

**ERLING
STRAND**



**SETH
SHOSTAK**

SETI

1
00:00:34,979 --> 00:00:13,380

[Music]

2
00:00:40,630 --> 00:00:37,540

hello and welcome to the show of Martin

3
00:00:43,509 --> 00:00:40,640

will usher host and we are got on kgr a

4
00:00:46,840 --> 00:00:43,519

radio tonight and I guess I would take

5
00:00:49,780 --> 00:00:46,850

fault for that because of a I'm using

6
00:00:51,189 --> 00:00:49,790

zoom and it just was not going to work

7
00:00:53,020 --> 00:00:51,199

with their phone lines and all that over

8
00:00:55,299 --> 00:00:53,030

there they're gonna try to work out

9
00:00:58,119 --> 00:00:55,309

those bugs and we'll be back on K GRA

10
00:00:58,810 --> 00:00:58,129

next week but for now we're just on

11
00:01:01,720 --> 00:00:58,820

YouTube

12
00:01:03,970 --> 00:01:01,730

and tonight just to let you know how

13
00:01:06,460 --> 00:01:03,980

things are going first of all I have the

14

00:01:09,330 --> 00:01:06,470

one and only Alejandro Rojas gonna be

15

00:01:13,600 --> 00:01:09,340

joining me for about 20 minutes or so

16

00:01:16,359 --> 00:01:13,610

and then after that I have our first

17

00:01:19,900 --> 00:01:16,369

guest for about 30-something minutes and

18

00:01:24,340 --> 00:01:19,910

that's Earling strand from Norway he was

19

00:01:25,779 --> 00:01:24,350

on recorded twice the second time

20

00:01:29,830 --> 00:01:25,789

because the file was corrupt the first

21

00:01:31,840 --> 00:01:29,840

time and so it's it's late at night very

22

00:01:34,090 --> 00:01:31,850

late at night for him and that's why he

23

00:01:38,410 --> 00:01:34,100

wanted to pre-record so I will be in the

24

00:01:41,260 --> 00:01:38,420

chatroom during that time and after that

25

00:01:43,510 --> 00:01:41,270

we have Seth Shostak coming in live and

26

00:01:46,870 --> 00:01:43,520

I will gonna be I'm gonna be taking

27

00:01:47,410 --> 00:01:46,880

calls on zoom I'll tell you how that'll

28

00:01:49,510 --> 00:01:47,420

work

29

00:01:51,190 --> 00:01:49,520

I want to thank everyone that supports

30

00:01:54,370 --> 00:01:51,200

the show anyone can do that all you have

31

00:01:56,350 --> 00:01:54,380

to do is go over to podcast UFO calm and

32

00:01:59,830 --> 00:01:56,360

you can see the information over there

33

00:02:02,380 --> 00:01:59,840

or patreon I also want to say that we

34

00:02:05,649 --> 00:02:02,390

have another blog this week from Charles

35

00:02:08,169 --> 00:02:05,659

Lear and that's UFOs in China so check

36

00:02:10,270 --> 00:02:08,179

that out he's researched it pretty well

37

00:02:11,860 --> 00:02:10,280

it's interesting there's that story

38

00:02:13,150 --> 00:02:11,870

about the airport I remember they closed

39

00:02:15,520 --> 00:02:13,160

the airport over there that would seem

40

00:02:19,090 --> 00:02:15,530

like it was just a few years ago all

41

00:02:21,400 --> 00:02:19,100

interesting stuff but for now we are

42

00:02:23,110 --> 00:02:21,410

going to get in a little bit of a chat

43

00:02:25,750 --> 00:02:23,120

with Alejandro

44

00:02:28,210 --> 00:02:25,760

how are you Alonzo oh oh I like doing

45

00:02:30,610 --> 00:02:28,220

good hello Martin Knights is that what

46

00:02:33,819 --> 00:02:30,620

your followers are called do they have a

47

00:02:36,490 --> 00:02:33,829

name Omar nice no mark night sounds a

48

00:02:38,080 --> 00:02:36,500

bit cold fish but you might like that to

49

00:02:42,150 --> 00:02:38,090

be a leader of a cult yeah

50

00:02:45,309 --> 00:02:42,160

finally yeah that's my calling yeah no I

51
00:02:47,229 --> 00:02:45,319
know we do have some great listeners and

52
00:02:49,000 --> 00:02:47,239
I don't know why but lately African some

53
00:02:51,190 --> 00:02:49,010
wonderful email in the last couple days

54
00:02:54,430 --> 00:02:51,200
so I want to thank all those people

55
00:02:57,640 --> 00:02:54,440
sending kind words and you know it makes

56
00:03:01,119 --> 00:02:57,650
up one kind email makes up for the

57
00:03:04,509 --> 00:03:01,129
twenty troll emails and comments that we

58
00:03:05,860 --> 00:03:04,519
both are familiar with unfortunately but

59
00:03:08,350 --> 00:03:05,870
yeah I like that Martin Knights I'm

60
00:03:10,000 --> 00:03:08,360
gonna call Martin Knight so um and I'm

61
00:03:13,180 --> 00:03:10,010
also excited I think it's gonna be

62
00:03:14,860 --> 00:03:13,190
interesting especially if you ask Seth

63
00:03:17,140 --> 00:03:14,870

Shostak if he knows about the head

64

00:03:20,860 --> 00:03:17,150

stolen lights and what he knows the

65

00:03:25,479 --> 00:03:20,870

contrast between what mister dr. strand

66

00:03:31,059 --> 00:03:25,489

has to say and dr. Shostak ought to be

67

00:03:34,089 --> 00:03:31,069

interesting yes yes I like talking to

68

00:03:36,610 --> 00:03:34,099

erling because you know he's a basically

69

00:03:40,720 --> 00:03:36,620

a scientist as you know because you know

70

00:03:43,509 --> 00:03:40,730

him that is taking a chance a chance of

71

00:03:46,090 --> 00:03:43,519

ridicule or you know or people not

72

00:03:48,160 --> 00:03:46,100

taking him seriously on other things so

73

00:03:50,410 --> 00:03:48,170

I do appreciate it and I think you know

74

00:03:51,940 --> 00:03:50,420

the best thing that he does is he gets

75

00:03:53,470 --> 00:03:51,950

his students involved they get to

76

00:03:55,150 --> 00:03:53,480

witness that you know the things

77

00:03:58,030 --> 00:03:55,160

sometimes they get to see the firsthand

78

00:04:01,449 --> 00:03:58,040

which is really exciting for them that's

79

00:04:03,640 --> 00:04:01,459

all yeah that is really cool yeah so I

80

00:04:06,339 --> 00:04:03,650

see it it seems like every time we talk

81

00:04:09,430 --> 00:04:06,349

you have a different background yeah I

82

00:04:11,409 --> 00:04:09,440

know it's your where yeah I know yet

83

00:04:14,080 --> 00:04:11,419

this is what I you I've been doing the

84

00:04:16,180 --> 00:04:14,090

show for a while but I've moved it

85

00:04:18,520 --> 00:04:16,190

around a bit just because you know I've

86

00:04:20,979 --> 00:04:18,530

got a new headquarters that I've moved

87

00:04:22,990 --> 00:04:20,989

some of my stuff to so the old

88

00:04:25,810 --> 00:04:23,000

headquarters I don't have all my cool

89

00:04:27,790 --> 00:04:25,820

gear here and that my lights so I don't

90

00:04:29,440 --> 00:04:27,800

have my lights here so that's why the

91

00:04:32,409 --> 00:04:29,450

Lighting's different and everything but

92

00:04:33,610 --> 00:04:32,419

next week will be another location or I

93

00:04:35,140 --> 00:04:33,620

should yet the new headquarters

94

00:04:37,870 --> 00:04:35,150

hopefully I'll have that all set up for

95

00:04:41,010 --> 00:04:37,880

you too so that'll be a lot of fun yeah

96

00:04:43,870 --> 00:04:41,020

yeah that looking forward to seeing that

97

00:04:45,909 --> 00:04:43,880

and I bet you're really looking forward

98

00:04:46,420 --> 00:04:45,919

to the move you know being settled in

99

00:04:49,149 --> 00:04:46,430

your new place

100

00:04:51,580 --> 00:04:49,159

yes I'm mostly settled in and so just

101

00:04:54,250 --> 00:04:51,590

going back and forth and I'm

102

00:04:56,680 --> 00:04:54,260

very excited about it yeah all right

103

00:04:59,890 --> 00:04:56,690

well hey what's what's going on it seems

104

00:05:03,910 --> 00:04:59,900

like the big story of this last week is

105

00:05:07,150 --> 00:05:03,920

about the army the army situation you

106

00:05:09,370 --> 00:05:07,160

want to talk about that yeah so that is

107

00:05:12,040 --> 00:05:09,380

the big story of course is to the Stars

108

00:05:14,470 --> 00:05:12,050

working with the army you know we've got

109

00:05:17,260 --> 00:05:14,480

that announcement maybe out like a week

110

00:05:19,360 --> 00:05:17,270

ago and that was from to the stars

111

00:05:22,800 --> 00:05:19,370

saying they're working with the army on

112

00:05:26,470 --> 00:05:22,810

this project called CRA da prata

113

00:05:30,160 --> 00:05:26,480

which is essentially working to examine

114

00:05:33,310 --> 00:05:30,170

these mysterious materials that come

115

00:05:35,590 --> 00:05:33,320

from you IEP cases that to the Stars has

116

00:05:39,040 --> 00:05:35,600

been talking about Elizondo is on Tucker

117

00:05:40,840 --> 00:05:39,050

Carlson recently and and he's been on

118

00:05:42,660 --> 00:05:40,850

other shows talking about this so what's

119

00:05:45,100 --> 00:05:42,670

the deal is what everybody's thinking

120

00:05:49,090 --> 00:05:45,110

and it's of course this is really

121

00:05:50,860 --> 00:05:49,100

important and surprising the original to

122

00:05:52,660 --> 00:05:50,870

the stars announcement didn't have a lot

123

00:05:56,110 --> 00:05:52,670

of information it was very kind of

124

00:05:58,060 --> 00:05:56,120

enigmatic but now others have kind of

125

00:06:00,490 --> 00:05:58,070

examined the information in fact you're

126

00:06:03,820 --> 00:06:00,500

on Greenwald of the black falls did get

127

00:06:06,310 --> 00:06:03,830

a copy of the entire agreement that he

128

00:06:08,650 --> 00:06:06,320

posted and there have been some comments

129

00:06:10,750 --> 00:06:08,660

to the media from the Army now what's

130

00:06:13,000 --> 00:06:10,760

great about this is that the Army is

131

00:06:16,600 --> 00:06:13,010

confirming yes we are working with them

132

00:06:19,000 --> 00:06:16,610

to help analyze this material the

133

00:06:22,090 --> 00:06:19,010

documentation says they're not paying to

134

00:06:24,520 --> 00:06:22,100

the stars to do that and however they

135

00:06:26,470 --> 00:06:24,530

they are planning on spending up to

136

00:06:29,200 --> 00:06:26,480

seven hundred and fifty thousand dollars

137

00:06:31,960 --> 00:06:29,210

to do the analysis because that's the

138

00:06:33,420 --> 00:06:31,970

whole problem with materials analysis is

139

00:06:36,340 --> 00:06:33,430

that it's very expensive

140

00:06:38,380 --> 00:06:36,350

you know people followers of mine or

141

00:06:40,840 --> 00:06:38,390

yours you know you have Robert Powell on

142

00:06:42,850 --> 00:06:40,850

quite a bit he's done a lot of attempts

143

00:06:45,520 --> 00:06:42,860

at material analysis and talks about the

144

00:06:48,400 --> 00:06:45,530

expense and that is limited what we've

145

00:06:50,020 --> 00:06:48,410

been able to do even for materials that

146

00:06:53,440 --> 00:06:50,030

have been out around for a very long

147

00:06:55,240 --> 00:06:53,450

time such as the alleged arts parts or

148

00:06:57,700 --> 00:06:55,250

the so-called arts parts which were

149

00:06:58,420 --> 00:06:57,710

these materials that were sent to art

150

00:07:01,120 --> 00:06:58,430

Bell

151
00:07:03,100 --> 00:07:01,130
many years ago and then Linda how kind

152
00:07:05,290 --> 00:07:03,110
of took over the investigation of them

153
00:07:07,839 --> 00:07:05,300
and now two stars

154
00:07:09,869 --> 00:07:07,849
at them as well some of the members up

155
00:07:12,339 --> 00:07:09,879
to the stars when they were with Bigelow

156
00:07:14,080 --> 00:07:12,349
National Institute of Discovery Sciences

157
00:07:17,170 --> 00:07:14,090
also took a look at this material but

158
00:07:19,110 --> 00:07:17,180
they're still you know inquiring whether

159
00:07:21,369 --> 00:07:19,120
or not you know these are something

160
00:07:23,320 --> 00:07:21,379
mysterious because there's this debate

161
00:07:25,600 --> 00:07:23,330
about their about whether they are or

162
00:07:29,140 --> 00:07:25,610
not so the great thing is is that the

163
00:07:31,029 --> 00:07:29,150

Army is now participating and putting

164

00:07:33,760 --> 00:07:31,039

some money towards this until hopefully

165

00:07:36,189 --> 00:07:33,770

now we'll be able to kind of find out

166

00:07:37,809 --> 00:07:36,199

more and maybe even put to bed some of

167

00:07:40,959 --> 00:07:37,819

these debates to find out if some of

168

00:07:43,629 --> 00:07:40,969

this material actually is you know or

169

00:07:46,719 --> 00:07:43,639

does have mysterious properties or can

170

00:07:48,969 --> 00:07:46,729

be proven to be from elsewhere or what

171

00:07:51,969 --> 00:07:48,979

would be especially exciting is if we

172

00:07:54,700 --> 00:07:51,979

could prove their you know manufactured

173

00:07:58,839 --> 00:07:54,710

elsewhere meaning off planet and that

174

00:08:01,600 --> 00:07:58,849

the the methods used to manufacture the

175

00:08:03,309 --> 00:08:01,610

materials are unknown to us that would

176

00:08:05,709 --> 00:08:03,319

be that's kind of the goal post that's

177

00:08:07,990 --> 00:08:05,719

what we're looking for what's great

178

00:08:10,360 --> 00:08:08,000

about this there's a couple comments

179

00:08:12,370 --> 00:08:10,370

some people have said you know this is

180

00:08:14,409 --> 00:08:12,380

true the Stars trying to grab cash but

181

00:08:16,029 --> 00:08:14,419

as I said earlier this isn't something

182

00:08:18,719 --> 00:08:16,039

that they're gonna be making money at

183

00:08:21,640 --> 00:08:18,729

which is unfortunate in my view because

184

00:08:25,420 --> 00:08:21,650

to the Stars needs money any program

185

00:08:27,580 --> 00:08:25,430

needs money to continue so hopefully you

186

00:08:29,589 --> 00:08:27,590

know some funds will come in this does

187

00:08:32,649 --> 00:08:29,599

alleviate them having to spend their

188

00:08:34,719 --> 00:08:32,659

funds on these processes the Army will

189

00:08:38,490 --> 00:08:34,729

be doing that so that's helpful the

190

00:08:40,750 --> 00:08:38,500

other criticism is that you know that

191

00:08:43,630 --> 00:08:40,760

they're getting in bed with the military

192

00:08:46,150 --> 00:08:43,640

in the military you pointed out that the

193

00:08:47,500 --> 00:08:46,160

military the army I said you know you

194

00:08:49,000 --> 00:08:47,510

pointed this out on my show it's

195

00:08:51,490 --> 00:08:49,010

something you saw in the document is

196

00:08:54,579 --> 00:08:51,500

that the army says you know they have to

197

00:08:56,889 --> 00:08:54,589

give a sign-off 30-day days ahead of

198

00:08:58,600 --> 00:08:56,899

time before any communication is going

199

00:09:00,760 --> 00:08:58,610

out about the work that the army is

200

00:09:01,870 --> 00:09:00,770

going to be helping with so they'll say

201

00:09:03,730 --> 00:09:01,880

oh they're just gonna hide the

202

00:09:05,230 --> 00:09:03,740

information the good part of that is

203

00:09:07,389 --> 00:09:05,240

that well and the other thing is that

204

00:09:10,180 --> 00:09:07,399

makes sense why would the army want you

205

00:09:13,210 --> 00:09:10,190

know Tom DeLonge has said some odd

206

00:09:16,300 --> 00:09:13,220

things in the past and you know I think

207

00:09:18,160 --> 00:09:16,310

the army with any partner would want to

208

00:09:19,120 --> 00:09:18,170

know what's going to be said about their

209

00:09:20,800 --> 00:09:19,130

work before it

210

00:09:23,710 --> 00:09:20,810

out there I mean that just makes sense

211

00:09:26,410 --> 00:09:23,720

if they're gonna have a partnership the

212

00:09:28,960 --> 00:09:26,420

other thing is is I personally feel from

213

00:09:30,820 --> 00:09:28,970

working with these guys and from what

214

00:09:33,400 --> 00:09:30,830

I've seen that they do want to be as

215

00:09:36,160 --> 00:09:33,410

transparent as possible they did a vice

216

00:09:37,960 --> 00:09:36,170

interviewer carried along who works it

217

00:09:40,750 --> 00:09:37,970

was Tom DeLonge sister who does a lot of

218

00:09:42,910 --> 00:09:40,760

their PR he was talking about that's a

219

00:09:45,670 --> 00:09:42,920

big deal for them to be as transparent

220

00:09:47,620 --> 00:09:45,680

as possible and although people have

221

00:09:49,420 --> 00:09:47,630

felt they haven't been really I think

222

00:09:51,640 --> 00:09:49,430

that they have been as much as possible

223

00:09:54,220 --> 00:09:51,650

we've seen a lot they talked to the

224

00:09:55,810 --> 00:09:54,230

media a lot really and have given a lot

225

00:09:59,140 --> 00:09:55,820

of information the television show

226

00:10:01,180 --> 00:09:59,150

unidentified has revealed a lot so I

227

00:10:04,270 --> 00:10:01,190

think at least we are having an outlet

228

00:10:06,420 --> 00:10:04,280

for information coming to the public

229

00:10:09,670 --> 00:10:06,430

about all of these studies

230

00:10:14,050 --> 00:10:09,680

so really m+ you know we've heard from

231

00:10:16,690 --> 00:10:14,060

the Navy now about UAP studies and their

232

00:10:20,110 --> 00:10:16,700

positive aspect and now we have input

233

00:10:22,290 --> 00:10:20,120

from the army we still haven't heard

234

00:10:25,570 --> 00:10:22,300

from the Air Force but hopefully we will

235

00:10:29,370 --> 00:10:25,580

so I think it's it's an amazing time

236

00:10:32,530 --> 00:10:29,380

that we have you know these defense

237

00:10:34,120 --> 00:10:32,540

agencies coming forward to say that you

238

00:10:36,670 --> 00:10:34,130

ApS are real thing they take them

239

00:10:40,780 --> 00:10:36,680

seriously and now they're participating

240

00:10:43,720 --> 00:10:40,790

in sort of a public facing investigation

241

00:10:46,840 --> 00:10:43,730

you know this this collaboration or

242

00:10:49,290 --> 00:10:46,850

whatever you know you'd you'd want to

243

00:10:52,480 --> 00:10:49,300

call it in a way to me seems

244

00:10:54,700 --> 00:10:52,490

unprecedented to anything I can actually

245

00:10:58,210 --> 00:10:54,710

picture I'm not talking about just the

246

00:11:01,390 --> 00:10:58,220

UFO aspect of it it's just that the

247

00:11:05,500 --> 00:11:01,400

government the Army is publicly willing

248

00:11:08,560 --> 00:11:05,510

to talk about working together doing

249

00:11:12,510 --> 00:11:08,570

research of something unusual you know

250

00:11:15,010 --> 00:11:12,520

to me it just seems unprecedented I

251
00:11:17,560 --> 00:11:15,020
agree with you you know the only time we

252
00:11:20,380 --> 00:11:17,570
had this was really the early days of

253
00:11:23,380 --> 00:11:20,390
the Air Force investigations and UFOs

254
00:11:26,350 --> 00:11:23,390
project sign at that time there were

255
00:11:27,940 --> 00:11:26,360
many people associated with project sign

256
00:11:30,490 --> 00:11:27,950
that felt that UFOs were a real

257
00:11:33,010 --> 00:11:30,500
phenomenon something that needed to be

258
00:11:35,590 --> 00:11:33,020
examined in a in a serious manner

259
00:11:37,750 --> 00:11:35,600
in fact you know general twining it's a

260
00:11:41,170 --> 00:11:37,760
famous memo that he wrote along these

261
00:11:43,330 --> 00:11:41,180
lines that help start project sign which

262
00:11:45,280 --> 00:11:43,340
was prior to Project Blue Book during

263
00:11:48,490 --> 00:11:45,290

that era they actually came up with a

264

00:11:51,160 --> 00:11:48,500
summary where they concluded in project

265

00:11:53,080 --> 00:11:51,170
sign that yes UFOs are a thing they are

266

00:11:54,610 --> 00:11:53,090
important some of them are unidentified

267

00:11:56,500 --> 00:11:54,620
we haven't been able to figure out what

268

00:11:58,450 --> 00:11:56,510
they are they could be of an

269

00:12:02,410 --> 00:11:58,460
extraterrestrial nature they could be

270

00:12:04,480 --> 00:12:02,420
from an ET civilization and the

271

00:12:06,910 --> 00:12:04,490
higher-ups didn't like that conclusion

272

00:12:09,180 --> 00:12:06,920
and ever since then they had a really

273

00:12:11,770 --> 00:12:09,190
poor attitude towards the whole topic

274

00:12:14,800 --> 00:12:11,780
into project grudge and then eventually

275

00:12:17,830 --> 00:12:14,810
project Bluebook this is well documented

276

00:12:20,020 --> 00:12:17,840

in Edward rappels book he was the guy

277

00:12:22,240 --> 00:12:20,030

who was the first to head up project

278

00:12:25,690 --> 00:12:22,250

Bluebook in 1952 the guy who coined the

279

00:12:27,250 --> 00:12:25,700

phrase UFO highly recommend that book

280

00:12:31,000 --> 00:12:27,260

you can read it for free on the night

281

00:12:33,430 --> 00:12:31,010

cap website and I see AP but you know

282

00:12:35,710 --> 00:12:33,440

the Air Force took things seriously at

283

00:12:38,380 --> 00:12:35,720

the beginning and then it got really

284

00:12:41,140 --> 00:12:38,390

negative and then we haven't had any

285

00:12:42,940 --> 00:12:41,150

real official investigations that have

286

00:12:44,560 --> 00:12:42,950

been public-facing we've had government

287

00:12:45,880 --> 00:12:44,570

documents where we've been able to say

288

00:12:47,500 --> 00:12:45,890

hey it looks like you guys have taken

289

00:12:49,480 --> 00:12:47,510

some of these things seriously and

290

00:12:52,750 --> 00:12:49,490

they've said no no no when obviously

291

00:12:55,540 --> 00:12:52,760

they have it's only recently that we've

292

00:12:58,150 --> 00:12:55,550

had this you know admission that these

293

00:12:59,910 --> 00:12:58,160

investigations have gone on and then you

294

00:13:03,220 --> 00:12:59,920

know now we have the Navy and the army

295

00:13:05,190 --> 00:13:03,230

taking positive steps towards doing this

296

00:13:07,630 --> 00:13:05,200

research which is like you said

297

00:13:09,580 --> 00:13:07,640

unprecedented it'sing it's incredible

298

00:13:12,520 --> 00:13:09,590

it's kind of interesting we haven't

299

00:13:14,560 --> 00:13:12,530

heard from the Air Force at all up to

300

00:13:17,230 --> 00:13:14,570

this point so we don't know really what

301
00:13:19,000 --> 00:13:17,240
they're thinking they did have a comment

302
00:13:20,940 --> 00:13:19,010
on one story I forgot what they said

303
00:13:24,340 --> 00:13:20,950
they didn't really say much except for

304
00:13:27,160 --> 00:13:24,350
you know that something along the lines

305
00:13:29,200 --> 00:13:27,170
of that that really indicating that that

306
00:13:32,410 --> 00:13:29,210
actually they felt some of these cases

307
00:13:33,840 --> 00:13:32,420
truly were unidentified so I think

308
00:13:36,460 --> 00:13:33,850
that's interesting

309
00:13:38,800 --> 00:13:36,470
so we'll see I think that the future I

310
00:13:40,990 --> 00:13:38,810
don't think this is you know this is

311
00:13:43,510 --> 00:13:41,000
just the beginning of all of this and

312
00:13:45,670 --> 00:13:43,520
people keep saying that I think to the

313
00:13:46,630 --> 00:13:45,680

Stars and Louise Elizondo keep saying

314

00:13:48,610 --> 00:13:46,640

that and

315

00:13:51,820 --> 00:13:48,620

that appears to be true because more and

316

00:13:53,650 --> 00:13:51,830

more positive news of investigation and

317

00:13:56,500 --> 00:13:53,660

research going on it's been coming out

318

00:13:58,960 --> 00:13:56,510

and you know what I would tell people to

319

00:14:00,610 --> 00:13:58,970

look forward to is typically when these

320

00:14:03,250 --> 00:14:00,620

things happen you know

321

00:14:05,440 --> 00:14:03,260

then news and information about findings

322

00:14:08,140 --> 00:14:05,450

rolls out for a couple years

323

00:14:09,850 --> 00:14:08,150

because really things get started during

324

00:14:12,340 --> 00:14:09,860

the beginning you don't hear much when

325

00:14:14,830 --> 00:14:12,350

the real research is going on once

326

00:14:17,110 --> 00:14:14,840

results start coming back you start to

327

00:14:19,450 --> 00:14:17,120

hear a little bit and then once those

328

00:14:21,580 --> 00:14:19,460

results are more vetted and you know

329

00:14:23,860 --> 00:14:21,590

people are prepared to actually make

330

00:14:26,380 --> 00:14:23,870

statements and you hear more that can

331

00:14:29,770 --> 00:14:26,390

take months maybe a year or two it could

332

00:14:31,210 --> 00:14:29,780

take a while that may be kind of a

333

00:14:33,250 --> 00:14:31,220

bummer for some people who want

334

00:14:34,510 --> 00:14:33,260

information more quickly but the good

335

00:14:36,040 --> 00:14:34,520

thing is is that means that this is

336

00:14:38,260 --> 00:14:36,050

going to be in the headline to this it's

337

00:14:41,380 --> 00:14:38,270

going to be news for for quite some time

338

00:14:45,850 --> 00:14:41,390

you know in the in the future mm-hmm

339

00:14:48,700 --> 00:14:45,860

wasn't there an article that just came

340

00:14:51,520 --> 00:14:48,710

out that said something about they think

341

00:14:54,940 --> 00:14:51,530

they can explain the videos and ended up

342

00:14:57,880 --> 00:14:54,950

kind of associating with the Navy's you

343

00:15:01,300 --> 00:14:57,890

know patents which are just theories at

344

00:15:05,110 --> 00:15:01,310

this point yeah I mean they're not

345

00:15:08,440 --> 00:15:05,120

anything in my opinion credible along

346

00:15:11,470 --> 00:15:08,450

those lines really we've had people make

347

00:15:12,820 --> 00:15:11,480

that suggestion but not in a credible

348

00:15:16,630 --> 00:15:12,830

way where they can demonstrate that

349

00:15:18,640 --> 00:15:16,640

fully really I think some of one of the

350

00:15:21,220 --> 00:15:18,650

people who's done the best analysis

351

00:15:23,050 --> 00:15:21,230

along those lines is Tyler rogue away of

352

00:15:25,330 --> 00:15:23,060

the drivin you could read his stories

353

00:15:28,270 --> 00:15:25,340

and he suggested perhaps there are some

354

00:15:30,690 --> 00:15:28,280

technologies that the US is using that

355

00:15:34,750 --> 00:15:30,700

could answer some of these questions

356

00:15:37,450 --> 00:15:34,760

however he's examined those patents and

357

00:15:39,580 --> 00:15:37,460

he's had physicists look at it he does

358

00:15:42,520 --> 00:15:39,590

not and the physicists you've talked to

359

00:15:44,020 --> 00:15:42,530

don't believe that this technology is

360

00:15:45,820 --> 00:15:44,030

actually something that has been

361

00:15:49,540 --> 00:15:45,830

developed or even could ever be

362

00:15:50,950 --> 00:15:49,550

developed and he agrees with that and I

363

00:15:53,080 --> 00:15:50,960

think you make some great arguments

364

00:15:58,030 --> 00:15:53,090

there he's obviously very detailed in

365

00:15:59,950 --> 00:15:58,040

his analysis and however and he even

366

00:16:00,639 --> 00:15:59,960

though he suspects perhaps there could

367

00:16:03,730 --> 00:16:00,649

be

368

00:16:06,999 --> 00:16:03,740

human explanation he always admits that

369

00:16:10,989 --> 00:16:07,009

you know if we find out that humans

370

00:16:12,549 --> 00:16:10,999

created objects or devices or aircraft

371

00:16:15,609 --> 00:16:12,559

that can move maneuver the way these

372

00:16:17,109 --> 00:16:15,619

Navy jet fighters explain it that would

373

00:16:19,540 --> 00:16:17,119

be extraordinary that would be

374

00:16:21,970 --> 00:16:19,550

groundbreaking and that technology would

375

00:16:23,859 --> 00:16:21,980

be years and years and years more

376

00:16:26,199 --> 00:16:23,869

advanced than what we currently have so

377

00:16:28,299 --> 00:16:26,209

it would be an amazing extraordinary

378

00:16:31,299 --> 00:16:28,309

story and development if that were the

379

00:16:34,179 --> 00:16:31,309

case and he also admits though that he

380

00:16:36,069 --> 00:16:34,189

has no indication that that has happened

381

00:16:39,400 --> 00:16:36,079

that we have been able to develop

382

00:16:41,650 --> 00:16:39,410

anything like that and so for him it's a

383

00:16:44,259 --> 00:16:41,660

real head-scratcher and you know for a

384

00:16:46,749 --> 00:16:44,269

mainstream journalist who writes about

385

00:16:48,939 --> 00:16:46,759

aviation and defense you know he's

386

00:16:50,799 --> 00:16:48,949

really kind of like in a bind he's an

387

00:16:52,929 --> 00:16:50,809

honest journalist and he's like on the

388

00:16:54,910 --> 00:16:52,939

one hand it's got to be something human

389

00:16:56,679 --> 00:16:54,920

on the other hand it can't be because

390

00:16:59,290 --> 00:16:56,689

there's no way we have technology like

391

00:17:02,439 --> 00:16:59,300

this so you know that's what's got him

392

00:17:04,299 --> 00:17:02,449

so compelled to really cover this story

393

00:17:06,370 --> 00:17:04,309

and I think that's a really good place

394

00:17:11,590 --> 00:17:06,380

to look for developments along those

395

00:17:13,360 --> 00:17:11,600

lines right right and several years ago

396

00:17:16,679 --> 00:17:13,370

do you remember I'm trying to remember

397

00:17:19,029 --> 00:17:16,689

just slipping my mind right now the

398

00:17:22,029 --> 00:17:19,039

gentleman from skunk works that said

399

00:17:22,539 --> 00:17:22,039

right now we have technology to take e.t

400

00:17:25,389 --> 00:17:22,549

home

401
00:17:29,440 --> 00:17:25,399
do you remember well that secondhand

402
00:17:31,060 --> 00:17:29,450
information is okay it is and you know I

403
00:17:33,159 --> 00:17:31,070
think there's been some good that was

404
00:17:35,560 --> 00:17:33,169
you know a couple MUFON guys Jan

405
00:17:39,159 --> 00:17:35,570
horizon-- was there to hear that

406
00:17:41,110 --> 00:17:39,169
statement along with I forget he also

407
00:17:44,110 --> 00:17:41,120
works with a me wrote the the kind of

408
00:17:46,180 --> 00:17:44,120
beginner's guide to UFOs I forget his

409
00:17:49,320 --> 00:17:46,190
name right now but he was there also a

410
00:17:52,149 --> 00:17:49,330
friend of James who is a engineer now

411
00:17:54,810 --> 00:17:52,159
there have been other quotes that are

412
00:18:00,220 --> 00:17:54,820
similar that we've heard from Ben rich

413
00:18:02,830 --> 00:18:00,230

radio and however you know if you hear

414

00:18:05,049 --> 00:18:02,840

the full statement they really don't

415

00:18:08,039 --> 00:18:05,059

indicate that he felt there was

416

00:18:11,320 --> 00:18:08,049

technology that was eat he related it or

417

00:18:13,960 --> 00:18:11,330

back-engineered from ETS but that he was

418

00:18:14,560 --> 00:18:13,970

very proud of the technologies that they

419

00:18:16,750 --> 00:18:14,570

had to bail

420

00:18:18,370 --> 00:18:16,760

that skunk works but really I don't

421

00:18:21,370 --> 00:18:18,380

think there's enough evidence to show

422

00:18:24,840 --> 00:18:21,380

that he meant you know we back

423

00:18:28,120 --> 00:18:24,850

engineered alien technology nor that he

424

00:18:30,340 --> 00:18:28,130

you know believes that the technology

425

00:18:33,130 --> 00:18:30,350

you know they developed did such things

426

00:18:35,320 --> 00:18:33,140

or could you know people use it for an

427

00:18:37,060 --> 00:18:35,330

excuse for this space race or something

428

00:18:39,820 --> 00:18:37,070

like that I mean it's interesting his

429

00:18:41,950 --> 00:18:39,830

predecessor who I can't remember his

430

00:18:45,370 --> 00:18:41,960

name right now who really helped develop

431

00:18:48,310 --> 00:18:45,380

area 51 did have a UFO sighting and he

432

00:18:50,470 --> 00:18:48,320

took UFOs very seriously he said what

433

00:18:52,090 --> 00:18:50,480

they saw was not you know ours it

434

00:18:53,310 --> 00:18:52,100

couldn't be and they would know they

435

00:18:57,040 --> 00:18:53,320

were developing the cutting-edge

436

00:18:59,410 --> 00:18:57,050

aviation technology of the time so I

437

00:19:03,340 --> 00:18:59,420

think that I think that they that's an

438

00:19:06,520 --> 00:19:03,350

example of where I think there's a they

439

00:19:08,950 --> 00:19:06,530

saw true delineation between the UFOs

440

00:19:11,890 --> 00:19:08,960

that were observed and the technologies

441

00:19:15,370 --> 00:19:11,900

they were developing and I think they

442

00:19:17,320 --> 00:19:15,380

were two separate things so I can't

443

00:19:19,690 --> 00:19:17,330

we're out of time already can you

444

00:19:22,120 --> 00:19:19,700

believe that one really fast and always

445

00:19:23,620 --> 00:19:22,130

yeah excellent well I'll be talking to

446

00:19:25,690 --> 00:19:23,630

you next week and good luck with your

447

00:19:26,560 --> 00:19:25,700

moving around you're doing there all

448

00:19:28,330 --> 00:19:26,570

right thanks

449

00:19:31,120 --> 00:19:28,340

alrighty later all right take care

450

00:19:34,300 --> 00:19:31,130

alright everyone so hang in there we're

451
00:19:39,100 --> 00:19:34,310
coming up with our next guest and his

452
00:19:42,990 --> 00:19:39,110
name is Earling strand he has a very

453
00:19:47,140 --> 00:19:43,000
interesting science background and he

454
00:19:49,240 --> 00:19:47,150
actually was one of the founders of the

455
00:19:53,250 --> 00:19:49,250
Heslin project or they'll be talking

456
00:19:57,760 --> 00:19:53,260
about all of that and so hang in and

457
00:20:00,400 --> 00:19:57,770
here he is right now all right

458
00:20:04,600 --> 00:20:00,410
my first guest this is a pre record and

459
00:20:06,130 --> 00:20:04,610
I am doing that because it's going to be

460
00:20:09,250 --> 00:20:06,140
the middle of the night by the time the

461
00:20:12,220 --> 00:20:09,260
show goes live for Erling strand over in

462
00:20:16,240 --> 00:20:12,230
Norway and Erling welcome to the show

463
00:20:19,710 --> 00:20:16,250

thank you thank you very much I'm glad

464

00:20:21,580 --> 00:20:19,720

to be here yes this is our second time a

465

00:20:23,950 --> 00:20:21,590

pre-recording I have to get into that

466

00:20:27,130 --> 00:20:23,960

but we had a bad file so I really really

467

00:20:28,230 --> 00:20:27,140

appreciate really appreciate this so I

468

00:20:29,970 --> 00:20:28,240

want to start

469

00:20:33,120 --> 00:20:29,980

out we're going to be talking about the

470

00:20:35,990 --> 00:20:33,130

hesselman lights the phenomena and you

471

00:20:39,750 --> 00:20:36,000

have quite a background can you give the

472

00:20:42,510 --> 00:20:39,760

listener your basic background and what

473

00:20:48,150 --> 00:20:42,520

got you interested in this

474

00:20:52,010 --> 00:20:48,160

this phenomenon actually well I in in my

475

00:20:55,230 --> 00:20:52,020

ordinary job I'm looked lecturing at the

476

00:20:59,669 --> 00:20:55,240

University College I have a lot of

477

00:21:04,590 --> 00:20:59,679

students and doing lecturing at at that

478

00:21:09,210 --> 00:21:04,600

College but I'm also the project manager

479

00:21:10,680 --> 00:21:09,220

or project histone which started many

480

00:21:14,940 --> 00:21:10,690

years ago

481

00:21:20,280 --> 00:21:14,950

and now in my position I am using my

482

00:21:25,850 --> 00:21:20,290

student in the work of finding out what

483

00:21:30,270 --> 00:21:25,860

it can be out up in hostel so and and

484

00:21:31,880 --> 00:21:30,280

project estan is it started already back

485

00:21:36,030 --> 00:21:31,890

in 1983

486

00:21:39,210 --> 00:21:36,040

so we during the years we have looked at

487

00:21:42,780 --> 00:21:39,220

a lot of work up there maybe you know

488

00:21:48,540 --> 00:21:42,790

the hostel is a small Norwegian Valley

489

00:21:51,600 --> 00:21:48,550

on about 15 kilometers long and about

490

00:21:57,900 --> 00:21:51,610

now it's about hundred inhabitants up

491

00:22:03,710 --> 00:21:57,910

there small valley but even though it's

492

00:22:06,660 --> 00:22:03,720

it's more a lot of sightings of strange

493

00:22:09,810 --> 00:22:06,670

phenomena we call it phenomena some

494

00:22:17,720 --> 00:22:09,820

mostly lights different types of lights

495

00:22:27,030 --> 00:22:22,919

object but they are very few compared

496

00:22:29,700 --> 00:22:27,040

with the lights so we in our study we

497

00:22:35,910 --> 00:22:29,710

have focus on the on the lights which

498

00:22:37,680 --> 00:22:35,920

are more more easy to see so we can talk

499

00:22:41,620 --> 00:22:37,690

about the the different things which

500

00:22:43,330 --> 00:22:41,630

really is puzzling because

501
00:22:45,570 --> 00:22:43,340
you know if it's a natural phenomenon

502
00:22:48,850 --> 00:22:45,580
it's strange that it would be different

503
00:22:54,250 --> 00:22:48,860
types of sightings that these people do

504
00:22:57,640 --> 00:22:54,260
see and have been actually filmed so but

505
00:23:00,190 --> 00:22:57,650
as far as you did you have an interest

506
00:23:03,159 --> 00:23:00,200
in exploring this topic I know you have

507
00:23:05,470 --> 00:23:03,169
a great science background but I mean

508
00:23:08,230 --> 00:23:05,480
did you have an interest early on and

509
00:23:10,440 --> 00:23:08,240
and and you know trying to figure out

510
00:23:14,190 --> 00:23:10,450
what this these type of phenomena are

511
00:23:18,909 --> 00:23:14,200
yes what brought me into the topic it

512
00:23:23,080 --> 00:23:18,919
was when I was a student at the

513
00:23:24,250 --> 00:23:23,090

University in Trondheim and in the broad

514

00:23:27,730 --> 00:23:24,260

daylight

515

00:23:33,370 --> 00:23:27,740

I saw a flying disc flying over my head

516

00:23:36,880 --> 00:23:33,380

and I saw this very clear and he could

517

00:23:41,560 --> 00:23:36,890

see it all details and I was very

518

00:23:45,789 --> 00:23:41,570

surprised and I didn't expect anything

519

00:23:46,779 --> 00:23:45,799

like that so I wanted to figure out what

520

00:23:50,830 --> 00:23:46,789

could that be

521

00:23:55,049 --> 00:23:50,840

and at that time that was back in 1978

522

00:23:59,560 --> 00:23:55,059

before hostel when I was a student

523

00:24:01,990 --> 00:23:59,570

before that I have not been into the UFO

524

00:24:05,680 --> 00:24:02,000

topic at all

525

00:24:11,080 --> 00:24:05,690

it was strange for me it I haven't been

526
00:24:15,340 --> 00:24:11,090
part of any groups or anything so when I

527
00:24:19,799 --> 00:24:15,350
saw this this flying disc coming up over

528
00:24:25,299 --> 00:24:19,809
my head I started to wonder and I and

529
00:24:32,980 --> 00:24:25,309
that brought me into this topic then

530
00:24:35,080 --> 00:24:32,990
that was yeah and that was made a big

531
00:24:39,250 --> 00:24:35,090
impression on me

532
00:24:44,799 --> 00:24:39,260
hest all that started with a lot of

533
00:24:48,899 --> 00:24:44,809
sightings very late 1981 in this mall

534
00:24:54,909 --> 00:24:48,909
Valley is located about 120 kilometres

535
00:24:55,539 --> 00:24:54,919
south of Trondheim city and in the in a

536
00:24:59,440 --> 00:24:55,549
solvent

537
00:25:02,080 --> 00:24:59,450
part of Norway towards the Swedish board

538
00:25:06,159 --> 00:25:02,090

I'm not so very far from the swedish

539

00:25:10,450 --> 00:25:06,169

border and also close to a famous town

540

00:25:14,289 --> 00:25:10,460

eros is a famous innovation town about

541

00:25:23,169 --> 00:25:14,299

35 kilometres north of that well anyway

542

00:25:28,470 --> 00:25:23,179

this small valley in December 1981 the

543

00:25:33,909 --> 00:25:28,480

inhabitants up there started to see many

544

00:25:38,639 --> 00:25:33,919

sightings happen nearly every day they

545

00:25:42,999 --> 00:25:38,649

could see it close to their houses down

546

00:25:47,200 --> 00:25:43,009

in the valley down to the river up on

547

00:25:51,220 --> 00:25:47,210

the mountainside hillside and up in the

548

00:25:57,810 --> 00:25:51,230

sky sometimes it moved close to their

549

00:26:02,409 --> 00:25:57,820

houses and so on and the high intensity

550

00:26:08,619 --> 00:26:02,419

started well like December 1981 but it

551
00:26:17,739 --> 00:26:08,629
lasted for years so until it I think it

552
00:26:23,710 --> 00:26:17,749
was late 1984 it decreased lot so but

553
00:26:29,470 --> 00:26:23,720
now it's in the order of 20 observation

554
00:26:35,970 --> 00:26:29,480
a year but at that time in the early 80s

555
00:26:40,599 --> 00:26:35,980
it was 20 observation a week amazing now

556
00:26:43,659 --> 00:26:40,609
it has anything changed geographically

557
00:26:45,700 --> 00:26:43,669
in some type of way that could you know

558
00:26:49,869 --> 00:26:45,710
always looking for you know a possible

559
00:26:51,070 --> 00:26:49,879
answer to these things could have

560
00:26:55,269 --> 00:26:51,080
something have changed that would have

561
00:26:59,289 --> 00:26:55,279
made that happen well we have studied a

562
00:27:03,909 --> 00:26:59,299
lot of what what is happening in that

563
00:27:08,190 --> 00:27:03,919

small valley why Hess tall and well it's

564

00:27:11,380 --> 00:27:08,200

new you think of the Gale physical power

565

00:27:14,470 --> 00:27:11,390

we know it's a lot of minerals in the

566

00:27:17,710 --> 00:27:14,480

valley you have copper you have iron

567

00:27:23,970 --> 00:27:17,720

your sulfur and other kinds of minerals

568

00:27:28,330 --> 00:27:23,980

too and so so the ground is is not

569

00:27:32,200 --> 00:27:28,340

ordinary as other places it's lot of

570

00:27:34,210 --> 00:27:32,210

minerals in it but you know there are

571

00:27:38,380 --> 00:27:34,220

other places too

572

00:27:42,880 --> 00:27:38,390

which have a lot of minerals in the

573

00:27:44,830 --> 00:27:42,890

ground so it's hard to see as the

574

00:27:47,320 --> 00:27:44,840

connection with the minerals in the

575

00:27:51,310 --> 00:27:47,330

ground and these sightings we don't know

576
00:27:54,160 --> 00:27:51,320
that but anyway we know that that's one

577
00:27:59,230 --> 00:27:54,170
of the specific things in the has Nile

578
00:28:06,540 --> 00:27:59,240
Valley and we have even now tried to go

579
00:28:10,380 --> 00:28:06,550
into that more more closely by having

580
00:28:13,960 --> 00:28:10,390
geophysicist from both France and Greek

581
00:28:17,860 --> 00:28:13,970
coming up to Norway in Hesston

582
00:28:21,640 --> 00:28:17,870
and doing investigation to see if we can

583
00:28:25,180 --> 00:28:21,650
come closer to the solution now I know

584
00:28:28,570 --> 00:28:25,190
there are other places in you know the

585
00:28:31,270 --> 00:28:28,580
the world where there are you know

586
00:28:32,710 --> 00:28:31,280
lights like similar to this like for

587
00:28:35,140 --> 00:28:32,720
instance Brown mountain I know there's a

588
00:28:38,050 --> 00:28:35,150

bunch of them but you know Brown

589

00:28:40,780 --> 00:28:38,060

mountain it comes to mind and when you

590

00:28:46,240 --> 00:28:40,790

said copper I know that there's a high

591

00:28:49,300 --> 00:28:46,250

copper concentration in that area and

592

00:28:50,710 --> 00:28:49,310

I'm just wondering when you know you

593

00:28:53,140 --> 00:28:50,720

said earlier that people are seeing

594

00:28:57,430 --> 00:28:53,150

different things if this is some type of

595

00:29:01,690 --> 00:28:57,440

energy created from say something you

596

00:29:03,400 --> 00:29:01,700

know unknown but natural can you kind of

597

00:29:05,190 --> 00:29:03,410

explain what you meant by you saying

598

00:29:11,500 --> 00:29:05,200

that people would see different things

599

00:29:15,670 --> 00:29:11,510

well that's one of the trouble in

600

00:29:19,630 --> 00:29:15,680

finding one solution is the description

601
00:29:22,030 --> 00:29:19,640
and the behavior of the different lights

602
00:29:25,240 --> 00:29:22,040
or the different observation

603
00:29:28,560 --> 00:29:25,250
types they're very very different for

604
00:29:33,190 --> 00:29:28,570
instance about the lights you have this

605
00:29:34,000 --> 00:29:33,200
flashes which lasts up to maximum a

606
00:29:41,890 --> 00:29:34,010
second

607
00:29:45,940 --> 00:29:41,900
very hard to see but they were strong so

608
00:29:50,490 --> 00:29:45,950
they can be captured on cameras they can

609
00:29:55,740 --> 00:29:50,500
move but mostly there are flashes which

610
00:30:00,840 --> 00:29:55,750
just happen around in the in the valley

611
00:30:05,980 --> 00:30:00,850
and that's one type they're mostly white

612
00:30:08,260 --> 00:30:05,990
sometimes blue and they can be far away

613
00:30:12,970 --> 00:30:08,270

and they can be close and they can be

614

00:30:21,540 --> 00:30:12,980

towards the hillside can be down in the

615

00:30:25,710 --> 00:30:21,550

river and well these flashes is the most

616

00:30:28,540 --> 00:30:25,720

the most observation is of those flashes

617

00:30:30,880 --> 00:30:28,550

we wasn't aware of those in the

618

00:30:35,830 --> 00:30:30,890

beginning when we started the first

619

00:30:42,040 --> 00:30:35,840

field work back in 1984 but later become

620

00:30:47,620 --> 00:30:42,050

aware of those the second type is yellow

621

00:30:52,140 --> 00:30:47,630

balls of light moving around sometimes

622

00:30:56,200 --> 00:30:52,150

slowly sometimes fast the shape can be

623

00:30:59,020 --> 00:30:56,210

all different kinds of shapes not always

624

00:31:04,630 --> 00:30:59,030

round or oval shapes

625

00:31:08,130 --> 00:31:04,640

it can also be other figures and also

626
00:31:11,910 --> 00:31:08,140
sometimes they report that there are

627
00:31:16,920 --> 00:31:11,920
smoke they see some balls of light

628
00:31:21,070 --> 00:31:16,930
inside a big light moving around and

629
00:31:25,540 --> 00:31:21,080
sometimes also this balls of mostly

630
00:31:32,200 --> 00:31:25,550
yellow light can have other lights onto

631
00:31:32,950 --> 00:31:32,210
it these can move around stand still for

632
00:31:33,560 --> 00:31:32,960
minutes

633
00:31:39,520 --> 00:31:33,570
move

634
00:31:42,830 --> 00:31:39,530
of slowly around up to two hours and

635
00:31:46,250 --> 00:31:42,840
they can even go down close to the

636
00:31:51,980 --> 00:31:46,260
ground and eliminated the ground beneath

637
00:31:56,780 --> 00:31:51,990
it and and of course I can move fast too

638
00:32:00,290 --> 00:31:56,790

on one such happening we measure the

639

00:32:05,290 --> 00:32:00,300

speed of 30,000 kilometers an hour

640

00:32:09,560 --> 00:32:05,300

Wow well this this is the second type

641

00:32:13,280 --> 00:32:09,570

that type the second type with the ball

642

00:32:18,860 --> 00:32:13,290

of light and yet mostly yellow moving

643

00:32:22,250 --> 00:32:18,870

around can will split in more types of

644

00:32:26,660 --> 00:32:22,260

course but we have considered to keep

645

00:32:28,130 --> 00:32:26,670

them in one type because well you have

646

00:32:32,270 --> 00:32:28,140

all the different speeds

647

00:32:35,270 --> 00:32:32,280

you have the duration from minutes to

648

00:32:38,840 --> 00:32:35,280

hours you have all the different shapes

649

00:32:41,300 --> 00:32:38,850

and you have that so it has been

650

00:32:47,060 --> 00:32:41,310

discussed maybe we should split them in

651
00:32:51,800 --> 00:32:47,070
and more types but I I keep it in one

652
00:32:54,980 --> 00:32:51,810
time so so we took that was the second

653
00:32:59,210 --> 00:32:54,990
type and the third type is more when you

654
00:33:01,700 --> 00:32:59,220
have several lights together it seems

655
00:33:05,380 --> 00:33:01,710
that they are connected to something

656
00:33:12,170 --> 00:33:05,390
because when these lights are moving

657
00:33:18,680 --> 00:33:12,180
they move together as as if there is on

658
00:33:22,640 --> 00:33:18,690
to something and also sometimes when

659
00:33:26,210 --> 00:33:22,650
people have seen this type of light when

660
00:33:29,690 --> 00:33:26,220
it's not completely dark outside they

661
00:33:32,090 --> 00:33:29,700
have explained that these lights it is

662
00:33:35,480 --> 00:33:32,100
connected to something they call it a

663
00:33:37,730 --> 00:33:35,490

black object some kind of object which I

664

00:33:40,250 --> 00:33:37,740

don't see when it's completely dark but

665

00:33:45,220 --> 00:33:40,260

when it's not completely dark they can

666

00:33:48,909 --> 00:33:45,230

see that's the third third type of light

667

00:33:53,529 --> 00:33:48,919

so that's a and it's difficult to to

668

00:33:59,860 --> 00:33:53,539

find one one solution who fit all these

669

00:34:01,750 --> 00:33:59,870

types of description so we I thought of

670

00:34:06,250 --> 00:34:01,760

maybe we had we are dealing with

671

00:34:09,339 --> 00:34:06,260

different answers could be we have done

672

00:34:11,409 --> 00:34:09,349

a lot of measurements to and some of

673

00:34:14,619 --> 00:34:11,419

their measurement can point in one

674

00:34:20,379 --> 00:34:14,629

direction and some other measurement can

675

00:34:24,159 --> 00:34:20,389

point in another direction so it's this

676

00:34:29,129 --> 00:34:24,169

hard to understand this that there is

677

00:34:33,639 --> 00:34:29,139

only one solution and one type of light

678

00:34:35,379 --> 00:34:33,649

so now the building that you can see

679

00:34:37,510 --> 00:34:35,389

when you go online you see there's this

680

00:34:41,129 --> 00:34:37,520

building's not too big but there's

681

00:34:44,079 --> 00:34:41,139

equipment in there so what type of

682

00:34:48,639 --> 00:34:44,089

equipment is in there that you're trying

683

00:34:50,609 --> 00:34:48,649

to get you know data from well we first

684

00:34:53,970 --> 00:34:50,619

of all we had the field work back in

685

00:34:58,089 --> 00:34:53,980

1984 with a lot of instruments up there

686

00:35:01,059 --> 00:34:58,099

lost it for nearly one month and we have

687

00:35:08,920 --> 00:35:01,069

a similar field work back in January

688

00:35:14,020 --> 00:35:08,930

February 1985 to field work and after

689

00:35:18,510 --> 00:35:14,030

that the intensity decreased a lot so we

690

00:35:23,079 --> 00:35:18,520

didn't have any field work from 1985

691

00:35:27,910 --> 00:35:23,089

until we've we heard that still

692

00:35:31,089 --> 00:35:27,920

continued to be up there I was going up

693

00:35:34,900 --> 00:35:31,099

in the valley back in 1992 eight years

694

00:35:36,460 --> 00:35:34,910

after our field work and they wanted to

695

00:35:40,079 --> 00:35:36,470

know what had happened with our

696

00:35:43,150 --> 00:35:40,089

measurement and when I had a

697

00:35:47,589 --> 00:35:43,160

presentation for the local inhabitants

698

00:35:50,740 --> 00:35:47,599

up in hostel back in 1993 they said to

699

00:35:54,880 --> 00:35:50,750

me that well it still continues there is

700

00:35:55,930 --> 00:35:54,890

still lights up there oh I say I haven't

701
00:35:58,520 --> 00:35:55,940
heard anything

702
00:36:01,760 --> 00:35:58,530
well they said

703
00:36:04,790 --> 00:36:01,770
we don't tell it anymore because we were

704
00:36:08,630 --> 00:36:04,800
ridiculed the first year so we don't

705
00:36:12,520 --> 00:36:08,640
want to be ridiculed again Wow well

706
00:36:16,910 --> 00:36:12,530
anyway I decided to start project again

707
00:36:22,670 --> 00:36:16,920
and we'll build an automatic station

708
00:36:27,050 --> 00:36:22,680
which was put up in 1998 and it sent

709
00:36:35,200 --> 00:36:27,060
data directly on to Internet people can

710
00:36:40,550 --> 00:36:35,210
find the data on [www.hsn dot org](http://www.hsn.org) and

711
00:36:44,360 --> 00:36:40,560
every morning new data comes in and also

712
00:36:47,060 --> 00:36:44,370
people can stay home there's live stream

713
00:36:52,690 --> 00:36:47,070

up cameras also up there from this

714

00:36:57,200 --> 00:36:52,700

station this station is running but also

715

00:37:01,820 --> 00:36:57,210

we do another thing and that is to bring

716

00:37:07,670 --> 00:37:01,830

students up in the valley with a lot of

717

00:37:12,710 --> 00:37:07,680

instruments as fieldwork as we did in 84

718

00:37:17,600 --> 00:37:12,720

and 85 now we use our students and also

719

00:37:22,700 --> 00:37:17,610

some young students as well and they

720

00:37:26,480 --> 00:37:22,710

stay up in the valley for 14 days and

721

00:37:31,250 --> 00:37:26,490

one week for 10 days in the Ottoman and

722

00:37:36,050 --> 00:37:31,260

one weekend in the spring and in tents

723

00:37:38,720 --> 00:37:36,060

and with a lot with instruments a lot

724

00:37:41,720 --> 00:37:38,730

lots of computers lot of different

725

00:37:45,260 --> 00:37:41,730

cameras we have other instruments -

726

00:37:47,930 --> 00:37:45,270

magnetometer and so on so they do a lot

727

00:37:51,740 --> 00:37:47,940

of measurements during those two weeks

728

00:37:55,220 --> 00:37:51,750

and and the students think that is very

729

00:37:58,010 --> 00:37:55,230

exciting because well sometimes they see

730

00:37:58,960 --> 00:37:58,020

something and well when you see it for

731

00:38:04,640 --> 00:37:58,970

yourself

732

00:38:08,180 --> 00:38:04,650

it it yeah it makes something with you

733

00:38:11,540 --> 00:38:08,190

when you see it yourself I think there's

734

00:38:12,230 --> 00:38:11,550

a film on YouTube where it must be the

735

00:38:14,180 --> 00:38:12,240

students

736

00:38:16,040 --> 00:38:14,190

and they're filming it and they're all

737

00:38:17,870 --> 00:38:16,050

like wow you know I mean they're really

738

00:38:20,690 --> 00:38:17,880

you could tell they're they're excited

739

00:38:22,490 --> 00:38:20,700

yes it would be really amazing and there

740

00:38:24,680 --> 00:38:22,500

was one you mentioned the different

741

00:38:27,890 --> 00:38:24,690

colors there was one I saw that it was

742

00:38:29,960 --> 00:38:27,900

kind of an orange color like an orange

743

00:38:32,089 --> 00:38:29,970

orb and there's there's a lot of people

744

00:38:35,359 --> 00:38:32,099

around the world reporting seeing orange

745

00:38:37,099 --> 00:38:35,369

orbs but I only saw that one and the

746

00:38:41,210 --> 00:38:37,109

rest of them you know looked like you

747

00:38:44,059 --> 00:38:41,220

said we're yellow or white looking now

748

00:38:46,910 --> 00:38:44,069

when you said that there were some that

749

00:38:48,799 --> 00:38:46,920

appeared to be connected or they seemed

750

00:38:52,569 --> 00:38:48,809

to be in sequence as far as their

751
00:38:57,380 --> 00:38:52,579
movements and possibly to a dark object

752
00:39:01,370 --> 00:38:57,390
has there been anyone that's ever you

753
00:39:03,349 --> 00:39:01,380
know considered that their movements and

754
00:39:08,240 --> 00:39:03,359
what were what they're doing is under

755
00:39:12,410 --> 00:39:08,250
intelligent control of any kind well

756
00:39:16,309 --> 00:39:12,420
intelligent control is what it's a

757
00:39:20,359 --> 00:39:16,319
possibility but it's very hard to to

758
00:39:22,730 --> 00:39:20,369
prove if you if you claim it's

759
00:39:25,730 --> 00:39:22,740
intelligent it's very difficult to claim

760
00:39:31,700 --> 00:39:25,740
such kind of things you can maybe

761
00:39:35,809 --> 00:39:31,710
indicate that some can have some kind of

762
00:39:39,950 --> 00:39:35,819
in intelligent but our careful doing

763
00:39:43,250 --> 00:39:39,960

that because it's how how should you

764

00:39:46,460 --> 00:39:43,260

define and intelligent

765

00:39:52,789 --> 00:39:46,470

well we for instance we had the one

766

00:39:57,589 --> 00:39:52,799

happening we have we pointed the light

767

00:40:00,530 --> 00:39:57,599

towards a flashing light and it changed

768

00:40:06,099 --> 00:40:00,540

a flashing frequency really is the laser

769

00:40:10,609 --> 00:40:06,109

beam and it was a response to our laser

770

00:40:13,250 --> 00:40:10,619

and and also one week later you could

771

00:40:16,760 --> 00:40:13,260

saw we use a red laser and you can see

772

00:40:19,970 --> 00:40:16,770

that red laser spot on the ground by our

773

00:40:24,620 --> 00:40:19,980

feet moving around and this is far out

774

00:40:25,920 --> 00:40:24,630

in countryside so well you can mention

775

00:40:37,200 --> 00:40:25,930

some

776

00:40:39,359 --> 00:40:37,210

communication but it's hard to prove and

777

00:40:44,280 --> 00:40:39,369

it's difficult and it doesn't happen

778

00:40:48,319 --> 00:40:44,290

that much very few compared with all the

779

00:40:52,380 --> 00:40:48,329

hundreds of sightings we have with light

780

00:40:56,250 --> 00:40:52,390

and which we try to document we try to

781

00:41:00,540 --> 00:40:56,260

get data of these lights to see if we

782

00:41:02,400 --> 00:41:00,550

can get closer to a solution I see I

783

00:41:04,319 --> 00:41:02,410

want to talk just a minute about you

784

00:41:07,260 --> 00:41:04,329

know the people that live in the area

785

00:41:08,880 --> 00:41:07,270

there that have been witnessing this you

786

00:41:10,559 --> 00:41:08,890

mentioned earlier about ridicule or

787

00:41:14,520 --> 00:41:10,569

they'll talk about that a little bit too

788

00:41:17,160 --> 00:41:14,530

but has anyone ever reported that they

789

00:41:20,730 --> 00:41:17,170

actually saw something land on the

790

00:41:24,420 --> 00:41:20,740

ground that you're aware of

791

00:41:27,299 --> 00:41:24,430

well yes but compared with all the

792

00:41:32,339 --> 00:41:27,309

hundreds other things

793

00:41:37,370 --> 00:41:32,349

very few mm-hmm I think only one which I

794

00:41:45,630 --> 00:41:42,059

describes such happening so it's not

795

00:41:46,859 --> 00:41:45,640

much now very very very very little of

796

00:41:50,819 --> 00:41:46,869

that kind of things

797

00:41:56,039 --> 00:41:50,829

what about any like trace evidence of of

798

00:42:00,020 --> 00:41:56,049

any any of the happenings there well

799

00:42:05,670 --> 00:42:00,030

that's also very little there is some

800

00:42:10,190 --> 00:42:05,680

passim which can be traced but that can

801
00:42:15,690 --> 00:42:10,200
be maybe something else too it doesn't

802
00:42:22,589 --> 00:42:15,700
necessarily need to be of some craft or

803
00:42:27,630 --> 00:42:22,599
light or anything there is there are

804
00:42:34,230 --> 00:42:27,640
there are a few such such happenings

805
00:42:38,430 --> 00:42:34,240
which are which are strange but we focus

806
00:42:39,900 --> 00:42:38,440
mostly on what's happening most and we

807
00:42:46,950 --> 00:42:39,910
focus also most

808
00:42:49,529 --> 00:42:46,960
what we can get data out oh because well

809
00:42:54,990 --> 00:42:49,539
about the tracks very no one has

810
00:42:57,779 --> 00:42:55,000
reported directly seeing anyone any

811
00:43:01,799 --> 00:42:57,789
object coming down making a track and

812
00:43:06,740 --> 00:43:01,809
going up again no one has told anything

813
00:43:10,710 --> 00:43:06,750

our of such thing to me from his tone

814

00:43:12,269 --> 00:43:10,720

and how early were people reporting

815

00:43:15,120 --> 00:43:12,279

seeing something that you're aware of I

816

00:43:17,430 --> 00:43:15,130

mean were there people that say it was

817

00:43:19,079 --> 00:43:17,440

generational you know their father a

818

00:43:23,370 --> 00:43:19,089

grandfather or someone remembered

819

00:43:27,870 --> 00:43:23,380

something way back yes there are some

820

00:43:31,950 --> 00:43:27,880

few stories because when this started

821

00:43:35,970 --> 00:43:31,960

with this high activity people started

822

00:43:38,759 --> 00:43:35,980

to talk about it of course and we have

823

00:43:43,440 --> 00:43:38,769

asked all people if they remember in a

824

00:43:47,009 --> 00:43:43,450

and thing from all days and we have got

825

00:43:50,809 --> 00:43:47,019

some few stories from all people who

826
00:43:55,920 --> 00:43:50,819
have said that well yes I saw something

827
00:44:00,930 --> 00:43:55,930
for many years ago so and there is also

828
00:44:05,839 --> 00:44:00,940
a couple of written local history books

829
00:44:11,999 --> 00:44:05,849
which indicate some kind of half light

830
00:44:20,160 --> 00:44:12,009
and I I would believe that probably it

831
00:44:26,839 --> 00:44:20,170
has always been going on there but the

832
00:44:31,349 --> 00:44:26,849
it was known and became known from

833
00:44:35,370 --> 00:44:31,359
people around the world when it happened

834
00:44:39,450 --> 00:44:35,380
so very much there was a what some name

835
00:44:43,549 --> 00:44:39,460
it you for flap which lasted for well

836
00:44:47,130 --> 00:44:43,559
three years up there yeah you're saying

837
00:44:49,529 --> 00:44:47,140
20 times or something better a week or

838
00:44:51,140 --> 00:44:49,539

something I mean that's that's really

839

00:44:55,010 --> 00:44:51,150

amazing in its

840

00:44:58,520 --> 00:44:55,020

it's good that you know there are people

841

00:45:00,680 --> 00:44:58,530

like you taking this seriously and you

842

00:45:03,050 --> 00:45:00,690

know someone in science and speaking of

843

00:45:06,350 --> 00:45:03,060

that you were talking about ridicule

844

00:45:09,920 --> 00:45:06,360

have you yourself ever had taken any

845

00:45:15,590 --> 00:45:09,930

ridicule because of looking into this

846

00:45:21,160 --> 00:45:15,600

particular phenomenon and no not what

847

00:45:28,250 --> 00:45:21,170

I'm aware oh not what I'm a barrel or

848

00:45:33,980 --> 00:45:28,260

think of and because I know there is

849

00:45:37,850 --> 00:45:33,990

something I went up there in September

850

00:45:42,140 --> 00:45:37,860

82 the first time and saw it myself so I

851

00:45:44,960 --> 00:45:42,150

knew there was something so and if

852

00:45:48,590 --> 00:45:44,970

someone tried to ridicule that well

853

00:45:52,880 --> 00:45:48,600

that's their problem it's not mine and I

854

00:45:57,320 --> 00:45:52,890

knew there was something and I knew also

855

00:46:01,730 --> 00:45:57,330

that because at the time I was working

856

00:46:06,260 --> 00:46:01,740

at the scientist in in Oslo and when I

857

00:46:09,320 --> 00:46:06,270

saw it myself the first time made a big

858

00:46:11,620 --> 00:46:09,330

impression on me because I was far out

859

00:46:18,650 --> 00:46:11,630

in the countryside they were in the void

860

00:46:23,210 --> 00:46:18,660

not in houses around in the in hillside

861

00:46:27,470 --> 00:46:23,220

and then you see this huge light coming

862

00:46:30,560 --> 00:46:27,480

and that that you remember that you can

863

00:46:35,810 --> 00:46:30,570

imagine and it's very strong and it

864

00:46:38,840 --> 00:46:35,820

moving around and stop and last for one

865

00:46:42,290 --> 00:46:38,850

and a half hour before it disappeared

866

00:46:45,350 --> 00:46:42,300

and so I knew it was something and when

867

00:46:49,550 --> 00:46:45,360

I come back to my work and discuss this

868

00:46:55,360 --> 00:46:49,560

with my companions and I was well I was

869

00:47:00,380 --> 00:46:55,370

warned that be careful to involve in UFO

870

00:47:03,290 --> 00:47:00,390

research because that can can destroy

871

00:47:07,160 --> 00:47:03,300

your career because

872

00:47:11,810 --> 00:47:07,170

at that time if you if you are studying

873

00:47:16,550 --> 00:47:11,820

UF for you for was not seriously taken

874

00:47:18,740 --> 00:47:16,560

at that time so we later decided is much

875

00:47:22,310 --> 00:47:18,750

more easy to talk about the hostile

876

00:47:25,010 --> 00:47:22,320

phenomena instead of UFO because you

877

00:47:30,740 --> 00:47:25,020

have for the world UFO has been in a way

878

00:47:35,680 --> 00:47:30,750

destroyed yeah and and it's not taken

879

00:47:39,830 --> 00:47:35,690

seriously but if you use other words

880

00:47:42,859 --> 00:47:39,840

it's much more easy it's much more the

881

00:47:46,820 --> 00:47:42,869

scientists take it more seriously so we

882

00:47:50,690 --> 00:47:46,830

call it a hostile phenomena from now on

883

00:47:52,430 --> 00:47:50,700

so that helped it's too bad you have to

884

00:47:57,530 --> 00:47:52,440

do that and there's many examples of

885

00:48:00,200 --> 00:47:57,540

that and and you know one of the people

886

00:48:03,740 --> 00:48:00,210

I was trying to get on this show was dr.

887

00:48:06,680 --> 00:48:03,750

Richard Haines and he basically told me

888

00:48:08,750 --> 00:48:06,690

flat out that the title of my show is

889

00:48:11,420 --> 00:48:08,760

podcast UFO and he was sorry that he

890

00:48:14,000 --> 00:48:11,430

couldn't be on my show and because of

891

00:48:19,580 --> 00:48:14,010

that you know so people are using UAP

892

00:48:24,830 --> 00:48:19,590

and other you know other terms to call

893

00:48:27,020 --> 00:48:24,840

it but UFO data so that is something

894

00:48:30,080 --> 00:48:27,030

you're involved in and they actually

895

00:48:33,560 --> 00:48:30,090

used that word in that but it's a it's a

896

00:48:37,099 --> 00:48:33,570

group of scientists and of people with a

897

00:48:39,080 --> 00:48:37,109

you know PhD that are actually taking

898

00:48:40,359 --> 00:48:39,090

this seriously and looking to collect

899

00:48:44,530 --> 00:48:40,369

data on it

900

00:48:46,730 --> 00:48:44,540

Alexander Wendt Radha ger I think is

901
00:48:48,620 --> 00:48:46,740
involved in that Robert Powell a bunch

902
00:48:52,670 --> 00:48:48,630
of really interesting people including

903
00:48:56,390 --> 00:48:52,680
yourself yes that's important work

904
00:48:59,420 --> 00:48:56,400
they're doing they're scientist and they

905
00:49:03,530 --> 00:48:59,430
won't date a scientist what data and

906
00:49:09,050 --> 00:49:03,540
their work is getting data and that's

907
00:49:13,160 --> 00:49:09,060
the name of our UFO data so that fits

908
00:49:16,880 --> 00:49:13,170
very well with my thinking to my main

909
00:49:21,589 --> 00:49:16,890
goal is to get the data get

910
00:49:24,979 --> 00:49:21,599
the data which can lead to a solution so

911
00:49:31,209 --> 00:49:24,989
the youthful data group is is very

912
00:49:35,269 --> 00:49:31,219
important and hope we hope we can can

913
00:49:40,940 --> 00:49:35,279

get more from the founding for this that

914

00:49:44,390 --> 00:49:40,950

the outcome can be very very big but but

915

00:49:48,459 --> 00:49:44,400

of course as a high-risk though I'm

916

00:49:52,009 --> 00:49:48,469

putting a lot of money into it because

917

00:49:55,489 --> 00:49:52,019

you never know for sure if you get

918

00:50:01,699 --> 00:49:55,499

debate break through the fight that's

919

00:50:06,469 --> 00:50:01,709

right then the payoff can be enormous so

920

00:50:11,569 --> 00:50:06,479

I would encourage people who want to

921

00:50:15,170 --> 00:50:11,579

contribute with both the project hassle

922

00:50:17,690 --> 00:50:15,180

or the UFO data they should do it and

923

00:50:20,870 --> 00:50:17,700

they have if they look at you for data

924

00:50:26,239 --> 00:50:20,880

dot net there they can get in contact

925

00:50:29,029 --> 00:50:26,249

with them there yes I it must be

926
00:50:31,969 --> 00:50:29,039
frustrating to you that more scientists

927
00:50:33,380 --> 00:50:31,979
do not want to find out there they're

928
00:50:36,979 --> 00:50:33,390
not looking to the data and one of the

929
00:50:38,809 --> 00:50:36,989
things hmm you know I've heard other

930
00:50:40,579 --> 00:50:38,819
people say is you know it's something

931
00:50:42,289 --> 00:50:40,589
that can't be solved easily and when

932
00:50:45,920 --> 00:50:42,299
something can't be solved easily or

933
00:50:47,359 --> 00:50:45,930
solved within a time limit then you know

934
00:50:50,359 --> 00:50:47,369
there's no such thing as funding for

935
00:50:52,609 --> 00:50:50,369
something like that and so there's a lot

936
00:50:53,839 --> 00:50:52,619
of people privately funding you know the

937
00:50:55,910 --> 00:50:53,849
look into it but do you ever get

938
00:50:58,160 --> 00:50:55,920

frustrated that more people of science

939

00:50:59,769 --> 00:50:58,170

are not you know looking at this in a

940

00:51:03,319 --> 00:50:59,779

serious way

941

00:51:06,759 --> 00:51:03,329

well I know there is a lot of scientists

942

00:51:09,799 --> 00:51:06,769

interested in the topic but of course

943

00:51:14,630 --> 00:51:09,809

scientists need to get funding for the

944

00:51:16,999 --> 00:51:14,640

work and and one of the argument against

945

00:51:21,620 --> 00:51:17,009

it is that you never know and it happens

946

00:51:23,870 --> 00:51:21,630

you're it's a big big risk you can have

947

00:51:30,110 --> 00:51:23,880

the chance to not get any data at all

948

00:51:34,670 --> 00:51:30,120

but if you if you see on another

949

00:51:38,270 --> 00:51:34,680

you have some areas which have a lot of

950

00:51:41,210 --> 00:51:38,280

sightings and even if you are out there

951
00:51:46,660 --> 00:51:41,220
with instrument and you don't don't get

952
00:51:50,380 --> 00:51:46,670
any observation as such but you can do

953
00:51:56,330 --> 00:51:50,390
investigation of the area the

954
00:51:58,910 --> 00:51:56,340
geophysical thing and find out what was

955
00:52:02,120 --> 00:51:58,920
the reason why it happened here but that

956
00:52:05,570 --> 00:52:02,130
can be done and also now you can get

957
00:52:09,490 --> 00:52:05,580
some automatically system you don't need

958
00:52:14,150 --> 00:52:09,500
to be there out in the field personally

959
00:52:15,800 --> 00:52:14,160
all the time so you can get some some

960
00:52:19,870 --> 00:52:15,810
equipment which doesn't necessarily

961
00:52:23,900 --> 00:52:19,880
cause of very much money to run

962
00:52:25,460 --> 00:52:23,910
automatically and send data whenever

963
00:52:29,660 --> 00:52:25,470

something happening

964

00:52:31,520 --> 00:52:29,670

so that's Creek Beach possibly now one

965

00:52:35,030 --> 00:52:31,530

last thing of one last thought here is

966

00:52:38,090 --> 00:52:35,040

and and then we're gonna we're gonna end

967

00:52:40,160 --> 00:52:38,100

this part of the show and that is have

968

00:52:43,580 --> 00:52:40,170

you thought about looking into other

969

00:52:50,930 --> 00:52:43,590

places that are similar to this having

970

00:52:53,570 --> 00:52:50,940

to do comparisons well yes of course

971

00:52:58,550 --> 00:52:53,580

about funding again but I've been lucky

972

00:53:01,640 --> 00:52:58,560

to be being to both Mexico and several

973

00:53:07,580 --> 00:53:01,650

places in the States and also Australia

974

00:53:12,380 --> 00:53:07,590

and have instruments with me look at and

975

00:53:14,510 --> 00:53:12,390

see the salvation at these places too it

976
00:53:17,330 --> 00:53:14,520
seems to be the same thing as in Hesston

977
00:53:21,140 --> 00:53:17,340
so we probably take talking about the

978
00:53:23,420 --> 00:53:21,150
same same reason the same thing there is

979
00:53:26,530 --> 00:53:23,430
some similarities I think there is a lot

980
00:53:31,450 --> 00:53:26,540
of similarities between the different

981
00:53:41,300 --> 00:53:31,460
places in the world where it's happening

982
00:53:43,579 --> 00:53:41,310
but why these places are so active we

983
00:53:46,759 --> 00:53:43,589
haven't found the solution to

984
00:53:50,450 --> 00:53:46,769
that yet and for instance the minerals

985
00:53:52,999 --> 00:53:50,460
in the ground which could we know

986
00:53:56,239 --> 00:53:53,009
there's a lot of minerals in the ground

987
00:54:03,009 --> 00:53:56,249
in histone we have also mapped how the

988
00:54:07,609 --> 00:54:03,019

minerals is located in in in the valley

989

00:54:11,989 --> 00:54:07,619

of course we have found out that but

990

00:54:15,890 --> 00:54:11,999

from there to the actual light itself

991

00:54:21,049 --> 00:54:15,900

this is difficult and there's a lot of

992

00:54:22,400 --> 00:54:21,059

proposals to or or hypothesis about what

993

00:54:26,299 --> 00:54:22,410

could this be

994

00:54:31,430 --> 00:54:26,309

but as I said one of the problems is

995

00:54:33,469 --> 00:54:31,440

that some habitat Isis can point in one

996

00:54:36,259 --> 00:54:33,479

direction and other one in other

997

00:54:40,370 --> 00:54:36,269

directions so it's hard to find one

998

00:54:43,400 --> 00:54:40,380

solution with fit to all well one

999

00:54:47,650 --> 00:54:43,410

possibility is that of course it can be

1000

00:54:51,349 --> 00:54:47,660

different thing we are studying it's not

1001
00:54:53,359 --> 00:54:51,359
necessarily the same solution only one

1002
00:54:57,400 --> 00:54:53,369
solution can be different solutions

1003
00:55:00,950 --> 00:54:57,410
different things but the question is so

1004
00:55:05,839 --> 00:55:00,960
why does all this happen

1005
00:55:08,839 --> 00:55:05,849
in a small valley in Norway mm-hmm so

1006
00:55:11,630 --> 00:55:08,849
that when you say that these all these

1007
00:55:15,920 --> 00:55:11,640
different types happen in one rally is

1008
00:55:20,420 --> 00:55:15,930
very easy to say that there must be some

1009
00:55:22,579 --> 00:55:20,430
connection yeah absolutely

1010
00:55:24,859 --> 00:55:22,589
very very interesting well thank you so

1011
00:55:28,719 --> 00:55:24,869
much it's been a real pleasure thank you

1012
00:55:32,479 --> 00:55:28,729
for coming back to record rerecord and

1013
00:55:34,729 --> 00:55:32,489

so everyone hang in there we'll be right

1014

00:55:38,839 --> 00:55:34,739

back in a few minutes after this break

1015

00:55:42,739 --> 00:55:38,849

with dr. seth shostack hey Seth how are

1016

00:55:45,319 --> 00:55:42,749

you hi sorry I'm a little late I had 4

1017

00:55:49,039 --> 00:55:45,329

o'clock on my calendar instead of 355

1018

00:55:51,069 --> 00:55:49,049

that's okay you're here and so we're

1019

00:55:55,099 --> 00:55:51,079

we're glad to have you on and I

1020

00:55:56,819 --> 00:55:55,109

appreciate we had we had a number of are

1021

00:55:58,799 --> 00:55:56,829

you back there you are yeah

1022

00:56:01,829 --> 00:55:58,809

yeah yeah we had a we had a number of

1023

00:56:04,170 --> 00:56:01,839

questions come rolling in and you know

1024

00:56:07,440 --> 00:56:04,180

one of them already and one of them was

1025

00:56:11,489 --> 00:56:07,450

have you ever heard of the last guest we

1026

00:56:13,019 --> 00:56:11,499

had dr. Earling strand I'm sorry he's

1027

00:56:14,910 --> 00:56:13,029

not a doctor he's got his master's in

1028

00:56:15,989 --> 00:56:14,920

science but Earling strand over in

1029

00:56:18,870 --> 00:56:15,999

Norway have you ever heard of the

1030

00:56:21,029 --> 00:56:18,880

headstone house tell them lights yes

1031

00:56:22,380 --> 00:56:21,039

those I've had him have heard of I

1032

00:56:24,180 --> 00:56:22,390

haven't heard of that particular person

1033

00:56:27,509 --> 00:56:24,190

but I've certainly heard of the lights

1034

00:56:29,279 --> 00:56:27,519

yeah and you know I really enjoyed the

1035

00:56:32,190 --> 00:56:29,289

talk with him because I know you're a

1036

00:56:35,940 --> 00:56:32,200

science-based guy and it's really hard

1037

00:56:37,289 --> 00:56:35,950

for you to talk about speculating of any

1038

00:56:41,120 --> 00:56:37,299

kind you know we've been you've been on

1039

00:56:42,839 --> 00:56:41,130

the show before so it's no surprise and

1040

00:56:44,370 --> 00:56:42,849

he doesn't either

1041

00:56:45,599 --> 00:56:44,380

which I thought was nice he just wants

1042

00:56:46,859 --> 00:56:45,609

the data that's what they're trying to

1043

00:56:50,130 --> 00:56:46,869

gather they're trying to figure out what

1044

00:56:52,620 --> 00:56:50,140

they are you know they're very possibly

1045

00:56:55,289 --> 00:56:52,630

could be something you know a natural

1046

00:56:57,660 --> 00:56:55,299

phenomena but it's awful hard to say

1047

00:57:01,109 --> 00:56:57,670

when there's different things happening

1048

00:57:03,779 --> 00:57:01,119

but anyway this you haven't been on for

1049

00:57:08,339 --> 00:57:03,789

a number of years so I wanted to welcome

1050

00:57:09,930 --> 00:57:08,349

you back and can you give the listener

1051

00:57:10,469 --> 00:57:09,940

that I have a lot of new listeners to

1052

00:57:12,719 --> 00:57:10,479

the show too

1053

00:57:17,489 --> 00:57:12,729

just a quick nutshell of your background

1054

00:57:19,289 --> 00:57:17,499

and what got you interested in and in

1055

00:57:22,920 --> 00:57:19,299

SETI and looking out there for

1056

00:57:25,380 --> 00:57:22,930

intelligent life well my background is

1057

00:57:28,650 --> 00:57:25,390

in physics and astronomy

1058

00:57:31,319 --> 00:57:28,660

I've studied both and I have degrees in

1059

00:57:33,269 --> 00:57:31,329

both I was actually involved in what's

1060

00:57:35,699 --> 00:57:33,279

called radio astronomy for many many

1061

00:57:38,910 --> 00:57:35,709

years in which we were doing research on

1062

00:57:41,789 --> 00:57:38,920

well galaxies actually and I I measured

1063

00:57:43,920 --> 00:57:41,799

the rotation of galaxies that was my my

1064

00:57:45,209 --> 00:57:43,930

thesis work and I continued that for a

1065

00:57:46,769 --> 00:57:45,219

couple of years even afterwards because

1066

00:57:49,170 --> 00:57:46,779

the galaxies were all rotating a little

1067

00:57:50,370 --> 00:57:49,180

bit too fast and that was an indication

1068

00:57:52,709 --> 00:57:50,380

that there was something that we now

1069

00:57:54,630 --> 00:57:52,719

call dark matter in these galaxies so

1070

00:57:58,559 --> 00:57:54,640

radio astronomy but of course the

1071

00:58:01,469 --> 00:57:58,569

techniques of radio astronomy are rather

1072

00:58:03,900 --> 00:58:01,479

similar to the techniques used in SETI

1073

00:58:07,109 --> 00:58:03,910

so when I moved to California after

1074

00:58:09,420 --> 00:58:07,119

living in Europe for a while I I went to

1075

00:58:10,560 --> 00:58:09,430

a party over in Berkeley and some people

1076

00:58:12,840 --> 00:58:10,570

saw me there there were

1077

00:58:14,580 --> 00:58:12,850

working in SETI and they called me up

1078

00:58:16,380 --> 00:58:14,590

and asked me if I wanted a job at this

1079

00:58:19,260 --> 00:58:16,390

SETI Institute and Here I am

1080

00:58:24,720 --> 00:58:19,270

Wow I bet I betcha that was exciting for

1081

00:58:26,390 --> 00:58:24,730

you really well yeah it was I mean I as

1082

00:58:29,070 --> 00:58:26,400

it turned out I happen to have had a

1083

00:58:31,020 --> 00:58:29,080

dwelling that was only you know two

1084

00:58:33,180 --> 00:58:31,030

miles from the SETI Institute so not

1085

00:58:35,340 --> 00:58:33,190

only was it exciting it also had the

1086

00:58:37,470 --> 00:58:35,350

benefit of being convenient oh wow

1087

00:58:40,140 --> 00:58:37,480

and that's in is is that mountain view

1088

00:58:42,140 --> 00:58:40,150

it is in Mountain View a map view is

1089

00:58:44,910 --> 00:58:42,150

probably most famous these days for

1090

00:58:48,750 --> 00:58:44,920

Google Google is headquartered here yeah

1091

00:58:53,340 --> 00:58:48,760

yeah and I don't think it's a base not

1092

00:58:55,020 --> 00:58:53,350

there is it right near eBay is fairly

1093

00:58:57,240 --> 00:58:55,030

nearby the last time I saw an eBay

1094

00:58:58,770 --> 00:58:57,250

building was down in San Jose though

1095

00:59:00,390 --> 00:58:58,780

that's about ten miles from where I'm

1096

00:59:04,290 --> 00:59:00,400

sitting that's right that's right

1097

00:59:06,450 --> 00:59:04,300

so I also I have become a big fan of

1098

00:59:09,050 --> 00:59:06,460

your podcast we will talk about that a

1099

00:59:11,400 --> 00:59:09,060

little bit but big-picture science I

1100

00:59:14,880 --> 00:59:11,410

absolutely love it you get some

1101
00:59:17,610 --> 00:59:14,890
fantastic guests as well well produced

1102
00:59:19,980 --> 00:59:17,620
very high quality and really really

1103
00:59:23,780 --> 00:59:19,990
really interesting topics and I have to

1104
00:59:27,270 --> 00:59:23,790
say I listen to about five five or so

1105
00:59:29,790 --> 00:59:27,280
podcasts that's about it and in your

1106
00:59:33,030 --> 00:59:29,800
podcast is one of them yeah I always

1107
00:59:36,060 --> 00:59:33,040
loved your sense of humor too and that's

1108
00:59:39,900 --> 00:59:36,070
what keeps me awake Martin now I

1109
00:59:43,230 --> 00:59:39,910
remember you and I debated UFOs I was

1110
00:59:45,750 --> 00:59:43,240
very ice only I think it was I'm up to

1111
00:59:48,060 --> 00:59:45,760
370 shows or something like that at this

1112
00:59:50,970 --> 00:59:48,070
point but I mean I was in I think like

1113
00:59:53,520 --> 00:59:50,980

40 or 60 shows something like that and I

1114

00:59:55,710 --> 00:59:53,530

was still green so to speak not to say

1115

00:59:57,510 --> 00:59:55,720

that I could debate any better better

1116

00:59:59,100 --> 00:59:57,520

but you were you're a very good debater

1117

01:00:02,340 --> 00:59:59,110

when it comes to this subject we getting

1118

01:00:04,260 --> 01:00:02,350

into a little bit of that later on but

1119

01:00:06,090 --> 01:00:04,270

you know some people are have asked

1120

01:00:08,900 --> 01:00:06,100

questions and I'm gonna try to take

1121

01:00:12,330 --> 01:00:08,910

calls later but one of the questions was

1122

01:00:14,910 --> 01:00:12,340

who funds said he and I know originally

1123

01:00:17,010 --> 01:00:14,920

I believe I should say that NASA did

1124

01:00:17,910 --> 01:00:17,020

originally and now it's private funding

1125

01:00:21,270 --> 01:00:17,920

is that correct

1126

01:00:23,850 --> 01:00:21,280

well there was a NASA SETI program and

1127

01:00:24,510 --> 01:00:23,860

that began in the 1970s there had

1128

01:00:26,460 --> 01:00:24,520

certainly been

1129

01:00:29,820 --> 01:00:26,470

said he experiments before that and they

1130

01:00:32,850 --> 01:00:29,830

were just sort of informal efforts made

1131

01:00:33,960 --> 01:00:32,860

by the radio and astronomers involved I

1132

01:00:37,560 --> 01:00:33,970

mean I did it myself

1133

01:00:40,080 --> 01:00:37,570

in the 1970s I'd be you know at a radio

1134

01:00:41,640 --> 01:00:40,090

Observatory making observations and you

1135

01:00:44,580 --> 01:00:41,650

know I had some telescope time and then

1136

01:00:46,470 --> 01:00:44,590

ran out of galaxies because the galaxies

1137

01:00:48,630 --> 01:00:46,480

are not equally distributed across the

1138

01:00:51,810 --> 01:00:48,640

sky from the standpoint of a radio

1139

01:00:53,070 --> 01:00:51,820

telescope so I would occasionally look

1140

01:00:54,810 --> 01:00:53,080

up the coordinates of nearby star

1141

01:00:56,520 --> 01:00:54,820

systems and just point the antennas in

1142

01:00:58,560 --> 01:00:56,530

those directions just to see if there

1143

01:01:01,080 --> 01:00:58,570

was anything there so those informal

1144

01:01:04,260 --> 01:01:01,090

accounts or efforts I should say were

1145

01:01:07,260 --> 01:01:04,270

were you know the majority of early SETI

1146

01:01:09,270 --> 01:01:07,270

work but finally a gentleman here at the

1147

01:01:11,240 --> 01:01:09,280

NASA Ames Research Center a couple of

1148

01:01:14,220 --> 01:01:11,250

miles from where I'm sitting actually

1149

01:01:17,400 --> 01:01:14,230

started to get NASA involved in it and

1150

01:01:22,440 --> 01:01:17,410

when I joined the SETI Institute in 1990

1151

01:01:26,190 --> 01:01:22,450

it was a NASA program that ended in 1993

1152

01:01:30,030 --> 01:01:26,200

however and and how was the transition

1153

01:01:31,890 --> 01:01:30,040

over to this private funding so it's

1154

01:01:35,100 --> 01:01:31,900

very yeah very difficult very difficult

1155

01:01:37,230 --> 01:01:35,110

because although the the NASA SETI

1156

01:01:40,110 --> 01:01:37,240

program was never large it was never

1157

01:01:43,050 --> 01:01:40,120

more than one one thousandth of the NASA

1158

01:01:45,750 --> 01:01:43,060

budget that was still a lot of money

1159

01:01:47,970 --> 01:01:45,760

compared to what we could raise from

1160

01:01:49,950 --> 01:01:47,980

private you know donors which is what we

1161

01:01:51,570 --> 01:01:49,960

do now so there's very little funding

1162

01:01:53,970 --> 01:01:51,580

for SETI the big problem was SETI people

1163

01:01:55,710 --> 01:01:53,980

always ask you know what's the the thing

1164

01:01:59,160 --> 01:01:55,720

you would like to fix most about SETI

1165

01:02:02,250 --> 01:01:59,170

it's the funding of course and and how

1166

01:02:05,580 --> 01:02:02,260

do you how do you do that I mean one of

1167

01:02:07,260 --> 01:02:05,590

the one of the things that and a lot of

1168

01:02:08,880 --> 01:02:07,270

people that are and there are some

1169

01:02:11,520 --> 01:02:08,890

science-based people that are trying to

1170

01:02:14,340 --> 01:02:11,530

figure out what people are seeing you

1171

01:02:17,250 --> 01:02:14,350

know here on earth and the research

1172

01:02:19,590 --> 01:02:17,260

money is so difficult to get for a

1173

01:02:23,430 --> 01:02:19,600

number of reasons and the number one

1174

01:02:27,930 --> 01:02:23,440

reason or besides the ridicule factor is

1175

01:02:31,140 --> 01:02:27,940

that they need a time like a date of

1176
01:02:35,430 --> 01:02:31,150
solving an order to get funding you hear

1177
01:02:37,020 --> 01:02:35,440
that and so what do you how do you I

1178
01:02:38,430 --> 01:02:37,030
don't want to say dangle a carrot but

1179
01:02:40,680 --> 01:02:38,440
how do you get someone

1180
01:02:43,590 --> 01:02:40,690
interested in saying you fund this

1181
01:02:45,570 --> 01:02:43,600
because we think that we are going to

1182
01:02:47,820 --> 01:02:45,580
blah blah blah how do you how do you

1183
01:02:51,980 --> 01:02:47,830
approach that well all we can tell them

1184
01:02:54,690 --> 01:02:51,990
is this there is the technology today to

1185
01:02:57,600 --> 01:02:54,700
find signals whether they're radio

1186
01:02:58,590 --> 01:02:57,610
signals or flashing laser beams or

1187
01:03:01,320 --> 01:02:58,600
something we now have the technology

1188
01:03:05,280 --> 01:03:01,330

that could find these things at least at

1189

01:03:08,370 --> 01:03:05,290

a relatively reasonable intensity you

1190

01:03:10,290 --> 01:03:08,380

know strength and no previous generation

1191

01:03:13,530 --> 01:03:10,300

has been able to do that so it'd be a

1192

01:03:16,020 --> 01:03:13,540

little crazy not to at least try can we

1193

01:03:17,460 --> 01:03:16,030

guarantee success no there's no way we

1194

01:03:19,620 --> 01:03:17,470

can guarantee success but on the other

1195

01:03:21,540 --> 01:03:19,630

hand Chris Columbus couldn't guarantee

1196

01:03:23,700 --> 01:03:21,550

success either it's a little unclear

1197

01:03:25,950 --> 01:03:23,710

whether he actually had success but at

1198

01:03:27,930 --> 01:03:25,960

least you could say try and at some

1199

01:03:28,740 --> 01:03:27,940

point you have the ability to try the

1200

01:03:32,550 --> 01:03:28,750

other thing that I

1201

01:03:36,990 --> 01:03:32,560

I believe plays a role here is that SETI

1202

01:03:39,120 --> 01:03:37,000

is dependent largely on computers right

1203

01:03:41,550 --> 01:03:39,130

compute power is very important if you

1204

01:03:43,830 --> 01:03:41,560

have more compute power you can look at

1205

01:03:45,540 --> 01:03:43,840

the sky very much more quickly that sort

1206

01:03:48,990 --> 01:03:45,550

of thing and it turns out that the speed

1207

01:03:52,320 --> 01:03:49,000

of SETI experiments keeps growing very

1208

01:03:54,450 --> 01:03:52,330

rapidly actually exponentially so that's

1209

01:03:56,310 --> 01:03:54,460

another encouragement to funders because

1210

01:03:58,350 --> 01:03:56,320

you know whatever we're doing this year

1211

01:04:01,110 --> 01:03:58,360

really Dwarfs everything that was done

1212

01:04:04,500 --> 01:04:01,120

up until this year so it's a you know

1213

01:04:09,750 --> 01:04:04,510

it's a very rapidly improving experiment

1214

01:04:12,510 --> 01:04:09,760

do you the SETI work in concert with say

1215

01:04:18,060 --> 01:04:12,520

events or possible events or for

1216

01:04:19,410 --> 01:04:18,070

instance I remember when let's see try

1217

01:04:21,480 --> 01:04:19,420

to remember what it was called like the

1218

01:04:23,970 --> 01:04:21,490

Dyson Sphere they were talking about

1219

01:04:26,550 --> 01:04:23,980

that yeah probably a B star that's at a

1220

01:04:29,550 --> 01:04:26,560

B star does SETI work in concert with

1221

01:04:31,830 --> 01:04:29,560

you know revelations like that

1222

01:04:33,990 --> 01:04:31,840

in other words like there could be some

1223

01:04:38,010 --> 01:04:34,000

type of activity in this direction and

1224

01:04:40,680 --> 01:04:38,020

you focus on that sure we we yes of

1225

01:04:43,010 --> 01:04:40,690

course I mean if you find a an object in

1226

01:04:46,230 --> 01:04:43,020

the sky in the course of you know

1227

01:04:48,060 --> 01:04:46,240

astronomy I mean cabby star was actually

1228

01:04:50,940 --> 01:04:48,070

in the observing list for the Kepler

1229

01:04:52,290 --> 01:04:50,950

space telescope and what was observed

1230

01:04:55,650 --> 01:04:52,300

was that that

1231

01:04:57,330 --> 01:04:55,660

star dimmed occasionally not regularly

1232

01:04:58,980 --> 01:04:57,340

if it regularly dim you figure okay

1233

01:05:01,430 --> 01:04:58,990

there's a planet going around it causing

1234

01:05:04,440 --> 01:05:01,440

it to dim but this dimming was very

1235

01:05:07,530 --> 01:05:04,450

erratic and in one instance it dimmed by

1236

01:05:10,380 --> 01:05:07,540

22% that's enormous that's not a planet

1237

01:05:12,270 --> 01:05:10,390

no planet can dim was star by 22% by

1238

01:05:14,400 --> 01:05:12,280

passing in front of it I mean even

1239

01:05:18,530 --> 01:05:14,410

Jupiter passing in front of the Sun you

1240

01:05:21,450 --> 01:05:18,540

know it dims it by less than 1% right

1241

01:05:23,760 --> 01:05:21,460

so you know it wasn't a planet and the

1242

01:05:25,740 --> 01:05:23,770

question was what was it and Jason

1243

01:05:28,410 --> 01:05:25,750

Wright who's an astronomer at the Penn

1244

01:05:30,090 --> 01:05:28,420

State suggested well I mean it could be

1245

01:05:31,920 --> 01:05:30,100

an alien mega-structure that maybe

1246

01:05:33,750 --> 01:05:31,930

there's a planet there with some very

1247

01:05:36,330 --> 01:05:33,760

sophisticated beings on it that have

1248

01:05:38,910 --> 01:05:36,340

built some giant construction in orbit

1249

01:05:42,060 --> 01:05:38,920

around their star and that occasionally

1250

01:05:46,290 --> 01:05:42,070

blocks the light so of course we another

1251

01:05:47,850 --> 01:05:46,300

other another SETI group also you know

1252

01:05:49,260 --> 01:05:47,860

pointed our antennas in the direction of

1253

01:05:50,940 --> 01:05:49,270

tabi star to see if there was anything

1254

01:05:52,110 --> 01:05:50,950

coming from there we didn't find

1255

01:05:53,940 --> 01:05:52,120

anything of course that doesn't prove

1256

01:05:56,700 --> 01:05:53,950

that they're not there but as it turns

1257

01:05:58,640 --> 01:05:56,710

out the whole explanation kind of became

1258

01:06:01,530 --> 01:05:58,650

a little more obvious about a year later

1259

01:06:04,770 --> 01:06:01,540

when people with big conventional

1260

01:06:08,400 --> 01:06:04,780

telescopes saw that the the dimming was

1261

01:06:10,620 --> 01:06:08,410

very very red compared to the the color

1262

01:06:12,510 --> 01:06:10,630

of the star and that meant it was dust

1263

01:06:16,620 --> 01:06:12,520

so it's just you know something natural

1264

01:06:19,440 --> 01:06:16,630

it's not et oh well it's still

1265

01:06:21,600 --> 01:06:19,450

interesting and now we have the James

1266

01:06:24,270 --> 01:06:21,610

Webb is going to be going out there at

1267

01:06:26,610 --> 01:06:24,280

some point these are just more and more

1268

01:06:29,550 --> 01:06:26,620

tools Kepler made so many discoveries

1269

01:06:31,560 --> 01:06:29,560

you did a show about that recently where

1270

01:06:33,330 --> 01:06:31,570

you're in a big picture of science where

1271

01:06:35,520 --> 01:06:33,340

you're talking about you know that the

1272

01:06:38,040 --> 01:06:35,530

discovery of earth-like planets and the

1273

01:06:40,950 --> 01:06:38,050

possibility of the numbers were just

1274

01:06:44,100 --> 01:06:40,960

staggering and just this galaxy alone

1275

01:06:48,810 --> 01:06:44,110

and speaking of this galaxy alone does

1276

01:06:51,630 --> 01:06:48,820

SETI focus on this galaxy or does it

1277

01:06:53,550 --> 01:06:51,640

actually look around I mean there must

1278

01:06:55,830 --> 01:06:53,560

be just a even though you've been doing

1279

01:06:59,220 --> 01:06:55,840

this for years it's probably a very tiny

1280

01:07:01,500 --> 01:06:59,230

percentage of the you know universe that

1281

01:07:03,090 --> 01:07:01,510

you're pointing at right well yes that's

1282

01:07:05,100 --> 01:07:03,100

when people ask why haven't you found

1283

01:07:05,940 --> 01:07:05,110

anything I mean one possibility for why

1284

01:07:07,410 --> 01:07:05,950

we haven't found any

1285

01:07:09,660 --> 01:07:07,420

and of course that's a difference

1286

01:07:11,670 --> 01:07:09,670

between SETI in the UFO community we

1287

01:07:15,420 --> 01:07:11,680

don't claim that we found anything so

1288

01:07:17,609 --> 01:07:15,430

far the I think the the most rational

1289

01:07:19,530 --> 01:07:17,619

explanation for that is simply the

1290

01:07:21,299 --> 01:07:19,540

sample size is too small I mean we've

1291

01:07:23,940 --> 01:07:21,309

only looked at a few thousand star

1292

01:07:25,890 --> 01:07:23,950

systems that's pretty small they're you

1293

01:07:28,770 --> 01:07:25,900

know a hundred billion star systems at

1294

01:07:31,740 --> 01:07:28,780

least in our galaxy and that means

1295

01:07:34,140 --> 01:07:31,750

they're probably like I don't know a

1296

01:07:36,270 --> 01:07:34,150

trillion at least a trillion planets in

1297

01:07:38,940 --> 01:07:36,280

our galaxy but they're 2 trillion other

1298

01:07:42,059 --> 01:07:38,950

galaxies and one could consider all of

1299

01:07:44,670 --> 01:07:42,069

those as being possible habitats or for

1300

01:07:46,079 --> 01:07:44,680

life of some sort but of course if you

1301

01:07:47,910 --> 01:07:46,089

look at other galaxies you're looking

1302

01:07:49,740 --> 01:07:47,920

very much farther away and when you look

1303

01:07:52,680 --> 01:07:49,750

in our own galaxy and that means that

1304

01:07:54,450 --> 01:07:52,690

any signals and so forth are a probably

1305

01:07:55,530 --> 01:07:54,460

a little bit less motivated why would

1306

01:07:57,750 --> 01:07:55,540

you want to send a signal through a

1307

01:08:00,030 --> 01:07:57,760

galaxy ten million light-years away and

1308

01:08:02,190 --> 01:08:00,040

secondly of course the signals would be

1309

01:08:04,760 --> 01:08:02,200

much weaker so we tend to concentrate on

1310

01:08:08,190 --> 01:08:04,770

the star systems in our own galaxy and

1311

01:08:11,039 --> 01:08:08,200

how sensitive is the equipment I mean

1312

01:08:13,200 --> 01:08:11,049

how like to say if we're you're

1313

01:08:15,299 --> 01:08:13,210

projecting a signal like safe from here

1314

01:08:17,400 --> 01:08:15,309

from Earth and by the time it hits our

1315

01:08:19,410 --> 01:08:17,410

nearest star how weak of these signals

1316

01:08:21,809 --> 01:08:19,420

and they must be very weak with all the

1317

01:08:23,599 --> 01:08:21,819

distance well the distance of course

1318

01:08:26,340 --> 01:08:23,609

does weaken them in the same sense that

1319

01:08:28,890 --> 01:08:26,350

you know distance weakens the the beam

1320

01:08:31,289 --> 01:08:28,900

from your laser pointer I mean it's the

1321

01:08:33,300 --> 01:08:31,299

same degree of weakening it goes as the

1322

01:08:36,209 --> 01:08:33,310

square of the distance but on the other

1323

01:08:37,950 --> 01:08:36,219

hand I mean radio technology is very

1324

01:08:40,110 --> 01:08:37,960

very sensitive and if you have a

1325

01:08:43,140 --> 01:08:40,120

transmitter with maybe a hundred

1326

01:08:45,059 --> 01:08:43,150

thousand watt power behind it and that's

1327

01:08:46,740 --> 01:08:45,069

not really so much I mean there there

1328

01:08:49,229 --> 01:08:46,750

are transmitters that big even here on

1329

01:08:51,689 --> 01:08:49,239

earth and you you know hook that up with

1330

01:08:54,689 --> 01:08:51,699

a big antenna then you can make a beam

1331

01:08:56,840 --> 01:08:54,699

that is intense enough to pick up from

1332

01:08:58,740 --> 01:08:56,850

hundreds of light-years away even with

1333

01:09:00,360 --> 01:08:58,750

equipment that really isn't much

1334

01:09:04,229 --> 01:09:00,370

different from the kind of stuff we

1335

01:09:07,200 --> 01:09:04,239

build ourselves so even now you know

1336

01:09:10,680 --> 01:09:07,210

only a century after Marconi if you will

1337

01:09:13,559 --> 01:09:10,690

and Tesla we have radio technology that

1338

01:09:18,360 --> 01:09:13,569

could communicate between the stars and

1339

01:09:19,410 --> 01:09:18,370

what did you think about the people that

1340

01:09:22,979 --> 01:09:19,420

have

1341

01:09:25,680 --> 01:09:22,989

said oh god I'm just a little just can't

1342

01:09:28,140 --> 01:09:25,690

pull his name out right now recently

1343

01:09:32,490 --> 01:09:28,150

passed away and he said we do not want

1344

01:09:34,979 --> 01:09:32,500

to connect with alien you know aliens

1345

01:09:36,900 --> 01:09:34,989

out there Who am I thinking of in the

1346

01:09:38,370 --> 01:09:36,910

wheelchair probably Stephen Hawking

1347

01:09:40,860 --> 01:09:38,380

that's exactly as I don't know I

1348

01:09:43,079 --> 01:09:40,870

couldn't think of his name terrible but

1349

01:09:46,289 --> 01:09:43,089

yeah what did you think about his saying

1350

01:09:48,720 --> 01:09:46,299

you know we don't want to be you know he

1351

01:09:51,120 --> 01:09:48,730

was afraid that they're hostile and

1352

01:09:53,910 --> 01:09:51,130

that's again that's a speculation of

1353

01:09:55,919 --> 01:09:53,920

course well I think what Stephen Hawking

1354

01:09:57,689 --> 01:09:55,929

was saying was not to do SETI

1355

01:10:00,000 --> 01:09:57,699

because said he is totally passive we're

1356

01:10:02,490 --> 01:10:00,010

just listening right there's clearly no

1357

01:10:04,709 --> 01:10:02,500

danger in listening yeah aliens no idea

1358

01:10:06,810 --> 01:10:04,719

whether you're listening or not but what

1359

01:10:09,840 --> 01:10:06,820

he was referring to was the possibility

1360

01:10:12,270 --> 01:10:09,850

that that you transmitted either de novo

1361

01:10:14,010 --> 01:10:12,280

by saying I'm just gonna send out a

1362

01:10:16,169 --> 01:10:14,020

message hi we're the Earthlings get in

1363

01:10:19,860 --> 01:10:16,179

touch which some people have done and

1364

01:10:21,630 --> 01:10:19,870

want to do or you do that if you find a

1365

01:10:23,310 --> 01:10:21,640

signal and you know you should respond

1366

01:10:25,650 --> 01:10:23,320

to and say hey we just picked up

1367

01:10:27,660 --> 01:10:25,660

something from your world you know love

1368

01:10:29,340 --> 01:10:27,670

to start a conversation whatever and all

1369

01:10:30,810 --> 01:10:29,350

he said was there well since you don't

1370

01:10:32,669 --> 01:10:30,820

know what's at the other end

1371

01:10:35,010 --> 01:10:32,679

maybe you should be careful now that was

1372

01:10:37,320 --> 01:10:35,020

not a new idea that ideas been kicked

1373

01:10:39,000 --> 01:10:37,330

around for at least two decades and of

1374

01:10:41,310 --> 01:10:39,010

course when Stephen Hawking weighs in on

1375

01:10:42,990 --> 01:10:41,320

it everybody pays attention whereas when

1376

01:10:45,330 --> 01:10:43,000

other people have talked about it at

1377

01:10:48,510 --> 01:10:45,340

length you know not necessarily so much

1378

01:10:51,360 --> 01:10:48,520

attention but I don't buy any of that

1379

01:10:54,030 --> 01:10:51,370

myself I mean yes you don't know whether

1380

01:10:55,709 --> 01:10:54,040

the aliens are hostile or otherwise you

1381

01:10:58,110 --> 01:10:55,719

can make guesses but do you want to run

1382

01:10:59,939 --> 01:10:58,120

the risk of destroying earth because you

1383

01:11:01,979 --> 01:10:59,949

guessed wrong I mean that doesn't sound

1384

01:11:03,930 --> 01:11:01,989

like a good idea but on the other hand

1385

01:11:08,910 --> 01:11:03,940

we're broadcasting into space all the

1386

01:11:10,410 --> 01:11:08,920

time our radars are very strong and and

1387

01:11:13,410 --> 01:11:10,420

you know a lot of the sky is covered

1388

01:11:16,830 --> 01:11:13,420

with radars so you know it's too late to

1389

01:11:20,070 --> 01:11:16,840

worry about it and you know the

1390

01:11:21,720 --> 01:11:20,080

technology that you're looking for I

1391

01:11:24,000 --> 01:11:21,730

remember in a conversation when we were

1392

01:11:27,780 --> 01:11:24,010

talking the very first time I said

1393

01:11:30,090 --> 01:11:27,790

something like how would you know that

1394

01:11:32,020 --> 01:11:30,100

a silver civilization out there would be

1395

01:11:34,930 --> 01:11:32,030

transmitting as something that you could

1396

01:11:36,760 --> 01:11:34,940

actually pick up and I think your your

1397

01:11:39,040 --> 01:11:36,770

your phrase our one of the things you

1398

01:11:40,930 --> 01:11:39,050

said was it's better than doing nothing

1399

01:11:42,790 --> 01:11:40,940

it's better than looking for nothing and

1400

01:11:45,460 --> 01:11:42,800

I had I had to agree with you yeah it's

1401

01:11:47,320 --> 01:11:45,470

definitely better than you know not not

1402

01:11:51,160 --> 01:11:47,330

trying to figure it out what is the type

1403

01:11:53,620 --> 01:11:51,170

of range of signals that SETI is now

1404

01:11:55,090 --> 01:11:53,630

looking in I mean you're saying your

1405

01:11:58,570 --> 01:11:55,100

technology is growing is does that mean

1406

01:12:02,890 --> 01:11:58,580

the range the spectrum of the signals

1407

01:12:06,670 --> 01:12:02,900

have changed as well well I think what

1408

01:12:09,130 --> 01:12:06,680

you're trying to ask is you know what do

1409

01:12:11,800 --> 01:12:09,140

we look for I mean yeah it is that the

1410

01:12:13,930 --> 01:12:11,810

question yeah I know I'm a layman so

1411

01:12:16,420 --> 01:12:13,940

yeah maybe I didn't yeah get it across

1412

01:12:19,470 --> 01:12:16,430

but yeah basically what exactly are you

1413

01:12:24,100 --> 01:12:19,480

are you trying to what type of

1414

01:12:27,010 --> 01:12:24,110

technology are you looking for well when

1415

01:12:29,200 --> 01:12:27,020

it comes to radio SETI which is mostly

1416

01:12:32,160 --> 01:12:29,210

what we do that maybe historical more

1417

01:12:34,630 --> 01:12:32,170

than anything else we look for you know

1418

01:12:37,030 --> 01:12:34,640

signals that are in the microwave band

1419

01:12:39,550 --> 01:12:37,040

of the spectrum which is roughly from a

1420

01:12:42,640 --> 01:12:39,560

thousand megahertz up to 10,000

1421

01:12:44,350 --> 01:12:42,650

megahertz maybe 15,000 megahertz they're

1422

01:12:46,360 --> 01:12:44,360

good reasons in both physics and

1423

01:12:49,810 --> 01:12:46,370

astronomy well why that might be the

1424

01:12:52,120 --> 01:12:49,820

best place to to look for signals and we

1425

01:12:53,850 --> 01:12:52,130

look for signals that are narrowband in

1426

01:12:56,470 --> 01:12:53,860

other words they're confined in

1427

01:12:58,360 --> 01:12:56,480

frequency there at one spot on the radio

1428

01:13:00,880 --> 01:12:58,370

dial if you will just the way your

1429

01:13:02,710 --> 01:13:00,890

favorite the you know talk show host is

1430

01:13:05,470 --> 01:13:02,720

it one spot on the radio dial

1431

01:13:08,050 --> 01:13:05,480

you know it's 104.5 megahertz on the

1432

01:13:10,870 --> 01:13:08,060

dial whatever it is and that's the

1433

01:13:13,390 --> 01:13:10,880

that's the indicator that that signal

1434

01:13:15,460 --> 01:13:13,400

was produced by transmitter if you have

1435

01:13:17,860 --> 01:13:15,470

natural radio transmitters which there

1436

01:13:19,210 --> 01:13:17,870

are plenty of I mean pulsar has quasars

1437

01:13:21,580 --> 01:13:19,220

everybody knows about these things

1438

01:13:24,070 --> 01:13:21,590

they're all over the dial they're not

1439

01:13:26,350 --> 01:13:24,080

really restricted to any one part of the

1440

01:13:29,050 --> 01:13:26,360

dial so it's easy to tell that's a

1441

01:13:31,510 --> 01:13:29,060

signal is coming from some somebody's

1442

01:13:32,500 --> 01:13:31,520

technology somebody's engineering it's a

1443

01:13:37,750 --> 01:13:32,510

transmitter

1444

01:13:39,040 --> 01:13:37,760

if it's localized in frequency I see

1445

01:13:40,990 --> 01:13:39,050

okay

1446

01:13:43,660 --> 01:13:41,000

did you happen to catch the article

1447

01:13:44,169 --> 01:13:43,670

recently that it was a I think it was a

1448

01:13:50,260 --> 01:13:44,179

former

1449

01:13:52,479 --> 01:13:50,270

like that he believes that there is

1450

01:13:54,970 --> 01:13:52,489

going to be announcement soon or sooner

1451

01:13:57,459 --> 01:13:54,980

or later or that we actually know I

1452

01:13:58,959 --> 01:13:57,469

think he said something like we actually

1453

01:14:02,200 --> 01:13:58,969

have a really good idea that there's

1454

01:14:03,580 --> 01:14:02,210

been signs of life found on Mars did you

1455

01:14:06,580 --> 01:14:03,590

happen to read that catch that

1456

01:14:09,010 --> 01:14:06,590

well I'm again I'm not sure that I got

1457

01:14:10,660 --> 01:14:09,020

the reference correct here but you may

1458

01:14:12,939 --> 01:14:10,670

be referring to the director of

1459

01:14:16,510 --> 01:14:12,949

planetary exploration at NASA that's Jim

1460

01:14:19,870 --> 01:14:16,520

Green and he claimed that we may find

1461

01:14:24,040 --> 01:14:19,880

life on Mars within 5 years but we may

1462

01:14:26,620 --> 01:14:24,050

not be prepared that's it that's it yeah

1463

01:14:28,120 --> 01:14:26,630

well yes I read that when it first came

1464

01:14:30,820 --> 01:14:28,130

out and I just didn't have it up in

1465

01:14:32,410 --> 01:14:30,830

front of me yeah no I was the NBC asked

1466

01:14:35,200 --> 01:14:32,420

me to write a commentary on that which I

1467

01:14:39,250 --> 01:14:35,210

did and I actually passed it by Jim

1468

01:14:42,040 --> 01:14:39,260

Green before I sent it to NBC but I know

1469

01:14:44,229 --> 01:14:42,050

Jim Green fairly well so that was I hope

1470

01:14:45,640 --> 01:14:44,239

not an imposition on him but what he was

1471

01:14:48,100 --> 01:14:45,650

saying was this I think it was largely

1472

01:14:51,669 --> 01:14:48,110

misinterpreted his comments particularly

1473

01:14:53,340 --> 01:14:51,679

by the British tabloids who tend to

1474

01:14:56,320 --> 01:14:53,350

misinterpret almost everything right

1475

01:14:58,330 --> 01:14:56,330

what he was saying is this we haven't

1476

01:15:00,790 --> 01:14:58,340

you know we haven't looked for life on

1477

01:15:02,890 --> 01:15:00,800

Mars when I say we I mean NASA the

1478

01:15:06,760 --> 01:15:02,900

Europeans have done more but NASA hasn't

1479

01:15:09,520 --> 01:15:06,770

looked for life on Mars since 1976 when

1480

01:15:12,070 --> 01:15:09,530

it sent the Viking landers to the

1481

01:15:15,280 --> 01:15:12,080

surface of our little ruddy buddy up

1482

01:15:18,220 --> 01:15:15,290

there and it was probably because of the

1483

01:15:20,140 --> 01:15:18,230

ambiguous results that came back from

1484

01:15:21,850 --> 01:15:20,150

the Viking landers that NASA decided

1485

01:15:24,160 --> 01:15:21,860

okay we're not going to do that again

1486

01:15:25,959 --> 01:15:24,170

spend a billion dollars and still not be

1487

01:15:27,580 --> 01:15:25,969

sure whether we'd found life or not

1488

01:15:29,860 --> 01:15:27,590

found life so they've been very

1489

01:15:31,689 --> 01:15:29,870

tentative all the Rovers and orbiters

1490

01:15:34,860 --> 01:15:31,699

and so forth that have been you know

1491

01:15:38,229 --> 01:15:34,870

thrown against Mars are only looking for

1492

01:15:40,450 --> 01:15:38,239

where the water might be or places where

1493

01:15:41,350 --> 01:15:40,460

their mouth the water might have been

1494

01:15:42,820 --> 01:15:41,360

that kind of thing

1495

01:15:44,740 --> 01:15:42,830

right and then they'll go back with

1496

01:15:46,240 --> 01:15:44,750

something else but Green was referring

1497

01:15:49,899 --> 01:15:46,250

to new Rovers that are going to go up

1498

01:15:52,510 --> 01:15:49,909

and actually look for biology and what

1499

01:15:55,570 --> 01:15:52,520

he meant when he said that and if we

1500

01:15:57,610 --> 01:15:55,580

find it we may not be prepared it wasn't

1501

01:15:58,060 --> 01:15:57,620

that he figured oh I gotta find little

1502

01:16:00,550 --> 01:15:58,070

green

1503

01:16:02,770 --> 01:16:00,560

they're gonna you know want to invade

1504

01:16:05,080 --> 01:16:02,780

the earth and who knows what come for

1505

01:16:06,370 --> 01:16:05,090

our fast food I mean that that isn't

1506

01:16:08,319 --> 01:16:06,380

what he was saying what he was saying is

1507

01:16:11,319 --> 01:16:08,329

we don't know what the next steps should

1508

01:16:13,510 --> 01:16:11,329

be if we find microbes on Mars for

1509

01:16:15,669 --> 01:16:13,520

example two meters down below the

1510

01:16:19,030 --> 01:16:15,679

surface what do we do next do we say to

1511

01:16:21,550 --> 01:16:19,040

Elon Musk a man you know lay off don't

1512

01:16:23,140 --> 01:16:21,560

take anybody to Mars there Mars there

1513

01:16:25,569 --> 01:16:23,150

are Martians and sure they're

1514

01:16:27,669 --> 01:16:25,579

microscopic but it's their planet I mean

1515

01:16:29,589 --> 01:16:27,679

do we do we know whether we would buy

1516

01:16:31,629 --> 01:16:29,599

that argument or would we not buy that

1517

01:16:34,030 --> 01:16:31,639

argument so what he was saying is he

1518

01:16:36,879 --> 01:16:34,040

didn't know whether we had thought

1519

01:16:39,220 --> 01:16:36,889

through the consequences not just these

1520

01:16:41,410 --> 01:16:39,230

sorts of things but also what science

1521

01:16:43,629 --> 01:16:41,420

would you try and do next you know what

1522

01:16:46,060 --> 01:16:43,639

what spacecraft would you want to build

1523

01:16:48,760 --> 01:16:46,070

if you actually did find evidence for

1524

01:16:49,439 --> 01:16:48,770

Martians dead or alive you know on the

1525

01:16:53,760 --> 01:16:49,449

Red Planet

1526

01:16:57,939 --> 01:16:53,770

hmm interesting and as far as

1527

01:17:00,030 --> 01:16:57,949

intelligent life I had I don't know

1528

01:17:03,330 --> 01:17:00,040

maybe two or three years ago I had

1529

01:17:07,569 --> 01:17:03,340

Jeffrey Bennett on this show he was a

1530

01:17:10,720 --> 01:17:07,579

astrophysicist and he also was at NASA

1531

01:17:12,220 --> 01:17:10,730

for a while and he he said that he had a

1532

01:17:16,479 --> 01:17:12,230

conversation with a few of his

1533

01:17:19,870 --> 01:17:16,489

colleagues there and they had come up

1534

01:17:24,010 --> 01:17:19,880

with the the thought that and I'm

1535

01:17:27,669 --> 01:17:24,020

paraphrasing here but that if a society

1536

01:17:29,950 --> 01:17:27,679

an intelligent society could get it

1537

01:17:32,229 --> 01:17:29,960

through the bottleneck of technology

1538

01:17:34,149 --> 01:17:32,239

without blowing themselves up that

1539

01:17:36,339 --> 01:17:34,159

they'd probably be traveling the Stars

1540

01:17:39,580 --> 01:17:36,349

and I just wondered if you ever heard a

1541

01:17:42,310 --> 01:17:39,590

similar thought well I don't know

1542

01:17:44,050 --> 01:17:42,320

whether Jeff was that that's probably an

1543

01:17:45,990 --> 01:17:44,060

original thought would Jeff although

1544

01:17:48,729 --> 01:17:46,000

I've written articles about that thought

1545

01:17:50,290 --> 01:17:48,739

and maybe I'd heard about I mean Jeff is

1546

01:17:54,760 --> 01:17:50,300

a guy I know I wrote a book with him oh

1547

01:17:56,410 --> 01:17:54,770

okay yes yes in fact he's gonna be

1548

01:17:58,060 --> 01:17:56,420

coming to the SETI Institute in a couple

1549

01:18:01,060 --> 01:17:58,070

of weeks great guy

1550

01:18:02,979 --> 01:18:01,070

yes he is a wonderful guy he yes he has

1551

01:18:04,689 --> 01:18:02,989

the number one astronomy textbook and he

1552

01:18:07,899 --> 01:18:04,699

and I have the number one assess row

1553

01:18:11,200 --> 01:18:07,909

biology textbook for college kids but in

1554

01:18:11,920 --> 01:18:11,210

any case I'll think it's true this was my

1555

01:18:14,640 --> 01:18:11,930

argument

1556

01:18:20,050 --> 01:18:14,650

I'm not sure how Jeff is racist but if

1557

01:18:21,760 --> 01:18:20,060

you you know you invent the h-bomb right

1558

01:18:23,950 --> 01:18:21,770

and you might say okay that's the

1559

01:18:26,020 --> 01:18:23,960

beginning of the end for society but on

1560

01:18:27,880 --> 01:18:26,030

the other hand you invent the h-bomb at

1561

01:18:29,920 --> 01:18:27,890

about the same time you invent rockets

1562

01:18:32,530 --> 01:18:29,930

because after all you need rockets to

1563

01:18:34,180 --> 01:18:32,540

carry the H bombs around alright so you

1564

01:18:36,370 --> 01:18:34,190

know within hundreds of years you know

1565

01:18:38,890 --> 01:18:36,380

the two are simultaneous in any

1566

01:18:40,480 --> 01:18:38,900

technological society's development and

1567

01:18:42,730 --> 01:18:40,490

so just at the point where you could

1568

01:18:44,890 --> 01:18:42,740

wipe yourself out you also have the

1569

01:18:47,140 --> 01:18:44,900

technology to spread yourselves out and

1570

01:18:49,420 --> 01:18:47,150

you know put people into orbit you know

1571

01:18:52,270 --> 01:18:49,430

orbiting colonies or maybe on the Moon

1572

01:18:54,520 --> 01:18:52,280

or Mars in our case get some people off

1573

01:18:55,900 --> 01:18:54,530

the planet and once you've done that I

1574

01:18:58,330 --> 01:18:55,910

think it's very hard to get rid of

1575

01:19:01,030 --> 01:18:58,340

everybody I mean you know you could let

1576

01:19:02,710 --> 01:19:01,040

all the nukes loose tomorrow

1577

01:19:04,270 --> 01:19:02,720

I actually made an estimate of how many

1578

01:19:07,180 --> 01:19:04,280

people that would kill it turns out it

1579

01:19:08,680 --> 01:19:07,190

at best if you consider it best at best

1580

01:19:10,120 --> 01:19:08,690

it can only kill about 1/3 of the

1581

01:19:12,640 --> 01:19:10,130

population there gonna be plenty of

1582

01:19:14,170 --> 01:19:12,650

people left over so you know but let's

1583

01:19:15,370 --> 01:19:14,180

even say you could get rid of everybody

1584

01:19:17,410 --> 01:19:15,380

that way there's still those those

1585

01:19:19,180 --> 01:19:17,420

people you know on your Mars colony on

1586

01:19:21,790 --> 01:19:19,190

the moon colony or in orbit around the

1587

01:19:23,350 --> 01:19:21,800

earth or an orbit around the Sun and so

1588

01:19:26,710 --> 01:19:23,360

there's no way of getting rid of Homo

1589

01:19:29,650 --> 01:19:26,720

sapiens right so I do think that there

1590

01:19:32,140 --> 01:19:29,660

is this very narrow bit of time this

1591

01:19:34,240 --> 01:19:32,150

very limited bit of time where you have

1592

01:19:36,760 --> 01:19:34,250

the capability to do yourself in and

1593

01:19:39,940 --> 01:19:36,770

still haven't spread out a little bit so

1594

01:19:41,680 --> 01:19:39,950

you can avoid no killing everybody and

1595

01:19:43,810 --> 01:19:41,690

and that's the bottleneck and I don't

1596

01:19:44,920 --> 01:19:43,820

imagine that lasts more than 50 years so

1597

01:19:46,840 --> 01:19:44,930

that's a pretty short period of time

1598

01:19:49,840 --> 01:19:46,850

compared to the history of our species

1599

01:19:53,590 --> 01:19:49,850

and what about you you must have heard

1600

01:19:56,560 --> 01:19:53,600

people talk Elan musk for one is and you

1601
01:19:58,930 --> 01:19:56,570
did a great show on AI artificial

1602
01:20:00,790 --> 01:19:58,940
intelligence I really enjoyed that one a

1603
01:20:03,100 --> 01:20:00,800
lot actually actually you have some

1604
01:20:06,270 --> 01:20:03,110
great people on that one but you know

1605
01:20:09,370 --> 01:20:06,280
that we could you know create

1606
01:20:12,070 --> 01:20:09,380
self-replicating machines that would you

1607
01:20:13,510 --> 01:20:12,080
know continue to work until they

1608
01:20:16,570 --> 01:20:13,520
destroyed everyone on earth that that

1609
01:20:18,880 --> 01:20:16,580
type of thing what are your thoughts on

1610
01:20:20,230 --> 01:20:18,890
on you know artificial intelligence as

1611
01:20:22,000 --> 01:20:20,240
far as that goes I don't know if you

1612
01:20:25,040 --> 01:20:22,010
actually brought that up during your

1613
01:20:27,020 --> 01:20:25,050

show no I don't know that I did but look

1614

01:20:29,720 --> 01:20:27,030

artificial intelligence I do think is is

1615

01:20:31,190 --> 01:20:29,730

a very serious development because for

1616

01:20:33,560 --> 01:20:31,200

the first time we're kind of inventing

1617

01:20:36,560 --> 01:20:33,570

our own successors if you want to look

1618

01:20:39,080 --> 01:20:36,570

at it that way and it's it's true that

1619

01:20:41,120 --> 01:20:39,090

artificial intelligence today is very

1620

01:20:43,040 --> 01:20:41,130

limited in what it can do and you know

1621

01:20:45,620 --> 01:20:43,050

the only threat it poses is that if you

1622

01:20:47,540 --> 01:20:45,630

have a job and some guy who works in AI

1623

01:20:49,820 --> 01:20:47,550

said they said it's lunch and I was that

1624

01:20:52,580 --> 01:20:49,830

not too long ago he said if your job is

1625

01:20:54,620 --> 01:20:52,590

fairly repetitive like filling out tax

1626

01:20:58,820 --> 01:20:54,630

forms or something like that

1627

01:21:00,890 --> 01:20:58,830

he says you have ten years okay I

1628

01:21:03,320 --> 01:21:00,900

remember what he said that well I said

1629

01:21:05,090 --> 01:21:03,330

okay but that's a repetitive job and

1630

01:21:07,160 --> 01:21:05,100

somebody else in the audience said well

1631

01:21:09,470 --> 01:21:07,170

what if my job isn't repetitive you know

1632

01:21:13,700 --> 01:21:09,480

I'm a novelist or I do something

1633

01:21:14,900 --> 01:21:13,710

creative how long do I have then and the

1634

01:21:18,500 --> 01:21:14,910

guy didn't answer the question he just

1635

01:21:20,210 --> 01:21:18,510

smiled at the audience so you know I I

1636

01:21:23,270 --> 01:21:20,220

do think that there's the potential to

1637

01:21:25,340 --> 01:21:23,280

in invent machines that essentially can

1638

01:21:28,400 --> 01:21:25,350

do anything cognitively that we can do

1639

01:21:30,290 --> 01:21:28,410

and of course one thinks oh gosh now we

1640

01:21:32,060 --> 01:21:30,300

have a machine that's as smart as my

1641

01:21:34,430 --> 01:21:32,070

next-door neighbor although maybe not as

1642

01:21:36,140 --> 01:21:34,440

smart as me kind of thing but the point

1643

01:21:38,480 --> 01:21:36,150

is that that machine will develop its

1644

01:21:41,540 --> 01:21:38,490

own successor it'll design the next

1645

01:21:44,300 --> 01:21:41,550

generation of smart machine and so

1646

01:21:46,550 --> 01:21:44,310

unlike humans these machines will get

1647

01:21:48,890 --> 01:21:46,560

very very much smarter very very quickly

1648

01:21:50,360 --> 01:21:48,900

and within 20 years you have one machine

1649

01:21:52,340 --> 01:21:50,370

that's smarter than all humans put

1650

01:21:53,360 --> 01:21:52,350

together that doesn't happen with

1651
01:21:55,370 --> 01:21:53,370

biology

1652
01:21:57,740 --> 01:21:55,380

listen gonna happen with us we're not

1653
01:22:00,830 --> 01:21:57,750

any smarter than we were ten thousand

1654
01:22:02,900 --> 01:22:00,840

years ago to be honest and so you know

1655
01:22:04,400 --> 01:22:02,910

that's why it's it's a little

1656
01:22:06,920 --> 01:22:04,410

unpredictable what's going to happen

1657
01:22:10,520 --> 01:22:06,930

certainly in the longer term how I agree

1658
01:22:13,220 --> 01:22:10,530

with you about people being smart you

1659
01:22:15,560 --> 01:22:13,230

know any smarter or less smartest just

1660
01:22:17,960 --> 01:22:15,570

different things developed over the

1661
01:22:22,550 --> 01:22:17,970

years I remember there was a something

1662
01:22:24,710 --> 01:22:22,560

online for you to take as far as the

1663
01:22:26,510 --> 01:22:24,720

test goes and it was very very difficult

1664

01:22:28,910 --> 01:22:26,520

and end up being like a fourth grade

1665

01:22:32,000 --> 01:22:28,920

test and the 18th century or something

1666

01:22:34,700 --> 01:22:32,010

like that you know I mean you know it's

1667

01:22:35,550 --> 01:22:34,710

funny how some people look back in time

1668

01:22:38,550 --> 01:22:35,560

and think

1669

01:22:40,860 --> 01:22:38,560

people weren't as smart as they are now

1670

01:22:43,080 --> 01:22:40,870

it's just that yeah that's obviously

1671

01:22:44,550 --> 01:22:43,090

unrealistic is a bit of a conceit on the

1672

01:22:46,370 --> 01:22:44,560

other hand one shouldn't be intimidated

1673

01:22:49,560 --> 01:22:46,380

by the kind of evidence you just

1674

01:22:51,150 --> 01:22:49,570

mentioned because of course in the 18th

1675

01:22:53,970 --> 01:22:51,160

century not everybody went to school

1676

01:22:56,100 --> 01:22:53,980

only those who you know had opportunity

1677

01:22:58,470 --> 01:22:56,110

who came from the if you will the better

1678

01:23:00,360 --> 01:22:58,480

class the the wealthier class and

1679

01:23:05,270 --> 01:23:00,370

consequently maybe the schools could be

1680

01:23:08,070 --> 01:23:05,280

a little harder right right I I did just

1681

01:23:11,450 --> 01:23:08,080

just something really quick on this I'm

1682

01:23:14,520 --> 01:23:11,460

a fine arts appraiser and I also

1683

01:23:17,400 --> 01:23:14,530

understand how the Old English was

1684

01:23:20,300 --> 01:23:17,410

written and I transcribed a six-page

1685

01:23:23,400 --> 01:23:20,310

George Washington letter had to use

1686

01:23:25,110 --> 01:23:23,410

dictionary 20 times and there wasn't one

1687

01:23:29,700 --> 01:23:25,120

single misspelled in those six pages

1688

01:23:33,090 --> 01:23:29,710

pretty amazing well he was new a dummy I

1689

01:23:38,460 --> 01:23:33,100

know a way off topic but anyway as far

1690

01:23:40,770 --> 01:23:38,470

as the average astronomer that you know

1691

01:23:42,510 --> 01:23:40,780

are friends with or whatever do you

1692

01:23:47,760 --> 01:23:42,520

think it's it's pretty much across the

1693

01:23:50,840 --> 01:23:47,770

board that there's an idea that there's

1694

01:23:53,700 --> 01:23:50,850

most likely intelligent life out there

1695

01:23:56,820 --> 01:23:53,710

well I certainly haven't you know

1696

01:23:58,050 --> 01:23:56,830

surveyed them so I don't really know you

1697

01:24:00,570 --> 01:23:58,060

know the people I talked to who all

1698

01:24:02,400 --> 01:24:00,580

seemed to be fairly sanguine fairly

1699

01:24:04,590 --> 01:24:02,410

optimistic that there's intelligence out

1700

01:24:06,300 --> 01:24:04,600

there because if not then there's got to

1701

01:24:08,190 --> 01:24:06,310

be something very special about what's

1702

01:24:09,360 --> 01:24:08,200

happened here on earth there are people

1703

01:24:11,100 --> 01:24:09,370

who maintain that there is something

1704

01:24:15,150 --> 01:24:11,110

special about what's happened here I

1705

01:24:17,070 --> 01:24:15,160

mean you know one easy example is 66

1706

01:24:21,090 --> 01:24:17,080

million years ago of an asteroid hits

1707

01:24:22,680 --> 01:24:21,100

the earth wipes out the dinos and 2/3 of

1708

01:24:25,830 --> 01:24:22,690

everything else by the way all other

1709

01:24:27,690 --> 01:24:25,840

species but you know if that asteroid

1710

01:24:29,670 --> 01:24:27,700

had arrived 30 minutes earlier it would

1711

01:24:30,690 --> 01:24:29,680

have missed the earth entirely and you

1712

01:24:32,580 --> 01:24:30,700

and I would not be having this

1713

01:24:35,280 --> 01:24:32,590

conversation there would be dinosaurs

1714

01:24:38,970 --> 01:24:35,290

here in California some would say there

1715

01:24:40,950 --> 01:24:38,980

still are I suppose but in any case you

1716

01:24:42,690 --> 01:24:40,960

know so that suggests that well you know

1717

01:24:44,520 --> 01:24:42,700

the dinosaurs were around for 150

1718

01:24:46,800 --> 01:24:44,530

million years and they never got very

1719

01:24:49,230 --> 01:24:46,810

smart right they were never building

1720

01:24:53,480 --> 01:24:49,240

radio transmitters they never you know

1721

01:24:56,490 --> 01:24:53,490

developed a no reality television so it

1722

01:24:58,920 --> 01:24:56,500

suggests that you know nature is not

1723

01:25:01,290 --> 01:24:58,930

particularly interested in intelligence

1724

01:25:04,400 --> 01:25:01,300

nature is only interested in survival

1725

01:25:07,290 --> 01:25:04,410

and so maybe there are just dillion's of

1726

01:25:10,020 --> 01:25:07,300

planets out there with life but no

1727

01:25:13,110 --> 01:25:10,030

intelligence that's possible some people

1728

01:25:15,300 --> 01:25:13,120

would argue that I personally find that

1729

01:25:17,250 --> 01:25:15,310

special pleading so I don't know that

1730

01:25:24,290 --> 01:25:17,260

that's actually true but there's some

1731

01:25:27,060 --> 01:25:24,300

who do yeah yeah and then also we are

1732

01:25:29,190 --> 01:25:27,070

like you said we're kind of a young

1733

01:25:31,980 --> 01:25:29,200

species compared to what else we can

1734

01:25:34,760 --> 01:25:31,990

compare on earth but we're also a young

1735

01:25:40,260 --> 01:25:34,770

solar system a young planet compared to

1736

01:25:42,600 --> 01:25:40,270

a lot of what is out there and you know

1737

01:25:45,060 --> 01:25:42,610

when you get to thinking about our

1738

01:25:50,100 --> 01:25:45,070

technology and the possible technology

1739

01:25:53,190 --> 01:25:50,110

of a society that's been around

1740

01:25:54,330 --> 01:25:53,200

for as long as the dinosaurs were 150

1741

01:25:57,090 --> 01:25:54,340

million years I mean that would be

1742

01:25:59,670 --> 01:25:57,100

incredible I mean look at what we've

1743

01:26:02,760 --> 01:25:59,680

done in the last hundred years as far as

1744

01:26:05,610 --> 01:26:02,770

technology goes and this is when you

1745

01:26:09,930 --> 01:26:05,620

know we can speculate all kinds of

1746

01:26:12,180 --> 01:26:09,940

things about space travel or you know

1747

01:26:13,890 --> 01:26:12,190

time travel or whatever it is that could

1748

01:26:18,780 --> 01:26:13,900

be figured out with the amount of time

1749

01:26:21,810 --> 01:26:18,790

and technology and you know what do you

1750

01:26:23,670 --> 01:26:21,820

think about as far as technology out

1751

01:26:25,950 --> 01:26:23,680

there in the length of time that you

1752

01:26:27,780 --> 01:26:25,960

know a species could be around well I

1753

01:26:28,920 --> 01:26:27,790

don't know that there's any limit I mean

1754

01:26:30,930 --> 01:26:28,930

we've already talked a little bit about

1755

01:26:34,800 --> 01:26:30,940

artificial intelligence and whether AI

1756

01:26:36,450 --> 01:26:34,810

is our future not not just in terms of

1757

01:26:38,550 --> 01:26:36,460

you know whether it takes our jobs or

1758

01:26:40,740 --> 01:26:38,560

whether it you know helps us in the old

1759

01:26:43,770 --> 01:26:40,750

folks home or anything like that but

1760

01:26:45,840 --> 01:26:43,780

whether and indeed you know quickly

1761

01:26:48,150 --> 01:26:45,850

becomes the dominant intelligence on

1762

01:26:49,920 --> 01:26:48,160

this planet and if that's the case and I

1763

01:26:52,170 --> 01:26:49,930

think that it probably is the case but

1764

01:26:53,460 --> 01:26:52,180

we'll have to see if that happens some

1765

01:26:55,080 --> 01:26:53,470

of this intelligence is going to get

1766

01:26:56,880 --> 01:26:55,090

kind of bored hanging around earth I

1767

01:26:58,800 --> 01:26:56,890

mean earth is fairly interesting and all

1768

01:27:01,620 --> 01:26:58,810

but you know if you're a machine and you

1769

01:27:03,179 --> 01:27:01,630

can travel because you don't die you can

1770

01:27:05,609 --> 01:27:03,189

travel any distance you want

1771

01:27:07,409 --> 01:27:05,619

then you know some of those machines may

1772

01:27:10,799 --> 01:27:07,419

just get up and leave so I think that

1773

01:27:13,020 --> 01:27:10,809

it's hardly radical to suggest that the

1774

01:27:15,750 --> 01:27:13,030

dominant intelligence in the universe is

1775

01:27:18,899 --> 01:27:15,760

not biological at all it's just machine

1776

01:27:20,909 --> 01:27:18,909

intelligence and so if you ask well how

1777

01:27:24,629 --> 01:27:20,919

long could that kind of intelligence

1778

01:27:26,909 --> 01:27:24,639

survive and it's you know it's well I

1779

01:27:29,609 --> 01:27:26,919

mean eventually the the universe becomes

1780

01:27:32,819 --> 01:27:29,619

kind of uninteresting in terms of energy

1781

01:27:34,649 --> 01:27:32,829

sources and you know but that's a to ten

1782

01:27:36,859 --> 01:27:34,659

to the hundred years that's a that's

1783

01:27:40,169 --> 01:27:36,869

when the last big black hole burns up so

1784

01:27:41,669 --> 01:27:40,179

that's a long time and these machines

1785

01:27:45,149 --> 01:27:41,679

will have plenty of time to do whatever

1786

01:27:48,439 --> 01:27:45,159

it is that smart machines want to do do

1787

01:27:51,330 --> 01:27:48,449

you think that there's a possibility of

1788

01:27:54,989 --> 01:27:51,340

us figuring out here on earth us

1789

01:27:56,850 --> 01:27:54,999

figuring out a way to travel you know

1790

01:27:58,649 --> 01:27:56,860

faster than the speed of light I know

1791

01:28:01,020 --> 01:27:58,659

that's really out there but there are

1792

01:28:04,379 --> 01:28:01,030

people that are about theorizing that

1793

01:28:10,560 --> 01:28:04,389

there that flight speed may not be the

1794

01:28:12,179 --> 01:28:10,570

end of the speed you know I mean what do

1795

01:28:13,919 --> 01:28:12,189

you think the future of space travel I

1796

01:28:16,259 --> 01:28:13,929

mean could do you think it's possible

1797

01:28:19,140 --> 01:28:16,269

that we could actually get to the stars

1798

01:28:20,699 --> 01:28:19,150

at some point well we could get to the

1799

01:28:22,259 --> 01:28:20,709

stars if you just go fast enough you

1800

01:28:24,299 --> 01:28:22,269

don't have to break the speed of light

1801

01:28:26,069 --> 01:28:24,309

barrier but as you get closer and closer

1802

01:28:28,080 --> 01:28:26,079

to the speed of light you know your own

1803

01:28:30,239 --> 01:28:28,090

clock slows down that's just special

1804

01:28:32,060 --> 01:28:30,249

relativity so from your point of view

1805

01:28:34,319 --> 01:28:32,070

you know you could go if you have a

1806

01:28:36,659 --> 01:28:34,329

spacecraft with enough energy sources

1807

01:28:38,520 --> 01:28:36,669

that you can go that fast I mean you can

1808

01:28:39,959 --> 01:28:38,530

and if you don't mind the fact that the

1809

01:28:42,959 --> 01:28:39,969

front of the ship is encountering all

1810

01:28:45,750 --> 01:28:42,969

this you know these interstellar yeah

1811

01:28:47,250 --> 01:28:45,760

the interstellar gas all these atoms

1812

01:28:49,649 --> 01:28:47,260

that are going to make for very hard

1813

01:28:51,449 --> 01:28:49,659

radiation inside the rocket and give you

1814

01:28:52,919 --> 01:28:51,459

instant cancer I mean there all sorts of

1815

01:28:54,239 --> 01:28:52,929

you know technical problems but those

1816

01:28:57,390 --> 01:28:54,249

are only technical problems at least

1817

01:28:59,520 --> 01:28:57,400

they don't violate physics the real

1818

01:29:01,379 --> 01:28:59,530

question if you talk about faster than

1819

01:29:02,929 --> 01:29:01,389

light travel you know warp drive

1820

01:29:05,339 --> 01:29:02,939

whatever that means

1821

01:29:07,109 --> 01:29:05,349

then you're up against physics because

1822

01:29:08,759 --> 01:29:07,119

if you can go faster than the speed of

1823

01:29:11,159 --> 01:29:08,769

light then it turns out that they're

1824

01:29:14,370 --> 01:29:11,169

problems with causality in physics that

1825

01:29:17,000 --> 01:29:14,380

the the the effects precede the causes

1826

01:29:20,310 --> 01:29:17,010

and that messes physics up in a way that

1827

01:29:22,160 --> 01:29:20,320

distasteful that you know scientists

1828

01:29:24,120 --> 01:29:22,170

including of course a-line Stein

1829

01:29:26,250 --> 01:29:24,130

wouldn't allow that now

1830

01:29:27,540 --> 01:29:26,260

you know one should never say never and

1831

01:29:29,640 --> 01:29:27,550

maybe their ways out of this and

1832

01:29:30,420 --> 01:29:29,650

obviously no big black holes and so

1833

01:29:33,660 --> 01:29:30,430

forth

1834

01:29:34,680 --> 01:29:33,670

might Ford you a cheat to to go fast in

1835

01:29:36,300 --> 01:29:34,690

this we live but it's very unclear

1836

01:29:37,650 --> 01:29:36,310

whether you can actually go through a

1837

01:29:39,600 --> 01:29:37,660

big black hole or anything like that

1838

01:29:42,210 --> 01:29:39,610

come out the other end and know anything

1839

01:29:45,510 --> 01:29:42,220

about it so it's it's unclear at this

1840

01:29:48,210 --> 01:29:45,520

point you know again it's simply the

1841

01:29:50,460 --> 01:29:48,220

realm of science fiction and beyond that

1842

01:29:52,860 --> 01:29:50,470

nobody knows if we knew it wouldn't be

1843

01:29:54,900 --> 01:29:52,870

science fiction anymore yeah I know a

1844

01:29:58,290 --> 01:29:54,910

lot of people are inspired that get into

1845

01:30:00,930 --> 01:29:58,300

astronomy and and space work basically

1846

01:30:04,260 --> 01:30:00,940

are inspired by science fiction to begin

1847

01:30:05,670 --> 01:30:04,270

with us you know in their youth there

1848

01:30:07,050 --> 01:30:05,680

was a question up on the message board

1849

01:30:08,940 --> 01:30:07,060

someone wanted to know what you thought

1850

01:30:12,840 --> 01:30:08,950

about I always have trouble saying it

1851

01:30:19,770 --> 01:30:12,850

the the out of galaxy I mean the out of

1852

01:30:20,970 --> 01:30:19,780

a solar system OMA Mona it's a yeah what

1853

01:30:23,010 --> 01:30:20,980

do you think about that innocent there

1854

01:30:25,610 --> 01:30:23,020

another one that they say is coming

1855

01:30:28,050 --> 01:30:25,620

through another yes type of you out of

1856

01:30:29,700 --> 01:30:28,060

yeah but more I'm all was found about

1857

01:30:32,850 --> 01:30:29,710

two and a half years ago something like

1858

01:30:35,570 --> 01:30:32,860

that using a telescope in Hawaii and

1859

01:30:38,670 --> 01:30:35,580

that's why it has a nice Hawaiian name

1860

01:30:41,310 --> 01:30:38,680

and what was interesting about it is

1861

01:30:42,750 --> 01:30:41,320

that it's not from this solar system the

1862

01:30:44,490 --> 01:30:42,760

first time we found a rock from somebody

1863

01:30:46,290 --> 01:30:44,500

else's solar system then you could say

1864

01:30:49,410 --> 01:30:46,300

that's remarkable and it sort of is

1865

01:30:51,060 --> 01:30:49,420

except for the fact that you know what's

1866

01:30:54,510 --> 01:30:51,070

the first time we had telescopes that

1867

01:30:56,340 --> 01:30:54,520

could easily find such things but the

1868

01:30:59,490 --> 01:30:56,350

question is was it just a rock was it

1869

01:31:01,320 --> 01:30:59,500

just a dead comet or could it be you

1870

01:31:04,230 --> 01:31:01,330

know a la rendezvous with Rama

1871

01:31:06,140 --> 01:31:04,240

you know the arthur c-- clark story

1872

01:31:08,760 --> 01:31:06,150

could it be an interstellar spacecraft

1873

01:31:11,790 --> 01:31:08,770

piloted by a bunch of Klingons or

1874

01:31:15,120 --> 01:31:11,800

something and that idea was considered

1875

01:31:16,590 --> 01:31:15,130

seriously by the head of the harvard

1876
01:31:18,570 --> 01:31:16,600
astronomy department who pointed out

1877
01:31:20,250 --> 01:31:18,580
that look this thing came right into you

1878
01:31:23,850 --> 01:31:20,260
know the central regions of our solar

1879
01:31:26,610 --> 01:31:23,860
system that's an awfully good targeting

1880
01:31:28,170 --> 01:31:26,620
for an object that you know it's

1881
01:31:30,870 --> 01:31:28,180
completely natural was just you know

1882
01:31:32,910 --> 01:31:30,880
kicked out of its own solar system

1883
01:31:34,229 --> 01:31:32,920
perfectly natural processes you know

1884
01:31:36,540 --> 01:31:34,239
that would make a lot more sense if

1885
01:31:39,000 --> 01:31:36,550
there was some navigation on board so he

1886
01:31:41,760 --> 01:31:39,010
was arguing that one should not rule out

1887
01:31:44,430 --> 01:31:41,770
the possibility that a mu a mu was in

1888
01:31:48,000 --> 01:31:44,440

fact a manufactured thing and not not a

1889

01:31:49,649 --> 01:31:48,010

natural asteroid or comment but in the

1890

01:31:52,709 --> 01:31:49,659

last couple of months

1891

01:31:54,689 --> 01:31:52,719

this amateur in Russia I think he's into

1892

01:31:56,910 --> 01:31:54,699

Ukraine actually should be careful about

1893

01:31:59,610 --> 01:31:56,920

that and it's not be Ukraine it's in

1894

01:32:02,850 --> 01:31:59,620

Ukraine i hopeful forgive me for all

1895

01:32:05,129 --> 01:32:02,860

that but this thing was found and it's

1896

01:32:07,590 --> 01:32:05,139

also not from our solar system you can

1897

01:32:11,160 --> 01:32:07,600

tell that by its orbit and it now has

1898

01:32:14,010 --> 01:32:11,170

the name too I for interstellar to I

1899

01:32:15,450 --> 01:32:14,020

borislav and Boris off is the name of

1900

01:32:17,669 --> 01:32:15,460

the guy who found it so that's why it

1901
01:32:20,220 --> 01:32:17,679
has his name but that's clearly a comet

1902
01:32:22,229 --> 01:32:20,230
it has a tail right it has the colors of

1903
01:32:24,060 --> 01:32:22,239
a comet it's headed toward the inner

1904
01:32:26,459 --> 01:32:24,070
solar system and it will get closer to

1905
01:32:29,220 --> 01:32:26,469
us around Christmas time not very close

1906
01:32:31,770 --> 01:32:29,230
but closer and I guess we're gonna be

1907
01:32:36,030 --> 01:32:31,780
seeing part of the tail of Halley's

1908
01:32:37,649 --> 01:32:36,040
Comet did I get all you have over we're

1909
01:32:39,750 --> 01:32:37,659
gonna be I just saw something about

1910
01:32:41,250 --> 01:32:39,760
we're gonna be seeing I thought it was

1911
01:32:43,950 --> 01:32:41,260
Halley's Comet we're gonna be seeing

1912
01:32:46,950 --> 01:32:43,960
part of that or traces of that so I

1913
01:32:48,930 --> 01:32:46,960

think it's f a century before Halley's

1914

01:32:51,720 --> 01:32:48,940

Comet gets close to us again but right I

1915

01:32:53,820 --> 01:32:51,730

read something today though that's

1916

01:32:55,709 --> 01:32:53,830

saying it's it's not that but it's

1917

01:32:58,709 --> 01:32:55,719

traces of it or something that is going

1918

01:33:00,629 --> 01:32:58,719

to be visible anyway I may be thinking

1919

01:33:03,240 --> 01:33:00,639

of something else someone put a good

1920

01:33:06,950 --> 01:33:03,250

question in the chat room could SETI

1921

01:33:09,689 --> 01:33:06,960

find earth from the nearest solar system

1922

01:33:11,310 --> 01:33:09,699

yeah yeah I think they could I mean

1923

01:33:14,129 --> 01:33:11,320

there are some radars the strongest

1924

01:33:17,070 --> 01:33:14,139

signals being launched from Earth are

1925

01:33:18,840 --> 01:33:17,080

indeed the radars and you know if if you

1926

01:33:22,080 --> 01:33:18,850

had the good fortune to be in the beam

1927

01:33:23,640 --> 01:33:22,090

of the Arecibo radar that's the antenna

1928

01:33:25,950 --> 01:33:23,650

down in Puerto Rico oh yeah

1929

01:33:28,740 --> 01:33:25,960

which has a 2 megawatt transmitted our

1930

01:33:30,060 --> 01:33:28,750

emitter onboard of its I recall that you

1931

01:33:32,129 --> 01:33:30,070

could see from very very far away

1932

01:33:34,500 --> 01:33:32,139

actually with the kind of SETI equipment

1933

01:33:36,330 --> 01:33:34,510

that we have but let's assume that the

1934

01:33:38,100 --> 01:33:36,340

you know that's that's only a 1 in 10

1935

01:33:42,450 --> 01:33:38,110

million shot that you're in the line of

1936

01:33:44,399 --> 01:33:42,460

radar so the question is you know could

1937

01:33:45,210 --> 01:33:44,409

you see any of the others and I think

1938

01:33:48,690 --> 01:33:45,220

you could I

1939

01:33:50,100 --> 01:33:48,700

how long you're willing to look and some

1940

01:33:50,460 --> 01:33:50,110

of the details of the receiver and so

1941

01:33:51,810 --> 01:33:50,470

forth

1942

01:33:54,390 --> 01:33:51,820

but certainly the signal strength would

1943

01:33:55,980 --> 01:33:54,400

be enough and if the aliens have been in

1944

01:33:58,290 --> 01:33:55,990

the SETI business longer than we have

1945

01:34:00,540 --> 01:33:58,300

they undoubtedly have bigger antennas

1946

01:34:02,520 --> 01:34:00,550

and better receivers and probably could

1947

01:34:05,130 --> 01:34:02,530

pick up all sorts of stuff if they had

1948

01:34:07,620 --> 01:34:05,140

covered you know some real estate the

1949

01:34:10,800 --> 01:34:07,630

size of I don't know the Sonora Desert

1950

01:34:12,990 --> 01:34:10,810

with rooftop TV antennas they could even

1951

01:34:15,570 --> 01:34:13,000

pick up the carrier signals from our

1952

01:34:16,980 --> 01:34:15,580

television transmitters I don't

1953

01:34:18,240 --> 01:34:16,990

know if that would interest them but at

1954

01:34:22,980 --> 01:34:18,250

least they would know somebody's home

1955

01:34:25,950 --> 01:34:22,990

hmm now what about the the gasses on a

1956

01:34:27,030 --> 01:34:25,960

planet you know that would that would

1957

01:34:30,510 --> 01:34:27,040

take a whole different type of

1958

01:34:32,460 --> 01:34:30,520

instrumentation right to figure out if

1959

01:34:36,450 --> 01:34:32,470

they could find methane in a planet far

1960

01:34:38,280 --> 01:34:36,460

away or is that is after a spectrum well

1961

01:34:39,840 --> 01:34:38,290

that you do with optical telescopes

1962

01:34:43,050 --> 01:34:39,850

unless you're talking about gases like

1963

01:34:46,140 --> 01:34:43,060

you know Exxon or you know Sinclair or

1964

01:34:48,060 --> 01:34:46,150

maybe but if you're talking about the

1965

01:34:49,620 --> 01:34:48,070

composition of the atmosphere you do

1966

01:34:51,630 --> 01:34:49,630

that with a conventional telescope which

1967

01:34:55,170 --> 01:34:51,640

is to say a mirror and lens kind of

1968

01:35:05,520 --> 01:34:55,180

telescope and that's indeed one of the

1969

01:35:08,640 --> 01:35:05,530

briefs for the was at the jeepers it's

1970

01:35:12,060 --> 01:35:08,650

about to be launched it's the it's the

1971

01:35:15,420 --> 01:35:12,070

successor to Hubble the James Graham

1972

01:35:18,270 --> 01:35:15,430

James Webb yeah yeah brain yeah the jobs

1973

01:35:20,490 --> 01:35:18,280

I've had a few tonight the James Webb

1974

01:35:22,140 --> 01:35:20,500

telescope will be launched in probably

1975

01:35:24,300 --> 01:35:22,150

two years nobody knows it keeps getting

1976

01:35:26,700 --> 01:35:24,310

postponed a little bit but when that's

1977

01:35:29,130 --> 01:35:26,710

up there you know it's conceivable that

1978

01:35:32,430 --> 01:35:29,140

it will have enough sensitivity enough

1979

01:35:34,500 --> 01:35:32,440

collecting area to look at some planets

1980

01:35:38,100 --> 01:35:34,510

around stars that are relatively nearby

1981

01:35:40,560 --> 01:35:38,110

and if you will sort of sample the air

1982

01:35:43,440 --> 01:35:40,570

around those planets the atmospheres if

1983

01:35:45,360 --> 01:35:43,450

they have atmospheres and make spectral

1984

01:35:47,580 --> 01:35:45,370

analyses and tell you things like well

1985

01:35:49,650 --> 01:35:47,590

is there any oxygen in those atmospheres

1986

01:35:51,240 --> 01:35:49,660

which would be an interesting datum

1987

01:35:54,300 --> 01:35:51,250

because that would suggest that there's

1988

01:35:56,760 --> 01:35:54,310

also biology there you know and methane

1989

01:35:59,179 --> 01:35:56,770

of course is another gas that would

1990

01:36:02,569 --> 01:35:59,189

indicate some biology probably

1991

01:36:04,549 --> 01:36:02,579

yeah probably I know what I was talking

1992

01:36:07,189 --> 01:36:04,559

about earlier it says it's a meteor

1993

01:36:10,729 --> 01:36:07,199

shower made by Halley's Comet

1994

01:36:13,939 --> 01:36:10,739

so that Peaks tonight that's what the

1995

01:36:15,229 --> 01:36:13,949

news I read yeah well there's a lot you

1996

01:36:17,270 --> 01:36:15,239

know as you know there are many meteor

1997

01:36:18,739 --> 01:36:17,280

showers particularly in the early fall

1998

01:36:20,719 --> 01:36:18,749

here in the northern hemisphere and

1999

01:36:23,830 --> 01:36:20,729

almost all of them are the consequence

2000

01:36:26,179 --> 01:36:23,840

of rubble that's broken off of comets

2001
01:36:28,790 --> 01:36:26,189
staying in orbit and eventually you know

2002
01:36:30,310 --> 01:36:28,800
flying into our atmosphere I didn't I

2003
01:36:35,569 --> 01:36:30,320
didn't realize that that's interesting

2004
01:36:37,790 --> 01:36:35,579
so as far as people are putting some

2005
01:36:40,120 --> 01:36:37,800
questions in chat someone wants to know

2006
01:36:44,810 --> 01:36:40,130
what your thoughts are on the Vatican's

2007
01:36:46,429 --> 01:36:44,820
telescopes or telescope well I don't

2008
01:36:47,870 --> 01:36:46,439
know too much about the Vatican's

2009
01:36:50,750 --> 01:36:47,880
telescope but they have a very strong

2010
01:36:52,850 --> 01:36:50,760
astronomy program I've been to an

2011
01:36:54,560 --> 01:36:52,860
observatory actually in Italy years and

2012
01:36:57,919 --> 01:36:54,570
years ago but you know they also have

2013
01:36:59,810 --> 01:36:57,929

telescopes here and and elsewhere I mean

2014

01:37:02,060 --> 01:36:59,820

they're around the world and there's a

2015

01:37:05,080 --> 01:37:02,070

rather rather well known Vatican

2016

01:37:07,549 --> 01:37:05,090

astronomer brother guy Consolmagno

2017

01:37:09,489 --> 01:37:07,559

who is you know he's even written a book

2018

01:37:13,429 --> 01:37:09,499

I think the name of his last book was

2019

01:37:16,669 --> 01:37:13,439

would you baptize and alien so that's an

2020

01:37:18,830 --> 01:37:16,679

interesting question but but ya know the

2021

01:37:20,540 --> 01:37:18,840

Vatican Observatory you know they

2022

01:37:22,819 --> 01:37:20,550

probably have bad press simply because

2023

01:37:24,229 --> 01:37:22,829

of that whole thing with Galileo but on

2024

01:37:25,689 --> 01:37:24,239

the other hand they've always been

2025

01:37:29,629 --> 01:37:25,699

interested in this and they are

2026

01:37:34,810 --> 01:37:29,639

increasingly so right right I think

2027

01:37:38,000 --> 01:37:34,820

that's that's pretty amazing and well

2028

01:37:41,870 --> 01:37:38,010

the question that Keith has come up a

2029

01:37:43,189 --> 01:37:41,880

couple times in the chatroom is I guess

2030

01:37:47,029 --> 01:37:43,199

we're going to get in a little bit into

2031

01:37:50,479 --> 01:37:47,039

the subject of UFOs and I would imagine

2032

01:37:52,279 --> 01:37:50,489

that someone like you get I remember

2033

01:37:53,779 --> 01:37:52,289

when you and I talked last time you told

2034

01:37:55,569 --> 01:37:53,789

me you get about I thought you said

2035

01:37:58,489 --> 01:37:55,579

something like 4,000 emails a month

2036

01:38:00,350 --> 01:37:58,499

there's something crazy like that but do

2037

01:38:07,129 --> 01:38:00,360

you get a lot of people that contact you

2038

01:38:10,100 --> 01:38:07,139

about UFOs I do I do I in fact I just

2039

01:38:12,709 --> 01:38:10,110

gave a talk about this at CF icon in Las

2040

01:38:15,459 --> 01:38:12,719

Vegas 48 hours ago

2041

01:38:18,560 --> 01:38:15,469

and well it's like 50 hours ago now but

2042

01:38:20,780 --> 01:38:18,570

on the fact that essentially every day I

2043

01:38:23,209 --> 01:38:20,790

get emails or phone calls from people

2044

01:38:24,470 --> 01:38:23,219

who have seen something or experienced

2045

01:38:24,979 --> 01:38:24,480

something and they want to know what it

2046

01:38:27,620 --> 01:38:24,989

was

2047

01:38:30,890 --> 01:38:27,630

so yes plenty of people get in touch

2048

01:38:33,170 --> 01:38:30,900

with me about UFOs and in fact next week

2049

01:38:35,150 --> 01:38:33,180

at this time will it be at this time no

2050

01:38:38,270 --> 01:38:35,160

it'll be sooner than that I guess it's

2051
01:38:41,540 --> 01:38:38,280
on Saturday morning I'll be debating

2052
01:38:45,200 --> 01:38:41,550
Nick Pope who's well known in the UFO

2053
01:38:47,959 --> 01:38:45,210
yeah Nick Pope at the Jasper dark sky

2054
01:38:51,800 --> 01:38:47,969
festival and glamorous lovely Jasper

2055
01:38:54,320 --> 01:38:51,810
Alberta up in Canada so yeah no I I do

2056
01:38:56,540 --> 01:38:54,330
and I mean I don't do UFO research

2057
01:38:58,580 --> 01:38:56,550
myself but I certainly deal with a lot

2058
01:39:00,350 --> 01:38:58,590
of people who call me up in and want to

2059
01:39:01,490 --> 01:39:00,360
report something and you know they send

2060
01:39:05,209 --> 01:39:01,500
me photos and videos

2061
01:39:06,770 --> 01:39:05,219
uh-huh and I'm sure your your your just

2062
01:39:09,890 --> 01:39:06,780
your general personality your kind to

2063
01:39:12,740 --> 01:39:09,900

them but you know it's it's probably is

2064

01:39:15,130 --> 01:39:12,750

it something you actually respond to and

2065

01:39:19,070 --> 01:39:15,140

just say that it's it's not something I

2066

01:39:21,709 --> 01:39:19,080

you know want to attempt to answer or do

2067

01:39:22,400 --> 01:39:21,719

you pass them along to say MUFON or

2068

01:39:24,380 --> 01:39:22,410

something like that

2069

01:39:27,290 --> 01:39:24,390

well I suggest to all of them that they

2070

01:39:29,600 --> 01:39:27,300

get in touch with MUFON but I do I mean

2071

01:39:30,890 --> 01:39:29,610

I asked them I mean if it's just a you

2072

01:39:32,900 --> 01:39:30,900

know they've seen something they don't

2073

01:39:34,910 --> 01:39:32,910

say anything more there's not much I can

2074

01:39:37,729 --> 01:39:34,920

say but I usually ask if they have any

2075

01:39:38,959 --> 01:39:37,739

photos or videos and if so whether they

2076

01:39:40,610 --> 01:39:38,969

want to send them to me because I would

2077

01:39:43,100 --> 01:39:40,620

give them the pinyon of what I think

2078

01:39:47,750 --> 01:39:43,110

they are and about half of them do do

2079

01:39:50,030 --> 01:39:47,760

that photography is actually something

2080

01:39:51,920 --> 01:39:50,040

I've done for a long time so very often

2081

01:39:53,959 --> 01:39:51,930

I can look at the photos of the videos

2082

01:39:56,450 --> 01:39:53,969

and in venture a guess as to what

2083

01:39:58,360 --> 01:39:56,460

they're actually you know seeing in

2084

01:40:00,920 --> 01:39:58,370

those videos and photos

2085

01:40:04,130 --> 01:40:00,930

nobody ever thanks me for those kinds of

2086

01:40:06,110 --> 01:40:04,140

explanations by the way oh yes they

2087

01:40:10,189 --> 01:40:06,120

don't want to hear I've had to do that

2088

01:40:11,600 --> 01:40:10,199

myself yeah yeah so I mean I I do I mean

2089

01:40:13,820 --> 01:40:11,610

there are some that are simply you know

2090

01:40:15,979 --> 01:40:13,830

I don't know what it is okay I mean that

2091

01:40:17,840 --> 01:40:15,989

that's often the case with these sorts

2092

01:40:19,189 --> 01:40:17,850

of things but of course the fact that

2093

01:40:21,560 --> 01:40:19,199

you don't know what it is it's hardly a

2094

01:40:23,090 --> 01:40:21,570

proof that it's you know

2095

01:40:24,439 --> 01:40:23,100

extraterrestrial anything I mean that's

2096

01:40:25,939 --> 01:40:24,449

an argument from ignorance you say I

2097

01:40:26,540 --> 01:40:25,949

don't know what it is so it's probably

2098

01:40:28,689 --> 01:40:26,550

extra

2099

01:40:32,649 --> 01:40:28,699

oh that's obviously a very weak argument

2100

01:40:36,729 --> 01:40:32,659

I'm I'm careful in this show not just

2101

01:40:39,220 --> 01:40:36,739

I'll say possibly you know possibly

2102

01:40:42,290 --> 01:40:39,230

extraterrestrial but that's only a

2103

01:40:43,819 --> 01:40:42,300

possibility because I as long as I've

2104

01:40:45,890 --> 01:40:43,829

been doing the show the more I do it the

2105

01:40:48,680 --> 01:40:45,900

more I realize that there's less I know

2106

01:40:52,729 --> 01:40:48,690

about you know what what people are

2107

01:40:56,479 --> 01:40:52,739

seeing so I think when we first actually

2108

01:40:58,970 --> 01:40:56,489

debated I think that I was using that

2109

01:41:01,850 --> 01:40:58,980

term a little more heavily saying that

2110

01:41:04,479 --> 01:41:01,860

you know thinking that what we were

2111

01:41:06,890 --> 01:41:04,489

seeing was most likely aliens now I have

2112

01:41:09,890 --> 01:41:06,900

absolutely no idea but I do know that

2113

01:41:12,919 --> 01:41:09,900

there's technology that is just

2114

01:41:15,350 --> 01:41:12,929

unexplainable and I wanted to get your

2115

01:41:18,109 --> 01:41:15,360

opinion of someone else else I also

2116

01:41:21,049 --> 01:41:18,119

asked in the chat room of have you

2117

01:41:25,700 --> 01:41:21,059

followed any of this USS Nimitz case and

2118

01:41:28,339 --> 01:41:25,710

what has you know what has been revealed

2119

01:41:30,410 --> 01:41:28,349

through that and you know the fact that

2120

01:41:32,930 --> 01:41:30,420

the Pentagon was actually doing some

2121

01:41:34,930 --> 01:41:32,940

serious research into the topic yeah

2122

01:41:37,790 --> 01:41:34,940

well I know that there unidentified

2123

01:41:39,979 --> 01:41:37,800

aerial phenomena as they like to call

2124

01:41:41,390 --> 01:41:39,989

them these days you know they stop the

2125

01:41:43,370 --> 01:41:41,400

program that's kind of interesting isn't

2126
01:41:45,470 --> 01:41:43,380
it I mean it already cost 22 million

2127
01:41:47,240 --> 01:41:45,480
dollars they decided well they weren't

2128
01:41:49,010 --> 01:41:47,250
coming up with anything very interesting

2129
01:41:51,350 --> 01:41:49,020
well there's a debate on whether that

2130
01:41:53,870 --> 01:41:51,360
stopped or not but anyway maybe they

2131
01:41:55,580 --> 01:41:53,880
maybe didn't but if the best they could

2132
01:41:57,169 --> 01:41:55,590
come up with were those videos I would

2133
01:41:58,760 --> 01:41:57,179
say well the videos are certainly

2134
01:42:00,589 --> 01:41:58,770
intriguing although I've heard various

2135
01:42:02,689 --> 01:42:00,599
explanations for what they could be that

2136
01:42:04,250 --> 01:42:02,699
don't involve aliens at all so all you

2137
01:42:05,530 --> 01:42:04,260
can say as well I mean it could be that

2138
01:42:08,359 --> 01:42:05,540

or it could be this or it could be that

2139

01:42:09,680 --> 01:42:08,369

and then that's obviously not good

2140

01:42:11,810 --> 01:42:09,690

enough that doesn't prove anything that

2141

01:42:13,609 --> 01:42:11,820

just means you don't know what it is so

2142

01:42:15,169 --> 01:42:13,619

but I am familiar I mean I've looked at

2143

01:42:16,310 --> 01:42:15,179

the videos quite a bit and I've shown

2144

01:42:17,870 --> 01:42:16,320

them to other people who have actually

2145

01:42:19,729 --> 01:42:17,880

flown for the military and stuff like

2146

01:42:21,049 --> 01:42:19,739

that and they give their opinions of

2147

01:42:23,209 --> 01:42:21,059

what they are not none of them has said

2148

01:42:24,410 --> 01:42:23,219

that it's an alien craft but you know

2149

01:42:26,810 --> 01:42:24,420

there are people out there who do think

2150

01:42:29,990 --> 01:42:26,820

it is have you actually listened to any

2151
01:42:33,560 --> 01:42:30,000
of david flavors testimony the fighter

2152
01:42:36,290 --> 01:42:33,570
pilot that encountered that tic-tac yeah

2153
01:42:38,540 --> 01:42:36,300
i have but only you know in videos that

2154
01:42:40,339 --> 01:42:38,550
are posted on the internet so i wasn't

2155
01:42:45,680 --> 01:42:40,349
there for the testimony

2156
01:42:49,669 --> 01:42:45,690
yeah well some of the some of the radar

2157
01:42:52,129 --> 01:42:49,679
and the eyewitness and that collaborate

2158
01:42:54,979 --> 01:42:52,139
some very spectacular things again I'm

2159
01:42:58,189 --> 01:42:54,989
not saying alien but I'm saying of craft

2160
01:43:01,399 --> 01:42:58,199
that for instance I forget something

2161
01:43:03,890 --> 01:43:01,409
like produced what would cause 1300 G's

2162
01:43:05,899 --> 01:43:03,900
of force well how do you know that was

2163
01:43:10,189 --> 01:43:05,909

1300 G because they had it tracked on

2164

01:43:12,589 --> 01:43:10,199

radar from I can't I think it was 28,000

2165

01:43:15,740 --> 01:43:12,599

feet down to the top of the ocean in

2166

01:43:19,370 --> 01:43:15,750

less than a second and so that's in that

2167

01:43:21,979 --> 01:43:19,380

we don't radar yeah yeah but you you you

2168

01:43:24,500 --> 01:43:21,989

can get a reflection from you know a

2169

01:43:27,080 --> 01:43:24,510

radar beam you get a second reflection

2170

01:43:28,819 --> 01:43:27,090

from someplace else and suddenly if you

2171

01:43:30,859 --> 01:43:28,829

say oh they're from the same object then

2172

01:43:32,629 --> 01:43:30,869

you say oh my god that was an incredible

2173

01:43:36,229 --> 01:43:32,639

velocity but of course there's a big

2174

01:43:37,879 --> 01:43:36,239

assumption in that but it was also I you

2175

01:43:40,430 --> 01:43:37,889

know David flavor is one of the

2176
01:43:43,160 --> 01:43:40,440
witnesses that actually saw this thing

2177
01:43:45,680 --> 01:43:43,170
behaving in such you know strange

2178
01:43:47,300 --> 01:43:45,690
maneuvers and you know shot off he

2179
01:43:49,580 --> 01:43:47,310
didn't get a speed up when he saw it

2180
01:43:52,910 --> 01:43:49,590
shot off of course but you know the

2181
01:43:55,790 --> 01:43:52,920
maneuvering was just it's just

2182
01:43:58,129 --> 01:43:55,800
unexplainable well I would never say

2183
01:43:59,870 --> 01:43:58,139
something's unexplainable I think that

2184
01:44:02,540 --> 01:43:59,880
that's you know that in our in our

2185
01:44:04,069 --> 01:44:02,550
technology I okay no I think what you're

2186
01:44:06,410 --> 01:44:04,079
saying what you really mean to say is

2187
01:44:08,120 --> 01:44:06,420
it's unexplained to say it's

2188
01:44:10,040 --> 01:44:08,130

unexplainable is to say that you know

2189

01:44:12,919 --> 01:44:10,050

humans are just not smart enough to ever

2190

01:44:15,260 --> 01:44:12,929

figure this out and you know that's

2191

01:44:17,149 --> 01:44:15,270

that's a hard hard thesis to prove I

2192

01:44:19,879 --> 01:44:17,159

think I'm a one thing that I noticed

2193

01:44:22,040 --> 01:44:19,889

about the the videos are the claims they

2194

01:44:24,830 --> 01:44:22,050

rather Navy pilots to begin with I often

2195

01:44:26,689 --> 01:44:24,840

wonder why is it that the aliens are so

2196

01:44:28,939 --> 01:44:26,699

clever that they only make themselves

2197

01:44:31,069 --> 01:44:28,949

visible to the military they you know

2198

01:44:33,470 --> 01:44:31,079

and only to our military for some reason

2199

01:44:35,930 --> 01:44:33,480

it seems but you know whereas Travis

2200

01:44:37,700 --> 01:44:35,940

Walton had no trouble seeing aliens but

2201

01:44:39,589 --> 01:44:37,710

somehow all the good evidence only

2202

01:44:40,939 --> 01:44:39,599

appears to the military I think that

2203

01:44:42,649 --> 01:44:40,949

there's something rather suspicious

2204

01:44:46,040 --> 01:44:42,659

about that because in this case the

2205

01:44:49,640 --> 01:44:46,050

aleatory was using new technology these

2206

01:44:50,990 --> 01:44:49,650

infrared gun side cameras were new some

2207

01:44:52,669 --> 01:44:51,000

people told me they said you know this

2208

01:44:53,779 --> 01:44:52,679

is just a defect in the cameras I don't

2209

01:44:55,339 --> 01:44:53,789

know if that's true or not

2210

01:44:56,990 --> 01:44:55,349

but it's certainly a possibilities and

2211

01:44:59,089 --> 01:44:57,000

one shouldn't rule that out the other

2212

01:45:01,700 --> 01:44:59,099

thing is that the East Coast sightings

2213

01:45:04,250 --> 01:45:01,710

as I recall the pilot said then I could

2214

01:45:07,040 --> 01:45:04,260

see this stuff every day or almost every

2215

01:45:09,500 --> 01:45:07,050

day well if that's the case I mean off

2216

01:45:11,689 --> 01:45:09,510

the eastern seaboard there are thousands

2217

01:45:14,060 --> 01:45:11,699

of commercial ships of all varieties

2218

01:45:16,189 --> 01:45:14,070

freighters and fishermen and all this

2219

01:45:18,220 --> 01:45:16,199

stuff and if these pilots could see this

2220

01:45:22,669 --> 01:45:18,230

stuff so obviously with their eyeballs

2221

01:45:24,430 --> 01:45:22,679

every day why is it that these guys

2222

01:45:26,930 --> 01:45:24,440

these other people don't ever see it

2223

01:45:29,839 --> 01:45:26,940

well not to say that they have or

2224

01:45:32,029 --> 01:45:29,849

haven't you know I mean that people have

2225

01:45:34,640 --> 01:45:32,039

well you know I mean I was at a

2226

01:45:36,410 --> 01:45:34,650

conference one time when they someone

2227

01:45:40,279 --> 01:45:36,420

asked how many people think they saw a

2228

01:45:42,290 --> 01:45:40,289

UFO and then everyone you know the there

2229

01:45:45,009 --> 01:45:42,300

was like a hundred hands let's just say

2230

01:45:49,100 --> 01:45:45,019

and then how many of you reported a UFO

2231

01:45:51,500 --> 01:45:49,110

that you saw and it was a tiny fraction

2232

01:45:54,009 --> 01:45:51,510

of people after use their hands

2233

01:45:58,189 --> 01:45:54,019

now what tiny fraction is still not zero

2234

01:46:00,140 --> 01:45:58,199

that's right and is there are we saying

2235

01:46:01,879 --> 01:46:00,150

that zero other people saw these things

2236

01:46:02,359 --> 01:46:01,889

I don't know I don't know I can't answer

2237

01:46:04,970 --> 01:46:02,369

that

2238

01:46:07,250 --> 01:46:04,980

yeah well the number of them but there's

2239

01:46:09,470 --> 01:46:07,260

been plenty of witnesses other than the

2240

01:46:11,930 --> 01:46:09,480

military that have seen you know UFOs

2241

01:46:15,919 --> 01:46:11,940

absolutely well let me ask you then

2242

01:46:18,620 --> 01:46:15,929

Martin since you clearly think that the

2243

01:46:21,049 --> 01:46:18,630

evidence is good for visitation

2244

01:46:22,819 --> 01:46:21,059

what would you cite as the best evidence

2245

01:46:25,520 --> 01:46:22,829

the evidence you would put in the

2246

01:46:27,470 --> 01:46:25,530

Smithsonian on display which is the the

2247

01:46:29,660 --> 01:46:27,480

convincing K talking about physical

2248

01:46:32,870 --> 01:46:29,670

evidence and I'm talking about something

2249

01:46:34,129 --> 01:46:32,880

you have to show yeah yeah all right why

2250

01:46:37,160 --> 01:46:34,139

don't you do the same thing with dark

2251

01:46:38,479 --> 01:46:37,170

matter then well I I actually found the

2252

01:46:42,620 --> 01:46:38,489

physical evidence for that and it was

2253

01:46:45,200 --> 01:46:42,630

the rotation speed of galaxies and can

2254

01:46:48,649 --> 01:46:45,210

you put that in the the Smithsonian I

2255

01:46:50,509 --> 01:46:48,659

don't or you know what's your point it's

2256

01:46:53,569 --> 01:46:50,519

like Newton's law you can put Newton's

2257

01:46:55,669 --> 01:46:53,579

law in the Smithsonian right all right

2258

01:46:57,859 --> 01:46:55,679

it is Newton's law in fact we

2259

01:46:59,600 --> 01:46:57,869

fundamentally it's that and that's easy

2260

01:47:01,759 --> 01:46:59,610

enough to demonstrate but you know just

2261

01:47:03,950 --> 01:47:01,769

looking at the positions of the stars or

2262

01:47:05,899 --> 01:47:03,960

Newton's law you can you know examined

2263

01:47:07,580 --> 01:47:05,909

by looking at the position of an apple

2264

01:47:10,040 --> 01:47:07,590

as you drop it from a tree

2265

01:47:12,200 --> 01:47:10,050

it's all very easily demonstrable but if

2266

01:47:13,940 --> 01:47:12,210

I were to ask you what's the best case

2267

01:47:16,250 --> 01:47:13,950

even if you don't want to put it in the

2268

01:47:18,410 --> 01:47:16,260

Smithsonian apparently nobody does what

2269

01:47:20,660 --> 01:47:18,420

would you say it was well when you're

2270

01:47:22,700 --> 01:47:20,670

saying put putting something Smithsonian

2271

01:47:26,120 --> 01:47:22,710

to me it sounds like physical evidence

2272

01:47:28,520 --> 01:47:26,130

and which you know there is no physical

2273

01:47:31,190 --> 01:47:28,530

evidence that we have there's a

2274

01:47:32,840 --> 01:47:31,200

possibility of metamaterials there's but

2275

01:47:35,210 --> 01:47:32,850

I don't know I don't hold much faith in

2276

01:47:37,430 --> 01:47:35,220

that that are being looked at actually

2277

01:47:41,120 --> 01:47:37,440

that are being looked at by the army as

2278

01:47:42,380 --> 01:47:41,130

well and this was recently came out but

2279

01:47:47,780 --> 01:47:42,390

as far as something you'd put in the

2280

01:47:49,520 --> 01:47:47,790

Smithsonian it's it's along also along

2281

01:47:51,920 --> 01:47:49,530

the lines of a lot of astronomy it's

2282

01:47:54,820 --> 01:47:51,930

observational you know people have seen

2283

01:47:57,920 --> 01:47:54,830

things witness things multiple witnesses

2284

01:48:00,800 --> 01:47:57,930

mass sightings now I'm not saying

2285

01:48:03,080 --> 01:48:00,810

they're alien I'm saying we don't know

2286

01:48:04,880 --> 01:48:03,090

what they are it's something too it's

2287

01:48:08,090 --> 01:48:04,890

something in my opinion that science

2288

01:48:10,930 --> 01:48:08,100

isn't taking seriously enough because

2289

01:48:12,950 --> 01:48:10,940

what if it was somehow threatening

2290

01:48:15,740 --> 01:48:12,960

aviation or something like that

2291

01:48:18,140 --> 01:48:15,750

I mean well did you do when you go to

2292

01:48:19,910 --> 01:48:18,150

the airport you know to check in and get

2293

01:48:21,710 --> 01:48:19,920

aboard the aircraft and you're sitting

2294

01:48:23,150 --> 01:48:21,720

there on the tarmac do you frequently

2295

01:48:26,090 --> 01:48:23,160

have the experience that the copilot

2296

01:48:28,280 --> 01:48:26,100

will come on and say well folks there's

2297

01:48:31,070 --> 01:48:28,290

some unidentified flying objects here in

2298

01:48:33,140 --> 01:48:31,080

the area they haven't filed a flight pal

2299

01:48:34,520 --> 01:48:33,150

a flight plan so we're just going to sit

2300

01:48:37,010 --> 01:48:34,530

here on the tarmac till they clear the

2301
01:48:38,780 --> 01:48:37,020
area I mean does that happen a lot no

2302
01:48:41,480 --> 01:48:38,790
but I mean I'm sure you've probably

2303
01:48:44,870 --> 01:48:41,490
heard of the the O'Hare case you know

2304
01:48:47,480 --> 01:48:44,880
that was one in particular that happened

2305
01:48:48,800 --> 01:48:47,490
you know at an airport it did happen in

2306
01:48:50,510 --> 01:48:48,810
the airport but it wasn't because they

2307
01:48:53,120 --> 01:48:50,520
were flying objects there was a strange

2308
01:48:56,060 --> 01:48:53,130
cloud formation that zoomed up right and

2309
01:48:58,400 --> 01:48:56,070
that that that wasn't a strange cloud

2310
01:49:00,860 --> 01:48:58,410
formation there was one many people that

2311
01:49:03,650 --> 01:49:00,870
that saw a perfectly shaped disc and and

2312
01:49:07,850 --> 01:49:03,660
and then they start shoot up through the

2313
01:49:10,580 --> 01:49:07,860

the clouds but again hmm

2314

01:49:12,650 --> 01:49:10,590

what are you saying it is uh there are

2315

01:49:15,170 --> 01:49:12,660

people that reported seeing a disc many

2316

01:49:17,060 --> 01:49:15,180

people and it was actually someone that

2317

01:49:19,340 --> 01:49:17,070

actually saw it from that was landing in

2318

01:49:21,160 --> 01:49:19,350

a plane - that talked about it mm-hmm

2319

01:49:24,880 --> 01:49:21,170

but it is all witness test

2320

01:49:27,729 --> 01:49:24,890

and you know there's no hard evidence

2321

01:49:31,510 --> 01:49:27,739

and but I just want to ask you this

2322

01:49:33,430 --> 01:49:31,520

question how come you think there's such

2323

01:49:36,189 --> 01:49:33,440

a ridicule factor in actually trying to

2324

01:49:38,380 --> 01:49:36,199

figure these things out well a lot a lot

2325

01:49:40,570 --> 01:49:38,390

of it is to begin with a lot of it is

2326

01:49:44,020 --> 01:49:40,580

witness testimony you just said that

2327

01:49:46,030 --> 01:49:44,030

yourself there's no worse a bit of

2328

01:49:49,000 --> 01:49:46,040

evidence for anything in science than

2329

01:49:51,189 --> 01:49:49,010

witness testimony right Newton Newton

2330

01:49:53,439 --> 01:49:51,199

Newton didn't say $F = MA$ on the

2331

01:49:54,970 --> 01:49:53,449

basis of witness testimony he did some

2332

01:49:56,770 --> 01:49:54,980

experiments but actually he just did it

2333

01:49:59,050 --> 01:49:56,780

all in his head and then he went out and

2334

01:50:00,310 --> 01:49:59,060

found some data on the motions of the

2335

01:50:01,810 --> 01:50:00,320

planets and it turned out he could

2336

01:50:04,330 --> 01:50:01,820

explain all that stuff and predict where

2337

01:50:06,370 --> 01:50:04,340

they were gonna be all right okay so

2338

01:50:08,140 --> 01:50:06,380

witness testimony I mean you can hear

2339

01:50:09,850 --> 01:50:08,150

you know lots of scientists say that

2340

01:50:13,470 --> 01:50:09,860

it's pretty much worthless if you've

2341

01:50:16,510 --> 01:50:13,480

ever been on a jury you know

2342

01:50:19,780 --> 01:50:16,520

particularly in a criminal case and you

2343

01:50:21,430 --> 01:50:19,790

have to you know take people in to a

2344

01:50:24,430 --> 01:50:21,440

lineup or something and say so which guy

2345

01:50:27,459 --> 01:50:24,440

here did this you know that's very

2346

01:50:28,689 --> 01:50:27,469

unreliable that usually juries don't pay

2347

01:50:30,700 --> 01:50:28,699

much attention to that because it's so

2348

01:50:32,080 --> 01:50:30,710

unreliable so witness testimony I think

2349

01:50:33,970 --> 01:50:32,090

you have to rule out if that's all

2350

01:50:36,250 --> 01:50:33,980

you've got I say you don't have much

2351

01:50:38,380 --> 01:50:36,260

it's got to be better the other thing I

2352

01:50:40,780 --> 01:50:38,390

noticed particularly in the UFO

2353

01:50:43,450 --> 01:50:40,790

community these days is that a lot of

2354

01:50:46,720 --> 01:50:43,460

people are placing their bets on what

2355

01:50:48,790 --> 01:50:46,730

they call disclosure and I'm sure you're

2356

01:50:50,350 --> 01:50:48,800

familiar with the idea here that there

2357

01:50:53,169 --> 01:50:50,360

is really good evidence for all of this

2358

01:50:55,479 --> 01:50:53,179

and the US government has it and they

2359

01:50:58,689 --> 01:50:55,489

will soon release it to the public and

2360

01:51:00,459 --> 01:50:58,699

these Navy videos are just another

2361

01:51:04,180 --> 01:51:00,469

indication that the truth is coming out

2362

01:51:05,500 --> 01:51:04,190

I don't buy into that no no I don't

2363

01:51:08,620 --> 01:51:05,510

either but I just wonder whether you did

2364

01:51:10,689 --> 01:51:08,630

yeah no no I don't buy into that I think

2365

01:51:12,400 --> 01:51:10,699

that it's possible that you know over

2366

01:51:15,160 --> 01:51:12,410

the years there's been a number of cases

2367

01:51:16,720 --> 01:51:15,170

where the government has confiscated

2368

01:51:20,470 --> 01:51:16,730

things for instance on the Nimitz case

2369

01:51:24,970 --> 01:51:20,480

they confiscated the some of the footage

2370

01:51:28,419 --> 01:51:24,980

and radar day tater radar records data

2371

01:51:30,250 --> 01:51:28,429

why would they do they did was witnessed

2372

01:51:33,370 --> 01:51:30,260

by a number of people they why would

2373

01:51:34,290 --> 01:51:33,380

they do that well I don't know exactly

2374

01:51:36,390 --> 01:51:34,300

why

2375

01:51:38,400 --> 01:51:36,400

and you know it'd be just speculating

2376

01:51:41,690 --> 01:51:38,410

but there's been a number of cases where

2377

01:51:45,480 --> 01:51:41,700

the government has confiscated footage

2378

01:51:48,000 --> 01:51:45,490

and there's a couple of accounts of that

2379

01:51:52,170 --> 01:51:48,010

one from an astronaut that actually

2380

01:51:54,210 --> 01:51:52,180

witnessed something but I don't know if

2381

01:51:55,470 --> 01:51:54,220

the government knows it's a curious if I

2382

01:51:56,820 --> 01:51:55,480

can interrupt you mind sure though which

2383

01:51:58,460 --> 01:51:56,830

it's not was that it because I know a

2384

01:52:01,800 --> 01:51:58,470

lot of the astronaut Gordon Cooper

2385

01:52:03,660 --> 01:52:01,810

Gordon Cooper yeah I also knew Edgar

2386

01:52:06,330 --> 01:52:03,670

Mitchell quite well and now this guy

2387

01:52:09,600 --> 01:52:06,340

yeah story Musgrave he also claims he

2388

01:52:11,670 --> 01:52:09,610

could year the aliens music in the

2389

01:52:14,820 --> 01:52:11,680

muffin fans I asked him about that

2390

01:52:17,280 --> 01:52:14,830

because he was on my show so I told him

2391

01:52:19,980 --> 01:52:17,290

I said your quote that you just said

2392

01:52:21,990 --> 01:52:19,990

right now I said Seth Shostak that said

2393

01:52:23,550 --> 01:52:22,000

that you said that and he said what he

2394

01:52:26,610 --> 01:52:23,560

acted like he had no idea what you were

2395

01:52:28,770 --> 01:52:26,620

talking about but no well I'll met him in

2396

01:52:31,830 --> 01:52:28,780

person when he said it but okay good

2397

01:52:33,810 --> 01:52:31,840

enough uh listen the thing is that you

2398

01:52:35,970 --> 01:52:33,820

know eyewitness testimony all repeated

2399

01:52:37,440 --> 01:52:35,980

again I mean you know I I know quite a

2400

01:52:39,900 --> 01:52:37,450

few of the astronauts and they're

2401
01:52:42,960 --> 01:52:39,910
wonderful people but you know you don't

2402
01:52:45,060 --> 01:52:42,970
decide matters of science or in this

2403
01:52:47,190 --> 01:52:45,070
case something that would be incredibly

2404
01:52:49,050 --> 01:52:47,200
interesting on the basis of witness

2405
01:52:50,930 --> 01:52:49,060
testimony you can't do that if you do

2406
01:52:54,030 --> 01:52:50,940
then you know that's it's just too weak

2407
01:52:56,850 --> 01:52:54,040
it has no predictive power it has no

2408
01:52:58,620 --> 01:52:56,860
quantitative power it's just somebody's

2409
01:53:01,620 --> 01:52:58,630
story and you can say well this person

2410
01:53:03,270 --> 01:53:01,630
is a military pilot well as somebody who

2411
01:53:04,890 --> 01:53:03,280
was a military pilot pointed out to me

2412
01:53:06,990 --> 01:53:04,900
he said military pilots are trained to

2413
01:53:10,050 --> 01:53:07,000

recognize other military aircraft

2414

01:53:13,350 --> 01:53:10,060

all right I'll train sorry to recognize

2415

01:53:15,300 --> 01:53:13,360

alien craft so I would say that what you

2416

01:53:20,250 --> 01:53:15,310

have to do is just find some evidence

2417

01:53:21,950 --> 01:53:20,260

that's quantitative and there's what do

2418

01:53:25,520 --> 01:53:21,960

you consider that would you consider

2419

01:53:29,130 --> 01:53:25,530

witness testimony backed up by

2420

01:53:31,350 --> 01:53:29,140

eyewitnesses not something they backed

2421

01:53:32,790 --> 01:53:31,360

by eyewitnesses I'm sorry backed up by

2422

01:53:35,340 --> 01:53:32,800

radar data

2423

01:53:38,190 --> 01:53:35,350

well radar is very ambiguous itself

2424

01:53:40,170 --> 01:53:38,200

actually anybody who works in radar

2425

01:53:41,520 --> 01:53:40,180

knows that and my father was involved

2426

01:53:43,680 --> 01:53:41,530

with radar I mean you can get radar

2427

01:53:45,690 --> 01:53:43,690

reflections from the atmosphere okay so

2428

01:53:48,240 --> 01:53:45,700

radar reflections per se are not

2429

01:53:49,730 --> 01:53:48,250

necessarily but it's another

2430

01:53:53,360 --> 01:53:49,740

you know what would would convince me

2431

01:53:56,690 --> 01:53:53,370

just looking this up there 770

2432

01:53:59,100 --> 01:53:56,700

satellites orbiting the earth that are

2433

01:54:01,530 --> 01:53:59,110

imaging satellites they're looking at

2434

01:54:02,820 --> 01:54:01,540

the earth making imagery okay and you

2435

01:54:05,670 --> 01:54:02,830

know everybody knows about some of these

2436

01:54:07,560 --> 01:54:05,680

like the the you know the satellites

2437

01:54:09,750 --> 01:54:07,570

that produce those weather maps you see

2438

01:54:12,990 --> 01:54:09,760

every night on the news and of course

2439

01:54:15,090 --> 01:54:13,000

the military has a lot of imaging

2440

01:54:17,100 --> 01:54:15,100

satellites for reconnaissance and not

2441

01:54:19,110 --> 01:54:17,110

just the u.s. obviously you know they're

2442

01:54:21,330 --> 01:54:19,120

the dozen countries I'm sure at least

2443

01:54:23,130 --> 01:54:21,340

that have these things okay

2444

01:54:26,010 --> 01:54:23,140

and they actually survey the entire

2445

01:54:28,590 --> 01:54:26,020

planet about once a day and typically

2446

01:54:30,840 --> 01:54:28,600

have resolution of about one meter they

2447

01:54:35,400 --> 01:54:30,850

don't see any of this stuff why is that

2448

01:54:38,370 --> 01:54:35,410

high well a lot of I can understand that

2449

01:54:40,650 --> 01:54:38,380

in a way where a lot of people will say

2450

01:54:42,840 --> 01:54:40,660

that when they're I witnessing or even

2451
01:54:44,580 --> 01:54:42,850
on radar have seen something in one spot

2452
01:54:47,340 --> 01:54:44,590
and then all of a sudden it's somewhere

2453
01:54:50,160 --> 01:54:47,350
else and again you know you keep

2454
01:54:52,380 --> 01:54:50,170
bringing up aliens and possible out of

2455
01:54:54,150 --> 01:54:52,390
coming in from outer space I don't know

2456
01:54:55,950 --> 01:54:54,160
if that's what these things are but you

2457
01:54:58,470 --> 01:54:55,960
think they're not aliens I don't know

2458
01:55:00,620 --> 01:54:58,480
although I'm saying I don't know but I

2459
01:55:05,000 --> 01:55:00,630
know that there's something to it and

2460
01:55:07,020 --> 01:55:05,010
also you know you talk about the radar

2461
01:55:10,410 --> 01:55:07,030
imperfections and I think radar is

2462
01:55:12,060 --> 01:55:10,420
another technology that has gotten much

2463
01:55:14,400 --> 01:55:12,070

better over the years and I don't think

2464

01:55:16,080 --> 01:55:14,410

you're going to be getting from all

2465

01:55:18,390 --> 01:55:16,090

these different angles and all these

2466

01:55:21,060 --> 01:55:18,400

different radars that are seeing one

2467

01:55:23,360 --> 01:55:21,070

thing the same thing happen I don't

2468

01:55:25,770 --> 01:55:23,370

think that's that's going to be some

2469

01:55:29,670 --> 01:55:25,780

atmospheric inversion or whatever you

2470

01:55:31,260 --> 01:55:29,680

said it was myself I mean all I'm trying

2471

01:55:32,700 --> 01:55:31,270

to say stuff is I think these things are

2472

01:55:35,190 --> 01:55:32,710

unexplainable and I think they should be

2473

01:55:37,470 --> 01:55:35,200

looked at more seriously by science

2474

01:55:39,510 --> 01:55:37,480

instead of unexplainable look at them

2475

01:55:42,060 --> 01:55:39,520

again I don't get it Martin what's that

2476
01:55:43,380 --> 01:55:42,070
if they're unexplainable what good does

2477
01:55:45,720 --> 01:55:43,390
it do to look at them again

2478
01:55:47,970 --> 01:55:45,730
well unexplainable by what we know but

2479
01:55:50,280 --> 01:55:47,980
aren't you curious as a scientist to

2480
01:55:53,280 --> 01:55:50,290
figure okay okay so again you meant

2481
01:55:56,040 --> 01:55:53,290
unexplained right unexplained okay part

2482
01:55:57,450 --> 01:55:56,050
right oh yes oh okay yeah sure

2483
01:55:59,340 --> 01:55:57,460
absolutely

2484
01:56:02,060 --> 01:55:59,350
no we should keep looking after all I

2485
01:56:04,950 --> 01:56:02,070
mean if this is true right I'm

2486
01:56:06,360 --> 01:56:04,960
you know this British theoretician said

2487
01:56:08,880 --> 01:56:06,370
me shall slack if I thought there was a

2488
01:56:10,890 --> 01:56:08,890

1% chance any of this was true I'd spent

2489

01:56:12,240 --> 01:56:10,900

all my time working on it well clearly

2490

01:56:15,180 --> 01:56:12,250

he doesn't believe that there's even a

2491

01:56:16,560 --> 01:56:15,190

1% chance that it's true but if you can

2492

01:56:19,110 --> 01:56:16,570

come up with evidence that shows that

2493

01:56:21,090 --> 01:56:19,120

there is at least a 1% chance that it's

2494

01:56:23,040 --> 01:56:21,100

true then you're gonna have thousands of

2495

01:56:25,470 --> 01:56:23,050

scientists working on it the fact that

2496

01:56:27,570 --> 01:56:25,480

they're not says a lot to me you know

2497

01:56:29,340 --> 01:56:27,580

scientists are not you know they're not

2498

01:56:31,110 --> 01:56:29,350

so closed minded that they wouldn't be

2499

01:56:35,910 --> 01:56:31,120

interested in the most interesting story

2500

01:56:38,070 --> 01:56:35,920

you could have I think I think the whole

2501
01:56:41,430 --> 01:56:38,080
back on a lot of people in the science

2502
01:56:43,920 --> 01:56:41,440
world is the ridicule factor I mean my

2503
01:56:46,380 --> 01:56:43,930
last guest my last guest you know

2504
01:56:48,290 --> 01:56:46,390
mentioned that you know that's he is

2505
01:56:50,490 --> 01:56:48,300
actually a scientist looking into this

2506
01:56:52,440 --> 01:56:50,500
he actually had a sighting he didn't

2507
01:56:54,840 --> 01:56:52,450
know what it was but you know when he

2508
01:56:56,820 --> 01:56:54,850
was young and that got him more

2509
01:56:59,970 --> 01:56:56,830
interested in you know taking a hard

2510
01:57:02,070 --> 01:56:59,980
look at this university somewhere is he

2511
01:57:03,390 --> 01:57:02,080
getting really cool from yeah he was not

2512
01:57:05,160 --> 01:57:03,400
getting ridiculed but he's saying there

2513
01:57:06,780 --> 01:57:05,170

is the ridicule factor out there and

2514

01:57:09,450 --> 01:57:06,790

that's why scientists aren't taking a

2515

01:57:12,900 --> 01:57:09,460

hard look at this I don't buy that at

2516

01:57:14,970 --> 01:57:12,910

all I don't think that's true at all

2517

01:57:16,680 --> 01:57:14,980

there was ridicule factor in claiming

2518

01:57:18,870 --> 01:57:16,690

that the bones that were being found in

2519

01:57:21,590 --> 01:57:18,880

Britain you know 200 years ago were due

2520

01:57:25,920 --> 01:57:21,600

to animals that once roamed the earth

2521

01:57:27,810 --> 01:57:25,930

I feel so that I feel as though that I'm

2522

01:57:29,240 --> 01:57:27,820

getting a little ridicule from you you

2523

01:57:32,910 --> 01:57:29,250

know as we're having this conversation

2524

01:57:36,150 --> 01:57:32,920

like okay basically why am I wasting my

2525

01:57:40,620 --> 01:57:36,160

time on it I feel I feel that from from

2526

01:57:44,580 --> 01:57:40,630

you so you know I mean are you

2527

01:57:47,490 --> 01:57:44,590

ridiculing people that look at UFOs no I

2528

01:57:49,320 --> 01:57:47,500

just said I'm perfectly happy for people

2529

01:57:51,540 --> 01:57:49,330

to look into it because if there is

2530

01:57:53,550 --> 01:57:51,550

something here it would be good to know

2531

01:57:55,980 --> 01:57:53,560

it's just that the evidence that is

2532

01:57:58,920 --> 01:57:55,990

presented so far is to my mind simply

2533

01:58:00,840 --> 01:57:58,930

unconvincing well in my mind it's

2534

01:58:04,080 --> 01:58:00,850

unconvincing what SETI's turned up to

2535

01:58:05,520 --> 01:58:04,090

but you're still looking right but we

2536

01:58:08,670 --> 01:58:05,530

don't claim that we found something so

2537

01:58:10,950 --> 01:58:08,680

what's unconvincing about it well who

2538

01:58:13,920 --> 01:58:10,960

you are I'm just saying you are looking

2539

01:58:15,600 --> 01:58:13,930

for something that hasn't been found we

2540

01:58:17,520 --> 01:58:15,610

we don't have evidence

2541

01:58:19,590 --> 01:58:17,530

we haven't found evidence that we can

2542

01:58:22,050 --> 01:58:19,600

hand over to the Smithsonian like you

2543

01:58:25,379 --> 01:58:22,060

say but I still think it's it's really

2544

01:58:26,850 --> 01:58:25,389

worth the time in looking into it but

2545

01:58:29,160 --> 01:58:26,860

Martin I didn't I didn't understand your

2546

01:58:29,490 --> 01:58:29,170

comment why why is SETI unconvincing to

2547

01:58:33,899 --> 01:58:29,500

you

2548

01:58:35,010 --> 01:58:33,909

that's not a matter of own convincing

2549

01:58:38,910 --> 01:58:35,020

that's just saying that we haven't found

2550

01:58:41,790 --> 01:58:38,920

anything well I'm just saying your

2551
01:58:44,580 --> 01:58:41,800
argument you know is basically it's kind

2552
01:58:47,550 --> 01:58:44,590
of the same argument we don't we haven't

2553
01:58:49,859 --> 01:58:47,560
found any evidence of of UFOs that we

2554
01:58:52,109 --> 01:58:49,869
can say that you know there's still

2555
01:58:53,910 --> 01:58:52,119
evidence to be found but there's

2556
01:58:57,060 --> 01:58:53,920
something going on some people is

2557
01:58:58,260 --> 01:58:57,070
waiting something okay so that's the

2558
01:59:01,439 --> 01:58:58,270
difference you're making the claim that

2559
01:59:02,910 --> 01:59:01,449
there is something going on I think

2560
01:59:04,620 --> 01:59:02,920
there is something definitely going on

2561
01:59:07,950 --> 01:59:04,630
yes okay well that's the difference

2562
01:59:09,840 --> 01:59:07,960
between the UFO hypothesis and the SETI

2563
01:59:11,760 --> 01:59:09,850

hypothesis the SETI hypothesis you're

2564

01:59:13,560 --> 01:59:11,770

quite right it's not round a signal yet

2565

01:59:15,840 --> 01:59:13,570

that's how we find signals all the time

2566

01:59:17,700 --> 01:59:15,850

but we haven't found a signal yet that's

2567

01:59:19,350 --> 01:59:17,710

you know confess convincing and

2568

01:59:21,090 --> 01:59:19,360

compelling many people know about the

2569

01:59:24,959 --> 01:59:21,100

WoW signal for example in the service

2570

01:59:28,640 --> 01:59:24,969

right yeah sorry the 1970s wasn't that

2571

01:59:34,470 --> 01:59:28,650

all the way back then yes that was in

2572

01:59:38,129 --> 01:59:34,480

1974 as I recall but no sorry 1977 1977

2573

01:59:39,780 --> 01:59:38,139

yeah but you know that didn't meet the

2574

01:59:41,700 --> 01:59:39,790

standards of science which is to say it

2575

01:59:44,340 --> 01:59:41,710

was repeatable and you could find it

2576

01:59:45,660 --> 01:59:44,350

again that hasn't happened so you know

2577

01:59:48,629 --> 01:59:45,670

whatever it was we don't know what it is

2578

01:59:51,780 --> 01:59:48,639

and we don't claim that it was et but

2579

01:59:53,580 --> 01:59:51,790

the UFO community often takes the point

2580

01:59:56,689 --> 01:59:53,590

of view that no there is something in

2581

02:00:01,740 --> 01:59:56,699

our air space and that's a difference

2582

02:00:04,350 --> 02:00:01,750

well I I guess I'm on the same page with

2583

02:00:07,109 --> 02:00:04,360

them because I think there is something

2584

02:00:10,169 --> 02:00:07,119

in our air space so I know you want to

2585

02:00:12,629 --> 02:00:10,179

see the evidence of that if what would

2586

02:00:13,950 --> 02:00:12,639

convince you physical evidence only

2587

02:00:18,120 --> 02:00:13,960

because there's definitely a lot of

2588

02:00:20,660 --> 02:00:18,130

radar and you know I know video can be

2589

02:00:23,220 --> 02:00:20,670

manipulated but there's even early video

2590

02:00:24,990 --> 02:00:23,230

you know what what is convincing enough

2591

02:00:27,390 --> 02:00:25,000

for you actually something that you can

2592

02:00:27,750 --> 02:00:27,400

reach out and touch well that would be

2593

02:00:29,370 --> 02:00:27,760

great

2594

02:00:31,800 --> 02:00:29,380

yeah something I mean oh you know

2595

02:00:33,709 --> 02:00:31,810

these things are flying around they

2596

02:00:36,419 --> 02:00:33,719

don't seem to have much as they say much

2597

02:00:40,110 --> 02:00:36,429

impact but if they did have an impact

2598

02:00:42,629 --> 02:00:40,120

you know I mean one of the more famous

2599

02:00:45,149 --> 02:00:42,639

cases is of course Roz oh that's an old

2600

02:00:47,040 --> 02:00:45,159

one now still very controversial in my

2601
02:00:48,720 --> 02:00:47,050
opinion because there's an alternative

2602
02:00:50,459 --> 02:00:48,730
explanation for what happened at Roswell

2603
02:00:53,070 --> 02:00:50,469
that fits all the facts rather nicely

2604
02:00:55,560 --> 02:00:53,080
but of course if you're convinced that

2605
02:00:57,810 --> 02:00:55,570
aliens came to New Mexico and crash you

2606
02:01:01,100 --> 02:00:57,820
don't you don't buy into that but you

2607
02:01:03,600 --> 02:01:01,110
know there was some debris the debris

2608
02:01:05,040 --> 02:01:03,610
was identified by the people who were

2609
02:01:06,300 --> 02:01:05,050
involved with this project mogul and

2610
02:01:08,490 --> 02:01:06,310
they said yeah that's our balloon train

2611
02:01:11,010 --> 02:01:08,500
but they're other people say no no it

2612
02:01:13,979 --> 02:01:11,020
was alien crash but you know if it was

2613
02:01:15,390 --> 02:01:13,989

an alien crash why was it so limited in

2614

02:01:17,520 --> 02:01:15,400

size and scope that you could throw it

2615

02:01:19,860 --> 02:01:17,530

all into a truck and take it 70 miles

2616

02:01:22,110 --> 02:01:19,870

down to the city of Roswell I mean those

2617

02:01:25,560 --> 02:01:22,120

kinds of things you know that that isn't

2618

02:01:27,629 --> 02:01:25,570

good if it Hollow doubt a crater 500

2619

02:01:29,459 --> 02:01:27,639

feet across and there was also two

2620

02:01:31,860 --> 02:01:29,469

debris at the bottom of it okay that's

2621

02:01:34,620 --> 02:01:31,870

different right but I don't see that

2622

02:01:37,020 --> 02:01:34,630

kind of evidence I don't know you know I

2623

02:01:39,330 --> 02:01:37,030

don't want to get into a Roswell debate

2624

02:01:40,770 --> 02:01:39,340

with you but no I will tell you that you

2625

02:01:42,600 --> 02:01:40,780

know the one thing that always has

2626
02:01:45,300 --> 02:01:42,610
puzzled me about that is why on earth

2627
02:01:49,200 --> 02:01:45,310
the Army Air Force at the time actually

2628
02:01:52,530 --> 02:01:49,210
you know posted a press release saying

2629
02:01:56,189 --> 02:01:52,540
that a flying disc was found by them

2630
02:01:58,229 --> 02:01:56,199
when if they did find something if they

2631
02:01:59,970 --> 02:01:58,239
found a mogul the project mogul or

2632
02:02:00,870 --> 02:01:59,980
whatever it was they found they didn't

2633
02:02:02,490 --> 02:02:00,880
have to say anything

2634
02:02:04,560 --> 02:02:02,500
there was no reason for them to say

2635
02:02:07,020 --> 02:02:04,570
anything I just think that's a the big

2636
02:02:09,300 --> 02:02:07,030
puzzle of Roswell well they weren't

2637
02:02:11,939 --> 02:02:09,310
digging up a mogul what their project

2638
02:02:13,950 --> 02:02:11,949

mogul was a project I know I know what

2639

02:02:16,740 --> 02:02:13,960

it is I'm just saying that even if they

2640

02:02:19,140 --> 02:02:16,750

had found a project mogul balloon system

2641

02:02:21,390 --> 02:02:19,150

or whatever that they had I know what

2642

02:02:22,410 --> 02:02:21,400

that was you know supposedly for so they

2643

02:02:25,649 --> 02:02:22,420

could see if the Russians were doing

2644

02:02:28,560 --> 02:02:25,659

anything in the nuclear world but if

2645

02:02:30,540 --> 02:02:28,570

they had found something like that why

2646

02:02:31,320 --> 02:02:30,550

would they even put anything in the

2647

02:02:32,790 --> 02:02:31,330

paper at all

2648

02:02:35,129 --> 02:02:32,800

you know I mean that that's just a

2649

02:02:37,649 --> 02:02:35,139

bizarre well because who had been in the

2650

02:02:39,510 --> 02:02:37,659

paper because that story was out there

2651
02:02:41,220 --> 02:02:39,520
and they had to respond to it no no was

2652
02:02:42,939 --> 02:02:41,230
the Army Air Force that actually

2653
02:02:46,360 --> 02:02:42,949
released the story first

2654
02:02:48,610 --> 02:02:46,370
no no no the paper came to them look

2655
02:02:52,540 --> 02:02:48,620
this guy Brazel whatever his name he

2656
02:02:55,150 --> 02:02:52,550
carries the debris into Roswell he goes

2657
02:02:57,430 --> 02:02:55,160
to the newspaper he shows him this stuff

2658
02:02:59,439 --> 02:02:57,440
they say what is it he doesn't know what

2659
02:03:00,790 --> 02:02:59,449
it is I develop I think you may be

2660
02:03:02,919 --> 02:03:00,800
getting your facts a little wrong on

2661
02:03:04,450 --> 02:03:02,929
that one stuff but I'm not I'm not a

2662
02:03:07,390 --> 02:03:04,460
hundred percent sure but I think you I

2663
02:03:09,459 --> 02:03:07,400

think you might have that one thing that

2664

02:03:13,330 --> 02:03:09,469

the military called up the newspaper and

2665

02:03:15,390 --> 02:03:13,340

said run this story yes okay yeah

2666

02:03:18,510 --> 02:03:15,400

yeah that's what that's what's out there

2667

02:03:21,250 --> 02:03:18,520

hang on just one minute I know all your

2668

02:03:23,020 --> 02:03:21,260

gave an explanation and at first they

2669

02:03:24,400 --> 02:03:23,030

said it was a weather balloon and they

2670

02:03:26,020 --> 02:03:24,410

realized that everybody would know that

2671

02:03:27,939 --> 02:03:26,030

it wasn't a weather balloon so they

2672

02:03:31,030 --> 02:03:27,949

changed the story the next day to a

2673

02:03:31,660 --> 02:03:31,040

flying disc right or maybe it was the

2674

02:03:33,580 --> 02:03:31,670

other way around

2675

02:03:36,820 --> 02:03:33,590

they had these two stories and they were

2676

02:03:38,680 --> 02:03:36,830

trying to distance themselves from the

2677

02:03:40,000 --> 02:03:38,690

story because of course this was a

2678

02:03:43,419 --> 02:03:40,010

secret operation

2679

02:03:44,800 --> 02:03:43,429

well well anyway I didn't want I didn't

2680

02:03:47,169 --> 02:03:44,810

want to go Roswell tonight but that's

2681

02:03:49,750 --> 02:03:47,179

okay anyway stuff

2682

02:03:52,959 --> 02:03:49,760

thanks so much it's been a pleasure it's

2683

02:03:56,380 --> 02:03:52,969

always interesting and it's it's kind of

2684

02:03:58,390 --> 02:03:56,390

fun talking about the UFO topic with

2685

02:04:01,810 --> 02:03:58,400

someone like you and good luck with your

2686

02:04:03,880 --> 02:04:01,820

I think what you have you said with Nick

2687

02:04:06,520 --> 02:04:03,890

Pope when is that coming up that debate

2688

02:04:08,919 --> 02:04:06,530

that's that's Saturday morning this

2689

02:04:12,040 --> 02:04:08,929

coming yep yeah that should be

2690

02:04:13,630 --> 02:04:12,050

interesting all right you take care ok

2691

02:04:13,959 --> 02:04:13,640

thanks very much mark all right thank

2692

02:04:15,820 --> 02:04:13,969

you

2693

02:04:19,060 --> 02:04:15,830

all right everyone so that's it for the

2694

02:04:23,260 --> 02:04:19,070

show and we will be back next week our

2695

02:04:25,570 --> 02:04:23,270

guests next week will be two people we

2696

02:04:27,220 --> 02:04:25,580

have Peter Robbins and we also have

2697

02:04:30,610 --> 02:04:27,230

Jennifer Stein they're going to be

2698

02:04:33,820 --> 02:04:30,620

talking about their book

2699

02:04:37,030 --> 02:04:33,830

I'm sorry their film coming up and I

2700

02:04:39,040 --> 02:04:37,040

want to thank everyone for hanging out

2701

02:04:42,160 --> 02:04:39,050

tonight we went a little longer than

2702

02:04:45,070 --> 02:04:42,170

normal and we'll be back next week on

2703

02:04:46,900 --> 02:04:45,080

kgr a radio as well all right everyone

2704

02:04:48,280 --> 02:04:46,910

so talk to you later and see you next

2705

02:04:49,190 --> 02:04:48,290

week and remember to keep your eyes to

2706

02:04:55,730 --> 02:04:49,200

the sky