



1
00:00:00,000 --> 00:00:09,000
(music and title)

2
00:00:09,000 --> 00:00:17,000
On Nov 12th, at 7:35 Pacific time a lander will land on a comet

3
00:00:17,000 --> 00:00:23,000
This is one of the hardest things than has ever ben done by the human species.

4
00:00:23,000 --> 00:00:27,000
(music)

5
00:00:27,000 --> 00:00:32,000
So NASA's role in the mission is sort of as the junior partner.

6
00:00:32,000 --> 00:00:35,000
The spacecraft was built by the European Space Agency.

7
00:00:35,000 --> 00:00:38,000
NASA contributed 3 instrument.

8
00:00:38,000 --> 00:00:43,000
Along with backup support from what we call the telemetry -- How we are going to track it; navigation.

9
00:00:43,000 --> 00:00:47,000
American instruments will operate on board the mother ship.

10
00:00:47,000 --> 00:00:51,000
And the mother ship is really the main part of the mission.

11
00:00:51,000 --> 00:00:54,000
It will follow the comet all the way around the sun.

12
00:00:54,000 --> 00:00:59,000
We'll learn amazing amount of information about a comet.

13
00:00:59,000 --> 00:01:03,000

Comets are like little refrigerators floating out there...

14

00:01:03,000 --> 00:01:07,000

far away, they were far away from the sun and they froze all these early particles

15

00:01:07,000 --> 00:01:12,000

They were frozen solid remnants from the forming solar system.

16

00:01:12,000 --> 00:01:18,000

Most the scientists agree that the water, most of the water on Earth came from comets.

17

00:01:18,000 --> 00:01:21,000

So you showered in a comet this morning.

18

00:01:21,000 --> 00:01:23,000

(music)

19

00:01:23,000 --> 00:01:26,000

It's extremely difficult to land on a comet.

20

00:01:26,000 --> 00:01:30,000

This is an absolute first for humanity.

21

00:01:30,000 --> 00:01:34,000

The comet is moving about 35,000 miles an hour,

22

00:01:34,000 --> 00:01:37,000

unbelievably difficult terrain,

23

00:01:37,000 --> 00:01:41,000

there are about 58 boulders on the site where it lands.

24

00:01:41,000 --> 00:01:43,000

There are jets shooting out of the comet.

25

00:01:43,000 --> 00:01:45,000

A very difficult situation.

26

00:01:45,000 --> 00:01:51,000

We kind of describe the situation as the lander being a cherry on top of the cake.