



Credit: Jerry Meaden

1  
00:00:04,309 --> 00:00:02,550

[Music]

2  
00:00:07,430 --> 00:00:04,319

what's up for august

3  
00:00:08,230 --> 00:00:07,440

prime time for the perseids jupiter and

4  
00:00:10,870 --> 00:00:08,240

saturn at

5  
00:00:11,350 --> 00:00:10,880

opposition and why the third moon of the

6  
00:00:13,830 --> 00:00:11,360

season

7  
00:00:16,230 --> 00:00:13,840

is kind of special august brings the

8  
00:00:17,349 --> 00:00:16,240

best-known meteor shower of the year the

9  
00:00:19,590 --> 00:00:17,359

perseids

10  
00:00:21,830 --> 00:00:19,600

this annual meteor shower happens each

11  
00:00:23,750 --> 00:00:21,840

year as earth crosses the debris trail

12  
00:00:26,150 --> 00:00:23,760

of comet swift tuttle

13  
00:00:27,509 --> 00:00:26,160

most of these meteors are grains of dust

14

00:00:29,830 --> 00:00:27,519

up to the size of a pea

15

00:00:32,470 --> 00:00:29,840

and they create fabulous shooting stars

16

00:00:33,990 --> 00:00:32,480

as they burn up in earth's atmosphere

17

00:00:35,910 --> 00:00:34,000

although perseids can be seen from

18

00:00:37,990 --> 00:00:35,920

mid-july through late august the most

19

00:00:39,750 --> 00:00:38,000

likely time to see any meteors is a

20

00:00:40,950 --> 00:00:39,760

couple of days on either side of the

21

00:00:44,630 --> 00:00:40,960

peak

22

00:00:46,069 --> 00:00:44,640

august 11th and into the pre-dawn hours

23

00:00:47,590 --> 00:00:46,079

of august 12th

24

00:00:50,470 --> 00:00:47,600

think of that as prime time for the

25

00:00:52,389 --> 00:00:50,480

perseids under really dark skies you

26  
00:00:54,310 --> 00:00:52,399  
could see almost one per minute near the

27  
00:00:56,150 --> 00:00:54,320  
time of maximum activity

28  
00:00:57,750 --> 00:00:56,160  
this year's peak night for the perseids

29  
00:00:59,510 --> 00:00:57,760  
benefits from a moon that sets

30  
00:01:01,430 --> 00:00:59,520  
early in the evening so it won't

31  
00:01:03,270 --> 00:01:01,440  
interfere with the faint meteors

32  
00:01:05,270 --> 00:01:03,280  
but before it sets that evening be sure

33  
00:01:07,270 --> 00:01:05,280  
to check out that gorgeous crescent moon

34  
00:01:08,630 --> 00:01:07,280  
in the west after sunset with brilliant

35  
00:01:10,789 --> 00:01:08,640  
planet venus

36  
00:01:11,990 --> 00:01:10,799  
to enjoy the perseid meteor shower just

37  
00:01:14,870 --> 00:01:12,000  
find a safe dark

38  
00:01:16,630 --> 00:01:14,880

location away from bright city lights

39

00:01:18,230 --> 00:01:16,640

lie down or recline with your feet

40

00:01:20,789 --> 00:01:18,240

facing roughly toward the north

41

00:01:22,390 --> 00:01:20,799

and look up the meteors appear to

42

00:01:24,149 --> 00:01:22,400

radiate from around the constellation

43

00:01:26,310 --> 00:01:24,159

perseus but they can streak across the

44

00:01:28,310 --> 00:01:26,320

sky anywhere above you

45

00:01:30,230 --> 00:01:28,320

nasa also has a way for you to catch

46

00:01:32,390 --> 00:01:30,240

some perseids online

47

00:01:34,630 --> 00:01:32,400

nasa's meteor watch team plans a live

48

00:01:36,069 --> 00:01:34,640

stream overnight on august 11th

49

00:01:38,069 --> 00:01:36,079

visit the link on screen for more

50

00:01:39,749 --> 00:01:38,079

details

51  
00:01:42,389 --> 00:01:39,759  
august is perhaps the best time this

52  
00:01:44,230 --> 00:01:42,399  
year to enjoy viewing jupiter and saturn

53  
00:01:46,710 --> 00:01:44,240  
as both planets reach opposition this

54  
00:01:48,710 --> 00:01:46,720  
month opposition is the term for when a

55  
00:01:49,590 --> 00:01:48,720  
planet is on the same side of the solar

56  
00:01:51,910 --> 00:01:49,600  
system as earth

57  
00:01:54,069 --> 00:01:51,920  
and directly opposite from the sun it

58  
00:01:54,789 --> 00:01:54,079  
happens each year as earth loops around

59  
00:01:57,109 --> 00:01:54,799  
in its orbit

60  
00:01:58,550 --> 00:01:57,119  
passing by the much slower moving gas

61  
00:02:00,230 --> 00:01:58,560  
giant planets

62  
00:02:02,469 --> 00:02:00,240  
around this time the planet is visible

63  
00:02:04,950 --> 00:02:02,479

from sunset to sunrise and reaches its

64

00:02:06,950 --> 00:02:04,960

highest point in the sky around midnight

65

00:02:08,790 --> 00:02:06,960

opposition is also near the time when

66

00:02:10,229 --> 00:02:08,800

earth is closest to the planet so this

67

00:02:11,830 --> 00:02:10,239

is when the planet tends to look its

68

00:02:14,229 --> 00:02:11,840

biggest and brightest

69

00:02:14,869 --> 00:02:14,239

now opposition does technically have a

70

00:02:17,110 --> 00:02:14,879

precise

71

00:02:17,990 --> 00:02:17,120

moment when the sun earth and the planet

72

00:02:19,350 --> 00:02:18,000

line up

73

00:02:21,510 --> 00:02:19,360

but in practice it's better to think of

74

00:02:22,470 --> 00:02:21,520

it as a period of time usually about a

75

00:02:24,390 --> 00:02:22,480

month

76  
00:02:25,830 --> 00:02:24,400  
for saturn opposition takes place this

77  
00:02:28,630 --> 00:02:25,840  
year on august 2nd

78  
00:02:30,790 --> 00:02:28,640  
and for jupiter it's august 19th for the

79  
00:02:31,670 --> 00:02:30,800  
latest close-up views and discoveries

80  
00:02:33,990 --> 00:02:31,680  
from jupiter

81  
00:02:35,990 --> 00:02:34,000  
follow nasa's juno mission with nasa's

82  
00:02:38,309 --> 00:02:36,000  
solar system exploration website and

83  
00:02:40,390 --> 00:02:38,319  
social media

84  
00:02:42,550 --> 00:02:40,400  
as you're enjoying jupiter and saturn

85  
00:02:43,270 --> 00:02:42,560  
during august watch as the increasingly

86  
00:02:45,350 --> 00:02:43,280  
full moon

87  
00:02:48,550 --> 00:02:45,360  
slides beneath the pair of planets over

88  
00:02:51,030 --> 00:02:48,560

several days from the 19th to the 22nd

89

00:02:53,509 --> 00:02:51,040

plus the full moon on august 22nd is

90

00:02:55,350 --> 00:02:53,519

what's known as a seasonal blue moon

91

00:02:57,270 --> 00:02:55,360

as it's the third full moon out of four

92

00:02:58,790 --> 00:02:57,280

this season where normally each season

93

00:03:00,229 --> 00:02:58,800

there are only three

94

00:03:01,990 --> 00:03:00,239

this happens every two and a half to

95

00:03:05,589 --> 00:03:02,000

three years or as they say

96

00:03:08,229 --> 00:03:05,599

once in a blue moon here are the phases

97

00:03:10,070 --> 00:03:08,239

of the moon for august

98

00:03:12,229 --> 00:03:10,080

you can catch up on all of nasa's

99

00:03:12,869 --> 00:03:12,239

missions to explore the solar system and

100

00:03:15,589 --> 00:03:12,879

beyond

101

00:03:17,270 --> 00:03:15,599

at nasa.gov i'm preston dykes from