



1
00:00:05,430 --> 00:00:03,270
okay we're back now in the apollo flight

2
00:00:08,390 --> 00:00:05,440
control room where many uh historical

3
00:00:10,150 --> 00:00:08,400
missions were were flown and i think uh

4
00:00:11,749 --> 00:00:10,160
selena posting we're talking with now

5
00:00:13,910 --> 00:00:11,759
was here for a lot of those missions

6
00:00:15,589 --> 00:00:13,920
right correct so tell us when you

7
00:00:20,310 --> 00:00:15,599
started here at nasa i started on

8
00:00:22,630 --> 00:00:20,320
november 13 1967 which i have now

9
00:00:24,390 --> 00:00:22,640
by looking at the crew ages realized

10
00:00:26,230 --> 00:00:24,400
that two of our russian friends were not

11
00:00:30,470 --> 00:00:26,240
yet born when i started here and the

12
00:00:32,790 --> 00:00:30,480
rest of the crew were ages 12 9 6 and 3.

13
00:00:35,190 --> 00:00:32,800

so you have a little time set there for

14

00:00:36,630 --> 00:00:35,200

what was happening in 1967 with those of

15

00:00:38,229 --> 00:00:36,640

you who are listening

16

00:00:39,670 --> 00:00:38,239

so how did you get started what brought

17

00:00:41,670 --> 00:00:39,680

you to nasa what was going on at the

18

00:00:43,990 --> 00:00:41,680

time i was 20 years old

19

00:00:46,150 --> 00:00:44,000

in houston with a fashion career

20

00:00:48,549 --> 00:00:46,160

background wanting to find a job in

21

00:00:50,630 --> 00:00:48,559

fashion one car and nothing about

22

00:00:52,869 --> 00:00:50,640

fashion was in the johnson space center

23

00:00:53,830 --> 00:00:52,879

area the closest was gulf gate mall at

24

00:00:55,830 --> 00:00:53,840

the time

25

00:00:58,389 --> 00:00:55,840

so i applied for a job with grumman

26

00:00:59,510 --> 00:00:58,399

aerospace at the time believing that

27

00:01:01,349 --> 00:00:59,520

only

28

00:01:04,149 --> 00:01:01,359

scientists and engineers who were

29

00:01:06,230 --> 00:01:04,159

brilliant could work for nasa directly

30

00:01:08,310 --> 00:01:06,240

and i needed to not do that because i

31

00:01:09,990 --> 00:01:08,320

was not a brilliant engineer so i

32

00:01:11,670 --> 00:01:10,000

applied with grumman aerospace and they

33

00:01:13,270 --> 00:01:11,680

were hiring me as an engineering aide

34

00:01:15,429 --> 00:01:13,280

and i thought i would safely be tucked

35

00:01:17,190 --> 00:01:15,439

away in a building off-site

36

00:01:18,550 --> 00:01:17,200

and on the first morning of my job was

37

00:01:21,350 --> 00:01:18,560

told i'd go to building four in

38

00:01:22,550 --> 00:01:21,360

astronaut training oh wow it was totally

39

00:01:25,190 --> 00:01:22,560

terrified

40

00:01:27,510 --> 00:01:25,200

but the people were so welcoming so warm

41

00:01:29,670 --> 00:01:27,520

dot davis and margaret tatum and all of

42

00:01:32,149 --> 00:01:29,680

the men in the simulation branch where

43

00:01:33,990 --> 00:01:32,159

we worked supporting the limb simulator

44

00:01:37,590 --> 00:01:34,000

okay were wonderful

45

00:01:40,710 --> 00:01:37,600

from day one they were so helpful

46

00:01:43,590 --> 00:01:40,720

made me feel part of the team uh

47

00:01:46,389 --> 00:01:43,600

made us all no matter how administrative

48

00:01:48,310 --> 00:01:46,399

or administrivia driven our jobs were

49

00:01:50,789 --> 00:01:48,320

feel that we were an integral part of

50

00:01:52,389 --> 00:01:50,799

apollo how nice well we might just

51
00:01:53,830 --> 00:01:52,399
uncertain here real quick grumman what

52
00:01:55,670 --> 00:01:53,840
what was that what were they doing at

53
00:01:57,749 --> 00:01:55,680
the time grumman aerospace was the

54
00:01:59,830 --> 00:01:57,759
contractor chosen to build the lunar

55
00:02:01,670 --> 00:01:59,840
module so it was a very exciting time

56
00:02:04,870 --> 00:02:01,680
for our company they were traditionally

57
00:02:06,550 --> 00:02:04,880
a navy aircraft builder okay and they're

58
00:02:08,469 --> 00:02:06,560
still around i think working with

59
00:02:11,270 --> 00:02:08,479
grumman right the james webb space

60
00:02:13,589 --> 00:02:11,280
telescope and the I cross mission so

61
00:02:15,910 --> 00:02:13,599
um but at the time we were all getting

62
00:02:17,830 --> 00:02:15,920
ready for the moon landing correct

63
00:02:18,869 --> 00:02:17,840

correct so what was your what were your

64

00:02:22,869 --> 00:02:18,879

duties

65

00:02:25,270 --> 00:02:22,879

maintaining the math model logs which

66

00:02:27,270 --> 00:02:25,280

helped make sure that the configuration

67

00:02:29,510 --> 00:02:27,280

of the simulator was identical to the

68

00:02:31,830 --> 00:02:29,520

configuration of the flight vehicle so

69

00:02:33,350 --> 00:02:31,840

that the astronauts had no surprises

70

00:02:35,110 --> 00:02:33,360

when they actually were

71

00:02:37,509 --> 00:02:35,120

flying the limb it's quite a change from

72

00:02:39,430 --> 00:02:37,519

fashion yes

73

00:02:41,430 --> 00:02:39,440

although at the time it helped right

74

00:02:43,910 --> 00:02:41,440

because we all did dress

75

00:02:45,830 --> 00:02:43,920

appropriately for the era which meant

76
00:02:47,589 --> 00:02:45,840
the lady across the hall from me who had

77
00:02:49,830 --> 00:02:47,599
been a kelly girl wore her white gloves

78
00:02:52,309 --> 00:02:49,840
to work every day so we were that far

79
00:02:54,390 --> 00:02:52,319
into fashion being proper secretaries

80
00:02:56,710 --> 00:02:54,400
and proper engineering age

81
00:02:58,229 --> 00:02:56,720
aides okay and i've you know i've looked

82
00:03:00,390 --> 00:02:58,239
at your resume it looks like you have

83
00:03:01,430 --> 00:03:00,400
quite a bit of different um

84
00:03:02,869 --> 00:03:01,440
different activities you've done over

85
00:03:05,990 --> 00:03:02,879
the years so how did your career

86
00:03:07,589 --> 00:03:06,000
progress from there as a female i think

87
00:03:08,390 --> 00:03:07,599
in the era

88
00:03:10,229 --> 00:03:08,400

we

89

00:03:12,790 --> 00:03:10,239

usually thought a woman had to be

90

00:03:15,509 --> 00:03:12,800

college trained in a specific discipline

91

00:03:17,430 --> 00:03:15,519

to progress and i didn't find that i was

92

00:03:19,030 --> 00:03:17,440

so blessed by people who would say would

93

00:03:21,750 --> 00:03:19,040

you like to try this

94

00:03:24,949 --> 00:03:21,760

and so my career did progress into i.t

95

00:03:27,030 --> 00:03:24,959

security eventually and into after being

96

00:03:29,270 --> 00:03:27,040

an executive secretary for a few years

97

00:03:30,630 --> 00:03:29,280

after the engineering aid position then

98

00:03:32,550 --> 00:03:30,640

moving into

99

00:03:34,630 --> 00:03:32,560

moving to a different contract and then

100

00:03:37,030 --> 00:03:34,640

back to grumman eventually but

101
00:03:39,509 --> 00:03:37,040
professionally i became an i.t security

102
00:03:40,869 --> 00:03:39,519
professional certified in that field and

103
00:03:42,550 --> 00:03:40,879
took a lot of

104
00:03:44,949 --> 00:03:42,560
fbi

105
00:03:46,710 --> 00:03:44,959
military whatever training was available

106
00:03:48,710 --> 00:03:46,720
because at the time

107
00:03:50,710 --> 00:03:48,720
computer security was not a discipline

108
00:03:52,630 --> 00:03:50,720
we could be trained in

109
00:03:55,190 --> 00:03:52,640
formally so we had to get whatever

110
00:03:57,509 --> 00:03:55,200
training we could get but i've always

111
00:04:00,390 --> 00:03:57,519
found that the men who were skilled in

112
00:04:02,949 --> 00:04:00,400
the systems i was supporting were so

113
00:04:05,190 --> 00:04:02,959

willing to come in early or stay late

114

00:04:07,190 --> 00:04:05,200

and give me the sort of one-on-one

115

00:04:09,589 --> 00:04:07,200

technical advice i needed to make sure

116

00:04:11,589 --> 00:04:09,599

the security requirements were met so it

117

00:04:13,990 --> 00:04:11,599

was a wonderful time to be part of this

118

00:04:16,229 --> 00:04:14,000

whole program and i you know i noticed

119

00:04:18,310 --> 00:04:16,239

on your resume that you tried retirement

120

00:04:20,949 --> 00:04:18,320

but it just didn't seem like it stuck i

121

00:04:23,430 --> 00:04:20,959

feel tired and come back four times

122

00:04:26,070 --> 00:04:23,440

there seems to be a real need for people

123

00:04:28,950 --> 00:04:26,080

who are willing to work diligently and

124

00:04:31,590 --> 00:04:28,960

support the customer fully okay and so

125

00:04:33,830 --> 00:04:31,600

having begun my career on site and

126
00:04:36,629 --> 00:04:33,840
feeling that i actually was a nasa

127
00:04:38,870 --> 00:04:36,639
person in so many respects because my

128
00:04:41,510 --> 00:04:38,880
concerns were their concerns

129
00:04:44,150 --> 00:04:41,520
that each time there were

130
00:04:45,749 --> 00:04:44,160
issues with the contractor making nasa

131
00:04:47,749 --> 00:04:45,759
really happy

132
00:04:49,909 --> 00:04:47,759
would be those times when they'd call me

133
00:04:52,629 --> 00:04:49,919
and ask me to come back

134
00:04:54,310 --> 00:04:52,639
people happy exactly exactly listening

135
00:04:56,230 --> 00:04:54,320
you know it's just that basic listening

136
00:04:58,150 --> 00:04:56,240
to the requirements listening to the

137
00:05:00,070 --> 00:04:58,160
customers concerns and trying to meet

138
00:05:02,390 --> 00:05:00,080

those concerns but grumman was a company

139

00:05:04,070 --> 00:05:02,400

that wanted to do that so since most of

140

00:05:06,150 --> 00:05:04,080

my time was with grumman it was a good

141

00:05:08,950 --> 00:05:06,160

meshing of the nasa requirements and

142

00:05:11,350 --> 00:05:08,960

needs with the company's ability okay

143

00:05:12,629 --> 00:05:11,360

um so looking back over all the

144

00:05:15,590 --> 00:05:12,639

different things you've done do you have

145

00:05:17,350 --> 00:05:15,600

a favorite or most exciting time i mean

146

00:05:20,150 --> 00:05:17,360

you know it seems to me like it would be

147

00:05:22,710 --> 00:05:20,160

the apollo time but you know you tell us

148

00:05:25,670 --> 00:05:22,720

there's been so many exciting times

149

00:05:27,749 --> 00:05:25,680

there have been times when yes apollo

150

00:05:31,350 --> 00:05:27,759

definitely when we made the lunar

151
00:05:34,310 --> 00:05:31,360
landing when from a grumman standpoint

152
00:05:36,230 --> 00:05:34,320
the ascent stage worked we didn't leave

153
00:05:37,830 --> 00:05:36,240
men on the moon everything about the

154
00:05:38,710 --> 00:05:37,840
vehicle worked and then

155
00:05:41,990 --> 00:05:38,720
when

156
00:05:43,909 --> 00:05:42,000
we had the apollo 13 crisis and the team

157
00:05:46,629 --> 00:05:43,919
of grumman people came together to

158
00:05:48,790 --> 00:05:46,639
support using our vehicle for something

159
00:05:50,469 --> 00:05:48,800
it was not intended to be used for so

160
00:05:53,189 --> 00:05:50,479
that it became a lifeboat that was a

161
00:05:54,710 --> 00:05:53,199
very exciting and rewarding time and for

162
00:05:56,870 --> 00:05:54,720
me

163
00:05:58,950 --> 00:05:56,880

from an i.t security perspective there

164

00:06:01,830 --> 00:05:58,960

were times when

165

00:06:04,550 --> 00:06:01,840

that field was very rewarding we had a

166

00:06:07,189 --> 00:06:04,560

goal of meeting some dod requirements

167

00:06:09,510 --> 00:06:07,199

when we had a dod program here

168

00:06:11,670 --> 00:06:09,520

and because of the leadership of the

169

00:06:13,350 --> 00:06:11,680

team that i was working with at unisys

170

00:06:15,749 --> 00:06:13,360

we won the cogswell award which is a

171

00:06:17,909 --> 00:06:15,759

national award for security so that was

172

00:06:19,590 --> 00:06:17,919

very rewarding sort of as an aside but

173

00:06:21,110 --> 00:06:19,600

all connected with the space program

174

00:06:23,029 --> 00:06:21,120

because at the time

175

00:06:25,350 --> 00:06:23,039

we were responsible for making sure the

176

00:06:27,350 --> 00:06:25,360

software provided by unisys

177

00:06:29,510 --> 00:06:27,360

was appropriately

178

00:06:31,830 --> 00:06:29,520

developed for processing classified

179

00:06:33,590 --> 00:06:31,840

information in a secure fashion so that

180

00:06:35,110 --> 00:06:33,600

was a very exciting time

181

00:06:36,870 --> 00:06:35,120

and i bet you met some interesting

182

00:06:38,309 --> 00:06:36,880

people over the over the years as well

183

00:06:39,990 --> 00:06:38,319

all through the years

184

00:06:42,469 --> 00:06:40,000

one of the stories that i've given back

185

00:06:44,710 --> 00:06:42,479

to the apollo era women

186

00:06:46,629 --> 00:06:44,720

at the events we've had is the story of

187

00:06:48,390 --> 00:06:46,639

neil armstrong

188

00:06:50,150 --> 00:06:48,400

with whom we all enjoyed working he was

189

00:06:51,189 --> 00:06:50,160

a perfect gentleman and he was the guy

190

00:06:53,430 --> 00:06:51,199

who would be

191

00:06:55,029 --> 00:06:53,440

written up in the local newspaper as

192

00:06:56,870 --> 00:06:55,039

servicing at the spaghetti dinner at the

193

00:06:59,670 --> 00:06:56,880

same time he was preparing for a flight

194

00:07:01,749 --> 00:06:59,680

he was just a really well-rounded person

195

00:07:03,350 --> 00:07:01,759

but i never actually had a conversation

196

00:07:04,629 --> 00:07:03,360

with him i would speak to him and nod

197

00:07:06,469 --> 00:07:04,639

and smile

198

00:07:09,110 --> 00:07:06,479

i sat right next to the elevator and

199

00:07:10,710 --> 00:07:09,120

stairwell in building four so all of the

200

00:07:11,909 --> 00:07:10,720

astronauts going to the fourth floor

201
00:07:14,550 --> 00:07:11,919
from the front of the building would

202
00:07:17,189 --> 00:07:14,560
come by and stand there

203
00:07:18,950 --> 00:07:17,199
so when he left i came in one morning

204
00:07:20,710 --> 00:07:18,960
and found that the photograph that i had

205
00:07:23,110 --> 00:07:20,720
taped to the wall of him

206
00:07:25,189 --> 00:07:23,120
had a signature on it and it said to

207
00:07:28,230 --> 00:07:25,199
selena with thanks for a thousand smiles

208
00:07:29,510 --> 00:07:28,240
neil armstrong apollo 11. and i paraded

209
00:07:31,909 --> 00:07:29,520
up and down the hall blaming all the

210
00:07:33,909 --> 00:07:31,919
engineers for ruining my photograph

211
00:07:35,189 --> 00:07:33,919
until finally a couple of months later i

212
00:07:37,270 --> 00:07:35,199
looked up and he was standing at the

213
00:07:39,589 --> 00:07:37,280

elevator and i said mr armstrong did you

214

00:07:41,589 --> 00:07:39,599

sign my photograph and he nodded yes

215

00:07:43,589 --> 00:07:41,599

like a sheepish little bullet so that

216

00:07:45,510 --> 00:07:43,599

was a very poignant moment what a good

217

00:07:47,430 --> 00:07:45,520

story right and that came to mind

218

00:07:49,909 --> 00:07:47,440

because i had uh in my retirement i've

219

00:07:51,749 --> 00:07:49,919

written a book called beyond dna

220

00:07:53,670 --> 00:07:51,759

inheriting spiritual strength from the

221

00:07:55,830 --> 00:07:53,680

women in your family tree

222

00:07:57,990 --> 00:07:55,840

and that photograph sits in my loft

223

00:07:59,830 --> 00:07:58,000

where i do my work so one day when i had

224

00:08:03,270 --> 00:07:59,840

edited the chapter about my grandmother

225

00:08:05,510 --> 00:08:03,280

who had taught me pleasant expression

226

00:08:07,589 --> 00:08:05,520

it it clued in to the fact that

227

00:08:09,909 --> 00:08:07,599

something she taught me when i was very

228

00:08:12,950 --> 00:08:09,919

young had actually paid off many years

229

00:08:14,869 --> 00:08:12,960

later maybe blessed an astronaut

230

00:08:17,029 --> 00:08:14,879

very cool fun

231

00:08:18,230 --> 00:08:17,039

so you know looking back in another

232

00:08:19,670 --> 00:08:18,240

question

233

00:08:21,990 --> 00:08:19,680

how have you seen things change over the

234

00:08:23,430 --> 00:08:22,000

years especially for women

235

00:08:25,189 --> 00:08:23,440

for women

236

00:08:27,749 --> 00:08:25,199

i have to honestly say because people

237

00:08:30,150 --> 00:08:27,759

have asked me this so many times i never

238

00:08:30,950 --> 00:08:30,160

felt i'm sure there were women that did

239

00:08:32,310 --> 00:08:30,960

feel

240

00:08:34,790 --> 00:08:32,320

their

241

00:08:36,949 --> 00:08:34,800

place in society as a woman held them

242

00:08:39,110 --> 00:08:36,959

back i never felt that in fact as a

243

00:08:41,110 --> 00:08:39,120

security professional i was typically

244

00:08:44,230 --> 00:08:41,120

the only female in the room

245

00:08:46,230 --> 00:08:44,240

and i came up in an era when men were

246

00:08:48,070 --> 00:08:46,240

very well mannered

247

00:08:50,389 --> 00:08:48,080

and i always felt that they gave me

248

00:08:53,350 --> 00:08:50,399

maybe even more opportunity to have my

249

00:08:54,790 --> 00:08:53,360

say or make my point i never felt

250

00:08:56,550 --> 00:08:54,800

that being a woman

251
00:08:58,389 --> 00:08:56,560
made it any more difficult for me which

252
00:09:00,710 --> 00:08:58,399
is great that this environment provided

253
00:09:02,550 --> 00:09:00,720
that that i think the people were so

254
00:09:04,389 --> 00:09:02,560
willing to let me grow

255
00:09:05,430 --> 00:09:04,399
even without technical expertise in the

256
00:09:06,470 --> 00:09:05,440
beginning

257
00:09:07,670 --> 00:09:06,480
well thank you so much sounds like

258
00:09:08,790 --> 00:09:07,680
you've had a great experience we