

# KEVIN KNUTH

“The Physics of UAP, with  
some Clues about Their  
Detection, Monitoring,  
and Engineering”



1  
00:00:02,210 --> 00:00:34,790

[Music]

2  
00:00:38,350 --> 00:00:36,869

well thank you so much um Gary and Peter

3  
00:00:40,790 --> 00:00:38,360

for having me and thank you for that

4  
00:00:43,590 --> 00:00:40,800

generous introduction um I'm going to

5  
00:00:46,229 --> 00:00:43,600

talk about what some of the strange

6  
00:00:48,869 --> 00:00:46,239

physics about U uaps I'm going to call

7  
00:00:54,069 --> 00:00:48,879

them UFOs they're I'm interested in the

8  
00:00:59,509 --> 00:00:57,349

and so I'm I am

9  
00:01:01,470 --> 00:00:59,519

skeptical you've all heard this a

10  
00:01:03,549 --> 00:01:01,480

million times at this point and we all

11  
00:01:05,149 --> 00:01:03,559

know that this is code for I'm not going

12  
00:01:07,230 --> 00:01:05,159

to believe a word of what you're going

13  
00:01:09,310 --> 00:01:07,240

to tell me in the next 10 minutes and

14

00:01:14,190 --> 00:01:09,320

I'm not going to stick around very

15

00:01:16,149 --> 00:01:14,200

long and and and when scientists say

16

00:01:17,870 --> 00:01:16,159

this it it it's kind of bothers me

17

00:01:19,710 --> 00:01:17,880

because you're a scientist you ought to

18

00:01:22,630 --> 00:01:19,720

be skeptical you shouldn't need to be

19

00:01:24,590 --> 00:01:22,640

telling me this I I too am skeptical I'm

20

00:01:26,870 --> 00:01:24,600

a scientist I'm skeptical of I am

21

00:01:28,310 --> 00:01:26,880

skeptical of people who assume that when

22

00:01:30,350 --> 00:01:28,320

they see something strange that it's an

23

00:01:34,830 --> 00:01:30,360

alien spacecraft yes I'm very skeptical

24

00:01:37,550 --> 00:01:34,840

of that I'm also skeptical of scientists

25

00:01:39,270 --> 00:01:37,560

who assume that an anomalous observation

26

00:01:40,749 --> 00:01:39,280

has to be an error because they know

27

00:01:43,749 --> 00:01:40,759

their physics and there can't be

28

00:01:46,550 --> 00:01:43,759

anything that strange out there I'm also

29

00:01:49,030 --> 00:01:46,560

skeptical of that and this conversation

30

00:01:50,789 --> 00:01:49,040

usually proceeds to you know something

31

00:01:53,670 --> 00:01:50,799

like that oh the UFO was anomalous no

32

00:01:58,429 --> 00:01:53,680

it's not possible we know our physics um

33

00:02:01,950 --> 00:01:58,439

wave their cell phone around and and

34

00:02:03,990 --> 00:02:01,960

um and this has come up many many times

35

00:02:05,789 --> 00:02:04,000

and it's rather surprising to me that

36

00:02:09,710 --> 00:02:05,799

these scientists believe that we know

37

00:02:12,990 --> 00:02:09,720

our physics when it is widely admitted

38

00:02:15,350 --> 00:02:13,000

that we don't know physics we don't have

39

00:02:17,630 --> 00:02:15,360

a quantum theory of

40

00:02:19,509 --> 00:02:17,640

gravity we don't and we know that

41

00:02:22,470 --> 00:02:19,519

quantum mechanics makes a difference

42

00:02:24,229 --> 00:02:22,480

with Maxwell's equations and

43

00:02:27,350 --> 00:02:24,239

electromagnetism that's what makes this

44

00:02:29,309 --> 00:02:27,360

thing work um qu you would assume that

45

00:02:31,750 --> 00:02:29,319

quantum mechanics will probably make a

46

00:02:33,350 --> 00:02:31,760

difference with gravity as well and you

47

00:02:35,710 --> 00:02:33,360

might be able to do some spectacular

48

00:02:39,149 --> 00:02:35,720

things with that but then again waving

49

00:02:40,670 --> 00:02:39,159

the srone around we know our physics um

50

00:02:43,910 --> 00:02:40,680

Sone is not

51  
00:02:46,070 --> 00:02:43,920  
physics I don't know if most scientists

52  
00:02:47,750 --> 00:02:46,080  
know this yet or not it's not physics

53  
00:02:50,430 --> 00:02:47,760  
it's engineering it's a Triumph of

54  
00:02:53,149 --> 00:02:50,440  
engineering and Engineering is the act

55  
00:02:55,830 --> 00:02:53,159  
of using physics to find workarounds to

56  
00:02:58,509 --> 00:02:55,840  
problems and unfamiliar engineering can

57  
00:03:01,790 --> 00:02:58,519  
look a whole lot like anomalous physics

58  
00:03:03,350 --> 00:03:01,800  
so I am not ready to immediately jump to

59  
00:03:05,430 --> 00:03:03,360  
the conclusion that there's anomalous

60  
00:03:08,350 --> 00:03:05,440  
physics going on when we see some

61  
00:03:09,949 --> 00:03:08,360  
anomalies I'm more inclined to think

62  
00:03:15,149 --> 00:03:09,959  
that there's clearly some clever

63  
00:03:21,990 --> 00:03:19,350

there so what our uip

64

00:03:26,030 --> 00:03:22,000

um this is a horribly

65

00:03:29,149 --> 00:03:26,040

misused phrase It's unidentified is

66

00:03:31,190 --> 00:03:29,159

ambiguous phenomenon ambiguous it's used

67

00:03:33,149 --> 00:03:31,200

to suggest that we do not at all know

68

00:03:35,589 --> 00:03:33,159

what these things are some of these

69

00:03:38,710 --> 00:03:35,599

things are observed very well and

70

00:03:41,750 --> 00:03:38,720

described very well

71

00:03:42,589 --> 00:03:41,760

um it can't just be anything because

72

00:03:44,789 --> 00:03:42,599

it's

73

00:03:46,830 --> 00:03:44,799

unidentified that's

74

00:03:49,830 --> 00:03:46,840

unreasonable and it's complicated

75

00:03:53,830 --> 00:03:49,840

because UAP are a class of phenomena

76

00:03:57,830 --> 00:03:53,840

they're not a single thing and

77

00:03:59,429 --> 00:03:57,840

um the taxa are unknown at this point we

78

00:04:02,270 --> 00:03:59,439

don't know what kind of unknown things

79

00:04:04,069 --> 00:04:02,280

are out there and we should expect there

80

00:04:06,190 --> 00:04:04,079

to be a lot of confusion when we really

81

00:04:07,910 --> 00:04:06,200

start digging in and studying this

82

00:04:10,869 --> 00:04:07,920

there's going to be a conflation of

83

00:04:13,470 --> 00:04:10,879

hypothesis um we're going to confuse one

84

00:04:16,110 --> 00:04:13,480

type of thing with another just like

85

00:04:19,550 --> 00:04:16,120

people who are unfamiliar with birds

86

00:04:21,909 --> 00:04:19,560

might might confuse a hummingbird with a

87

00:04:24,590 --> 00:04:21,919

with a hawk moth which looks very

88

00:04:27,710 --> 00:04:24,600

similar and they're very different

89

00:04:30,629 --> 00:04:27,720

things so I have a recommended strategy

90

00:04:33,310 --> 00:04:30,639

that to reduce probability error we need

91

00:04:35,749 --> 00:04:33,320

multiple independent disparate pieces of

92

00:04:37,950 --> 00:04:35,759

evidence we'll model this after multi

93

00:04:40,270 --> 00:04:37,960

messenger astronomy with many different

94

00:04:43,110 --> 00:04:40,280

instruments many Imaging modalities

95

00:04:44,790 --> 00:04:43,120

multiple observation points and multiple

96

00:04:47,029 --> 00:04:44,800

independent observing groups we've

97

00:04:49,469 --> 00:04:47,039

already seen examples of this from The

98

00:04:52,629 --> 00:04:49,479

Talks by a and

99

00:04:54,550 --> 00:04:52,639

Beatrix and we need to divide and

100

00:04:57,270 --> 00:04:54,560

conquer the extraordinary

101  
00:04:59,749 --> 00:04:57,280  
hypothesis you can handle this by

102  
00:05:02,469 --> 00:04:59,759  
focusing on less controversial aspects

103  
00:05:05,350 --> 00:05:02,479  
of one of these hypotheses and drilling

104  
00:05:08,110 --> 00:05:05,360  
down and slowly slowly getting to that

105  
00:05:10,510 --> 00:05:08,120  
point and then we need to remain

106  
00:05:13,390 --> 00:05:10,520  
agnostic with respect to the hypothesis

107  
00:05:15,670 --> 00:05:13,400  
keep them on the table and let's focus

108  
00:05:17,990 --> 00:05:15,680  
on characteristics what characteristics

109  
00:05:19,710 --> 00:05:18,000  
are we observing um what is the

110  
00:05:21,670 --> 00:05:19,720  
phenomenology especially those

111  
00:05:23,510 --> 00:05:21,680  
characteristics that have implications

112  
00:05:26,270 --> 00:05:23,520  
relevant implications for particular

113  
00:05:28,309 --> 00:05:26,280

hypothesis that's helpful so I'm going

114

00:05:30,350 --> 00:05:28,319

to talk a good bit about today about

115

00:05:34,029 --> 00:05:30,360

mostly about characteristic of uaps

116

00:05:39,990 --> 00:05:37,510

physics we have the from the atip

117

00:05:42,870 --> 00:05:40,000

program we have the five observables

118

00:05:45,110 --> 00:05:42,880

five plus one really um positive lifts

119

00:05:47,189 --> 00:05:45,120

sudden and instantaneous acceleration

120

00:05:49,870 --> 00:05:47,199

Hypersonic velocity without signatures

121

00:05:52,590 --> 00:05:49,880

trans medium travel low observability or

122

00:05:55,670 --> 00:05:52,600

cloaking and biological

123

00:05:57,749 --> 00:05:55,680

effects and I'm going to start out by

124

00:06:03,909 --> 00:05:57,759

talking about pretty much the first

125

00:06:08,589 --> 00:06:05,990

and Gary mentioned the the first paper

126

00:06:11,710 --> 00:06:08,599

that I wrote on this I was interested in

127

00:06:13,550 --> 00:06:11,720

in looking at some of these new cases

128

00:06:16,350 --> 00:06:13,560

especially the nimts

129

00:06:18,110 --> 00:06:16,360

encounter and I found it fascinating

130

00:06:21,589 --> 00:06:18,120

that

131

00:06:23,749 --> 00:06:21,599

um my Graphics isn't quite working here

132

00:06:26,070 --> 00:06:23,759

um I found it fascinating that these

133

00:06:28,870 --> 00:06:26,080

things were these Tic Tac shaped objects

134

00:06:33,469 --> 00:06:28,880

were observed to drop from about 28,000

135

00:06:37,029 --> 00:06:33,479

feet to sea level in 78 seconds that is

136

00:06:40,189 --> 00:06:37,039

crazy and and really anomalous how

137

00:06:42,710 --> 00:06:40,199

anomalous um do the math do the

138

00:06:45,830 --> 00:06:42,720

calculations this is actually um I've

139

00:06:48,670 --> 00:06:45,840

criticized other physicists who've said

140

00:06:50,950 --> 00:06:48,680

well the analysis was rather simple and

141

00:06:52,670 --> 00:06:50,960

and my response to this was like yes you

142

00:06:54,710 --> 00:06:52,680

should have done it your students could

143

00:06:57,230 --> 00:06:54,720

have done it and in fact there was a

144

00:06:59,430 --> 00:06:57,240

class in Georgia a high school class in

145

00:07:01,710 --> 00:06:59,440

Georgia high school physics class that

146

00:07:06,629 --> 00:07:01,720

use this paper as an example on how you

147

00:07:08,710 --> 00:07:06,639

can um do um make estimates of

148

00:07:13,070 --> 00:07:08,720

kinematics

149

00:07:16,550 --> 00:07:13,080

so if you if you um look at this you can

150

00:07:18,909 --> 00:07:16,560

estimate the minimum acceleration which

151  
00:07:21,589 --> 00:07:18,919  
comes about from the object would have

152  
00:07:23,029 --> 00:07:21,599  
accelerated halfway and then decelerated

153  
00:07:24,950 --> 00:07:23,039  
the other half of the way that gives you

154  
00:07:26,869 --> 00:07:24,960  
a a lower Bound for the

155  
00:07:30,390 --> 00:07:26,879  
acceleration which comes out to be

156  
00:07:32,749 --> 00:07:30,400  
around 5,000 G's 5 th000 times the

157  
00:07:34,909 --> 00:07:32,759  
acceleration of gravity um no people

158  
00:07:37,830 --> 00:07:34,919  
aren't going to survive this most

159  
00:07:41,070 --> 00:07:37,840  
equipment won't survive this um an

160  
00:07:46,070 --> 00:07:41,080  
f-35's Wings will rip off at about 13

161  
00:07:50,869 --> 00:07:46,080  
G's so 5,000 G's is really anomalous um

162  
00:07:52,270 --> 00:07:50,879  
yuk and we estimated the power and of

163  
00:07:54,189 --> 00:07:52,280

course to do this you need to know the

164

00:07:56,350 --> 00:07:54,199

mass we don't know the mass these things

165

00:07:57,309 --> 00:07:56,360

were estimated to be about the size of

166

00:08:01,350 --> 00:07:57,319

of an

167

00:08:05,510 --> 00:08:01,360

F18 and an f8 18 is around 10,000 kg of

168

00:08:07,309 --> 00:08:05,520

mass we decided let's take a much lower

169

00:08:09,390 --> 00:08:07,319

bound let's take one/ tenth of that so

170

00:08:13,070 --> 00:08:09,400

we just assuming that this was maybe

171

00:08:14,909 --> 00:08:13,080

one/ tenth of the mass of nf8 you come

172

00:08:17,510 --> 00:08:14,919

out to a power that you can't read under

173

00:08:22,909 --> 00:08:17,520

there easily of

174

00:08:25,670 --> 00:08:22,919

um 1,100 gaw of power this is more than

175

00:08:27,270 --> 00:08:25,680

10 times the total nuclear power output

176

00:08:30,430 --> 00:08:27,280

of the United

177

00:08:33,509 --> 00:08:30,440

States let that sink in for

178

00:08:35,509 --> 00:08:33,519

minute 1,000 gaw if you remember the

179

00:08:39,190 --> 00:08:35,519

movie Back to the Future when he's got

180

00:08:41,110 --> 00:08:39,200

to power up his car 1.2 gws I mean that

181

00:08:44,949 --> 00:08:41,120

was 1.2 and he's all freaking out this

182

00:08:47,590 --> 00:08:44,959

is a thousand this is one craft one

183

00:08:49,630 --> 00:08:47,600

craft the size of an F-18 how does this

184

00:08:50,870 --> 00:08:49,640

happen we don't know this is where the

185

00:08:54,590 --> 00:08:50,880

anomaly

186

00:08:57,550 --> 00:08:54,600

is this has been known for a long

187

00:08:59,430 --> 00:08:57,560

time um Herman alberth was the German

188

00:09:01,630 --> 00:08:59,440

father of modern rocketry he was a

189

00:09:04,269 --> 00:09:01,640

mentor of verer Von

190

00:09:07,670 --> 00:09:04,279

Brun um there's Herman in the front

191

00:09:10,509 --> 00:09:07,680

center the very grumpy gentleman there

192

00:09:12,030 --> 00:09:10,519

um why is he so grumpy he's grumpy

193

00:09:16,350 --> 00:09:12,040

because in

194

00:09:18,389 --> 00:09:16,360

1954 he gave a lecture on flying saucers

195

00:09:21,870 --> 00:09:18,399

where he pointed out that they have been

196

00:09:26,550 --> 00:09:21,880

measured to travel at speeds of 19 kilm

197

00:09:30,030 --> 00:09:26,560

a second which is about 42,000 miles an

198

00:09:31,870 --> 00:09:30,040

hour and he points out that he actually

199

00:09:33,750 --> 00:09:31,880

says if there would only be three or

200

00:09:35,550 --> 00:09:33,760

four measurements I would not rely upon

201  
00:09:37,430 --> 00:09:35,560  
them and would wait for a few further

202  
00:09:40,230 --> 00:09:37,440  
measurements but there is existing more

203  
00:09:45,590 --> 00:09:40,240  
than 50 such measurements radar

204  
00:09:50,910 --> 00:09:48,590  
1954 that's like 70 years ago this was

205  
00:09:55,069 --> 00:09:50,920  
known 70 years ago that these things are

206  
00:10:01,190 --> 00:09:58,110  
speeds why do people always assume their

207  
00:10:03,990 --> 00:10:01,200  
spacecraft it's simple because they fly

208  
00:10:07,509 --> 00:10:04,000  
as fast as spacecraft do this doesn't

209  
00:10:13,590 --> 00:10:07,519  
take a PhD to figure this

210  
00:10:20,790 --> 00:10:17,790  
it um here's another work done by um

211  
00:10:23,069 --> 00:10:20,800  
French researcher Claude Poer who looked

212  
00:10:24,710 --> 00:10:23,079  
at the radar observations at Mino Air

213  
00:10:28,190 --> 00:10:24,720

Force Base in

214

00:10:30,389 --> 00:10:28,200

1968 um really interesting encounter

215

00:10:31,829 --> 00:10:30,399

there where the a plane actually banked

216

00:10:34,710 --> 00:10:31,839

and flew over the UFO which was

217

00:10:36,750 --> 00:10:34,720

egg-shaped and looked like molten lava

218

00:10:41,150 --> 00:10:36,760

um the accelerations were measured to be

219

00:10:43,710 --> 00:10:41,160

2009 GS with a top speed of about 9,000

220

00:10:49,470 --> 00:10:47,710

hour and Jal Airlines across flew across

221

00:10:53,750 --> 00:10:49,480

Anchorage Alaska in

222

00:10:56,269 --> 00:10:53,760

1986 followed by a a large UFO um that

223

00:10:58,030 --> 00:10:56,279

the pilot estimated to be three times

224

00:10:59,550 --> 00:10:58,040

the size of a

225

00:11:02,150 --> 00:10:59,560

747

226

00:11:04,430 --> 00:11:02,160

how wrong can you be with that estimate

227

00:11:08,710 --> 00:11:04,440

okay let's say you're off by

228

00:11:10,550 --> 00:11:08,720

20% Which would be a pretty big error um

229

00:11:12,750 --> 00:11:10,560

this thing's the size of an aircraft

230

00:11:14,710 --> 00:11:12,760

carrier he said when it came in front of

231

00:11:15,590 --> 00:11:14,720

the plane he couldn't see out of the

232

00:11:18,590 --> 00:11:15,600

wind

233

00:11:21,069 --> 00:11:18,600

screen um you're not that wrong at this

234

00:11:24,629 --> 00:11:21,079

point you can't just disbelieve The

235

00:11:26,590 --> 00:11:24,639

Observers um but there exists radar data

236

00:11:30,269 --> 00:11:26,600

um when I summarized it I just I I

237

00:11:32,310 --> 00:11:30,279

analyzed the summary of the data um Dr

238

00:11:33,910 --> 00:11:32,320

kumbe Who was at the Neils bore

239

00:11:36,829 --> 00:11:33,920

Institute did a much better job he

240

00:11:40,310 --> 00:11:36,839

actually recovered the radar data set

241

00:11:44,030 --> 00:11:40,320

and he analyzed 11 jumps made by this

242

00:11:46,389 --> 00:11:44,040

aircraft size object and found that

243

00:11:50,069 --> 00:11:46,399

three of those jumps the aircraft the

244

00:11:52,870 --> 00:11:50,079

the the craft had accelerations of 9,000

245

00:11:56,350 --> 00:11:52,880

GS or

246

00:11:59,629 --> 00:11:56,360

more with a top speed of

247

00:12:02,110 --> 00:11:59,639

269,000 M an hour through the the air no

248

00:12:05,190 --> 00:12:02,120

Sonic booms don't ask me how but this is

249

00:12:08,910 --> 00:12:05,200

the anomaly um

250

00:12:13,470 --> 00:12:08,920

269 m, miles an hour you can get to the

251  
00:12:16,990 --> 00:12:15,870  
minutes why do we think these things

252  
00:12:20,750 --> 00:12:17,000  
might be

253  
00:12:24,150 --> 00:12:20,760  
spacecraft because they move much faster

254  
00:12:27,870 --> 00:12:24,160  
than our spacecraft do um this is should

255  
00:12:27,880 --> 00:12:30,910  
worrisome

256  
00:12:34,750 --> 00:12:32,910  
these exhibit extreme

257  
00:12:36,590 --> 00:12:34,760  
accelerations they've been tracked at

258  
00:12:39,829 --> 00:12:36,600  
Hypersonic speeds in

259  
00:12:42,629 --> 00:12:39,839  
air many times

260  
00:12:43,710 --> 00:12:42,639  
um we they do not make I'm running off

261  
00:12:45,550 --> 00:12:43,720  
the bottom of the screen there they

262  
00:12:47,310 --> 00:12:45,560  
don't make Sonic booms or Fireballs

263  
00:12:50,550 --> 00:12:47,320

which you would expect so something very

264

00:12:52,030 --> 00:12:50,560

strange is going on and one thing that's

265

00:12:54,629 --> 00:12:52,040

almost never mentioned is there's no

266

00:12:57,870 --> 00:12:54,639

energy deposition when they

267

00:13:00,910 --> 00:12:57,880

stop this thing drops from 28,000 fet to

268

00:13:03,670 --> 00:13:00,920

sea level um getting up to about 42,000

269

00:13:06,189 --> 00:13:03,680

M hour in the middle and then stops

270

00:13:07,389 --> 00:13:06,199

where did all that energy go well you

271

00:13:09,870 --> 00:13:07,399

know first you worry about where it came

272

00:13:11,790 --> 00:13:09,880

from but where did it go um energy

273

00:13:13,870 --> 00:13:11,800

doesn't just disappear when this thing

274

00:13:15,750 --> 00:13:13,880

comes to a stop there ought to have been

275

00:13:17,790 --> 00:13:15,760

an explosion and given the amount of

276

00:13:19,030 --> 00:13:17,800

power that it took you can estimate how

277

00:13:21,470 --> 00:13:19,040

big that would have been it should have

278

00:13:25,509 --> 00:13:21,480

been an explosion about about with about

279

00:13:28,230 --> 00:13:25,519

two the same amount of energy is 250 um

280

00:13:30,629 --> 00:13:28,240

Tomahawk cruise missiles simultaneously

281

00:13:31,389 --> 00:13:30,639

blowing that's what should have happened

282

00:13:34,990 --> 00:13:31,399

it

283

00:13:37,389 --> 00:13:35,000

didn't what's going on we don't know but

284

00:13:39,949 --> 00:13:37,399

these are I treat these all as Clues

285

00:13:43,069 --> 00:13:39,959

these are Clues to be used to figure out

286

00:13:47,829 --> 00:13:45,110

work now I'm mentioning them that

287

00:13:50,749 --> 00:13:47,839

they're going spacecraft speeds this is

288

00:13:54,230 --> 00:13:50,759

really remarkable so here's on the left

289

00:13:57,749 --> 00:13:54,240

is a plot of a ship speed under constant

290

00:13:59,310 --> 00:13:57,759

acceleration if you accelerate at 1,000

291

00:14:02,269 --> 00:13:59,320

G's

292

00:14:04,189 --> 00:14:02,279

you can get to this to 90% the speed of

293

00:14:07,150 --> 00:14:04,199

light in 17

294

00:14:08,550 --> 00:14:07,160

hours you can get up to 90% the speed of

295

00:14:10,430 --> 00:14:08,560

light in less than a day if you can

296

00:14:13,550 --> 00:14:10,440

maintain that acceleration in space

297

00:14:16,509 --> 00:14:13,560

that's it 1,000 G's the Tic Tac case we

298

00:14:19,550 --> 00:14:16,519

estimated to be about 5,000 G's um the

299

00:14:23,470 --> 00:14:19,560

Jal Airlines case was 10,000

300

00:14:27,550 --> 00:14:23,480

G's at 10,000 G's you can you can get up

301  
00:14:30,590 --> 00:14:27,560  
to 90% the speed of light much much

302  
00:14:32,310 --> 00:14:30,600  
faster um how far can you go this way

303  
00:14:35,030 --> 00:14:32,320  
well once you're traveling close to the

304  
00:14:37,350 --> 00:14:35,040  
speed of light relativity kicks in and

305  
00:14:39,509 --> 00:14:37,360  
so for the traveler you can Traverse

306  
00:14:42,430 --> 00:14:39,519  
great distances in short periods of time

307  
00:14:44,389 --> 00:14:42,440  
for us home bodies who stay at home

308  
00:14:46,629 --> 00:14:44,399  
it'll take years and years and years for

309  
00:14:49,350 --> 00:14:46,639  
them to get somewh but not for the

310  
00:14:52,230 --> 00:14:49,360  
traveler so the plot on the right shows

311  
00:14:55,110 --> 00:14:52,240  
you how far you could go and how fast so

312  
00:14:58,389 --> 00:14:55,120  
at 2,000 G's you can get to proximate

313  
00:15:02,269 --> 00:14:58,399

Centurion about 3 days the nearest star

314

00:15:05,470 --> 00:15:02,279

um you could at 10,000 G's you can get

315

00:15:09,550 --> 00:15:05,480

to all of those Stars within 50 Lighty

316

00:15:12,829 --> 00:15:09,560

years um in less than a day it's a day

317

00:15:15,150 --> 00:15:12,839

trip from a star 50 light years away to

318

00:15:17,590 --> 00:15:15,160

Earth for you U for the rest of us it's

319

00:15:22,189 --> 00:15:19,949

years it's

320

00:15:24,670 --> 00:15:22,199

possible and and we know this from

321

00:15:26,110 --> 00:15:24,680

physics because we know our physics um

322

00:15:28,150 --> 00:15:26,120

yet the people who know their physics

323

00:15:30,269 --> 00:15:28,160

don't believe this is possible there's

324

00:15:33,230 --> 00:15:30,279

those strange thing going on here in the

325

00:15:37,829 --> 00:15:35,990

people not only do these objects have

326

00:15:39,949 --> 00:15:37,839

the flight characteristics necessary for

327

00:15:43,670 --> 00:15:39,959

Interstellar travel they would make

328

00:15:47,069 --> 00:15:43,680

excellent Interstellar Craft

329

00:15:49,670 --> 00:15:47,079

um this isn't the only aspect that's

330

00:15:52,069 --> 00:15:49,680

interesting um luminous their Luminosity

331

00:15:54,550 --> 00:15:52,079

is always puzzling these things aren't

332

00:15:57,189 --> 00:15:54,560

Landing in Central Park I hate saying

333

00:15:59,749 --> 00:15:57,199

the White House lawn it's so

334

00:16:03,389 --> 00:15:59,759

nationalistic as if that's a great place

335

00:16:06,150 --> 00:16:03,399

to land but they don't land in Central

336

00:16:07,829 --> 00:16:06,160

Park yet they're bright they fly they

337

00:16:09,910 --> 00:16:07,839

fly all over the place with these bright

338

00:16:11,550 --> 00:16:09,920

lights on they're not trying to hide and

339

00:16:13,430 --> 00:16:11,560

when you look at this Luminosity it's

340

00:16:15,350 --> 00:16:13,440

it's a little they're extremely luminous

341

00:16:18,030 --> 00:16:15,360

here's three photos of very

342

00:16:19,629 --> 00:16:18,040

luminous um UFOs and it's hard to

343

00:16:21,629 --> 00:16:19,639

interpret these pictures because they're

344

00:16:25,550 --> 00:16:21,639

so

345

00:16:33,670 --> 00:16:30,230

left was analyzed by um Dr Bruce mcabe

346

00:16:37,990 --> 00:16:33,680

and then um also um summarized and

347

00:16:42,269 --> 00:16:38,000

reported by by jacqu Valle Dr Valle and

348

00:16:45,309 --> 00:16:42,279

if you they were able to look at the

349

00:16:48,069 --> 00:16:45,319

um the original the original photograph

350

00:16:51,470 --> 00:16:48,079

and measur the exposure level and if you

351  
00:16:55,629 --> 00:16:51,480  
do this you find that the luminosities

352  
00:16:58,949 --> 00:16:55,639  
are on the order of 2,000 to 30,000

353  
00:17:02,670 --> 00:16:58,959  
megawatt of light coming off of this

354  
00:17:06,270 --> 00:17:02,680  
craft who the heck

355  
00:17:09,429 --> 00:17:06,280  
needs 1,000 megawatt lights and what

356  
00:17:12,590 --> 00:17:09,439  
would you use them for why would you do

357  
00:17:14,110 --> 00:17:12,600  
this doesn't make any sense I have no

358  
00:17:16,150 --> 00:17:14,120  
idea what the purpose of such a light

359  
00:17:20,590 --> 00:17:16,160  
would be

360  
00:17:22,750 --> 00:17:20,600  
um if you perhaps couldn't help it if

361  
00:17:25,230 --> 00:17:22,760  
you had a propulsion system that somehow

362  
00:17:26,750 --> 00:17:25,240  
gave off light like this as a as a

363  
00:17:28,470 --> 00:17:26,760

byproduct that would give you a clue as

364

00:17:29,669 --> 00:17:28,480

to how their propulsion systems work

365

00:17:33,470 --> 00:17:29,679

which is interesting that's what I'm

366

00:17:35,430 --> 00:17:33,480

interested in but then you have to worry

367

00:17:38,190 --> 00:17:35,440

what kind of people have propulsion

368

00:17:40,110 --> 00:17:38,200

systems that waste thousands of

369

00:17:44,029 --> 00:17:40,120

megawatts and they don't really care

370

00:17:45,669 --> 00:17:44,039

about it um that tells you something

371

00:17:48,150 --> 00:17:45,679

about the amounts of energy that they're

372

00:17:51,029 --> 00:17:48,160

willing and able to play with um so

373

00:17:54,430 --> 00:17:51,039

maybe this is important information now

374

00:17:56,710 --> 00:17:54,440

it's possible that the assumptions that

375

00:17:58,909 --> 00:17:56,720

went in here was that the object was

376

00:18:01,310 --> 00:17:58,919

radiating uniformly now if you're

377

00:18:03,830 --> 00:18:01,320

putting out 30,000 megawatt of light in

378

00:18:06,190 --> 00:18:03,840

this picture um the amount of light

379

00:18:09,070 --> 00:18:06,200

hitting those clouds would be about 1/3

380

00:18:12,310 --> 00:18:09,080

of total daylight and you don't see the

381

00:18:15,710 --> 00:18:12,320

clouds being illuminated so it probably

382

00:18:17,909 --> 00:18:15,720

isn't um shining

383

00:18:20,190 --> 00:18:17,919

uniformly it could have been that it

384

00:18:24,270 --> 00:18:20,200

directed A light at the planes and if it

385

00:18:25,950 --> 00:18:24,280

did that you can revise the estimate and

386

00:18:28,390 --> 00:18:25,960

you get a much lower estimate of the

387

00:18:31,270 --> 00:18:28,400

power which is about comes up to close

388

00:18:34,029 --> 00:18:31,280

to 2 kilow still a lot of power for a

389

00:18:36,230 --> 00:18:34,039

light and why it would shine a light at

390

00:18:39,029 --> 00:18:36,240

the airplanes flying by

391

00:18:40,710 --> 00:18:39,039

it's again it's hard to interpret what's

392

00:18:43,510 --> 00:18:40,720

going on

393

00:18:46,870 --> 00:18:43,520

here but it's extraordinary

394

00:18:48,470 --> 00:18:46,880

certainly so um Dr Valle has had had

395

00:18:51,630 --> 00:18:48,480

summarized other luminous power

396

00:18:55,230 --> 00:18:51,640

estimates from tens of kilowatts to 500

397

00:18:57,310 --> 00:18:55,240

megawatts um thousands of megawatts of

398

00:19:00,549 --> 00:18:57,320

power itself is

399

00:19:01,909 --> 00:19:00,559

shocking um these powers are again on

400

00:19:05,149 --> 00:19:01,919

the order of what you expect from a

401  
00:19:06,350 --> 00:19:05,159  
nuclear power plant and and they're

402  
00:19:08,510 --> 00:19:06,360  
similar to what we're seeing in the

403  
00:19:10,710 --> 00:19:08,520  
Maneuvers

404  
00:19:13,310 --> 00:19:10,720  
so so there's some interesting

405  
00:19:16,870 --> 00:19:13,320  
information here now there are also

406  
00:19:22,950 --> 00:19:20,270  
effects you might recall the scene from

407  
00:19:24,750 --> 00:19:22,960  
Close Encounters of the Third Kind where

408  
00:19:27,070 --> 00:19:24,760  
Richard dfus is in his truck

409  
00:19:29,270 --> 00:19:27,080  
investigating power outages and the UFO

410  
00:19:33,590 --> 00:19:29,280  
flies over his truck and the truck stops

411  
00:19:36,270 --> 00:19:33,600  
running um mccampbell in 1983 had

412  
00:19:38,830 --> 00:19:36,280  
identified several automobile

413  
00:19:41,789 --> 00:19:38,840

interference types you get engine

414

00:19:43,270 --> 00:19:41,799

disruption and failure the engines

415

00:19:44,510 --> 00:19:43,280

sometimes fail to restart in the

416

00:19:49,350 --> 00:19:44,520

vicinity of a

417

00:19:51,590 --> 00:19:49,360

UFO and When the UFO leaves sometimes

418

00:19:54,630 --> 00:19:51,600

the engine

419

00:19:56,590 --> 00:19:54,640

restarts when I saw that in the movie I

420

00:19:58,669 --> 00:19:56,600

was like oh this is just silly at this

421

00:20:00,830 --> 00:19:58,679

point engines don't just restart you

422

00:20:04,230 --> 00:20:00,840

can't just how is the UFO magically

423

00:20:06,470 --> 00:20:04,240

restarting the engine

424

00:20:08,149 --> 00:20:06,480

um well if you think about the physics

425

00:20:12,070 --> 00:20:08,159

you can reason through this and this is

426

00:20:17,029 --> 00:20:14,230

done if you have a strong enough

427

00:20:19,669 --> 00:20:17,039

electric field around this UFO you could

428

00:20:21,230 --> 00:20:19,679

possibly be ionizing the air how strong

429

00:20:25,750 --> 00:20:21,240

has this field got to be it's got to be

430

00:20:29,029 --> 00:20:25,760

on the order of three \* 10<sup>6</sup> volts per

431

00:20:31,270 --> 00:20:29,039

meter that'll short out the spark plugs

432

00:20:34,310 --> 00:20:31,280

in the car it'll short out the

433

00:20:38,990 --> 00:20:34,320

distributor cam so the car will stop

434

00:20:42,070 --> 00:20:39,000

running if it's a gasoline engine if you

435

00:20:44,470 --> 00:20:42,080

have a diesel engine like the Ford 170

436

00:20:46,830 --> 00:20:44,480

in this movie it should not stop running

437

00:20:51,270 --> 00:20:49,750

Spielberg so his car should not have

438

00:20:54,110 --> 00:20:51,280

stopped

439

00:20:55,789 --> 00:20:54,120

now what I found fascinating basically

440

00:20:57,510 --> 00:20:55,799

what we're doing here is kind of fun

441

00:20:59,149 --> 00:20:57,520

we're using a vehicle as an electric

442

00:21:01,230 --> 00:20:59,159

field detector

443

00:21:04,710 --> 00:21:01,240

um I don't have to calibrate it so I can

444

00:21:07,350 --> 00:21:04,720

go back and look at reports and and you

445

00:21:09,470 --> 00:21:07,360

can rather sometimes trust reports

446

00:21:10,990 --> 00:21:09,480

because people probably don't have much

447

00:21:13,830 --> 00:21:11,000

of a hard time telling whether their car

448

00:21:16,830 --> 00:21:13,840

died or not

449

00:21:18,750 --> 00:21:16,840

so all right so if you are shorting out

450

00:21:21,110 --> 00:21:18,760

the spark plugs the engine can't fire so

451  
00:21:23,830 --> 00:21:21,120  
the engine stops running um why would a

452  
00:21:28,710 --> 00:21:23,840  
car restart well this is basically a

453  
00:21:31,310 --> 00:21:28,720  
circuit diagram of of the um circuitry

454  
00:21:33,789 --> 00:21:31,320  
in an old car a pre-comp computerized

455  
00:21:35,750 --> 00:21:33,799  
car you're shorting out the spark plug

456  
00:21:38,630 --> 00:21:35,760  
it can't fire you're

457  
00:21:41,830 --> 00:21:38,640  
also going to short out the distributor

458  
00:21:45,149 --> 00:21:41,840  
cam so you've got

459  
00:21:48,510 --> 00:21:45,159  
current running through the primary of

460  
00:21:50,510 --> 00:21:48,520  
the ignition coil so this ignition coil

461  
00:21:53,029 --> 00:21:50,520  
has a magnetic

462  
00:21:55,870 --> 00:21:53,039  
field and the way the car works is it

463  
00:21:57,549 --> 00:21:55,880

creates a magnetic field it then turns

464

00:21:59,390 --> 00:21:57,559

off that magnetic field collapses

465

00:22:01,110 --> 00:21:59,400

induces is a current higher a current in

466

00:22:04,029 --> 00:22:01,120

the secondary at a higher voltage which

467

00:22:05,430 --> 00:22:04,039

goes to the spark plug and it fires now

468

00:22:06,990 --> 00:22:05,440

when the UFO is hovering over here

469

00:22:09,149 --> 00:22:07,000

you've shorted out everything so the

470

00:22:10,950 --> 00:22:09,159

spark plug can't fire but you've got a

471

00:22:13,630 --> 00:22:10,960

large magnetic field sitting at the

472

00:22:17,630 --> 00:22:13,640

primary coil now the UFO

473

00:22:19,950 --> 00:22:17,640

leaves the switches all stop shorting

474

00:22:22,430 --> 00:22:19,960

out the current stops flowing the

475

00:22:24,789 --> 00:22:22,440

magnetic field collapses induces a

476  
00:22:27,669 --> 00:22:24,799  
current in the secondary which sends a

477  
00:22:29,470 --> 00:22:27,679  
pulse to the spark plug and if you work

478  
00:22:33,230 --> 00:22:29,480  
through how the stroke of the engine

479  
00:22:35,470 --> 00:22:33,240  
works the 720° cycle stroke of a of an

480  
00:22:40,950 --> 00:22:35,480  
engine you find that the power stroke

481  
00:22:43,470 --> 00:22:40,960  
takes 145° out of that 70° 720° stroke

482  
00:22:46,350 --> 00:22:43,480  
which is about 20% of the time the

483  
00:22:49,590 --> 00:22:46,360  
Piston is in a power stroke State and

484  
00:22:52,430 --> 00:22:49,600  
about half of that time it has got fuel

485  
00:22:55,950 --> 00:22:52,440  
in there ready to fire that pulse comes

486  
00:22:58,710 --> 00:22:55,960  
and hits the spark plug 10% of the time

487  
00:23:01,549 --> 00:22:58,720  
that piston will fire the car restarts

488  
00:23:05,149 --> 00:23:01,559

s and if you look at the data you find

489

00:23:08,269 --> 00:23:05,159

that only 10% of the cars that are

490

00:23:11,750 --> 00:23:08,279

stopped by a UFO restart when it leaves

491

00:23:14,350 --> 00:23:11,760

the numbers match um in riger's catalog

492

00:23:17,110 --> 00:23:14,360

you he has 268 cases in which the engine

493

00:23:19,190 --> 00:23:17,120

stops and in 27 of those it restarts

494

00:23:22,070 --> 00:23:19,200

when it leaves and you can understand

495

00:23:25,669 --> 00:23:22,080

this once you understand how the system

496

00:23:27,390 --> 00:23:25,679

works physics it's it's not magic these

497

00:23:33,390 --> 00:23:27,400

things are not magically starting up a

498

00:23:37,470 --> 00:23:35,830

reasonable now the problem what makes

499

00:23:40,430 --> 00:23:37,480

this really anomalous is the electric

500

00:23:42,430 --> 00:23:40,440

field electric fields on the order of 10

501  
00:23:44,909 --> 00:23:42,440  
the 6 volts per meter generated by a

502  
00:23:47,110 --> 00:23:44,919  
small UFO are going to require several

503  
00:23:48,190 --> 00:23:47,120  
kums of charge which is a crazy amount

504  
00:23:51,269 --> 00:23:48,200  
of electric

505  
00:23:54,350 --> 00:23:51,279  
charge and that's about 10 to the 9th

506  
00:23:56,990 --> 00:23:54,360  
jewels of energy again huge huge huge

507  
00:23:58,990 --> 00:23:57,000  
amounts of energy not so surprising

508  
00:24:01,070 --> 00:23:59,000  
anymore considering the Luminosity as

509  
00:24:06,149 --> 00:24:01,080  
we've seen and the

510  
00:24:08,909 --> 00:24:06,159  
Maneuvers they also create huge magnetic

511  
00:24:12,669 --> 00:24:08,919  
fields and

512  
00:24:16,190 --> 00:24:12,679  
the light in the sky is naturally

513  
00:24:18,149 --> 00:24:16,200

polarized and these huge magnetic fields

514

00:24:19,870 --> 00:24:18,159

can create an can cause an effect called

515

00:24:22,230 --> 00:24:19,880

the feraday effect which rotates the

516

00:24:24,549 --> 00:24:22,240

polarization of the light so if you take

517

00:24:27,549 --> 00:24:24,559

a photograph of a UFO with a polarizing

518

00:24:30,950 --> 00:24:27,559

filter which I recommend for this reason

519

00:24:33,029 --> 00:24:30,960

you will see um that you'll get rings

520

00:24:35,590 --> 00:24:33,039

around the UFO if it has a large

521

00:24:37,350 --> 00:24:35,600

magnetic field um this has been observed

522

00:24:40,350 --> 00:24:37,360

and it's been photographed this is a

523

00:24:42,950 --> 00:24:40,360

photograph that Mis published in

524

00:24:46,909 --> 00:24:42,960

2012 showing Faraday what looked like

525

00:24:49,230 --> 00:24:46,919

Faraday rings around a UA UFO

526  
00:24:50,909 --> 00:24:49,240  
um however the magnetic fields

527  
00:24:54,909 --> 00:24:50,919  
generating this have got to be on the

528  
00:24:58,590 --> 00:24:54,919  
order of 10 to the 11th to 10 13th um

529  
00:25:00,549 --> 00:24:58,600  
amp met squar that's the the magnetic

530  
00:25:04,350 --> 00:25:00,559  
field the dipole moment of the magnetic

531  
00:25:06,269 --> 00:25:04,360  
field huge huge huge huge huge again

532  
00:25:08,990 --> 00:25:06,279  
maybe not so surprising anymore since

533  
00:25:16,110 --> 00:25:09,000  
we've already talked about three um

534  
00:25:21,029 --> 00:25:18,430  
huge the other strange thing that these

535  
00:25:24,389 --> 00:25:21,039  
things do is the trans medium travel and

536  
00:25:27,470 --> 00:25:24,399  
there's an affinity for water

537  
00:25:30,149 --> 00:25:27,480  
um so this is from agadia you can see

538  
00:25:31,909 --> 00:25:30,159

the UFO dips into the water doesn't make

539

00:25:34,310 --> 00:25:31,919

a splash doesn't seem to affect the

540

00:25:37,430 --> 00:25:34,320

water very much and in fact the analysis

541

00:25:40,230 --> 00:25:37,440

done by SCU in the lower right shows

542

00:25:42,350 --> 00:25:40,240

that as the UFO hits the water at about

543

00:25:44,430 --> 00:25:42,360

1,000 miles an hour or thousand l'm

544

00:25:46,950 --> 00:25:44,440

sorry 100 miles an

545

00:25:49,430 --> 00:25:46,960

hour it continues traveling through the

546

00:25:52,070 --> 00:25:49,440

water at around the same speed it only

547

00:25:56,389 --> 00:25:52,080

drops down to about 85 mil an hour and

548

00:26:04,909 --> 00:26:01,470

points more remarkably I talked to um uh

549

00:26:09,750 --> 00:26:04,919

veteran David Barnett from New Zealand

550

00:26:12,630 --> 00:26:09,760

he was a sonar operator on the hmns mzs

551  
00:26:14,669 --> 00:26:12,640  
new Ze Southland in New Zealand in

552  
00:26:18,710 --> 00:26:14,679  
November of

553  
00:26:21,950 --> 00:26:18,720  
1986 um this is when J Airlines happened

554  
00:26:24,470 --> 00:26:21,960  
right I just realized this um in

555  
00:26:26,470 --> 00:26:24,480  
February so their their their ex they

556  
00:26:28,350 --> 00:26:26,480  
were performing exercises that where

557  
00:26:31,750 --> 00:26:28,360  
they would leave out of AU head out of

558  
00:26:33,950 --> 00:26:31,760  
the heroi gulf into the Pacific Ocean

559  
00:26:36,510 --> 00:26:33,960  
about and and then turn around and come

560  
00:26:37,990 --> 00:26:36,520  
back in and they were to turn on their

561  
00:26:41,710 --> 00:26:38,000  
sonars to see if they were being

562  
00:26:45,470 --> 00:26:41,720  
followed by unidentified submerged

563  
00:26:47,430 --> 00:26:45,480

objects and this they were followed they

564

00:26:50,269 --> 00:26:47,440

would do this several times a day for

565

00:26:54,070 --> 00:26:50,279

weeks and many times they were followed

566

00:26:55,830 --> 00:26:54,080

back in usually by one or two small Usos

567

00:26:58,990 --> 00:26:55,840

that did not have propeller wash so they

568

00:27:00,549 --> 00:26:59,000

couldn't identify what they were um then

569

00:27:03,389 --> 00:27:00,559

and as they got back into the Gulf the

570

00:27:04,909 --> 00:27:03,399

Usos would usually take off um in one

571

00:27:07,470 --> 00:27:04,919

occasion in

572

00:27:11,870 --> 00:27:07,480

February they were followed by a large

573

00:27:14,310 --> 00:27:11,880

Use which beamed about 150 ft wide and

574

00:27:15,909 --> 00:27:14,320

when they finally made a sharp 45 a

575

00:27:17,190 --> 00:27:15,919

sharp turn where they had to bank it

576  
00:27:20,950 --> 00:27:17,200  
about

577  
00:27:23,110 --> 00:27:20,960  
45° um at 20 some knots um they were

578  
00:27:25,310 --> 00:27:23,120  
able to get a view from it from the side

579  
00:27:29,190 --> 00:27:25,320  
and it was 800 ft

580  
00:27:32,630 --> 00:27:29,200  
long um about 30 % longer than a typhoon

581  
00:27:34,549 --> 00:27:32,640  
class submarine this is a big craft and

582  
00:27:36,149 --> 00:27:34,559  
it was following them and it did not

583  
00:27:39,070 --> 00:27:36,159  
break away once they got to the heroi

584  
00:27:40,750 --> 00:27:39,080  
gulf so they maintained top speed they

585  
00:27:45,230 --> 00:27:40,760  
try they made some more turns to try to

586  
00:27:48,990 --> 00:27:45,240  
shake it and when they did this the 800t

587  
00:27:51,350 --> 00:27:49,000  
Uso closed the distance of 20 km it was

588  
00:27:55,070 --> 00:27:51,360

20 km behind them it closed that

589

00:27:56,149 --> 00:27:55,080

distance in about 30 seconds went under

590

00:27:58,590 --> 00:27:56,159

their

591

00:28:00,710 --> 00:27:58,600

ship and

592

00:28:03,669 --> 00:28:00,720

K took all killed all the power the ship

593

00:28:05,789 --> 00:28:03,679

lost power batteries drained um they

594

00:28:08,149 --> 00:28:05,799

were basically a drift and couldn't call

595

00:28:10,070 --> 00:28:08,159

for help and they had to wait for 4

596

00:28:12,310 --> 00:28:10,080

hours before they could wave down a

597

00:28:15,590 --> 00:28:12,320

fishing boat to be able to call for help

598

00:28:20,350 --> 00:28:15,600

and be rescued um you can estimate the

599

00:28:24,110 --> 00:28:20,360

minimum speed of the Ussr underwater the

600

00:28:26,110 --> 00:28:24,120

minimum speed is around 1500 mil hour

601  
00:28:28,350 --> 00:28:26,120  
that would assume that you immediately

602  
00:28:30,669 --> 00:28:28,360  
accelerate to, 1500 miles an hour and

603  
00:28:33,750 --> 00:28:30,679  
then Cruise under the ship um the

604  
00:28:36,590 --> 00:28:33,760  
minimum acceleration though would be one

605  
00:28:40,909 --> 00:28:36,600  
where you accelerate at a minimum rate

606  
00:28:44,350 --> 00:28:40,919  
of 4.5 G's underwater but reaching a top

607  
00:28:46,750 --> 00:28:44,360  
speed of about almost 3,000 M an hour

608  
00:28:49,630 --> 00:28:46,760  
these things are very strange and it's

609  
00:28:51,630 --> 00:28:49,640  
really bizarre because just like UFOs

610  
00:28:53,389 --> 00:28:51,640  
don't seem to interact with air this

611  
00:28:57,029 --> 00:28:53,399  
thing didn't seem to be worried about

612  
00:28:58,230 --> 00:28:57,039  
any water resistance um however the sun

613  
00:29:01,549 --> 00:28:58,240

are still

614

00:29:04,430 --> 00:29:01,559

worked and sonar works by a pressure

615

00:29:06,870 --> 00:29:04,440

wave hitting the hitting the craft and

616

00:29:09,149 --> 00:29:06,880

bouncing off so if a pressure wave can

617

00:29:10,750 --> 00:29:09,159

interact with the craft why isn't the

618

00:29:11,909 --> 00:29:10,760

craft seem to be interacting with the

619

00:29:14,509 --> 00:29:11,919

water when it's

620

00:29:17,110 --> 00:29:14,519

moving maybe we're not understanding how

621

00:29:20,389 --> 00:29:17,120

they're moving at all and we've got some

622

00:29:25,389 --> 00:29:23,470

here this is not old the trans medium

623

00:29:28,110 --> 00:29:25,399

travel of UFOs has been observed and

624

00:29:30,350 --> 00:29:28,120

recorded for about 140 years none of

625

00:29:32,909 --> 00:29:30,360

this is old why I think Sean Kirkpatrick

626  
00:29:34,830 --> 00:29:32,919  
left Arrow recently and he made some

627  
00:29:38,070 --> 00:29:34,840  
kind of public statement these things

628  
00:29:40,350 --> 00:29:38,080  
are either foreign adversaries or alien

629  
00:29:42,990 --> 00:29:40,360  
not 140 years ago they're not foreign

630  
00:29:45,669 --> 00:29:43,000  
adversaries um certainly not in the 40s

631  
00:29:48,230 --> 00:29:45,679  
or 1954 when Herman oberth talked about

632  
00:29:51,269 --> 00:29:48,240  
them he's still grumpy nobody's

633  
00:29:55,549 --> 00:29:54,190  
um and and and and I have a strange

634  
00:29:57,750 --> 00:29:55,559  
recommendation here we should be

635  
00:29:59,430 --> 00:29:57,760  
watching our oceans more carefully we

636  
00:30:01,549 --> 00:29:59,440  
don't have good satellite coverage over

637  
00:30:03,310 --> 00:30:01,559  
our oceans because we just assume

638  
00:30:04,750 --> 00:30:03,320

there's nothing there um there's

639

00:30:08,269 --> 00:30:04,760

something there that we should be

640

00:30:10,710 --> 00:30:08,279

concerned about um moreover we shouldn't

641

00:30:13,549 --> 00:30:10,720

just be watching our oceans we have

642

00:30:16,070 --> 00:30:13,559

other oceans in our solar system too and

643

00:30:18,590 --> 00:30:16,080

maybe we should be watching them as well

644

00:30:20,789 --> 00:30:18,600

so that I would also recommend even

645

00:30:23,149 --> 00:30:20,799

though I don't expect us anybody to take

646

00:30:25,710 --> 00:30:23,159

on such a task in the near

647

00:30:28,950 --> 00:30:25,720

future so I'm going to Quick tell you

648

00:30:32,430 --> 00:30:28,960

one interesting thing and I'll finish

649

00:30:35,310 --> 00:30:32,440

here we at UAP ex were trying to figure

650

00:30:38,950 --> 00:30:35,320

out how we can lure UFOs into to study

651

00:30:42,590 --> 00:30:38,960

them um or make contact right so how can

652

00:30:45,310 --> 00:30:42,600

you do this um my colleague close

653

00:30:48,710 --> 00:30:45,320

colleague and friend Matthew

654

00:30:51,070 --> 00:30:48,720

shagas was we we we finally settled on

655

00:30:53,789 --> 00:30:51,080

the fact that UFOs have an interest in

656

00:30:56,029 --> 00:30:53,799

and an ability to detect nuclear weapons

657

00:30:59,470 --> 00:30:56,039

some of them underground some of them in

658

00:31:02,750 --> 00:30:59,480

bunkers or in storage Depot um how do

659

00:31:04,389 --> 00:31:02,760

they do this are they using neutrinos or

660

00:31:08,870 --> 00:31:04,399

which are really hard to detect are they

661

00:31:11,789 --> 00:31:08,880

using gamma rays um we don't know but my

662

00:31:16,029 --> 00:31:11,799

colleague has developed a new technology

663

00:31:17,789 --> 00:31:16,039

it is a basically handheld Lithium

664

00:31:20,389 --> 00:31:17,799

powered nuclear fusion reactor which

665

00:31:23,549 --> 00:31:20,399

he's now patenting so he's developed a

666

00:31:25,509 --> 00:31:23,559

nuclear reactor and the idea is to go

667

00:31:28,190 --> 00:31:25,519

out and power our UFO observing

668

00:31:30,629 --> 00:31:28,200

equipment with this new nuclear

669

00:31:32,669 --> 00:31:30,639

and maybe these guys will detect our

670

00:31:34,350 --> 00:31:32,679

nuclear reactor and come down and find

671

00:31:37,830 --> 00:31:34,360

out what those crazy monkeys are up to

672

00:31:38,710 --> 00:31:37,840

this time and we can get some imagery or

673

00:31:42,110 --> 00:31:38,720

some

674

00:31:44,509 --> 00:31:42,120

data so that's our that's our plan and

675

00:31:48,110 --> 00:31:44,519

we also have our new U apx we have a

676

00:31:50,389 --> 00:31:48,120

paper coming out um early next year on

677

00:31:52,029 --> 00:31:50,399

our uh the initial results from our

678

00:31:54,789 --> 00:31:52,039

first field

679

00:31:56,149 --> 00:31:54,799

Expeditions so thank you very much for

680

00:32:05,230 --> 00:31:56,159

your kind