science @ NASA

Jupiter

Venus

Moon

(Not to scale)

1
00:00:10,390 --> 00:00:06,470
the 2012 perseid meteor shower

2
00:00:12,390 --> 00:00:10,400
presented by science at nasa

3
00:00:15,270 --> 00:00:12,400
on the nights of august 11th through

4
00:00:17,269 --> 00:00:15,280
13th the best meteor shower of the year

5
00:00:18,950 --> 00:00:17,279
will fill pre-dawn skies with hundreds

6
00:00:21,670 --> 00:00:18,960
of shooting stars

7
00:00:23,269 --> 00:00:21,680
and that's just for starters

8
00:00:25,269 --> 00:00:23,279
the brightest planets in the solar

9
00:00:27,189 --> 00:00:25,279
system are lining up right in the middle

10
00:00:29,189 --> 00:00:27,199
of the display

11
00:00:31,830 --> 00:00:29,199
the perseid meteor shower peaks on the

12
00:00:33,590 --> 00:00:31,840
nights around august 12 as earth passes

13
00:00:35,430 --> 00:00:33,600

through a stream of debris from comet

14
00:00:37,590 --> 00:00:35,440
swift tuttle

15
00:00:39,750 --> 00:00:37,600
we expect to see meteor rates as high as

16
00:00:42,470 --> 00:00:39,760
a hundred per hour says bill cook of

17
00:00:45,990 --> 00:00:42,480
nasa's meteoroid environment office

18
00:00:48,470 --> 00:00:46,000
the perseids always put on a good show

19
00:00:49,910 --> 00:00:48,480
perseids can be seen any time after 10

20
00:00:51,830 --> 00:00:49,920
to 11 pm

21
00:00:55,189 --> 00:00:51,840
the best time to look however is during

22
00:00:56,869 --> 00:00:55,199
the dark hours immediately before dawn

23
00:00:59,349 --> 00:00:56,879
also advises cook

24
00:01:01,270 --> 00:00:59,359
avoid city lights if possible

25
00:01:02,869 --> 00:01:01,280
faint meteors are easily lost in the

26
00:01:04,549 --> 00:01:02,879
urban glare

27
00:01:06,390 --> 00:01:04,559
a visit to the countryside will

28
00:01:08,469 --> 00:01:06,400
typically triple the number of meteors

29
00:01:10,550 --> 00:01:08,479
you see

30
00:01:12,630 --> 00:01:10,560
this year's display is extra special

31
00:01:15,749 --> 00:01:12,640
because of the planets

32
00:01:17,590 --> 00:01:15,759
jupiter venus and the crescent moon are

33
00:01:20,310 --> 00:01:17,600
gathering together just as the perseid

34
00:01:22,310 --> 00:01:20,320
meteor shower reaches its peak

35
00:01:24,469 --> 00:01:22,320
the alignment occurs in the eastern sky

36
00:01:27,510 --> 00:01:24,479
before sunrise on the three mornings of

37
00:01:30,870 --> 00:01:27,520
highest meteor activity

38
00:01:33,270 --> 00:01:30,880

on august 11th a 33 crescent moon will

39
00:01:35,190 --> 00:01:33,280
glide by jupiter temporarily forming a

40
00:01:36,469 --> 00:01:35,200
bright pair directly above brilliant

41
00:01:38,550 --> 00:01:36,479
venus

42
00:01:40,710 --> 00:01:38,560
red giant star aldebaran will be there

43
00:01:42,310 --> 00:01:40,720
too adding a splash of color to the

44
00:01:45,510 --> 00:01:42,320
gathering

45
00:01:47,429 --> 00:01:45,520
on august 12th the narrowing 24 crescent

46
00:01:48,789 --> 00:01:47,439
moon will drop down between jupiter and

47
00:01:51,030 --> 00:01:48,799
venus

48
00:01:52,389 --> 00:01:51,040
together they make a bright three-point

49
00:01:55,830 --> 00:01:52,399
line in the sky

50
00:01:58,230 --> 00:01:55,840
frequently bisected by shooting stars

51
00:01:59,510 --> 00:01:58,240
on august 13th with the shower just

52
00:02:02,469 --> 00:01:59,520
beginning to wane

53
00:02:05,429 --> 00:02:02,479
the planets put on their best show yet

54
00:02:07,510 --> 00:02:05,439
the 17 crescent moon will pass less than

55
00:02:09,990 --> 00:02:07,520
three degrees from venus as jupiter

56
00:02:11,910 --> 00:02:10,000
hovers overhead

57
00:02:13,510 --> 00:02:11,920
skywatchers say there's nothing prettier

58
00:02:16,309 --> 00:02:13,520
than a close encounter between the

59
00:02:18,470 --> 00:02:16,319
slender crescent moon and venus

60
00:02:19,270 --> 00:02:18,480
nothing that is except for the crescent

61
00:02:20,229 --> 00:02:19,280
moon

62
00:02:23,110 --> 00:02:20,239
venus

63
00:02:24,790 --> 00:02:23,120

and a flurry of perseids

64
00:02:26,710 --> 00:02:24,800
it's only natural while you're watching

65
00:02:28,229 --> 00:02:26,720
a meteor shower like the perseids to

66
00:02:29,270 --> 00:02:28,239
count the number of shooting stars you

67
00:02:30,949 --> 00:02:29,280
see

68
00:02:32,229 --> 00:02:30,959
it turns out those numbers in your head

69
00:02:33,990 --> 00:02:32,239
are valuable

70
00:02:35,670 --> 00:02:34,000
nasa wants them

71
00:02:37,509 --> 00:02:35,680
meteor tallies gathered by amateur

72
00:02:39,670 --> 00:02:37,519
skywatchers can be used by nasa's

73
00:02:42,390 --> 00:02:39,680
meteoroid environment office to study

74
00:02:44,390 --> 00:02:42,400
and model the perseid debris stream

75
00:02:46,710 --> 00:02:44,400
we've developed an app for android and

76
00:02:49,190 --> 00:02:46,720
iphones to help amateur skywatchers

77
00:02:51,830 --> 00:02:49,200
count meteors in a scientific way and

78
00:02:53,750 --> 00:02:51,840
report the results to us says cook

79
00:02:55,589 --> 00:02:53,760
it's called the meteor counter and it's

80
00:02:58,790 --> 00:02:55,599
available for free in the android

81
00:03:00,229 --> 00:02:58,800
marketplace and apple's app store

82
00:03:03,190 --> 00:03:00,239
whether you're counting meteors for

83
00:03:05,350 --> 00:03:03,200
science or just watching them for fun

84
00:03:07,670 --> 00:03:05,360
this is a must-see event

85
00:03:09,509 --> 00:03:07,680
enjoy the show

86
00:03:11,030 --> 00:03:09,519
for more news about the night sky and