TONIGHT'S SKY

August 2016

1
00:00:00,000 --> 00:00:14,849
Your guide to constellations deep-sky
objects planets and events, Tonight's Sky –

2
00:00:14,849 --> 00:00:17,849
highlights of the August sky.

3
00:00:37,260 --> 00:00:42,570
Early in the month, Jupiter will hang low
in the West right after sunset.

4
00:00:54,070 --> 00:00:59,410
Catch it early because the planet will
be too low to spot after darkness falls.

5
00:01:11,310 --> 00:01:17,939
In the Southwestern sky, Saturn and Mars form a trio with the bright, reddish star

6
00:01:17,939 --> 00:01:20,939
Anteares throughout the evening.

7
00:01:23,730 --> 00:01:31,830
The three celestial objects will appear
closes together near the end of the month.

8
00:01:46,860 --> 00:01:51,900
Stargazing on a hot August night reveals
a multitude of wonders.

9
00:01:56,550 --> 00:02:01,110
Lyra, the Small Harp, lies high in the
late evening sky.

10
00:02:01,680 --> 00:02:06,750
Its main star is the great Vega, one of
the brightest in the sky.

11
00:02:07,410 --> 00:02:13,380
Look for Lyra by locating Vega and

then the parallelogram of stars nearby.

12
00:02:13,380 --> 00:02:16,050
Epsilon Lyrae,

13
00:02:16,050 --> 00:02:22,560
the bright star near Vega, is actually a
wonderful quadruple star system known as

14
00:02:22,560 --> 00:02:33,480
the Double-Double. In the parallelogram
of Lyra lies the dramatic Ring Nebula.

15
00:02:34,110 --> 00:02:40,650
It is an expanding shell of glowing gas
expelled by the dying star at its center.

16
00:02:52,220 --> 00:02:58,130
The great constellation Cygnus, the Swan, flies high through the August night.

17
00:02:58,130 --> 00:03:01,610
Using bright Vega as your guide star,

18
00:03:01,610 --> 00:03:07,850
look for the cross just to the east.
Cygnus is also known as the Northern Cross.

19
00:03:08,900 --> 00:03:16,490
Albireo, at the head of the Swan, is a
showpiece for small telescopes.

20
00:03:16,490 --> 00:03:22,460
This spectacular pair of stars features
contrasting colors of sapphire and

21
00:03:22,460 --> 00:03:31,100
golden topaz. Deneb, the Swan's tail, is a
supergiant star. If Deneb replaced the

22

00:03:31,100 --> 00:03:37,910
Sun in the center of our solar system, it
would engulf Mercury and Venus.

23
00:03:37,910 --> 00:03:39,110
On a clear night,

24
00:03:39,110 --> 00:03:45,680
hazy patches of nebulae can be seen by
casually panning across the Cygnus area

25
00:03:45,680 --> 00:03:47,390
with binoculars.

26
00:03:47,390 --> 00:03:54,230
The most prominent is the North America
Nebula, an area of gas and dust

27
00:03:54,230 --> 00:03:58,880
illuminated by the nearby, brilliant star
Deneb.

28
00:04:04,600 --> 00:04:08,020
Cygnus also hosts several clusters of
stars.

29
00:04:09,010 --> 00:04:18,370
The easiest to find are M29 and M39. M29 is found near the center of the Northern Cross.

30
00:04:19,300 --> 00:04:26,320
When viewed in a small telescope it
resembles a small square. Best seen in binoculars,

31
00:04:27,430 --> 00:04:34,900
M39 is a loosely bound cluster of about
thirty stars, just to the north of Deneb.

32
00:04:34,900 --> 00:04:45,880
Just to the south of Cygnus lies the
small constellation Vulpecula, the Little Fox,

33
00:04:46,000 --> 00:04:52,570
first charted by Polish astronomer
Johannes Hevelius in the 17th century.

34
00:04:52,570 --> 00:05:02,320
Vulpecula host the Dumbbell Nebula, which can be seen as a faint smudge in binoculars.

35
00:05:03,000 --> 00:05:07,930
A small telescope reveals its
double-lobed shape.

36
00:05:26,720 --> 00:05:36,290
Aquila, the Eagle, was known to the
ancient Greeks as the great bird of Zeus.

37
00:05:37,880 --> 00:05:44,510
Altair, the brightest star in Aquila, is
only 16 light-years from Earth.

38
00:05:58,000 --> 00:06:05,200
The bright stars of the summer night sky,
Vega, Altair, and Deneb, make up the Summer Triangle.

39
00:06:05,600 --> 00:06:12,760
Use binoculars to look for the
Coathanger, located halfway between

40
00:06:12,760 --> 00:06:15,760
Altair and Albireo.

41
00:06:23,990 --> 00:06:29,450
This remarkable little group of stars
forms a familiar pattern from our point of view.

42
00:06:44,680 --> 00:06:50,169
The Perseid meteor shower is an always-anticipated feature of the August night sky.

43
00:06:53,530 --> 00:06:59,740

Look for meteors during the early
morning hours of August 12th and 13th.

44
00:06:59,740 --> 00:07:07,270
These streaks of light are tiny bits of
a comet burning up as they enter Earth's atmosphere.

45
00:07:08,200 --> 00:07:13,449
The cometary debris trail,
which Earth passes through once a year,

46
00:07:13,449 --> 00:07:20,800
was left behind by Comet Swift-Tuttle
during its many visits to the inner solar system.