



1
00:00:04,920 --> 00:00:01,669

[Music]

2
00:00:08,459 --> 00:00:04,930

what's up for April the Seven Sisters

3
00:00:11,640 --> 00:00:08,469

meet the evening star Mars continues its

4
00:00:14,490 --> 00:00:11,650

getaway and unpacking the moon illusion

5
00:00:14,999 --> 00:00:14,500

at the beginning of April look to the

6
00:00:16,230 --> 00:00:15,009

west

7
00:00:18,600 --> 00:00:16,240

each evening in the couple of hours

8
00:00:21,660 --> 00:00:18,610

after sunset as Venus visits the

9
00:00:23,730 --> 00:00:21,670

Pleiades watch each night from the 1st

10
00:00:25,800 --> 00:00:23,740

through the 5th as Venus climbs higher

11
00:00:28,740 --> 00:00:25,810

in the sky evening crossing through the

12
00:00:31,170 --> 00:00:28,750

Pleiades star cluster the real highlight

13
00:00:33,510 --> 00:00:31,180

is on April 3rd when Venus will appear

14

00:00:34,860 --> 00:00:33,520

inside the Pleiades meaning it'll be in

15

00:00:36,750 --> 00:00:34,870

the same field of view through

16

00:00:39,330 --> 00:00:36,760

binoculars or a telescope with a wide

17

00:00:40,950 --> 00:00:39,340

field of view this should be spectacular

18

00:00:44,400 --> 00:00:40,960

if the weather's clear where you are

19

00:00:47,550 --> 00:00:44,410

so here's wishing you clear skies the

20

00:00:50,069 --> 00:00:47,560

planetary quartet of Jupiter Saturn Mars

21

00:00:52,650 --> 00:00:50,079

and the moon once again make a showing

22

00:00:54,600 --> 00:00:52,660

in mid April since giving Jupiter and

23

00:00:56,430 --> 00:00:54,610

Saturn the slip last month the red

24

00:00:58,610 --> 00:00:56,440

planet continues its getaway from the

25

00:01:01,290 --> 00:00:58,620

gas giants in this month's morning skies

26

00:01:03,600 --> 00:01:01,300

Mars begins the month just beneath

27

00:01:06,330 --> 00:01:03,610

Saturn but by the middle of April it's

28

00:01:10,560 --> 00:01:06,340

moved a decent distance away the moon

29

00:01:12,000 --> 00:01:10,570

swings by on the 14th 15th and 16th the

30

00:01:13,740 --> 00:01:12,010

three planets won't appear close

31

00:01:15,719 --> 00:01:13,750

together in the sky again for a couple

32

00:01:18,030 --> 00:01:15,729

of years so catch them now if you can

33

00:01:19,950 --> 00:01:18,040

and earth is currently catching up to

34

00:01:21,660 --> 00:01:19,960

Mars in its orbit as the two planets

35

00:01:24,090 --> 00:01:21,670

come into the right position for the

36

00:01:28,200 --> 00:01:24,100

launch of NASA's Mars 2020 mission and

37

00:01:29,640 --> 00:01:28,210

its newly named perseverance Rover most

38

00:01:31,440 --> 00:01:29,650

of us have had the experience of

39

00:01:33,899 --> 00:01:31,450

watching the full moon rise in the

40

00:01:36,899 --> 00:01:33,909

distance maybe over a city or a distant

41

00:01:38,190 --> 00:01:36,909

Mountain and it looks huge in fact it's

42

00:01:41,060 --> 00:01:38,200

got the very appropriate if

43

00:01:43,230 --> 00:01:41,070

unimaginative name of the moon illusion

44

00:01:45,270 --> 00:01:43,240

although this illusion has been known

45

00:01:47,340 --> 00:01:45,280

for thousands of years there still isn't

46

00:01:49,800 --> 00:01:47,350

a truly satisfying scientific

47

00:01:51,420 --> 00:01:49,810

explanation for why we see it now the

48

00:01:53,700 --> 00:01:51,430

moon is essentially the same width in

49

00:01:56,310 --> 00:01:53,710

the sky on any specific night whether

50

00:01:57,899 --> 00:01:56,320

it's rising setting or overhead there

51
00:02:00,330 --> 00:01:57,909
are a variety of experiments you can do

52
00:02:02,460 --> 00:02:00,340
to prove this for yourself photographers

53
00:02:04,020 --> 00:02:02,470
can simulate the moon illusion by taking

54
00:02:06,270 --> 00:02:04,030
shots of the moon low on the horizon

55
00:02:08,609 --> 00:02:06,280
using a long lens with buildings

56
00:02:10,859 --> 00:02:08,619
mountains or trees in the frame it's

57
00:02:12,809 --> 00:02:10,869
known not to be an optical effect of our

58
00:02:13,500 --> 00:02:12,819
atmosphere though the atmosphere does

59
00:02:15,000 --> 00:02:13,510
add to the

60
00:02:17,130 --> 00:02:15,010
yellowish color of the rising and

61
00:02:19,890 --> 00:02:17,140
setting moon much as it makes the rising

62
00:02:21,929 --> 00:02:19,900
and Setting Sun look redder even airline

63
00:02:23,789 --> 00:02:21,939

pilots and astronauts have reported

64

00:02:25,649 --> 00:02:23,799

seeing the moon illusion in the absence

65

00:02:27,960 --> 00:02:25,659

of trees buildings and mountains to help

66

00:02:29,399 --> 00:02:27,970

provide a sense of scale researchers

67

00:02:31,110 --> 00:02:29,409

have shown that it's definitely

68

00:02:32,729 --> 00:02:31,120

something going on in our brains that

69

00:02:34,649 --> 00:02:32,739

has to do with the way we perceive the

70

00:02:37,470 --> 00:02:34,659

size of distant objects near the horizon

71

00:02:39,660 --> 00:02:37,480

versus high in the sky but the precise

72

00:02:42,030 --> 00:02:39,670

explanation for why it happens is still

73

00:02:43,860 --> 00:02:42,040

elusive so until someone puzzles out

74

00:02:45,690 --> 00:02:43,870

exactly what our brains are up to it's

75

00:02:48,330 --> 00:02:45,700

probably best just to enjoy the moon

76

00:02:49,140 --> 00:02:48,340

illusion and the moody atmospheric and

77

00:02:52,860 --> 00:02:49,150

sometimes downright

78

00:02:57,990 --> 00:02:52,870

haunting vistas it creates here are the

79

00:02:59,940 --> 00:02:58,000

phases of the Moon for April you can

80

00:03:03,030 --> 00:02:59,950

catch up on all of NASA's current and

81

00:03:04,140 --> 00:03:03,040

future missions at nasa.gov I'm Preston

82

00:03:06,360 --> 00:03:04,150

dykes from NASA's Jet Propulsion