

1
00:00:07,700 --> 00:00:10,019

Your guide to constellations,

2
00:00:10,019 --> 00:00:14,739

deep-sky objects, planets, and events:

3
00:00:14,740 --> 00:00:21,620

Tonight's Sky. Highlights of the October sky:

4
00:00:35,500 --> 00:00:38,320

Planets begin to depart the evening sky

5
00:00:38,320 --> 00:00:41,539

as chilly October winds blow.

6
00:00:41,539 --> 00:00:45,219

Mars and Saturn still dominate the southern sky,

7
00:00:45,219 --> 00:00:50,119

Mars in Capricornus and Saturn in Sagittarius.

8
00:00:50,119 --> 00:00:53,039

The waxing moon travels between the two

9
00:00:53,039 --> 00:00:55,159

in the middle of the month.

10
00:00:55,159 --> 00:00:59,959

A modest telescope reveals the rings orbiting Saturn.

11
00:00:59,960 --> 00:01:03,500

The orange disk of Mars decreases in size

12
00:01:03,500 --> 00:01:06,540

and its features fade from view as its distance

13
00:01:06,540 --> 00:01:12,700

from Earth increases over the course of the month.

14
00:01:33,120 --> 00:01:37,000

Pegasus, the great winged horse of Greek mythology,

15
00:01:37,000 --> 00:01:41,079
prances across the autumn night sky.

16
00:01:41,079 --> 00:01:44,659
His body is denoted by a large area of stars

17
00:01:44,659 --> 00:01:49,239
known as the "Great Square."

18
00:01:49,239 --> 00:01:52,780
Pegasus hosts 51-Pegasi, the

19
00:01:52,780 --> 00:01:58,260
first Sun-like star known to have an extra-solar planet.

20
00:01:58,260 --> 00:02:02,400
The brightest corner of the Great Square, Alpheratz, is

21
00:02:02,400 --> 00:02:09,580
also the brightest star in the constellation Andromeda.

22
00:02:17,659 --> 00:02:21,780
In Greek mythology, this princess was chained to a rock

23
00:02:21,780 --> 00:02:25,039
near the sea to appease a sea monster.

24
00:02:25,039 --> 00:02:28,859
Within Andromeda's boundaries, look for M31,

25
00:02:28,860 --> 00:02:33,500
the Andromeda Galaxy, an island of billions of stars.

26
00:02:33,500 --> 00:02:36,539
On a clear, dark night it appears as a

27
00:02:36,539 --> 00:02:38,900
faint smudge of light.

28
00:02:38,900 --> 00:02:43,180
Approximately 2.5 million light-years away,

29

00:02:43,180 --> 00:02:47,800

M31 is the closest spiral galaxy to our own

30

00:02:47,819 --> 00:02:53,900

Milky Way Galaxy and the most distant object you can see with your eyes alone.

31

00:02:53,900 --> 00:02:58,159

Binoculars and small telescopes reveal M31's

32

00:02:58,159 --> 00:03:01,659

glowing nucleus and spiral arms.

33

00:03:01,659 --> 00:03:06,599

A smaller companion galaxy, M110, appears as a

34

00:03:06,599 --> 00:03:10,199

faint spot near the large galaxy.

35

00:03:10,199 --> 00:03:13,839

The Andromeda Galaxy is slowly pulling in,

36

00:03:13,840 --> 00:03:17,580

and will eventually consume, another one of its small

37

00:03:17,580 --> 00:03:23,820

companion galaxies, M32.

38

00:03:33,219 --> 00:03:36,359

The Orionid meteor shower peaks on the night of

39

00:03:36,360 --> 00:03:39,840

October 21 to 22.

40

00:03:39,840 --> 00:03:43,640

However, the bright light of the nearly full moon

41

00:03:43,639 --> 00:03:47,719

may wash out all but the brightest meteors.

42

00:03:47,719 --> 00:03:50,500

After midnight, look to the east, where

43

00:03:50,500 --> 00:03:53,659
the constellation Orion is rising.

44
00:03:53,659 --> 00:03:57,460
Every few minutes you may spy a tiny remnant

45
00:03:57,460 --> 00:04:02,420
of Halley's Comet burning up high in the atmosphere.

46
00:04:02,419 --> 00:04:09,280
The night sky is always a celestial showcase.

47
00:04:09,280 --> 00:04:16,360
Explore its wonders from your own backyard.