

SWISS EPHEMERIS for the year 1683  
heliocentric

JANUARY 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
F 1	6 42 55	10 <sup>50</sup> 34	10 <sup>45</sup>	29 <sup>0</sup>	19 <sup>II</sup> 53	6 <sup>mp</sup> 27	14 <sup>Q</sup> 21	15 <sup>Q</sup> 43	26 <sup>V</sup> 58	26 <sup>≈</sup> 58	16 <sup>Q</sup> 9	27 <sup>V</sup> 50
S 2	6 46 52	11 <sup>51</sup> 45	11 <sup>45</sup>	2 <sup>III</sup> 7	21 <sup>30</sup>	6 <sup>54</sup>	14 <sup>25</sup>	15 <sup>45</sup>	26 <sup>58</sup>	26 <sup>59</sup>	16 <sup>9</sup>	27 <sup>51</sup>
S 3	6 50 49	12 <sup>52</sup> 56	12 <sup>45</sup>	5 <sup>11</sup>	23 <sup>7</sup>	7 <sup>20</sup>	14 <sup>30</sup>	15 <sup>47</sup>	26 <sup>59</sup>	26 <sup>59</sup>	16 <sup>9</sup>	27 <sup>51</sup>
M 4	6 54 45	13 <sup>54</sup> 06	13 <sup>45</sup>	8 <sup>11</sup>	24 <sup>44</sup>	7 <sup>46</sup>	14 <sup>35</sup>	15 <sup>49</sup>	27 <sup>0</sup>	27 <sup>0</sup>	16 <sup>10</sup>	27 <sup>52</sup>
T 5	6 58 42	14 <sup>55</sup> 16	14 <sup>46</sup>	11 <sup>10</sup>	26 <sup>21</sup>	8 <sup>12</sup>	14 <sup>40</sup>	15 <sup>51</sup>	27 <sup>0</sup>	27 <sup>0</sup>	16 <sup>10</sup>	27 <sup>53</sup>
W 6	7 2 38	15 <sup>56</sup> 25	15 <sup>47</sup>	14 <sup>5</sup>	27 <sup>58</sup>	8 <sup>39</sup>	14 <sup>44</sup>	15 <sup>54</sup>	27 <sup>1</sup>	27 <sup>0</sup>	16 <sup>10</sup>	27 <sup>54</sup>
T 7	7 6 35	16 <sup>57</sup> 34	16 <sup>49</sup>	16 <sup>59</sup>	29 <sup>35</sup>	9 <sup>5</sup>	14 <sup>49</sup>	15 <sup>56</sup>	27 <sup>2</sup>	27 <sup>1</sup>	16 <sup>10</sup>	27 <sup>54</sup>
F 8	7 10 31	17 <sup>58</sup> 41	17 <sup>50</sup>	19 <sup>50</sup>	1 <sup>Q</sup> 12	9 <sup>31</sup>	14 <sup>54</sup>	15 <sup>58</sup>	27 <sup>2</sup>	27 <sup>1</sup>	16 <sup>10</sup>	27 <sup>55</sup>
S 9	7 14 28	18 <sup>59</sup> 49	18 <sup>53</sup>	22 <sup>40</sup>	2 <sup>49</sup>	9 <sup>57</sup>	14 <sup>59</sup>	16 <sup>0</sup>	27 <sup>3</sup>	27 <sup>1</sup>	16 <sup>11</sup>	27 <sup>56</sup>
S 10	7 18 24	20 <sup>0</sup> 56	19 <sup>55</sup>	25 <sup>29</sup>	4 <sup>26</sup>	10 <sup>24</sup>	15 <sup>3</sup>	16 <sup>2</sup>	27 <sup>4</sup>	27 <sup>2</sup>	16 <sup>11</sup>	27 <sup>56</sup>
M 11	7 22 21	21 <sup>0</sup> 20	20 <sup>58</sup>	28 <sup>16</sup>	6 <sup>3</sup>	10 <sup>50</sup>	15 <sup>8</sup>	16 <sup>4</sup>	27 <sup>4</sup>	27 <sup>2</sup>	16 <sup>11</sup>	27 <sup>57</sup>
T 12	7 26 18	22 <sup>0</sup> 30	22 <sup>1</sup>	1 <sup>Q</sup> 2	7 <sup>40</sup>	11 <sup>16</sup>	15 <sup>13</sup>	16 <sup>7</sup>	27 <sup>5</sup>	27 <sup>2</sup>	16 <sup>11</sup>	27 <sup>58</sup>
W 13	7 30 14	23 <sup>0</sup> 41	23 <sup>4</sup>	3 <sup>48</sup>	9 <sup>18</sup>	11 <sup>43</sup>	15 <sup>17</sup>	16 <sup>9</sup>	27 <sup>6</sup>	27 <sup>3</sup>	16 <sup>12</sup>	27 <sup>58</sup>
T 14	7 34 11	24 <sup>0</sup> 51	24 <sup>7</sup>	6 <sup>33</sup>	10 <sup>55</sup>	12 <sup>9</sup>	15 <sup>22</sup>	16 <sup>11</sup>	27 <sup>6</sup>	27 <sup>3</sup>	16 <sup>12</sup>	27 <sup>59</sup>
F 15	7 38 7	25 <sup>0</sup> 62	25 <sup>10</sup>	9 <sup>18</sup>	12 <sup>32</sup>	12 <sup>35</sup>	15 <sup>27</sup>	16 <sup>13</sup>	27 <sup>7</sup>	27 <sup>4</sup>	16 <sup>12</sup>	28 <sup>0</sup>
S 16	7 42 4	26 <sup>0</sup> 72	26 <sup>13</sup>	12 <sup>3</sup>	14 <sup>9</sup>	13 <sup>2</sup>	15 <sup>32</sup>	16 <sup>15</sup>	27 <sup>8</sup>	27 <sup>4</sup>	16 <sup>12</sup>	28 <sup>0</sup>
S 17	7 46 0	27 <sup>0</sup> 82	27 <sup>15</sup>	14 <sup>47</sup>	15 <sup>47</sup>	13 <sup>28</sup>	15 <sup>36</sup>	16 <sup>17</sup>	27 <sup>8</sup>	27 <sup>4</sup>	16 <sup>12</sup>	28 <sup>1</sup>
M 18	7 49 57	28 <sup>0</sup> 92	28 <sup>17</sup>	17 <sup>32</sup>	17 <sup>24</sup>	13 <sup>54</sup>	15 <sup>41</sup>	16 <sup>20</sup>	27 <sup>9</sup>	27 <sup>5</sup>	16 <sup>13</sup>	28 <sup>2</sup>
T 19	7 53 53	29 <sup>0</sup> 102	29 <sup>19</sup>	20 <sup>18</sup>	19 <sup>1</sup>	14 <sup>21</sup>	15 <sup>46</sup>	16 <sup>22</sup>	27 <sup>10</sup>	27 <sup>5</sup>	16 <sup>13</sup>	28 <sup>2</sup>
W 20	7 57 50	0 <sup>Q</sup> 1130	0 <sup>Q</sup> 20	23 <sup>4</sup>	20 <sup>39</sup>	14 <sup>47</sup>	15 <sup>51</sup>	16 <sup>24</sup>	27 <sup>10</sup>	27 <sup>5</sup>	16 <sup>13</sup>	28 <sup>3</sup>
T 21	8 1 47	1 <sup>12</sup> 30	1 <sup>21</sup>	25 <sup>51</sup>	22 <sup>16</sup>	15 <sup>13</sup>	15 <sup>55</sup>	16 <sup>26</sup>	27 <sup>11</sup>	27 <sup>6</sup>	16 <sup>13</sup>	28 <sup>4</sup>
F 22	8 5 43	2 <sup>13</sup> 30	2 <sup>22</sup>	28 <sup>39</sup>	23 <sup>53</sup>	15 <sup>40</sup>	16 <sup>0</sup>	16 <sup>28</sup>	27 <sup>12</sup>	27 <sup>6</sup>	16 <sup>13</sup>	28 <sup>4</sup>
S 23	8 9 40	3 <sup>14</sup> 30	3 <sup>22</sup>	1 <sup>Q</sup> 29	25 <sup>31</sup>	16 <sup>6</sup>	16 <sup>5</sup>	16 <sup>30</sup>	27 <sup>12</sup>	27 <sup>6</sup>	16 <sup>14</sup>	28 <sup>5</sup>
S 24	8 13 36	4 <sup>15</sup> 28	4 <sup>21</sup>	4 <sup>20</sup>	27 <sup>8</sup>	16 <sup>33</sup>	16 <sup>9</sup>	16 <sup>33</sup>	27 <sup>13</sup>	27 <sup>7</sup>	16 <sup>14</sup>	28 <sup>6</sup>
M 25	8 17 33	5 <sup>16</sup> 26	5 <sup>21</sup>	7 <sup>12</sup>	28 <sup>46</sup>	16 <sup>59</sup>	16 <sup>14</sup>	16 <sup>35</sup>	27 <sup>14</sup>	27 <sup>7</sup>	16 <sup>14</sup>	28 <sup>6</sup>
T 26	8 21 29	6 <sup>17</sup> 23	6 <sup>20</sup>	10 <sup>7</sup>	0 <sup>Q</sup> 23	17 <sup>26</sup>	16 <sup>19</sup>	16 <sup>37</sup>	27 <sup>14</sup>	27 <sup>8</sup>	16 <sup>14</sup>	28 <sup>7</sup>
W 27	8 25 26	7 <sup>18</sup> 19	7 <sup>19</sup>	13 <sup>4</sup>	2 <sup>1</sup>	17 <sup>52</sup>	16 <sup>24</sup>	16 <sup>39</sup>	27 <sup>15</sup>	27 <sup>8</sup>	16 <sup>14</sup>	28 <sup>8</sup>
T 28	8 29 22	8 <sup>19</sup> 14	8 <sup>19</sup>	16 <sup>4</sup>	3 <sup>38</sup>	18 <sup>19</sup>	16 <sup>28</sup>	16 <sup>41</sup>	27 <sup>16</sup>	27 <sup>8</sup>	16 <sup>15</sup>	28 <sup>8</sup>
F 29	8 33 19	9 <sup>20</sup> 08	9 <sup>18</sup>	19 <sup>6</sup>	5 <sup>16</sup>	18 <sup>45</sup>	16 <sup>33</sup>	16 <sup>44</sup>	27 <sup>16</sup>	27 <sup>9</sup>	16 <sup>15</sup>	28 <sup>9</sup>
S 30	8 37 16	10 <sup>21</sup> 01	10 <sup>17</sup>	22 <sup>11</sup>	6 <sup>53</sup>	19 <sup>11</sup>	16 <sup>38</sup>	16 <sup>46</sup>	27 <sup>17</sup>	27 <sup>9</sup>	16 <sup>15</sup>	28 <sup>10</sup>
S 31	8 41 12	11 <sup>Q</sup> 21'52	11 <sup>Q</sup> 16	25 <sup>Q</sup> 19	8 <sup>Q</sup> 31	19 <sup>mp</sup> 38	16 <sup>Q</sup> 42	16 <sup>Q</sup> 48	27 <sup>V</sup> 18	27 <sup>≈</sup> 9	16 <sup>Q</sup> 15	28 <sup>V</sup> 10

Delta T = 12.65 sec.

Greg. Calendar

FEBRUARY 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
M 1	8 45 9	12 <sup>Q</sup> 22'42	12 <sup>Q</sup> 16	28 <sup>Q</sup> 31	10 <sup>Q</sup> 8	20 <sup>mp</sup> 4	16 <sup>Q</sup> 47	16 <sup>Q</sup> 50	27 <sup>V</sup> 18	27 <sup>≈</sup> 10	16 <sup>Q</sup> 15	28 <sup>V</sup> 11
T 2	8 49 5	13 <sup>23</sup> 31	13 <sup>16</sup>	1 <sup>≈</sup> 47	11 <sup>46</sup>	20 <sup>31</sup>	16 <sup>52</sup>	16 <sup>52</sup>	27 <sup>19</sup>	27 <sup>10</sup>	16 <sup>16</sup>	28 <sup>12</sup>
W 3	8 53 2	14 <sup>24</sup> 18	14 <sup>16</sup>	5 <sup>7</sup>	13 <sup>23</sup>	20 <sup>58</sup>	16 <sup>57</sup>	16 <sup>54</sup>	27 <sup>20</sup>	27 <sup>10</sup>	16 <sup>16</sup>	28 <sup>12</sup>
T 4	8 56 58	15 <sup>25</sup> 03	15 <sup>16</sup>	8 <sup>32</sup>	15 <sup>1</sup>	21 <sup>24</sup>	17 <sup>1</sup>	16 <sup>57</sup>	27 <sup>20</sup>	27 <sup>11</sup>	16 <sup>16</sup>	28 <sup>13</sup>
F 5	9 0 55	16 <sup>25</sup> 47	16 <sup>17</sup>	12 <sup>1</sup>	16 <sup>38</sup>	21 <sup>51</sup>	17 <sup>6</sup>	16 <sup>59</sup>	27 <sup>21</sup>	27 <sup>11</sup>	16 <sup>16</sup>	28 <sup>14</sup>
S 6	9 4 51	17 <sup>26</sup> 29	17 <sup>18</sup>	15 <sup>35</sup>	18 <sup>16</sup>	22 <sup>17</sup>	17 <sup>11</sup>	17 <sup>1</sup>	27 <sup>22</sup>	27 <sup>12</sup>	16 <sup>16</sup>	28 <sup>14</sup>
S 7	9 8 48	18 <sup>27</sup> 10	18 <sup>19</sup>	19 <sup>15</sup>	19 <sup>54</sup>	22 <sup>44</sup>	17 <sup>15</sup>	17 <sup>3</sup>	27 <sup>22</sup>	27 <sup>12</sup>	16 <sup>17</sup>	28 <sup>15</sup>
M 8	9 12 45	19 <sup>27</sup> 49	19 <sup>21</sup>	23 <sup>1</sup>	21 <sup>31</sup>	23 <sup>11</sup>	17 <sup>20</sup>	17 <sup>5</sup>	27 <sup>23</sup>	27 <sup>12</sup>	16 <sup>17</sup>	28 <sup>16</sup>
T 9	9 16 41	20 <sup>28</sup> 27	20 <sup>23</sup>	26 <sup>53</sup>	23 <sup>9</sup>	23 <sup>37</sup>	17 <sup>25</sup>	17 <sup>7</sup>	27 <sup>23</sup>	27 <sup>13</sup>	16 <sup>17</sup>	28 <sup>17</sup>
W 10	9 20 38	21 <sup>29</sup> 03	21 <sup>26</sup>	0 <sup>Q</sup> 51	24 <sup>46</sup>	24 <sup>4</sup>	17 <sup>30</sup>	17 <sup>10</sup>	27 <sup>24</sup>	27 <sup>13</sup>	16 <sup>17</sup>	28 <sup>17</sup>
T 11	9 24 34	22 <sup>29</sup> 37	22 <sup>28</sup>	4 <sup>57</sup>	26 <sup>24</sup>	24 <sup>31</sup>	17 <sup>34</sup>	17 <sup>12</sup>	27 <sup>25</sup>	27 <sup>13</sup>	16 <sup>17</sup>	28 <sup>18</sup>
F 12	9 28 31	23 <sup>30</sup> 09	23 <sup>31</sup>	9 <sup>10</sup>	28 <sup>1</sup>	24 <sup>57</sup>	17 <sup>39</sup>	17 <sup>14</sup>	27 <sup>25</sup>	27 <sup>14</sup>	16 <sup>18</sup>	28 <sup>19</sup>
S 13	9 32 27	24 <sup>30</sup> 40	24 <sup>33</sup>	13 <sup>30</sup>	29 <sup>39</sup>	25 <sup>24</sup>	17 <sup>44</sup>	17 <sup>16</sup>	27 <sup>26</sup>	27 <sup>14</sup>	16 <sup>18</sup>	28 <sup>19</sup>
S 14	9 36 24	25 <sup>31</sup> 10	25 <sup>36</sup>	17 <sup>59</sup>	1 <sup>mp</sup> 16	25 <sup>51</sup>	17 <sup>48</sup>	17 <sup>18</sup>	27 <sup>27</sup>	27 <sup>14</sup>	16 <sup>18</sup>	28 <sup>20</sup>
M 15	9 40 20	26 <sup>31</sup> 38	26 <sup>38</sup>	22 <sup>36</sup>	2 <sup>54</sup>	26 <sup>17</sup>	17 <sup>53</sup>	17 <sup>20</sup>	27 <sup>27</sup>	27 <sup>15</sup>	16 <sup>18</sup>	28 <sup>21</sup>
T 16	9 44 17	27 <sup>32</sup> 04	27 <sup>40</sup>	27 <sup>22</sup>	4 <sup>31</sup>	26 <sup>44</sup>	17 <sup>58</sup>	17 <sup>23</sup>	27 <sup>28</sup>	27 <sup>15</sup>	16 <sup>19</sup>	28 <sup>21</sup>
W 17	9 48 14	28 <sup>32</sup> 30	28 <sup>41</sup>	2 <sup>V</sup> 16	6 <sup>9</sup>	27 <sup>11</sup>	18 <sup>3</sup>	17 <sup>25</sup>	27 <sup>29</sup>	27 <sup>15</sup>	16 <sup>19</sup>	28 <sup>22</sup>
T 18	9 52 10	29 <sup>32</sup> 54	29 <sup>42</sup>	7 <sup>20</sup>	7 <sup>46</sup>	27 <sup>38</sup>	18 <sup>7</sup>	17 <sup>27</sup>	27 <sup>29</sup>	27 <sup>16</sup>	16 <sup>19</sup>	28 <sup>23</sup>
F 19	9 56 7	0 <sup>mp</sup> 33'17	0 <sup>mp</sup> 42	12 <sup>32</sup>	9 <sup>24</sup>	28 <sup>5</sup>	18 <sup>12</sup>	17 <sup>29</sup>	27 <sup>30</sup>	27 <sup>16</sup>	16 <sup>19</sup>	28 <sup>23</sup>
S 20	10 0 3	1 <sup>33</sup> 38	1 <sup>42</sup>	17 <sup>54</sup>	11 <sup>1</sup>	28 <sup>31</sup>	18 <sup>17</sup>	17 <sup>31</sup>	27 <sup>31</sup>	27 <sup>17</sup>	16 <sup>19</sup>	28 <sup>24</sup>
S 21	10 4 0	2 <sup>33</sup> 58	2 <sup>42</sup>	23 <sup>25</sup>	12 <sup>39</sup>	28 <sup>58</sup>	18 <sup>21</sup>	17 <sup>33</sup>	27 <sup>31</sup>	27 <sup>17</sup>	16 <sup>20</sup>	28 <sup>25</sup>
M 22	10 7 56	3 <sup>34</sup> 16	3 <sup>41</sup>	29 <sup>4</sup>	14 <sup>16</sup>	29 <sup>25</sup>	18 <sup>26</sup>	17 <sup>36</sup>	27 <sup>32</sup>	27 <sup>17</sup>	16 <sup>20</sup>	28 <sup>25</sup>
T 23	10 11 53	4 <sup>34</sup> 33	4 <sup>40</sup>	4 <sup>Q</sup> 52	15 <sup>53</sup>	29 <sup>52</sup>	18 <sup>31</sup>	17 <sup>38</sup>	27 <sup>33</sup>	27 <sup>18</sup>	16 <sup>20</sup>	28 <sup>26</sup>
W 24	10 15 49	5 <sup>34</sup> 48	5 <sup>39</sup>	10 <sup>47</sup>	17 <sup>31</sup>	0 <sup>Q</sup> 19	18 <sup>36</sup>	17 <sup>40</sup>	27 <sup>33</sup>	27 <sup>18</sup>	16 <sup>20</sup>	28 <sup>27</sup>
T 25	10 19 46	6 <sup>35</sup> 02	6 <sup>38</sup>	16 <sup>49</sup>	19 <sup>8</sup>	0 <sup>46</sup>	18 <sup>40</sup>	17 <sup>42</sup>	27 <sup>34</sup>	27 <sup>18</sup>	16 <sup>20</sup>	28 <sup>27</sup>
F 26	10 23 43	7 <sup>35</sup> 13	7 <sup>36</sup>	22 <sup>57</sup>	20 <sup>45</sup>	1 <sup>13</sup>	18 <sup>45</sup>	17 <sup>44</sup>	27 <sup>35</sup>	27 <sup>19</sup>	16 <sup>21</sup>	28 <sup>28</sup>
S 27	10 27 39	8 <sup>35</sup> 23	8 <sup>34</sup>	29 <sup>10</sup>	22 <sup>22</sup>	1 <sup>40</sup>	18 <sup>50</sup>	17 <sup>46</sup>	27 <sup>35</sup>	27 <sup>19</sup>	16 <sup>21</sup>	28 <sup>29</sup>
S 28	10 31 36	9 <sup>mp</sup> 35'31	9 <sup>mp</sup> 33	5 <sup>II</sup> 27	24 <sup>mp</sup> 0	2 <sup>Q</sup> 7	18 <sup>Q</sup> 54	17 <sup>Q</sup> 49	27 <sup>V</sup> 36	27 <sup>≈</sup> 19	16 <sup>Q</sup> 21	28 <sup>V</sup> 29

Delta T = 12.60 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1683  
heliocentric

MARCH 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
M 1	10 35 32	10 <sup>h</sup> 35'37	10 <sup>h</sup> 31	11 <sup>h</sup> 45	25 <sup>h</sup> 37	2 <sup>h</sup> 34	18 <sup>h</sup> 59	17 <sup>h</sup> 51	27 <sup>h</sup> 37	27 <sup>h</sup> 20	16 <sup>h</sup> 21	28 <sup>h</sup> 30
T 2	10 39 29	11 <sup>h</sup> 35'41	11 <sup>h</sup> 30	18° 4	27°14	3° 1	19° 4	17°53	27°37	27°20	16°21	28°31
W 3	10 43 25	12 <sup>h</sup> 35'43	12°29	24°23	28°51	3°28	19° 8	17°55	27°38	27°21	16°22	28°31
T 4	10 47 22	13 <sup>h</sup> 35'43	13°28	0 <sup>h</sup> 39	0 <sup>h</sup> 28	3°55	19°13	17°57	27°39	27°21	16°22	28°32
F 5	10 51 18	14 <sup>h</sup> 35'41	14°27	6°51	2° 5	4°22	19°18	17°59	27°39	27°21	16°22	28°33
S 6	10 55 15	15 <sup>h</sup> 35'37	15°27	12°58	3°42	4°49	19°23	18° 2	27°40	27°22	16°22	28°33
S 7	10 59 12	16 <sup>h</sup> 35'30	16°27	18°58	5°19	5°16	19°27	18° 4	27°41	27°22	16°22	28°34
M 8	11 3 8	17 <sup>h</sup> 35'21	17°27	24°52	6°56	5°44	19°32	18° 6	27°41	27°22	16°23	28°35
T 9	11 7 5	18 <sup>h</sup> 35'10	18°28	0 <sup>h</sup> 37	8°33	6°11	19°37	18° 8	27°42	27°23	16°23	28°35
W10	11 11 1	19 <sup>h</sup> 34'57	19°29	6°14	10°10	6°38	19°41	18°10	27°43	27°23	16°23	28°36
T 11	11 14 58	20 <sup>h</sup> 34'41	20°31	11°41	11°47	7° 5	19°46	18°12	27°43	27°23	16°23	28°37
F 12	11 18 54	21 <sup>h</sup> 34'23	21°32	16°58	13°24	7°33	19°51	18°15	27°44	27°24	16°23	28°38
S 13	11 22 51	22 <sup>h</sup> 34'03	22°34	22° 6	15° 0	8° 0	19°55	18°17	27°45	27°24	16°24	28°38
S 14	11 26 47	23 <sup>h</sup> 33'41	23°36	27° 5	16°37	8°27	20° 0	18°19	27°45	27°25	16°24	28°39
M15	11 30 44	24 <sup>h</sup> 33'18	24°37	1 <sup>h</sup> 54	18°14	8°55	20° 5	18°21	27°46	27°25	16°24	28°40
T 16	11 34 40	25 <sup>h</sup> 32'52	25°38	6°33	19°50	9°22	20°10	18°23	27°47	27°25	16°24	28°40
W17	11 38 37	26 <sup>h</sup> 32'24	26°39	11° 4	21°27	9°50	20°14	18°25	27°47	27°26	16°25	28°41
T 18	11 42 34	27 <sup>h</sup> 31'55	27°40	15°26	23° 3	10°17	20°19	18°28	27°48	27°26	16°25	28°42
F 19	11 46 30	28 <sup>h</sup> 31'24	28°40	19°40	24°40	10°44	20°24	18°30	27°49	27°26	16°25	28°42
S 20	11 50 27	29 <sup>h</sup> 30'51	29°40	23°45	26°16	11°12	20°28	18°32	27°49	27°27	16°25	28°43
S 21	11 54 23	0 <sup>h</sup> 30'17	0 <sup>h</sup> 39	27°44	27°53	11°40	20°33	18°34	27°50	27°27	16°25	28°44
M22	11 58 20	1°29'40	1°38	1 <sup>h</sup> 35	29°29	12° 7	20°38	18°36	27°51	27°27	16°26	28°44
T 23	12 2 16	2°29'02	2°37	5°20	1 <sup>h</sup> 5	12°35	20°42	18°38	27°51	27°28	16°26	28°45
W24	12 6 13	3°28'22	3°35	8°59	2°41	13° 2	20°47	18°41	27°52	27°28	16°26	28°46
T 25	12 10 9	4°27'40	4°33	12°33	4°18	13°30	20°52	18°43	27°53	27°28	16°26	28°46
F 26	12 14 6	5°26'56	5°31	16° 0	5°54	13°58	20°56	18°45	27°53	27°29	16°26	28°47
S 27	12 18 3	6°26'10	6°28	19°23	7°30	14°25	21° 1	18°47	27°54	27°29	16°27	28°48
S 28	12 21 59	7°25'22	7°26	22°42	9° 6	14°53	21° 6	18°49	27°54	27°30	16°27	28°48
M29	12 25 56	8°24'32	8°23	25°56	10°42	15°21	21°11	18°51	27°55	27°30	16°27	28°49
T 30	12 29 52	9°23'40	9°20	29° 6	12°18	15°49	21°15	18°54	27°56	27°30	16°27	28°50
W31	12 33 49	10 <sup>h</sup> 22'46	10 <sup>h</sup> 18	2 <sup>h</sup> 13	13 <sup>h</sup> 54	16 <sup>h</sup> 17	21 <sup>h</sup> 20	18 <sup>h</sup> 56	27 <sup>h</sup> 56	27 <sup>h</sup> 31	16 <sup>h</sup> 27	28 <sup>h</sup> 50

Delta T = 12.55 sec.

Greg. Calendar

APRIL 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
T 1	12 37 45	11 <sup>h</sup> 21'50	11 <sup>h</sup> 16	5 <sup>h</sup> 17	15 <sup>h</sup> 30	16 <sup>h</sup> 44	21 <sup>h</sup> 25	18 <sup>h</sup> 58	27 <sup>h</sup> 57	27 <sup>h</sup> 31	16 <sup>h</sup> 28	28 <sup>h</sup> 51
F 2	12 41 42	12°20'51	12°14	8°17	17° 5	17°12	21°29	19° 0	27°58	27°31	16°28	28°52
S 3	12 45 38	13°19'51	13°12	11°15	18°41	17°40	21°34	19° 2	27°58	27°32	16°28	28°52
S 4	12 49 35	14°18'48	14°10	14°11	20°17	18° 8	21°39	19° 4	27°59	27°32	16°28	28°53
M 5	12 53 32	15°17'42	15° 9	17° 4	21°53	18°36	21°43	19° 7	28° 0	27°32	16°28	28°54
T 6	12 57 28	16°16'35	16° 8	19°56	23°28	19° 4	21°48	19° 9	28° 0	27°33	16°29	28°54
W 7	13 1 25	17°15'25	17° 8	22°46	25° 4	19°32	21°53	19°11	28° 1	27°33	16°29	28°55
T 8	13 5 21	18°14'12	18° 8	25°34	26°39	20° 1	21°57	19°13	28° 2	27°34	16°29	28°56
F 9	13 9 18	19°12'58	19° 8	28°21	28°15	20°29	22° 2	19°15	28° 2	27°34	16°29	28°57
S 10	13 13 14	20°11'41	20° 9	1 <sup>h</sup> 7	29°51	20°57	22° 7	19°17	28° 3	27°34	16°29	28°57
S 11	13 17 11	21°10'22	21°10	3°53	1 <sup>h</sup> 26	21°25	22°11	19°20	28° 4	27°35	16°30	28°58
M12	13 21 7	22° 9'01	22°10	6°38	3° 1	21°53	22°16	19°22	28° 4	27°35	16°30	28°59
T 13	13 25 4	23° 7'38	23°11	9°23	4°37	22°22	22°21	19°24	28° 5	27°35	16°30	28°59
W14	13 29 0	24° 6'13	24°11	12° 8	6°12	22°50	22°25	19°26	28° 6	27°36	16°30	29° 0
T 15	13 32 57	25° 4'47	25°11	14°52	7°47	23°18	22°30	19°28	28° 6	27°36	16°30	29° 1
F 16	13 36 54	26° 3'19	26°11	17°37	9°23	23°47	22°35	19°30	28° 7	27°36	16°31	29° 1
S 17	13 40 50	27° 1'49	27°10	20°23	10°58	24°15	22°40	19°33	28° 8	27°37	16°31	29° 2
S 18	13 44 47	28° 0'18	28° 9	23° 9	12°33	24°44	22°44	19°35	28° 8	27°37	16°31	29° 3
M19	13 48 43	28°58'45	29° 8	25°56	14° 8	25°12	22°49	19°37	28° 9	27°38	16°31	29° 3
T 20	13 52 40	29°57'10	0 <sup>h</sup> 6	28°44	15°43	25°41	22°54	19°39	28°10	27°38	16°32	29° 4
W21	13 56 36	0 <sup>h</sup> 55'34	1° 4	1 <sup>h</sup> 34	17°19	26° 9	22°58	19°41	28°10	27°38	16°32	29° 5
T 22	14 0 33	1°53'56	2° 1	4°25	18°54	26°38	23° 3	19°43	28°11	27°39	16°32	29° 5
F 23	14 4 29	2°52'17	2°59	7°18	20°29	27° 7	23° 8	19°46	28°12	27°39	16°32	29° 6
S 24	14 8 26	3°50'35	3°55	10°13	22° 4	27°35	23°12	19°48	28°12	27°39	16°32	29° 7
S 25	14 12 23	4°48'53	4°52	13°10	23°39	28° 4	23°17	19°50	28°13	27°40	16°33	29° 7
M26	14 16 19	5°47'08	5°49	16° 9	25°14	28°33	23°22	19°52	28°14	27°40	16°33	29° 8
T 27	14 20 16	6°45'22	6°45	19°12	26°49	29° 2	23°26	19°54	28°14	27°40	16°33	29° 9
W28	14 24 12	7°43'34	7°41	22°17	28°24	29°30	23°31	19°56	28°15	27°41	16°33	29° 9
T 29	14 28 9	8°41'44	8°38	25°25	29°59	29°59	23°36	19°58	28°16	27°41	16°33	29°10
F 30	14 32 5	9 <sup>h</sup> 39'53	9 <sup>h</sup> 34	28 <sup>h</sup> 37	1 <sup>h</sup> 34	0 <sup>h</sup> 28	23 <sup>h</sup> 40	20 <sup>h</sup> 1	28 <sup>h</sup> 16	27 <sup>h</sup> 41	16 <sup>h</sup> 34	29 <sup>h</sup> 11

Delta T = 12.49 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1683  
heliocentric

MAY 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
S 1	14 36 2	10M37'59	10M31	1♁53	3♁ 9	0M57	23♁45	20♁ 3	28♁17	27♁42	16♁34	29♁12
S 2	14 39 58	11°36'04	11°28	5°13	4°43	1°26	23°50	20° 5	28°18	27°42	16°34	29°12
M 3	14 43 55	12°34'07	12°26	8°38	6°18	1°55	23°54	20° 7	28°18	27°43	16°34	29°13
T 4	14 47 52	13°32'08	13°24	12° 7	7°53	2°25	23°59	20° 9	28°19	27°43	16°34	29°14
W 5	14 51 48	14°30'07	14°22	15°42	9°28	2°54	24° 4	20°11	28°20	27°43	16°35	29°14
T 6	14 55 45	15°28'04	15°21	19°22	11° 3	3°23	24° 8	20°14	28°20	27°44	16°35	29°15
F 7	14 59 41	16°25'59	16°20	23° 8	12°38	3°52	24°13	20°16	28°21	27°44	16°35	29°16
S 8	15 3 38	17°23'52	17°19	27° 0	14°13	4°21	24°18	20°18	28°22	27°44	16°35	29°16
S 9	15 7 34	18°21'43	18°18	0♁59	15°47	4°51	24°22	20°20	28°22	27°45	16°35	29°17
M10	15 11 31	19°19'33	19°18	5° 5	17°22	5°20	24°27	20°22	28°23	27°45	16°36	29°18
T 11	15 15 27	20°17'22	20°18	9°18	18°57	5°49	24°32	20°24	28°24	27°45	16°36	29°18
W12	15 19 24	21°15'09	21°17	13°38	20°32	6°19	24°36	20°27	28°24	27°46	16°36	29°19
T 13	15 23 21	22°12'54	22°17	18° 7	22° 7	6°48	24°41	20°29	28°25	27°46	16°36	29°20
F 14	15 27 17	23°10'39	23°16	22°45	23°41	7°18	24°46	20°31	28°26	27°47	16°36	29°20
S 15	15 31 14	24° 8'22	24°15	27°30	25°16	7°48	24°50	20°33	28°26	27°47	16°37	29°21
S 16	15 35 10	25° 6'04	25°14	2♁25	26°51	8°17	24°55	20°35	28°27	27°47	16°37	29°22
M17	15 39 7	26° 3'45	26°13	7°29	28°26	8°47	25° 0	20°37	28°28	27°48	16°37	29°22
T 18	15 43 3	27° 1'25	27°11	12°42	0♁ 1	9°17	25° 4	20°40	28°28	27°48	16°37	29°23
W19	15 47 0	27°59'04	28° 8	18° 4	1°36	9°46	25° 9	20°42	28°29	27°48	16°38	29°24
T 20	15 50 56	28°56'42	29° 5	23°35	3°10	10°16	25°14	20°44	28°29	27°49	16°38	29°24
F 21	15 54 53	29°54'19	0♁ 2	29°15	4°45	10°46	25°18	20°46	28°30	27°49	16°38	29°25
S 22	15 58 50	0♁51'55	0°59	5♁ 3	6°20	11°16	25°23	20°48	28°31	27°49	16°38	29°26
S 23	16 2 46	1°49'30	1°55	10°58	7°55	11°46	25°28	20°50	28°31	27°50	16°38	29°27
M24	16 6 43	2°47'04	2°51	17° 0	9°30	12°16	25°32	20°52	28°32	27°50	16°39	29°27
T 25	16 10 39	3°44'37	3°47	23° 9	11° 5	12°46	25°37	20°55	28°33	27°51	16°39	29°28
W26	16 14 36	4°42'09	4°43	29°22	12°40	13°16	25°42	20°57	28°33	27°51	16°39	29°29
T 27	16 18 32	5°39'40	5°38	5♁38	14°14	13°46	25°46	20°59	28°34	27°51	16°39	29°29
F 28	16 22 29	6°37'10	6°34	11°57	15°49	14°17	25°51	21° 1	28°35	27°52	16°39	29°30
S 29	16 26 25	7°34'38	7°30	18°16	17°24	14°47	25°56	21° 3	28°35	27°52	16°40	29°31
S 30	16 30 22	8°32'06	8°26	24°34	18°59	15°17	26° 0	21° 5	28°36	27°52	16°40	29°31
MB1	16 34 19	9♁29'33	9♁22	0♁50	20♁34	15M47	26♁ 5	21♁ 8	28♁37	27♁53	16♁40	29♁32

Delta T = 12.42 sec.

Greg. Calendar

JUNE 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
T 1	16 38 15	10♁26'58	10♁19	7♁ 2	22♁ 9	16M18	26♁10	21♁10	28♁37	27♁53	16♁40	29♁33
W 2	16 42 12	11°24'22	11°16	13° 9	23°44	16°48	26°14	21°12	28°38	27°53	16°40	29°33
T 3	16 46 8	12°21'45	12°14	19° 9	25°19	17°19	26°19	21°14	28°39	27°54	16°41	29°34
F 4	16 50 5	13°19'07	13°11	25° 3	26°54	17°49	26°24	21°16	28°39	27°54	16°41	29°35
S 5	16 54 1	14°16'27	14°10	0♁48	28°29	18°20	26°28	21°18	28°40	27°55	16°41	29°35
S 6	16 57 58	15°13'47	15° 8	6°24	0♁ 4	18°51	26°33	21°21	28°41	27°55	16°41	29°36
M 7	17 1 54	16°11'05	16° 7	11°51	1°39	19°21	26°38	21°23	28°41	27°55	16°41	29°37
T 8	17 5 51	17° 8'23	17° 6	17° 8	3°14	19°52	26°42	21°25	28°42	27°56	16°42	29°38
W 9	17 9 48	18° 5'40	18° 5	22°16	4°50	20°23	26°47	21°27	28°43	27°56	16°42	29°38
T 10	17 13 44	19° 2'57	19° 4	27°14	6°25	20°54	26°52	21°29	28°43	27°56	16°42	29°39
F 11	17 17 41	20° 0'13	20° 3	2♁ 2	8° 0	21°25	26°56	21°31	28°44	27°57	16°42	29°40
S 12	17 21 37	20°57'28	21° 2	6°42	9°35	21°56	27° 1	21°33	28°45	27°57	16°43	29°40
S 13	17 25 34	21°54'43	22° 1	11°12	11°10	22°27	27° 6	21°36	28°45	27°57	16°43	29°41
M14	17 29 30	22°51'58	22°59	15°34	12°45	22°58	27°10	21°38	28°46	27°58	16°43	29°42
T 15	17 33 27	23°49'13	23°58	19°47	14°21	23°29	27°15	21°40	28°47	27°58	16°43	29°42
W16	17 37 23	24°46'27	24°55	23°53	15°56	24° 0	27°20	21°42	28°47	27°59	16°43	29°43
T 17	17 41 20	25°43'41	25°53	27°51	17°31	24°31	27°24	21°44	28°48	27°59	16°44	29°44
F 18	17 45 17	26°40'54	26°50	1♁43	19° 7	25° 2	27°29	21°46	28°49	27°59	16°44	29°44
S 19	17 49 13	27°38'08	27°47	5°27	20°42	25°34	27°34	21°49	28°49	28° 0	16°44	29°45
S 20	17 53 10	28°35'22	28°43	9° 6	22°17	26° 5	27°38	21°51	28°50	28° 0	16°44	29°46
M21	17 57 6	29°32'35	29°39	12°39	23°53	26°37	27°43	21°53	28°51	28° 0	16°44	29°46
T 22	18 1 3	0♁29'49	0♁35	16° 7	25°28	27° 8	27°48	21°55	28°51	28° 1	16°45	29°47
W23	18 4 59	1°27'02	1°30	19°30	27° 3	27°40	27°52	21°57	28°52	28° 1	16°45	29°48
T 24	18 8 56	2°24'16	2°26	22°48	28°39	28°11	27°57	21°59	28°53	28° 1	16°45	29°48
F 25	18 12 53	3°21'29	3°21	26° 2	0♁14	28°43	28° 1	22° 2	28°53	28° 2	16°45	29°49
S 26	18 16 49	4°18'42	4°16	29°12	1°50	29°15	28° 6	22° 4	28°54	28° 2	16°45	29°50
S 27	18 20 46	5°15'55	5°12	2M19	3°25	29°46	28°11	22° 6	28°55	28° 2	16°46	29°51
M28	18 24 42	6°13'08	6° 7	5°22	5° 1	0♁18	28°15	22° 8	28°55	28° 3	16°46	29°51
T 29	18 28 39	7°10'20	7° 3	8°23	6°37	0°50	28°20	22°10	28°56	28° 3	16°46	29°52
W30	18 32 35	8♁ 7'32	8♁ 0	11M21	8♁12	1♁22	28♁25	22♁12	28♁57	28♁ 4	16♁46	29♁53

Delta T = 12.34 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1683  
heliocentric

JULY 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
T 1	18 36 32	9 <sup>3</sup> 4'44	8 <sup>3</sup> 56	14 <sup>11</sup> 16	9 <sup>17</sup> 48	1 <sup>17</sup> 54	28 <sup>28</sup> 29	22 <sup>22</sup> 14	28 <sup>28</sup> 57	28 <sup>28</sup> 4	16 <sup>16</sup> 46	29 <sup>29</sup> 53
F 2	18 40 28	10° 1'56	9°54	17°10	11°23	2°26	28°34	22°17	28°58	28° 4	16°47	29°54
S 3	18 44 25	10°59'07	10°51	20° 1	12°59	2°58	28°39	22°19	28°59	28° 5	16°47	29°55
S 4	18 48 22	11°56'18	11°49	22°51	14°35	3°30	28°43	22°21	28°59	28° 5	16°47	29°55
M 5	18 52 18	12°53'29	12°47	25°39	16°11	4° 3	28°48	22°23	29° 0	28° 5	16°47	29°56
T 6	18 56 15	13°50'41	13°46	28°27	17°46	4°35	28°53	22°25	29° 1	28° 6	16°47	29°57
W 7	19 0 11	14°47'52	14°45	1 <sup>17</sup> 13	19°22	5° 7	28°57	22°27	29° 1	28° 6	16°48	29°57
T 8	19 4 8	15°45'03	15°44	3°59	20°58	5°40	29° 2	22°30	29° 2	28° 6	16°48	29°58
F 9	19 8 4	16°42'15	16°43	6°44	22°34	6°12	29° 7	22°32	29° 3	28° 7	16°48	29°59
S 10	19 12 1	17°39'27	17°42	9°28	24°10	6°44	29°11	22°34	29° 3	28° 7	16°48	29°59
S 11	19 15 57	18°36'39	18°41	12°13	25°45	7°17	29°16	22°36	29° 4	28° 8	16°49	0 <sup>0</sup> 0
M 12	19 19 54	19°33'52	19°39	14°58	27°21	7°50	29°21	22°38	29° 5	28° 8	16°49	0° 1
T 13	19 23 51	20°31'05	20°38	17°43	28°57	8°22	29°25	22°40	29° 5	28° 8	16°49	0° 2
W 14	19 27 47	21°28'19	21°36	20°28	0 <sup>0</sup> 33	8°55	29°30	22°42	29° 6	28° 9	16°49	0° 2
T 15	19 31 44	22°25'34	22°34	23°14	2° 9	9°28	29°34	22°45	29° 7	28° 9	16°49	0° 3
F 16	19 35 40	23°22'49	23°32	26° 2	3°45	10° 1	29°39	22°47	29° 7	28° 9	16°50	0° 4
S 17	19 39 37	24°20'05	24°29	28°50	5°21	10°34	29°44	22°49	29° 8	28°10	16°50	0° 4
S 18	19 43 33	25°17'22	25°26	1 <sup>18</sup> 39	6°57	11° 6	29°48	22°51	29° 9	28°10	16°50	0° 5
M 19	19 47 30	26°14'40	26°23	4°31	8°34	11°39	29°53	22°53	29° 9	28°10	16°50	0° 6
T 20	19 51 26	27°11'59	27°19	7°23	10°10	12°13	29°58	22°55	29°10	28°11	16°50	0° 6
W 21	19 55 23	28° 9'19	28°15	10°18	11°46	12°46	0 <sup>10</sup> 2	22°58	29°10	28°11	16°51	0° 7
T 22	19 59 20	29° 6'40	29°11	13°15	13°22	13°19	0° 7	23° 0	29°11	28°12	16°51	0° 8
F 23	20 3 16	0 <sup>0</sup> 4'01	0 <sup>0</sup> 6	16°15	14°58	13°52	0°12	23° 2	29°12	28°12	16°51	0° 8
S 24	20 7 13	1° 1'24	1° 2	19°17	16°34	14°25	0°16	23° 4	29°12	28°12	16°51	0° 9
S 25	20 11 9	1°58'47	1°57	22°23	18°11	14°59	0°21	23° 6	29°13	28°13	16°51	0°10
M 26	20 15 6	2°56'11	2°53	25°31	19°47	15°32	0°25	23° 8	29°14	28°13	16°52	0°10
T 27	20 19 2	3°53'35	3°48	28°44	21°23	16° 6	0°30	23°10	29°14	28°13	16°52	0°11
W 28	20 22 59	4°51'00	4°44	2 <sup>28</sup> 0	23° 0	16°39	0°35	23°13	29°15	28°14	16°52	0°12
T 29	20 26 55	5°48'26	5°41	5°20	24°36	17°13	0°39	23°15	29°16	28°14	16°52	0°13
F 30	20 30 52	6°45'52	6°38	8°45	26°13	17°46	0°44	23°17	29°16	28°14	16°52	0°13
S 31	20 34 49	7 <sup>7</sup> 43'19	7 <sup>7</sup> 35	12 <sup>12</sup> 14	27 <sup>27</sup> 49	18 <sup>18</sup> 20	0 <sup>10</sup> 49	23 <sup>23</sup> 19	29 <sup>29</sup> 17	28 <sup>28</sup> 15	16 <sup>16</sup> 53	0 <sup>0</sup> 14

Delta T = 12.26 sec. Greg. Calendar

AUGUST 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♁
S 1	20 38 45	8 <sup>8</sup> 40'47	8 <sup>8</sup> 33	15 <sup>15</sup> 49	29 <sup>29</sup> 26	18 <sup>18</sup> 54	0 <sup>10</sup> 53	23 <sup>23</sup> 21	29 <sup>29</sup> 18	28 <sup>28</sup> 15	16 <sup>16</sup> 53	0 <sup>0</sup> 15
M 2	20 42 42	9°38'16	9°31	19°29	1 <sup>1</sup> 2	19°28	0°58	23°23	29°18	28°16	16°53	0°15
T 3	20 46 38	10°35'45	10°29	23°15	2°39	20° 1	1° 3	23°25	29°19	28°16	16°53	0°16
W 4	20 50 35	11°33'16	11°28	27° 8	4°15	20°35	1° 7	23°28	29°20	28°16	16°54	0°17
T 5	20 54 31	12°30'47	12°27	1 <sup>1</sup> 6	5°52	21° 9	1°12	23°30	29°20	28°17	16°54	0°17
F 6	20 58 28	13°28'19	13°26	5°12	7°28	21°43	1°16	23°32	29°21	28°17	16°54	0°18
S 7	21 2 24	14°25'52	14°25	9°26	9° 5	22°17	1°21	23°34	29°22	28°17	16°54	0°19
S 8	21 6 21	15°23'27	15°25	13°47	10°42	22°52	1°26	23°36	29°22	28°18	16°54	0°19
M 9	21 10 18	16°21'02	16°24	18°16	12°19	23°26	1°30	23°38	29°23	28°18	16°55	0°20
T 10	21 14 14	17°18'39	17°23	22°53	13°55	24° 0	1°35	23°41	29°24	28°18	16°55	0°21
W 11	21 18 11	18°16'18	18°22	27°40	15°32	24°34	1°40	23°43	29°24	28°19	16°55	0°22
T 12	21 22 7	19°13'57	19°21	2 <sup>2</sup> Y35	17° 9	25° 9	1°44	23°45	29°25	28°19	16°55	0°22
F 13	21 26 4	20°11'39	20°20	7°39	18°46	25°43	1°49	23°47	29°26	28°20	16°55	0°23
S 14	21 30 0	21° 9'22	21°18	12°52	20°23	26°18	1°54	23°49	29°26	28°20	16°56	0°24
S 15	21 33 57	22° 7'06	22°16	18°14	21°59	26°52	1°58	23°51	29°27	28°20	16°56	0°24
M 16	21 37 53	23° 4'52	23°14	23°46	23°36	27°27	2° 3	23°53	29°28	28°21	16°56	0°25
T 17	21 41 50	24° 2'40	24°11	29°25	25°13	28° 2	2° 7	23°56	29°28	28°21	16°56	0°26
W 18	21 45 47	25° 0'30	25° 8	5 <sup>5</sup> B14	26°50	28°36	2°12	23°58	29°29	28°21	16°56	0°26
T 19	21 49 43	25°58'22	26° 5	11° 9	28°27	29°11	2°17	24° 0	29°30	28°22	16°57	0°27
F 20	21 53 40	26°56'15	27° 1	17°12	0 <sup>0</sup> 5 4	29°46	2°21	24° 2	29°30	28°22	16°57	0°28
S 21	21 57 36	27°54'10	27°57	23°20	1°42	0 <sup>0</sup> 21	2°26	24° 4	29°31	28°22	16°57	0°28
S 22	22 1 33	28°52'06	28°53	29°33	3°19	0°56	2°31	24° 6	29°32	28°23	16°57	0°29
M 23	22 5 29	29°50'04	29°49	5 <sup>5</sup> II50	4°56	1°31	2°35	24° 8	29°32	28°23	16°57	0°30
T 24	22 9 26	0 <sup>0</sup> 48'03	0 <sup>0</sup> 45	12° 9	6°33	2° 6	2°40	24°11	29°33	28°23	16°58	0°30
W 25	22 13 22	1°46'04	1°41	18°28	8°10	2°41	2°44	24°13	29°34	28°24	16°58	0°31
T 26	22 17 19	2°44'07	2°38	24°46	9°47	3°16	2°49	24°15	29°34	28°24	16°58	0°32
F 27	22 21 15	3°42'10	3°35	1 <sup>1</sup> 2	11°25	3°51	2°54	24°17	29°35	28°25	16°58	0°33
S 28	22 25 12	4°40'15	4°32	7°14	13° 2	4°26	2°58	24°19	29°36	28°25	16°59	0°33
S 29	22 29 9	5°38'22	5°30	13°20	14°39	5° 2	3° 3	24°21	29°36	28°25	16°59	0°34
M 30	22 33 5	6°36'30	6°28	19°21	16°16	5°37	3° 8	24°23	29°37	28°26	16°59	0°35
T 31	22 37 2	7 <sup>7</sup> X34'40	7 <sup>7</sup> X27	25 <sup>25</sup> 14	17 <sup>17</sup> 54	6 <sup>6</sup> 212	3 <sup>3</sup> 112	24 <sup>24</sup> 26	29 <sup>29</sup> Y38	28 <sup>28</sup> 26	16 <sup>16</sup> 59	0 <sup>0</sup> 35

Delta T = 12.17 sec. Greg. Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [13.11.2015]

SWISS EPHEMERIS for the year 1683  
heliocentric

SEPTEMBER 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♁	♂	♄	♃	♅	♁	♄	♂	♄
W 1	22 40 58	8 <sup>h</sup> 32'51"	8 <sup>h</sup> 25'	0 <sup>h</sup> 58'	19 <sup>h</sup> 31'	6 <sup>h</sup> 48'	3 <sup>h</sup> 17'	24 <sup>h</sup> 28'	29 <sup>h</sup> 38'	28 <sup>h</sup> 26'	16 <sup>h</sup> 59'	0 <sup>h</sup> 36'
T 2	22 44 55	9°31'03"	9°25'	6°34'	21° 8'	7°23'	3°21'	24°30'	29°39'	28°27'	17° 0'	0°37'
F 3	22 48 51	10°29'17"	10°24'	12° 1'	22°46'	7°59'	3°26'	24°32'	29°40'	28°27'	17° 0'	0°37'
S 4	22 52 48	11°27'33"	11°24'	17°18'	24°23'	8°35'	3°31'	24°34'	29°40'	28°27'	17° 0'	0°38'
S 5	22 56 44	12°25'50"	12°24'	22°25'	26° 1'	9°10'	3°35'	24°36'	29°41'	28°28'	17° 0'	0°39'
M 6	23 0 41	13°24'09"	13°24'	27°23'	27°38'	9°46'	3°40'	24°39'	29°42'	28°28'	17° 0'	0°39'
T 7	23 4 38	14°22'30"	14°24'	2 <sup>h</sup> 11'	29°16'	10°22'	3°45'	24°41'	29°42'	28°29'	17° 1'	0°40'
W 8	23 8 34	15°20'53"	15°24'	6°50'	0 <sup>h</sup> 53'	10°58'	3°49'	24°43'	29°43'	28°29'	17° 1'	0°41'
T 9	23 12 31	16°19'17"	16°24'	11°20'	2°31'	11°34'	3°54'	24°45'	29°44'	28°29'	17° 1'	0°42'
F 10	23 16 27	17°17'44"	17°24'	15°42'	4° 8'	12°10'	3°58'	24°47'	29°44'	28°30'	17° 1'	0°42'
S 11	23 20 24	18°16'13"	18°24'	19°55'	5°46'	12°45'	4° 3'	24°49'	29°45'	28°30'	17° 1'	0°43'
S 12	23 24 20	19°14'44"	19°23'	24° 1'	7°23'	13°22'	4° 8'	24°51'	29°46'	28°30'	17° 2'	0°44'
M13	23 28 17	20°13'17"	20°22'	27°59'	9° 1'	13°58'	4°12'	24°54'	29°46'	28°31'	17° 2'	0°44'
T 14	23 32 13	21°11'53"	21°21'	1 <sup>h</sup> 50'	10°38'	14°34'	4°17'	24°56'	29°47'	28°31'	17° 2'	0°45'
W15	23 36 10	22°10'30"	22°19'	5°34'	12°16'	15°10'	4°22'	24°58'	29°48'	28°31'	17° 2'	0°46'
T 16	23 40 7	23° 9'10"	23°17'	9°13'	13°53'	15°46'	4°26'	25° 0'	29°48'	28°32'	17° 2'	0°46'
F 17	23 44 3	24° 7'52"	24°15'	12°46'	15°31'	16°22'	4°31'	25° 2'	29°49'	28°32'	17° 3'	0°47'
S 18	23 48 0	25° 6'37"	25°12'	16°13'	17° 8'	16°59'	4°35'	25° 4'	29°50'	28°33'	17° 3'	0°48'
S 19	23 51 56	26° 5'23"	26° 9'	19°36'	18°46'	17°35'	4°40'	25° 6'	29°50'	28°33'	17° 3'	0°48'
M20	23 55 53	27° 4'12"	27° 6'	22°54'	20°23'	18°11'	4°45'	25° 9'	29°51'	28°33'	17° 3'	0°49'
T 21	23 59 49	28° 3'03"	28° 3'	26° 8'	22° 1'	18°48'	4°49'	25°11'	29°51'	28°34'	17° 3'	0°50'
W22	0 3 46	29° 1'55"	28°59'	29°18'	23°39'	19°24'	4°54'	25°13'	29°52'	28°34'	17° 4'	0°51'
T 23	0 7 42	0 <sup>h</sup> 5'05"	29°56'	2 <sup>h</sup> 25'	25°16'	20° 1'	4°58'	25°15'	29°53'	28°34'	17° 4'	0°51'
F 24	0 11 39	0°59'46"	0 <sup>h</sup> 54'	5°28'	26°54'	20°38'	5° 3'	25°17'	29°53'	28°35'	17° 4'	0°52'
S 25	0 15 36	1°58'45"	1°51'	8°29'	28°31'	21°14'	5° 8'	25°19'	29°54'	28°35'	17° 4'	0°53'
S 26	0 19 32	2°57'45"	2°50'	11°26'	0 <sup>h</sup> 9'	21°51'	5°12'	25°21'	29°55'	28°35'	17° 5'	0°53'
M27	0 23 29	3°56'47"	3°48'	14°22'	1°46'	22°28'	5°17'	25°24'	29°55'	28°36'	17° 5'	0°54'
T 28	0 27 25	4°55'50"	4°47'	17°15'	3°24'	23° 4'	5°22'	25°26'	29°56'	28°36'	17° 5'	0°55'
W29	0 31 22	5°54'56"	5°46'	20° 6'	5° 1'	23°41'	5°26'	25°28'	29°57'	28°36'	17° 5'	0°55'
T 30	0 35 18	6°54'03"	6°46'	22 <sup>h</sup> 56'	6 <sup>h</sup> 39'	24 <sup>h</sup> 18'	5 <sup>h</sup> 31'	25°30'	29°57'	28°37'	17° 5'	0°56'

Delta T = 12.07 sec.

Greg. Calendar

OCTOBER 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♁	♂	♄	♃	♅	♁	♄	♂	♄
F 1	0 39 15	7 <sup>h</sup> 53'12"	7 <sup>h</sup> 46'	25 <sup>h</sup> 45'	8 <sup>h</sup> 16'	24 <sup>h</sup> 55'	5 <sup>h</sup> 35'	25°32'	29°58'	28°37'	17° 6'	0°57'
S 2	0 43 11	8°52'23"	8°46'	28°32'	9°54'	25°32'	5°40'	25°34'	29°59'	28°38'	17° 6'	0°57'
S 3	0 47 8	9°51'35"	9°47'	1 <sup>h</sup> 18'	11°31'	26° 9'	5°45'	25°36'	29°59'	28°38'	17° 6'	0°58'
M 4	0 51 4	10°50'50"	10°48'	4° 4'	13° 8'	26°46'	5°49'	25°39'	0 <sup>h</sup> 0'	28°38'	17° 6'	0°59'
T 5	0 55 1	11°50'06"	11°49'	6°49'	14°46'	27°23'	5°54'	25°41'	0° 1'	28°39'	17° 6'	1° 0'
W 6	0 58 58	12°49'25"	12°50'	9°34'	16°23'	28° 0'	5°58'	25°43'	0° 1'	28°39'	17° 7'	1° 0'
T 7	1 2 54	13°48'45"	13°51'	12°18'	18° 0'	28°37'	6° 3'	25°45'	0° 2'	28°39'	17° 7'	1° 1'
F 8	1 6 51	14°48'08"	14°52'	15° 3'	19°38'	29°14'	6° 8'	25°47'	0° 3'	28°40'	17° 7'	1° 2'
S 9	1 10 47	15°47'33"	15°53'	17°48'	21°15'	29°51'	6°12'	25°49'	0° 3'	28°40'	17° 7'	1° 2'
S 10	1 14 44	16°47'00"	16°54'	20°34'	22°52'	0 <sup>h</sup> 29'	6°17'	25°51'	0° 4'	28°40'	17° 7'	1° 3'
M11	1 18 40	17°46'29"	17°54'	23°20'	24°29'	1° 6'	6°21'	25°54'	0° 5'	28°41'	17° 8'	1° 4'
T 12	1 22 37	18°46'01"	18°54'	26° 7'	26° 7'	1°43'	6°26'	25°56'	0° 5'	28°41'	17° 8'	1° 4'
W13	1 26 33	19°45'35"	19°54'	28°55'	27°44'	2°20'	6°31'	25°58'	0° 6'	28°42'	17° 8'	1° 5'
T 14	1 30 30	20°45'12"	20°54'	1 <sup>h</sup> 45'	29°21'	2°58'	6°35'	26° 0'	0° 7'	28°42'	17° 8'	1° 6'
F 15	1 34 27	21°44'50"	21°53'	4°36'	0 <sup>h</sup> 58'	3°35'	6°40'	26° 2'	0° 7'	28°42'	17° 8'	1° 6'
S 16	1 38 23	22°44'31"	22°52'	7°29'	2°35'	4°13'	6°45'	26° 4'	0° 8'	28°43'	17° 9'	1° 7'
S 17	1 42 20	23°44'14"	23°50'	10°24'	4°12'	4°50'	6°49'	26° 6'	0° 9'	28°43'	17° 9'	1° 8'
M18	1 46 16	24°44'00"	24°48'	13°21'	5°49'	5°28'	6°54'	26° 9'	0° 9'	28°43'	17° 9'	1° 9'
T 19	1 50 13	25°43'47"	25°46'	16°21'	7°26'	6° 5'	6°58'	26°11'	0°10'	28°44'	17° 9'	1° 9'
W20	1 54 9	26°43'37"	26°44'	19°23'	9° 3'	6°43'	7° 3'	26°13'	0°11'	28°44'	17° 9'	1°10'
T 21	1 58 6	27°43'29"	27°42'	22°29'	10°40'	7°20'	7° 8'	26°15'	0°11'	28°44'	17°10'	1°11'
F 22	2 2 2	28°43'22"	28°40'	25°37'	12°16'	7°58'	7°12'	26°17'	0°12'	28°45'	17°10'	1°11'
S 23	2 5 59	29°43'18"	29°38'	28°50'	13°53'	8°35'	7°17'	26°19'	0°13'	28°45'	17°10'	1°12'
S 24	2 9 56	0 <sup>h</sup> 43'15"	0 <sup>h</sup> 36'	2 <sup>h</sup> 6'	15°30'	9°13'	7°21'	26°21'	0°13'	28°46'	17°10'	1°13'
M25	2 13 52	1°43'14"	1°35'	5°26'	17° 7'	9°51'	7°26'	26°24'	0°14'	28°46'	17°11'	1°13'
T 26	2 17 49	2°43'14"	2°34'	8°51'	18°43'	10°28'	7°31'	26°26'	0°15'	28°46'	17°11'	1°14'
W27	2 21 45	3°43'16"	3°34'	12°21'	20°20'	11° 6'	7°35'	26°28'	0°15'	28°47'	17°11'	1°15'
T 28	2 25 42	4°43'20"	4°34'	15°56'	21°56'	11°44'	7°40'	26°30'	0°16'	28°47'	17°11'	1°15'
F 29	2 29 38	5°43'25"	5°35'	19°36'	23°33'	12°22'	7°44'	26°32'	0°17'	28°47'	17°11'	1°16'
S 30	2 33 35	6°43'32"	6°36'	23°22'	25° 9'	12°59'	7°49'	26°34'	0°17'	28°48'	17°12'	1°17'
S 31	2 37 31	7 <sup>h</sup> 43'40"	7 <sup>h</sup> 37'	27 <sup>h</sup> 15'	26 <sup>h</sup> 46'	13 <sup>h</sup> 37'	7 <sup>h</sup> 54'	26°36'	0 <sup>h</sup> 18'	28 <sup>h</sup> 48'	17 <sup>h</sup> 12'	1 <sup>h</sup> 18'

Delta T = 11.98 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1683  
heliocentric

NOVEMBER 1683 GC

00:00 UT

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

Delta T = 11.87 sec.

Greg. Calendar

DECEMBER 1683 GC

00:00 UT

Day	Sid.t	Terra	☾	♃	♄	♅	♆	♁	♂	♆	♁	♂
W 1	4 39 45	9♄ 1'41	8♄56	17♁28	16♂12	3♂16	10♄16	27♁43	0♃38	28♁59	17♁18	1♃39
T 2	4 43 41	10° 2'35	9°59	22°35	17°48	3°54	10°21	27°45	0°39	29° 0	17°18	1°40
F 3	4 47 38	11° 3'31	11° 2	27°32	19°23	4°32	10°25	27°47	0°40	29° 0	17°19	1°41
S 4	4 51 34	12° 4'28	12° 4	2♄20	20°58	5°10	10°30	27°49	0°40	29° 0	17°19	1°41
S 5	4 55 31	13° 5'25	13° 7	6°59	22°33	5°48	10°35	27°51	0°41	29° 1	17°19	1°42
M 6	4 59 27	14° 6'24	14°10	11°29	24° 8	6°26	10°39	27°53	0°42	29° 1	17°19	1°43
T 7	5 3 24	15° 7'23	15°13	15°50	25°43	7° 4	10°44	27°55	0°42	29° 1	17°20	1°43
W 8	5 7 21	16° 8'24	16°15	20° 3	27°18	7°42	10°48	27°58	0°43	29° 2	17°20	1°44
T 9	5 11 17	17° 9'25	17°17	24° 8	28°53	8°20	10°53	28° 0	0°44	29° 2	17°20	1°45
F 10	5 15 14	18°10'28	18°19	28° 6	0♂28	8°58	10°58	28° 2	0°44	29° 3	17°20	1°45
S 11	5 19 10	19°11'31	19°20	1♁57	2° 3	9°36	11° 2	28° 4	0°45	29° 3	17°20	1°46
S 12	5 23 7	20°12'36	20°21	5°41	3°37	10°14	11° 7	28° 6	0°46	29° 3	17°21	1°47
M13	5 27 3	21°13'41	21°22	9°20	5°12	10°52	11°11	28° 8	0°46	29° 4	17°21	1°48
T 14	5 31 0	22°14'47	22°22	12°52	6°47	11°30	11°16	28°10	0°47	29° 4	17°21	1°48
W15	5 34 56	23°15'55	23°21	16°20	8°22	12° 8	11°20	28°13	0°48	29° 4	17°21	1°49
T 16	5 38 53	24°17'02	24°21	19°42	9°57	12°46	11°25	28°15	0°48	29° 5	17°21	1°50
F 17	5 42 50	25°18'11	25°20	23° 0	11°32	13°24	11°30	28°17	0°49	29° 5	17°22	1°50
S 18	5 46 46	26°19'20	26°20	26°14	13° 7	14° 2	11°34	28°19	0°50	29° 5	17°22	1°51
S 19	5 50 43	27°20'30	27°19	29°24	14°41	14°40	11°39	28°21	0°50	29° 6	17°22	1°52
M20	5 54 39	28°21'40	28°18	2♄31	16°16	15°18	11°43	28°23	0°51	29° 6	17°22	1°52
T 21	5 58 36	29°22'50	29°18	5°34	17°51	15°56	11°48	28°25	0°52	29° 7	17°22	1°53
W22	6 2 32	0♂24'00	0♂17	8°34	19°26	16°33	11°53	28°27	0°52	29° 7	17°23	1°54
T 23	6 6 29	1°25'10	1°17	11°32	21° 1	17°11	11°57	28°30	0°53	29° 7	17°23	1°55
F 24	6 10 25	2°26'21	2°18	14°27	22°36	17°49	12° 2	28°32	0°54	29° 8	17°23	1°55
S 25	6 14 22	3°27'31	3°18	17°21	24°10	18°27	12° 6	28°34	0°54	29° 8	17°23	1°56
S 26	6 18 19	4°28'41	4°19	20°12	25°45	19° 5	12°11	28°36	0°55	29° 8	17°23	1°57
M27	6 22 15	5°29'51	5°21	23° 2	27°20	19°42	12°16	28°38	0°56	29° 9	17°24	1°57
T 28	6 26 12	6°31'00	6°22	25°50	28°55	20°20	12°20	28°40	0°56	29° 9	17°24	1°58
W29	6 30 8	7°32'10	7°24	28°37	0♂30	20°58	12°25	28°42	0°57	29° 9	17°24	1°59
T 30	6 34 5	8°33'19	8°27	1♂24	2° 4	21°35	12°29	28°45	0°58	29°10	17°24	1°59
F 31	6 38 1	9♁34'28	9♁30	4♂ 9	3♂39	22♂13	12♄34	28♁47	0♃58	29♁10	17♁25	2♃ 0

Delta T = 11.77 sec.

Greg. Calendar

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