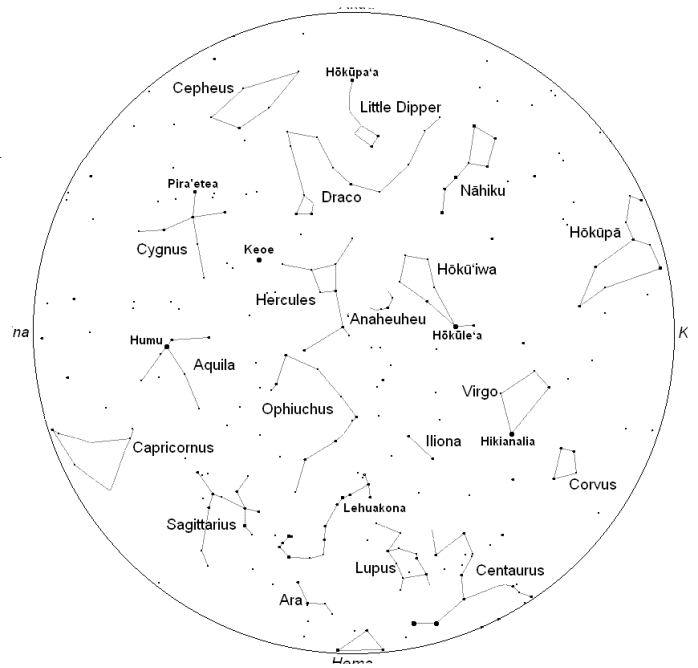


July 2011 Skies

Date	Event
Friday, July 1	Muku (New Moon) at 1:23 am HST
Saturday, July 2	Ukialali'i (Mercury) 5° north of the Moon
Monday, July 4	Earth at Aphelion
Thursday, July 7	Olekūkahi (First Quarter Moon) at 8:29 pm HST
Thursday, July 14	Hoku (Full Moon) at 8:40 pm HST
Wednesday, July 20	Ukialali'i (Mercury) at great est eastern elongation
Friday, July 22	Kāloakūkahi (Last Quarter Moon) at 7:06 pm HST
Saturday, July 23	Ka'āwela (Jupiter) 5° south of the Moon
Wednesday, July 27	Hökū'ulapīna'au (Mars) 0.5° north of the Moon
Thursday, July 28	Delta Aquarid Meteor Shower Peak
Saturday, July 30	Muku (New Moon) at 8:40 am HST



July 2011 Highlights

Mercury is best viewed the first week of July right after sunset in the western sky. Look for it low on the horizon.

Venus rises just before the Sun and is low morning sky.

Mars is visible in the morning sky in the east rising around 3 am. Look for it on the 27th when it appears close to the Moon.

Jupiter is visible in our morning skies this month rising around 1:30am. Look for the Galilean moons with binoculars.

Saturn will be high in the south after sunset. It will set just before midnight this month in the constellation of Virgo.

Earth is at Aphelion on July 4th. This is our FARTHEST point from the Sun in our elliptical orbit. Many people mistakenly think that we are close to the Sun in Summer and far away in Winter, when really the opposite is true. Our distance has NO effect on our seasons. Instead it is the tilt of the Earth which causes these changes.

The Delta Aquarid meteor shower peaks on July 28th it is a minor shower with about 15-20 meteors visible per hour in the early morning.