Wednesday, April 1

12 a.m. (midnight)
Julian day = 2,454,922.708

Moon

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚)
  and use the “fist” method to measure angles and find the Moon
  Two horizontal fists (one fist = 10˚) right of west
  Azimuth point = 291˚ (west-northwest)
  1½ vertical fists above the horizon at the azimuth point
  Altitude = +17˚
- Current status and ‘age’:
  Waxing crescent
  Five-plus days old (previous new moon – March 26)
- Ecliptic (Celestial) Coordinate System location: longitude = 082.3˚
  latitude = +03.1˚
- Equatorial Coordinate System location: right ascension (ₐ) = 05h 25.3m
  Declination (ₔ) = +26˚ 20.6'
- Distance from Earth: 228,861 miles; 368,316 kilometers; 57.746+ (Earth radii [Re])
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -11.65
- Angular size: 32’ (arc minutes)
- Disk illumination: 34%
- Constellation: Taurus
- Setting time: western horizon at 1:36 a.m.

Saturn

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚)
  and use the “fist” method to measure angles and find the planet Saturn
  one-half horizontal fist left of south
  Azimuth point = 176˚ (south)
  6½ vertical fists above the horizon at the azimuth point
  Altitude = +65˚
- Ecliptic (Celestial) Coordinate System location: longitude = 166.6˚

latitude = +02.3˚
- Equatorial Coordinate System location: right ascension (ₐ) = 11h 13.8m
  Declination (ₔ) = +07˚ 25.9'
- Distance from Earth: 788.182-plus million miles; 1.268-plus billion kilometers; 8.479-plus (Astronomical Units [**AU**'s])
- Light-travel time from Saturn to Earth: one hour, 10½ minutes
- Visual magnitude: +0.58
- Angular size: 20” (arc seconds)
- Disk illumination: 100%
- Constellation: in Leo until September 2 when it will enter Virgo
- Transiting and setting times: due south at 12:07 a.m.; western horizon at 6:26 a.m.

The Sun and the planets Mercury, Venus, Mars, Jupiter and Uranus are not visible since they are below our horizon.

9:32 p.m.
Julian day = 2,454,923.606

Moon

- Event: perigee – fourth of 13 in 2009; the next perigee will be April 28
- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚) and use the “fist” method to measure angles and find the Moon
  0 horizontal fists left of west
  Azimuth point = 269˚ (West)
  Six vertical fists above the horizon at the azimuth point
  Altitude = +58˚
- Current status and ‘age’: waxing crescent; six-plus days old
- Ecliptic (Celestial) Coordinate System location: longitude = 095.4˚
  latitude = +02.4˚
- Equatorial Coordinate System location: right ascension (ₐ) = 06h 23.5m
  Declination (ₔ) = +25˚ 46.6'
- Distance from Earth: 229,915 miles; 370,013 kilometers; 58.0 (Earth radii [Re])
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -11.96
- Angular size: 33’ (arc minutes)
- Disk illumination: 44%
- Constellation: in Gemini
- Setting time: western horizon at 2:34 a.m.

Thursday, April 2

9:34 a.m.
Julian day = 2,454,924.107

Moon

Event: first quarter – fourth of 13 in 2009; next first quarter moon will be May 1; changes from a waxing crescent to waxing gibbous

- Local (Horizontal [Horizon] Coordinate System location): not visible; 29˚ below the eastern horizon

Saturday, April 4

2:21 a.m.
Julian day = 2,454,925.806

Moon

- Event: descending node – fourth of 13 in 2009; the next descending node will be May 1
- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚) and
  use the "fist" method to measure angles and find the Moon
  two horizontal fists right of west
  Azimuth point = 279˚ (west by north)
  two vertical fists above the horizon at the azimuth point
  Altitude = +20˚
- Current status and 'age': waxing gibbous
  nine-plus days old
- Ecliptic (Celestial) Coordinate System location: longitude = 126.2˚; latitude = -0.6˚
- Equatorial Coordinate System location: right ascension ($_a$) = 08h 33.2m
  declination ($_d$) = +18˚ 09.5'
- Distance from Earth: 229,250 miles; 368,942 kilometers; 57.8 (Earth radii [Re])
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -12.41
- Angular size: 32' (arc minutes)
- Disk illumination: 68%
- Constellation: in Cancer
- Setting time: western horizon at 4:06 a.m.

Wednesday, April 8

9:10 p.m.
Julian day = 2,454,930.590

Mercury

- Event:'leaves' the constellation Pisces and 'enters' the constellation Aries where it will stay until April 25. It will then 'enter' Taurus
- Local (Horizontal [Horizon] Coordinate System location): not visible; 07˚ below the western horizon

Thursday, April 9

9:56 a.m.
Julian day = 2,454,931.122

Moon

- Event: full moon – fourth of 13 in 2009; changes from a waxing gibbous to a waning Gibbous; worst (brightest moon) period of the month for viewing the evening night sky; next new moon will be May 24
- Local (Horizontal [Horizon] Coordinate System location): not visible; 39˚ below the western horizon

Saturday, April 11

12 a.m. (midnight)
Julian day = 2,454,932.708

Saturn

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚) and
  use the “fist” method to measure angles and find the planet Saturn
  two horizontal fists right of south
  Azimuth point = 201˚ (south-southwest)
  6½ vertical fists above the horizon at the azimuth point
  Altitude = +64˚
- Ecliptic (Celestial) Coordinate System location: longitude = 166.0˚;
  latitude = +02.3˚
- Equatorial Coordinate System location: right ascension (ₐ) = 11h 11.4m
  declination (ₔ) = +07˚ 39.9'
- Distance from Earth: 795.981-plus million miles; 1.281-plus billion kilometers;
  8.563-plus (Astronomical Units [**AU**'s])
- Light-travel time from Saturn to Earth: one hour, 11¼ minutes
- Visual magnitude: +0.64
- Angular size: 19” (arc seconds)
- Disk illumination: 100%
- Setting time: western horizon at 5:49 a.m.

Moon

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚) and
  use the “fist” method to measure angles and find the Moon
  four horizontal fists left of south
  Azimuth point = 138˚ (southeast)
  2½ vertical fists above the horizon at the azimuth point
  Altitude = +25˚
- Current status and ‘age’: waning gibbous; 16-plus days old
- Ecliptic (Celestial) Coordinate System location: longitude = 221.3˚; latitude = -05.5˚
- Equatorial Coordinate System location: right ascension (ₐ) = 14h 27.6m
  declination (ₔ) = -20˚ 21.7'
- Distance from Earth: 241,220 miles; 388,206 kilometers; 60.865-plus (Earth radii)
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -12.67
- Angular size: 31’ (arc minutes)
- Disk illumination: 97%
- Constellation: in Libra
- Transiting and setting times: due south at 2:42 a.m.; western horizon at 8:01 a.m.

The Sun and the planets Mercury, Venus, Mars, Jupiter and Uranus are not visible since they are below our horizon

Thursday, April 16

4:17 a.m.
Julian day = 2,454,937.887

Moon

- Event: apogee – fourth of 13 in 2009; the next apogee will be May 13
- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚) and
  use the "fist" method to measure angles and find the Moon
  four horizontal fists left of south
  Azimuth point = 142˚ (southeast by south)
  two vertical fists above the horizon at the azimuth point
  Altitude = +22˚
- Current status and 'age': waning gibbous; 21-plus days old
- Ecliptic (Celestial) Coordinate System location: longitude = 284.1˚; latitude = -02.6˚
- Equatorial Coordinate System location: right ascension ($_a$) = 19h 02.1m
  declination ($_d$) = -25˚ 17.0'
- Distance from Earth: 251,177 miles; 404,231 kilometers; 63.377-plus (Earth radii)
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -12.09
- Angular size: 30' (arc minutes)
- Disk illumination: 61%
- **Constellation:** in Sagittarius
- Transiting and setting times: due south at 7 a.m.; western horizon at 12:06 p.m.

Friday, April 17

8:36 A.M.
Julian day = 2,454,939.067

Moon

- Event: third (last) Quarter – fourth of 13 in 2009; changes from a waning gibbous to a waning crescent; next new moon will be May 24
- **Local (Horizontal [Horizon] Coordinate System location):** not visible; the Sun is up and it is daylight

April 18, Saturday

12:15 a.m.
Julian day = 2,454,939.719

Moon

- Event: ascending node – fourth of 13 in 2009; next ascending node will be May 15
- Local (Horizontal [Horizon] Coordinate System location): not visible**;** 36˚ below the eastern horizon

12:36 p.m.
Julian day = 2,454,940.233

Sun

- Event: 'leaves' the constellation Pisces; 'enters' the constellation Aries where it will stay until May 14. It will then 'enter' Taurus

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚) and
  use the “fist” method to measure angles and find the Sun
  3½ horizontal fists left of south
  Azimuth point = 145˚ (southeast by south)
  6½ vertical fists above the horizon at the azimuth point
  Altitude = +65˚
- Ecliptic (Celestial) Coordinate System location: longitude = 028.8˚
- Equatorial Coordinate System location: right ascension (ₐ) = 01h 46.6m
  declination (ₔ) = +11˚ 00.4'
- Distance from Earth: 93.346-plus million miles; 150.226-plus million kilometers;
  1.0042 (Astronomical Units [**AU**'s])
- Light-travel time from the Sun to Earth: eight minutes, 21 seconds
- Visual magnitude: -26.89
- Angular size: 32’ (arc minutes)
- Transiting and setting times: due south at 1:31 p.m.; western horizon at 8:02 p.m.

Tuesday, April 21

12 a.m. (midnight)
Julian day = 2,454,942.708

Saturn

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the southern sky (compass direction = 180˚) and
  use the “fist” method to measure angles and find the planet Saturn
  four horizontal fists right of south
  Azimuth point = 221˚ (southwest)
  six vertical fists above the horizon at the azimuth point
  Altitude = +60˚
- Ecliptic (Celestial) Coordinate System location: longitude = 165.5˚;
  latitude = +02.2˚
- Equatorial Coordinate System location: right ascension (ₐ) = 11h 09.5m
  declination (ₔ) = +07˚ 50.5'
- Distance from Earth: 806.011-plus million miles; 1.297-plus billion kilometers;
  8.670-plus (Astronomical Units [**AU**'s])
- Light-travel time from Saturn to Earth: one hour, 12 minutes
- Visual magnitude: +0.69
- Angular size: 19” (arc seconds)
- Disk illumination: 100%
- Setting time: **w**estern horizon at 5:04 a.m.

The Sun, the Moon and the planets Mercury, Venus, Mars, Jupiter and Uranus are not visible since they are below our horizon.

Wednesday, April 22

9:51 p.m.
Julian day = 2,454,944.619

Lyrid Meteor Shower

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the eastern sky (compass direction = 090˚) and
  use the “fist” method to measure angles and find the originating area (radiant)
  of the Lyrid showers
  four horizontal fists left of East
  Azimuth point = 049˚ (northeast)
  0 vertical fists above the horizon at the azimuth point
  Altitude = +00˚
- Equatorial Coordinate System location: right ascension ($_a$) = 18h 04.0m
  declination ($_d$) = +34˚ 00.0'
- Constellation: Hercules
- Transiting and setting times: due south at 5:29 a.m.; western horizon at 1:08 p.m.

Friday, April 24

10:23 p.m.
Julian day = 2,454,946.641

Moon

Event: new moon – fourth of 12 in 2009; the next new moon will be May 24; changes
from a waning crescent to a waxing crescent moon
Best (darkest moon) period of the month for viewing the evening night sky
Beginning of Lunation 1068

- Local (Horizontal [Horizon] Coordinate System location): not visible; 39˚ below the
  western horizon

Wednesday, April 25

9:10 p.m.
Julian day = 2,454,946.853

Mercury

- Event: ‘leaves’ the constellation Aries and ‘enters’ the constellation Taurus were it will
  remain until July 3. It will then ‘enter’ Gemini
- Local (Horizontal [Horizon] Coordinate System location): not visible; 36˚ below the
  eastern horizon

Thursday, April 26

8:07 p.m.
Julian day = 2,454,948.547

Mercury

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚) and
  use the “fist” method to measure angles and find the planet Mercury
  1½ horizontal fists right of west
  Azimuth point = 285˚ (west by north)
  two vertical fists above the horizon at the azimuth point
  Altitude = +20˚
- Ecliptic (Celestial) Coordinate System location: longitude = 057.1˚;
  latitude = +02.8˚

- Equatorial Coordinate System location: right ascension (ₐ) = 03h 36.1m
  declination (ₔ) = +22˚ 09.8'
- Distance from Earth: 78.012+ million miles; 125.548-plus million kilometers; 0.839-plus (Astronomical Units [**AU**'s])
- Light-travel time from Saturn to Earth: six minutes, 59 seconds
- Visual magnitude: +0.38
- Angular size: 8” (arc seconds)
- Disk illumination: 36%
- Setting time: western horizon at 9:47 p.m.

Moon

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚) and
  use the “fist” method to measure angles and find the Moon
  1½ horizontal fists right of west
  Azimuth point = 285˚ (west by north)
  2½ vertical fists above the horizon at the azimuth point
  Altitude = +24˚
- Current status and ‘age’: waxing crescent; two-plus days old (previous new moon – April 24)
- Ecliptic (Celestial) Coordinate System location: longitude = 083.6˚;
  latitude = +02.5˚
- Equatorial Coordinate System location: right ascension (ₐ) = 03h 53.5m
  declination (ₔ) = +24˚ 35.2'
- Distance from Earth: 226,333 miles; 364,248 kilometers; 57.108-plus (Earth radii)
- Light-travel time from the Moon to Earth: 1¼ seconds
- Visual magnitude: -9.52
- Angular size: 33’ (arc minutes)
- Disk illumination: 5%
- Setting time: western horizon at 10:19 p.m.

Aldebaran – 13th brightest night star

- Local (Horizontal [Horizon] Coordinate System location):
  Start on the horizon at the western sky (compass direction = 270˚) and
  use the “fist” method to measure angles and find the star Aldebaran
  0 horizontal fists right of west
  Azimuth point = 272˚ (west)
  three vertical fists above the horizon at the azimuth point
  Altitude = +30˚
- Equatorial Coordinate System location: right ascension (ₐ) = 04h 35.9m
  declination (ₔ) = +16˚ 30.5'
- Distance from Earth: 65 light years; 382.102-plus trillion miles; 614.934-plus trillion kilometers; 4.110-plus million astronomical units (**AU**'s)
- Visual magnitude: +0.84
- Setting time: western horizon at 9:47 p.m.

Tuesday, April 28

1:28 a.m.

Julian day = 2,454,949.769

Moon

- Event: perigee – fifth of 13 in 2009; next perigee will be May 25
- Local (Horizontal [Horizon] Coordinate System location): not visible; 20˚ below the western horizon