



1
00:00:06,309 --> 00:00:03,830

[Music]

2
00:00:10,310 --> 00:00:06,319
the super moon of may 2012

3
00:00:12,070 --> 00:00:10,320
presented by science at nasa

4
00:00:13,190 --> 00:00:12,080
the full moon has a reputation for

5
00:00:16,230 --> 00:00:13,200
trouble

6
00:00:17,510 --> 00:00:16,240
it raises high tides it makes dogs howl

7
00:00:19,269 --> 00:00:17,520
it wakes you up in the middle of the

8
00:00:20,790 --> 00:00:19,279
night with beams of moonlight stealing

9
00:00:22,310 --> 00:00:20,800
through the drapes

10
00:00:24,710 --> 00:00:22,320
if a moonbeam wakes you up on the night

11
00:00:26,710 --> 00:00:24,720
of may 5th 2012 you might want to get

12
00:00:29,189 --> 00:00:26,720
out of bed and take a look

13
00:00:31,750 --> 00:00:29,199

this maze full moon is a super moon as

14

00:00:34,870 --> 00:00:31,760

much as 14 percent bigger and 30 percent

15

00:00:36,790 --> 00:00:34,880

brighter than other full moons of 2012

16

00:00:38,549 --> 00:00:36,800

the scientific term for the phenomenon

17

00:00:40,549 --> 00:00:38,559

is perigee moon

18

00:00:42,869 --> 00:00:40,559

full moons vary in size because of the

19

00:00:44,470 --> 00:00:42,879

oval shape of the moon's orbit

20

00:00:47,270 --> 00:00:44,480

the moon follows an elliptical path

21

00:00:49,670 --> 00:00:47,280

around earth with one side perigee about

22

00:00:51,350 --> 00:00:49,680

50 000 kilometers closer than the other

23

00:00:53,110 --> 00:00:51,360

apogee

24

00:00:55,110 --> 00:00:53,120

full moons that occur on the perigee

25

00:00:56,310 --> 00:00:55,120

side of the moon's orbit seem extra big

26

00:00:59,189 --> 00:00:56,320

and bright

27

00:01:01,029 --> 00:00:59,199

such is the case on may 5th at 11 34 pm

28

00:01:02,630 --> 00:01:01,039

eastern daylight time when the moon

29

00:01:04,630 --> 00:01:02,640

reaches perigee

30

00:01:06,469 --> 00:01:04,640

only one minute later the moon will line

31

00:01:07,990 --> 00:01:06,479

up with the earth and the sun to become

32

00:01:10,789 --> 00:01:08,000

gloriously full

33

00:01:13,910 --> 00:01:10,799

the timing is almost perfect

34

00:01:15,990 --> 00:01:13,920

okay the moon is 14 bigger than usual

35

00:01:17,270 --> 00:01:16,000

but can you really tell the difference

36

00:01:19,109 --> 00:01:17,280

it's tricky

37

00:01:21,429 --> 00:01:19,119

there are no rulers floating in the sky

38

00:01:23,030 --> 00:01:21,439

to measure lunar diameters hanging high

39

00:01:25,270 --> 00:01:23,040

overhead with no reference points to

40

00:01:27,590 --> 00:01:25,280

provide a sense of scale one full moon

41

00:01:29,270 --> 00:01:27,600

can seem much like any other

42

00:01:30,789 --> 00:01:29,280

the best time to look is when the moon

43

00:01:32,469 --> 00:01:30,799

is near the horizon

44

00:01:35,109 --> 00:01:32,479

for reasons not fully understood by

45

00:01:36,870 --> 00:01:35,119

astronomers or psychologists low-hanging

46

00:01:39,270 --> 00:01:36,880

moons look unnaturally large when they

47

00:01:40,950 --> 00:01:39,280

beam through trees buildings and other

48

00:01:43,030 --> 00:01:40,960

foreground objects

49

00:01:45,190 --> 00:01:43,040

on may 5th this moon illusion will

50

00:01:46,310 --> 00:01:45,200

amplify a full moon that's extra big to

51
00:01:48,069 --> 00:01:46,320
begin with

52
00:01:51,030 --> 00:01:48,079
the swollen orb rising in the east at

53
00:01:53,109 --> 00:01:51,040
sunset will seem super indeed

54
00:01:54,630 --> 00:01:53,119
folklore holds that all kinds of wacky

55
00:01:55,510 --> 00:01:54,640
things happen under the light of a full

56
00:01:58,230 --> 00:01:55,520
moon

57
00:02:00,149 --> 00:01:58,240
supposedly hospital admissions increase

58
00:02:01,830 --> 00:02:00,159
the crime rate ticks upward and people

59
00:02:03,510 --> 00:02:01,840
behave strangely

60
00:02:05,109 --> 00:02:03,520
the idea that the full moon causes

61
00:02:06,310 --> 00:02:05,119
mental disorders was widespread in the

62
00:02:09,190 --> 00:02:06,320
middle ages

63
00:02:11,670 --> 00:02:09,200

even the word lunacy meaning insanity

64

00:02:13,670 --> 00:02:11,680

comes from the latin word for moon

65

00:02:15,510 --> 00:02:13,680

the majority of modern studies however

66

00:02:17,750 --> 00:02:15,520

show no correlation between the phase of

67

00:02:20,150 --> 00:02:17,760

the moon and the incidence of crime

68

00:02:21,830 --> 00:02:20,160

sickness or human behavior

69

00:02:23,430 --> 00:02:21,840

the truth is the moon is less

70

00:02:24,949 --> 00:02:23,440

influential than folklore would have us

71

00:02:26,550 --> 00:02:24,959

believe

72

00:02:28,390 --> 00:02:26,560

it's true that a perigee full moon

73

00:02:30,470 --> 00:02:28,400

brings with it extra high perigee and

74

00:02:32,949 --> 00:02:30,480

tides but according to the national

75

00:02:34,869 --> 00:02:32,959

oceanic and atmospheric administration

76

00:02:37,350 --> 00:02:34,879

this is nothing to worry about

77

00:02:39,830 --> 00:02:37,360

in most places lunar gravity at perigee

78

00:02:42,150 --> 00:02:39,840

pulls tidewaters only a few centimeters

79

00:02:44,150 --> 00:02:42,160

an inch or so higher than usual

80

00:02:47,030 --> 00:02:44,160

local geography can amplify the effect

81

00:02:49,430 --> 00:02:47,040

to about 15 centimeters six inches

82

00:02:51,350 --> 00:02:49,440

not exactly a great flood

83

00:02:53,670 --> 00:02:51,360

super perigee moons are actually fairly

84

00:02:55,430 --> 00:02:53,680

common the moon becomes full within a

85

00:02:57,910 --> 00:02:55,440

few hours of its closest approach to

86

00:02:59,350 --> 00:02:57,920

earth about once a year on average

87

00:03:02,309 --> 00:02:59,360

the last such occurrence occurred on

88

00:03:04,390 --> 00:03:02,319

march 19 2011 producing a full moon that

89

00:03:05,350 --> 00:03:04,400

was almost 400 kilometers closer than

90

00:03:08,229 --> 00:03:05,360

this one

91

00:03:09,750 --> 00:03:08,239

as usual no trouble was reported

92

00:03:11,350 --> 00:03:09,760

that is unless you count a midnight

93

00:03:13,990 --> 00:03:11,360

awakening as trouble

94

00:03:16,949 --> 00:03:14,000

if so close the drapes on may 5th

95

00:03:18,710 --> 00:03:16,959

otherwise enjoy the super moonlight