1
00:00:06,769 --> 00:00:01,910
[Music]

2
00:00:09,230 --> 00:00:06,779
what's up for April Mercury Rising this

3
00:00:11,030 --> 00:00:09,240
month's moon and Planet pairings and the

4
00:00:13,129 --> 00:00:11,040
Lyrid meteor shower

5
00:00:15,770 --> 00:00:13,139
first up on April 11th the planet

6
00:00:17,450 --> 00:00:15,780
Mercury smallest and fastest moving of

7
00:00:19,550 --> 00:00:17,460
the planets in our solar system will

8
00:00:21,290 --> 00:00:19,560
reach its highest and most visible in

9
00:00:23,450 --> 00:00:21,300
the evening sky for the year

10
00:00:25,730 --> 00:00:23,460
Mercury is only visible in the sky for a

11
00:00:27,410 --> 00:00:25,740
few weeks every three to four months the

12
00:00:29,330 --> 00:00:27,420
rest of the time it's too close to the

13
00:00:32,030 --> 00:00:29,340

Sun in the sky and is lost in its bright

14
00:00:34,010 --> 00:00:32,040
glare and since the planet orbits so

15
00:00:36,170 --> 00:00:34,020
close to the sun it's always near the

16
00:00:37,970 --> 00:00:36,180
Sun in the sky appearing low near the

17
00:00:40,069 --> 00:00:37,980
Horizon for no more than an hour or two

18
00:00:41,150 --> 00:00:40,079
either following sunset or preceding

19
00:00:43,310 --> 00:00:41,160
sunrise

20
00:00:45,650 --> 00:00:43,320
some of Mercury's fleeting appearances

21
00:00:47,690 --> 00:00:45,660
known as apparitions are better for

22
00:00:49,310 --> 00:00:47,700
observing than others for a combination

23
00:00:51,049 --> 00:00:49,320
of reasons that have to do with how our

24
00:00:52,970 --> 00:00:51,059
view of the solar system changes with

25
00:00:54,889 --> 00:00:52,980
the seasons what hemisphere you're in

26
00:00:56,569 --> 00:00:54,899
and what phase the planet happens to be

27
00:00:58,189 --> 00:00:56,579
showing us at the time

28
00:01:00,590 --> 00:00:58,199
for this Apparition in the northern

29
00:01:02,569 --> 00:01:00,600
hemisphere the best viewing is April 3rd

30
00:01:05,210 --> 00:01:02,579
through the 11th as the planet appears

31
00:01:07,010 --> 00:01:05,220
higher in the sky each evening it

32
00:01:09,530 --> 00:01:07,020
quickly fades in brightness after that

33
00:01:12,649 --> 00:01:09,540
as the phase it shows us becomes an

34
00:01:15,109 --> 00:01:12,659
increasingly Slimmer Crescent also on

35
00:01:17,330 --> 00:01:15,119
April 11th you'll find the planet Venus

36
00:01:19,490 --> 00:01:17,340
right next to the Pleiades star cluster

37
00:01:20,810 --> 00:01:19,500
the two will be close enough to appear

38
00:01:22,070 --> 00:01:20,820

in the same field of view through

39
00:01:24,289 --> 00:01:22,080
binoculars

40
00:01:26,870 --> 00:01:24,299
this pairing makes for a fun reminder

41
00:01:28,969 --> 00:01:26,880
that the night sky is kind of like a

42
00:01:31,310 --> 00:01:28,979
time machine the farther out in space

43
00:01:32,450 --> 00:01:31,320
you look the farther back in time you're

44
00:01:37,069 --> 00:01:32,460
seeing

45
00:01:39,289 --> 00:01:37,079
left Venus about nine minutes earlier

46
00:01:44,210 --> 00:01:39,299
whereas the light of the Pleiades left

47
00:01:48,050 --> 00:01:46,490
the latter half of April includes some

48
00:01:49,789 --> 00:01:48,060
awesome close approaches of the Moon

49
00:01:50,450 --> 00:01:49,799
with three of the bright planets in the

50
00:01:53,090 --> 00:01:50,460
sky

51
00:01:55,730 --> 00:01:53,100
on April 15th and 16th you'll find the

52
00:01:57,770 --> 00:01:55,740
Crescent Moon Rising with Saturn find

53
00:01:59,870 --> 00:01:57,780
them low in the Southeastern sky in the

54
00:02:02,510 --> 00:01:59,880
couple of hours before sunrise

55
00:02:04,670 --> 00:02:02,520
then on the evening of the 23rd find the

56
00:02:06,709 --> 00:02:04,680
slim Crescent Moon hanging just five

57
00:02:10,430 --> 00:02:06,719
degrees above Venus in the West after

58
00:02:12,710 --> 00:02:10,440
sunset and on April 25th the moon Finds

59
00:02:14,089 --> 00:02:12,720
Its way over to Mars high up in the West

60
00:02:16,910 --> 00:02:14,099
after dark

61
00:02:19,070 --> 00:02:16,920
at this time around the 26th and 27th

62
00:02:21,650 --> 00:02:19,080
the moon will be at its first quarter

63
00:02:24,050 --> 00:02:21,660

phase meaning it appears as a half moon

64
00:02:25,910 --> 00:02:24,060
high in the sky after dark

65
00:02:27,830 --> 00:02:25,920
the first quarter moon is a great time

66
00:02:29,809 --> 00:02:27,840
to pull out your binoculars or telescope

67
00:02:31,550 --> 00:02:29,819
if you have them as it's an ideal time

68
00:02:33,530 --> 00:02:31,560
to observe the moon's craters and

69
00:02:35,510 --> 00:02:33,540
mountains along the Terminator the day

70
00:02:37,670 --> 00:02:35,520
night boundary with ease

71
00:02:39,229 --> 00:02:37,680
lots of astronomy clubs planned public

72
00:02:41,030 --> 00:02:39,239
observing nights around this time as

73
00:02:44,750 --> 00:02:41,040
well and you can look for events in your

74
00:02:47,330 --> 00:02:44,760
area with NASA's night sky Network

75
00:02:49,790 --> 00:02:47,340
April brings the annual Lyrid meteor

76
00:02:51,650 --> 00:02:49,800
shower it's a medium strength shower

77
00:02:54,050 --> 00:02:51,660
that can produce up to 20 meteors per

78
00:02:56,449 --> 00:02:54,060
hour at its peak under ideal conditions

79
00:02:59,150 --> 00:02:56,459
the Lyrids Peak this year in the

80
00:03:00,830 --> 00:02:59,160
pre-dawn hours of April 23rd though you

81
00:03:02,570 --> 00:03:00,840
should see a few shooting stars on the

82
00:03:05,030 --> 00:03:02,580
morning before and after the peak as

83
00:03:07,070 --> 00:03:05,040
well fortunately the peak Falls just a

84
00:03:09,050 --> 00:03:07,080
couple of days after the new moon that

85
00:03:11,030 --> 00:03:09,060
means the moon won't interfere with this

86
00:03:13,250 --> 00:03:11,040
year's lyrics overwhelming fainter

87
00:03:14,930 --> 00:03:13,260
meteors in the glow of moonlight

88
00:03:17,149 --> 00:03:14,940

the Lyrids are named for the

89
00:03:18,830 --> 00:03:17,159
constellation Lyra which is near the

90
00:03:22,070 --> 00:03:18,840
point in the sky where their meteors

91
00:03:24,170 --> 00:03:22,080
appear to come from called the radiant

92
00:03:26,210 --> 00:03:24,180
they're one of the oldest known meteor

93
00:03:29,509 --> 00:03:26,220
showers with the first recorded sighting

94
00:03:31,790 --> 00:03:29,519
in China some 2700 years ago they

95
00:03:35,089 --> 00:03:31,800
originate as dust particles from a comet

96
00:03:37,729 --> 00:03:35,099
during its 400 year orbit around the sun

97
00:03:40,190 --> 00:03:37,739
the lyrics tend to produce fast-moving

98
00:03:41,690 --> 00:03:40,200
meteors that lack persistent Trails but

99
00:03:44,210 --> 00:03:41,700
they can also produce the occasional

100
00:03:46,610 --> 00:03:44,220
bright meteor called a fireball

101
00:03:48,890 --> 00:03:46,620
to observe them find a comfortable spot

102
00:03:51,830 --> 00:03:48,900
away from Bright City Lights get

103
00:03:53,990 --> 00:03:51,840
horizontal and look straight up you'll

104
00:03:56,149 --> 00:03:54,000
see the most meteors by looking slightly

105
00:03:58,729 --> 00:03:56,159
away from the origin point which is near

106
00:04:00,710 --> 00:03:58,739
the bright star Vega so here's wishing

107
00:04:02,809 --> 00:04:00,720
you clear skies to catch a few Shooting

108
00:04:04,789 --> 00:04:02,819
Stars One April morning when the

109
00:04:09,350 --> 00:04:04,799
forecast calls for light showers of

110
00:04:11,330 --> 00:04:09,360
comet dust with a Chance of fireballs

111
00:04:13,070 --> 00:04:11,340
here are the phases of the moon for

112
00:04:15,170 --> 00:04:13,080
April

113
00:04:17,270 --> 00:04:15,180

stay up to date with all of NASA's

114
00:04:20,689 --> 00:04:17,280
missions to explore the solar system and

115
00:04:22,550 --> 00:04:20,699
Beyond at nasa.gov I'm Preston Dykes

116
00:04:26,090 --> 00:04:22,560
from NASA's jet propulsion laboratory