



1  
00:00:01,860 --> 00:00:13,129

[Music]

2  
00:00:13,129 --> 00:00:20,340

IKHANA is a native American Choctaw word that means conscious, self-aware, intelligent and

3  
00:00:20,340 --> 00:00:24,880

the reason that we chose that name for the airplane is that we were interested in doing

4  
00:00:24,880 --> 00:00:30,870

research in autonomous control and the ways the airplane could assist the pilot in avoiding

5  
00:00:30,870 --> 00:00:37,570

collisions or avoiding traffic and being able to respond to its own environment in a safe

6  
00:00:37,570 --> 00:00:38,570

way.

7  
00:00:38,570 --> 00:00:44,520

The Armstrong Flight Research Center will support the Orion splashdown out in the Pacific,

8  
00:00:44,520 --> 00:00:46,220

using the Ikhana UAS.

9  
00:00:46,220 --> 00:00:52,941

On launch day before the actual launch of the ORION takes place in Florida the IKHANA

10  
00:00:52,941 --> 00:00:59,450

will take off from NASA Armstrong and head out to the Pacific

11  
00:00:59,450 --> 00:01:07,320

We will be onsite ready to provide situational

awareness of the splashdown point about half

12

00:01:07,320 --> 00:01:09,330

an hour before it gets there.

13

00:01:09,330 --> 00:01:11,920

[Rocket Blasting Off]

14

00:01:11,920 --> 00:01:13,640

And liftoff.

15

00:01:13,640 --> 00:01:15,370

At dawn.

16

00:01:15,370 --> 00:01:19,710

The dawn of Orion and a new era of American space exploration.

17

00:01:19,710 --> 00:01:21,270

Maximum dynamic pressure on the vehicle.

18

00:01:21,270 --> 00:01:24,010

Passing one twenty four mach one.

19

00:01:24,010 --> 00:01:29,100

Orion and Delta IV now transcending the speed of sound.

20

00:01:29,100 --> 00:01:30,100

[Music]

21

00:01:30,100 --> 00:01:35,760

The service panel jettison has occurred the three thirteen by fourteen foot panels have

22

00:01:35,760 --> 00:01:40,160

separated.

23

00:01:40,160 --> 00:01:44,560

[Music]

24

00:01:44,560 --> 00:02:06,049

We are going to use the infrared camera to acquire the vehicle as it is coming down and

25

00:02:06,049 --> 00:02:12,120

eventually change to the optical camera to give better situational awareness of what

26

00:02:12,120 --> 00:02:13,920

is going on at splashdown.

27

00:02:13,920 --> 00:02:17,280

Twenty-Five thousand feet time to splashdown less than four minutes.

28

00:02:17,280 --> 00:02:23,760

The capsule's going to be coming from this direction and splashdown over here, it's

29

00:02:23,760 --> 00:02:25,370

going to be pretty vertical.

30

00:02:25,370 --> 00:02:31,450

So we'll be at an attitude when the Orion capsule is coming in , it will be coming towards

31

00:02:31,450 --> 00:02:34,540

us as it's going down.

32

00:02:34,540 --> 00:02:38,130

Great video from the Ikhana.

33

00:02:38,130 --> 00:02:40,450

[Music]

34

00:02:40,450 --> 00:02:45,560

Fifteen thousand feet until splashdown.

35

00:02:45,560 --> 00:02:47,590

Coming up on main chute deploy.

36

00:02:47,590 --> 00:02:55,010

From the waypoint over the Pacific ocean,  
there is your new spacecraft America.

37

00:02:55,010 --> 00:02:59,849

Drogues away.

38

00:02:59,849 --> 00:03:02,160

On mains, everything looking good.

39

00:03:02,160 --> 00:03:06,629

Two hundred feet until splashdown.

40

00:03:06,629 --> 00:03:10,849

Just a few hundred feet until splashdown.

41

00:03:10,849 --> 00:03:17,200

We have splashdown, splashdown confirmed at  
ten twenty-nine Central Time.

42

00:03:17,200 --> 00:03:19,280

Orion is back on Earth.

43

00:03:19,280 --> 00:03:24,870

America has driven a golden spike as it crosses  
a bridge into the future.

44

00:03:24,870 --> 00:03:30,519

One of the unique capabilities the Ikhana  
UAS brings in supporting the Orion splashdown

45

00:03:30,519 --> 00:03:39,920

is that we can provide continuous and almost  
real time situational awareness of the splashdown

46

00:03:39,920 --> 00:03:41,209

site.

47

00:03:41,209 --> 00:03:46,220

And with that we'll be signing off from  
Mission Control, Orion back safely on Earth,