



MARS



SCABLANDS

1
00:00:12,170 --> 00:00:04,040
Music

2
00:00:12,190 --> 00:00:16,240
Andy: ...deposits left behind. This entire area, thousands of years ago,

3
00:00:16,260 --> 00:00:20,300
during the last ice age was covered by thick glaciers. Every year one of the

4
00:00:20,320 --> 00:00:24,350
major components of the Lunar and Planetary Science Academy internship

5
00:00:24,370 --> 00:00:28,390
program is a field study to an analog site, a planetary analog

6
00:00:28,410 --> 00:00:32,410
site. So this year we selected the Channeled Scablands of eastern

7
00:00:32,430 --> 00:00:36,420
Washington state. The topographic features

8
00:00:36,440 --> 00:00:40,480
and the geomorphological features here are similar to a lot of things that we're seeing on Mars

9
00:00:40,500 --> 00:00:44,560
we're seeing huge river valleys cut by massive floods of water

10
00:00:44,580 --> 00:00:48,630
And we also see columnar jointed basalts, which is something

11
00:00:48,650 --> 00:00:52,670
that was recently discovered on Mars with the HiRISE aerial camera on

12
00:00:52,690 --> 00:00:56,730
the Mars Reconnaissance Orbiter. To look at these basalts, we took

13
00:00:56,750 --> 00:01:00,760

hand measurements. We measured their widths and a few other features to make

14

00:01:00,780 --> 00:01:04,790

inferences about their cooling history, and then we took aerial

15

00:01:04,810 --> 00:01:08,820

photographs using an RC plane, provided by a program called

16

00:01:08,840 --> 00:01:12,850

R-Step, and a hexacopter, which is a six-propellered helicopter

17

00:01:12,870 --> 00:01:16,900

and our goal was to achieve the same resolution in these photos as we're seeing

18

00:01:16,920 --> 00:01:20,940

in the HiRISE images of the Martian columnar basalts.

19

00:01:20,960 --> 00:01:25,020

It's really convenient when we can find somewhere on Earth that's similar to something

20

00:01:25,040 --> 00:01:29,100

we're seeing on another planet because it's a whole heck of a lot cheaper to study here than to

21

00:01:29,120 --> 00:01:33,160

study there. So we learn what's going on here and then we can sort of extrapolate our findings