



1  
00:00:59,789 --> 00:01:25,679  
Godspeed, John Glenn.

2  
00:01:25,679 --> 00:01:27,710  
When I was a kid, there was no such word as  
astronaut.

3  
00:01:27,710 --> 00:01:32,090  
I thought it'd be great to be a pilot sometime,  
but I never--

4  
00:01:32,090 --> 00:01:34,200  
we didn't have enough money to take--for me  
to take flight

5  
00:01:34,200 --> 00:01:39,369  
lessons.

6  
00:01:39,369 --> 00:01:43,250  
When I was growing up, my dad--one time we  
drove by a

7  
00:01:43,250 --> 00:01:46,509  
field where there were--was a plane, an old  
biplane, open

8  
00:01:46,509 --> 00:01:50,179  
cockpit, taking people up for rides.

9  
00:01:50,179 --> 00:01:52,200  
And so, my dad and I  
went up in that airplane.

10  
00:01:52,200 --> 00:01:56,340  
And I was only about eight or nine  
years old, and I thought that was neat.

11  
00:01:56,340 --> 00:02:01,159  
That was the first

time I'd ever been in the air.

12

00:02:01,159 --> 00:02:07,110

And to look down on all the  
houses and the people and cars and things

13

00:02:07,110 --> 00:02:08,300

was really  
something.

14

00:02:08,300 --> 00:02:12,560

Before World War II, I was in college by that  
time, and

15

00:02:12,560 --> 00:02:14,560

there was a notice on the physics bulletin  
board that you

16

00:02:14,560 --> 00:02:17,310

could take pilot lessons, the government would  
pay for them,

17

00:02:17,310 --> 00:02:18,769

you'd get your private pilot's license.

18

00:02:18,769 --> 00:02:22,930

And it was called  
Civilian Pilot Training, CPT program.

19

00:02:22,930 --> 00:02:26,739

And so, that's what I  
went through and got my private pilot's license

20

00:02:26,739 --> 00:02:28,019

in the spring  
of '41.

21

00:02:28,019 --> 00:02:30,569

If you talk to him, he had a pretty humble  
upbringing

22

00:02:30,569 --> 00:02:32,430  
in Ohio.

23

00:02:32,430 --> 00:02:36,780  
And he went into the Marine Corps at an early  
age

24

00:02:36,780 --> 00:02:39,110  
and got married at an early age.

25

00:02:39,110 --> 00:02:43,000  
Matter of fact, he and  
Annie, I think, shared cribs in the same hospital

26

00:02:43,000 --> 00:02:46,130  
room when  
they were born, believe it or not.

27

00:02:46,130 --> 00:02:49,960  
Pearl Harbor occurred at the end of '41.

28

00:02:49,960 --> 00:02:53,959  
I dropped out  
of college in the middle of my junior year

29

00:02:53,959 --> 00:02:58,819  
and started flight  
training, and then was overseas later on for

30

00:02:58,819 --> 00:03:00,140  
a year during  
World War II.

31

00:03:00,140 --> 00:03:02,980  
He was in World War II as a fighter pilot.

32

00:03:02,980 --> 00:03:04,959  
He was in

Korea as a fighter pilot.

33

00:03:04,959 --> 00:03:06,689

And then, he was a test pilot for the Marine Corps.

34

00:03:06,689 --> 00:03:09,389

So, he had a humble upbringing just like the rest of--he

35

00:03:09,389 --> 00:03:14,359

was a very down to earth person.

36

00:03:14,359 --> 00:03:17,609

NASA finally got interested in sending somebody into

37

00:03:17,609 --> 00:03:18,609

space.

38

00:03:18,609 --> 00:03:19,609

It was such a new thing.

39

00:03:19,609 --> 00:03:21,499

It was all very, very secret at that time.

40

00:03:21,499 --> 00:03:25,790

In the midst of the Cold War, here the Soviet Union and

41

00:03:25,790 --> 00:03:30,010

the United States poised to annihilate each other with nuclear

42

00:03:30,010 --> 00:03:31,010

weapons.

43

00:03:31,010 --> 00:03:33,079

And it was an extraordinary time.

44

00:03:33,079 --> 00:03:37,159

Of course, we were all given orders, which were

45

00:03:37,159 --> 00:03:43,980

supposed to be secret, to come to Washington and to not

46

00:03:43,980 --> 00:03:49,700

discuss the reason for those orders with anyone, even our

47

00:03:49,700 --> 00:03:51,379

wives.

48

00:03:51,379 --> 00:03:55,499

Being a kid growing up on the east coast of Florida at

49

00:03:55,499 --> 00:04:00,349

that time, as all of these astronauts, as we were trying to

50

00:04:00,349 --> 00:04:05,060

catch up with the Soviets who had shocked our pants off of us.

51

00:04:05,060 --> 00:04:06,900

The Russians, I think, were pretty confident that they

52

00:04:06,900 --> 00:04:08,370

were far ahead.

53

00:04:08,370 --> 00:04:10,769

After all, they had launched Yuri Gagarin in

54

00:04:10,769 --> 00:04:12,349

April of 1961.

55

00:04:12,349 --> 00:04:13,980

We had launched Alan Shepard, but it was on  
a

56

00:04:13,980 --> 00:04:14,980

suborbital flight.

57

00:04:14,980 --> 00:04:18,000

President Kennedy had made the  
announcement about going to the moon within

58

00:04:18,000 --> 00:04:21,620

a decade at the  
end of May, but the Soviets didn't take that

59

00:04:21,620 --> 00:04:22,620

very seriously.

60

00:04:22,620 --> 00:04:24,800

In fact, they went off and launched their  
next cosmonaut.

61

00:04:24,800 --> 00:04:27,780

So, it was a brand new experience for everybody.

62

00:04:27,780 --> 00:04:30,130

Nobody had been through this before.

63

00:04:30,130 --> 00:04:33,830

We went through a long  
selection process and--which included physical

64

00:04:33,830 --> 00:04:35,660

and  
psychological and all--every measurement they

65

00:04:35,660 --> 00:04:38,250

knew how to make  
on the human body, I guess.

66

00:04:38,250 --> 00:04:41,840

Those early pioneers at Cape were something  
else,

67

00:04:41,840 --> 00:04:46,190

because not only were they flying by the seat  
of their pants,

68

00:04:46,190 --> 00:04:51,130

many times designing rockets on the back of  
an envelope, but

69

00:04:51,130 --> 00:04:55,290

all the time they were swatting mosquitoes  
and dodging

70

00:04:55,290 --> 00:04:57,060

rattlesnakes and alligators.

71

00:04:57,060 --> 00:04:59,920

So, when we finally came down on--we were  
finally

72

00:04:59,920 --> 00:05:02,479

selected, we were very happy to be there and  
felt honored to

73

00:05:02,479 --> 00:05:05,560

be among the seven to be selected.

74

00:05:05,560 --> 00:05:10,360

The original seven were, of course, figures  
that were

75

00:05:10,360 --> 00:05:14,880

reversed, the engineers who were doing the designs, the launch

76  
00:05:14,880 --> 00:05:19,500  
crews who were doing the day in and day out work, and then the

77  
00:05:19,500 --> 00:05:26,390  
crew shimmying in, into those little tin cans called capsules

78  
00:05:26,390 --> 00:05:36,790  
that were taking us into the heavens.

79  
00:05:36,790 --> 00:05:48,120  
The mission was planned to come back and land on the

80  
00:05:48,120 --> 00:05:49,120  
water.

81  
00:05:49,120 --> 00:05:51,620  
And so, we did a lot of water training on it, too.

82  
00:05:51,620 --> 00:05:54,260  
So, what would happen if you had a leak in the spacecraft

83  
00:05:54,260 --> 00:05:58,480  
after you once hit the water, what the impact would be.

84  
00:05:58,480 --> 00:06:00,180  
If you're underwater, could you get out?

85  
00:06:00,180 --> 00:06:06,441  
We went in the pool, turned the spacecraft with us in it-

86

00:06:06,441 --> 00:06:08,010

-and it's only a one-person spacecraft at that time.

87

00:06:08,010 --> 00:06:10,950

But, they turned the thing upside down, then you

88

00:06:10,950 --> 00:06:14,080

had to escape from--get out underwater and come up.

89

00:06:14,080 --> 00:06:17,760

And training like that, that tried to train for every possible contingency.

90

00:06:17,760 --> 00:06:20,930

But, what if you had to land in the Outback in Australia,

91

00:06:20,930 --> 00:06:23,830

which is one of the places where we went up over the--one of

92

00:06:23,830 --> 00:06:29,860

the tracks of the spacecraft, or across the jungle area of

93

00:06:29,860 --> 00:06:33,130

Papua New Guinea, for instance, or southwest Africa, Namibia

94

00:06:33,130 --> 00:06:34,130

and that area?

95

00:06:34,130 --> 00:06:37,870

We trained for all of that, too, with desert training where we went out, were isolated

96  
00:06:37,870 --> 00:06:41,650  
in the desert, and  
how you would survive for several days before

97  
00:06:41,650 --> 00:06:42,740  
they could pick  
you up.

98  
00:06:42,740 --> 00:06:45,480  
We trained in jungle training, went down in  
Panama

99  
00:06:45,480 --> 00:06:49,720  
and Columbia and went in the high canopy jungle  
and survived

100  
00:06:49,720 --> 00:06:50,720  
for three days.

101  
00:06:50,720 --> 00:06:54,770  
And so, we did a lot of training that way  
so that if you

102  
00:06:54,770 --> 00:06:58,990  
ever--it was ever necessary to come back to  
Earth on an

103  
00:06:58,990 --> 00:07:02,310  
emergency landing, that you'd be able to survive  
whatever the

104  
00:07:02,310 --> 00:07:04,590  
conditions were, whether you came down in  
the jungle or the

105  
00:07:04,590 --> 00:07:07,550  
desert or the land someplace.

106  
00:07:07,550 --> 00:07:11,060

When I got to fly the shuttle, I knew what to expect.

107

00:07:11,060 --> 00:07:14,340

I think when John flew his first flight, he didn't know what

108

00:07:14,340 --> 00:07:15,340

to expect.

109

00:07:15,340 --> 00:07:18,200

And that's a huge difference.

110

00:07:18,200 --> 00:07:22,460

Both we and the Soviets at that time were using

111

00:07:22,460 --> 00:07:25,750

boosters that had been designed as ICBMs, intercontinental

112

00:07:25,750 --> 00:07:29,000

ballistic missiles, for the launch of nuclear weapons around

113

00:07:29,000 --> 00:07:30,990

the--whatever the target might be.

114

00:07:30,990 --> 00:07:34,120

Well, then when it came time to put a man into space, we

115

00:07:34,120 --> 00:07:37,190

didn't have a separate booster designed just to do that.

116

00:07:37,190 --> 00:07:40,310

We used the ICBMs that had been used for a different

117

00:07:40,310 --> 00:07:41,310

purpose.

118

00:07:41,310 --> 00:07:44,570

That was a big day for America.

119

00:07:44,570 --> 00:07:49,700

The Soviets had not  
only beat us into space with Sputnik, but

120

00:07:49,700 --> 00:07:55,430

then they had beat  
us into orbit with Gagarin before we ever

121

00:07:55,430 --> 00:07:59,380

even got Alan  
Shepard up into sub-orbit.

122

00:07:59,380 --> 00:08:02,720

We were behind in the manned space program  
as far as

123

00:08:02,720 --> 00:08:05,880

ability to lift weight because we had been  
better than they

124

00:08:05,880 --> 00:08:07,260

were technically.

125

00:08:07,260 --> 00:08:11,440

We had been able to make small nuclear  
weapons, lighter nuclear weapons, and they

126

00:08:11,440 --> 00:08:15,580

had to design a  
booster for their great big Hiroshima type

127

00:08:15,580 --> 00:08:16,580

weapons.

128

00:08:16,580 --> 00:08:20,180

And so,  
here when they used that booster for a space

129

00:08:20,180 --> 00:08:23,740

program, they  
could put up a huge amount of weight where

130

00:08:23,740 --> 00:08:24,740

we couldn't.

131

00:08:24,740 --> 00:08:26,930

Ours  
were smaller boosters because we had miniaturized

132

00:08:26,930 --> 00:08:28,120

nuclear  
weapons.

133

00:08:28,120 --> 00:08:32,370

When John first launched, he was on a brand  
new rocket,

134

00:08:32,370 --> 00:08:33,820

never been to orbit before.

135

00:08:33,820 --> 00:08:37,010

We didn't know how humans would  
react in zero G.

136

00:08:37,010 --> 00:08:39,300

We didn't know whether they'd be able to  
eat.

137

00:08:39,300 --> 00:08:41,570

Some people said their eyes wouldn't focus,  
all kinds of

138

00:08:41,570 --> 00:08:45,070  
crazy stories that John told me that they  
told him, before he

139  
00:08:45,070 --> 00:08:46,639  
launched, to expect.

140  
00:08:46,639 --> 00:08:49,050  
He didn't believe any of those and most  
of them were not true.

141  
00:08:49,050 --> 00:08:50,490  
But, we just didn't know back then.

142  
00:08:50,490 --> 00:08:53,370  
The day that I finally went, that was my--that  
was the

143  
00:08:53,370 --> 00:08:56,070  
third time I had actually suited up and been  
on top, been

144  
00:08:56,070 --> 00:08:57,230  
locked in and ready to go.

145  
00:08:57,230 --> 00:09:00,990  
And it was cancelled once by  
problems with the spacecraft and another time

146  
00:09:00,990 --> 00:09:01,990  
by weather.

147  
00:09:01,990 --> 00:09:04,610  
But, when you finally get in the thing and  
you're ready

148  
00:09:04,610 --> 00:09:06,380  
to go, you're very, very busy.

149

00:09:06,380 --> 00:09:09,389

People think you're in there  
contemplating great thoughts.

150

00:09:09,389 --> 00:09:13,930

And I think it's more like that  
you're in there, as I was, double checking

151

00:09:13,930 --> 00:09:15,920

all the  
instrumentation and talking to the people

152

00:09:15,920 --> 00:09:20,040

on the ground crew  
to make sure that everything was okay for

153

00:09:20,040 --> 00:09:21,040

launch.

154

00:09:21,040 --> 00:09:22,040

Godspeed, John Glenn.

155

00:09:22,040 --> 00:09:23,040

Six, five, four, three, two, one, zero.

156

00:09:23,040 --> 00:09:24,040

Roger.

157

00:09:24,040 --> 00:09:26,370

The clock is operating.

158

00:09:26,370 --> 00:09:30,579

We're underway.

159

00:09:30,579 --> 00:09:38,100

Hear you loud and clear.

160

00:09:38,100 --> 00:09:39,319

Roger.

161

00:09:39,319 --> 00:09:45,390

We're programming at  
roll okay.

162

00:09:45,390 --> 00:09:49,040

Godspeed, John Glenn.

163

00:09:49,040 --> 00:09:56,089

I was in the blockhouse when he  
was and the last to speak to him before liftoff.

164

00:09:56,089 --> 00:10:02,360

Gus and Al  
had both done that, but they weren't riding

165

00:10:02,360 --> 00:10:10,110

on this big, big  
fuel tank that had enough--had the ability

166

00:10:10,110 --> 00:10:15,950

to give him more  
speed than what Al and Gus had had.

167

00:10:15,950 --> 00:10:20,200

They didn't have enough  
to coast all the way around the world.

168

00:10:20,200 --> 00:10:25,480

They just had enough  
to go up a little ways and fall back to Earth.

169

00:10:25,480 --> 00:10:27,800

People look at all this fire and smoke on  
the ground

170

00:10:27,800 --> 00:10:30,389

and they think you're under huge stress inside.

171

00:10:30,389 --> 00:10:31,639

You're not.

172

00:10:31,639 --> 00:10:35,149

The thrust is just barely greater than the weight of the

173

00:10:35,149 --> 00:10:37,540

spacecraft, so you lift off very gently.

174

00:10:37,540 --> 00:10:40,189

And the more the fuel burns out there, the lighter it becomes,

175

00:10:40,189 --> 00:10:41,740

and the thrust is still high.

176

00:10:41,740 --> 00:10:48,040

So, the farther you go up here on this entry into space, the more G's you feel inside.

177

00:10:48,040 --> 00:10:49,570

Roger.

178

00:10:49,570 --> 00:10:58,779

Zero G and I feel fine.

179

00:10:58,779 --> 00:10:59,779

Capsule is turning around.

180

00:10:59,779 --> 00:11:00,779

Oh, that view is tremendous.

181

00:11:00,779 --> 00:11:01,779

Roger.

182

00:11:01,779 --> 00:11:02,779

Turnaround has started.

183

00:11:02,779 --> 00:11:03,779

Roger.

184

00:11:03,779 --> 00:11:04,779

Capsule turning around.

185

00:11:04,779 --> 00:11:05,779

And I could see the  
booster during turnaround just a couple of

186

00:11:05,779 --> 00:11:06,779

hundred yards  
behind me.

187

00:11:06,779 --> 00:11:07,779

It was beautiful.

188

00:11:07,779 --> 00:11:08,779

Roger, Seven.

189

00:11:08,779 --> 00:11:09,779

You have a go, at least seven orbits.

190

00:11:09,779 --> 00:11:10,779

Roger.

191

00:11:10,779 --> 00:11:12,230

Understand go for at least seven orbits.

192

00:11:12,230 --> 00:11:17,199

When I was inserted into orbit, the first  
thing it did

193

00:11:17,199 --> 00:11:21,639

was the spacecraft turned around so the heat  
shield was

194

00:11:21,639 --> 00:11:23,660

forward in the direction that I was going.

195

00:11:23,660 --> 00:11:25,990

That was for  
protection.

196

00:11:25,990 --> 00:11:30,360

And I could look back across northern Florida  
and clear

197

00:11:30,360 --> 00:11:34,999

back along the Gulf Coast.

198

00:11:34,999 --> 00:11:36,390

And it was a beautiful view and  
quite impressive, too.

199

00:11:36,390 --> 00:11:38,180

First time I'd ever seen any--from  
that kind of altitude, for sure.

200

00:11:38,180 --> 00:11:40,519

And you're going almost five miles a second  
to stay up

201

00:11:40,519 --> 00:11:43,569

there in orbit, which takes you around the  
Earth in about an

202

00:11:43,569 --> 00:11:48,559

hour and 29 minutes, about every hour and  
a half you're going

203

00:11:48,559 --> 00:11:49,780

around the Earth.

204

00:11:49,780 --> 00:11:53,829

So, it's--you have very short days and

short nights, about 45 minutes each.

205

00:11:53,829 --> 00:11:56,240

Here on Earth you look at a sunset or a sunrise,  
you see

206

00:11:56,240 --> 00:12:00,430

the oranges and yellows and reds.

207

00:12:00,430 --> 00:12:05,709

But, you don't see the  
other end of the spectrum, red, orange, yellow,

208

00:12:05,709 --> 00:12:09,850

green, blue,  
indigo, violet, right across the spectrum.

209

00:12:09,850 --> 00:12:12,350

And that blue,  
indigo, violet, you see that kind of luminous

210

00:12:12,350 --> 00:12:18,339

quality in the  
color just as sunset and sunrise in space.

211

00:12:18,339 --> 00:12:20,410

So, it makes it  
different than anything you've seen here on

212

00:12:20,410 --> 00:12:21,410

Earth.

213

00:12:21,410 --> 00:12:22,410

This is Friendship Seven.

214

00:12:22,410 --> 00:12:26,940

I'll try to describe what I am  
in here.

215

00:12:26,940 --> 00:12:34,639

I am in a big mass of some very small particles  
that

216

00:12:34,639 --> 00:12:39,550

are brilliantly lit up like they're luminescent.

217

00:12:39,550 --> 00:12:41,230

I never saw  
anything like it.

218

00:12:41,230 --> 00:12:45,399

They around a little--they are coming by  
the capsule and they look like little stars,

219

00:12:45,399 --> 00:12:47,339

a whole shower of  
them coming by.

220

00:12:47,339 --> 00:12:49,720

A lot of brilliant, well-trained engineers  
and

221

00:12:49,720 --> 00:12:55,959

scientists on the ground heard John say, "I  
can see things out

222

00:12:55,959 --> 00:13:00,509

there that look like fireflies."

223

00:13:00,509 --> 00:13:07,519

This large body of expert  
intellect was all of a sudden wondering, "Are

224

00:13:07,519 --> 00:13:12,079

there living  
creatures out there," because John called

225

00:13:12,079 --> 00:13:13,079

them fireflies.

226

00:13:13,079 --> 00:13:14,079

They do have a different motion, though, from me,

227

00:13:14,079 --> 00:13:15,079

because they swirl around the capsule and then depart back the

228

00:13:15,079 --> 00:13:18,910

way that I am looking.

229

00:13:18,910 --> 00:13:25,370

Are you receiving?

230

00:13:25,370 --> 00:13:27,529

Over.

231

00:13:27,529 --> 00:13:32,550

I had heard nothing hit the spacecraft or no malfunction

232

00:13:32,550 --> 00:13:35,580

I could see from the instrumentation.

233

00:13:35,580 --> 00:13:39,720

And so, it was a big surprise to look out and see all of these

234

00:13:39,720 --> 00:13:40,720

little flakes.

235

00:13:40,720 --> 00:13:42,660

And they--fireflies is exactly what they looked

236

00:13:42,660 --> 00:13:43,660

like.

237

00:13:43,660 --> 00:13:44,660

That's the  
way I described them.

238

00:13:44,660 --> 00:13:47,029

On the next flight, Scott Carpenter tapped  
the side of

239

00:13:47,029 --> 00:13:49,290

the spacecraft and a whole shower of them  
went off.

240

00:13:49,290 --> 00:13:57,209

They were flakes of frost that came from the  
water that

241

00:13:57,209 --> 00:14:04,420

the cabin and heat exchangers exhausted, and  
they became

242

00:14:04,420 --> 00:14:07,620

inanimate pieces of ice.

243

00:14:07,620 --> 00:14:11,699

And it was an interesting discovery.

244

00:14:11,699 --> 00:14:14,310

I don't know that anybody ever fully explained  
why the

245

00:14:14,310 --> 00:14:18,470

luminous color, though, right at sunrise as  
the first light of

246

00:14:18,470 --> 00:14:23,059

sun came on the little particles, because  
that was the strange

247

00:14:23,059 --> 00:14:24,060

part of it.

248

00:14:24,060 --> 00:14:26,830

But, that was very surprising and it didn't pose

249

00:14:26,830 --> 00:14:27,830

any danger.

250

00:14:27,830 --> 00:14:30,250

But, it was there at each sunrise.

251

00:14:30,250 --> 00:14:33,829

Atlantic Ship, this is Friendship Seven.

252

00:14:33,829 --> 00:14:36,319

I wish you would pass to Cape.

253

00:14:36,319 --> 00:14:40,759

I let the capsule drift around to the 180-degree position and I am having to reorient

254

00:14:40,759 --> 00:14:42,110

at present time.

255

00:14:42,110 --> 00:14:47,050

When I am all lined with the horizon in the periscope,

256

00:14:47,050 --> 00:14:49,959

my attitude indications now are way off.

257

00:14:49,959 --> 00:14:55,240

My roll indicates three-zero degrees right, my yaw indicates

258

00:14:55,240 --> 00:14:59,350

three-five right,  
and pitch indicates plus four-zero.

259

00:14:59,350 --> 00:15:05,220

I repeat, plus four-zero  
when I am in orbit attitude.

260

00:15:05,220 --> 00:15:06,220

Over.

261

00:15:06,220 --> 00:15:07,839

Everything worked perfectly, and then there  
was an

262

00:15:07,839 --> 00:15:12,429

indication that John's heat shield was loose,  
which meant that

263

00:15:12,429 --> 00:15:17,720

after the third orbit and on the de-orbit  
that he would burn

264

00:15:17,720 --> 00:15:18,889

up, if it was.

265

00:15:18,889 --> 00:15:20,929

Well, I certainly wanted to make it a two-way  
trip and

266

00:15:20,929 --> 00:15:22,339

come back, of course.

267

00:15:22,339 --> 00:15:26,290

But, the automatic control system had  
had a malfunction.

268

00:15:26,290 --> 00:15:29,309

That meant that I was flying manually.

269

00:15:29,309 --> 00:15:32,480

I  
cut all the systems back on so that I was

270

00:15:32,480 --> 00:15:37,389

operating as well as  
the automatic systems during reentry.

271

00:15:37,389 --> 00:15:41,239

That used more fuel  
that way, but had just enough to do that.

272

00:15:41,239 --> 00:15:43,269

It's the first thing I actually remember in  
my whole

273

00:15:43,269 --> 00:15:46,220

life, is sitting in front of our nice black  
and white TV on

274

00:15:46,220 --> 00:15:48,510

the floor, because I had to get real close  
because, you know,

275

00:15:48,510 --> 00:15:51,220

I was really excited about this, watching  
the John Glenn

276

00:15:51,220 --> 00:15:52,220

flight.

277

00:15:52,220 --> 00:15:54,179

And the thing I remember most about it is  
sitting there

278

00:15:54,179 --> 00:15:57,660

worrying about whether or not John Glenn was  
going to survive

279

00:15:57,660 --> 00:15:59,819

when that heat shield was, you know, getting loose.

280

00:15:59,819 --> 00:16:01,139

Was it really loose?

281

00:16:01,139 --> 00:16:03,749

Was he going to, you know, burn up when he reentered?

282

00:16:03,749 --> 00:16:05,660

It was a very exciting thing, and I think that's

283

00:16:05,660 --> 00:16:08,059

probably what inspired me to be interested in space and how I

284

00:16:08,059 --> 00:16:12,450

wound up becoming NASA Chief Historian in the end.

285

00:16:12,450 --> 00:16:15,239

When you land, you do a de-orbit burn, which-- essentially you turn the vehicle backwards

286

00:16:15,239 --> 00:16:17,949

and you slow the vehicle down just enough that it can drop

287

00:16:17,949 --> 00:16:19,089

back into the atmosphere.

288

00:16:19,089 --> 00:16:21,889

In the case of a capsule, it can't really fly

289

00:16:21,889 --> 00:16:22,889

like an airplane.

290

00:16:22,889 --> 00:16:24,410

It mostly just falls straight.

291

00:16:24,410 --> 00:16:27,869

During reentry, then, instead of jettisoning that retro

292

00:16:27,869 --> 00:16:32,069

pack here and getting it off so I had a clean heat shield for

293

00:16:32,069 --> 00:16:38,549

reentry, we left that on so that the heat shield would be held

294

00:16:38,549 --> 00:16:41,999

in place until the aerodynamic force of reentry would tend to

295

00:16:41,999 --> 00:16:44,009

hold the heat shield in place.

296

00:16:44,009 --> 00:16:48,829

Now, that made for an interesting--well, the reentry was

297

00:16:48,829 --> 00:16:51,569

going to be interesting anyway, but it was even more

298

00:16:51,569 --> 00:16:54,029

interesting because, as I would glance occasionally out the

299

00:16:54,029 --> 00:16:58,459

little window, I could see chunks of that retro pack breaking

300

00:16:58,459 --> 00:16:59,809

up and coming back by the window.

301

00:16:59,809 --> 00:17:04,010

My condition is good, but that was a real fireball, boy.

302

00:17:04,010 --> 00:17:10,740

I had great chunks of that retro pack breaking off all the way

303

00:17:10,740 --> 00:17:11,740

through.

304

00:17:11,740 --> 00:17:12,740

Rocking quite a bit.

305

00:17:12,740 --> 00:17:13,740

I may still have some of that pack on.

306

00:17:13,740 --> 00:17:15,589

I can't damp it, either.

307

00:17:15,589 --> 00:17:17,970

And I couldn't be absolutely certain then whether it was

308

00:17:17,970 --> 00:17:21,040

the heat shield breaking up or the retro pack.

309

00:17:21,040 --> 00:17:24,630

And obviously it was the retro pack or I wouldn't be here

310

00:17:24,630 --> 00:17:25,630

today.

311

00:17:25,630 --> 00:17:26,950

But,  
anyway, it was a--that kind of reentry was

312

00:17:26,950 --> 00:17:32,030

the second problem  
we had in addition to the control system failure.

313

00:17:32,030 --> 00:17:34,350

If you listen to the tapes, it's pretty clear  
that he

314

00:17:34,350 --> 00:17:37,240

knows that there's something going on there  
and it's not the

315

00:17:37,240 --> 00:17:38,873

normal procedure, because he knew the procedures  
really well.

316

00:17:38,873 --> 00:17:45,100

He knew that retro pack should have been gone.

317

00:17:45,100 --> 00:17:56,390

We are recommending that you leave the retro  
package on

318

00:17:56,390 --> 00:17:57,390

through the entire reentry.

319

00:17:57,390 --> 00:17:58,390

This is Friendship Seven.

320

00:17:58,390 --> 00:17:59,390

What is the reason for this?

321

00:17:59,390 --> 00:18:00,390

Do you have any reason?

322

00:18:00,390 --> 00:18:01,390

Over.

323

00:18:01,390 --> 00:18:02,390

Not at this time.

324

00:18:02,390 --> 00:18:03,390

That is the judgment of Cape Flight.

325

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

Roger.

326

00:18:04,390 --> 00:18:05,390

His odds of not surviving this was about one in six.

327

00:18:05,390 --> 00:18:06,390

So, it was an extremely high risk, unknown effort that they

328

00:18:06,390 --> 00:18:07,390

were going into, having never done it before.

329

00:18:07,390 --> 00:18:08,620

Holding the retro pack on there would actually keep the

330

00:18:08,620 --> 00:18:09,620

heat shield in place.

331

00:18:09,620 --> 00:18:11,870

There was reasonable assumption that it might actually help.

332

00:18:11,870 --> 00:18:14,840

But, then again, it might also, you know, wobble around and knock it off too,

333

00:18:14,840 --> 00:18:15,840

as well, I suppose.

334

00:18:15,840 --> 00:18:17,910

So, there was probably a lot of concern about that.

335

00:18:17,910 --> 00:18:19,930

But, it seemed like probably the only decent course

336

00:18:19,930 --> 00:18:22,900

of action that they had available to them and a reasonable

337

00:18:22,900 --> 00:18:23,900

thing.

338

00:18:23,900 --> 00:18:29,270

As he went into the radio blackout period on reentry, the

339

00:18:29,270 --> 00:18:33,190

last thing you could hear was John humming the Battle Hymn of

340

00:18:33,190 --> 00:18:34,190

the Republic.

341

00:18:34,190 --> 00:18:35,190

Main chute is on green.

342

00:18:35,190 --> 00:18:36,190

Chute is out in reef condition at 10,800 feet and beautiful chute.

343

00:18:36,190 --> 00:18:37,190

Chute looks good.

344

00:18:37,190 --> 00:18:38,190

On 02  
emergency and the chute looks very good.

345  
00:18:38,190 --> 00:18:42,890  
The rate of descent  
has gone to about four-two feet per second.

346  
00:18:42,890 --> 00:18:48,020  
The chute looks  
very good.

347  
00:18:48,020 --> 00:18:52,120  
My condition is good.

348  
00:18:52,120 --> 00:18:56,610  
It's a little hot in here,  
however.

349  
00:18:56,610 --> 00:18:57,610  
Over.

350  
00:18:57,610 --> 00:19:01,330  
The Mercury capsule, you have to remember,  
is a really

351  
00:19:01,330 --> 00:19:02,330  
small thing.

352  
00:19:02,330 --> 00:19:03,340  
So, when he's reentering, he wouldn't have  
been

353  
00:19:03,340 --> 00:19:07,210  
very far from all that heat that was being  
generated against

354  
00:19:07,210 --> 00:19:08,210  
that ablated heat shield.

355

00:19:08,210 --> 00:19:09,320

So, I imagine it might have gotten pretty warm in there.

356

00:19:09,320 --> 00:19:12,540

And, of course, it would have been a pretty rough ride as well because you're,

357

00:19:12,540 --> 00:19:16,470

you know, going through a tremendous change in speed, in altitude,

358

00:19:16,470 --> 00:19:18,010

and G forces.

359

00:19:18,010 --> 00:19:20,640

So, all those things combined together, it must have been

360

00:19:20,640 --> 00:19:21,870

an interesting ride coming down.

361

00:19:21,870 --> 00:19:25,170

And, of course, nobody had done it before from that speed, from orbital

362

00:19:25,170 --> 00:19:26,170

speed.

363

00:19:26,170 --> 00:19:28,640

So, you know, the later astronauts had the benefit

364

00:19:28,640 --> 00:19:30,920

of John Glenn's information about how it went.

365

00:19:30,920 --> 00:19:33,430

But, he would have been the

first to do it, and it might have been an

366

00:19:33,430 --> 00:19:34,540

interesting ride.

367

00:19:34,540 --> 00:19:39,580

Coming out of the blackout period and saying,  
"Houston,

368

00:19:39,580 --> 00:19:43,210

this is Friendship Seven," and of course the  
nation went nuts.

369

00:19:43,210 --> 00:19:46,320

The world went nuts.

370

00:19:46,320 --> 00:19:48,640

Later on, on the ground after they got the  
spacecraft

371

00:19:48,640 --> 00:19:52,070

back and ran tests on it, they found that  
these two signals

372

00:19:52,070 --> 00:19:55,110

that went down to the ground that had indicated  
a loose heat

373

00:19:55,110 --> 00:19:58,680

shield were not--they were faulty signals.

374

00:19:58,680 --> 00:20:02,040

This is Friendship Seven standing by for impact.

375

00:20:02,040 --> 00:20:06,740

Remain in capsule unless you have an overriding  
reason

376

00:20:06,740 --> 00:20:08,190

for getting out.

377

00:20:08,190 --> 00:20:09,190

Over.

378

00:20:09,190 --> 00:20:10,190

Roger.

379

00:20:10,190 --> 00:20:11,190

Friendship Seven.

380

00:20:11,190 --> 00:20:12,190

Friendship Seven getting  
close.

381

00:20:12,190 --> 00:20:13,190

Standing by.

382

00:20:13,190 --> 00:20:14,440

There we go.

383

00:20:14,440 --> 00:20:15,890

Friendship Seven impact.

384

00:20:15,890 --> 00:20:17,810

Rescue aids is manual.

385

00:20:17,810 --> 00:20:20,220

Friendship Seven, this is Steelhead.

386

00:20:20,220 --> 00:20:22,620

Hold you in the  
water.

387

00:20:22,620 --> 00:20:24,550

What is your condition?

388

00:20:24,550 --> 00:20:25,550

Over.

389

00:20:25,550 --> 00:20:26,550

Roger.

390

00:20:26,550 --> 00:20:27,550

My condition okay.

391

00:20:27,550 --> 00:20:30,320

Does the capsule look like  
it's okay?

392

00:20:30,320 --> 00:20:31,320

Over.

393

00:20:31,320 --> 00:20:33,690

Friendship Seven, reference your last, affirmative.

394

00:20:33,690 --> 00:20:36,100

Capsule looks good from here.

395

00:20:36,100 --> 00:20:39,950

Ready to effect recovery in  
approximately four minutes.

396

00:20:39,950 --> 00:20:40,950

Over.

397

00:20:40,950 --> 00:20:41,950

Roger.

398

00:20:41,950 --> 00:20:42,950

Four minutes to recovery.

399

00:20:42,950 --> 00:20:44,760

My condition is  
good.

400

00:20:44,760 --> 00:20:49,370

A destroyer that came alongside and put a cable down and

401

00:20:49,370 --> 00:20:52,610

a davit, and picked me up and set the spacecraft on the deck

402

00:20:52,610 --> 00:20:53,630

of the ship.

403

00:20:53,630 --> 00:20:57,180

And I blew the side hatch and climbed out, then

404

00:20:57,180 --> 00:20:58,440

was taken over by helicopter.

405

00:20:58,440 --> 00:21:04,460

I lifted off later and went over to the carrier, and the--then flew that

406

00:21:04,460 --> 00:21:05,510

night into Grand Turk.

407

00:21:05,510 --> 00:21:08,990

And we spent three days debriefing with the controllers

408

00:21:08,990 --> 00:21:12,370

and engineers that came out there for the debriefing sessions.

409

00:21:12,370 --> 00:21:18,850

There was a great sense of togetherness and marvelous

410

00:21:18,850 --> 00:21:23,380

accomplishment that we all felt throughout

that period.

411

00:21:23,380 --> 00:21:27,370

They wanted to have celebrations in Washington.

412

00:21:27,370 --> 00:21:30,530

And

there was a speech to a combined meeting of

413

00:21:30,530 --> 00:21:33,110

Congress, the

Senate and House meeting together.

414

00:21:33,110 --> 00:21:36,080

And spoke to them and met

with the President.

415

00:21:36,080 --> 00:21:40,530

And then, they had a New York tickertape

parade that was a--that was quite an experience.

416

00:21:40,530 --> 00:21:45,030

It was like

a snowstorm of paper coming down.

417

00:21:45,030 --> 00:21:47,490

And somebody told me not long ago that that

was the

418

00:21:47,490 --> 00:21:49,890

biggest tickertape parade that there ever

will be.

419

00:21:49,890 --> 00:21:53,050

And I

said, "No, there's always going to be some

420

00:21:53,050 --> 00:21:54,050

bigger tickertape

parade."

421

00:21:54,050 --> 00:21:58,700

And they said no, because back then you still had

422

00:21:58,700 --> 00:22:02,410

tickertape and you still had a lot of paper stuff that's not

423

00:22:02,410 --> 00:22:03,960

used in offices now.

424

00:22:03,960 --> 00:22:07,770

And so, now when the--they have a tickertape parade in

425

00:22:07,770 --> 00:22:12,320

New York, they--the maintenance people will gather up a bundle

426

00:22:12,320 --> 00:22:16,840

of paper and take it up on the roof and toss it over.

427

00:22:16,840 --> 00:22:18,840

And the buildings in New York now are built so you

428

00:22:18,840 --> 00:22:22,190

can't open the windows even to throw things out.

429

00:22:22,190 --> 00:22:25,421

And plus, there isn't the same kind of paper in the offices now that

430

00:22:25,421 --> 00:22:29,380

we're in the computer time as there were back then.

431

00:22:29,380 --> 00:22:33,480

So, there was--so, they measured the tonnage  
of what the

432

00:22:33,480 --> 00:22:36,190

street cleaners pick up after something like  
that.

433

00:22:36,190 --> 00:22:38,150

So, I  
don't know whether that set a record that'll

434

00:22:38,150 --> 00:22:39,610

be there forever  
or not.

435

00:22:39,610 --> 00:22:41,230

I have no idea.

436

00:22:41,230 --> 00:22:46,220

It was a total resounding success.

437

00:22:46,220 --> 00:22:55,760

And it was a great,  
great honor and pleasure to be a part of such

438

00:22:55,760 --> 00:22:59,560

a marvelous and  
successful program.

439

00:22:59,560 --> 00:23:05,070

And then, President Clinton gave him the chance  
to fly

440

00:23:05,070 --> 00:23:06,070

again.

441

00:23:06,070 --> 00:23:09,060

See, President Kennedy wouldn't let John go

because he

442

00:23:09,060 --> 00:23:12,520

was too much of a national treasure.

443

00:23:12,520 --> 00:23:17,340

And so, all of those  
years later, then President Clinton says,

444

00:23:17,340 --> 00:23:20,940

"John, I want you to  
go back into space."

445

00:23:20,940 --> 00:23:23,640

I'm sure John was tugging on his  
coattail.

446

00:23:23,640 --> 00:23:26,830

So, I was very, very surprised to find out  
that they

447

00:23:26,830 --> 00:23:30,131

wanted me to go fly this mission, the huge  
privilege for me to

448

00:23:30,131 --> 00:23:33,780

get a chance to do this and to go fly with  
this living legend.

449

00:23:33,780 --> 00:23:36,210

When he came back in, one of the first things  
I noticed

450

00:23:36,210 --> 00:23:39,390

is that he came back into the space program  
like he'd never

451

00:23:39,390 --> 00:23:42,190

left it, like he hadn't forgotten anything.

452

00:23:42,190 --> 00:23:44,470

Time had

advanced, but he understood all the principles

453

00:23:44,470 --> 00:23:47,770

of spaceflight,

how to do it, what to do, how to train.

454

00:23:47,770 --> 00:23:49,790

At the time, he was holding down two jobs.

455

00:23:49,790 --> 00:23:51,300

He was

training for our flight.

456

00:23:51,300 --> 00:23:53,390

He was also still in the United States Senate.

457

00:23:53,390 --> 00:23:59,280

So, he would run back and forth to Washington, DC for different meetings and hearings and

458

00:23:59,280 --> 00:24:01,780

votes, and then

he'd run back and train.

459

00:24:01,780 --> 00:24:06,690

He kept up a brutal, brutal schedule

that I don't know as I could survive, and

460

00:24:06,690 --> 00:24:08,871

I'm a lot younger

than he is.

461

00:24:08,871 --> 00:24:13,400

Then he had a chance to see and really soak in the

462

00:24:13,400 --> 00:24:17,440  
sights that he never got a chance to dwell  
on in his three

463  
00:24:17,440 --> 00:24:18,440  
orbits.

464  
00:24:18,440 --> 00:24:23,430  
And if anybody deserved to go at age 77 and  
to show

465  
00:24:23,430 --> 00:24:29,600  
how the human body, at that age, can adapt,  
well, John was the

466  
00:24:29,600 --> 00:24:31,770  
one that deserved to go.

467  
00:24:31,770 --> 00:24:34,970  
A lot of people think of John as an astronaut.

468  
00:24:34,970 --> 00:24:37,760  
Those  
of us that are--with similar backgrounds think

469  
00:24:37,760 --> 00:24:40,590  
of him as a  
test pilot, may think of him as a fighter

470  
00:24:40,590 --> 00:24:46,200  
pilot, you know, a  
former Marine, I'm sure as most of his buddies

471  
00:24:46,200 --> 00:24:48,700  
from the Marine  
Corps consider him.

472  
00:24:48,700 --> 00:24:51,220  
And some of us consider him a Senator or  
a politician.

473

00:24:51,220 --> 00:24:54,250

I think his legacy is in all of those areas,  
because,

474

00:24:54,250 --> 00:24:56,680

quite frankly, he's excelled in all of those  
areas.

475

00:24:56,680 --> 00:24:59,870

He'll be  
probably always remembered or be most famous

476

00:24:59,870 --> 00:25:01,660

for his role as  
an astronaut.

477

00:25:01,660 --> 00:25:03,710

But, I--when I think of John, I don't think  
of

478

00:25:03,710 --> 00:25:04,710

astronaut.

479

00:25:04,710 --> 00:25:07,200

I think of all these other things that are  
associated with John.

480

00:25:07,200 --> 00:25:09,920

The greatest compliment I could give to John  
is that he

481

00:25:09,920 --> 00:25:13,360

and Annie are the people you want to live  
next door to.

482

00:25:13,360 --> 00:25:17,300

His  
legacy really is as an example of, quite frankly,

483

00:25:17,300 --> 00:25:19,180

what an  
American should be.

484

00:25:19,180 --> 00:25:24,670

John Glenn is the all-American boy who became  
the all-