



1
00:00:01,428 --> 00:00:03,326
Joe Matus: We are developing a

2
00:00:03,361 --> 00:00:04,535
space craft adapter to adapt an

3
00:00:04,570 --> 00:00:06,614
Orion spacecraft to a Delta IV

4
00:00:06,649 --> 00:00:08,527
heavy-launch vehicle for the

5
00:00:08,562 --> 00:00:10,543
Exploration Flight Test One-mission

6
00:00:10,578 --> 00:00:12,319
that will fly in the

7
00:00:12,354 --> 00:00:14,895
2014 time frame. This unit that

8
00:00:14,930 --> 00:00:17,479
we just moved today is our first

9
00:00:17,514 --> 00:00:19,320
step in making that piece of

10
00:00:19,355 --> 00:00:20,374
flight hardware. This is called

11
00:00:20,409 --> 00:00:22,943
the 'Pathfinder'. It's an article

12
00:00:22,978 --> 00:00:24,854
that our welding shop has put

13
00:00:24,889 --> 00:00:27,271

together to develop their

14

00:00:27,306 --> 00:00:28,871
processes and techniques for

15

00:00:28,906 --> 00:00:30,327
assembling the flight unit and

16

00:00:30,362 --> 00:00:32,478
to give us practice in order to

17

00:00:32,513 --> 00:00:34,111
make a better product when it

18

00:00:34,146 --> 00:00:35,167
comes time to make the actual

19

00:00:35,202 --> 00:00:36,639
flight unit.

20

00:00:36,674 --> 00:00:38,279
Jon Street: Behind me is the

21

00:00:38,314 --> 00:00:40,279
cone segment where we weld up

22

00:00:40,314 --> 00:00:42,375
three segments. We'll process

23

00:00:42,410 --> 00:00:44,431
it through here with NDE -

24

00:00:44,466 --> 00:00:46,894
non-destructive testing. We'll

25

00:00:46,929 --> 00:00:48,911
continue on lifting that

26

00:00:48,946 --> 00:00:51,455
structure into the robotic weld

27

00:00:51,490 --> 00:00:52,911
tool, which will do the

28

00:00:52,946 --> 00:00:54,927
circumferential welds, all this

29

00:00:54,962 --> 00:00:56,760
in support of the flight articles.

30

00:00:56,795 --> 00:00:58,743
We're really excited about it.

31

00:00:58,778 --> 00:01:01,791
The end result is to have a full

32

00:01:01,826 --> 00:01:03,775
understanding of the capability

33

00:01:03,810 --> 00:01:05,840
of the tooling and be ready to

34

00:01:05,875 --> 00:01:07,678
go build flight hardware.

35

00:01:07,713 --> 00:01:09,719
Hansel Gill: The stage adapter

36

00:01:09,754 --> 00:01:11,654
that we are manufacturing in house

37

00:01:11,689 --> 00:01:13,910
at the Marshall Space Flight Center

38

00:01:13,945 --> 00:01:16,726

is intended to support a launch of

39

00:01:16,761 --> 00:01:21,071

2014 for an Orion flight test. The

40

00:01:21,106 --> 00:01:22,983

adapter is the hardware that

41

00:01:23,018 --> 00:01:25,399

connects the Orion spacecraft to

42

00:01:25,434 --> 00:01:29,030

the Delta IV launch system and this

43

00:01:29,065 --> 00:01:31,382

adapter pathfinder that we are

44

00:01:31,417 --> 00:01:33,695

working on here today is preparing

45

00:01:33,730 --> 00:01:35,910

us to process the flight hardware.

46

00:01:35,945 --> 00:01:38,127

What we want to do with this hardware

47

00:01:38,162 --> 00:01:40,767

is prove our processing in welding,

48

00:01:40,802 --> 00:01:44,126

thermal protection system application

49

00:01:44,161 --> 00:01:46,654

in some of our machining operations

50

00:01:46,689 --> 00:01:49,782

and what we have an opportunity to do

51
00:01:49,817 --> 00:01:51,959
with this hardware that you can see

52
00:01:51,994 --> 00:01:54,830
behind us here is to prove these

53
00:01:54,865 --> 00:01:57,238
processes so that we have everything

54
00:01:57,273 --> 00:01:59,278
in place to accept the flight hardware.

55
00:01:59,313 --> 00:02:01,654
The interface for the Orion flight

56
00:02:01,689 --> 00:02:04,622
test is the same interface that we

57
00:02:04,657 --> 00:02:07,766
will use for our SLS adapter. What

58
00:02:07,801 --> 00:02:10,766
this has allowed us to do is design

59
00:02:10,801 --> 00:02:13,655
the hardware one time and build it