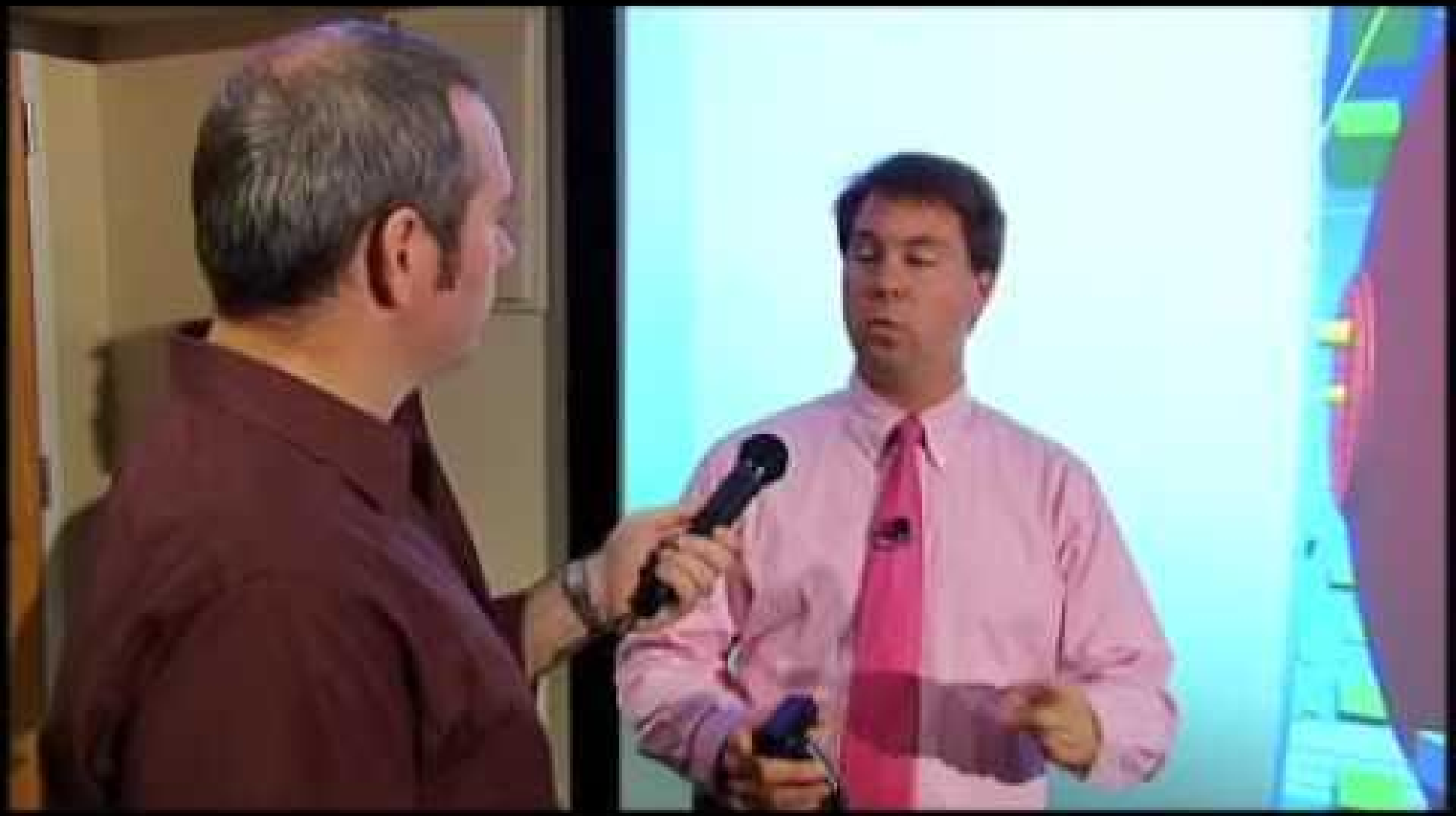

1
00:00:23,330 --> 00:00:21,380
I'm bill hubscher and I'm Lori Meggs on

2
00:00:25,070 --> 00:00:23,340
this edition of focus on Marshall find

3
00:00:26,750 --> 00:00:25,080
out how the newest Marshall facility is

4
00:00:29,150 --> 00:00:26,760
helping students all across the country

5
00:00:31,490 --> 00:00:29,160
learn how to become engineers and even

6
00:00:32,930 --> 00:00:31,500
astronauts but before Lori gets suited

7
00:00:34,760 --> 00:00:32,940
up we're going to show you how the

8
00:00:37,040 --> 00:00:34,770
latest individual technology is helping

9
00:00:39,080 --> 00:00:37,050
Marshall engineers design the next

10
00:00:41,840 --> 00:00:39,090
generation of watch vehicle we're in

11
00:00:43,790 --> 00:00:41,850
building 4600 in the cedar room and are

12
00:00:45,770 --> 00:00:43,800
joined by Don Krupp who's the chief of

13
00:00:47,060 --> 00:00:45,780

the vehicle analysis branch first of all

14
00:00:50,029 --> 00:00:47,070
done thanks for joining us today thank

15
00:00:51,740 --> 00:00:50,039
you let's start with well this room it's

16
00:00:54,639 --> 00:00:51,750
called the cedar room but I don't see

17
00:00:56,959 --> 00:00:54,649
any cedar wood anywhere no obviously not

18
00:00:59,029 --> 00:00:56,969
cedar is an acronym for the

19
00:01:01,880 --> 00:00:59,039
collaborative engineering and design

20
00:01:04,520 --> 00:01:01,890
analysis room the purpose of this room

21
00:01:07,100 --> 00:01:04,530
is to allow engineers from different

22
00:01:09,560 --> 00:01:07,110
disciplines to come in and interactively

23
00:01:11,210 --> 00:01:09,570
bring their data and information and

24
00:01:13,250 --> 00:01:11,220
share it and collaborate with other

25
00:01:16,130 --> 00:01:13,260
engineers to make their product make

26
00:01:18,080 --> 00:01:16,140
their design even better than it would

27
00:01:20,120 --> 00:01:18,090
typically be tell us a little bit about

28
00:01:22,969 --> 00:01:20,130
the the technical aspects of the room

29
00:01:25,969 --> 00:01:22,979
and how it fits in with your mission to

30
00:01:28,969 --> 00:01:25,979
do the interactive collaboration we have

31
00:01:31,609 --> 00:01:28,979
a variety of display capabilities we

32
00:01:33,499 --> 00:01:31,619
have two plasma displays and then really

33
00:01:35,929 --> 00:01:33,509
the center point of this room is our

34
00:01:38,690 --> 00:01:35,939
projection wall we have an eight by 20

35
00:01:41,270 --> 00:01:38,700
foot screen with dual projectors behind

36
00:01:43,310 --> 00:01:41,280
it this wall these projectors can

37
00:01:46,160 --> 00:01:43,320
display either two separate images or

38
00:01:48,710 --> 00:01:46,170

one contiguous image to be able to

39
00:01:51,770 --> 00:01:48,720
collaborate we also have the ability for

40
00:01:53,690 --> 00:01:51,780
various folks within the room to switch

41
00:01:56,420 --> 00:01:53,700
and display their data on any of these

42
00:01:58,340 --> 00:01:56,430
displays another key feature of this

43
00:02:01,219 --> 00:01:58,350
power wall is that the projection

44
00:02:04,520 --> 00:02:01,229
capability allows us to do stereo vision

45
00:02:05,780 --> 00:02:04,530
or virtual 3d we have two methods to do

46
00:02:08,600 --> 00:02:05,790
that we can either do it with the old

47
00:02:11,890 --> 00:02:08,610
red blue glasses like from the movies or

48
00:02:13,720 --> 00:02:11,900
we have the higher tech active glasses

49
00:02:17,199 --> 00:02:13,730
that allow the video to be interlaced

50
00:02:19,780 --> 00:02:17,209
between eyes to do stereo vision so for

51
00:02:22,990 --> 00:02:19,790
example we can bring up the design the

52
00:02:25,809 --> 00:02:23,000
computer aided design model of park or a

53
00:02:28,449 --> 00:02:25,819
stage and then rotate it around and

54
00:02:31,199 --> 00:02:28,459
visualize it in three dimensions instead

55
00:02:34,630 --> 00:02:31,209
of just the typical to two-dimensional

56
00:02:36,399 --> 00:02:34,640
static presentation this is a very large

57
00:02:37,780 --> 00:02:36,409
project that of course you're working on

58
00:02:39,550 --> 00:02:37,790
you've got lots of workstations for the

59
00:02:41,679 --> 00:02:39,560
people here to be able to manipulate it

60
00:02:43,330 --> 00:02:41,689
but what about the engineers who are at

61
00:02:45,009 --> 00:02:43,340
the other centres across the agency

62
00:02:46,990 --> 00:02:45,019
during the construction of this we

63
00:02:50,110 --> 00:02:47,000

thought about collaboration with other

64
00:02:52,390 --> 00:02:50,120
either NASA centers or projects or

65
00:02:54,580 --> 00:02:52,400
contractors and so we do have some

66
00:02:57,399 --> 00:02:54,590
capability to do interaction with other

67
00:02:59,229 --> 00:02:57,409
centers we have video telecom capability

68
00:03:01,539 --> 00:02:59,239
of its equipment we also have the

69
00:03:04,170 --> 00:03:01,549
ability to project across the internet

70
00:03:07,330 --> 00:03:04,180
through the web we've also done some

71
00:03:09,369 --> 00:03:07,340
prototyping of collaborating with models

72
00:03:11,940 --> 00:03:09,379
and simulations across various centers

73
00:03:15,429 --> 00:03:11,950
where we would bring up the model and

74
00:03:17,110 --> 00:03:15,439
control here for viewpoints or to

75
00:03:18,970 --> 00:03:17,120
highlight various aspects of it and

76
00:03:20,920 --> 00:03:18,980
another Center could then take that same

77
00:03:23,229 --> 00:03:20,930
model and get control of it from their

78
00:03:25,210 --> 00:03:23,239
perspective and show and be able to

79
00:03:27,189 --> 00:03:25,220
project their point of view are there

80
00:03:29,289 --> 00:03:27,199
concerns too so that we get the

81
00:03:31,149 --> 00:03:29,299
interaction to get an even better design

82
00:03:32,800 --> 00:03:31,159
that we were typically yet so they would

83
00:03:34,270 --> 00:03:32,810
manipulate it on there and and you'd be

84
00:03:36,520 --> 00:03:34,280
able to see it here on the wall correct

85
00:03:37,990 --> 00:03:36,530
absolutely correct what's the future you

86
00:03:39,309 --> 00:03:38,000
see of what you plan to do with this

87
00:03:41,259 --> 00:03:39,319
room as well as some of the the

88
00:03:43,539 --> 00:03:41,269

additions you want to make to it a

89
00:03:47,259 --> 00:03:43,549
couple of the additions is we want to

90
00:03:50,039 --> 00:03:47,269
continue looking for ways to enhance the

91
00:03:52,930 --> 00:03:50,049
collaborative nature of this room better

92
00:03:54,849 --> 00:03:52,940
visualization capabilities but also the

93
00:03:56,740 --> 00:03:54,859
ability to probably part to look at

94
00:03:59,559 --> 00:03:56,750
bringing in other sensory information

95
00:04:01,809 --> 00:03:59,569
such as audio information turning

96
00:04:03,839 --> 00:04:01,819
engineering data into audio signals that

97
00:04:05,920 --> 00:04:03,849
could support and enhance the

98
00:04:08,170 --> 00:04:05,930
understanding of the design and the

99
00:04:09,369 --> 00:04:08,180
engineering analysis you get some Dolby

100
00:04:11,559 --> 00:04:09,379
surround sound in here too then

101
00:04:12,789 --> 00:04:11,569
absolutely well done we appreciate you

102
00:04:14,860 --> 00:04:12,799
taking the time to talk with us