

SOMEWHERE IN THE SKIES



THE SCIENTIFIC SEARCH FOR
UNIDENTIFIED AERIAL PHENOMENA

WITH DR. CHRISTOPHER COGSWELL

1
00:00:11,589 --> 00:00:11,110

[Music]

2
00:00:14,910 --> 00:00:11,599

this

3
00:00:16,450 --> 00:00:14,920

is somewhere in the skies with ryan

4
00:00:33,270 --> 00:00:16,460

sprague

5
00:00:37,350 --> 00:00:35,030

welcome everyone to somewhere in the

6
00:00:40,869 --> 00:00:37,360

skies as usual i am your host

7
00:00:42,150 --> 00:00:40,879

ryan sprague and i am so excited today

8
00:00:44,630 --> 00:00:42,160

this is an interview

9
00:00:45,350 --> 00:00:44,640

that i have been waiting to do for a

10
00:00:49,029 --> 00:00:45,360

very

11
00:00:52,229 --> 00:00:49,039

about this revolutionary

12
00:00:54,950 --> 00:00:52,239

new project that is headed by

13
00:00:57,350 --> 00:00:54,960

one of my favorite people in the

14

00:01:00,229 --> 00:00:57,360

quote-unquote ufo community

15

00:01:01,349 --> 00:01:00,239

enemy of ufo twitter and just one of the

16

00:01:04,469 --> 00:01:01,359

coolest guys

17

00:01:05,750 --> 00:01:04,479

i know working on this brand new ufo

18

00:01:07,510 --> 00:01:05,760

tracking device

19

00:01:08,870 --> 00:01:07,520

and we're gonna talk all about how it

20

00:01:11,109 --> 00:01:08,880

works um how

21

00:01:13,190 --> 00:01:11,119

you can get involved with this and

22

00:01:15,910 --> 00:01:13,200

everything else going on with ufos in

23

00:01:18,149 --> 00:01:15,920

2021 so without further ado

24

00:01:19,109 --> 00:01:18,159

here is the host of the mad scientist

25

00:01:21,270 --> 00:01:19,119

podcast

26
00:01:22,550 --> 00:01:21,280
and on the advisory board the head of

27
00:01:26,230 --> 00:01:22,560
the advisory board

28
00:01:28,550 --> 00:01:26,240
for sky hub dr chris cogswell

29
00:01:30,950 --> 00:01:28,560
chris how's it going my man good man

30
00:01:34,069 --> 00:01:30,960
it's going really well how are you doing

31
00:01:35,910 --> 00:01:34,079
i am good uh i have mentioned on the

32
00:01:38,870 --> 00:01:35,920
last episode i was able to

33
00:01:41,510 --> 00:01:38,880
escape new york and i'm i'm here on the

34
00:01:43,030 --> 00:01:41,520
island of oahu for the umpteenth time

35
00:01:45,030 --> 00:01:43,040
i'm starting to think people probably

36
00:01:45,990 --> 00:01:45,040
think i'm like in the witness protection

37
00:01:48,630 --> 00:01:46,000
program because i'm

38
00:01:49,190 --> 00:01:48,640

escaping to these remote places so often

39

00:01:51,030 --> 00:01:49,200

but um

40

00:01:52,230 --> 00:01:51,040

no things are good for me brother how

41

00:01:55,429 --> 00:01:52,240

about you

42

00:01:58,230 --> 00:01:55,439

things are going well you know i am

43

00:02:00,389 --> 00:01:58,240

yeah i haven't escaped anywhere as nice

44

00:02:02,389 --> 00:02:00,399

as oahu but

45

00:02:03,749 --> 00:02:02,399

i occasionally make my escape up to new

46

00:02:04,230 --> 00:02:03,759

hampshire still in the mountains so

47

00:02:07,270 --> 00:02:04,240

that's

48

00:02:10,469 --> 00:02:07,280

give

49

00:02:13,670 --> 00:02:10,479

me east coast uh like fall uh

50

00:02:15,750 --> 00:02:13,680

over anything like i'm not a beach guy

51
00:02:17,430 --> 00:02:15,760
i'm not a swimmer so like yeah it's

52
00:02:18,229 --> 00:02:17,440
great it's hawaii and i feel very

53
00:02:20,390 --> 00:02:18,239
fortunate but

54
00:02:22,309 --> 00:02:20,400
i'm not like one of these people who's

55
00:02:24,630 --> 00:02:22,319
like let's go let's go

56
00:02:25,510 --> 00:02:24,640
i like doing this stuff all the time so

57
00:02:27,670 --> 00:02:25,520
sure yeah

58
00:02:28,869 --> 00:02:27,680
no i totally feel you man yeah napping

59
00:02:30,229 --> 00:02:28,879
under a tree

60
00:02:32,550 --> 00:02:30,239
in the middle of the autumn it's nice

61
00:02:32,949 --> 00:02:32,560
and crisp outside you can't beat it and

62
00:02:36,710 --> 00:02:32,959
then

63
00:02:39,589 --> 00:02:36,720

full of bugs

64

00:02:42,070 --> 00:02:39,599

yeah but whatever it's fine exactly your

65

00:02:44,869 --> 00:02:42,080

pumpkin spice lattes tipped over

66

00:02:45,430 --> 00:02:44,879

and um someone stole your wallet yep

67

00:02:48,309 --> 00:02:45,440

yeah so

68

00:02:50,070 --> 00:02:48,319

you just gotta love it love it brother

69

00:02:53,190 --> 00:02:50,080

awesome well i know we could talk

70

00:02:54,630 --> 00:02:53,200

weather and locations for a while but um

71

00:02:57,190 --> 00:02:54,640

that's not why you're here

72

00:02:58,309 --> 00:02:57,200

we're here to talk about sky hub which

73

00:03:01,270 --> 00:02:58,319

is so

74

00:03:03,190 --> 00:03:01,280

amazing but before we get to what it is

75

00:03:05,430 --> 00:03:03,200

how it works how you're involved

76

00:03:06,229 --> 00:03:05,440

um for any of our new viewers or

77

00:03:08,070 --> 00:03:06,239

listeners

78

00:03:10,309 --> 00:03:08,080

i want to kind of catch them up to uh

79

00:03:12,790 --> 00:03:10,319

who you are what you do how you got

80

00:03:15,030 --> 00:03:12,800

involved with the ufo topic

81

00:03:15,910 --> 00:03:15,040

and what brought you into this crazy

82

00:03:18,869 --> 00:03:15,920

community

83

00:03:19,350 --> 00:03:18,879

that we've all found ourselves in and

84

00:03:21,270 --> 00:03:19,360

yeah

85

00:03:22,470 --> 00:03:21,280

give us uh the origin story if you don't

86

00:03:25,190 --> 00:03:22,480

mind yeah

87

00:03:26,149 --> 00:03:25,200

sure so i was bitten by a radioactive

88

00:03:29,270 --> 00:03:26,159

scientist

89

00:03:32,949 --> 00:03:29,280

uh at the age of ten no um so

90

00:03:36,309 --> 00:03:32,959

i got involved initially because so my

91

00:03:40,470 --> 00:03:36,319

my family is definitely one who

92

00:03:44,869 --> 00:03:42,390

my family tends to be one that believes

93

00:03:47,190 --> 00:03:44,879

in sort of you know

94

00:03:48,470 --> 00:03:47,200

non-scientific things at times and

95

00:03:50,229 --> 00:03:48,480

things that i think the public would

96

00:03:50,550 --> 00:03:50,239

think of as sort of more fringe or out

97

00:03:53,509 --> 00:03:50,560

there

98

00:03:54,949 --> 00:03:53,519

belief systems but at the same time my

99

00:03:56,630 --> 00:03:54,959

family was very grounded

100

00:03:58,830 --> 00:03:56,640

in the sciences and history and

101
00:04:01,589 --> 00:03:58,840
philosophy and so you know

102
00:04:02,229 --> 00:04:01,599
my at our at family kind of gatherings

103
00:04:04,789 --> 00:04:02,239
we were

104
00:04:05,750 --> 00:04:04,799
you know as likely to sort of talk about

105
00:04:08,470 --> 00:04:05,760
um

106
00:04:09,190 --> 00:04:08,480
you know religious philosophy and dogma

107
00:04:12,949 --> 00:04:09,200
whatever

108
00:04:16,069 --> 00:04:12,959
as astrology or you know ghosts or

109
00:04:17,590 --> 00:04:16,079
ufos or whatever so my family was very

110
00:04:19,430 --> 00:04:17,600
sort of steeped in that

111
00:04:20,949 --> 00:04:19,440
view and i think it's because my my

112
00:04:24,150 --> 00:04:20,959
family is made up of immigrants

113
00:04:26,070 --> 00:04:24,160

so when i was a kid i

114

00:04:28,310 --> 00:04:26,080

you know was always pushed by my family

115

00:04:29,830 --> 00:04:28,320

to go into something technical and

116

00:04:31,749 --> 00:04:29,840

you know do really well in school and

117

00:04:34,950 --> 00:04:31,759

learn and everything else

118

00:04:38,390 --> 00:04:34,960

but also there was always sort of a an

119

00:04:39,430 --> 00:04:38,400

edge of mysticism and sort of fantasy

120

00:04:43,590 --> 00:04:39,440

and folklore

121

00:04:46,469 --> 00:04:43,600

in you know imbued and everything and so

122

00:04:48,230 --> 00:04:46,479

when i got to sort of high school and

123

00:04:49,110 --> 00:04:48,240

then to college and then even in grad

124

00:04:50,710 --> 00:04:49,120

school

125

00:04:52,469 --> 00:04:50,720

i've always been really interested in

126

00:04:56,150 --> 00:04:52,479

why um

127

00:05:01,270 --> 00:04:56,160

why people who are you know intelligent

128

00:05:05,189 --> 00:05:03,029

fall for people who are trying to take

129

00:05:06,710 --> 00:05:05,199

advantage of them whether it's people

130

00:05:10,150 --> 00:05:06,720

who fall into cults

131

00:05:11,830 --> 00:05:10,160

or people who give money to a psychic

132

00:05:13,590 --> 00:05:11,840

to you know talk to the dead dead

133

00:05:15,350 --> 00:05:13,600

relative or something or

134

00:05:17,830 --> 00:05:15,360

even the ufo subject right why does

135

00:05:18,710 --> 00:05:17,840

someone pay thousands of dollars to go

136

00:05:19,909 --> 00:05:18,720

on a

137

00:05:21,990 --> 00:05:19,919

you know whatever an ancient aliens

138

00:05:23,110 --> 00:05:22,000

cruise or something

139

00:05:25,430 --> 00:05:23,120

and so that's always been really

140

00:05:27,670 --> 00:05:25,440

interesting to me

141

00:05:29,350 --> 00:05:27,680

and at the same time i've always thought

142

00:05:31,110 --> 00:05:29,360

that there

143

00:05:33,430 --> 00:05:31,120

you have this group of people this large

144

00:05:36,629 --> 00:05:33,440

group of people who are making claims

145

00:05:40,950 --> 00:05:36,639

and the scientific community

146

00:05:43,590 --> 00:05:40,960

the sort of wider public

147

00:05:44,550 --> 00:05:43,600

just discounts their their stories out

148

00:05:45,909 --> 00:05:44,560

of hand

149

00:05:47,590 --> 00:05:45,919

or at least used to discount their

150

00:05:48,550 --> 00:05:47,600

stories sort of out of hand

151

00:05:51,110 --> 00:05:48,560

and i always thought that was really

152

00:05:52,550 --> 00:05:51,120

unfair because you know the people who

153

00:05:55,510 --> 00:05:52,560

have these sightings

154

00:05:56,629 --> 00:05:55,520

it's not just you know crackpots or

155

00:05:58,629 --> 00:05:56,639

people who are

156

00:05:59,510 --> 00:05:58,639

uh you know drunks or whatever and they

157

00:06:00,950 --> 00:05:59,520

come home and they're like i was

158

00:06:01,749 --> 00:06:00,960

abducted right like that's not what

159

00:06:04,870 --> 00:06:01,759

happens

160

00:06:06,950 --> 00:06:04,880

um it's pilots it's it's

161

00:06:08,230 --> 00:06:06,960

teachers it's lawyers it's mothers and

162

00:06:09,590 --> 00:06:08,240

fathers and grandmothers and

163

00:06:12,070 --> 00:06:09,600

grandfathers and

164

00:06:14,309 --> 00:06:12,080

you know people from all walks of life

165

00:06:17,029 --> 00:06:14,319

have these experiences and

166

00:06:19,189 --> 00:06:17,039

so for me another part of it was always

167

00:06:21,110 --> 00:06:19,199

the interest in

168

00:06:22,710 --> 00:06:21,120

you have this community who claims that

169

00:06:25,029 --> 00:06:22,720

something is happening to them

170

00:06:28,390 --> 00:06:25,039

in many cases something very traumatic

171

00:06:31,909 --> 00:06:30,950

and yet you know and they have real

172

00:06:34,150 --> 00:06:31,919

effects

173

00:06:35,909 --> 00:06:34,160

you know they have real uh real negative

174

00:06:38,950 --> 00:06:35,919

things happen to them i mean we've

175

00:06:40,629 --> 00:06:38,960

we've been at conferences together where

176

00:06:42,469 --> 00:06:40,639

people come forward and tell their

177

00:06:44,230 --> 00:06:42,479

stories and

178

00:06:46,230 --> 00:06:44,240

you know it's a grown man sobbing in

179

00:06:46,950 --> 00:06:46,240

front of a room of 100 people that he's

180

00:06:50,469 --> 00:06:46,960

never met

181

00:06:51,830 --> 00:06:50,479

you know that's that's more than just

182

00:06:53,350 --> 00:06:51,840

you know again we might not be able to

183

00:06:55,909 --> 00:06:53,360

say what the what actually happened to

184

00:06:57,749 --> 00:06:55,919

that person but that's more than just

185

00:06:59,430 --> 00:06:57,759

someone making up something for

186

00:07:02,550 --> 00:06:59,440

attention that that doesn't

187

00:07:04,790 --> 00:07:02,560

fly with me that doesn't make sense so

188

00:07:06,070 --> 00:07:04,800

when i was in grad school i started

189

00:07:08,710 --> 00:07:06,080

doing a podcast

190

00:07:10,150 --> 00:07:08,720

uh the mad scientist podcast on sort of

191

00:07:11,749 --> 00:07:10,160

this question of the philosophy and

192

00:07:13,110 --> 00:07:11,759

history of science and

193

00:07:15,029 --> 00:07:13,120

why do people believe these things and

194

00:07:16,950 --> 00:07:15,039

is there anything to them and you know

195

00:07:20,390 --> 00:07:16,960

all those sorts of things

196

00:07:22,070 --> 00:07:20,400

and a listener actually reached out and

197

00:07:23,830 --> 00:07:22,080

basically said you know

198

00:07:25,189 --> 00:07:23,840

basically said something like you know

199

00:07:26,629 --> 00:07:25,199

you're so smart why don't you get

200

00:07:28,550 --> 00:07:26,639

involved then

201
00:07:30,550 --> 00:07:28,560
you know like you know i know it's like

202
00:07:32,629 --> 00:07:30,560
oh that's kind of a good point

203
00:07:33,589 --> 00:07:32,639
right like i'm making all these claims

204
00:07:35,270 --> 00:07:33,599
and i'm like i could

205
00:07:36,710 --> 00:07:35,280
i could i bet i could figure this out in

206
00:07:39,990 --> 00:07:36,720
a week and you know

207
00:07:42,469 --> 00:07:40,000
stupid stuff you say on the internet and

208
00:07:43,830 --> 00:07:42,479
um and then after talking it through

209
00:07:45,909 --> 00:07:43,840
with

210
00:07:46,950 --> 00:07:45,919
other people who i consider to sort of

211
00:07:49,589 --> 00:07:46,960
be mentors to me

212
00:07:50,070 --> 00:07:49,599
in the science world in the academic

213
00:07:53,189 --> 00:07:50,080

world

214

00:07:55,189 --> 00:07:53,199

in the in industry and then in um the

215

00:07:57,189 --> 00:07:55,199

skeptical world

216

00:07:58,629 --> 00:07:57,199

you know basically everyone said you

217

00:08:00,629 --> 00:07:58,639

know if you think if you think that

218

00:08:02,469 --> 00:08:00,639

that's a route forward

219

00:08:04,390 --> 00:08:02,479

to talk to these people and understand

220

00:08:05,749 --> 00:08:04,400

them and you know work with people

221

00:08:07,110 --> 00:08:05,759

who've had these experiences then you

222

00:08:09,270 --> 00:08:07,120

should do it because it's a good

223

00:08:10,469 --> 00:08:09,280

you're coming at it from a good place

224

00:08:11,350 --> 00:08:10,479

yeah and that's really why i got

225

00:08:14,550 --> 00:08:11,360

involved

226

00:08:16,790 --> 00:08:14,560

and that initially led me to kind of

227

00:08:21,909 --> 00:08:16,800

talking to people and

228

00:08:24,309 --> 00:08:21,919

you know i was lucky to i was lucky to

229

00:08:26,550 --> 00:08:24,319

end up meeting a lot of people who were

230

00:08:28,309 --> 00:08:26,560

very interested in my background and

231

00:08:29,830 --> 00:08:28,319

research work and and everything else in

232

00:08:33,350 --> 00:08:29,840

my take on this

233

00:08:35,670 --> 00:08:33,360

that led me to doing work with

234

00:08:37,509 --> 00:08:35,680

mufon for a little while which didn't

235

00:08:39,589 --> 00:08:37,519

turn out so well

236

00:08:41,190 --> 00:08:39,599

because mufon just like refuses to learn

237

00:08:44,790 --> 00:08:41,200

from their mistakes

238

00:08:45,990 --> 00:08:44,800

um you know and uh just keeps making bad

239

00:08:47,269 --> 00:08:46,000

you know worse and worse and worse

240

00:08:48,790 --> 00:08:47,279

decisions but anyways we could go into

241

00:08:49,829 --> 00:08:48,800

that it's a whole other can of words

242

00:08:53,110 --> 00:08:49,839

it's a whole other show

243

00:08:54,550 --> 00:08:53,120

i know you know but suffice it to say

244

00:08:57,110 --> 00:08:54,560

that i've i've tried to

245

00:08:58,630 --> 00:08:57,120

be involved in this in a way that lets

246

00:09:00,070 --> 00:08:58,640

me retain

247

00:09:01,430 --> 00:09:00,080

obviously retain my own credibility

248

00:09:03,110 --> 00:09:01,440

because i have i need to you know i have

249

00:09:04,470 --> 00:09:03,120

a day job i want to continue working in

250

00:09:07,750 --> 00:09:04,480

the sciences and

251
00:09:08,150 --> 00:09:07,760
in the fields that i work in but also

252
00:09:09,670 --> 00:09:08,160
still

253
00:09:11,670 --> 00:09:09,680
able to do sort of outreach and

254
00:09:13,350 --> 00:09:11,680
engagement with people who

255
00:09:14,710 --> 00:09:13,360
have had these experiences who believe

256
00:09:17,190 --> 00:09:14,720
these things and

257
00:09:18,790 --> 00:09:17,200
try to get to some sense of what is

258
00:09:22,710 --> 00:09:18,800
really happening here

259
00:09:25,670 --> 00:09:22,720
and that i guess sort of my

260
00:09:26,630 --> 00:09:25,680
i i am a very critical voice in the ufo

261
00:09:29,750 --> 00:09:26,640
community

262
00:09:32,870 --> 00:09:29,760
generally and so because of that i

263
00:09:36,310 --> 00:09:32,880

have uh less friends

264

00:09:39,350 --> 00:09:36,320

than than others do in the community

265

00:09:41,670 --> 00:09:39,360

um but i think that the people and the

266

00:09:42,949 --> 00:09:41,680

groups that i have worked with and we've

267

00:09:45,350 --> 00:09:42,959

built

268

00:09:47,190 --> 00:09:45,360

have been of a very high caliber and

269

00:09:49,910 --> 00:09:47,200

again just generally

270

00:09:51,269 --> 00:09:49,920

you know it's really easy to be on

271

00:09:54,389 --> 00:09:51,279

twitter and say

272

00:09:56,790 --> 00:09:54,399

this is all just people making this up

273

00:09:58,150 --> 00:09:56,800

but again you know the thing i always

274

00:10:01,030 --> 00:09:58,160

come back to is if it's

275

00:10:02,550 --> 00:10:01,040

all made up that's much scarier than if

276

00:10:03,990 --> 00:10:02,560

it's ufos

277

00:10:06,949 --> 00:10:04,000

if it's all made up that means that

278

00:10:08,630 --> 00:10:06,959

there is you know that that means that

279

00:10:10,310 --> 00:10:08,640

it's it would be so easy then for a

280

00:10:13,910 --> 00:10:10,320

foreign adversary

281

00:10:14,949 --> 00:10:13,920

to start a blog and manipulate the

282

00:10:16,630 --> 00:10:14,959

public

283

00:10:18,630 --> 00:10:16,640

you know and we're seeing some of that

284

00:10:22,310 --> 00:10:18,640

with sort of you know

285

00:10:24,069 --> 00:10:22,320

politics today worldwide with conspiracy

286

00:10:26,870 --> 00:10:24,079

theories and anti-vaccination

287

00:10:29,110 --> 00:10:26,880

feelings and everything else but it's a

288

00:10:30,829 --> 00:10:29,120

lesson that you know it's something that

289

00:10:33,030 --> 00:10:30,839

people in the ufo world have sort of

290

00:10:36,630 --> 00:10:33,040

been yelling about

291

00:10:39,110 --> 00:10:36,640

for for decades i'm not the first

292

00:10:43,110 --> 00:10:39,120

researcher to say that hey

293

00:10:45,910 --> 00:10:43,120

if you can understand why a ufo grifter

294

00:10:46,389 --> 00:10:45,920

is able to make money off of their um

295

00:10:50,949 --> 00:10:46,399

their

296

00:10:53,990 --> 00:10:50,959

you know desert getaway packages

297

00:10:57,670 --> 00:10:54,000

then um then you can understand

298

00:11:01,269 --> 00:10:57,680

how propaganda spreads

299

00:11:01,829 --> 00:11:01,279

in a community and so that's sort of i

300

00:11:04,790 --> 00:11:01,839

guess

301
00:11:06,150 --> 00:11:04,800
you know so that's how i got to before

302
00:11:11,030 --> 00:11:06,160
skyhub

303
00:11:14,630 --> 00:11:11,040
really

304
00:11:17,110 --> 00:11:14,640
skyhub initially was another

305
00:11:19,190 --> 00:11:17,120
was an idea for something like sky hub

306
00:11:20,949 --> 00:11:19,200
has been sort of floating around the ufo

307
00:11:24,230 --> 00:11:20,959
community

308
00:11:25,430 --> 00:11:24,240
for a while and actually products are

309
00:11:28,870 --> 00:11:25,440
not really products but

310
00:11:31,190 --> 00:11:28,880
um tools like sky hub have actually been

311
00:11:34,230 --> 00:11:31,200
something that was of interest for

312
00:11:35,030 --> 00:11:34,240
the military and you know astronomers

313
00:11:41,110 --> 00:11:35,040

and

314

00:11:42,550 --> 00:11:41,120

governmental groups for a very long time

315

00:11:43,590 --> 00:11:42,560

actually since basically the launch of

316

00:11:45,430 --> 00:11:43,600

sputnik

317

00:11:47,430 --> 00:11:45,440

the idea of tracking and understanding

318

00:11:49,030 --> 00:11:47,440

what's in the skies above us has been of

319

00:11:51,430 --> 00:11:49,040

great interest

320

00:11:52,150 --> 00:11:51,440

um public groups that have done this

321

00:11:54,790 --> 00:11:52,160

include like

322

00:11:56,069 --> 00:11:54,800

cams via seti or other kind of meteor

323

00:11:58,790 --> 00:11:56,079

projects or

324

00:12:00,550 --> 00:11:58,800

you know what even weather stations in

325

00:12:03,910 --> 00:12:00,560

some way or a type of sky hub

326

00:12:06,949 --> 00:12:03,920

or a type of you know sky

327

00:12:08,870 --> 00:12:06,959

surveillance recognition platform but

328

00:12:10,230 --> 00:12:08,880

the problem with those previous methods

329

00:12:12,870 --> 00:12:10,240

have been that they're all very

330

00:12:14,790 --> 00:12:12,880

large and bulky and costly and

331

00:12:18,710 --> 00:12:14,800

everything else

332

00:12:21,990 --> 00:12:18,720

um and my sky hub is this big

333

00:12:25,350 --> 00:12:22,000

this is my sky it's crazy it connects

334

00:12:25,590 --> 00:12:25,360

connects to a camera um i just plug it

335

00:12:28,870 --> 00:12:25,600

in

336

00:12:30,949 --> 00:12:28,880

that's my skyhub so you know the the

337

00:12:32,629 --> 00:12:30,959

increases in technology and computing

338

00:12:35,829 --> 00:12:32,639

power

339

00:12:38,310 --> 00:12:35,839

and the shrinking of electronic hardware

340

00:12:40,069 --> 00:12:38,320

has gotten to the point now that what

341

00:12:44,310 --> 00:12:40,079

before we had to do with like an

342

00:12:46,710 --> 00:12:44,320

entire you know um like a weather truck

343

00:12:47,750 --> 00:12:46,720

right you can do with a raspberry pi or

344

00:12:50,870 --> 00:12:47,760

a jetson

345

00:12:53,110 --> 00:12:50,880

um and some software so

346

00:12:54,470 --> 00:12:53,120

it's that's really what was what was

347

00:12:55,750 --> 00:12:54,480

intriguing to me about the skyhawk

348

00:12:57,590 --> 00:12:55,760

project when the team originally

349

00:12:58,710 --> 00:12:57,600

approached me was

350

00:13:00,389 --> 00:12:58,720

you've heard about all these other

351
00:13:01,910 --> 00:13:00,399
projects you obviously this has been out

352
00:13:05,670 --> 00:13:01,920
there for a long time

353
00:13:07,110 --> 00:13:05,680
we can do it for cheaper um smaller

354
00:13:09,750 --> 00:13:07,120
and we will do it in a way that is

355
00:13:12,949 --> 00:13:09,760
completely transparent to the public

356
00:13:14,310 --> 00:13:12,959
and that to me was very very um that was

357
00:13:15,269 --> 00:13:14,320
the thing that was really the hook that

358
00:13:16,870 --> 00:13:15,279
got me involved

359
00:13:18,949 --> 00:13:16,880
and made me want to maybe want to take

360
00:13:22,710 --> 00:13:18,959
part in the project

361
00:13:25,190 --> 00:13:22,720
so um yeah well let me let me um

362
00:13:26,870 --> 00:13:25,200
let's rewind just a little bit chris if

363
00:13:28,230 --> 00:13:26,880

you don't mind brother um

364

00:13:30,150 --> 00:13:28,240

and that's a really good point i do want

365

00:13:31,350 --> 00:13:30,160

to talk to you about the transparency

366

00:13:34,310 --> 00:13:31,360

uh that you guys are doing over at

367

00:13:37,829 --> 00:13:34,320

skyhub but um could you give us kind of

368

00:13:39,189 --> 00:13:37,839

i guess the origin of of skyhub before

369

00:13:42,470 --> 00:13:39,199

you were approached

370

00:13:45,750 --> 00:13:42,480

um who created this who's involved

371

00:13:47,750 --> 00:13:45,760

and yeah maybe kind of walk us through

372

00:13:49,509 --> 00:13:47,760

what skyhub is if you don't mind i know

373

00:13:51,910 --> 00:13:49,519

that's a lot to ask but um

374

00:13:52,949 --> 00:13:51,920

yeah maybe give us the origin of how it

375

00:13:55,269 --> 00:13:52,959

came to be

376

00:13:56,550 --> 00:13:55,279

why you thought this was something you

377

00:13:58,310 --> 00:13:56,560

wanted to put your name on

378

00:14:00,470 --> 00:13:58,320

and yeah maybe a little about the

379

00:14:03,509 --> 00:14:00,480

process of what skyhub is

380

00:14:05,269 --> 00:14:03,519

absolutely yeah so there are um so okay

381

00:14:09,350 --> 00:14:05,279

so to start with

382

00:14:11,990 --> 00:14:09,360

skyhub skyhub really started as a

383

00:14:13,670 --> 00:14:12,000

effort by a group of developers so

384

00:14:16,710 --> 00:14:13,680

software developers

385

00:14:20,629 --> 00:14:16,720

um who wanted to build

386

00:14:24,389 --> 00:14:20,639

a who wanted to build a unit

387

00:14:27,670 --> 00:14:24,399

that could capture evidence

388

00:14:31,189 --> 00:14:27,680

of objects in the sky above us

389

00:14:32,230 --> 00:14:31,199

using techniques and tools that would be

390

00:14:36,069 --> 00:14:32,240

beyond

391

00:14:37,750 --> 00:14:36,079

a question so using machine learning and

392

00:14:39,990 --> 00:14:37,760

artificial intelligence to

393

00:14:40,790 --> 00:14:40,000

automatically capture and categorize

394

00:14:48,470 --> 00:14:40,800

objects

395

00:14:50,710 --> 00:14:48,480

the initial idea really came from um

396

00:14:52,310 --> 00:14:50,720

steve mcdaniel corey gaspard and adam

397

00:14:53,670 --> 00:14:52,320

allen

398

00:14:55,430 --> 00:14:53,680

and actually initially they were on a

399

00:14:58,389 --> 00:14:55,440

team with um

400

00:14:59,829 --> 00:14:58,399

they were on a team with dr bob mcguire

401
00:15:03,430 --> 00:14:59,839
that team sort of

402
00:15:05,189 --> 00:15:03,440
um that team didn't work out and so then

403
00:15:07,030 --> 00:15:05,199
steve corey and adam

404
00:15:08,870 --> 00:15:07,040
um kind of continued the software

405
00:15:12,069 --> 00:15:08,880
development on their own

406
00:15:14,550 --> 00:15:12,079
and then from there um we've

407
00:15:15,829 --> 00:15:14,560
we sort of built sky hub and so i think

408
00:15:17,350 --> 00:15:15,839
i was the

409
00:15:19,189 --> 00:15:17,360
i think the next person to join the team

410
00:15:20,550 --> 00:15:19,199
was probably richard hopf

411
00:15:21,990 --> 00:15:20,560
who is our hardware design and

412
00:15:22,949 --> 00:15:22,000
fabrication specialist and i think it

413
00:15:26,069 --> 00:15:22,959

was me

414

00:15:27,590 --> 00:15:26,079

and then um david moore who's our audio

415

00:15:29,430 --> 00:15:27,600

engineering and science kind of science

416

00:15:31,910 --> 00:15:29,440

communications specialist

417

00:15:34,949 --> 00:15:31,920

um we now have other members of the team

418

00:15:36,629 --> 00:15:34,959

as well paul wright and justin phillips

419

00:15:38,230 --> 00:15:36,639

we have over 200 people in our our

420

00:15:40,150 --> 00:15:38,240

discord

421

00:15:41,590 --> 00:15:40,160

who currently participate and you know

422

00:15:43,590 --> 00:15:41,600

help us develop and

423

00:15:45,430 --> 00:15:43,600

answer questions and things like that

424

00:15:46,150 --> 00:15:45,440

but so the basic idea though or the

425

00:15:50,710 --> 00:15:46,160

basic

426

00:15:55,030 --> 00:15:54,310

we build a a system that is easy to

427

00:15:58,230 --> 00:15:55,040

assemble

428

00:16:00,790 --> 00:15:58,240

relatively cheap to produce and build

429

00:16:02,870 --> 00:16:00,800

and we provide the software to run it

430

00:16:04,790 --> 00:16:02,880

free of charge to the public

431

00:16:07,269 --> 00:16:04,800

the public then puts the thing together

432

00:16:09,590 --> 00:16:07,279

they buy the stuff from other places

433

00:16:11,509 --> 00:16:09,600

they put it together themselves based on

434

00:16:14,790 --> 00:16:11,519

instructions we give them

435

00:16:16,550 --> 00:16:14,800

and then they deploy them out in their

436

00:16:19,990 --> 00:16:16,560

backyards and on their roofs and

437

00:16:20,949 --> 00:16:20,000

and wherever and the software what it

438

00:16:24,069 --> 00:16:20,959

does

439

00:16:25,189 --> 00:16:24,079

is as an object comes into frame above

440

00:16:26,790 --> 00:16:25,199

the camera

441

00:16:29,110 --> 00:16:26,800

it automatically turns on starts

442

00:16:32,949 --> 00:16:29,120

recording the video

443

00:16:37,110 --> 00:16:32,959

and then on the back end a system

444

00:16:40,310 --> 00:16:37,120

using artificial intelligence tells

445

00:16:42,230 --> 00:16:40,320

or sort of picks out from those images

446

00:16:43,430 --> 00:16:42,240

what is a bird what is an airplane what

447

00:16:45,590 --> 00:16:43,440

is it insect

448

00:16:47,430 --> 00:16:45,600

and then ultimately what's left behind

449

00:16:50,310 --> 00:16:47,440

would be the unknowns

450

00:16:52,629 --> 00:16:50,320

that's okay so that was kind of my my

451
00:16:55,829 --> 00:16:52,639
next question for you is once

452
00:16:57,990 --> 00:16:55,839
the um you know the recording starts and

453
00:17:01,030 --> 00:16:58,000
you start getting that data in

454
00:17:04,230 --> 00:17:01,040
how exactly does the machine learning

455
00:17:07,829 --> 00:17:04,240
play into uh differentiating these

456
00:17:09,590 --> 00:17:07,839
objects so is it like okay we we have

457
00:17:10,870 --> 00:17:09,600
five different sky hubs out there

458
00:17:13,750 --> 00:17:10,880
monitoring

459
00:17:14,230 --> 00:17:13,760
um whatever let's say a cessna plane

460
00:17:17,350 --> 00:17:14,240
that

461
00:17:18,949 --> 00:17:17,360
goes by does the machine then know all

462
00:17:19,750 --> 00:17:18,959
right these are the properties of the

463
00:17:22,470 --> 00:17:19,760

cessna

464

00:17:23,510 --> 00:17:22,480

according to our sort of observational

465

00:17:26,630 --> 00:17:23,520

um

466

00:17:27,750 --> 00:17:26,640

look at it and keep you know is it okay

467

00:17:29,669 --> 00:17:27,760

now we have

468

00:17:32,070 --> 00:17:29,679

all of these are cessnas all of these

469

00:17:33,990 --> 00:17:32,080

are meteors all of these are blah blah

470

00:17:37,350 --> 00:17:34,000

and then the true unknown how does that

471

00:17:39,669 --> 00:17:37,360

all work so just okay so just to start

472

00:17:41,270 --> 00:17:39,679

just to begin with yeah artificial

473

00:17:43,510 --> 00:17:41,280

intelligence and machine learning are

474

00:17:45,110 --> 00:17:43,520

buzz words that are used all over the

475

00:17:46,549 --> 00:17:45,120

place to see way more complicated than

476
00:17:51,350 --> 00:17:46,559
they are

477
00:17:54,789 --> 00:17:51,360
um your your technically any system

478
00:18:00,630 --> 00:17:54,799
where a sensor measures

479
00:18:02,789 --> 00:18:00,640
a set point and then tells a computer to

480
00:18:03,990 --> 00:18:02,799
change something to get back to the set

481
00:18:07,110 --> 00:18:04,000
point

482
00:18:09,990 --> 00:18:07,120
is doing artificial intelligence okay

483
00:18:12,630 --> 00:18:10,000
right so a thermometer so in your house

484
00:18:15,750 --> 00:18:12,640
right now you have a thermometer

485
00:18:17,029 --> 00:18:15,760
or a thermostat that measures the

486
00:18:19,270 --> 00:18:17,039
temperature in the rooms

487
00:18:21,270 --> 00:18:19,280
of your home and you can set the

488
00:18:22,070 --> 00:18:21,280

temperature to be at like 60 degrees 65

489

00:18:23,669 --> 00:18:22,080

degrees

490

00:18:25,110 --> 00:18:23,679

if you're a weirdo might like me you set

491

00:18:26,549 --> 00:18:25,120

it at 60 degrees

492

00:18:28,549 --> 00:18:26,559

and then you wouldn't meet your brother

493

00:18:30,150 --> 00:18:28,559

right yes that's if you're like me you

494

00:18:31,029 --> 00:18:30,160

do that and then your wife is wearing a

495

00:18:34,150 --> 00:18:31,039

blanket

496

00:18:35,830 --> 00:18:34,160

um i know that feeling well

497

00:18:37,430 --> 00:18:35,840

that's that's one or the other right so

498

00:18:41,190 --> 00:18:37,440

but um

499

00:18:42,870 --> 00:18:41,200

that system that system is a very very

500

00:18:43,909 --> 00:18:42,880

simple version of artificial

501
00:18:46,710 --> 00:18:43,919
intelligence

502
00:18:47,590 --> 00:18:46,720
because what it's doing is it is taking

503
00:18:49,909 --> 00:18:47,600
a measurement

504
00:18:51,110 --> 00:18:49,919
and then changing something making

505
00:18:52,789 --> 00:18:51,120
something happen

506
00:18:54,470 --> 00:18:52,799
to get to a certain set point or a

507
00:18:56,390 --> 00:18:54,480
certain value

508
00:18:58,310 --> 00:18:56,400
so in many ways like like control

509
00:19:00,070 --> 00:18:58,320
systems control schemes

510
00:19:02,070 --> 00:19:00,080
sensors those sorts of things with like

511
00:19:03,990 --> 00:19:02,080
control systems

512
00:19:06,630 --> 00:19:04,000
um are a very simple version of

513
00:19:09,990 --> 00:19:06,640

artificial intelligence

514

00:19:12,710 --> 00:19:10,000

is more

515

00:19:13,590 --> 00:19:12,720

complicated but it's still basically

516

00:19:17,029 --> 00:19:13,600

just

517

00:19:20,549 --> 00:19:17,039

we give it a list of say 20 to 30

518

00:19:22,950 --> 00:19:20,559

um set points that we say okay

519

00:19:24,070 --> 00:19:22,960

if you if you measure these things it's

520

00:19:25,510 --> 00:19:24,080

an airplane

521

00:19:27,669 --> 00:19:25,520

if you measure these things it's a

522

00:19:30,710 --> 00:19:27,679

meteor if you measure these things

523

00:19:32,390 --> 00:19:30,720

it's a bird or an insect or whatever

524

00:19:34,310 --> 00:19:32,400

so that's basically how the artificial

525

00:19:35,909 --> 00:19:34,320

intelligence works the set points are

526

00:19:36,230 --> 00:19:35,919

the things that we're actually looking

527

00:19:43,510 --> 00:19:36,240

at

528

00:19:46,549 --> 00:19:43,520

our um motion

529

00:19:47,190 --> 00:19:46,559

so in other words an airplane if you're

530

00:19:49,669 --> 00:19:47,200

thinking about

531

00:19:51,190 --> 00:19:49,679

the the camera itself is looking up at

532

00:19:54,070 --> 00:19:51,200

the sky

533

00:19:55,909 --> 00:19:54,080

if you think about an airplane as it

534

00:19:59,430 --> 00:19:55,919

travels across the frame of the

535

00:20:01,110 --> 00:19:59,440

of the vision of the camera the airplane

536

00:20:02,789 --> 00:20:01,120

will maybe it starts you know it starts

537

00:20:06,390 --> 00:20:02,799

coming in here

538

00:20:08,230 --> 00:20:06,400

and then it'll fly at a very set

539

00:20:09,669 --> 00:20:08,240

path that it takes a straight line path

540

00:20:11,669 --> 00:20:09,679

usually

541

00:20:12,710 --> 00:20:11,679

whereas if we think about something like

542

00:20:15,830 --> 00:20:12,720

you know

543

00:20:18,149 --> 00:20:15,840

uh elizondo's five observables let's say

544

00:20:19,830 --> 00:20:18,159

um one of them is like non-ballistic

545

00:20:22,230 --> 00:20:19,840

motion right so the object bounces all

546

00:20:25,270 --> 00:20:22,240

over the place

547

00:20:26,870 --> 00:20:25,280

we can do things with the video so

548

00:20:28,789 --> 00:20:26,880

the first step is making the camera

549

00:20:31,909 --> 00:20:28,799

recognize that an object

550

00:20:32,789 --> 00:20:31,919

um is coming into frame then all we do

551
00:20:35,669 --> 00:20:32,799
is we measure

552
00:20:36,950 --> 00:20:35,679
how the object moves across the video so

553
00:20:40,070 --> 00:20:36,960
every frame

554
00:20:42,710 --> 00:20:40,080
where it moves from that we can get

555
00:20:45,350 --> 00:20:42,720
things like its speed its acceleration

556
00:20:47,510 --> 00:20:45,360
its direction we can tell how straight

557
00:20:48,310 --> 00:20:47,520
the path is so is the path tortuous or

558
00:20:50,470 --> 00:20:48,320
not

559
00:20:52,070 --> 00:20:50,480
um we can tell all kinds of other things

560
00:20:52,950 --> 00:20:52,080
like that and then we have other sensors

561
00:20:54,230 --> 00:20:52,960
too

562
00:20:57,430 --> 00:20:54,240
that can tell us you know this is an

563
00:20:59,510 --> 00:20:57,440

airplane this is a whatever

564

00:21:01,669 --> 00:20:59,520

all the artificial intelligence is doing

565

00:21:02,149 --> 00:21:01,679

is if it sees a certain number of those

566

00:21:04,390 --> 00:21:02,159

things

567

00:21:05,510 --> 00:21:04,400

that fit within say the bucket of

568

00:21:09,430 --> 00:21:05,520

airplane

569

00:21:12,149 --> 00:21:09,440

kind of make sense in that

570

00:21:13,590 --> 00:21:12,159

in that case ryan oh yeah totally

571

00:21:16,630 --> 00:21:13,600

because i think again

572

00:21:18,149 --> 00:21:16,640

it's all about differentiating these

573

00:21:20,470 --> 00:21:18,159

objects that's that's the

574

00:21:21,270 --> 00:21:20,480

point of this until you get to the true

575

00:21:23,190 --> 00:21:21,280

unknown

576

00:21:24,390 --> 00:21:23,200

that's always the bottom and the least

577

00:21:26,310 --> 00:21:24,400

likely exactly

578

00:21:27,590 --> 00:21:26,320

now the way the way that the machine

579

00:21:31,590 --> 00:21:27,600

learning works

580

00:21:34,310 --> 00:21:31,600

is if you can give a computer

581

00:21:35,750 --> 00:21:34,320

instructions to say okay i want you to

582

00:21:38,870 --> 00:21:35,760

measure

583

00:21:40,789 --> 00:21:38,880

a thousand videos of an object

584

00:21:41,990 --> 00:21:40,799

i'm telling you that these objects are

585

00:21:43,270 --> 00:21:42,000

airplanes

586

00:21:44,630 --> 00:21:43,280

right so i have to know that there are

587

00:21:46,149 --> 00:21:44,640

airplanes beforehand i have to tell the

588

00:21:48,149 --> 00:21:46,159

computer it's an airplane

589

00:21:49,750 --> 00:21:48,159

right and then what the computer does is

590

00:21:51,110 --> 00:21:49,760

it measures those

591

00:21:52,870 --> 00:21:51,120

metrics again that we tell it to measure

592

00:21:55,669 --> 00:21:52,880

for speed acceleration

593

00:21:57,750 --> 00:21:55,679

tortuosity um displacement vector

594

00:21:59,430 --> 00:21:57,760

whatever those other things

595

00:22:02,230 --> 00:21:59,440

we tell the machine to measure those

596

00:22:04,950 --> 00:22:02,240

things and then at the end of it

597

00:22:07,510 --> 00:22:04,960

it essentially says okay well based on

598

00:22:10,630 --> 00:22:07,520

the thousand measurements i've now taken

599

00:22:12,310 --> 00:22:10,640

of a airplane this is what the airplane

600

00:22:14,390 --> 00:22:12,320

profile looks like

601
00:22:15,909 --> 00:22:14,400
so airplanes have a velocity between

602
00:22:18,149 --> 00:22:15,919
this value and this value

603
00:22:19,190 --> 00:22:18,159
and most of them are here and so within

604
00:22:21,110 --> 00:22:19,200
95

605
00:22:22,789 --> 00:22:21,120
confidence i can say that if you have a

606
00:22:24,549 --> 00:22:22,799
velocity of this

607
00:22:25,830 --> 00:22:24,559
you're an airplane that's a very simple

608
00:22:27,669 --> 00:22:25,840
example we're not going to do it just

609
00:22:30,149 --> 00:22:27,679
based off velocity

610
00:22:32,070 --> 00:22:30,159
but the so that's the way the machine

611
00:22:34,149 --> 00:22:32,080
learning works it's really it's

612
00:22:35,350 --> 00:22:34,159
instead of us giving the computer the

613
00:22:38,950 --> 00:22:35,360

set point

614

00:22:41,590 --> 00:22:38,960

right we let the computer determine

615

00:22:42,630 --> 00:22:41,600

what the most likely set point is for a

616

00:22:44,630 --> 00:22:42,640

set of data

617

00:22:47,350 --> 00:22:44,640

that's that's that's so cool yeah so you

618

00:22:50,470 --> 00:22:47,360

know imagine imagine you know elon musk

619

00:22:51,669 --> 00:22:50,480

um elon musk gets you know whatever

620

00:22:53,029 --> 00:22:51,679

it's a hundred years from now and elon

621

00:22:54,390 --> 00:22:53,039

musk has turned us all into robots and

622

00:22:55,350 --> 00:22:54,400

we have microchips in our brains or

623

00:22:57,830 --> 00:22:55,360

whatever

624

00:22:59,270 --> 00:22:57,840

um imagine if your thermostat was able

625

00:23:03,029 --> 00:22:59,280

to measure

626

00:23:04,870 --> 00:23:03,039

how comfortable you were right

627

00:23:06,149 --> 00:23:04,880

right basically you would be telling it

628

00:23:06,870 --> 00:23:06,159

okay well i want you to measure for

629

00:23:08,630 --> 00:23:06,880

things like

630

00:23:10,470 --> 00:23:08,640

is the person perspire you know are they

631

00:23:12,549 --> 00:23:10,480

sweating are they

632

00:23:14,230 --> 00:23:12,559

breathing heavy are they red in the face

633

00:23:15,909 --> 00:23:14,240

are they whatever

634

00:23:17,430 --> 00:23:15,919

or measuring your internal temperature

635

00:23:20,070 --> 00:23:17,440

maybe

636

00:23:20,789 --> 00:23:20,080

and then changing the thermostat to fit

637

00:23:22,470 --> 00:23:20,799

to where your

638

00:23:25,110 --> 00:23:22,480

internal temperature hits the right set

639

00:23:28,070 --> 00:23:25,120

point so machine learning is basically

640

00:23:29,830 --> 00:23:28,080

just again it's just another kind of

641

00:23:31,990 --> 00:23:29,840

fancy way of saying

642

00:23:34,070 --> 00:23:32,000

instead of it being a person or like

643

00:23:37,029 --> 00:23:34,080

interns for us or whatever

644

00:23:38,630 --> 00:23:37,039

getting all that data ourselves um by

645

00:23:41,350 --> 00:23:38,640

doing pen and paper math

646

00:23:42,149 --> 00:23:41,360

we let a computer do it that's all it is

647

00:23:46,630 --> 00:23:42,159

and so over

648

00:23:48,870 --> 00:23:46,640

and so yeah so over time then um

649

00:23:49,750 --> 00:23:48,880

and so in that way then you basically

650

00:23:52,070 --> 00:23:49,760

can

651
00:23:53,430 --> 00:23:52,080
if your system is good enough um

652
00:23:54,230 --> 00:23:53,440
ultimately the goal would be that we

653
00:23:57,430 --> 00:23:54,240
would be able to

654
00:23:59,110 --> 00:23:57,440
find the easiest cheapest and by cheap i

655
00:24:01,029 --> 00:23:59,120
mean cheap computationally not

656
00:24:03,750 --> 00:24:01,039
necessarily cheap economically

657
00:24:06,230 --> 00:24:03,760
but like you know the most uh the most

658
00:24:08,710 --> 00:24:06,240
accurate measurement we can do

659
00:24:11,350 --> 00:24:08,720
with this with the smallest number of

660
00:24:13,269 --> 00:24:11,360
sort of cycles of math we have to do

661
00:24:14,870 --> 00:24:13,279
to tell this is a bird this is a plane

662
00:24:18,149 --> 00:24:14,880
this is a whatever

663
00:24:18,789 --> 00:24:18,159

yeah expediting the process yeah right

664

00:24:20,789 --> 00:24:18,799

and so

665

00:24:22,390 --> 00:24:20,799

and that's really where that's where

666

00:24:22,950 --> 00:24:22,400

kind of continuous machine learning

667

00:24:27,029 --> 00:24:22,960

comes in

668

00:24:29,190 --> 00:24:27,039

where um after a while

669

00:24:30,710 --> 00:24:29,200

like right now let's say we have a data

670

00:24:32,710 --> 00:24:30,720

set with

671

00:24:34,230 --> 00:24:32,720

i don't know ten thousand videos of

672

00:24:37,669 --> 00:24:34,240

airplanes right and that

673

00:24:39,110 --> 00:24:37,679

that's just a random number i don't stop

674

00:24:41,110 --> 00:24:39,120

picking a random number i don't know how

675

00:24:42,710 --> 00:24:41,120

many you know i don't know whatever but

676
00:24:44,830 --> 00:24:42,720
let's say we get that data set of ten

677
00:24:47,510 --> 00:24:44,840
thousand um

678
00:24:49,029 --> 00:24:47,520
eventually with a complicated enough

679
00:24:52,870 --> 00:24:49,039
system

680
00:24:55,430 --> 00:24:52,880
you can find other data points that like

681
00:24:57,190 --> 00:24:55,440
so for example airplanes have airplanes

682
00:24:58,870 --> 00:24:57,200
all give off a signal

683
00:25:00,870 --> 00:24:58,880
telling other airplanes or air traffic

684
00:25:02,630 --> 00:25:00,880
controllers hey we're an airplane we're

685
00:25:06,549 --> 00:25:02,640
in the area

686
00:25:08,390 --> 00:25:06,559
that is like a 100 it's an airplane

687
00:25:09,909 --> 00:25:08,400
right that's that's a definite signal

688
00:25:12,149 --> 00:25:09,919

that it's an airplane

689

00:25:15,350 --> 00:25:12,159

so we could train our models to say if

690

00:25:16,789 --> 00:25:15,360

you get that signal

691

00:25:18,630 --> 00:25:16,799

whatever you're viewing as an airplane

692

00:25:20,230 --> 00:25:18,640

and then train it based on that

693

00:25:21,990 --> 00:25:20,240

right that's one way to say do kind of

694

00:25:23,909 --> 00:25:22,000

continuous machine learning again

695

00:25:25,029 --> 00:25:23,919

where you don't need to be inputting all

696

00:25:28,070 --> 00:25:25,039

the time

697

00:25:30,070 --> 00:25:28,080

videos of airplanes but yeah yeah

698

00:25:31,269 --> 00:25:30,080

and so it gets more and more complicated

699

00:25:34,630 --> 00:25:31,279

yeah right

700

00:25:37,909 --> 00:25:34,640

what i think and you stress this um

701
00:25:41,029 --> 00:25:37,919
quite well is that the public and those

702
00:25:44,390 --> 00:25:41,039
involved and those using the program

703
00:25:47,830 --> 00:25:44,400
are literally helping to

704
00:25:48,470 --> 00:25:47,840
evolve the algorithms evolving with sky

705
00:25:50,950 --> 00:25:48,480
hub

706
00:25:51,830 --> 00:25:50,960
um i saw in an interview where i believe

707
00:25:56,470 --> 00:25:51,840
you said

708
00:25:59,269 --> 00:25:56,480
you know this this software this uh

709
00:26:01,350 --> 00:25:59,279
this device this technology is

710
00:26:02,230 --> 00:26:01,360
constantly evolving so it's not like

711
00:26:05,350 --> 00:26:02,240
skyhub

712
00:26:08,710 --> 00:26:05,360
is just developed built in

713
00:26:09,510 --> 00:26:08,720

game over like it's done this is this is

714

00:26:12,310 --> 00:26:09,520

cool because

715

00:26:13,430 --> 00:26:12,320

it is constantly in motion and learning

716

00:26:16,630 --> 00:26:13,440

and growing

717

00:26:18,230 --> 00:26:16,640

and um helping us to figure out what the

718

00:26:21,269 --> 00:26:18,240

hell these phenomena are

719

00:26:25,830 --> 00:26:21,279

and you know i've been sent

720

00:26:27,669 --> 00:26:25,840

several skyhub videos by people who have

721

00:26:28,870 --> 00:26:27,679

you know purchased what they needed to

722

00:26:31,669 --> 00:26:28,880

create skyhub

723

00:26:32,070 --> 00:26:31,679

and um get the data out into the cloud

724

00:26:35,350 --> 00:26:32,080

and

725

00:26:37,110 --> 00:26:35,360

uh some of them dude have been really

726

00:26:38,870 --> 00:26:37,120

compelling i mean there was one i

727

00:26:41,590 --> 00:26:38,880

recently saw of what we

728

00:26:43,909 --> 00:26:41,600

thought might have been a plane and then

729

00:26:44,710 --> 00:26:43,919

totally made a 90 degree turn out of

730

00:26:46,390 --> 00:26:44,720

nowhere

731

00:26:48,710 --> 00:26:46,400

and took off so again you're talking

732

00:26:50,070 --> 00:26:48,720

about kind of those observables that the

733

00:26:52,310 --> 00:26:50,080

pentagon looked at

734

00:26:53,830 --> 00:26:52,320

um so i guess my next question for you

735

00:26:55,750 --> 00:26:53,840

would be

736

00:26:57,350 --> 00:26:55,760

what are some of the stuff you guys have

737

00:26:58,149 --> 00:26:57,360

come across i mean yeah of course

738

00:26:59,990 --> 00:26:58,159

meteors

739

00:27:01,430 --> 00:27:00,000

probably starlink satellites are one of

740

00:27:03,669 --> 00:27:01,440

the big ones but um

741

00:27:05,029 --> 00:27:03,679

any really intriguing ones that have

742

00:27:06,950 --> 00:27:05,039

kind of left you guys

743

00:27:09,750 --> 00:27:06,960

over at sky hub scratching your head so

744

00:27:13,110 --> 00:27:09,760

far i honestly i think one of the

745

00:27:16,470 --> 00:27:13,120

coolest things about this project so far

746

00:27:18,470 --> 00:27:16,480

has been just how

747

00:27:19,590 --> 00:27:18,480

just how unexpected the results have

748

00:27:21,669 --> 00:27:19,600

been

749

00:27:23,190 --> 00:27:21,679

you know if you if you thought to

750

00:27:25,350 --> 00:27:23,200

yourself

751

00:27:28,230 --> 00:27:25,360

okay i'll put a camera outside my my

752

00:27:30,230 --> 00:27:28,240

house it's pointed up in the sky

753

00:27:31,669 --> 00:27:30,240

and i'm gonna measure you know i'm just

754

00:27:33,350 --> 00:27:31,679

gonna i'm gonna see airplanes probably

755

00:27:37,029 --> 00:27:33,360

i'll see birds i'll see airplanes

756

00:27:39,830 --> 00:27:37,039

i'll see some insects you know whatever

757

00:27:40,230 --> 00:27:39,840

there is stuff in the sky all the time

758

00:27:43,830 --> 00:27:40,240

that

759

00:27:45,990 --> 00:27:43,840

think were

760

00:27:48,149 --> 00:27:46,000

were in the sky above my house or you

761

00:27:51,110 --> 00:27:48,159

know so for example um

762

00:27:51,750 --> 00:27:51,120

i think maybe one of my favorite ones is

763

00:27:56,070 --> 00:27:51,760

one of the

764

00:27:58,310 --> 00:27:56,080

units is is out in um

765

00:27:59,350 --> 00:27:58,320

is out in the united kingdom just give

766

00:28:03,190 --> 00:27:59,360

it that that's as

767

00:28:06,230 --> 00:28:03,200

as close to locale as i want to give um

768

00:28:07,750 --> 00:28:06,240

and so the unit is there and it's in

769

00:28:10,070 --> 00:28:07,760

someone's garden

770

00:28:12,950 --> 00:28:10,080

and they captured somebody's uh they

771

00:28:16,710 --> 00:28:12,960

captured somebody paragliding

772

00:28:17,830 --> 00:28:16,720

over like a residential in neighborhood

773

00:28:20,549 --> 00:28:17,840

you know there's a there's someone

774

00:28:23,029 --> 00:28:20,559

paragliding and

775

00:28:24,549 --> 00:28:23,039

if you had asked them at the beginning

776

00:28:26,149 --> 00:28:24,559

of this you know

777

00:28:27,430 --> 00:28:26,159

what do you think you're gonna capture

778

00:28:29,350 --> 00:28:27,440

what do you think you're most likely to

779

00:28:30,549 --> 00:28:29,360

capture here

780

00:28:31,510 --> 00:28:30,559

i don't think in a million years they

781

00:28:33,909 --> 00:28:31,520

would have said they would capture

782

00:28:35,669 --> 00:28:33,919

paraglider

783

00:28:37,350 --> 00:28:35,679

right like there's just no you know

784

00:28:38,710 --> 00:28:37,360

there's no way you would think

785

00:28:40,149 --> 00:28:38,720

oh yeah paraglider there's definitely

786

00:28:40,549 --> 00:28:40,159

paragliding going on here unless you

787

00:28:42,789 --> 00:28:40,559

know

788

00:28:44,310 --> 00:28:42,799

that it's happening you have no idea

789

00:28:45,830 --> 00:28:44,320

right so that's been really

790

00:28:47,110 --> 00:28:45,840

one interesting one another really

791

00:28:49,190 --> 00:28:47,120

interesting one i think and you

792

00:28:52,070 --> 00:28:49,200

highlighted it here too

793

00:28:53,190 --> 00:28:52,080

we've captured we've captured a video of

794

00:28:55,990 --> 00:28:53,200

what are

795

00:28:57,590 --> 00:28:56,000

potentially drones i mean you know the

796

00:28:58,710 --> 00:28:57,600

we don't know what these objects are yet

797

00:29:00,470 --> 00:28:58,720

that we're capturing

798

00:29:02,149 --> 00:29:00,480

all the time i mean a paraglider is easy

799

00:29:03,990 --> 00:29:02,159

because it's like there's a guy

800

00:29:05,669 --> 00:29:04,000

you know what i mean like it's you know

801
00:29:06,630 --> 00:29:05,679
unless it's like batman it's it's a

802
00:29:09,669 --> 00:29:06,640
goddess

803
00:29:11,190 --> 00:29:09,679
or whatever but

804
00:29:13,110 --> 00:29:11,200
some of the you know most of the objects

805
00:29:14,950 --> 00:29:13,120
we capture

806
00:29:16,950 --> 00:29:14,960
are going to be points of light in the

807
00:29:17,510 --> 00:29:16,960
sky you know they're going to be dots of

808
00:29:19,830 --> 00:29:17,520
light

809
00:29:22,149 --> 00:29:19,840
and so for those ones that's really

810
00:29:22,870 --> 00:29:22,159
where a good analysis of the motion of

811
00:29:25,269 --> 00:29:22,880
them is what's

812
00:29:27,110 --> 00:29:25,279
important but we've we've captured some

813
00:29:28,950 --> 00:29:27,120

though that are

814

00:29:30,710 --> 00:29:28,960

you know that it appears that the object

815

00:29:33,669 --> 00:29:30,720

comes very quickly in a frame

816

00:29:35,830 --> 00:29:33,679

it goes down straight then stops will

817

00:29:38,710 --> 00:29:35,840

sit there for a couple of seconds

818

00:29:40,230 --> 00:29:38,720

and then takes off at another angle it

819

00:29:43,350 --> 00:29:40,240

just shoots off

820

00:29:44,789 --> 00:29:43,360

we've had a couple of those now and

821

00:29:46,389 --> 00:29:44,799

you know my best guess would be that

822

00:29:48,389 --> 00:29:46,399

they're drones

823

00:29:51,190 --> 00:29:48,399

um but even then that's kind of

824

00:29:53,269 --> 00:29:51,200

interesting if they're drones like what

825

00:29:54,870 --> 00:29:53,279

you know what's going on right like

826
00:29:55,909 --> 00:29:54,880
who's flying a drone like that at

827
00:29:57,990 --> 00:29:55,919
nighttime and

828
00:30:00,710 --> 00:29:58,000
kind of an interesting one another

829
00:30:04,230 --> 00:30:00,720
interesting one that we've captured

830
00:30:06,830 --> 00:30:04,240
one of the units is in a a fairly i

831
00:30:09,590 --> 00:30:06,840
would say remote location

832
00:30:11,350 --> 00:30:09,600
and it keeps it it captures a lot of

833
00:30:13,029 --> 00:30:11,360
military aircraft because it's near an

834
00:30:14,789 --> 00:30:13,039
air it's near an airport base or an air

835
00:30:18,389 --> 00:30:14,799
in air

836
00:30:21,029 --> 00:30:18,399
airport base it's near a uh you know um

837
00:30:22,630 --> 00:30:21,039
it's near an air force there's something

838
00:30:23,750 --> 00:30:22,640

military base

839

00:30:26,070 --> 00:30:23,760

that one's captured some really

840

00:30:28,149 --> 00:30:26,080

interesting ones you know military plans

841

00:30:31,510 --> 00:30:28,159

flying low and stuff like that

842

00:30:33,269 --> 00:30:31,520

but also has captured um

843

00:30:35,510 --> 00:30:33,279

also has captured like what appears to

844

00:30:38,070 --> 00:30:35,520

be an object sort of breaking apart

845

00:30:39,590 --> 00:30:38,080

maybe in re-entry or something i'm not

846

00:30:41,029 --> 00:30:39,600

really sure what it is

847

00:30:42,389 --> 00:30:41,039

it looks like it might be some kind of

848

00:30:43,669 --> 00:30:42,399

weather balloon or something and i know

849

00:30:46,070 --> 00:30:43,679

that's cliché to say to

850

00:30:47,510 --> 00:30:46,080

you know ufo it's a weather balloon

851
00:30:48,830 --> 00:30:47,520
right we're capturing a lot of swamp gas

852
00:30:56,070 --> 00:30:48,840
ryan

853
00:30:59,990 --> 00:30:58,149
our machine learning module just as one

854
00:31:02,789 --> 00:31:00,000
option swap gas

855
00:31:04,549 --> 00:31:02,799
um the object it appears like it's

856
00:31:06,070 --> 00:31:04,559
tethered to something else and the thing

857
00:31:07,509 --> 00:31:06,080
that it's tethered to

858
00:31:09,350 --> 00:31:07,519
looks like it's kind of floating or

859
00:31:10,870 --> 00:31:09,360
lighter you know but it looks like it's

860
00:31:11,110 --> 00:31:10,880
kind of metallic and you know it's it's

861
00:31:14,710 --> 00:31:11,120
an

862
00:31:16,149 --> 00:31:14,720
video so

863
00:31:19,029 --> 00:31:16,159

you know i think just overall we've

864

00:31:20,549 --> 00:31:19,039

captured just stuff you wouldn't expect

865

00:31:21,909 --> 00:31:20,559

and you know the number of like shooting

866

00:31:24,230 --> 00:31:21,919

stars

867

00:31:26,950 --> 00:31:24,240

um you know the international space

868

00:31:30,310 --> 00:31:26,960

station flybys we've captured like

869

00:31:32,310 --> 00:31:30,320

you know it's just again because

870

00:31:34,230 --> 00:31:32,320

we're still in very early stages for

871

00:31:36,389 --> 00:31:34,240

this and that's one thing we try to make

872

00:31:37,990 --> 00:31:36,399

clear to anybody you know people

873

00:31:39,669 --> 00:31:38,000

people all the time will come into our

874

00:31:40,950 --> 00:31:39,679

chat or on our website or whatever send

875

00:31:42,310 --> 00:31:40,960

us emails and say

876

00:31:45,190 --> 00:31:42,320

hey you know we want to give you the

877

00:31:46,789 --> 00:31:45,200

money to to get a skyhub

878

00:31:50,389 --> 00:31:46,799

and our answer i think which is probably

879

00:31:52,710 --> 00:31:50,399

frustrating for most people is

880

00:31:54,310 --> 00:31:52,720

wait a second before you build a skyhub

881

00:31:57,110 --> 00:31:54,320

we need to tell you all these

882

00:31:58,870 --> 00:31:57,120

things like we basically tell people a

883

00:31:59,750 --> 00:31:58,880

list of reasons why they shouldn't build

884

00:32:01,509 --> 00:31:59,760

one yet

885

00:32:03,590 --> 00:32:01,519

you know we're like we're like it's hard

886

00:32:05,669 --> 00:32:03,600

to do there's a lot of troubleshooting

887

00:32:08,149 --> 00:32:05,679

we're still making the software

888

00:32:09,590 --> 00:32:08,159

we haven't really settled yet on you

889

00:32:11,590 --> 00:32:09,600

know the cameras and like

890

00:32:12,789 --> 00:32:11,600

you know just because it's early stages

891

00:32:15,909 --> 00:32:12,799

right i mean

892

00:32:19,190 --> 00:32:15,919

if you were um

893

00:32:23,350 --> 00:32:19,200

if you were designing a

894

00:32:24,310 --> 00:32:23,360

engineered product um you wouldn't start

895

00:32:26,789 --> 00:32:24,320

selling it

896

00:32:27,350 --> 00:32:26,799

before it was ready right you know so

897

00:32:29,269 --> 00:32:27,360

we're

898

00:32:30,870 --> 00:32:29,279

but i think for a lot of ufo people or

899

00:32:33,590 --> 00:32:30,880

people that are interested in this

900

00:32:35,430 --> 00:32:33,600

that's something that's a little bit out

901
00:32:37,669 --> 00:32:35,440
of the ordinary for the field

902
00:32:39,590 --> 00:32:37,679
because usually people will start hyping

903
00:32:41,590 --> 00:32:39,600
things

904
00:32:43,110 --> 00:32:41,600
before you know someone will think like

905
00:32:43,590 --> 00:32:43,120
wouldn't it be great to have a machine

906
00:32:46,070 --> 00:32:43,600
learning

907
00:32:46,789 --> 00:32:46,080
method to capture your foes and then

908
00:32:49,509 --> 00:32:46,799
they will hype

909
00:32:51,029 --> 00:32:49,519
the hell out of it and they're on their

910
00:32:52,310 --> 00:32:51,039
own podcast said you know we're gonna do

911
00:32:54,549 --> 00:32:52,320
this and all this other stuff

912
00:32:56,070 --> 00:32:54,559
and like it's a lot of work it's a lot

913
00:32:58,549 --> 00:32:56,080

of effort and it's really hard

914

00:33:00,149 --> 00:32:58,559

and so before we start doing that we

915

00:33:02,789 --> 00:33:00,159

want to make sure people

916

00:33:04,149 --> 00:33:02,799

understand that if they are building one

917

00:33:05,029 --> 00:33:04,159

if they're going to buy the parts that

918

00:33:07,830 --> 00:33:05,039

they're going to

919

00:33:10,470 --> 00:33:07,840

um help us with this they are they're

920

00:33:13,029 --> 00:33:10,480

developing with us they're helping us

921

00:33:14,950 --> 00:33:13,039

and just like any other kind of hobby

922

00:33:16,389 --> 00:33:14,960

where you're trying to work with a group

923

00:33:19,830 --> 00:33:16,399

of people to build something

924

00:33:21,590 --> 00:33:19,840

it might not work you know um

925

00:33:23,509 --> 00:33:21,600

i mean we've had promising results but

926

00:33:26,630 --> 00:33:23,519

you know

927

00:33:27,909 --> 00:33:26,640

not ready to be sold in target or

928

00:33:28,470 --> 00:33:27,919

whatever we're never going to be sold at

929

00:33:29,669 --> 00:33:28,480

target

930

00:33:31,430 --> 00:33:29,679

frankly we're not trying to sell

931

00:33:32,230 --> 00:33:31,440

anything you know so it's just a

932

00:33:39,110 --> 00:33:32,240

different

933

00:33:42,230 --> 00:33:39,120

we we view ourselves as a

934

00:33:44,870 --> 00:33:42,240

we view ourselves as a open science

935

00:33:46,630 --> 00:33:44,880

or citizen science project and so what

936

00:33:48,310 --> 00:33:46,640

that means is

937

00:33:51,909 --> 00:33:48,320

just like if you were part of a bird

938

00:33:53,909 --> 00:33:51,919

watching group in your local community

939

00:33:55,830 --> 00:33:53,919

you would be going to you know going to

940

00:33:56,389 --> 00:33:55,840

going on on hikes maybe with other

941

00:33:57,990 --> 00:33:56,399

people

942

00:34:00,789 --> 00:33:58,000

and chatting with them online and

943

00:34:02,789 --> 00:34:00,799

sharing photos and videos and whatever

944

00:34:04,470 --> 00:34:02,799

that's you know it's similar what we're

945

00:34:05,590 --> 00:34:04,480

doing here we're not we don't charge

946

00:34:07,830 --> 00:34:05,600

people money

947

00:34:09,030 --> 00:34:07,840

to be part of our discord or to chat

948

00:34:11,909 --> 00:34:09,040

with us or

949

00:34:13,430 --> 00:34:11,919

we don't even sell like sky hubs we

950

00:34:17,430 --> 00:34:13,440

don't we don't sell anything

951
00:34:20,470 --> 00:34:17,440
um people now can can purchase an

952
00:34:21,510 --> 00:34:20,480
enclosure that was designed um for us by

953
00:34:23,669 --> 00:34:21,520
one of our

954
00:34:25,510 --> 00:34:23,679
you know our hardware designer but

955
00:34:25,990 --> 00:34:25,520
that's that's mostly a donation to the

956
00:34:28,149 --> 00:34:26,000
group

957
00:34:29,750 --> 00:34:28,159
you know we're so we try to make it

958
00:34:32,470 --> 00:34:29,760
clear like if you're gonna

959
00:34:33,829 --> 00:34:32,480
come in and build these things um it's

960
00:34:36,069 --> 00:34:33,839
gonna be a lot of work and it's not

961
00:34:38,310 --> 00:34:36,079
necessarily the easiest right now

962
00:34:40,550 --> 00:34:38,320
um but that's just what designing

963
00:34:43,669 --> 00:34:40,560

something like this takes

964

00:34:45,190 --> 00:34:43,679

yeah and you know i've i've seen several

965

00:34:47,750 --> 00:34:45,200

individuals who have

966

00:34:49,909 --> 00:34:47,760

you know taken that initiative built the

967

00:34:52,389 --> 00:34:49,919

entire thing from scratch themselves

968

00:34:54,230 --> 00:34:52,399

throw it on like their humvees and and

969

00:34:56,069 --> 00:34:54,240

drive it all out in the desert which is

970

00:34:58,550 --> 00:34:56,079

so cool man how remote

971

00:35:01,349 --> 00:34:58,560

this has become which i think like you

972

00:35:03,990 --> 00:35:01,359

you showing your own skyhub there is um

973

00:35:04,470 --> 00:35:04,000

things have changed drastically in terms

974

00:35:07,589 --> 00:35:04,480

of

975

00:35:09,030 --> 00:35:07,599

how accessible these things can be

976
00:35:10,790 --> 00:35:09,040
but because you said you're in the

977
00:35:13,510 --> 00:35:10,800
initial stages still

978
00:35:13,910 --> 00:35:13,520
a lot of it rides on the individuals who

979
00:35:18,069 --> 00:35:13,920
are

980
00:35:21,750 --> 00:35:18,079
open source

981
00:35:22,390 --> 00:35:21,760
data is another big thing very positive

982
00:35:26,710 --> 00:35:22,400
thing

983
00:35:30,310 --> 00:35:26,720
i think um to we're so used to like

984
00:35:31,829 --> 00:35:30,320
whatever mufon or nasa or the government

985
00:35:34,150 --> 00:35:31,839
being so cagey

986
00:35:36,470 --> 00:35:34,160
when it comes to sharing things they've

987
00:35:39,670 --> 00:35:36,480
seen or experienced when it comes to

988
00:35:40,630 --> 00:35:39,680

unknowns and um i think that's awesome

989

00:35:42,790 --> 00:35:40,640

that you guys are

990

00:35:44,790 --> 00:35:42,800

putting that out to the public my

991

00:35:45,910 --> 00:35:44,800

question would be um and i know again

992

00:35:47,670 --> 00:35:45,920

this is very

993

00:35:50,150 --> 00:35:47,680

very early in the stages of what you

994

00:35:53,510 --> 00:35:50,160

guys are doing um

995

00:35:56,870 --> 00:35:53,520

could military or government

996

00:36:00,470 --> 00:35:56,880

programs or um you know

997

00:36:03,589 --> 00:36:00,480

agencies could they use the software

998

00:36:06,790 --> 00:36:03,599

and kind of the setup of skyhub and

999

00:36:10,069 --> 00:36:06,800

uh privatize that data and information

1000

00:36:10,470 --> 00:36:10,079

um you know like we have the open source

1001
00:36:12,470 --> 00:36:10,480
thing

1002
00:36:14,390 --> 00:36:12,480
which is awesome everyone can be a part

1003
00:36:15,190 --> 00:36:14,400
of it and talk about what they think it

1004
00:36:17,430 --> 00:36:15,200
might be

1005
00:36:19,589 --> 00:36:17,440
but is there a chance that your

1006
00:36:21,589 --> 00:36:19,599
technology or what you guys have created

1007
00:36:23,829 --> 00:36:21,599
could be used like you said in the

1008
00:36:25,349 --> 00:36:23,839
military or whatnot and we never see any

1009
00:36:28,550 --> 00:36:25,359
of that data

1010
00:36:33,750 --> 00:36:31,670
so first off all of the skyhub software

1011
00:36:34,790 --> 00:36:33,760
is available to download online for free

1012
00:36:37,829 --> 00:36:34,800
right now

1013
00:36:41,349 --> 00:36:37,839

okay so um

1014

00:36:43,430 --> 00:36:41,359

if people want to if say some group

1015

00:36:45,430 --> 00:36:43,440

forget the military even if

1016

00:36:47,750 --> 00:36:45,440

if some group decided they wanted to

1017

00:36:50,950 --> 00:36:47,760

build a private

1018

00:36:52,790 --> 00:36:50,960

sky hub software right so right now the

1019

00:36:56,069 --> 00:36:52,800

way that the code works

1020

00:36:57,510 --> 00:36:56,079

is it goes to a public uh it goes to a

1021

00:37:00,710 --> 00:36:57,520

database

1022

00:37:02,710 --> 00:37:00,720

that um you know again we're still early

1023

00:37:04,069 --> 00:37:02,720

on so there's not data to share yet

1024

00:37:05,510 --> 00:37:04,079

really i mean we have videos and stuff

1025

00:37:07,430 --> 00:37:05,520

we put them on youtube but

1026
00:37:08,870 --> 00:37:07,440
in terms of actual kind of data we're

1027
00:37:09,990 --> 00:37:08,880
working on getting that pipeline sort of

1028
00:37:11,349 --> 00:37:10,000
moving

1029
00:37:12,550 --> 00:37:11,359
privatizing it in a way that it's

1030
00:37:14,630 --> 00:37:12,560
available for the public and all those

1031
00:37:16,470 --> 00:37:14,640
other things

1032
00:37:18,150 --> 00:37:16,480
someone could in theory i guess go on

1033
00:37:19,750 --> 00:37:18,160
and change the software

1034
00:37:21,270 --> 00:37:19,760
so that it goes to a private server

1035
00:37:23,270 --> 00:37:21,280
instead and

1036
00:37:24,710 --> 00:37:23,280
you know us at sky hub have no control

1037
00:37:26,710 --> 00:37:24,720
over that data and whatever

1038
00:37:28,470 --> 00:37:26,720

and so then it just it just goes out

1039

00:37:30,550 --> 00:37:28,480

there um

1040

00:37:31,589 --> 00:37:30,560

someone could do that if they wanted to

1041

00:37:34,710 --> 00:37:31,599

you know we're

1042

00:37:37,349 --> 00:37:34,720

it's part of the danger of making a

1043

00:37:38,470 --> 00:37:37,359

open source kind of citizen science like

1044

00:37:42,550 --> 00:37:38,480

project

1045

00:37:43,910 --> 00:37:42,560

um is if a company wanted to they could

1046

00:37:46,550 --> 00:37:43,920

you know they could do something like a

1047

00:37:49,030 --> 00:37:46,560

skyhub or something

1048

00:37:51,030 --> 00:37:49,040

but because we've done it and it's

1049

00:37:51,910 --> 00:37:51,040

available on the internet already for

1050

00:37:54,550 --> 00:37:51,920

free

1051
00:37:56,870 --> 00:37:54,560
and so the code itself that kind of

1052
00:37:59,510 --> 00:37:56,880
builds it and underpins everything

1053
00:38:00,630 --> 00:37:59,520
is available for free to the public

1054
00:38:02,470 --> 00:38:00,640
although some small

1055
00:38:05,670 --> 00:38:02,480
section of the data might never get to

1056
00:38:11,030 --> 00:38:05,680
the public the bulk of the data would

1057
00:38:19,670 --> 00:38:15,430
i think about it like a camera right um

1058
00:38:22,230 --> 00:38:19,680
camera is kind of a bad example i guess

1059
00:38:24,150 --> 00:38:22,240
i guess what i'm saying is if the if

1060
00:38:26,390 --> 00:38:24,160
someone wanted to buy a skyhub and keep

1061
00:38:27,990 --> 00:38:26,400
it not connected to the internet

1062
00:38:29,589 --> 00:38:28,000
um they could also kind of keep that

1063
00:38:30,390 --> 00:38:29,599

data of themselves it wouldn't work at

1064

00:38:31,829 --> 00:38:30,400

this point

1065

00:38:33,750 --> 00:38:31,839

but you know someone could go in and

1066

00:38:36,950 --> 00:38:33,760

make a private skyhub network

1067

00:38:39,109 --> 00:38:36,960

for themselves but the technology is

1068

00:38:41,030 --> 00:38:39,119

freely available to the public

1069

00:38:43,510 --> 00:38:41,040

so even if the military wanted to come

1070

00:38:45,510 --> 00:38:43,520

on and take it and use it and whatever

1071

00:38:47,270 --> 00:38:45,520

the military would just be putting them

1072

00:38:50,870 --> 00:38:47,280

in places the public couldn't

1073

00:38:52,870 --> 00:38:50,880

but the technology can never become like

1074

00:38:54,390 --> 00:38:52,880

you know private technology can ever

1075

00:38:54,790 --> 00:38:54,400

just become privatized by something

1076

00:38:56,230 --> 00:38:54,800

right

1077

00:38:58,150 --> 00:38:56,240

it's already out there that's a good

1078

00:38:58,710 --> 00:38:58,160

point i think i understand your analogy

1079

00:39:01,349 --> 00:38:58,720

of like

1080

00:39:02,150 --> 00:39:01,359

even if you threw a photo up on facebook

1081

00:39:04,230 --> 00:39:02,160

or whatever

1082

00:39:05,829 --> 00:39:04,240

like anyone can download it and then

1083

00:39:07,910 --> 00:39:05,839

alter it or change it

1084

00:39:09,670 --> 00:39:07,920

or use it how they want you know that's

1085

00:39:12,790 --> 00:39:09,680

what's scary about facebook

1086

00:39:14,069 --> 00:39:12,800

you think that stuff you own that sorry

1087

00:39:16,069 --> 00:39:14,079

read the fine prank guys

1088

00:39:17,430 --> 00:39:16,079

but um yeah you know it's a good point

1089

00:39:19,030 --> 00:39:17,440

it's already out there it's under a

1090

00:39:20,790 --> 00:39:19,040

creative commons license it's under an

1091

00:39:22,069 --> 00:39:20,800

mit kind of software license and things

1092

00:39:24,310 --> 00:39:22,079

like that so you know

1093

00:39:25,670 --> 00:39:24,320

uh people can can download it and use it

1094

00:39:27,430 --> 00:39:25,680

however they want i mean we're not

1095

00:39:29,829 --> 00:39:27,440

stopping anybody from

1096

00:39:30,950 --> 00:39:29,839

using sky hubs right like that's not our

1097

00:39:34,470 --> 00:39:30,960

goal at all

1098

00:39:35,990 --> 00:39:34,480

um yeah but you know the the software is

1099

00:39:37,589 --> 00:39:36,000

freely available on the internet so yeah

1100

00:39:39,510 --> 00:39:37,599

it's a good it's a really good question

1101

00:39:41,589 --> 00:39:39,520

and frankly

1102

00:39:43,190 --> 00:39:41,599

if the military came out and or the

1103

00:39:45,910 --> 00:39:43,200

military came to us and said hey we want

1104

00:39:49,190 --> 00:39:45,920

to use the skyhub software

1105

00:39:49,670 --> 00:39:49,200

i'd probably say no that would be tough

1106

00:39:51,829 --> 00:39:49,680

yeah

1107

00:39:53,990 --> 00:39:51,839

kind of doesn't feel very good you know

1108

00:39:54,870 --> 00:39:54,000

i mean like if nasa wanted to that would

1109

00:39:58,310 --> 00:39:54,880

be different i think

1110

00:40:00,069 --> 00:39:58,320

or if you know uh seti wanted to

1111

00:40:02,069 --> 00:40:00,079

to utilize this or whatever like those

1112

00:40:03,750 --> 00:40:02,079

are research

1113

00:40:05,430 --> 00:40:03,760

those are that's for scientific research

1114

00:40:07,270 --> 00:40:05,440

right the goal is for this to be done

1115

00:40:10,790 --> 00:40:07,280

for scientific research

1116

00:40:12,470 --> 00:40:10,800

um so i guess that's the difference

1117

00:40:14,150 --> 00:40:12,480

there the application of it might become

1118

00:40:16,150 --> 00:40:14,160

privatized or whatever for some

1119

00:40:18,230 --> 00:40:16,160

parts of people or whatever but the

1120

00:40:21,270 --> 00:40:18,240

software itself the tool itself

1121

00:40:24,390 --> 00:40:21,280

that cat's already out of the bag yeah

1122

00:40:26,069 --> 00:40:24,400

well i mean and i've got some some

1123

00:40:27,430 --> 00:40:26,079

really good listener questions in a

1124

00:40:29,510 --> 00:40:27,440

little bit chris but um

1125

00:40:31,109 --> 00:40:29,520

sure this was kind of a big question

1126

00:40:34,790 --> 00:40:31,119

that a lot of people had

1127

00:40:37,510 --> 00:40:34,800

and it befuddles me why

1128

00:40:39,190 --> 00:40:37,520

they might not be using it but a lot of

1129

00:40:42,230 --> 00:40:39,200

people want to know

1130

00:40:45,430 --> 00:40:42,240

you know skid walker wrench again this

1131

00:40:48,630 --> 00:40:45,440

big buzzword this tv show this

1132

00:40:51,349 --> 00:40:48,640

mysterious place um

1133

00:40:52,150 --> 00:40:51,359

why aren't they using skyhub man i mean

1134

00:40:55,349 --> 00:40:52,160

come on

1135

00:40:57,270 --> 00:40:55,359

they they are like out there every day

1136

00:41:00,630 --> 00:40:57,280

saying stuff is happening they're seeing

1137

00:41:04,069 --> 00:41:00,640

aerial objects that defy explanation

1138

00:41:05,910 --> 00:41:04,079

but you know we're not seeing that 24 7

1139

00:41:07,829 --> 00:41:05,920

they're not monitoring the skytrain as

1140

00:41:10,309 --> 00:41:07,839

far as i know i could be wrong

1141

00:41:11,990 --> 00:41:10,319

but um has anything like skinwalker

1142

00:41:13,910 --> 00:41:12,000

ranch or any um

1143

00:41:20,069 --> 00:41:13,920

any other companies approached you guys

1144

00:41:21,910 --> 00:41:20,079

about using this stuff yet

1145

00:41:23,750 --> 00:41:21,920

what's up guys ryan sprague here and i'm

1146

00:41:25,270 --> 00:41:23,760

just dropping in to remind you about our

1147

00:41:27,190 --> 00:41:25,280

patreon campaign

1148

00:41:29,349 --> 00:41:27,200

somewhere in the skies is always free to

1149

00:41:30,710 --> 00:41:29,359

consume but it's not free to create

1150

00:41:33,589 --> 00:41:30,720

so if you want to help the show on a

1151
00:41:34,069 --> 00:41:33,599
monthly basis we have tons of rewards

1152
00:41:36,150 --> 00:41:34,079
for you

1153
00:41:37,589 --> 00:41:36,160
in return including shout outs on the

1154
00:41:40,309 --> 00:41:37,599
show and website

1155
00:41:41,190 --> 00:41:40,319
bonus content and episodes and free

1156
00:41:43,510 --> 00:41:41,200
merch

1157
00:41:44,230 --> 00:41:43,520
wanna be my guest or pick a topic for

1158
00:41:46,470 --> 00:41:44,240
the show

1159
00:41:47,990 --> 00:41:46,480
you can do that too so if you'd like to

1160
00:41:51,990 --> 00:41:48,000
learn more and to help support the

1161
00:41:53,930 --> 00:41:52,000
show visit [patreon.com summerskies](https://patreon.com/summerskies)

1162
00:41:57,990 --> 00:41:53,940
thank you and keep looking up

1163
00:42:02,230 --> 00:41:59,430

yeah so a lot of people have approached

1164

00:42:03,670 --> 00:42:02,240

us um i'm not gonna give any particular

1165

00:42:04,710 --> 00:42:03,680

names or anything because i think that

1166

00:42:06,069 --> 00:42:04,720

would

1167

00:42:07,750 --> 00:42:06,079

yeah uh go against sort of

1168

00:42:09,270 --> 00:42:07,760

confidentiality and just you know just

1169

00:42:11,430 --> 00:42:09,280

be kind of a

1170

00:42:12,390 --> 00:42:11,440

kind of a dick move so i'm not gonna do

1171

00:42:19,670 --> 00:42:12,400

that

1172

00:42:21,990 --> 00:42:19,680

so a lot of the times the issues come

1173

00:42:23,270 --> 00:42:22,000

down to

1174

00:42:25,109 --> 00:42:23,280

a lot of the times the issues are

1175

00:42:29,430 --> 00:42:25,119

there's a couple different issues

1176

00:42:32,309 --> 00:42:29,440

one issue is that private data issue

1177

00:42:33,750 --> 00:42:32,319

that comes up a lot that is a real issue

1178

00:42:34,630 --> 00:42:33,760

for some people in some groups and

1179

00:42:37,349 --> 00:42:34,640

whatever

1180

00:42:38,309 --> 00:42:37,359

because especially let's say if you're

1181

00:42:41,430 --> 00:42:38,319

if you're working on

1182

00:42:43,430 --> 00:42:41,440

maybe a project that you hope to um

1183

00:42:45,750 --> 00:42:43,440

publish a scientific study on or

1184

00:42:49,109 --> 00:42:45,760

something like that

1185

00:42:51,990 --> 00:42:49,119

sometimes that data you want to keep

1186

00:42:53,270 --> 00:42:52,000

under wraps before you publish it

1187

00:42:54,309 --> 00:42:53,280

because you don't want somebody else to

1188

00:42:57,670 --> 00:42:54,319

scoop you

1189

00:42:58,870 --> 00:42:57,680

frankly so that's one that's one area

1190

00:43:00,550 --> 00:42:58,880

where

1191

00:43:02,470 --> 00:43:00,560

there has been some discussion about you

1192

00:43:03,349 --> 00:43:02,480

know okay well that makes sense and you

1193

00:43:04,390 --> 00:43:03,359

know they're not gonna use it or

1194

00:43:06,390 --> 00:43:04,400

whatever

1195

00:43:08,710 --> 00:43:06,400

another one is does the units currently

1196

00:43:13,109 --> 00:43:08,720

need to have access to a power source

1197

00:43:15,829 --> 00:43:13,119

and need to have access to the internet

1198

00:43:17,270 --> 00:43:15,839

you know and that's why like the osiris

1199

00:43:17,910 --> 00:43:17,280

project let's say is kind of an

1200

00:43:21,109 --> 00:43:17,920

interesting

1201
00:43:21,670 --> 00:43:21,119
you know offshoot of of a user trying to

1202
00:43:24,710 --> 00:43:21,680
make

1203
00:43:27,670 --> 00:43:24,720
of their skyhub

1204
00:43:29,589 --> 00:43:27,680
right um you know our focus is on

1205
00:43:31,430 --> 00:43:29,599
getting the software going

1206
00:43:33,030 --> 00:43:31,440
um making sure that any bugs that are

1207
00:43:33,990 --> 00:43:33,040
there are fixed and making a unit that

1208
00:43:36,470 --> 00:43:34,000
can work

1209
00:43:37,750 --> 00:43:36,480
for our initial purposes which was you

1210
00:43:39,510 --> 00:43:37,760
can have it on the roof of your house

1211
00:43:42,230 --> 00:43:39,520
you can have it in your garden

1212
00:43:43,589 --> 00:43:42,240
kind of near the home but things like

1213
00:43:45,349 --> 00:43:43,599

you know applying

1214

00:43:46,710 --> 00:43:45,359

um you know getting wi-fi or something

1215

00:43:50,150 --> 00:43:46,720

on there or

1216

00:43:52,150 --> 00:43:50,160

um solar panels to power it or other

1217

00:43:53,910 --> 00:43:52,160

kind of power sources or whatever

1218

00:43:55,190 --> 00:43:53,920

all of that is kind of next stage

1219

00:43:56,230 --> 00:43:55,200

development stuff that we haven't even

1220

00:43:57,589 --> 00:43:56,240

really considered

1221

00:43:59,349 --> 00:43:57,599

yet because we're trying to focus on

1222

00:44:01,990 --> 00:43:59,359

getting this stuff done

1223

00:44:03,750 --> 00:44:02,000

so you know sometimes there's issues of

1224

00:44:04,309 --> 00:44:03,760

logistics sometimes this issue of data

1225

00:44:07,190 --> 00:44:04,319

handling

1226

00:44:09,670 --> 00:44:07,200

sometimes it's just um sometimes it's

1227

00:44:13,750 --> 00:44:09,680

just people are busy doing other things

1228

00:44:15,589 --> 00:44:13,760

frankly you know um so

1229

00:44:17,829 --> 00:44:15,599

yeah i think that's that's probably the

1230

00:44:19,910 --> 00:44:17,839

best i can give on that answer really

1231

00:44:22,150 --> 00:44:19,920

yeah absolutely that makes complete

1232

00:44:25,030 --> 00:44:22,160

sense yeah again it's it's

1233

00:44:25,990 --> 00:44:25,040

you guys stressing to people who want to

1234

00:44:28,550 --> 00:44:26,000

take part in this

1235

00:44:29,510 --> 00:44:28,560

like a lot of the legwork is on you um

1236

00:44:32,150 --> 00:44:29,520

yeah which

1237

00:44:33,510 --> 00:44:32,160

is awesome you guys apply you um you

1238

00:44:35,589 --> 00:44:33,520

give the software

1239

00:44:36,870 --> 00:44:35,599

and you collect the data which is

1240

00:44:38,950 --> 00:44:36,880

awesome um

1241

00:44:40,309 --> 00:44:38,960

but yeah you know something like osiris

1242

00:44:42,710 --> 00:44:40,319

i can understand like

1243

00:44:43,430 --> 00:44:42,720

taking what skyhub has created building

1244

00:44:45,349 --> 00:44:43,440

off of it

1245

00:44:47,190 --> 00:44:45,359

and doing your your cool thing out in

1246

00:44:50,390 --> 00:44:47,200

the desert so god bless

1247

00:44:50,710 --> 00:44:50,400

mr uh mcgowan for doing that um i give

1248

00:44:53,030 --> 00:44:50,720

him

1249

00:44:53,910 --> 00:44:53,040

it's a very cool idea it's one that's so

1250

00:44:55,750 --> 00:44:53,920

cool

1251

00:44:57,030 --> 00:44:55,760

he would never have considered in a

1252

00:44:59,190 --> 00:44:57,040

thousand years

1253

00:45:00,470 --> 00:44:59,200

uh yeah yeah so i wish him luck it's a

1254

00:45:01,829 --> 00:45:00,480

very cool yeah it's a very cool

1255

00:45:05,109 --> 00:45:01,839

application of it yeah

1256

00:45:07,270 --> 00:45:05,119

it's badass for sure oh well

1257

00:45:09,190 --> 00:45:07,280

speaking of videos i want to kind of

1258

00:45:12,790 --> 00:45:09,200

transition over to some

1259

00:45:15,510 --> 00:45:12,800

recent stuff in the ufo i guess

1260

00:45:16,950 --> 00:45:15,520

mainstream and talk to you about these

1261

00:45:20,230 --> 00:45:16,960

videos released by

1262

00:45:23,270 --> 00:45:20,240

jeremy corbell uh george knapp

1263

00:45:24,309 --> 00:45:23,280

we saw these uh flying pyramids or pizza

1264

00:45:26,950 --> 00:45:24,319

slices that people

1265

00:45:28,470 --> 00:45:26,960

have said in the um recently and we've

1266

00:45:31,910 --> 00:45:28,480

also got an object

1267

00:45:33,910 --> 00:45:31,920

possibly submerging into the ocean both

1268

00:45:35,109 --> 00:45:33,920

pentagon confirmed videos they are

1269

00:45:37,990 --> 00:45:35,119

authentic

1270

00:45:40,150 --> 00:45:38,000

they are apparently still unidentified

1271

00:45:43,030 --> 00:45:40,160

we don't know that for sure but um

1272

00:45:44,550 --> 00:45:43,040

in terms of video analyzing chris and

1273

00:45:47,270 --> 00:45:44,560

kind of what you guys are doing over at

1274

00:45:50,630 --> 00:45:47,280

sky hub with uh constant tracking

1275

00:45:52,550 --> 00:45:50,640

what do you make of these videos and um

1276

00:45:54,710 --> 00:45:52,560

yeah everything going on right now in

1277

00:45:56,950 --> 00:45:54,720

the ufo world when it comes to these uh

1278

00:45:59,109 --> 00:45:56,960

these leaks apparently are these leaks

1279

00:46:01,510 --> 00:45:59,119

what do you think

1280

00:46:02,390 --> 00:46:01,520

i've always so i've always been cautious

1281

00:46:05,589 --> 00:46:02,400

about

1282

00:46:07,109 --> 00:46:05,599

too soon

1283

00:46:09,589 --> 00:46:07,119

um i've always tried to kind of give

1284

00:46:11,349 --> 00:46:09,599

caution but also always tried to take a

1285

00:46:15,030 --> 00:46:11,359

pragmatic approach to any of these sorts

1286

00:46:16,870 --> 00:46:15,040

of releases and things my issue with the

1287

00:46:18,550 --> 00:46:16,880

videos

1288

00:46:20,069 --> 00:46:18,560

or i guess the thing that i see when i

1289

00:46:20,960 --> 00:46:20,079

look at the videos they're interesting

1290

00:46:22,309 --> 00:46:20,970

they're very interesting

1291

00:46:24,790 --> 00:46:22,319

[Music]

1292

00:46:25,990 --> 00:46:24,800

the way that they've come out is

1293

00:46:29,349 --> 00:46:26,000

interesting

1294

00:46:31,109 --> 00:46:29,359

and i think that the people who have

1295

00:46:35,910 --> 00:46:31,119

pushed them out

1296

00:46:37,990 --> 00:46:35,920

also are inevitably part of the story

1297

00:46:40,630 --> 00:46:38,000

it's really hard it's really hard when

1298

00:46:43,670 --> 00:46:43,349

like corbell and knapp have kind of and

1299

00:46:45,510 --> 00:46:43,680

even

1300

00:46:47,190 --> 00:46:45,520

leslie keane and ralph blumenthal and

1301
00:46:49,349 --> 00:46:47,200
all of those figures

1302
00:46:50,790 --> 00:46:49,359
have kind of inserted themselves into

1303
00:46:52,150 --> 00:46:50,800
the stories

1304
00:46:54,630 --> 00:46:52,160
you know they've they've built for

1305
00:46:58,950 --> 00:46:54,640
themselves their own mythos

1306
00:47:02,069 --> 00:46:58,960
in ufo uh in ufo history and lore

1307
00:47:04,309 --> 00:47:02,079
so i think it's really

1308
00:47:05,190 --> 00:47:04,319
it's really disingenuous to expect the

1309
00:47:07,589 --> 00:47:05,200
public

1310
00:47:09,510 --> 00:47:07,599
or other researchers or scientists or

1311
00:47:12,950 --> 00:47:09,520
whoever

1312
00:47:14,470 --> 00:47:12,960
to just take the videos on their merits

1313
00:47:17,589 --> 00:47:14,480

alone

1314

00:47:20,870 --> 00:47:17,599

when there is so much history

1315

00:47:24,230 --> 00:47:20,880

and you know bad actors

1316

00:47:26,950 --> 00:47:24,240

and everything else um kind of rolled up

1317

00:47:28,150 --> 00:47:26,960

into the history and and provenance of

1318

00:47:31,030 --> 00:47:28,160

the videos and the

1319

00:47:32,630 --> 00:47:31,040

the intelligence that comes from them so

1320

00:47:34,390 --> 00:47:32,640

that's one thought right that my main

1321

00:47:36,309 --> 00:47:34,400

thought has always been you know

1322

00:47:37,589 --> 00:47:36,319

uh i mean i'm sure i've said it on your

1323

00:47:39,670 --> 00:47:37,599

show before i've said it on many other

1324

00:47:41,910 --> 00:47:39,680

shows before

1325

00:47:44,390 --> 00:47:41,920

for me the concern has always been that

1326
00:47:45,589 --> 00:47:44,400
any data that you get that comes from or

1327
00:47:49,349 --> 00:47:45,599
comes through

1328
00:47:52,710 --> 00:47:49,359
the kind of standard ufo media sources

1329
00:47:56,309 --> 00:47:52,720
is fruit of the poison tree you know

1330
00:47:57,670 --> 00:47:56,319
if someone came to me with a if somebody

1331
00:48:01,829 --> 00:47:57,680
came to me with a

1332
00:48:04,470 --> 00:48:01,839
clear-cut video of a ufo

1333
00:48:07,109 --> 00:48:04,480
i would not be the person to break the

1334
00:48:09,109 --> 00:48:07,119
story on my podcast

1335
00:48:10,710 --> 00:48:09,119
right because because it's an important

1336
00:48:14,309 --> 00:48:10,720
piece of like

1337
00:48:18,069 --> 00:48:14,319
evidence in history i would bring it to

1338
00:48:21,510 --> 00:48:18,079

the best people i could find for it

1339

00:48:22,790 --> 00:48:21,520

and so i think that the issue or one of

1340

00:48:25,190 --> 00:48:22,800

the issues is that

1341

00:48:26,230 --> 00:48:25,200

before this the people you would bring

1342

00:48:29,109 --> 00:48:26,240

it to

1343

00:48:31,430 --> 00:48:29,119

have made it something sometimes have

1344

00:48:33,030 --> 00:48:31,440

made it about themselves

1345

00:48:35,510 --> 00:48:33,040

or or have become part of that story

1346

00:48:37,270 --> 00:48:35,520

themselves that's issue number one

1347

00:48:39,030 --> 00:48:37,280

in terms of the videos themselves the

1348

00:48:40,630 --> 00:48:39,040

quality of the videos

1349

00:48:41,990 --> 00:48:40,640

they're interesting i think actually

1350

00:48:43,510 --> 00:48:42,000

probably the most interesting thing

1351
00:48:46,870 --> 00:48:43,520
about them

1352
00:48:48,230 --> 00:48:46,880
is hearing the people's especially in

1353
00:48:51,589 --> 00:48:48,240
the second video released

1354
00:48:53,190 --> 00:48:51,599
of the kind of round infrared object

1355
00:48:56,309 --> 00:48:53,200
or the infrared of the round kind of

1356
00:48:57,750 --> 00:48:56,319
heat signature dropping into the ocean

1357
00:48:59,430 --> 00:48:57,760
that one is interesting because you can

1358
00:49:01,109 --> 00:48:59,440
hear the people giving the

1359
00:49:02,630 --> 00:49:01,119
uh kind of giving a play of what's

1360
00:49:05,910 --> 00:49:02,640
happening to it that

1361
00:49:12,150 --> 00:49:09,030
but in terms of what we would probably

1362
00:49:13,510 --> 00:49:12,160
categorize them as

1363
00:49:15,349 --> 00:49:13,520

i mean i think it's too early to say i

1364

00:49:16,710 --> 00:49:15,359

think it's hard to say but they they

1365

00:49:26,309 --> 00:49:16,720

don't

1366

00:49:29,190 --> 00:49:26,319

from known objects

1367

00:49:29,990 --> 00:49:29,200

to make them interesting and that's kind

1368

00:49:33,190 --> 00:49:30,000

of the problem

1369

00:49:34,390 --> 00:49:33,200

i think sometimes with using a

1370

00:49:35,670 --> 00:49:34,400

you know one question that people have

1371

00:49:37,829 --> 00:49:35,680

given us that's a really good question

1372

00:49:39,829 --> 00:49:37,839

is well what if the ufo is just flying

1373

00:49:42,950 --> 00:49:39,839

like an airplane

1374

00:49:43,990 --> 00:49:42,960

right that's a good question yeah good

1375

00:49:45,670 --> 00:49:44,000

question right it's a really good

1376

00:49:48,069 --> 00:49:45,680

question and in that case

1377

00:49:49,670 --> 00:49:48,079

we're gonna get a false negative right

1378

00:49:51,750 --> 00:49:49,680

we're gonna measure

1379

00:49:53,270 --> 00:49:51,760

um and say that it's an airplane when it

1380

00:49:55,270 --> 00:49:53,280

isn't it's really an unidentified or

1381

00:49:57,990 --> 00:49:55,280

whatever it is

1382

00:49:58,710 --> 00:49:58,000

that's possible but that's why you give

1383

00:50:00,710 --> 00:49:58,720

other

1384

00:50:03,109 --> 00:50:00,720

metrics as well you don't just base it

1385

00:50:05,270 --> 00:50:03,119

off of you know

1386

00:50:07,190 --> 00:50:05,280

velocity or shape or whatever you do

1387

00:50:09,750 --> 00:50:07,200

other things

1388

00:50:11,589 --> 00:50:09,760

i think that the arguments on the first

1389

00:50:16,309 --> 00:50:11,599

one of the triangle

1390

00:50:19,750 --> 00:50:16,319

i think the case that it is um

1391

00:50:21,109 --> 00:50:19,760

an object not really in frame is pretty

1392

00:50:25,270 --> 00:50:21,119

convincing to me

1393

00:50:27,750 --> 00:50:25,280

unfortunately so you're talking like um

1394

00:50:28,790 --> 00:50:27,760

a like a sort of an apparition of the

1395

00:50:31,270 --> 00:50:28,800

camera

1396

00:50:34,950 --> 00:50:31,280

okay essentially that the object itself

1397

00:50:37,430 --> 00:50:34,960

like the object itself isn't is blurry

1398

00:50:38,870 --> 00:50:37,440

right and unless mitch hedberg's right

1399

00:50:41,190 --> 00:50:38,880

and you know bigfoot is blurry and

1400

00:50:42,870 --> 00:50:41,200

that's why all his photos look blurry

1401
00:50:44,549 --> 00:50:42,880
it's not really a great argument for why

1402
00:50:46,230 --> 00:50:44,559
your video is blurry

1403
00:50:48,390 --> 00:50:46,240
so i think that one's kind of

1404
00:50:50,069 --> 00:50:48,400
interesting but i think

1405
00:50:51,910 --> 00:50:50,079
again would probably be something that

1406
00:50:52,829 --> 00:50:51,920
we would not we would not consider to be

1407
00:50:55,510 --> 00:50:52,839
of interest

1408
00:50:55,990 --> 00:50:55,520
maybe the fact that it's a triangle

1409
00:50:57,910 --> 00:50:56,000
shape

1410
00:50:59,910 --> 00:50:57,920
is of interest that would be something

1411
00:51:01,750 --> 00:50:59,920
we would notice

1412
00:51:03,349 --> 00:51:01,760
and our machine would notice too that

1413
00:51:04,309 --> 00:51:03,359

the system would notice hey this is a

1414

00:51:05,829 --> 00:51:04,319

triangle

1415

00:51:09,270 --> 00:51:05,839

that's different than the shape of a

1416

00:51:11,510 --> 00:51:09,280

normal airplane or an insect or whatever

1417

00:51:12,309 --> 00:51:11,520

but that's also why we our system

1418

00:51:14,870 --> 00:51:12,319

ultimately is

1419

00:51:16,470 --> 00:51:14,880

the goal is to have two cameras one for

1420

00:51:17,430 --> 00:51:16,480

initial detection and then the other one

1421

00:51:21,109 --> 00:51:17,440

to focus

1422

00:51:23,589 --> 00:51:21,119

and take a clear image oh that's cool

1423

00:51:24,390 --> 00:51:23,599

um which is a really cool thing and it's

1424

00:51:27,190 --> 00:51:24,400

like

1425

00:51:28,710 --> 00:51:27,200

people come on and hype stuff before

1426
00:51:29,829 --> 00:51:28,720
it's even developed we haven't developed

1427
00:51:30,870 --> 00:51:29,839
for it but it's something we hope to

1428
00:51:33,910 --> 00:51:30,880
develop soon

1429
00:51:35,910 --> 00:51:33,920
um the other the other one the other

1430
00:51:37,030 --> 00:51:35,920
video of kind of the round object that

1431
00:51:40,309 --> 00:51:37,040
appears to sort of

1432
00:51:43,829 --> 00:51:40,319
fall slowly to the ocean surface

1433
00:51:48,069 --> 00:51:43,839
and then dip away

1434
00:51:50,790 --> 00:51:48,079
again it's sort of if we had that video

1435
00:51:52,470 --> 00:51:50,800
we probably would have we would think

1436
00:51:55,990 --> 00:51:52,480
it's interesting it would be out of the

1437
00:51:59,030 --> 00:51:56,000
realm of normal things that we'd expect

1438
00:52:01,910 --> 00:51:59,040

but i do suspect that again

1439

00:52:03,510 --> 00:52:01,920

if that one i think you just need more

1440

00:52:05,349 --> 00:52:03,520

you you need more data on

1441

00:52:06,870 --> 00:52:05,359

you know the argument the argument that

1442

00:52:09,109 --> 00:52:06,880

it's like a balloon or something

1443

00:52:10,069 --> 00:52:09,119

i mean maybe that kind of could make

1444

00:52:12,150 --> 00:52:10,079

sense

1445

00:52:13,589 --> 00:52:12,160

it could be a light piece of metal

1446

00:52:14,309 --> 00:52:13,599

falling that's been heated and that's

1447

00:52:17,109 --> 00:52:14,319

why it's got

1448

00:52:17,510 --> 00:52:17,119

the ir flare around it or whatever you

1449

00:52:20,710 --> 00:52:17,520

know

1450

00:52:23,910 --> 00:52:20,720

all of those i mean maybe but

1451
00:52:25,670 --> 00:52:23,920
you know it's i for me at least it

1452
00:52:30,630 --> 00:52:25,680
starts to stretch

1453
00:52:33,829 --> 00:52:30,640
credulity like the idea that a

1454
00:52:37,190 --> 00:52:33,839
the idea that a single

1455
00:52:38,870 --> 00:52:37,200
pilot or single navy service member or

1456
00:52:42,309 --> 00:52:38,880
whoever

1457
00:52:46,230 --> 00:52:42,319
that she or he would be mistaken

1458
00:52:48,630 --> 00:52:46,240
about seeing an object once

1459
00:52:50,549 --> 00:52:48,640
um very quickly and having kind of a

1460
00:52:52,710 --> 00:52:50,559
frightened reaction whatever

1461
00:52:54,870 --> 00:52:52,720
that to me doesn't seem out of the realm

1462
00:52:57,430 --> 00:52:54,880
of possibility

1463
00:52:58,309 --> 00:52:57,440

but that's not what we're really talking

1464

00:53:00,870 --> 00:52:58,319

about here

1465

00:53:01,670 --> 00:53:00,880

we're talking about a group of people

1466

00:53:05,510 --> 00:53:01,680

claiming

1467

00:53:10,309 --> 00:53:07,750

over a prolonged period of time at

1468

00:53:12,549 --> 00:53:10,319

regular intervals

1469

00:53:14,309 --> 00:53:12,559

that is not going to just be every

1470

00:53:16,870 --> 00:53:14,319

morning everyone on the ship wakes up

1471

00:53:20,150 --> 00:53:16,880

and puts on their bokeh glasses

1472

00:53:23,589 --> 00:53:20,160

you know that that isn't going to work

1473

00:53:26,230 --> 00:53:23,599

and so i think that in that case we have

1474

00:53:28,309 --> 00:53:26,240

a much more interesting question to ask

1475

00:53:30,309 --> 00:53:28,319

but again the other thing that ufo

1476

00:53:32,069 --> 00:53:30,319

people don't seem to want to

1477

00:53:34,230 --> 00:53:32,079

or the people pushing this story don't

1478

00:53:37,190 --> 00:53:34,240

want to um

1479

00:53:39,109 --> 00:53:37,200

really make note of is that a lot of

1480

00:53:39,829 --> 00:53:39,119

these people have made extreme claims

1481

00:53:43,510 --> 00:53:39,839

before

1482

00:53:47,510 --> 00:53:43,520

and been proven wrong you know um

1483

00:53:51,030 --> 00:53:47,520

bob lazar didn't make a super

1484

00:53:51,990 --> 00:53:51,040

mega element that let him travel through

1485

00:53:54,150 --> 00:53:52,000

space

1486

00:53:55,589 --> 00:53:54,160

right like that or aliens travel through

1487

00:53:58,790 --> 00:53:55,599

space like that didn't happen

1488

00:54:00,309 --> 00:53:58,800

um and so

1489

00:54:03,829 --> 00:54:00,319

it's part of i think the problem

1490

00:54:09,430 --> 00:54:06,870

people people think

1491

00:54:09,990 --> 00:54:09,440

that people at the same time think that

1492

00:54:13,270 --> 00:54:10,000

science

1493

00:54:15,190 --> 00:54:13,280

is this evil thing keeping ufo

1494

00:54:17,190 --> 00:54:15,200

world down and making fun of them and

1495

00:54:20,150 --> 00:54:17,200

whatever but then also

1496

00:54:20,630 --> 00:54:20,160

think that ufo or science is this

1497

00:54:23,670 --> 00:54:20,640

perfect

1498

00:54:27,270 --> 00:54:23,680

bastion where a single clear photo

1499

00:54:30,950 --> 00:54:27,280

will get rid of a hundred years of

1500

00:54:33,990 --> 00:54:30,960

uh fraud and con men and grifters

1501

00:54:37,349 --> 00:54:34,000

science is a human endeavor

1502

00:54:40,150 --> 00:54:37,359

so you need to think critically

1503

00:54:41,270 --> 00:54:40,160

um is the person who's putting this

1504

00:54:44,390 --> 00:54:41,280

evidence forward

1505

00:54:47,829 --> 00:54:44,400

have they cried alien before

1506

00:54:49,750 --> 00:54:47,839

if they have don't use them

1507

00:54:51,670 --> 00:54:49,760

they're not a good source anymore right

1508

00:54:53,270 --> 00:54:51,680

because like

1509

00:54:55,030 --> 00:54:53,280

it sounds harsh it sounds terrible

1510

00:54:57,270 --> 00:54:55,040

especially considering you and i both

1511

00:55:00,069 --> 00:54:57,280

have podcasts to talk about ufos

1512

00:55:01,829 --> 00:55:00,079

but you know what i mean like if if if

1513

00:55:03,510 --> 00:55:01,839

you are trying to get the best

1514

00:55:06,470 --> 00:55:03,520

evidence out there or this story out

1515

00:55:07,910 --> 00:55:06,480

there in a way that gets taken seriously

1516

00:55:10,630 --> 00:55:07,920

you either have to have taken it

1517

00:55:14,069 --> 00:55:10,640

seriously from the beginning

1518

00:55:15,510 --> 00:55:14,079

and kind of been consistent with your

1519

00:55:16,630 --> 00:55:15,520

arguments and everything else and try to

1520

00:55:18,150 --> 00:55:16,640

stay away from the comment and

1521

00:55:21,670 --> 00:55:18,160

everything else and whatever

1522

00:55:22,309 --> 00:55:21,680

um or you get to be a ufo media

1523

00:55:25,109 --> 00:55:22,319

celebrity

1524

00:55:25,589 --> 00:55:25,119

you can't have both in my opinion you

1525

00:55:27,990 --> 00:55:25,599

know

1526

00:55:29,750 --> 00:55:28,000

you sometimes can like i think your show

1527

00:55:32,309 --> 00:55:29,760

is a good example here of

1528

00:55:34,470 --> 00:55:32,319

you you listen to people's stories you

1529

00:55:37,349 --> 00:55:34,480

kind of take their views in your your

1530

00:55:38,630 --> 00:55:37,359

but you're also not really what's the

1531

00:55:40,549 --> 00:55:38,640

word

1532

00:55:42,150 --> 00:55:40,559

you're also though you're you're almost

1533

00:55:44,150 --> 00:55:42,160

more like a

1534

00:55:45,270 --> 00:55:44,160

a commentator right so that's it's a

1535

00:55:48,710 --> 00:55:45,280

different it's a different

1536

00:55:50,789 --> 00:55:48,720

place in the kind of storyline

1537

00:55:52,870 --> 00:55:50,799

um if you're somebody though who's

1538

00:55:55,349 --> 00:55:52,880

trying to produce evidence

1539

00:55:56,950 --> 00:55:55,359

that requires a different a different

1540

00:55:59,910 --> 00:55:56,960

play in this world

1541

00:56:01,670 --> 00:55:59,920

absolutely yeah yeah no that's you may

1542

00:56:02,789 --> 00:56:01,680

you bring up so many good points chris

1543

00:56:04,789 --> 00:56:02,799

and um

1544

00:56:06,870 --> 00:56:04,799

you do and i mentioned this on my

1545

00:56:08,870 --> 00:56:06,880

previous episode of

1546

00:56:10,710 --> 00:56:08,880

and i actually heard this from a fellow

1547

00:56:13,829 --> 00:56:10,720

researcher nick redfern

1548

00:56:15,030 --> 00:56:13,839

said when you are a ufo researcher and

1549

00:56:19,109 --> 00:56:15,040

you're given

1550

00:56:22,230 --> 00:56:19,119

like this

1551
00:56:25,270 --> 00:56:22,240
remember you have to ask yourself why me

1552
00:56:26,950 --> 00:56:25,280
why did they choose me to give this and

1553
00:56:29,829 --> 00:56:26,960
say to put this out in the public

1554
00:56:30,950 --> 00:56:29,839
so i completely understand that um that

1555
00:56:33,910 --> 00:56:30,960
side of what you're saying

1556
00:56:34,630 --> 00:56:33,920
my um i guess kind of to piggyback off

1557
00:56:38,549 --> 00:56:34,640
of

1558
00:56:40,950 --> 00:56:38,559
retrospect

1559
00:56:41,910 --> 00:56:40,960
are these videos something that skyhub

1560
00:56:45,829 --> 00:56:41,920
can then

1561
00:56:47,430 --> 00:56:45,839
look at and um analyze in terms of the

1562
00:56:49,430 --> 00:56:47,440
you know the software that you've

1563
00:56:53,030 --> 00:56:49,440

created so can we can we put

1564

00:56:55,910 --> 00:56:53,040

old ufo videos into the

1565

00:56:57,829 --> 00:56:55,920

data processing of skyhub and possibly

1566

00:57:01,109 --> 00:56:57,839

get some answers from them like

1567

00:57:04,150 --> 00:57:01,119

if you could i mean holy [\h__\h] man

1568

00:57:05,910 --> 00:57:04,160

we would have 70 plus years of videos we

1569

00:57:08,549 --> 00:57:05,920

can now look at

1570

00:57:09,910 --> 00:57:08,559

it's something we've considered before

1571

00:57:11,829 --> 00:57:09,920

um

1572

00:57:13,589 --> 00:57:11,839

right now the camera so let me show you

1573

00:57:15,270 --> 00:57:13,599

quickly the camera that skyhub uses

1574

00:57:18,309 --> 00:57:15,280

currently

1575

00:57:21,109 --> 00:57:18,319

is a fisheye camera

1576

00:57:22,549 --> 00:57:21,119

so all of the metrics all of the kind of

1577

00:57:24,549 --> 00:57:22,559

machine learning all of the stuff that

1578

00:57:26,549 --> 00:57:24,559

we've built all the software we've built

1579

00:57:28,549 --> 00:57:26,559

has been built with a fisheye camera

1580

00:57:30,470 --> 00:57:28,559

lens in mind

1581

00:57:32,549 --> 00:57:30,480

the other kind of value of skyhub or

1582

00:57:34,870 --> 00:57:32,559

something like a skyhub is

1583

00:57:35,670 --> 00:57:34,880

because the camera and the systems are

1584

00:57:38,390 --> 00:57:35,680

all

1585

00:57:39,670 --> 00:57:38,400

the same thing um or within the same

1586

00:57:42,230 --> 00:57:39,680

realm of things right

1587

00:57:44,069 --> 00:57:42,240

all of the data can be compared to each

1588

00:57:46,230 --> 00:57:44,079

other

1589

00:57:48,390 --> 00:57:46,240

um it's kind of like back in the 80s or

1590

00:57:49,430 --> 00:57:48,400

90s when ufo investigative groups would

1591

00:57:52,230 --> 00:57:49,440

give out

1592

00:57:54,069 --> 00:57:52,240

they would give to witnesses special

1593

00:57:55,589 --> 00:57:54,079

cameras that they use for those sorts of

1594

00:57:56,069 --> 00:57:55,599

things or that couldn't be tampered with

1595

00:57:59,589 --> 00:57:56,079

and

1596

00:58:01,910 --> 00:57:59,599

all this other stuff um

1597

00:58:03,030 --> 00:58:01,920

so to start with at this point in time

1598

00:58:06,470 --> 00:58:03,040

no that can't happen

1599

00:58:08,230 --> 00:58:06,480

however it it isn't hard to do

1600

00:58:09,990 --> 00:58:08,240

something or it would not be impossible

1601
00:58:14,309 --> 00:58:10,000
to do something like that

1602
00:58:17,030 --> 00:58:14,319
so there are um there are other

1603
00:58:18,470 --> 00:58:17,040
there are machine learning um object

1604
00:58:21,190 --> 00:58:18,480
detection or object

1605
00:58:22,470 --> 00:58:21,200
categorization tools that are out there

1606
00:58:23,829 --> 00:58:22,480
right now that are available on the

1607
00:58:25,349 --> 00:58:23,839
internet for free

1608
00:58:27,430 --> 00:58:25,359
that people can download it takes a

1609
00:58:30,950 --> 00:58:27,440
little bit of python or go lang

1610
00:58:33,109 --> 00:58:30,960
um knowledge but you know if i was

1611
00:58:35,589 --> 00:58:33,119
able to learn those things

1612
00:58:37,750 --> 00:58:35,599
well enough uh to to kind of work with

1613
00:58:40,710 --> 00:58:37,760

the software people for skyhub

1614

00:58:42,230 --> 00:58:40,720

anyone can i am not good at languages

1615

00:58:44,870 --> 00:58:42,240

and so it's

1616

00:58:45,349 --> 00:58:44,880

it's not super impossible actually um

1617

00:58:47,670 --> 00:58:45,359

yeah

1618

00:58:49,589 --> 00:58:47,680

coding's not my thing either man no it's

1619

00:58:50,870 --> 00:58:49,599

really i've never been good at it but

1620

00:58:52,789 --> 00:58:50,880

it's something now that i've actually

1621

00:58:53,910 --> 00:58:52,799

gotten i have a reason to learn right so

1622

00:58:57,430 --> 00:58:53,920

it's nice i kind of

1623

00:59:01,349 --> 00:58:57,440

can do it more um so what i would say

1624

00:59:04,309 --> 00:59:02,950

so it's something we could build it's

1625

00:59:04,950 --> 00:59:04,319

something we could we absolutely could

1626

00:59:06,630 --> 00:59:04,960

build

1627

00:59:08,789 --> 00:59:06,640

it's not the current plan or it's not

1628

00:59:11,430 --> 00:59:08,799

the current structure that's in mind

1629

00:59:12,870 --> 00:59:11,440

however um it would not be impossible to

1630

00:59:14,870 --> 00:59:12,880

build

1631

00:59:16,789 --> 00:59:14,880

yeah in fact it might in fact it might

1632

00:59:21,190 --> 00:59:16,799

be easier than

1633

00:59:24,309 --> 00:59:21,200

because sky hub is using a fisheye lens

1634

00:59:27,750 --> 00:59:24,319

versus just a normal image right right

1635

00:59:29,270 --> 00:59:27,760

it's a relation yeah so many variables

1636

00:59:31,109 --> 00:59:29,280

would have to be put into play you know

1637

00:59:34,870 --> 00:59:31,119

the camera that was used for that

1638

00:59:36,630 --> 00:59:34,880

particular video um so much to it i

1639

00:59:38,870 --> 00:59:36,640

completely understand that but

1640

00:59:39,990 --> 00:59:38,880

you guys have something more immediate

1641

00:59:44,630 --> 00:59:40,000

right still though

1642

00:59:47,829 --> 00:59:44,640

it's again like that is a huge part of

1643

00:59:50,470 --> 00:59:47,839

so right now um kind of

1644

00:59:51,270 --> 00:59:50,480

object detection software engineering or

1645

00:59:53,430 --> 00:59:51,280

kind of you know

1646

00:59:55,270 --> 00:59:53,440

theory or whatever the research world is

1647

00:59:58,390 --> 00:59:55,280

kind of broken up into two

1648

01:00:01,829 --> 00:59:58,400

major categories i guess one would be

1649

01:00:04,470 --> 01:00:01,839

static object or static

1650

01:00:06,309 --> 01:00:04,480

static detector or static camera and the

1651
01:00:07,190 --> 01:00:06,319
other would be like a motion or a moving

1652
01:00:08,789 --> 01:00:07,200
camera like a

1653
01:00:10,230 --> 01:00:08,799
drone or something or a camera on a

1654
01:00:16,630 --> 01:00:10,240
drone

1655
01:00:17,829 --> 01:00:16,640
system has more study done with it

1656
01:00:19,750 --> 01:00:17,839
frankly because i think it's more of

1657
01:00:21,349 --> 01:00:19,760
interest a hotter topic

1658
01:00:22,549 --> 01:00:21,359
but that is actually probably closer to

1659
01:00:23,910 --> 01:00:22,559
what we would have to do for something

1660
01:00:25,829 --> 01:00:23,920
like what you're talking about

1661
01:00:27,510 --> 01:00:25,839
yeah it's a really good question though

1662
01:00:30,069 --> 01:00:27,520
so chris i want to move to some

1663
01:00:32,150 --> 01:00:30,079

listener questions uh that people were

1664

01:00:33,030 --> 01:00:32,160

really excited to submit i know some of

1665

01:00:35,589 --> 01:00:33,040

these people

1666

01:00:37,109 --> 01:00:35,599

are directly involved with skyhub either

1667

01:00:37,910 --> 01:00:37,119

have the software have been messing

1668

01:00:40,470 --> 01:00:37,920

around with it

1669

01:00:42,069 --> 01:00:40,480

or they're really curious about um your

1670

01:00:44,789 --> 01:00:42,079

thoughts on some of this other stuff

1671

01:00:46,630 --> 01:00:44,799

so i'm going to start with um aaron on

1672

01:00:49,430 --> 01:00:46,640

twitter aaron asks

1673

01:00:49,750 --> 01:00:49,440

what do you expect skyhub to look like

1674

01:00:53,190 --> 01:00:49,760

in

1675

01:00:55,910 --> 01:00:53,200

the future of

1676

01:00:57,270 --> 01:00:55,920

skyhub is but yeah man 10 years from now

1677

01:00:59,589 --> 01:00:57,280

i don't even want to know

1678

01:01:02,069 --> 01:00:59,599

where humanity is going to be at let

1679

01:01:03,829 --> 01:01:02,079

alone sky hub but yeah what do you think

1680

01:01:05,589 --> 01:01:03,839

i was going to say let's hope for uh

1681

01:01:07,990 --> 01:01:05,599

let's hope that we're all still uh

1682

01:01:08,630 --> 01:01:08,000

you know civilization is still standing

1683

01:01:11,829 --> 01:01:08,640

um

1684

01:01:15,109 --> 01:01:11,839

no also aaron has been a huge

1685

01:01:16,309 --> 01:01:15,119

uh a hugely uh important new member of

1686

01:01:20,069 --> 01:01:16,319

the team actually his

1687

01:01:20,710 --> 01:01:20,079

his camera is like his camera is like in

1688

01:01:24,470 --> 01:01:20,720

the best

1689

01:01:25,589 --> 01:01:24,480

possible place it's so interesting like

1690

01:01:27,270 --> 01:01:25,599

any time we capture something

1691

01:01:28,549 --> 01:01:27,280

interesting there's like a 75 percent

1692

01:01:31,430 --> 01:01:28,559

chance it's from aaron

1693

01:01:33,349 --> 01:01:31,440

um at this point in time it's ridiculous

1694

01:01:37,109 --> 01:01:33,359

dude he sent me some of the videos

1695

01:01:39,190 --> 01:01:37,119

um yeah and man those things

1696

01:01:40,390 --> 01:01:39,200

i i don't even know how you can begin to

1697

01:01:40,950 --> 01:01:40,400

describe some of the things he's

1698

01:01:43,030 --> 01:01:40,960

captured

1699

01:01:44,549 --> 01:01:43,040

so far but he's that's what you guys are

1700

01:01:46,630 --> 01:01:44,559

yeah i know he's capturing some really

1701
01:01:48,230 --> 01:01:46,640
cool things uh which is which is amazing

1702
01:01:50,150 --> 01:01:48,240
so

1703
01:01:52,549 --> 01:01:50,160
in 10 years you know what i would really

1704
01:01:55,670 --> 01:01:52,559
love to see is

1705
01:01:56,870 --> 01:01:55,680
i would love to see our initial our

1706
01:01:59,910 --> 01:01:56,880
initial system

1707
01:02:01,510 --> 01:01:59,920
completed so and in a

1708
01:02:03,510 --> 01:02:01,520
stable state so not really you know

1709
01:02:05,029 --> 01:02:03,520
updates occasionally but

1710
01:02:07,829 --> 01:02:05,039
you know no major updates to the

1711
01:02:09,190 --> 01:02:07,839
platform so um

1712
01:02:11,109 --> 01:02:09,200
what i mean but what i mean by that

1713
01:02:14,150 --> 01:02:11,119

would be um

1714

01:02:15,109 --> 01:02:14,160

units that are able to do that kind of

1715

01:02:18,390 --> 01:02:15,119

minimum

1716

01:02:20,710 --> 01:02:18,400

know

1717

01:02:22,230 --> 01:02:20,720

they have a camera attached um they have

1718

01:02:24,630 --> 01:02:22,240

sensors attached

1719

01:02:26,470 --> 01:02:24,640

they are able to detect objects

1720

01:02:29,430 --> 01:02:26,480

categorize them successfully

1721

01:02:31,750 --> 01:02:29,440

and there is a pipeline where the public

1722

01:02:33,670 --> 01:02:31,760

even if you don't own a sky hub

1723

01:02:35,910 --> 01:02:33,680

can go and view the videos that are

1724

01:02:38,150 --> 01:02:35,920

coming out of skyhub

1725

01:02:39,910 --> 01:02:38,160

um and pull the data if you want to do

1726

01:02:42,950 --> 01:02:39,920

data analysis as well

1727

01:02:45,430 --> 01:02:42,960

if that's of interest for you so that

1728

01:02:48,390 --> 01:02:45,440

would be if we could reach that goal

1729

01:02:51,029 --> 01:02:48,400

um and i don't it's not really that's

1730

01:02:53,109 --> 01:02:51,039

that's not even as long term as 10 years

1731

01:02:54,390 --> 01:02:53,119

but if we could hit that goal that would

1732

01:02:55,990 --> 01:02:54,400

really be

1733

01:02:58,789 --> 01:02:56,000

i would feel like we've done exactly

1734

01:03:01,430 --> 01:02:58,799

what we've set out to do

1735

01:03:01,990 --> 01:03:01,440

in in terms of further stuff what i

1736

01:03:07,270 --> 01:03:02,000

would love to

1737

01:03:09,190 --> 01:03:07,280

hubs used for other purposes

1738

01:03:10,549 --> 01:03:09,200

besides just you know detecting

1739

01:03:12,390 --> 01:03:10,559

airplanes or

1740

01:03:14,710 --> 01:03:12,400

you know those sorts of things i would

1741

01:03:16,150 --> 01:03:14,720

love to see a skyhub

1742

01:03:17,750 --> 01:03:16,160

i would love to see groups develop

1743

01:03:21,430 --> 01:03:17,760

skyhub for you know

1744

01:03:23,829 --> 01:03:21,440

astronomy for um measuring

1745

01:03:25,270 --> 01:03:23,839

um you know attaching there's there's

1746

01:03:28,069 --> 01:03:25,280

very cheap

1747

01:03:28,710 --> 01:03:28,079

um telescope telescope uh systems that

1748

01:03:30,549 --> 01:03:28,720

can be

1749

01:03:32,230 --> 01:03:30,559

added to things like raspberry pi say

1750

01:03:34,789 --> 01:03:32,240

for example today

1751

01:03:35,910 --> 01:03:34,799

um skyhub uses the the jetson uh

1752

01:03:38,150 --> 01:03:35,920

platform

1753

01:03:40,309 --> 01:03:38,160

um which is a microcomputer like a

1754

01:03:42,470 --> 01:03:40,319

raspberry pi but from nvidia

1755

01:03:44,470 --> 01:03:42,480

um you know development of something

1756

01:03:44,950 --> 01:03:44,480

like that on top of skyhub i think would

1757

01:03:46,470 --> 01:03:44,960

be really

1758

01:03:49,510 --> 01:03:46,480

fascinating and interesting and add

1759

01:03:53,349 --> 01:03:49,520

another layer of what it can do

1760

01:03:56,789 --> 01:03:53,359

i would also love to really see

1761

01:04:00,630 --> 01:03:56,799

i would love to see the units themselves

1762

01:04:04,390 --> 01:04:00,640

get cheaper um and the software

1763

01:04:06,150 --> 01:04:04,400

get more robust to the point where

1764

01:04:07,990 --> 01:04:06,160

for you to purchase the stuff you need

1765

01:04:10,789 --> 01:04:08,000

to make a skyhub work

1766

01:04:11,430 --> 01:04:10,799

you're spending 100 bucks 200 bucks that

1767

01:04:13,190 --> 01:04:11,440

really in

1768

01:04:14,789 --> 01:04:13,200

in 10 years i think that's absolutely

1769

01:04:16,950 --> 01:04:14,799

doable right now

1770

01:04:19,109 --> 01:04:16,960

a sky hub can cost depending on what you

1771

01:04:20,870 --> 01:04:19,119

want to put in it and everything else

1772

01:04:22,789 --> 01:04:20,880

you know around 100 around a thousand

1773

01:04:24,710 --> 01:04:22,799

dollars thousand to two thousand dollars

1774

01:04:26,230 --> 01:04:24,720

depending on the cameras you want and

1775

01:04:27,750 --> 01:04:26,240

how many other sensors you want to add

1776

01:04:30,069 --> 01:04:27,760

and all that other stuff

1777

01:04:31,670 --> 01:04:30,079

but i think as we develop you know every

1778

01:04:33,670 --> 01:04:31,680

every month that we develop it gets a

1779

01:04:36,069 --> 01:04:33,680

little bit cheaper

1780

01:04:37,510 --> 01:04:36,079

um but the hardware really is the area

1781

01:04:39,430 --> 01:04:37,520

where

1782

01:04:40,870 --> 01:04:39,440

the cost comes in and those are hardware

1783

01:04:42,870 --> 01:04:40,880

pieces that we have no control over

1784

01:04:44,470 --> 01:04:42,880

right we're not we're not building

1785

01:04:46,230 --> 01:04:44,480

um we're we're not building our own

1786

01:04:48,309 --> 01:04:46,240

cameras or something so

1787

01:04:49,670 --> 01:04:48,319

right um 10 years that's what i want to

1788

01:04:51,109 --> 01:04:49,680

see so i want to see a sky hub that's

1789

01:04:54,150 --> 01:04:51,119

fully functional

1790

01:04:57,309 --> 01:04:54,160

um that only cost you 100 bucks

1791

01:05:00,150 --> 01:04:57,319

i love that man again it's um sort of

1792

01:05:02,470 --> 01:05:00,160

democratizing the entire

1793

01:05:03,190 --> 01:05:02,480

experience you know i mean the more

1794

01:05:05,670 --> 01:05:03,200

people

1795

01:05:07,109 --> 01:05:05,680

who can afford to do skyhub the more

1796

01:05:08,950 --> 01:05:07,119

data we're going to get the more we're

1797

01:05:11,270 --> 01:05:08,960

gonna understand what we're dealing with

1798

01:05:12,230 --> 01:05:11,280

and everyone wins so yeah i think that's

1799

01:05:14,230 --> 01:05:12,240

a really good point

1800

01:05:16,390 --> 01:05:14,240

and also using the software and

1801
01:05:19,190 --> 01:05:16,400
technology you guys are creating

1802
01:05:19,750 --> 01:05:19,200
um for other purposes you know i wrote

1803
01:05:22,789 --> 01:05:19,760
this

1804
01:05:23,190 --> 01:05:22,799
huge scary article over at the debrief

1805
01:05:25,750 --> 01:05:23,200
about

1806
01:05:27,109 --> 01:05:25,760
um satellites and how there are

1807
01:05:28,870 --> 01:05:27,119
satellites right now

1808
01:05:30,230 --> 01:05:28,880
that can literally zoom into your

1809
01:05:32,870 --> 01:05:30,240
bedroom and can

1810
01:05:34,150 --> 01:05:32,880
actually pierce through solid walls to

1811
01:05:36,390 --> 01:05:34,160
capture images

1812
01:05:37,270 --> 01:05:36,400
and that sounds absolutely terrifying

1813
01:05:39,029 --> 01:05:37,280

and the

1814

01:05:41,829 --> 01:05:39,039

the breadth and scope of these

1815

01:05:45,190 --> 01:05:41,839

satellites seems very um

1816

01:05:47,990 --> 01:05:45,200

uh you know like privacy breaking

1817

01:05:49,990 --> 01:05:48,000

but um we have to keep in mind too some

1818

01:05:53,270 --> 01:05:50,000

of these satellites that are monitoring

1819

01:05:54,150 --> 01:05:53,280

the earth 24 7 are being used for really

1820

01:05:56,789 --> 01:05:54,160

good purposes

1821

01:05:57,589 --> 01:05:56,799

such as natural disasters and being able

1822

01:06:01,430 --> 01:05:57,599

to

1823

01:06:01,910 --> 01:06:01,440

sooner be like yo this fire's coming

1824

01:06:04,470 --> 01:06:01,920

your way

1825

01:06:05,750 --> 01:06:04,480

get out of there or um to better prepare

1826

01:06:07,670 --> 01:06:05,760

for things like that

1827

01:06:09,430 --> 01:06:07,680

so um i think that's great that again

1828

01:06:12,870 --> 01:06:09,440

skyhub is not just

1829

01:06:14,950 --> 01:06:12,880

for looking for ufos or um

1830

01:06:16,309 --> 01:06:14,960

you know it's there's a reason it's

1831

01:06:18,390 --> 01:06:16,319

called skyhub and not

1832

01:06:19,430 --> 01:06:18,400

ufo hub or something like that right

1833

01:06:21,029 --> 01:06:19,440

right yeah

1834

01:06:22,150 --> 01:06:21,039

i think actually you do bring up a good

1835

01:06:23,510 --> 01:06:22,160

point and it's actually something i

1836

01:06:24,710 --> 01:06:23,520

should have probably

1837

01:06:27,270 --> 01:06:24,720

maybe it'll end up in a listener

1838

01:06:30,870 --> 01:06:27,280

question but the privacy issues

1839

01:06:32,549 --> 01:06:30,880

um we take those extremely seriously and

1840

01:06:35,829 --> 01:06:32,559

you know it's such an important thing i

1841

01:06:39,109 --> 01:06:35,839

mean you know we're

1842

01:06:41,829 --> 01:06:39,119

you know if uh if you if

1843

01:06:44,069 --> 01:06:41,839

someone came to me and said hey i'm a

1844

01:06:47,510 --> 01:06:44,079

ufo researcher let me put this

1845

01:06:50,230 --> 01:06:47,520

uh 24-hour camera on your house

1846

01:06:50,950 --> 01:06:50,240

i would tell them to go to hell you know

1847

01:06:54,150 --> 01:06:50,960

i would

1848

01:06:57,349 --> 01:06:54,160

lawn

1849

01:07:00,069 --> 01:06:57,359

um the camera is built to

1850

01:07:02,069 --> 01:07:00,079

only measure when it detects an object

1851

01:07:06,470 --> 01:07:02,079

that's number one

1852

01:07:10,309 --> 01:07:06,480

number two one of the things that we are

1853

01:07:11,190 --> 01:07:10,319

detecting for um at the early stages

1854

01:07:13,270 --> 01:07:11,200

here

1855

01:07:15,670 --> 01:07:13,280

are things that we tell want to tell the

1856

01:07:18,549 --> 01:07:15,680

camera don't measure this

1857

01:07:19,510 --> 01:07:18,559

right so for example if you you know my

1858

01:07:23,109 --> 01:07:19,520

my unit for

1859

01:07:24,870 --> 01:07:23,119

the winner um because my enclosure isn't

1860

01:07:25,910 --> 01:07:24,880

very good or wasn't very good for a long

1861

01:07:29,029 --> 01:07:25,920

time

1862

01:07:31,750 --> 01:07:29,039

was sitting here in my office and

1863

01:07:34,150 --> 01:07:31,760

the most common object my skyhub unit

1864

01:07:36,549 --> 01:07:34,160

detected were my cats

1865

01:07:38,309 --> 01:07:36,559

right um so that kind of thing we would

1866

01:07:39,750 --> 01:07:38,319

tell it hey throw this out

1867

01:07:41,510 --> 01:07:39,760

right or if it sees a person throw it

1868

01:07:44,549 --> 01:07:41,520

out or um

1869

01:07:47,990 --> 01:07:44,559

you know automatic masking of buildings

1870

01:07:49,670 --> 01:07:48,000

or surrounding areas to retain privacy

1871

01:07:51,750 --> 01:07:49,680

so all the better things that we're

1872

01:07:53,430 --> 01:07:51,760

taking very seriously and again

1873

01:07:55,510 --> 01:07:53,440

if you're interested in those kinds of

1874

01:07:57,990 --> 01:07:55,520

um if you're interested in any of this

1875

01:07:59,430 --> 01:07:58,000

but um you know join our join our

1876

01:08:00,789 --> 01:07:59,440

discord and ask us to be part of the

1877

01:08:03,750 --> 01:08:00,799

team because we are

1878

01:08:05,190 --> 01:08:03,760

um we are again an open project so

1879

01:08:06,870 --> 01:08:05,200

anyone can join

1880

01:08:08,829 --> 01:08:06,880

and uh so long as you have the time and

1881

01:08:11,349 --> 01:08:08,839

the desire to we're happy to have your

1882

01:08:12,630 --> 01:08:11,359

help cool man yeah and we'll definitely

1883

01:08:15,510 --> 01:08:12,640

put those links

1884

01:08:17,990 --> 01:08:15,520

in for people um at the end here let's

1885

01:08:18,950 --> 01:08:18,000

move on to this listener question um one

1886

01:08:21,749 --> 01:08:18,960

on facebook the

1887

01:08:23,269 --> 01:08:21,759

long time listener of the show so shout

1888

01:08:24,229 --> 01:08:23,279

out to owner thank you for all your

1889

01:08:26,870 --> 01:08:24,239

support yep

1890

01:08:27,669 --> 01:08:26,880

he's awesome scientist the bald

1891

01:08:29,990 --> 01:08:27,679

scientist

1892

01:08:31,269 --> 01:08:30,000

exactly he's got a curveball for you

1893

01:08:34,709 --> 01:08:31,279

here i like this one

1894

01:08:36,789 --> 01:08:34,719

um the tic tac type of ufos

1895

01:08:39,349 --> 01:08:36,799

i'm partial to the nuts and bolts model

1896

01:08:41,349 --> 01:08:39,359

to explain them but what gives me pause

1897

01:08:43,590 --> 01:08:41,359

are two main properties of them

1898

01:08:44,870 --> 01:08:43,600

their apparent lack of interaction with

1899

01:08:47,430 --> 01:08:44,880

the environment

1900

01:08:49,349 --> 01:08:47,440

uh you know lack of sonic booms and

1901

01:08:51,430 --> 01:08:49,359

hypersonic speeds he says

1902

01:08:52,870 --> 01:08:51,440

and even more weirdly their uncanny

1903

01:08:56,229 --> 01:08:52,880

ability to stop

1904

01:08:58,309 --> 01:08:56,239

on a dime inertia be damned this is

1905

01:09:00,390 --> 01:08:58,319

you could tell he's a scientist do you

1906

01:09:01,669 --> 01:09:00,400

know of any material that even

1907

01:09:03,590 --> 01:09:01,679

theoretically

1908

01:09:07,910 --> 01:09:03,600

could be manipulated to express both

1909

01:09:11,990 --> 01:09:10,630

that's a really good question the reason

1910

01:09:15,749 --> 01:09:12,000

[Music]

1911

01:09:17,749 --> 01:09:15,759

i think i know o'neil well enough to say

1912

01:09:20,229 --> 01:09:17,759

that one of the reasons he's probably

1913

01:09:23,829 --> 01:09:20,239

asking the question on inertia

1914

01:09:26,870 --> 01:09:23,839

is if you guys have ever seen

1915

01:09:28,709 --> 01:09:26,880

the movie spaceballs

1916

01:09:31,430 --> 01:09:28,719

there's the part where when they come

1917

01:09:34,390 --> 01:09:31,440

out of ludicrous speed or whatever

1918

01:09:35,829 --> 01:09:34,400

they stop and then lord you know helmet

1919

01:09:39,269 --> 01:09:35,839

or whatever darth helmet

1920

01:09:41,910 --> 01:09:39,279

goes flying right you know yeah

1921

01:09:42,870 --> 01:09:41,920

it kind of wakes up the scooter i love

1922

01:09:46,709 --> 01:09:42,880

it um

1923

01:09:49,269 --> 01:09:46,719

so um anyone that's been on an

1924

01:09:51,910 --> 01:09:49,279

on a bus that has stopped suddenly or

1925

01:09:55,430 --> 01:09:51,920

even in a car that stopped suddenly

1926

01:09:57,669 --> 01:09:55,440

um and been jolted forward we'll know

1927

01:09:59,669 --> 01:09:57,679

um what the problem here is for

1928

01:10:02,470 --> 01:09:59,679

something like a tic tac

1929

01:10:03,830 --> 01:10:02,480

object where it is going very very

1930

01:10:05,430 --> 01:10:03,840

quickly then stops

1931

01:10:07,910 --> 01:10:05,440

inertia would suggest that all the

1932

01:10:10,870 --> 01:10:07,920

occupants of the tic tac are jelly

1933

01:10:11,669 --> 01:10:10,880

um after they hit the side of the uh the

1934

01:10:13,189 --> 01:10:11,679

wall

1935

01:10:14,709 --> 01:10:13,199

right so they experience g-forces and

1936

01:10:17,750 --> 01:10:14,719

the forces of the wall you know all

1937

01:10:21,830 --> 01:10:17,760

those other things

1938

01:10:28,830 --> 01:10:25,350

we have things that can

1939

01:10:32,149 --> 01:10:28,840

lessen the effect of

1940

01:10:34,149 --> 01:10:32,159

g-force but not materials but like you

1941

01:10:35,430 --> 01:10:34,159

can imagine for example like i just gave

1942

01:10:39,030 --> 01:10:35,440

a stupid

1943

01:10:40,630 --> 01:10:39,040

um so

1944

01:10:42,070 --> 01:10:40,640

actually a lot of high schools will do

1945

01:10:43,750 --> 01:10:42,080

this experiment with their engineering

1946

01:10:46,310 --> 01:10:43,760

students

1947

01:10:47,430 --> 01:10:46,320

where you build a protection um a

1948

01:10:51,030 --> 01:10:47,440

protection device

1949

01:10:51,830 --> 01:10:51,040

for um an egg that goes into a water

1950

01:10:54,149 --> 01:10:51,840

rocket

1951

01:10:58,870 --> 01:10:54,159

right oh yeah that's cool i've heard of

1952

01:11:02,709 --> 01:10:58,880

this in this scenario where the egg

1953

01:11:04,790 --> 01:11:02,719

and we don't want to become a goo so

1954

01:11:06,550 --> 01:11:04,800

one thing that we could do for example

1955

01:11:07,110 --> 01:11:06,560

inside an object like that or a tic tac

1956

01:11:11,030 --> 01:11:07,120

or whatever

1957

01:11:12,229 --> 01:11:11,040

is um i'm not a

1958

01:11:14,790 --> 01:11:12,239

you know i'm not a simple or an

1959

01:11:17,110 --> 01:11:14,800

aeronautic aerospace engineer

1960

01:11:19,189 --> 01:11:17,120

but one could imagine for example a

1961

01:11:26,390 --> 01:11:19,199

internal

1962

01:11:29,669 --> 01:11:26,400

also always in motion

1963

01:11:31,510 --> 01:11:29,679

so you have kind of a so like imagine

1964

01:11:38,229 --> 01:11:31,520

you're on

1965

01:11:41,910 --> 01:11:38,239

you're sitting on a on a bike

1966

01:11:44,149 --> 01:11:41,920

and so the airplane stops suddenly

1967

01:11:47,030 --> 01:11:44,159

but you're on the bike and the bike has

1968

01:11:50,709 --> 01:11:47,040

its own separate stopping mechanism of

1969

01:11:53,110 --> 01:11:50,719

the your inertia you would still

1970

01:11:54,149 --> 01:11:53,120

stop so the the airplane stops and you

1971

01:11:55,669 --> 01:11:54,159

keep moving

1972

01:11:58,070 --> 01:11:55,679

but because you have your own braking

1973

01:12:01,350 --> 01:11:58,080

mechanism internally to the airplane

1974

01:12:04,709 --> 01:12:01,360

you can stop at a at a good enough speed

1975

01:12:08,149 --> 01:12:04,719

that you do not um you are not

1976

01:12:11,669 --> 01:12:08,159

impacted by or you're impacted less than

1977

01:12:17,990 --> 01:12:15,430

that is one potential um

1978

01:12:19,590 --> 01:12:18,000

kind of idea that you could do right so

1979

01:12:22,149 --> 01:12:19,600

there's ways that you can kind of design

1980

01:12:23,510 --> 01:12:22,159

maybe around that but again we're

1981

01:12:26,310 --> 01:12:23,520

talking like

1982

01:12:27,750 --> 01:12:26,320

this these are the uh there's an

1983

01:12:29,110 --> 01:12:27,760

aerospace engineer someplace listening

1984

01:12:32,310 --> 01:12:29,120

to this that's being like these are the

1985

01:12:34,310 --> 01:12:32,320

ramblings of a lunatic mind

1986

01:12:35,990 --> 01:12:34,320

like so there's there's like stuff you

1987

01:12:39,430 --> 01:12:36,000

can do i mean you know we we

1988

01:12:41,189 --> 01:12:39,440

do some stuff like that too with um

1989

01:12:42,870 --> 01:12:41,199

you can think like with ballistic

1990

01:12:44,390 --> 01:12:42,880

ballistic vests or stuff like that right

1991

01:12:46,550 --> 01:12:44,400

those are all designed

1992

01:12:47,510 --> 01:12:46,560

to lessen the impact of a ballistic

1993

01:12:50,390 --> 01:12:47,520

impact

1994

01:12:51,830 --> 01:12:50,400

on a person or on an object or whatever

1995

01:12:54,149 --> 01:12:51,840

similar source technologies can be

1996

01:12:57,270 --> 01:12:54,159

applied to things like an air you know

1997

01:12:58,709 --> 01:12:57,280

a spaceship or whatever in terms of the

1998

01:13:02,470 --> 01:12:58,719

ability to kind of

1999

01:13:05,510 --> 01:13:02,480

um the ability to seemingly

2000

01:13:07,430 --> 01:13:05,520

not be affected by sheer um

2001

01:13:08,950 --> 01:13:07,440

or the kind of you know wind drag or

2002

01:13:10,550 --> 01:13:08,960

stress or things like that that come

2003

01:13:13,669 --> 01:13:10,560

from

2004

01:13:16,709 --> 01:13:13,679

being in an atmosphere there are

2005

01:13:17,430 --> 01:13:16,719

surface coatings that can allow you to

2006

01:13:20,870 --> 01:13:17,440

much

2007

01:13:23,030 --> 01:13:20,880

significantly lessen drag there's also

2008

01:13:27,189 --> 01:13:23,040

ones that can greatly

2009

01:13:28,950 --> 01:13:27,199

decrease um decrease you know the

2010

01:13:30,790 --> 01:13:28,960

the heat generated or things like that

2011

01:13:33,430 --> 01:13:30,800

and also ways that you can

2012

01:13:34,870 --> 01:13:33,440

besides just not feeling the effect

2013

01:13:35,270 --> 01:13:34,880

there are also again ways that you can

2014

01:13:38,390 --> 01:13:35,280

kind of

2015

01:13:41,910 --> 01:13:38,400

mitigate the force of those things

2016

01:13:44,470 --> 01:13:41,920

so for example there are nano materials

2017

01:13:45,669 --> 01:13:44,480

that are structured in such a way that

2018

01:13:48,870 --> 01:13:45,679

heat transfer is

2019

01:13:52,310 --> 01:13:48,880

limited to a maximum value

2020

01:13:56,070 --> 01:13:52,320

because the material is so small um

2021

01:13:59,189 --> 01:13:56,080

in some direction that the the quanta

2022

01:14:02,630 --> 01:13:59,199

of heat energy the phonon literally

2023

01:14:04,229 --> 01:14:02,640

cannot transport through the material

2024

01:14:05,830 --> 01:14:04,239

that so that would be another thing that

2025

01:14:08,550 --> 01:14:05,840

potentially you could think about

2026

01:14:09,669 --> 01:14:08,560

you know something like that maybe could

2027

01:14:14,870 --> 01:14:09,679

happen but

2028

01:14:17,030 --> 01:14:14,880

you know again i think that um you know

2029

01:14:19,350 --> 01:14:17,040

so there are possibilities there for

2030

01:14:23,270 --> 01:14:19,360

things that could maybe be happening

2031

01:14:25,669 --> 01:14:23,280

and sometimes i think the answer is less

2032

01:14:27,350 --> 01:14:25,679

sometimes the answer is less exotic than

2033

01:14:31,030 --> 01:14:27,360

we think it is

2034

01:14:35,430 --> 01:14:31,040

um you know i mean

2035

01:14:39,350 --> 01:14:37,110

you know painting an object white versus

2036

01:14:41,750 --> 01:14:39,360

painting it black will change the

2037

01:14:42,870 --> 01:14:41,760

amount of thermal radiation it gets from

2038

01:14:45,510 --> 01:14:42,880

sunlight

2039

01:14:46,470 --> 01:14:45,520

by a huge factor right that's a simple

2040

01:14:49,110 --> 01:14:46,480

change you can do

2041

01:14:51,430 --> 01:14:49,120

so there might be other simple changes

2042

01:14:53,270 --> 01:14:51,440

we can do that we just don't know of yet

2043

01:14:56,070 --> 01:14:53,280

because we just haven't had to face that

2044

01:14:58,790 --> 01:14:56,080

problem with engineering

2045

01:15:01,189 --> 01:14:58,800

such a good point yeah we are we are

2046

01:15:01,510 --> 01:15:01,199

cursed by our own limitations at times

2047

01:15:03,590 --> 01:15:01,520

but

2048

01:15:04,709 --> 01:15:03,600

uh yeah that's a good appointment well

2049

01:15:06,390 --> 01:15:04,719

only um

2050

01:15:07,830 --> 01:15:06,400

he just leaves this comment too and i'd

2051
01:15:09,590 --> 01:15:07,840
love to read this even though it's not a

2052
01:15:11,270 --> 01:15:09,600
question he puts it really well

2053
01:15:13,750 --> 01:15:11,280
personally i hope these things are from

2054
01:15:15,910 --> 01:15:13,760
other countries and not from out there

2055
01:15:17,910 --> 01:15:15,920
you see if they are from here at least

2056
01:15:18,229 --> 01:15:17,920
we have a decent chance of replicating

2057
01:15:21,110 --> 01:15:18,239
such

2058
01:15:22,870 --> 01:15:21,120
technology like you said and um even

2059
01:15:24,310 --> 01:15:22,880
developing defenses against them

2060
01:15:25,830 --> 01:15:24,320
because there is no significant

2061
01:15:26,870 --> 01:15:25,840
difference in the technological

2062
01:15:29,270 --> 01:15:26,880
capabilities

2063
01:15:31,430 --> 01:15:29,280

between countries on the other hand true

2064

01:15:33,590 --> 01:15:31,440

alien tech is bound to be thousands

2065

01:15:34,470 --> 01:15:33,600

perhaps millions of years ahead of ours

2066

01:15:37,189 --> 01:15:34,480

in that case

2067

01:15:38,229 --> 01:15:37,199

there will be nothing we can do if they

2068

01:15:40,870 --> 01:15:38,239

decide that they

2069

01:15:42,709 --> 01:15:40,880

are done with us which i wouldn't blame

2070

01:15:47,430 --> 01:15:42,719

them at this point chris would you

2071

01:15:50,149 --> 01:15:47,440

oh no we are uh yeah no

2072

01:15:50,550 --> 01:15:50,159

a lot of self-reflection yeah that's uh

2073

01:15:53,189 --> 01:15:50,560

boy

2074

01:15:54,070 --> 01:15:53,199

uh you know i think one a is totally

2075

01:15:58,149 --> 01:15:54,080

right though if

2076

01:16:01,270 --> 01:15:58,159

if if this is another country doing this

2077

01:16:03,270 --> 01:16:01,280

um i would you know i was just i was

2078

01:16:05,189 --> 01:16:03,280

watching yesterday actually

2079

01:16:07,510 --> 01:16:05,199

a documentary on or a series of

2080

01:16:09,830 --> 01:16:07,520

documentaries i guess in world war ii

2081

01:16:11,270 --> 01:16:09,840

and they got up to the point where they

2082

01:16:14,630 --> 01:16:11,280

were talking about the

2083

01:16:17,750 --> 01:16:14,640

the v1 and v2 uh rockets

2084

01:16:19,590 --> 01:16:17,760

and just thinking about

2085

01:16:22,790 --> 01:16:19,600

how big of a you know at the beginning

2086

01:16:26,550 --> 01:16:25,350

people were going into people were going

2087

01:16:30,630 --> 01:16:26,560

into battle still

2088

01:16:32,630 --> 01:16:30,640

on on horses on horseback

2089

01:16:35,910 --> 01:16:32,640

and by the end of it we were having tank

2090

01:16:39,110 --> 01:16:35,920

you know tank only battles

2091

01:16:40,709 --> 01:16:39,120

technology has changed a tremendous

2092

01:16:45,750 --> 01:16:40,719

amount

2093

01:16:52,470 --> 01:16:48,950

to think that a chat like this even

2094

01:16:57,910 --> 01:16:52,480

talking via video in real time

2095

01:17:04,149 --> 01:17:01,030

when i was a teenager you know that to

2096

01:17:05,590 --> 01:17:04,159

in the year 2000 the year 2010 would

2097

01:17:08,790 --> 01:17:05,600

have been

2098

01:17:09,669 --> 01:17:08,800

nigh unthinkable yeah you know

2099

01:17:11,750 --> 01:17:09,679

it would have been something that we

2100

01:17:12,950 --> 01:17:11,760

would have like consider in 2010 i think

2101

01:17:14,310 --> 01:17:12,960

we would have been like yeah okay that's

2102

01:17:17,590 --> 01:17:14,320

probably on the horizon

2103

01:17:20,070 --> 01:17:17,600

but when i was a kid you know i like

2104

01:17:22,470 --> 01:17:20,080

the first computer we owned was a was an

2105

01:17:25,510 --> 01:17:22,480

ibm pc junior

2106

01:17:28,229 --> 01:17:25,520

use dos you know what i mean like our

2107

01:17:30,229 --> 01:17:28,239

technology has progressed

2108

01:17:32,470 --> 01:17:30,239

a huge amount it probably is far

2109

01:17:33,510 --> 01:17:32,480

outpaced our ability as a species to

2110

01:17:36,550 --> 01:17:33,520

handle it

2111

01:17:39,750 --> 01:17:36,560

really and so

2112

01:17:42,870 --> 01:17:39,760

to think that another country

2113

01:17:46,950 --> 01:17:42,880

who maybe was focusing more on um

2114

01:17:49,510 --> 01:17:46,960

surveillance or stealth or um

2115

01:17:50,310 --> 01:17:49,520

drone building or whatever couldn't have

2116

01:17:53,030 --> 01:17:50,320

gotten

2117

01:17:55,350 --> 01:17:53,040

a decade or two ahead of us i don't

2118

01:17:59,030 --> 01:17:55,360

think that's that ridiculous to think

2119

01:18:00,630 --> 01:17:59,040

um and that's the other part of it too

2120

01:18:03,110 --> 01:18:00,640

you know the other answer to one's

2121

01:18:05,669 --> 01:18:03,120

question from before

2122

01:18:07,590 --> 01:18:05,679

what happens to the inertia or whatever

2123

01:18:10,870 --> 01:18:07,600

what if there's no organisms inside the

2124

01:18:12,070 --> 01:18:10,880

inside the object yeah exactly what if

2125

01:18:14,630 --> 01:18:12,080

it's just a robot

2126

01:18:15,750 --> 01:18:14,640

what if what if the tic tac is just a

2127

01:18:17,830 --> 01:18:15,760

drone

2128

01:18:18,790 --> 01:18:17,840

then the we're no longer talking about

2129

01:18:21,270 --> 01:18:18,800

an organic

2130

01:18:22,630 --> 01:18:21,280

you know being being affected by inertia

2131

01:18:24,709 --> 01:18:22,640

we're talking about

2132

01:18:25,990 --> 01:18:24,719

the machine you know in the machine it's

2133

01:18:28,310 --> 01:18:26,000

common sense man

2134

01:18:29,030 --> 01:18:28,320

yeah absolutely that's how we do it we

2135

01:18:32,310 --> 01:18:29,040

don't send

2136

01:18:34,149 --> 01:18:32,320

men to the moon first we send out

2137

01:18:35,430 --> 01:18:34,159

you know probes and what not to check it

2138

01:18:37,590 --> 01:18:35,440

out so that makes

2139

01:18:39,350 --> 01:18:37,600

total sense we let our billionaires send

2140

01:18:42,470 --> 01:18:39,360

people to other planes

2141

01:18:43,110 --> 01:18:42,480

yeah exactly or our monkeys yeah right

2142

01:18:46,390 --> 01:18:43,120

yeah

2143

01:18:48,229 --> 01:18:46,400

so you know it's uh it's not

2144

01:18:49,669 --> 01:18:48,239

it's so you know the idea that this

2145

01:18:50,709 --> 01:18:49,679

could be from another country i don't

2146

01:18:53,189 --> 01:18:50,719

think is really

2147

01:18:54,950 --> 01:18:53,199

it's not out of the it's not out of the

2148

01:18:57,510 --> 01:18:54,960

realm of possibility

2149

01:18:59,510 --> 01:18:57,520

yeah it isn't and um you know the

2150

01:19:01,430 --> 01:18:59,520

concern with that being

2151
01:19:03,270 --> 01:19:01,440
when you have people like christopher

2152
01:19:05,910 --> 01:19:03,280
mellon or luis elizondo or

2153
01:19:08,630 --> 01:19:05,920
anyone for that matter saying you know

2154
01:19:09,910 --> 01:19:08,640
could it be russia or china possibly we

2155
01:19:12,390 --> 01:19:09,920
don't think it is

2156
01:19:13,990 --> 01:19:12,400
um that's troublesome i talked to micah

2157
01:19:17,510 --> 01:19:14,000
hanks about this recently

2158
01:19:20,470 --> 01:19:17,520
if it is russia or china then

2159
01:19:21,750 --> 01:19:20,480
those are acts of war coming into a

2160
01:19:24,149 --> 01:19:21,760
training space

2161
01:19:25,110 --> 01:19:24,159
for the navy during a training exercise

2162
01:19:26,709 --> 01:19:25,120
like dude come on

2163
01:19:29,910 --> 01:19:26,719

how much more of an act of war do you

2164

01:19:33,030 --> 01:19:29,920

need so if it is russia or china

2165

01:19:36,070 --> 01:19:33,040

shouldn't we be seeing you know the

2166

01:19:37,590 --> 01:19:36,080

the uh top gun scenarios coming out and

2167

01:19:38,470 --> 01:19:37,600

maverick shooting those things out of

2168

01:19:39,910 --> 01:19:38,480

the sky

2169

01:19:41,750 --> 01:19:39,920

and we're not we're seeing them

2170

01:19:44,470 --> 01:19:41,760

disappear out of the atmosphere

2171

01:19:46,310 --> 01:19:44,480

uh supposedly that's the other part of

2172

01:19:47,590 --> 01:19:46,320

it that i think is so

2173

01:19:52,149 --> 01:19:47,600

the other part that i think is so

2174

01:19:57,510 --> 01:19:56,149

we so i guess two thoughts on that right

2175

01:20:00,390 --> 01:19:57,520

the first one would be

2176

01:20:02,830 --> 01:20:00,400

you're absolutely right if this is a if

2177

01:20:03,990 --> 01:20:02,840

this is a serious and national security

2178

01:20:08,310 --> 01:20:04,000

concern

2179

01:20:11,990 --> 01:20:08,320

as well

2180

01:20:15,669 --> 01:20:15,270

our world is so different and so much

2181

01:20:20,629 --> 01:20:15,679

more

2182

01:20:24,629 --> 01:20:20,639

diplomatically oriented than we were

2183

01:20:29,750 --> 01:20:26,790

like we you know we have evidence of

2184

01:20:31,590 --> 01:20:29,760

like atrocities being committed

2185

01:20:33,030 --> 01:20:31,600

in north korea you know let's take an

2186

01:20:34,390 --> 01:20:33,040

example of a country that we don't even

2187

01:20:37,350 --> 01:20:34,400

have trading

2188

01:20:39,030 --> 01:20:37,360

a real diplomacy with right like we know

2189

01:20:41,430 --> 01:20:39,040

that the north korea

2190

01:20:42,070 --> 01:20:41,440

is a is a terrible country where a

2191

01:20:43,430 --> 01:20:42,080

dictator

2192

01:20:45,510 --> 01:20:43,440

reigns supreme and is doing these

2193

01:20:49,750 --> 01:20:45,520

terrible things and everything else

2194

01:20:52,629 --> 01:20:49,760

and yet our military and our leaders

2195

01:20:55,110 --> 01:20:52,639

can't act on that because of all these

2196

01:20:57,430 --> 01:20:55,120

other socio-political

2197

01:20:58,830 --> 01:20:57,440

uh concerns and things that we have to

2198

01:21:01,590 --> 01:20:58,840

consider you know these other

2199

01:21:05,430 --> 01:21:01,600

considerations

2200

01:21:07,430 --> 01:21:05,440

so the idea that we wouldn't

2201

01:21:08,950 --> 01:21:07,440

you know to me then the argument that we

2202

01:21:12,629 --> 01:21:08,960

if we saw something like this in the sky

2203

01:21:16,310 --> 01:21:14,629

i don't know that kind of makes logical

2204

01:21:17,910 --> 01:21:16,320

sense to me

2205

01:21:20,390 --> 01:21:17,920

but at the same time it is it is

2206

01:21:21,430 --> 01:21:20,400

frustrating because you'd think

2207

01:21:24,229 --> 01:21:21,440

again if we don't know what they are

2208

01:21:27,030 --> 01:21:24,239

we'd want to find out

2209

01:21:29,270 --> 01:21:27,040

yeah exactly you know and we're like you

2210

01:21:31,990 --> 01:21:29,280

said we're seeing that reflected even

2211

01:21:34,229 --> 01:21:32,000

right now in israel and everything um

2212

01:21:36,149 --> 01:21:34,239

there are certain actions you can take

2213

01:21:37,430 --> 01:21:36,159

and some you can't due to like you said

2214

01:21:40,310 --> 01:21:37,440

so many socio

2215

01:21:42,629 --> 01:21:40,320

political issues and whatnot so yeah

2216

01:21:45,110 --> 01:21:42,639

even if it was chinese or russian

2217

01:21:47,030 --> 01:21:45,120

would we immediately say okay let's go

2218

01:21:47,990 --> 01:21:47,040

to war let's do this like this is the

2219

01:21:50,709 --> 01:21:48,000

reason

2220

01:21:52,390 --> 01:21:50,719

or a lot of people think right now that

2221

01:21:53,750 --> 01:21:52,400

all the mainstream coverage having to do

2222

01:21:56,310 --> 01:21:53,760

with the military and

2223

01:21:56,790 --> 01:21:56,320

the potential threat these objects could

2224

01:21:59,910 --> 01:21:56,800

cause

2225

01:22:01,990 --> 01:21:59,920

is this leading up to something you know

2226

01:22:03,990 --> 01:22:02,000

are we trying to boost the military

2227

01:22:06,070 --> 01:22:04,000

funding yet again with all these

2228

01:22:08,229 --> 01:22:06,080

possible threats in our skies

2229

01:22:09,110 --> 01:22:08,239

and our national security being

2230

01:22:10,870 --> 01:22:09,120

threatened

2231

01:22:15,270 --> 01:22:10,880

i mean me you know maybe the thing is

2232

01:22:19,590 --> 01:22:18,390

you know i don't think we really need

2233

01:22:21,990 --> 01:22:19,600

ufos to

2234

01:22:23,030 --> 01:22:22,000

uh make the case right now that say

2235

01:22:26,229 --> 01:22:23,040

russia

2236

01:22:28,310 --> 01:22:26,239

is an adversarial bad actor who doesn't

2237

01:22:29,910 --> 01:22:28,320

want what's best for the united states

2238

01:22:31,830 --> 01:22:29,920

right like that's the other part of this

2239

01:22:34,310 --> 01:22:31,840

too that i think is so funny is people

2240

01:22:35,910 --> 01:22:34,320

you know people on twitter or wherever

2241

01:22:39,350 --> 01:22:35,920

talking about ufos

2242

01:22:42,070 --> 01:22:39,360

will often act like this is the only

2243

01:22:44,229 --> 01:22:42,080

thing going on in the world yeah and

2244

01:22:45,189 --> 01:22:44,239

it's it's not it is a very small part of

2245

01:22:47,030 --> 01:22:45,199

things

2246

01:22:48,790 --> 01:22:47,040

that overall i think you know even like

2247

01:22:51,030 --> 01:22:48,800

say marco rubio marco rubio's

2248

01:22:53,350 --> 01:22:51,040

involvement

2249

01:22:54,070 --> 01:22:53,360

you know from my kind of cynical

2250

01:22:57,830 --> 01:22:54,080

viewpoint

2251

01:23:04,870 --> 01:23:01,270

story to get him out of the news right

2252

01:23:06,310 --> 01:23:04,880

so you know i think so the other thought

2253

01:23:09,110 --> 01:23:06,320

the other thought i guess i had based on

2254

01:23:11,860 --> 01:23:09,120

what you were saying was

2255

01:23:13,590 --> 01:23:11,870

um so imagine

2256

01:23:17,270 --> 01:23:13,600

[Music]

2257

01:23:20,709 --> 01:23:17,280

imagine pre-world war ii the v2 rocket

2258

01:23:25,830 --> 01:23:20,719

is out there

2259

01:23:29,430 --> 01:23:25,840

who reports on the v2 rocket being real

2260

01:23:33,189 --> 01:23:29,440

is the same person who reported

2261

01:23:36,390 --> 01:23:33,199

on um i don't know a year before had

2262

01:23:38,310 --> 01:23:36,400

done a report on fairies in wyoming

2263

01:23:42,790 --> 01:23:38,320

right like fairy folk in gnomes in

2264

01:23:45,990 --> 01:23:44,390

claiming that they were traveling around

2265

01:23:47,750 --> 01:23:46,000

in ships and whatever

2266

01:23:49,270 --> 01:23:47,760

yeah and then these rockets come out

2267

01:23:51,350 --> 01:23:49,280

they're like actually no it's a military

2268

01:23:54,950 --> 01:23:51,360

thing

2269

01:23:56,629 --> 01:23:54,960

the the problem again with the message

2270

01:23:59,030 --> 01:23:56,639

the problem is not necessarily the

2271

01:24:00,830 --> 01:23:59,040

message

2272

01:24:02,709 --> 01:24:00,840

it becomes the messenger in their

2273

01:24:04,310 --> 01:24:02,719

history

2274

01:24:06,229 --> 01:24:04,320

and it's something that i don't think

2275

01:24:08,149 --> 01:24:06,239

people in the ufo space have really

2276

01:24:09,830 --> 01:24:08,159

grappled or ufo fans i guess haven't

2277

01:24:14,709 --> 01:24:09,840

really grappled with

2278

01:24:16,310 --> 01:24:14,719

you know i remember when the

2279

01:24:17,990 --> 01:24:16,320

when this first you know the first

2280

01:24:19,110 --> 01:24:18,000

report about this the task force or

2281

01:24:20,470 --> 01:24:19,120

whatever came out

2282

01:24:22,390 --> 01:24:20,480

and everyone was you know people were

2283

01:24:24,870 --> 01:24:22,400

like on you know

2284

01:24:26,070 --> 01:24:24,880

on twitter you know all excited and

2285

01:24:27,750 --> 01:24:26,080

everything else

2286

01:24:29,750 --> 01:24:27,760

and you had some of the old you know

2287

01:24:31,430 --> 01:24:29,760

older ufo people who'd been involved in

2288

01:24:33,270 --> 01:24:31,440

this before and seen disclosure come and

2289

01:24:34,390 --> 01:24:33,280

gone at 100 times or whatever

2290

01:24:36,470 --> 01:24:34,400

and they were all saying you know hey

2291

01:24:38,709 --> 01:24:36,480

this has happened before and what

2292

01:24:41,750 --> 01:24:38,719

happened last time was

2293

01:24:43,750 --> 01:24:41,760

you know linda molten howe's documentary

2294

01:24:45,350 --> 01:24:43,760

on cattle mutilations got some normal

2295

01:24:47,990 --> 01:24:45,360

media attention

2296

01:24:49,510 --> 01:24:48,000

and then people started looking into the

2297

01:24:50,790 --> 01:24:49,520

backgrounds of the players and the

2298

01:24:52,390 --> 01:24:50,800

actual story and everything else and it

2299

01:24:56,229 --> 01:24:52,400

all fell apart

2300

01:24:58,950 --> 01:24:56,239

right um they don't seem to realize that

2301
01:25:01,510 --> 01:24:58,960
like the

2302
01:25:02,390 --> 01:25:01,520
this is a if it is an important story if

2303
01:25:04,310 --> 01:25:02,400
it is a real

2304
01:25:05,669 --> 01:25:04,320
national security threat if it's a real

2305
01:25:07,990 --> 01:25:05,679
national security issue that they're

2306
01:25:09,510 --> 01:25:08,000
working on

2307
01:25:11,510 --> 01:25:09,520
why publish a book like hunt for the

2308
01:25:14,950 --> 01:25:11,520
skinwalker

2309
01:25:16,950 --> 01:25:14,960
why do a bob lazar documentary like

2310
01:25:17,990 --> 01:25:16,960
like is it is it serious or is it not

2311
01:25:20,470 --> 01:25:18,000
serious

2312
01:25:21,189 --> 01:25:20,480
yeah it's one or the other and so you

2313
01:25:22,790 --> 01:25:21,199

can't

2314

01:25:24,709 --> 01:25:22,800

have it be you know it's just

2315

01:25:25,910 --> 01:25:24,719

entertainment so you know or just put

2316

01:25:27,270 --> 01:25:25,920

you know that that was the thing with

2317

01:25:30,470 --> 01:25:27,280

ttsa that always really

2318

01:25:31,590 --> 01:25:30,480

kind of frustrated me was on the one

2319

01:25:34,070 --> 01:25:31,600

hand you had them coming out

2320

01:25:35,350 --> 01:25:34,080

saying no this is really serious stuff

2321

01:25:36,070 --> 01:25:35,360

these are national security issues

2322

01:25:37,510 --> 01:25:36,080

everything else

2323

01:25:39,110 --> 01:25:37,520

and then you'd ask them well why are you

2324

01:25:40,229 --> 01:25:39,120

publishing a bob lazar dot you know

2325

01:25:42,550 --> 01:25:40,239

biography

2326
01:25:43,270 --> 01:25:42,560
and they say well that's our media arm

2327
01:25:46,470 --> 01:25:43,280
yeah

2328
01:25:48,709 --> 01:25:46,480
you know what like that's

2329
01:25:51,350 --> 01:25:48,719
that's a really good point yeah you know

2330
01:25:53,510 --> 01:25:51,360
the the um

2331
01:25:54,470 --> 01:25:53,520
i don't know if there's a reason that

2332
01:25:56,310 --> 01:25:54,480
there's you know north

2333
01:25:58,470 --> 01:25:56,320
there's a reason northrop grumman

2334
01:26:01,590 --> 01:25:58,480
doesn't have a media arm

2335
01:26:05,030 --> 01:26:01,600
that publishes stories on

2336
01:26:07,510 --> 01:26:05,040
you know uh flying rockets or whatever

2337
01:26:09,830 --> 01:26:07,520
um yeah you know there's a reason that

2338
01:26:11,189 --> 01:26:09,840

raytheon doesn't have a superhero as

2339

01:26:13,110 --> 01:26:11,199

their logo

2340

01:26:14,790 --> 01:26:13,120

who's got comic books and movies and you

2341

01:26:18,470 --> 01:26:14,800

know because it's serious

2342

01:26:21,189 --> 01:26:18,480

it's a serious thing people die um

2343

01:26:23,189 --> 01:26:21,199

and you know so it just it's so

2344

01:26:24,790 --> 01:26:23,199

frustrating to

2345

01:26:26,870 --> 01:26:24,800

you know it it's the same thing with

2346

01:26:28,229 --> 01:26:26,880

some of the figures too where you just

2347

01:26:30,709 --> 01:26:28,239

you have to say to yourself you have to

2348

01:26:32,790 --> 01:26:30,719

wonder again

2349

01:26:34,310 --> 01:26:32,800

you know like greer greer recently

2350

01:26:35,350 --> 01:26:34,320

pushes out this thing saying that

2351

01:26:37,510 --> 01:26:35,360

elizondo is

2352

01:26:38,790 --> 01:26:37,520

you know uh what did he say on his

2353

01:26:42,790 --> 01:26:38,800

youtube thing elizondo is a

2354

01:26:46,470 --> 01:26:45,510

false flag alien invasion you know

2355

01:26:50,790 --> 01:26:46,480

pending

2356

01:26:53,830 --> 01:26:50,800

yeah like okay well then if it's serious

2357

01:26:55,430 --> 01:26:53,840

at least greer has greer i think at

2358

01:26:58,550 --> 01:26:55,440

least has taken himself too seriously

2359

01:27:01,830 --> 01:27:00,310

but you know again it's this sort of

2360

01:27:04,950 --> 01:27:01,840

thing of you know is it

2361

01:27:07,030 --> 01:27:04,960

is it serious or not it has to be

2362

01:27:09,030 --> 01:27:07,040

um it has to be one or the other i think

2363

01:27:10,790 --> 01:27:09,040

for a lot of people

2364

01:27:13,110 --> 01:27:10,800

the argument of you know they're just

2365

01:27:14,790 --> 01:27:13,120

doing that because it's just good tv

2366

01:27:16,390 --> 01:27:14,800

or because it's just media exposure

2367

01:27:19,510 --> 01:27:16,400

whatever

2368

01:27:21,910 --> 01:27:19,520

media exposure is not the kind of

2369

01:27:23,830 --> 01:27:21,920

currency of the realm that people seem

2370

01:27:26,870 --> 01:27:23,840

to think it is for

2371

01:27:28,070 --> 01:27:26,880

national security issues this is very

2372

01:27:29,590 --> 01:27:28,080

strange

2373

01:27:31,350 --> 01:27:29,600

you know there's a reason there's a

2374

01:27:33,030 --> 01:27:31,360

reason spies don't go on the history

2375

01:27:35,830 --> 01:27:33,040

channel

2376

01:27:37,110 --> 01:27:35,840

you know that doesn't happen it's a

2377

01:27:39,990 --> 01:27:37,120

little contradictory

2378

01:27:41,030 --> 01:27:40,000

such a good point man um all right well

2379

01:27:43,350 --> 01:27:41,040

let's move to

2380

01:27:44,149 --> 01:27:43,360

i guess let's move back to skyhub for

2381

01:27:47,270 --> 01:27:44,159

just a moment

2382

01:27:50,470 --> 01:27:47,280

our last skyhub question of the day

2383

01:27:52,390 --> 01:27:50,480

uh david on twitter asks um let's see

2384

01:27:55,830 --> 01:27:52,400

here what skills or knowledge

2385

01:27:59,590 --> 01:27:55,840

are you in most need of to help move

2386

01:28:02,870 --> 01:27:59,600

skyhub forward really good question

2387

01:28:06,070 --> 01:28:02,880

so we currently would love

2388

01:28:09,830 --> 01:28:06,080

uh developers with skills in golang

2389

01:28:12,629 --> 01:28:09,840

in python in c um in java

2390

01:28:13,590 --> 01:28:12,639

any of the kind of you know any of the

2391

01:28:16,629 --> 01:28:13,600

languages that

2392

01:28:19,350 --> 01:28:16,639

that we write the code in currently

2393

01:28:22,629 --> 01:28:19,360

um it would also be really great or

2394

01:28:24,709 --> 01:28:22,639

really useful to have people involved

2395

01:28:25,910 --> 01:28:24,719

to help us kind of take the machine

2396

01:28:30,229 --> 01:28:25,920

learning

2397

01:28:31,910 --> 01:28:30,239

and um user interface side of things to

2398

01:28:34,149 --> 01:28:31,920

the next level so

2399

01:28:35,830 --> 01:28:34,159

uh people with experience and database

2400

01:28:38,950 --> 01:28:35,840

management are building

2401
01:28:41,270 --> 01:28:38,960
would also be very very welcome um

2402
01:28:42,310 --> 01:28:41,280
and also you know just people interested

2403
01:28:45,910 --> 01:28:42,320
and

2404
01:28:49,590 --> 01:28:45,920
ready to be actively engaged in this um

2405
01:28:51,430 --> 01:28:49,600
you know it's a it's a this is a project

2406
01:28:53,430 --> 01:28:51,440
where people are working for free we're

2407
01:28:57,270 --> 01:28:53,440
spending our free time to build this

2408
01:29:00,390 --> 01:28:57,280
because it's it's a labor of love

2409
01:29:02,470 --> 01:29:00,400
that isn't everybody's

2410
01:29:03,350 --> 01:29:02,480
cup of tea you know so but if you think

2411
01:29:04,709 --> 01:29:03,360
that it's something that you'd like to

2412
01:29:06,070 --> 01:29:04,719
be involved in and it sounds

2413
01:29:07,830 --> 01:29:06,080

something like something that you think

2414

01:29:09,189 --> 01:29:07,840

would be um

2415

01:29:11,669 --> 01:29:09,199

a good way to spend a part of your

2416

01:29:12,229 --> 01:29:11,679

weekends please reach out to us you know

2417

01:29:14,790 --> 01:29:12,239

team

2418

01:29:16,950 --> 01:29:14,800

skyhub.org is the email so shoot us an

2419

01:29:18,790 --> 01:29:16,960

email we'd love to have you

2420

01:29:20,070 --> 01:29:18,800

cool man and again i think it's

2421

01:29:22,310 --> 01:29:20,080

important to stress

2422

01:29:23,430 --> 01:29:22,320

that all of you at skyhub are dedicating

2423

01:29:26,629 --> 01:29:23,440

your time

2424

01:29:29,030 --> 01:29:26,639

your insight uh even your own money to

2425

01:29:30,310 --> 01:29:29,040

making this happen and i know you guys

2426

01:29:31,750 --> 01:29:30,320

have a patreon

2427

01:29:34,790 --> 01:29:31,760

as well and a couple people were

2428

01:29:36,709 --> 01:29:34,800

wondering um what is the patreon for

2429

01:29:38,629 --> 01:29:36,719

how can they support you guys and and

2430

01:29:39,350 --> 01:29:38,639

where does the money go for the patreon

2431

01:29:41,910 --> 01:29:39,360

campaign

2432

01:29:44,149 --> 01:29:41,920

yeah it's a really good question so all

2433

01:29:47,430 --> 01:29:44,159

of the patreon money goes towards

2434

01:29:52,470 --> 01:29:47,440

uh development costs so we actually

2435

01:29:54,390 --> 01:29:52,480

um we just put in a order for um some

2436

01:29:56,310 --> 01:29:54,400

skyhub enclosures

2437

01:29:58,149 --> 01:29:56,320

so what those are are they are kind of a

2438

01:30:01,030 --> 01:29:58,159

thermoformed 3d printer

2439

01:30:03,350 --> 01:30:01,040

not 3d printed thermoformed cases where

2440

01:30:05,430 --> 01:30:03,360

people can build and put their sky hubs

2441

01:30:06,390 --> 01:30:05,440

and have it in an official enclosure

2442

01:30:09,350 --> 01:30:06,400

right

2443

01:30:09,910 --> 01:30:09,360

um a big chunk of the money goes towards

2444

01:30:15,350 --> 01:30:09,920

paying

2445

01:30:18,149 --> 01:30:15,360

some place to put the data

2446

01:30:19,110 --> 01:30:18,159

yeah man it's not cheap i know no that

2447

01:30:21,910 --> 01:30:19,120

the website

2448

01:30:23,030 --> 01:30:21,920

um all of those other kinds of aspects

2449

01:30:26,149 --> 01:30:23,040

and things

2450

01:30:29,110 --> 01:30:26,159

um and then ultimately the goal

2451

01:30:29,750 --> 01:30:29,120

uh ultimately the goal would be to have

2452

01:30:32,709 --> 01:30:29,760

uh

2453

01:30:34,229 --> 01:30:32,719

the ability to get professionals working

2454

01:30:37,110 --> 01:30:34,239

on sky hub

2455

01:30:39,189 --> 01:30:37,120

um part-time right so paying people you

2456

01:30:41,270 --> 01:30:39,199

know for three hours four hours of

2457

01:30:43,990 --> 01:30:41,280

specially programming work or whatever

2458

01:30:45,189 --> 01:30:44,000

where our team can't um you know where

2459

01:30:47,590 --> 01:30:45,199

our team can't

2460

01:30:48,709 --> 01:30:47,600

what's the word where our team maybe

2461

01:30:49,910 --> 01:30:48,719

doesn't have the expertise or the

2462

01:30:52,310 --> 01:30:49,920

ability to handle

2463

01:30:53,350 --> 01:30:52,320

um a specific aspect or a specific thing

2464

01:30:56,070 --> 01:30:53,360

like that so

2465

01:30:58,310 --> 01:30:56,080

yeah you know um it's a great question

2466

01:31:01,669 --> 01:30:58,320

though and another thing that we are

2467

01:31:03,030 --> 01:31:01,679

um what's the word another thing where

2468

01:31:06,229 --> 01:31:03,040

we are

2469

01:31:08,070 --> 01:31:06,239

currently figuring out you know this is

2470

01:31:09,510 --> 01:31:08,080

for a lot of us the first time that we

2471

01:31:10,870 --> 01:31:09,520

have

2472

01:31:12,310 --> 01:31:10,880

for some of us it's not the first time

2473

01:31:13,990 --> 01:31:12,320

that they've worked on kind of a charity

2474

01:31:15,510 --> 01:31:14,000

or something like this

2475

01:31:16,950 --> 01:31:15,520

for me it really is the first time that

2476
01:31:18,070 --> 01:31:16,960
i've kind of worked at this high level

2477
01:31:19,910 --> 01:31:18,080
of a charity

2478
01:31:22,550 --> 01:31:19,920
um or a kind of an organization not

2479
01:31:24,550 --> 01:31:22,560
charity a non-for-profit kind of

2480
01:31:25,590 --> 01:31:24,560
endeavor or project for citizen science

2481
01:31:29,030 --> 01:31:25,600
project

2482
01:31:32,390 --> 01:31:29,040
um being being um

2483
01:31:34,709 --> 01:31:32,400
being transparent with the money

2484
01:31:36,070 --> 01:31:34,719
is also an extremely important aspect of

2485
01:31:39,270 --> 01:31:36,080
that

2486
01:31:41,990 --> 01:31:39,280
are

2487
01:31:43,189 --> 01:31:42,000
um you know if we had all the time in

2488
01:31:44,629 --> 01:31:43,199

the world

2489

01:31:46,950 --> 01:31:44,639

um all of this stuff would be done

2490

01:31:50,790 --> 01:31:46,960

already we don't it is

2491

01:31:52,709 --> 01:31:50,800

a public project but um

2492

01:31:53,830 --> 01:31:52,719

that's definitely something else that we

2493

01:31:57,189 --> 01:31:53,840

we hope the public

2494

01:31:59,430 --> 01:31:57,199

will keep us accountable on and keep us

2495

01:32:01,030 --> 01:31:59,440

moving forward with right but but right

2496

01:32:03,750 --> 01:32:01,040

now though like i said

2497

01:32:04,709 --> 01:32:03,760

um you know the money is going towards

2498

01:32:07,830 --> 01:32:04,719

so the building

2499

01:32:11,510 --> 01:32:07,840

and developing of the uh the enclosures

2500

01:32:15,030 --> 01:32:11,520

for uh you know environmental conditions

2501
01:32:18,629 --> 01:32:15,040
more extreme let's say than my garden

2502
01:32:20,790 --> 01:32:18,639
um the development of

2503
01:32:22,229 --> 01:32:20,800
uh you know or the kind of cloud

2504
01:32:23,270 --> 01:32:22,239
computing costs and things like that

2505
01:32:26,950 --> 01:32:23,280
that we have

2506
01:32:28,390 --> 01:32:26,960
and the uh the storage costs awesome

2507
01:32:30,629 --> 01:32:28,400
yeah and again i think that's really

2508
01:32:33,910 --> 01:32:30,639
important to sort of demystify

2509
01:32:36,070 --> 01:32:33,920
the whole um contribution thing you know

2510
01:32:37,750 --> 01:32:36,080
a lot of people want to know well

2511
01:32:39,590 --> 01:32:37,760
you're not using this money to go on a

2512
01:32:41,430 --> 01:32:39,600
vacation are you chris you know

2513
01:32:43,750 --> 01:32:41,440

so it's good to know what is actually

2514

01:32:44,470 --> 01:32:43,760

being done and i highly suggest everyone

2515

01:32:46,229 --> 01:32:44,480

check out

2516

01:32:48,550 --> 01:32:46,239

your patreon campaign over there it's

2517

01:32:49,350 --> 01:32:48,560

very very important for something like

2518

01:32:50,629 --> 01:32:49,360

this

2519

01:32:52,070 --> 01:32:50,639

yeah definitely check it out i mean

2520

01:32:53,430 --> 01:32:52,080

that's the other thing too we've toyed

2521

01:32:55,510 --> 01:32:53,440

with like

2522

01:32:57,750 --> 01:32:55,520

we've toyed with idiot in the past of

2523

01:33:00,070 --> 01:32:57,760

like trying other

2524

01:33:01,830 --> 01:33:00,080

the good the good news right now is that

2525

01:33:05,590 --> 01:33:01,840

our

2526

01:33:09,030 --> 01:33:05,600

now

2527

01:33:11,510 --> 01:33:09,040

doesn't

2528

01:33:12,709 --> 01:33:11,520

uh overcome the amount of money we have

2529

01:33:13,990 --> 01:33:12,719

every month coming in

2530

01:33:15,990 --> 01:33:14,000

which is great which is perfect it's

2531

01:33:18,709 --> 01:33:16,000

exactly where you want to be but

2532

01:33:20,310 --> 01:33:18,719

as more of these units come online as we

2533

01:33:22,709 --> 01:33:20,320

want to do bigger things or bigger

2534

01:33:23,590 --> 01:33:22,719

projects with this or or stuff like that

2535

01:33:28,229 --> 01:33:23,600

you know

2536

01:33:29,750 --> 01:33:28,239

that's what the patreon really is for to

2537

01:33:30,790 --> 01:33:29,760

kind of build that base up

2538

01:33:32,149 --> 01:33:30,800

and make sure that we're ready to

2539

01:33:34,629 --> 01:33:32,159

operate in the in the coming years so

2540

01:33:37,350 --> 01:33:34,639

that there is a skyhub in ten years

2541

01:33:38,470 --> 01:33:37,360

exactly man come out swinging i gotcha

2542

01:33:40,709 --> 01:33:38,480

um well

2543

01:33:41,750 --> 01:33:40,719

moving to the podcast my man before we

2544

01:33:44,709 --> 01:33:41,760

go here

2545

01:33:45,189 --> 01:33:44,719

tell us about the mad scientist podcast

2546

01:33:47,430 --> 01:33:45,199

maybe

2547

01:33:49,110 --> 01:33:47,440

some of your favorite episodes you guys

2548

01:33:50,070 --> 01:33:49,120

have recently done i know you did like a

2549

01:33:52,629 --> 01:33:50,080

huge

2550

01:33:53,669 --> 01:33:52,639

multi-part series on time travel which

2551
01:33:56,550 --> 01:33:53,679
is so cool

2552
01:33:57,510 --> 01:33:56,560
a topic everyone can relate to and find

2553
01:33:59,590 --> 01:33:57,520
interesting

2554
01:34:00,629 --> 01:33:59,600
um but you guys break it down which i

2555
01:34:02,790 --> 01:34:00,639
love so yeah

2556
01:34:03,990 --> 01:34:02,800
what do you got going on over at the mad

2557
01:34:07,270 --> 01:34:04,000
scientist podcast

2558
01:34:08,790 --> 01:34:07,280
as of late and in the future yeah so the

2559
01:34:10,790 --> 01:34:08,800
so the show that we do is the mad

2560
01:34:11,669 --> 01:34:10,800
scientist podcast it's me and my co-host

2561
01:34:15,270 --> 01:34:11,679
marie

2562
01:34:16,070 --> 01:34:15,280
um and so our show really looks at kind

2563
01:34:20,390 --> 01:34:16,080

of the history

2564

01:34:22,229 --> 01:34:20,400

philosophy and hard science behind

2565

01:34:25,830 --> 01:34:22,239

topics that usually come up in science

2566

01:34:28,229 --> 01:34:25,840

fiction or on you know

2567

01:34:29,750 --> 01:34:28,239

i don't know just just science fiction

2568

01:34:31,030 --> 01:34:29,760

kind of topics and things like that but

2569

01:34:33,590 --> 01:34:31,040

also looking at

2570

01:34:34,709 --> 01:34:33,600

parts of the science world or science

2571

01:34:36,550 --> 01:34:34,719

history

2572

01:34:37,990 --> 01:34:36,560

that maybe you weren't taught in school

2573

01:34:42,390 --> 01:34:38,000

but are still really interesting

2574

01:34:44,629 --> 01:34:42,400

so um my favorite series probably are

2575

01:34:45,990 --> 01:34:44,639

we did one on the history of surgery

2576

01:34:49,430 --> 01:34:46,000

which was fascinating

2577

01:34:51,270 --> 01:34:49,440

and terrifying and just really really

2578

01:34:53,830 --> 01:34:51,280

fun to research for

2579

01:34:54,790 --> 01:34:53,840

we did one uh we did one on robert

2580

01:34:57,109 --> 01:34:54,800

bigelow

2581

01:34:58,390 --> 01:34:57,119

and kind of the beginnings and early

2582

01:35:01,590 --> 01:34:58,400

early time period

2583

01:35:03,590 --> 01:35:01,600

of uh the skinwalker ranch saga and how

2584

01:35:05,990 --> 01:35:03,600

it played into the stars academy and how

2585

01:35:08,390 --> 01:35:06,000

it really got us to today

2586

01:35:09,990 --> 01:35:08,400

and we did a series recently like ryan

2587

01:35:11,510 --> 01:35:10,000

said on time travel

2588

01:35:13,350 --> 01:35:11,520

which was a lot of fun and we kind of go

2589

01:35:15,030 --> 01:35:13,360

into you know

2590

01:35:17,510 --> 01:35:15,040

what is time is kind of a physical

2591

01:35:20,790 --> 01:35:17,520

concept what does it mean mathematically

2592

01:35:23,109 --> 01:35:20,800

how do we use it in our mathematics um

2593

01:35:25,270 --> 01:35:23,119

all of those kind of big questions

2594

01:35:27,030 --> 01:35:25,280

ultimately getting to okay well

2595

01:35:28,229 --> 01:35:27,040

you know what does this mean for time

2596

01:35:30,149 --> 01:35:28,239

travel and what does it mean for our

2597

01:35:32,310 --> 01:35:30,159

ability to go back or forward in time

2598

01:35:34,470 --> 01:35:32,320

so it's been a lot of fun check it out

2599

01:35:37,590 --> 01:35:34,480

we're available on spotify

2600

01:35:40,070 --> 01:35:37,600

apple podcast google play on uh

2601
01:35:41,590 --> 01:35:40,080
we're available now on pandora too which

2602
01:35:42,070 --> 01:35:41,600
uh you know we're just available

2603
01:35:44,870 --> 01:35:42,080
everywhere

2604
01:35:46,550 --> 01:35:44,880
so go find us and take a listen yup

2605
01:35:47,350 --> 01:35:46,560
absolutely anywhere you find somewhere

2606
01:35:50,229 --> 01:35:47,360
in the skies

2607
01:35:50,790 --> 01:35:50,239
mad scientist podcast is there as well

2608
01:35:53,590 --> 01:35:50,800
um

2609
01:35:55,830 --> 01:35:53,600
well you know closing question as always

2610
01:35:57,510 --> 01:35:55,840
my man you know this role by now

2611
01:35:59,510 --> 01:35:57,520
where can we find everything you're up

2612
01:36:02,070 --> 01:35:59,520
to and where can we find

2613
01:36:04,550 --> 01:36:02,080

skyhub to learn more yeah so you can

2614

01:36:05,910 --> 01:36:04,560

find skyhub at skyhub.org

2615

01:36:08,310 --> 01:36:05,920

that's where you'll find the link to our

2616

01:36:09,350 --> 01:36:08,320

discord server uh so you can come in and

2617

01:36:11,750 --> 01:36:09,360

ask us questions

2618

01:36:13,030 --> 01:36:11,760

that's where you'll find our our get

2619

01:36:14,470 --> 01:36:13,040

repository so

2620

01:36:16,149 --> 01:36:14,480

where you can actually go and download

2621

01:36:17,350 --> 01:36:16,159

the code and see the inner workings and

2622

01:36:20,229 --> 01:36:17,360

everything else

2623

01:36:21,270 --> 01:36:20,239

um you can find us on twitter so at

2624

01:36:24,390 --> 01:36:21,280

skyhub 10

2625

01:36:25,669 --> 01:36:24,400

is the main skyhub page but there's also

2626

01:36:28,070 --> 01:36:25,679

obviously you can you can follow me at

2627

01:36:30,070 --> 01:36:28,080

mad scientist pod um

2628

01:36:31,590 --> 01:36:30,080

you know follow other folks from the

2629

01:36:33,510 --> 01:36:31,600

team on twitter as well

2630

01:36:35,109 --> 01:36:33,520

our twitter handles are up under the the

2631

01:36:38,310 --> 01:36:35,119

team kind of heading

2632

01:36:40,470 --> 01:36:38,320

on the skyhub website um and

2633

01:36:42,149 --> 01:36:40,480

you know our next kind of big appearance

2634

01:36:43,109 --> 01:36:42,159

is going to be at the su conference here

2635

01:36:45,030 --> 01:36:43,119

coming up

2636

01:36:47,189 --> 01:36:45,040

um we have a video presentation on kind

2637

01:36:48,870 --> 01:36:47,199

of what skyhub is how it's evolved

2638

01:36:50,709 --> 01:36:48,880

the software and the hardware and all

2639

01:36:52,310 --> 01:36:50,719

those sorts of things that that'll be

2640

01:36:53,830 --> 01:36:52,320

going up on youtube after the conference

2641

01:36:56,470 --> 01:36:53,840

so people can go see it

2642

01:36:58,310 --> 01:36:56,480

um and and yeah that's that's really the

2643

01:36:59,910 --> 01:36:58,320

best place for people to find us so

2644

01:37:01,750 --> 01:36:59,920

i'm on twitter all the time probably too

2645

01:37:02,470 --> 01:37:01,760

much so you can always find me on

2646

01:37:06,870 --> 01:37:02,480

twitter

2647

01:37:08,950 --> 01:37:06,880

yelling about something so we all

2648

01:37:11,109 --> 01:37:08,960

i'm glad you brought up scu i know you

2649

01:37:13,109 --> 01:37:11,119

guys are working with them and also

2650

01:37:15,109 --> 01:37:13,119

with the uap expedition group who's

2651
01:37:16,950 --> 01:37:15,119
going out to the catalina islands

2652
01:37:18,149 --> 01:37:16,960
to monitor the activity out there where

2653
01:37:20,390 --> 01:37:18,159
the tic tac event

2654
01:37:22,310 --> 01:37:20,400
took place so that's really exciting i

2655
01:37:24,310 --> 01:37:22,320
highly suggest the youtube channel

2656
01:37:26,470 --> 01:37:24,320
where you can watch some of the videos

2657
01:37:28,470 --> 01:37:26,480
that skyhub devices have captured

2658
01:37:29,830 --> 01:37:28,480
which is really cool the comments are

2659
01:37:31,669 --> 01:37:29,840
great hearing everyone

2660
01:37:33,109 --> 01:37:31,679
say what they think it is and and

2661
01:37:35,109 --> 01:37:33,119
everything in between

2662
01:37:36,390 --> 01:37:35,119
so no man you guys got a good thing

2663
01:37:39,830 --> 01:37:36,400

going on i am

2664

01:37:42,550 --> 01:37:39,840

so happy to like be in this generation

2665

01:37:43,270 --> 01:37:42,560

that is taking uap seriously is trying

2666

01:37:45,990 --> 01:37:43,280

to put more

2667

01:37:47,430 --> 01:37:46,000

science into all of this and trying to

2668

01:37:49,830 --> 01:37:47,440

understand these phenomena

2669

01:37:51,189 --> 01:37:49,840

that continue to mystify us brother so

2670

01:37:51,990 --> 01:37:51,199

thank you for coming on summer in the

2671

01:37:54,149 --> 01:37:52,000

skies

2672

01:37:56,390 --> 01:37:54,159

and uh yeah thank you for being a part

2673

01:37:56,950 --> 01:37:56,400

of sky hub i think this is the future of

2674

01:37:59,830 --> 01:37:56,960

uap

2675

01:38:02,070 --> 01:37:59,840

studies bar none as always man thanks

2676

01:38:03,669 --> 01:38:02,080

for having us always a pleasure and uh

2677

01:38:05,109 --> 01:38:03,679

yeah we can't wait to uh can't wait to

2678

01:38:07,189 --> 01:38:05,119

have some really good videos here that

2679

01:38:16,830 --> 01:38:07,199

we can uh keep sharing with you so

2680

01:38:28,830 --> 01:38:16,840

we'll talk soon awesome thank you

2681

01:38:51,560 --> 01:38:28,840

[Music]