

July 2021 Sky Events

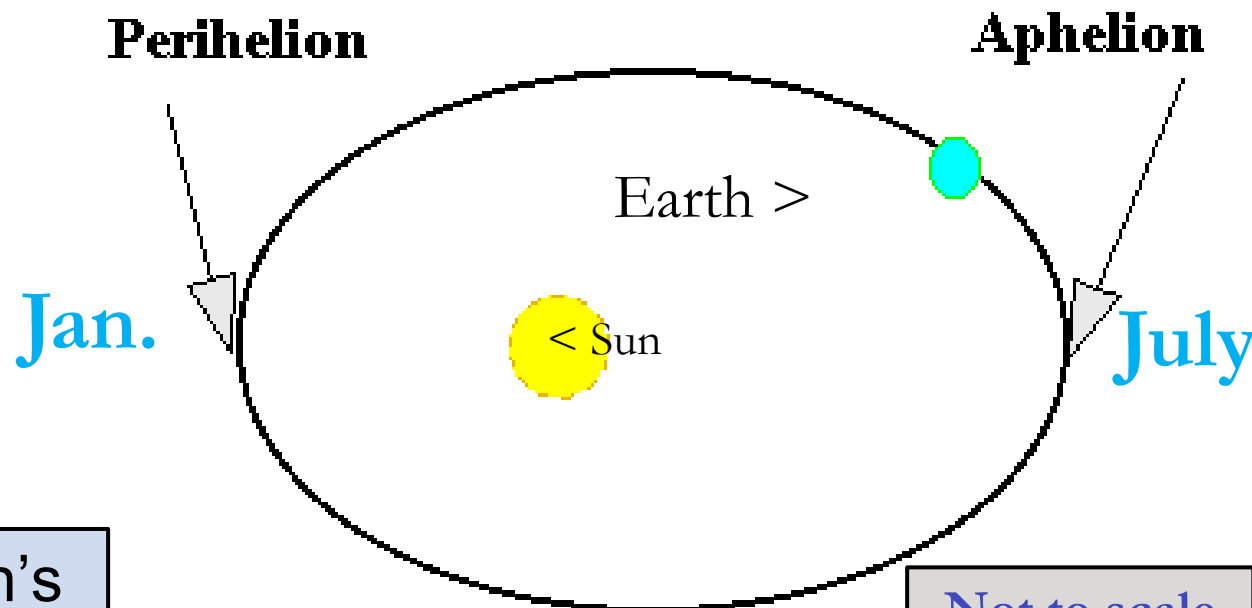
Monday, July 5th - Earth Reaches Aphelion

- Earth reaches “aphelion” – the farthest position from the Sun in its annual elliptical orbit. Six months later in January, Earth reaches its closest approach to the Sun – “perihelion”.

Distances in miles:

Aphelion \approx 94.5 million
Perihelion \approx 91.5 million
Average \approx 93 million or
1 astronomical unit (AU)
~ the Earth-Sun distance

There is a 3.3% change in the Sun's distance from aphelion to perihelion.

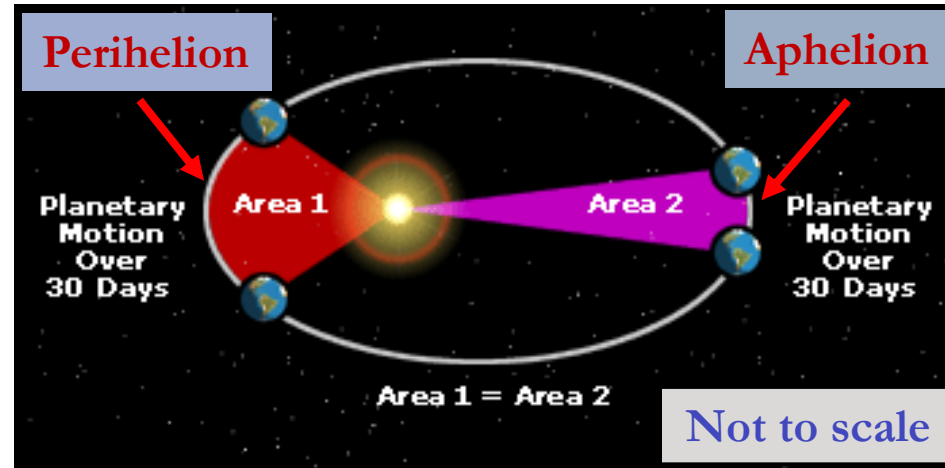


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On July 5th (at aphelion) this year, you may notice that you are orbiting around the Sun on planet Earth slower than usual! Here's why:

Johannes Kepler's (year 1609) 2nd Law of Planetary Motion states that an imaginary line joining a planet and the Sun sweeps out an equal area of space in equal intervals of time.



As determined by Kepler's 2nd Law of Planetary Motion, the speed of a planet along its elliptical orbit is fastest when it is closest to the Sun (for Earth at perihelion in January) and slowest when it is farthest from the Sun (for Earth at aphelion in July).