

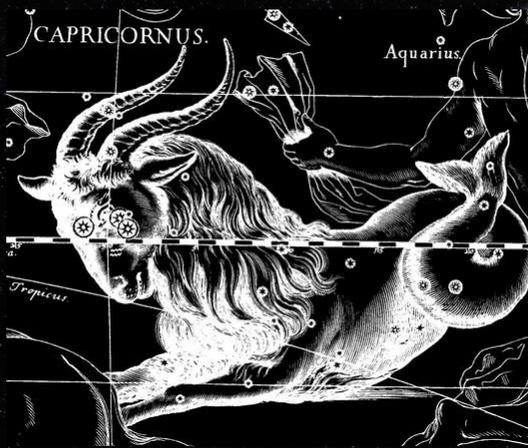
OCTOBER ŌKETOPA HIGHLIGHTS

Capricornus

The Greeks associated Capricornus with Aegipan, who was one of the Panes - a group of half-goat men who often had goat legs and horns.

Aegipan assumed the form of a fish-tailed goat and fled into the ocean to flee the great monster Typhon. Later, he aided Zeus in defeating Typhon and was rewarded by being placed in the stars.

To find Capricornus (highlighted in orange on the star chart), first locate the Aquarius constellation, then look to the south-west along the ecliptic line (the dotted line on the star chart).



Aquarius and Aquila

In Greek mythology, the Aquarius constellation is said to represent Ganymede, the handsome prince of Troy. His good looks attracted the attention of Zeus, who sent the eagle Aquila to kidnap him and carry him to Olympus to serve as a cupbearer to the gods. Because of this story, Ganymede was sometimes seen as the god of homosexual relations. He also gives his name to one of the moons of Jupiter, which are named after the lovers of Zeus.

To locate Aquarius, first find Altair, the brightest star in the Aquila constellation. Altair is one of the closest stars to Earth that can be seen with the naked eye, at a distance of 17 light years. From Altair, scan east-south-east to find Aquarius (highlighted in yellow on the star chart).

What's On in October?

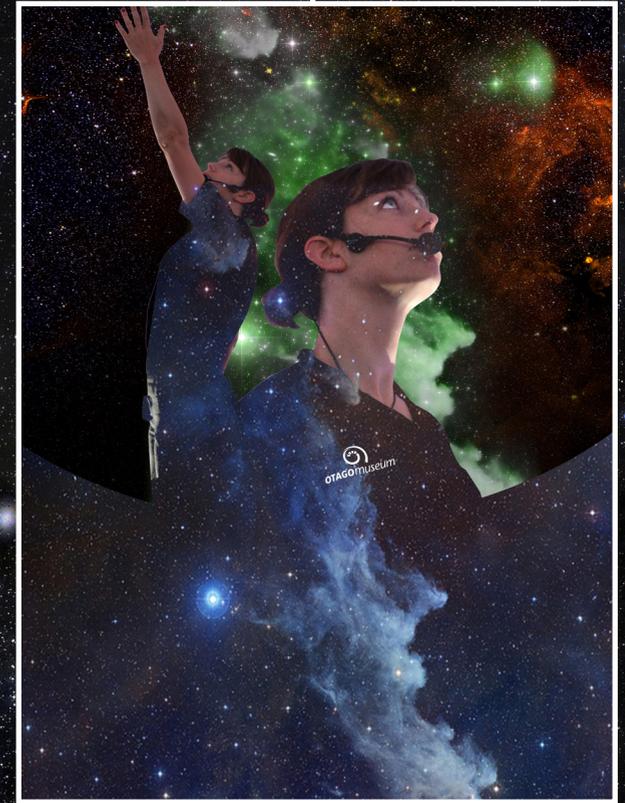
October shows at Perpetual Guardian Planetarium, book at Museum Shop or online. See website for show times and details: otagomuseum.nz

Capturing the Cosmos Planetarium show.

The Sky Tonight Planetarium show.

We Are Aliens! 3D Planetarium show.

THE SKY TONIGHT



OCTOBER ŌKETOPA SKY GUIDE

PERPETUAL
GUARDIAN
PLANETARIUM


OTAGOmuseum

MOON MARAMA PHASES

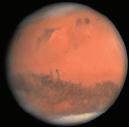
Phase	Date
3rd quarter	Tuesday 2 October
New moon	Tuesday 9 October
1st quarter	Wednesday 17 October
Full moon	Thursday 25 October

PLANETS WHETŪ AO

Venus
Meremere-tū-ahiahi
Early October before 11.00pm
Mid October before 9.58pm
Late October not visible
On Libra-Virgo border



Mars
Matawhero
Early October before 5.19am
Mid October before 4.46am
Late October before 3.53am
In Capricornus



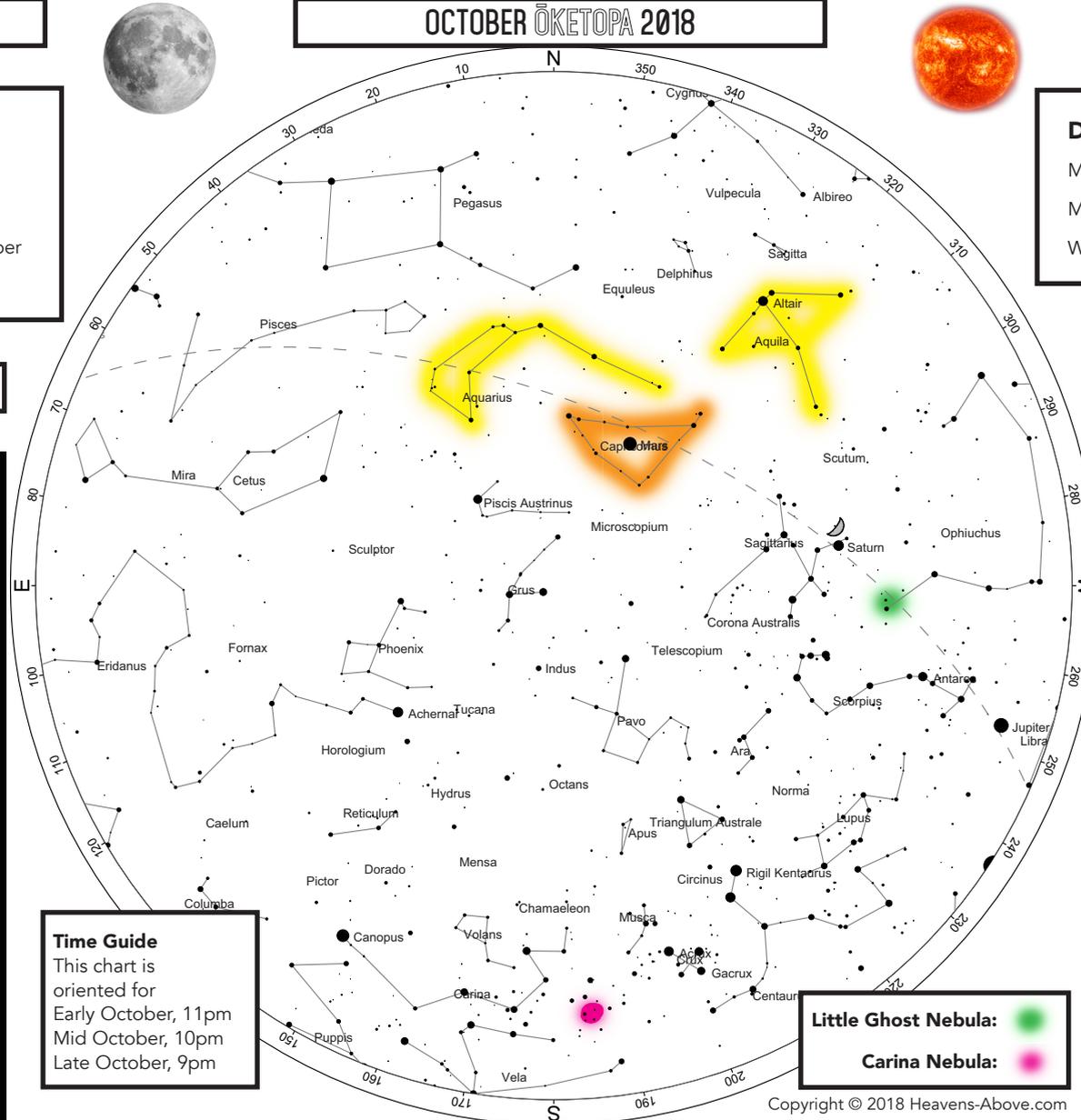
Jupiter
Hine-i-tīweka
Early October before 11.37pm
Mid October before 10.56pm
Late October before 10.14pm
In Libra



Saturn
Pareārau
Early October before 2.56am
Mid October before 2.04am
Late October before 1.10am
In Sagittarius



OCTOBER ŌKETOPA 2018



Time Guide
This chart is oriented for
Early October, 11pm
Mid October, 10pm
Late October, 9pm

Little Ghost Nebula: 
Carina Nebula: 

How to use this chart: Hold the chart up to the sky and rotate it, so the direction you are looking matches the direction printed on the bottom. For example, if you are looking south, place "S" at the lower edge. Stars rise in the east and set in the west like the sun. As the Earth turns, the sky appears to rotate clockwise around the south celestial pole. The sky makes a small shift to the west every night, as the Earth rotates around the sun.

SUN RĀ RISE / SUNSET

Date	Rise	Set
Monday 1	7.10 AM	7.45 PM
Monday 15	6.44 AM	8.04 PM
Wednesday 30	6.17 AM	8.26 PM

SPOOKY SPACE OBJECTS

Little Ghost Nebula

This nebula, named for its greenish glow, is the result of a dead star shedding its outer layer of gas, and gives us a glimpse at what may await our own sun when it dies in the next five billion years. The Little Ghost Nebula is located in Ophiuchus – find it where Ophiuchus touches the ecliptic line on our star chart.

Witch Head Nebula

Thought to be the remnants of an ancient supernova, this nebula resembles the profile of a witch. The nebula's eerie blue glow is due to its proximity to the blue supergiant star Rigel, located in the Orion constellation (shown on the cover). Rigel can be used to find the Witch Head Nebula: first find Rigel near the eastern horizon around midnight (**not visible on chart**) then look west to locate the Witch Head Nebula.

Vampire Stars

The Carina Nebula encompasses O-type stars, the biggest and hottest stars in our universe. These stars often come in binary pairs, where two stars orbit each other. Sometimes the larger star will become vampiric and suck the matter from the smaller star, extending the vampire star's lifespan. To find the Carina Nebula, first locate the Southern Cross then scan south-east until you find a bright orange star – this is Eta Carinae, a star in the centre of the nebula.