

1
00:00:01,899 --> 00:00:08,869
[Music]

2
00:00:05,809 --> 00:00:15,809
your guide to constellations deep-sky

3
00:00:08,869 --> 00:00:19,070
objects planets and events tonight's sky

4
00:00:15,808 --> 00:00:24,039
highlights of the July sky

5
00:00:19,070 --> 00:00:24,039
[Music]

6
00:00:29,429 --> 00:00:32,429
it

7
00:00:33,320 --> 00:00:37,969
[Music]

8
00:00:34,820 --> 00:00:39,200
giant planets rule the evening skies in

9
00:00:37,969 --> 00:00:42,269
July

10
00:00:39,200 --> 00:00:42,270
[Music]

11
00:00:42,649 --> 00:00:50,350
the solar system's largest planet

12
00:00:45,198 --> 00:00:50,349
Jupiter dominates the southwestern sky

13
00:00:50,979 --> 00:01:04,219
use a telescope to spy its cloud bands

14
00:00:54,439 --> 00:01:07,459
or perhaps even the Great Red Spot the

15
00:01:04,219 --> 00:01:16,250
next largest planet Saturn presides over

16
00:01:07,459 --> 00:01:19,719
the southern sky it's splendid rings are

17
00:01:16,250 --> 00:01:19,719
an awe-inspiring sight

18
00:01:19,810 --> 00:01:39,379
[Music]

19
00:01:40,790 --> 00:01:50,300
the summer night sky is filled with a

20
00:01:43,760 --> 00:01:53,210
treasure chest of bright jewels Scorpius

21
00:01:50,299 --> 00:01:56,060
is a striking constellation one of the

22
00:01:53,209 --> 00:01:59,269
few that distinctly resembles the object

23
00:01:56,060 --> 00:02:03,350
after which it was named the scorpion is

24
00:01:59,269 --> 00:02:06,679
easy to trace in the sky its head curved

25
00:02:03,349 --> 00:02:10,069
tail and venomous stinger are prominent

26
00:02:06,680 --> 00:02:13,280
at the Scorpions heart lies a reddish

27
00:02:10,069 --> 00:02:17,810
star its color closely resembles that of

28
00:02:13,280 --> 00:02:20,719
Mars known to the Greeks as Ares ancient

29

00:02:17,810 --> 00:02:24,560
Greek stargazers contemplating these two

30
00:02:20,719 --> 00:02:31,069
crimson objects named the star Antares

31
00:02:24,560 --> 00:02:33,830
which means rival of Ares a prominent

32
00:02:31,069 --> 00:02:37,969
and lovely globular cluster in small

33
00:02:33,830 --> 00:02:41,390
telescopes m4 lies just to the right of

34
00:02:37,969 --> 00:02:44,209
Antares in Scorpius globular clusters

35
00:02:41,389 --> 00:02:46,969
are collections of hundreds of thousands

36
00:02:44,209 --> 00:02:48,680
of closely packed and gravitationally

37
00:02:46,969 --> 00:02:58,528
bound stars

38
00:02:48,680 --> 00:02:58,528
[Music]

39
00:03:01,009 --> 00:03:05,310
[Music]

40
00:03:08,250 --> 00:03:11,598
[Music]

41
00:03:12,180 --> 00:03:18,000
the center of our galaxy lies in the

42
00:03:15,729 --> 00:03:22,509
direction of the great constellation

43
00:03:18,000 --> 00:03:26,229

Sagittarius the Archer this area of the

44

00:03:22,509 --> 00:03:29,590

sky overflows with stars globular star

45

00:03:26,229 --> 00:03:31,469

clusters and bright and dark nebulae

46

00:03:29,590 --> 00:03:34,659

[Music]

47

00:03:31,469 --> 00:03:37,539

look for Sagittarius by finding the

48

00:03:34,659 --> 00:03:41,919

group of stars commonly known as the

49

00:03:37,539 --> 00:03:45,639

teapot the handle top and spout are easy

50

00:03:41,919 --> 00:03:48,750

to find under dark skies the Milky Way

51

00:03:45,639 --> 00:03:52,329

seems to rise out of the teapots spout

52

00:03:48,750 --> 00:03:56,229

many deep sky targets reside in this

53

00:03:52,330 --> 00:03:58,870

area of the summer night sky a quick

54

00:03:56,229 --> 00:04:02,679

glance with binoculars reveals some

55

00:03:58,870 --> 00:04:05,770

spectacular objects the Lagoon nebulas

56

00:04:02,680 --> 00:04:08,650

gas and dust is brilliantly illuminated

57

00:04:05,770 --> 00:04:10,270

by the energy of the hot young stars

58
00:04:08,650 --> 00:04:17,739
inside it

59
00:04:10,270 --> 00:04:17,739
[Music]

60
00:04:19,000 --> 00:04:24,759
in the three lobed Triffids medula dark

61
00:04:22,329 --> 00:04:26,969
dust lanes appear edged against the

62
00:04:24,759 --> 00:04:36,689
radiance of glowing gas

63
00:04:26,970 --> 00:04:40,540
[Music]

64
00:04:36,689 --> 00:04:43,509
the Omega nebula glows brightly but we

65
00:04:40,540 --> 00:04:47,889
cannot see its hottest stars embedded

66
00:04:43,509 --> 00:04:52,860
deep inside infrared telescopes peering

67
00:04:47,889 --> 00:04:52,860
through the gas and dust can detect them

68
00:04:55,379 --> 00:05:01,000
m22 one of the brightest globular

69
00:04:58,089 --> 00:05:04,179
clusters in the sky is visible to the

70
00:05:01,000 --> 00:05:08,139
naked eye it is a relatively nearby

71
00:05:04,180 --> 00:05:11,040
globular cluster only about 10,000 light

72
00:05:08,139 --> 00:05:26,588
years distant

73
00:05:11,040 --> 00:05:26,588
[Music]

74
00:05:28,228 --> 00:05:36,028
low in the east Venus shines like a

75
00:05:32,019 --> 00:05:36,028
beacon in the pre-dawn sky

76
00:05:38,129 --> 00:05:44,120
[Music]

77
00:05:40,720 --> 00:05:45,380
try to identify its phase with the aid

78
00:05:44,120 --> 00:06:06,069
of a telescope

79
00:05:45,379 --> 00:06:09,500
[Music]

80
00:06:06,069 --> 00:06:12,829
the annual Delta Aquarian meteor shower

81
00:06:09,500 --> 00:06:18,199
peaks on the night of July 27th to the

82
00:06:12,829 --> 00:06:20,649
28th look for meteors radiating from the

83
00:06:18,199 --> 00:06:25,099
southeast after midnight

84
00:06:20,649 --> 00:06:29,659
expect to see 10 to 15 faint yellowish

85
00:06:25,100 --> 00:06:32,200
meteors per hour the night sky is always

86

00:06:29,660 --> 00:06:34,600
a celestial showcase

87
00:06:32,199 --> 00:06:37,159
[Music]

88
00:06:34,600 --> 00:06:39,129
explore its wonders from your own

89
00:06:37,160 --> 00:06:42,240
backyard

90
00:06:39,129 --> 00:06:42,240
[Music]

91
00:06:45,149 --> 00:06:58,719
[Music]

92
00:06:56,660 --> 00:06:58,720
you