1
00:00:08,750 --> 00:00:06,260
what's up for September a total eclipse

2
00:00:10,520 --> 00:00:08,760
of the Harvest Moon hello and welcome

3
00:00:11,990 --> 00:00:10,530
I'm Jane Houston Jones from NASA's Jet

4
00:00:14,919 --> 00:00:12,000
Propulsion Laboratory in Pasadena

5
00:00:17,779 --> 00:00:14,929
California on the evening of September

6
00:00:20,150 --> 00:00:17,789
27th observers at north and south

7
00:00:23,660 --> 00:00:20,160
america will see a long total lunar

8
00:00:25,630 --> 00:00:23,670
eclipse lasting 72 minutes this eclipse

9
00:00:28,910 --> 00:00:25,640
is also visible in Europe and Africa

10
00:00:30,890 --> 00:00:28,920
it's the night of the Harvest Moon the

11
00:00:33,620 --> 00:00:30,900
full moon closest to the September

12
00:00:36,080 --> 00:00:33,630
equinox equinox is derived from the

13
00:00:38,389 --> 00:00:36,090

Latin for equal night so day and night

14
00:00:40,940 --> 00:00:38,399
on the 27th will be roughly of equal

15
00:00:44,260 --> 00:00:40,950
length and the Sun will rise exactly in

16
00:00:46,700 --> 00:00:44,270
the east and said exactly in the West

17
00:00:48,830 --> 00:00:46,710
sometimes a full moon is called the

18
00:00:52,040 --> 00:00:48,840
super moon a term coined just a few

19
00:00:54,260 --> 00:00:52,050
years ago a super moon is a new or full

20
00:00:56,420 --> 00:00:54,270
moon which occurs when the moon is at or

21
00:00:59,299 --> 00:00:56,430
near its closest approach to earth in a

22
00:01:01,220 --> 00:00:59,309
given orbit there are four to six super

23
00:01:03,799 --> 00:01:01,230
moons every year on average so they're

24
00:01:05,509 --> 00:01:03,809
not unusual you won't really be able to

25
00:01:07,940 --> 00:01:05,519
see the difference between this full

26
00:01:09,679 --> 00:01:07,950
moon and any other one with your eyes it

27
00:01:12,890 --> 00:01:09,689
will only be about seven percent larger

28
00:01:14,960 --> 00:01:12,900
the moon is 221 thousand miles from

29
00:01:16,670 --> 00:01:14,970
Earth this month as opposed to the

30
00:01:19,880 --> 00:01:16,680
average distance of two hundred thirty

31
00:01:22,730 --> 00:01:19,890
nine thousand miles the partial lunar

32
00:01:25,340 --> 00:01:22,740
eclipse begins at 9:07 p.m. Eastern

33
00:01:27,440 --> 00:01:25,350
Daylight Time it will last a little more

34
00:01:30,140 --> 00:01:27,450
than an hour and observers can watch as

35
00:01:33,140 --> 00:01:30,150
crater by crater the moon is engulfed in

36
00:01:35,420 --> 00:01:33,150
Earth's shadow westcoast viewers take

37
00:01:38,390 --> 00:01:35,430
note when the Eclipse begins the moon

38
00:01:40,940 --> 00:01:38,400

won't have risen yet for you the total

39
00:01:41,630 --> 00:01:40,950
eclipse begins at 10 11 p.m. Eastern

40
00:01:43,730 --> 00:01:41,640
Daylight Time

41
00:01:47,389 --> 00:01:43,740
and also lasts for more than an hour

42
00:01:49,609 --> 00:01:47,399
ending at 11:23 p.m. the moon's reddish

43
00:01:51,740 --> 00:01:49,619
color you'll see is caused by sunlight

44
00:01:54,950 --> 00:01:51,750
refracting through Earth's atmosphere on

45
00:01:57,260 --> 00:01:54,960
its way to light the moon surface this

46
00:01:59,530 --> 00:01:57,270
month the moon skims Earth's shadow just

47
00:02:02,060 --> 00:01:59,540
as it did in the April lunar eclipse in

48
00:02:04,429 --> 00:02:02,070
April the North Pole appeared a bit

49
00:02:06,289 --> 00:02:04,439
brighter during totality this time the

50
00:02:08,830 --> 00:02:06,299
southern pole will appear a bit brighter

51
00:02:10,930 --> 00:02:08,840
a bit like a partial eclipse

52
00:02:13,690 --> 00:02:10,940
then it's the whole show in reverse

53
00:02:17,220 --> 00:02:13,700
order ending at 12:27 a.m. on the East

54
00:02:19,690 --> 00:02:17,230
Coast and 9:27 p.m. on the west coast

55
00:02:22,270 --> 00:02:19,700
when you're not eclipsed watching catch

56
00:02:25,390 --> 00:02:22,280
mercury Saturn Neptune and Pluto in the

57
00:02:28,990 --> 00:02:25,400
evening sky Uranus and Neptune at

58
00:02:32,140 --> 00:02:29,000
midnight and Venus Mars and Jupiter in

59
00:02:33,670 --> 00:02:32,150
the pre-dawn sky finally you can still

60
00:02:36,280 --> 00:02:33,680
get a great view of our Milky Way

61
00:02:38,860 --> 00:02:36,290
spanning the sky from Southwest to

62
00:02:41,470 --> 00:02:38,870
Northeast if you can escape to a dark

63
00:02:46,120 --> 00:02:41,480

location you can learn about all of

64
00:02:46,720 --> 00:02:46,130
NASA's missions at WWDC gov that's all