
NASA
SUNI WILLIAMS

1
00:00:16,410 --> 00:00:14,850
it's really been the dream

2
00:00:18,900 --> 00:00:16,420
new vehicle and a vehicle like a

3
00:00:20,880 --> 00:00:18,910
spacecraft is probably the the Jim if

4
00:00:23,670 --> 00:00:20,890
you will of a career for folks and so I

5
00:00:25,380 --> 00:00:23,680
would have been embarrassed as a test

6
00:00:27,060 --> 00:00:25,390
pilot school graduate to not have jumped

7
00:00:28,859 --> 00:00:27,070
at the opportunity if it was offered to

8
00:00:31,740 --> 00:00:28,869
me to fly a new spacecraft so hopefully

9
00:00:33,990 --> 00:00:31,750
I'll get that chance soon I would say

10
00:00:36,090 --> 00:00:34,000
that one of the things that really gave

11
00:00:37,979 --> 00:00:36,100
us the opportunity to be ready for this

12
00:00:39,569 --> 00:00:37,989
is all those systems on the space

13
00:00:41,069 --> 00:00:39,579

station or on the Space Shuttle that we

14
00:00:42,959 --> 00:00:41,079
had to learn in order to be prepared for

15
00:00:44,819 --> 00:00:42,969
a space flight so it really has set us

16
00:00:46,920 --> 00:00:44,829
up for a mindset of learning new things

17
00:00:48,330 --> 00:00:46,930
and being ready for whatever comes at us

18
00:00:50,930 --> 00:00:48,340
and so we've always had so much

19
00:00:55,050 --> 00:00:50,940
information that we've had to absorb I

20
00:00:57,720 --> 00:00:55,060
think for us as the Commercial Crew

21
00:00:59,610 --> 00:00:57,730
cadre identified by NASA we're really

22
00:01:01,380 --> 00:00:59,620
going to be integral with the partners

23
00:01:03,120 --> 00:01:01,390
both with SpaceX and Boeing as they

24
00:01:04,770 --> 00:01:03,130
prepare vehicles for us to launch into

25
00:01:06,469 --> 00:01:04,780
space and so building that partnership

26
00:01:08,639 --> 00:01:06,479
that relationship where we are

27
00:01:10,319 --> 00:01:08,649
shoulder-to-shoulder with these

28
00:01:11,520 --> 00:01:10,329
companies as they build this vehicle is

29
00:01:13,109 --> 00:01:11,530
really going to be how we're

30
00:01:14,459 --> 00:01:13,119
instrumental and making sure the

31
00:01:17,880 --> 00:01:14,469
vehicles are ready for the the first

32
00:01:20,219 --> 00:01:17,890
flights when the time comes I think as

33
00:01:22,110 --> 00:01:20,229
we've we've seen over the last maybe 10

34
00:01:24,149 --> 00:01:22,120
months or so where we've lost a three

35
00:01:26,219 --> 00:01:24,159
different cargo vehicles a Cygnus

36
00:01:28,440 --> 00:01:26,229
vehicle a progress vehicle and a SpaceX

37
00:01:30,510 --> 00:01:28,450
of cargo vehicle all headed to Space

38
00:01:32,280 --> 00:01:30,520

Station we understand the criticality of

39
00:01:35,580 --> 00:01:32,290
having a redundancy and being able to

40
00:01:37,530 --> 00:01:35,590
keep the space station both supplied as

41
00:01:40,140 --> 00:01:37,540
well as populated with a healthy cruise

42
00:01:41,700 --> 00:01:40,150
and so I think the events over the last

43
00:01:42,960 --> 00:01:41,710
10 months have really made it clear as

44
00:01:44,640 --> 00:01:42,970
to why we would need to have some

45
00:01:46,440 --> 00:01:44,650
redundancy of course we'll be more

46
00:01:48,210 --> 00:01:46,450
careful of with vehicles that have

47
00:01:50,370 --> 00:01:48,220
humans on board but that might mean

48
00:01:51,780 --> 00:01:50,380
standing down and having the capability

49
00:01:53,700 --> 00:01:51,790
to launch on another vehicle is going to

50
00:01:55,410 --> 00:01:53,710
provide us that so I would say the

51
00:01:56,820 --> 00:01:55,420
lifetime of space station it's it's

52
00:02:02,039 --> 00:01:56,830
critical that we get this additional

53
00:02:03,359 --> 00:02:02,049
capability for me I think for astronauts

54
00:02:04,859 --> 00:02:03,369
that are getting ready to be assigned to

55
00:02:06,929 --> 00:02:04,869
a flight I really looked towards the

56
00:02:08,880 --> 00:02:06,939
Swiss Army knife if you will the person

57
00:02:11,039 --> 00:02:08,890
who could do a spacewalk do some

58
00:02:13,110 --> 00:02:11,049
robotics I had a test background if that

59
00:02:14,940 --> 00:02:13,120
was required for the mission at hand and

60
00:02:16,920 --> 00:02:14,950
so really looking for a crew member that

61
00:02:18,660 --> 00:02:16,930
kind of touches all the bases and and

62
00:02:20,729 --> 00:02:18,670
covers all those facets was really

63
00:02:22,500 --> 00:02:20,739

critical kind of going forward I like to

64
00:02:25,080 --> 00:02:22,510
think of myself as one of those Swiss

65
00:02:27,510 --> 00:02:25,090
Army knife sorts of astronauts who may

66
00:02:28,380 --> 00:02:27,520
may not be the best at everything that's

67
00:02:30,240 --> 00:02:28,390
out there

68
00:02:32,250 --> 00:02:30,250
to better-than-average at all of them

69
00:02:34,470 --> 00:02:32,260
which i think goes a long way to making

70
00:02:36,120 --> 00:02:34,480
a great crew member on board and so

71
00:02:52,849 --> 00:02:36,130
that's the thing I hope that I'll bring

72
00:02:58,649 --> 00:02:55,830
as a test pod I really wanted to get

73
00:03:00,119 --> 00:02:58,659
involved with the new program of wine

74
00:03:01,380 --> 00:03:00,129
space vehicles I got the opportunity I

75
00:03:03,990 --> 00:03:01,390
was lucky enough to fly on the space

76
00:03:05,880 --> 00:03:04,000
shuttle for 30 year history you know to

77
00:03:07,229 --> 00:03:05,890
finish out the space shuttle program

78
00:03:10,080 --> 00:03:07,239
when I was looking for it as a test

79
00:03:12,660 --> 00:03:10,090
pilot to fly this new spaceship into the

80
00:03:15,330 --> 00:03:12,670
new era of space flight one of the big

81
00:03:18,300 --> 00:03:15,340
parts of this new program is to do to go

82
00:03:20,039 --> 00:03:18,310
into space and to make it affordable not

83
00:03:22,319 --> 00:03:20,049
only for NASA but to also look at it

84
00:03:24,289 --> 00:03:22,329
from a commercial aspect because these

85
00:03:28,199 --> 00:03:24,299
companies are also gonna fly with other

86
00:03:29,550 --> 00:03:28,209
providers besides NASA it's a big team

87
00:03:31,409 --> 00:03:29,560
that makes this happen you know it's not

88
00:03:32,940 --> 00:03:31,419

just the astronaut office it's a huge

89
00:03:34,559 --> 00:03:32,950
NASA team as well as the companies

90
00:03:35,940 --> 00:03:34,569
themselves and it's the team that's

91
00:03:37,830 --> 00:03:35,950
going to get us to that next thing but

92
00:03:39,990 --> 00:03:37,840
you know as part of that team obviously

93
00:03:42,839 --> 00:03:40,000
the operators the astronauts will have a

94
00:03:44,520 --> 00:03:42,849
big influence on that we're part of a

95
00:03:46,679 --> 00:03:44,530
partnership and part of the partnership

96
00:03:48,690 --> 00:03:46,689
is to have different abilities and so

97
00:03:51,059 --> 00:03:48,700
the United States having access as being

98
00:03:53,539 --> 00:03:51,069
one of the major partners in the group

99
00:03:57,059 --> 00:03:53,549
is extremely important to the effort a

100
00:03:59,430 --> 00:03:57,069
big part of what I bring to this effort

101
00:04:01,890 --> 00:03:59,440
is bringing together the different parts

102
00:04:04,379 --> 00:04:01,900
and the partners that are going to be

103
00:04:05,640 --> 00:04:04,389
necessary to make this all happen I'm

104
00:04:08,789 --> 00:04:05,650
honored to get the opportunity to

105
00:04:10,229 --> 00:04:08,799
participate with this new group and to

106
00:04:12,740 --> 00:04:10,239
work with a team to get us on to this

107
00:04:15,750 --> 00:04:12,750
next era in spaceflight

108
00:04:18,210 --> 00:04:15,760
well I'm extremely excited to get the

109
00:04:20,339 --> 00:04:18,220
opportunity to to go on to the new era

110
00:04:22,469 --> 00:04:20,349
for Space Flight looking forward to the

111
00:04:24,390 --> 00:04:22,479
new challenges and looking forward to

112
00:04:40,709 --> 00:04:24,400
get to America launch capability back

113
00:04:45,640 --> 00:04:43,390

it's exciting for me because we have a

114
00:04:49,119 --> 00:04:45,650
chance to build upon a new launch

115
00:04:51,399 --> 00:04:49,129
capability for America it's exciting to

116
00:04:53,110 --> 00:04:51,409
be part of a new program to give the

117
00:04:55,929 --> 00:04:53,120
United States launch capability back to

118
00:04:58,510 --> 00:04:55,939
the space station to be part of a new

119
00:05:00,249 --> 00:04:58,520
test program to get us vehicles back to

120
00:05:02,770 --> 00:05:00,259
the space station is extremely exciting

121
00:05:05,649 --> 00:05:02,780
the challenge from a test pilot

122
00:05:07,480 --> 00:05:05,659
perspective is great and I'm just

123
00:05:09,700 --> 00:05:07,490
looking forward to the process to get

124
00:05:12,249 --> 00:05:09,710
from today all the way up to the space

125
00:05:13,629 --> 00:05:12,259
station well there's a lot more than

126
00:05:15,459 --> 00:05:13,639
just the four of us that will be

127
00:05:16,749 --> 00:05:15,469
responsible for the safety in the

128
00:05:18,879 --> 00:05:16,759
certification of the vehicle we have a

129
00:05:21,189 --> 00:05:18,889
huge team here at NASA as well as the

130
00:05:22,839 --> 00:05:21,199
great teams at SpaceX and Boeing that

131
00:05:25,659 --> 00:05:22,849
will work with it to try to make this

132
00:05:28,209 --> 00:05:25,669
vehicle as safe as possible and also be

133
00:05:30,339 --> 00:05:28,219
as capable as possible it's a long road

134
00:05:32,490 --> 00:05:30,349
but I think we have the right team put

135
00:05:34,480 --> 00:05:32,500
together and we'll make it work

136
00:05:36,040 --> 00:05:34,490
well it's been over four years since

137
00:05:38,320 --> 00:05:36,050
we've flown the shuttle the last time

138
00:05:40,029 --> 00:05:38,330

and in that time the Soyuz has been a

139
00:05:41,649 --> 00:05:40,039
great vehicle to get our folks to and

140
00:05:44,050 --> 00:05:41,659
from the space station the Russians have

141
00:05:45,459 --> 00:05:44,060
been great partners but it's important

142
00:05:48,790 --> 00:05:45,469
for the United States to have its own

143
00:05:50,980 --> 00:05:48,800
launch capability not only for the

144
00:05:53,649 --> 00:05:50,990
foreseeable future but beyond going into

145
00:05:56,890 --> 00:05:53,659
the Orion program and whatever holds on

146
00:05:59,409 --> 00:05:56,900
our trip to Mars yes it has been a

147
00:06:00,969 --> 00:05:59,419
four-year gap which is a long time in

148
00:06:03,309 --> 00:06:00,979
some people's opinions but we've been

149
00:06:04,869 --> 00:06:03,319
working very hard to get to that point

150
00:06:08,469 --> 00:06:04,879
where we can launch folks from Florida

151
00:06:12,010 --> 00:06:08,479
again on the day before we undocked from

152
00:06:14,019 --> 00:06:12,020
the space station we presented the crew

153
00:06:17,350 --> 00:06:14,029
with a American flag that was flown on

154
00:06:21,159 --> 00:06:17,360
sts-1 with the hopes that when we

155
00:06:23,050 --> 00:06:21,169
returned with the u.s. vehicle whoever

156
00:06:24,579 --> 00:06:23,060
was lucky enough to get up there and do

157
00:06:29,170 --> 00:06:24,589
that they would be able to bring it back

158
00:06:30,820 --> 00:06:29,180
in to u.s. soil so it was a tremendous

159
00:06:34,240 --> 00:06:30,830
honor to be able to be part of that crew

160
00:06:35,890 --> 00:06:34,250
part of that ceremony and I can only

161
00:06:39,040 --> 00:06:35,900
imagine how exciting it would be to be

162
00:06:40,959 --> 00:06:39,050
back up there and bringing it home I'm

163
00:06:43,719 --> 00:06:40,969

extremely excited about the opportunity

164
00:06:47,469 --> 00:06:43,729
to serve the country once again and fly

165
00:06:50,170 --> 00:06:47,479
a test vehicle which from a personal

166
00:06:52,360 --> 00:06:50,180
standpoint is extremely interesting to

167
00:06:56,000 --> 00:06:52,370
me because I came from that background

168
00:06:59,030 --> 00:06:56,010
that being said there's a lot of work

169
00:07:02,180 --> 00:06:59,040
ahead of the teams here at NASA and

170
00:07:04,610 --> 00:07:02,190
Boeing and SpaceX to get us safely to

171
00:07:06,170 --> 00:07:04,620
orbit and then safely back home it's

172
00:07:08,060 --> 00:07:06,180
kind of like climbing a mountain going

173
00:07:09,890 --> 00:07:08,070
up hill is only half that half the trip

174
00:07:12,230 --> 00:07:09,900
so we got to make sure we get everybody

175
00:07:14,720 --> 00:07:12,240
back home safely as well and then build

176
00:07:16,850 --> 00:07:14,730
a reliable vehicle that continues to

177
00:07:31,649 --> 00:07:16,860
take our crews to the space station and

178
00:07:35,980 --> 00:07:33,909
well I'm really excited to be part of

179
00:07:37,990 --> 00:07:35,990
the new Commercial Crew program and

180
00:07:40,059 --> 00:07:38,000
hopefully be part of the test team

181
00:07:41,800 --> 00:07:40,069
that's going to fly one of these new

182
00:07:45,159 --> 00:07:41,810
spacecraft up to the International Space

183
00:07:47,379 --> 00:07:45,169
Station I've had the opportunity to fly

184
00:07:49,240 --> 00:07:47,389
on a United States space shuttle as well

185
00:07:51,309 --> 00:07:49,250
as a Russian Soyuz spacecraft to the

186
00:07:53,860 --> 00:07:51,319
International Space Station as it was

187
00:07:55,800 --> 00:07:53,870
being built and then used for science

188
00:07:57,909 --> 00:07:55,810

and I think this is the next step in

189
00:08:01,390 --> 00:07:57,919
engineering and development and research

190
00:08:04,749 --> 00:08:01,400
as we take our further step out of low

191
00:08:06,909 --> 00:08:04,759
Earth orbit into a deeper space we have

192
00:08:08,589 --> 00:08:06,919
a collective number of years here in the

193
00:08:10,450 --> 00:08:08,599
astronaut office flying different

194
00:08:13,149 --> 00:08:10,460
spacecraft and so we've come to this

195
00:08:15,730 --> 00:08:13,159
program with different backgrounds and

196
00:08:18,309 --> 00:08:15,740
different experiences I think what's

197
00:08:21,399 --> 00:08:18,319
good about that is we can apply that

198
00:08:23,559 --> 00:08:21,409
experience into the the system of the

199
00:08:26,769 --> 00:08:23,569
The Commercial Crew spacecraft both the

200
00:08:28,390 --> 00:08:26,779
cst-100 and the SpaceX vehicle and

201
00:08:30,760 --> 00:08:28,400
hopefully with our experience we'll be

202
00:08:33,940 --> 00:08:30,770
able to make those vehicles a little bit

203
00:08:35,259 --> 00:08:33,950
better and offer some of the goods and

204
00:08:36,819 --> 00:08:35,269
the bads that we've seen in the past

205
00:08:40,180 --> 00:08:36,829
with other spacecraft that we've had the

206
00:08:42,040 --> 00:08:40,190
opportunity to fly the cadre of

207
00:08:44,019 --> 00:08:42,050
astronauts who are going to start flying

208
00:08:46,569 --> 00:08:44,029
these Commercial Crew vehicles will sort

209
00:08:48,130 --> 00:08:46,579
of be the the face of the vehicles and

210
00:08:49,960 --> 00:08:48,140
essentially what that means is that

211
00:08:51,880 --> 00:08:49,970
we'll be bringing the teams together and

212
00:08:55,269 --> 00:08:51,890
not only from NASA but also our

213
00:08:57,220 --> 00:08:55,279

commercial partners Boeing and SpaceX as

214
00:08:59,139 --> 00:08:57,230
they put a face to the spacecraft that

215
00:09:01,569 --> 00:08:59,149
they're building and they get excited

216
00:09:04,960 --> 00:09:01,579
about actually putting human beings into

217
00:09:06,939 --> 00:09:04,970
space in their spacecraft we have a lot

218
00:09:09,189 --> 00:09:06,949
of goals in mind and it's taken us a

219
00:09:12,759 --> 00:09:09,199
while to I think consolidate all those

220
00:09:14,500 --> 00:09:12,769
goals and and form a concise path to get

221
00:09:18,790 --> 00:09:14,510
there and the Commercial Crew spacecraft

222
00:09:21,189 --> 00:09:18,800
are a very important part of that step

223
00:09:23,410 --> 00:09:21,199
to get to our goals which is leaving

224
00:09:25,870 --> 00:09:23,420
low-earth orbit and going on to deeper

225
00:09:28,960 --> 00:09:25,880
space missions the Commercial Crew

226
00:09:31,660 --> 00:09:28,970
program will allow us to regain our

227
00:09:33,840 --> 00:09:31,670
capability of launching rockets from the

228
00:09:36,160 --> 00:09:33,850
United States with humans on board again

229
00:09:37,389 --> 00:09:36,170
it's really critical for the United

230
00:09:39,430 --> 00:09:37,399
States to regain its own launch

231
00:09:41,710 --> 00:09:39,440
capability and Commercial Crew program

232
00:09:44,439 --> 00:09:41,720
will allow us to do that we're going to

233
00:09:45,030 --> 00:09:44,449
be able to be launching Americans and

234
00:09:47,249 --> 00:09:45,040
our intern

235
00:09:49,680 --> 00:09:47,259
national partners from the u.s. to the

236
00:09:52,620 --> 00:09:49,690
International Space Station that's going

237
00:09:54,840 --> 00:09:52,630
to allow us to further our abilities

238
00:09:56,519 --> 00:09:54,850

advance our technology so we can build

239
00:09:59,480 --> 00:09:56,529
the next generation of spacecraft for

240
00:10:02,490 --> 00:09:59,490
the next generation of space explorers

241
00:10:05,100 --> 00:10:02,500
I'm gonna be really excited when we get

242
00:10:06,780 --> 00:10:05,110
to put people on spacecraft at Kennedy

243
00:10:09,420 --> 00:10:06,790
Space Center it's going to be pretty

244
00:10:10,740 --> 00:10:09,430
amazing for our whole country it's

245
00:10:11,999 --> 00:10:10,750
actually going to be pretty amazing for

246
00:10:13,740 --> 00:10:12,009
the whole world when you think of the

247
00:10:16,860 --> 00:10:13,750
implications of this advanced technology

248
00:10:19,800 --> 00:10:16,870
and a spacecraft I remember when I

249
00:10:21,509 --> 00:10:19,810
launched from Kennedy the first time on

250
00:10:23,790 --> 00:10:21,519
a u.s. space shuttle and it was pretty

251
00:10:25,710 --> 00:10:23,800
amazing so I can only imagine what it's

252
00:10:29,340 --> 00:10:25,720
going to be like after this long period

253
00:10:32,040 --> 00:10:29,350
of time to get back on a spacecraft at

254
00:10:33,960 --> 00:10:32,050
Kennedy and have all family and friends

255
00:10:35,519 --> 00:10:33,970
and people from all over the country

256
00:10:38,040 --> 00:10:35,529
watching that's going to be pretty

257
00:10:40,350 --> 00:10:38,050
special I think we've lost a little bit

258
00:10:42,269 --> 00:10:40,360
of that in the last couple of years just

259
00:10:44,069 --> 00:10:42,279
because we are launching from so far

260
00:10:46,590 --> 00:10:44,079
away in Kazakhstan with the Russian

261
00:10:48,240 --> 00:10:46,600
space program and so bringing back home

262
00:10:52,189 --> 00:10:48,250
will bring that back home to everybody

263
00:10:55,199 --> 00:10:52,199

here it'll be a pretty exciting moment a

264
00:10:58,920 --> 00:10:55,209
bunch of us have come from a test

265
00:11:00,990 --> 00:10:58,930
background as aircraft fliers it is

266
00:11:03,059 --> 00:11:01,000
complicated even in that realm so I can

267
00:11:06,329 --> 00:11:03,069
only imagine that as we get our feet

268
00:11:07,889 --> 00:11:06,339
deep into the the commercial side of the

269
00:11:12,210 --> 00:11:07,899
space program it's going to be pretty

270
00:11:14,340 --> 00:11:12,220
complicated well I have had an amazing

271
00:11:16,410 --> 00:11:14,350
career at NASA I'll have to say knock on

272
00:11:17,910 --> 00:11:16,420
wood I've just been really lucky in the

273
00:11:20,610 --> 00:11:17,920
right place at the right time I've got

274
00:11:22,170 --> 00:11:20,620
to do a lot of amazing things building

275
00:11:25,050 --> 00:11:22,180
the space station then working on the

276
00:11:28,819 --> 00:11:25,060
space station while it was while it's

277
00:11:32,400 --> 00:11:28,829
now is an amazing science laboratory I

278
00:11:34,679 --> 00:11:32,410
felt like I would love to provide my

279
00:11:37,259 --> 00:11:34,689
expertise that I've gained over these

280
00:11:39,000 --> 00:11:37,269
number of years to anything new that was

281
00:11:42,019 --> 00:11:39,010
coming up and the Commercial Crew

282
00:11:45,360 --> 00:11:42,029
program seemed to fit right in line

283
00:11:47,389 --> 00:11:45,370
seems just like the perfect fit to use

284
00:11:50,220 --> 00:11:47,399
that expertise to build a new spacecraft

285
00:11:53,699 --> 00:11:50,230
so the next generation of folks can fly

286
00:11:55,139 --> 00:11:53,709
it for a long time to come for me the

287
00:11:57,660 --> 00:11:55,149
most exciting part is going to be

288
00:11:59,070 --> 00:11:57,670

docking to the space station when I was

289
00:12:00,780 --> 00:11:59,080
on my first light and I was

290
00:12:03,450 --> 00:12:00,790
able to see the space station out of the

291
00:12:06,720 --> 00:12:03,460
space shuttle window for the first time

292
00:12:08,730 --> 00:12:06,730
that was an amazing Gold Star and that

293
00:12:11,840 --> 00:12:08,740
is really really cool so I think

294
00:12:14,070 --> 00:12:11,850
Commercial Crew spacecraft with really

295
00:12:16,110 --> 00:12:14,080
amazing windows which will have to have

296
00:12:17,970 --> 00:12:16,120
to see the space station as we get

297
00:12:19,920 --> 00:12:17,980
closer and closer to it and get ready to

298
00:12:23,610 --> 00:12:19,930
dock to it we know we've we've made it

299
00:12:25,260 --> 00:12:23,620
and that will be cool this program I

300
00:12:28,170 --> 00:12:25,270
think is going to open up the door again

301
00:12:30,270 --> 00:12:28,180
for kids today to go to realize that the

302
00:12:32,090 --> 00:12:30,280
sky isn't even the limit there's all

303
00:12:35,040 --> 00:12:32,100
sorts of amazing things that we can do

304
00:12:37,470 --> 00:12:35,050
first of all you know makes aircraft

305
00:12:39,030 --> 00:12:37,480
make spacecraft and then take spacecraft

306
00:12:41,520 --> 00:12:39,040
and do amazing things make a space

307
00:12:44,130 --> 00:12:41,530
station and then go even farther I think