1
00:00:06,230 --> 00:00:03,030
station this is houston are you ready

2
00:00:06,240 --> 00:00:10,549
houston station i am ready for the event

3
00:00:15,509 --> 00:00:12,870
cnn international this is mission

4
00:00:19,910 --> 00:00:15,519
control houston please call station for

5
00:00:19,920 --> 00:00:26,470
station this is cnn how do you hear me

6
00:00:30,070 --> 00:00:28,470
good afternoon cnn this is tim peake on

7
00:00:34,229 --> 00:00:30,080
board the international space station i

8
00:00:39,670 --> 00:00:36,549
wonderful well welcome to our humble

9
00:00:42,869 --> 00:00:39,680
studio all the way out there in space

10
00:00:45,510 --> 00:00:42,879
let me ask you what was it that inspired

11
00:00:47,990 --> 00:00:45,520
you the most to do what you're doing now

12
00:00:52,549 --> 00:00:48,000
was it that fantastic first moonwalk by

13
00:00:57,430 --> 00:00:54,790

you know there's been many inspirations

14
00:00:59,510 --> 00:00:57,440
throughout my career and yes as a small

15
00:01:01,510 --> 00:00:59,520
boy i looked up to the stars and and

16
00:01:03,750 --> 00:01:01,520
often wondered about our place in the

17
00:01:06,390 --> 00:01:03,760
universe and the solar system and was

18
00:01:08,870 --> 00:01:06,400
fascinated by space um and then as a

19
00:01:11,270 --> 00:01:08,880
teenager it was a passion for aviation

20
00:01:13,030 --> 00:01:11,280
that took over and the first time i ever

21
00:01:15,270 --> 00:01:13,040
sat in a glider i knew i wanted to be a

22
00:01:18,070 --> 00:01:15,280
pilot i was just very fortunate that i

23
00:01:19,190 --> 00:01:18,080
was able to fulfill my dream of becoming

24
00:01:21,030 --> 00:01:19,200
a pilot

25
00:01:22,950 --> 00:01:21,040
and then later in life of course having

26
00:01:24,789 --> 00:01:22,960
worked my way up to being a test pilot i

27
00:01:26,789 --> 00:01:24,799
found myself in the right time the right

28
00:01:29,030 --> 00:01:26,799
place i had the qualifications that the

29
00:01:31,510 --> 00:01:29,040
european space agency were looking for

30
00:01:36,310 --> 00:01:31,520
and i was able to to fulfill that early

31
00:01:40,550 --> 00:01:38,390
well it is indeed a rare privilege to be

32
00:01:43,910 --> 00:01:40,560
out there it's an amazing thing to just

33
00:01:50,069 --> 00:01:43,920
be able to talk to you what did you feel

34
00:01:55,030 --> 00:01:52,230
it's the most incredible feeling the

35
00:01:58,149 --> 00:01:55,040
first time i saw the earth was just a

36
00:02:00,149 --> 00:01:58,159
few uh moments after insertion into

37
00:02:02,230 --> 00:02:00,159
orbit in the sawyers capture we had the

38
00:02:04,069 --> 00:02:02,240

main engine cut out and that's quite a

39
00:02:05,270 --> 00:02:04,079
jolt you get launched forward into your

40
00:02:07,109 --> 00:02:05,280
seats and then suddenly everything

41
00:02:08,710 --> 00:02:07,119
starts floating and you realize you're

42
00:02:11,029 --> 00:02:08,720
in weightlessness you're in orbit around

43
00:02:13,030 --> 00:02:11,039
planet earth and i was able to loosen my

44
00:02:14,949 --> 00:02:13,040
straps and let myself float up out of

45
00:02:16,710 --> 00:02:14,959
the seat so that i could have a look out

46
00:02:18,790 --> 00:02:16,720
of my window on the right hand side of

47
00:02:21,030 --> 00:02:18,800
the sawyers and i saw ourselves just

48
00:02:23,430 --> 00:02:21,040
before we went into the night part of

49
00:02:25,350 --> 00:02:23,440
the orbit i saw planet earth shortly

50
00:02:27,589 --> 00:02:25,360
followed by a moon rise and it was just

51
00:02:29,190 --> 00:02:27,599
the most incredible feeling to be you

52
00:02:34,150 --> 00:02:29,200
know to be in orbit and see the planet

53
00:02:38,309 --> 00:02:36,390
is launch scary i mean do you ever feel

54
00:02:43,350 --> 00:02:38,319
scared when you're actually you know on

55
00:02:47,830 --> 00:02:45,589
you know we've trained so long and so

56
00:02:50,630 --> 00:02:47,840
hard for that moment and we're just

57
00:02:52,390 --> 00:02:50,640
focused on our procedures and making

58
00:02:54,150 --> 00:02:52,400
sure that everything goes smoothly

59
00:02:56,550 --> 00:02:54,160
through the through the launch sequence

60
00:02:58,790 --> 00:02:56,560
so there is really no time and no place

61
00:03:01,030 --> 00:02:58,800
for any fear or apprehension at that

62
00:03:03,509 --> 00:03:01,040
stage you're simply just executing the

63
00:03:06,309 --> 00:03:03,519

plan but i was very conscious of trying

64
00:03:08,149 --> 00:03:06,319
to also absorb every feeling every

65
00:03:10,390 --> 00:03:08,159
emotion you know knowing it's such a

66
00:03:11,589 --> 00:03:10,400
special event so that i could kind of

67
00:03:13,589 --> 00:03:11,599
record it

68
00:03:15,270 --> 00:03:13,599
and i actually did a diary that evening

69
00:03:16,869 --> 00:03:15,280
after launch so that i would remember

70
00:03:18,470 --> 00:03:16,879
everything that i felt during the launch

71
00:03:20,949 --> 00:03:18,480
and it was just the most incredible

72
00:03:22,949 --> 00:03:20,959
feeling and that that feeling of power

73
00:03:25,670 --> 00:03:22,959
and acceleration as the rocket

74
00:03:27,350 --> 00:03:25,680
accelerates it's just addictive and i

75
00:03:29,350 --> 00:03:27,360
felt myself being pushed back into the

76
00:03:31,509 --> 00:03:29,360
seat especially during the first stage

77
00:03:36,630 --> 00:03:31,519
in the third stage and it really was a

78
00:03:40,470 --> 00:03:38,710
well i wonder if you can talk and

79
00:03:42,710 --> 00:03:40,480
execute some movements up there at the

80
00:03:44,630 --> 00:03:42,720
same time every child's fantasy is to be

81
00:03:46,390 --> 00:03:44,640
able to somersault in space and do all

82
00:03:48,550 --> 00:03:46,400
those things that you do

83
00:03:51,509 --> 00:03:48,560
and while you're doing that i wonder

84
00:03:54,070 --> 00:03:51,519
what are the most profound philosophical

85
00:04:00,229 --> 00:03:54,080
and personal lessons that you've learned

86
00:04:04,949 --> 00:04:02,390
gosh uh you know some of the the things

87
00:04:07,830 --> 00:04:04,959
you learn up in space um really is is

88
00:04:11,030 --> 00:04:07,840

what we do in training as well is just

89
00:04:12,710 --> 00:04:11,040
to be uh methodical and to to work

90
00:04:14,949 --> 00:04:12,720
slowly and accurately that's the best

91
00:04:16,550 --> 00:04:14,959
thing you can do as an astronaut

92
00:04:18,629 --> 00:04:16,560
you know we're we're really in a very

93
00:04:20,949 --> 00:04:18,639
privileged position up here we have an

94
00:04:23,270 --> 00:04:20,959
enormous responsibility with regards to

95
00:04:24,950 --> 00:04:23,280
the science that we're trying to do

96
00:04:27,189 --> 00:04:24,960
and so we just have to try and be as

97
00:04:29,189 --> 00:04:27,199
professional as possible but we've got

98
00:04:32,070 --> 00:04:29,199
the wonderful support team from mission

99
00:04:34,550 --> 00:04:32,080
control down in houston uh and in munich

100
00:04:36,390 --> 00:04:34,560
and in russia and in japan as well and

101
00:04:38,950 --> 00:04:36,400
everybody is helping us on the ground to

102
00:04:41,270 --> 00:04:38,960
execute the plan so really it's all

103
00:04:43,430 --> 00:04:41,280
about teamwork and you're you know the

104
00:04:45,189 --> 00:04:43,440
most important thing is is being a good

105
00:04:46,870 --> 00:04:45,199
team player and finding your place in

106
00:04:48,390 --> 00:04:46,880
that team and i'm going to do a

107
00:04:52,390 --> 00:04:48,400
somersault like you asked me to while

108
00:04:56,230 --> 00:04:54,230
excellent good good good because i want

109
00:04:58,390 --> 00:04:56,240
to know beyond weightlessness and

110
00:05:01,110 --> 00:04:58,400
proving that yet again what was the most

111
00:05:03,909 --> 00:05:01,120
important scientific uh experiment you

112
00:05:08,390 --> 00:05:03,919
conducted or or the the contribution of

113
00:05:12,310 --> 00:05:09,990

you know it's very hard to kind of pin

114
00:05:15,270 --> 00:05:12,320
it down to one most important experiment

115
00:05:18,310 --> 00:05:15,280
there's been over 250 experiments during

116
00:05:19,909 --> 00:05:18,320
expedition 46 and 47. some of the most

117
00:05:22,390 --> 00:05:19,919
enjoyable experiments are certainly

118
00:05:24,710 --> 00:05:22,400
they're more hands-on for the astronauts

119
00:05:27,029 --> 00:05:24,720
for example airway monitoring where we

120
00:05:28,870 --> 00:05:27,039
used our own airlock that we normally

121
00:05:30,870 --> 00:05:28,880
use for space walking we used it as a

122
00:05:32,950 --> 00:05:30,880
hyperbaric chamber so that we could

123
00:05:35,350 --> 00:05:32,960
reduce the pressure in our lungs and

124
00:05:36,950 --> 00:05:35,360
investigate airway inflammation that was

125
00:05:38,790 --> 00:05:36,960
quite exciting also we've done some

126
00:05:40,469 --> 00:05:38,800
flame combustion experiments up here

127
00:05:42,150 --> 00:05:40,479
which are exciting there's a lot of

128
00:05:43,830 --> 00:05:42,160
medical research going on in

129
00:05:45,830 --> 00:05:43,840
microgravity at the moment growing

130
00:05:47,590 --> 00:05:45,840
things like protein crystals i think

131
00:05:49,590 --> 00:05:47,600
that's fascinating research and will

132
00:05:50,469 --> 00:05:49,600
have huge benefits for people back on

133
00:05:52,310 --> 00:05:50,479
earth

134
00:05:54,790 --> 00:05:52,320
so really the science falls into many

135
00:05:56,790 --> 00:05:54,800
categories as a pilot and somebody who's

136
00:05:58,870 --> 00:05:56,800
already always interested in tech

137
00:06:00,390 --> 00:05:58,880
technology um you know some of the stuff

138
00:06:02,469 --> 00:06:00,400

we're doing with metal alloys and

139
00:06:04,710 --> 00:06:02,479
composite materials in our furnaces as

140
00:06:06,710 --> 00:06:04,720
well investigating new materials that

141
00:06:08,550 --> 00:06:06,720
are stronger and lighter and will

142
00:06:10,469 --> 00:06:08,560
benefit for example our aviation

143
00:06:14,469 --> 00:06:10,479
industry that that's very exciting to me

144
00:06:19,189 --> 00:06:17,350
um you obviously as as as a bridge have

145
00:06:21,350 --> 00:06:19,199
got an enormous amount of attention

146
00:06:24,150 --> 00:06:21,360
you've run a marathon you presented

147
00:06:26,469 --> 00:06:24,160
adele with an award from outer space but

148
00:06:29,590 --> 00:06:26,479
it was actually a british woman who was

149
00:06:32,150 --> 00:06:29,600
the first british astronaut in space

150
00:06:35,749 --> 00:06:32,160
what do you think of her blazing that

151
00:06:40,550 --> 00:06:38,629
helen is a huge inspiration to me and i

152
00:06:42,390 --> 00:06:40,560
had the pleasure of speaking to her on

153
00:06:44,150 --> 00:06:42,400
friday night actually we

154
00:06:46,469 --> 00:06:44,160
we're quite close and of course she was

155
00:06:49,589 --> 00:06:46,479
celebrating her 25th anniversary since

156
00:06:52,230 --> 00:06:49,599
her sawyers tm12 mission 25 years ago

157
00:06:54,230 --> 00:06:52,240
and to the mere space station and so it

158
00:06:56,390 --> 00:06:54,240
was great to be able to speak to her

159
00:06:58,390 --> 00:06:56,400
i've also got one of her books that uh

160
00:07:01,189 --> 00:06:58,400
up here with me that was signed by yuri

161
00:07:03,189 --> 00:07:01,199
gagarin along with her crew and it's now

162
00:07:04,629 --> 00:07:03,199
been signed by the international space

163
00:07:06,390 --> 00:07:04,639

station crews

164
00:07:09,029 --> 00:07:06,400
she she really you know she paved the

165
00:07:11,110 --> 00:07:09,039
way she what she achieved um at her

166
00:07:12,870 --> 00:07:11,120
young age as well going into space was

167
00:07:15,350 --> 00:07:12,880
absolutely incredible

168
00:07:17,670 --> 00:07:15,360
and i'm just very happy now that the the

169
00:07:19,589 --> 00:07:17,680
uk government is funding human space

170
00:07:21,589 --> 00:07:19,599
flight and i'm able to come on this

171
00:07:23,430 --> 00:07:21,599
mission as a member of the european

172
00:07:27,589 --> 00:07:23,440
space agency which is a great step

173
00:07:31,430 --> 00:07:29,110
well you've just mentioned in one

174
00:07:34,469 --> 00:07:31,440
sentence the uk and europe so i have to

175
00:07:36,950 --> 00:07:34,479
ask you as a scientist as an astronaut

176
00:07:39,909 --> 00:07:36,960
what do you think the effect of britain

177
00:07:46,309 --> 00:07:39,919
if it chooses to leave europe could be

178
00:07:50,469 --> 00:07:47,990
you know it won't actually have any

179
00:07:52,390 --> 00:07:50,479
effect on on what we do with regards to

180
00:07:54,309 --> 00:07:52,400
the european space agency and this

181
00:07:56,469 --> 00:07:54,319
international partnership and that's

182
00:07:59,350 --> 00:07:56,479
something that is one of the uh you know

183
00:08:01,270 --> 00:07:59,360
the strongest messages that we have in

184
00:08:03,430 --> 00:08:01,280
in the in the life of the international

185
00:08:05,430 --> 00:08:03,440
space station is that it really cuts

186
00:08:08,070 --> 00:08:05,440
through all barriers it's such a strong

187
00:08:09,990 --> 00:08:08,080
partnership and of course the uk will

188
00:08:11,670 --> 00:08:10,000

still be part of the european space

189
00:08:13,510 --> 00:08:11,680
agency that won't change at all the

190
00:08:15,909 --> 00:08:13,520
european space agency is still part of

191
00:08:17,430 --> 00:08:15,919
this international uh partnership with

192
00:08:20,230 --> 00:08:17,440
up here with the international space

193
00:08:22,550 --> 00:08:20,240
station um but what i would say is of

194
00:08:25,110 --> 00:08:22,560
course that we can we can do things in

195
00:08:27,430 --> 00:08:25,120
space that we couldn't possibly do as

196
00:08:29,350 --> 00:08:27,440
one nation and this is the model that we

197
00:08:31,110 --> 00:08:29,360
need to take forward certainly when

198
00:08:33,029 --> 00:08:31,120
we're looking at going to the moon and

199
00:08:34,790 --> 00:08:33,039
further to mars and ultimately to

200
00:08:36,790 --> 00:08:34,800
explore our solar system

201
00:08:39,430 --> 00:08:36,800
we need to be forging together in

202
00:08:40,389 --> 00:08:39,440
partnerships uh in order to share our

203
00:08:44,710 --> 00:08:40,399
strengths

204
00:08:48,630 --> 00:08:46,949
well well in my last few seconds where

205
00:08:51,670 --> 00:08:48,640
next for tim peake where else would you

206
00:08:55,590 --> 00:08:51,680
like to explore in our you know outer

207
00:08:59,190 --> 00:08:57,110
well you know the the space station has

208
00:09:01,829 --> 00:08:59,200
still got an exciting lifetime at least

209
00:09:04,470 --> 00:09:01,839
till 2024 and there's there's so much

210
00:09:06,870 --> 00:09:04,480
still to learn in microgravity but i'm

211
00:09:09,030 --> 00:09:06,880
excited to be looking forward into the

212
00:09:11,190 --> 00:09:09,040
mid to late 20s i would like to see us

213
00:09:13,509 --> 00:09:11,200

return to the moon i think that there's

214
00:09:15,350 --> 00:09:13,519
an awful lot that we can learn in terms

215
00:09:17,670 --> 00:09:15,360
of having luna exploration missions and

216
00:09:20,070 --> 00:09:17,680
having a permanent lunar habitat which

217
00:09:22,070 --> 00:09:20,080
will help us as a stepping stone onto a

218
00:09:24,389 --> 00:09:22,080
mars mission which has to be the the

219
00:09:29,110 --> 00:09:24,399
real near-term goal for human space

220
00:09:37,110 --> 00:09:31,670
fantastic major tim's peak thank you so

221
00:09:40,310 --> 00:09:38,790
it's been a real pleasure talking to you

222
00:09:46,550 --> 00:09:40,320
and thank you very much have a great

223
00:09:53,990 --> 00:09:49,190
station this is houston acr

224
00:09:59,190 --> 00:09:56,949
thank you cnn international station