

A man with dark hair, wearing a blue collared shirt, is shown from the chest up. He is looking slightly to his right with a neutral expression. The background is a laboratory or industrial setting with two large glass vessels containing dark liquid. The lighting is somewhat dim and blue-tinted.

Tab Choate
Manager

1
00:00:09,270 --> 00:00:06,630
the last ssm test

2
00:00:10,790 --> 00:00:09,280
it was real stressful i remember going

3
00:00:12,549 --> 00:00:10,800
to sleep that night about nine o'clock

4
00:00:14,150 --> 00:00:12,559
so i could usually i test we'd get in

5
00:00:15,589 --> 00:00:14,160
about five in the morning we'd test

6
00:00:17,109 --> 00:00:15,599
around two o'clock

7
00:00:18,950 --> 00:00:17,119
that night i went to sleep about nine

8
00:00:21,510 --> 00:00:18,960
woke up about one

9
00:00:22,790 --> 00:00:21,520
couldn't go back to sleep got to work

10
00:00:24,470 --> 00:00:22,800
about three in the morning

11
00:00:26,150 --> 00:00:24,480
security guard mike who's been knowing

12
00:00:28,310 --> 00:00:26,160
me for years

13
00:00:30,310 --> 00:00:28,320

asked me cory what are you doing out

14

00:00:32,069 --> 00:00:30,320

here i said i couldn't sleep

15

00:00:34,709 --> 00:00:32,079

he says i got that test today huh i said

16

00:00:37,830 --> 00:00:34,719

yeah so he says well go on in

17

00:00:39,270 --> 00:00:37,840

have fun good luck tess went great

18

00:00:41,190 --> 00:00:39,280

people that showed up that day we was

19

00:00:42,790 --> 00:00:41,200

dressed all in white shirts

20

00:00:44,630 --> 00:00:42,800

we looked just like the apollo days we

21

00:00:46,709 --> 00:00:44,640

had the little black skinny ties

22

00:00:47,830 --> 00:00:46,719

we had black framed glasses we had the

23

00:00:50,630 --> 00:00:47,840

um

24

00:00:52,310 --> 00:00:50,640

pocket protectors on so it was it was

25

00:00:53,830 --> 00:00:52,320

exciting but it was actually sad because

26

00:00:54,709 --> 00:00:53,840

everybody knew it was the last test out

27

00:00:56,310 --> 00:00:54,719

here

28

00:00:58,389 --> 00:00:56,320

and you know everybody was remembering

29

00:00:59,590 --> 00:00:58,399

the people at the head that had trained

30

00:01:01,670 --> 00:00:59,600

them through the years

31

00:01:02,869 --> 00:01:01,680

and had retired and some of them you

32

00:01:04,869 --> 00:01:02,879

know they were talking to

33

00:01:06,789 --> 00:01:04,879

and just you know we had people from

34

00:01:09,429 --> 00:01:06,799

canoga pratt whitney

35

00:01:11,270 --> 00:01:09,439

from headquarters everywhere it was just

36

00:01:13,030 --> 00:01:11,280

an awesome experience and i'm really

37

00:01:15,350 --> 00:01:13,040

actually blessed that i was able to

38

00:01:18,149 --> 00:01:15,360

actually

39

00:01:39,990 --> 00:01:18,159
have some history and and test you know

40

00:01:47,270 --> 00:01:43,590
i started working here for ssme

41

00:01:49,190 --> 00:01:47,280
around november of 2001 and

42

00:01:51,030 --> 00:01:49,200
if i can remember my most fondest

43

00:01:53,910 --> 00:01:51,040
memories i have to say

44

00:01:55,749 --> 00:01:53,920
every shuttle launch pretty much being

45

00:01:59,670 --> 00:01:55,759
in the control room

46

00:02:02,469 --> 00:01:59,680
just watching the engines light up

47

00:02:03,830 --> 00:02:02,479
and everybody's waiting for them to turn

48

00:02:08,389 --> 00:02:03,840
off

49

00:02:11,190 --> 00:02:08,399
pretty much go into chairs because

50

00:02:12,070 --> 00:02:11,200
we know that once we like the engines

51

00:02:13,190 --> 00:02:12,080

and turn them off

52

00:02:15,190 --> 00:02:13,200

there's a good chance that we're going

53

00:02:17,750 --> 00:02:15,200

to have a successful mission

54

00:02:18,949 --> 00:02:17,760

there was one launch that i actually

55

00:02:22,150 --> 00:02:18,959

went to ksc

56

00:02:23,589 --> 00:02:22,160

for and i was observing all the

57

00:02:26,710 --> 00:02:23,599

operations in with

58

00:02:28,790 --> 00:02:26,720

the stack that's where the ssme

59

00:02:29,910 --> 00:02:28,800

team sets at for each shuttle launch at

60

00:02:33,030 --> 00:02:29,920

ksc

61

00:02:34,229 --> 00:02:33,040

and i actually went out just minutes

62

00:02:37,670 --> 00:02:34,239

before

63

00:02:39,430 --> 00:02:37,680

that was my first

64

00:02:42,390 --> 00:02:39,440

live shuttle launch that i have ever

65

00:02:45,430 --> 00:02:42,400

seen it was very impressive

66

00:02:46,229 --> 00:02:45,440

since then i have seen one more and i'm

67

00:03:06,869 --> 00:02:46,239

hoping to see

68

00:03:11,030 --> 00:03:09,270

years ago i met my wife here at

69

00:03:15,270 --> 00:03:11,040

rocketdyne

70

00:03:17,190 --> 00:03:15,280

shortly after we were married we had the

71

00:03:19,030 --> 00:03:17,200

good fortune to go to kennedy space

72

00:03:21,990 --> 00:03:19,040

center for a launch

73

00:03:23,430 --> 00:03:22,000

and because she was an employee on some

74

00:03:26,309 --> 00:03:23,440

of our free time

75

00:03:27,430 --> 00:03:26,319

she was also badged in and we could go

76

00:03:29,110 --> 00:03:27,440

to her around

77

00:03:31,110 --> 00:03:29,120

a couple of days before the launch were

78

00:03:32,949 --> 00:03:31,120

added launch pad

79

00:03:35,110 --> 00:03:32,959

our platforms giving us access to the

80

00:03:37,750 --> 00:03:35,120

engines were still in place

81

00:03:39,830 --> 00:03:37,760

and we're standing out there sea breeze

82

00:03:41,990 --> 00:03:39,840

coming in

83

00:03:43,350 --> 00:03:42,000

our heads actually up in one of the

84

00:03:46,149 --> 00:03:43,360

nozzles

85

00:03:47,589 --> 00:03:46,159

and of course i reached over and touched

86

00:03:48,309 --> 00:03:47,599

the back of her head and she thought i

87

00:03:50,550 --> 00:03:48,319

was

88

00:03:51,430 --> 00:03:50,560

being romantic and i had to spoil the

89

00:03:52,710 --> 00:03:51,440

mood by

90

00:03:54,869 --> 00:03:52,720

telling her i didn't want her hair to

91

00:04:18,390 --> 00:03:54,879

blow into the nozzle and

92

00:04:21,990 --> 00:04:20,469

one particular memory that stands out

93

00:04:23,030 --> 00:04:22,000

for me working on the space shuttle

94

00:04:25,430 --> 00:04:23,040

program

95

00:04:26,710 --> 00:04:25,440

is doing the routine post-test

96

00:04:28,469 --> 00:04:26,720

inspections that

97

00:04:30,469 --> 00:04:28,479

i was learning my first few years here

98

00:04:33,430 --> 00:04:30,479

is turbo machinery

99

00:04:34,790 --> 00:04:33,440

there was one particular pump we were

100

00:04:36,870 --> 00:04:34,800

doing our final

101
00:04:38,550 --> 00:04:36,880
inspections on it was completed

102
00:04:39,990 --> 00:04:38,560
acceptance test and was ready to be

103
00:04:42,070 --> 00:04:40,000
going to florida

104
00:04:43,590 --> 00:04:42,080
and during that routine inspection i

105
00:04:45,350 --> 00:04:43,600
noticed something unusual that i had

106
00:04:47,990 --> 00:04:45,360
never seen before

107
00:04:50,230 --> 00:04:48,000
and uh it looked like a metallic

108
00:04:52,230 --> 00:04:50,240
contamination behind the turbine

109
00:04:53,990 --> 00:04:52,240
when i talked to the more experienced

110
00:04:55,990 --> 00:04:54,000
engineers about it and we realized what

111
00:04:58,310 --> 00:04:56,000
was going on it actually

112
00:05:00,310 --> 00:04:58,320
started an investigation understanding

113
00:05:02,629 --> 00:05:00,320

why this was in here and we ended up

114

00:05:06,150 --> 00:05:02,639

having to send the pump back

115

00:05:09,350 --> 00:05:06,160

for disassembly and for me it was

116

00:05:11,990 --> 00:05:09,360

a really a lesson that even a routine

117

00:05:14,070 --> 00:05:12,000

inspection will find something that's

118

00:05:15,670 --> 00:05:14,080

of significant importance to the program

119

00:05:16,710 --> 00:05:15,680

and that was really the first time i

120

00:05:18,629 --> 00:05:16,720

felt like

121

00:05:20,629 --> 00:05:18,639

i had directly contributed to the

122

00:05:22,550 --> 00:05:20,639

success of the program and it was

123

00:05:42,790 --> 00:05:22,560

a day that that will stand out in my

124

00:05:46,310 --> 00:05:45,350

i was fortunate enough to hire in up at

125

00:05:50,830 --> 00:05:46,320

mississippi

126
00:05:55,510 --> 00:05:54,870
engineer i came out there in 1977 in the

127
00:05:58,230 --> 00:05:55,520
summer

128
00:06:00,070 --> 00:05:58,240
in the fall and and came to work on a

129
00:06:02,469 --> 00:06:00,080
computer system because it

130
00:06:04,710 --> 00:06:02,479
had been down for three weeks and and

131
00:06:07,110 --> 00:06:04,720
they couldn't test the shuttle tanks

132
00:06:09,430 --> 00:06:07,120
with the liquid level sensors marv

133
00:06:10,550 --> 00:06:09,440
carpenter was the engineering manager at

134
00:06:13,749 --> 00:06:10,560
that time

135
00:06:15,270 --> 00:06:13,759
said that i was i got asked how long it

136
00:06:17,110 --> 00:06:15,280
would take to get the system up and

137
00:06:18,070 --> 00:06:17,120
running if i had an estimate and i told

138
00:06:20,790 --> 00:06:18,080

him i didn't have

139

00:06:22,550 --> 00:06:20,800

didn't bring a lunch so i expected i

140

00:06:25,029 --> 00:06:22,560

would get it in and it was up in about

141

00:06:26,629 --> 00:06:25,039

an hour and he said

142

00:06:28,790 --> 00:06:26,639

you're probably one of the smartest

143

00:06:30,870 --> 00:06:28,800

engineers i've ever met

144

00:06:32,629 --> 00:06:30,880

very fortunate the only thing i knew was

145

00:06:34,150 --> 00:06:32,639

it happened to be that particular

146

00:06:36,230 --> 00:06:34,160

computer but

147

00:06:37,830 --> 00:06:36,240

about a week later marv called me and he

148

00:06:38,870 --> 00:06:37,840

says would you interested in going to

149

00:06:41,830 --> 00:06:38,880

work for

150

00:06:43,189 --> 00:06:41,840

rocketdyne and i says that'd be great

151

00:06:44,710 --> 00:06:43,199

and he says well

152

00:06:47,590 --> 00:06:44,720

what would it take and i said i don't

153

00:06:49,430 --> 00:06:47,600

know what is your smartest guy now again

154

00:06:51,430 --> 00:06:49,440

so i happened to be looking at plowden

155

00:06:53,830 --> 00:06:51,440

was a test conductor and i hired him as

156

00:07:14,950 --> 00:06:53,840

an mts4 that day and that's been a great

157

00:07:18,150 --> 00:07:16,870

i guess funny stories when i when i

158

00:07:19,189 --> 00:07:18,160

first started out on the team it was

159

00:07:21,029 --> 00:07:19,199

pretty new and

160

00:07:22,390 --> 00:07:21,039

a little bit green to build in the

161

00:07:22,950 --> 00:07:22,400

hardware i was working with another

162

00:07:25,029 --> 00:07:22,960

senior

163

00:07:26,469 --> 00:07:25,039

manufacturing engineer and it seemed as

164

00:07:28,309 --> 00:07:26,479

though every time

165

00:07:29,830 --> 00:07:28,319

he had taken a day off for vacationing

166

00:07:31,270 --> 00:07:29,840

or was out sick is when all the major

167

00:07:32,950 --> 00:07:31,280

catastrophes happened

168

00:07:34,710 --> 00:07:32,960

we had we had some hardware that was

169

00:07:35,990 --> 00:07:34,720

damaged a few times a duck that flipped

170

00:07:37,110 --> 00:07:36,000

in a dolly and i was the one here to

171

00:07:38,469 --> 00:07:37,120

respond for it and

172

00:07:41,029 --> 00:07:38,479

really didn't know what to do so i was

173

00:07:42,950 --> 00:07:41,039

having to to run around and

174

00:07:44,230 --> 00:07:42,960

collect a group of people to come help

175

00:07:46,390 --> 00:07:44,240

me solve the problems but

176

00:07:47,830 --> 00:07:46,400

without fail it always seemed like the

177

00:07:49,270 --> 00:07:47,840

bad things went wrong when he wasn't

178

00:07:51,510 --> 00:07:49,280

here and i was so i wasn't sure if it

179

00:07:52,629 --> 00:07:51,520

was my fault or someone else's but

180

00:07:55,510 --> 00:07:52,639

it was pretty interesting it was a good

181

00:07:56,710 --> 00:07:55,520

learning experience on the program

182

00:07:58,629 --> 00:07:56,720

we've definitely had our trials and

183

00:07:59,670 --> 00:07:58,639

tribulations building the hardware but

184

00:08:01,670 --> 00:07:59,680

we've made it through it and i think

185

00:08:02,230 --> 00:08:01,680

we've made some of the best hardware the

186

00:08:24,230 --> 00:08:02,240

programs

187

00:08:27,270 --> 00:08:26,790

i'm originally from the boston area and

188

00:08:33,029 --> 00:08:27,280

i

189

00:08:34,709 --> 00:08:33,039

england area and

190

00:08:37,430 --> 00:08:34,719

i did get an opportunity to come out

191

00:08:39,509 --> 00:08:37,440

here and work for rocketdyne at the time

192

00:08:41,909 --> 00:08:39,519

and i really thought that was going to

193

00:08:44,550 --> 00:08:41,919

be a short part of my career is to come

194

00:08:46,310 --> 00:08:44,560

out to california work

195

00:08:47,829 --> 00:08:46,320

on what rocketdyne was working you know

196

00:08:49,829 --> 00:08:47,839

the shuttle and so forth and space

197

00:08:50,630 --> 00:08:49,839

shuttle main engine for a year or so and

198

00:08:53,670 --> 00:08:50,640

then go back

199

00:08:54,070 --> 00:08:53,680

and like i said that's over 30 years ago

200

00:08:57,190 --> 00:08:54,080

and

201
00:08:59,110 --> 00:08:57,200
it has just been a tremendous experience

202
00:09:00,550 --> 00:08:59,120
and challenging experience that i enjoy

203
00:09:02,389 --> 00:09:00,560
very much so

204
00:09:03,990 --> 00:09:02,399
to answer your question it somewhat has

205
00:09:06,310 --> 00:09:04,000
been serendipity how i

206
00:09:08,070 --> 00:09:06,320
got into this career but it has been

207
00:09:11,030 --> 00:09:08,080
very enjoyable and very exciting

208
00:09:12,310 --> 00:09:11,040
and and like i said previously it's it's

209
00:09:14,470 --> 00:09:12,320
the people

210
00:09:17,190 --> 00:09:14,480
it's the challenge of the work it's the

211
00:09:19,910 --> 00:09:17,200
total team effort relative to not only

212
00:09:22,310 --> 00:09:19,920
pwr working on a task but also with our

213
00:09:23,829 --> 00:09:22,320

customer our nasa customer

214

00:09:25,829 --> 00:09:23,839

working to make something very

215

00:09:27,910 --> 00:09:25,839

challenging successful

216

00:09:29,110 --> 00:09:27,920

and advancing our presence in space and

217

00:09:50,389 --> 00:09:29,120

our understanding

218

00:09:54,550 --> 00:09:52,550

i had the opportunity to see in person

219

00:09:58,870 --> 00:09:54,560

my first space shuttle launch

220

00:10:00,550 --> 00:09:58,880

this was in 1994 in september sts 64.

221

00:10:02,630 --> 00:10:00,560

and my daughter was only three so she

222

00:10:04,870 --> 00:10:02,640

could not be in the

223

00:10:06,550 --> 00:10:04,880

stands with me she had to be on the

224

00:10:08,710 --> 00:10:06,560

causeway which is where the general

225

00:10:09,990 --> 00:10:08,720

public can go to view the space shuttle

226

00:10:12,710 --> 00:10:10,000

launch

227

00:10:14,389 --> 00:10:12,720

so my husband took the short straw and

228

00:10:17,030 --> 00:10:14,399

was with her on the causeway and my

229

00:10:18,150 --> 00:10:17,040

sister sat with me in the viewing stands

230

00:10:20,069 --> 00:10:18,160

and back in those days

231

00:10:21,910 --> 00:10:20,079

uh the launch window was much greater it

232

00:10:23,750 --> 00:10:21,920

was up to two and a half hours that we

233

00:10:26,069 --> 00:10:23,760

could have a launch window

234

00:10:27,990 --> 00:10:26,079

and as courses timing would have it we

235

00:10:29,590 --> 00:10:28,000

would wait the entire two hours

236

00:10:31,750 --> 00:10:29,600

wondering are we actually going to be

237

00:10:34,550 --> 00:10:31,760

able to launch the shuttle

238

00:10:35,190 --> 00:10:34,560

and the worry was weather and the clouds

239

00:10:38,630 --> 00:10:35,200

were heavy

240

00:10:40,310 --> 00:10:38,640

and the tension was great at one point

241

00:10:42,230 --> 00:10:40,320

i was looking at the countdown clock and

242

00:10:43,670 --> 00:10:42,240

there was a soldier standing next to it

243

00:10:45,590 --> 00:10:43,680

and it had been a long time and he'd

244

00:10:46,949 --> 00:10:45,600

been standing there the whole time

245

00:10:48,790 --> 00:10:46,959

and for whatever reason in the last

246

00:10:51,190 --> 00:10:48,800

moments he knelt on one knee

247

00:10:53,350 --> 00:10:51,200

and sure enough within moments the

248

00:10:54,790 --> 00:10:53,360

engines ignited the fire and the flames

249

00:10:56,389 --> 00:10:54,800

you can see it it lights up the whole

250

00:11:00,310 --> 00:10:56,399

sky and all the

251
00:11:02,630 --> 00:11:00,320
natural flying fish the alligators all

252
00:11:04,069 --> 00:11:02,640
the birds everything comes it's amazing

253
00:11:05,110 --> 00:11:04,079
how you see everybody reacting that

254
00:11:07,590 --> 00:11:05,120
people and all

255
00:11:08,470 --> 00:11:07,600
and up it went and i i still remember it

256
00:11:10,389 --> 00:11:08,480
vividly

257
00:11:11,590 --> 00:11:10,399
and of course i had no idea what my

258
00:11:13,509 --> 00:11:11,600
husband and my daughter were

259
00:11:16,069 --> 00:11:13,519
experiencing they were quite

260
00:11:17,670 --> 00:11:16,079
a distance from ourselves and we didn't

261
00:11:20,790 --> 00:11:17,680
have cell phones but then

262
00:11:21,910 --> 00:11:20,800
so i had to wait until we re um you know

263
00:11:24,069 --> 00:11:21,920

convene together

264

00:11:25,509 --> 00:11:24,079

and she was so excited only three years

265

00:11:27,190 --> 00:11:25,519

old telling me

266

00:11:29,829 --> 00:11:27,200

about what her experience had been as

267

00:11:32,630 --> 00:11:29,839

well with so many of the

268

00:11:34,069 --> 00:11:32,640

visitors from all over the world but

269

00:11:36,389 --> 00:11:34,079

also locally

270

00:11:59,430 --> 00:11:36,399

hundreds go on the causeway to see the

271

00:12:05,430 --> 00:12:03,110

one very uh memorable experience

272

00:12:06,629 --> 00:12:05,440

this was a number of years ago and one

273

00:12:10,389 --> 00:12:06,639

of my co-workers

274

00:12:12,550 --> 00:12:10,399

and i went to mountain home arkansas

275

00:12:14,310 --> 00:12:12,560

trout fishing on the white river which

276

00:12:16,790 --> 00:12:14,320

we used to go over there frequently

277

00:12:19,030 --> 00:12:16,800

but we rode this particular time and it

278

00:12:20,550 --> 00:12:19,040

happened to be

279

00:12:23,750 --> 00:12:20,560

during the time when we were having a

280

00:12:25,829 --> 00:12:23,760

launch so we finished fishing and

281

00:12:27,190 --> 00:12:25,839

we went into town and of course mountain

282

00:12:28,629 --> 00:12:27,200

home arkansas

283

00:12:30,230 --> 00:12:28,639

unless you're there for trout fishing

284

00:12:34,470 --> 00:12:30,240

it's not exactly a

285

00:12:37,670 --> 00:12:34,480

tourist hot spot so

286

00:12:38,069 --> 00:12:37,680

we went into this little restaurant sort

287

00:12:42,069 --> 00:12:38,079

of

288

00:12:44,710 --> 00:12:42,079

slash sports bar uh called the back 40.

289

00:12:46,550 --> 00:12:44,720

um of course there's tvs on the being a

290

00:12:49,190 --> 00:12:46,560

sports bar there's tvs everywhere

291

00:12:49,990 --> 00:12:49,200

and we said hey the shuttle's about to

292

00:12:52,870 --> 00:12:50,000

launch uh

293

00:12:53,990 --> 00:12:52,880

could we see it on the tv and we got

294

00:12:57,350 --> 00:12:54,000

this

295

00:13:00,389 --> 00:12:57,360

dumbfound look and we said

296

00:13:02,629 --> 00:13:00,399

you know the space shuttle and we still

297

00:13:04,389 --> 00:13:02,639

got that same look like

298

00:13:06,150 --> 00:13:04,399

you ain't you ain't from around here are

299

00:13:08,310 --> 00:13:06,160

you and so

300

00:13:09,509 --> 00:13:08,320

uh we looked at each other and said well

301
00:13:10,710 --> 00:13:09,519
obviously we're not in huntsville

302
00:13:14,310 --> 00:13:10,720
anymore

303
00:13:15,509 --> 00:13:14,320
and uh i probably should have asked the

304
00:13:17,910 --> 00:13:15,519
guy

305
00:13:18,949 --> 00:13:17,920
how the razorbacks were doing that year

306
00:13:20,949 --> 00:13:18,959
and we probably would have gotten a

307
00:13:32,829 --> 00:13:20,959
response

308
00:13:32,839 --> 00:13:44,069
right

309
00:13:47,670 --> 00:13:45,710
i started working shuttle systems in

310
00:13:50,790 --> 00:13:47,680
1977

311
00:13:52,550 --> 00:13:50,800
and so you can

312
00:13:54,629 --> 00:13:52,560
you can do the arithmetic there's no

313
00:13:57,590 --> 00:13:54,639

math involved in that

314

00:13:58,150 --> 00:13:57,600

but uh we've had a good time i was like

315

00:14:00,629 --> 00:13:58,160

i say

316

00:14:01,350 --> 00:14:00,639

the research the fun stage we broke a

317

00:14:06,389 --> 00:14:01,360

few things

318

00:14:09,509 --> 00:14:06,399

learned a lot uh put in 80 hours a week

319

00:14:11,990 --> 00:14:09,519

for months at a time and

320

00:14:13,750 --> 00:14:12,000

when we would get a test off it was it

321

00:14:17,829 --> 00:14:13,760

was a feeling of completion

322

00:14:19,590 --> 00:14:17,839

you did something and

323

00:14:21,189 --> 00:14:19,600

i like to have that feeling when i when

324

00:14:22,470 --> 00:14:21,199

i leave here i like to have that feeling

325

00:14:25,509 --> 00:14:22,480

every day

326

00:14:29,110 --> 00:14:25,519

that i've accomplished something and

327

00:14:29,120 --> 00:14:53,750

we can

328

00:14:57,350 --> 00:14:56,470

you know some people uh worry about what

329

00:14:59,670 --> 00:14:57,360

we're going to do

330

00:15:01,670 --> 00:14:59,680

after the end of the shuttle program and

331

00:15:04,230 --> 00:15:01,680

we had a meeting last week with the

332

00:15:05,030 --> 00:15:04,240

deputy program manager for constellation

333

00:15:07,590 --> 00:15:05,040

and

334

00:15:09,910 --> 00:15:07,600

there's just so many exciting things on

335

00:15:12,389 --> 00:15:09,920

the horizon for the people

336

00:15:14,949 --> 00:15:12,399

in the liquid propulsion world the j2

337

00:15:16,710 --> 00:15:14,959

programs out there the rs68

338

00:15:19,430 --> 00:15:16,720

all the new missions are coming up with

339

00:15:20,870 --> 00:15:19,440

pwr engines on them and even engines

340

00:15:24,389 --> 00:15:20,880

that we haven't built yet

341

00:15:26,790 --> 00:15:24,399

so just to be a part of this you're sad

342

00:15:28,629 --> 00:15:26,800

that shuttle's going away but the new

343

00:15:31,269 --> 00:15:28,639

programs are going to come on

344

00:15:33,350 --> 00:15:31,279

quick and really i think there'll be

345

00:15:53,990 --> 00:15:33,360

very little transition or we'll

346

00:15:58,389 --> 00:15:56,949

growing up in the valley as a young boy

347

00:15:59,030 --> 00:15:58,399

i was able to look up at the santa

348

00:16:01,910 --> 00:15:59,040

susana

349

00:16:02,870 --> 00:16:01,920

and see it light up at night and my

350

00:16:05,910 --> 00:16:02,880

father became

351
00:16:07,749 --> 00:16:05,920
an employee of rocketdyne 40 years ago

352
00:16:09,590 --> 00:16:07,759
and so that was a big

353
00:16:10,870 --> 00:16:09,600
big push for me to want to get in and be

354
00:16:12,470 --> 00:16:10,880
following my father's

355
00:16:15,829 --> 00:16:12,480
footsteps so when i got hiring into

356
00:16:17,430 --> 00:16:15,839
rocketdyne that was that was

357
00:16:19,749 --> 00:16:17,440
pretty amazing for me that that i'm

358
00:16:22,310 --> 00:16:19,759
following in my father's footsteps

359
00:16:24,629 --> 00:16:22,320
and as far as the shuttle itself i don't

360
00:16:25,990 --> 00:16:24,639
mean to be cliché but

361
00:16:28,150 --> 00:16:26,000
when i finally went and watched the

362
00:16:29,269 --> 00:16:28,160
shuttle fly it was just amazing and i

363
00:16:31,670 --> 00:16:29,279

just didn't

364

00:16:32,470 --> 00:16:31,680

really understand the power and the

365

00:16:35,670 --> 00:16:32,480

uniqueness

366

00:16:37,670 --> 00:16:35,680

and how scary it is to watch that fly

367

00:16:39,110 --> 00:16:37,680

and once i got to see that i'll never

368

00:16:41,509 --> 00:16:39,120

forget it

369

00:16:43,189 --> 00:16:41,519

i've always known working on the shuttle

370

00:16:44,629 --> 00:16:43,199

program that that was something great

371

00:16:46,550 --> 00:16:44,639

and i've always been proud to tell

372

00:16:47,590 --> 00:16:46,560

people i meet hey i work on the shuttle

373

00:16:49,269 --> 00:16:47,600

program

374

00:16:50,870 --> 00:16:49,279

not many people really get to say that

375

00:16:52,710 --> 00:16:50,880

we're a handful of people out in this

376

00:16:55,910 --> 00:16:52,720

world that get to say that

377

00:16:57,509 --> 00:16:55,920

and i've always been proud but watching