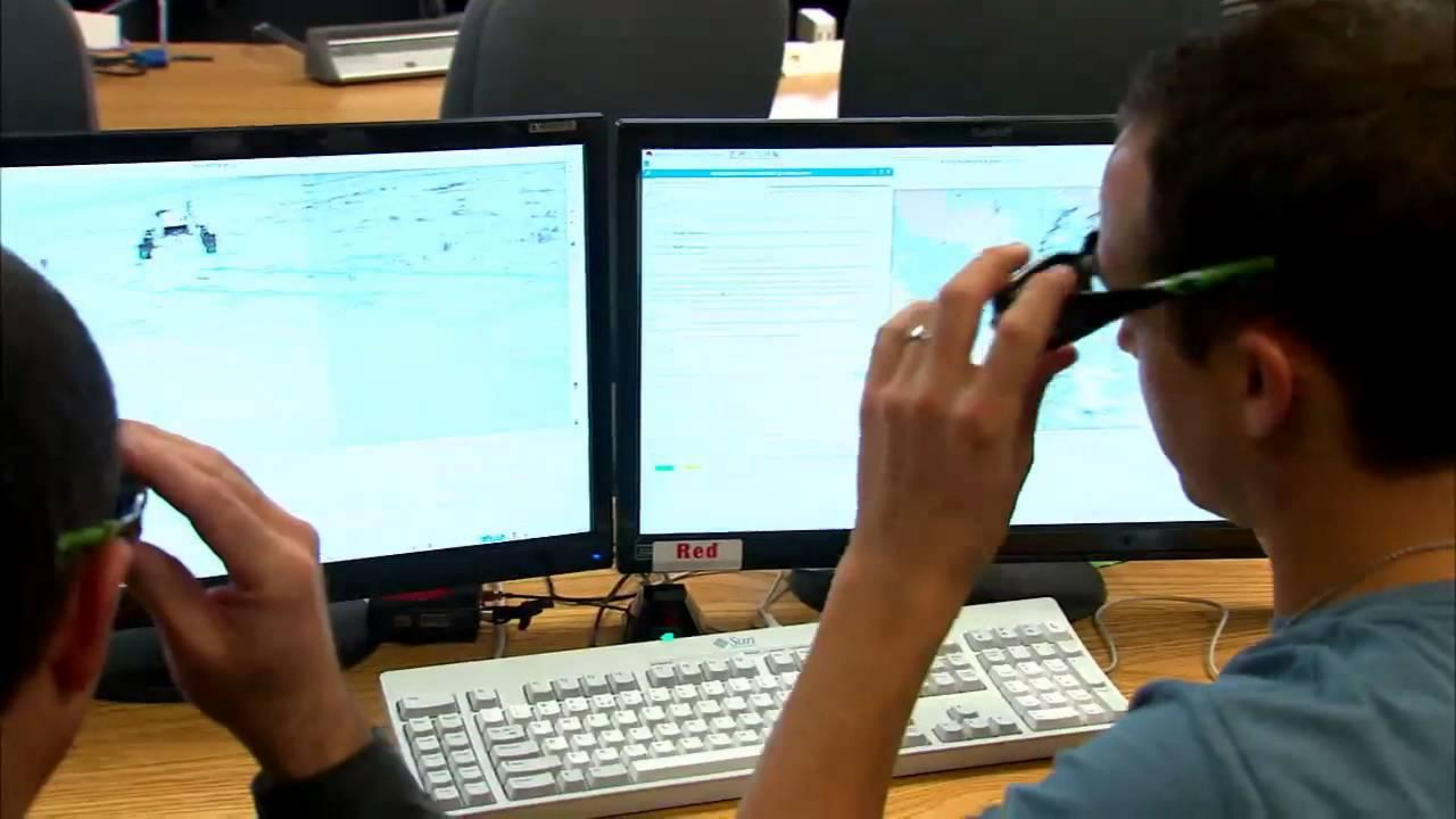
Red

1
00:00:01,730 --> 00:00:09,620
Hi, I'm Rick Welch, tactical operations mission manager, and this is your Curiosity rover

2
00:00:09,620 --> 00:00:11,130
report.

3
00:00:11,130 --> 00:00:15,040
As many of you know, Curiosity was in a period called solar conjunction.

4
00:00:15,040 --> 00:00:17,560
During this time Mars and Earth are on opposite sides of the sun.

5
00:00:17,560 --> 00:00:21,019
It can be hard to communicate between the rover and the Earth during this time and so

6
00:00:21,019 --> 00:00:25,380
we did a minimum set of science and we all took a well-deserved spring break.

7
00:00:25,380 --> 00:00:29,150
Our first activity after solar conjunction was to update Curiosity's software.

8
00:00:29,150 --> 00:00:33,320
We developed that software here on Earth and tested it out in our test bed to make sure

9
00:00:33,320 --> 00:00:34,320
it worked right.

10
00:00:34,320 --> 00:00:36,130
We then sent it up to the rover.

11
00:00:36,130 --> 00:00:40,449
This new software has capabilities to allow

Curiosity to navigate on her own -- something

12
00:00:40,449 --> 00:00:43,610
we call autonomous navigation, or "autonav."

13
00:00:43,610 --> 00:00:47,739
Up until now, Curiosity has just used basic
driving or what we call "line driving" where

14
00:00:47,739 --> 00:00:50,969
the rover planners here on Earth do most of
the planning for her.

15
00:00:50,969 --> 00:00:55,769
The autonav capability will really help Curiosity
select safe routes and make better progress

16
00:00:55,769 --> 00:00:57,540
each day.

17
00:00:57,540 --> 00:01:02,030
Another update was for additional onboard
safety checks for the ChemCam instrument.

18
00:01:02,030 --> 00:01:05,030
ChemCam's telescopic eye can be sensitive
to the sun.

19
00:01:05,030 --> 00:01:08,570
It's therefore important that we never pointed
directly at the sun for long periods of time

20
00:01:08,570 --> 00:01:10,220
with the ChemCam.

21
00:01:10,220 --> 00:01:14,640
We've updated the onboard software to calculate
where the sun is and makes sure that ChemCam

22

00:01:14,640 --> 00:01:16,720
doesn't get pointed in the wrong direction.

23
00:01:16,720 --> 00:01:21,530
The plans for upcoming activities include
getting calibration images from the Navigation

24
00:01:21,530 --> 00:01:23,930
cameras at the top of Curiosity's mast.

25
00:01:23,930 --> 00:01:28,570
We switched to the B side computer before
solar conjunction and this meant we also switched

26
00:01:28,570 --> 00:01:31,780
to a different set of navigation cameras.

27
00:01:31,780 --> 00:01:35,520
The calibration images will help ensure the
cameras are working properly before we drive

28
00:01:35,520 --> 00:01:37,470
to a new location.

29
00:01:37,470 --> 00:01:39,430
And we may be drilling again soon.

30
00:01:39,430 --> 00:01:43,020
Scientists and engineers have been hard at
work looking for new targets where we could

31
00:01:43,020 --> 00:01:44,060
drill.

32
00:01:44,060 --> 00:01:48,280
One such target is just a few meters west
from the rover and could be a potential second

33
00:01:48,280 --> 00:01:49,350

drill site.

34
00:01:49,350 --> 00:01:52,710
We're planning a short drive or "bump" into
this position hopefully by the end of this

35
00:01:52,710 --> 00:01:56,100
week so we can be ready for our second drilling
campaign.