

1
00:00:07,429 --> 00:00:15,540
your guide to constellations deep-sky

2
00:00:11,119 --> 00:00:20,509
objects planets and events tonight's sky

3
00:00:15,539 --> 00:00:20,509
highlights of the December sky

4
00:00:35,789 --> 00:00:41,700
two prominent constellations in the

5
00:00:38,490 --> 00:00:46,850
December night sky represent notable

6
00:00:41,700 --> 00:00:46,850
individuals of ancient Greek mythology

7
00:00:48,560 --> 00:00:58,609
the great hero Perseus holds the head of

8
00:00:52,829 --> 00:01:03,839
Medusa the Gorgon located in Perseus is

9
00:00:58,609 --> 00:01:13,079
m34 an open star cluster about 1,400

10
00:01:03,840 --> 00:01:16,259
light-years away from us open star

11
00:01:13,079 --> 00:01:18,959
clusters are groups of young stars that

12
00:01:16,259 --> 00:01:23,790
all formed at the same time within a

13
00:01:18,959 --> 00:01:26,399
large cloud of dust and gas look for it

14
00:01:23,790 --> 00:01:29,420
with the naked eye or with binoculars in

15
00:01:26,400 --> 00:01:29,420
a dark sky

16
00:01:35,870 --> 00:01:37,930
you

17
00:01:41,909 --> 00:01:48,479
Queen Cassiopeia was punished for her

18
00:01:45,149 --> 00:01:58,140
conceit and vanity by being tied to her

19
00:01:48,478 --> 00:02:02,989
throne Cassiopeia m or w shape makes

20
00:01:58,140 --> 00:02:06,420
this constellation easy to identify ADA

21
00:02:02,989 --> 00:02:10,199
Cassiopeia is a wonderful and colorful

22
00:02:06,420 --> 00:02:13,560
double star use binoculars or a small

23
00:02:10,199 --> 00:02:21,479
telescope to discern its gold and blue

24
00:02:13,560 --> 00:02:24,390
hues m103 in Cassiopeia is a fine open

25
00:02:21,479 --> 00:02:28,318
star cluster with a prominent red star

26
00:02:24,389 --> 00:02:38,759
near the center its fan shape is evident

27
00:02:28,318 --> 00:02:42,238
in binoculars lying between Cassiopeia

28
00:02:38,759 --> 00:02:46,048
and Perseus is the lovely double cluster

29

00:02:42,239 --> 00:02:49,590
this pair of open star clusters is easy

30
00:02:46,049 --> 00:02:52,459
to see with binoculars the double

31
00:02:49,590 --> 00:02:55,799
cluster resembles a handful of diamonds

32
00:02:52,459 --> 00:02:58,340
scattered on black velvet with a ruby in

33
00:02:55,799 --> 00:02:58,340
between

34
00:03:14,810 --> 00:03:21,469
after midnight look for Jupiter shining

35
00:03:18,449 --> 00:03:21,469
in the eastern sky

36
00:03:28,340 --> 00:03:34,209
a telescope reveals the planets dark

37
00:03:31,370 --> 00:03:34,209
cloud bands

38
00:03:45,340 --> 00:03:52,890
Mars and Venus rise later in the

39
00:03:48,909 --> 00:03:52,889
pre-dawn hours of December

40
00:03:58,530 --> 00:04:04,650
catch a glimpse of them in a telescope

41
00:04:01,479 --> 00:04:04,649
before sunrise

42
00:04:14,669 --> 00:04:19,529
late in the month Saturn makes an

43
00:04:17,709 --> 00:04:23,488

appearance above the eastern horizon

44

00:04:19,529 --> 00:04:23,488

just before sunrise

45

00:04:28,370 --> 00:04:33,800

spy it's famous rings with the telescope

46

00:04:41,790 --> 00:04:43,879

you

47

00:04:46,168 --> 00:04:53,560

the mid December night sky hosts the

48

00:04:49,899 --> 00:04:56,948

lovely geminids meteor shower the shower

49

00:04:53,560 --> 00:05:02,889

peaks on the night of December 13th to

50

00:04:56,949 --> 00:05:07,060

the 14th under a dark sky you could see

51

00:05:02,889 --> 00:05:12,668

as many as 60 multicolored meteors per

52

00:05:07,060 --> 00:05:16,329

hour the night sky is always a celestial

53

00:05:12,668 --> 00:05:18,959

showcase explore its wonders from your

54

00:05:16,329 --> 00:05:18,959

own backyard

55

00:05:34,629 --> 00:05:36,689

you