1
00:00:05,289 --> 00:00:01,480
[Music]

2
00:00:08,810 --> 00:00:05,299
what's up for January morning meteors

3
00:00:11,660 --> 00:00:08,820
Mars meets its rival and the moon comes

4
00:00:14,180 --> 00:00:11,670
around for another visit with Venus the

5
00:00:16,430 --> 00:00:14,190
early morning of January 4th brings the

6
00:00:18,800 --> 00:00:16,440
peak of the Quadrantid meteor shower

7
00:00:20,390 --> 00:00:18,810
this annual shower can be one of the

8
00:00:22,040 --> 00:00:20,400
better ones of the year although it has

9
00:00:24,590 --> 00:00:22,050
a much shorter peak than most other

10
00:00:27,230 --> 00:00:24,600
meteor showers just a few hours versus a

11
00:00:29,029 --> 00:00:27,240
day or two the visibility of meteor

12
00:00:30,769 --> 00:00:29,039
showers from year to year has a lot to

13
00:00:33,170 --> 00:00:30,779

do with whether there's a bright moon in

14
00:00:35,090 --> 00:00:33,180
the sky at the time or not this year the

15
00:00:37,010 --> 00:00:35,100
moon will set soon after midnight local

16
00:00:38,869 --> 00:00:37,020
time meaning viewing conditions should

17
00:00:41,420 --> 00:00:38,879
be good provided your local skies are

18
00:00:43,220 --> 00:00:41,430
not obscured by winter weather face

19
00:00:45,319 --> 00:00:43,230
toward the Northeast between midnight

20
00:00:47,540 --> 00:00:45,329
and Dawn to see as many as two dozen

21
00:00:49,340 --> 00:00:47,550
meteors per hour under dark skies and

22
00:00:52,400 --> 00:00:49,350
the farther away you get from city

23
00:00:54,260 --> 00:00:52,410
lights the darker it'll be so bundle up

24
00:00:56,630 --> 00:00:54,270
and be sure to give your eyes a little

25
00:00:58,310 --> 00:00:56,640
time to adapt to the dark including a

26
00:01:00,790 --> 00:00:58,320
break from your mobile device in order

27
00:01:04,399 --> 00:01:00,800
to see the maximum number of meteors

28
00:01:07,190 --> 00:01:04,409
Mars rises before dawn during January

29
00:01:11,330 --> 00:01:07,200
with its rival the red giant star

30
00:01:13,820 --> 00:01:11,340
Antares the name of this star translates

31
00:01:15,499 --> 00:01:13,830
as rival to Mars in ancient Greek and

32
00:01:17,450 --> 00:01:15,509
the star rivals of the red planet's

33
00:01:21,109 --> 00:01:17,460
appearance to the unaided eye both in

34
00:01:24,590 --> 00:01:21,119
color and brightness in reality Antares

35
00:01:27,140 --> 00:01:24,600
is way way bigger than Mars in fact it's

36
00:01:29,179 --> 00:01:27,150
much bigger than the orbit of Mars it's

37
00:01:32,090 --> 00:01:29,189
about ten thousand times brighter than

38
00:01:34,700 --> 00:01:32,100

our Sun but it's also sixteen million

39
00:01:36,830 --> 00:01:34,710
times farther away from us than Mars is

40
00:01:39,140 --> 00:01:36,840
so like all stars even though it's

41
00:01:41,090 --> 00:01:39,150
really bright it appears as just a tiny

42
00:01:44,210 --> 00:01:41,100
flickering point of light in the night

43
00:01:46,219 --> 00:01:44,220
sky you can view the pair low in the

44
00:01:48,260 --> 00:01:46,229
southeast about an hour before sunrise

45
00:01:51,380 --> 00:01:48,270
each morning near the beginning of

46
00:01:53,539 --> 00:01:51,390
January Mars appears above Antares as

47
00:01:55,749 --> 00:01:53,549
the day's progress the planet moves

48
00:01:58,550 --> 00:01:55,759
lower and to the east of dent aries

49
00:02:01,190 --> 00:01:58,560
they're joined by a slim lunar Crescent

50
00:02:03,300 --> 00:02:01,200
on January 20th for what should be a

51
00:02:05,910 --> 00:02:03,310
very pretty grouping

52
00:02:08,160 --> 00:02:05,920
and as we start 2020 NASA is looking

53
00:02:10,770 --> 00:02:08,170
forward to the launch of the Mars 2020

54
00:02:13,260 --> 00:02:10,780
Rover mission it's slated to blast off

55
00:02:15,300 --> 00:02:13,270
in July to seek signs of ancient life in

56
00:02:18,720 --> 00:02:15,310
a fossilized River Delta on the red

57
00:02:21,059 --> 00:02:18,730
planet closing out the month the

58
00:02:22,860 --> 00:02:21,069
crescent moon and Venus once again make

59
00:02:24,930 --> 00:02:22,870
for a gorgeous sight at the end of

60
00:02:27,390 --> 00:02:24,940
January on the same day of the month as

61
00:02:29,880 --> 00:02:27,400
they did back in December On January

62
00:02:32,100 --> 00:02:29,890
28th you'll find the pair hovering in

63
00:02:34,770 --> 00:02:32,110

the southwest in the hour or so after

64
00:02:38,039 --> 00:02:34,780
sunset that evening so be sure to go out

65
00:02:42,900 --> 00:02:38,049
and take a look here are the phases of

66
00:02:44,490 --> 00:02:42,910
the Moon for January you can catch up on

67
00:02:48,630 --> 00:02:44,500
all of NASA's current and future

68
00:02:50,220 --> 00:02:48,640
missions at nasa.gov I'm Preston dykes

69
00:02:53,870 --> 00:02:50,230
from NASA's Jet Propulsion Laboratory

70
00:02:58,870 --> 00:02:53,880
and that's what's up for this month