The star chart includes only the brightest stars to avoid cluttering the chart. The constellations are labeled, and the lines connecting their stars will help you find these celestial groupings.

The Planets table gives positions on the sky (in astronomical right ascension and declination), their apparent magnitude, the time they rise, reach culmination (their highest point in the sky), and when they set. Mercury is visible in the evening for most of October. Venus and Saturn can be seen in the evening. Mars is visible in the morning. Jupiter can be seen late at night and in the morning. Those with a telescope will be able to see Uranus in the evening and in the morning and Neptune in the evening.

### October Moon Phases
- **New Moon** October 4
- **First Quarter** October 11
- **Full Moon** October 18
- **Last Quarter** October 26

### Object | R.A. | Dec. | Mag. | Rise | Culmination | Set
--- | --- | --- | --- | --- | --- | ---
Mercury | 14h 51m | –19° 44' | 0.2 | 8h 18m | 13h 48m | 19h 18m |
Venus | 16h 23m | –24° 35' | –3.6 | 9h 59m | 15h 21m | 20h 42m |
Mars | 10h 09m | +12° 53' | 1.6 | 2h 44m | 9h 07m | 15h 30m |
Jupiter | 7h 24m | +21° 59' | –2.3 | 23h 43m | 6h 22m | 13h 01m |
Saturn | 14h 39m | –13° 13' | 1.3 | 7h 55m | 13h 36m | 19h 17m |
Uranus | 0h 37m | +03° 14' | 5.7 | 17h 27m | 23h 35m | 5h 42m |
Neptune | 22h 19m | –11° 11' | 7.9 | 15h 32m | 21h 17m | 3h 02m |

Monthly activities for the Friends of the Institute for Astronomy can be found at [http://www.ifa.hawaii.edu/friends/](http://www.ifa.hawaii.edu/friends/)
Institute for Astronomy Special Events are announced at [http://www.ifa.hawaii.edu/specialevents/](http://www.ifa.hawaii.edu/specialevents/)