2022

1
00:00:09,270 --> 00:00:05,670
[Music]

2
00:00:11,509 --> 00:00:09,280
january 2022 a dust storm nearly twice

3
00:00:13,749 --> 00:00:11,519
the size of the united states blankets

4
00:00:16,550 --> 00:00:13,759
mars's southern hemisphere reducing

5
00:00:19,189 --> 00:00:16,560
sunlight and uniting nasa's spacecraft

6
00:00:21,590 --> 00:00:19,199
to help one another through the storm

7
00:00:24,630 --> 00:00:21,600
nasa's curiosity rover captured these

8
00:00:26,150 --> 00:00:24,640
images as the dust rolled in obscuring

9
00:00:28,470 --> 00:00:26,160
the horizon

10
00:00:30,550 --> 00:00:28,480
also in the storm's path was nasa's

11
00:00:32,709 --> 00:00:30,560
insight lander which had to stop its

12
00:00:35,510 --> 00:00:32,719
science work after dust prevented

13
00:00:38,069 --> 00:00:35,520

sunlight from reaching the solar panels

14
00:00:40,310 --> 00:00:38,079
insight hunkered down for 11 days to

15
00:00:43,110 --> 00:00:40,320
conserve battery power but didn't

16
00:00:45,910 --> 00:00:43,120
weather the storm alone a fleet of nasa

17
00:00:48,549 --> 00:00:45,920
orbiters monitor dust storms from above

18
00:00:51,189 --> 00:00:48,559
and serves as a lifeline to earth

19
00:00:52,630 --> 00:00:51,199
relaying data from mars explorers back

20
00:00:55,110 --> 00:00:52,640
to the team

21
00:00:57,189 --> 00:00:55,120
dust storms like this recent one start

22
00:00:58,950 --> 00:00:57,199
close to the ground and are spread by

23
00:01:01,910 --> 00:00:58,960
wind as they rise

24
00:01:04,789 --> 00:01:01,920
warming the cold martian atmosphere

25
00:01:07,830 --> 00:01:04,799
storms are first detected by mro's mars

26
00:01:09,910 --> 00:01:07,840
color imager or marcy which produces a

27
00:01:12,789 --> 00:01:09,920
daily global weather map

28
00:01:15,190 --> 00:01:12,799
as dust rises in the atmosphere mro's

29
00:01:17,270 --> 00:01:15,200
mars climate sounder instrument measures

30
00:01:19,030 --> 00:01:17,280
temperature to determine how fast the

31
00:01:21,270 --> 00:01:19,040
storm could spread

32
00:01:23,510 --> 00:01:21,280
maven studies the upper atmosphere

33
00:01:25,350 --> 00:01:23,520
including how dust affects the escape of

34
00:01:26,710 --> 00:01:25,360
water and other gases from the

35
00:01:29,350 --> 00:01:26,720
atmosphere

36
00:01:32,149 --> 00:01:29,360
and for 20 years odyssey's thermal

37
00:01:34,710 --> 00:01:32,159
emission imaging system or themis has

38
00:01:35,910 --> 00:01:34,720

helped measure global dust activity over

39
00:01:38,230 --> 00:01:35,920
time

40
00:01:41,429 --> 00:01:38,240
the orbiter sends most of insight's data

41
00:01:44,230 --> 00:01:41,439
to earth but as odyssey went to check in

42
00:01:45,350 --> 00:01:44,240
on insight it experienced a software

43
00:01:47,670 --> 00:01:45,360
issue

44
00:01:49,749 --> 00:01:47,680
the odyssey team swung into action

45
00:01:52,950 --> 00:01:49,759
recovering quickly so engineers could

46
00:01:55,510 --> 00:01:52,960
send new instructions to insight

47
00:01:58,469 --> 00:01:55,520
the dust even grounded nasa's ingenuity

48
00:02:00,550 --> 00:01:58,479
mars helicopter postponing flights until

49
00:02:02,550 --> 00:02:00,560
conditions improved

50
00:02:05,190 --> 00:02:02,560
dust storms form during all martian

51
00:02:08,150 --> 00:02:05,200
seasons some can balloon in a matter of

52
00:02:10,229 --> 00:02:08,160
days like the 2018 global dust storm

53
00:02:12,070 --> 00:02:10,239
which led to the end of nasa's

54
00:02:13,990 --> 00:02:12,080
opportunity rover

55
00:02:16,790 --> 00:02:14,000
despite the challenges dusk creates for

56
00:02:19,430 --> 00:02:16,800
spacecraft studying storms is critical

57
00:02:21,990 --> 00:02:19,440
for creating future weather forecasts

58
00:02:23,750 --> 00:02:22,000
and preparing for a potential human

59
00:02:26,550 --> 00:02:23,760
mission to mars

60
00:02:30,790 --> 00:02:26,560
to get the latest updates follow at nasa

61
00:02:32,470 --> 00:02:30,800
jpl and at nasa mars on social media or

62
00:02:35,030 --> 00:02:32,480
take a deeper dive on the mission

63
00:02:35,630 --> 00:02:35,040

websites at