
Vertical Motion Simulator
at NASA's Ames Research Center
in Silicon Valley, California

1
00:00:00,000 --> 00:00:05,350
(Sound of crickets chirping)

2
00:00:05,350 --> 00:00:07,430
(Roar of rocket engines)

3
00:00:07,430 --> 00:00:09,300
Narrator: NASA's Artemis mission will send

4
00:00:09,300 --> 00:00:11,450
the first woman and next man to walk

5
00:00:11,450 --> 00:00:14,010
on the Moon in 2024.

6
00:00:14,010 --> 00:00:16,520
To get there, the next generation human landing

7
00:00:16,520 --> 00:00:18,900
system or HLS will be developed

8
00:00:18,900 --> 00:00:22,460
and built by NASA's commercial partners.

9
00:00:22,460 --> 00:00:25,390
The Vertical Motion Simulator, or VMS, located

10
00:00:25,390 --> 00:00:28,560
at NASA's Ames Research Center in Silicon Valley

11
00:00:28,560 --> 00:00:30,630
is uniquely qualified to support

12
00:00:30,630 --> 00:00:33,960
the entire HLS development process.

13
00:00:33,960 --> 00:00:36,140

The VMS has a large motion envelope

14
00:00:36,140 --> 00:00:38,940
and six independent degrees of freedom.

15
00:00:38,940 --> 00:00:41,330
It is the only existing ground-based simulator

16
00:00:41,330 --> 00:00:43,790
capable of supporting the development, testing,

17
00:00:43,790 --> 00:00:46,700
and certification of the HLS to meet manual

18
00:00:46,700 --> 00:00:50,210
control handling qualities requirements.

19
00:00:50,210 --> 00:00:52,710
Because the VMS has an adaptable simulation

20
00:00:52,710 --> 00:00:55,570
architecture, it can be customized to meet

21
00:00:55,570 --> 00:00:58,810
individual research requirements.

22
00:00:58,810 --> 00:01:01,450
It provides a safe and cost-effective environment

23
00:01:01,450 --> 00:01:03,430
for the development of new flight control,

24
00:01:03,430 --> 00:01:05,660
guidance, and display systems.

25
00:01:05,660 --> 00:01:07,590
As well as testing new procedures

26
00:01:07,590 --> 00:01:09,500
and training crews on emergency and

27
00:01:09,500 --> 00:01:12,330
off-nominal situations.

28
00:01:12,330 --> 00:01:14,400
The Vertical Motion Simulator has forty years

29
00:01:14,400 --> 00:01:17,400
of experience partnering with the aerospace community

30
00:01:17,400 --> 00:01:20,280
to perform critical handling qualities research,

31
00:01:20,280 --> 00:01:23,830
including past lunar lander experiments.

32
00:01:23,830 --> 00:01:26,820
NASA is ready to build on past knowledge

33
00:01:26,820 --> 00:01:29,780
and put your new designs to the test.

34
00:01:29,780 --> 00:01:32,800
We have the systems and the know-how in place

35
00:01:32,800 --> 00:01:36,120
to help you develop solutions to land us...