NASA

SPACESTATION LIVE

1
00:00:11,190 --> 00:00:08,549
the month of february is national

2
00:00:13,110 --> 00:00:11,200
african american history month and nasa

3
00:00:15,190 --> 00:00:13,120
joins the celebration and honors the

4
00:00:16,790 --> 00:00:15,200
contributions of african americans to

5
00:00:18,150 --> 00:00:16,800
the cause of space flight and space

6
00:00:20,310 --> 00:00:18,160
exploration

7
00:00:22,070 --> 00:00:20,320
recently my colleague gary jordan had a

8
00:00:24,390 --> 00:00:22,080
chance to talk with nasa astronaut

9
00:00:26,310 --> 00:00:24,400
jeanette epps and he asked her what the

10
00:00:28,630 --> 00:00:26,320
observance of african american history

11
00:00:31,429 --> 00:00:28,640
month means to her in terms of space

12
00:00:33,910 --> 00:00:31,439
exploration

13
00:00:36,150 --> 00:00:33,920

well as far as um the month it's just a

14
00:00:37,750 --> 00:00:36,160
month of celebrating the accomplishments

15
00:00:40,790 --> 00:00:37,760
and the contributions of african

16
00:00:43,510 --> 00:00:40,800
americans to the united states and so

17
00:00:44,950 --> 00:00:43,520
it's just a moment to reflect back and

18
00:00:46,229 --> 00:00:44,960
think about all the things that have

19
00:00:49,750 --> 00:00:46,239
happened over the

20
00:00:51,510 --> 00:00:49,760
decades and centuries and how

21
00:00:54,069 --> 00:00:51,520
how many contributions have been made

22
00:00:55,350 --> 00:00:54,079
and to be proud of it and and hopefully

23
00:00:56,389 --> 00:00:55,360
other people will look at it and say

24
00:00:59,029 --> 00:00:56,399
yeah

25
00:01:00,790 --> 00:00:59,039
we're proud of of what the contributions

26
00:01:02,630 --> 00:01:00,800
all the different cultures in the united

27
00:01:04,149 --> 00:01:02,640
states have contributed to making it a

28
00:01:05,590 --> 00:01:04,159
great place to live

29
00:01:07,429 --> 00:01:05,600
honestly and that's what makes the

30
00:01:09,109 --> 00:01:07,439
international space station so great too

31
00:01:11,429 --> 00:01:09,119
it's a combination of cultures and

32
00:01:13,990 --> 00:01:11,439
diverse thoughts um so tell us a little

33
00:01:15,910 --> 00:01:14,000
bit about you uh how did you end up here

34
00:01:17,590 --> 00:01:15,920
well i'm i was one of those kids who

35
00:01:19,830 --> 00:01:17,600
never thought i'd be selected to be an

36
00:01:22,070 --> 00:01:19,840
astronaut but i did want to become an

37
00:01:23,670 --> 00:01:22,080
aerospace engineer so um when that

38
00:01:25,270 --> 00:01:23,680

little sea was planted in my brain when

39
00:01:27,910 --> 00:01:25,280
i was nine years old

40
00:01:29,990 --> 00:01:27,920
i it stuck with me so through the years

41
00:01:32,390 --> 00:01:30,000
i went to school undergraduate for

42
00:01:34,950 --> 00:01:32,400
physics and then on to graduate school

43
00:01:36,950 --> 00:01:34,960
for aerospace engineering and you know

44
00:01:39,510 --> 00:01:36,960
to kind of further my knowledge of

45
00:01:41,910 --> 00:01:39,520
engineering and to apply to different

46
00:01:43,270 --> 00:01:41,920
places i went to the ford motor company

47
00:01:44,550 --> 00:01:43,280
and while i was working there i was

48
00:01:46,389 --> 00:01:44,560
recruited to work at the central

49
00:01:48,389 --> 00:01:46,399
intelligence agency as a technical

50
00:01:49,670 --> 00:01:48,399
operations officer and while i was

51
00:01:51,190 --> 00:01:49,680
working there you know some of the

52
00:01:53,190 --> 00:01:51,200
operational things that i was doing as

53
00:01:55,590 --> 00:01:53,200
well as the very technical scientific

54
00:01:57,670 --> 00:01:55,600
things kind of made me think well maybe

55
00:01:59,830 --> 00:01:57,680
it's time to apply to the astronaut core

56
00:02:01,749 --> 00:01:59,840
a friend of mine leland melvin actually

57
00:02:03,190 --> 00:02:01,759
gave me a call and said they're looking

58
00:02:04,469 --> 00:02:03,200
for applicants you may want to think

59
00:02:07,270 --> 00:02:04,479
about applying

60
00:02:09,990 --> 00:02:07,280
and so i did and lo and behold here i am

61
00:02:11,589 --> 00:02:10,000
in 2009 i was selected and it's been six

62
00:02:13,910 --> 00:02:11,599
and a half years here six and a half

63
00:02:15,990 --> 00:02:13,920

great years of a lot of training and a

64
00:02:18,309 --> 00:02:16,000
lot of good stuff less than two weeks

65
00:02:21,110 --> 00:02:18,319
ago i returned from language immersion

66
00:02:23,910 --> 00:02:21,120
and that was five weeks in moscow

67
00:02:26,150 --> 00:02:23,920
living in a hotel doing classes and

68
00:02:29,190 --> 00:02:26,160
fending for myself in russian

69
00:02:31,509 --> 00:02:29,200
and that was a great experience um i

70
00:02:33,830 --> 00:02:31,519
would love to do it again it's just um

71
00:02:36,070 --> 00:02:33,840
time is of the essence it was it was an

72
00:02:38,470 --> 00:02:36,080
amazing thing to do and to have the time

73
00:02:39,430 --> 00:02:38,480
set aside to actually go and learn a

74
00:02:41,589 --> 00:02:39,440
language

75
00:02:43,589 --> 00:02:41,599
priceless because as we get older and

76
00:02:46,390 --> 00:02:43,599
older work takes over and you don't have

77
00:02:48,710 --> 00:02:46,400
the time but this is my job so it's kind

78
00:02:51,270 --> 00:02:48,720
of kind of cool thing to have done so

79
00:02:54,070 --> 00:02:51,280
over the years i've done um robotics

80
00:02:57,589 --> 00:02:54,080
training i've done spacewalk training

81
00:02:58,550 --> 00:02:57,599
i've done t-38 training iss systems

82
00:03:00,949 --> 00:02:58,560
training

83
00:03:03,030 --> 00:03:00,959
and you know i've even got to the chance

84
00:03:04,790 --> 00:03:03,040
to do a couple of fun things like nemo

85
00:03:07,430 --> 00:03:04,800
one of the nemo missions

86
00:03:09,589 --> 00:03:07,440
that was a great deal of fun

87
00:03:12,309 --> 00:03:09,599
spent nine days underwater

88
00:03:14,949 --> 00:03:12,319

um i even had the chance to do

89
00:03:16,949 --> 00:03:14,959
geology training in hawaii

90
00:03:19,589 --> 00:03:16,959
so tell us about um

91
00:03:22,630 --> 00:03:19,599
the impacts of space exploration where

92
00:03:24,789 --> 00:03:22,640
you see it going uh in the coming years

93
00:03:27,190 --> 00:03:24,799
well i think um you know since we've

94
00:03:29,750 --> 00:03:27,200
done a lot of work in low earth orbit

95
00:03:32,550 --> 00:03:29,760
and i think there's a huge push amongst

96
00:03:35,190 --> 00:03:32,560
enthusiasts to go to mars so i think the

97
00:03:37,509 --> 00:03:35,200
next steps will be taking those baby

98
00:03:39,030 --> 00:03:37,519
steps to get us to mars they're not baby

99
00:03:41,430 --> 00:03:39,040
steps but because we've done a lot of

100
00:03:44,869 --> 00:03:41,440
work in low earth orbit what's the next

101
00:03:47,509 --> 00:03:44,879
thing we have to develop systems

102
00:03:49,430 --> 00:03:47,519
radiation protection systems um even

103
00:03:51,589 --> 00:03:49,440
waste management systems to get us all

104
00:03:53,670 --> 00:03:51,599
the way to mars and to sustain us in

105
00:03:55,990 --> 00:03:53,680
mars you know do we want to take that

106
00:03:57,830 --> 00:03:56,000
much logistics with us just to get to

107
00:03:59,670 --> 00:03:57,840
mars so in the meantime we want to

108
00:04:01,589 --> 00:03:59,680
develop the propulsion systems and other

109
00:04:03,110 --> 00:04:01,599
things like that that'll help get us

110
00:04:06,710 --> 00:04:03,120
there faster

111
00:04:08,630 --> 00:04:06,720
different things we have to do in the

112
00:04:10,949 --> 00:04:08,640
meantime but a lot of the research that

113
00:04:14,550 --> 00:04:10,959

we're doing right now on the iss

114
00:04:16,789 --> 00:04:14,560
lends to that so with a one year mission

115
00:04:19,030 --> 00:04:16,799
with scott kelly we're learning a ton of

116
00:04:20,710 --> 00:04:19,040
things about the human body and how we

117
00:04:24,390 --> 00:04:20,720
can sustain life

118
00:04:27,030 --> 00:04:24,400
without gravity our bones our muscles

119
00:04:27,990 --> 00:04:27,040
even down to the cellular level so

120
00:04:30,950 --> 00:04:28,000
there's a lot of things that we're

121
00:04:33,030 --> 00:04:30,960
learning now that will all be applied to

122
00:04:35,430 --> 00:04:33,040
space exploration and because there's a

123
00:04:37,510 --> 00:04:35,440
lot of enthusiasts out there and you

124
00:04:39,110 --> 00:04:37,520
know stem is a big part of this whole

125
00:04:40,550 --> 00:04:39,120
thing

126
00:04:42,629 --> 00:04:40,560
we're pushing the boundaries and there's

127
00:04:44,950 --> 00:04:42,639
a lot of people getting involved in stem

128
00:04:46,550 --> 00:04:44,960
because of the space program so we're

129
00:04:49,189 --> 00:04:46,560
we're pushing the boundaries up to get

130
00:04:51,430 --> 00:04:49,199
us out to mars and beyond so there's a

131
00:04:53,430 --> 00:04:51,440
lot of great things happening now and we

132
00:04:55,189 --> 00:04:53,440
are working every day towards the goal

133
00:04:57,189 --> 00:04:55,199
of getting to mars

134
00:05:00,070 --> 00:04:57,199
the mars mission we are hoping to get

135
00:05:02,310 --> 00:05:00,080
there in the 2030s and that means that

136
00:05:04,629 --> 00:05:02,320
kids in school right now may be selected

137
00:05:06,710 --> 00:05:04,639
to be astronauts to be the first person

138
00:05:08,870 --> 00:05:06,720

to be put their boot print on mars so

139
00:05:10,870 --> 00:05:08,880
tell us a little bit about

140
00:05:12,629 --> 00:05:10,880
what kids should be studying right now

141
00:05:15,270 --> 00:05:12,639
in order to be an astronaut in the

142
00:05:16,950 --> 00:05:15,280
future for mars well i think um you know

143
00:05:18,790 --> 00:05:16,960
developing an analytical brain and

144
00:05:20,390 --> 00:05:18,800
developing the thought process you have

145
00:05:22,710 --> 00:05:20,400
to take science

146
00:05:24,390 --> 00:05:22,720
in school mathematics as well in these

147
00:05:26,310 --> 00:05:24,400
classes even though they're tough

148
00:05:28,629 --> 00:05:26,320
doesn't mean that you don't try them

149
00:05:30,550 --> 00:05:28,639
anything that you don't know is hard so

150
00:05:32,710 --> 00:05:30,560
once you learn it it becomes a lot

151
00:05:35,110 --> 00:05:32,720
easier so just getting in

152
00:05:37,350 --> 00:05:35,120
into any kind of physics biology

153
00:05:39,909 --> 00:05:37,360
chemistry class and even any mathematics

154
00:05:42,150 --> 00:05:39,919
class makes you a better thinker thinker

155
00:05:44,230 --> 00:05:42,160
even learning a language helps you to

156
00:05:46,230 --> 00:05:44,240
become a better thinker

157
00:05:48,870 --> 00:05:46,240
so getting involved in these

158
00:05:50,390 --> 00:05:48,880
classes that are uh have in the past

159
00:05:52,950 --> 00:05:50,400
students have thought oh they're so hard

160
00:05:54,550 --> 00:05:52,960
i'm not going to take those classes and

161
00:05:57,270 --> 00:05:54,560
getting over this fear of something

162
00:05:59,830 --> 00:05:57,280
that's hard and not wanting to learn it

163
00:06:01,590 --> 00:05:59,840

is is a big thing so i think once you

164
00:06:03,830 --> 00:06:01,600
learn something you realize it's not as

165
00:06:05,909 --> 00:06:03,840
hard as you thought but taking the time

166
00:06:07,990 --> 00:06:05,919
to learn it that's that's all it is

167
00:06:10,629 --> 00:06:08,000
putting the time in to learn these tough

168
00:06:13,270 --> 00:06:10,639
classes to get to move the united states

169
00:06:15,430 --> 00:06:13,280
and the world beyond low earth orbit to

170
00:06:17,909 --> 00:06:15,440
get us to mars so take those tough

171
00:06:19,909 --> 00:06:17,919
classes do the tough thing and and don't

172
00:06:21,909 --> 00:06:19,919
be afraid to take a challenge an

173
00:06:24,150 --> 00:06:21,919
excellent piece of advice and having

174
00:06:27,510 --> 00:06:24,160
that diverse skill set is something that

175
00:06:28,870 --> 00:06:27,520
we need uh here at nasa uh dr jeannette

176
00:06:31,510 --> 00:06:28,880
epps thank you for being with us today

177
00:06:33,189 --> 00:06:31,520
it's been an absolute pleasure um dr