23			
S 16	1 32	19 39	3 47	6 28	1 47	16 15	1 37	0 55	0 46	8 18	1 32	19 18	0 25	23 30	0 11	1 52	1 20	24 57	5 58	14 45	15 17	4 5	11 53	7 23			
S 17	1 8	18 39	4 29	6 49	1 32	16 40	1 41	0 36	0 46	8 15	1 33	19 16	0 25	23 30	0 11	1 51	1 20	24 58	5 58	14 45	15 16	4 7	11 54	7 22			
M18	0 44	16 34	4 58	7 9	1 17	17 5	1 45	0 17	0 45	8 13	1 33	19 15	0 25	23 30	0 11	1 50	1 20	24 58	5 58	14 44	15 15	4 9	11 55	7 21			
T 19	0 21	13 27	5 10	7 26	1 2	17 30	1 49	0n1	0 45	8 11	1 33	19 14	0 25	23 30	0 11	1 49	1 20	24 58	5 58	14 43	15 14	4 11	11 56	7 21			
W20	0n3	9 27	5 3	7 41	0 47	17 54	1 54	0 20	0 44	8 8	1 33	19 13	0 25	23 30	0 11	1 48	1 20	24 58	5 57	14 41	15 13	4 13	11 57	7 20			
T 21	0 27	4 46	4 36	7 53	0 33	18 17	1 58	0 39	0 44	8 6	1 33	19 12	0 26	23 30	0 11	1 47	1 20	24 58	5 57	14 39	15 12	4 15	11 58	7 19			
F 22	0 50	0n18	3 49	8 3	0 18	18 41	2 2	0 58	0 43	8 3	1 33	19 11	0 26	23 30	0 11	1 47	1 20	24 58	5 57	14 38	15 11	4 17	11 59	7 18			
S 23	1 14	5 24	2 46	8 10	0 5	19 4	2 6	1 17	0 43	8 1	1 33	19 10	0 26	23 30	0 11	1 46	1 20	24 58	5 57	14 36	15 10	4 19	12 0	7 18			
S 24	1 38	10 8	1 31	8 15	0s 9	19 26	2 10	1 36	0 42	7 58	1 33	19 8	0 26	23 30	0 11	1 45	1 20	24 58	5 57	14 35	15 9	4 21	12 1	7 17			
M25	2 1	14 9	0 10	8 18	0 22	19 48	2 14	1 55	0 42	7 56	1 33	19 7	0 26	23 31	0 11	1 44	1 20	24 58	5 57	14 35	15 8	4 23	12 2	7 16			
T 26	2 25	17 10	1s 9	8 19	0 34	20 10	2 18	2 13	0 41	7 53	1 33	19 6	0 26	23 31	0 11	1 43	1 20	24 58	5 57	14 35	15 7	4 25	12 3	7 15			
W27	2 48	19 2	2 22	8 17	0 46	20 31	2 22	2 32	0 41	7 50	1 34	19 5	0 26	23 31	0 11	1 42	1 20	24 59	5 57	14 36	15 6	4 27	12 4	7 14			
T 28	3 12	19 42	3 25	8 13	0 57	20 51	2 26	2 51	0 40	7 48	1 34	19 4	0 26	23 31	0 11	1 41	1 20	24 59	5 57	14 36	15 5	4 29	12 5	7 14			
F 29	3 35	19 13	4 14	8 7	1 7	21 11	2 30	3 9	0 39	7 45	1 34	19 3	0 26	23 31	0 11	1 40	1 20	24 59	5 57	14 36	15 4	4 31	12 6	7 13			
S 30	3 58	17 44	4 49	8 0	1 17	21 31	2 34	3 28	0 39	7 42	1 34	19 2	0 27	23 31	0 11	1 39	1 20	24 59	5 57	14 36	15 3	4 33	12 7	7 12			
S 31	4n21	15n25	5s 8	7s50	1s27	21n50	2n38	3n46	0s38	7s40	1n34	19s 1	0s27	23n31	0n11	1s39	1s20	24n59	5n57	14s36	15s 2	4s35	12n 8	7s11			



ASTRODIENST EPHEMERIS for the year 1697  
geocentric

MAY 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 38 27	11♈14'14"	13♍58	27♊45	25♋37	4♌20	19♍35	8♎25	24♏54	0♐ 1	4♑19	8♒53	8♓58	7♉59	5♊20	W 1
T 2	14 42 24	12°12'17"	25°48	29°40	26°25	5° 4	19♌28	8°27	24°57	0° 3	4°19	8°53	8°55	8° 6	5°22	T 2
F 3	14 46 21	13°10'17"	7♌37	1♈38	27°12	5°49	19°22	8°28	24°59	0° 5	4°20	8°53	8°52	8°12	5°25	F 3
S 4	14 50 17	14° 8'16"	19°27	3°37	27°58	6°33	19°15	8°30	25° 2	0° 6	4°20	8°54	8°49	8°19	5°28	S 4
S 5	14 54 14	15° 6'13"	1♍21	5°38	28°44	7°17	19° 9	8°31	25° 5	0° 8	4°21	8°54	8°46	8°26	5°32	S 5
M 6	14 58 10	16° 4'09"	13°21	7°41	29°28	8° 1	19° 3	8°32	25° 8	0°10	4°21	8°R54	8°42	8°32	5°35	M 6
T 7	15 2 7	17° 2'03"	25°30	9°45	0♉12	8°45	18°57	8°33	25°11	0°12	4°22	8°54	8°39	8°39	5°38	T 7
W 8	15 6 3	17°59'55"	7♌50	11°51	0°54	9°29	18°51	8°35	25°14	0°13	4°22	8°53	8°36	8°46	5°42	W 8
T 9	15 10 0	18°57'46"	20°21	13°58	1°36	10°13	18°45	8°35	25°17	0°15	4°23	8°52	8°33	8°52	5°45	T 9
F 10	15 13 56	19°55'36"	3♈ 6	16° 6	2°16	10°57	18°39	8°36	25°20	0°16	4°23	8°50	8°30	8°59	5°49	F 10
S 11	15 17 53	20°53'24"	16° 5	18°16	2°56	11°41	18°34	8°37	25°23	0°18	4°24	8°49	8°27	9° 6	5°52	S 11
S 12	15 21 50	21°51'12"	29°19	20°26	3°34	12°25	18°28	8°38	25°27	0°20	4°25	8°48	8°23	9°12	5°56	S 12
M13	15 25 46	22°48'58"	12♌51	22°37	4°11	13° 9	18°23	8°38	25°30	0°21	4°25	8°47	8°20	9°19	6° 0	M13
T 14	15 29 43	23°46'42"	26°39	24°48	4°47	13°52	18°18	8°39	25°33	0°23	4°26	8°D47	8°17	9°26	6° 4	T 14
W15	15 33 39	24°44'26"	10♈44	27° 0	5°21	14°36	18°13	8°39	25°36	0°24	4°27	8°47	8°14	9°32	6° 8	W15
T 16	15 37 36	25°42'09"	25° 4	29°11	5°54	15°20	18° 8	8°39	25°39	0°26	4°28	8°48	8°11	9°39	6°12	T 16
F 17	15 41 32	26°39'51"	9♊38	1♋22	6°26	16° 3	18° 3	8°39	25°42	0°27	4°28	8°49	8° 8	9°46	6°17	F 17
S 18	15 45 29	27°37'31"	24°21	3°32	6°56	16°47	17°58	8°R39	25°46	0°29	4°29	8°50	8° 4	9°52	6°21	S 18
S 19	15 49 25	28°35'11"	9♈ 7	5°41	7°25	17°30	17°54	8°39	25°49	0°30	4°30	8°R51	8° 1	9°59	6°25	S 19
M20	15 53 22	29°32'49"	23°49	7°50	7°53	18°14	17°50	8°39	25°52	0°31	4°31	8°50	7°58	10° 6	6°30	M20
T 21	15 57 19	0♐30'26"	8♋21	9°56	8°18	18°57	17°46	8°39	25°56	0°33	4°32	8°49	7°55	10°12	6°34	T 21
W22	16 1 15	1°28'02"	22°36	12° 1	8°42	19°40	17°42	8°39	25°59	0°34	4°33	8°46	7°52	10°19	6°39	W22
T 23	16 5 12	2°25'37"	6♉30	14° 4	9° 5	20°23	17°38	8°38	26° 2	0°35	4°34	8°43	7°48	10°26	6°44	T 23
F 24	16 9 8	3°23'11"	20° 1	16° 5	9°25	21° 7	17°34	8°38	26° 6	0°37	4°35	8°39	7°45	10°32	6°49	F 24
S 25	16 13 5	4°20'43"	3♊ 7	18° 4	9°44	21°50	17°31	8°37	26° 9	0°38	4°36	8°36	7°42	10°39	6°54	S 25
S 26	16 17 1	5°18'13"	15°50	20° 0	10° 1	22°33	17°28	8°36	26°12	0°39	4°37	8°34	7°39	10°46	6°59	S 26
M27	16 20 58	6°15'43"	28°13	21°54	10°15	23°16	17°24	8°35	26°16	0°40	4°38	8°32	7°36	10°52	7° 4	M27
T 28	16 24 54	7°13'11"	10♍21	23°46	10°28	23°59	17°21	8°34	26°19	0°42	4°39	8°D32	7°33	10°59	7° 9	T 28
W29	16 28 51	8°10'38"	22°17	25°35	10°39	24°42	17°19	8°33	26°23	0°43	4°40	8°33	7°29	11° 6	7°14	W29
T 30	16 32 48	9° 8'03"	4♌ 7	27°21	10°47	25°25	17°16	8°32	26°26	0°44	4°41	8°34	7°26	11°12	7°19	T 30
F 31	16 36 44	10♋ 5'27"	15♌56	29♋ 5	10♉53	26♌ 7	17♌14	8♌31	26♋30	0♌45	4♌42	8♌36	7♌23	11♌19	7♌25	F 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	15n13	2n19	4s20	9n 5	1s43	27n17	3n52	12n40	0s20	6s15	1n32	18s41	0s30	23n34	0n11	1s14
T 2	15 31	1s39	3 37	9 54	1 35	27 18	3 53	12 56	0 19	6 13	1 32	18 40	0 31	23 34	0 11	1 13
F 3	15 49	5 33	2 45	10 42	1 27	27 20	3 53	13 11	0 19	6 10	1 32	18 40	0 31	23 34	0 11	1 12
S 4	16 6	9 15	1 46	11 31	1 18	27 20	3 53	13 26	0 18	6 8	1 32	18 40	0 31	23 34	0 11	1 12
S 5	16 24	12 37	0 42	12 20	1 9	27 21	3 53	13 41	0 17	6 6	1 31	18 40	0 31	23 34	0 11	1 11
M 6	16 40	15 29	0n25	13 9	0 59	27 21	3 52	13 56	0 17	6 4	1 31	18 39	0 31	23 34	0 11	1 11
T 7	16 57	17 42	1 31	13 58	0 50	27 20	3 51	14 11	0 16	6 2	1 31	18 39	0 31	23 35	0 11	1 10
W 8	17 13	19 7	2 34	14 47	0 40	27 19	3 51	14 26	0 16	5 59	1 31	18 39	0 31	23 35	0 11	1 9
T 9	17 29	19 38	3 30	15 35	0 30	27 17	3 49	14 40	0 15	5 57	1 31	18 39	0 31	23 35	0 11	1 9
F 10	17 45	19 9	4 17	16 23	0 19	27 15	3 48	14 55	0 14	5 55	1 31	18 39	0 32	23 35	0 11	1 8
S 11	18 0	17 40	4 52	17 9	0 9	27 13	3 46	15 9	0 14	5 53	1 30	18 39	0 32	23 35	0 11	1 7
S 12	18 15	15 14	5 12	17 55	0n 2	27 10	3 45	15 23	0 13	5 52	1 30	18 39	0 32	23 35	0 11	1 7
M13	18 30	11 56	5 16	18 39	0 12	27 7	3 43	15 37	0 12	5 50	1 30	18 39	0 32	23 35	0 11	1 6
T 14	18 45	7 55	5 1	19 22	0 23	27 3	3 40	15 50	0 12	5 48	1 30	18 39	0 32	23 35	0 11	1 6
W15	18 59	3 24	4 29	20 3	0 33	26 59	3 38	16 4	0 11	5 46	1 30	18 39	0 32	23 35	0 11	1 5
T 16	19 13	1n24	3 39	20 43	0 43	26 55	3 35	16 17	0 10	5 45	1 29	18 39	0 32	23 36	0 11	1 5
F 17	19 26	6 12	2 35	21 40	0 53	26 50	3 31	16 31	0 10	5 43	1 29	18 39	0 33	23 36	0 11	1 4
S 18	19 40	10 41	1 19	21 55	1 2	26 45	3 28	16 44	0 9	5 41	1 29	18 39	0 33	23 36	0 11	1 3
S 19	19 53	14 32	0s 1	22 28	1 11	26 40	3 24	16 57	0 9	5 40	1 29	18 39	0 33	23 36	0 11	1 3
M20	20 5	17 26	1 22	22 58	1 20	26 34	3 20	17 9	0 8	5 39	1 28	18 39	0 33	23 36	0 11	1 2
T 21	20 17	19 10	2 36	23 25	1 28	26 28	3 15	17 22	0 7	5 37	1 28	18 40	0 33	23 36	0 11	1 2
W22	20 29	19 38	3 38	23 50	1 35	26 21	3 11	17 34	0 7	5 36	1 28	18 40	0 33	23 36	0 11	1 1
T 23	20 41	18 53	4 26	24 12	1 42	26 15	3 5	17 47	0 6	5 35	1 28	18 40	0 33	23 36	0 11	1 1
F 24	20 52	17 4	4 58	24 32	1 48	26 8	3 0	17 59	0 5	5 34	1 27	18 40	0 33	23 36	0 11	1 1
S 25	21 3	14 25	5 13	24 49	1 53	26 1	2 54	18 11	0 5	5 33	1 27	18 41	0 34	23 37	0 11	1 0
S 26	21 13	11 9	5 12	25 3	1 57	25 53	2 48	18 22	0 4	5 31	1 27	18 41	0 34	23 37	0 11	1 0
M27	21 23	7 29	4 56	25 15	2 1	25 45	2 41	18 34	0 3	5 31	1 27	18 41	0 34	23 37	0 11	0 59
T 28	21 33	3 34	4 27	25 24	2 4	25 37	2 34	18 45	0 3	5 30	1 26	18 42	0 34	23 37	0 11	0 59
W29	21 42	0s25	3 47	25 30	2 6	25 29	2 26	18 56	0 2	5 29	1 26	18 42	0 34	23 37	0 11	0 58
T 30	21 51	4 22	2 58	25 35	2 8	25 20	2 19	19 7	0 1	5 28	1 26	18 42	0 34	23 37	0 11	0 58
F 31	22n 0	8s 9	2s 1	25n37	2n 8	25n12	2n10	19n18	0s 1	5s27	1n26	18s43	0s34	23n37	0n11	0s58

Julian Day Number = 2340997.5, Delta T = 15.26 sec  
Ecliptic obliquity = 23°28'36", Nutation = 0°00'10", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°30'55", Lahiri = 19°37'55"Greg. Calendar



ASTRODIENST EPHEMERIS for the year 1697  
geocentric

JUNE 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 40 41	11 <sup>II</sup> 2'51	27 <sup>♂</sup> 48	0 <sup>♂</sup> 46	10 <sup>♂</sup> 58	26 <sup>♂</sup> 50	17°R11	8°R30	26 <sup>II</sup> 33	0 <sup>Y</sup> 46	4 <sup>♂</sup> 43	8 <sup>♂</sup> 37	7 <sup>♂</sup> 20	11 <sup>♂</sup> 26	7 <sup>♂</sup> 30	S 1
S 2	16 44 37	12° 0'13	9 <sup>♂</sup> 47	2°24	10°R59	27°33	17 <sup>♂</sup> 9	8 <sup>♂</sup> 28	26°37	0°47	4°44	8°R38	7°17	11°32	7°35	S 2
M 3	16 48 34	12°57'34	21°57	4° 0	10°59	28°15	17° 8	8°27	26°40	0°48	4°45	8°37	7°14	11°39	7°41	M 3
T 4	16 52 30	13°54'54	4 <sup>♂</sup> 19	5°32	10°56	28°58	17° 6	8°25	26°44	0°49	4°47	8°35	7°10	11°46	7°47	T 4
W 5	16 56 27	14°52'14	16°56	7° 2	10°50	29°40	17° 4	8°24	26°47	0°50	4°48	8°30	7° 7	11°52	7°52	W 5
T 6	17 0 23	15°49'33	29°47	8°29	10°42	0 <sup>II</sup> 23	17° 3	8°22	26°51	0°51	4°49	8°25	7° 4	11°59	7°58	T 6
F 7	17 4 20	16°46'51	12 <sup>♂</sup> 53	9°54	10°32	1° 5	17° 2	8°20	26°54	0°52	4°50	8°19	7° 1	12° 6	8° 4	F 7
S 8	17 8 17	17°44'08	26°13	11°15	10°20	1°48	17° 1	8°18	26°58	0°52	4°52	8°13	6°58	12°12	8°10	S 8
S 9	17 12 13	18°41'25	9 <sup>♂</sup> 46	12°34	10° 5	2°30	17° 0	8°16	27° 1	0°53	4°53	8° 7	6°54	12°19	8°16	S 9
M10	17 16 10	19°38'42	23°29	13°49	9°47	3°12	16°59	8°14	27° 5	0°54	4°54	8° 3	6°51	12°25	8°22	M10
T 11	17 20 6	20°35'58	7 <sup>♂</sup> 23	15° 2	9°28	3°54	16°59	8°12	27° 9	0°55	4°56	8° 0	6°48	12°32	8°28	T 11
W12	17 24 3	21°33'14	21°26	16°11	9° 6	4°37	16°59	8°10	27°12	0°55	4°57	8°D 0	6°45	12°39	8°34	W12
T 13	17 27 59	22°30'30	5 <sup>Y</sup> 36	17°17	8°42	5°19	16°D58	8° 7	27°16	0°56	4°58	8° 0	6°42	12°45	8°40	T 13
F 14	17 31 56	23°27'45	19°51	18°20	8°16	6° 1	16°59	8° 5	27°19	0°57	5° 0	8° 1	6°39	12°52	8°47	F 14
S 15	17 35 52	24°25'00	4 <sup>♂</sup> 11	19°20	7°48	6°43	16°59	8° 2	27°23	0°57	5° 1	8°R 2	6°35	12°59	8°53	S 15
S 16	17 39 49	25°22'15	18°32	20°17	7°18	7°25	16°59	8° 0	27°26	0°58	5° 2	8° 2	6°32	13° 5	8°59	S 16
M17	17 43 46	26°19'30	2 <sup>II</sup> 50	21°10	6°46	8° 7	17° 0	7°57	27°30	0°59	5° 4	7°59	6°29	13°12	9° 6	M17
T 18	17 47 42	27°16'45	17° 1	21°59	6°14	8°48	17° 1	7°54	27°34	0°59	5° 5	7°55	6°26	13°19	9°12	T 18
W19	17 51 39	28°14'00	0 <sup>♂</sup> 59	22°45	5°39	9°30	17° 2	7°51	27°37	1° 0	5° 7	7°48	6°23	13°25	9°19	W19
T 20	17 55 35	29°11'14	14°42	23°27	5° 4	10°12	17° 3	7°48	27°41	1° 0	5° 8	7°40	6°20	13°32	9°25	T 20
F 21	17 59 32	0 <sup>♂</sup> 8'27	28° 5	24° 5	4°28	10°54	17° 4	7°45	27°44	1° 0	5°10	7°32	6°16	13°39	9°32	F 21
S 22	18 3 28	1° 5'40	11 <sup>♂</sup> 8	24°39	3°51	11°35	17° 6	7°42	27°48	1° 1	5°11	7°23	6°13	13°45	9°39	S 22
S 23	18 7 25	2° 2'53	23°50	25° 9	3°14	12°17	17° 7	7°39	27°52	1° 1	5°13	7°16	6°10	13°52	9°45	S 23
M24	18 11 22	3° 0'06	6 <sup>♂</sup> 13	25°34	2°36	12°58	17° 9	7°36	27°55	1° 1	5°14	7°10	6° 7	13°59	9°52	M24
T 25	18 15 18	3°57'17	18°21	25°56	1°59	13°40	17°11	7°33	27°59	1° 2	5°16	7° 7	6° 4	14° 5	9°59	T 25
W26	18 19 15	4°54'29	0 <sup>♂</sup> 17	26°13	1°21	14°21	17°14	7°29	28° 2	1° 2	5°17	7°D 6	6° 0	14°12	10° 6	W26
T 27	18 23 11	5°51'40	12° 7	26°25	0°45	15° 3	17°16	7°26	28° 6	1° 2	5°19	7° 6	5°57	14°19	10°13	T 27
F 28	18 27 8	6°48'51	23°57	26°33	0° 9	15°44	17°18	7°23	28°10	1° 2	5°20	7° 6	5°54	14°25	10°20	F 28
S 29	18 31 4	7°46'02	5 <sup>♂</sup> 51	26°R36	29 <sup>II</sup> 34	16°25	17°21	7°19	28°13	1° 3	5°22	7°R 7	5°51	14°32	10°27	S 29
S 30	18 35 1	8 <sup>♂</sup> 43'12	17 <sup>♂</sup> 54	26 <sup>♂</sup> 34	29 <sup>II</sup> 0	17 <sup>II</sup> 6	17 <sup>♂</sup> 24	7 <sup>♂</sup> 16	28 <sup>II</sup> 17	1 <sup>Y</sup> 3	5 <sup>♂</sup> 24	7 <sup>♂</sup> 6	5 <sup>♂</sup> 48	14 <sup>♂</sup> 39	10 <sup>♂</sup> 34	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	22n 8	11s38	0s59	25n37	2n 8	25n 3	2n 2	19n29	0s 0	5s27	1n25	18s43	0s35	23n37	0n11	0s57
S 2	22 16	14 40	0n 6	25 35	2 7	24 53	1 52	19 39	0n 1	5 26	1 25	18 44	0 35	23 37	0 11	0 57
M 3	22 23	17 7	1 12	25 31	2 6	24 44	1 43	19 49	0 1	5 26	1 25	18 44	0 35	23 37	0 11	0 57
T 4	22 30	18 49	2 16	25 25	2 3	24 34	1 33	19 59	0 2	5 25	1 25	18 45	0 35	23 38	0 11	0 56
W 5	22 37	19 37	3 14	25 17	2 0	24 24	1 22	20 9	0 3	5 25	1 24	18 45	0 35	23 38	0 11	0 56
T 6	22 43	19 26	4 3	25 8	1 56	24 14	1 12	20 19	0 3	5 25	1 24	18 46	0 35	23 38	0 11	0 56
F 7	22 49	18 12	4 40	24 58	1 52	24 4	1 0	20 28	0 4	5 25	1 24	18 47	0 35	23 38	0 11	0 55
S 8	22 55	15 58	5 3	24 46	1 46	23 53	0 49	20 38	0 4	5 24	1 24	18 47	0 35	23 38	0 11	0 55
S 9	23 0	12 51	5 10	24 33	1 40	23 42	0 37	20 47	0 5	5 24	1 23	18 48	0 36	23 38	0 11	0 55
M10	23 4	9 0	4 59	24 19	1 34	23 31	0 24	20 55	0 6	5 24	1 23	18 49	0 36	23 38	0 11	0 54
T 11	23 9	4 37	4 30	24 3	1 26	23 20	0 11	21 4	0 6	5 24	1 23	18 49	0 36	23 38	0 11	0 54
W12	23 12	0n 3	3 46	23 47	1 18	23 8	0s 2	21 13	0 7	5 25	1 23	18 50	0 36	23 38	0 11	0 54
T 13	23 16	4 46	2 47	23 30	1 9	22 56	0 15	21 21	0 8	5 25	1 22	18 51	0 36	23 38	0 11	0 54
F 14	23 19	9 16	1 37	23 13	1 0	22 45	0 29	21 29	0 8	5 25	1 22	18 52	0 36	23 38	0 11	0 54
S 15	23 22	13 16	0 21	22 54	0 50	22 32	0 42	21 37	0 9	5 25	1 22	18 52	0 36	23 39	0 11	0 53
S 16	23 24	16 28	0s56	22 35	0 39	22 20	0 56	21 44	0 10	5 26	1 21	18 53	0 37	23 39	0 11	0 53
M17	23 26	18 38	2 10	22 16	0 28	22 8	1 11	21 52	0 10	5 26	1 21	18 54	0 37	23 39	0 12	0 53
T 18	23 27	19 37	3 14	21 57	0 16	21 55	1 25	21 59	0 11	5 27	1 21	18 55	0 37	23 39	0 12	0 53
W19	23 28	19 22	4 6	21 37	0 4	21 42	1 39	22 6	0 12	5 28	1 21	18 56	0 37	23 39	0 12	0 53
T 20	23 28	17 59	4 43	21 17	0s 9	21 30	1 53	22 13	0 12	5 28	1 20	18 57	0 37	23 39	0 12	0 53
F 21	23 29	15 38	5 2	20 58	0 22	21 17	2 7	22 20	0 13	5 29	1 20	18 57	0 37	23 39	0 12	0 52
S 22	23 28	12 33	5 6	20 38	0 36	21 4	2 21	22 26	0 14	5 30	1 20	18 58	0 37	23 39	0 12	0 52
S 23	23 28	8 58	4 54	20 19	0 50	20 51	2 35	22 32	0 14	5 31	1 19	18 59	0 37	23 39	0 12	0 52
M24	23 27	5 5	4 28	20 0	1 5	20 39	2 48	22 38	0 15	5 32	1 19	19 0	0 38	23 39	0 12	0 52
T 25	23 25	1 4	3 51	19 41	1 20	20 26	3 1	22 44	0 16	5 33	1 19	19 1	0 38	23 39	0 12	0 52
W26	23 23	2s56	3 4	19 23	1 35	20 14	3 14	22 49	0 16	5 34	1 19	19 2	0 38	23 39	0 12	0 52
T 27	23 21	6 48	2 10	19 6	1 51	20 2	3 27	22 55	0 17	5 35	1 18	19 3	0 38	23 39	0 12	0 52
F 28	23 18	10 23	1 10	18 49	2 6	19 50	3 38	23 0	0 17	5 36	1 18	19 4	0 38	23 39	0 12	0 52
S 29	23 15	13 36	0 7	18 33	2 22	19 39	3 50	23 5	0 18	5 38	1 18	19 5	0 38	23 39	0 12	0 52
S 30	23n11	16s16	0n57	18n18	2s37	19n28	4s 1	23n10	0n19	5s39	1n18	19s 6	0s38	23n40	0n12	0s52

Julian Day Number = 2341028.5, Delta T = 15.23 sec  
Ecliptic obliquity = 23°28'35", Nutation = 0°00'10", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°30'59", Lahiri = 19°38'00"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1697  
geocentric

JULY 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	18 38 57	9 <sup>50</sup> 40'22	0 <sup>2</sup> 10	26°R28	28°R28	17 <sup>II</sup> 47	17 <sup>Δ</sup> 27	7°R12	28 <sup>II</sup> 20	1°Y 3	5 <sup>Ω</sup> 25	7°R 4	5 <sup>ML</sup> 45	14 <sup>Δ</sup> 45	10 <sup>Ω</sup> 41	M 1
T 2	18 42 54	10°37'32	12°43	26 <sup>Ω</sup> 17	27 <sup>II</sup> 57	18°28	17°30	7 <sup>≈</sup> 8	28°24	1° 3	5°27	6 <sup>ML</sup> 59	5°41	14°52	10°48	T 2
W 3	18 46 51	11°34'43	25°36	26° 1	27°28	19° 9	17°34	7° 4	28°27	1°R 3	5°28	6°52	5°38	14°59	10°55	W 3
T 4	18 50 47	12°31'53	8 <sup>Ω</sup> 47	25°42	27° 0	19°50	17°37	7° 1	28°31	1° 3	5°30	6°43	5°35	15° 5	11° 3	T 4
F 5	18 54 44	13°29'03	22°17	25°18	26°35	20°31	17°41	6°57	28°34	1° 3	5°32	6°32	5°32	15°12	11°10	F 5
S 6	18 58 40	14°26'14	6 <sup>≈</sup> 2	24°50	26°12	21°12	17°45	6°53	28°38	1° 3	5°33	6°22	5°29	15°19	11°17	S 6
S 7	19 2 37	15°23'25	20° 0	24°19	25°51	21°53	17°49	6°49	28°41	1° 3	5°35	6°12	5°26	15°25	11°25	S 7
M 8	19 6 33	16°20'36	4 <sup>Y</sup> 5	23°45	25°32	22°34	17°53	6°45	28°45	1° 3	5°37	6° 4	5°22	15°32	11°32	M 8
T 9	19 10 30	17°17'48	18°14	23° 9	25°16	23°15	17°58	6°41	28°48	1° 2	5°38	5°59	5°19	15°39	11°39	T 9
W10	19 14 26	18°15'00	2 <sup>Y</sup> 25	22°31	25° 2	23°55	18° 2	6°37	28°52	1° 2	5°40	5°56	5°16	15°45	11°47	W10
T 11	19 18 23	19°12'13	16°35	21°51	24°50	24°36	18° 7	6°33	28°55	1° 2	5°42	5°D55	5°13	15°52	11°54	T 11
F 12	19 22 20	20° 9'27	0 <sup>Ω</sup> 42	21°11	24°41	25°16	18°12	6°29	28°59	1° 2	5°43	5°R56	5°10	15°58	12° 2	F 12
S 13	19 26 16	21° 6'41	14°45	20°31	24°34	25°57	18°17	6°24	29° 2	1° 1	5°45	5°55	5° 6	16° 5	12° 9	S 13
S 14	19 30 13	22° 3'56	28°45	19°51	24°30	26°37	18°22	6°20	29° 5	1° 1	5°47	5°54	5° 3	16°12	12°17	S 14
M15	19 34 9	23° 1'13	12 <sup>II</sup> 38	19°13	24°D28	27°18	18°27	6°16	29° 9	1° 1	5°49	5°50	5° 0	16°18	12°25	M15
T 16	19 38 6	23°58'29	26°24	18°38	24°28	27°58	18°33	6°12	29°12	1° 0	5°50	5°43	4°57	16°25	12°32	T 16
W17	19 42 2	24°55'47	9 <sup>Ω</sup> 59	18° 5	24°31	28°39	18°38	6° 7	29°15	1° 0	5°52	5°34	4°54	16°32	12°40	W17
T 18	19 45 59	25°53'05	23°22	17°35	24°36	29°19	18°44	6° 3	29°19	0°59	5°54	5°22	4°51	16°38	12°47	T 18
F 19	19 49 55	26°50'24	6 <sup>Ω</sup> 29	17°10	24°43	29°59	18°50	5°59	29°22	0°59	5°56	5°10	4°47	16°45	12°55	F 19
S 20	19 53 52	27°47'43	19°21	16°49	24°52	0 <sup>Ω</sup> 39	18°56	5°54	29°25	0°58	5°57	4°57	4°44	16°52	13° 3	S 20
S 21	19 57 49	28°45'03	1 <sup>Y</sup> 55	16°33	25° 3	1°19	19° 2	5°50	29°29	0°58	5°59	4°46	4°41	16°58	13°11	S 21
M22	20 1 45	29°42'23	14°13	16°22	25°17	1°59	19° 8	5°45	29°32	0°57	6° 1	4°38	4°38	17° 5	13°18	M22
T 23	20 5 42	0 <sup>Ω</sup> 39'44	26°18	16°D17	25°32	2°39	19°15	5°41	29°35	0°57	6° 3	4°31	4°35	17°12	13°26	T 23
W24	20 9 38	1°37'05	8 <sup>Δ</sup> 13	16°18	25°49	3°19	19°21	5°36	29°38	0°56	6° 4	4°28	4°31	17°18	13°34	W24
T 25	20 13 35	2°34'27	20° 2	16°25	26° 8	3°59	19°28	5°32	29°41	0°55	6° 6	4°26	4°28	17°25	13°42	T 25
F 26	20 17 31	3°31'50	1 <sup>ML</sup> 51	16°38	26°29	4°39	19°35	5°28	29°45	0°55	6° 8	4°26	4°25	17°32	13°50	F 26
S 27	20 21 28	4°29'13	13°44	16°58	26°52	5°19	19°42	5°23	29°48	0°54	6°10	4°26	4°22	17°38	13°57	S 27
S 28	20 25 24	5°26'37	25°48	17°23	27°16	5°59	19°49	5°19	29°51	0°53	6°11	4°25	4°19	17°45	14° 5	S 28
M29	20 29 21	6°24'02	8 <sup>Y</sup> 8	17°56	27°42	6°38	19°56	5°14	29°54	0°53	6°13	4°22	4°16	17°52	14°13	M29
T 30	20 33 18	7°21'27	20°47	18°34	28° 9	7°18	20° 4	5°10	29°57	0°52	6°15	4°17	4°12	17°58	14°21	T 30
W31	20 37 14	8 <sup>Ω</sup> 18'53	3 <sup>Ω</sup> 49	19 <sup>Ω</sup> 19	28 <sup>II</sup> 38	7 <sup>Ω</sup> 57	20 <sup>Δ</sup> 11	5 <sup>≈</sup> 5	29 <sup>II</sup> 59	0°Y 51	6 <sup>Ω</sup> 17	4 <sup>ML</sup> 9	4 <sup>ML</sup> 9	18 <sup>Δ</sup> 5	14 <sup>Ω</sup> 29	W31

Day	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	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	
M 1	23n 7	18s16 2n 0	18n 4 2s52	19n17 4s11	23n14 0n19	5s40 1n17	19s 7 0s38	23n40 0n12	0s52 1s24	24n36 5n51	13s54 13s27	7s32 11n39	6s 9		
T 2	23 3	19 25 2 58	17 52 3 7	19 7 4 21	23 18 0 20	5 42 1 17	19 8 0 39	23 40 0 12	0 52 1 24	24 36 5 51	13 52 13 26	7 33 11 38	6 9		
W 3	22 58	19 36 3 49	17 40 3 22	18 57 4 30	23 23 0 21	5 43 1 17	19 9 0 39	23 40 0 12	0 52 1 24	24 36 5 51	13 50 13 25	7 35 11 36	6 9		
T 4	22 53	18 44 4 28	17 30 3 36	18 48 4 38	23 26 0 21	5 45 1 17	19 10 0 39	23 40 0 12	0 52 1 24	24 35 5 51	13 47 13 24	7 37 11 34	6 8		
F 5	22 48	16 48 4 54	17 21 3 49	18 40 4 46	23 30 0 22	5 47 1 16	19 11 0 39	23 40 0 12	0 52 1 24	24 35 5 51	13 43 13 23	7 39 11 33	6 8		
S 6	22 42	13 54 5 3	17 14 4 2	18 32 4 54	23 34 0 23	5 48 1 16	19 13 0 39	23 40 0 12	0 52 1 24	24 34 5 51	13 40 13 22	7 41 11 31	6 8		
S 7	22 35	10 11 4 54	17 8 4 13	18 24 5 0	23 37 0 23	5 50 1 16	19 14 0 39	23 40 0 12	0 52 1 24	24 34 5 51	13 37 13 21	7 42 11 30	6 7		
M 8	22 28	5 52 4 28	17 3 4 24	18 18 5 6	23 40 0 24	5 52 1 15	19 15 0 39	23 40 0 12	0 52 1 24	24 34 5 51	13 34 13 20	7 44 11 28	6 7		
T 9	22 21	1 12 3 45	17 0 4 33	18 12 5 12	23 43 0 25	5 54 1 15	19 16 0 39	23 40 0 12	0 53 1 24	24 33 5 51	13 32 13 19	7 46 11 26	6 7		
W10	22 14	3n32 2 48	16 59 4 40	18 6 5 17	23 45 0 25	5 56 1 15	19 17 0 39	23 40 0 12	0 53 1 24	24 33 5 51	13 31 13 18	7 48 11 25	6 6		
T 11	22 6	8 5 1 41	16 59 4 46	18 1 5 21	23 48 0 26	5 58 1 15	19 18 0 40	23 40 0 12	0 53 1 24	24 32 5 51	13 31 13 17	7 50 11 23	6 6		
F 12	21 58	12 10 0 28	17 1 4 51	17 57 5 25	23 50 0 26	6 0 1 14	19 19 0 40	23 40 0 12	0 53 1 25	24 32 5 51	13 31 13 16	7 51 11 21	6 6		
S 13	21 49	15 33 0s47	17 4 4 54	17 54 5 28	23 52 0 27	6 2 1 14	19 21 0 40	23 40 0 12	0 53 1 25	24 32 5 51	13 31 13 15	7 53 11 19	6 5		
S 14	21 40	18 0 1 58	17 8 4 55	17 51 5 31	23 54 0 28	6 4 1 14	19 22 0 40	23 40 0 12	0 53 1 25	24 31 5 51	13 30 13 14	7 55 11 18	6 5		
M15	21 31	19 21 3 1	17 14 4 55	17 48 5 33	23 55 0 28	6 6 1 14	19 23 0 40	23 40 0 12	0 53 1 25	24 31 5 51	13 29 13 13	7 57 11 16	6 5		
T 16	21 21	19 32 3 54	17 21 4 52	17 47 5 35	23 57 0 29	6 9 1 13	19 24 0 40	23 40 0 12	0 54 1 25	24 30 5 51	13 27 13 11	7 59 11 14	6 5		
W17	21 11	18 35 4 32	17 29 4 49	17 45 5 37	23 58 0 30	6 11 1 13	19 25 0 40	23 40 0 12	0 54 1 25	24 30 5 51	13 24 13 10	8 0 11 12	6 4		
T 18	21 0	16 37 4 54	17 38 4 43	17 45 5 38	23 59 0 30	6 14 1 13	19 26 0 40	23 40 0 12	0 54 1 25	24 30 5 51	13 20 13 9	8 2 11 10	6 4		
F 19	20 49	13 49 5 1	17 48 4 36	17 44 5 38	24 0 0 31	6 16 1 13	19 28 0 40	23 40 0 12	0 54 1 25	24 29 5 51	13 16 13 8	8 4 11 8	6 4		
S 20	20 38	10 25 4 52	17 59 4 28	17 45 5 38	24 0 0 32	6 18 1 12	19 29 0 40	23 40 0 12	0 55 1 25	24 29 5 51	13 12 13 7	8 6 11 7	6 3		
S 21	20 27	6 38 4 28	18 11 4 18	17 45 5 38	24 0 0 32	6 21 1 12	19 30 0 41	23 40 0 12	0 55 1 25	24 28 5 51	13 8 13 6	8 8 11 5	6 3		
M22	20 15	2 38 3 53	18 23 4 7	17 46 5 38	24 1 0 33	6 24 1 12	19 31 0 41	23 40 0 12	0 55 1 25	24 28 5 51	13 5 13 5	8 9 11 3	6 3		
T 23	20 2	1s24 3 7	18 35 3 55	17 48 5 37	24 0 0 33	6 26 1 12	19 32 0 41	23 40 0 12	0 55 1 25	24 28 5 51	13 3 13 4	8 11 11 1	6 3		
W24	19 50	5 19 2 14	18 48 3 42	17 49 5 35	24 0 0 34	6 29 1 12	19 33 0 41	23 40 0 12	0 56 1 25	24 27 5 52	13 2 13 3	8 13 10 59	6 3		
T 25	19 37	9 1 1 16	19 1 3 29	17 51 5 34	24 0 0 35	6 32 1 11	19 35 0 41	23 41 0 12	0 56 1 25	24 27 5 52	13 1 13 2	8 15 10 57	6 2		
F 26	19 24	12 31 0 14	19 13 3 14	17 54 5 32	23 59 0 35	6 35 1 11	19 36 0 41	23 41 0 12	0 56 1 25	24 26 5 52	13 1 13 1	8 16 10 55	6 2		
S 27	19 10	15 12 0n49	19 26 3 0	17 56 5 30	23 58 0 36	6 37 1 11	19 37 0 41	23 41 0 12	0 57 1 25	24 26 5 52	13 1 13 0	8 18 10 53	6 2		
S 28	18 56	17 27 1 51	19 38 2 44	17 59 5 28	23 57 0 37	6 40 1 11	19 38 0 41	23 41 0 12	0 57 1 25	24 26 5 52	13 1 12 59	8 20 10 51	6 2		
M29	18 42	18 56 2 48	19 49 2 29	18 2 5 25	23 56 0 37	6 43 1 10	19 39 0 41	23 41 0 12	0 57 1 25	24 25 5 52	13 0 12 58	8 22 10 49	6 2		
T 30	18 28	19 31 3 39	20 0 2 13	18 5 5 23	23 54 0 38	6 46 1 10	19 41 0 41	23 41 0 12	0 58 1 25	24 25 5 52	12 58 12 57	8 24 10 47	6 2		
W31	18n13	19s 5 4n20	20n 9 1s57	18n 9 5s20	23n53 0n39	6s49 1n10	19s42 0s41	23n41 0n12	0s58 1s25	24n24 5n52	12s55 12s55	8s25 10n45	6s 1		

Julian Day Number = 2341058.5, Delta T = 15.20 sec  
Ecliptic obliquity = 23°28'35", Nutation = 0°00'10", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°31'03", Lahiri = 19°38'04"Greg. Calendar



# ASTRODIENST EPHEMERIS for the year 1697

## geocentric

AUGUST 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 41 11	9♏16'20	17♌15	20♏10	29♏9	8♏37	20♏19	5°R 1	0♏3	0°R50	6♏18	3°R59	4♏6	18♏12	14♏37	T 1
F 2	20 45 7	10°13'48	1♏4	21°7	29°40	9°16	20°27	4♏56	0°6	0°Y49	6°20	3♏48	4°3	18°18	14°45	F 2
S 3	20 49 4	11°11'17	15°13	22°10	0♏14	9°56	20°34	4°52	0°9	0°48	6°22	3°36	4°0	18°25	14°53	S 3
S 4	20 53 0	12°8'47	29°36	23°19	0°48	10°35	20°42	4°48	0°12	0°47	6°24	3°26	3°57	18°31	15°1	S 4
M 5	20 56 57	13°6'18	14♏7	24°33	1°24	11°15	20°51	4°43	0°14	0°46	6°25	3°17	3°53	18°38	15°9	M 5
T 6	21 0 53	14°3'50	28°39	25°53	2°1	11°54	20°59	4°39	0°17	0°45	6°27	3°11	3°50	18°45	15°17	T 6
W 7	21 4 50	15°1'24	13♏7	27°19	2°39	12°33	21°7	4°34	0°20	0°44	6°29	3°8	3°47	18°51	15°24	W 7
T 8	21 8 47	15°58'59	27°28	28°49	3°19	13°12	21°16	4°30	0°23	0°43	6°31	3°D 7	3°44	18°58	15°32	T 8
F 9	21 12 43	16°56'36	11♏38	0♏23	3°59	13°51	21°24	4°26	0°26	0°42	6°32	3°R 7	3°41	19°5	15°40	F 9
S 10	21 16 40	17°54'14	25°36	2°2	4°41	14°31	21°33	4°22	0°28	0°41	6°34	3°7	3°37	19°11	15°48	S 10
S 11	21 20 36	18°51'54	9♏23	3°45	5°23	15°10	21°42	4°17	0°31	0°40	6°36	3°5	3°34	19°18	15°56	S 11
M12	21 24 33	19°49'36	22°58	5°31	6°7	15°49	21°51	4°13	0°34	0°39	6°38	3°1	3°31	19°25	16°4	M12
T 13	21 28 29	20°47'19	6♏22	7°20	6°51	16°28	22°0	4°9	0°36	0°38	6°39	2°55	3°28	19°31	16°12	T 13
W14	21 32 26	21°45'04	19°34	9°12	7°36	17°6	22°9	4°5	0°39	0°36	6°41	2°46	3°25	19°38	16°20	W14
T 15	21 36 22	22°42'50	2♏35	11°6	8°23	17°45	22°18	4°1	0°41	0°35	6°43	2°35	3°22	19°45	16°28	T 15
F 16	21 40 19	23°40'38	15°23	13°2	9°10	18°24	22°27	3°57	0°44	0°34	6°45	2°23	3°18	19°51	16°36	F 16
S 17	21 44 16	24°38'27	27°58	14°59	9°57	19°3	22°37	3°52	0°46	0°33	6°46	2°12	3°15	19°58	16°44	S 17
S 18	21 48 12	25°36'18	10♏19	16°58	10°46	19°41	22°46	3°48	0°49	0°31	6°48	2°1	3°12	20°5	16°52	S 18
M19	21 52 9	26°34'10	22°29	18°57	11°35	20°20	22°56	3°45	0°51	0°30	6°50	1°53	3°9	20°11	17°0	M19
T 20	21 56 5	27°32'03	4♏28	20°57	12°25	20°59	23°6	3°41	0°53	0°29	6°51	1°47	3°6	20°18	17°8	T 20
W21	22 0 2	28°29'58	16°20	22°56	13°16	21°37	23°16	3°37	0°56	0°27	6°53	1°43	3°3	20°24	17°16	W21
T 22	22 3 58	29°27'54	28°7	24°56	14°8	22°16	23°25	3°33	0°58	0°26	6°55	1°D42	2°59	20°31	17°23	T 22
F 23	22 7 55	0♏25'51	9♏54	26°55	15°0	22°54	23°36	3°29	1°0	0°25	6°56	1°42	2°56	20°38	17°31	F 23
S 24	22 11 51	1°23'50	21°46	28°54	15°52	23°32	23°46	3°26	1°2	0°23	6°58	1°43	2°53	20°44	17°39	S 24
S 25	22 15 48	2°21'51	3♏49	0♏52	16°46	24°11	23°56	3°22	1°5	0°22	7°0	1°R43	2°50	20°51	17°47	S 25
M26	22 19 44	3°19'52	16°7	2°49	17°40	24°49	24°6	3°18	1°7	0°21	7°1	1°42	2°47	20°58	17°55	M26
T 27	22 23 41	4°17'55	28°46	4°45	18°34	25°27	24°16	3°15	1°9	0°19	7°3	1°39	2°43	21°4	18°3	T 27
W28	22 27 38	5°16'00	11♏50	6°40	19°29	26°5	24°27	3°11	1°11	0°18	7°4	1°34	2°40	21°11	18°10	W28
T 29	22 31 34	6°14'06	25°21	8°34	20°25	26°43	24°37	3°8	1°13	0°16	7°6	1°27	2°37	21°18	18°18	T 29
F 30	22 35 31	7°12'13	9♏19	10°28	21°21	27°21	24°48	3°5	1°15	0°15	7°8	1°19	2°34	21°24	18°26	F 30
S 31	22 39 27	8♏10'22	23♏41	12♏20	22♏17	27♏59	24♏59	3♏2	1♏17	0°Y13	7♏9	1♏11	2♏31	21♏31	18♏34	S 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
T 1	17n58	17s36	4n48	20n18	1s41	18n12	5s16	23n51	0n39	6s52	1n10	19s43	0s42	23n41	0n12	0s59	1s26	24n24	5n52	12s52	12s54	8s27	10n42	6s1			
F 2	17 42	15 4	5 1	20 25	1 25	18 15	5 13	23 49	0 40	6 56	1 9	19 44	0 42	23 41	0 12	0 59	1 26	24 24	5 52	12 48	12 53	8 29	10 40	6 1			
S 3	17 27	11 36	4 55	20 30	1 9	18 19	5 10	23 47	0 40	6 59	1 9	19 45	0 42	23 41	0 12	0 59	1 26	24 23	5 52	12 44	12 52	8 31	10 38	6 1			
S 4	17 11	7 24	4 31	20 34	0 54	18 22	5 6	23 44	0 41	7 2	1 9	19 46	0 42	23 41	0 12	1 0	1 26	24 23	5 52	12 41	12 51	8 32	10 36	6 1			
M 5	16 55	2 45	3 49	20 36	0 39	18 26	5 2	23 42	0 42	7 5	1 9	19 47	0 42	23 41	0 12	1 0	1 26	24 23	5 52	12 38	12 50	8 34	10 34	6 1			
T 6	16 38	2n 5	2 52	20 36	0 25	18 30	4 58	23 39	0 42	7 8	1 9	19 49	0 42	23 41	0 12	1 1	1 26	24 22	5 52	12 36	12 49	8 36	10 32	6 1			
W 7	16 21	6 47	1 44	20 33	0 11	18 33	4 54	23 36	0 43	7 12	1 8	19 50	0 42	23 41	0 12	1 1	1 26	24 22	5 53	12 35	12 48	8 38	10 30	6 1			
T 8	16 4	11 3	0 30	20 29	0n 3	18 36	4 50	23 33	0 44	7 15	1 8	19 51	0 42	23 41	0 12	1 1	1 26	24 21	5 53	12 34	12 47	8 39	10 27	6 1			
F 9	15 47	14 38	0s45	20 21	0 16	18 40	4 45	23 29	0 44	7 19	1 8	19 52	0 42	23 41	0 12	1 2	1 26	24 21	5 53	12 34	12 46	8 41	10 25	6 0			
S 10	15 29	17 18	1 56	20 11	0 28	18 43	4 41	23 26	0 45	7 22	1 8	19 53	0 42	23 41	0 12	1 2	1 26	24 21	5 53	12 34	12 45	8 43	10 23	6 0			
S 11	15 12	18 56	3 0	19 59	0 39	18 46	4 36	23 22	0 45	7 25	1 8	19 54	0 42	23 41	0 12	1 3	1 26	24 20	5 53	12 34	12 44	8 45	10 21	6 0			
M12	14 53	19 26	3 52	19 43	0 49	18 49	4 32	23 18	0 46	7 29	1 7	19 55	0 42	23 41	0 12	1 3	1 26	24 20	5 53	12 32	12 42	8 46	10 18	6 0			
T 13	14 35	18 49	4 31	19 25	0 59	18 51	4 27	23 14	0 47	7 32	1 7	19 56	0 42	23 41	0 12	1 4	1 26	24 20	5 53	12 30	12 41	8 48	10 16	6 0			
W14	14 17	17 11	4 54	19 4	1 8	18 54	4 22	23 10	0 47	7 36	1 7	19 57	0 42	23 41	0 12	1 4	1 26	24 19	5 53	12 27	12 40	8 50	10 14	6 0			
T 15	13 58	14 42	5 2	18 41	1 15	18 56	4 17	23 5	0 48	7 40	1 7	19 58	0 42	23 41	0 12	1 5	1 26	24 19	5 53	12 23	12 39	8 51	10 12	6 0			
F 16	13 39	11 33	4 55	18 15	1 22	18 58	4 12	23 1	0 49	7 43	1 7	19 59	0 43	23 41	0 12	1 5	1 26	24 19	5 54	12 19	12 38	8 53	10 9	6 0			
S 17	13 20	7 56	4 33	17 46	1 28	19 0	4 7	22 56	0 49	7 47	1 6	20 0	0 43	23 41	0 12	1 6	1 26	24 18	5 54	12 15	12 37	8 55	10 7	6 0			
S 18	13 0	4 2	3 58	17 15	1 33	19 1	4 2	22 51	0 50	7 51	1 6	20 1	0 43	23 41	0 12	1 7	1 26	24 18	5 54	12 12	12 36	8 57	10 5	6 0			
M19	12 41	0 2	3 13	16 43	1 38	19 2	3 57	22 46	0 50	7 54	1 6	20 2	0 43	23 41	0 12	1 7	1 26	24 18	5 54	12 9	12 35	8 58	10 2	6 0			
T 20	12 21	3s55	2 20	16 8	1 41	19 3	3 52	22 41	0 51	7 58	1 6	20 3	0 43	23 41	0 12	1 8	1 26	24 17	5 54	12 7	12 34	9 0	10 0	6 0			
W21	12 1	7 41	1 21	15 31	1 43	19 4	3 46	22 35	0 52	8 2	1 6	20 4	0 43	23 41	0 12	1 8	1 26	24 17	5 54	12 5	12 33	9 2	9 58	6 0			
T 22	11 41	11 7	0 19	14 53	1 45	19 4	3 41	22 30	0 52	8 6	1 6	20 5	0 43	23 41	0 12	1 9	1 26	24 17	5 54	12 5	12 32	9 4	9 55	6 0			
F 23	11 20	14 7	0n44	14 13	1 46	19 4	3 36	22 24	0 53	8 10	1 5	20 6	0 43	23 41	0 12	1 9	1 26	24 16	5 54	12 5	12 31	9 5	9 53	6 0			
S 24	11 0	16 32	1 46	13 32	1 46	19 3	3 30	22 18	0 54	8 14	1 5	20 7	0 43	23 41	0 12	1 10	1 26	24 16	5 55	12 5	12 29	9 7	9 51	6 0			
S 25	10 39	18 16	2 44	12 50	1 46	19 2	3 25	22 12	0 54	8 18	1 5	20 8	0 43	23 41	0 12	1 11	1 26	24 16	5 55	12 5	12 28	9 9	9 48	6 0			
M26	10 18	19 11	3 35	12 7	1 45	19 1	3 19	22 6	0 55	8 21	1 5	20 9	0 43	23 41	0 12	1 11	1 26	24 16	5 55	12 5	12 27	9 10	9 46	6 0			
T 27	9 57	19 10	4 18	11 23	1 43	18 59	3 14	21 59	0 55	8 25	1 5	20 10	0 43	23 41	0 13	1 12	1 26	24 15	5 55	12 4	12 26	9 12	9 43	6 0			
W28	9 36	18 9	4 49	10 38	1 41	18 57	3 8	21 53	0 56	8 29	1 4	20 10	0 43	23 41	0 13	1 12	1 27	24 15	5 55	12 2	12 25	9 14	9 41	6 1			
T 29	9 14	16 6	5 5	9 53	1 38	18 55	3 3	21 46	0 57	8 33	1 4	20 11	0 43	23 41	0 13	1 13	1 27	24 15	5 55	12 0	12 24	9 15	9 39	6 1			
F 30	8 53	13 4	5 4	9 7	1 35	18 52	2 57	21 39	0 57	8 38	1 4	20 12	0 43	23 41	0 13	1 14	1 27	24 14	5 55	11 57	12 23	9 17	9 36	6 1			
S 31	8n31	9s11	4n43	8n21	1n32	18n48	2s52	21n32	0n58	8s42	1n 4	20s13	0s43	23n41	0n13	1s14	1s27	24n14	5n56	11s54	12s22	9s19	9n34	6s 1			

# ASTRODIENST EPHEMERIS for the year 1697

## geocentric

SEPTEMBER 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 43 24	9 <sup>h</sup> 8'33"	8 <sup>h</sup> 22'	14 <sup>h</sup> 10'	23 <sup>h</sup> 14'	28 <sup>h</sup> 37'	25 <sup>h</sup> 10'	2°R58	1 <sup>h</sup> 18'	0°R12	7 <sup>h</sup> 11'	1°R 3	2 <sup>h</sup> 28'	21 <sup>h</sup> 38'	18 <sup>h</sup> 41'	S 1
M 2	22 47 20	10° 6'45"	23°15'	16° 0'	24°12'	29°15'	25°20'	2°55'	1°20'	0°Y10	7°12'	0°M57	2°24'	21°44'	18°49'	M 2
T 3	22 51 17	11° 4'59"	8°Y11	17°49'	25°10'	29°53'	25°31'	2°52'	1°22'	0° 9	7°14'	0°53'	2°21'	21°51'	18°57'	T 3
W 4	22 55 13	12° 3'15"	23° 2'	19°36'	26° 9'	0°Ω31	25°42'	2°49'	1°24'	0° 7	7°15'	0°51'	2°18'	21°58'	19° 4'	W 4
T 5	22 59 10	13° 1'33"	7 <sup>h</sup> 41'	21°22'	27° 7'	1° 9	25°54'	2°46'	1°25'	0° 5	7°17'	0°D51	2°15'	22° 4'	19°12'	T 5
F 6	23 3 7	13°59'54"	22° 4'	23° 7'	28° 7'	1°46'	26° 5'	2°44'	1°27'	0° 4	7°18'	0°52'	2°12'	22°11'	19°19'	F 6
S 7	23 7 3	14°58'16"	6 <sup>h</sup> 11'	24°51'	29° 7'	2°24'	26°16'	2°41'	1°28'	0° 2	7°20'	0°53'	2° 8'	22°17'	19°27'	S 7
S 8	23 11 0	15°56'41"	19°54'	26°34'	0°Ω 7	3° 1	26°27'	2°38'	1°30'	0° 1	7°21'	0°R53	2° 5'	22°24'	19°35'	S 8
M 9	23 14 56	16°55'08"	3 <sup>h</sup> 22'	28°16'	1° 7	3°39'	26°39'	2°36'	1°31'	29°K59	7°23'	0°52'	2° 2'	22°31'	19°42'	M 9
T 10	23 18 53	17°53'37"	16°32'	29°57'	2° 8	4°16'	26°50'	2°33'	1°33'	29°57'	7°24'	0°48'	1°59'	22°37'	19°49'	T 10
W11	23 22 49	18°52'08"	29°28'	1 <sup>h</sup> 36'	3°10'	4°54'	27° 2'	2°31'	1°34'	29°56'	7°25'	0°43'	1°56'	22°44'	19°57'	W11
T 12	23 26 46	19°50'41"	12 <sup>h</sup> 01'	3°15'	4°11'	5°31'	27°13'	2°29'	1°36'	29°54'	7°27'	0°37'	1°53'	22°51'	20° 4'	T 12
F 13	23 30 42	20°49'17"	24°39'	4°52'	5°13'	6° 9	27°25'	2°26'	1°37'	29°53'	7°28'	0°30'	1°49'	22°57'	20°12'	F 13
S 14	23 34 39	21°47'54"	6 <sup>h</sup> 57'	6°29'	6°15'	6°46'	27°36'	2°24'	1°38'	29°51'	7°29'	0°23'	1°46'	23° 4'	20°19'	S 14
S 15	23 38 36	22°46'33"	19° 6'	8° 4'	7°18'	7°23'	27°48'	2°22'	1°39'	29°49'	7°31'	0°16'	1°43'	23°11'	20°26'	S 15
M16	23 42 32	23°45'15"	1 <sup>h</sup> 46'	9°39'	8°21'	8° 0	28° 0'	2°20'	1°40'	29°48'	7°32'	0°11'	1°40'	23°17'	20°33'	M16
T 17	23 46 29	24°43'58"	12°58'	11°12'	9°24'	8°37'	28°12'	2°18'	1°41'	29°46'	7°33'	0° 8'	1°37'	23°24'	20°41'	T 17
W18	23 50 25	25°42'43"	24°46'	12°45'	10°28'	9°14'	28°24'	2°17'	1°42'	29°44'	7°35'	0°D 6	1°34'	23°31'	20°48'	W18
T 19	23 54 22	26°41'30"	6 <sup>h</sup> 32'	14°16'	11°32'	9°51'	28°36'	2°15'	1°43'	29°43'	7°36'	0° 6'	1°30'	23°37'	20°55'	T 19
F 20	23 58 18	27°40'19"	18°20'	15°47'	12°36'	10°28'	28°48'	2°13'	1°44'	29°41'	7°37'	0° 8'	1°27'	23°44'	21° 2'	F 20
S 21	0 2 15	28°39'10"	0 <sup>h</sup> 12'	17°16'	13°40'	11° 5	29° 0'	2°12'	1°45'	29°39'	7°38'	0° 9'	1°24'	23°51'	21° 9'	S 21
S 22	0 6 11	29°38'03"	12°14'	18°45'	14°45'	11°42'	29°12'	2°10'	1°46'	29°38'	7°40'	0°11'	1°21'	23°57'	21°16'	S 22
M23	0 10 8	0 <sup>h</sup> 36'57"	24°30'	20°13'	15°50'	12°18'	29°24'	2° 9	1°47'	29°36'	7°41'	0°12'	1°18'	24° 4'	21°23'	M23
T 24	0 14 5	1°35'53"	7 <sup>h</sup> 36'	21°39'	16°55'	12°55'	29°37'	2° 8	1°48'	29°34'	7°42'	0°R12	1°14'	24°10'	21°30'	T 24
W25	0 18 1	2°34'51"	20° 5'	23° 5'	18° 1	13°31'	29°49'	2° 7	1°48'	29°33'	7°43'	0°11'	1°11'	24°17'	21°37'	W25
T 26	0 21 58	3°33'51"	3 <sup>h</sup> 31'	24°30'	19° 6'	14° 8	0 <sup>h</sup> 1	2° 6	1°49'	29°31'	7°44'	0° 9'	1° 8	24°24'	21°43'	T 26
F 27	0 25 54	4°32'53"	17°25'	25°53'	20°12'	14°44'	0°14'	2° 5	1°49'	29°29'	7°45'	0° 5	1° 5	24°30'	21°50'	F 27
S 28	0 29 51	5°31'56"	1 <sup>h</sup> 47'	27°16'	21°18'	15°21'	0°26'	2° 4	1°50'	29°28'	7°46'	0° 2	1° 2	24°37'	21°57'	S 28
S 29	0 33 47	6°31'01"	16°32'	28°37'	22°25'	15°57'	0°39'	2° 3	1°50'	29°26'	7°47'	29°Ω59	0°59'	24°44'	22° 3	S 29
M30	0 37 44	7 <sup>h</sup> 30'08"	1°Y34	29°Ω58	23°Ω31	16°Ω33	0 <sup>h</sup> 51	2° 3	1°50'	29°K24	7°Ω48	29°Ω56	0°M55	24°Ω50	22°Ω10	M30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	8n 9	4s40	4n 4	7n35	1n27	18n45	2s46	21n25	0n58	8s46	1n 4	20s14	0s43	23n41	0n13	1s15	1s27
M 2	7 47	0n12	3 8	6 48	1 23	18 40	2 41	21 18	0 59	8 50	1 4	20 14	0 43	23 41	0 13	1 15	1 27
T 3	7 25	5 5	1 59	6 1	1 18	18 36	2 35	21 11	1 0	8 54	1 4	20 15	0 43	23 41	0 13	1 16	1 27
W 4	7 3	9 37	0 42	5 15	1 13	18 30	2 29	21 3	1 0	8 58	1 3	20 16	0 43	23 41	0 13	1 17	1 27
T 5	6 41	13 31	0s37	4 28	1 8	18 25	2 24	20 56	1 1	9 2	1 3	20 16	0 43	23 41	0 13	1 17	1 27
F 6	6 18	16 30	1 52	3 41	1 2	18 19	2 18	20 48	1 2	9 6	1 3	20 17	0 43	23 41	0 13	1 18	1 27
S 7	5 56	18 25	2 59	2 54	0 56	18 12	2 13	20 40	1 2	9 11	1 3	20 18	0 44	23 41	0 13	1 19	1 27
S 8	5 33	19 12	3 54	2 8	0 50	18 5	2 7	20 32	1 3	9 15	1 3	20 18	0 44	23 41	0 13	1 19	1 27
M 9	5 10	18 51	4 35	1 21	0 43	17 58	2 2	20 24	1 3	9 19	1 3	20 19	0 44	23 41	0 13	1 20	1 27
T 10	4 48	17 29	5 0	0 35	0 37	17 50	1 56	20 15	1 4	9 23	1 2	20 20	0 44	23 41	0 13	1 21	1 27
W11	4 25	15 15	5 10	0s11	0 30	17 41	1 51	20 7	1 5	9 28	1 2	20 20	0 44	23 41	0 13	1 21	1 27
T 12	4 2	12 19	5 4	0 56	0 23	17 32	1 45	19 58	1 5	9 32	1 2	20 21	0 44	23 41	0 13	1 22	1 27
F 13	3 39	8 53	4 43	1 41	0 16	17 23	1 40	19 50	1 6	9 36	1 2	20 21	0 44	23 41	0 13	1 23	1 27
S 14	3 15	5 6	4 9	2 26	0 9	17 13	1 34	19 41	1 7	9 40	1 2	20 22	0 44	23 41	0 13	1 23	1 27
S 15	2 52	1 11	3 25	3 10	0 2	17 2	1 29	19 32	1 7	9 45	1 2	20 22	0 44	23 41	0 13	1 24	1 27
M16	2 29	2s45	2 32	3 54	0s 5	16 51	1 24	19 23	1 8	9 49	1 2	20 23	0 44	23 41	0 13	1 25	1 27
T 17	2 6	6 33	1 32	4 38	0 13	16 40	1 18	19 14	1 8	9 54	1 2	20 23	0 44	23 41	0 13	1 25	1 27
W18	1 42	10 4	0 29	5 21	0 20	16 28	1 13	19 5	1 9	9 58	1 1	20 24	0 44	23 41	0 13	1 26	1 27
T 19	1 19	13 10	0n35	6 3	0 27	16 16	1 8	18 56	1 10	10 2	1 1	20 24	0 44	23 41	0 13	1 27	1 27
F 20	0 56	15 44	1 38	6 45	0 35	16 3	1 3	18 46	1 10	10 7	1 1	20 24	0 44	23 41	0 13	1 27	1 27
S 21	0 32	17 39	2 38	7 27	0 42	15 50	0 58	18 37	1 11	10 11	1 1	20 25	0 44	23 41	0 13	1 28	1 27
S 22	0 9	18 48	3 31	8 8	0 50	15 36	0 52	18 27	1 12	10 15	1 1	20 25	0 44	23 41	0 13	1 29	1 27
M23	0s15	19 6	4 16	8 48	0 57	15 22	0 47	18 17	1 12	10 20	1 1	20 25	0 44	23 41	0 13	1 29	1 27
T 24	0 38	18 28	4 50	9 27	1 5	15 7	0 42	18 8	1 13	10 24	1 1	20 26	0 44	23 41	0 13	1 30	1 27
W25	1 2	16 52	5 10	10 6	1 12	14 52	0 37	17 58	1 13	10 29	1 1	20 26	0 44	23 41	0 13	1 31	1 27
T 26	1 25	14 18	5 14	10 44	1 19	14 36	0 33	17 48	1 14	10 33	1 1	20 26	0 44	23 41	0 13	1 31	1 27
F 27	1 49	10 52	5 1	11 22	1 27	14 20	0 28	17 38	1 15	10 38	1 1	20 26	0 44	23 41	0 13	1 32	1 27
S 28	2 12	6 41	4 28	11 58	1 34	14 3	0 23	17 27	1 15	10 42	1 0	20 27	0 44	23 41	0 13	1 33	1 27
S 29	2 35	1 59	3 37	12 34	1 41	13 47	0 18	17 17	1 16	10 46	1 0	20 27	0 44	23 41	0 13	1 33	1 27
M30	2s59	2n55	2n30	13s 9	1s48	13n29	0s14	17n 7	1n17	10s51	1n 0	20s27	0s44	23n41	0n13	1s34	1s27

Julian Day Number = 2341120.5, Delta T = 15.14 sec  
 Ecliptic obliquity = 23°28'36", Nutation = 0°00'10", out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°31'12", Lahiri = 19°38'12"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1697  
geocentric

OCTOBER 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 41 40	8♂29'17	16♂45	1♂17	24♂38	17♂10	1♂ 4	2°R 2	1♂51	29°R23	7♂49	29°R55	0♂52	24♂57	22♂16	T 1
W 2	0 45 37	9°28'28	1♂54	2°34	25°45	17°46	1°16	2♂ 2	1°51	29°R21	7°50	29°D54	0°49	25° 4	22°23	W 2
T 3	0 49 33	10°27'41	16°53	3°51	26°53	18°22	1°29	2° 1	1°52	29°19	7°51	29♂55	0°46	25°10	22°29	T 3
F 4	0 53 30	11°26'57	1♂34	5° 6	28° 0	18°58	1°42	2° 1	1°52	29°18	7°52	29°56	0°43	25°17	22°35	F 4
S 5	0 57 27	12°26'15	15°53	6°20	29° 8	19°34	1°54	2° 1	1°52	29°16	7°53	29°57	0°40	25°24	22°42	S 5
S 6	1 1 23	13°25'36	29°48	7°32	0♂16	20°10	2° 7	2°D 1	1°52	29°15	7°54	29°58	0°36	25°30	22°48	S 6
M 7	1 5 20	14°24'58	13♂18	8°42	1°24	20°45	2°20	2° 1	1°R52	29°13	7°55	29°R59	0°33	25°37	22°54	M 7
T 8	1 9 16	15°24'23	26°26	9°50	2°32	21°21	2°33	2° 1	1°52	29°11	7°56	29°58	0°30	25°43	23° 0	T 8
W 9	1 13 13	16°23'51	9♂13	10°57	3°40	21°57	2°45	2° 1	1°52	29°10	7°57	29°57	0°27	25°50	23° 6	W 9
T 10	1 17 9	17°23'20	21°44	12° 1	4°49	22°32	2°58	2° 2	1°52	29° 8	7°57	29°56	0°24	25°57	23°12	T 10
F 11	1 21 6	18°22'52	4♂ 0	13° 3	5°58	23° 8	3°11	2° 2	1°52	29° 7	7°58	29°54	0°20	26° 3	23°18	F 11
S 12	1 25 2	19°22'26	16° 6	14° 2	7° 7	23°43	3°24	2° 3	1°51	29° 5	7°59	29°52	0°17	26°10	23°24	S 12
S 13	1 28 59	20°22'03	28° 3	14°58	8°16	24°19	3°37	2° 3	1°51	29° 4	8° 0	29°51	0°14	26°17	23°30	S 13
M14	1 32 56	21°21'41	9♂55	15°51	9°25	24°54	3°50	2° 4	1°51	29° 2	8° 0	29°50	0°11	26°23	23°35	M14
T 15	1 36 52	22°21'22	21°43	16°41	10°35	25°29	4° 3	2° 5	1°50	29° 1	8° 1	29°50	0° 8	26°30	23°41	T 15
W16	1 40 49	23°21'04	3♂30	17°26	11°45	26° 5	4°16	2° 6	1°50	28°59	8° 2	29°D50	0° 5	26°37	23°46	W16
T 17	1 44 45	24°20'49	15°18	18° 8	12°54	26°40	4°29	2° 7	1°49	28°58	8° 2	29°50	0° 1	26°43	23°52	T 17
F 18	1 48 42	25°20'35	27° 9	18°45	14° 4	27°15	4°42	2° 8	1°49	28°56	8° 3	29°50	29♂58	26°50	23°57	F 18
S 19	1 52 38	26°20'24	9♂ 6	19°16	15°14	27°50	4°55	2°10	1°48	28°55	8° 4	29°51	29°55	26°57	24° 2	S 19
S 20	1 56 35	27°20'14	21°12	19°42	16°25	28°24	5° 8	2°11	1°47	28°53	8° 4	29°51	29°52	27° 3	24° 8	S 20
M21	2 0 31	28°20'06	3♂31	20° 1	17°35	28°59	5°21	2°13	1°47	28°52	8° 5	29°51	29°49	27°10	24°13	M21
T 22	2 4 28	29°20'00	16° 6	20°14	18°45	29°34	5°34	2°14	1°46	28°50	8° 5	29°51	29°45	27°17	24°18	T 22
W23	2 8 25	0♂19'55	29° 0	20°R19	19°56	0♂ 8	5°48	2°16	1°45	28°49	8° 6	29°51	29°42	27°23	24°23	W23
T 24	2 12 21	1°19'52	12♂17	20°16	21° 7	0°43	6° 1	2°18	1°44	28°48	8° 6	29°51	29°39	27°30	24°28	T 24
F 25	2 16 18	2°19'50	26° 0	20° 4	22°18	1°17	6°14	2°19	1°43	28°46	8° 6	29°52	29°36	27°36	24°32	F 25
S 26	2 20 14	3°19'50	10♂ 9	19°43	23°29	1°52	6°27	2°21	1°42	28°45	8° 7	29°52	29°33	27°43	24°37	S 26
S 27	2 24 11	4°19'52	24°43	19°13	24°40	2°26	6°40	2°23	1°41	28°44	8° 7	29°52	29°30	27°50	24°42	S 27
M28	2 28 7	5°19'56	9♂37	18°33	25°51	3° 0	6°53	2°26	1°40	28°43	8° 7	29°53	29°26	27°56	24°46	M28
T 29	2 32 4	6°20'01	24°45	17°44	27° 2	3°34	7° 6	2°28	1°39	28°41	8° 8	29°R53	29°23	28° 3	24°51	T 29
W30	2 36 0	7°20'08	9♂59	16°46	28°14	4° 8	7°20	2°30	1°38	28°40	8° 8	29°53	29°20	28°10	24°55	W30
T 31	2 39 57	8♂20'17	25♂ 8	15♂41	29♂25	4♂42	7♂33	2♂33	1♂37	28♂39	8♂ 8	29♂52	29♂17	28♂16	24♂59	T 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
T 1	3s22	7n42	1n12	13s44	1s55	13n11	0s 9	16n56	1n17	10s55	1n 0	20s27	0s44	23n41	0n13	1s35
W 2	3 46	11 59	0s11	14 17	2 1	12 53	0 5	16 46	1 18	11 0	1 0	20 27	0 44	23 41	0 13	1 35
T 3	4 9	15 26	1 33	14 50	2 8	12 34	0 0	16 35	1 18	11 4	1 0	20 27	0 44	23 41	0 13	1 36
F 4	4 32	17 47	2 46	15 21	2 14	12 15	0n 4	16 25	1 19	11 9	1 0	20 27	0 44	23 41	0 13	1 37
S 5	4 55	18 57	3 48	15 51	2 20	11 56	0 9	16 14	1 20	11 13	1 0	20 27	0 44	23 41	0 13	1 37
S 6	5 18	18 54	4 34	16 21	2 26	11 36	0 13	16 3	1 20	11 18	1 0	20 27	0 44	23 41	0 13	1 38
M 7	5 42	17 46	5 4	16 49	2 32	11 16	0 17	15 53	1 21	11 22	0 59	20 27	0 44	23 41	0 13	1 38
T 8	6 5	15 43	5 16	17 16	2 37	10 55	0 21	15 42	1 22	11 27	0 59	20 27	0 44	23 41	0 13	1 39
W 9	6 27	12 57	5 13	17 42	2 42	10 34	0 25	15 31	1 22	11 31	0 59	20 27	0 44	23 41	0 13	1 40
T 10	6 50	9 38	4 54	18 7	2 47	10 13	0 29	15 20	1 23	11 36	0 59	20 27	0 44	23 41	0 13	1 40
F 11	7 13	5 58	4 23	18 30	2 51	9 51	0 33	15 9	1 24	11 40	0 59	20 27	0 44	23 41	0 13	1 41
S 12	7 36	2 7	3 40	18 52	2 55	9 29	0 37	14 57	1 24	11 45	0 59	20 27	0 44	23 41	0 13	1 42
S 13	7 58	1s47	2 48	19 12	2 59	9 6	0 40	14 46	1 25	11 49	0 59	20 27	0 44	23 41	0 13	1 42
M14	8 21	5 36	1 48	19 30	3 2	8 44	0 44	14 35	1 25	11 53	0 59	20 27	0 44	23 41	0 13	1 43
T 15	8 43	9 10	0 45	19 47	3 4	8 21	0 48	14 24	1 26	11 58	0 59	20 26	0 44	23 41	0 14	1 43
W16	9 5	12 23	0n20	20 14	3 6	7 57	0 51	14 12	1 27	12 2	0 59	20 26	0 44	23 41	0 14	1 44
T 17	9 27	15 6	1 25	20 2	3 7	7 34	0 54	14 1	1 27	12 7	0 59	20 26	0 44	23 41	0 14	1 45
F 18	9 49	17 11	2 26	20 25	3 7	7 10	0 58	13 50	1 28	12 11	0 59	20 26	0 44	23 41	0 14	1 45
S 19	10 11	18 32	3 22	20 33	3 6	6 46	1 1	13 38	1 29	12 16	0 59	20 25	0 44	23 41	0 14	1 46
S 20	10 32	19 3	4 9	20 39	3 4	6 21	1 4	13 27	1 29	12 20	0 59	20 25	0 44	23 41	0 14	1 46
M21	10 54	18 40	4 45	20 41	3 2	5 57	1 7	13 15	1 30	12 25	0 58	20 25	0 44	23 41	0 14	1 47
T 22	11 15	17 23	5 9	20 41	2 58	5 32	1 10	13 3	1 31	12 29	0 58	20 24	0 44	23 42	0 14	1 47
W23	11 36	15 12	5 18	20 38	2 53	5 6	1 13	12 52	1 31	12 33	0 58	20 24	0 44	23 42	0 14	1 48
T 24	11 57	12 10	5 11	20 31	2 46	4 41	1 15	12 40	1 32	12 38	0 58	20 24	0 44	23 42	0 14	1 48
F 25	12 18	8 23	4 46	20 20	2 38	4 15	1 18	12 29	1 33	12 42	0 58	20 23	0 44	23 42	0 14	1 49
S 26	12 39	4 1	4 3	20 5	2 29	3 50	1 21	12 17	1 34	12 47	0 58	20 23	0 44	23 42	0 14	1 49
S 27	12 59	0n42	3 4	19 45	2 17	3 24	1 23	12 5	1 34	12 51	0 58	20 22	0 44	23 42	0 14	1 50
M28	13 19	5 30	1 50	19 22	2 4	2 58	1 26	11 53	1 35	12 55	0 58	20 22	0 44	23 42	0 14	1 50
T 29	13 39	10 3	0 28	18 54	1 50	2 31	1 28	11 42	1 35	13 0	0 58	20 21	0 44	23 42	0 14	1 51
W30	13 59	13 57	0s56	18 22	1 33	2 5	1 30	11 30	1 36	13 4	0 58	20 21	0 44	23 42	0 14	1 51
T 31	14s18	16n53	2s16	17s46	1s15	1n38	1n32	11n18	1n37	13s 8	0n58	20s20	0s44	23n42	0n14	1s52

Julian Day Number = 2341150.5, Delta T = 15.10 sec  
Ecliptic obliquity = 23°28'36, Nutation = 0°00'08, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°31'16, Lahiri = 19°38'16Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1697

## geocentric

NOVEMBER 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 43 53	9 <sup>h</sup> 20'27"	10 <sup>h</sup> 11' 3	14°R28	0 <sup>h</sup> 37	5 <sup>h</sup> 16	7 <sup>h</sup> 46	2 <sup>h</sup> 35	1°R36	28°R38	8 <sup>h</sup> 8	29°R51	29 <sup>h</sup> 14	28 <sup>h</sup> 23	25 <sup>h</sup> 0	F 1
S 2	2 47 50	10°20'40"	24°37	13 <sup>h</sup> 12	1°49	5°50	7°59	2°38	1°34	28°R37	8° 9	29°50	29°11	28°30	25° 7	S 2
S 3	2 51 47	11°20'55"	8 <sup>h</sup> 44	11°52	3° 1	6°23	8°12	2°41	1°33	28°35	8° 9	29°49	29° 7	28°36	25°11	S 3
M 4	2 55 43	12°21'12"	22°25	10°33	4°13	6°57	8°25	2°43	1°32	28°34	8° 9	29°48	29° 4	28°43	25°15	M 4
T 5	2 59 40	13°21'31"	5 <sup>h</sup> 03	9°17	5°25	7°30	8°39	2°46	1°30	28°33	8° 9	29°47	29° 1	28°50	25°19	T 5
W 6	3 3 36	14°21'52"	18°26	8° 6	6°37	8° 4	8°52	2°49	1°29	28°32	8° 9	29°D47	28°58	28°56	25°23	W 6
T 7	3 7 33	15°22'14"	0 <sup>h</sup> 53	7° 2	7°49	8°37	9° 5	2°53	1°27	28°31	8° 9	29°47	28°55	29° 3	25°26	T 7
F 8	3 11 29	16°22'39"	13° 4	6° 7	9° 2	9°10	9°18	2°56	1°26	28°30	8°R 9	29°49	28°51	29° 9	25°30	F 8
S 9	3 15 26	17°23'06"	25° 3	5°23	10°14	9°43	9°31	2°59	1°24	28°29	8° 9	29°50	28°48	29°16	25°33	S 9
S 10	3 19 22	18°23'34"	6 <sup>h</sup> 55	4°50	11°27	10°16	9°44	3° 2	1°22	28°28	8° 9	29°52	28°45	29°23	25°37	S 10
M 11	3 23 19	19°24'04"	18°42	4°28	12°40	10°49	9°57	3° 6	1°21	28°27	8° 9	29°53	28°42	29°29	25°40	M 11
T 12	3 27 16	20°24'36"	0 <sup>h</sup> 28	4°D19	13°52	11°21	10°10	3° 9	1°19	28°26	8° 9	29°R53	28°39	29°36	25°43	T 12
W 13	3 31 12	21°25'10"	12°17	4°20	15° 5	11°54	10°24	3°13	1°17	28°26	8° 9	29°53	28°36	29°43	25°46	W 13
T 14	3 35 9	22°25'45"	24°10	4°33	16°18	12°26	10°37	3°17	1°15	28°25	8° 9	29°51	28°32	29°49	25°49	T 14
F 15	3 39 5	23°26'22"	6 <sup>h</sup> 10	4°55	17°31	12°59	10°50	3°21	1°13	28°24	8° 9	29°48	28°29	29°56	25°52	F 15
S 16	3 43 2	24°27'00"	18°18	5°26	18°44	13°31	11° 3	3°24	1°12	28°23	8° 8	29°44	28°26	0 <sup>h</sup> 3	25°54	S 16
S 17	3 46 58	25°27'39"	0 <sup>h</sup> 35	6° 5	19°57	14° 3	11°16	3°28	1°10	28°22	8° 8	29°39	28°23	0° 9	25°57	S 17
M 18	3 50 55	26°28'20"	13° 4	6°52	21°11	14°35	11°29	3°32	1° 8	28°22	8° 8	29°35	28°20	0°16	25°59	M 18
T 19	3 54 51	27°29'02"	25°46	7°45	22°24	15° 7	11°42	3°37	1° 6	28°21	8° 8	29°31	28°17	0°23	26° 2	T 19
W 20	3 58 48	28°29'46"	8 <sup>h</sup> 43	8°43	23°37	15°39	11°55	3°41	1° 4	28°20	8° 7	29°28	28°13	0°29	26° 4	W 20
T 21	4 2 45	29°30'30"	21°58	9°46	24°50	16°10	12° 7	3°45	1° 2	28°20	8° 7	29°27	28°10	0°36	26° 6	T 21
F 22	4 6 41	0 <sup>h</sup> 31'15"	5 <sup>h</sup> 31	10°54	26° 4	16°42	12°20	3°49	0°59	28°19	8° 7	29°D26	28° 7	0°42	26° 8	F 22
S 23	4 10 38	1°32'01"	19°25	12° 5	27°17	17°13	12°33	3°54	0°57	28°19	8° 6	29°27	28° 4	0°49	26°10	S 23
S 24	4 14 34	2°32'48"	3 <sup>h</sup> 40	13°19	28°31	17°44	12°46	3°58	0°55	28°18	8° 6	29°29	28° 1	0°56	26°12	S 24
M 25	4 18 31	3°33'36"	18°13	14°36	29°45	18°15	12°59	4° 3	0°53	28°18	8° 5	29°30	27°57	1° 2	26°14	M 25
T 26	4 22 27	4°34'25"	3 <sup>h</sup> 3	15°56	0 <sup>h</sup> 58	18°46	13°11	4° 8	0°51	28°17	8° 5	29°R31	27°54	1° 9	26°15	T 26
W 27	4 26 24	5°35'15"	18° 2	17°17	2°12	19°17	13°24	4°12	0°49	28°17	8° 4	29°29	27°51	1°16	26°17	W 27
T 28	4 30 20	6°36'07"	3 <sup>h</sup> 11	18°40	3°26	19°48	13°37	4°17	0°46	28°16	8° 4	29°26	27°48	1°22	26°18	T 28
F 29	4 34 17	7°36'59"	17°56	20° 4	4°40	20°18	13°50	4°22	0°44	28°16	8° 3	29°21	27°45	1°29	26°19	F 29
S 30	4 38 14	8 <sup>h</sup> 37'52"	2 <sup>h</sup> 34	21 <sup>h</sup> 30	5 <sup>h</sup> 53	20 <sup>h</sup> 49	14 <sup>h</sup> 11	4 <sup>h</sup> 27	0 <sup>h</sup> 42	28 <sup>h</sup> 16	8 <sup>h</sup> 3	29 <sup>h</sup> 15	27 <sup>h</sup> 42	1 <sup>h</sup> 36	26 <sup>h</sup> 20	S 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
F 1	14s38	18n36	3s25	17s 6	0s56	1n12	1n34	11n 6	1n37	13s12	0n58	20s20	0s44	23n42	0n14	F 1
S 2	14 57	19 3	4 20	16 24	0 36	0 45	1 36	10 54	1 38	13 17	0 58	20 19	0 44	23 42	0 14	S 2
S 3	15 16	18 16	4 56	15 40	0 16	0 18	1 38	10 43	1 39	13 21	0 58	20 18	0 44	23 42	0 14	S 3
M 4	15 34	16 26	5 15	14 56	0n 5	0s 9	1 39	10 31	1 39	13 25	0 58	20 18	0 44	23 42	0 14	M 4
T 5	15 52	13 47	5 16	14 12	0 25	0 36	1 41	10 19	1 40	13 30	0 58	20 17	0 44	23 42	0 14	T 5
W 6	16 10	10 33	5 1	13 31	0 45	1 4	1 43	10 7	1 41	13 34	0 58	20 16	0 44	23 42	0 14	W 6
T 7	16 28	6 56	4 32	12 53	1 3	1 31	1 44	9 55	1 41	13 38	0 58	20 16	0 44	23 42	0 14	T 7
F 8	16 46	3 6	3 51	12 19	1 20	1 58	1 45	9 43	1 42	13 42	0 58	20 15	0 44	23 42	0 14	F 8
S 9	17 3	0s48	3 1	11 51	1 35	2 26	1 47	9 31	1 43	13 46	0 58	20 14	0 44	23 42	0 14	S 9
S 10	17 20	4 39	2 4	11 28	1 48	2 53	1 48	9 20	1 44	13 51	0 58	20 13	0 44	23 42	0 14	S 10
M 11	17 36	8 17	1 2	11 10	1 59	3 20	1 49	9 8	1 44	13 55	0 58	20 13	0 44	23 42	0 14	M 11
T 12	17 53	11 36	0n 3	10 58	2 8	3 48	1 50	8 56	1 45	13 59	0 58	20 12	0 44	23 42	0 14	T 12
W 13	18 9	14 28	1 8	10 52	2 15	4 15	1 51	8 44	1 46	14 3	0 58	20 11	0 44	23 42	0 14	W 13
T 14	18 24	16 44	2 10	10 51	2 20	4 42	1 51	8 32	1 46	14 7	0 58	20 10	0 44	23 42	0 14	T 14
F 15	18 40	18 18	3 7	10 55	2 24	5 10	1 52	8 21	1 47	14 11	0 58	20 9	0 44	23 42	0 14	F 15
S 16	18 55	19 3	3 56	11 4	2 26	5 37	1 53	8 9	1 48	14 15	0 58	20 8	0 44	23 42	0 14	S 16
S 17	19 9	18 54	4 35	11 16	2 27	6 4	1 53	7 57	1 49	14 19	0 58	20 7	0 44	23 42	0 14	S 17
M 18	19 24	17 50	5 1	11 31	2 26	6 31	1 54	7 45	1 49	14 23	0 58	20 7	0 44	23 42	0 14	M 18
T 19	19 38	15 54	5 13	11 50	2 25	6 58	1 54	7 34	1 50	14 27	0 57	20 6	0 44	23 42	0 14	T 19
W 20	19 51	13 7	5 10	12 10	2 23	7 25	1 54	7 22	1 51	14 31	0 57	20 5	0 44	23 43	0 14	W 20
T 21	20 5	9 38	4 50	12 33	2 20	7 52	1 54	7 10	1 51	14 35	0 57	20 4	0 44	23 43	0 14	T 21
F 22	20 17	5 34	4 14	12 58	2 16	8 18	1 54	6 59	1 52	14 39	0 57	20 3	0 44	23 43	0 14	F 22
S 23	20 30	1 6	3 22	13 24	2 11	8 45	1 54	6 47	1 53	14 43	0 57	20 2	0 44	23 43	0 14	S 23
S 24	20 42	3n33	2 17	13 51	2 6	9 11	1 54	6 36	1 54	14 47	0 57	20 0	0 44	23 43	0 14	S 24
M 25	20 54	8 6	1 1	14 19	2 1	9 37	1 54	6 24	1 54	14 51	0 57	19 59	0 44	23 43	0 14	M 25
T 26	21 5	12 15	0s19	14 48	1 55	10 3	1 53	6 13	1 55	14 55	0 57	19 58	0 44	23 43	0 14	T 26
W 27	21 16	15 38	1 39	15 17	1 49	10 29	1 53	6 1	1 56	14 58	0 58	19 57	0 44	23 43	0 14	W 27
T 28	21 27	17 58	2 53	15 46	1 42	10 55	1 53	5 50	1 57	15 2	0 58	19 56	0 44	23 43	0 14	T 28
F 29	21 37	19 3	3 53	16 15	1 35	11 20	1 52	5 39	1 57	15 6	0 58	19 55	0 44	23 43	0 14	F 29
S 30	21s47	18n49	4s38	16s44	1n29	11s45	1n51	5n27	1n58	15s10	0n58	19s54	0s44	23n43	0n14	S 30

Julian Day Number = 2341181.5, Delta T = 15.07 sec

Ecliptic obliquity = 23°28'35", Nutation = 0°00'07", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 20°31'20", Lahiri = 19°38'21"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1697  
geocentric

DECEMBER 1697 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 42 10	9°38'47	16°50	22°56	7°11	21°19	14°15	4°32	0°39	28°15	8°12	29°09	27°38	1°42	26°21	S 1
M 2	4 46 7	10°39'43	0°39	24°24	8°21	21°49	14°27	4°37	0°37	28°15	8°12	29°09	27°35	1°49	26°22	M 2
T 3	4 50 3	11°40'40	13°59	25°52	9°35	22°19	14°40	4°42	0°35	28°15	8°12	28°57	27°32	1°56	26°23	T 3
W 4	4 54 0	12°41'38	26°53	27°21	10°49	22°48	14°52	4°48	0°32	28°15	8°12	28°54	27°29	2°2	26°24	W 4
T 5	4 57 56	13°42'37	9°24	28°50	12°4	23°18	15°4	4°53	0°30	28°15	8°12	28°53	27°26	2°9	26°24	T 5
F 6	5 1 53	14°43'37	21°36	0°20	13°18	23°47	15°17	4°58	0°27	28°15	7°59	28°53	27°23	2°16	26°25	F 6
S 7	5 5 50	15°44'39	3°34	1°51	14°32	24°17	15°29	5°4	0°25	28°14	7°58	28°54	27°19	2°22	26°25	S 7
S 8	5 9 46	16°45'42	15°23	3°21	15°46	24°46	15°41	5°9	0°22	28°14	7°57	28°55	27°16	2°29	26°25	S 8
M 9	5 13 43	17°46'45	27°9	4°52	17°0	25°15	15°54	5°15	0°20	28°14	7°57	28°56	27°13	2°35	26°25	M 9
T 10	5 17 39	18°47'50	8°56	6°24	18°15	25°43	16°6	5°20	0°17	28°14	7°56	28°56	27°10	2°42	26°25	T 10
W 11	5 21 36	19°48'55	20°49	7°55	19°29	26°12	16°18	5°26	0°15	28°15	7°55	28°53	27°7	2°49	26°25	W 11
T 12	5 25 32	20°50'01	2°49	9°27	20°43	26°40	16°30	5°32	0°12	28°15	7°54	28°48	27°3	2°55	26°25	T 12
F 13	5 29 29	21°51'08	15°0	10°59	21°58	27°8	16°42	5°38	0°10	28°15	7°53	28°40	27°0	3°2	26°25	F 13
S 14	5 33 25	22°52'16	27°23	12°31	23°12	27°36	16°54	5°43	0°7	28°15	7°52	28°31	26°57	3°9	26°24	S 14
S 15	5 37 22	23°53'24	9°58	14°3	24°27	28°4	17°5	5°49	0°5	28°15	7°51	28°20	26°54	3°15	26°24	S 15
M 16	5 41 19	24°54'33	22°46	15°36	25°41	28°31	17°17	5°55	0°2	28°15	7°50	28°9	26°51	3°22	26°23	M 16
T 17	5 45 15	25°55'42	5°45	17°9	26°56	28°58	17°29	6°1	29°59	28°16	7°49	27°59	26°48	3°29	26°22	T 17
W 18	5 49 12	26°56'51	18°57	18°42	28°10	29°25	17°41	6°7	29°57	28°16	7°48	27°51	26°44	3°35	26°21	W 18
T 19	5 53 8	27°58'00	2°20	20°15	29°25	29°52	17°52	6°14	29°54	28°16	7°47	27°46	26°41	3°42	26°20	T 19
F 20	5 57 5	28°59'09	15°55	21°48	0°40	0°19	18°4	6°20	29°52	28°17	7°46	27°43	26°38	3°49	26°19	F 20
S 21	6 1 1	0°19	29°42	23°22	1°54	0°45	18°15	6°26	29°49	28°17	7°45	27°42	26°35	3°55	26°18	S 21
S 22	6 4 58	1°12'8	13°43	24°56	3°9	1°11	18°26	6°32	29°46	28°17	7°44	27°42	26°32	4°2	26°17	S 22
M 23	6 8 54	2°23'7	27°56	26°30	4°23	1°37	18°38	6°38	29°44	28°18	7°43	27°43	26°28	4°8	26°15	M 23
T 24	6 12 51	3°3'46	12°31	28°4	5°38	2°3	18°49	6°45	29°41	28°18	7°42	27°42	26°25	4°15	26°14	T 24
W 25	6 16 48	4°4'55	26°55	29°39	6°53	2°28	19°0	6°51	29°39	28°19	7°41	27°39	26°22	4°22	26°12	W 25
T 26	6 20 44	5°6'05	11°32	1°14	8°7	2°54	19°11	6°58	29°36	28°20	7°40	27°33	26°19	4°28	26°10	T 26
F 27	6 24 41	6°7'14	26°7	2°49	9°22	3°18	19°22	7°4	29°34	28°20	7°39	27°24	26°16	4°35	26°8	F 27
S 28	6 28 37	7°8'23	10°31	4°25	10°37	3°43	19°33	7°11	29°31	28°21	7°38	27°13	26°13	4°42	26°6	S 28
S 29	6 32 34	8°9'32	24°40	6°1	11°52	4°7	19°44	7°17	29°28	28°22	7°36	27°2	26°9	4°48	26°4	S 29
M 30	6 36 30	9°10'41	8°26	7°37	13°6	4°32	19°54	7°24	29°26	28°22	7°35	26°50	26°6	4°55	26°2	M 30
T 31	6 40 27	10°11'50	21°48	9°14	14°21	4°55	20°11	7°30	29°23	28°23	7°34	26°40	26°3	5°11	26°0	T 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
S 1	21s56	17n24	5s3	17s13	1n22	12s10	1n51	5n16	1n59	15s13	0n58	19s52	0s44	23n43	0n14	2s0
M 2	22 5 15 0	5 10 17 42	1 14 12 35	1 50 5 5	2 0 15 17	0 58 19 51	0 44 23 43	0 14 2 0	1 25 24 20	6 16 11 9	10 38 11 46	6 27 6 41				
T 3	22 13 11 52	5 0 18 10	1 7 12 59	1 49 4 54	2 0 15 21	0 58 19 50	0 44 23 43	0 14 2 0	1 25 24 20	6 16 11 7	10 37 11 47	6 26 6 42				
W 4	22 21 8 16	4 34 18 38	1 0 13 23	1 48 4 43	2 1 15 24	0 58 19 49	0 44 23 43	0 14 2 0	1 25 24 21	6 16 11 6	10 36 11 49	6 25 6 42				
T 5	22 29 4 24	3 56 19 5	0 53 13 47	1 47 4 32	2 2 15 28	0 58 19 48	0 44 23 43	0 14 2 0	1 25 24 21	6 16 11 5	10 34 11 50	6 25 6 43				
F 6	22 36 0 27	3 8 19 31	0 45 14 10	1 46 4 21	2 3 15 31	0 58 19 46	0 44 23 43	0 14 2 0	1 25 24 21	6 17 11 6	10 33 11 52	6 24 6 44				
S 7	22 43 3s27	2 13 19 57	0 38 14 33	1 45 4 10	2 4 15 35	0 58 19 45	0 44 23 43	0 14 2 0	1 25 24 22	6 17 11 6	10 32 11 53	6 23 6 44				
S 8	22 49 7 11	1 13 20 21	0 31 14 56	1 43 3 59	2 4 15 38	0 58 19 44	0 44 23 43	0 14 2 0	1 25 24 22	6 17 11 6	10 31 11 55	6 23 6 45				
M 9	22 55 10 37	0 10 20 46	0 23 15 18	1 42 3 49	2 5 15 42	0 58 19 42	0 44 23 43	0 14 2 0	1 25 24 23	6 17 11 7	10 30 11 56	6 22 6 45				
T 10	23 0 13 39	0n54	21 9 0	16 15 40	1 41 3 38	2 6 15 45	0 58 19 41	0 44 23 43	0 15 2 0	1 25 24 23	6 17 11 7	10 29 11 58	6 21 6 46			
W 11	23 5 16 8	1 55 21 31	0 9 16 2	1 39 3 27	2 7 15 49	0 58 19 40	0 45 23 43	0 15 2 0	1 25 24 23	6 18 11 6	10 28 11 59	6 21 6 47				
T 12	23 10 17 56	2 52 21 52	0 2 16 23	1 38 3 17	2 8 15 52	0 58 19 38	0 45 23 43	0 15 2 0	1 25 24 24	6 18 11 4	10 26 12 1	6 20 6 47				
F 13	23 14 18 57	3 42 22 13	0s 5 16 44	1 36 3 6	2 9 15 56	0 58 19 37	0 45 23 43	0 15 2 0	1 25 24 24	6 18 11 1	10 25 12 2	6 20 6 48				
S 14	23 17 19 5	4 22 22 32	0 12 17 5	1 35 2 56	2 9 15 59	0 58 19 35	0 45 23 43	0 15 2 0	1 25 24 25	6 18 10 58	10 24 12 3	6 19 6 48				
S 15	23 20 18 17	4 50 22 50	0 19 17 25	1 33 2 46	2 10 16 2	0 58 19 34	0 45 23 43	0 15 2 0	1 25 24 25	6 18 10 54	10 23 12 5	6 19 6 49				
M 16	23 23 16 34	5 4 23 7	0 26 17 44	1 31 2 36	2 11 16 6	0 58 19 32	0 45 23 43	0 15 2 0	1 25 24 26	6 19 10 50	10 22 12 6	6 19 6 50				
T 17	23 25 13 59	5 2 23 23	0 32 18 3	1 29 2 25	2 12 16 9	0 58 19 31	0 45 23 43	0 15 1 59	1 25 24 26	6 19 10 46	10 21 12 8	6 19 6 50				
W 18	23 26 10 39	4 45 23 38	0 39 18 22	1 27 2 15	2 13 16 12	0 58 19 30	0 45 23 43	0 15 1 59	1 25 24 26	6 19 10 44	10 20 12 9	6 18 6 51				
T 19	23 28 6 45	4 12 23 52	0 45 18 40	1 26 2 6	2 14 16 15	0 58 19 28	0 45 23 43	0 15 1 59	1 25 24 27	6 19 10 42	10 18 12 11	6 18 6 51				
F 20	23 28 2 26	3 24 24 4	0 51 18 57	1 24 1 56	2 14 16 18	0 58 19 26	0 45 23 43	0 15 1 59	1 25 24 27	6 19 10 41	10 17 12 12	6 18 6 52				
S 21	23 29 2n 5	2 24 24 16	0 57 19 15	1 22 1 46	2 15 16 21	0 58 19 25	0 45 23 43	0 15 1 59	1 25 24 28	6 20 10 40	10 16 12 13	6 18 6 52				
S 22	23 28 6 33	1 14 24 26	1 3 19 31	1 19 1 36	2 16 16 25	0 58 19 23	0 45 23 43	0 15 1 58	1 25 24 28	6 20 10 40	10 15 12 15	6 18 6 53				
M 23	23 28 10 44	0s 1 24 34	1 8 19 47	1 17 1 27	2 17 16 28	0 58 19 22	0 45 23 43	0 15 1 58	1 25 24 29	6 20 10 41	10 14 12 16	6 18 6 54				
T 24	23 26 14 20	1 17 24 42	1 14 20 3	1 15 1 18	2 18 16 31	0 58 19 20	0 45 23 43	0 15 1 58	1 25 24 29	6 20 10 40	10 13 12 18	6 18 6 54				
W 25	23 25 17 5	2 29 24 48	1 19 20 18	1 13 1 8	2 19 16 34	0 58 19 19	0 45 23 43	0 15 1 58	1 24 24 30	6 20 10 39	10 11 12 19	6 18 6 55				
T 26	23 23 18 43	3 31 24 52	1 24 20 32	1 11 0 59	2 20 16 37	0 58 19 17	0 45 23 43	0 15 1 57	1 24 24 30	6 20 10 37	10 10 12 21	6 18 6 55				
F 27	23 20 19 6	4 19 24 56	1 29 20 46	1 8 0 50	2 21 16 39	0 59 19 16	0 45 23 43	0 15 1 57	1 24 24 31	6 21 10 34	10 9 12 22	6 18 6 56				
S 28	23 17 18 15	4 50 24 58	1 33 20 59	1 6 0 41	2 21 16 42	0 59 19 14	0 45 23 43	0 15 1 57	1 24 24 31	6 21 10 30	10 8 12 23	6 18 6 56				
S 29	23 13 16 16	5 2 24 58	1 38 21 11	1 4 0 32	2 22 16 45	0 59 19 12	0 45 23 43	0 15 1 57	1 24 24 31	6 21 10 26	10 7 12 25	6 18 6 57				
M 30	23 9 13 25	4 56 24 57	1 42 21 23	1 1 0 23	2 23 16 48	0 59 19 11	0 45 23 43	0 15 1 56	1 24 24 32	6 21 10 22	10 6 12 26	6 19 6 57				
T 31	23s 5	9n56	4s34	24s55	1s46	21s35	0n59	0n15	2n24	16s51	0n59	19s 9	0s45	23n43	0n15	1s56

Julian Day Number = 2341211.5, Delta T = 15.04 sec  
Ecliptic obliquity = 23°28'34", Nutation = 0°00'07", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°31'24", Lahiri = 19°38'25"Greg. Calendar