



1  
00:00:16,189 --> 00:00:13,700  
okay so here we outside the virtual

2  
00:00:18,920 --> 00:00:16,199  
reality the fight is the first reality

3  
00:00:21,470 --> 00:00:18,930  
lab with development comes in but the

4  
00:00:26,029 --> 00:00:21,480  
virtual reality lab with Eric ball pilot

5  
00:00:28,070 --> 00:00:26,039  
for 133 and Royce Renfrew you the lead

6  
00:00:30,290 --> 00:00:28,080  
flight director lead stage library the

7  
00:00:32,450 --> 00:00:30,300  
lead station flight director tell me why

8  
00:00:33,920 --> 00:00:32,460  
there's so much accident today why is

9  
00:00:37,069 --> 00:00:33,930  
there so much yeah why is it so much

10  
00:00:40,729 --> 00:00:37,079  
action in it I will Steve boner ya gotta

11  
00:00:42,770 --> 00:00:40,739  
signs of the white to replaced him what

12  
00:00:45,650 --> 00:00:42,780  
they're running today is the EBA to

13  
00:00:47,510 --> 00:00:45,660

timeline which is pretty much having

14

00:00:49,819 --> 00:00:47,520

Steve Bowen on the arm from the majority

15

00:00:52,040 --> 00:00:49,829

of the EBA yeah so what we're doing in

16

00:00:54,260 --> 00:00:52,050

the VR vApp here is practicing all the

17

00:00:57,590 --> 00:00:54,270

boys protocols between Mike farad and

18

00:00:59,510 --> 00:00:57,600

Nicole and Steve on the arm maybe we've

19

00:01:01,959 --> 00:00:59,520

got all that sink though after we get

20

00:01:04,969 --> 00:01:01,969

done with that we'll run it in the pool

21

00:01:07,039 --> 00:01:04,979

where we if Steve actually gets to put

22

00:01:08,300 --> 00:01:07,049

an emu on right and run that in the pool

23

00:01:11,000 --> 00:01:08,310

to make sure that it all worked

24

00:01:12,830 --> 00:01:11,010

correctly use this we can spend a lot

25

00:01:15,440 --> 00:01:12,840

more time in here if we need to reset

26

00:01:17,570 --> 00:01:15,450

it's very easy to do work out all the

27

00:01:19,630 --> 00:01:17,580

kinks in the vrm and then go run it in

28

00:01:21,580 --> 00:01:19,640

the pool so again often

29

00:01:23,440 --> 00:01:21,590

so this is nice thing you guys Eric

30

00:01:26,410 --> 00:01:23,450

you've had Steve's been on your crew for

31

00:01:28,090 --> 00:01:26,420

how long a week or take a week or two

32

00:01:30,609 --> 00:01:28,100

right so these I say very experienced

33

00:01:33,190 --> 00:01:30,619

the space Walker but you just kind of go

34

00:01:35,350 --> 00:01:33,200

through these are very each spacewalk is

35

00:01:37,870 --> 00:01:35,360

very specific in the details look at

36

00:01:38,710 --> 00:01:37,880

common tasks but you know eat this fix

37

00:01:40,870 --> 00:01:38,720

are always something that you got to

38

00:01:42,430 --> 00:01:40,880

look at it and of course different crew

39

00:01:44,560 --> 00:01:42,440

members made a look at a problem

40

00:01:46,899 --> 00:01:44,570

differently so Steve mean you know as

41

00:01:48,670 --> 00:01:46,909

needs to look at it and see and Tim oh

42

00:01:50,440 --> 00:01:48,680

he's been helping Steve yeah I think all

43

00:01:52,270 --> 00:01:50,450

this happened so and we plan on running

44

00:01:54,070 --> 00:01:52,280

this EPA it's Monday today and then we

45

00:01:56,230 --> 00:01:54,080

plan on running this and pool on Friday

46

00:01:57,850 --> 00:01:56,240

yeah for the first time to give Steve a

47

00:01:59,230 --> 00:01:57,860

chance to look at the CBA this is great

48

00:02:01,330 --> 00:01:59,240

we have this lab I think it's a good

49

00:02:03,490 --> 00:02:01,340

example of it because if I'm important

50

00:02:05,919 --> 00:02:03,500

its virtual reality is because you are

51  
00:02:07,540 --> 00:02:05,929  
you trying to get me up to speed in just

52  
00:02:10,240 --> 00:02:07,550  
a couple days if you throw them in a

53  
00:02:11,500 --> 00:02:10,250  
pool right away Michael okay but it's

54  
00:02:12,640 --> 00:02:11,510  
gonna go a lot better because he can

55  
00:02:14,770 --> 00:02:12,650  
practice you can see everything he's

56  
00:02:16,690 --> 00:02:14,780  
doing virtual reality wise with their

57  
00:02:17,920 --> 00:02:16,700  
through the virtuality helmet you can

58  
00:02:19,870 --> 00:02:17,930  
move around you guys can practice your

59  
00:02:21,610 --> 00:02:19,880  
coordination is really quite before he

60  
00:02:23,380 --> 00:02:21,620  
goes into water and they'll be all

61  
00:02:25,060 --> 00:02:23,390  
settings or that it's a chance that you

62  
00:02:26,590 --> 00:02:25,070  
can do it multiple times right and we'll

63  
00:02:28,630 --> 00:02:26,600

get in here a few more times before we

64

00:02:30,310 --> 00:02:28,640

actually go out oh so Steve can then go

65

00:02:32,530 --> 00:02:30,320

out practically a kind of go home and

66

00:02:33,550 --> 00:02:32,540

look at the task and I as a picture is

67

00:02:35,289 --> 00:02:33,560

mine on what it's supposed to look like

68

00:02:37,240 --> 00:02:35,299

and then in the pool we can actually

69

00:02:38,500 --> 00:02:37,250

work with the hardware that's very

70

00:02:41,110 --> 00:02:38,510

similar to what it's going to be like

71

00:02:43,479 --> 00:02:41,120

yeah and and before we ever got in here

72

00:02:46,630 --> 00:02:43,489

he spent a lot of time doing tabletop

73

00:02:48,819 --> 00:02:46,640

reviews working with the EBA Officer Tim

74

00:02:50,920 --> 00:02:48,829

this is the body position i have here

75

00:02:52,630 --> 00:02:50,930

this kid hi this is what i'm reaching

76

00:02:54,970 --> 00:02:52,640

fortune we do a lot of tabletop you can

77

00:02:56,410 --> 00:02:54,980

got here this is the next step and then

78

00:02:58,640 --> 00:02:56,420

yeah and the pool and finish it all off

79

00:03:00,559 --> 00:02:58,650

and like them

80

00:03:03,080 --> 00:03:00,569

run a couple more times before a of wire

81

00:03:05,149 --> 00:03:03,090

and the Tim you're referring to is Tim

82

00:03:07,190 --> 00:03:05,159

copra right who was supposed that this

83

00:03:11,179 --> 00:03:07,200

is he's been he's people to help out

84

00:03:13,280 --> 00:03:11,189

he's been absent run yeah and and tim

85

00:03:14,690 --> 00:03:13,290

was instrumental and making this yeah he

86

00:03:17,539 --> 00:03:14,700

was evening one right was a new one you

87

00:03:19,099 --> 00:03:17,549

want yeah so it was his baby so and he's

88

00:03:20,330 --> 00:03:19,109

been helping though absolutely yeah cuz

89

00:03:22,130 --> 00:03:20,340

I mean that's pretty good team spirit

90

00:03:24,559 --> 00:03:22,140

right there yeah you know cuz he's not

91

00:03:25,880 --> 00:03:24,569

able to go at the last minute and

92

00:03:27,619 --> 00:03:25,890

instead of being all bummed which I'm

93

00:03:29,300 --> 00:03:27,629

sure he's disappointed he's helping out

94

00:03:30,649 --> 00:03:29,310

this is big team effort and takes a lot

95

00:03:32,539 --> 00:03:30,659

of people get the job done and yeah

96

00:03:34,399 --> 00:03:32,549

obviously tim was disappointed you give

97

00:03:36,080 --> 00:03:34,409

him the circumstances but he's also

98

00:03:38,899 --> 00:03:36,090

willing to you know get the team going

99

00:03:40,640 --> 00:03:38,909

you know the opening goal is to get the

100

00:03:42,470 --> 00:03:40,650

job done right and so it's really great

101

00:03:44,149 --> 00:03:42,480

having I mean I've to meisel I'm sure

102

00:03:45,740 --> 00:03:44,159

Royce can say the same with his team you

103

00:03:47,869 --> 00:03:45,750

know it's just they the number of people

104

00:03:49,580 --> 00:03:47,879

takes to make a mission happen yeah and

105

00:03:51,289 --> 00:03:49,590

you know backing each other up and

106

00:03:54,259 --> 00:03:51,299

making things work it's really you know

107

00:03:56,809 --> 00:03:54,269

top notch yeah cuz it's got Tim

108

00:03:59,479 --> 00:03:56,819

contributions here are really going to