
PAO
ISS D/L 3 LOS

1
00:00:04,630 --> 00:00:02,950
hi welcome inside the international

2
00:00:06,150 --> 00:00:04,640
space station flight control room today

3
00:00:07,590 --> 00:00:06,160
i have a guest with us today we're going

4
00:00:10,230 --> 00:00:07,600
to be talking about

5
00:00:13,270 --> 00:00:10,240
nasa's exploration habitat academic

6
00:00:15,829 --> 00:00:13,280
innovation challenge um laura bailey you

7
00:00:17,990 --> 00:00:15,839
are the exploration augmentation module

8
00:00:19,990 --> 00:00:18,000
manager that is a mouthful so if you

9
00:00:22,150 --> 00:00:20,000
could first welcome and thank you for

10
00:00:23,990 --> 00:00:22,160
joining us today if you could briefly

11
00:00:26,390 --> 00:00:24,000
explain what your role is

12
00:00:28,710 --> 00:00:26,400
sure thank you for having me today

13
00:00:31,349 --> 00:00:28,720

the exploration augmentation module is

14
00:00:33,350 --> 00:00:31,359
actually the first crude element it's a

15
00:00:35,430 --> 00:00:33,360
habitable element following the orion

16
00:00:38,310 --> 00:00:35,440
and the expectation is that it will be

17
00:00:39,270 --> 00:00:38,320
in the lunar vicinity orbiting

18
00:00:41,190 --> 00:00:39,280
the moon

19
00:00:43,030 --> 00:00:41,200
and that it will serve as sort of a

20
00:00:45,750 --> 00:00:43,040
platform for us to conduct proving

21
00:00:48,310 --> 00:00:45,760
ground experiments for habitation for

22
00:00:50,229 --> 00:00:48,320
long duration exploration so that's one

23
00:00:52,310 --> 00:00:50,239
of the roles that we have

24
00:00:55,270 --> 00:00:52,320
with the international space station is

25
00:00:57,270 --> 00:00:55,280
is learning that knowledge and gaining

26
00:00:59,830 --> 00:00:57,280
all that we can apply for a future

27
00:01:01,189 --> 00:00:59,840
spacecraft absolutely and so there are a

28
00:01:02,709 --> 00:01:01,199
number of experiments that have been

29
00:01:05,189 --> 00:01:02,719
conducted over the years in the

30
00:01:06,870 --> 00:01:05,199
international space station to work us

31
00:01:08,630 --> 00:01:06,880
in that direction as well

32
00:01:10,149 --> 00:01:08,640
this next habitation element the reason

33
00:01:11,590 --> 00:01:10,159
why it's different is because it's

34
00:01:13,350 --> 00:01:11,600
actually

35
00:01:15,510 --> 00:01:13,360
in an area that's outside the van allen

36
00:01:17,510 --> 00:01:15,520
belt specifically so we're having a

37
00:01:20,469 --> 00:01:17,520
different exposure different deep space

38
00:01:23,109 --> 00:01:20,479

exposure that mimics the the transit to

39
00:01:26,070 --> 00:01:23,119
mars that includes radiation okay

40
00:01:27,270 --> 00:01:26,080
so let's talk about x-hab what exactly

41
00:01:29,749 --> 00:01:27,280
is xhab

42
00:01:32,230 --> 00:01:29,759
or the xhab challenge right so the xhab

43
00:01:34,550 --> 00:01:32,240
challenge xhab stands for exploration

44
00:01:36,550 --> 00:01:34,560
habitation and it's actually an academic

45
00:01:38,469 --> 00:01:36,560
innovation challenge

46
00:01:39,749 --> 00:01:38,479
that involves universities across the

47
00:01:42,230 --> 00:01:39,759
country

48
00:01:45,429 --> 00:01:42,240
who submit us proposals on various

49
00:01:47,830 --> 00:01:45,439
topics and ideas about how they can

50
00:01:49,429 --> 00:01:47,840
create innovative ideas for crew

51
00:01:52,310 --> 00:01:49,439
habitation elements

52
00:01:54,550 --> 00:01:52,320
so can you tell me where the idea

53
00:01:57,670 --> 00:01:54,560
using the student challenge came from

54
00:02:00,069 --> 00:01:57,680
sure um it's actually the brainchild of

55
00:02:02,550 --> 00:02:00,079
a guy straight out of jsc here one of

56
00:02:04,789 --> 00:02:02,560
our engineers his name is chris kennedy

57
00:02:07,270 --> 00:02:04,799
a few years back he was the project

58
00:02:11,190 --> 00:02:07,280
manager for a surface habitat that

59
00:02:13,510 --> 00:02:11,200
actually has lunar and mars applications

60
00:02:15,910 --> 00:02:13,520
and he sort of came up this idea to

61
00:02:17,990 --> 00:02:15,920
involve university students

62
00:02:19,589 --> 00:02:18,000
not only from the standpoint of you know

63
00:02:21,750 --> 00:02:19,599

doing some public outreach for

64
00:02:23,750 --> 00:02:21,760
universities but also including trying

65
00:02:26,070 --> 00:02:23,760
to be inclusive and hearing innovative

66
00:02:28,869 --> 00:02:26,080
ideas that students might come up with

67
00:02:30,390 --> 00:02:28,879
for habitation and in terms of

68
00:02:32,309 --> 00:02:30,400
you know architectures or different

69
00:02:33,030 --> 00:02:32,319
ideas being very inventive

70
00:02:35,509 --> 00:02:33,040
so

71
00:02:36,949 --> 00:02:35,519
teams can you tell me a little about

72
00:02:37,910 --> 00:02:36,959
that and who

73
00:02:41,190 --> 00:02:37,920
that is

74
00:02:43,030 --> 00:02:41,200
i mean sure um so there were a number of

75
00:02:44,229 --> 00:02:43,040
universities who had submitted uh

76
00:02:46,229 --> 00:02:44,239
proposals

77
00:02:47,589 --> 00:02:46,239
um we're actually sort of engaged with

78
00:02:49,910 --> 00:02:47,599
seven of them

79
00:02:52,949 --> 00:02:49,920
but three of them specifically were are

80
00:02:54,630 --> 00:02:52,959
being funded and supported directly

81
00:02:56,070 --> 00:02:54,640
out of the exploration augmentation

82
00:02:58,630 --> 00:02:56,080
module project

83
00:03:00,149 --> 00:02:58,640
that includes the university of colorado

84
00:03:02,550 --> 00:03:00,159
at boulder

85
00:03:05,270 --> 00:03:02,560
rice university in houston and the

86
00:03:06,630 --> 00:03:05,280
university of south alabama actually

87
00:03:09,190 --> 00:03:06,640
this year

88
00:03:11,910 --> 00:03:09,200

can you tell me briefly how these

89
00:03:13,990 --> 00:03:11,920
proposals are judged

90
00:03:18,470 --> 00:03:14,000
yeah so that's actually a pretty

91
00:03:20,390 --> 00:03:18,480
complicated process we have several

92
00:03:21,509 --> 00:03:20,400
several folks who are part of the

93
00:03:24,550 --> 00:03:21,519
judging

94
00:03:25,589 --> 00:03:24,560
excuse me we review several

95
00:03:28,789 --> 00:03:25,599
different

96
00:03:32,070 --> 00:03:28,799
proposals for essentially technical

97
00:03:32,869 --> 00:03:32,080
content the clarity

98
00:03:37,030 --> 00:03:32,879
their

99
00:03:38,949 --> 00:03:37,040
and other universities

100
00:03:40,070 --> 00:03:38,959
so there's a lot of criteria that goes

101
00:03:42,070 --> 00:03:40,080
into it and

102
00:03:44,630 --> 00:03:42,080
among the people who are reviewing these

103
00:03:46,550 --> 00:03:44,640
proposals there's a variety of different

104
00:03:49,030 --> 00:03:46,560
subject matter experts that sort of

105
00:03:49,990 --> 00:03:49,040
cover the broad areas of different

106
00:03:53,110 --> 00:03:50,000
elements of

107
00:03:56,070 --> 00:03:53,120
habitation and so were these the

108
00:03:57,830 --> 00:03:56,080
technologies that nasa identified

109
00:04:00,390 --> 00:03:57,840
said okay we have this specific need and

110
00:04:02,470 --> 00:04:00,400
is this how we develop that okay this is

111
00:04:03,990 --> 00:04:02,480
what we want you to go out and work on

112
00:04:06,550 --> 00:04:04,000
for so how did we

113
00:04:07,670 --> 00:04:06,560

yeah yeah so there's um there although

114
00:04:10,309 --> 00:04:07,680
there are

115
00:04:12,550 --> 00:04:10,319
certain um topics that we actually

116
00:04:14,229 --> 00:04:12,560
propose in a given year

117
00:04:16,229 --> 00:04:14,239
they actually change from ear to ear you

118
00:04:19,030 --> 00:04:16,239
know different topics that we habitation

119
00:04:20,550 --> 00:04:19,040
type topics that we propose um but at

120
00:04:22,310 --> 00:04:20,560
the same time universities are also

121
00:04:23,830 --> 00:04:22,320
allowed to be creative and come up with

122
00:04:26,469 --> 00:04:23,840
their own topic as long as it's related

123
00:04:28,230 --> 00:04:26,479
to deep space habitation you know

124
00:04:29,830 --> 00:04:28,240
those topics are welcome as well well

125
00:04:31,350 --> 00:04:29,840
and that makes sense because we don't

126
00:04:33,510 --> 00:04:31,360
know all the answers and it's kind of

127
00:04:35,110 --> 00:04:33,520
cool to get others insight from from

128
00:04:36,870 --> 00:04:35,120
another perspective and perhaps maybe

129
00:04:38,950 --> 00:04:36,880
someone steps up to the plate and says

130
00:04:40,230 --> 00:04:38,960
you guys might need this yeah exactly i

131
00:04:41,189 --> 00:04:40,240
think that's great

132
00:04:43,270 --> 00:04:41,199
um

133
00:04:45,270 --> 00:04:43,280
also can you tell me about some of the

134
00:04:46,790 --> 00:04:45,280
previous exhap challenge projects that

135
00:04:48,390 --> 00:04:46,800
we have

136
00:04:50,469 --> 00:04:48,400
yeah um so

137
00:04:55,270 --> 00:04:50,479
last year

138
00:04:57,110 --> 00:04:55,280

um i think there were five total of

139
00:04:58,469 --> 00:04:57,120
those that i can think of

140
00:05:00,950 --> 00:04:58,479
off the top of my head

141
00:05:03,110 --> 00:05:00,960
we had a vertical habitation

142
00:05:05,590 --> 00:05:03,120
architecture that was presented to us a

143
00:05:07,749 --> 00:05:05,600
horizontal architecture habitation

144
00:05:11,430 --> 00:05:07,759
architecture that was presented to us

145
00:05:14,950 --> 00:05:11,440
a robotic plant growth system

146
00:05:16,790 --> 00:05:14,960
there was also a logistics

147
00:05:19,189 --> 00:05:16,800
outfitting for you know internal

148
00:05:20,550 --> 00:05:19,199
architecture and innovation in that so

149
00:05:22,230 --> 00:05:20,560
we've received a lot of different kind

150
00:05:24,150 --> 00:05:22,240
of ideas it's been great working with

151
00:05:25,830 --> 00:05:24,160
the students great well thank you so

152
00:05:27,430 --> 00:05:25,840
much again for coming out and talking

153
00:05:28,710 --> 00:05:27,440
with us about this it sounds exciting

154
00:05:30,870 --> 00:05:28,720
and best of luck