1
00:00:09,430 --> 00:00:05,749
discovery international space station

2
00:00:15,190 --> 00:00:09,440
the president of the united states

3
00:00:18,710 --> 00:00:16,550
president welcome aboard the

4
00:00:20,630 --> 00:00:18,720
international space station where we're

5
00:00:22,950 --> 00:00:20,640
joined with our uh

6
00:00:25,109 --> 00:00:22,960
international uh crew from this space

7
00:00:26,550 --> 00:00:25,119
shuttle discovery welcome aboard glad to

8
00:00:29,029 --> 00:00:26,560
hear your voice we hear you loud and

9
00:00:31,669 --> 00:00:29,039
clear sir

10
00:00:33,430 --> 00:00:31,679
well thank you so much for

11
00:00:36,630 --> 00:00:33,440
uh taking the time to speak with us

12
00:00:39,190 --> 00:00:36,640
we've got a crew of wonderful

13
00:00:42,229 --> 00:00:39,200

uh school children here who are all

14
00:00:44,470 --> 00:00:42,239
interested in space and we've got uh

15
00:00:46,630 --> 00:00:44,480
some members of congress who are like

16
00:00:48,310 --> 00:00:46,640
big kids when it comes to talking to

17
00:00:50,389 --> 00:00:48,320
astronauts

18
00:00:54,630 --> 00:00:50,399
uh i i'm told that you're cruising at

19
00:00:56,229 --> 00:00:54,640
about 17 000 miles per hour so we're

20
00:01:04,869 --> 00:00:56,239
glad that uh

21
00:01:09,830 --> 00:01:07,109
mr president uh we go around the planet

22
00:01:11,750 --> 00:01:09,840
once every 90 minutes it's quite a quite

23
00:01:17,830 --> 00:01:11,760
a thrill and it is very fast and we see

24
00:01:21,510 --> 00:01:19,910
that that is unbelievable well the the

25
00:01:23,670 --> 00:01:21,520
first thing we want to do is just let

26
00:01:25,990 --> 00:01:23,680
you know how proud we are of you

27
00:01:27,270 --> 00:01:26,000
uh i've got to say especially

28
00:01:34,310 --> 00:01:27,280
once i found out that you're from

29
00:01:37,510 --> 00:01:35,830
the president was a beautiful place to

30
00:01:40,390 --> 00:01:37,520
grow up and i have a lot of roots that

31
00:01:42,870 --> 00:01:40,400
are still there

32
00:01:44,310 --> 00:01:42,880
well that's great the uh

33
00:01:46,789 --> 00:01:44,320
we are

34
00:01:48,789 --> 00:01:46,799
uh really excited about the project that

35
00:01:51,030 --> 00:01:48,799
you're doing my understanding is is that

36
00:01:53,590 --> 00:01:51,040
you are installing

37
00:01:55,109 --> 00:01:53,600
uh some additional solar panels on the

38
00:01:57,830 --> 00:01:55,119

space station

39
00:01:59,670 --> 00:01:57,840
and that's actually going to increase

40
00:02:01,830 --> 00:01:59,680
the number of

41
00:02:06,630 --> 00:02:01,840
people that can work out of the space

42
00:02:10,150 --> 00:02:08,550
sir that's correct we've roughly doubled

43
00:02:11,910 --> 00:02:10,160
the amount of

44
00:02:14,229 --> 00:02:11,920
of solar power available for

45
00:02:16,150 --> 00:02:14,239
experimentation and for supporting a

46
00:02:17,830 --> 00:02:16,160
larger crew and we hope to go to a crew

47
00:02:22,229 --> 00:02:17,840
of six and a more aggressive

48
00:02:25,510 --> 00:02:23,750
well this is really exciting because

49
00:02:27,030 --> 00:02:25,520
we're uh

50
00:02:29,910 --> 00:02:27,040
investing

51
00:02:32,949 --> 00:02:29,920
back here on uh on the ground

52
00:02:35,110 --> 00:02:32,959
a whole array of solar

53
00:02:38,150 --> 00:02:35,120
and other renewable energy projects and

54
00:02:40,550 --> 00:02:38,160
so to find out that you're doing this

55
00:02:43,430 --> 00:02:40,560
up at the space station uh is

56
00:02:45,750 --> 00:02:43,440
particularly exciting can can i ask

57
00:02:47,430 --> 00:02:45,760
how exactly do you end up

58
00:02:49,830 --> 00:02:47,440
installing

59
00:02:51,430 --> 00:02:49,840
these solar panels what's involved

60
00:02:56,949 --> 00:02:51,440
somebody want to give us a rundown on

61
00:03:02,790 --> 00:02:59,990
yes sir first it comes up on a truss

62
00:03:05,670 --> 00:03:02,800
segment which is about five feet long

63
00:03:07,509 --> 00:03:05,680

we use a robotic arm arm to attach it to

64
00:03:10,149 --> 00:03:07,519
the end of another truss segment and

65
00:03:13,270 --> 00:03:10,159
then once that's attached and bolted on

66
00:03:17,030 --> 00:03:13,280
through spacewalks then we'll go ahead

67
00:03:18,949 --> 00:03:17,040
and unfurl or actually deploy the

68
00:03:21,030 --> 00:03:18,959
solar arrays in the position so that we

69
00:03:24,550 --> 00:03:21,040
can unfurl them from inside during the

70
00:03:24,560 --> 00:03:31,589
how about how long does it take

71
00:03:35,430 --> 00:03:33,509
spacewalk you put it all together about

72
00:03:37,670 --> 00:03:35,440
six hours but to actually do the

73
00:03:40,550 --> 00:03:37,680
commanding to actually deploy them out

74
00:03:44,949 --> 00:03:40,560
to their full length only takes about

75
00:03:50,630 --> 00:03:47,910
well obviously we're really proud about

76
00:03:53,030 --> 00:03:50,640
uh the extraordinary work that uh our

77
00:03:53,910 --> 00:03:53,040
american astronauts are doing uh you

78
00:03:56,149 --> 00:03:53,920
know

79
00:03:58,070 --> 00:03:56,159
you are a representative of the

80
00:04:00,630 --> 00:03:58,080
dedication and

81
00:04:03,030 --> 00:04:00,640
uh sense of adventure and discovery

82
00:04:04,229 --> 00:04:03,040
that you know we're so proud of but one

83
00:04:06,470 --> 00:04:04,239
of the things that's wonderful about

84
00:04:08,149 --> 00:04:06,480
this is that it is an international

85
00:04:09,030 --> 00:04:08,159
space station and i know that we have

86
00:04:12,229 --> 00:04:09,040
our

87
00:04:14,949 --> 00:04:12,239
uh japanese and and uh russian

88
00:04:16,710 --> 00:04:14,959

uh counterparts on board as well uh uh

89
00:04:18,150 --> 00:04:16,720
we we'd love to uh

90
00:04:19,749 --> 00:04:18,160
say hello to them and

91
00:04:20,469 --> 00:04:19,759
uh hope that

92
00:04:22,550 --> 00:04:20,479
uh

93
00:04:24,710 --> 00:04:22,560
that this is an example of the kind of

94
00:04:25,670 --> 00:04:24,720
spirit of cooperation that

95
00:04:27,430 --> 00:04:25,680
uh

96
00:04:28,550 --> 00:04:27,440
you know we can apply not just in space

97
00:04:34,710 --> 00:04:28,560
but

98
00:04:37,990 --> 00:04:36,150
yeah it's an honor to

99
00:04:39,909 --> 00:04:38,000
have a chance to talk with you mr

100
00:04:41,749 --> 00:04:39,919
president

101
00:04:44,469 --> 00:04:41,759
we have a russian crew member american

102
00:04:46,870 --> 00:04:44,479
crew member and i'm from japan and we

103
00:04:48,950 --> 00:04:46,880
have 15 countries working together in

104
00:04:51,030 --> 00:04:48,960
this wonderful project national space

105
00:04:53,510 --> 00:04:51,040
station as well as on the ground in

106
00:04:56,390 --> 00:04:53,520
space and this really symbolized the

107
00:04:58,629 --> 00:04:56,400
future of the scientific development of

108
00:05:01,350 --> 00:04:58,639
the world and i'm just happy to be part

109
00:05:01,360 --> 00:05:06,790
that's wonderful

110
00:05:12,390 --> 00:05:10,310
mr president we work together

111
00:05:13,749 --> 00:05:12,400
to everything it's really really

112
00:05:15,510 --> 00:05:13,759
important

113
00:05:16,469 --> 00:05:15,520

for us

114
00:05:19,830 --> 00:05:16,479
from the

115
00:05:28,550 --> 00:05:19,840
american russian japanese japan and to

116
00:05:32,629 --> 00:05:30,550
now i notice you're bouncing around

117
00:05:35,350 --> 00:05:32,639
quite a bit there guys

118
00:05:36,790 --> 00:05:35,360
uh are are you wearing uh uh something

119
00:05:42,310 --> 00:05:36,800
to strap you down or are you about to

120
00:05:47,990 --> 00:05:45,510
mr president uh we're just uh holding on

121
00:05:49,909 --> 00:05:48,000
with our toes uh onto some handrails

122
00:05:51,830 --> 00:05:49,919
below us and at any moment we could all

123
00:05:53,590 --> 00:05:51,840
just easily float up and that's one of

124
00:05:55,430 --> 00:05:53,600
the fun thing about

125
00:05:57,430 --> 00:05:55,440
about flying in space we get a chance to

126
00:05:59,110 --> 00:05:57,440
talk to a lot of kids and show them

127
00:06:00,070 --> 00:05:59,120
all the adventures that we have flying

128
00:06:03,110 --> 00:06:00,080
around

129
00:06:05,029 --> 00:06:03,120
it's also it's not just a lot of fun

130
00:06:07,110 --> 00:06:05,039
it's a little bit tough on our bodies we

131
00:06:08,790 --> 00:06:07,120
have to exercise and so we get a chance

132
00:06:10,710 --> 00:06:08,800
to talk to a lot of schools while we're

133
00:06:14,309 --> 00:06:10,720
up here schools all over the planet to

134
00:06:17,909 --> 00:06:15,590
yeah i hear that you're going to be

135
00:06:24,150 --> 00:06:17,919
talking to my alma mater puno school

136
00:06:24,160 --> 00:06:27,749
we're looking forward to that sir

137
00:06:30,629 --> 00:06:29,110
all right well you tell them aloha

138
00:06:32,309 --> 00:06:30,639

listen we've got a bunch of young people

139
00:06:34,390 --> 00:06:32,319
here i want to see if

140
00:06:36,469 --> 00:06:34,400
any of them uh

141
00:06:38,629 --> 00:06:36,479
have some questions

142
00:06:40,070 --> 00:06:38,639
anybody have a question over here okay

143
00:06:43,029 --> 00:06:40,080
this hold on we've got a young lady

144
00:06:48,230 --> 00:06:43,039
right here who's got a question

145
00:06:55,350 --> 00:06:49,670
did you hear that question they want to

146
00:06:59,430 --> 00:06:57,510
we're eating really well uh we eat a lot

147
00:07:01,510 --> 00:06:59,440
of uh it's prepared at nasa but it's

148
00:07:04,309 --> 00:07:01,520
kind of like a backpacking food it's uh

149
00:07:07,110 --> 00:07:04,319
dehydrated we rehydrate it and warm it

150
00:07:08,469 --> 00:07:07,120
up we also use a food similar to meals

151
00:07:09,830 --> 00:07:08,479
ready to eat that they use for the

152
00:07:11,510 --> 00:07:09,840
military and that

153
00:07:14,830 --> 00:07:11,520
a few of us ate last year when a

154
00:07:26,469 --> 00:07:17,350
houston do you guys still drink tang up

155
00:07:31,350 --> 00:07:28,950
i've got bill nelson here and he says

156
00:07:35,909 --> 00:07:31,360
that that's uh that's been taken off the

157
00:07:40,710 --> 00:07:38,469
any uh that's by the way before uh the

158
00:07:43,430 --> 00:07:40,720
time of uh you young people we used to

159
00:07:45,510 --> 00:07:43,440
drink tang uh we got a young man right

160
00:07:51,029 --> 00:07:45,520
here hold on one second

161
00:07:51,039 --> 00:07:59,510
can you play video games in space

162
00:08:04,070 --> 00:08:02,390
we can in fact in fact uh a few years

163
00:08:05,990 --> 00:08:04,080

ago when i was up here for six months i

164
00:08:07,830 --> 00:08:06,000
had a video game that i used to play in

165
00:08:10,390 --> 00:08:07,840
my spare time unfortunately we don't

166
00:08:12,469 --> 00:08:10,400
have much spare time so we can we have a

167
00:08:15,110 --> 00:08:12,479
lot of laptop computers but for the most

168
00:08:18,150 --> 00:08:15,120
part we we stay real busy doing uh real

169
00:08:22,790 --> 00:08:20,309
the uh

170
00:08:24,950 --> 00:08:22,800
tell us what kinds of uh experiments uh

171
00:08:26,950 --> 00:08:24,960
are you doing once you got the panel up

172
00:08:29,270 --> 00:08:26,960
uh what kinds of

173
00:08:31,430 --> 00:08:29,280
other activities are are you doing is it

174
00:08:33,829 --> 00:08:31,440
mostly just maintaining

175
00:08:36,709 --> 00:08:33,839
uh the craft uh or

176
00:08:42,389 --> 00:08:36,719
uh are are there certain experiments or

177
00:08:46,389 --> 00:08:45,110
well sir we have uh experiments already

178
00:08:47,829 --> 00:08:46,399
up here that we've been doing for many

179
00:08:49,590 --> 00:08:47,839
years and we'll be able to double that

180
00:08:51,509 --> 00:08:49,600
with the addition of the solar ray that

181
00:08:53,030 --> 00:08:51,519
our shuttle friends brought up we do a

182
00:08:54,790 --> 00:08:53,040
lot of experiments on combustion

183
00:08:56,389 --> 00:08:54,800
understanding materials understanding

184
00:08:58,550 --> 00:08:56,399
how you know we're guinea pigs so

185
00:09:00,150 --> 00:08:58,560
understanding how people's bodies change

186
00:09:02,230 --> 00:09:00,160
in space and all this is in preparation

187
00:09:04,310 --> 00:09:02,240
for long-duration missions to moon and

188
00:09:05,829 --> 00:09:04,320

mars the exciting thing about doing

189
00:09:07,430 --> 00:09:05,839
science up here is we really don't know

190
00:09:09,430 --> 00:09:07,440
what we don't know and that gives you

191
00:09:10,949 --> 00:09:09,440
the greatest potential for learning and

192
00:09:12,949 --> 00:09:10,959
we've had a lot of cases where people

193
00:09:15,030 --> 00:09:12,959
have set up experiments and we've

194
00:09:16,630 --> 00:09:15,040
conducted them here on the space station

195
00:09:18,550 --> 00:09:16,640
only to find out that we've learned

196
00:09:20,470 --> 00:09:18,560
something new something more

197
00:09:23,030 --> 00:09:20,480
about the fundamentals of this of the