



1  
00:00:08,470 --> 00:00:02,950  
station this is houston are you ready

2  
00:00:08,480 --> 00:00:12,190  
we're ready for the event houston

3  
00:00:18,710 --> 00:00:14,789  
wcco tv this is mission control houston

4  
00:00:25,109 --> 00:00:20,790  
station this is mike binkley with wcco

5  
00:00:30,870 --> 00:00:27,109  
hi mike welcome to the international

6  
00:00:33,350 --> 00:00:30,880  
space station we hear you loud and clear

7  
00:00:35,030 --> 00:00:33,360  
wonderful great to see you both and uh

8  
00:00:36,630 --> 00:00:35,040  
chris cassidy i hope you understand

9  
00:00:38,549 --> 00:00:36,640  
we're very proud of our native

10  
00:00:41,030 --> 00:00:38,559  
minnesotans so many of my questions

11  
00:00:48,310 --> 00:00:41,040  
today will relate to uh karen nyberg and

12  
00:00:51,670 --> 00:00:50,229  
i got the thumbs up from you okay so

13  
00:00:53,670 --> 00:00:51,680

well let's start with a question to you

14

00:00:55,189 --> 00:00:53,680

uh chris cassidy how is she doing up

15

00:00:59,990 --> 00:00:55,199

there what does she bring to this team

16

00:01:05,109 --> 00:01:02,869

well first and foremost she brings hair

17

00:01:07,429 --> 00:01:05,119

luca and i apparently we don't have any

18

00:01:10,149 --> 00:01:07,439

and she has an abundance of it so

19

00:01:13,270 --> 00:01:10,159

so we're very welcome uh to plenty of

20

00:01:15,350 --> 00:01:13,280

hair on board and her uh her sense of

21

00:01:17,109 --> 00:01:15,360

humor and feminine touch is a nice

22

00:01:19,109 --> 00:01:17,119

welcome thing up here as well but we're

23

00:01:21,590 --> 00:01:19,119

having a great time and it's so uh it

24

00:01:23,030 --> 00:01:21,600

was nice for me to get uh companions

25

00:01:25,109 --> 00:01:23,040

back up here it was a period of two

26

00:01:26,630 --> 00:01:25,119

weeks uh by myself for a little bit

27

00:01:30,469 --> 00:01:26,640

which was fun but i was really happy to

28

00:01:34,630 --> 00:01:32,950

all right dr nyberg i know that i've

29

00:01:37,910 --> 00:01:34,640

followed you on twitter and i see you do

30

00:01:39,590 --> 00:01:37,920

get questions about the hair uh so let's

31

00:01:41,510 --> 00:01:39,600

let's just address that right now it

32

00:01:42,950 --> 00:01:41,520

looks like you have it tied back just a

33

00:01:47,030 --> 00:01:42,960

little bit but sometimes you just let it

34

00:01:50,230 --> 00:01:48,550

yeah sometimes anybody who wears a

35

00:01:51,749 --> 00:01:50,240

ponytail for a long time knows that it

36

00:01:53,109 --> 00:01:51,759

starts to pull on your head and not feel

37

00:01:54,870 --> 00:01:53,119

very comfortable but

38

00:01:57,030 --> 00:01:54,880

so i let it out once in a while and when

39

00:01:58,870 --> 00:01:57,040

i wash it i like to let it dry out but

40

00:02:03,749 --> 00:01:58,880

when i'm working it's usually best to

41

00:02:06,870 --> 00:02:05,190

all right so let's talk about some of

42

00:02:08,710 --> 00:02:06,880

the pictures that you've been posting on

43

00:02:10,710 --> 00:02:08,720

twitter you've given us some amazing

44

00:02:13,589 --> 00:02:10,720

views i want to talk about one photo in

45

00:02:15,430 --> 00:02:13,599

particular windows to the world describe

46

00:02:19,750 --> 00:02:15,440

your view from the international space

47

00:02:24,470 --> 00:02:21,910

well i think that that picture kind of

48

00:02:27,430 --> 00:02:24,480

describes it pretty well um although

49

00:02:29,510 --> 00:02:27,440

pictures never never quite show exactly

50

00:02:31,190 --> 00:02:29,520

what it looks like anybody who's been

51  
00:02:32,550 --> 00:02:31,200  
backpacking and gone up in the mountains

52  
00:02:33,990 --> 00:02:32,560  
the higher you get and you look out and

53  
00:02:35,509 --> 00:02:34,000  
you just think it's so i mean it's

54  
00:02:37,350 --> 00:02:35,519  
unbelievable views and then you take a

55  
00:02:38,790 --> 00:02:37,360  
picture and when you show it to other

56  
00:02:41,270 --> 00:02:38,800  
people and try and describe it it just

57  
00:02:42,790 --> 00:02:41,280  
never looks quite as beautiful

58  
00:02:45,270 --> 00:02:42,800  
you know so we have the cupola which we

59  
00:02:47,430 --> 00:02:45,280  
get you know the 360 degree view

60  
00:02:49,830 --> 00:02:47,440  
and we also have a couple other windows

61  
00:02:51,910 --> 00:02:49,840  
we can look at out

62  
00:02:54,070 --> 00:02:51,920  
of the port side on the gym and then

63  
00:02:56,710 --> 00:02:54,080

also the russian segment so we have a

64

00:03:00,149 --> 00:02:56,720

lot of opportunities and places we can

65

00:03:09,110 --> 00:03:02,630

i also want to ask about the sunset view

66

00:03:13,830 --> 00:03:11,830

yeah we get 16 sunsets a day today or

67

00:03:15,670 --> 00:03:13,840

recently actually the way our orbit is

68

00:03:18,070 --> 00:03:15,680

flying we're kind of flying along the

69

00:03:21,110 --> 00:03:18,080

terminator a lot and so we see almost a

70

00:03:22,710 --> 00:03:21,120

perpetual sunrise or sunset um

71

00:03:26,550 --> 00:03:22,720

so we that's mostly what we've been

72

00:03:31,110 --> 00:03:28,309

i saw a great picture of you having

73

00:03:33,430 --> 00:03:31,120

breakfast uh out of a bag your coffee

74

00:03:37,589 --> 00:03:33,440

and uh and what was it a scone that you

75

00:03:41,670 --> 00:03:39,270

yeah that was a cinnamon scone that was

76

00:03:43,990 --> 00:03:41,680

on sunday morning and it was uh

77

00:03:45,830 --> 00:03:44,000

it was a nice relaxing get out of bed

78

00:03:47,830 --> 00:03:45,840

and have have my coffee and i felt like

79

00:03:51,750 --> 00:03:47,840

i was at a coffee house at home

80

00:03:55,429 --> 00:03:53,750

i want to ask about your family too i

81

00:03:57,429 --> 00:03:55,439

i've read i know that you had at least

82

00:03:59,509 --> 00:03:57,439

one video conference with them so far i

83

00:04:01,190 --> 00:03:59,519

know you have a young child

84

00:04:03,670 --> 00:04:01,200

is it true that you're actually reading

85

00:04:05,830 --> 00:04:03,680

stories from space to him and what is

86

00:04:07,509 --> 00:04:05,840

that like for a child maybe to him that

87

00:04:12,869 --> 00:04:07,519

seems perfectly normal but to us that

88

00:04:16,229 --> 00:04:14,550

yeah i actually recorded some stories

89

00:04:17,909 --> 00:04:16,239  
before i left for him but i've been

90

00:04:19,590 --> 00:04:17,919  
making a quick little video for him

91

00:04:22,469 --> 00:04:19,600  
every day about 20 seconds long and

92

00:04:24,390 --> 00:04:22,479  
sending it down and i i think it is a

93

00:04:27,110 --> 00:04:24,400  
little normal for him and doesn't get

94

00:04:28,629 --> 00:04:27,120  
him in fact i just i had a doll or a

95

00:04:29,990 --> 00:04:28,639  
stuffed animal that i had showed him i

96

00:04:31,670 --> 00:04:30,000  
sent a video down

97

00:04:33,189 --> 00:04:31,680  
yesterday and evidently when he watched

98

00:04:35,510 --> 00:04:33,199  
it the first thing he kind of started to

99

00:04:37,189 --> 00:04:35,520  
cry and said i want that one so it

100

00:04:38,870 --> 00:04:37,199  
wasn't as impressive

101

00:04:41,749 --> 00:04:38,880

that it was in space as i was hoping it

102

00:04:44,629 --> 00:04:43,030

all right well i want you to pass the

103

00:04:46,870 --> 00:04:44,639

mic back over to chris cassidy i want to

104

00:04:48,790 --> 00:04:46,880

ask about the work day uh how many hours

105

00:04:50,469 --> 00:04:48,800

a day are you actually working and what

106

00:04:54,629 --> 00:04:50,479

type of experiments are you doing at

107

00:04:57,189 --> 00:04:56,390

yeah that's a that's a good question we

108

00:04:59,510 --> 00:04:57,199

uh

109

00:05:02,150 --> 00:04:59,520

we generally our work day is essentially

110

00:05:04,950 --> 00:05:02,160

from about 7 30 in the morning to 7 30

111

00:05:07,350 --> 00:05:04,960

at night but during that time we have a

112

00:05:09,990 --> 00:05:07,360

break for for lunch and uh and to

113

00:05:12,070 --> 00:05:10,000

exercise exercise is an important part

114

00:05:14,790 --> 00:05:12,080

so i would say it's probably around

115

00:05:16,150 --> 00:05:14,800

eight and a half hours of actual work

116

00:05:17,189 --> 00:05:16,160

just like down

117

00:05:18,070 --> 00:05:17,199

at home

118

00:05:19,909 --> 00:05:18,080

and

119

00:05:22,230 --> 00:05:19,919

the experiments are vast there's some

120

00:05:24,070 --> 00:05:22,240

that that are just

121

00:05:25,749 --> 00:05:24,080

kind of going on without us and we

122

00:05:27,029 --> 00:05:25,759

really don't have much interaction with

123

00:05:29,590 --> 00:05:27,039

them there's some that we're involved

124

00:05:31,830 --> 00:05:29,600

with setting them up and once we set the

125

00:05:33,590 --> 00:05:31,840

experiment up it continues and goes on

126

00:05:36,870 --> 00:05:33,600

and there's several that we are the

127

00:05:39,029 --> 00:05:36,880

subjects for um such as eating certain

128

00:05:40,629 --> 00:05:39,039

foods which luca is doing this these

129

00:05:43,270 --> 00:05:40,639

four days right now he's eating certain

130

00:05:45,909 --> 00:05:43,280

foods and then he'll have some some

131

00:05:47,350 --> 00:05:45,919

sample blood and urine samples to see

132

00:05:48,629 --> 00:05:47,360

how his body's responding to the

133

00:05:50,950 --> 00:05:48,639

different levels of

134

00:05:52,790 --> 00:05:50,960

protein and potassium in his diet as

135

00:05:53,670 --> 00:05:52,800

well as some ultrasounds that we'll be

136

00:05:58,230 --> 00:05:53,680

doing

137

00:06:01,110 --> 00:05:58,240

in the near future on on our spines and

138

00:06:02,550 --> 00:06:01,120

actually we have eye eye exams this this

139

00:06:03,670 --> 00:06:02,560

week ocular health and that sort of

140

00:06:06,070 --> 00:06:03,680

thing

141

00:06:08,070 --> 00:06:06,080

i personally was involved with some some

142

00:06:09,749 --> 00:06:08,080

fire experiments everybody likes to burn

143

00:06:11,990 --> 00:06:09,759

things don't worry it's really safe

144

00:06:13,590 --> 00:06:12,000

there's a small little place where we do

145

00:06:15,990 --> 00:06:13,600

that so those are types of things we're

146

00:06:16,629 --> 00:06:16,000

doing on space station and the work day

147

00:06:21,029 --> 00:06:16,639

is

148

00:06:23,189 --> 00:06:21,039

much like a work day and at home

149

00:06:25,110 --> 00:06:23,199

and so with these experiments i mean how

150

00:06:27,350 --> 00:06:25,120

will this advance science what what will

151

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

we learn at the end of your period up

152

00:06:32,830 --> 00:06:29,520

there at the iss with these experiments

153

00:06:37,590 --> 00:06:35,590

doing well one one of the most exciting

154

00:06:39,189 --> 00:06:37,600

things for me that i'm personally

155

00:06:40,629 --> 00:06:39,199

involved in on this

156

00:06:43,270 --> 00:06:40,639

uh time

157

00:06:44,870 --> 00:06:43,280

is is the use of ultrasound in

158

00:06:46,390 --> 00:06:44,880

applications that would normally be used

159

00:06:49,430 --> 00:06:46,400

for mri

160

00:06:51,830 --> 00:06:49,440

and that has applications with for for

161

00:06:54,390 --> 00:06:51,840

remote regions or countries that aren't

162

00:06:57,350 --> 00:06:54,400

as fortunate as ours where you can just

163

00:07:00,790 --> 00:06:57,360

pack in a briefcase size uh ultrasound

164

00:07:02,230 --> 00:07:00,800

machine and and and and give people the

165

00:07:03,990 --> 00:07:02,240

treatment and health care that that

166

00:07:05,589 --> 00:07:04,000

would be available in larger cities and

167

00:07:06,950 --> 00:07:05,599

that sort of thing and we're practicing

168

00:07:09,749 --> 00:07:06,960

and doing that and validating that up

169

00:07:11,749 --> 00:07:09,759

here in zrg um also

170

00:07:14,550 --> 00:07:11,759

the importance of keeping your bones

171

00:07:16,070 --> 00:07:14,560

healthy late in life and and the the

172

00:07:18,550 --> 00:07:16,080

the exercise programs in the food

173

00:07:20,230 --> 00:07:18,560

regimes that we're doing are helping uh

174

00:07:21,670 --> 00:07:20,240

solve that problem too so those are

175

00:07:24,309 --> 00:07:21,680

things that i think are very applicable

176  
00:07:27,270 --> 00:07:24,319  
to to people on earth and and rewarding

177  
00:07:28,629 --> 00:07:27,280  
for us to be a part of

178  
00:07:30,469 --> 00:07:28,639  
i want to try and squeeze in a couple

179  
00:07:32,070 --> 00:07:30,479  
more questions for karen first of all we

180  
00:07:34,309 --> 00:07:32,080  
saw the pictures of what do you call

181  
00:07:35,749 --> 00:07:34,319  
them fat quarters floating fat quarters

182  
00:07:39,909 --> 00:07:35,759  
you're going to be doing some knitting

183  
00:07:45,270 --> 00:07:42,790  
actually i i don't knit my mom does i

184  
00:07:47,189 --> 00:07:45,280  
never took up that hobby but quilting

185  
00:07:49,430 --> 00:07:47,199  
we have spare time on the weekends just

186  
00:07:50,950 --> 00:07:49,440  
like you do at home we do saturdays

187  
00:07:52,950 --> 00:07:50,960  
spend some time house cleaning

188  
00:07:55,029 --> 00:07:52,960

housekeeping and then after that some

189

00:07:56,869 --> 00:07:55,039

spare time and sunday is mostly a day

190

00:07:58,790 --> 00:07:56,879

just to do whatever you want read a book

191

00:08:01,510 --> 00:07:58,800

look out the window

192

00:08:03,110 --> 00:08:01,520

draw play the piano

193

00:08:04,309 --> 00:08:03,120

anything anything like that and i

194

00:08:06,710 --> 00:08:04,319

figured that's one of my favorite

195

00:08:09,670 --> 00:08:06,720

hobbies on earth so i could just as well

196

00:08:14,629 --> 00:08:11,670

and i loved the picture that you posted

197

00:08:17,110 --> 00:08:14,639

on on twitter of a poster that you had

198

00:08:19,510 --> 00:08:17,120

pardon me a poster that you had in your

199

00:08:21,830 --> 00:08:19,520

room growing up in vining can you talk

200

00:08:23,110 --> 00:08:21,840

to me about that and and how you went

201

00:08:28,309 --> 00:08:23,120

from binding minnesota to the

202

00:08:44,149 --> 00:08:29,830

that's right my sister's just reminded