



1  
00:00:05,809 --> 00:00:02,629  
the International Space Station's

2  
00:00:08,570 --> 00:00:05,819  
expedition 24 crew includes an Air Force

3  
00:00:10,820 --> 00:00:08,580  
pilot who's studying the law an engineer

4  
00:00:11,480 --> 00:00:10,830  
a research chemist who used to be an

5  
00:00:15,049 --> 00:00:11,490  
electrician

6  
00:00:17,300 --> 00:00:15,059  
an army aviator a physicist and a

7  
00:00:20,120 --> 00:00:17,310  
paratrooper turned police officer turned

8  
00:00:23,000 --> 00:00:20,130  
spacecraft engineer Russian Air Force

9  
00:00:25,070 --> 00:00:23,010  
colonel Alexander Skvortsov was born in

10  
00:00:26,929 --> 00:00:25,080  
Chell Kevon near Moscow because his

11  
00:00:31,370 --> 00:00:26,939  
father's job had brought the family to

12  
00:00:34,910 --> 00:00:31,380  
Star City a town with no hospital my

13  
00:00:37,910 --> 00:00:34,920

father was a member of the cosmonaut

14

00:00:40,970 --> 00:00:37,920

Corps not for too long because he had

15

00:00:46,490 --> 00:00:40,980

health issues but still I heard many

16

00:00:48,490 --> 00:00:46,500

good things about it and the the idea of

17

00:00:52,639 --> 00:00:48,500

space has always been very strong and

18

00:00:55,340 --> 00:00:52,649

strongly present in our families sports

19

00:00:57,500 --> 00:00:55,350

ops ambition to fly was nurtured growing

20

00:01:00,049 --> 00:00:57,510

up in a military family that moved from

21

00:01:02,990 --> 00:01:00,059

city to city and led to what he calls a

22

00:01:05,149 --> 00:01:03,000

pretty standard educational path after

23

00:01:07,250 --> 00:01:05,159

high school in more shots he completed

24

00:01:09,649 --> 00:01:07,260

study at the Stavropol Air Force pilot

25

00:01:12,380 --> 00:01:09,659

and navigator school spent seven years

26

00:01:14,420 --> 00:01:12,390

in the National Air Defense Force then

27

00:01:17,240 --> 00:01:14,430

studied at the military red banner air

28

00:01:20,120 --> 00:01:17,250

defense academy scored self graduated

29

00:01:21,859 --> 00:01:20,130

the Academy in 1997 the same year he was

30

00:01:24,140 --> 00:01:21,869

selected for the cosmonaut Corps and

31

00:01:32,780 --> 00:01:24,150

started training to fulfill his boyhood

32

00:01:35,390 --> 00:01:32,790

ambition that makes him strive for

33

00:01:37,429 --> 00:01:35,400

discoveries or research to go higher to

34

00:01:48,289 --> 00:01:37,439

go deeper there is something that allows

35

00:01:50,139 --> 00:01:48,299

us to do in the years he's been

36

00:01:52,730 --> 00:01:50,149

preparing for this first spaceflight

37

00:01:54,889 --> 00:01:52,740

squirt saw has also been studying at the

38

00:01:57,969 --> 00:01:54,899

russian academy of civil service to

39

00:02:05,209 --> 00:02:03,170

my college Finals coincide with the fact

40

00:02:07,130 --> 00:02:05,219

that I will have to find space so I'll

41

00:02:10,290 --> 00:02:07,140

have to take a short to break and I

42

00:02:13,050 --> 00:02:10,300

guess graduate the after that

43

00:02:15,660 --> 00:02:13,060

Tracy Caldwell Dyson was born in Arcadia

44

00:02:18,720 --> 00:02:15,670

California and thinks of all of Southern

45

00:02:21,060 --> 00:02:18,730

California as her hometown she remembers

46

00:02:23,010 --> 00:02:21,070

dreaming about space as a young girl but

47

00:02:25,110 --> 00:02:23,020

she first thought of it as a career when

48

00:02:27,630 --> 00:02:25,120

she was a high school student who saw a

49

00:02:29,700 --> 00:02:27,640

teacher Christa McAuliffe prepare for

50

00:02:31,590 --> 00:02:29,710

her spaceflight you start to realize

51  
00:02:34,440 --> 00:02:31,600  
that I've got something in common with

52  
00:02:36,780 --> 00:02:34,450  
this person and a teacher has the right

53  
00:02:38,190 --> 00:02:36,790  
stuff and the teachers teaching me all

54  
00:02:41,400 --> 00:02:38,200  
day long I spend more time with my

55  
00:02:44,910 --> 00:02:41,410  
teachers that I do my parents then it

56  
00:02:47,190 --> 00:02:44,920  
became very interesting to me nearing

57  
00:02:49,740 --> 00:02:47,200  
graduation and unsure of what she wanted

58  
00:02:52,110 --> 00:02:49,750  
to be dyson took her parents advice and

59  
00:02:55,080 --> 00:02:52,120  
made a list of things she liked being

60  
00:02:57,450 --> 00:02:55,090  
athletic studying science working with

61  
00:02:59,670 --> 00:02:57,460  
tools learning languages and cultures

62  
00:03:01,530 --> 00:02:59,680  
when I looked at that list and then I

63  
00:03:03,870 --> 00:03:01,540

looked at what astronauts were we're

64

00:03:06,720 --> 00:03:03,880

doing this seems like a pretty good

65

00:03:09,480 --> 00:03:06,730

match and that was the diving board that

66

00:03:12,750 --> 00:03:09,490

I sprang from into college and graduate

67

00:03:14,070 --> 00:03:12,760

school and the path that I took dyson

68

00:03:15,900 --> 00:03:14,080

earned her bachelor's degree in

69

00:03:18,449 --> 00:03:15,910

chemistry at California State University

70

00:03:20,610 --> 00:03:18,459

at Fullerton where she was a sprinter

71

00:03:22,230 --> 00:03:20,620

and long jumper on the track team while

72

00:03:24,449 --> 00:03:22,240

working as an electrician for her

73

00:03:26,370 --> 00:03:24,459

father's contracting company she

74

00:03:28,020 --> 00:03:26,380

completed her doctorate in chemistry at

75

00:03:30,750 --> 00:03:28,030

the University of California at Davis

76

00:03:32,730 --> 00:03:30,760

and won a postdoctoral fellowship in

77

00:03:36,030 --> 00:03:32,740

environmental science before being

78

00:03:37,710 --> 00:03:36,040

selected as an astronaut in 1998 she

79

00:03:39,480 --> 00:03:37,720

made her first spaceflight on the

80

00:03:41,100 --> 00:03:39,490

shuttle mission that delivered the s5

81

00:03:43,410 --> 00:03:41,110

trust to the International Space Station

82

00:03:45,270 --> 00:03:43,420

and thinks the planet would be in better

83

00:03:47,850 --> 00:03:45,280

shape if more people could make that

84

00:03:51,480 --> 00:03:47,860

trip you know you take the firmest

85

00:03:53,490 --> 00:03:51,490

believer in not having humans in space

86

00:03:55,530 --> 00:03:53,500

and you launch them and you take them

87

00:03:57,740 --> 00:03:55,540

take them right in front of a window and

88

00:04:01,100 --> 00:03:57,750

have them look at that beautiful plump

89

00:04:06,360 --> 00:04:01,110

pink and blue planet as it turns from

90

00:04:08,060 --> 00:04:06,370

sunrise to sunset and they'll change

91

00:04:10,830 --> 00:04:08,070

their mind

92

00:04:13,170 --> 00:04:10,840

mikhail Kornienko was born in the city of

93

00:04:15,510 --> 00:04:13,180

citron on the Volga River in western

94

00:04:19,080 --> 00:04:15,520

Samara just a year before Yuri Gagarin

95

00:04:22,540 --> 00:04:19,090

space flight changed the world and then

96

00:04:25,659 --> 00:04:22,550

the space exploration was only starting

97

00:04:28,839 --> 00:04:25,669

and every young boy was dreaming of

98

00:04:32,879 --> 00:04:28,849

being a cosmonaut I was not an exception

99

00:04:36,850 --> 00:04:32,889

especially because my father was a

100

00:04:39,159 --> 00:04:36,860

rescue helicopter pilot his father's

101  
00:04:41,230 --> 00:04:39,169  
military job took the family to use know

102  
00:04:43,089 --> 00:04:41,240  
you're all scanned when Kornienko was

103  
00:04:45,969 --> 00:04:43,099  
six his father died in a helicopter

104  
00:04:47,589 --> 00:04:45,979  
crash during a rescue the young boy

105  
00:04:49,719 --> 00:04:47,599  
lived with his grandmother for a few

106  
00:04:51,189 --> 00:04:49,729  
years and then joined his mother and

107  
00:04:53,290 --> 00:04:51,199  
brother in China Binh ski when he

108  
00:04:55,300 --> 00:04:53,300  
started the seventh grade one year

109  
00:04:59,140 --> 00:04:55,310  
before he was old enough to enroll at

110  
00:05:11,010 --> 00:04:59,150  
the young cosmonauts school there I

111  
00:05:11,020 --> 00:05:21,059  
young and we were studying navigation

112  
00:05:26,409 --> 00:05:24,219  
parachute jumping after high school

113  
00:05:28,959 --> 00:05:26,419

Kornienko worked in a radio equipment

114

00:05:31,779 --> 00:05:28,969

plant before joining the Soviet Army and

115

00:05:34,209 --> 00:05:31,789

serving as a paratrooper then he joined

116

00:05:35,499 --> 00:05:34,219

the Moscow militia or police force while

117

00:05:38,260 --> 00:05:35,509

studying at the Moscow Aviation

118

00:05:40,300 --> 00:05:38,270

Institute he worked as a mechanical

119

00:05:42,249 --> 00:05:40,310

engineering designer before getting on

120

00:05:44,950 --> 00:05:42,259

at the Baikonur cosmodrome as a launch

121

00:05:47,050 --> 00:05:44,960

equipment specialist where for a time he

122

00:05:50,050 --> 00:05:47,060

led the team responsible for servicing

123

00:05:52,209 --> 00:05:50,060

the Braun's spacecraft Kornienko joined

124

00:05:55,390 --> 00:05:52,219

the rocket space corporation Energia as

125

00:05:58,059 --> 00:05:55,400

an engineer in 1995 he was selected for

126

00:06:00,219 --> 00:05:58,069

the cosmonaut Corps in 1998 and has

127

00:06:05,469 --> 00:06:00,229

worked as an Eevee a specialist while

128

00:06:07,480 --> 00:06:05,479

preparing for his first spaceflight and

129

00:06:21,370 --> 00:06:07,490

of course we are going to colonize

130

00:06:24,790 --> 00:06:21,380

planets that are close to us and a

131

00:06:27,309 --> 00:06:24,800

specialist is that we do have to

132

00:06:30,399 --> 00:06:27,319

continue the space exploration and it

133

00:06:33,670 --> 00:06:30,409

has to be human we have to see the space

134

00:06:35,629 --> 00:06:33,680

with human eyes Colonel Doug Wheelock

135

00:06:38,119 --> 00:06:35,639

the United States Army

136

00:06:40,700 --> 00:06:38,129

was born in Binghamton New York exactly

137

00:06:43,249 --> 00:06:40,710

one year before Alan Shepards mercury

138

00:06:46,700 --> 00:06:43,259

flight and grew up in the nearby town of

139

00:06:51,110 --> 00:06:46,710

Windsor I was nine years old when we

140

00:06:55,339 --> 00:06:51,120

first landed Apollo 11 on the moon and I

141

00:06:59,330 --> 00:06:55,349

thought wow that that is really awesome

142

00:07:02,179 --> 00:06:59,340

and but I never thought that that was

143

00:07:04,489 --> 00:07:02,189

that dream was like way too big for me

144

00:07:07,790 --> 00:07:04,499

because I I was just like an ordinary

145

00:07:10,519 --> 00:07:07,800

kid in a tiny little town growing up in

146

00:07:11,990 --> 00:07:10,529

that tiny town population less than a

147

00:07:14,330 --> 00:07:12,000

thousand even today

148

00:07:17,360 --> 00:07:14,340

Wheelock developed an appreciation for

149

00:07:20,119 --> 00:07:17,370

hard work for service to others and a

150

00:07:22,129 --> 00:07:20,129

love of flying all of which led him to

151  
00:07:24,290 --> 00:07:22,139  
the United States Military Academy at

152  
00:07:25,999 --> 00:07:24,300  
West Point where earned a Bachelor of

153  
00:07:26,719 --> 00:07:26,009  
Science in applied science and

154  
00:07:30,709 --> 00:07:26,729  
engineering

155  
00:07:32,869 --> 00:07:30,719  
I knew that West Point was was the top

156  
00:07:36,019 --> 00:07:32,879  
the top of the list of leadership

157  
00:07:39,559 --> 00:07:36,029  
schools and I really wanted to I really

158  
00:07:42,469 --> 00:07:39,569  
wanted to to experience what it's like

159  
00:07:46,279 --> 00:07:42,479  
to be trained as a leader it gave me the

160  
00:07:49,040 --> 00:07:46,289  
opportunity to come out and really start

161  
00:07:50,929 --> 00:07:49,050  
right into aviation once he was

162  
00:07:53,809 --> 00:07:50,939  
commissioned and spent a year in the

163  
00:07:55,129 --> 00:07:53,819

infantry after graduating at the top of

164

00:07:57,740 --> 00:07:55,139

his flight school class

165

00:08:00,260 --> 00:07:57,750

Wheelock had postings as an army aviator

166

00:08:01,850 --> 00:08:00,270

in the Pacific and an assignment as an

167

00:08:04,100 --> 00:08:01,860

advanced weapons research and

168

00:08:05,570 --> 00:08:04,110

development engineer before earning a

169

00:08:08,149 --> 00:08:05,580

Master of Science in aerospace

170

00:08:10,189 --> 00:08:08,159

engineering from Georgia Tech and then

171

00:08:12,559 --> 00:08:10,199

moving on to the Navy test pilot school

172

00:08:16,779 --> 00:08:12,569

when I was able to go through test pilot

173

00:08:19,399 --> 00:08:16,789

training and and get exposed to and meet

174

00:08:21,769 --> 00:08:19,409

different test pilots from various

175

00:08:23,719 --> 00:08:21,779

services and I got to meet some of the

176

00:08:26,600 --> 00:08:23,729

astronauts that had formerly been test

177

00:08:28,279 --> 00:08:26,610

pilots and and I thought you know that's

178

00:08:30,589 --> 00:08:28,289

something that I could do as well you

179

00:08:33,380 --> 00:08:30,599

know I think I might try to do that he

180

00:08:35,149 --> 00:08:33,390

was selected as an astronaut in 1998 and

181

00:08:36,790 --> 00:08:35,159

worked in many areas of the

182

00:08:39,949 --> 00:08:36,800

International Space Station program

183

00:08:42,829 --> 00:08:39,959

including a stint in star city as NASA's

184

00:08:44,689 --> 00:08:42,839

Director of Operations Russia Wheelock

185

00:08:47,300 --> 00:08:44,699

made three spacewalks on his first

186

00:08:48,770 --> 00:08:47,310

flight the 2007 shuttle mission that

187

00:08:51,740 --> 00:08:48,780

delivered the Harmony

188

00:08:55,060 --> 00:08:51,750

and repair damaged solar arrays on the

189

00:08:57,350 --> 00:08:55,070

International Space Station's p6 truss

190

00:09:00,110 --> 00:08:57,360

Fyodor yurchikhin was born in the

191

00:09:02,210 --> 00:09:00,120

Georgian city of batumi one day before

192

00:09:05,210 --> 00:09:02,220

the first spaceship that ever escaped

193

00:09:07,460 --> 00:09:05,220

Earth's gravity flew past the moon he

194

00:09:09,980 --> 00:09:07,470

was 2 years old when Yuri Gagarin space

195

00:09:12,200 --> 00:09:09,990

flight changed the world and on his very

196

00:09:13,880 --> 00:09:12,210

first day in school he had a ready

197

00:09:16,580 --> 00:09:13,890

answer when the teacher asked the

198

00:09:20,960 --> 00:09:16,590

children what they wanted to be like

199

00:09:23,810 --> 00:09:20,970

everybody in my class asked I want it to

200

00:09:26,480 --> 00:09:23,820

be ho keeper in Soviet command he told

201  
00:09:29,060 --> 00:09:26,490  
me it's not profession I ask you about

202  
00:09:32,960 --> 00:09:29,070  
profession about profession I wanted to

203  
00:09:35,840 --> 00:09:32,970  
be a cosmonaut like everybody he really

204  
00:09:38,390 --> 00:09:35,850  
did and he started by choosing to attend

205  
00:09:41,150 --> 00:09:38,400  
a local school named for the designer of

206  
00:09:43,070 --> 00:09:41,160  
the early Soviet space vehicles by the

207  
00:09:45,380 --> 00:09:43,080  
time he finished high school yurchikhin

208  
00:09:47,660 --> 00:09:45,390  
had decided to study engineering rather

209  
00:09:49,580 --> 00:09:47,670  
than become a pilot reasoning that a

210  
00:09:51,110 --> 00:09:49,590  
pilot who developed health problems

211  
00:09:53,810 --> 00:09:51,120  
would be out of the space program

212  
00:09:56,960 --> 00:09:53,820  
altogether but an engineer wouldn't as

213  
00:09:59,030 --> 00:09:56,970

for which college to attend when I

214

00:10:01,460 --> 00:09:59,040

checked the data for all civilian

215

00:10:04,040 --> 00:10:01,470

cosmonauts most of civilian cosmonauts

216

00:10:11,270 --> 00:10:04,050

radiated most affiliation Institute of

217

00:10:13,250 --> 00:10:11,280

course more chance to go he graduated

218

00:10:15,710 --> 00:10:13,260

the Moscow Aviation Institute as a

219

00:10:18,050 --> 00:10:15,720

mechanical engineer specializing in

220

00:10:19,640 --> 00:10:18,060

aerospace vehicles and immediately

221

00:10:22,460 --> 00:10:19,650

started work at the rocket space

222

00:10:24,850 --> 00:10:22,470

corporation Energia first as a flight

223

00:10:27,500 --> 00:10:24,860

controller and then as an engineer

224

00:10:31,130 --> 00:10:27,510

eventually becoming a lead engineer for

225

00:10:33,170 --> 00:10:31,140

the MIR shuttle program in 1997 he was

226

00:10:35,690 --> 00:10:33,180

selected for an ERG ia's cosmonaut Corps

227

00:10:38,510 --> 00:10:35,700

and while training for spaceflight he

228

00:10:40,480 --> 00:10:38,520

also finished a PhD in economics at

229

00:10:43,490 --> 00:10:40,490

Moscow service State University

230

00:10:45,710 --> 00:10:43,500

yurchikhin spent 11 days in space on the

231

00:10:47,930 --> 00:10:45,720

2002 shuttle mission that delivered the

232

00:10:50,780 --> 00:10:47,940

s-1 trust to the International Space

233

00:10:53,960 --> 00:10:50,790

Station and he returned in 2007 as

234

00:10:55,850 --> 00:10:53,970

commander of expedition 15 completing

235

00:10:58,310 --> 00:10:55,860

three spacewalks during that six-month

236

00:11:00,650 --> 00:10:58,320

mission and pursuing his interest in

237

00:11:02,180 --> 00:11:00,660

studying Earth from orbit it's

238

00:11:05,990 --> 00:11:02,190

ecological program

239

00:11:08,900 --> 00:11:06,000

geophysical program it's understood the

240

00:11:13,100 --> 00:11:08,910

all problems for example about a

241

00:11:16,309 --> 00:11:13,110

rainforest fire a big city in how the

242

00:11:23,090 --> 00:11:16,319

big city killed the nature you may see

243

00:11:25,579 --> 00:11:23,100

about from Space Station to Shannon

244

00:11:28,610 --> 00:11:25,589

Walker is the first native of Houston to

245

00:11:30,860 --> 00:11:28,620

fly in space she was born one day after

246

00:11:33,050 --> 00:11:30,870

Eddie White became the first American to

247

00:11:35,389 --> 00:11:33,060

walk in space during the first space

248

00:11:38,329 --> 00:11:35,399

flight ever run by Mission Control in

249

00:11:40,610 --> 00:11:38,339

Houston growing up in the town that came

250

00:11:43,189 --> 00:11:40,620

to be known as space city had an impact

251  
00:11:45,230 --> 00:11:43,199  
on her I was quite young when we first

252  
00:11:48,170 --> 00:11:45,240  
walked on the moon I was had just turned

253  
00:11:51,019 --> 00:11:48,180  
four but we did watch it on TV and I

254  
00:11:52,460 --> 00:11:51,029  
think that just set the seed right then

255  
00:11:54,350 --> 00:11:52,470  
that that would be a really interesting

256  
00:11:56,869 --> 00:11:54,360  
thing to do and then growing up in

257  
00:11:58,100 --> 00:11:56,879  
Houston and always having the astronauts

258  
00:12:00,800 --> 00:11:58,110  
in the Johnson Space Center in my

259  
00:12:04,100 --> 00:12:00,810  
backyard I was always aware of the space

260  
00:12:06,650 --> 00:12:04,110  
program and so I just decided to pursue

261  
00:12:08,900 --> 00:12:06,660  
it walkers stayed in Houston for college

262  
00:12:11,240 --> 00:12:08,910  
earning a Bachelor of Arts in physics

263  
00:12:13,519 --> 00:12:11,250

from Rice University and got her first

264

00:12:15,280 --> 00:12:13,529

job out of school as a robotics flight

265

00:12:17,629 --> 00:12:15,290

controller at the Johnson Space Center

266

00:12:19,759 --> 00:12:17,639

she took a leave of absence to get her

267

00:12:22,240 --> 00:12:19,769

master's and doctorate in space physics

268

00:12:24,740 --> 00:12:22,250

at Rice and then had to make a decision

269

00:12:26,240 --> 00:12:24,750

so I wanted to be part of the human

270

00:12:28,670 --> 00:12:26,250

spaceflight program or do I want to be

271

00:12:30,139 --> 00:12:28,680

part of the unmanned spaceflight program

272

00:12:32,090 --> 00:12:30,149

and I decided I really enjoy the human

273

00:12:34,189 --> 00:12:32,100

spaceflight program so I was able to

274

00:12:35,749 --> 00:12:34,199

come back to the Johnson Space Center

275

00:12:38,240 --> 00:12:35,759

and continue my work as a flight

276

00:12:41,360 --> 00:12:38,250

controller she joined the International

277

00:12:43,639 --> 00:12:41,370

Space Station program in 1995 to work on

278

00:12:46,040 --> 00:12:43,649

robotics integration and move to the

279

00:12:48,350 --> 00:12:46,050

engineering side three years later to

280

00:12:50,990 --> 00:12:48,360

manage teams coordinating an orbit

281

00:12:52,699 --> 00:12:51,000

problem resolution she spent a year in

282

00:12:55,249 --> 00:12:52,709

Moscow working with the Russian space

283

00:12:57,590 --> 00:12:55,259

agency and its contractors on avionics

284

00:12:59,210 --> 00:12:57,600

integration and returned to Houston to

285

00:13:01,160 --> 00:12:59,220

become the technical lead for the

286

00:13:03,470 --> 00:13:01,170

station's mission evaluation room

287

00:13:06,889 --> 00:13:03,480

Walker was selected for the astronaut

288

00:13:10,220 --> 00:13:06,899

corps in 2004 to help prepare humans to

289

00:13:12,199 --> 00:13:10,230

someday live off of planet Earth how do

290

00:13:13,670 --> 00:13:12,209

you have a life support system that can

291

00:13:15,139 --> 00:13:13,680

work for long periods of time and

292

00:13:15,530 --> 00:13:15,149

provide you with the water and the

293

00:13:18,499 --> 00:13:15,540

atmosphere

294

00:13:20,269 --> 00:13:18,509

that you need how do you grow plants in

295

00:13:23,210 --> 00:13:20,279

space obviously we can't keep calling

296

00:13:24,860 --> 00:13:23,220

back to earth for the next pizza

297

00:13:27,410 --> 00:13:24,870

delivery so we've got to figure out how

298

00:13:29,509 --> 00:13:27,420

to be self-sufficient off the planet and