



1
00:00:11,379 --> 00:00:07,990
we flew by it at a speed of about 27,000

2
00:00:13,780 --> 00:00:11,389
miles per hour and the space rover comet

3
00:00:15,970 --> 00:00:13,790
in some plane who would have thought

4
00:00:19,300 --> 00:00:15,980
that we actually get to see a comet

5
00:00:22,450 --> 00:00:19,310
close up like we just did and when we

6
00:00:24,639 --> 00:00:22,460
first saw this our mouths just dropped a

7
00:00:26,260 --> 00:00:24,649
whole team just drop because we can

8
00:00:28,240 --> 00:00:26,270
begin to see if you look very close to

9
00:00:30,400 --> 00:00:28,250
the nucleus you can see things that are

10
00:00:33,040 --> 00:00:30,410
slowly moving but then as you go farther

11
00:00:35,170 --> 00:00:33,050
way they're really migrating to me this

12
00:00:37,750 --> 00:00:35,180
whole thing looks like a snow globe that

13
00:00:40,180 --> 00:00:37,760

you're just simply shakin and watching

14

00:00:42,520 --> 00:00:40,190

it fly when we saw the images come down

15

00:00:46,180 --> 00:00:42,530

even in real time in the raw data and

16

00:00:48,310 --> 00:00:46,190

realized we had a cloud of so around the

17

00:00:52,090 --> 00:00:48,320

nucleus we were astounded those are not

18

00:00:54,280 --> 00:00:52,100

stars those are all chunks of ice we

19

00:00:56,889 --> 00:00:54,290

think the biggest ones are at least the

20

00:01:00,010 --> 00:00:56,899

size of a golf ball and possibly up to

21

00:01:02,770 --> 00:01:00,020

the size of a basketball there akin more

22

00:01:05,200 --> 00:01:02,780

to maybe a dandelion so what that means

23

00:01:06,520 --> 00:01:05,210

is that the snowballs are not what we

24

00:01:08,740 --> 00:01:06,530

might have thought to begin with we're

25

00:01:10,929 --> 00:01:08,750

not seeing softballs or even ice cubes

26
00:01:13,929 --> 00:01:10,939
what we're seeing our fluffy aggregates

27
00:01:16,179 --> 00:01:13,939
of very small pieces of ice while it's

28
00:01:17,800 --> 00:01:16,189
true that water is where the ice is in

29
00:01:20,410 --> 00:01:17,810
fact it's everywhere particularly on the

30
00:01:21,639 --> 00:01:20,420
sunward side of the image to our great

31
00:01:24,099 --> 00:01:21,649
surprise there's a tremendous

32
00:01:26,410 --> 00:01:24,109
enhancement of water vapor coming out of

33
00:01:28,719 --> 00:01:26,420
the waist of this body we wouldn't

34
00:01:31,809 --> 00:01:28,729
expect this at all and so what we're

35
00:01:33,969 --> 00:01:31,819
seeing is an indication that here the

36
00:01:36,099 --> 00:01:33,979
ice is still on the inside it's being

37
00:01:37,719 --> 00:01:36,109
heated up by the Sun and that drives the

38
00:01:39,120 --> 00:01:37,729

water off we're still continuing to

39

00:01:41,830 --> 00:01:39,130

collect data we've collected about

40

00:01:44,410 --> 00:01:41,840

32,000 images of the comet since

41

00:01:46,379 --> 00:01:44,420

November 4th we continue to look at it

42

00:01:49,239 --> 00:01:46,389

about every two minutes and acquire data

43

00:01:50,919 --> 00:01:49,249

returning of over 3,000 images a day of

44

00:01:53,019 --> 00:01:50,929

data by the time we're all finished with

45

00:01:54,639 --> 00:01:53,029

this with this science mission around

46

00:01:56,499 --> 00:01:54,649

Thanksgiving is our last our last

47

00:01:58,929 --> 00:01:56,509

imaging session we will return about

48

00:02:00,639 --> 00:01:58,939

120,000 images of the comet and that