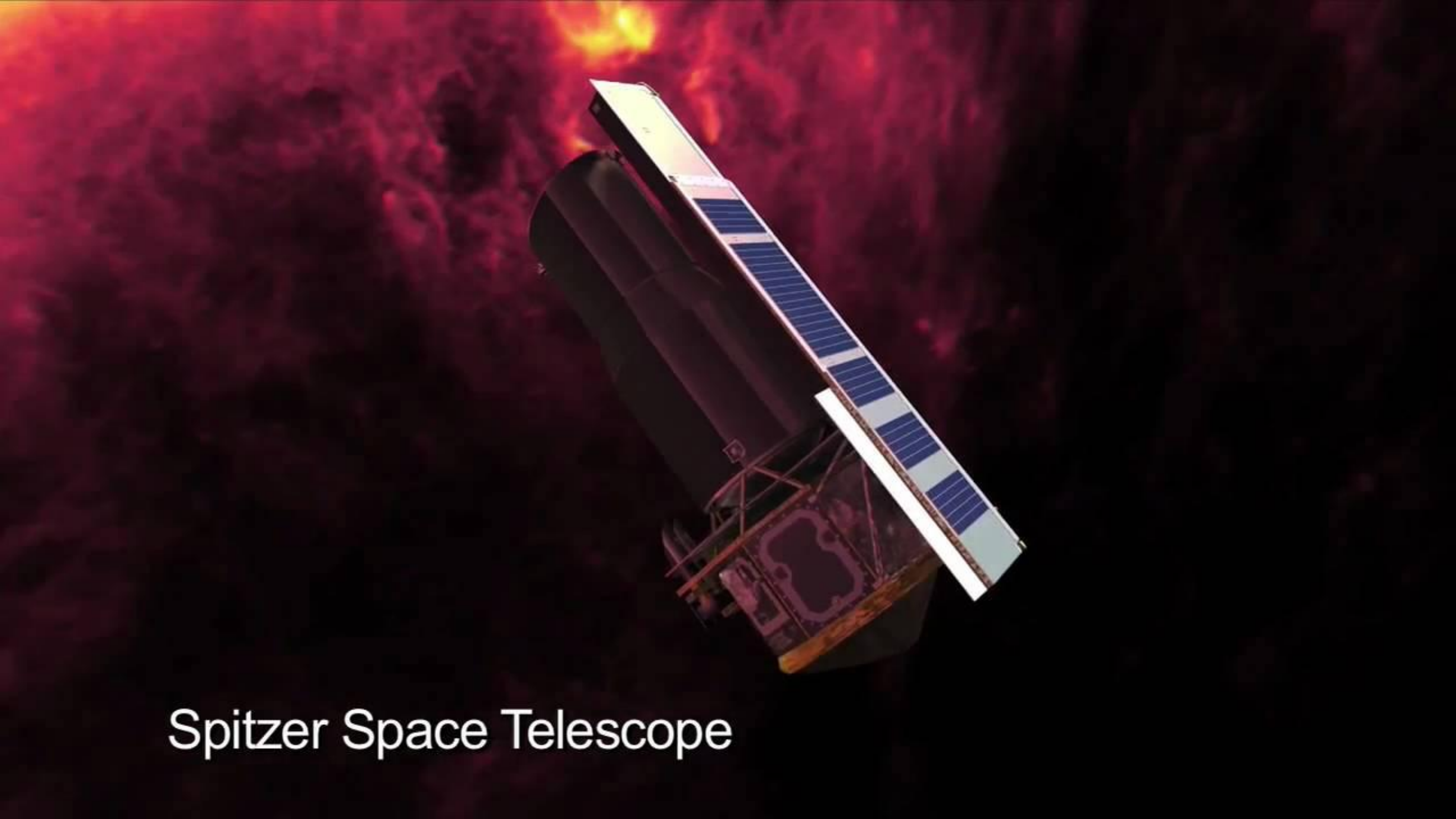
Spitzer Space Telescope

1
00:00:06,470 --> 00:00:04,710
what's up for july hello and welcome i'm

2
00:00:08,470 --> 00:00:06,480
jane houston jones at nasa's jet

3
00:00:10,070 --> 00:00:08,480
propulsion laboratory in pasadena

4
00:00:13,110 --> 00:00:10,080
california

5
00:00:14,549 --> 00:00:13,120
2009 is international year of astronomy

6
00:00:17,510 --> 00:00:14,559
and each month this year we're

7
00:00:20,870 --> 00:00:17,520
showcasing a great celestial object this

8
00:00:23,029 --> 00:00:20,880
month it's our milky way galaxy

9
00:00:25,349 --> 00:00:23,039
galileo aimed his telescope towards some

10
00:00:28,070 --> 00:00:25,359
of the fuzzy patches of our galaxy and

11
00:00:30,470 --> 00:00:28,080
discovered they were made of stars

12
00:00:33,190 --> 00:00:30,480
using ptolemy's second century catalog

13
00:00:35,350 --> 00:00:33,200

of stars as a starting point he observed

14
00:00:38,310 --> 00:00:35,360
several well-known star clusters like

15
00:00:40,470 --> 00:00:38,320
the beehive cluster

16
00:00:42,630 --> 00:00:40,480
and the pleiades

17
00:00:45,670 --> 00:00:42,640
ptolemy had identified the six brightest

18
00:00:48,150 --> 00:00:45,680
stars in the pleiades but galileo saw 36

19
00:00:50,549 --> 00:00:48,160
stars through his telescope he drew the

20
00:00:53,029 --> 00:00:50,559
stars using four different sizes to

21
00:00:57,430 --> 00:00:53,039
distinguish their different brightnesses

22
00:00:59,029 --> 00:00:57,440
and he published his findings in 1610

23
00:01:00,790 --> 00:00:59,039
through the next two centuries

24
00:01:02,950 --> 00:01:00,800
astronomers used bigger and bigger

25
00:01:04,469 --> 00:01:02,960
telescopes to study and map the milky

26
00:01:07,350 --> 00:01:04,479
way galaxy

27
00:01:09,910 --> 00:01:07,360
they observed nebulae clusters and even

28
00:01:12,469 --> 00:01:09,920
areas where no stars could be seen

29
00:01:14,390 --> 00:01:12,479
today spacecraft and orbiting telescopes

30
00:01:17,030 --> 00:01:14,400
joined ground-based observers to learn

31
00:01:18,710 --> 00:01:17,040
more about our galaxy

32
00:01:20,950 --> 00:01:18,720
issa's recently launched herschel

33
00:01:23,670 --> 00:01:20,960
mission will explore the earliest stages

34
00:01:25,990 --> 00:01:23,680
of star and galaxy birth in the universe

35
00:01:28,550 --> 00:01:26,000
and will help answer questions about how

36
00:01:29,749 --> 00:01:28,560
our own sun and milky way galaxy came to

37
00:01:31,990 --> 00:01:29,759
be

38
00:01:34,149 --> 00:01:32,000

the spitzer space telescope created the

39
00:01:35,990 --> 00:01:34,159
most detailed infrared picture of our

40
00:01:38,149 --> 00:01:36,000
galaxy ever made

41
00:01:40,789 --> 00:01:38,159
and chandra's images of the central

42
00:01:43,910 --> 00:01:40,799
region reveal white dwarf and neutron

43
00:01:45,670 --> 00:01:43,920
stars and black holes in a fog of hot

44
00:01:47,990 --> 00:01:45,680
gas

45
00:01:50,310 --> 00:01:48,000
from a dark sky you'll see the milky way

46
00:01:52,950 --> 00:01:50,320
rising in the east and spanning the sky

47
00:01:56,149 --> 00:01:52,960
from north to south after 10 pm local

48
00:01:58,630 --> 00:01:56,159
time back in our own solar system look

49
00:02:01,030 --> 00:01:58,640
for saturn near the western horizon

50
00:02:03,749 --> 00:02:01,040
and look for jupiter rising in the east

51
00:02:05,429 --> 00:02:03,759
about 10 o'clock as the milky way spans

52
00:02:07,510 --> 00:02:05,439
the sky

53
00:02:11,430 --> 00:02:07,520
you can learn all about nasa's missions