



# Astrodienst Ephemeris Tables for the year 1985

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 D5EPH

ASTRODIENST EPHEMERIS for the year 1985  
geocentric

JANUARY 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 42 21	10 <sup>30</sup> 59	29 <sup>42</sup>	17 <sup>58</sup>	26 <sup>21</sup>	5 <sup>8</sup>	21 <sup>27</sup>	24 <sup>44</sup>	15 <sup>22</sup>	1 <sup>29</sup>	4 <sup>22</sup>	26 <sup>35</sup>	25 <sup>9</sup>	13 <sup>8</sup>	4 <sup>9</sup>	T 1
W 2	6 46 18	11 <sup>32</sup> 08	11 <sup>40</sup>	18 <sup>51</sup>	27 <sup>28</sup>	5 <sup>54</sup>	21 <sup>41</sup>	24 <sup>50</sup>	15 <sup>25</sup>	1 <sup>31</sup>	4 <sup>23</sup>	26 <sup>37</sup>	25 <sup>6</sup>	13 <sup>15</sup>	4 <sup>6</sup>	W 2
T 3	6 50 14	12 <sup>33</sup> 17	23 <sup>50</sup>	19 <sup>48</sup>	28 <sup>35</sup>	6 <sup>40</sup>	21 <sup>55</sup>	24 <sup>55</sup>	15 <sup>29</sup>	1 <sup>34</sup>	4 <sup>24</sup>	26 <sup>38</sup>	25 <sup>3</sup>	13 <sup>22</sup>	4 <sup>4</sup>	T 3
F 4	6 54 11	13 <sup>34</sup> 26	6 <sup>11</sup> 15	20 <sup>48</sup>	29 <sup>42</sup>	7 <sup>26</sup>	22 <sup>9</sup>	25 <sup>1</sup>	15 <sup>32</sup>	1 <sup>36</sup>	4 <sup>25</sup>	26 <sup>37</sup>	24 <sup>59</sup>	13 <sup>28</sup>	4 <sup>2</sup>	F 4
S 5	6 58 7	14 <sup>35</sup> 35	18 <sup>58</sup>	21 <sup>51</sup>	0 <sup>49</sup>	8 <sup>12</sup>	22 <sup>23</sup>	25 <sup>6</sup>	15 <sup>35</sup>	1 <sup>38</sup>	4 <sup>26</sup>	26 <sup>35</sup>	24 <sup>56</sup>	13 <sup>35</sup>	3 <sup>59</sup>	S 5
S 6	7 2 4	15 <sup>36</sup> 43	2 <sup>2</sup>	22 <sup>57</sup>	1 <sup>55</sup>	8 <sup>57</sup>	22 <sup>37</sup>	25 <sup>12</sup>	15 <sup>39</sup>	1 <sup>40</sup>	4 <sup>28</sup>	26 <sup>30</sup>	24 <sup>53</sup>	13 <sup>42</sup>	3 <sup>57</sup>	S 6
M 7	7 6 1	16 <sup>37</sup> 52	15 <sup>27</sup>	24 <sup>6</sup>	3 <sup>1</sup>	9 <sup>43</sup>	22 <sup>51</sup>	25 <sup>17</sup>	15 <sup>42</sup>	1 <sup>43</sup>	4 <sup>29</sup>	26 <sup>23</sup>	24 <sup>50</sup>	13 <sup>48</sup>	3 <sup>55</sup>	M 7
T 8	7 9 57	17 <sup>39</sup> 00	29 <sup>9</sup>	25 <sup>17</sup>	4 <sup>7</sup>	10 <sup>29</sup>	23 <sup>5</sup>	25 <sup>22</sup>	15 <sup>45</sup>	1 <sup>45</sup>	4 <sup>30</sup>	26 <sup>15</sup>	24 <sup>47</sup>	13 <sup>55</sup>	3 <sup>52</sup>	T 8
W 9	7 13 54	18 <sup>40</sup> 08	13 <sup>9</sup>	26 <sup>30</sup>	5 <sup>13</sup>	11 <sup>15</sup>	23 <sup>19</sup>	25 <sup>28</sup>	15 <sup>49</sup>	1 <sup>47</sup>	4 <sup>31</sup>	26 <sup>5</sup>	24 <sup>43</sup>	14 <sup>2</sup>	3 <sup>50</sup>	W 9
T 10	7 17 50	19 <sup>41</sup> 16	27 <sup>15</sup>	27 <sup>44</sup>	6 <sup>18</sup>	12 <sup>1</sup>	23 <sup>33</sup>	25 <sup>33</sup>	15 <sup>52</sup>	1 <sup>49</sup>	4 <sup>32</sup>	25 <sup>57</sup>	24 <sup>40</sup>	14 <sup>9</sup>	3 <sup>48</sup>	T 10
F 11	7 21 47	20 <sup>42</sup> 24	11 <sup>28</sup>	29 <sup>0</sup>	7 <sup>23</sup>	12 <sup>46</sup>	23 <sup>47</sup>	25 <sup>38</sup>	15 <sup>55</sup>	1 <sup>51</sup>	4 <sup>33</sup>	25 <sup>49</sup>	24 <sup>37</sup>	14 <sup>15</sup>	3 <sup>46</sup>	F 11
S 12	7 25 43	21 <sup>43</sup> 31	25 <sup>43</sup>	0 <sup>18</sup>	8 <sup>28</sup>	13 <sup>32</sup>	24 <sup>1</sup>	25 <sup>43</sup>	15 <sup>58</sup>	1 <sup>53</sup>	4 <sup>34</sup>	25 <sup>44</sup>	24 <sup>34</sup>	14 <sup>22</sup>	3 <sup>44</sup>	S 12
S 13	7 29 40	22 <sup>44</sup> 39	9 <sup>56</sup>	1 <sup>37</sup>	9 <sup>32</sup>	14 <sup>18</sup>	24 <sup>15</sup>	25 <sup>48</sup>	16 <sup>1</sup>	1 <sup>56</sup>	4 <sup>34</sup>	25 <sup>41</sup>	24 <sup>31</sup>	14 <sup>29</sup>	3 <sup>42</sup>	S 13
M14	7 33 36	23 <sup>45</sup> 46	24 <sup>4</sup>	2 <sup>58</sup>	10 <sup>36</sup>	15 <sup>3</sup>	24 <sup>30</sup>	25 <sup>53</sup>	16 <sup>4</sup>	1 <sup>58</sup>	4 <sup>35</sup>	25 <sup>40</sup>	24 <sup>28</sup>	14 <sup>35</sup>	3 <sup>40</sup>	M14
T 15	7 37 33	24 <sup>46</sup> 54	8 <sup>6</sup>	4 <sup>19</sup>	11 <sup>40</sup>	15 <sup>49</sup>	24 <sup>44</sup>	25 <sup>58</sup>	16 <sup>7</sup>	2 <sup>0</sup>	4 <sup>36</sup>	25 <sup>41</sup>	24 <sup>24</sup>	14 <sup>42</sup>	3 <sup>39</sup>	T 15
W16	7 41 30	25 <sup>48</sup> 01	22 <sup>2</sup>	5 <sup>42</sup>	12 <sup>43</sup>	16 <sup>35</sup>	24 <sup>58</sup>	26 <sup>2</sup>	16 <sup>11</sup>	2 <sup>2</sup>	4 <sup>37</sup>	25 <sup>41</sup>	24 <sup>21</sup>	14 <sup>49</sup>	3 <sup>37</sup>	W16
T 17	7 45 26	26 <sup>49</sup> 08	5 <sup>51</sup>	7 <sup>5</sup>	13 <sup>46</sup>	17 <sup>20</sup>	25 <sup>12</sup>	26 <sup>7</sup>	16 <sup>14</sup>	2 <sup>4</sup>	4 <sup>38</sup>	25 <sup>41</sup>	24 <sup>18</sup>	14 <sup>55</sup>	3 <sup>35</sup>	T 17
F 18	7 49 23	27 <sup>50</sup> 15	19 <sup>33</sup>	8 <sup>30</sup>	14 <sup>49</sup>	18 <sup>6</sup>	25 <sup>26</sup>	26 <sup>12</sup>	16 <sup>17</sup>	2 <sup>6</sup>	4 <sup>38</sup>	25 <sup>39</sup>	24 <sup>15</sup>	15 <sup>2</sup>	3 <sup>34</sup>	F 18
S 19	7 53 19	28 <sup>51</sup> 22	3 <sup>6</sup>	9 <sup>55</sup>	15 <sup>52</sup>	18 <sup>51</sup>	25 <sup>40</sup>	26 <sup>16</sup>	16 <sup>20</sup>	2 <sup>8</sup>	4 <sup>39</sup>	25 <sup>33</sup>	24 <sup>12</sup>	15 <sup>9</sup>	3 <sup>32</sup>	S 19
S 20	7 57 16	29 <sup>52</sup> 28	16 <sup>29</sup>	11 <sup>21</sup>	16 <sup>54</sup>	19 <sup>37</sup>	25 <sup>54</sup>	26 <sup>21</sup>	16 <sup>22</sup>	2 <sup>10</sup>	4 <sup>40</sup>	25 <sup>25</sup>	24 <sup>9</sup>	15 <sup>15</sup>	3 <sup>31</sup>	S 20
M21	8 1 12	0 <sup>53</sup> 34	29 <sup>39</sup>	12 <sup>48</sup>	17 <sup>56</sup>	20 <sup>23</sup>	26 <sup>8</sup>	26 <sup>25</sup>	16 <sup>25</sup>	2 <sup>12</sup>	4 <sup>40</sup>	25 <sup>15</sup>	24 <sup>5</sup>	15 <sup>22</sup>	3 <sup>29</sup>	M21
T 22	8 5 9	1 <sup>54</sup> 38	12 <sup>36</sup>	14 <sup>15</sup>	18 <sup>57</sup>	21 <sup>8</sup>	26 <sup>22</sup>	26 <sup>29</sup>	16 <sup>28</sup>	2 <sup>15</sup>	4 <sup>41</sup>	25 <sup>2</sup>	24 <sup>2</sup>	15 <sup>29</sup>	3 <sup>28</sup>	T 22
W23	8 9 5	2 <sup>55</sup> 42	25 <sup>17</sup>	15 <sup>44</sup>	19 <sup>58</sup>	21 <sup>54</sup>	26 <sup>36</sup>	26 <sup>33</sup>	16 <sup>31</sup>	2 <sup>17</sup>	4 <sup>41</sup>	24 <sup>50</sup>	23 <sup>59</sup>	15 <sup>35</sup>	3 <sup>27</sup>	W23
T 24	8 13 2	3 <sup>56</sup> 45	7 <sup>44</sup>	17 <sup>13</sup>	20 <sup>58</sup>	22 <sup>39</sup>	26 <sup>50</sup>	26 <sup>38</sup>	16 <sup>34</sup>	2 <sup>19</sup>	4 <sup>42</sup>	24 <sup>38</sup>	23 <sup>56</sup>	15 <sup>42</sup>	3 <sup>25</sup>	T 24
F 25	8 16 59	4 <sup>57</sup> 48	19 <sup>56</sup>	18 <sup>42</sup>	21 <sup>58</sup>	23 <sup>25</sup>	27 <sup>4</sup>	26 <sup>42</sup>	16 <sup>37</sup>	2 <sup>21</sup>	4 <sup>42</sup>	24 <sup>27</sup>	23 <sup>53</sup>	15 <sup>49</sup>	3 <sup>24</sup>	F 25
S 26	8 20 55	5 <sup>58</sup> 49	1 <sup>57</sup>	20 <sup>13</sup>	22 <sup>58</sup>	24 <sup>10</sup>	27 <sup>18</sup>	26 <sup>46</sup>	16 <sup>39</sup>	2 <sup>23</sup>	4 <sup>43</sup>	24 <sup>19</sup>	23 <sup>49</sup>	15 <sup>55</sup>	3 <sup>23</sup>	S 26
S 27	8 24 52	6 <sup>59</sup> 49	13 <sup>49</sup>	21 <sup>44</sup>	23 <sup>57</sup>	24 <sup>55</sup>	27 <sup>32</sup>	26 <sup>49</sup>	16 <sup>42</sup>	2 <sup>24</sup>	4 <sup>43</sup>	24 <sup>14</sup>	23 <sup>46</sup>	16 <sup>2</sup>	3 <sup>22</sup>	S 27
M28	8 28 48	8 <sup>0</sup> 48	25 <sup>38</sup>	23 <sup>16</sup>	24 <sup>56</sup>	25 <sup>41</sup>	27 <sup>46</sup>	26 <sup>53</sup>	16 <sup>45</sup>	2 <sup>26</sup>	4 <sup>43</sup>	24 <sup>12</sup>	23 <sup>43</sup>	16 <sup>9</sup>	3 <sup>21</sup>	M28
T 29	8 32 45	9 <sup>1</sup> 45	7 <sup>27</sup>	24 <sup>48</sup>	25 <sup>54</sup>	26 <sup>26</sup>	28 <sup>0</sup>	26 <sup>57</sup>	16 <sup>47</sup>	2 <sup>28</sup>	4 <sup>44</sup>	24 <sup>11</sup>	23 <sup>40</sup>	16 <sup>15</sup>	3 <sup>20</sup>	T 29
W30	8 36 41	10 <sup>2</sup> 42	19 <sup>23</sup>	26 <sup>21</sup>	26 <sup>51</sup>	27 <sup>12</sup>	28 <sup>14</sup>	27 <sup>1</sup>	16 <sup>50</sup>	2 <sup>30</sup>	4 <sup>44</sup>	24 <sup>11</sup>	23 <sup>37</sup>	16 <sup>22</sup>	3 <sup>20</sup>	W30
T 31	8 40 38	11 <sup>3</sup> 37	1 <sup>32</sup>	27 <sup>55</sup>	27 <sup>48</sup>	27 <sup>57</sup>	28 <sup>28</sup>	27 <sup>4</sup>	16 <sup>52</sup>	2 <sup>32</sup>	4 <sup>44</sup>	24 <sup>11</sup>	23 <sup>34</sup>	16 <sup>29</sup>	3 <sup>19</sup>	T 31

Delta T = 54.34 sec

FEBRUARY 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 44 34	12 <sup>33</sup> 4'32	13 <sup>II</sup> 57	29 <sup>☾</sup> 29	28 <sup>♂</sup> 45	28 <sup>♂</sup> 42	28 <sup>☾</sup> 42	27 <sup>♂</sup> 8	16 <sup>♂</sup> 55	2 <sup>☾</sup> 34	4 <sup>♂</sup> 44	24 <sup>♂</sup> 10	23 <sup>☾</sup> 30	16 <sup>♂</sup> 35	3 <sup>♂</sup> 18	F 1
S 2	8 48 31	13° 5'24	26°45	1 <sup>♂</sup> 5	29°40	29°27	28°56	27°11	16°57	2°36	4°45	24 <sup>♂</sup> 6	23°27	16°42	3 <sup>II</sup> 18	S 2
S 3	8 52 28	14° 6'16	9 <sup>☾</sup> 57	2°41	0 <sup>♂</sup> 36	0 <sup>♂</sup> 13	29°10	27°14	17° 0	2°38	4°45	23°59	23°24	16°49	3°17	S 3
M 4	8 56 24	15° 7'06	23°36	4°17	1°30	0°58	29°23	27°17	17° 2	2°39	4°45	23°50	23°21	16°55	3°17	M 4
T 5	9 0 21	16° 7'55	7 <sup>II</sup> 38	5°54	2°24	1°43	29°37	27°20	17° 4	2°41	4°45	23°39	23°18	17° 2	3°16	T 5
W 6	9 4 17	17° 8'43	22° 1	7°32	3°17	2°28	29°51	27°23	17° 7	2°43	4°R45	23°26	23°15	17° 9	3°16	W 6
T 7	9 8 14	18° 9'30	6 <sup>♂</sup> 37	9°11	4°10	3°13	0 <sup>♂</sup> 5	27°26	17° 9	2°45	4°45	23°14	23°11	17°15	3°16	T 7
F 8	9 12 10	19°10'15	21°19	10°51	5° 2	3°58	0°19	27°29	17°11	2°46	4°45	23° 4	23° 8	17°22	3°16	F 8
S 9	9 16 7	20°10'59	6 <sup>♂</sup> 0	12°31	5°53	4°43	0°32	27°32	17°13	2°48	4°45	22°56	23° 5	17°29	3°15	S 9
S 10	9 20 3	21°11'42	20°32	14°13	6°43	5°28	0°46	27°34	17°15	2°50	4°45	22°51	23° 2	17°35	3°D15	S 10
M11	9 24 0	22°12'24	4 <sup>II</sup> 52	15°55	7°32	6°13	1° 0	27°37	17°17	2°51	4°44	22°49	22°59	17°42	3°16	M11
T 12	9 27 57	23°13'05	18°57	17°37	8°21	6°58	1°13	27°39	17°19	2°53	4°44	22°49	22°55	17°49	3°16	T 12
W13	9 31 53	24°13'45	2 <sup>♂</sup> 47	19°21	9° 8	7°43	1°27	27°42	17°21	2°55	4°44	22°49	22°52	17°55	3°16	W13
T 14	9 35 50	25°14'24	16°22	21° 6	9°55	8°28	1°40	27°44	17°23	2°56	4°44	22°48	22°49	18° 2	3°16	T 14
F 15	9 39 46	26°15'02	29°45	22°51	10°41	9°12	1°54	27°46	17°25	2°58	4°43	22°44	22°46	18° 9	3°16	F 15
S 16	9 43 43	27°15'39	12 <sup>☾</sup> 56	24°37	11°26	9°57	2° 7	27°48	17°27	2°59	4°43	22°38	22°43	18°15	3°17	S 16
S 17	9 47 39	28°16'14	25°55	26°25	12° 9	10°42	2°21	27°50	17°29	3° 1	4°43	22°29	22°40	18°22	3°17	S 17
M18	9 51 36	29°16'48	8 <sup>♂</sup> 44	28°13	12°52	11°27	2°34	27°52	17°31	3° 2	4°42	22°17	22°36	18°29	3°18	M18
T 19	9 55 32	0 <sup>♂</sup> 17'21	21°22	0 <sup>♂</sup> 1	13°33	12°11	2°47	27°54	17°32	3° 4	4°42	22° 4	22°33	18°35	3°18	T 19
W20	9 59 29	1°17'52	3 <sup>♂</sup> 48	1°51	14°14	12°56	3° 0	27°55	17°34	3° 5	4°41	21°49	22°30	18°42	3°19	W20
T 21	10 3 26	2°18'21	16° 4	3°42	14°53	13°40	3°14	27°57	17°35	3° 7	4°41	21°36	22°27	18°49	3°20	T 21
F 22	10 7 22	3°18'48	28° 9	5°33	15°31	14°25	3°27	27°58	17°37	3° 8	4°40	21°24	22°24	18°56	3°21	F 22
S 23	10 11 19	4°19'14	10 <sup>♂</sup> 5	7°25	16° 8	15° 9	3°40	28° 0	17°38	3° 9	4°40	21°14	22°21	19° 2	3°22	S 23
S 24	10 15 15	5°19'38	21°55	9°18	16°43	15°54	3°53	28° 1	17°40	3°11	4°39	21° 8	22°17	19° 9	3°23	S 24
M25	10 19 12	6°20'00	3 <sup>♂</sup> 42	11°11	17°17	16°38	4° 6	28° 2	17°41	3°12	4°39	21° 4	22°14	19°15	3°24	M25
T 26	10 23 8	7°20'20	15°30	13° 5	17°49	17°23	4°19	28° 3	17°43	3°13	4°38	21° 3	22°11	19°22	3°25	T 26
W27	10 27 5	8°20'39	27°24	14°59	18°20	18° 7	4°32	28° 4	17°44	3°14	4°37	21°D 3	22° 8	19°29	3°26	W27
T 28	10 31 1	9 <sup>♂</sup> 20'55	9 <sup>II</sup> 30	16 <sup>♂</sup> 53	18 <sup>♂</sup> 49	18 <sup>♂</sup> 51	4 <sup>♂</sup> 45	28 <sup>♂</sup> 5	17 <sup>♂</sup> 45	3 <sup>☾</sup> 15	4 <sup>II</sup> 36	21°R 3	22 <sup>♂</sup> 5	19 <sup>♂</sup> 36	3 <sup>II</sup> 27	T 28

## ASTRODIENST EPHEMERIS for the year 1985

geocentric

MARCH 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 34 58	10 <sup>h</sup> 21'09"	21 <sup>h</sup> 11'52"	18 <sup>h</sup> 47'	19 <sup>h</sup> 17'	19 <sup>h</sup> 36'	4 <sup>h</sup> 58'	28 <sup>h</sup> 5'	17 <sup>h</sup> 46'	3 <sup>h</sup> 17'	4 <sup>h</sup> 36'	21 <sup>h</sup> 02'	22 <sup>h</sup> 8'	19 <sup>h</sup> 42'	3 <sup>h</sup> 29'	F 1
S 2	10 38 55	11 <sup>h</sup> 21'22"	4 <sup>h</sup> 37'	20 <sup>h</sup> 42'	19 <sup>h</sup> 43'	20 <sup>h</sup> 20'	5 <sup>h</sup> 10'	28 <sup>h</sup> 6'	17 <sup>h</sup> 47'	3 <sup>h</sup> 18'	4 <sup>h</sup> 35'	21 <sup>h</sup> 8'	21 <sup>h</sup> 58'	19 <sup>h</sup> 49'	3 <sup>h</sup> 30'	S 2
S 3	10 42 51	12 <sup>h</sup> 21'32"	17 <sup>h</sup> 48'	22 <sup>h</sup> 35'	20 <sup>h</sup> 7'	21 <sup>h</sup> 4'	5 <sup>h</sup> 23'	28 <sup>h</sup> 7'	17 <sup>h</sup> 49'	3 <sup>h</sup> 19'	4 <sup>h</sup> 34'	20 <sup>h</sup> 55'	21 <sup>h</sup> 55'	19 <sup>h</sup> 56'	3 <sup>h</sup> 31'	S 3
M 4	10 46 48	13 <sup>h</sup> 21'40"	1 <sup>h</sup> 28'	24 <sup>h</sup> 28'	20 <sup>h</sup> 29'	21 <sup>h</sup> 48'	5 <sup>h</sup> 36'	28 <sup>h</sup> 7'	17 <sup>h</sup> 50'	3 <sup>h</sup> 20'	4 <sup>h</sup> 33'	20 <sup>h</sup> 48'	21 <sup>h</sup> 52'	20 <sup>h</sup> 2'	3 <sup>h</sup> 33'	M 4
T 5	10 50 44	14 <sup>h</sup> 21'46"	15 <sup>h</sup> 36'	26 <sup>h</sup> 20'	20 <sup>h</sup> 50'	22 <sup>h</sup> 32'	5 <sup>h</sup> 48'	28 <sup>h</sup> 7'	17 <sup>h</sup> 51'	3 <sup>h</sup> 21'	4 <sup>h</sup> 32'	20 <sup>h</sup> 39'	21 <sup>h</sup> 49'	20 <sup>h</sup> 9'	3 <sup>h</sup> 34'	T 5
W 6	10 54 41	15 <sup>h</sup> 21'50"	0 <sup>h</sup> 11'	28 <sup>h</sup> 11'	21 <sup>h</sup> 8'	23 <sup>h</sup> 16'	6 <sup>h</sup> 1'	28 <sup>h</sup> 7'	17 <sup>h</sup> 52'	3 <sup>h</sup> 22'	4 <sup>h</sup> 31'	20 <sup>h</sup> 29'	21 <sup>h</sup> 46'	20 <sup>h</sup> 16'	3 <sup>h</sup> 36'	W 6
T 7	10 58 37	16 <sup>h</sup> 21'52"	15 <sup>h</sup> 4'	29 <sup>h</sup> 59'	21 <sup>h</sup> 25'	24 <sup>h</sup> 0'	6 <sup>h</sup> 13'	28 <sup>h</sup> 8'	17 <sup>h</sup> 52'	3 <sup>h</sup> 23'	4 <sup>h</sup> 30'	20 <sup>h</sup> 18'	21 <sup>h</sup> 42'	20 <sup>h</sup> 22'	3 <sup>h</sup> 38'	T 7
F 8	11 2 34	17 <sup>h</sup> 21'52"	0 <sup>h</sup> 8'	1 <sup>h</sup> 46'	21 <sup>h</sup> 39'	24 <sup>h</sup> 44'	6 <sup>h</sup> 25'	28 <sup>h</sup> 8'	17 <sup>h</sup> 53'	3 <sup>h</sup> 24'	4 <sup>h</sup> 29'	20 <sup>h</sup> 10'	21 <sup>h</sup> 39'	20 <sup>h</sup> 29'	3 <sup>h</sup> 40'	F 8
S 9	11 6 30	18 <sup>h</sup> 21'51"	15 <sup>h</sup> 12'	3 <sup>h</sup> 30'	21 <sup>h</sup> 51'	25 <sup>h</sup> 28'	6 <sup>h</sup> 37'	28 <sup>h</sup> 7'	17 <sup>h</sup> 54'	3 <sup>h</sup> 25'	4 <sup>h</sup> 28'	20 <sup>h</sup> 3'	21 <sup>h</sup> 36'	20 <sup>h</sup> 35'	3 <sup>h</sup> 41'	S 9
S 10	11 10 27	19 <sup>h</sup> 21'47"	0 <sup>h</sup> 8'	5 <sup>h</sup> 10'	22 <sup>h</sup> 1'	26 <sup>h</sup> 12'	6 <sup>h</sup> 50'	28 <sup>h</sup> 7'	17 <sup>h</sup> 55'	3 <sup>h</sup> 26'	4 <sup>h</sup> 27'	19 <sup>h</sup> 59'	21 <sup>h</sup> 33'	20 <sup>h</sup> 42'	3 <sup>h</sup> 43'	S 10
M 11	11 14 24	20 <sup>h</sup> 21'42"	14 <sup>h</sup> 48'	6 <sup>h</sup> 47'	22 <sup>h</sup> 9'	26 <sup>h</sup> 56'	7 <sup>h</sup> 2'	28 <sup>h</sup> 7'	17 <sup>h</sup> 55'	3 <sup>h</sup> 27'	4 <sup>h</sup> 26'	19 <sup>h</sup> 57'	21 <sup>h</sup> 30'	20 <sup>h</sup> 49'	3 <sup>h</sup> 45'	M 11
T 12	11 18 20	21 <sup>h</sup> 21'35"	29 <sup>h</sup> 8'	8 <sup>h</sup> 19'	22 <sup>h</sup> 14'	27 <sup>h</sup> 40'	7 <sup>h</sup> 14'	28 <sup>h</sup> 7'	17 <sup>h</sup> 56'	3 <sup>h</sup> 27'	4 <sup>h</sup> 25'	19 <sup>h</sup> 58'	21 <sup>h</sup> 26'	20 <sup>h</sup> 55'	3 <sup>h</sup> 47'	T 12
W 13	11 22 17	22 <sup>h</sup> 21'27"	13 <sup>h</sup> 7'	9 <sup>h</sup> 47'	22 <sup>h</sup> 17'	28 <sup>h</sup> 23'	7 <sup>h</sup> 26'	28 <sup>h</sup> 6'	17 <sup>h</sup> 57'	3 <sup>h</sup> 28'	4 <sup>h</sup> 24'	19 <sup>h</sup> 58'	21 <sup>h</sup> 23'	21 <sup>h</sup> 2'	3 <sup>h</sup> 49'	W 13
T 14	11 26 13	23 <sup>h</sup> 21'17"	26 <sup>h</sup> 42'	11 <sup>h</sup> 10'	22 <sup>h</sup> 18'	29 <sup>h</sup> 7'	7 <sup>h</sup> 38'	28 <sup>h</sup> 5'	17 <sup>h</sup> 57'	3 <sup>h</sup> 29'	4 <sup>h</sup> 23'	19 <sup>h</sup> 59'	21 <sup>h</sup> 20'	21 <sup>h</sup> 9'	3 <sup>h</sup> 52'	T 14
F 15	11 30 10	24 <sup>h</sup> 21'06"	9 <sup>h</sup> 35'	12 <sup>h</sup> 26'	22 <sup>h</sup> 16'	29 <sup>h</sup> 51'	7 <sup>h</sup> 50'	28 <sup>h</sup> 5'	17 <sup>h</sup> 57'	3 <sup>h</sup> 30'	4 <sup>h</sup> 22'	19 <sup>h</sup> 57'	21 <sup>h</sup> 17'	21 <sup>h</sup> 15'	3 <sup>h</sup> 54'	F 15
S 16	11 34 6	25 <sup>h</sup> 20'52"	22 <sup>h</sup> 58'	13 <sup>h</sup> 37'	22 <sup>h</sup> 12'	0 <sup>h</sup> 34'	8 <sup>h</sup> 1'	28 <sup>h</sup> 4'	17 <sup>h</sup> 58'	3 <sup>h</sup> 30'	4 <sup>h</sup> 21'	19 <sup>h</sup> 54'	21 <sup>h</sup> 14'	21 <sup>h</sup> 22'	3 <sup>h</sup> 56'	S 16
S 17	11 38 3	26 <sup>h</sup> 20'37"	5 <sup>h</sup> 43'	14 <sup>h</sup> 41'	22 <sup>h</sup> 5'	1 <sup>h</sup> 18'	8 <sup>h</sup> 13'	28 <sup>h</sup> 3'	17 <sup>h</sup> 58'	3 <sup>h</sup> 31'	4 <sup>h</sup> 19'	19 <sup>h</sup> 48'	21 <sup>h</sup> 11'	21 <sup>h</sup> 29'	3 <sup>h</sup> 58'	S 17
M 18	11 41 59	27 <sup>h</sup> 20'20"	18 <sup>h</sup> 15'	15 <sup>h</sup> 37'	21 <sup>h</sup> 56'	2 <sup>h</sup> 1'	8 <sup>h</sup> 24'	28 <sup>h</sup> 2'	17 <sup>h</sup> 59'	3 <sup>h</sup> 32'	4 <sup>h</sup> 18'	19 <sup>h</sup> 40'	21 <sup>h</sup> 7'	21 <sup>h</sup> 35'	4 <sup>h</sup> 1'	M 18
T 19	11 45 56	28 <sup>h</sup> 20'01"	0 <sup>h</sup> 36'	16 <sup>h</sup> 27'	21 <sup>h</sup> 44'	2 <sup>h</sup> 45'	8 <sup>h</sup> 36'	28 <sup>h</sup> 1'	17 <sup>h</sup> 59'	3 <sup>h</sup> 32'	4 <sup>h</sup> 17'	19 <sup>h</sup> 31'	21 <sup>h</sup> 4'	21 <sup>h</sup> 42'	4 <sup>h</sup> 3'	T 19
W 20	11 49 53	29 <sup>h</sup> 19'41"	12 <sup>h</sup> 47'	17 <sup>h</sup> 9'	21 <sup>h</sup> 30'	3 <sup>h</sup> 28'	8 <sup>h</sup> 47'	28 <sup>h</sup> 0'	17 <sup>h</sup> 59'	3 <sup>h</sup> 33'	4 <sup>h</sup> 16'	19 <sup>h</sup> 21'	21 <sup>h</sup> 1'	21 <sup>h</sup> 49'	4 <sup>h</sup> 6'	W 20
T 21	11 53 49	0 <sup>h</sup> 19'18"	24 <sup>h</sup> 51'	17 <sup>h</sup> 43'	21 <sup>h</sup> 13'	4 <sup>h</sup> 12'	8 <sup>h</sup> 59'	27 <sup>h</sup> 58'	17 <sup>h</sup> 59'	3 <sup>h</sup> 33'	4 <sup>h</sup> 14'	19 <sup>h</sup> 11'	20 <sup>h</sup> 58'	21 <sup>h</sup> 55'	4 <sup>h</sup> 8'	T 21
F 22	11 57 46	1 <sup>h</sup> 18'53"	6 <sup>h</sup> 47'	18 <sup>h</sup> 9'	20 <sup>h</sup> 54'	4 <sup>h</sup> 55'	9 <sup>h</sup> 10'	27 <sup>h</sup> 57'	17 <sup>h</sup> 59'	3 <sup>h</sup> 34'	4 <sup>h</sup> 13'	19 <sup>h</sup> 3'	20 <sup>h</sup> 55'	22 <sup>h</sup> 2'	4 <sup>h</sup> 11'	F 22
S 23	12 1 42	2 <sup>h</sup> 18'27"	18 <sup>h</sup> 38'	18 <sup>h</sup> 27'	20 <sup>h</sup> 33'	5 <sup>h</sup> 38'	9 <sup>h</sup> 21'	27 <sup>h</sup> 56'	17 <sup>h</sup> 59'	3 <sup>h</sup> 34'	4 <sup>h</sup> 12'	18 <sup>h</sup> 57'	20 <sup>h</sup> 52'	22 <sup>h</sup> 9'	4 <sup>h</sup> 14'	S 23
S 24	12 5 39	3 <sup>h</sup> 17'58"	0 <sup>h</sup> 26'	18 <sup>h</sup> 37'	20 <sup>h</sup> 9'	6 <sup>h</sup> 22'	9 <sup>h</sup> 32'	27 <sup>h</sup> 54'	17 <sup>h</sup> 59'	3 <sup>h</sup> 35'	4 <sup>h</sup> 10'	18 <sup>h</sup> 52'	20 <sup>h</sup> 48'	22 <sup>h</sup> 15'	4 <sup>h</sup> 17'	S 24
M 25	12 9 35	4 <sup>h</sup> 17'27"	12 <sup>h</sup> 13'	18 <sup>h</sup> 39'	19 <sup>h</sup> 44'	7 <sup>h</sup> 5'	9 <sup>h</sup> 43'	27 <sup>h</sup> 52'	17 <sup>h</sup> 59'	3 <sup>h</sup> 35'	4 <sup>h</sup> 9'	18 <sup>h</sup> 50'	20 <sup>h</sup> 45'	22 <sup>h</sup> 22'	4 <sup>h</sup> 19'	M 25
T 26	12 13 32	5 <sup>h</sup> 16'54"	24 <sup>h</sup> 2'	18 <sup>h</sup> 34'	19 <sup>h</sup> 16'	7 <sup>h</sup> 48'	9 <sup>h</sup> 54'	27 <sup>h</sup> 50'	17 <sup>h</sup> 59'	3 <sup>h</sup> 35'	4 <sup>h</sup> 7'	18 <sup>h</sup> 50'	20 <sup>h</sup> 42'	22 <sup>h</sup> 29'	4 <sup>h</sup> 22'	T 26
W 27	12 17 28	6 <sup>h</sup> 16'19"	5 <sup>h</sup> 11'	18 <sup>h</sup> 21'	18 <sup>h</sup> 46'	8 <sup>h</sup> 31'	10 <sup>h</sup> 4'	27 <sup>h</sup> 49'	17 <sup>h</sup> 59'	3 <sup>h</sup> 36'	4 <sup>h</sup> 6'	18 <sup>h</sup> 51'	20 <sup>h</sup> 39'	22 <sup>h</sup> 35'	4 <sup>h</sup> 25'	W 27
T 28	12 21 25	7 <sup>h</sup> 15'41"	18 <sup>h</sup> 3'	18 <sup>h</sup> 2'	18 <sup>h</sup> 15'	9 <sup>h</sup> 14'	10 <sup>h</sup> 15'	27 <sup>h</sup> 47'	17 <sup>h</sup> 58'	3 <sup>h</sup> 36'	4 <sup>h</sup> 5'	18 <sup>h</sup> 53'	20 <sup>h</sup> 36'	22 <sup>h</sup> 42'	4 <sup>h</sup> 28'	T 28
F 29	12 25 21	8 <sup>h</sup> 15'01"	0 <sup>h</sup> 24'	17 <sup>h</sup> 35'	17 <sup>h</sup> 42'	9 <sup>h</sup> 57'	10 <sup>h</sup> 26'	27 <sup>h</sup> 45'	17 <sup>h</sup> 58'	3 <sup>h</sup> 36'	4 <sup>h</sup> 3'	18 <sup>h</sup> 54'	20 <sup>h</sup> 32'	22 <sup>h</sup> 49'	4 <sup>h</sup> 31'	F 29
S 30	12 29 18	9 <sup>h</sup> 14'19"	13 <sup>h</sup> 5'	17 <sup>h</sup> 4'	17 <sup>h</sup> 7'	10 <sup>h</sup> 40'	10 <sup>h</sup> 36'	27 <sup>h</sup> 42'	17 <sup>h</sup> 58'	3 <sup>h</sup> 36'	4 <sup>h</sup> 2'	18 <sup>h</sup> 54'	20 <sup>h</sup> 29'	22 <sup>h</sup> 55'	4 <sup>h</sup> 34'	S 30
S 31	12 33 15	10 <sup>h</sup> 13'35"	26 <sup>h</sup> 11'	16 <sup>h</sup> 27'	16 <sup>h</sup> 32'	11 <sup>h</sup> 23'	10 <sup>h</sup> 46'	27 <sup>h</sup> 40'	17 <sup>h</sup> 57'	3 <sup>h</sup> 37'	4 <sup>h</sup> 10'	18 <sup>h</sup> 53'	20 <sup>h</sup> 26'	23 <sup>h</sup> 2'	4 <sup>h</sup> 37'	S 31

Delta T = 54.43 sec

APRIL 1985

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	12 37 11	11°12'48	9♂44	15°R45	15°R55	12♂ 6	10≈57	27°R38	17°R57	3♂37	3°R59	18°R50	20♂23	23°Y 9	4♂40	M 1
T 2	12 41 8	12°11'59	23°46	15°Y 1	15°Y18	12°49	11° 7	27♂36	17♂57	3°37	3♂57	18♂46	20°20	23°15	4°44	T 2
W 3	12 45 4	13°11'07	8♂16	14°14	14°40	13°32	11°17	27°33	17°56	3°37	3°56	18°41	20°17	23°22	4°47	W 3
T 4	12 49 1	14°10'13	23° 9	13°26	14° 2	14°15	11°27	27°30	17°55	3°37	3°54	18°36	20°13	23°29	4°50	T 4
F 5	12 52 57	15° 9'17	8♂18	12°37	13°24	14°57	11°36	27°28	17°55	3°R37	3°52	18°31	20°10	23°35	4°54	F 5
S 6	12 56 54	16° 8'19	23°33	11°49	12°47	15°40	11°46	27°25	17°54	3°37	3°51	18°28	20° 7	23°42	4°57	S 6
S 7	13 0 50	17° 7'19	8♂44	11° 2	12°10	16°23	11°56	27°22	17°53	3°37	3°49	18°26	20° 4	23°49	5° 0	S 7
M 8	13 4 47	18° 6'17	23°41	10°17	11°33	17° 5	12° 5	27°19	17°52	3°37	3°48	18°D26	20° 1	23°55	5° 4	M 8
T 9	13 8 44	19° 5'13	8♂18	9°36	10°58	17°48	12°14	27°16	17°52	3°37	3°46	18°27	19°58	24° 2	5° 7	T 9
W10	13 12 40	20° 4'08	22°31	8°58	10°24	18°30	12°23	27°13	17°51	3°37	3°44	18°28	19°54	24° 9	5°11	W10
T11	13 16 37	21° 3'01	6♂18	8°24	9°52	19°13	12°33	27°10	17°50	3°36	3°43	18°30	19°51	24°15	5°15	T11
F12	13 20 33	22° 1'52	19°39	7°55	9°21	19°55	12°41	27° 7	17°49	3°36	3°41	18°R30	19°48	24°22	5°18	F12
S13	13 24 30	23° 0'42	2≈39	7°30	8°52	20°37	12°50	27° 4	17°48	3°36	3°39	18°30	19°45	24°29	5°22	S13
S14	13 28 26	23°59'29	15°18	7°11	8°25	21°20	12°59	27° 0	17°47	3°36	3°38	18°28	19°42	24°35	5°26	S14
M15	13 32 23	24°58'15	27°42	6°56	8° 0	22° 2	13° 8	26°57	17°46	3°35	3°36	18°26	19°38	24°42	5°30	M15
T16	13 36 19	25°56'59	9♂53	6°47	7°38	22°44	13°16	26°54	17°44	3°35	3°34	18°23	19°35	24°49	5°33	T16
W17	13 40 16	26°55'42	21°54	6°D44	7°17	23°26	13°24	26°50	17°43	3°35	3°33	18°19	19°32	24°55	5°37	W17
T18	13 44 13	27°54'22	3°Y49	6°45	6°59	24° 8	13°33	26°46	17°42	3°34	3°31	18°16	19°29	25° 2	5°41	T18
F19	13 48 9	28°53'01	15°39	6°51	6°43	24°51	13°41	26°43	17°41	3°34	3°29	18°13	19°26	25° 9	5°45	F19
S20	13 52 6	29°51'38	27°27	7° 3	6°30	25°33	13°48	26°39	17°39	3°33	3°28	18°10	19°23	25°15	5°49	S20
S21	13 56 2	0♂50'13	9♂14	7°19	6°19	26°15	13°56	26°35	17°38	3°33	3°26	18° 9	19°19	25°22	5°53	S21
M22	13 59 59	1°48'46	21° 4	7°40	6°11	26°57	14° 4	26°31	17°36	3°32	3°24	18°D 9	19°16	25°29	5°57	M22
T23	14 3 55	2°47'17	2♂59	8° 6	6° 5	27°38	14°11	26°28	17°35	3°32	3°23	18°10	19°13	25°35	6° 1	T23
W24	14 7 52	3°45'46	15° 1	8°35	6° 1	28°20	14°19	26°24	17°33	3°31	3°21	18°11	19°10	25°42	6° 5	W24
T25	14 11 48	4°44'13	27°13	9° 9	6°D 0	29° 2	14°26	26°20	17°32	3°31	3°19	18°12	19° 7	25°49	6°10	T25
F26	14 15 45	5°42'38	9♂38	9°47	6° 1	29°44	14°33	26°16	17°30	3°30	3°18	18°13	19° 3	25°55	6°14	F26
S27	14 19 42	6°41'01	22°20	10°29	6° 5	0♂26	14°40	26°12	17°29	3°29	3°16	18°14	19° 0	26° 2	6°18	S27
S28	14 23 38	7°39'21	5♂23	11°14	6°10	1° 7	14°46	26° 7	17°27	3°29	3°14	18°R14	18°57	26° 9	6°22	S28
M29	14 27 35	8°37'40	18°50	12° 3	6°18	1°49	14°53	26° 3	17°25	3°28	3°12	18°14	18°54	26°15	6°26	M29
T30	14 31 31	9♂35'57	2♂41	12°Y55	6°Y28	2♂31	15≈0	25♂59	17♂24	3♂27	3♂11	18♂14	18♂51	26°Y22	6♂31	T30

# ASTRODIENST EPHEMERIS for the year 1985

## geocentric

MAY 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 35 28	10♈34'11	16♍58	13♊50	6♊41	3♊12	15♈6	25°R55	17°R22	3°R26	3°R 9	18°R13	18♈48	26♊28	6♊35	W 1
T 2	14 39 24	11°32'23	1♈38	14°48	6°55	3°54	15°12	25♈51	17°R20	3°R26	3°R 7	18♈12	18°44	26°35	6°39	T 2
F 3	14 43 21	12°30'34	16°35	15°49	7°11	4°35	15°18	25°46	17°18	3°25	3° 6	18°11	18°41	26°42	6°44	F 3
S 4	14 47 17	13°28'42	1♈43	16°53	7°29	5°17	15°24	25°42	17°16	3°24	3° 4	18°11	18°38	26°48	6°48	S 4
S 5	14 51 14	14°26'49	16°53	18° 0	7°49	5°58	15°29	25°38	17°14	3°23	3° 2	18°D11	18°35	26°55	6°52	S 5
M 6	14 55 11	15°24'54	1♈55	19° 9	8°11	6°39	15°35	25°33	17°12	3°22	3° 1	18°11	18°32	27° 2	6°57	M 6
T 7	14 59 7	16°22'58	16°41	20°21	8°35	7°21	15°40	25°29	17°10	3°21	2°59	18°11	18°29	27° 8	7° 1	T 7
W 8	15 3 4	17°21'00	1♈3	21°36	9° 0	8° 2	15°45	25°25	17° 8	3°20	2°58	18°11	18°25	27°15	7° 6	W 8
T 9	15 7 0	18°19'01	15° 2	22°53	9°27	8°43	15°50	25°20	17° 6	3°19	2°56	18°R11	18°22	27°22	7°10	T 9
F 10	15 10 57	19°17'01	28°33	24°12	9°56	9°24	15°55	25°16	17° 4	3°18	2°54	18°11	18°19	27°28	7°15	F 10
S 11	15 14 53	20°14'59	11♈38	25°34	10°26	10° 6	16° 0	25°11	17° 2	3°17	2°53	18°11	18°16	27°35	7°19	S 11
S 12	15 18 50	21°12'55	24°20	26°57	10°57	10°47	16° 4	25° 7	17° 0	3°16	2°51	18°D11	18°13	27°42	7°24	S 12
M13	15 22 46	22°10'51	6♈42	28°24	11°30	11°28	16° 9	25° 2	16°58	3°15	2°50	18°11	18° 9	27°48	7°28	M13
T 14	15 26 43	23° 8'45	18°50	29°52	12° 4	12° 9	16°13	24°58	16°56	3°14	2°48	18°12	18° 6	27°55	7°33	T 14
W15	15 30 40	24° 6'38	0♊47	1♈22	12°40	12°50	16°17	24°53	16°54	3°13	2°46	18°12	18° 3	28° 2	7°38	W15
T 16	15 34 36	25° 4'29	12°37	2°55	13°16	13°31	16°21	24°49	16°51	3°11	2°45	18°13	18° 0	28° 8	7°42	T 16
F 17	15 38 33	26° 2'20	24°24	4°30	13°54	14°12	16°24	24°44	16°49	3°10	2°43	18°14	17°57	28°15	7°47	F 17
S 18	15 42 29	27° 0'09	6♈12	6° 7	14°33	14°52	16°28	24°40	16°47	3° 9	2°42	18°14	17°54	28°22	7°51	S 18
S 19	15 46 26	27°57'56	18° 3	7°46	15°13	15°33	16°31	24°35	16°45	3° 8	2°40	18°R14	17°50	28°28	7°56	S 19
M20	15 50 22	28°55'43	29° 59	9°28	15°54	16°14	16°34	24°31	16°42	3° 7	2°39	18°14	17°47	28°35	8° 1	M20
T 21	15 54 19	29°53'28	12♈4	11°11	16°37	16°55	16°37	24°26	16°40	3° 5	2°37	18°13	17°44	28°42	8° 5	T 21
W22	15 58 15	0♈51'12	24°18	12°57	17°20	17°36	16°40	24°22	16°38	3° 4	2°36	18°12	17°41	28°48	8°10	W22
T 23	16 2 12	1°48'54	6♈34	14°45	18° 4	18°16	16°42	24°17	16°35	3° 3	2°34	18°10	17°38	28°55	8°15	T 23
F 24	16 6 9	2°46'35	19°21	16°35	18°49	18°57	16°44	24°13	16°33	3° 1	2°33	18° 8	17°35	29° 2	8°19	F 24
S 25	16 10 5	3°44'15	2♈13	18°27	19°34	19°38	16°47	24° 9	16°31	3° 0	2°32	18° 6	17°31	29° 8	8°24	S 25
S 26	16 14 2	4°41'53	15°22	20°21	20°21	20°18	16°49	24° 4	16°28	2°59	2°30	18° 5	17°28	29°15	8°29	S 26
M27	16 17 58	5°39'29	28°48	22°17	21° 8	20°59	16°50	24° 0	16°26	2°57	2°29	18° 4	17°25	29°22	8°34	M27
T 28	16 21 55	6°37'04	12♈34	24°16	21°57	21°39	16°52	23°56	16°23	2°56	2°28	18°D 4	17°22	29°28	8°38	T 28
W29	16 25 51	7°34'37	26°38	26°16	22°45	22°20	16°53	23°51	16°21	2°54	2°26	18° 4	17°19	29°35	8°43	W29
T 30	16 29 48	8°32'09	11♈0	28°18	23°35	23° 0	16°55	23°47	16°19	2°53	2°25	18° 6	17°15	29°41	8°48	T 30
F 31	16 33 44	9♈29'40	25♈37	0♈22	24°Y25	23♈40	16°56	23♈43	16°16	2°52	2°24	18♈7	17♈12	29°Y48	8♈52	F 31

Delta T = 54.52 sec

JUNE 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 37 41	10♈27'09	10♈26	2♈28	25°Y16	24♈21	16°56	23°R38	16°R14	2°R50	2°R23	18♈8	17♈9	29°Y55	8♈57	S 1
S 2	16 41 38	11°24'38	25°19	4°35	26° 8	25° 1	16°57	23♈34	16°R11	2°R49	2°R21	18°R 8	17° 6	0♈1	9° 2	S 2
M 3	16 45 34	12°22'05	10♈10	6°44	27° 0	25°41	16°57	23°30	16° 9	2°47	2°20	18° 7	17° 3	0° 8	9° 7	M 3
T 4	16 49 31	13°19'31	24°50	8°54	27°53	26°22	16°58	23°26	16° 6	2°46	2°19	18° 4	17° 0	0°15	9°11	T 4
W 5	16 53 27	14°16'57	9♈13	11° 4	28°46	27° 2	16°R58	23°22	16° 4	2°44	2°18	18° 1	16°56	0°21	9°16	W 5
T 6	16 57 24	15°14'21	23°14	13°16	29°40	27°42	16°58	23°18	16° 1	2°43	2°17	17°57	16°53	0°28	9°21	T 6
F 7	17 1 20	16°11'45	6♈49	15°28	0♈34	28°22	16°57	23°14	15°59	2°41	2°16	17°53	16°50	0°35	9°25	F 7
S 8	17 5 17	17° 9'08	19°59	17°40	1°29	29° 2	16°57	23°10	15°56	2°40	2°14	17°50	16°47	0°41	9°30	S 8
S 9	17 9 14	18° 6'31	2♈45	19°52	2°25	29°42	16°56	23° 6	15°54	2°38	2°13	17°48	16°44	0°48	9°35	S 9
M10	17 13 10	19° 3'53	15°10	22° 3	3°21	0♈22	16°55	23° 2	15°51	2°36	2°12	17°D47	16°41	0°55	9°39	M10
T 11	17 17 7	20° 1'14	27°18	24°15	4°17	1° 2	16°54	22°59	15°49	2°35	2°11	17°47	16°37	1° 1	9°44	T 11
W12	17 21 3	20°58'35	9♈14	26°25	5°14	1°42	16°53	22°55	15°47	2°33	2°10	17°48	16°34	1° 8	9°49	W12
T 13	17 25 0	21°55'55	21° 4	28°34	6°11	2°22	16°52	22°51	15°44	2°32	2°10	17°50	16°31	1°15	9°53	T 13
F 14	17 28 56	22°53'15	2♈51	0♈41	7° 9	3° 2	16°50	22°48	15°42	2°30	2° 9	17°51	16°28	1°21	9°58	F 14
S 15	17 32 53	23°50'35	14°41	2°48	8° 7	3°42	16°48	22°44	15°39	2°29	2° 8	17°R52	16°25	1°28	10° 3	S 15
S 16	17 36 49	24°47'54	26°37	4°52	9° 5	4°22	16°46	22°41	15°37	2°27	2° 7	17°52	16°21	1°35	10° 7	S 16
M17	17 40 46	25°45'13	8♈42	6°55	10° 4	5° 2	16°44	22°37	15°34	2°25	2° 6	17°50	16°18	1°41	10°12	M17
T 18	17 44 43	26°42'31	20°59	8°56	11° 3	5°41	16°42	22°34	15°32	2°24	2° 5	17°46	16°15	1°48	10°16	T 18
W19	17 48 39	27°39'49	3♈29	10°55	12° 3	6°21	16°39	22°31	15°30	2°22	2° 4	17°41	16°12	1°54	10°21	W19
T 20	17 52 36	28°37'06	16°12	12°51	13° 3	7° 1	16°36	22°28	15°27	2°21	2° 4	17°34	16° 9	2° 1	10°26	T 20
F 21	17 56 32	29°34'23	29°10	14°46	14° 3	7°41	16°33	22°24	15°25	2°19	2° 3	17°27	16° 6	2° 8	10°30	F 21
S 22	18 0 29	0♈31'39	12♈21	16°38	15° 3	8°20	16°30	22°21	15°22	2°17	2° 2	17°20	16° 2	2°14	10°35	S 22
S 23	18 4 25	1°28'54	25°45	18°29	16° 4	9° 0	16°27	22°18	15°20	2°16	2° 2	17°14	15°59	2°21	10°39	S 23
M24	18 8 22	2°26'09	9♈21	20°17	17° 5	9°39	16°23	22°15	15°18	2°14	2° 1	17°10	15°56	2°28	10°44	M24
T 25	18 12 18	3°23'23	23° 9	22° 2	18° 7	10°19	16°20	22°13	15°15	2°12	2° 0	17° 8	15°53	2°34	10°48	T 25
W26	18 16 15	4°20'37	7♈8	23°46	19° 8	10°58	16°16	22°10	15°13	2°11	2° 0	17°D 8	15°50	2°41	10°53	W26
T 27	18 20 12	5°17'50	21°18	25°27	20°10	11°38	16°12	22° 7	15°11	2° 9	1°59	17° 8	15°47	2°48	10°57	T 27
F 28	18 24 8	6°15'02	5♈37	27° 6	21°12	12°17	16° 8	22° 5	15° 9	2° 8	1°59	17° 9	15°43	2°54	11° 1	F 28
S 29	18 28 5	7°12'14	20° 2	28°43	22°15	12°57	16° 3	22° 2	15° 6	2° 6	1°58	17°R10	15°40	3° 1	11° 6	S 29
S 30	18 32 1	8°9'26	4♈32	0♈17	23♈17	13♈36	15°59	22♈0	15°14	2°5	1°58	17♈9	15♈37	3♈8	11♈10	S 30

Delta T = 54.57 sec

## ASTRODIENST EPHEMERIS for the year 1985

geocentric

JULY 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 35 58	9°56'37"	19°00'00"	18°49'24"	24°08'20"	14°56'16"	15°08'54"	21°08'57"	15°08'22"	2°08'33"	1°08'58"	17°08'55"	15°08'34"	3°08'14"	11°08'15"	M 1
T 2	18 39 54	10°03'48"	3°03'21"	3°01'19"	25°25'24"	14°55'55"	15°08'49"	21°08'55"	15°08'00"	2°08'31"	1°08'57"	17°08'00"	15°08'31"	3°08'21"	11°08'19"	T 2
W 3	18 43 51	11°00'59"	17°03'31"	4°47'27"	26°26'27"	15°34'44"	15°08'44"	21°08'53"	14°58'20"	2°08'00"	1°08'57"	16°58'22"	15°08'27"	3°08'28"	11°08'23"	W 3
T 4	18 47 47	11°05'58"	11°05'22"	6°01'12"	27°31'16"	16°14'39"	15°39'21"	21°08'51"	14°56'15"	1°58'57"	1°57'57"	16°43'15"	15°08'24"	3°08'34"	11°08'27"	T 4
F 5	18 51 44	12°05'52"	14°53'34"	7°34'28"	28°34'16"	16°53'34"	15°34'21"	21°08'49"	14°53'15"	1°56'56"	1°56'56"	16°34'15"	15°08'21"	3°08'41"	11°08'32"	F 5
S 6	18 55 41	13°05'23"	28°02'08"	8°55'29"	29°39'17"	17°32'15"	15°29'21"	21°08'47"	14°51'15"	1°55'56"	1°56'56"	16°26'15"	15°08'18"	3°08'48"	11°08'36"	S 6
S 7	18 59 37	14°04'44"	10°04'47"	10°12'00"	0°04'43"	18°11'15"	15°23'21"	21°08'45"	14°49'15"	1°53'56"	1°56'56"	16°19'15"	15°08'15"	3°08'54"	11°08'40"	S 7
M 8	19 03 34	15°04'55"	23°03'13"	11°28'14"	1°47'18"	18°51'15"	15°17'21"	21°08'43"	14°47'15"	1°52'56"	1°56'56"	16°15'15"	15°08'12"	4°08'11"	11°08'44"	M 8
T 9	19 07 30	16°04'07"	5°07'22"	12°40'25"	2°52'19"	19°30'15"	15°11'21"	21°08'42"	14°45'15"	1°50'56"	1°56'56"	16°12'15"	15°08'08"	4°08'07"	11°08'48"	T 9
W10	19 11 27	17°04'12"	17°01'19"	13°50'35"	3°57'20"	20°09'15"	15°05'21"	21°08'40"	14°43'14"	1°49'56"	1°56'56"	16°08'11"	15°08'05"	4°08'14"	11°08'52"	W10
T 11	19 15 23	18°03'32"	29°09'14"	14°58'05"	5°02'20"	20°48'14"	15°09'21"	21°08'39"	14°42'14"	1°47'55"	1°56'56"	16°12'15"	15°08'02"	4°08'21"	11°08'57"	T 11
F 12	19 19 20	19°03'54"	10°03'57"	16°02'06"	6°07'21"	21°27'14"	15°03'21"	21°08'37"	14°40'14"	1°46'55"	1°56'56"	16°08'13"	14°59'14"	4°08'27"	12°08'01"	F 12
S 13	19 23 16	20°03'25"	22°04'49"	17°04'07"	7°13'22"	22°06'14"	14°47'21"	21°08'36"	14°38'14"	1°44'55"	1°56'56"	16°12'14"	14°56'14"	4°08'34"	12°08'05"	S 13
S 14	19 27 13	21°03'14"	4°03'50"	18°03'08"	8°18'22"	22°45'14"	14°40'21"	21°08'35"	14°36'14"	1°43'56"	1°56'56"	16°11'14"	14°53'14"	4°08'41"	12°08'09"	S 14
M15	19 31 10	22°02'29"	17°03'18"	18°58'09"	9°24'23"	23°24'14"	14°34'21"	21°08'34"	14°34'14"	1°41'56"	1°56'56"	16°07'14"	14°49'14"	4°08'47"	12°08'12"	M15
T 16	19 35 06	23°02'44"	29°03'19"	19°51'10"	10°30'24"	24°03'14"	14°27'21"	21°08'33"	14°32'14"	1°40'56"	1°56'56"	16°00'14"	14°46'14"	4°08'54"	12°08'16"	T 16
W17	19 39 03	24°02'00"	12°02'17"	20°40'11"	11°36'24"	24°42'14"	14°20'21"	21°08'32"	14°31'13"	1°38'56"	1°56'56"	15°51'14"	14°43'14"	5°08'01"	12°08'20"	W17
T 18	19 42 59	25°01'16"	25°01'26"	21°26'12"	12°43'25"	25°21'14"	14°13'21"	21°08'31"	14°29'13"	1°37'56"	1°56'56"	15°41'14"	14°40'14"	5°08'07"	12°08'24"	T 18
F 19	19 46 56	26°01'33"	8°01'42"	22°08'13"	13°49'26"	26°00'14"	14°06'21"	21°08'30"	14°27'13"	1°35'56"	1°56'56"	15°30'14"	14°37'14"	5°08'14"	12°08'28"	F 19
S 20	19 50 52	27°01'35"	22°01'17"	22°46'14"	14°56'26"	26°39'13"	13°59'21"	21°08'30"	14°26'13"	1°34'56"	1°56'56"	15°19'14"	14°33'14"	5°08'21"	12°08'32"	S 20
S 21	19 54 49	28°01'07"	6°01'33"	23°21'16"	16°02'27"	27°18'13"	13°52'21"	21°08'29"	14°24'13"	1°32'57"	1°57'56"	15°09'14"	14°30'14"	5°08'27"	12°08'35"	S 21
M22	19 58 46	29°08'25"	19°05'59"	23°51'17"	17°09'27"	27°57'13"	13°45'21"	21°08'29"	14°23'13"	1°31'57"	1°57'56"	15°02'14"	14°27'14"	5°08'34"	12°08'39"	M22
T 23	20 02 42	0°04'54"	4°04'42"	24°17'18"	18°16'28"	28°36'13"	13°37'21"	21°08'28"	14°21'13"	1°30'57"	1°57'56"	14°57'14"	14°24'14"	5°08'41"	12°08'43"	T 23
W24	20 06 39	1°03'01"	18°03'05"	24°39'19"	23°15'29"	29°15'13"	13°30'21"	21°08'28"	14°20'12"	1°28'58"	1°58'56"	14°55'14"	14°21'14"	5°08'47"	12°08'46"	W24
T 25	20 10 35	2°02'00"	2°02'12"	24°56'20"	24°56'20"	29°53'13"	13°23'21"	21°08'28"	14°18'12"	1°27'58"	1°58'56"	14°54'14"	14°18'14"	5°08'54"	12°08'50"	T 25
F 26	20 14 32	2°57'39"	16°20'25"	25°09'21"	21°38'00"	32'13"	13°15'21"	21°08'28"	14°17'12"	1°26'59"	1°59'56"	14°55'14"	14°14'14"	6°08'00"	12°08'53"	F 26
S 27	20 18 28	3°54'58"	0°02'28"	25°16'22"	22°46'11"	13°08'21"	13°08'21"	21°08'28"	14°16'12"	1°24'59"	1°59'56"	14°54'14"	14°11'14"	6°08'07"	12°08'57"	S 27
S 28	20 22 25	4°52'18"	14°35'25"	25°19'23"	23°53'15"	1°50'13"	13°00'21"	21°08'28"	14°15'12"	1°23'20"	2°00'56"	14°51'14"	14°08'14"	6°14'13"	13°08'00"	S 28
M29	20 26 21	5°49'38"	28°38'25"	25°17'25"	1°28'22"	12°52'21"	12°52'21"	21°08'29"	14°13'12"	1°22'20"	2°01'56"	14°46'14"	14°05'14"	6°20'13"	13°08'02"	M29
T 30	20 30 18	6°46'59"	12°03'34"	25°09'26"	2°09'03"	12°45'21"	12°45'21"	21°08'29"	14°12'12"	1°20'20"	2°01'56"	14°39'14"	14°02'14"	6°27'13"	13°08'07"	T 30
W31	20 34 15	7°04'42"	26°03'21"	24°05'27"	2°17'30"	12°46'23"	12°46'23"	21°08'29"	14°11'12"	1°19'20"	2°01'56"	14°38'14"	13°59'14"	6°34'13"	13°08'10"	W31

Delta T = 54.61 sec

AUGUST 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 38 11	8♌41'43	9♍54	24♌39	28♌26	4♌24	12♌29	21♌30	14♌10	1♌18	2♌2	14♌16	13♌55	6♌40	13♌13	T 1
F 2	20 42 8	9♍39'06	23♌11	24♌16	29♌34	5♌3	12♌21	21♌31	14♌9	1♌17	2♌3	14♌4	13♌52	6♌47	13♌16	F 2
S 3	20 46 4	10♍36'30	6♌9	23♌49	0♌42	5♌42	12♌14	21♌31	14♌8	1♌16	2♌3	13♌52	13♌49	6♌54	13♌19	S 3
S 4	20 50 1	11♍33'55	18♌48	23♌17	1♌51	6♌20	12♌6	21♌32	14♌7	1♌14	2♌4	13♌43	13♌46	7♌0	13♌22	S 4
M 5	20 53 57	12♍31'22	1♌10	22♌40	3♌0	6♌59	11♌58	21♌33	14♌6	1♌13	2♌5	13♌35	13♌43	7♌7	13♌25	M 5
T 6	20 57 54	13♍28'49	13♌17	22♌1	4♌8	7♌37	11♌50	21♌34	14♌5	1♌12	2♌6	13♌30	13♌39	7♌14	13♌28	T 6
W 7	21 1 50	14♍26'18	25♌13	21♌18	5♌17	8♌16	11♌42	21♌35	14♌4	1♌11	2♌7	13♌28	13♌36	7♌20	13♌31	W 7
T 8	21 5 47	15♍23'47	7♌3	20♌32	6♌26	8♌55	11♌35	21♌36	14♌3	1♌10	2♌8	13♌27	13♌33	7♌27	13♌34	T 8
F 9	21 9 43	16♍21'19	18♌51	19♌45	7♌36	9♌33	11♌27	21♌38	14♌3	1♌9	2♌8	13♌27	13♌30	7♌34	13♌37	F 9
S 10	21 13 40	17♍18'51	0♌44	18♌56	8♌45	10♌12	11♌19	21♌39	14♌2	1♌8	2♌9	13♌27	13♌27	7♌40	13♌40	S 10
S 11	21 17 37	18♍16'25	12♌47	18♌8	9♌54	10♌50	11♌11	21♌41	14♌1	1♌7	2♌10	13♌25	13♌24	7♌47	13♌42	S 11
M12	21 21 33	19♍14'01	25♌4	17♌21	11♌4	11♌28	11♌4	21♌42	14♌1	1♌6	2♌11	13♌21	13♌20	7♌53	13♌45	M12
T 13	21 25 30	20♍11'38	7♌40	16♌35	12♌13	12♌7	10♌56	21♌44	14♌0	1♌5	2♌12	13♌14	13♌17	8♌0	13♌48	T 13
W14	21 29 26	21♌9'16	20♌37	15♌52	13♌23	12♌45	10♌48	21♌46	14♌0	1♌4	2♌14	13♌5	13♌14	8♌7	7 13♌50	W14
T 15	21 33 23	22♌6'55	3♌57	15♌13	14♌33	13♌24	10♌41	21♌48	13♌59	1♌3	2♌15	12♌54	13♌11	8♌13	13♌53	T 15
F 16	21 37 19	23♌4'36	17♌38	14♌38	15♌43	14♌2	10♌33	21♌50	13♌59	1♌3	2♌16	12♌43	13♌8	8♌20	13♌55	F 16
S 17	21 41 16	24♌2'18	1♌37	14♌8	16♌53	14♌41	10♌26	21♌52	13♌59	1♌2	2♌17	12♌31	13♌5	8♌27	13♌57	S 17
S 18	21 45 13	25♌0'02	15♌49	13♌44	18♌3	15♌19	10♌19	21♌54	13♌58	1♌1	2♌18	12♌21	13♌1	8♌33	14♌0	S 18
M19	21 49 9	25♌57'46	0♌10	13♌27	19♌13	15♌57	10♌11	21♌56	13♌58	1♌0	2♌19	12♌13	12♌58	8♌40	14♌2	M19
T 20	21 53 6	26♌55'32	14♌33	13♌16	20♌24	16♌36	10♌4	21♌59	13♌58	0♌59	2♌21	12♌8	12♌55	8♌47	14♌4	T 20
W21	21 57 2	27♌53'19	28♌54	13♌13	21♌34	17♌14	9♌57	22♌1	13♌58	0♌59	2♌22	12♌6	12♌52	8♌53	14♌6	W21
T 22	22 0 59	28♌51'07	13♌10	13♌17	22♌44	17♌52	9♌50	22♌4	13♌58	0♌58	2♌23	12♌5	12♌49	9♌0	14♌8	T 22
F 23	22 4 55	29♌48'56	27♌18	13♌29	23♌55	18♌31	9♌43	22♌6	13♌58	0♌57	2♌25	12♌6	12♌45	9♌7	14♌10	F 23
S 24	22 8 52	0♌46'46	11♌19	13♌49	25♌6	19♌9	9♌36	22♌9	13♌58	0♌57	2♌26	12♌5	12♌42	9♌13	14♌12	S 24
S 25	22 12 48	1°44'38	25♌11	14♌16	26♌16	19♌47	9♌30	22♌12	13♌58	0♌56	2♌27	12♌3	12♌39	9♌20	14♌14	S 25
M26	22 16 45	2°42'30	8♌54	14♌51	27♌27	20♌25	9♌23	22♌15	13♌58	0♌56	2♌29	11♌59	12♌36	9♌26	14♌16	M26
T 27	22 20 42	3°40'24	22♌27	15♌34	28♌38	21♌4	9♌17	22♌18	13♌58	0♌55	2♌30	11♌52	12♌33	9♌33	14♌18	T 27
W28	22 24 38	4°38'20	5♌49	16♌25	29♌49	21♌42	9♌10	22♌21	13♌58	0♌55	2♌32	11°42	12°30	9°40	14°19	W28
T 29	22 28 35	5°36'16	18♌59	17♌22	1♌0	22°20	9♌4	22°24	13°59	0°54	2°33	11°32	12°26	9°46	14°21	T 29
F 30	22 32 31	6°34'15	1♌55	18♌27	2°12	22°58	8°58	22°27	13°59	0°54	2°35	11°20	12°23	9°53	14°23	F 30
S 31	22 36 28	7°32'14	14♌37	19♌38	3♌23	23♌36	8°55	22♌31	13°59	0°53	2♌36	11°10	12°20	10°0	14°24	S 31

# ASTRODIENST EPHEMERIS for the year 1985

## geocentric

SEPTEMBER 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 40 24	8♍30'15	27♋5	20♌55	4♌34	24♌15	8°R46	22♌34	14♌0	0°R53	2♌38	11°R 1	12♌17	10♌6	14♌26	S 1
M 2	22 44 21	9°28'18	9♍19	22°17	5°46	24°53	8°R40	22°37	14°0	0°R53	2°40	10♌54	12°14	10°13	14°27	M 2
T 3	22 48 17	10°26'23	21°21	23°45	6°57	25°31	8°35	22°41	14°1	0°52	2°41	10°50	12°11	10°20	14°28	T 3
W 4	22 52 14	11°24'30	3♌14	25°18	8°9	26°9	8°29	22°45	14°1	0°52	2°43	10°48	12°7	10°26	14°29	W 4
T 5	22 56 10	12°22'39	15°2	26°55	9°20	26°47	8°24	22°48	14°2	0°52	2°45	10°D47	12°4	10°33	14°31	T 5
F 6	23 0 7	13°20'49	26°49	28°35	10°32	27°25	8°19	22°52	14°3	0°51	2°46	10°48	12°1	10°40	14°32	F 6
S 7	23 4 4	14°19'02	8♌41	0♍19	11°44	28°3	8°14	22°56	14°3	0°51	2°48	10°R49	11°58	10°46	14°33	S 7
S 8	23 8 0	15°17'16	20°44	2°5	12°56	28°41	8°9	23°0	14°4	0°51	2°50	10°49	11°55	10°53	14°34	S 8
M 9	23 11 57	16°15'33	3♌1	3°54	14°8	29°20	8°4	23°4	14°5	0°51	2°52	10°47	11°51	11°0	14°35	M 9
T 10	23 15 53	17°13'52	15°38	5°44	15°20	29°58	8°0	23°8	14°6	0°51	2°54	10°44	11°48	11°6	14°35	T 10
W11	23 19 50	18°12'13	28°39	7°36	16°32	0♍36	7°56	23°12	14°7	0°51	2°55	10°38	11°45	11°13	14°36	W11
T 12	23 23 46	19°10'36	12♌5	9°29	17°45	1°14	7°51	23°17	14°8	0°D51	2°57	10°31	11°42	11°19	14°37	T 12
F 13	23 27 43	20°9'00	25°57	11°22	18°57	1°52	7°47	23°21	14°9	0°51	2°59	10°23	11°39	11°26	14°37	F 13
S 14	23 31 39	21°7'27	10♍12	13°15	20°9	2°30	7°44	23°26	14°10	0°51	3°1	10°15	11°36	11°33	14°38	S 14
S 15	23 35 36	22°5'56	24°45	15°9	21°22	3°8	7°40	23°30	14°11	0°51	3°3	10°8	11°32	11°39	14°38	S 15
M16	23 39 33	23°4'26	9♌30	17°3	22°35	3°46	7°37	23°35	14°12	0°51	3°5	10°2	11°29	11°46	14°39	M16
T 17	23 43 29	24°2'58	24°17	18°56	23°47	4°24	7°33	23°39	14°14	0°51	3°7	9°59	11°26	11°53	14°39	T 17
W18	23 47 26	25°1'32	9♌1	20°49	25°0	5°2	7°30	23°44	14°15	0°51	3°9	9°D58	11°23	11°59	14°39	W18
T 19	23 51 22	26°0'08	23°35	22°41	26°13	5°40	7°27	23°49	14°16	0°52	3°11	9°59	11°20	12°6	14°40	T 19
F 20	23 55 19	26°58'46	7♌56	24°33	27°25	6°18	7°25	23°54	14°18	0°52	3°13	10°0	11°16	12°13	14°40	F 20
S 21	23 59 15	27°57'25	22°1	26°24	28°38	6°56	7°22	23°59	14°19	0°52	3°15	10°R 1	11°13	12°19	14°R40	S 21
S 22	0 3 12	28°56'06	5♌49	28°14	29°51	7°34	7°20	24°4	14°21	0°52	3°17	10°1	11°10	12°26	14°40	S 22
M23	0 7 8	29°54'48	19°22	0♌4	1♍4	8°12	7°18	24°9	14°22	0°53	3°19	9°59	11°7	12°33	14°40	M23
T 24	0 11 5	0♌53'32	2♌39	1°52	2°17	8°49	7°16	24°14	14°24	0°53	3°21	9°56	11°4	12°39	14°39	T 24
W25	0 15 2	1°52'18	15°41	3°39	3°30	9°27	7°14	24°19	14°25	0°53	3°24	9°51	11°1	12°46	14°39	W25
T 26	0 18 58	2°51'06	28°30	5°26	4°44	10°5	7°13	24°24	14°27	0°54	3°26	9°45	10°57	12°52	14°39	T 26
F 27	0 22 55	3°49'55	11♋6	7°12	5°57	10°43	7°11	24°30	14°29	0°54	3°28	9°38	10°54	12°59	14°39	F 27
S 28	0 26 51	4°48'46	23°30	8°56	7°10	11°21	7°10	24°35	14°31	0°55	3°30	9°32	10°51	13°6	14°38	S 28
S 29	0 30 48	5°47'39	5♍44	10°40	8°24	11°59	7°9	24°40	14°32	0°55	3°32	9°27	10°48	13°12	14°38	S 29
M30	0 34 44	6°46'34	17♍47	12♌23	9♍37	12♍37	7°R 8	24♌46	14°R34	0°R56	3♌34	9°R24	10°R45	13°R19	14°R37	M30

Delta T = 54.70 sec

OCTOBER 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 38 41	7♌45'31	29♍43	14♌5	10♍51	13♍15	7°R 8	24♌51	14♌36	0°R57	3♌37	9°R22	10♌42	13♌26	14°R36	T 1
W 2	0 42 37	8°44'31	11♌33	15°46	12°4	13°52	7°R 7	24°57	14°38	0°57	3°39	9°D21	10°38	13°32	14°R36	W 2
T 3	0 46 34	9°43'32	23°19	17°27	13°18	14°30	7°D 7	25°3	14°40	0°58	3°41	9°R22	10°35	13°39	14°35	T 3
F 4	0 50 31	10°42'36	5♌7	19°6	14°31	15°8	7°7	25°8	14°42	0°59	3°43	9°24	10°32	13°46	14°34	F 4
S 5	0 54 27	11°41'42	16°59	20°45	15°45	15°46	7°8	25°14	14°44	0°59	3°46	9°25	10°29	13°52	14°33	S 5
S 6	0 58 24	12°40'51	29°0	22°23	16°59	16°24	7°8	25°20	14°46	1°0	3°48	9°27	10°26	13°59	14°32	S 6
M 7	1 2 20	13°40'01	11♌15	24°0	18°13	17°2	7°9	25°26	14°49	1°1	3°50	9°R28	10°22	14°6	14°31	M 7
T 8	1 6 17	14°39'15	23°49	25°36	19°27	17°39	7°9	25°32	14°51	1°2	3°53	9°27	10°19	14°12	14°30	T 8
W 9	1 10 13	15°38'30	6♌46	27°11	20°41	18°17	7°10	25°38	14°53	1°2	3°55	9°26	10°16	14°19	14°29	W 9
T 10	1 14 10	16°37'47	20°9	28°46	21°55	18°55	7°12	25°44	14°55	1°3	3°57	9°23	10°13	14°25	14°27	T 10
F 11	1 18 6	17°37'07	4♍0	0♌20	23°9	19°33	7°13	25°50	14°58	1°4	4°0	9°21	10°10	14°32	14°26	F 11
S 12	1 22 3	18°36'29	18°17	1°53	24°23	20°11	7°15	25°56	15°0	1°5	4°2	9°18	10°7	14°39	14°25	S 12
S 13	1 26 0	19°35'54	2♌58	3°26	25°37	20°48	7°16	26°2	15°3	1°6	4°4	9°15	10°3	14°45	14°23	S 13
M14	1 29 56	20°35'20	17°55	4°58	26°51	21°26	7°18	26°9	15°5	1°7	4°7	9°13	10°0	14°52	14°22	M14
T 15	1 33 53	21°34'48	3♌1	6°29	28°5	22°4	7°21	26°15	15°7	1°8	4°9	9°D12	9°57	14°59	14°20	T 15
W16	1 37 49	22°34'19	18°6	8°0	29°20	22°42	7°23	26°21	15°10	1°9	4°11	9°12	9°54	15°5	14°18	W16
T 17	1 41 46	23°33'51	3♌2	9°29	0♌34	23°19	7°26	26°27	15°13	1°10	4°14	9°13	9°51	15°12	14°17	T 17
F 18	1 45 42	24°33'26	17°42	10°59	1°48	23°57	7°28	26°34	15°15	1°12	4°16	9°14	9°48	15°19	14°15	F 18
S 19	1 49 39	25°33'02	2♌1	12°27	3°3	24°35	7°31	26°40	15°18	1°13	4°19	9°15	9°44	15°25	14°13	S 19
S 20	1 53 35	26°32'40	15°57	13°55	4°17	25°12	7°35	26°47	15°21	1°14	4°21	9°16	9°41	15°32	14°11	S 20
M21	1 57 32	27°32'19	29°30	15°22	5°32	25°50	7°38	26°53	15°23	1°15	4°23	9°R16	9°38	15°39	14°9	M21
T 22	2 1 29	28°32'00	12♌41	16°48	6°46	26°28	7°41	27°0	15°26	1°16	4°26	9°16	9°35	15°45	14°7	T 22
W23	2 5 25	29°31'43	25°32	18°14	8°1	27°5	7°45	27°6	15°29	1°18	4°28	9°15	9°32	15°52	14°5	W23
T 24	2 9 22	0♌31'27	8♌7	19°38	9°15	27°43	7°49	27°13	15°32	1°19	4°31	9°14	9°28	15°59	14°3	T 24
F 25	2 13 18	1°31'14	20°28	21°2	10°30	28°21	7°53	27°20	15°34	1°20	4°33	9°13	9°25	16°5	14°1	F 25
S 26	2 17 15	2°31'01	2♍38	22°26	11°44	28°58	7°57	27°26	15°37	1°22	4°36	9°12	9°22	16°12	13°58	S 26
S 27	2 21 11	3°30'51	14°39	23°48	12°59	29°36	8°2	27°33	15°40	1°23	4°38	9°11	9°19	16°18	13°56	S 27
M28	2 25 8	4°30'43	26°33	25°9	14°14	0♌14	8°7	27°40	15°43	1°24	4°40	9°11	9°16	16°25	13°54	M28
T 29	2 29 4	5°30'36	8♌23	26°29	15°29	0°51	8°11	27°47	15°46	1°26	4°43	9°D11	9°13	16°32	13°51	T 29
W30	2 33 1	6°30'32	20°11	27°48	16°43	1°29	8°16	27°53	15°49	1°27	4°45	9°11	9°9	16°38	13°49	W30
T 31	2 36 57	7♌30'29	1♌59	29♌6	17♌58	2♌7	8°R21	28♌0	15°R52	1°R29	4♌48	9°R11	9°R6	16°R45	13°R46	T 31

Delta T = 54.74 sec

ASTRODIENST EPHEMERIS for the year 1985  
geocentric

NOVEMBER 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 40 54	8♉30'29	13♏49	0♊23	19♏13	2♉44	8♏27	28♉7	15♊55	1♊30	4♉50	9♏11	9♏3	16♏52	13♏43	F 1
S 2	2 44 51	9°30'31	25°44	1°38	20°28	3°22	8°32	28°14	15°58	1°32	4°53	9°R11	9°0	16°58	13♏41	S 2
S 3	2 48 47	10°30'34	7♏48	2°52	21°43	3°59	8°38	28°21	16°2	1°33	4°55	9°11	8°57	17°5	13°38	S 3
M 4	2 52 44	11°30'40	20°4	4°4	22°58	4°37	8°44	28°28	16°5	1°35	4°57	9°11	8°53	17°12	13°35	M 4
T 5	2 56 40	12°30'48	2♏36	5°14	24°13	5°14	8°50	28°35	16°8	1°37	5°0	9°10	8°50	17°18	13°33	T 5
W 6	3 0 37	13°30'58	15°28	6°22	25°28	5°52	8°56	28°42	16°11	1°38	5°2	9°D10	8°47	17°25	13°30	W 6
T 7	3 4 33	14°31'10	28°42	7°28	26°43	6°30	9°2	28°49	16°14	1°40	5°5	9°10	8°44	17°32	13°27	T 7
F 8	3 8 30	15°31'24	12♏23	8°30	27°58	7°7	9°9	28°56	16°18	1°42	5°7	9°11	8°41	17°38	13°24	F 8
S 9	3 12 27	16°31'40	26°29	9°30	29°13	7°45	9°16	29°3	16°21	1°43	5°9	9°12	8°38	17°45	13°21	S 9
S 10	3 16 23	17°31'58	11♏1	10°27	0♉28	8°22	9°22	29°10	16°24	1°45	5°12	9°12	8°34	17°51	13°18	S 10
M 11	3 20 20	18°32'18	25°55	11°20	1°43	9°0	9°29	29°17	16°28	1°47	5°14	9°13	8°31	17°58	13°15	M 11
T 12	3 24 16	19°32'39	11♉3	12°8	2°58	9°37	9°37	29°24	16°31	1°49	5°17	9°R13	8°28	18°5	13°12	T 12
W 13	3 28 13	20°33'03	26°17	12°52	4°13	10°15	9°44	29°31	16°34	1°50	5°19	9°13	8°25	18°11	13°9	W 13
T 14	3 32 9	21°33'28	11♊27	13°31	5°28	10°52	9°51	29°38	16°38	1°52	5°21	9°12	8°22	18°18	13°6	T 14
F 15	3 36 6	22°33'55	26°23	14°3	6°44	11°30	9°59	29°45	16°41	1°54	5°24	9°10	8°19	18°25	13°3	F 15
S 16	3 40 2	23°34'24	10♏59	14°29	7°59	12°7	10°7	29°52	16°45	1°56	5°26	9°8	8°15	18°31	12°59	S 16
S 17	3 43 59	24°34'53	25°8	14°48	9°14	12°45	10°15	29°59	16°48	1°58	5°28	9°6	8°12	18°38	12°56	S 17
M 18	3 47 56	25°35'24	8♏50	14°58	10°29	13°22	10°23	0♊6	16°51	2°0	5°31	9°5	8°9	18°45	12°53	M 18
T 19	3 51 52	26°35'56	22°5	15°R 0	11°44	13°59	10°31	0°14	16°55	2°2	5°33	9°D 4	8°6	18°51	12°50	T 19
W 20	3 55 49	27°36'30	4♏56	14°52	13°0	14°37	10°39	0°21	16°58	2°4	5°35	9°4	8°3	18°58	12°46	W 20
T 21	3 59 45	28°37'04	17°25	14°34	14°15	15°14	10°48	0°28	17°2	2°6	5°38	9°5	7°59	19°5	12°43	T 21
F 22	4 3 42	29°37'40	29°39	14°5	15°30	15°52	10°56	0°35	17°5	2°8	5°40	9°7	7°56	19°11	12°40	F 22
S 23	4 7 38	0♊38'17	11°V40	13°26	16°46	16°29	11°5	0°42	17°9	2°10	5°42	9°9	7°53	19°18	12°36	S 23
S 24	4 11 35	1°38'55	23°33	12°36	18°1	17°6	11°14	0°49	17°13	2°12	5°44	9°10	7°50	19°25	12°33	S 24
M 25	4 15 31	2°39'34	5♏21	11°36	19°16	17°44	11°23	0°56	17°16	2°14	5°47	9°R11	7°47	19°31	12°29	M 25
T 26	4 19 28	3°40'15	17°8	10°28	20°32	18°21	11°32	1°4	17°20	2°16	5°49	9°11	7°44	19°38	12°26	T 26
W 27	4 23 25	4°40'57	28°57	9°13	21°47	18°58	11°42	1°11	17°23	2°18	5°51	9°9	7°40	19°44	12°23	W 27
T 28	4 27 21	5°41'40	10♏49	7°52	23°2	19°36	11°51	1°18	17°27	2°20	5°53	9°6	7°37	19°51	12°19	T 28
F 29	4 31 18	6°42'24	22°47	6°30	24°18	20°13	12°1	1°25	17°31	2°22	5°55	9°2	7°34	19°58	12°16	F 29
S 30	4 35 14	7♊43'10	4♏51	5♊8	25♉33	20♏50	12♏10	1♊32	17♊34	2♏24	5♉58	8♏57	7♏31	20♏4	12♏12	S 30

Delta T = 54.79 sec

DECEMBER 1985

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 39 11	8♊43'58	17♏5	3°R50	26♉48	21♏27	12♏20	1♊39	17♊38	2♏26	6♉0	8°R52	7♏28	20♏11	12°R 9	S 1
M 2	4 43 7	9°44'46	29°29	2♊37	28°4	22°5	12°30	1°46	17°41	2°28	6°2	8♏47	7°25	20°18	12♏5	M 2
T 3	4 47 4	10°45'36	12♏6	1°32	29°19	22°42	12°40	1°53	17°45	2°30	6°4	8°42	7°21	20°24	12°2	T 3
W 4	4 51 0	11°46'27	24°58	0°37	0♊35	23°19	12°50	2°1	17°49	2°32	6°6	8°39	7°18	20°31	11°58	W 4
T 5	4 54 57	12°47'20	8♏8	29♉52	1°50	23°56	13°0	2°8	17°52	2°35	6°8	8°D38	7°15	20°38	11°55	T 5
F 6	4 58 54	13°48'14	21°38	29°19	3°5	24°34	13°11	2°15	17°56	2°37	6°10	8°38	7°12	20°44	11°51	F 6
S 7	5 2 50	14°49'09	5♏30	28°58	4°21	25°11	13°21	2°22	18°0	2°39	6°12	8°39	7°9	20°51	11°48	S 7
S 8	5 6 47	15°50'06	19°44	28°D47	5°36	25°48	13°32	2°29	18°3	2°41	6°14	8°41	7°5	20°58	11°44	S 8
M 9	5 10 43	16°51'04	4♉20	28°47	6°52	26°25	13°43	2°36	18°7	2°43	6°16	8°R42	7°2	21°4	11°41	M 9
T 10	5 14 40	17°52'03	19°12	28°58	8°7	27°2	13°53	2°43	18°11	2°46	6°18	8°42	6°59	21°11	11°37	T 10
W 11	5 18 36	18°53'03	4♊16	29°17	9°23	27°39	14°4	2°50	18°14	2°48	6°20	8°39	6°56	21°18	11°34	W 11
T 12	5 22 33	19°54'04	19°22	29°45	10°38	28°17	14°15	2°57	18°18	2°50	6°22	8°35	6°53	21°24	11°30	T 12
F 13	5 26 29	20°55'06	4♏21	0♊20	11°54	28°54	14°26	3°4	18°22	2°52	6°24	8°29	6°50	21°31	11°27	F 13
S 14	5 30 26	21°56'09	19°4	1°2	13°9	29°31	14°38	3°11	18°25	2°54	6°26	8°22	6°46	21°38	11°23	S 14
S 15	5 34 23	22°57'12	3♏24	1°49	14°25	0♉8	14°49	3°17	18°29	2°57	6°27	8°15	6°43	21°44	11°20	S 15
M 16	5 38 19	23°58'16	17°15	2°42	15°40	0°45	15°1	3°24	18°33	2°59	6°29	8°8	6°40	21°51	11°17	M 16
T 17	5 42 16	24°59'20	0♊38	3°40	16°56	1°22	15°12	3°31	18°36	3°1	6°31	8°3	6°37	21°57	11°13	T 17
W 18	5 46 12	26°0'25	13°34	4°41	18°11	1°59	15°24	3°38	18°40	3°3	6°33	8°1	6°34	22°4	11°10	W 18
T 19	5 50 9	27°1'30	26°6	5°46	19°27	2°36	15°35	3°45	18°44	3°6	6°35	8°D 0	6°31	22°11	11°6	T 19
F 20	5 54 5	28°2'35	8°V19	6°54	20°42	3°13	15°47	3°51	18°47	3°8	6°36	8°0	6°27	22°17	11°3	F 20
S 21	5 58 2	29°3'40	20°17	8°5	21°58	3°50	15°59	3°58	18°51	3°10	6°38	8°1	6°24	22°24	11°0	S 21
S 22	6 1 59	0♏46	2♏8	9°18	23°13	4°26	16°11	4°5	18°54	3°12	6°40	8°R 2	6°21	22°31	10°57	S 22
M 23	6 5 52	1°5'52	10°34	24°29	5°3	16°23	4°11	4°11	18°58	3°15	6°41	8°2	6°18	22°37	10°53	M 23
T 24	6 9 52	2°6'58	25°41	11°51	25°44	5°40	16°35	4°18	19°2	3°17	6°43	8°1	6°15	22°44	10°50	T 24
W 25	6 13 48	3°8'05	7♏33	13°10	27°0	6°17	16°48	4°25	19°5	3°19	6°44	7°56	6°11	22°51	10°47	W 25
T 26	6 17 45	4°9'12	19°32	14°30	28°15	6°54	17°0	4°31	19°9	3°22	6°46	7°49	6°8	22°57	10°44	T 26
F 27	6 21 41	5°10'19	1♏40	15°51	29°31	7°31	17°12	4°38	19°12	3°24	6°48	7°40	6°5	23°4	10°41	F 27
S 28	6 25 38	6°11'26	13°58	17°14	0♏46	8°7	17°25	4°44	19°16	3°26	6°49	7°29	6°2	23°11	10°38	S 28
S 29	6 29 34	7°12'34	26°28	18°37	2°2	8°44	17°37	4°51	19°19	3°28	6°51	7°18	5°59	23°17	10°35	S 29
M 30	6 33 31	8°13'42	9♏8	20°2	3°17	9°21	17°50	4°57	19°23	3°31	6°52	7°6	5°56	23°24	10°32	M 30
T 31	6 37 28	9♏14'50	22♏0	21♊27	4♏33	9♉58	18♏3	5♊3	19♊27	3♏33	6♉53	6♏56	5♏52	23♏31	10♏29	T 31

Delta T = 54.83 sec