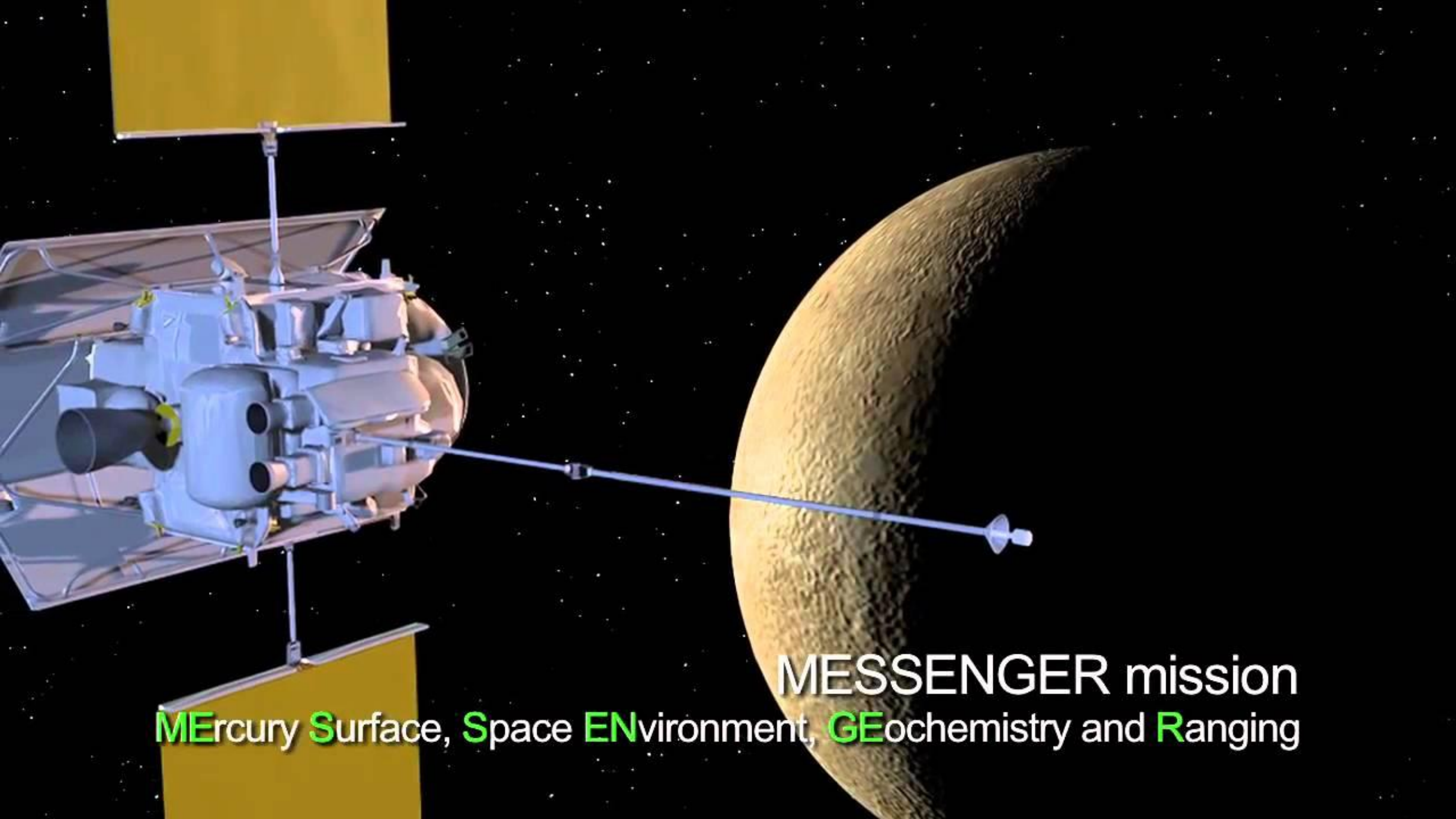
MESSENGER mission
MErcury Surface, Space ENvironment, GEochemistry and Ranging

1
00:00:07,789 --> 00:00:04,880
what's up for December a lunar eclipse

2
00:00:10,520 --> 00:00:07,799
and a planetary trio graced the morning

3
00:00:11,870 --> 00:00:10,530
sky hello and welcome I'm Jane Houston

4
00:00:14,690 --> 00:00:11,880
Jones at NASA's Jet Propulsion

5
00:00:17,269 --> 00:00:14,700
Laboratory in Pasadena California

6
00:00:19,580 --> 00:00:17,279
the earliest stargazers noticed

7
00:00:21,370 --> 00:00:19,590
star-like objects that changed position

8
00:00:24,500 --> 00:00:21,380
with respect to the Stars

9
00:00:27,710 --> 00:00:24,510
they also saw eclipses like the lunar

10
00:00:30,470 --> 00:00:27,720
eclipse we get to see this month

11
00:00:33,979 --> 00:00:30,480
during an eclipse Earth's shadow crosses

12
00:00:36,950 --> 00:00:33,989
the moon and the moon darkens it may

13
00:00:38,930 --> 00:00:36,960

appear gray brown or shades of red or

14
00:00:42,290 --> 00:00:38,940
orange depending on how much dust is in

15
00:00:43,549 --> 00:00:42,300
our atmosphere this Eclipse is best seen

16
00:00:46,430 --> 00:00:43,559
from North America

17
00:00:47,930 --> 00:00:46,440
it occurs pre-dawn on the East Coast in

18
00:00:50,420 --> 00:00:47,940
the middle of the night on the west

19
00:00:53,689 --> 00:00:50,430
coast and the night before in the late

20
00:00:55,670 --> 00:00:53,699
evening in Alaska and Hawaii to get to

21
00:00:57,649 --> 00:00:55,680
the total eclipse when the moon is fully

22
00:00:58,810 --> 00:00:57,659
within the Earth's shadow takes a little

23
00:01:01,399 --> 00:00:58,820
over an hour

24
00:01:03,170 --> 00:01:01,409
you won't need a telescope to view the

25
00:01:05,539 --> 00:01:03,180
Eclipse but if you have one you'll be

26
00:01:07,520 --> 00:01:05,549
able to see individual craters and other

27
00:01:11,359 --> 00:01:07,530
features as they pass in and out of

28
00:01:15,170 --> 00:01:11,369
shadow venus is high and bright before

29
00:01:19,240 --> 00:01:15,180
dawn it shrinks in size as the lit

30
00:01:21,890 --> 00:01:19,250
Crescent widens to 50% by year-end

31
00:01:24,170 --> 00:01:21,900
mercury pops into the morning sky in

32
00:01:27,340 --> 00:01:24,180
late December look for at 10 degrees

33
00:01:31,310 --> 00:01:27,350
above the horizon just before sunrise on

34
00:01:33,910 --> 00:01:31,320
March 18 2011 messenger will become the

35
00:01:35,990 --> 00:01:33,920
first spacecraft to orbit mercury

36
00:01:38,420 --> 00:01:36,000
messenger followed a path through the

37
00:01:41,420 --> 00:01:38,430
inner solar system including one flyby

38
00:01:44,030 --> 00:01:41,430

of Earth two flybys of Venus and three

39
00:01:46,160 --> 00:01:44,040
flybys of mercury this impressive

40
00:01:48,649 --> 00:01:46,170
journey is returning the first new

41
00:01:52,610 --> 00:01:48,659
spacecraft data for mercury since NASA's

42
00:01:54,350 --> 00:01:52,620
Mariner 10 mission 30 years ago Saturn

43
00:01:57,260 --> 00:01:54,360
is the third morning planet to watch

44
00:01:59,300 --> 00:01:57,270
this month it won't be visible in the

45
00:02:01,760 --> 00:01:59,310
early evening for a few more months but

46
00:02:04,840 --> 00:02:01,770
why wait the pretty rings are tilted

47
00:02:07,120 --> 00:02:04,850
open more than 10 degrees right now

48
00:02:08,650 --> 00:02:07,130
the Cassini spacecraft makes a flyby

49
00:02:10,900 --> 00:02:08,660
over the North Pole of the moon

50
00:02:13,090 --> 00:02:10,910
Enceladus on the same night as the lunar

51
00:02:14,740 --> 00:02:13,100
eclipse the fields and particles

52
00:02:16,980 --> 00:02:14,750
instruments will be trying to sniff

53
00:02:19,420 --> 00:02:16,990
anything that the moon might be emitting

54
00:02:21,010 --> 00:02:19,430
learn more about this month year of the

55
00:02:25,360 --> 00:02:21,020
solar system resources at

56
00:02:27,930 --> 00:02:25,370
solarsystem.nasa.gov slash yss and you

57
00:02:30,970 --> 00:02:27,940
can learn all about nasa missions at