



# Astrodienst Ephemeris Tables for the year 2199

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 2199

geocentric

JANUARY 2199

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 43 4	10 <sup>33</sup> 4'30	2 <sup>11</sup> 1	21 <sup>38</sup> 38	10 <sup>23</sup> 23	8 <sup>48</sup> 48	6 <sup>20</sup> 20	17 <sup>27</sup> 27	22 <sup>R</sup> 26	20 <sup>Y</sup> 3	23 <sup>R</sup> 2	27 <sup>R</sup> 39	26 <sup>M</sup> 12	20 <sup>II</sup> 26	6 <sup>7</sup> 4	T 1
W 2	6 47 0	11 <sup>35</sup> 3'39	15 <sup>45</sup>	23 <sup>14</sup>	11 <sup>37</sup>	9 <sup>33</sup>	6 <sup>34</sup>	17 <sup>33</sup>	22 <sup>II</sup> 24	20 <sup>3</sup>	23 <sup>Q</sup> 1	27 <sup>M</sup> 34	26 <sup>8</sup>	20 <sup>32</sup>	6 <sup>11</sup>	W 2
T 3	6 50 57	12 <sup>36</sup> 4'49	29 <sup>0</sup>	24 <sup>50</sup>	12 <sup>52</sup>	10 <sup>18</sup>	6 <sup>47</sup>	17 <sup>40</sup>	22 <sup>22</sup>	20 <sup>3</sup>	23 <sup>0</sup>	27 <sup>31</sup>	26 <sup>5</sup>	20 <sup>39</sup>	6 <sup>18</sup>	T 3
F 4	6 54 54	13 <sup>37</sup> 5'58	11 <sup>Y</sup> 48	26 <sup>26</sup>	14 <sup>6</sup>	11 <sup>4</sup>	7 <sup>1</sup>	17 <sup>46</sup>	22 <sup>19</sup>	20 <sup>3</sup>	22 <sup>59</sup>	27 <sup>D</sup> 30	26 <sup>2</sup>	20 <sup>46</sup>	6 <sup>25</sup>	F 4
S 5	6 58 50	14 <sup>39</sup> 0'7	24 <sup>15</sup>	28 <sup>2</sup>	15 <sup>20</sup>	11 <sup>50</sup>	7 <sup>15</sup>	17 <sup>52</sup>	22 <sup>17</sup>	20 <sup>3</sup>	22 <sup>58</sup>	27 <sup>30</sup>	25 <sup>59</sup>	20 <sup>52</sup>	6 <sup>32</sup>	S 5
S 6	7 2 47	15 <sup>40</sup> 1'15	6 <sup>8</sup> 24	29 <sup>37</sup>	16 <sup>34</sup>	12 <sup>35</sup>	7 <sup>28</sup>	17 <sup>59</sup>	22 <sup>15</sup>	20 <sup>3</sup>	22 <sup>57</sup>	27 <sup>32</sup>	25 <sup>56</sup>	20 <sup>59</sup>	6 <sup>39</sup>	S 6
M 7	7 6 43	16 <sup>41</sup> 2'4	18 <sup>20</sup>	1 <sup>12</sup>	17 <sup>48</sup>	13 <sup>21</sup>	7 <sup>42</sup>	18 <sup>5</sup>	22 <sup>12</sup>	20 <sup>4</sup>	22 <sup>56</sup>	27 <sup>33</sup>	25 <sup>52</sup>	21 <sup>6</sup>	6 <sup>45</sup>	M 7
T 8	7 10 40	17 <sup>42</sup> 3'2	0 <sup>II</sup> 10	2 <sup>46</sup>	19 <sup>2</sup>	14 <sup>7</sup>	7 <sup>56</sup>	18 <sup>12</sup>	22 <sup>10</sup>	20 <sup>4</sup>	22 <sup>55</sup>	27 <sup>R</sup> 33	25 <sup>49</sup>	21 <sup>12</sup>	6 <sup>52</sup>	T 8
W 9	7 14 36	18 <sup>43</sup> 4'0	11 <sup>57</sup>	4 <sup>19</sup>	20 <sup>16</sup>	14 <sup>52</sup>	8 <sup>10</sup>	18 <sup>18</sup>	22 <sup>8</sup>	20 <sup>4</sup>	22 <sup>54</sup>	27 <sup>32</sup>	25 <sup>46</sup>	21 <sup>19</sup>	6 <sup>59</sup>	W 9
T 10	7 18 33	19 <sup>44</sup> 4'8	23 <sup>44</sup>	5 <sup>52</sup>	21 <sup>30</sup>	15 <sup>38</sup>	8 <sup>23</sup>	18 <sup>25</sup>	22 <sup>6</sup>	20 <sup>5</sup>	22 <sup>52</sup>	27 <sup>28</sup>	25 <sup>43</sup>	21 <sup>26</sup>	7 <sup>5</sup>	T 10
F 11	7 22 29	20 <sup>45</sup> 5'6	5 <sup>36</sup>	7 <sup>22</sup>	22 <sup>44</sup>	16 <sup>24</sup>	8 <sup>37</sup>	18 <sup>32</sup>	22 <sup>4</sup>	20 <sup>5</sup>	22 <sup>51</sup>	27 <sup>22</sup>	25 <sup>40</sup>	21 <sup>32</sup>	7 <sup>12</sup>	F 11
S 12	7 26 26	21 <sup>47</sup> 0'3	17 <sup>33</sup>	8 <sup>51</sup>	23 <sup>58</sup>	17 <sup>10</sup>	8 <sup>51</sup>	18 <sup>38</sup>	22 <sup>1</sup>	20 <sup>5</sup>	22 <sup>50</sup>	27 <sup>14</sup>	25 <sup>37</sup>	21 <sup>39</sup>	7 <sup>18</sup>	S 12
S 13	7 30 23	22 <sup>48</sup> 1'1	29 <sup>38</sup>	10 <sup>18</sup>	25 <sup>12</sup>	17 <sup>56</sup>	9 <sup>5</sup>	18 <sup>45</sup>	21 <sup>59</sup>	20 <sup>6</sup>	22 <sup>49</sup>	27 <sup>3</sup>	25 <sup>33</sup>	21 <sup>46</sup>	7 <sup>24</sup>	S 13
M14	7 34 19	23 <sup>49</sup> 1'8	11 <sup>Q</sup> 52	11 <sup>42</sup>	26 <sup>26</sup>	18 <sup>42</sup>	9 <sup>19</sup>	18 <sup>52</sup>	21 <sup>57</sup>	20 <sup>6</sup>	22 <sup>48</sup>	26 <sup>52</sup>	25 <sup>30</sup>	21 <sup>52</sup>	7 <sup>31</sup>	M14
T 15	7 38 16	24 <sup>50</sup> 2'4	24 <sup>16</sup>	13 <sup>3</sup>	27 <sup>39</sup>	19 <sup>28</sup>	9 <sup>33</sup>	18 <sup>59</sup>	21 <sup>55</sup>	20 <sup>7</sup>	22 <sup>46</sup>	26 <sup>41</sup>	25 <sup>27</sup>	21 <sup>59</sup>	7 <sup>37</sup>	T 15
W16	7 42 12	25 <sup>51</sup> 3'1	6 <sup>II</sup> 50	14 <sup>21</sup>	28 <sup>53</sup>	20 <sup>14</sup>	9 <sup>47</sup>	19 <sup>5</sup>	21 <sup>53</sup>	20 <sup>7</sup>	22 <sup>45</sup>	26 <sup>31</sup>	25 <sup>24</sup>	22 <sup>6</sup>	7 <sup>43</sup>	W16
T 17	7 46 9	26 <sup>52</sup> 3'7	19 <sup>35</sup>	15 <sup>34</sup>	0 <sup>II</sup> 7	21 <sup>0</sup>	10 <sup>1</sup>	19 <sup>12</sup>	21 <sup>51</sup>	20 <sup>8</sup>	22 <sup>44</sup>	26 <sup>23</sup>	25 <sup>21</sup>	22 <sup>12</sup>	7 <sup>49</sup>	T 17
F 18	7 50 5	27 <sup>53</sup> 4'3	2 <sup>43</sup>	16 <sup>43</sup>	1 <sup>20</sup>	21 <sup>46</sup>	10 <sup>15</sup>	19 <sup>19</sup>	21 <sup>49</sup>	20 <sup>8</sup>	22 <sup>43</sup>	26 <sup>17</sup>	25 <sup>17</sup>	22 <sup>19</sup>	7 <sup>55</sup>	F 18
S 19	7 54 2	28 <sup>54</sup> 4'9	15 <sup>46</sup>	17 <sup>45</sup>	2 <sup>34</sup>	22 <sup>32</sup>	10 <sup>29</sup>	19 <sup>26</sup>	21 <sup>47</sup>	20 <sup>9</sup>	22 <sup>41</sup>	26 <sup>14</sup>	25 <sup>14</sup>	22 <sup>26</sup>	8 <sup>1</sup>	S 19
S 20	7 57 58	29 <sup>55</sup> 5'5	29 <sup>15</sup>	18 <sup>42</sup>	3 <sup>47</sup>	23 <sup>18</sup>	10 <sup>44</sup>	19 <sup>33</sup>	21 <sup>45</sup>	20 <sup>10</sup>	22 <sup>40</sup>	26 <sup>D</sup> 13	25 <sup>11</sup>	22 <sup>32</sup>	8 <sup>7</sup>	S 20
M21	8 1 55	0 <sup>57</sup> 0'1	13 <sup>III</sup> 3	19 <sup>31</sup>	5 <sup>1</sup>	24 <sup>4</sup>	10 <sup>58</sup>	19 <sup>40</sup>	21 <sup>44</sup>	20 <sup>10</sup>	22 <sup>39</sup>	26 <sup>14</sup>	25 <sup>8</sup>	22 <sup>39</sup>	8 <sup>13</sup>	M21
T 22	8 5 52	1 <sup>58</sup> 0'6	27 <sup>10</sup>	20 <sup>11</sup>	6 <sup>14</sup>	24 <sup>51</sup>	11 <sup>12</sup>	19 <sup>47</sup>	21 <sup>42</sup>	20 <sup>11</sup>	22 <sup>37</sup>	26 <sup>R</sup> 14	25 <sup>5</sup>	22 <sup>46</sup>	8 <sup>19</sup>	T 22
W23	8 9 48	2 <sup>59</sup> 1'2	11 <sup>Y</sup> 36	20 <sup>43</sup>	7 <sup>28</sup>	25 <sup>37</sup>	11 <sup>26</sup>	19 <sup>54</sup>	21 <sup>40</sup>	20 <sup>12</sup>	22 <sup>36</sup>	26 <sup>13</sup>	25 <sup>2</sup>	22 <sup>52</sup>	8 <sup>24</sup>	W23
T 24	8 13 45	4 <sup>0</sup> 1'7	26 <sup>19</sup>	21 <sup>5</sup>	8 <sup>41</sup>	26 <sup>23</sup>	11 <sup>40</sup>	20 <sup>1</sup>	21 <sup>38</sup>	20 <sup>13</sup>	22 <sup>35</sup>	26 <sup>10</sup>	24 <sup>58</sup>	22 <sup>59</sup>	8 <sup>30</sup>	T 24
F 25	8 17 41	5 <sup>1</sup> 1'21	11 <sup>III</sup> 13	21 <sup>R</sup> 16	9 <sup>54</sup>	27 <sup>10</sup>	11 <sup>54</sup>	20 <sup>8</sup>	21 <sup>37</sup>	20 <sup>14</sup>	22 <sup>33</sup>	26 <sup>4</sup>	24 <sup>55</sup>	23 <sup>6</sup>	8 <sup>35</sup>	F 25
S 26	8 21 38	6 <sup>2</sup> 2'25	26 <sup>11</sup>	21 <sup>16</sup>	11 <sup>8</sup>	27 <sup>56</sup>	12 <sup>9</sup>	20 <sup>15</sup>	21 <sup>35</sup>	20 <sup>15</sup>	22 <sup>32</sup>	25 <sup>55</sup>	24 <sup>52</sup>	23 <sup>12</sup>	8 <sup>41</sup>	S 26
S 27	8 25 34	7 <sup>3</sup> 2'29	11 <sup>III</sup> 3	21 <sup>4</sup>	12 <sup>21</sup>	28 <sup>43</sup>	12 <sup>23</sup>	20 <sup>22</sup>	21 <sup>34</sup>	20 <sup>15</sup>	22 <sup>31</sup>	25 <sup>44</sup>	24 <sup>49</sup>	23 <sup>19</sup>	8 <sup>46</sup>	S 27
M28	8 29 31	8 <sup>4</sup> 3'31	25 <sup>41</sup>	20 <sup>41</sup>	13 <sup>34</sup>	29 <sup>29</sup>	12 <sup>37</sup>	20 <sup>29</sup>	21 <sup>32</sup>	20 <sup>16</sup>	22 <sup>29</sup>	25 <sup>33</sup>	24 <sup>46</sup>	23 <sup>26</sup>	8 <sup>52</sup>	M28
T 29	8 33 27	9 <sup>5</sup> 3'33	9 <sup>II</sup> 57	20 <sup>7</sup>	14 <sup>47</sup>	0 <sup>15</sup>	12 <sup>51</sup>	20 <sup>36</sup>	21 <sup>30</sup>	20 <sup>17</sup>	22 <sup>28</sup>	25 <sup>22</sup>	24 <sup>43</sup>	23 <sup>32</sup>	8 <sup>57</sup>	T 29
W30	8 37 24	10 <sup>6</sup> 3'33	23 <sup>47</sup>	19 <sup>22</sup>	16 <sup>0</sup>	1 <sup>2</sup>	13 <sup>6</sup>	20 <sup>43</sup>	21 <sup>29</sup>	20 <sup>18</sup>	22 <sup>26</sup>	25 <sup>12</sup>	24 <sup>39</sup>	23 <sup>39</sup>	9 <sup>2</sup>	W30
T 31	8 41 21	11 <sup>III</sup> 7'33	7 <sup>Y</sup> 8	18 <sup>III</sup> 28	17 <sup>II</sup> 13	1 <sup>III</sup> 49	13 <sup>III</sup> 20	20 <sup>III</sup> 50	21 <sup>II</sup> 28	20 <sup>Y</sup> 19	22 <sup>Q</sup> 25	25 <sup>III</sup> 5	24 <sup>III</sup> 36	23 <sup>II</sup> 45	9 <sup>7</sup> 7	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
T 1	22s59	5s56	5n 9	23s50	2s11	19s19	1s46	23s55	0s48	19s11	0s32	16s32	1s 0	23n19	0n 7	6n19	1s38	21n59	8n40	19s37	19s17	20n57	18s 0	3n21	
W 2	22 54	1 5	4 55	23 33	2 10	18 59	1 46	23 52	0 48	19 7	0 32	16 30	1 0	23 19	0 7	6 19	1 38	22 0	8 40	19 36	19 16	20 57	18 1	3 21	
T 3	22 49	3n39	4 25	23 16	2 10	18 38	1 46	23 49	0 49	19 4	0 32	16 28	1 0	23 19	0 7	6 19	1 38	22 1	8 40	19 35	19 15	20 57	18 1	3 22	
F 4	22 43	8 4	3 42	22 56	2 8	18 17	1 46	23 46	0 49	19 1	0 32	16 26	1 0	23 19	0 7	6 19	1 38	22 1	8 41	19 35	19 14	20 56	18 2	3 22	
S 5	22 36	12 2	2 50	22 36	2 6	17 55	1 46	23 43	0 50	18 57	0 32	16 24	1 0	23 18	0 7	6 19	1 38	22 2	8 41	19 35	19 14	20 56	18 3	3 23	
S 6	22 30	15 24	1 52	22 14	2 4	17 32	1 46	23 39	0 50	18 54	0 32	16 22	1 0	23 18	0 7	6 19	1 38	22 2	8 41	19 35	19 13	20 56	18 4	3 23	
M 7	22 22	18 4	0 50	21 50	2 1	17 9	1 46	23 35	0 51	18 50	0 32	16 20	1 0	23 18	0 7	6 19	1 38	22 3	8 41	19 35	19 12	20 55	18 4	3 23	
T 8	22 14	19 56	0s14	21 25	1 57	16 46	1 45	23 31	0 51	18 47	0 32	16 18	1 0	23 18	0 7	6 20	1 38	22 3	8 41	19 36	19 11	20 55	18 5	3 24	
W 9	22 6	20 56	1 17	20 59	1 53	16 22	1 45	23 26	0 51	18 43	0 32	16 16	1 0	23 18	0 7	6 20	1 38	22 4	8 42	19 35	19 11	20 55	18 6	3 24	
T 10	21 58	21 0	2 16	20 32	1 48	15 58	1 44	23 21	0 52	18 40	0 32	16 14	1 0	23 18	0 7	6 20	1 38	22 5	8 42	19 34	19 10	20 54	18 6	3 25	
F 11	21 49	20 8	3 10	20 3	1 42	15 33	1 44	23 16	0 52	18 36	0 32	16 12	1 0	23 18	0 7	6 20	1 37	22 5	8 42	19 33	19 9	20 54	18 7	3 25	
S 12	21 39	18 22	3 55	19 34	1 35	15 8	1 43	23 11	0 53	18 33	0 32	16 10	1 0	23 18	0 7	6 20	1 37	22 6	8 42	19 31	19 8	20 53	18 7	3 26	
S 13	21 29	15 47	4 31	19 3	1 28	14 43	1 42	23 5	0 53	18 29	0 32	16 8	1 0	23 17	0 7	6 21	1 37	22 6	8 43	19 29	19 8	20 53	18 8	3 26	
M14	21 19	12 30	4 54	18 32	1 20	14 17	1 41	22 59	0 53	18 25	0 32	16 6	1 0	23 17	0 7	6 21	1 37	22 7	8 43	19 26	19 7	20 53	18 8	3 27	
T 15	21 8	8 38	5 4	18 0	1 10	13 51	1 40	22 53	0 54	18 22	0 33	16 4	1 0	23 17	0 7	6 21	1 37	22 8	8 43	19 24	19 6	20 52	18 9	3 27	
W16	20 57	4 21	5 0	17 28	1 0	13 24	1 39	22 47	0 54	18 18	0 33	16 2	1 0	23 17	0 7	6 21	1 37	22 8	8 43	19 21	19 5	20 52	18 9	3 28	
T 17	20 45	0s11	4 40	16 56	0 49	12 57	1 38	22 40	0 55	18 14	0 33	16 0	1 0	23 17	0 7	6 22	1 37	22 9	8 43	19 19	19 5	20 51	18 10	3 28	
F 18	20 34	4 47	4 6	16 24	0 37	12 30	1 37	22 34	0 55	18 11	0 33	15 58	1 0	23 17	0 7	6 22	1 37	22 9	8 44	19 18	19 4	20 51	18 10	3 28	
S 19	20 21	9 15	3 18	15 52	0 24	12 2	1 36	22 26	0 55	18 7	0 33	15 55	1 0	23 17	0 7	6 22	1 37	22 10	8 44	19 17	19 3	20 51	18 11	3 29	
S 20	20 8	13 21	2 19	15 22	0 10	11 34	1 34	22 19	0 56	18 3	0 33	15 53	1 0	23 17	0 7	6 22	1 37	22 11	8 44	19 17	19 2	20 50	18 11	3 29	
M21	19 55	16 51	1 10	14 52	0n 5	11 6	1 33	22 11	0 56	17 59	0 33	15 51	1 0	23 17	0 7	6 23	1 37	22 11	8 44	19 17	19 2	20 50	18 12	3 30	
T 22	19 42	19 25	0n 5	14 24	0 21	10 38	1 31	22 4	0 56	17 55	0 33	15 49	1 0	23 16	0 7	6 23	1 37	22 12	8 44	19 17	19 1	20 49	18 12	3 31	
W23	19 28	20 49	1 21	13 59	0 38	10 9	1 30	21 55	0 57	17 52	0 33	15 47	1 0	23 16	0 7	6 23	1 37	22 12	8 44	19 17	19 0	20 49	18 12	3 31	
T 24	19 14	20 49	2 33	13 35	0 55	9 40	1 28	21 47	0 57	17 48	0 33	15 45	1 0	23 16	0 7	6 24	1 37	22 13	8 45	19 16	18 59	20 48	18 13	3 32	
F 25	18 59	19 22	3 35	13 15	1 13	9 11	1 26	21 39	0 57	17 44	0 33	15 42	1 0	23 16	0 7	6 24	1 37	22 14	8 45	19 15	18 59	20 48	18 13	3 32	
S 26	18 44	16 35	4 23	12 58	1 31	8 41	1 24	21 30	0 58	17 40	0 33	15 40	1 0	23 16	0 7	6 24	1 37	22 14	8 45	19 13	18 58	20 48	18 13	3 33	
S 27	18 29	12 45	4 52	12 45	1 49	8 11	1 22	21 21	0 58	17 36	0 33	15 38	1 0	23 16	0 7	6 25	1 37	22 15	8 45	19 10	18 57	20 47	18 14	3 33	
M28	18 14	8 12	5 2	12 35	2 6	7 42	1 20	21 11	0 58	17 32	0 33	15 36	1 0	23 16	0 7	6 25	1 37	22 15	8 45	19 8	18 56	20 47	18 14	3 34	
T 29	17 58	3 19	4 52	12 30	2 23	7 11	1 18	21 2	0 59	17 28	0 34	15 34	1 0	23 16	0 7	6 26	1 37	22 16	8 45	19 5	18 55	20 46	18 14	3 34	
W30	17 41	1n36	4 26	12 28	2 40	6 41	1 16	20 52	0 59	17 24	0 34	15 31	1 0	23 16	0 7	6 26	1 37	22 17	8 45	19 3	18 55	20 46	18 15	3 35	
T 31	17s25	6n16	3n45	12s31	2n54	6s11	1s14	20s42	0s59	17s20	0s34	15s29	1s 0	23n16	0n 7	6n27	1s36	22n17	8n46	19s 1	18s54	20n45	18s15	3n35	

## ASTRODIENST EPHEMERIS for the year 2199

geocentric

FEBRUARY 2199

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 45 17	12° 8'31"	20° 2'	17° 25'	18° 26'	2° 35'	13° 34'	20° 57'	21° 26'	20° 20'	22° 24'	25° 1'	24° 33'	23° 52'	9° 12'	F 1
S 2	8 49 14	13° 9'28"	2° 32'	16° 17'	19° 39'	3° 22'	13° 49'	21° 5'	21° 25'	20° 22'	22° 22'	24° 59'	24° 30'	23° 59'	9° 17'	S 2
S 3	8 53 10	14° 10'24"	14° 43'	15° 5'	20° 51'	4° 8'	14° 3'	21° 12'	21° 24'	20° 23'	22° 21'	24° 59'	24° 27'	24° 5'	9° 22'	S 3
M 4	8 57 7	15° 11'19"	26° 41'	13° 50'	22° 4'	4° 55'	14° 17'	21° 19'	21° 22'	20° 24'	22° 19'	24° 59'	24° 23'	24° 12'	9° 27'	M 4
T 5	9 1 3	16° 12'12"	8° 30'	12° 36'	23° 16'	5° 42'	14° 31'	21° 26'	21° 21'	20° 25'	22° 18'	24° 58'	24° 20'	24° 19'	9° 31'	T 5
W 6	9 5 0	17° 13'04"	20° 17'	11° 24'	24° 29'	6° 28'	14° 46'	21° 33'	21° 20'	20° 26'	22° 16'	24° 56'	24° 17'	24° 25'	9° 36'	W 6
T 7	9 8 56	18° 13'55"	2° 6'	10° 17'	25° 41'	7° 15'	15° 0'	21° 40'	21° 19'	20° 28'	22° 15'	24° 51'	24° 14'	24° 32'	9° 40'	T 7
F 8	9 12 53	19° 14'45"	14° 2'	9° 15'	26° 54'	8° 2'	15° 14'	21° 48'	21° 18'	20° 29'	22° 13'	24° 43'	24° 11'	24° 39'	9° 45'	F 8
S 9	9 16 50	20° 15'33"	26° 6'	8° 19'	28° 6'	8° 49'	15° 28'	21° 55'	21° 17'	20° 30'	22° 12'	24° 32'	24° 8'	24° 45'	9° 49'	S 9
S 10	9 20 46	21° 16'20"	8° 23'	7° 31'	29° 18'	9° 35'	15° 43'	22° 2'	21° 16'	20° 31'	22° 11'	24° 19'	24° 4'	24° 52'	9° 53'	S 10
M 11	9 24 43	22° 17'06"	20° 51'	6° 51'	0° 30'	10° 22'	15° 57'	22° 9'	21° 15'	20° 33'	22° 9'	24° 5'	24° 1'	24° 59'	9° 57'	M 11
T 12	9 28 39	23° 17'50"	3° 32'	6° 20'	1° 42'	11° 9'	16° 11'	22° 16'	21° 14'	20° 34'	22° 8'	23° 51'	23° 58'	25° 5'	10° 1'	T 12
W 13	9 32 36	24° 18'33"	16° 26'	5° 56'	2° 54'	11° 56'	16° 25'	22° 24'	21° 13'	20° 36'	22° 6'	23° 38'	23° 55'	25° 12'	10° 5'	W 13
T 14	9 36 32	25° 19'15"	29° 30'	5° 41'	4° 6'	12° 43'	16° 40'	22° 31'	21° 13'	20° 37'	22° 5'	23° 27'	23° 52'	25° 19'	10° 9'	T 14
F 15	9 40 29	26° 19'56"	12° 45'	5° 33'	5° 17'	13° 30'	16° 54'	22° 38'	21° 12'	20° 39'	22° 3'	23° 20'	23° 49'	25° 25'	10° 13'	F 15
S 16	9 44 25	27° 20'35"	26° 11'	5° 23'	6° 29'	14° 16'	17° 8'	22° 45'	21° 11'	20° 40'	22° 2'	23° 15'	23° 45'	25° 32'	10° 17'	S 16
S 17	9 48 22	28° 21'14"	9° 47'	5° 40'	7° 40'	15° 3'	17° 22'	22° 52'	21° 11'	20° 42'	22° 0'	23° 13'	23° 42'	25° 39'	10° 20'	S 17
M 18	9 52 19	29° 21'51"	23° 34'	5° 54'	8° 52'	15° 50'	17° 36'	23° 0'	21° 10'	20° 43'	21° 59'	23° 13'	23° 39'	25° 45'	10° 24'	M 18
T 19	9 56 15	0° 22'27"	7° 33'	6° 13'	10° 3'	16° 37'	17° 50'	23° 7'	21° 10'	20° 45'	21° 58'	23° 13'	23° 36'	25° 52'	10° 27'	T 19
W 20	10 0 12	1° 23'03"	21° 44'	6° 38'	11° 14'	17° 24'	18° 5'	23° 14'	21° 9'	20° 46'	21° 56'	23° 12'	23° 33'	25° 59'	10° 31'	W 20
T 21	10 4 8	2° 23'37"	6° 5'	7° 9'	12° 25'	18° 11'	18° 19'	23° 21'	21° 9'	20° 48'	21° 55'	23° 8'	23° 29'	26° 5'	10° 34'	T 21
F 22	10 8 5	3° 24'09"	20° 33'	7° 44'	13° 36'	18° 58'	18° 33'	23° 28'	21° 9'	20° 50'	21° 53'	23° 2'	23° 26'	26° 12'	10° 37'	F 22
S 23	10 12 1	4° 24'41"	5° 5'	8° 24'	14° 47'	19° 45'	18° 47'	23° 35'	21° 8'	20° 51'	21° 52'	22° 53'	23° 23'	26° 19'	10° 40'	S 23
S 24	10 15 58	5° 25'11"	19° 34'	9° 7'	15° 58'	20° 32'	19° 1'	23° 43'	21° 8'	20° 53'	21° 50'	22° 42'	23° 20'	26° 25'	10° 43'	S 24
M 25	10 19 54	6° 25'39"	3° 52'	9° 55'	17° 8'	21° 20'	19° 15'	23° 50'	21° 8'	20° 55'	21° 49'	22° 30'	23° 17'	26° 32'	10° 46'	M 25
T 26	10 23 51	7° 26'06"	17° 55'	10° 46'	18° 19'	22° 7'	19° 29'	23° 57'	21° 8'	20° 56'	21° 48'	22° 18'	23° 14'	26° 39'	10° 48'	T 26
W 27	10 27 47	8° 26'31"	1° 37'	11° 40'	19° 29'	22° 54'	19° 43'	24° 4'	21° 8'	20° 58'	21° 46'	22° 8'	23° 10'	26° 45'	10° 51'	W 27
T 28	10 31 44	9° 26'54"	14° 55'	12° 38'	20° 39'	23° 41'	19° 57'	24° 11'	21° 8'	21° 0'	21° 45'	22° 0'	23° 7'	26° 52'	10° 53'	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
F 1	17s 8	10n31	2n54	12s37	3n 7	5s40	1s12	20s32	1s 0	17s16	0s34	15s27	1s 0	23n15	0n 7	6n27	1s36	22n18	8n46	19s 0	18s53	20n45	18s15	3n36	
S 2	16 51	14 9	1 56	12 47	3 18	5 9	1 9	20 21	1 0	17 12	0 34	15 25	1 0	23 15	0 7	6 27	1 36	22 18	8 46	18 59	18 52	20 44	18 15	3 36	
S 3	16 33	17 6	0 54	13 0	3 27	4 38	1 7	20 11	1 0	17 8	0 34	15 22	1 1	23 15	0 7	6 28	1 36	22 19	8 46	18 59	18 52	20 44	18 15	3 37	
M 4	16 16	19 15	0s 9	13 15	3 33	4 8	1 4	20 0	1 1	17 4	0 34	15 20	1 1	23 15	0 7	6 28	1 36	22 20	8 46	18 59	18 51	20 43	18 15	3 37	
T 5	15 58	20 32	1 11	13 32	3 37	3 36	1 1	19 49	1 1	17 0	0 34	15 18	1 1	23 15	0 7	6 29	1 36	22 20	8 46	18 59	18 50	20 43	18 16	3 38	
W 6	15 39	20 54	2 10	13 50	3 38	3 5	0 59	19 37	1 1	16 56	0 34	15 16	1 1	23 15	0 7	6 29	1 36	22 21	8 46	18 59	18 49	20 42	18 16	3 39	
T 7	15 21	20 21	3 3	14 9	3 37	2 34	0 56	19 26	1 2	16 52	0 34	15 13	1 1	23 15	0 7	6 30	1 36	22 21	8 46	18 57	18 48	20 42	18 16	3 39	
F 8	15 2	18 53	3 49	14 29	3 34	2 3	0 53	19 14	1 2	16 48	0 34	15 11	1 1	23 15	0 7	6 30	1 36	22 22	8 46	18 56	18 48	20 42	18 16	3 40	
S 9	14 43	16 34	4 24	14 48	3 29	1 31	0 50	19 2	1 2	16 44	0 34	15 9	1 1	23 15	0 7	6 31	1 36	22 23	8 47	18 53	18 47	20 41	18 16	3 40	
S 10	14 24	13 30	4 49	15 7	3 22	1 0	0 47	18 50	1 2	16 39	0 35	15 7	1 1	23 15	0 7	6 31	1 36	22 23	8 47	18 50	18 46	20 40	18 16	3 41	
M11	14 4	9 48	4 59	15 25	3 14	0 28	0 44	18 38	1 3	16 35	0 35	15 4	1 1	23 15	0 7	6 32	1 36	22 24	8 47	18 46	18 45	20 40	18 16	3 42	
T 12	13 44	5 36	4 56	15 42	3 4	0n 3	0 41	18 25	1 3	16 31	0 35	15 2	1 1	23 15	0 7	6 33	1 36	22 24	8 47	18 43	18 45	20 39	18 16	3 42	
W13	13 24	1 6	4 37	15 57	2 54	0 34	0 38	18 12	1 3	16 27	0 35	15 0	1 1	23 15	0 7	6 33	1 36	22 25	8 47	18 40	18 44	20 39	18 16	3 43	
T 14	13 4	3s31	4 3	16 12	2 43	1 6	0 34	17 59	1 3	16 23	0 35	14 57	1 1	23 15	0 7	6 34	1 36	22 25	8 47	18 37	18 43	20 38	18 16	3 43	
F 15	12 44	8 3	3 16	16 25	2 31	1 37	0 31	17 46	1 4	16 19	0 35	14 55	1 1	23 15	0 7	6 34	1 36	22 26	8 47	18 35	18 42	20 38	18 16	3 44	
S 16	12 23	12 14	2 18	16 37	2 19	2 9	0 28	17 33	1 4	16 14	0 35	14 53	1 1	23 15	0 7	6 35	1 36	22 26	8 47	18 34	18 41	20 37	18 16	3 45	
S 17	12 2	15 51	1 10	16 47	2 7	2 40	0 24	17 19	1 4	16 10	0 35	14 51	1 1	23 15	0 7	6 36	1 36	22 27	8 47	18 33	18 41	20 37	18 16	3 45	
M18	11 41	18 37	0n 2	16 56	1 54	3 11	0 21	17 5	1 4	16 6	0 35	14 48	1 2	23 14	0 7	6 36	1 36	22 27	8 47	18 33	18 40	20 36	18 15	3 46	
T 19	11 20	20 19	1 15	17 3	1 42	3 43	0 17	16 52	1 4	16 2	0 35	14 46	1 2	23 14	0 7	6 37	1 36	22 28	8 47	18 33	18 39	20 36	18 15	3 46	
W20	10 58	20 45	2 25	17 9	1 29	4 14	0 14	16 37	1 5	15 58	0 36	14 44	1 2	23 14	0 7	6 37	1 36	22 28	8 47	18 33	18 38	20 35	18 15	3 47	
T 21	10 37	19 51	3 26	17 13	1 17	4 45	0 10	16 23	1 5	15 53	0 36	14 41	1 2	23 14	0 7	6 38	1 36	22 29	8 47	18 32	18 37	20 35	18 15	3 48	
F 22	10 15	17 39	4 15	17 16	1 5	5 16	0 6	16 9	1 5	15 49	0 36	14 39	1 2	23 14	0 7	6 39	1 36	22 29	8 47	18 31	18 37	20 34	18 15	3 48	
S 23	9 53	14 20	4 47	17 17	0 53	5 47	0 2	15 54	1 5	15 45	0 36	14 37	1 2	23 14	0 7	6 39	1 35	22 30	8 47	18 28	18 36	20 34	18 15	3 49	
S 24	9 31	10 10	5 1	17 17	0 42	6 18	0n 1	15 39	1 5	15 41	0 36	14 35	1 2	23 14	0 7	6 40	1 35	22 30	8 47	18 26	18 35	20 33	18 14	3 50	
M25	9 9	9 29	4 55	17 15	0 30	6 48	0 5	15 25	1 5	15 36	0 36	14 32	1 2	23 14	0 7	6 41	1 35	22 31	8 47	18 22	18 34	20 32	18 14	3 50	
T 26	8 46	0 36	4 32	17 12	0 19	7 19	0 9	15 10	1 6	15 32	0 36	14 30	1 2	23 14	0 7	6 41	1 35	22 31	8 47	18 19	18 34	20 32	18 14	3 51	
W27	8 24	4n12	3 53	17 8	0 9	7 49	0 13	14 54	1 6	15 28	0 36	14 28	1 2	23 14	0 7	6 42	1 35	22 32	8 47	18 17	18 33	20 31	18 14	3 51	
T 28	8s 1	8n41	3n 3	17s 2	0s 2	8n19	0n17	14s39	1s 6	15s23	0s36	14s26	1s 2	23n14	0n 7	6n43	1s35	22n32	8n47	18s15	18s32	20n31	18s13	3n52	

# ASTRODIENST EPHEMERIS for the year 2199

## geocentric

MARCH 2199

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 35 41	10♌27'16	27♏49	13♎38	21♏49	24♎28	20♎11	24♎18	21♏8	21♏2	21°R44	21°R55	23♏4	26♏59	10♌56	F 1
S 2	10 39 37	11°27'36	10♏21	14°40	22°59	25°15	20°24	24°25	21°8	21°4	21°Q42	21°M53	23°1	27°5	10°58	S 2
S 3	10 43 34	12°27'53	22°35	15°45	24°9	26°2	20°38	24°32	21°8	21°5	21°41	21°D52	22°58	27°12	11°0	S 3
M 4	10 47 30	13°28'09	4♏35	16°52	25°19	26°49	20°52	24°39	21°8	21°7	21°40	21°52	22°55	27°19	11°2	M 4
T 5	10 51 27	14°28'23	16°26	18°2	26°28	27°36	21°6	24°46	21°9	21°9	21°38	21°R52	22°51	27°25	11°4	T 5
W 6	10 55 23	15°28'34	28°15	19°13	27°38	28°24	21°19	24°53	21°9	21°11	21°37	21°52	22°48	27°32	11°6	W 6
T 7	10 59 20	16°28'44	10♏6	20°27	28°47	29°11	21°33	25°0	21°9	21°13	21°36	21°49	22°45	27°39	11°8	T 7
F 8	11 3 16	17°28'52	22°5	21°42	29°56	29°58	21°47	25°6	21°10	21°15	21°34	21°43	22°42	27°45	11°10	F 8
S 9	11 7 13	18°28'57	4♏14	22°58	1♏5	0♌45	22°0	25°13	21°10	21°17	21°33	21°36	22°39	27°52	11°11	S 9
S 10	11 11 10	19°29'00	16°39	24°17	2°14	1°32	22°14	25°20	21°11	21°19	21°32	21°26	22°35	27°59	11°13	S 10
M 11	11 15 6	20°29'02	29°19	25°37	3°22	2°19	22°27	25°27	21°11	21°21	21°31	21°15	22°32	28°5	11°14	M 11
T 12	11 19 3	21°29'01	12♏17	26°58	4°31	3°6	22°41	25°34	21°12	21°23	21°29	21°4	22°29	28°12	11°15	T 12
W 13	11 22 59	22°28'59	25°31	28°21	5°39	3°54	22°54	25°40	21°13	21°25	21°28	20°54	22°26	28°19	11°16	W 13
T 14	11 26 56	23°28'54	8♏59	29°46	6°47	4°41	23°7	25°47	21°14	21°27	21°27	20°45	22°23	28°26	11°17	T 14
F 15	11 30 52	24°28'48	22°39	1♌11	7°55	5°28	23°21	25°54	21°14	21°29	21°26	20°40	22°20	28°32	11°18	F 15
S 16	11 34 49	25°28'40	6♏28	2°38	9°2	6°15	23°34	26°0	21°15	21°31	21°25	20°36	22°16	28°39	11°19	S 16
S 17	11 38 45	26°28'30	20°24	4°7	10°10	7°2	23°47	26°7	21°16	21°33	21°23	20°D36	22°13	28°46	11°20	S 17
M 18	11 42 42	27°28'19	4♌25	5°37	11°17	7°49	24°0	26°13	21°17	21°35	21°22	20°36	22°10	28°52	11°20	M 18
T 19	11 46 39	28°28'06	18°30	7°8	12°24	8°36	24°13	26°20	21°18	21°37	21°21	20°37	22°7	28°59	11°21	T 19
W 20	11 50 35	29°27'51	2♌38	8°40	13°31	9°24	24°26	26°26	21°19	21°40	21°20	20°R37	22°4	29°6	11°21	W 20
T 21	11 54 32	0♏27'35	16°47	10°14	14°38	10°11	24°39	26°33	21°20	21°42	21°19	20°36	22°0	29°12	11°21	T 21
F 22	11 58 28	1°27'17	0♌56	11°49	15°44	10°58	24°52	26°39	21°21	21°44	21°18	20°33	21°57	29°19	11°22	F 22
S 23	12 2 25	2°26'57	15°2	13°25	16°50	11°45	25°5	26°45	21°23	21°46	21°17	20°27	21°54	29°26	11°R22	S 23
S 24	12 6 21	3°26'35	29°2	15°2	17°56	12°32	25°17	26°52	21°24	21°48	21°16	20°20	21°51	29°32	11°22	S 24
M 25	12 10 18	4°26'12	12♌53	16°41	19°2	13°19	25°30	26°58	21°25	21°50	21°15	20°13	21°48	29°39	11°22	M 25
T 26	12 14 14	5°25'47	2♌51	18°21	20°7	14°6	25°43	27°4	21°27	21°53	21°14	20°5	21°45	29°46	11°21	T 26
W 27	12 18 11	6°25'19	9♏52	20°2	21°13	14°53	25°55	27°10	21°28	21°55	21°13	19°58	21°41	29°52	11°21	W 27
T 28	12 22 8	7°24'50	22°56	21°45	22°18	15°41	26°8	27°16	21°29	21°57	21°12	19°53	21°38	29°59	11°20	T 28
F 29	12 26 4	8°24'18	5♌41	23°29	23°22	16°28	26°20	27°22	21°31	21°59	21°11	19°50	21°35	0♏6	11°20	F 29
S 30	12 30 1	9°23'45	18°9	25°14	24°27	17°15	26°33	27°28	21°32	22°1	21°10	19°D49	21°32	0°12	11°19	S 30
S 31	12 33 57	10♏23'09	0♏21	27♌0	25♏31	18♌2	26♌45	27♌34	21♏34	22♏4	21°Q9	19°M50	21°M29	0♏19	11♌18	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	decl	lat
F 1	7s38	12n37	2n 4	16s54	0s12	8n49	0n21	14s23	1s 6	15s19	0s36	14s23	1s 2	23n14	0n 7	6n43	1s35	22n33	8n47	18s14	18s31	20n30	18s13	3n53					
S 2	7 15	15 52	1 1	16 45	0 21	9 19	0 25	14 8	1 6	15 15	0 37	14 21	1 3	23 14	0 7	6 44	1 35	22 33	8 47	18 13	18 30	20 30	18 13	3 53					
S 3	6 53	18 20	0s 4	16 35	0 31	9 49	0 29	13 52	1 6	15 11	0 37	14 19	1 3	23 14	0 7	6 45	1 35	22 34	8 47	18 13	18 30	20 29	18 12	3 54					
M 4	6 29	19 56	1 7	16 24	0 40	10 18	0 34	13 36	1 6	15 6	0 37	14 17	1 3	23 14	0 7	6 46	1 35	22 34	8 47	18 13	18 29	20 28	18 12	3 55					
T 5	6 6	20 37	2 7	16 11	0 48	10 47	0 38	13 20	1 7	15 2	0 37	14 14	1 3	23 14	0 7	6 46	1 35	22 35	8 47	18 13	18 28	20 28	18 12	3 55					
W 6	5 43	20 23	3 1	15 56	0 57	11 16	0 42	13 4	1 7	14 58	0 37	14 12	1 3	23 14	0 7	6 47	1 35	22 35	8 47	18 13	18 27	20 27	18 11	3 56					
T 7	5 20	19 15	3 48	15 41	1 5	11 45	0 46	12 47	1 7	14 54	0 37	14 10	1 3	23 14	0 7	6 48	1 35	22 35	8 47	18 12	18 26	20 27	18 11	3 57					
F 8	4 56	17 15	4 25	15 24	1 12	12 13	0 50	12 31	1 7	14 49	0 37	14 8	1 3	23 15	0 7	6 49	1 35	22 36	8 47	18 10	18 25	20 26	18 10	3 57					
S 9	4 33	14 28	4 50	15 5	1 19	12 42	0 55	12 14	1 7	14 45	0 37	14 6	1 3	23 15	0 7	6 49	1 35	22 36	8 47	18 8	18 25	20 25	18 10	3 58					
S 10	4 10	11 1	5 3	14 46	1 26	13 9	0 59	11 58	1 7	14 41	0 38	14 3	1 3	23 15	0 7	6 50	1 35	22 37	8 47	18 6	18 24	20 25	18 9	3 59					
M 11	3 46	7 0	5 1	14 25	1 32	13 37	1 3	11 41	1 7	14 36	0 38	14 1	1 3	23 15	0 7	6 51	1 35	22 37	8 47	18 3	18 23	20 24	18 9	3 59					
T 12	3 22	2 34	4 44	14 3	1 38	14 4	1 8	11 24	1 7	14 32	0 38	13 59	1 4	23 15	0 7	6 52	1 35	22 37	8 47	18 0	18 22	20 23	18 8	4 0					
W 13	2 59	2s 3	4 11	13 39	1 44	14 31	1 12	11 7	1 7	14 28	0 38	13 57	1 4	23 15	0 7	6 52	1 35	22 38	8 47	17 58	18 21	20 23	18 8	4 1					
T 14	2 35	6 40	3 24	13 15	1 49	14 58	1 16	10 50	1 7	14 24	0 38	13 55	1 4	23 15	0 7	6 53	1 35	22 38	8 47	17 55	18 21	20 22	18 7	4 1					
F 15	2 11	11 2	2 24	12 49	1 54	15 24	1 21	10 32	1 7	14 19	0 38	13 53	1 4	23 15	0 7	6 54	1 35	22 38	8 47	17 54	18 20	20 22	18 7	4 2					
S 16	1 48	14 50	1 15	12 21	1 58	15 50	1 25	10 15	1 7	14 15	0 38	13 50	1 4	23 15	0 7	6 55	1 35	22 39	8 47	17 53	18 19	20 21	18 6	4 3					
S 17	1 24	17 51	0 1	11 53	2 2	16 16	1 29	9 58	1 7	14 11	0 39	13 48	1 4	23 15	0 7	6 56	1 35	22 39	8 47	17 53	18 18	20 20	18 6	4 3					
M 18	1 0	19 48	1n14	11 23	2 6	16 41	1 34	9 40	1 7	14 7	0 39	13 46	1 4	23 15	0 7	6 56	1 35	22 39	8 47	17 53	18 17	20 20	18 5	4 4					
T 19	0 37	20 31	2 24	10 52	2 9	17 6	1 38	9 22	1 7	14 3	0 39	13 44	1 4	23 15	0 7	6 57	1 35	22 40	8 47	17 53	18 17	20 19	18 5	4 4					
W 20	0 13	19 57	3 26	10 20	2 11	17 30	1 42	9 5	1 7	13 58	0 39	13 42	1 4	23 15	0 7	6 58	1 35	22 40	8 46	17 53	18 16	20 18	18 4	4 5					
T 21	0n11	18 7	4 16	9 47	2 14	17 55	1 47	8 47	1 7	13 54	0 39	13 40	1 5	23 15	0 7	6 59	1 35	22 40	8 46	17 53	18 15	20 18	18 3	4 6					
F 22	0 35	15 12	4 50	9 13	2 15	18 18	1 51	8 29	1 7	13 50	0 39	13 38	1 5	23 15	0 7	7 0	1 35	22 40	8 46	17 52	18 14	20 17	18 3	4 6					
S 23	0 58	11 25	5 6	8 37	2 17	18 41	1 55	8 11	1 7	13 46	0 39	13 36	1 5	23 15	0 7	7 0	1 35	22 41	8 46	17 51	18 13	20 16	18 2	4 7					
S 24	1 22	7 2	5 4	8 0	2 18	19 4	2 0	7 53	1 7	13 42	0 40	13 34	1 5	23 15	0 8	7 1	1 35	22 41	8 46	17 49	18 12	20 16	18 2	4 8					
M 25	1 46	2 20	4 44	7 23	2 18	19 27	2 4	7 35	1 7	13 38	0 40	13 32	1 5	23 16	0 8	7 2	1 35	22 41	8 46	17 47	18 12	20 15	18 1	4 8					
T 26	2 9	2n25	4 8	6 44	2 18	19 49	2 8	7 17	1 7	13 34	0 40	13 30	1 5	23 16	0 8	7 3	1 35	22 41	8 46	17 45	18 11	20 14	18 0	4 9					
W 27	2 33	6 58	3 19	6 3	2 18	20 10	2 13	6 59	1 7	13 29	0 40	13 28	1 5	23 16	0 8	7 4	1 35	22 42	8 46	17 43	18 10	20 14	17 59	4 10					
T 28	2 56	11 5	2 21	5 22	2 17	20 31	2 17	6 40	1 7	13 25	0 40	13 26	1 5	23 16	0 8	7 5	1 35	22 42	8 46	17 41	18 9	20 13	17 59	4 10					
F 29	3 20	14 36	1 16	4 40	2 16	20 52	2 21	6 22	1 7	13 21	0 40	13 24	1 6	23 16	0 8	7 5	1 35	22 42	8 46	17 41	18 8	20 12	17 58	4 11					
S 30	3 43	17 22	0 9	3 57	2 14	21 12	2 25	6 4	1 7	13 17	0 40	13 22	1 6	23 16	0 8	7 6	1 35	22 42	8 45	17 40	18 8	20 11	17 57	4 12					
S 31	4n 6	19n16	0s57	3s12	2s12	21n32	2n29	5s45	1s 7	13s13	0s41	13s20	1s 6	23n16	0n 8	7n 7	1s35	22n42	8n45	17s40	18s 7	20n11	17s57	4n12					



## ASTRODIENST EPHEMERIS for the year 2199

geocentric

MAY 2199

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 36 10	10♂47'33	14♂4	28♂8	25♂23	12♂10	2♂20	0♂7	22♂45	23♂13	20♂R55	19♂M20	19♂M50	3♂546	10♂R 9	W 1
T 2	14 40 7	11°45'54	25°56	29°49	26°11	12°56	2°29	0°11	22°48	23°16	20♂R55	19°20	19°47	3°53	10♂R 5	T 2
F 3	14 44 3	12°44'12	7♂255	1♂24	26°59	13°42	2°38	0°15	22°50	23°18	20♂D55	19°R21	19°44	3°59	10° 2	F 3
S 4	14 48 0	13°42'29	20° 5	2°56	27°46	14°29	2°47	0°19	22°53	23°20	20°55	19°21	19°41	4° 6	9°58	S 4
S 5	14 51 57	14°40'43	2♂31	4°23	28°33	15°15	2°56	0°22	22°56	23°22	20°55	19°20	19°37	4°13	9°54	S 5
M 6	14 55 53	15°38'56	15°16	5°47	29°18	16° 1	3° 5	0°26	22°59	23°24	20°55	19°20	19°34	4°19	9°51	M 6
T 7	14 59 50	16°37'06	28°24	7° 6	0♂2	16°47	3°13	0°29	23° 2	23°26	20°55	19°20	19°31	4°26	9°47	T 7
W 8	15 3 46	17°35'15	11♂57	8°21	0°46	17°33	3°21	0°32	23° 5	23°28	20°55	19°19	19°28	4°33	9°43	W 8
T 9	15 7 43	18°33'21	25°54	9°31	1°28	18°19	3°30	0°35	23° 8	23°31	20°55	19°19	19°25	4°39	9°39	T 9
F 10	15 11 39	19°31'26	10♂M14	10°37	2°10	19° 5	3°38	0°38	23°11	23°33	20°55	19°D19	19°22	4°46	9°35	F 10
S 11	15 15 36	20°29'29	24°51	11°38	2°50	19°51	3°45	0°41	23°15	23°35	20°56	19°R19	19°18	4°53	9°31	S 11
S 12	15 19 32	21°27'31	9♂39	12°35	3°29	20°37	3°53	0°44	23°18	23°37	20°56	19°19	19°15	5° 0	9°27	S 12
M13	15 23 29	22°25'31	24°31	13°27	4° 7	21°22	4° 1	0°47	23°21	23°39	20°56	19°19	19°12	5° 6	9°23	M13
T 14	15 27 26	23°23'30	9♂30	14°15	4°43	22° 8	4° 8	0°50	23°24	23°41	20°57	19°19	19° 9	5°13	9°19	T 14
W15	15 31 22	24°21'27	23°59	14°57	5°19	22°54	4°16	0°53	23°27	23°43	20°57	19°18	19° 6	5°20	9°15	W15
T 16	15 35 19	25°19'23	8♂22	15°35	5°53	23°40	4°23	0°55	23°30	23°45	20°57	19°18	19° 3	5°26	9°11	T 16
F 17	15 39 15	26°17'18	22°27	16° 8	6°26	24°25	4°30	0°58	23°34	23°47	20°58	19°D18	18°59	5°33	9° 7	F 17
S 18	15 43 12	27°15'12	6♂12	16°36	6°57	25°11	4°37	1° 0	23°37	23°49	20°58	19°18	18°56	5°40	9° 2	S 18
S 19	15 47 8	28°13'04	19°38	16°59	7°27	25°56	4°44	1° 2	23°40	23°51	20°58	19°18	18°53	5°46	8°58	S 19
M20	15 51 5	29°10'55	2♂46	17°17	7°55	26°42	4°50	1° 5	23°44	23°53	20°59	19°19	18°50	5°53	8°54	M20
T 21	15 55 1	0♂II 8'45	15°37	17°30	8°22	27°27	4°57	1° 7	23°47	23°55	20°59	19°20	18°47	6° 0	8°49	T 21
W22	15 58 58	1° 6'33	28°14	17°38	8°47	28°13	5° 3	1° 9	23°50	23°57	21° 0	19°21	18°43	6° 6	8°45	W22
T 23	16 2 55	2° 4'21	10♂38	17°R41	9°11	28°58	5° 9	1°11	23°54	23°58	21° 0	19°21	18°40	6°13	8°41	T 23
F 24	16 6 41	3° 2'07	22°52	17°40	9°33	29°44	5°15	1°12	23°57	24° 0	21° 1	19°R22	18°37	6°20	8°36	F 24
S 25	16 10 48	3°59'52	4♂II57	17°34	9°53	0♂29	5°21	1°14	24° 0	24° 2	21° 2	19°21	18°34	6°26	8°32	S 25
S 26	16 14 44	4°57'36	16°55	17°23	10°11	1°14	5°27	1°16	24° 4	24° 4	21° 2	19°20	18°31	6°33	8°28	S 26
M27	16 18 41	5°55'18	28°48	17° 9	10°27	1°59	5°32	1°17	24° 7	24° 6	21° 3	19°18	18°28	6°40	8°23	M27
T 28	16 22 37	6°52'59	10♂39	16°50	10°41	2°45	5°37	1°19	24°11	24° 8	21° 4	19°15	18°24	6°47	8°19	T 28
W29	16 26 34	7°50'39	22°29	16°28	10°53	3°30	5°43	1°20	24°14	24° 9	21° 4	19°12	18°21	6°53	8°15	W29
T 30	16 30 30	8°48'17	4♂22	16° 3	11° 3	4°15	5°48	1°21	24°18	24°11	21° 5	19° 9	18°18	7° 0	8°10	T 30
F 31	16 34 27	9♂II45'53	16♂20	15♂35	11♂11	5♂8 0	5♂52	1♂22	24♂II21	24♂V13	21♂2 6	19♂M 7	18♂M15	7♂5 7	8♂7 6	F 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	15n 3	18n22	4s19	21n43	2n 3	27n19	3n59	3n52	1s 1	11s21	0s46	12s31	1s11	23n20	0n 8	7n33	1s35
T 2	15 21	16 10	4 51	22 12	2 10	27 22	4 0	4 11	1 0	11 18	0 47	12 30	1 11	23 21	0 8	7 33	1 35
F 3	15 39	13 15	5 11	22 38	2 16	27 24	4 1	4 29	1 0	11 15	0 47	12 29	1 11	23 21	0 8	7 34	1 35
S 4	15 56	9 45	5 17	23 1	2 21	27 25	4 2	4 47	1 0	11 12	0 47	12 28	1 11	23 21	0 8	7 35	1 35
S 5	16 13	5 45	5 9	23 23	2 25	27 27	4 2	5 5	0 59	11 9	0 47	12 27	1 11	23 21	0 8	7 36	1 35
M 6	16 30	1 24	4 46	23 41	2 29	27 27	4 3	5 23	0 59	11 6	0 47	12 26	1 12	23 21	0 8	7 37	1 35
T 7	16 47	3s 8	4 7	23 58	2 32	27 27	4 3	5 41	0 59	11 3	0 48	12 25	1 12	23 21	0 8	7 37	1 35
W 8	17 4	7 41	3 13	24 12	2 33	27 27	4 3	5 59	0 58	11 0	0 48	12 24	1 12	23 22	0 8	7 38	1 35
T 9	17 20	11 58	2 6	24 24	2 34	27 27	4 2	6 17	0 58	10 58	0 48	12 23	1 12	23 22	0 8	7 39	1 35
F 10	17 36	15 40	0 50	24 33	2 34	27 25	4 2	6 35	0 57	10 55	0 48	12 22	1 12	23 22	0 8	7 40	1 35
S 11	17 51	18 28	0n31	24 41	2 33	27 24	4 1	6 52	0 57	10 52	0 49	12 21	1 12	23 22	0 8	7 40	1 35
S 12	18 6	20 3	1 51	24 46	2 31	27 22	4 0	7 10	0 57	10 50	0 49	12 20	1 13	23 22	0 8	7 41	1 35
M13	18 21	20 15	3 3	24 50	2 27	27 19	3 59	7 27	0 56	10 47	0 49	12 19	1 13	23 22	0 8	7 42	1 35
T 14	18 36	19 2	4 3	24 51	2 23	27 17	3 57	7 45	0 56	10 45	0 49	12 18	1 13	23 23	0 8	7 42	1 35
W15	18 50	16 34	4 47	24 51	2 18	27 14	3 55	8 2	0 55	10 42	0 49	12 17	1 13	23 23	0 8	7 43	1 35
T 16	19 4	13 8	5 12	24 49	2 11	27 10	3 53	8 19	0 55	10 40	0 50	12 17	1 14	23 23	0 8	7 44	1 35
F 17	19 18	9 1	5 17	24 45	2 4	27 6	3 51	8 37	0 55	10 37	0 50	12 16	1 14	23 23	0 8	7 45	1 35
S 18	19 31	4 31	5 4	24 39	1 56	27 2	3 48	8 54	0 54	10 35	0 50	12 15	1 14	23 23	0 8	7 45	1 35
S 19	19 44	0n 6	4 34	24 32	1 46	26 57	3 46	9 11	0 54	10 33	0 50	12 15	1 14	23 23	0 8	7 46	1 35
M20	19 57	4 37	3 51	24 23	1 36	26 52	3 42	9 27	0 53	10 31	0 51	12 14	1 14	23 24	0 8	7 47	1 35
T 21	20 9	8 51	2 56	24 13	1 24	26 47	3 39	9 44	0 53	10 29	0 51	12 14	1 14	23 24	0 8	7 47	1 35
W22	20 21	12 37	1 54	24 1	1 12	26 42	3 35	10 1	0 52	10 27	0 51	12 13	1 15	23 24	0 8	7 48	1 35
T 23	20 33	15 46	0 48	23 48	0 58	26 36	3 31	10 17	0 52	10 24	0 51	12 13	1 15	23 24	0 8	7 49	1 35
F 24	20 44	18 9	0s19	23 34	0 44	26 30	3 26	10 34	0 51	10 23	0 52	12 12	1 15	23 24	0 8	7 49	1 35
S 25	20 55	19 42	1 25	23 19	0 29	26 23	3 21	10 50	0 51	10 21	0 52	12 12	1 15	23 24	0 8	7 50	1 36
S 26	21 6	20 20	2 27	23 2	0 13	26 17	3 16	11 6	0 50	10 19	0 52	12 11	1 15	23 24	0 8	7 51	1 36
M27	21 16	20 3	3 21	22 44	0s 3	26 10	3 10	11 22	0 50	10 17	0 52	12 11	1 16	23 25	0 8	7 51	1 36
T 28	21 26	18 53	4 7	22 26	0 20	26 2	3 4	11 38	0 49	10 15	0 53	12 11	1 16	23 25	0 8	7 52	1 36
W29	21 36	16 54	4 42	22 6	0 37	25 55	2 58	11 54	0 49	10 14	0 53	12 10	1 16	23 25	0 8	7 52	1 36
T 30	21 45	14 13	5 5	21 46	0 55	25 47	2 51	12 10	0 48	10 12	0 53	12 10	1 16	23 25	0 8	7 53	1 36
F 31	21n53	10n55	5s15	21n26	1s13	25n39	2n43	12n25	0s48	10s11	0s53	12s10	1s16	23n25	0n 8	7n54	1s36

Julian Day Number = 2524348.5, Delta T = 162.34 sec

Ecliptic obliquity = 23°24'42, Nutation = 0°00'12, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 27°31'33, Lahiri = 26°38'34

ASTRODIENST EPHEMERIS for the year 2199  
geocentric

JUNE 2199

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 38 24	10♈43'29	28♏29	15°R 5	11♏17	5♌45	5♌57	1♌24	24♈24	24♏15	21♏ 7	19°R 5	18♌12	7♏13	8°R 1	S 1
S 2	16 42 20	11°41'02	10♏52	14♈33	11°20	6°29	6° 2	1°24	24°28	24°16	21° 7	19°D 5	18° 9	7°20	7♌57	S 2
M 3	16 46 17	12°38'35	23°33	14° 0	11°R21	7°14	6° 6	1°25	24°31	24°18	21° 8	19°M 5	18° 5	7°27	7°53	M 3
T 4	16 50 13	13°36'06	6♌37	13°26	11°19	7°59	6°10	1°26	24°35	24°20	21° 9	19° 6	18° 2	7°33	7°48	T 4
W 5	16 54 10	14°33'35	20° 5	12°53	11°16	8°44	6°14	1°27	24°39	24°21	21°10	19° 8	17°59	7°40	7°44	W 5
T 6	16 58 6	15°31'04	4♌ 1	12°19	11° 9	9°28	6°18	1°27	24°42	24°23	21°11	19° 9	17°56	7°47	7°40	T 6
F 7	17 2 3	16°28'31	18°22	11°48	11° 1	10°13	6°21	1°28	24°46	24°24	21°12	19°R10	17°53	7°53	7°35	F 7
S 8	17 5 59	17°25'58	3♌ 8	11°17	10°50	10°57	6°25	1°28	24°49	24°26	21°13	19° 9	17°49	8° 0	7°31	S 8
S 9	17 9 56	18°23'23	18°10	10°49	10°36	11°42	6°28	1°28	24°53	24°27	21°14	19° 7	17°46	8° 7	7°27	S 9
M10	17 13 53	19°20'47	3♏21	10°24	10°20	12°26	6°31	1°29	24°56	24°29	21°15	19° 4	17°43	8°13	7°23	M10
T 11	17 17 49	20°18'11	18°30	10° 2	10° 2	13°11	6°34	1°R29	25° 0	24°30	21°16	19° 0	17°40	8°20	7°19	T 11
W12	17 21 46	21°15'34	3♌29	9°43	9°42	13°55	6°37	1°29	25° 3	24°32	21°17	18°56	17°37	8°27	7°14	W12
T 13	17 25 42	22°12'56	18° 9	9°28	9°19	14°39	6°39	1°28	25° 7	24°33	21°18	18°52	17°34	8°34	7°10	T 13
F 14	17 29 39	23°10'17	2♌25	9°17	8°54	15°24	6°41	1°28	25°10	24°35	21°19	18°49	17°30	8°40	7° 6	F 14
S 15	17 33 35	24° 7'38	16°15	9°10	8°27	16° 8	6°44	1°28	25°14	24°36	21°20	18°47	17°27	8°47	7° 2	S 15
S 16	17 37 32	25° 4'59	29°39	9°D 7	7°58	16°52	6°45	1°28	25°18	24°37	21°21	18°D47	17°24	8°54	6°58	S 16
M17	17 41 28	26° 2'19	12♏40	9° 9	7°28	17°36	6°47	1°27	25°21	24°39	21°22	18°48	17°21	9° 0	6°54	M17
T 18	17 45 25	26°59'39	25°20	9°16	6°56	18°20	6°49	1°26	25°25	24°40	21°24	18°49	17°18	9° 7	6°50	T 18
W19	17 49 22	27°56'58	7♌44	9°27	6°22	19° 4	6°50	1°26	25°28	24°41	21°25	18°51	17°15	9°14	6°46	W19
T 20	17 53 18	28°54'18	19°56	9°42	5°48	19°48	6°51	1°25	25°32	24°42	21°26	18°R51	17°11	9°20	6°43	T 20
F 21	17 57 15	29°51'36	1♈58	10° 3	5°12	20°31	6°52	1°24	25°35	24°44	21°27	18°50	17° 8	9°27	6°39	F 21
S 22	18 1 11	0♏48'55	13°53	10°27	4°35	21°15	6°53	1°23	25°39	24°45	21°29	18°47	17° 5	9°34	6°35	S 22
S 23	18 5 8	1°46'12	25°45	10°57	3°58	21°59	6°54	1°22	25°43	24°46	21°30	18°43	17° 2	9°40	6°31	S 23
M24	18 9 4	2°43'30	7♏35	11°30	3°21	22°42	6°54	1°21	25°46	24°47	21°31	18°36	16°59	9°47	6°28	M24
T 25	18 13 1	3°40'47	19°26	12° 8	2°43	23°26	6°54	1°19	25°50	24°48	21°32	18°28	16°55	9°54	6°24	T 25
W26	18 16 57	4°38'03	1♏18	12°51	2° 6	24° 9	6°R54	1°18	25°53	24°49	21°34	18°19	16°52	10° 1	6°21	W26
T 27	18 20 54	5°35'19	13°14	13°38	1°29	24°53	6°54	1°17	25°57	24°50	21°35	18°11	16°49	10° 7	6°17	T 27
F 28	18 24 51	6°32'34	25°16	14°28	0°52	25°36	6°54	1°15	26° 0	24°51	21°37	18° 3	16°46	10°14	6°14	F 28
S 29	18 28 47	7°29'49	7♏27	15°23	0°17	26°19	6°53	1°13	26° 4	24°52	21°38	17°58	16°43	10°21	6°10	S 29
S 30	18 32 44	8♏27'03	19♏50	16♈22	29♈42	27♌ 3	6♌52	1♌12	26♈ 7	24♏53	21♏39	17♌54	16♌40	10♏27	6♌ 7	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
S 1	22n 2	7n 7	5s11	21n 5	1s30	25n31	2n36	12n41	0s47	10s 9	0s54	12s10	1s17	23n25	0n 8	7n54	1s36	22n34	8n36	17s28	17s14	19n20	16s59	4n42					
S 2	22 10	2 58	4 53	20 44	1 47	25 23	2 27	12 56	0 47	10 8	0 54	12 9	1 17	23 26	0 8	7 55	1 36	22 34	8 35	17 28	17 13	19 19	16 58	4 42					
M 3	22 17	1s25	4 20	20 24	2 4	25 14	2 19	13 11	0 46	10 6	0 54	12 9	1 17	23 26	0 8	7 55	1 36	22 33	8 35	17 28	17 12	19 18	16 57	4 42					
T 4	22 24	5 53	3 33	20 4	2 21	25 5	2 10	13 26	0 46	10 5	0 55	12 9	1 17	23 26	0 8	7 56	1 36	22 33	8 35	17 29	17 11	19 17	16 57	4 42					
W 5	22 31	10 12	2 33	19 44	2 36	24 56	2 0	13 41	0 45	10 4	0 55	12 9	1 17	23 26	0 8	7 56	1 36	22 32	8 35	17 29	17 10	19 16	16 56	4 42					
T 6	22 38	14 8	1 22	19 25	2 51	24 47	1 50	13 56	0 45	10 3	0 55	12 9	1 18	23 26	0 8	7 57	1 36	22 32	8 35	17 30	17 9	19 15	16 55	4 43					
F 7	22 44	17 21	0 4	19 7	3 5	24 37	1 40	14 10	0 44	10 2	0 55	12 9	1 18	23 26	0 8	7 58	1 36	22 31	8 35	17 30	17 8	19 14	16 54	4 43					
S 8	22 49	19 31	1n16	18 50	3 18	24 27	1 29	14 24	0 43	10 1	0 56	12 9	1 18	23 26	0 8	7 58	1 36	22 31	8 34	17 30	17 8	19 13	16 53	4 43					
S 9	22 54	20 21	2 32	18 35	3 30	24 17	1 18	14 39	0 43	10 0	0 56	12 9	1 18	23 27	0 8	7 59	1 36	22 31	8 34	17 29	17 7	19 12	16 52	4 43					
M10	22 59	19 44	3 39	18 21	3 40	24 7	1 6	14 53	0 42	9 59	0 56	12 9	1 18	23 27	0 8	7 59	1 36	22 30	8 34	17 28	17 6	19 11	16 52	4 43					
T 11	23 3	17 41	4 29	18 9	3 49	23 56	0 54	15 7	0 42	9 58	0 56	12 10	1 19	23 27	0 8	8 0	1 36	22 30	8 34	17 27	17 5	19 10	16 51	4 43					
W12	23 7	14 28	5 1	17 58	3 57	23 45	0 42	15 21	0 41	9 57	0 57	12 10	1 19	23 27	0 8	8 0	1 36	22 29	8 34	17 26	17 4	19 9	16 50	4 43					
T 13	23 11	10 25	5 12	17 49	4 4	23 34	0 29	15 34	0 41	9 57	0 57	12 10	1 19	23 27	0 8	8 1	1 36	22 29	8 34	17 25	17 3	19 8	16 49	4 43					
F 14	23 14	5 52	5 4	17 43	4 9	23 23	0 16	15 48	0 40	9 56	0 57	12 10	1 19	23 27	0 8	8 1	1 36	22 28	8 34	17 24	17 2	19 7	16 49	4 44					
S 15	23 17	1 9	4 37	17 38	4 13	23 11	0 2	16 1	0 39	9 55	0 58	12 11	1 19	23 27	0 8	8 1	1 36	22 28	8 34	17 23	17 1	19 6	16 48	4 44					
S 16	23 19	3n29	3 56	17 35	4 16	22 59	0s11	16 14	0 39	9 55	0 58	12 11	1 20	23 28	0 8	8 2	1 37	22 27	8 33	17 23	17 0	19 5	16 47	4 44					
M17	23 21	7 50	3 4	17 33	4 17	22 47	0 25	16 27	0 38	9 55	0 58	12 11	1 20	23 28	0 8	8 2	1 37	22 27	8 33	17 24	16 59	19 5	16 46	4 44					
T 18	23 23	11 43	2 5	17 34	4 18	22 35	0 39	16 40	0 38	9 54	0 58	12 12	1 20	23 28	0 8	8 3	1 37	22 26	8 33	17 24	16 59	19 4	16 46	4 44					
W19	23 24	15 1	1 0	17 36	4 17	22 22	0 53	16 53	0 37	9 54	0 59	12 12	1 20	23 28	0 8	8 3	1 37	22 26	8 33	17 24	16 58	19 3	16 45	4 44					
T 20	23 24	17 36	0s 6	17 41	4 15	22 10	1 8	17 5	0 36	9 54	0 59	12 13	1 20	23 28	0 8	8 4	1 37	22 25	8 33	17 25	16 57	19 2	16 44	4 44					
F 21	23 25	19 23	1 11	17 46	4 12	21 57	1 22	17 17	0 36	9 54	0 59	12 13	1 21	23 28	0 8	8 4	1 37	22 25	8 33	17 24	16 56	19 1	16 44	4 44					
S 22	23 25	20 16	2 12	17 54	4 8	21 44	1 36	17 29	0 35	9 54	0 59	12 14	1 21	23 28	0 8	8 4	1 37	22 24	8 33	17 24	16 55	19 0	16 43	4 44					
S 23	23 24	20 14	3 6	18 3	4 3	21 31	1 50	17 41	0 34	9 54	1 0	12 14	1 21	23 29	0 8	8 5	1 37	22 23	8 33	17 22	16 54	18 59	16 42	4 44					
M24	23 23	19 19	3 53	18 13	3 58	21 18	2 4	17 53	0 34	9 54	1 0	12 15	1 21	23 29	0 8	8 5	1 37	22 23	8 32	17 20	16 53	18 58	16 42	4 44					
T 25	23 22	17 34	4 29	18 24	3 51	21 5	2 18	18 5	0 33	9 54	1 0	12 16	1 21	23 29	0 8	8 5	1 37	22 22	8 32	17 18	16 52	18 57	16 41	4 44					
W26	23 20	15 4	4 54	18 37	3 44	20 53	2 31	18 16	0 32	9 54	1 1	12 16	1 22	23 29	0 8	8 6	1 37	22 22	8 32	17 16	16 51	18 55	16 41	4 44					
T 27	23 18	11 56	5 6	18 50	3 36	20 40	2 44	18 27	0 32	9 55	1 1	12 17	1 22	23 29	0 8	8 6	1 37	22 21	8 32	17 13	16 51	18 54	16 40	4 44					
F 28	23 15	8 17	5 5	19 5	3 27	20 28	2 57	18 38	0 31	9 55	1 1	12 18	1 22	23 29	0 8	8 6	1 37	22 21	8 32	17 11	16 50	18 53	16 40	4 44					
S 29	23 12	4 16	4 50	19 20	3 18	20 16	3 9	18 49	0 30	9 55	1 1	12 18	1 22	23 29	0 8	8 7	1 37	22 20	8 32	17 10	16 49	18 52	16 39	4 44					
S 30	23n 9	0n 1	4s21	19n36	3s 8	20n 4	3s21	19n 0	0s30	9s56	1s 2	12s19	1s22	23n29	0n 8	8n 7	1s37	22n20	8n32	17s 9	16s48	18n51	16s39	4n44					



# ASTRODIENST EPHEMERIS for the year 2199

## geocentric

JULY 2199

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 36 40	9°24'17	2°29	17°26	29°R 9	27°46	6°R52	1°R10	26°11	24°V54	21°Q41	17°R52	16°M36	10°S34	6°R 4	M 1
T 2	18 40 37	10°21'30	15°27	18°32	28°II37	28°29	6°H50	1°H 8	26°14	24°55	21°42	17°D52	16°33	10°41	6°H 1	T 2
W 3	18 44 33	11°18'43	28°48	19°43	28° 7	29°12	6°49	1° 6	26°18	24°56	21°44	17°M53	16°30	10°47	5°58	W 3
T 4	18 48 30	12°15'55	12°M35	20°58	27°39	29°55	6°47	1° 4	26°21	24°56	21°45	17°R53	16°27	10°54	5°55	T 4
F 5	18 52 26	13°13'07	26°49	22°17	27°12	0°II38	6°46	1° 1	26°25	24°57	21°47	17°53	16°24	11° 1	5°52	F 5
S 6	18 56 23	14°10'19	11°A29	23°39	26°48	1°21	6°44	0°59	26°28	24°58	21°48	17°51	16°21	11° 8	5°49	S 6
S 7	19 0 20	15° 7'30	26°30	25° 5	26°25	2° 3	6°42	0°57	26°31	24°59	21°50	17°47	16°17	11°14	5°46	S 7
M 8	19 4 16	16° 4'41	11°S45	26°35	26° 5	2°46	6°40	0°54	26°35	24°59	21°51	17°40	16°14	11°21	5°44	M 8
T 9	19 8 13	17° 1'53	27° 3	28° 8	25°47	3°29	6°37	0°52	26°38	25° 0	21°53	17°32	16°11	11°28	5°41	T 9
W10	19 12 9	17°59'04	12°A13	29°45	25°32	4°11	6°34	0°49	26°42	25° 1	21°55	17°24	16° 8	11°34	5°39	W10
T 11	19 16 6	18°56'15	27° 5	1°S25	25°19	4°54	6°32	0°47	26°45	25° 1	21°56	17°15	16° 5	11°41	5°36	T 11
F 12	19 20 2	19°53'27	11°H32	3° 9	25° 8	5°36	6°29	0°44	26°48	25° 2	21°58	17° 8	16° 1	11°48	5°34	F 12
S 13	19 23 59	20°50'39	25°30	4°55	25° 0	6°18	6°25	0°41	26°52	25° 2	21°59	17° 4	15°58	11°54	5°32	S 13
S 14	19 27 55	21°47'51	8°V59	6°45	24°54	7° 1	6°22	0°38	26°55	25° 3	22° 1	17° 1	15°55	12° 1	5°29	S 14
M15	19 31 52	22°45'04	22° 0	8°38	24°50	7°43	6°18	0°35	26°58	25° 3	22° 3	17°D 0	15°52	12° 8	5°27	M15
T 16	19 35 49	23°42'18	4°B38	10°34	24°D49	8°25	6°15	0°32	27° 2	25° 4	22° 4	17° 1	15°49	12°15	5°25	T 16
W17	19 39 45	24°39'32	16° 58	12°32	24°50	9° 7	6°11	0°29	27° 5	25° 4	22° 6	17°R 1	15°46	12°21	5°23	W17
T 18	19 43 42	25°36'46	29° 3	14°32	24°54	9°49	6° 7	0°26	27° 8	25° 5	22° 8	17° 0	15°42	12°28	5°22	T 18
F 19	19 47 38	26°34'01	10°II59	16°35	24°59	10°31	6° 2	0°22	27°11	25° 5	22° 9	16°58	15°39	12°35	5°20	F 19
S 20	19 51 35	27°31'17	22°50	18°39	25° 7	11°13	5°58	0°19	27°15	25° 5	22°11	16°53	15°36	12°41	5°18	S 20
S 21	19 55 31	28°28'33	4°S39	20°44	25°17	11°55	5°53	0°16	27°18	25° 5	22°13	16°45	15°33	12°48	5°17	S 21
M22	19 59 28	29°25'50	16°29	22°51	25°29	12°36	5°49	0°12	27°21	25° 6	22°15	16°35	15°30	12°55	5°15	M22
T 23	20 3 25	0°Q23'07	28°22	24°58	25°44	13°18	5°44	0° 9	27°24	25° 6	22°16	16°22	15°27	13° 1	5°14	T 23
W24	20 7 21	1°20'25	10°Q20	27° 6	26° 0	13°59	5°38	0° 5	27°27	25° 6	22°18	16° 9	15°23	13° 8	5°12	W24
T 25	20 11 18	2°17'43	22°23	29°14	26°18	14°41	5°33	0° 1	27°30	25° 6	22°20	15°56	15°20	13°15	5°11	T 25
F 26	20 15 14	3°15'01	4°H33	1°Q22	26°37	15°22	5°28	29°A58	27°33	25° 6	22°22	15°45	15°17	13°22	5°10	F 26
S 27	20 19 11	4°12'20	16°52	3°30	26°59	16° 4	5°22	29°54	27°36	25° 6	22°23	15°35	15°14	13°28	5° 9	S 27
S 28	20 23 7	5° 9'39	29°22	5°37	27°22	16°45	5°17	29°50	27°39	25° 6	22°25	15°28	15°11	13°35	5° 8	S 28
M29	20 27 4	6° 6'59	12°A 4	7°43	27°47	17°26	5°11	29°46	27°42	25°R 6	22°27	15°24	15° 7	13°42	5° 8	M29
T 30	20 31 0	7° 4'19	25° 2	9°48	28°13	18° 7	5° 5	29°42	27°45	25° 6	22°29	15°22	15° 4	13°48	5° 7	T 30
W31	20 34 57	8°Q 1'40	8°M20	11°Q52	28°II42	18°II48	4°H59	29°A38	27°II48	25°V 6	22°Q31	15°M22	15°M 1	13°S55	5°H 6	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
M 1	23n 5	4s20	3s39	19n52	2s58	19n52	3s32	19n10	0s29	9s57	1s 2	12s20	1s23	23n29	0n 8	8n 7
T 2	23 0	8 37	2 45	20 9	2 47	19 41	3 43	19 20	0 28	9 57	1 2	12 21	1 23	23 30	0 8	8 7
W 3	22 56	12 36	1 41	20 26	2 35	19 31	3 53	19 30	0 28	9 58	1 3	12 22	1 23	23 30	0 8	8 8
T 4	22 51	16 3	0 28	20 43	2 24	19 20	4 3	19 40	0 27	9 59	1 3	12 23	1 23	23 30	0 8	8 8
F 5	22 45	18 39	0n48	20 59	2 12	19 11	4 12	19 50	0 26	10 0	1 3	12 24	1 23	23 30	0 8	8 8
S 6	22 40	20 6	2 3	21 16	2 0	19 2	4 21	19 59	0 25	10 1	1 3	12 25	1 23	23 30	0 8	8 8
S 7	22 33	20 11	3 11	21 32	1 47	18 53	4 29	20 9	0 25	10 2	1 4	12 26	1 24	23 30	0 8	8 9
M 8	22 27	18 47	4 7	21 47	1 35	18 45	4 36	20 18	0 24	10 3	1 4	12 27	1 24	23 30	0 8	8 9
T 9	22 20	16 3	4 45	22 2	1 22	18 38	4 43	20 27	0 23	10 4	1 4	12 28	1 24	23 30	0 8	8 9
W10	22 12	12 15	5 3	22 15	1 9	18 31	4 49	20 35	0 23	10 5	1 4	12 29	1 24	23 30	0 8	8 9
T 11	22 5	7 46	5 0	22 28	0 57	18 25	4 55	20 44	0 22	10 7	1 5	12 30	1 24	23 30	0 8	8 9
F 12	21 56	2 57	4 38	22 38	0 44	18 20	5 0	20 52	0 21	10 8	1 5	12 31	1 25	23 31	0 8	8 9
S 13	21 48	1n52	3 59	22 48	0 32	18 15	5 4	21 0	0 20	10 9	1 5	12 32	1 25	23 31	0 8	8 10
S 14	21 39	6 26	3 8	22 55	0 19	18 11	5 8	21 8	0 20	10 11	1 6	12 34	1 25	23 31	0 8	8 10
M15	21 30	10 34	2 9	23 1	0 7	18 7	5 12	21 16	0 19	10 12	1 6	12 35	1 25	23 31	0 8	8 10
T 16	21 20	14 5	1 6	23 4	0n 5	18 4	5 15	21 23	0 18	10 14	1 6	12 36	1 25	23 31	0 8	8 10
W17	21 10	16 53	0 0	23 5	0 16	18 1	5 18	21 30	0 17	10 16	1 6	12 37	1 25	23 31	0 8	8 10
T 18	21 0	18 53	1s 4	23 4	0 27	17 59	5 20	21 37	0 17	10 18	1 7	12 39	1 26	23 31	0 8	8 10
F 19	20 49	20 1	2 4	23 0	0 37	17 58	5 21	21 44	0 16	10 19	1 7	12 40	1 26	23 31	0 8	8 10
S 20	20 38	20 15	2 58	22 53	0 47	17 57	5 23	21 51	0 15	10 21	1 7	12 41	1 26	23 31	0 8	8 10
S 21	20 27	19 36	3 44	22 44	0 56	17 56	5 24	21 57	0 14	10 23	1 7	12 43	1 26	23 31	0 8	8 10
M22	20 15	18 5	4 21	22 32	1 4	17 56	5 24	22 4	0 13	10 25	1 8	12 44	1 26	23 31	0 8	8 10
T 23	20 3	15 47	4 46	22 18	1 12	17 56	5 24	22 10	0 13	10 27	1 8	12 45	1 26	23 31	0 8	8 10
W24	19 50	12 50	4 59	22 0	1 19	17 57	5 24	22 15	0 12	10 29	1 8	12 47	1 27	23 32	0 8	8 10
T 25	19 38	9 19	4 59	21 41	1 25	17 58	5 24	22 21	0 11	10 31	1 8	12 48	1 27	23 32	0 8	8 10
F 26	19 24	5 24	4 45	21 18	1 31	17 59	5 23	22 26	0 10	10 34	1 9	12 50	1 27	23 32	0 8	8 10
S 27	19 11	1 13	4 18	20 54	1 35	18 1	5 22	22 32	0 9	10 36	1 9	12 51	1 27	23 32	0 8	8 10
S 28	18 57	3s 5	3 38	20 27	1 39	18 3	5 21	22 37	0 9	10 38	1 9	12 53	1 27	23 32	0 8	8 10
M29	18 43	7 19	2 46	19 58	1 42	18 5	5 19	22 41	0 8	10 41	1 9	12 54	1 27	23 32	0 8	8 10
T 30	18 29	11 19	1 45	19 27	1 44	18 7	5 17	22 46	0 7	10 43	1 10	12 56	1 27	23 32	0 8	8 10
W31	18n14	14s51	0s37	18n54	1n46	18n 9	5s15	22n50	0s 6	10s45	1s10	12s57	1s28	23n32	0n 8	8n10

Julian Day Number = 2524409.5, Delta T = 162.51 sec  
 Ecliptic obliquity = 23°24'41, Nutation = 0°00'13, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 27°31'42, Lahiri = 26°38'42



ASTRODIENST EPHEMERIS for the year 2199  
geocentric

AUGUST 2199

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	20 38 53	8♌59°01	21♍59	13♊55	29♋11	19♌29	4♍52	29♎34	27♏51	25♐6	22♑32	15♒22	14♓58	14♈2	5♉6	T 1
F 2	20 42 50	9°56'22	6♊2	15°56	29°42	20°10	4♋46	29♌30	27°54	25♍6	22°34	15♎21	14°55	14°8	5♌5	F 2
S 3	20 46 47	10°53'44	20°28	17°56	0♌14	20°51	4°40	29°26	27°57	25°6	22°36	15°18	14°52	14°15	5°5	S 3
S 4	20 50 43	11°51'07	5♌16	19°55	0°48	21°31	4°33	29°22	28°0	25°6	22°38	15°12	14°48	14°22	5°5	S 4
M 5	20 54 40	12°48'30	20°19	21°52	1°23	22°12	4°26	29°18	28°2	25°6	22°40	15°4	14°45	14°29	5°5	M 5
T 6	20 58 36	13°45'54	5♌29	23°47	1°59	22°52	4°20	29°13	28°5	25°5	22°42	14°54	14°42	14°35	5°D 5	T 6
W 7	21 2 33	14°43'19	20°36	25°41	2°37	23°33	4°13	29°9	28°8	25°5	22°43	14°43	14°39	14°42	5°5	W 7
T 8	21 6 29	15°40'44	5♋28	27°33	3°15	24°13	4°6	29°5	28°11	25°5	22°45	14°33	14°36	14°49	5°5	T 8
F 9	21 10 26	16°38'11	19°58	29°24	3°55	24°54	3°59	29°0	28°13	25°4	22°47	14°24	14°32	14°55	5°5	F 9
S 10	21 14 22	17°35'39	4♍1	1♎13	4°36	25°34	3°51	28°56	28°16	25°4	22°49	14°17	14°29	15°2	5°6	S 10
S 11	21 18 19	18°33'08	17°34	3°1	5°17	26°14	3°44	28°52	28°18	25°4	22°51	14°13	14°26	15°9	5°6	S 11
M 12	21 22 16	19°30'38	0♋39	4°47	6°0	26°54	3°37	28°47	28°21	25°3	22°53	14°11	14°23	15°16	5°7	M 12
T 13	21 26 12	20°28'10	13°20	6°31	6°44	27°34	3°29	28°43	28°23	25°3	22°55	14°10	14°20	15°22	5°7	T 13
W 14	21 30 9	21°25'43	25°40	8°14	7°28	28°14	3°22	28°38	28°26	25°2	22°56	14°10	14°17	15°29	5°8	W 14
T 15	21 34 5	22°23'18	7♋45	9°56	8°14	28°54	3°14	28°34	28°28	25°2	22°58	14°10	14°13	15°36	5°9	T 15
F 16	21 38 2	23°20'54	19°40	11°36	9°0	29°33	3°7	28°30	28°31	25°1	23°0	14°7	14°10	15°42	5°10	F 16
S 17	21 41 58	24°18'31	1♌31	13°14	9°48	0♌13	2°59	28°25	28°33	25°0	23°2	14°2	14°7	15°49	5°11	S 17
S 18	21 45 55	25°16'10	13°20	14°51	10°36	0°52	2°51	28°21	28°35	25°0	23°4	13°55	14°4	15°56	5°12	S 18
M 19	21 49 51	26°13'50	25°13	16°26	11°24	1°32	2°43	28°16	28°38	24°59	23°6	13°45	14°1	16°2	5°14	M 19
T 20	21 53 48	27°11'31	7♌11	18°0	12°14	2°11	2°36	28°12	28°40	24°58	23°8	13°32	13°58	16°9	5°15	T 20
W 21	21 57 45	28°9'14	19°16	19°32	13°4	2°50	2°28	28°7	28°42	24°58	23°9	13°19	13°54	16°16	5°16	W 21
T 22	22 1 41	29°6'59	1♎30	21°3	13°55	3°30	2°20	28°3	28°44	24°57	23°11	13°6	13°51	16°23	5°18	T 22
F 23	22 5 38	0♎44	13°53	22°32	14°47	4°9	2°12	27°58	28°47	24°56	23°13	12°55	13°48	16°29	5°20	F 23
S 24	22 9 34	1°2'31	26°26	24°0	15°39	4°48	2°4	27°54	28°49	24°55	23°15	12°45	13°45	16°36	5°21	S 24
S 25	22 13 31	2°0'19	9♌10	25°27	16°32	5°27	1°56	27°49	28°51	24°55	23°17	12°38	13°42	16°43	5°23	S 25
M 26	22 17 27	2°58'08	22°4	26°51	17°25	6°5	1°48	27°45	28°53	24°54	23°19	12°34	13°38	16°49	5°25	M 26
T 27	22 21 24	3°55'59	5♍12	28°14	18°19	6°44	1°40	27°40	28°55	24°53	23°21	12°32	13°35	16°56	5°27	T 27
W 28	22 25 20	4°53'50	18°34	29°36	19°14	7°23	1°33	27°36	28°56	24°52	23°22	12°D 32	13°32	17°3	5°29	W 28
T 29	22 29 17	5°51'43	2♊13	0♌56	20°9	8°1	1°25	27°31	28°58	24°51	23°24	12°R 33	13°29	17°10	5°32	T 29
F 30	22 33 14	6°49'38	16°8	2°14	21°4	8°40	1°17	27°27	29°0	24°50	23°26	12°32	13°26	17°16	5°34	F 30
S 31	22 37 10	7♎47'33	0♋22	3♌31	22°50	9°58	1°18	27°22	29♋2	24°49	23°28	12♌30	13♍23	17°523	5♊36	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	17n59	17s41	0n35	18n20	1n47	18n12	5s13	22n54	0s 5	10s48	1s10	12s59	1s28	23n32
F 2	17 44	19 32	1 47	17 44	1 47	18 15	5 10	22 58	0 4	10 50	1 10	13 0	1 28	23 32
S 3	17 29	20 11	2 54	17 7	1 46	18 17	5 7	23 2	0 4	10 53	1 10	13 2	1 28	23 32
S 4	17 13	19 27	3 51	16 29	1 45	18 20	5 5	23 6	0 3	10 56	1 11	13 3	1 28	23 32
M 5	16 57	17 22	4 33	15 50	1 43	18 23	5 1	23 9	0 2	10 58	1 11	13 5	1 28	23 32
T 6	16 41	14 5	4 56	15 10	1 41	18 26	4 58	23 12	0 1	11 1	1 11	13 7	1 28	23 32
W 7	16 24	9 53	4 59	14 29	1 38	18 28	4 55	23 15	0 0	11 4	1 11	13 8	1 28	23 32
T 8	16 7	5 8	4 41	13 47	1 34	18 31	4 51	23 18	0n 1	11 6	1 11	13 10	1 29	23 32
F 9	15 50	0 13	4 5	13 5	1 30	18 34	4 48	23 20	0 1	11 9	1 12	13 11	1 29	23 33
S 10	15 33	4n35	3 15	12 22	1 26	18 36	4 44	23 23	0 2	11 12	1 12	13 13	1 29	23 33
S 11	15 15	8 59	2 16	11 39	1 21	18 39	4 40	23 25	0 3	11 15	1 12	13 15	1 29	23 33
M 12	14 57	12 48	1 11	10 56	1 16	18 41	4 36	23 27	0 4	11 17	1 12	13 16	1 29	23 33
T 13	14 39	15 54	0 4	10 12	1 10	18 43	4 32	23 28	0 5	11 20	1 12	13 18	1 29	23 33
W 14	14 21	18 10	1s 0	9 28	1 4	18 45	4 27	23 30	0 6	11 23	1 12	13 20	1 29	23 33
T 15	14 2	19 35	2 1	8 44	0 58	18 47	4 23	23 31	0 7	11 26	1 13	13 21	1 29	23 33
F 16	13 43	20 5	2 56	8 0	0 52	18 48	4 18	23 32	0 8	11 29	1 13	13 23	1 29	23 33
S 17	13 24	19 41	3 43	7 16	0 45	18 50	4 14	23 33	0 8	11 32	1 13	13 25	1 29	23 33
S 18	13 5	18 26	4 20	6 32	0 37	18 51	4 9	23 34	0 9	11 35	1 13	13 26	1 30	23 33
M 19	12 46	16 23	4 45	5 49	0 30	18 52	4 5	23 34	0 10	11 38	1 13	13 28	1 30	23 33
T 20	12 26	13 38	4 59	5 5	0 22	18 52	4 0	23 35	0 11	11 41	1 13	13 29	1 30	23 33
W 21	12 6	10 17	4 59	4 22	0 14	18 52	3 55	23 35	0 12	11 44	1 13	13 31	1 30	23 33
T 22	11 46	6 29	4 46	3 38	0 6	18 52	3 50	23 35	0 13	11 46	1 13	13 33	1 30	23 33
F 23	11 26	2 21	4 19	2 56	0s 2	18 52	3 45	23 35	0 14	11 49	1 14	13 34	1 30	23 33
S 24	11 5	1s56	3 39	2 13	0 10	18 51	3 40	23 34	0 15	11 52	1 14	13 36	1 30	23 33
S 25	10 45	6 11	2 47	1 31	0 19	18 50	3 35	23 34	0 16	11 55	1 14	13 38	1 30	23 33
M 26	10 24	10 14	1 46	0 50	0 28	18 48	3 30	23 33	0 17	11 58	1 14	13 39	1 30	23 33
T 27	10 3	13 51	0 39	0 9	0 36	18 47	3 25	23 32	0 18	12 1	1 14	13 41	1 30	23 33
W 28	9 42	16 49	0n32	0s32	0 45	18 44	3 20	23 31	0 19	12 4	1 14	13 42	1 30	23 33
T 29	9 21	18 54	1 43	1 12	0 54	18 42	3 14	23 30	0 20	12 7	1 14	13 44	1 30	23 33
F 30	9 0	19 53	2 49	1 51	1 3	18 39	3 9	23 28	0 20	12 10	1 14	13 46	1 30	23 33
S 31	8n38	19s39	3n46	2s30	1s13	18n35	3s 4	23n27	0n21	12s13	1s14	13s47	1s30	23n33

Julian Day Number = 2524440.5, Delta T = 162.59 sec  
Ecliptic obliquity = 23°24'41, Nutation = 0°00'13, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 27°31'46, Lahiri = 26°38'46

ASTRODIENST EPHEMERIS for the year 2199  
geocentric

SEPTEMBER 2199

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 41 7	8♍45'30	14♌52	4♊45	22♌57	9♌56	1°R 1	27°R18	29♊ 4	24°R48	23♌30	12°R26	13♌19	17♌30	5♌39	S 1
M 2	22 45 3	9°43'28	29°34	5°58	23°54	10°34	0♋54	27°R14	29° 5	24°Y47	23°32	12♌20	13°16	17°36	5°42	M 2
T 3	22 49 0	10°41'27	14♌23	7° 9	24°52	11°12	0°46	27° 9	29° 7	24°46	23°33	12°11	13°13	17°43	5°44	T 3
W 4	22 52 56	11°39'28	29°10	8°18	25°50	11°50	0°38	27° 5	29° 9	24°45	23°35	12° 2	13°10	17°50	5°47	W 4
T 5	22 56 53	12°37'30	13♋48	9°25	26°48	12°28	0°31	27° 1	29°10	24°44	23°37	11°53	13° 7	17°56	5°50	T 5
F 6	23 0 49	13°35'34	28° 8	10°29	27°47	13° 6	0°23	26°57	29°12	24°42	23°39	11°45	13° 4	18° 3	5°53	F 6
S 7	23 4 46	14°33'39	12°Y 6	11°31	28°46	13°43	0°16	26°52	29°13	24°41	23°40	11°40	13° 0	18°10	5°56	S 7
S 8	23 8 43	15°31'47	25°38	12°31	29°46	14°21	0° 9	26°48	29°15	24°40	23°42	11°36	12°57	18°17	5°59	S 8
M 9	23 12 39	16°29'56	8♌45	13°28	0♌46	14°58	0° 1	26°44	29°16	24°39	23°44	11°D35	12°54	18°23	6° 3	M 9
T 10	23 16 36	17°28'07	21°27	14°22	1°46	15°36	29°54	26°40	29°17	24°38	23°46	11°35	12°51	18°30	6° 6	T 10
W11	23 20 32	18°26'21	3♊50	15°14	2°47	16°13	29°47	26°36	29°18	24°36	23°47	11°36	12°48	18°37	6° 9	W11
T 12	23 24 29	19°24'36	15°58	16° 2	3°49	16°50	29°40	26°32	29°20	24°35	23°49	11°R37	12°44	18°43	6°13	T 12
F 13	23 28 25	20°22'53	27°55	16°47	4°50	17°27	29°33	26°28	29°21	24°34	23°51	11°37	12°41	18°50	6°16	F 13
S 14	23 32 22	21°21'13	9♌46	17°28	5°52	18° 4	29°26	26°24	29°22	24°32	23°53	11°35	12°38	18°57	6°20	S 14
S 15	23 36 18	22°19'34	21°38	18° 5	6°54	18°40	29°20	26°20	29°23	24°31	23°54	11°31	12°35	19° 4	6°24	S 15
M16	23 40 15	23°17'58	3♌33	18°38	7°57	19°17	29°13	26°17	29°24	24°30	23°56	11°25	12°32	19°10	6°28	M16
T 17	23 44 12	24°16'23	15°36	19° 7	9° 0	19°54	29° 7	26°13	29°25	24°28	23°58	11°17	12°29	19°17	6°32	T 17
W18	23 48 8	25°14'51	27°49	19°31	10° 3	20°30	29° 0	26° 9	29°26	24°27	23°59	11° 9	12°25	19°24	6°36	W18
T 19	23 52 5	26°13'20	10♍14	19°49	11° 6	21° 6	28°54	26° 6	29°27	24°26	24° 1	11° 1	12°22	19°30	6°40	T 19
F 20	23 56 1	27°11'52	22°52	20° 2	12°10	21°42	28°48	26° 2	29°28	24°24	24° 3	10°53	12°19	19°37	6°44	F 20
S 21	23 59 58	28°10'25	5♊43	20°10	13°14	22°19	28°42	25°59	29°28	24°23	24° 4	10°47	12°16	19°44	6°48	S 21
S 22	0 3 54	29° 9'00	18°47	20°R11	14°18	22°54	28°36	25°55	29°29	24°21	24° 6	10°43	12°13	19°51	6°53	S 22
M23	0 7 51	0♊737	2♌ 3	20° 5	15°23	23°30	28°31	25°52	29°30	24°20	24° 7	10°41	12° 9	19°57	6°57	M23
T 24	0 11 47	1° 6'16	15°30	19°53	16°28	24° 6	28°25	25°49	29°30	24°18	24° 9	10°D40	12° 6	20° 4	7° 1	T 24
W25	0 15 44	2° 4'57	29° 8	19°34	17°33	24°41	28°20	25°45	29°31	24°17	24°10	10°41	12° 3	20°11	7° 6	W25
T 26	0 19 40	3° 3'39	12♌57	19° 7	18°38	25°17	28°15	25°42	29°31	24°15	24°12	10°43	12° 0	20°17	7°11	T 26
F 27	0 23 37	4° 2'23	26°56	18°34	19°43	25°52	28°10	25°39	29°32	24°14	24°13	10°44	11°57	20°24	7°15	F 27
S 28	0 27 34	5° 1'09	11♌ 4	17°53	20°49	26°27	28° 5	25°36	29°32	24°12	24°15	10°R44	11°54	20°31	7°20	S 28
S 29	0 31 30	5°59'56	25°20	17° 5	21°55	27° 2	28° 0	25°33	29°33	24°11	24°16	10°43	11°50	20°38	7°25	S 29
M30	0 35 27	6♌58'45	9♌41	16♌11	23♌ 1	27♌37	27♌55	25°31	29♊33	24°Y 9	24♌18	10♌40	11♌47	20♌44	7♌30	M30

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	8n17	18s 7	4n30	3s 8	1s22	18n32	2s59	23n25	0n22	12s15	1s14	13s49	1s30	23n33	0n 9	8n 2	1s41	21n43	8n33	15s33	15s49	17n40	16s47	4n31			
M 2	7 55	15 23	4 56	3 46	1 31	18 27	2 53	23 23	0 23	12 18	1 14	13 50	1 30	23 33	0 9	8 1	1 41	21 43	8 33	15 31	15 48	17 39	16 47	4 30			
T 3	7 33	11 39	5 4	4 22	1 40	18 23	2 48	23 21	0 24	12 21	1 14	13 52	1 30	23 33	0 9	8 1	1 41	21 42	8 33	15 29	15 47	17 38	16 48	4 30			
W 4	7 11	7 12	4 51	4 58	1 49	18 18	2 43	23 18	0 25	12 24	1 14	13 53	1 30	23 34	0 9	8 0	1 41	21 42	8 33	15 26	15 46	17 37	16 49	4 30			
T 5	6 49	2 23	4 19	5 32	1 58	18 12	2 37	23 16	0 26	12 26	1 14	13 55	1 31	23 34	0 9	8 0	1 41	21 42	8 33	15 23	15 45	17 35	16 50	4 30			
F 6	6 27	2n29	3 31	6 6	2 7	18 6	2 32	23 13	0 27	12 29	1 14	13 56	1 31	23 34	0 9	8 0	1 41	21 41	8 34	15 21	15 44	17 34	16 50	4 29			
S 7	6 4	7 6	2 31	6 39	2 16	17 59	2 26	23 10	0 28	12 32	1 15	13 58	1 31	23 34	0 9	7 59	1 41	21 41	8 34	15 19	15 43	17 33	16 51	4 29			
S 8	5 42	11 13	1 24	7 10	2 25	17 53	2 21	23 7	0 29	12 34	1 15	13 59	1 31	23 34	0 9	7 59	1 41	21 40	8 34	15 18	15 42	17 32	16 52	4 29			
M 9	5 19	14 38	0 15	7 40	2 34	17 45	2 16	23 4	0 30	12 37	1 15	14 0	1 31	23 34	0 9	7 58	1 41	21 40	8 34	15 17	15 42	17 31	16 53	4 29			
T 10	4 57	17 15	0s53	8 10	2 43	17 37	2 10	23 1	0 31	12 39	1 15	14 2	1 31	23 34	0 9	7 58	1 41	21 39	8 34	15 18	15 41	17 29	16 54	4 28			
W11	4 34	18 59	1 57	8 37	2 51	17 29	2 5	22 58	0 32	12 42	1 15	14 3	1 31	23 34	0 9	7 57	1 41	21 39	8 34	15 18	15 40	17 28	16 54	4 28			
T 12	4 11	19 47	2 54	9 3	2 59	17 20	2 0	22 54	0 33	12 44	1 15	14 5	1 31	23 34	0 9	7 57	1 41	21 38	8 35	15 18	15 39	17 27	16 55	4 28			
F 13	3 48	19 41	3 43	9 28	3 7	17 11	1 54	22 50	0 34	12 47	1 15	14 6	1 31	23 34	0 9	7 56	1 41	21 38	8 35	15 18	15 38	17 26	16 56	4 28			
S 14	3 25	18 42	4 22	9 51	3 15	17 1	1 49	22 47	0 35	12 49	1 15	14 7	1 31	23 34	0 9	7 56	1 41	21 38	8 35	15 17	15 37	17 24	16 57	4 27			
S 15	3 2	16 55	4 49	10 11	3 22	16 51	1 44	22 43	0 36	12 51	1 15	14 9	1 31	23 34	0 9	7 55	1 41	21 37	8 35	15 16	15 36	17 23	16 58	4 27			
M16	2 39	14 24	5 5	10 30	3 28	16 40	1 39	22 39	0 37	12 54	1 14	14 10	1 31	23 34	0 9	7 55	1 41	21 37	8 35	15 14	15 35	17 22	16 59	4 27			
T 17	2 16	11 15	5 7	10 47	3 35	16 29	1 33	22 34	0 38	12 56	1 14	14 11	1 31	23 34	0 9	7 54	1 41	21 36	8 35	15 12	15 34	17 20	16 59	4 27			
W18	1 53	7 36	4 55	11 1	3 40	16 18	1 28	22 30	0 39	12 58	1 14	14 12	1 31	23 34	0 9	7 54	1 41	21 36	8 36	15 9	15 33	17 19	17 0	4 27			
T 19	1 30	3 34	4 29	11 13	3 45	16 5	1 23	22 25	0 40	13 0	1 14	14 14	1 31	23 34	0 9	7 53	1 41	21 36	8 36	15 7	15 32	17 18	17 1	4 26			
F 20	1 7	0s41	3 49	11 22	3 50	15 53	1 18	22 21	0 42	13 2	1 14	14 15	1 31	23 34	0 9	7 52	1 42	21 35	8 36	15 4	15 31	17 17	17 2	4 26			
S 21	0 44	5 0	2 58	11 28	3 53	15 40	1 13	22 16	0 43	13 4	1 14	14 16	1 31	23 34	0 9	7 52	1 42	21 35	8 36	15 3	15 30	17 15	17 3	4 26			
S 22	0 20	9 8	1 56	11 31	3 56	15 26	1 8	22 11	0 44	13 6	1 14	14 17	1 31	23 34	0 9	7 51	1 42	21 35	8 36	15 1	15 29	17 14	17 4	4 26			
M23	0s 3	12 54	0 47	11 30	3 57	15 13	1 3	22 6	0 45	13 8	1 14	14 18	1 31	23 34	0 9	7 51	1 42	21 34	8 37	15 1	15 28	17 13	17 5	4 26			
T 24	0 26	16 3	0n26	11 25	3 57	14 58	0 58	22 1	0 46	13 10	1 14	14 19	1 31	23 34	0 9	7 50	1 42	21 34	8 37	15 1	15 27	17 12	17 6	4 25			
W25	0 50	18 20	1 39	11 17	3 56	14 43	0 53	21 56	0 47	13 12	1 14	14 20	1 31	23 34	0 9	7 50	1 42	21 34	8 37	15 1	15 26	17 10	17 7	4 25			
T 26	1 13	19 34	2 47	11 5	3 53	14 28	0 48	21 51	0 48	13 14	1 14	14 21	1 31	23 34	0 9	7 49	1 42	21 33	8 37	15 1	15 25	17 9	17 8	4 25			
F 27	1 36	19 37	3 45	10 48	3 49	14 12	0 43	21 45	0 49	13 15	1 14	14 22	1 30	23 34	0 9	7 48	1 42	21 33	8 38	15 2	15 24	17 8	17 9	4 25			
S 28	2 0	18 27	4 31	10 27	3 43	13 56	0 38	21 40	0 50	13 17	1 14	14 23	1 30	23 34	0 9	7 48	1 42	21 33	8 38	15 2	15 23	17 6	17 10	4 25			
S 29	2 23	16 7	5 1	10 1	3 36	13 40	0 33	21 34	0 51	13 19	1 14	14 24	1 30	23 34	0 9	7 47	1 42	21 32	8 38	15 1	15 22	17 5	17 11	4 24			
M30	2s46	12s48	5n12	9s32	3s26	13n23	0s28	21n28	0n52	13s20	1s14	14s25	1s30	23n34	0n 9	7n47	1s42	21n32	8n38	15s 0	15s21	17n 4	17s11	4n24			



# ASTRODIENST EPHEMERIS for the year 2199

## geocentric

NOVEMBER 2199

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 41 36	8♉38°50	15♊37	25♋40	29♌56	14♍49	27♎11	24♏49	29♐15	23♑16	24♒54	10♓11	10♓ 6	24♓19	10♓40	F 1
S 2	2 45 33	9°38'44	28°53	27°18	1♌ 8	15°18	27°13	24°49	29♐14	23♑15	24°54	10♓11	10° 2	24°26	10°47	S 2
S 3	2 49 29	10°38'40	11♌56	28°57	2°19	15°47	27°15	24°50	29°12	23°13	24°55	10°11	9°59	24°33	10°54	S 3
M 4	2 53 26	11°38'39	24°43	0♉35	3°31	16°15	27°17	24°50	29°11	23°11	24°56	10°11	9°56	24°39	11° 1	M 4
T 5	2 57 23	12°38'39	7♊15	2°14	4°43	16°44	27°20	24°51	29° 9	23°10	24°56	10°11	9°53	24°46	11° 7	T 5
W 6	3 1 19	13°38'41	19°34	3°53	5°55	17°12	27°22	24°52	29° 8	23° 8	24°57	10°11	9°50	24°53	11°14	W 6
T 7	3 5 16	14°38'45	1♌42	5°32	7° 7	17°39	27°25	24°52	29° 6	23° 7	24°57	10°10	9°46	24°59	11°21	T 7
F 8	3 9 12	15°38'51	13°40	7°11	8°19	18° 7	27°28	24°53	29° 5	23° 5	24°58	10°10	9°43	25° 6	11°28	F 8
S 9	3 13 9	16°38'59	25°33	8°50	9°31	18°34	27°32	24°54	29° 3	23° 4	24°58	10° 9	9°40	25°13	11°35	S 9
S 10	3 17 5	17°39'09	7♌26	10°29	10°43	19° 1	27°35	24°56	29° 1	23° 2	24°59	10° 9	9°37	25°20	11°42	S 10
M 11	3 21 2	18°39'21	19°21	12° 7	11°56	19°28	27°39	24°57	29° 0	23° 1	24°59	10°D 8	9°34	25°26	11°49	M 11
T 12	3 24 58	19°39'35	1♊24	13°45	13° 8	19°55	27°43	24°58	28°58	22°59	25° 0	10° 9	9°31	25°33	11°56	T 12
W 13	3 28 55	20°39'51	13°40	15°23	14°21	20°21	27°47	25° 0	28°56	22°58	25° 0	10° 9	9°27	25°40	12° 4	W 13
T 14	3 32 52	21°40'09	26°13	17° 0	15°34	20°47	27°51	25° 1	28°54	22°56	25° 1	10°10	9°24	25°46	12°11	T 14
F 15	3 36 48	22°40'29	9♌ 7	18°38	16°46	21°13	27°55	25° 3	28°52	22°55	25° 1	10°11	9°21	25°53	12°18	F 15
S 16	3 40 45	23°40'51	22°23	20°14	17°59	21°38	28° 0	25° 5	28°50	22°54	25° 1	10°12	9°18	26° 0	12°25	S 16
S 17	3 44 41	24°41'15	6♉ 2	21°51	19°12	22° 3	28° 4	25° 6	28°48	22°52	25° 2	10°R13	9°15	26° 7	12°32	S 17
M 18	3 48 38	25°41'40	20° 3	23°27	20°25	22°28	28° 9	25° 8	28°46	22°51	25° 2	10°13	9°12	26°13	12°39	M 18
T 19	3 52 34	26°42'07	4♊23	25° 3	21°38	22°52	28°15	25°11	28°44	22°50	25° 2	10°12	9° 8	26°20	12°47	T 19
W 20	3 56 31	27°42'36	18°57	26°39	22°51	23°16	28°20	25°13	28°42	22°48	25° 2	10°10	9° 5	26°27	12°54	W 20
T 21	4 0 27	28°43'07	3♌37	28°15	24° 5	23°40	28°25	25°15	28°40	22°47	25° 2	10° 8	9° 2	26°34	13° 1	T 21
F 22	4 4 24	29°43'38	18°18	29°50	25°18	24° 3	28°31	25°17	28°38	22°46	25° 3	10° 5	8°59	26°40	13° 9	F 22
S 23	4 8 21	0♊44'11	2♌52	1♊25	26°31	24°26	28°37	25°20	28°36	22°45	25° 3	10° 3	8°56	26°47	13°16	S 23
S 24	4 12 17	1°44'45	17°14	3° 0	27°44	24°49	28°43	25°22	28°34	22°43	25° 3	10° 1	8°52	26°54	13°23	S 24
M 25	4 16 14	2°45'21	1♊22	4°34	28°58	25°11	28°49	25°25	28°31	22°42	25° 3	10°D 0	8°49	27° 0	13°31	M 25
T 26	4 20 10	3°45'57	15°14	6° 9	0♉11	25°33	28°55	25°28	28°29	22°41	25°R 3	10° 1	8°46	27° 7	13°38	T 26
W 27	4 24 7	4°46'34	28°50	7°43	1°25	25°55	29° 2	25°31	28°27	22°40	25° 3	10° 2	8°43	27°14	13°45	W 27
T 28	4 28 3	5°47'13	12♊10	9°17	2°39	26°16	29° 9	25°33	28°25	22°39	25° 3	10° 4	8°40	27°21	13°53	T 28
F 29	4 32 0	6°47'53	25°16	10°51	3°52	26°37	29°15	25°36	28°22	22°38	25° 3	10° 5	8°37	27°27	14° 0	F 29
S 30	4 35 56	7♊48'33	8♌ 9	12♊25	5♉ 6	26♌57	29♎22	25♏40	28♐20	22♑36	25♒ 3	10°R 6	8♓33	27♓34	14♓ 7	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
F 1	14s22	8n10	2n12	8s13	1n49	1n20	1n26	17n51	1n32	13s31	1s10	14s37	1s28	23n35	0n10	7n27	1s42	21n28	8n47	14s51	14s50	16n21	17s43	4n21	
S 2	14 41	12 2	1 2	8 52	1 45	0 54	1 28	17 43	1 34	13 31	1 9	14 37	1 28	23 35	0 10	7 27	1 42	21 28	8 47	14 51	14 49	16 20	17 44	4 20	
S 3	15 0	15 15	0s10	9 32	1 40	0 27	1 30	17 36	1 35	13 30	1 9	14 37	1 28	23 35	0 10	7 26	1 42	21 28	8 48	14 51	14 48	16 18	17 45	4 20	
M 4	15 19	17 38	1 20	10 11	1 35	0 1	1 32	17 29	1 37	13 29	1 9	14 37	1 28	23 35	0 10	7 25	1 42	21 28	8 48	14 51	14 47	16 17	17 46	4 20	
T 5	15 37	19 7	2 25	10 50	1 29	0s26	1 34	17 22	1 38	13 28	1 9	14 36	1 28	23 35	0 10	7 25	1 42	21 28	8 48	14 51	14 46	16 15	17 47	4 20	
W 6	15 55	19 39	3 22	11 29	1 24	0 53	1 36	17 15	1 40	13 27	1 9	14 36	1 28	23 35	0 10	7 24	1 42	21 28	8 49	14 51	14 45	16 14	17 48	4 20	
T 7	16 13	19 16	4 8	12 8	1 18	1 20	1 37	17 8	1 41	13 26	1 9	14 36	1 28	23 35	0 10	7 24	1 42	21 29	8 49	14 51	14 44	16 13	17 49	4 20	
F 8	16 30	18 0	4 44	12 46	1 12	1 47	1 39	17 1	1 43	13 24	1 8	14 35	1 28	23 35	0 10	7 23	1 42	21 29	8 49	14 51	14 43	16 11	17 50	4 20	
S 9	16 48	15 59	5 7	13 24	1 5	2 14	1 40	16 53	1 44	13 23	1 8	14 35	1 28	23 35	0 10	7 23	1 42	21 29	8 50	14 51	14 42	16 10	17 51	4 20	
S 10	17 5	13 17	5 17	14 1	0 59	2 41	1 42	16 46	1 46	13 22	1 8	14 34	1 28	23 35	0 10	7 22	1 42	21 29	8 50	14 51	14 41	16 8	17 52	4 20	
M11	17 21	10 3	5 13	14 37	0 52	3 8	1 43	16 39	1 47	13 20	1 8	14 34	1 28	23 35	0 10	7 22	1 42	21 29	8 50	14 50	14 40	16 7	17 53	4 20	
T 12	17 38	6 21	4 55	15 13	0 46	3 35	1 45	16 33	1 49	13 19	1 8	14 33	1 27	23 35	0 10	7 21	1 42	21 29	8 51	14 51	14 39	16 6	17 53	4 20	
W13	17 54	2 20	4 24	15 48	0 39	4 2	1 46	16 26	1 50	13 17	1 8	14 33	1 27	23 35	0 10	7 21	1 42	21 29	8 51	14 51	14 38	16 4	17 54	4 20	
T 14	18 10	1s52	3 40	16 23	0 32	4 29	1 47	16 19	1 52	13 16	1 8	14 32	1 27	23 35	0 10	7 20	1 42	21 30	8 51	14 51	14 37	16 3	17 55	4 21	
F 15	18 25	6 7	2 44	16 56	0 25	4 55	1 48	16 12	1 53	13 14	1 7	14 32	1 27	23 35	0 10	7 20	1 42	21 30	8 52	14 51	14 36	16 1	17 56	4 21	
S 16	18 40	10 12	1 37	17 29	0 19	5 22	1 49	16 5	1 55	13 12	1 7	14 31	1 27	23 35	0 10	7 19	1 42	21 30	8 52	14 52	14 35	16 0	17 57	4 21	
S 17	18 55	13 53	0 23	18 1	0 12	5 49	1 49	15 59	1 57	13 11	1 7	14 30	1 27	23 35	0 10	7 19	1 42	21 30	8 52	14 52	14 33	15 59	17 58	4 21	
M18	19 10	16 52	0n54	18 32	0 5	6 16	1 50	15 52	1 58	13 9	1 7	14 29	1 27	23 35	0 10	7 18	1 42	21 30	8 53	14 52	14 32	15 57	17 59	4 21	
T 19	19 24	18 52	2 10	19 2	0s 2	6 43	1 51	15 46	2 0	13 7	1 7	14 29	1 27	23 35	0 10	7 18	1 42	21 31	8 53	14 52	14 31	15 56	17 59	4 21	
W20	19 38	19 40	3 18	19 31	0 8	7 9	1 51	15 40	2 2	13 5	1 7	14 28	1 27	23 35	0 10	7 17	1 41	21 31	8 53	14 51	14 30	15 54	18 0	4 21	
T 21	19 51	19 8	4 14	20 0	0 15	7 36	1 52	15 33	2 3	13 3	1 6	14 27	1 27	23 35	0 10	7 17	1 41	21 31	8 54	14 50	14 29	15 53	18 1	4 21	
F 22	20 4	17 20	4 53	20 27	0 22	8 2	1 52	15 27	2 5	13 1	1 6	14 26	1 27	23 35	0 10	7 16	1 41	21 31	8 54	14 49	14 28	15 52	18 2	4 21	
S 23	20 17	14 25	5 12	20 53	0 28	8 28	1 52	15 21	2 7	12 59	1 6	14 25	1 27	23 35	0 10	7 16	1 41	21 32	8 54	14 49	14 27	15 50	18 3	4 21	
S 24	20 29	10 41	5 12	21 18	0 35	8 54	1 52	15 15	2 8	12 56	1 6	14 24	1 26	23 35	0 10	7 16	1 41	21 32	8 55	14 48	14 26	15 49	18 4	4 21	
M25	20 41	6 24	4 53	21 42	0 41	9 20	1 53	15 9	2 10	12 54	1 6	14 23	1 26	23 35	0 10	7 15	1 41	21 32	8 55	14 48	14 25	15 47	18 4	4 21	
T 26	20 53	1 51	4 17	22 5	0 47	9 46	1 53	15 3	2 12	12 52	1 6	14 22	1 26	23 35	0 10	7 15	1 41	21 32	8 55	14 48	14 24	15 46	18 5	4 21	
W27	21 4	2n43	3 28	22 27	0 54	10 12	1 52	14 58	2 14	12 49	1 6	14 21	1 26	23 35	0 10	7 14	1 41	21 33	8 56	14 48	14 23	15 44	18 6	4 21	
T 28	21 15	7 4	2 27	22 48	1 0	10 37	1 52	14 52	2 15	12 47	1 5	14 20	1 26	23 35	0 10	7 14	1 41	21 33	8 56	14 49	14 22	15 43	18 7	4 22	
F 29	21 25	11 1	1 21	23 8	1 6	11 2	1 52	14 47	2 17	12 44	1 5	14 19	1 26	23 34	0 10	7 14	1 41	21 33	8 56	14 49	14 21	15 41	18 7	4 22	
S 30	21s35	14n22	0n11	23s26	1s11	11s27	1n52	14n41	2n19	12s42	1s 5	14s18	1s26	23n34	0n10	7n13	1s41	21n34	8n57	14s50	14s20	15n40	18s 8	4n22	

# ASTRODIENST EPHEMERIS for the year 2199

## geocentric

DECEMBER 2199

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 39 53	8°49'16	20°49	13°58	6°20	27°17	29°30	25°43	28°R18	22°R35	25°R 2	10°R 5	8°M30	27°41	14°15	S 1
M 2	4 43 50	9°49'59	3°11	15°32	7°34	27°37	29°37	25°46	28°II15	22°Y34	25°R 2	10°M 3	8°27	27°47	14°22	M 2
T 3	4 47 46	10°50'44	15°39	17° 5	8°48	27°56	29°44	25°50	28°13	22°33	25° 2	10° 0	8°24	27°54	14°30	T 3
W 4	4 51 43	11°51'29	27°50	18°39	10° 1	28°14	29°52	25°53	28°10	22°32	25° 2	9°55	8°21	28° 1	14°37	W 4
T 5	4 55 39	12°52'17	9°52	20°12	11°15	28°33	29°59	25°57	28° 8	22°31	25° 2	9°49	8°18	28° 8	14°44	T 5
F 6	4 59 36	13°53'05	21°49	21°45	12°29	28°50	0°H 8	26° 0	28° 5	22°31	25° 1	9°42	8°14	28°14	14°52	F 6
S 7	5 3 32	14°53'55	3°12	23°18	13°44	29° 8	0°16	26° 4	28° 3	22°30	25° 1	9°36	8°11	28°21	14°59	S 7
S 8	5 7 29	15°54'46	15°32	24°52	14°58	29°25	0°24	26° 8	28° 1	22°29	25° 1	9°31	8° 8	28°28	15° 7	S 8
M 9	5 11 25	16°55'38	27°26	26°25	16°12	29°41	0°32	26°12	27°58	22°28	25° 0	9°27	8° 5	28°35	15°14	M 9
T 10	5 15 22	17°56'31	9°26	27°58	17°26	29°57	0°41	26°16	27°55	22°27	25° 0	9°25	8° 2	28°41	15°21	T 10
W11	5 19 19	18°57'26	21°38	29°31	18°40	0°12	0°50	26°20	27°53	22°26	25° 0	9°24	7°58	28°48	15°29	W11
T 12	5 23 15	19°58'22	4° 5	1° 4	19°55	0°27	0°58	26°24	27°50	22°26	24°59	9°25	7°55	28°55	15°36	T 12
F 13	5 27 12	20°59'19	16°54	2°36	21° 9	0°41	1° 7	26°28	27°48	22°25	24°59	9°27	7°52	29° 1	15°43	F 13
S 14	5 31 8	22° 0'18	0°M 7	4° 9	22°23	0°55	1°16	26°33	27°45	22°24	24°58	9°28	7°49	29° 8	15°51	S 14
S 15	5 35 5	23° 1'17	13°48	5°42	23°38	1° 8	1°26	26°37	27°43	22°24	24°58	9°R28	7°46	29°15	15°58	S 15
M16	5 39 1	24° 2'18	27°57	7°14	24°52	1°21	1°35	26°41	27°40	22°23	24°57	9°27	7°43	29°22	16° 6	M16
T 17	5 42 58	25° 3'20	12°31	8°46	26° 7	1°33	1°44	26°46	27°38	22°23	24°57	9°23	7°39	29°28	16°13	T 17
W18	5 46 54	26° 4'22	27°25	10°18	27°21	1°45	1°54	26°51	27°35	22°22	24°56	9°17	7°36	29°35	16°20	W18
T 19	5 50 51	27° 5'26	12°31	11°50	28°36	1°55	2° 4	26°55	27°33	22°21	24°55	9°10	7°33	29°42	16°28	T 19
F 20	5 54 48	28° 6'30	27°39	13°21	29°50	2° 6	2°14	27° 0	27°30	22°21	24°55	9° 2	7°30	29°48	16°35	F 20
S 21	5 58 44	29° 7'34	12°38	14°51	1° 5	2°15	2°24	27° 5	27°27	22°21	24°54	8°55	7°27	29°55	16°42	S 21
S 22	6 2 41	0° 8'39	27°20	16°21	2°19	2°24	2°34	27°10	27°25	22°20	24°53	8°49	7°24	0° 2	16°49	S 22
M23	6 6 37	1° 9'44	11°36	17°50	3°34	2°33	2°44	27°15	27°22	22°20	24°53	8°45	7°20	0° 9	16°57	M23
T 24	6 10 34	2°10'49	25°36	19°18	4°49	2°40	2°54	27°20	27°20	22°19	24°52	8°43	7°17	0°15	17° 4	T 24
W25	6 14 30	3°11'54	9°Y 8	20°45	6° 3	2°47	3° 5	27°25	27°17	22°19	24°51	8°D43	7°14	0°22	17°11	W25
T 26	6 18 27	4°13'00	22°18	22°10	7°18	2°54	3°15	27°30	27°15	22°19	24°50	8°44	7°11	0°29	17°18	T 26
F 27	6 22 24	5°14'06	5° 9	23°34	8°33	2°59	3°26	27°36	27°12	22°19	24°50	8°R45	7° 8	0°36	17°25	F 27
S 28	6 26 20	6°15'12	17°45	24°55	9°47	3° 4	3°37	27°41	27°10	22°18	24°49	8°44	7° 4	0°42	17°32	S 28
S 29	6 30 17	7°16'18	0°II 9	26°15	11° 2	3° 9	3°48	27°47	27° 7	22°18	24°48	8°42	7° 1	0°49	17°40	S 29
M30	6 34 13	8°17'25	12°23	27°31	12°17	3°12	3°59	27°52	27° 5	22°18	24°47	8°37	6°58	0°56	17°47	M30
T 31	6 38 10	9°18'31	24°II30	28°34	13°32	3°15	4°10	27°58	27°II 2	22°Y18	24°R46	8°M29	6°M55	1° 2	17°54	T 31

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	decl lat	
S 1	21s45	17n 0	0s58	23s43	1s17	11s52	1n51	14n36	2n21	12s39	1s 5	14s17	1s26	23n34	0n10	S 1
M 2	21 54	18 46	2 4	23 59	1 22	12 16	1 51	14 31	2 23	12 36	1 5	14 16	1 26	23 34	0 10	M 2
T 3	22 3	19 37	3 2	24 14	1 28	12 40	1 50	14 26	2 25	12 34	1 5	14 14	1 26	23 34	0 10	T 3
W 4	22 11	19 32	3 51	24 28	1 33	13 4	1 49	14 22	2 27	12 31	1 5	14 13	1 26	23 34	0 10	W 4
T 5	22 19	18 34	4 30	24 40	1 37	13 28	1 49	14 17	2 28	12 28	1 5	14 12	1 26	23 34	0 11	T 5
F 6	22 26	16 47	4 56	24 51	1 42	13 51	1 48	14 13	2 30	12 25	1 4	14 11	1 26	23 34	0 11	F 6
S 7	22 33	14 18	5 9	25 1	1 46	14 14	1 47	14 8	2 32	12 22	1 4	14 9	1 25	23 34	0 11	S 7
S 8	22 40	11 14	5 9	25 9	1 51	14 37	1 46	14 4	2 34	12 19	1 4	14 8	1 25	23 34	0 11	S 8
M 9	22 46	7 43	4 56	25 16	1 55	14 59	1 45	14 0	2 36	12 16	1 4	14 7	1 25	23 34	0 11	M 9
T 10	22 52	3 52	4 29	25 22	1 58	15 21	1 44	13 57	2 38	12 13	1 4	14 5	1 25	23 34	0 11	T 10
W11	22 57	0s13	3 51	25 26	2 2	15 43	1 43	13 53	2 40	12 10	1 4	14 4	1 25	23 34	0 11	W11
T 12	23 2	4 23	3 0	25 29	2 5	16 4	1 41	13 50	2 42	12 6	1 4	14 2	1 25	23 34	0 11	T 12
F 13	23 6	8 28	1 59	25 30	2 7	16 25	1 40	13 47	2 44	12 3	1 4	14 1	1 25	23 34	0 11	F 13
S 14	23 10	12 17	0 50	25 30	2 10	16 45	1 39	13 44	2 46	12 0	1 3	13 59	1 25	23 34	0 11	S 14
S 15	23 14	15 35	0n23	25 29	2 12	17 5	1 37	13 41	2 49	11 56	1 3	13 58	1 25	23 34	0 11	S 15
M16	23 17	18 5	1 38	25 26	2 13	17 25	1 36	13 38	2 51	11 53	1 3	13 56	1 25	23 34	0 11	M16
T 17	23 19	19 29	2 49	25 22	2 15	17 44	1 34	13 36	2 53	11 49	1 3	13 54	1 25	23 34	0 11	T 17
W18	23 21	19 34	3 49	25 16	2 16	18 3	1 32	13 34	2 55	11 46	1 3	13 53	1 25	23 34	0 11	W18
T 19	23 23	18 16	4 35	25 9	2 16	18 21	1 31	13 32	2 57	11 42	1 3	13 51	1 25	23 34	0 11	T 19
F 20	23 24	15 41	5 1	25 0	2 16	18 39	1 29	13 30	2 59	11 39	1 3	13 49	1 25	23 34	0 11	F 20
S 21	23 24	12 6	5 6	24 50	2 15	18 56	1 27	13 29	3 2	11 35	1 3	13 48	1 25	23 34	0 11	S 21
S 22	23 25	7 49	4 51	24 38	2 14	19 12	1 25	13 28	3 4	11 31	1 2	13 46	1 25	23 34	0 11	S 22
M23	23 24	3 12	4 18	24 25	2 12	19 29	1 23	13 27	3 6	11 27	1 2	13 44	1 24	23 34	0 11	M23
T 24	23 24	1n28	3 30	24 10	2 10	19 44	1 21	13 26	3 8	11 24	1 2	13 42	1 24	23 34	0 11	T 24
W25	23 22	5 57	2 32	23 54	2 7	19 59	1 19	13 26	3 10	11 20	1 2	13 40	1 24	23 34	0 11	W25
T 26	23 21	10 1	1 27	23 37	2 4	20 14	1 17	13 25	3 13	11 16	1 2	13 39	1 24	23 34	0 11	T 26
F 27	23 18	13 32	0 19	23 19	1 59	20 28	1 15	13 25	3 15	11 12	1 2	13 37	1 24	23 34	0 11	F 27
S 28	23 16	16 20	0s48	22 59	1 54	20 41	1 13	13 26	3 17	11 8	1 2	13 35	1 24	23 34	0 11	S 28
S 29	23 13	18 20	1 52	22 39	1 48	20 54	1 11	13 26	3 19	11 4	1 2	13 33	1 24	23 34	0 11	S 29
M30	23 9	19 27	2 50	22 17	1 41	21 6	1 9	13 27	3 22	11 0	1 2	13 31	1 24	23 33	0 11	M30
T 31	23s 5	19n39	3s39	21s55	1s33	21s18	1n 6	13n28	3n24	10s56	1s 2	13s29	1s24	23n33	0n11	T 31

Julian Day Number = 2524562.5, Delta T = 162.91 sec  
 Ecliptic obliquity = 23°24'40, Nutation = 0°00'10, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 27°32'03, Lahiri = 26°39'03