



1
00:00:05,110 --> 00:00:03,110
each of the expedition 24 crew members

2
00:00:07,670 --> 00:00:05,120
who will be on orbit to mark the first

3
00:00:10,150 --> 00:00:07,680
10 years of continuous human presence on

4
00:00:12,230 --> 00:00:10,160
the international space station already

5
00:00:13,990 --> 00:00:12,240
has a connection to space flight history

6
00:00:16,710 --> 00:00:14,000
in their own backgrounds

7
00:00:19,510 --> 00:00:16,720
colonel doug wheelock united states army

8
00:00:21,910 --> 00:00:19,520
was born in binghamton new york exactly

9
00:00:24,470 --> 00:00:21,920
one year before alan shepard's mercury

10
00:00:25,750 --> 00:00:24,480
flight and grew up in the nearby town of

11
00:00:27,509 --> 00:00:25,760
windsor

12
00:00:30,550 --> 00:00:27,519
i was nine years old

13
00:00:31,669 --> 00:00:30,560

when we first landed apollo 11 on the

14

00:00:34,709 --> 00:00:31,679

moon

15

00:00:37,190 --> 00:00:34,719

and i thought wow that

16

00:00:38,389 --> 00:00:37,200

that is really awesome

17

00:00:41,430 --> 00:00:38,399

and

18

00:00:43,590 --> 00:00:41,440

but i never thought that that was that

19

00:00:45,750 --> 00:00:43,600

dream was like way too big for me

20

00:00:48,950 --> 00:00:45,760

because i i was just like an ordinary

21

00:00:51,750 --> 00:00:48,960

kid in a tiny little town growing up in

22

00:00:53,670 --> 00:00:51,760

that tiny town population less than a

23

00:00:55,670 --> 00:00:53,680

thousand even today

24

00:00:58,549 --> 00:00:55,680

wheelock developed an appreciation for

25

00:01:01,270 --> 00:00:58,559

hard work for service to others and a

26

00:01:03,430 --> 00:01:01,280

love of flying all of which led him to

27

00:01:05,670 --> 00:01:03,440

the united states military academy at

28

00:01:07,190 --> 00:01:05,680

west point where he earned a bachelor of

29

00:01:10,469 --> 00:01:07,200

science in applied science and

30

00:01:11,670 --> 00:01:10,479

engineering i knew that west point was

31

00:01:13,750 --> 00:01:11,680

was

32

00:01:15,830 --> 00:01:13,760

the top the top of the list of

33

00:01:16,710 --> 00:01:15,840

leadership schools and i really wanted

34

00:01:23,990 --> 00:01:16,720

to

35

00:01:27,109 --> 00:01:24,000

trained as a leader it gave me the

36

00:01:30,230 --> 00:01:27,119

opportunity to come out and really

37

00:01:32,149 --> 00:01:30,240

start right into aviation once he was

38

00:01:33,350 --> 00:01:32,159

commissioned and spent a year in the

39

00:01:35,190 --> 00:01:33,360

infantry

40

00:01:37,270 --> 00:01:35,200

after graduating at the top of his

41

00:01:39,270 --> 00:01:37,280

flight school class wheelock had

42

00:01:41,990 --> 00:01:39,280

postings as an army aviator in the

43

00:01:43,590 --> 00:01:42,000

pacific and an assignment as an advanced

44

00:01:45,910 --> 00:01:43,600

weapons research and development

45

00:01:47,990 --> 00:01:45,920

engineer before earning a master of

46

00:01:50,310 --> 00:01:48,000

science in aerospace engineering from

47

00:01:52,710 --> 00:01:50,320

georgia tech and then moving on to the

48

00:01:54,950 --> 00:01:52,720

navy test pilot school when i was able

49

00:01:57,749 --> 00:01:54,960

to go through test pilot training and

50

00:01:58,789 --> 00:01:57,759

and get exposed to and meet

51
00:02:00,630 --> 00:01:58,799
uh

52
00:02:02,950 --> 00:02:00,640
different test pilots from various

53
00:02:04,950 --> 00:02:02,960
services and i got to meet some of the

54
00:02:06,149 --> 00:02:04,960
astronauts that had formerly been test

55
00:02:07,510 --> 00:02:06,159
pilots and

56
00:02:09,270 --> 00:02:07,520
and i thought you know

57
00:02:11,589 --> 00:02:09,280
that's something that i could do as well

58
00:02:14,550 --> 00:02:11,599
you know i think i might try to do that

59
00:02:16,390 --> 00:02:14,560
he was selected as an astronaut in 1998

60
00:02:18,390 --> 00:02:16,400
and worked in many areas of the

61
00:02:21,190 --> 00:02:18,400
international space station program

62
00:02:23,589 --> 00:02:21,200
including a stint in star city as nasa's

63
00:02:25,670 --> 00:02:23,599

director of operations russia

64

00:02:28,470 --> 00:02:25,680

wheelock made three spacewalks on his

65

00:02:30,550 --> 00:02:28,480

first flight the 2007 shuttle mission

66

00:02:32,949 --> 00:02:30,560

that delivered the harmony module and

67

00:02:36,790 --> 00:02:32,959

repaired damaged solar arrays on the

68

00:02:38,550 --> 00:02:36,800

international space station's p6 truss

69

00:02:41,509 --> 00:02:38,560

fyodor yurchikhin was born in the

70

00:02:43,430 --> 00:02:41,519

georgian city of batumi one day before

71

00:02:46,229 --> 00:02:43,440

the first spaceship that ever escaped

72

00:02:48,390 --> 00:02:46,239

earth's gravity flew past the moon

73

00:02:50,390 --> 00:02:48,400

he was two years old when yuri gagarin

74

00:02:52,869 --> 00:02:50,400

space flight changed the world

75

00:02:54,710 --> 00:02:52,879

and on his very first day in school he

76
00:02:56,550 --> 00:02:54,720
had a ready answer when the teacher

77
00:02:57,589 --> 00:02:56,560
asked the children what they wanted to

78
00:03:00,949 --> 00:02:57,599
be

79
00:03:03,030 --> 00:03:00,959
like everybody of in my class

80
00:03:04,630 --> 00:03:03,040
asked i wanted to be home keeper in

81
00:03:06,390 --> 00:03:04,640
soccer comment

82
00:03:08,710 --> 00:03:06,400
he told me it's goalkeeper it's not

83
00:03:10,390 --> 00:03:08,720
profession i ask you about profession ah

84
00:03:12,229 --> 00:03:10,400
about profession i wanted to be a

85
00:03:15,030 --> 00:03:12,239
cosmonaut

86
00:03:17,190 --> 00:03:15,040
like everybody he really did

87
00:03:19,589 --> 00:03:17,200
and he started by choosing to attend a

88
00:03:22,070 --> 00:03:19,599

local school named for the designer of

89

00:03:23,830 --> 00:03:22,080

the early soviet space vehicles

90

00:03:25,589 --> 00:03:23,840

by the time he finished high school

91

00:03:28,149 --> 00:03:25,599

yurchikhin had decided to study

92

00:03:30,070 --> 00:03:28,159

engineering rather than become a pilot

93

00:03:31,830 --> 00:03:30,080

reasoning that a pilot who developed

94

00:03:34,550 --> 00:03:31,840

health problems would be out of the

95

00:03:35,509 --> 00:03:34,560

space program altogether but an engineer

96

00:03:38,390 --> 00:03:35,519

wouldn't

97

00:03:40,309 --> 00:03:38,400

as for which college to attend when i

98

00:03:42,710 --> 00:03:40,319

checked the data for all civilian

99

00:03:45,430 --> 00:03:42,720

cosmonauts most of civilian cosmonauts

100

00:03:48,630 --> 00:03:45,440

graduated most of aviation institute of

101
00:03:51,670 --> 00:03:48,640
course more chance to go to cosmonaut if

102
00:03:53,670 --> 00:03:51,680
i graduated moscow foundations

103
00:03:56,070 --> 00:03:53,680
he graduated the moscow aviation

104
00:03:58,789 --> 00:03:56,080
institute as a mechanical engineer

105
00:04:00,630 --> 00:03:58,799
specializing in aerospace vehicles and

106
00:04:03,429 --> 00:04:00,640
immediately started work at the rocket

107
00:04:05,509 --> 00:04:03,439
space corporation inergia first as a

108
00:04:08,070 --> 00:04:05,519
flight controller and then as an

109
00:04:10,869 --> 00:04:08,080
engineer eventually becoming lead

110
00:04:13,509 --> 00:04:10,879
engineer for the mere shuttle program

111
00:04:15,830 --> 00:04:13,519
in 1997 he was selected for a nergia's

112
00:04:18,870 --> 00:04:15,840
cosmonaut core and while training for

113
00:04:20,949 --> 00:04:18,880

space flight he also finished a phd in

114

00:04:22,310 --> 00:04:20,959

economics at moscow service state

115

00:04:24,710 --> 00:04:22,320

university

116

00:04:27,110 --> 00:04:24,720

yurchikhin spent 11 days in space on the

117

00:04:29,189 --> 00:04:27,120

2002 shuttle mission that delivered the

118

00:04:32,310 --> 00:04:29,199

s-1 trust to the international space

119

00:04:35,189 --> 00:04:32,320

station and he returned in 2007 as

120

00:04:37,270 --> 00:04:35,199

commander of expedition 15 completing

121

00:04:39,590 --> 00:04:37,280

three spacewalks during that six-month

122

00:04:41,670 --> 00:04:39,600

mission and pursuing his interest in

123

00:04:44,629 --> 00:04:41,680

studying earth from orbit

124

00:04:47,030 --> 00:04:44,639

it's ecological program geophysical

125

00:04:47,830 --> 00:04:47,040

program it's understood

126
00:04:50,070 --> 00:04:47,840
the

127
00:04:51,670 --> 00:04:50,080
all problems for example about

128
00:04:53,030 --> 00:04:51,680
rainforest

129
00:04:55,749 --> 00:04:53,040
fire

130
00:04:58,870 --> 00:04:55,759
a big city and how the big city killed

131
00:05:01,110 --> 00:04:58,880
the nature you may see about this from

132
00:05:03,270 --> 00:05:01,120
space station

133
00:05:05,510 --> 00:05:03,280
it's a task too

134
00:05:07,510 --> 00:05:05,520
shannon walker is the first native of

135
00:05:09,990 --> 00:05:07,520
houston to fly in space

136
00:05:11,830 --> 00:05:10,000
she was born one day after ed white

137
00:05:14,310 --> 00:05:11,840
became the first american to walk in

138
00:05:17,510 --> 00:05:14,320

space during the first space flight ever

139

00:05:19,110 --> 00:05:17,520

run by mission control in houston

140

00:05:22,310 --> 00:05:19,120

growing up in the town that came to be

141

00:05:23,990 --> 00:05:22,320

known as space city had an impact on her

142

00:05:26,710 --> 00:05:24,000

i was quite young when we first walked

143

00:05:29,110 --> 00:05:26,720

on the moon i was i just turned four but

144

00:05:30,390 --> 00:05:29,120

we did watch it on tv and i think that

145

00:05:32,230 --> 00:05:30,400

just

146

00:05:34,070 --> 00:05:32,240

set the seed right then that that would

147

00:05:35,670 --> 00:05:34,080

be a really interesting thing to do and

148

00:05:36,790 --> 00:05:35,680

then growing up in houston and always

149

00:05:38,230 --> 00:05:36,800

having

150

00:05:40,310 --> 00:05:38,240

the astronauts in the johnson space

151
00:05:43,749 --> 00:05:40,320
center in my backyard i was always aware

152
00:05:45,350 --> 00:05:43,759
of the space program and so i just

153
00:05:47,510 --> 00:05:45,360
decided to pursue it

154
00:05:49,430 --> 00:05:47,520
walker stayed in houston for college

155
00:05:51,830 --> 00:05:49,440
earning a bachelor of arts in physics

156
00:05:54,150 --> 00:05:51,840
from rice university and got her first

157
00:05:56,629 --> 00:05:54,160
job out of school as a robotics flight

158
00:05:58,230 --> 00:05:56,639
controller at the johnson space center

159
00:06:00,309 --> 00:05:58,240
she took a leave of absence to get her

160
00:06:03,590 --> 00:06:00,319
masters and doctorate in space physics

161
00:06:05,510 --> 00:06:03,600
at rice and then had to make a decision

162
00:06:07,110 --> 00:06:05,520
do i want to be part of the human space

163
00:06:09,270 --> 00:06:07,120

flight program or do i want to be part

164

00:06:10,870 --> 00:06:09,280

of the unmanned space flight program and

165

00:06:13,430 --> 00:06:10,880

i decided i really enjoy the human space

166

00:06:15,430 --> 00:06:13,440

light program so i was able to come back

167

00:06:17,430 --> 00:06:15,440

to the johnson space center and continue

168

00:06:19,029 --> 00:06:17,440

my work as a flight controller

169

00:06:21,909 --> 00:06:19,039

she joined the international space

170

00:06:24,230 --> 00:06:21,919

station program in 1995 to work on

171

00:06:26,629 --> 00:06:24,240

robotics integration and moved to the

172

00:06:28,950 --> 00:06:26,639

engineering side three years later to

173

00:06:30,550 --> 00:06:28,960

manage teams coordinating on orbit

174

00:06:32,469 --> 00:06:30,560

problem resolution

175

00:06:34,230 --> 00:06:32,479

she spent a year in moscow working with

176

00:06:36,950 --> 00:06:34,240

the russian space agency and its

177

00:06:38,550 --> 00:06:36,960

contractors on avionics integration

178

00:06:40,710 --> 00:06:38,560

and returned to houston to become the

179

00:06:42,390 --> 00:06:40,720

technical lead for the station's mission

180

00:06:44,070 --> 00:06:42,400

evaluation room

181

00:06:47,510 --> 00:06:44,080

walker was selected for the astronaut

182

00:06:50,550 --> 00:06:47,520

corps in 2004 to help prepare humans to

183

00:06:52,390 --> 00:06:50,560

someday live off of planet earth

184

00:06:54,070 --> 00:06:52,400

how do you have a life support system

185

00:06:55,589 --> 00:06:54,080

that can work for long periods of time

186

00:06:57,430 --> 00:06:55,599

and provide you with the water and the

187

00:06:59,430 --> 00:06:57,440

atmosphere that you need

188

00:07:02,469 --> 00:06:59,440

how do you grow plants in space

189

00:07:04,390 --> 00:07:02,479

obviously we can't keep calling back to

190

00:07:05,909 --> 00:07:04,400

earth for the next pizza delivery so

191

00:07:08,070 --> 00:07:05,919

we've got to figure out how to be

192

00:07:10,230 --> 00:07:08,080

self-sufficient off the planet and that