

1
00:00:07,370 --> 00:00:15,388
your guide to constellations deep-sky

2
00:00:11,029 --> 00:00:20,000
objects planets and events tonight's sky

3
00:00:15,388 --> 00:00:20,000
highlights of the August sky

4
00:00:39,070 --> 00:00:45,070
in the evening Twilight brilliant Venus

5
00:00:42,609 --> 00:00:47,729
makes a dazzling appearance over the

6
00:00:45,070 --> 00:00:47,730
western horizon

7
00:00:54,049 --> 00:00:58,849
catch it quickly before it sets

8
00:01:12,000 --> 00:01:18,310
higher in the sky Saturn slowly dips

9
00:01:15,909 --> 00:01:22,689
toward the western horizon throughout

10
00:01:18,310 --> 00:01:27,270
the evening amite telescope at the

11
00:01:22,688 --> 00:01:27,269
planet to reveal its stunning rings

12
00:01:45,489 --> 00:01:51,019
stargazing on a hot August night reveals

13
00:01:48,739 --> 00:01:58,399
a multitude of wonders in the summer

14
00:01:51,019 --> 00:02:02,060
night sky Lyra the small harp lies high

15
00:01:58,400 --> 00:02:04,759
in the late evening sky its main star is

16
00:02:02,060 --> 00:02:08,929
the great Vega one of the brightest in

17
00:02:04,759 --> 00:02:11,930
the sky look for lehre by locating Vega

18
00:02:08,929 --> 00:02:16,459
and then the parallelogram of stars

19
00:02:11,930 --> 00:02:19,730
nearby epsilon loraie the bright star

20
00:02:16,459 --> 00:02:22,489
near Vega is actually a wonderful

21
00:02:19,729 --> 00:02:29,389
quadruple star system known as the

22
00:02:22,489 --> 00:02:33,860
double-double in the parallelogram of

23
00:02:29,389 --> 00:02:36,579
Lyra lies the dramatic ring nebula it is

24
00:02:33,860 --> 00:02:41,890
an expanding shell of glowing gas

25
00:02:36,580 --> 00:02:41,890
expelled by the dying star at its centre

26
00:02:50,229 --> 00:02:56,939
the great constellation Cygnus the Swan

27
00:02:53,789 --> 00:03:00,098
flies high through the August night

28
00:02:56,939 --> 00:03:03,479
using bright Vega as your guide star

29

00:03:00,098 --> 00:03:06,759
look for the cross just to the east

30
00:03:03,479 --> 00:03:11,259
Cygnus is also known as the northern

31
00:03:06,759 --> 00:03:15,209
cross Albireo at the head of the Swan is

32
00:03:11,259 --> 00:03:17,919
a showpiece for small telescopes this

33
00:03:15,209 --> 00:03:20,590
spectacular pair of stars features

34
00:03:17,919 --> 00:03:25,859
contrasting colors of sapphire and

35
00:03:20,590 --> 00:03:29,829
golden topaz Deneb the Swans tail is a

36
00:03:25,860 --> 00:03:32,799
supergiant star if Deneb replaced the

37
00:03:29,829 --> 00:03:36,659
Sun in the center of our solar system it

38
00:03:32,799 --> 00:03:40,659
would engulf Mercury and Venus on a

39
00:03:36,659 --> 00:03:43,539
clear night hazy patches of nebulae can

40
00:03:40,659 --> 00:03:48,639
be seen by casually panning across the

41
00:03:43,539 --> 00:03:51,669
Cygnus area with binoculars the most

42
00:03:48,639 --> 00:03:54,879
prominent is the North America nebula an

43
00:03:51,669 --> 00:03:59,699

area of gas and dust illuminated by the

44

00:03:54,879 --> 00:03:59,699
nearby brilliant star Deneb

45

00:04:03,509 --> 00:04:11,489
cygnus also hosts several clusters of

46

00:04:06,908 --> 00:04:16,689
stars the easiest to find our m29 and

47

00:04:11,489 --> 00:04:19,449
m39 m29 is found near the center of the

48

00:04:16,689 --> 00:04:23,819
northern cross when viewed in a small

49

00:04:19,449 --> 00:04:28,750
telescope it resembles a small square

50

00:04:23,819 --> 00:04:32,439
best seen in binoculars m39 is a loosely

51

00:04:28,750 --> 00:04:40,209
bound cluster of about 30 stars just to

52

00:04:32,439 --> 00:04:43,029
the north of Deneb just south of Cygnus

53

00:04:40,209 --> 00:04:46,750
lies the small constellation vulpecula

54

00:04:43,029 --> 00:04:50,228
the little fox first charted by polish

55

00:04:46,750 --> 00:04:57,850
astronomer johannes hevelius in the 17th

56

00:04:50,228 --> 00:05:00,399
century vulpecula hosts the dumbbell

57

00:04:57,850 --> 00:05:03,520
nebula which can be seen as a faint

58
00:05:00,399 --> 00:05:08,370
smudge in binoculars a small telescope

59
00:05:03,519 --> 00:05:08,370
reveals its double lobed shape

60
00:05:28,879 --> 00:05:36,589
aquila the eagle was known to the

61
00:05:32,009 --> 00:05:40,199
ancient Greeks as the great bird of Zeus

62
00:05:36,589 --> 00:05:45,049
Altair the brightest star in Aquila is

63
00:05:40,199 --> 00:05:45,050
only 16 light-years from Earth

64
00:05:56,129 --> 00:06:04,090
the bright stars of the summer night sky

65
00:05:59,500 --> 00:06:08,860
Vega Altair and Deneb make up the summer

66
00:06:04,089 --> 00:06:11,310
triangle use binoculars to look for the

67
00:06:08,860 --> 00:06:15,479
coat hanger located halfway between

68
00:06:11,310 --> 00:06:15,478
Altair and Albireo

69
00:06:22,399 --> 00:06:28,560
this remarkable little group of stars

70
00:06:25,439 --> 00:06:30,769
forms a familiar pattern from our point

71
00:06:28,560 --> 00:06:30,769
of view

72
00:06:45,899 --> 00:06:52,120
early in the month Jupiter Mars and

73
00:06:49,209 --> 00:06:54,479
Mercury lineup in the Eastern morning

74
00:06:52,120 --> 00:06:54,480
sky

75
00:07:03,848 --> 00:07:09,938
mercure slips into the horizon by

76
00:07:06,788 --> 00:07:13,918
mid-month while Mars and Jupiter rise

77
00:07:09,939 --> 00:07:13,919
higher in the pre-dawn sky

78
00:07:27,959 --> 00:07:33,989
the perseid meteor shower is an always

79
00:07:31,100 --> 00:07:39,960
anticipated feature of the August night

80
00:07:33,990 --> 00:07:42,030
sky look for meteors during the early

81
00:07:39,959 --> 00:07:47,129
morning hours of August twelfth and

82
00:07:42,029 --> 00:07:50,219
thirteenth these streaks of light are

83
00:07:47,129 --> 00:07:53,668
tiny bits of a comet burning up as they

84
00:07:50,220 --> 00:07:56,220
enter Earth's atmosphere the cometary

85
00:07:53,668 --> 00:07:59,549
debris trail through which Earth passes

86

00:07:56,220 --> 00:08:02,340
once a year was left behind by comet

87
00:07:59,550 --> 00:08:10,680
swift-tuttle during its many visits to

88
00:08:02,339 --> 00:08:14,758
the inner solar system the night sky is

89
00:08:10,680 --> 00:08:18,650
always a celestial showcase explore its

90
00:08:14,759 --> 00:08:18,650
wonders from your own backyard

91
00:08:32,750 --> 00:08:34,809
you

92
00:08:37,889 --> 00:08:39,948
you