



1  
00:00:00,000 --> 00:00:04,100  
NASA Launch Control: 3...2...1...Ignition...

2  
00:00:04,120 --> 00:00:07,430  
We have lift off...  
(sound of rocket engines)

3  
00:00:07,450 --> 00:00:09,740  
Narrator: On November 19, NASA's PhoneSat

4  
00:00:09,760 --> 00:00:12,540  
two-point-four successfully launched into space

5  
00:00:12,560 --> 00:00:14,620  
on board a Minotaur-1 rocket from the

6  
00:00:14,640 --> 00:00:17,440  
Wallops Flight Facility in Virginia.

7  
00:00:17,460 --> 00:00:19,980  
Built at NASA's Ames Research Center, the

8  
00:00:20,000 --> 00:00:23,270  
smartphone-based cubesat is an improved version of

9  
00:00:23,290 --> 00:00:25,910  
the previous PhoneSat satellites.

10  
00:00:25,930 --> 00:00:28,030  
Bruce Yost: Two-point-four is still a tech

11  
00:00:28,050 --> 00:00:30,540  
demonstration, but it's a complete spacecraft.

12  
00:00:30,560 --> 00:00:32,300  
It's more advanced than the earlier ones, but it's

13

00:00:32,320 --> 00:00:35,770

not quite the scientific type of spacecraft that

14

00:00:35,790 --> 00:00:36,930

we're working towards.

15

00:00:36,950 --> 00:00:38,930

But it's a big step along the way.

16

00:00:38,950 --> 00:00:41,170

Narrator: The project uses off-the-shelf hardware,

17

00:00:41,190 --> 00:00:43,450

as well as a consumer-grade smartphone that

18

00:00:43,470 --> 00:00:46,800

provides a built-in operating system, sensors, GPS

19

00:00:46,820 --> 00:00:49,980

receivers and a high-resolution camera.

20

00:00:50,000 --> 00:00:52,830

Weighing only 2 pounds, it houses a 2-way radio,

21

00:00:52,850 --> 00:00:55,110

along with reaction wheels that allow ground

22

00:00:55,130 --> 00:00:56,930

controllers to stabilize and maneuver the

23

00:00:56,950 --> 00:00:58,900

satellite in orbit.

24

00:00:58,920 --> 00:01:01,580

It also carries solar panels so it can recharge

25

00:01:01,600 --> 00:01:03,670

its batteries, making it possible for the satellite

26

00:01:03,690 --> 00:01:06,860

to stay in orbit for its one-year mission.

27

00:01:06,880 --> 00:01:10,200

PhoneSat 2.4 is the least expensive satellite to

28

00:01:10,220 --> 00:01:13,620

achieve its robust capabilities and represents a

29

00:01:13,640 --> 00:01:15,760

unique and innovative use of commercial

30

00:01:15,780 --> 00:01:17,710

off-the-shelf parts.

31

00:01:17,730 --> 00:01:20,100

The goal of the project is to collect data on the

32

00:01:20,120 --> 00:01:22,520

radiation effects on the satellite and to develop

33

00:01:22,540 --> 00:01:26,210

new ways to interact with and explore space.

34

00:01:26,230 --> 00:01:30,780

(Team applauds successful rocket launch)