
Earth's
moon

1
00:00:07,639 --> 00:00:05,180
what's up for September Jupiter

2
00:00:10,070 --> 00:00:07,649
hello and welcome I'm Jane Houston Jones

3
00:00:13,160 --> 00:00:10,080
at NASA's Jet Propulsion Laboratory in

4
00:00:15,259 --> 00:00:13,170
Pasadena California 2009 is

5
00:00:17,180 --> 00:00:15,269
International Year of astronomy each

6
00:00:19,400 --> 00:00:17,190
month this year we'll be showcasing a

7
00:00:21,710 --> 00:00:19,410
great celestial object and this month

8
00:00:23,929 --> 00:00:21,720
it's the planet Jupiter we'll also be

9
00:00:27,400 --> 00:00:23,939
telling you about Juno a mission to that

10
00:00:29,810 --> 00:00:27,410
giant planet which launches in 2011

11
00:00:31,880 --> 00:00:29,820
Jupiter is the brightest object in the

12
00:00:33,799 --> 00:00:31,890
evening sky this month through a

13
00:00:38,420 --> 00:00:33,809

telescope you can see cloud bands on

14
00:00:40,700 --> 00:00:38,430
Jupiter in July a small comet or icy

15
00:00:43,910 --> 00:00:40,710
body crashed into Jupiter southern polar

16
00:00:45,979 --> 00:00:43,920
area and left a black bruise this new

17
00:00:47,810 --> 00:00:45,989
dark feature was discovered by Anthony

18
00:00:50,990 --> 00:00:47,820
Wesley an amateur astronomer in

19
00:00:52,939 --> 00:00:51,000
Australia the spot captivated Jupiter

20
00:00:55,279 --> 00:00:52,949
observers for over a month while

21
00:00:58,580 --> 00:00:55,289
Jupiter's atmosphere distorted its shape

22
00:01:00,709 --> 00:00:58,590
and it finally dissipated this amazing

23
00:01:02,119 --> 00:01:00,719
feature has been imaged and studied by

24
00:01:06,859 --> 00:01:02,129
amateur and professional astronomers

25
00:01:08,870 --> 00:01:06,869
around the world Jupiter also has four

26
00:01:11,450 --> 00:01:08,880
large satellites three of which are

27
00:01:13,760 --> 00:01:11,460
larger than our own moon these four

28
00:01:16,730 --> 00:01:13,770
moons were discovered by Galileo 400

29
00:01:19,249 --> 00:01:16,740
years ago you can see them yourself with

30
00:01:21,620 --> 00:01:19,259
a small telescope or even binoculars and

31
00:01:24,039 --> 00:01:21,630
watch them move around the planet just

32
00:01:26,529 --> 00:01:24,049
as Galileo did

33
00:01:29,109 --> 00:01:26,539
NASA's spacecraft named for Galileo

34
00:01:33,340 --> 00:01:29,119
ended its exploration of Jupiter six

35
00:01:37,059 --> 00:01:33,350
years ago the next mission to Jupiter

36
00:01:38,410 --> 00:01:37,069
called Juno will launch in 2011 Juno

37
00:01:41,050 --> 00:01:38,420
will be the first solar-powered

38
00:01:42,969 --> 00:01:41,060

spacecraft to visit an outer planet and

39
00:01:45,449 --> 00:01:42,979
the first to have a polar orbit around

40
00:01:48,399 --> 00:01:45,459
an outer planet

41
00:01:51,490 --> 00:01:48,409
this gives Juno a unique view of the

42
00:01:54,809 --> 00:01:51,500
planet including the polar Aurora's the

43
00:01:59,410 --> 00:01:57,609
it also lets the spacecraft get very

44
00:02:03,429 --> 00:01:59,420
close to Jupiter while avoiding the

45
00:02:04,749 --> 00:02:03,439
planets dangerous radiation belts Juno

46
00:02:07,089 --> 00:02:04,759
will look for important clues about

47
00:02:09,490 --> 00:02:07,099
Jupiter's formation by measuring how

48
00:02:11,440 --> 00:02:09,500
much water is there it will also

49
00:02:13,809 --> 00:02:11,450
investigate the planet's internal

50
00:02:16,690 --> 00:02:13,819
structure searching for a central core

51
00:02:19,600 --> 00:02:16,700
and will learn how and where inside the

52
00:02:22,900 --> 00:02:19,610
planet Jupiter's powerful magnetic field

53
00:02:25,000 --> 00:02:22,910
is generated the mission will look

54
00:02:27,460 --> 00:02:25,010
deeper into Jupiter than we've ever been

55
00:02:30,280 --> 00:02:27,470
able to before to see how the planets

56
00:02:32,800 --> 00:02:30,290
visible atmosphere and features like the

57
00:02:37,030 --> 00:02:32,810
famous Great Red Spot are shaped by

58
00:02:39,440 --> 00:02:37,040
currents in Jupiter's deep interior

59
00:02:42,290 --> 00:02:39,450
Jupiter rules the evening skies this

60
00:02:44,590 --> 00:02:42,300
month so go out and take a look and Juno

61
00:02:47,720 --> 00:02:44,600
arrives at this king of the planets in

62
00:02:49,610 --> 00:02:47,730
2016 there's one other object in the

63
00:02:52,850 --> 00:02:49,620

evening sky this month worth mentioning

64
00:02:55,280 --> 00:02:52,860
the asteroid Juno one of the first for

65
00:02:56,630 --> 00:02:55,290
asteroids ever discovered is bright

66
00:02:59,330 --> 00:02:56,640
enough to see with a pair of binoculars

67
00:03:02,150 --> 00:02:59,340
this month all you have to know is where

68
00:03:07,550 --> 00:03:02,160
to look you can learn all about NASA's