1
00:00:07,039 --> 00:00:04,249
what's up for March bright Saturn and a

2
00:00:09,169 --> 00:00:07,049
faint asteroid named leticia hello and

3
00:00:10,790 --> 00:00:09,179
welcome I'm Jane Houston Jones at NASA's

4
00:00:13,999 --> 00:00:10,800
Jet Propulsion Laboratory in Pasadena

5
00:00:16,310 --> 00:00:14,009
California this month Saturn is at

6
00:00:18,170 --> 00:00:16,320
opposition which is when the Sun is on

7
00:00:21,620 --> 00:00:18,180
one side of the earth and Saturn is

8
00:00:23,840 --> 00:00:21,630
directly on the opposite side Saturn is

9
00:00:25,790 --> 00:00:23,850
brightest at opposition and it's also as

10
00:00:28,220 --> 00:00:25,800
close to Earth as it ever gets in its

11
00:00:30,859 --> 00:00:28,230
orbit you can view Saturn all night long

12
00:00:34,190 --> 00:00:30,869
now it rises in the east at sunset and

13
00:00:36,139 --> 00:00:34,200

sets in the west at dawn if you face

14
00:00:37,750 --> 00:00:36,149
east in the late evening you can see two

15
00:00:40,970 --> 00:00:37,760
planets near the distinctive

16
00:00:43,280 --> 00:00:40,980
constellation Leo first look nearly

17
00:00:46,400 --> 00:00:43,290
overhead that reddish object you see up

18
00:00:49,060 --> 00:00:46,410
there is mars closer to the horizon the

19
00:00:51,650 --> 00:00:49,070
bright golden-hued object is Saturn

20
00:00:54,260 --> 00:00:51,660
Saturn is well placed for viewing from

21
00:00:56,479 --> 00:00:54,270
now through july this year Saturn's

22
00:00:59,420 --> 00:00:56,489
rings are slightly inclined they were

23
00:01:01,819 --> 00:00:59,430
tilted four degrees in January they'll

24
00:01:06,500 --> 00:01:01,829
dip to nearly edge-on in June and then

25
00:01:08,600 --> 00:01:06,510
tip up to 10 degrees by year-end the

26
00:01:11,120 --> 00:01:08,610
solar system was a violent place to

27
00:01:13,340 --> 00:01:11,130
start with there were many crashes in

28
00:01:16,490 --> 00:01:13,350
which small bodies broke into pieces and

29
00:01:18,469 --> 00:01:16,500
reformed the study of asteroids helps us

30
00:01:22,070 --> 00:01:18,479
understand a lot more about the early

31
00:01:24,350 --> 00:01:22,080
solar system history of the millions of

32
00:01:27,950 --> 00:01:24,360
asteroids in our solar system only a few

33
00:01:30,499 --> 00:01:27,960
have been observed up close near the

34
00:01:33,770 --> 00:01:30,509
middle of the constellation Leo is the

35
00:01:37,490 --> 00:01:33,780
challenging to see and faint main-belt

36
00:01:39,289 --> 00:01:37,500
asteroid 21 latisha you'll need a good

37
00:01:41,990 --> 00:01:39,299
star chart and a medium to large

38
00:01:45,210 --> 00:01:42,000

telescope plus dark skies to glimpse

39
00:01:47,820 --> 00:01:45,220
this small 12th magnitude asteroid

40
00:01:49,830 --> 00:01:47,830
if you don't see Leticia that's okay

41
00:01:52,140 --> 00:01:49,840
because the European Space Agency's

42
00:01:54,330 --> 00:01:52,150
Rosetta spacecraft will pay its second

43
00:01:56,700 --> 00:01:54,340
visit to this interesting object in July

44
00:02:00,270 --> 00:01:56,710
passing within three thousand kilometers

45
00:02:03,690 --> 00:02:00,280
of the asteroid rosetta had its first

46
00:02:05,910 --> 00:02:03,700
look at Leticia in January of 2007 the

47
00:02:07,740 --> 00:02:05,920
Osiris camera imaged the asteroid

48
00:02:10,169 --> 00:02:07,750
passing through its field of view during

49
00:02:13,380 --> 00:02:10,179
the spacecraft's approach to Mars for a

50
00:02:14,940 --> 00:02:13,390
gravity assist Rosetta's instruments

51
00:02:17,360 --> 00:02:14,950
will collect enough information to

52
00:02:20,460 --> 00:02:17,370
create a resume of the asteroids past

53
00:02:22,800 --> 00:02:20,470
where it was born how it got started on

54
00:02:26,460 --> 00:02:22,810
its asteroid career and if there were

55
00:02:28,860 --> 00:02:26,470
any mid-course Corrections the Cassini

56
00:02:32,600 --> 00:02:28,870
spacecraft has been studying Saturn it's

57
00:02:35,190 --> 00:02:32,610
rings and moons since arriving in 2004

58
00:02:38,850 --> 00:02:35,200
Cassini's seven years solstice mission

59
00:02:40,710 --> 00:02:38,860
extension to the year 2017 presents an

60
00:02:43,020 --> 00:02:40,720
opportunity to follow the seasonal

61
00:02:49,250 --> 00:02:43,030
changes of an outer planet all the way

62
00:02:53,070 --> 00:02:49,260
from its winter to its summer during its

63
00:02:55,710 --> 00:02:53,080

155 orbits around Saturn including 55

64
00:02:58,440 --> 00:02:55,720
flybys of the moon Titan Cassini will

65
00:03:01,860 --> 00:02:58,450
fly by the icy moon Enceladus 11 more

66
00:03:06,720 --> 00:03:01,870
times you can learn more about Cassini

67
00:03:08,400 --> 00:03:06,730
and other NASA missions at WWDC gov the

68
00:03:13,170 --> 00:03:08,410
NASA contribution to esa's rosetta

69
00:03:16,440 --> 00:03:13,180
mission can be found at rosetta JPL nasa

70
00:03:18,430 --> 00:03:16,450
gov that's all for this month I'm Jane