1
00:00:04,390 --> 00:00:02,470
[Music]

2
00:00:06,150 --> 00:00:04,400
what's up for july

3
00:00:08,950 --> 00:00:06,160
the planets at dawn

4
00:00:11,589 --> 00:00:08,960
the dog days of summer and the teapot

5
00:00:14,549 --> 00:00:11,599
points to the center of the milky way

6
00:00:17,109 --> 00:00:14,559
the planets mars jupiter and saturn

7
00:00:19,269 --> 00:00:17,119
dominate morning skies in july

8
00:00:21,029 --> 00:00:19,279
venus is there as well but appears low

9
00:00:22,950 --> 00:00:21,039
in the east so you'll need a clear view

10
00:00:24,870 --> 00:00:22,960
toward the horizon to see it

11
00:00:27,349 --> 00:00:24,880
the planets are spread out across the

12
00:00:30,550 --> 00:00:27,359
morning sky accompanied by bright stars

13
00:00:33,190 --> 00:00:30,560

capella aldebaran and fomalhaut on the

14
00:00:35,670 --> 00:00:33,200
20th look for the half full last quarter

15
00:00:37,190 --> 00:00:35,680
moon between mars and jupiter

16
00:00:40,950 --> 00:00:37,200
and the following morning you'll find

17
00:00:43,190 --> 00:00:40,960
the moon sitting right next to mars

18
00:00:45,029 --> 00:00:43,200
july is a time for sweltering hot

19
00:00:46,630 --> 00:00:45,039
weather here in the northern hemisphere

20
00:00:49,590 --> 00:00:46,640
and you may have heard this time of year

21
00:00:51,350 --> 00:00:49,600
referred to as the dog days of summer

22
00:00:53,029 --> 00:00:51,360
well that phrase actually dates back to

23
00:00:55,830 --> 00:00:53,039
ancient times and has to do with the

24
00:00:57,670 --> 00:00:55,840
brightest star in the sky sirius

25
00:01:00,310 --> 00:00:57,680
at the peak of summer the sun lies in

26
00:01:02,389 --> 00:01:00,320
the same part of the sky as sirius which

27
00:01:04,789 --> 00:01:02,399
the ancient greeks and romans associated

28
00:01:07,030 --> 00:01:04,799
with the dog-shaped constellation canis

29
00:01:09,350 --> 00:01:07,040
major just as we do today

30
00:01:12,149 --> 00:01:09,360
sirius is its most prominent star and

31
00:01:15,350 --> 00:01:12,159
it's sometimes called the dongstar in

32
00:01:17,190 --> 00:01:15,360
ancient greek sirius means the scorcher

33
00:01:19,429 --> 00:01:17,200
and both the greeks and romans believed

34
00:01:21,830 --> 00:01:19,439
the blazing bright star's proximity in

35
00:01:24,230 --> 00:01:21,840
the sky added to the sun's heat during

36
00:01:25,350 --> 00:01:24,240
that time of year making it even more

37
00:01:27,270 --> 00:01:25,360
oppressive

38
00:01:28,550 --> 00:01:27,280

so they called this hot time of year the

39
00:01:30,550 --> 00:01:28,560
dog days

40
00:01:32,230 --> 00:01:30,560
of course today we know the only star

41
00:01:34,870 --> 00:01:32,240
close enough to affect our temperatures

42
00:01:36,870 --> 00:01:34,880
on earth is the sun and the heat we

43
00:01:39,030 --> 00:01:36,880
experience in july is the result of the

44
00:01:41,670 --> 00:01:39,040
northern hemisphere being tilted toward

45
00:01:44,550 --> 00:01:41,680
the sun this yields longer days and more

46
00:01:46,230 --> 00:01:44,560
direct sunlight and thus warmer weather

47
00:01:48,630 --> 00:01:46,240
the situation is reversed in the

48
00:01:51,350 --> 00:01:48,640
southern hemisphere where july is right

49
00:01:53,350 --> 00:01:51,360
in the middle of winter

50
00:01:55,510 --> 00:01:53,360
facing southward on july nights after

51
00:01:56,870 --> 00:01:55,520
sunset you'll find a sky teeming with

52
00:01:58,550 --> 00:01:56,880
bright stars

53
00:02:00,230 --> 00:01:58,560
looking in that direction in the evening

54
00:02:02,789 --> 00:02:00,240
this time of year you're facing the

55
00:02:04,310 --> 00:02:02,799
center of our galaxy the milky way there

56
00:02:06,469 --> 00:02:04,320
are quite a number of bright stars in

57
00:02:09,350 --> 00:02:06,479
that part of the sky particularly in the

58
00:02:11,110 --> 00:02:09,360
constellation scorpius and sagittarius

59
00:02:13,350 --> 00:02:11,120
now if you find yourself under dark

60
00:02:14,949 --> 00:02:13,360
skies you'll be able to fully enjoy the

61
00:02:17,350 --> 00:02:14,959
milky way core

62
00:02:19,990 --> 00:02:17,360
densely packed with stars and clouds of

63
00:02:21,670 --> 00:02:20,000

dust and gas it's dazzling this time of

64
00:02:24,070 --> 00:02:21,680
year and it's visible toward the south

65
00:02:25,910 --> 00:02:24,080
as soon as it gets fully dark out but

66
00:02:27,830 --> 00:02:25,920
even if you're under urban skies too

67
00:02:30,150 --> 00:02:27,840
bright to observe the milky way the

68
00:02:32,229 --> 00:02:30,160
group of stars in sagittarius known as

69
00:02:34,070 --> 00:02:32,239
the teapot will help you pinpoint its

70
00:02:36,630 --> 00:02:34,080
location on the sky

71
00:02:39,110 --> 00:02:36,640
the teapot is a well-known asterism or

72
00:02:41,509 --> 00:02:39,120
pattern of stars and like scorpius the

73
00:02:44,070 --> 00:02:41,519
scorpion nearby once you're familiar

74
00:02:45,589 --> 00:02:44,080
with it it's hard not to see a teapot

75
00:02:48,070 --> 00:02:45,599
there in the sky

76
00:02:50,710 --> 00:02:48,080
the galaxy's core lies just right of the

77
00:02:52,790 --> 00:02:50,720
stars in the teapot's spout over the

78
00:02:54,869 --> 00:02:52,800
course of the night it appears to tilt

79
00:02:57,670 --> 00:02:54,879
as though its spout is pouring out a

80
00:03:00,309 --> 00:02:57,680
cosmic cuppa and under dark skies the

81
00:03:02,390 --> 00:03:00,319
milky way appears as a plume of steam

82
00:03:04,070 --> 00:03:02,400
rising from the spout

83
00:03:06,470 --> 00:03:04,080
so here's hoping you get a chance to

84
00:03:08,390 --> 00:03:06,480
enjoy the milky way in july or at least

85
00:03:12,070 --> 00:03:08,400
that you find your way to the galaxy's

86
00:03:15,670 --> 00:03:12,080
core thanks to the teapot

87
00:03:17,509 --> 00:03:15,680
here are the phases of the moon for july

88
00:03:19,430 --> 00:03:17,519

stay up to date with all of nasa's

89
00:03:23,190 --> 00:03:19,440
missions to explore the solar system and

90
00:03:26,869 --> 00:03:24,949
i'm preston dykes from nasa's jet