1
00:03:30,949 --> 00:03:15,030
[Music]

2
00:03:35,010 --> 00:03:32,789
for scientific cooperation between

3
00:04:06,460 --> 00:03:35,020
countries

4
00:04:06,470 --> 00:04:13,509
[Music]

5
00:04:13,519 --> 00:04:16,870
standby

6
00:04:20,150 --> 00:04:18,069
well good morning and welcome to the

7
00:04:21,909 --> 00:04:20,160
kennedy space center for the launch of

8
00:04:24,469 --> 00:04:21,919
crew 2 to the international space

9
00:04:25,590 --> 00:04:24,479
station as we get ready to make history

10
00:04:28,550 --> 00:04:25,600
once again

11
00:04:31,670 --> 00:04:28,560
as we fly the crew up on a previously

12
00:04:34,150 --> 00:04:31,680
flown spacecraft and booster that crew

13
00:04:36,070 --> 00:04:34,160

dragon and falcon 9. and it's kind of

14
00:04:38,950 --> 00:04:36,080
cool this crew dragon it's the same one

15
00:04:40,950 --> 00:04:38,960
that bob benkin and doug hurley flew on

16
00:04:42,710 --> 00:04:40,960
that very first demo one up to the

17
00:04:44,469 --> 00:04:42,720
international space station

18
00:04:46,070 --> 00:04:44,479
now i'm sure you've probably heard

19
00:04:47,110 --> 00:04:46,080
that we're going to have to delay a day

20
00:04:48,469 --> 00:04:47,120
we're not going to be able to launch

21
00:04:49,830 --> 00:04:48,479
tomorrow morning and although the

22
00:04:51,670 --> 00:04:49,840
weather is probably going to look great

23
00:04:53,909 --> 00:04:51,680
here at the launch site we're worried

24
00:04:56,550 --> 00:04:53,919
about those downrange winds and wave

25
00:04:58,550 --> 00:04:56,560
heights in case of an abort should

26
00:04:59,909 --> 00:04:58,560
that happen and as soon as this front

27
00:05:00,950 --> 00:04:59,919
gets through it's going to be absolutely

28
00:05:02,550 --> 00:05:00,960
beautiful

29
00:05:04,390 --> 00:05:02,560
on friday morning and we're going to

30
00:05:07,350 --> 00:05:04,400
come out and do it again

31
00:05:09,830 --> 00:05:07,360
all right with that it's my pleasure to

32
00:05:15,189 --> 00:05:09,840
introduce nasa's acting administrator

33
00:05:19,110 --> 00:05:17,270
hey thank you bob and um thanks for

34
00:05:20,870 --> 00:05:19,120
everything your team is doing to get

35
00:05:22,469 --> 00:05:20,880
ready for the launch and actually get

36
00:05:24,629 --> 00:05:22,479
ready for all the launches here out of

37
00:05:26,469 --> 00:05:24,639
the multi-user space board at kennedy

38
00:05:28,150 --> 00:05:26,479

space center so thanks bob as bob

39
00:05:31,029 --> 00:05:28,160
mentioned we got some inclement weather

40
00:05:32,469 --> 00:05:31,039
offshore uh unlike a robotic mission

41
00:05:34,390 --> 00:05:32,479
where we just really need to focus on

42
00:05:36,150 --> 00:05:34,400
whether here at the

43
00:05:37,990 --> 00:05:36,160
here at the launch site for a crude

44
00:05:39,510 --> 00:05:38,000
mission we need to look down range and

45
00:05:41,510 --> 00:05:39,520
make sure our weather is good for a

46
00:05:44,150 --> 00:05:41,520
launch escape potential launch escape

47
00:05:45,510 --> 00:05:44,160
and uh for and recovery of the crew and

48
00:05:48,550 --> 00:05:45,520
so we'll be

49
00:05:51,510 --> 00:05:48,560
scheduled for go to go on friday weather

50
00:05:55,670 --> 00:05:51,520
looks better on friday and it'll be at 5

51
00:05:57,670 --> 00:05:55,680
49 a.m i met with the crew last night

52
00:05:59,350 --> 00:05:57,680
they are ready to go they're really i

53
00:06:01,430 --> 00:05:59,360
asked them what they look forward to

54
00:06:03,270 --> 00:06:01,440
most in the mission and they said

55
00:06:05,189 --> 00:06:03,280
launching and getting up on station and

56
00:06:06,390 --> 00:06:05,199
getting to work and we also talked about

57
00:06:09,029 --> 00:06:06,400
some of the things they're going to do

58
00:06:11,430 --> 00:06:09,039
like um evas to install new solar arrays

59
00:06:13,510 --> 00:06:11,440
on on station which is going to provide

60
00:06:14,629 --> 00:06:13,520
additional capability of for the for the

61
00:06:16,469 --> 00:06:14,639
iss

62
00:06:19,270 --> 00:06:16,479
um i could not be more proud of the

63
00:06:21,430 --> 00:06:19,280

commercial crew program and the spacex

64
00:06:24,629 --> 00:06:21,440
team and the nasa team and what they've

65
00:06:26,390 --> 00:06:24,639
been able to do to enable reliable safe

66
00:06:29,029 --> 00:06:26,400
effective transportation to and from

67
00:06:32,070 --> 00:06:29,039
station uh third launch in less than a

68
00:06:32,870 --> 00:06:32,080
year uh demo two crew one and now crew

69
00:06:34,550 --> 00:06:32,880
two

70
00:06:36,150 --> 00:06:34,560
and uh and looking forward to a great

71
00:06:39,590 --> 00:06:36,160
launch on friday and bringing and

72
00:06:40,710 --> 00:06:39,600
bringing the crew one home next week

73
00:06:42,790 --> 00:06:40,720
um

74
00:06:45,430 --> 00:06:42,800
you know uh

75
00:06:47,830 --> 00:06:45,440
it's been a long haul but um having this

76
00:06:50,150 --> 00:06:47,840
capability is really important

77
00:06:52,070 --> 00:06:50,160
for iss

78
00:06:54,550 --> 00:06:52,080
to enable the research and technology

79
00:06:55,350 --> 00:06:54,560
development that we need

80
00:06:57,830 --> 00:06:55,360
to

81
00:06:59,909 --> 00:06:57,840
extend capabilities in low earth orbit

82
00:07:00,870 --> 00:06:59,919
but iss is also part of our artemis

83
00:07:03,029 --> 00:07:00,880
plans

84
00:07:04,950 --> 00:07:03,039
and uh to do the research that we need

85
00:07:06,790 --> 00:07:04,960
and develop the technology

86
00:07:08,870 --> 00:07:06,800
for artemis for our sustained lunar

87
00:07:10,070 --> 00:07:08,880
missions and then eventually for a mars

88
00:07:11,670 --> 00:07:10,080

mission

89
00:07:13,270 --> 00:07:11,680
um

90
00:07:16,629 --> 00:07:13,280
you know the

91
00:07:19,749 --> 00:07:16,639
the commercial crew is enabling um is

92
00:07:22,710 --> 00:07:19,759
enabling both commercial leo activities

93
00:07:24,790 --> 00:07:22,720
and will enable artemis um we were gonna

94
00:07:26,469 --> 00:07:24,800
launch on earth day tomorrow is still

95
00:07:29,110 --> 00:07:26,479
earth day and i just wanted to mention

96
00:07:31,670 --> 00:07:29,120
the great work that nasa and our

97
00:07:34,790 --> 00:07:31,680
international agency partners do on

98
00:07:37,029 --> 00:07:34,800
using the unique vantage point of space

99
00:07:38,390 --> 00:07:37,039
to gather data on the earth and study

100
00:07:39,510 --> 00:07:38,400
the earth

101
00:07:41,189 --> 00:07:39,520
and

102
00:07:43,430 --> 00:07:41,199
i know it's a priority for this

103
00:07:45,029 --> 00:07:43,440
administration and for the world for

104
00:07:49,029 --> 00:07:45,039
addressing climate change and nasa has a

105
00:07:53,110 --> 00:07:51,749
president biden called the team at jpl

106
00:07:55,430 --> 00:07:53,120
early this week

107
00:07:57,990 --> 00:07:55,440
to congratulate them on ingenuity's

108
00:07:59,830 --> 00:07:58,000
first flight the first first controlled

109
00:08:03,270 --> 00:07:59,840
powered flight

110
00:08:05,110 --> 00:08:03,280
of a vehicle on another planet

111
00:08:07,510 --> 00:08:05,120
and he told the team that his grandson

112
00:08:09,589 --> 00:08:07,520
asked him that when he when was he going

113
00:08:10,469 --> 00:08:09,599

to travel to mars

114
00:08:13,749 --> 00:08:10,479
so

115
00:08:15,589 --> 00:08:13,759
we do right we enable commercial

116
00:08:18,710 --> 00:08:15,599
activities in space

117
00:08:22,070 --> 00:08:18,720
um we demonstrate leadership

118
00:08:25,110 --> 00:08:22,080
uh and we inspire the next generation um

119
00:08:27,430 --> 00:08:25,120
so i was really that was really a great

120
00:08:30,070 --> 00:08:27,440
conversation between president biden and

121
00:08:31,589 --> 00:08:30,080
the mars perseverance ingenuity team out

122
00:08:34,550 --> 00:08:31,599
at jpl

123
00:08:36,790 --> 00:08:34,560
so crew 2 is another exciting milestone

124
00:08:38,230 --> 00:08:36,800
not only for the iss program but for our

125
00:08:39,750 --> 00:08:38,240
artemis plans

126
00:08:42,230 --> 00:08:39,760
and with that i'd like to hand it over

127
00:08:46,630 --> 00:08:42,240
to hiroshi sasaki the vice president of

128
00:08:52,630 --> 00:08:49,990
thank you steve uh i'm hiroshasaki vice

129
00:08:54,550 --> 00:08:52,640
president of jaxa are responsible for

130
00:08:56,310 --> 00:08:54,560
human space flight and space

131
00:08:59,269 --> 00:08:56,320
explorations

132
00:09:01,269 --> 00:08:59,279
i'm glad uh come back here from last

133
00:09:02,389 --> 00:09:01,279
november

134
00:09:03,990 --> 00:09:02,399
first of all

135
00:09:06,389 --> 00:09:04,000
on behalf of jackson

136
00:09:09,190 --> 00:09:06,399
i'd like to express my appreciation to

137
00:09:11,190 --> 00:09:09,200
the old people who have been working for

138
00:09:15,190 --> 00:09:11,200

crew to launch

139
00:09:18,310 --> 00:09:15,200
under the severe copper 19 situations

140
00:09:21,750 --> 00:09:18,320
and last night i spoke to his aki

141
00:09:24,230 --> 00:09:21,760
hoshide japanese astronaut

142
00:09:27,990 --> 00:09:24,240
this is a third flight of him

143
00:09:32,550 --> 00:09:29,990
and

144
00:09:33,750 --> 00:09:32,560
he as well i

145
00:09:38,070 --> 00:09:33,760
is uh

146
00:09:38,080 --> 00:09:40,550
search

147
00:09:47,990 --> 00:09:43,670
already on board and aki will meet

148
00:09:51,590 --> 00:09:49,910
and

149
00:09:54,870 --> 00:09:51,600
he will

150
00:09:55,990 --> 00:09:54,880
work uh as a commander for the space

151
00:09:56,949 --> 00:09:56,000
station

152
00:10:00,389 --> 00:09:56,959
and

153
00:10:02,710 --> 00:10:00,399
i hope he will co-create the

154
00:10:03,829 --> 00:10:02,720
fruitful outcome

155
00:10:07,350 --> 00:10:03,839
with a

156
00:10:09,910 --> 00:10:07,360
international greek astronaut from nasa

157
00:10:12,470 --> 00:10:09,920
esa russia

158
00:10:13,910 --> 00:10:12,480
and i believe the international

159
00:10:16,069 --> 00:10:13,920
partnership

160
00:10:17,350 --> 00:10:16,079
will bring the most

161
00:10:20,630 --> 00:10:17,360
result

162
00:10:22,870 --> 00:10:20,640
from the iss or the humankind

163
00:10:25,350 --> 00:10:22,880

and it is also important

164
00:10:29,030 --> 00:10:25,360
for the space exploration

165
00:10:31,430 --> 00:10:29,040
i'm looking forward uh crew to launch

166
00:10:32,630 --> 00:10:31,440
and wishing the great success thank you

167
00:10:35,910 --> 00:10:32,640
very much

168
00:10:38,389 --> 00:10:35,920
i would like to introduce frank iss

169
00:10:41,829 --> 00:10:38,399
program manager very important person

170
00:10:47,670 --> 00:10:43,910
thank you very much sassakissan thank

171
00:10:49,829 --> 00:10:47,680
you steve bob so yes uh we are very

172
00:10:52,389 --> 00:10:49,839
excited and happy to be here of course

173
00:10:54,710 --> 00:10:52,399
the first ease astronaut that will fly

174
00:10:56,150 --> 00:10:54,720
on the u.s commercial crew vehicle crew

175
00:10:58,150 --> 00:10:56,160
2 the dragon

176
00:10:59,829 --> 00:10:58,160
i would like also to thank the naza

177
00:11:02,230 --> 00:10:59,839
teams and the jaxa teams that have

178
00:11:04,470 --> 00:11:02,240
brought us here so thanks a lot guys for

179
00:11:06,389 --> 00:11:04,480
for doing all that work for us

180
00:11:08,949 --> 00:11:06,399
it's an exciting time for us of course

181
00:11:10,230 --> 00:11:08,959
we will have four usos crew members now

182
00:11:12,150 --> 00:11:10,240
permanently

183
00:11:14,790 --> 00:11:12,160
on orbit of the

184
00:11:17,590 --> 00:11:14,800
iss meaning that we will have much more

185
00:11:19,829 --> 00:11:17,600
time to do research science

186
00:11:22,230 --> 00:11:19,839
but also technology development that we

187
00:11:24,150 --> 00:11:22,240
will need for the future of the artemis

188
00:11:27,190 --> 00:11:24,160

program and for the future of

189
00:11:29,750 --> 00:11:27,200
exploration of our solar system

190
00:11:31,910 --> 00:11:29,760
we will also be able to uh execute

191
00:11:32,870 --> 00:11:31,920
during this mission uh a whole slew of

192
00:11:35,750 --> 00:11:32,880
uh

193
00:11:38,470 --> 00:11:35,760
experiments for our partner agency kness

194
00:11:40,630 --> 00:11:38,480
the the french agency uh that is helping

195
00:11:44,069 --> 00:11:40,640
us as well implement uh this uh this

196
00:11:47,269 --> 00:11:44,079
mission we will also do other technology

197
00:11:50,069 --> 00:11:47,279
items the the 15th of uh july also the

198
00:11:52,150 --> 00:11:50,079
mlm will launch the the russian module

199
00:11:55,269 --> 00:11:52,160
and it will be attached attached to the

200
00:11:57,030 --> 00:11:55,279
mlm will be the european robotic arm

201
00:11:59,030 --> 00:11:57,040
something that we were looking forward

202
00:11:59,829 --> 00:11:59,040
to to fly since uh since a very long

203
00:12:01,910 --> 00:11:59,839
time

204
00:12:03,269 --> 00:12:01,920
and tomorrow will also be involved in

205
00:12:04,949 --> 00:12:03,279
the uh

206
00:12:07,190 --> 00:12:04,959
activities the commissioning activities

207
00:12:08,790 --> 00:12:07,200
of the european robotic arm and again it

208
00:12:11,269 --> 00:12:08,800
shows the strength of the partnerships

209
00:12:13,030 --> 00:12:11,279
that we have across the ocean and with

210
00:12:15,750 --> 00:12:13,040
our russian uh

211
00:12:17,750 --> 00:12:15,760
colleagues so yes we are very happy we

212
00:12:19,750 --> 00:12:17,760
are excited to be here we are looking

213
00:12:22,150 --> 00:12:19,760

forward to this launch but not only to

214
00:12:24,069 --> 00:12:22,160
this launch we will also have matthias

215
00:12:27,430 --> 00:12:24,079
maher launch

216
00:12:28,470 --> 00:12:27,440
in fall this year on another crew dragon

217
00:12:31,509 --> 00:12:28,480
capsule

218
00:12:33,190 --> 00:12:31,519
and when he will be on orbit of the iss

219
00:12:35,110 --> 00:12:33,200
tomorrow will also be still there and he

220
00:12:36,949 --> 00:12:35,120
will be the commander of the mission so

221
00:12:39,030 --> 00:12:36,959
it's a great event for for europe to

222
00:12:42,310 --> 00:12:39,040
have an iss commander together with

223
00:12:44,550 --> 00:12:42,320
another iss crew is a crew member there

224
00:12:46,790 --> 00:12:44,560
and finally next year

225
00:12:48,550 --> 00:12:46,800
after at about the same time as now

226
00:12:50,870 --> 00:12:48,560
probably we will have samantha crystal

227
00:12:52,870 --> 00:12:50,880
ferretti also flying to the iss so for

228
00:12:54,710 --> 00:12:52,880
the first time for one and a half years

229
00:12:56,790 --> 00:12:54,720
in a row we will have iza crew members

230
00:12:57,910 --> 00:12:56,800
on orbit of the international space

231
00:12:59,750 --> 00:12:57,920
station so

232
00:13:01,590 --> 00:12:59,760
uh it's great to be in this position

233
00:13:04,069 --> 00:13:01,600
it's uh it's a great time for uh human

234
00:13:05,990 --> 00:13:04,079
space flight and for exploration and

235
00:13:08,470 --> 00:13:06,000
at isa we're really looking forward to

236
00:13:10,389 --> 00:13:08,480
to work further on these topics uh not

237
00:13:12,230 --> 00:13:10,399
only on the iss as steve mentioned but

238
00:13:14,310 --> 00:13:12,240

also on the artemis program and on

239
00:13:16,710 --> 00:13:14,320
future exploration to the moon and on to

240
00:13:17,509 --> 00:13:16,720
mars thank you very much

241
00:13:19,829 --> 00:13:17,519
and

242
00:13:21,990 --> 00:13:19,839
sorry yes i would like to introduce one

243
00:13:23,590 --> 00:13:22,000
of my colleagues i would not say former

244
00:13:24,710 --> 00:13:23,600
colleagues but i still want to fly as

245
00:13:27,430 --> 00:13:24,720
well but

246
00:13:29,590 --> 00:13:27,440
tracy i was in training uh many years

247
00:13:32,389 --> 00:13:29,600
ago together with tracy uh we met a lot

248
00:13:34,790 --> 00:13:32,399
in star city so tracy please defrost

249
00:13:36,470 --> 00:13:34,800
thank you frank thank you everybody it's

250
00:13:37,350 --> 00:13:36,480
a pleasure to be here

251
00:13:39,350 --> 00:13:37,360
you know

252
00:13:41,750 --> 00:13:39,360
just like their falcon 9 rocket and

253
00:13:44,470 --> 00:13:41,760
their crew dragon capsule

254
00:13:46,310 --> 00:13:44,480
all four members of crew 2 have flown

255
00:13:48,389 --> 00:13:46,320
before and have proven through their

256
00:13:50,310 --> 00:13:48,399
performance that they can and they will

257
00:13:53,590 --> 00:13:50,320
get the job done

258
00:13:55,829 --> 00:13:53,600
shane megan aki tomah

259
00:13:58,470 --> 00:13:55,839
all four of them have

260
00:13:59,430 --> 00:13:58,480
a wealth of space flight experience

261
00:14:01,269 --> 00:13:59,440
and

262
00:14:03,350 --> 00:14:01,279
some of the best personalities in our

263
00:14:05,670 --> 00:14:03,360

core today and we take the light in

264
00:14:08,069 --> 00:14:05,680
watching them launch and continue on

265
00:14:10,710 --> 00:14:08,079
with their mission of course our hearts

266
00:14:12,790 --> 00:14:10,720
go with them on board as our hands

267
00:14:15,430 --> 00:14:12,800
support them here on earth and our minds

268
00:14:18,949 --> 00:14:15,440
are locked on both places as we're

269
00:14:21,590 --> 00:14:18,959
thinking about them throughout and i am

270
00:14:22,550 --> 00:14:21,600
excited for them personally i wish them

271
00:14:24,629 --> 00:14:22,560
well

272
00:14:26,949 --> 00:14:24,639
i consider each one of them a close

273
00:14:28,870 --> 00:14:26,959
friend and one of them is even my

274
00:14:30,550 --> 00:14:28,880
neighbor and i can't wait to see them in

275
00:14:33,350 --> 00:14:30,560
space and i look forward to talking to

276
00:14:35,350 --> 00:14:33,360
them while they're there and

277
00:14:37,509 --> 00:14:35,360
above all though i'm very privileged to

278
00:14:39,990 --> 00:14:37,519
be here representing

279
00:14:42,150 --> 00:14:40,000
our astronaut corps alongside my

280
00:14:43,829 --> 00:14:42,160
colleague and friend jasmine mcbelly

281
00:14:45,509 --> 00:14:43,839
she's one of our best she's one of our

282
00:14:46,870 --> 00:14:45,519
brightest and she's one of our newest

283
00:14:49,750 --> 00:14:46,880
and so with that i'll hand it over to

284
00:14:54,629 --> 00:14:52,069
thanks so much tracy those are uh very

285
00:14:56,710 --> 00:14:54,639
kind words coming from you of one of my

286
00:14:58,150 --> 00:14:56,720
personal mentors here in the astronaut

287
00:15:00,629 --> 00:14:58,160
corps

288
00:15:02,550 --> 00:15:00,639

thank you all if you can't see it behind

289
00:15:03,670 --> 00:15:02,560
this mask i've got a huge grin on my

290
00:15:05,670 --> 00:15:03,680
face

291
00:15:08,389 --> 00:15:05,680
i'm so excited to be here on a personal

292
00:15:10,829 --> 00:15:08,399
note uh the last time i watched a launch

293
00:15:14,629 --> 00:15:10,839
from the cape in person was back in

294
00:15:17,030 --> 00:15:14,639
2006. when i was just dreaming of um

295
00:15:19,350 --> 00:15:17,040
becoming an astronaut myself one day and

296
00:15:20,949 --> 00:15:19,360
so i think some things are similar you

297
00:15:22,949 --> 00:15:20,959
know the excitement and the buzz in the

298
00:15:25,350 --> 00:15:22,959
air but i've also gained a different

299
00:15:28,230 --> 00:15:25,360
perspective you know back then i was

300
00:15:29,990 --> 00:15:28,240
watching seven astronauts who i didn't

301
00:15:32,949 --> 00:15:30,000
know and they were kind of

302
00:15:35,590 --> 00:15:32,959
unreal they weren't real humans to me

303
00:15:38,310 --> 00:15:35,600
now i'm watching shane megan aki and

304
00:15:40,790 --> 00:15:38,320
tomah launch and as tracy said these are

305
00:15:43,829 --> 00:15:40,800
our friends and our colleagues

306
00:15:45,829 --> 00:15:43,839
and really our family and so

307
00:15:48,389 --> 00:15:45,839
it puts a whole different perspective on

308
00:15:51,910 --> 00:15:48,399
things i also have gained perspective on

309
00:15:54,949 --> 00:15:51,920
how much it takes to fly humans in space

310
00:15:56,949 --> 00:15:54,959
and keep them up there 24 7 living and

311
00:15:59,509 --> 00:15:56,959
working and the thousands and thousands

312
00:16:02,150 --> 00:15:59,519
of people that takes and their focus and

313
00:16:02,949 --> 00:16:02,160

vigilance day in and day out

314
00:16:04,629 --> 00:16:02,959
so

315
00:16:06,470 --> 00:16:04,639
i've really been impressed with that and

316
00:16:09,670 --> 00:16:06,480
it makes it all the more exciting to

317
00:16:11,670 --> 00:16:09,680
watch these four launch into space and

318
00:16:14,790 --> 00:16:11,680
perform some incredible incredible

319
00:16:16,949 --> 00:16:14,800
exciting uh research and experiments

320
00:16:18,790 --> 00:16:16,959
while they're up there so i wish them a

321
00:16:21,110 --> 00:16:18,800
very safe flight

322
00:16:23,110 --> 00:16:21,120
i'm excited to watch their uh

323
00:16:25,030 --> 00:16:23,120
expedition and

324
00:16:26,870 --> 00:16:25,040
we'll be extremely excited to watch them

325
00:16:27,990 --> 00:16:26,880
land safely back here on earth in about

326
00:16:29,509 --> 00:16:28,000
six months

327
00:16:32,550 --> 00:16:29,519
and with that i'll hand it back to

328
00:16:36,310 --> 00:16:34,870
thanks jasmine

329
00:16:38,470 --> 00:16:36,320
as they said you know we have great

330
00:16:40,150 --> 00:16:38,480
pride in the crew and uh crew flights

331
00:16:42,470 --> 00:16:40,160
are different any time a rocket leaves

332
00:16:44,150 --> 00:16:42,480
this uh launch pad out here it's pretty

333
00:16:46,069 --> 00:16:44,160
special but it's even more special when

334
00:16:48,230 --> 00:16:46,079
we have crew on board you know speaking

335
00:16:49,749 --> 00:16:48,240
of cruise i was looking and i think if

336
00:16:52,310 --> 00:16:49,759
those guys back out for any reason we

337
00:16:54,790 --> 00:16:52,320
got four right here that are just

338
00:16:56,949 --> 00:16:54,800

we'll we'll go anytime hey with that

339
00:16:58,310 --> 00:16:56,959
we'd like to open up for questions uh

340
00:16:59,910 --> 00:16:58,320
let's see where's the mike and who's

341
00:17:02,629 --> 00:16:59,920
going to go first

342
00:17:06,230 --> 00:17:02,639
good morning uh

343
00:17:09,189 --> 00:17:06,240
eric aga wkmg tv the cbs affiliate here

344
00:17:11,029 --> 00:17:09,199
in orlando thanks for doing this guys um

345
00:17:12,630 --> 00:17:11,039
bob and steve i you know i think you

346
00:17:14,710 --> 00:17:12,640
know this better than anybody for that

347
00:17:15,829 --> 00:17:14,720
matter so many of us who've who've

348
00:17:19,270 --> 00:17:15,839
covered

349
00:17:21,270 --> 00:17:19,280
shuttle many many many times it wasn't

350
00:17:23,510 --> 00:17:21,280
necessarily

351
00:17:25,829 --> 00:17:23,520
the weather that caused the scrub often

352
00:17:27,429 --> 00:17:25,839
it was the vehicle as we know a very

353
00:17:29,590 --> 00:17:27,439
complex machine

354
00:17:30,830 --> 00:17:29,600
uh older machine

355
00:17:34,310 --> 00:17:30,840
here's my

356
00:17:37,830 --> 00:17:34,320
question how do you feel on launch day

357
00:17:39,350 --> 00:17:37,840
now with this vehicle um you know we

358
00:17:41,590 --> 00:17:39,360
heard shane talking about how how

359
00:17:43,430 --> 00:17:41,600
technologically advanced

360
00:17:44,870 --> 00:17:43,440
dragon is compared well he didn't

361
00:17:46,710 --> 00:17:44,880
compare to the shuttle but i'm comparing

362
00:17:49,110 --> 00:17:46,720
it to the shuttle when you wake up on

363
00:17:52,150 --> 00:17:49,120

launch day

364
00:17:53,909 --> 00:17:52,160
how are you feeling that it's not going

365
00:17:55,990 --> 00:17:53,919
to be this vehicle considering the

366
00:17:57,430 --> 00:17:56,000
newness and considering i guess the

367
00:17:59,350 --> 00:17:57,440
simpler design

368
00:18:01,990 --> 00:17:59,360
so uh eric i'll speak from my point of

369
00:18:03,909 --> 00:18:02,000
view uh i was confident regardless of

370
00:18:06,230 --> 00:18:03,919
what vehicle it was when we get ready to

371
00:18:07,750 --> 00:18:06,240
launch humans into space we have

372
00:18:09,990 --> 00:18:07,760
great faith in the vehicle that they're

373
00:18:11,270 --> 00:18:10,000
riding on and we know that it's going to

374
00:18:14,070 --> 00:18:11,280
perform well

375
00:18:17,430 --> 00:18:14,080
and when we have scrubs we scrub for the

376
00:18:19,909 --> 00:18:17,440
right reasons uh as far as reliability

377
00:18:21,190 --> 00:18:19,919
you know i think spacex has proven uh

378
00:18:22,870 --> 00:18:21,200
they're pretty darn reliable with the

379
00:18:24,470 --> 00:18:22,880
number of launches that they've had on

380
00:18:25,830 --> 00:18:24,480
the falcon 9. they're getting ready to

381
00:18:28,950 --> 00:18:25,840
have the 10th flight off one of their

382
00:18:29,750 --> 00:18:28,960
boosters here that flew recently

383
00:18:31,750 --> 00:18:29,760
so

384
00:18:33,270 --> 00:18:31,760
you know it's a great vehicle we have a

385
00:18:34,470 --> 00:18:33,280
great partnership i think one of the

386
00:18:35,830 --> 00:18:34,480
things that came out of the flight

387
00:18:37,350 --> 00:18:35,840
readiness review

388
00:18:40,470 --> 00:18:37,360

you know we weren't talking it's not a

389
00:18:42,870 --> 00:18:40,480
nasa spacex saying things it's the team

390
00:18:46,230 --> 00:18:42,880
saying we they don't say spacex i did

391
00:18:48,710 --> 00:18:46,240
this or nasa i see this it's we and we

392
00:18:50,150 --> 00:18:48,720
are working very closely with spacex to

393
00:18:52,230 --> 00:18:50,160
ensure that

394
00:18:54,390 --> 00:18:52,240
you know when we launch uh we're doing

395
00:18:56,710 --> 00:18:54,400
the right thing we got a safe vehicle

396
00:18:58,630 --> 00:18:56,720
and it's really important uh as far as

397
00:19:00,230 --> 00:18:58,640
the complexity of the two vehicles

398
00:19:02,870 --> 00:19:00,240
obviously the shuttle was much more

399
00:19:05,350 --> 00:19:02,880
complex than uh than a capsule but the

400
00:19:08,150 --> 00:19:05,360
computer systems on board uh dragon and

401
00:19:10,150 --> 00:19:08,160
the automation it's a lot more automated

402
00:19:12,549 --> 00:19:10,160
than the uh than the space shuttle was

403
00:19:14,070 --> 00:19:12,559
and you know there's pros and cons it's

404
00:19:15,510 --> 00:19:14,080
going to be uh

405
00:19:16,870 --> 00:19:15,520
i just think we got an outstanding

406
00:19:19,190 --> 00:19:16,880
future in front of us when we look at

407
00:19:21,750 --> 00:19:19,200
all the spacecraft that we're flying you

408
00:19:23,430 --> 00:19:21,760
know it's pretty amazing when you think

409
00:19:24,470 --> 00:19:23,440
you know we've got we're going to have

410
00:19:27,029 --> 00:19:24,480
orion

411
00:19:30,230 --> 00:19:27,039
uh spacex with crew dragon

412
00:19:32,070 --> 00:19:30,240
and uh boeing starliner here soon uh

413
00:19:34,789 --> 00:19:32,080

later this year flying its operational

414
00:19:36,710 --> 00:19:34,799
test flight and uh and crew hopefully

415
00:19:39,029 --> 00:19:36,720
later this year you know they have that

416
00:19:40,950 --> 00:19:39,039
dissimilar redundancy but you know three

417
00:19:42,630 --> 00:19:40,960
american spacecraft all different

418
00:19:43,990 --> 00:19:42,640
offline cruise to space and i believe

419
00:19:46,150 --> 00:19:44,000
there's going to be more to come you

420
00:19:47,909 --> 00:19:46,160
look at uh blue origin with their

421
00:19:50,630 --> 00:19:47,919
suborbital vehicle they want to be uh

422
00:19:52,390 --> 00:19:50,640
orbital also sierra nevada with the

423
00:19:54,070 --> 00:19:52,400
cargo to the international space station

424
00:19:55,909 --> 00:19:54,080
they'd like to move that to become a

425
00:19:57,830 --> 00:19:55,919
crew vehicle one day i think this is

426
00:19:59,750 --> 00:19:57,840
just an absolutely exciting time for

427
00:20:01,590 --> 00:19:59,760
america's space program and and for what

428
00:20:03,590 --> 00:20:01,600
we're doing anything you want to add to

429
00:20:05,190 --> 00:20:03,600
that steve

430
00:20:07,350 --> 00:20:05,200
yeah just just real quick stations

431
00:20:09,430 --> 00:20:07,360
question for steve jerzik uh

432
00:20:11,190 --> 00:20:09,440
in recent days yuri borisov russian

433
00:20:13,590 --> 00:20:11,200
deputy prime minister suggested that

434
00:20:16,390 --> 00:20:13,600
russia will exit the iss partnership as

435
00:20:18,470 --> 00:20:16,400
soon as 2025. what discussions have you

436
00:20:20,950 --> 00:20:18,480
had recently with rose cosmos about

437
00:20:23,830 --> 00:20:20,960
their continued participation in the iss

438
00:20:26,310 --> 00:20:23,840

or the ongoing negotiations to barter

439
00:20:28,149 --> 00:20:26,320
commercial crew seats for soyuz seats on

440
00:20:29,430 --> 00:20:28,159
future missions

441
00:20:31,430 --> 00:20:29,440
yeah so

442
00:20:33,029 --> 00:20:31,440
first of all we have a really still have

443
00:20:36,549 --> 00:20:33,039
a very very really strong relationship

444
00:20:38,390 --> 00:20:36,559
with russ cosmos and russia on iss

445
00:20:39,909 --> 00:20:38,400
it's it's important and it's critical

446
00:20:42,470 --> 00:20:39,919
for the continued safe and effective

447
00:20:44,950 --> 00:20:42,480
operations of iss so that's number one

448
00:20:47,350 --> 00:20:44,960
number two is i know all all the

449
00:20:49,830 --> 00:20:47,360
partners including us are looking at

450
00:20:52,789 --> 00:20:49,840
the future of iss

451
00:20:55,510 --> 00:20:52,799
and what we might do together on iss or

452
00:20:57,990 --> 00:20:55,520
or in leo and haven't had any

453
00:21:00,070 --> 00:20:58,000
discussions with russia or us cosmos on

454
00:21:02,950 --> 00:21:00,080
on their plans and they'll do their work

455
00:21:04,710 --> 00:21:02,960
and and decide what they want to do and

456
00:21:06,950 --> 00:21:04,720
we'll make our decisions on on our side

457
00:21:08,230 --> 00:21:06,960
with our partners um

458
00:21:11,190 --> 00:21:08,240
and then yeah we're looking forward to

459
00:21:14,070 --> 00:21:11,200
getting the uh implementing agreement

460
00:21:16,230 --> 00:21:14,080
um the final sign off from the state

461
00:21:17,750 --> 00:21:16,240
department and getting that draft to the

462
00:21:20,789 --> 00:21:17,760
russians and

463
00:21:22,630 --> 00:21:20,799

negotiating the crew swap um on where

464
00:21:25,190 --> 00:21:22,640
they'll be flying a um

465
00:21:27,430 --> 00:21:25,200
a cosmonaut on a commercial crew flight

466
00:21:32,390 --> 00:21:27,440
and we'll be flying continue to fly an

467
00:21:35,990 --> 00:21:34,230
all right my question is for steve geo

468
00:21:37,190 --> 00:21:36,000
benitez with abc news good to see you

469
00:21:39,669 --> 00:21:37,200
again

470
00:21:41,750 --> 00:21:39,679
i should have just had you stay there

471
00:21:43,669 --> 00:21:41,760
mr administrator you know i i think that

472
00:21:44,630 --> 00:21:43,679
for a lot of americans they don't

473
00:21:46,710 --> 00:21:44,640
understand

474
00:21:49,510 --> 00:21:46,720
just how much research happens aboard

475
00:21:51,990 --> 00:21:49,520
the iss so i wonder mr administrator

476
00:21:54,310 --> 00:21:52,000
what project specifically you're most

477
00:21:56,870 --> 00:21:54,320
excited about with crew 2

478
00:21:58,549 --> 00:21:56,880
ah really really really a really great

479
00:22:01,430 --> 00:21:58,559
question so

480
00:22:02,950 --> 00:22:01,440
i'm i'm a technology guy right so i ran

481
00:22:05,110 --> 00:22:02,960
the space technology mission directorate

482
00:22:06,710 --> 00:22:05,120
before i became associate administrator

483
00:22:09,110 --> 00:22:06,720
and so it's really interesting i

484
00:22:11,990 --> 00:22:09,120
mentioned earlier about the solar array

485
00:22:14,230 --> 00:22:12,000
upgrades and the evas are going to do to

486
00:22:16,310 --> 00:22:14,240
to uh to um

487
00:22:17,990 --> 00:22:16,320
to upgrade the power capability of

488
00:22:19,590 --> 00:22:18,000

stations so those solar arrays were

489
00:22:21,029 --> 00:22:19,600
actually funded by the space technology

490
00:22:23,430 --> 00:22:21,039
mission directorate when i was running

491
00:22:26,390 --> 00:22:23,440
it the rollout solar rays and it's a

492
00:22:27,190 --> 00:22:26,400
really cool design right it's uh it uses

493
00:22:29,990 --> 00:22:27,200
uh

494
00:22:32,390 --> 00:22:30,000
carbon fiber sheets that they can roll

495
00:22:34,230 --> 00:22:32,400
up and the strain energy of that of

496
00:22:36,870 --> 00:22:34,240
those carbon fiber sheets actually

497
00:22:38,549 --> 00:22:36,880
deploy the solar array and form the two

498
00:22:39,669 --> 00:22:38,559
tubes on either side

499
00:22:41,270 --> 00:22:39,679
and so

500
00:22:44,230 --> 00:22:41,280
it's it's great that we're able to

501
00:22:47,430 --> 00:22:44,240
demonstrate that technology on on

502
00:22:49,110 --> 00:22:47,440
station um for future for future nasa

503
00:22:50,710 --> 00:22:49,120
applications the other thing i'm really

504
00:22:52,950 --> 00:22:50,720
excited about is the medical research

505
00:22:55,510 --> 00:22:52,960
that we do on station because not only

506
00:22:59,350 --> 00:22:55,520
does it help us understand the effects

507
00:23:01,270 --> 00:22:59,360
of the space environment long term on

508
00:23:03,669 --> 00:23:01,280
our astronauts and how to mitigate those

509
00:23:06,070 --> 00:23:03,679
effects but we're also doing uh research

510
00:23:09,110 --> 00:23:06,080
on station to

511
00:23:11,029 --> 00:23:09,120
advance medical research here on earth

512
00:23:13,029 --> 00:23:11,039
so one one project they were talking

513
00:23:16,149 --> 00:23:13,039

about recently was

514
00:23:18,630 --> 00:23:16,159
the uh research with the ability to um

515
00:23:20,950 --> 00:23:18,640
change the delivery method of drugs and

516
00:23:22,470 --> 00:23:20,960
make the delivery method easier and it's

517
00:23:24,310 --> 00:23:22,480
it's uh it's

518
00:23:25,430 --> 00:23:24,320
in the it's really effective to do that

519
00:23:27,990 --> 00:23:25,440
research in the micro guardian

520
00:23:30,630 --> 00:23:28,000
environment also treatments for various

521
00:23:32,630 --> 00:23:30,640
diseases so i know the the medical

522
00:23:34,870 --> 00:23:32,640
research is really important not only to

523
00:23:37,430 --> 00:23:34,880
understand you know how to keep

524
00:23:39,669 --> 00:23:37,440
astronauts healthy and productive on

525
00:23:40,549 --> 00:23:39,679
long-duration space flight but also

526
00:23:43,029 --> 00:23:40,559
for

527
00:23:45,029 --> 00:23:43,039
treatments here on earth and

528
00:23:49,190 --> 00:23:45,039
curing diseases here on earth all right

529
00:23:54,390 --> 00:23:52,070
marsha done ap for mr jersey

530
00:23:56,310 --> 00:23:54,400
um will the crew once still be coming

531
00:23:58,310 --> 00:23:56,320
home on the 28th or does that get bumped

532
00:24:00,710 --> 00:23:58,320
today because of the one-day launch slip

533
00:24:02,149 --> 00:24:00,720
how will that coincide

534
00:24:03,909 --> 00:24:02,159
and um

535
00:24:07,029 --> 00:24:03,919
nasa and spacex are going to be swimming

536
00:24:08,470 --> 00:24:07,039
in used uh spacesuits um after all these

537
00:24:11,350 --> 00:24:08,480
flights keep racking up and they're

538
00:24:14,470 --> 00:24:11,360

custom made for each person so what's

539
00:24:15,669 --> 00:24:14,480
the plan museums uh personal wardrobes i

540
00:24:17,430 --> 00:24:15,679
mean what's the plan for all these

541
00:24:20,149 --> 00:24:17,440
spacesuits

542
00:24:23,190 --> 00:24:20,159
so yeah so the iss team met this morning

543
00:24:25,590 --> 00:24:23,200
and the plan today is to bring the crew

544
00:24:28,470 --> 00:24:25,600
one crew back on the 28th so we're

545
00:24:30,710 --> 00:24:28,480
holding 28th date for crew one return

546
00:24:34,149 --> 00:24:30,720
and on the spacesuits i don't know i i

547
00:24:36,070 --> 00:24:34,159
may i would like one right to check out

548
00:24:37,590 --> 00:24:36,080
uh but uh that's a great question i'll

549
00:24:45,430 --> 00:24:37,600
i'll get back to you on that i'm not

550
00:24:49,909 --> 00:24:47,750
hi thanks amy thompson with space.com so

551
00:24:51,990 --> 00:24:49,919
this is also for mr jerzik

552
00:24:53,190 --> 00:24:52,000
um this is the second flight where

553
00:24:54,789 --> 00:24:53,200
you're going to have an international

554
00:24:56,470 --> 00:24:54,799
partner so i was just wondering what is

555
00:24:57,830 --> 00:24:56,480
the importance of that especially moving

556
00:25:00,630 --> 00:24:57,840
forward to artemis where it's going to

557
00:25:02,070 --> 00:25:00,640
be a big international partnership

558
00:25:03,830 --> 00:25:02,080
yeah so hey

559
00:25:05,990 --> 00:25:03,840
it is the international space station

560
00:25:09,269 --> 00:25:06,000
right we would not be we would not have

561
00:25:11,269 --> 00:25:09,279
the space station like we had and uh and

562
00:25:15,350 --> 00:25:11,279
and it's the way we planned it in in the

563
00:25:18,310 --> 00:25:15,360

early 90s right without our canadian isa

564
00:25:21,590 --> 00:25:18,320
russian and jaxa partners and so

565
00:25:24,470 --> 00:25:21,600
um it's it is part of the um of the

566
00:25:27,269 --> 00:25:24,480
collaboration to fly crew from all

567
00:25:29,669 --> 00:25:27,279
agencies to the iss and this is this is

568
00:25:32,149 --> 00:25:29,679
this is part of that that overall plan

569
00:25:34,310 --> 00:25:32,159
that we're executing you know um we've

570
00:25:36,070 --> 00:25:34,320
we always said our we're going

571
00:25:38,549 --> 00:25:36,080
we're going returning to the moon or

572
00:25:40,710 --> 00:25:38,559
going forward to the moon um with our

573
00:25:42,149 --> 00:25:40,720
commercial and international partners

574
00:25:45,190 --> 00:25:42,159
and so you've already seen that with the

575
00:25:46,950 --> 00:25:45,200
gateway right we've got

576
00:25:49,750 --> 00:25:46,960
we've got the uh international

577
00:25:51,669 --> 00:25:49,760
habitation module and the robotic arm

578
00:25:53,990 --> 00:25:51,679
from from issa and jaxa and the robotic

579
00:25:55,350 --> 00:25:54,000
arm from the canadians we're looking for

580
00:25:56,710 --> 00:25:55,360
how we might

581
00:25:57,909 --> 00:25:56,720
develop further capabilities with

582
00:25:59,590 --> 00:25:57,919
international partners and commercial

583
00:26:01,909 --> 00:25:59,600
partners on gateway and now we're

584
00:26:04,310 --> 00:26:01,919
starting to engage in surface systems

585
00:26:07,909 --> 00:26:04,320
and what are the surface systems we need

586
00:26:09,669 --> 00:26:07,919
for a permanent presence on the moon as

587
00:26:11,430 --> 00:26:09,679
well as what do we need to demonstrate

588
00:26:14,070 --> 00:26:11,440

the technologies and capabilities in

589
00:26:16,070 --> 00:26:14,080
orbit and on the moon to uh for a human

590
00:26:18,549 --> 00:26:16,080
mission to mars so

591
00:26:19,750 --> 00:26:18,559
the iss is oh the underpinning of iss

592
00:26:21,350 --> 00:26:19,760
has always been an international

593
00:26:23,029 --> 00:26:21,360
collaboration and that will continue

594
00:26:25,990 --> 00:26:23,039
throughout the life of the program and

595
00:26:26,789 --> 00:26:26,000
then our our success in artemis will be

596
00:26:28,070 --> 00:26:26,799
uh

597
00:26:29,350 --> 00:26:28,080
through collaborating with our

598
00:26:35,110 --> 00:26:29,360
international partners as well as our

599
00:26:40,230 --> 00:26:37,350
hello issa matthew here from afp it's

600
00:26:42,870 --> 00:26:40,240
again for the action administrator um

601
00:26:45,909 --> 00:26:42,880
so the last administration did uh for

602
00:26:48,390 --> 00:26:45,919
artemis set a goal of 2024 and we don't

603
00:26:50,549 --> 00:26:48,400
hear too much about timeline these days

604
00:26:52,149 --> 00:26:50,559
um what is the sort of current state of

605
00:26:53,750 --> 00:26:52,159
play and your discussions with the

606
00:26:56,230 --> 00:26:53,760
administration and and how you feel

607
00:26:57,990 --> 00:26:56,240
about your budget

608
00:26:59,430 --> 00:26:58,000
where we what are we thinking right now

609
00:27:01,510 --> 00:26:59,440
in terms of timeline is it closer to

610
00:27:03,510 --> 00:27:01,520
that or further away

611
00:27:04,950 --> 00:27:03,520
yeah so first on the budget we feel

612
00:27:07,430 --> 00:27:04,960
really good about our budget we got

613
00:27:09,990 --> 00:27:07,440

about a 6.3 percent increase over what

614
00:27:13,110 --> 00:27:10,000
was enacted by congress in this fiscal

615
00:27:14,390 --> 00:27:13,120
year about 1.5 1.5 billion dollar

616
00:27:16,950 --> 00:27:14,400
increase

617
00:27:18,789 --> 00:27:16,960
across all the missionaries at nasa so

618
00:27:20,950 --> 00:27:18,799
feel really good about

619
00:27:22,549 --> 00:27:20,960
the president's uh top-line budget that

620
00:27:23,990 --> 00:27:22,559
was rolled out

621
00:27:25,830 --> 00:27:24,000
a couple weeks ago

622
00:27:26,870 --> 00:27:25,840
on the timeline uh we're doing an in

623
00:27:29,990 --> 00:27:26,880
we're doing a study right now an

624
00:27:32,630 --> 00:27:30,000
internal study right now to look at um

625
00:27:34,470 --> 00:27:32,640
the timeline of missions beyond artemis

626
00:27:36,789 --> 00:27:34,480
ii so we're still trying to hold the

627
00:27:39,190 --> 00:27:36,799
artemis one uncrew test flight of orion

628
00:27:42,389 --> 00:27:39,200
and sls this calendar year that will be

629
00:27:44,389 --> 00:27:42,399
very challenging uh in fact the um had a

630
00:27:47,909 --> 00:27:44,399
very successful green run hot fire

631
00:27:49,990 --> 00:27:47,919
tested stannis and i the they're very

632
00:27:51,590 --> 00:27:50,000
close they've gotten the the sls core

633
00:27:53,830 --> 00:27:51,600
stage out of the test stand and

634
00:27:56,070 --> 00:27:53,840
hopefully on the barge today and and the

635
00:27:57,590 --> 00:27:56,080
core stage will be here at kennedy space

636
00:28:00,950 --> 00:27:57,600
center and right over there in the vab

637
00:28:03,430 --> 00:28:00,960
next week and that'll be that's the last

638
00:28:06,710 --> 00:28:03,440

hardware element for that rms1 mission

639
00:28:07,669 --> 00:28:06,720
artemis 2 the crew test flight in 2023

640
00:28:10,470 --> 00:28:07,679
and then

641
00:28:11,350 --> 00:28:10,480
it will take us probably a few months

642
00:28:13,110 --> 00:28:11,360
to

643
00:28:15,830 --> 00:28:13,120
conduct the study and review and lay out

644
00:28:18,149 --> 00:28:15,840
the missions beyond artemis ii um having

645
00:28:19,990 --> 00:28:18,159
said that you know in the uh human

646
00:28:22,789 --> 00:28:20,000
landing system contract the rf the

647
00:28:25,590 --> 00:28:22,799
request for proposal we had a goal of

648
00:28:28,389 --> 00:28:25,600
doing of having the hls ready to land

649
00:28:31,990 --> 00:28:28,399
astronauts on the moon in 2024

650
00:28:34,950 --> 00:28:32,000
spacex their bid um they said we believe

651
00:28:37,909 --> 00:28:34,960
we can land in 2024 but we know how

652
00:28:40,549 --> 00:28:37,919
difficult these um human spaceflight

653
00:28:41,669 --> 00:28:40,559
system development developments are um

654
00:28:43,669 --> 00:28:41,679
so

655
00:28:45,510 --> 00:28:43,679
we'll be tracking their progress along

656
00:28:47,110 --> 00:28:45,520
the way and see if that's still possible

657
00:28:49,350 --> 00:28:47,120
as well as the other systems that we

658
00:28:51,430 --> 00:28:49,360
need to do that first crude mission to

659
00:28:53,269 --> 00:28:51,440
the surface and back

660
00:28:55,590 --> 00:28:53,279
and but along the way we will always

661
00:28:56,950 --> 00:28:55,600
focus on safety never compromise safety

662
00:28:59,190 --> 00:28:56,960
for schedule

663
00:29:00,870 --> 00:28:59,200

just like we did with commercial crew

664
00:29:01,909 --> 00:29:00,880
and all our programs

665
00:29:04,389 --> 00:29:01,919
so

666
00:29:10,870 --> 00:29:04,399
it's possible but it's uh it'll be very

667
00:29:14,470 --> 00:29:12,310
hello stephen clark from space flight

668
00:29:16,230 --> 00:29:14,480
now my question is for uh frank de vin

669
00:29:18,230 --> 00:29:16,240
um you mentioned the europe european

670
00:29:19,830 --> 00:29:18,240
robotic arm launching this summer from

671
00:29:21,350 --> 00:29:19,840
micronor it's been

672
00:29:23,909 --> 00:29:21,360
on the ground for a long time waiting to

673
00:29:26,630 --> 00:29:23,919
fly uh does uh are there any activities

674
00:29:29,029 --> 00:29:26,640
planned for uh tomopasuke or any of the

675
00:29:31,029 --> 00:29:29,039
cosmonauts to do any activations of the

676
00:29:33,430 --> 00:29:31,039
arm after it gets to the station

677
00:29:35,269 --> 00:29:33,440
and what uh you know given it's been so

678
00:29:37,029 --> 00:29:35,279
long since it's been developed what sort

679
00:29:38,389 --> 00:29:37,039
of applications and purpose do you see

680
00:29:40,950 --> 00:29:38,399
for the arm going forward throughout the

681
00:29:42,070 --> 00:29:40,960
rest of the station's life

682
00:29:44,070 --> 00:29:42,080
thank you

683
00:29:46,310 --> 00:29:44,080
yes the aim is uh to start the

684
00:29:47,190 --> 00:29:46,320
commissioning of the european robotic

685
00:29:49,669 --> 00:29:47,200
arm and

686
00:29:51,909 --> 00:29:49,679
the increment of tomah pesquet but also

687
00:29:54,470 --> 00:29:51,919
on the flight after that when matthias

688
00:29:56,870 --> 00:29:54,480

mario will be on board

689
00:29:59,669 --> 00:29:56,880
what we have currently scheduled is

690
00:30:02,230 --> 00:29:59,679
the activation and some checkout of the

691
00:30:05,190 --> 00:30:02,240
iva equipment by tomah

692
00:30:07,669 --> 00:30:05,200
and then a couple of evas where our

693
00:30:10,070 --> 00:30:07,679
russian colleagues will

694
00:30:10,950 --> 00:30:10,080
install the arm and do the external work

695
00:30:12,470 --> 00:30:10,960
that is

696
00:30:15,669 --> 00:30:12,480
required to do the commissioning of the

697
00:30:18,389 --> 00:30:15,679
arm with matias from the the inside

698
00:30:20,549 --> 00:30:18,399
supporting the robotic operations and

699
00:30:23,350 --> 00:30:20,559
then afterwards we are also looking to

700
00:30:25,590 --> 00:30:23,360
see if matthias can do an eva associated

701
00:30:27,750 --> 00:30:25,600
with one of the first operations

702
00:30:30,630 --> 00:30:27,760
uh activities that is really that the

703
00:30:32,789 --> 00:30:30,640
arm will do uh basically uh installing

704
00:30:34,310 --> 00:30:32,799
some scientific payloads on the outside

705
00:30:36,950 --> 00:30:34,320
of the russian segment

706
00:30:39,029 --> 00:30:36,960
uh in the long-term future uh the

707
00:30:41,029 --> 00:30:39,039
european robotic arm is part of the

708
00:30:42,950 --> 00:30:41,039
russian segment so we are discussing

709
00:30:45,350 --> 00:30:42,960
with our russian colleagues what our

710
00:30:46,470 --> 00:30:45,360
future applications for that uh

711
00:30:48,789 --> 00:30:46,480
we are talking

712
00:30:51,110 --> 00:30:48,799
especially about scientific

713
00:30:52,789 --> 00:30:51,120

installing scientific experiments at the

714
00:30:55,590 --> 00:30:52,799
outside of the uh

715
00:30:58,230 --> 00:30:55,600
of the uh russian segment but also

716
00:30:59,509 --> 00:30:58,240
relocation of some modules are also part

717
00:31:01,590 --> 00:30:59,519
of the

718
00:31:02,870 --> 00:31:01,600
operational tasks that the era will

719
00:31:05,430 --> 00:31:02,880
execute

720
00:31:07,350 --> 00:31:05,440
and that is in the next one to two years

721
00:31:08,870 --> 00:31:07,360
uh then it will depend on the success of

722
00:31:11,350 --> 00:31:08,880
the commissioning the success of those

723
00:31:12,710 --> 00:31:11,360
first tasks uh and to the work with

724
00:31:15,029 --> 00:31:12,720
together with our russian colleagues

725
00:31:22,070 --> 00:31:15,039
what and the future plans are of uh of

726
00:31:26,230 --> 00:31:23,909
jeff house of space news a follow-up for

727
00:31:27,990 --> 00:31:26,240
uh steve jerzik um on the earlier

728
00:31:29,590 --> 00:31:28,000
question on uh

729
00:31:31,110 --> 00:31:29,600
commercial crew bartering

730
00:31:32,870 --> 00:31:31,120
uh it's my understanding that it's

731
00:31:34,710 --> 00:31:32,880
probably too late now to get a russian

732
00:31:37,110 --> 00:31:34,720
cosmonaut onto the crew 3 mission this

733
00:31:38,950 --> 00:31:37,120
fall so i'm curious what uh nasa's plans

734
00:31:41,830 --> 00:31:38,960
are for filling that fourth seat on that

735
00:31:43,029 --> 00:31:41,840
mission and then uh also do you expect a

736
00:31:45,110 --> 00:31:43,039
need to

737
00:31:46,950 --> 00:31:45,120
work out some sort of deal to get an

738
00:31:49,110 --> 00:31:46,960

additional soyuz seat because of that

739
00:31:50,549 --> 00:31:49,120
delay or will mark vanda highs extend

740
00:31:52,950 --> 00:31:50,559
its potentially extended stay on the

741
00:31:54,789 --> 00:31:52,960
station uh negate that thanks

742
00:31:56,710 --> 00:31:54,799
yeah so we're

743
00:31:59,750 --> 00:31:56,720
we haven't worked through all that yet

744
00:32:02,630 --> 00:31:59,760
right we haven't completely given up on

745
00:32:03,990 --> 00:32:02,640
uh having a cosmonaut on crew three but

746
00:32:05,909 --> 00:32:04,000
at this point given the schedule would

747
00:32:08,950 --> 00:32:05,919
be really really challenging to complete

748
00:32:11,669 --> 00:32:08,960
all the training get suit done fitted

749
00:32:13,590 --> 00:32:11,679
and done for a cosmic on crew three so

750
00:32:16,230 --> 00:32:13,600
crew four is looking more likely right

751
00:32:18,470 --> 00:32:16,240
now and then based on that decision then

752
00:32:20,389 --> 00:32:18,480
we'll figure out um who will fly in the

753
00:32:23,269 --> 00:32:20,399
seat for crew three where it'll be

754
00:32:25,590 --> 00:32:23,279
cosmod or somebody or another or another

755
00:32:27,590 --> 00:32:25,600
last shot or one of our partners and uh

756
00:32:28,549 --> 00:32:27,600
and then um and then we'll work through

757
00:32:30,549 --> 00:32:28,559
whether

758
00:32:32,950 --> 00:32:30,559
um there's an opportunity for mark to

759
00:32:35,190 --> 00:32:32,960
extend to a year or we need to do

760
00:32:36,549 --> 00:32:35,200
something else to make ensure that we

761
00:32:39,430 --> 00:32:36,559
have uh

762
00:32:45,590 --> 00:32:39,440
crew on on the usos

763
00:32:49,350 --> 00:32:47,430

hi thomas burkhart for nasa space flight

764
00:32:51,190 --> 00:32:49,360
a question for steve uh with spacex

765
00:32:52,549 --> 00:32:51,200
launching crew 2 this week in crew 3

766
00:32:54,149 --> 00:32:52,559
later this year they've ended up a

767
00:32:56,230 --> 00:32:54,159
little bit ahead of starliner as far as

768
00:32:57,669 --> 00:32:56,240
crew rotation missions my question is

769
00:32:59,029 --> 00:32:57,679
are we going to expect a stretch of

770
00:33:01,029 --> 00:32:59,039
starlight emissions to sort of catch

771
00:33:03,509 --> 00:33:01,039
them up to crew dragon as far as their

772
00:33:05,029 --> 00:33:03,519
crew rotation flights go or will the two

773
00:33:07,029 --> 00:33:05,039
vehicles continue to sort of alternate

774
00:33:08,870 --> 00:33:07,039
once starliner is operational and what's

775
00:33:10,950 --> 00:33:08,880
the status of contracting additional

776
00:33:12,149 --> 00:33:10,960
missions to both spacex and boeing uh

777
00:33:15,110 --> 00:33:12,159
after the initial commercial crew

778
00:33:18,070 --> 00:33:15,120
contracts yeah so um

779
00:33:21,590 --> 00:33:18,080
our plan has always been to alternate uh

780
00:33:25,190 --> 00:33:21,600
dragon and starliner missions um

781
00:33:27,750 --> 00:33:25,200
uh we may revisit that with uh um with a

782
00:33:31,669 --> 00:33:27,760
delay in oft2

783
00:33:34,070 --> 00:33:31,679
and uh and uh cft1 uh but right now our

784
00:33:35,590 --> 00:33:34,080
our plan was always to alternate

785
00:33:36,710 --> 00:33:35,600
alternate missions

786
00:33:39,509 --> 00:33:36,720
um

787
00:33:43,509 --> 00:33:39,519
and then uh yeah we that's forward work

788
00:33:45,909 --> 00:33:43,519

to determine um how how we acquire uh

789
00:33:48,310 --> 00:33:45,919
seats after these initial contacts with

790
00:33:50,549 --> 00:33:48,320
uh contracts with spacex and boeing so

791
00:33:51,269 --> 00:33:50,559
uh we haven't had those discussions yet

792
00:33:58,870 --> 00:33:51,279
and

793
00:34:03,430 --> 00:34:01,350
uh thank you ken kramer again uh for

794
00:34:05,350 --> 00:34:03,440
probably for steve jerzik can you talk a

795
00:34:08,869 --> 00:34:05,360
little bit more about the cargo delivery

796
00:34:11,190 --> 00:34:08,879
contract for um for artemis to follow up

797
00:34:13,510 --> 00:34:11,200
on the human lander contract when do you

798
00:34:15,270 --> 00:34:13,520
expect to reward that and talk a little

799
00:34:17,270 --> 00:34:15,280
bit about the details and when do you

800
00:34:18,389 --> 00:34:17,280
want them to land would you want them to

801
00:34:20,950 --> 00:34:18,399
land

802
00:34:24,069 --> 00:34:20,960
um before

803
00:34:26,389 --> 00:34:24,079
before the uh the astronauts on artemis

804
00:34:29,349 --> 00:34:26,399
3 or whatever mission they they launch

805
00:34:31,030 --> 00:34:29,359
on thanks yeah so we have awarded what

806
00:34:33,270 --> 00:34:31,040
we call the um

807
00:34:37,109 --> 00:34:33,280
cargo delivery contract

808
00:34:40,470 --> 00:34:37,119
for artemis um it's been awarded to you

809
00:34:42,389 --> 00:34:40,480
on the land oh hls yes the unmanned

810
00:34:44,230 --> 00:34:42,399
lander oh

811
00:34:46,629 --> 00:34:44,240
the unmanned lander right you were going

812
00:34:49,030 --> 00:34:46,639
to have another contract for a lander to

813
00:34:51,030 --> 00:34:49,040

support the humans on the moon right oh

814
00:34:54,230 --> 00:34:51,040
so yeah okay thank you thank you so our

815
00:34:55,109 --> 00:34:54,240
plan right now um is to

816
00:34:57,270 --> 00:34:55,119
um

817
00:35:00,470 --> 00:34:57,280
leverage the commercial lunar payload

818
00:35:03,349 --> 00:35:00,480
services um idiq contracts

819
00:35:07,430 --> 00:35:03,359
um and have look at those contracts is

820
00:35:10,230 --> 00:35:07,440
developing more capable uh landers um to

821
00:35:14,550 --> 00:35:10,240
land cargo so for example

822
00:35:16,230 --> 00:35:14,560
um the viper mission pretty big uh rover

823
00:35:17,190 --> 00:35:16,240
right to go down into the permanently

824
00:35:19,030 --> 00:35:17,200
shattered craters and try to

825
00:35:20,950 --> 00:35:19,040
characterize how the water is bound with

826
00:35:23,349 --> 00:35:20,960
the regolith we're going to

827
00:35:25,510 --> 00:35:23,359
obtain the lander for for viper through

828
00:35:28,710 --> 00:35:25,520
the commercial lunar payload services so

829
00:35:30,470 --> 00:35:28,720
that's one route that we hope as our

830
00:35:31,829 --> 00:35:30,480
industry partners evolve their

831
00:35:33,829 --> 00:35:31,839
capabilities

832
00:35:35,750 --> 00:35:33,839
to larger landers we can use those

833
00:35:39,589 --> 00:35:35,760
larger landers to deliver things like

834
00:35:41,589 --> 00:35:39,599
viper and eventually eventually cargo

835
00:35:42,950 --> 00:35:41,599
another option which we haven't decided

836
00:35:44,870 --> 00:35:42,960
on yet would be

837
00:35:47,750 --> 00:35:44,880
you know go out with us

838
00:35:48,950 --> 00:35:47,760

an rfp and and unique contracts for that

839
00:35:50,950 --> 00:35:48,960
but we're hoping to evolve the

840
00:35:52,150 --> 00:35:50,960
commercial loan payload services

841
00:35:55,190 --> 00:35:52,160
um

842
00:35:58,069 --> 00:35:55,200
idiq contractors to be able to evolve to

843
00:36:01,190 --> 00:35:58,079
those larger landers that we need okay

844
00:36:05,430 --> 00:36:02,390
we're going to have time for one more

845
00:36:07,670 --> 00:36:05,440
question and then a wrap up thank you

846
00:36:10,069 --> 00:36:07,680
uh hi uh this is assam ahmed from afp

847
00:36:13,910 --> 00:36:10,079
this is a question for uh funk

848
00:36:15,589 --> 00:36:13,920
um so um nasa recently mentioned that uh

849
00:36:17,430 --> 00:36:15,599
for the artemis program they'd be keen

850
00:36:20,230 --> 00:36:17,440
to send the first person of color as

851
00:36:22,310 --> 00:36:20,240
well to the moon and in the current crop

852
00:36:24,150 --> 00:36:22,320
of uh eso astronauts we don't see any

853
00:36:26,150 --> 00:36:24,160
people of color and i'm not sure if

854
00:36:28,710 --> 00:36:26,160
that's ever been the case so is this

855
00:36:31,270 --> 00:36:28,720
also a diversity is it also a priority

856
00:36:33,750 --> 00:36:31,280
for esa

857
00:36:35,510 --> 00:36:33,760
diversity is a great priority for for

858
00:36:37,510 --> 00:36:35,520
esa we have

859
00:36:39,349 --> 00:36:37,520
recently launched a new astronaut

860
00:36:42,069 --> 00:36:39,359
selection campaign

861
00:36:44,069 --> 00:36:42,079
that we have kicked off about a couple

862
00:36:45,349 --> 00:36:44,079
of months ago and the vacancy notice is

863
00:36:48,390 --> 00:36:45,359

actually open

864
00:36:50,950 --> 00:36:48,400
diversity is on the forefront of that

865
00:36:53,829 --> 00:36:50,960
isa astronaut selection campaign

866
00:36:56,790 --> 00:36:53,839
we look of course to have more women in

867
00:36:58,630 --> 00:36:56,800
our uh astronaut corps uh because today

868
00:36:59,430 --> 00:36:58,640
we only have some anti-christian feretti

869
00:37:02,150 --> 00:36:59,440
and

870
00:37:03,670 --> 00:37:02,160
uh so we need uh indeed to to to make a

871
00:37:06,310 --> 00:37:03,680
step forward there and to have a more

872
00:37:08,470 --> 00:37:06,320
diverse uh astronaut core but we're not

873
00:37:11,430 --> 00:37:08,480
only looking at women we are also

874
00:37:14,069 --> 00:37:11,440
looking at other aspects of diversity

875
00:37:15,990 --> 00:37:14,079
and for the first time as well in isa we

876
00:37:18,470 --> 00:37:16,000
are doing a feasibility study and a

877
00:37:20,390 --> 00:37:18,480
project where we are looking if we can

878
00:37:22,550 --> 00:37:20,400
recruit a

879
00:37:24,710 --> 00:37:22,560
person with a disability with a physical

880
00:37:27,270 --> 00:37:24,720
disability that can become a

881
00:37:29,109 --> 00:37:27,280
professional astronaut and so for that

882
00:37:31,270 --> 00:37:29,119
we will have of course to work together

883
00:37:33,670 --> 00:37:31,280
with our international partners because

884
00:37:36,630 --> 00:37:33,680
it's very important for us that this

885
00:37:38,710 --> 00:37:36,640
person can fly in all safety

886
00:37:40,870 --> 00:37:38,720
to the international space station uh

887
00:37:42,550 --> 00:37:40,880
not only when he's on the international

888
00:37:44,069 --> 00:37:42,560

space station but of course

889
00:37:45,990 --> 00:37:44,079
also here on the launch pad if there

890
00:37:49,270 --> 00:37:46,000
would be an abort if there would be a

891
00:37:52,069 --> 00:37:49,280
rapid evacuation uh as bob and steve

892
00:37:53,750 --> 00:37:52,079
said safety is paramount uh in our

893
00:37:56,790 --> 00:37:53,760
endeavor so we will need to make sure

894
00:37:58,069 --> 00:37:56,800
that all this is happening in the right

895
00:37:59,670 --> 00:37:58,079
sequence

896
00:38:01,190 --> 00:37:59,680
and this astronaut as well should be a

897
00:38:03,510 --> 00:38:01,200
professional astronaut so it's not

898
00:38:05,109 --> 00:38:03,520
somebody to fly and just be on the space

899
00:38:07,670 --> 00:38:05,119
station it should be a professional

900
00:38:09,430 --> 00:38:07,680
astronaut that can execute all the tasks

901
00:38:12,150 --> 00:38:09,440
that all professional astronauts are

902
00:38:14,550 --> 00:38:12,160
executing in the space station so uh i

903
00:38:17,030 --> 00:38:14,560
think we are the first uh

904
00:38:19,510 --> 00:38:17,040
space agency at least to open up our

905
00:38:21,829 --> 00:38:19,520
core to to this type of diversity and

906
00:38:23,670 --> 00:38:21,839
elements and we are we are very proud of

907
00:38:25,190 --> 00:38:23,680
it and we will see where we get it's the

908
00:38:26,230 --> 00:38:25,200
first step we don't know if we will

909
00:38:27,589 --> 00:38:26,240
succeed

910
00:38:33,990 --> 00:38:27,599
but at least we are willing to make the

911
00:38:37,750 --> 00:38:36,470
okay thank you all for joining us this

912
00:38:40,069 --> 00:38:37,760
morning um

913
00:38:42,150 --> 00:38:40,079

you know as i reflect on the last year

914
00:38:43,750 --> 00:38:42,160
it's been a really challenging year

915
00:38:46,069 --> 00:38:43,760
really difficult year

916
00:38:47,990 --> 00:38:46,079
um but we've been able to accomplish

917
00:38:49,910 --> 00:38:48,000
some really some really great amazing

918
00:38:52,150 --> 00:38:49,920
and great things over the last

919
00:38:53,190 --> 00:38:52,160
12 to 15 months i could not be more

920
00:38:55,829 --> 00:38:53,200
proud of

921
00:38:57,349 --> 00:38:55,839
of the nasa team along with our

922
00:38:58,829 --> 00:38:57,359
other government agency partners our

923
00:39:02,069 --> 00:38:58,839
commercial partners and international

924
00:39:04,710 --> 00:39:02,079
partners um you know we we launched the

925
00:39:06,630 --> 00:39:04,720
rover to mars and we landed a rover on

926
00:39:11,030 --> 00:39:06,640
mars and we flew a helicopter for the

927
00:39:14,069 --> 00:39:11,040
first time on mars all this year

928
00:39:16,390 --> 00:39:14,079
we uh we launched um an earth science

929
00:39:19,510 --> 00:39:16,400
mission the 7006 mike pryla glitch

930
00:39:21,190 --> 00:39:19,520
mission with our european partners

931
00:39:24,230 --> 00:39:21,200
we had a great

932
00:39:26,710 --> 00:39:24,240
um core stage test the green run hot

933
00:39:28,870 --> 00:39:26,720
fire a few weeks about a month ago down

934
00:39:30,630 --> 00:39:28,880
at stennis i was down there for that for

935
00:39:32,790 --> 00:39:30,640
the eight minute plus hot fire test

936
00:39:34,950 --> 00:39:32,800
everything went really well the data

937
00:39:37,349 --> 00:39:34,960
looks great and the stage is coming here

938
00:39:40,630 --> 00:39:37,359

for continuing to integrate the vehicle

939
00:39:44,150 --> 00:39:40,640
for artemis one and then of course three

940
00:39:48,069 --> 00:39:44,160
crew launches it was uh may

941
00:39:49,510 --> 00:39:48,079
uh may 22nd i think of last year or i

942
00:39:52,150 --> 00:39:49,520
was actually chairing the flight

943
00:39:54,310 --> 00:39:52,160
readiness review for the demo 2 launch

944
00:39:56,150 --> 00:39:54,320
and then i i was here for the november

945
00:39:58,069 --> 00:39:56,160
crew one launch and now for the crew 2

946
00:39:59,990 --> 00:39:58,079
launch i'm looking forward to a great

947
00:40:02,550 --> 00:40:00,000
launch on on friday and the great

948
00:40:05,589 --> 00:40:02,560
mission and for the safe return of the

949
00:40:07,750 --> 00:40:05,599
crew one crew next week

950
00:40:08,870 --> 00:40:07,760
so again thank you bob and the team here

951
00:40:32,220 --> 00:40:08,880
and thank you everybody for joining us