

1
00:00:07,370 --> 00:00:15,750
your guide to constellations deep-sky

2
00:00:11,089 --> 00:00:20,660
objects planets and events tonight's sky

3
00:00:15,750 --> 00:00:20,660
highlights of the December sky

4
00:00:39,460 --> 00:00:45,280
after the Sun sets on these short

5
00:00:42,310 --> 00:00:47,920
December days you can find Venus and

6
00:00:45,280 --> 00:00:54,310
Mars hanging out in the darkening

7
00:00:47,920 --> 00:00:56,469
southwestern sky the two planets will

8
00:00:54,310 --> 00:00:58,770
move closer together as the month

9
00:00:56,469 --> 00:00:58,769
progresses

10
00:01:12,670 --> 00:01:18,099
two prominent constellations in the

11
00:01:15,219 --> 00:01:22,590
December night sky represent notable

12
00:01:18,099 --> 00:01:22,589
individuals of ancient Greek mythology

13
00:01:25,319 --> 00:01:34,919
the great hero Perseus holds the head of

14
00:01:29,228 --> 00:01:39,759
Medusa the Gorgon located in Perseus is

15
00:01:34,920 --> 00:01:49,539
m34 an open star cluster about 1,400

16
00:01:39,759 --> 00:01:52,450
light-years away from us open star

17
00:01:49,539 --> 00:01:55,000
clusters are groups of young stars that

18
00:01:52,450 --> 00:01:59,890
all formed at the same time within a

19
00:01:55,000 --> 00:02:02,500
large cloud of dust and gas look for it

20
00:01:59,890 --> 00:02:05,340
with the naked eye or with binoculars in

21
00:02:02,500 --> 00:02:05,340
a dark sky

22
00:02:18,408 --> 00:02:25,078
Queen Cassiopeia was punished for her

23
00:02:21,810 --> 00:02:27,468
conceit and vanity by being tied to her

24
00:02:25,079 --> 00:02:27,468
throne

25
00:02:31,199 --> 00:02:39,549
Cassiopeia is M or W shape makes this

26
00:02:34,960 --> 00:02:42,640
constellation easy to identify beta

27
00:02:39,550 --> 00:02:45,790
Cassiopeia is a wonderful and colorful

28
00:02:42,639 --> 00:02:49,179
double star use binoculars or a small

29

00:02:45,789 --> 00:02:59,199
telescope to discern if gold and blue

30
00:02:49,180 --> 00:03:02,020
hues m103 in Cassiopeia is a fine open

31
00:02:59,199 --> 00:03:10,839
star cluster with a prominent red star

32
00:03:02,020 --> 00:03:16,870
near the center its fan shape is evident

33
00:03:10,840 --> 00:03:19,959
in binoculars lying between Cassiopeia

34
00:03:16,870 --> 00:03:23,050
and Perseus is the lovely double cluster

35
00:03:19,959 --> 00:03:27,400
this pair of open star clusters is easy

36
00:03:23,050 --> 00:03:30,219
to see with binoculars the double

37
00:03:27,400 --> 00:03:33,670
cluster resembles a handful of diamonds

38
00:03:30,219 --> 00:03:36,180
scattered on black velvet with a ruby in

39
00:03:33,669 --> 00:03:36,179
between

40
00:03:51,810 --> 00:03:59,009
jupiter rises into the southeastern sky

41
00:03:54,879 --> 00:03:59,009
well before the sun appeared

42
00:04:05,709 --> 00:04:12,199
aim a telescope at the giant planet to

43
00:04:09,169 --> 00:04:14,619

spy its dark cloud bands and a few of

44

00:04:12,199 --> 00:04:14,619

its moons

45

00:04:27,980 --> 00:04:35,090

the mid-december night-sky hosts the

46

00:04:31,100 --> 00:04:38,330

lovely Geminid meteor shower the shower

47

00:04:35,089 --> 00:04:43,939

peaks on the night of December 13th to

48

00:04:38,329 --> 00:04:47,599

the 14th this year however a full moon

49

00:04:43,939 --> 00:04:55,490

interferes making dim meteors hard to

50

00:04:47,600 --> 00:04:56,320

see the night sky is always a celestial

51

00:04:55,490 --> 00:04:58,639

showcase

52

00:04:56,319 --> 00:05:00,819

explore its wonders from your own

53

00:04:58,639 --> 00:05:00,819

backyard

54

00:05:16,389 --> 00:05:18,449

you