

# Weak Signal Propagation Reporter (WSPR)

Douglas Richards



**SOCIETY  
FOR  
SCIENTIFIC  
EXPLORATION**

1  
00:00:08,710 --> 00:00:05,990

[Music]

2  
00:00:10,549 --> 00:00:08,720

anyway i'm doug richards and uh i'm with

3  
00:00:12,870 --> 00:00:10,559

atlantic university in virginia beach

4  
00:00:15,190 --> 00:00:12,880

which is a trans-personal psychology

5  
00:00:17,910 --> 00:00:15,200

program but this actually has more to do

6  
00:00:19,830 --> 00:00:17,920

with my uh my other work which is in

7  
00:00:21,269 --> 00:00:19,840

radio communication and how that might

8  
00:00:23,189 --> 00:00:21,279

have an implication for anomalies

9  
00:00:24,950 --> 00:00:23,199

research so it's called weak signal

10  
00:00:25,910 --> 00:00:24,960

propagation reporter which is pronounced

11  
00:00:27,589 --> 00:00:25,920

whisper

12  
00:00:29,349 --> 00:00:27,599

implications for anomalies research and

13  
00:00:32,630 --> 00:00:29,359

what you're seeing there on the screen

14

00:00:34,790 --> 00:00:32,640

is an example of where my signal can be

15

00:00:36,950 --> 00:00:34,800

heard with a tiny signal all over the

16

00:00:39,110 --> 00:00:36,960

world

17

00:00:41,030 --> 00:00:39,120

so what is weak signal propagation

18

00:00:42,790 --> 00:00:41,040

reporter whisper

19

00:00:45,270 --> 00:00:42,800

it's a signal processing algorithm for

20

00:00:46,790 --> 00:00:45,280

extremely weak radio signals and there

21

00:00:49,110 --> 00:00:46,800

are hundreds of stations worldwide

22

00:00:51,350 --> 00:00:49,120

uploading to the whispernet database

23

00:00:52,950 --> 00:00:51,360

so what you're seeing there is i am

24

00:00:55,270 --> 00:00:52,960

located move my

25

00:00:57,029 --> 00:00:55,280

little arrow maybe you can see that

26  
00:00:58,549 --> 00:00:57,039  
over here on the east coast in virginia

27  
00:01:00,790 --> 00:00:58,559  
beach and

28  
00:01:02,549 --> 00:01:00,800  
with a very tiny signal

29  
00:01:04,789 --> 00:01:02,559  
about as powerful as a little flashlight

30  
00:01:07,830 --> 00:01:04,799  
i can be heard in australia alaska

31  
00:01:08,789 --> 00:01:07,840  
hawaii south africa europe uh all over

32  
00:01:10,630 --> 00:01:08,799  
the world

33  
00:01:14,710 --> 00:01:10,640  
and what i'm going to talk about is how

34  
00:01:17,270 --> 00:01:15,510  
so

35  
00:01:19,749 --> 00:01:17,280  
why is it relevant to anomalies research

36  
00:01:22,230 --> 00:01:19,759  
well much anomalies research also tries

37  
00:01:24,469 --> 00:01:22,240  
to detect very weak signals

38  
00:01:26,870 --> 00:01:24,479

all psy research seems to have a very

39  
00:01:29,990 --> 00:01:26,880  
weak phenomena the global consciousness

40  
00:01:31,990 --> 00:01:30,000  
project again very uh weak effects on

41  
00:01:33,749 --> 00:01:32,000  
random number generators and then there

42  
00:01:37,350 --> 00:01:33,759  
are some interesting geomagnetic field

43  
00:01:41,109 --> 00:01:37,360  
effects both on things like psy and on

44  
00:01:43,990 --> 00:01:41,119  
other kinds of uh human behaviors

45  
00:01:45,749 --> 00:01:44,000  
then we can use whisper either can apply

46  
00:01:48,069 --> 00:01:45,759  
it directly to studies of the effects of

47  
00:01:50,069 --> 00:01:48,079  
the geomagnetic field and ionospheric

48  
00:01:52,069 --> 00:01:50,079  
resonances on biological systems so

49  
00:01:54,069 --> 00:01:52,079  
again that would be things like sci

50  
00:01:55,910 --> 00:01:54,079  
but also we heard earlier in some talks

51  
00:01:57,190 --> 00:01:55,920  
today uh heart rate variability is a

52  
00:01:58,870 --> 00:01:57,200  
very interesting thing to look at in

53  
00:02:01,429 --> 00:01:58,880  
terms of consciousness

54  
00:02:03,910 --> 00:02:01,439  
and so whisper can be used to measure

55  
00:02:06,389 --> 00:02:03,920  
what's going on in the geomagnetic field

56  
00:02:08,869 --> 00:02:06,399  
and these resonances and that could be

57  
00:02:10,070 --> 00:02:08,879  
then used to correlate with things like

58  
00:02:11,990 --> 00:02:10,080  
side performance and heart rate

59  
00:02:13,430 --> 00:02:12,000  
variability

60  
00:02:15,270 --> 00:02:13,440  
and it can also provide a very useful

61  
00:02:16,949 --> 00:02:15,280  
methodological comparison to other

62  
00:02:20,710 --> 00:02:16,959  
studies of weak signals

63  
00:02:22,710 --> 00:02:20,720

so for example what's the best way to

64

00:02:24,309 --> 00:02:22,720

analyze synchronization of global

65

00:02:26,710 --> 00:02:24,319

consciousness detected by random number

66

00:02:28,070 --> 00:02:26,720

generators and so some of the things

67

00:02:30,309 --> 00:02:28,080

that have been done to detect these very

68

00:02:32,229 --> 00:02:30,319

weak signals with whisper have potential

69

00:02:37,750 --> 00:02:32,239

applications for all of this other work

70

00:02:41,030 --> 00:02:39,110

quick slide on how radio signals

71

00:02:42,150 --> 00:02:41,040

propagate in case you don't know

72

00:02:44,309 --> 00:02:42,160

i have a transmitter there and a

73

00:02:47,030 --> 00:02:44,319

receiver and the earth and basically

74

00:02:49,430 --> 00:02:47,040

radio signals go around the earth

75

00:02:51,350 --> 00:02:49,440

by bouncing off the ionosphere an upper

76

00:02:53,830 --> 00:02:51,360

layer a couple hundred miles up in the

77

00:02:55,830 --> 00:02:53,840

atmosphere and solar radiation affects

78

00:02:58,309 --> 00:02:55,840

the ionosphere that's what produces

79

00:02:59,509 --> 00:02:58,319

geomagnetic storms and it changes radio

80

00:03:01,350 --> 00:02:59,519

propagation

81

00:03:02,630 --> 00:03:01,360

now it also seems to have an effect on

82

00:03:05,190 --> 00:03:02,640

psi functioning so there have been

83

00:03:07,110 --> 00:03:05,200

studies looking at geomagnetic storms in

84

00:03:08,710 --> 00:03:07,120

their relation to sci functioning and

85

00:03:09,910 --> 00:03:08,720

also various other aspects of human

86

00:03:10,160 --> 00:03:09,920

physiology

87

00:03:11,589 --> 00:03:10,170

so

88

00:03:13,589 --> 00:03:11,599

[Music]

89

00:03:16,949 --> 00:03:13,599

the whole question of geomagnetic

90

00:03:18,710 --> 00:03:16,959

effects on humans is a very hot area of

91

00:03:20,790 --> 00:03:18,720

research both in anomalies and the

92

00:03:22,790 --> 00:03:20,800

conventional research and so being able

93

00:03:24,470 --> 00:03:22,800

to measure what radio signals are doing

94

00:03:25,750 --> 00:03:24,480

can sometimes serve as a proxy for

95

00:03:29,030 --> 00:03:25,760

figuring out what's going on with the

96

00:03:32,309 --> 00:03:30,789

now how does whisper work well the

97

00:03:34,149 --> 00:03:32,319

challenge again is that you have very

98

00:03:36,229 --> 00:03:34,159

low and uncontrollable signal-to-noise

99

00:03:37,509 --> 00:03:36,239

ratios in long-distance radio

100

00:03:39,509 --> 00:03:37,519

communication

101  
00:03:42,149 --> 00:03:39,519  
in contrast to say lab experiments where

102  
00:03:43,670 --> 00:03:42,159  
you can very precisely control snr's

103  
00:03:46,070 --> 00:03:43,680  
where they can be controlled or very

104  
00:03:47,910 --> 00:03:46,080  
high but this is very similar to issues

105  
00:03:49,910 --> 00:03:47,920  
in psi experiments we have again very

106  
00:03:53,030 --> 00:03:49,920  
poor signals noise ratios

107  
00:03:55,030 --> 00:03:53,040  
and so you need a way to deal with that

108  
00:03:56,869 --> 00:03:55,040  
the solution as far as radio goes was

109  
00:03:59,270 --> 00:03:56,879  
this thing called whisper developed by a

110  
00:04:00,470 --> 00:03:59,280  
physicist named joe taylor at princeton

111  
00:04:02,309 --> 00:04:00,480  
university

112  
00:04:03,830 --> 00:04:02,319  
and it uses a form of coding called

113  
00:04:05,990 --> 00:04:03,840

forward error correction and some other

114

00:04:08,390 --> 00:04:06,000

signal processing techniques

115

00:04:11,030 --> 00:04:08,400

to make possible decoding of signals uh

116

00:04:13,429 --> 00:04:11,040

31 decibels below the noise level which

117

00:04:14,630 --> 00:04:13,439

is way way below the noise level my

118

00:04:18,469 --> 00:04:14,640

signal

119

00:04:21,270 --> 00:04:18,479

system if you listen to it on the air

120

00:04:23,189 --> 00:04:21,280

all you hear is random noise

121

00:04:24,469 --> 00:04:23,199

it uses the ham radio bands with ham

122

00:04:26,469 --> 00:04:24,479

radio stations around the world

123

00:04:28,550 --> 00:04:26,479

transmitting and receiving signals and

124

00:04:30,950 --> 00:04:28,560

then uploading spots of received signals

125

00:04:32,390 --> 00:04:30,960

to whisper net on the internet

126

00:04:39,189 --> 00:04:32,400

and then the whispernet data can be

127

00:04:44,150 --> 00:04:41,510

so the intended application of whisper

128

00:04:47,189 --> 00:04:44,160

is to explore effective phenomena on

129

00:04:48,710 --> 00:04:47,199

radio propagation

130

00:04:51,749 --> 00:04:48,720

this would be things like geomagnetic

131

00:04:54,390 --> 00:04:51,759

field variability time of day sunspots

132

00:04:55,909 --> 00:04:54,400

time of year sidereal time

133

00:04:57,590 --> 00:04:55,919

and these same variables don't only

134

00:04:59,430 --> 00:04:57,600

affect radio propagation but they also

135

00:05:01,350 --> 00:04:59,440

affect human behavior and rhythms

136

00:05:03,110 --> 00:05:01,360

including cyan health

137

00:05:05,110 --> 00:05:03,120

and one of the nice things about whisper

138

00:05:07,110 --> 00:05:05,120

is it's making measurements constantly

139

00:05:08,790 --> 00:05:07,120

you can actually make measurements every

140

00:05:10,310 --> 00:05:08,800

two minutes

141

00:05:12,230 --> 00:05:10,320

and so it's much more able to make

142

00:05:13,749 --> 00:05:12,240

fine-grained measurements than what's

143

00:05:16,070 --> 00:05:13,759

been used in the past which are things

144

00:05:17,590 --> 00:05:16,080

called the k index and the a index i

145

00:05:19,749 --> 00:05:17,600

won't get into any detail on what those

146

00:05:22,550 --> 00:05:19,759

are but there are way they are ways of

147

00:05:25,029 --> 00:05:22,560

measuring geomagnetic variability but

148

00:05:26,950 --> 00:05:25,039

they only are updated every three hours

149

00:05:28,629 --> 00:05:26,960

and they're only done from a certain

150

00:05:31,189 --> 00:05:28,639

very small number of stations around the

151  
00:05:32,710 --> 00:05:31,199  
earth whereas whisper is capable

152  
00:05:34,469 --> 00:05:32,720  
again of looking at things every two

153  
00:05:36,870 --> 00:05:34,479  
minutes if you want to use it that way

154  
00:05:38,550 --> 00:05:36,880  
and more typically every 10 minutes and

155  
00:05:40,390 --> 00:05:38,560  
there are hundreds of stations all over

156  
00:05:45,029 --> 00:05:40,400  
the world so you get a very fine grain

157  
00:05:49,189 --> 00:05:46,790  
so how do i do whisper well i'm a ham

158  
00:05:51,990 --> 00:05:49,199  
radio operator my call sign is kn for

159  
00:05:53,029 --> 00:05:52,000  
nbi maybe some other folks or ham radio

160  
00:05:55,670 --> 00:05:53,039  
operators

161  
00:05:57,670 --> 00:05:55,680  
and what i do is using my radio i send

162  
00:05:59,830 --> 00:05:57,680  
out a signal once every 10 minutes

163  
00:06:01,909 --> 00:05:59,840

that's received all over the world

164

00:06:03,909 --> 00:06:01,919

and everyone who hears me automatically

165

00:06:05,830 --> 00:06:03,919

uploads a report to an internet site

166

00:06:07,590 --> 00:06:05,840

called whispernet again this is hundreds

167

00:06:09,749 --> 00:06:07,600

of people all over the world and this is

168

00:06:11,510 --> 00:06:09,759

all automated and then anyone can

169

00:06:13,189 --> 00:06:11,520

download and analyze the data for me or

170

00:06:15,029 --> 00:06:13,199

any other stations so

171

00:06:17,510 --> 00:06:15,039

i usually download data several times a

172

00:06:19,909 --> 00:06:17,520

day to have a look at it but any of you

173

00:06:22,150 --> 00:06:19,919

could simply log on to whispernet and

174

00:06:24,230 --> 00:06:22,160

just type in my call sign and you can

175

00:06:28,309 --> 00:06:24,240

download exactly the same data at any

176

00:06:31,909 --> 00:06:29,990

now here's an example of some of the

177

00:06:34,629 --> 00:06:31,919

kinds of data that i get

178

00:06:36,710 --> 00:06:34,639

this is a download where we're looking

179

00:06:38,909 --> 00:06:36,720

at four weeks worth of data

180

00:06:43,110 --> 00:06:38,919

where a station called

181

00:06:46,790 --> 00:06:43,120

nv4nv is being listened to by me kn4mbi

182

00:06:48,469 --> 00:06:46,800

and it's a plot uh on the x-axis of days

183

00:06:51,350 --> 00:06:48,479

four weeks worth of data and

184

00:06:52,790 --> 00:06:51,360

signal-to-noise ratio on the y-axis and

185

00:06:54,710 --> 00:06:52,800

most of what you're seeing there is just

186

00:06:56,150 --> 00:06:54,720

noise this station is actually located

187

00:06:58,629 --> 00:06:56,160

quite close to me

188

00:07:00,150 --> 00:06:58,639

and so the propagation of the station is

189

00:07:02,390 --> 00:07:00,160

generally not very good we have very

190

00:07:03,749 --> 00:07:02,400

weak signals and there's a lot of noise

191

00:07:05,670 --> 00:07:03,759

in there so that's most of those green

192

00:07:07,430 --> 00:07:05,680

dots but every now and then there's an

193

00:07:09,270 --> 00:07:07,440

incredible increase

194

00:07:11,510 --> 00:07:09,280

in the propagation it becomes

195

00:07:14,230 --> 00:07:11,520

exceptionally good for about an hour or

196

00:07:15,110 --> 00:07:14,240

so one time it was about four hours

197

00:07:18,230 --> 00:07:15,120

and

198

00:07:19,670 --> 00:07:18,240

uh i'm not sure exactly why this is but

199

00:07:21,830 --> 00:07:19,680

the interesting thing is this is much

200

00:07:23,270 --> 00:07:21,840

finer grain than looking at some things

201  
00:07:25,589 --> 00:07:23,280  
that can only be measured once every

202  
00:07:28,550 --> 00:07:25,599  
three hours and so for example these

203  
00:07:31,110 --> 00:07:28,560  
might be very good times at looking

204  
00:07:33,110 --> 00:07:31,120  
for psy or doing a psi experiment

205  
00:07:34,790 --> 00:07:33,120  
in some of these uh

206  
00:07:36,710 --> 00:07:34,800  
times when you have this exceptionally

207  
00:07:39,110 --> 00:07:36,720  
good propagation this is a question

208  
00:07:40,070 --> 00:07:39,120  
where the signal-to-noise ratio went up

209  
00:07:43,110 --> 00:07:40,080  
about

210  
00:07:46,629 --> 00:07:43,120  
25 decibels which is uh over a hundred

211  
00:07:48,309 --> 00:07:46,639  
times better so it's a major increase so

212  
00:07:50,869 --> 00:07:48,319  
when we talk about things like psy being

213  
00:07:53,510 --> 00:07:50,879

very unreliable well not necessarily any

214

00:07:56,070 --> 00:07:53,520

less reliable than radio propagation you

215

00:07:58,390 --> 00:07:56,080

have a situation where in a

216

00:08:00,790 --> 00:07:58,400

times period of four weeks

217

00:08:03,430 --> 00:08:00,800

there were five times when there was

218

00:08:06,070 --> 00:08:03,440

this exceptional propagation so imagine

219

00:08:09,029 --> 00:08:06,080

that this was a psi experiment and it

220

00:08:11,350 --> 00:08:09,039

only worked when the numbers got above

221

00:08:13,909 --> 00:08:11,360

zero line there you would have

222

00:08:16,230 --> 00:08:13,919

very very rare occasions where it worked

223

00:08:17,830 --> 00:08:16,240

and so again this is a possible

224

00:08:19,430 --> 00:08:17,840

correlate we don't know yet but it's an

225

00:08:21,350 --> 00:08:19,440

example of how you can down those

226

00:08:22,629 --> 00:08:21,360

download this data and plot it and look

227

00:08:26,469 --> 00:08:22,639

for times that you might want to be

228

00:08:30,790 --> 00:08:29,270

now um to change topics a little bit

229

00:08:32,550 --> 00:08:30,800

here you can also use whisper

230

00:08:34,149 --> 00:08:32,560

measurements as an analogy to sci

231

00:08:36,389 --> 00:08:34,159

experiment results because again we're

232

00:08:37,589 --> 00:08:36,399

looking at very very low signal to noise

233

00:08:39,110 --> 00:08:37,599

ratios

234

00:08:42,310 --> 00:08:39,120

and one of the things that has always

235

00:08:44,389 --> 00:08:42,320

bugged me is the people that say

236

00:08:46,550 --> 00:08:44,399

decidify the laws of physics and is

237

00:08:47,670 --> 00:08:46,560

therefore not real and so you'll see

238

00:08:49,509 --> 00:08:47,680

skeptics

239

00:08:51,269 --> 00:08:49,519

that say psy couldn't be real because of

240

00:08:52,710 --> 00:08:51,279

the inverse square law because psi does

241

00:08:54,870 --> 00:08:52,720

not seem to depend on distance for

242

00:08:57,430 --> 00:08:54,880

example uh rieber and alcock who

243

00:08:58,949 --> 00:08:57,440

published a couple papers on that

244

00:09:00,150 --> 00:08:58,959

and that's a complete misunderstanding

245

00:09:02,150 --> 00:09:00,160

of the physics

246

00:09:04,389 --> 00:09:02,160

because that law that inverse square law

247

00:09:05,910 --> 00:09:04,399

applies to forces like the idea that the

248

00:09:07,750 --> 00:09:05,920

force of gravity declines with the

249

00:09:09,430 --> 00:09:07,760

inverse square of the distance

250

00:09:10,790 --> 00:09:09,440

for the commute for communication that's

251

00:09:13,030 --> 00:09:10,800

completely irrelevant the only thing

252

00:09:14,949 --> 00:09:13,040

relevant is signal to noise ratio

253

00:09:16,710 --> 00:09:14,959

not force or field strength

254

00:09:18,150 --> 00:09:16,720

and whisper demonstrates this i'll show

255

00:09:19,750 --> 00:09:18,160

you on the next slide but my 100

256

00:09:22,230 --> 00:09:19,760

milliwatt signal which is less than your

257

00:09:24,389 --> 00:09:22,240

home wi-fi can be heard on antarctica

258

00:09:26,070 --> 00:09:24,399

because whisper can decode at 31

259

00:09:31,350 --> 00:09:26,080

decibels

260

00:09:32,790 --> 00:09:31,360

ratio way way buried down on the noise

261

00:09:34,070 --> 00:09:32,800

and so the next slide i'll show you an

262

00:09:36,710 --> 00:09:34,080

example

263

00:09:39,430 --> 00:09:36,720

of what you get

264

00:09:41,430 --> 00:09:39,440

so what you're seeing here is an example

265

00:09:43,430 --> 00:09:41,440

of how radio signals to noise ratio does

266

00:09:44,790 --> 00:09:43,440

not necessarily decrease with distance

267

00:09:47,110 --> 00:09:44,800

which again is very similar to the

268

00:09:50,310 --> 00:09:47,120

results we see with psi

269

00:09:52,470 --> 00:09:50,320

so this is my signal from virginia beach

270

00:09:54,550 --> 00:09:52,480

received at various distances and so

271

00:09:55,670 --> 00:09:54,560

single to noise ratio is on the y-axis

272

00:09:57,590 --> 00:09:55,680

on the left

273

00:09:59,750 --> 00:09:57,600

and the distance in kilometers is going

274

00:10:01,509 --> 00:09:59,760

across the x-axis

275

00:10:03,670 --> 00:10:01,519

and what you see there is that at about

276

00:10:05,269 --> 00:10:03,680

a thousand kilometers or so there's a

277

00:10:07,590 --> 00:10:05,279

signal that pops up

278

00:10:10,790 --> 00:10:07,600

and there are signals of equal strength

279

00:10:14,069 --> 00:10:10,800

uh at 2 000 kilometers that's texas

280

00:10:15,509 --> 00:10:14,079

there are signals out in colorado

281

00:10:16,630 --> 00:10:15,519

and in

282

00:10:18,710 --> 00:10:16,640

utah

283

00:10:20,710 --> 00:10:18,720

and in california

284

00:10:22,310 --> 00:10:20,720

and then even out in the canary islands

285

00:10:25,030 --> 00:10:22,320

and even way out in hawaii 8 000

286

00:10:27,430 --> 00:10:25,040

kilometers away there's a signal that's

287

00:10:28,470 --> 00:10:27,440

only 10 decibels down

288

00:10:29,590 --> 00:10:28,480

and so

289

00:10:31,190 --> 00:10:29,600

again no

290

00:10:33,990 --> 00:10:31,200

obvious dependence on distance at all

291

00:10:36,389 --> 00:10:34,000

here again very typical of psi results

292

00:10:37,269 --> 00:10:36,399

but it doesn't require there to be any

293

00:10:39,269 --> 00:10:37,279

uh

294

00:10:40,870 --> 00:10:39,279

strange quantum non-local effects this

295

00:10:42,389 --> 00:10:40,880

is what you see in radio too so the

296

00:10:45,590 --> 00:10:42,399

people that criticize

297

00:10:47,030 --> 00:10:45,600

parapsychology because the results uh

298

00:10:49,030 --> 00:10:47,040

do not seem to

299

00:10:51,030 --> 00:10:49,040

be affected by distance that's very

300

00:10:53,269 --> 00:10:51,040

typical in radio also notice the wide

301  
00:10:54,310 --> 00:10:53,279  
scatter of points that what's happening

302  
00:10:56,630 --> 00:10:54,320  
here

303  
00:10:58,630 --> 00:10:56,640  
is that you've got

304  
00:11:00,389 --> 00:10:58,640  
stations wire

305  
00:11:02,790 --> 00:11:00,399  
varying widely in how well they're

306  
00:11:04,150 --> 00:11:02,800  
received

307  
00:11:06,470 --> 00:11:04,160  
now we still have issues with applying

308  
00:11:07,829 --> 00:11:06,480  
whisper directly to psi experiments uh

309  
00:11:09,750 --> 00:11:07,839  
inside research you don't have a way to

310  
00:11:11,990 --> 00:11:09,760  
quantitatively specify the signal level

311  
00:11:13,590 --> 00:11:12,000  
or the noise level but from my previous

312  
00:11:16,310 --> 00:11:13,600  
slide you can see that the inverse

313  
00:11:17,590 --> 00:11:16,320

square law is completely irrelevant

314

00:11:19,269 --> 00:11:17,600

that what we need to talk about is

315

00:11:21,829 --> 00:11:19,279

things to noise ratio

316

00:11:23,590 --> 00:11:21,839

in some models of  $\psi$  is not quite a

317

00:11:25,990 --> 00:11:23,600

signal but you can still apply the

318

00:11:27,430 --> 00:11:26,000

concept of signal-to-noise ratio

319

00:11:29,110 --> 00:11:27,440

and you can't really apply the whisper

320

00:11:31,269 --> 00:11:29,120

algorithm directly because it depends on

321

00:11:33,350 --> 00:11:31,279

time synchronization which is not

322

00:11:35,590 --> 00:11:33,360

possible in  $\psi$  experiments

323

00:11:37,190 --> 00:11:35,600

but whisper and its relatives are open

324

00:11:39,269 --> 00:11:37,200

source software and could potentially be

325

00:11:40,829 --> 00:11:39,279

modified specifically as an error

326

00:11:43,430 --> 00:11:40,839

correcting code for psi

327

00:11:45,430 --> 00:11:43,440

experiments and whisker can be used to

328

00:11:46,790 --> 00:11:45,440

measure physical variables relevant to

329

00:11:48,630 --> 00:11:46,800

science experiments and other studies

330

00:11:51,910 --> 00:11:48,640

studies of other anomalies so i'll show

331

00:11:54,629 --> 00:11:52,710

so

332

00:11:56,949 --> 00:11:54,639

as i mentioned whisper may be

333

00:11:58,870 --> 00:11:56,959

more sensitive than standard indices

334

00:12:00,629 --> 00:11:58,880

like the a and k and

335

00:12:03,190 --> 00:12:00,639

aaa indexes

336

00:12:04,230 --> 00:12:03,200

for measuring geomagnetic disturbances

337

00:12:05,829 --> 00:12:04,240

and so

338

00:12:07,110 --> 00:12:05,839

i'll jump to the next slide here which

339

00:12:09,670 --> 00:12:07,120

is just an expansion of the little

340

00:12:12,389 --> 00:12:09,680

picture there on the bottom

341

00:12:14,870 --> 00:12:12,399

here a geomagnetic storm was predicted

342

00:12:17,030 --> 00:12:14,880

by uh the the nasa folks who were

343

00:12:18,870 --> 00:12:17,040

looking at uh solar activity

344

00:12:20,389 --> 00:12:18,880

but when it actually came to the date

345

00:12:21,350 --> 00:12:20,399

that it was predicted for a couple days

346

00:12:23,269 --> 00:12:21,360

earlier

347

00:12:25,110 --> 00:12:23,279

in the what's called the ap index no

348

00:12:26,150 --> 00:12:25,120

storm appeared at all it was a fizzle

349

00:12:28,550 --> 00:12:26,160

however

350

00:12:29,990 --> 00:12:28,560

in the reception of my radio signal the

351  
00:12:31,829 --> 00:12:30,000  
storm arrived exactly when it was

352  
00:12:33,430 --> 00:12:31,839  
supposed to and showed a very strong

353  
00:12:35,750 --> 00:12:33,440  
effect again showing that whisper may be

354  
00:12:38,150 --> 00:12:35,760  
a far better fine-grained measurement of

355  
00:12:40,069 --> 00:12:38,160  
what's going on in geomagnetic variables

356  
00:12:41,269 --> 00:12:40,079  
than the standard indices that you pick

357  
00:12:42,389 --> 00:12:41,279  
up uh

358  
00:12:46,629 --> 00:12:42,399  
from

359  
00:12:49,269 --> 00:12:48,310  
uh this is just a slide on chewing resin

360  
00:12:50,710 --> 00:12:49,279  
since i'm running a little bit out of

361  
00:12:53,509 --> 00:12:50,720  
time so you don't know what a human

362  
00:12:56,710 --> 00:12:53,519  
resonance is it's just another uh

363  
00:12:58,230 --> 00:12:56,720

measurement of um

364

00:12:59,750 --> 00:12:58,240

electromagnetic effects and in

365

00:13:01,750 --> 00:12:59,760

particular people are interested in it

366

00:13:03,750 --> 00:13:01,760

because the first threat frequency is

367

00:13:05,590 --> 00:13:03,760

right about near the alpha brainwave

368

00:13:07,910 --> 00:13:05,600

frequency so it's been of great interest

369

00:13:10,069 --> 00:13:07,920

to some people looking at the effect of

370

00:13:12,949 --> 00:13:10,079

geomagnetic fields on human

371

00:13:15,910 --> 00:13:14,389

and one of the groups that's done a lot

372

00:13:17,670 --> 00:13:15,920

of this is the heart math institute

373

00:13:19,110 --> 00:13:17,680

group they've prevented presented at ssc

374

00:13:21,110 --> 00:13:19,120

meetings in the past

375

00:13:23,509 --> 00:13:21,120

and

376

00:13:25,269 --> 00:13:23,519

i found some strong relationships with

377

00:13:28,069 --> 00:13:25,279

relationships with geomagnetic measures

378

00:13:29,990 --> 00:13:28,079

and human physiology

379

00:13:31,590 --> 00:13:30,000

and whisper could offer an additional

380

00:13:33,509 --> 00:13:31,600

measure with finer temporal and spatial

381

00:13:36,230 --> 00:13:33,519

resolution and that's just a picture on

382

00:13:38,470 --> 00:13:36,240

the right of a large number of measures

383

00:13:39,829 --> 00:13:38,480

that they were using and certainly could

384

00:13:42,150 --> 00:13:39,839

add whisper to that those kinds of

385

00:13:44,230 --> 00:13:42,160

measures

386

00:13:46,389 --> 00:13:44,240

uh krittner and persinger quite a while

387

00:13:48,069 --> 00:13:46,399

back uh we're looking at some of the old

388

00:13:49,350 --> 00:13:48,079

dream telepathy studies that were done

389

00:13:51,910 --> 00:13:49,360

at maimonides

390

00:13:53,590 --> 00:13:51,920

and found that decreased geomagnetic

391

00:13:56,230 --> 00:13:53,600

activity was

392

00:13:58,150 --> 00:13:56,240

correlated with high scoring in psi

393

00:13:59,750 --> 00:13:58,160

experiments again whisper might offer an

394

00:14:01,829 --> 00:13:59,760

additional measure with finer temporal

395

00:14:06,470 --> 00:14:01,839

and spatial resolution to look at these

396

00:14:09,590 --> 00:14:08,230

and finally

397

00:14:11,829 --> 00:14:09,600

this could be used to study other

398

00:14:14,230 --> 00:14:11,839

anomalies anything where geomagnetic or

399

00:14:15,829 --> 00:14:14,240

astronomical variables might be relevant

400

00:14:17,990 --> 00:14:15,839

so we've had no talks at this meeting

401  
00:14:20,069 --> 00:14:18,000  
yet on astrology but whisper might be

402  
00:14:21,590 --> 00:14:20,079  
helpful in measuring subtle solar and

403  
00:14:23,590 --> 00:14:21,600  
lunar and planetary effects on

404  
00:14:26,069 --> 00:14:23,600  
biological systems by looking at the

405  
00:14:27,990 --> 00:14:26,079  
effects on geomagnetic fields

406  
00:14:29,350 --> 00:14:28,000  
and then another interesting one is ufo

407  
00:14:30,790 --> 00:14:29,360  
experiences

408  
00:14:32,710 --> 00:14:30,800  
one of the types of measures that people

409  
00:14:35,430 --> 00:14:32,720  
have been taking is that of local

410  
00:14:37,430 --> 00:14:35,440  
geomagnetic disturbances and whisper is

411  
00:14:38,870 --> 00:14:37,440  
pretty good for looking at those

412  
00:14:41,670 --> 00:14:38,880  
in terms of their effects on radio

413  
00:14:45,189 --> 00:14:43,269

and that's it

414

00:14:47,430 --> 00:14:45,199

could whisper be used to explore

415

00:14:49,829 --> 00:14:47,440

anomalous healing

416

00:14:51,990 --> 00:14:49,839

um again it can be used for anything

417

00:14:54,470 --> 00:14:52,000

where you want to look at propagation

418

00:14:56,470 --> 00:14:54,480

geomagnetic type effects in terms of

419

00:14:58,949 --> 00:14:56,480

what it's used for directly it measures

420

00:15:00,629 --> 00:14:58,959

radio propagation although as i said for

421

00:15:02,629 --> 00:15:00,639

some kinds of experiments like psi

422

00:15:04,550 --> 00:15:02,639

experiments the uh

423

00:15:06,150 --> 00:15:04,560

source code is all open source and i

424

00:15:08,550 --> 00:15:06,160

know people have modified it for a lot

425

00:15:11,829 --> 00:15:08,560

of uh other applications where you're

426

00:15:13,030 --> 00:15:11,839

looking at very very noisy situations uh

427

00:15:15,189 --> 00:15:13,040

and uh

428

00:15:17,110 --> 00:15:15,199

and signals but as far as healing if you

429

00:15:18,550 --> 00:15:17,120

wanted to know what is going on right

430

00:15:20,069 --> 00:15:18,560

now in the geomagnetic field and

431

00:15:22,629 --> 00:15:20,079

propagation around wherever the healing

432

00:15:24,949 --> 00:15:22,639

is going on it could be a useful uh kind

433

00:15:26,710 --> 00:15:24,959

of thing to use to measure

434

00:15:28,150 --> 00:15:26,720

okay um

435

00:15:30,790 --> 00:15:28,160

another question what are your thoughts

436

00:15:33,110 --> 00:15:30,800

about the relationship between whisper

437

00:15:36,150 --> 00:15:33,120

sci and stochastic resonance might there

438

00:15:38,389 --> 00:15:36,160

be types of geomagnetic noise that might

439

00:15:40,069 --> 00:15:38,399

boost the propagation of a positive size

440

00:15:41,509 --> 00:15:40,079

signal

441

00:15:43,189 --> 00:15:41,519

well what i

442

00:15:45,509 --> 00:15:43,199

what i found interesting just in terms

443

00:15:47,350 --> 00:15:45,519

of radio signals is the the classic

444

00:15:48,790 --> 00:15:47,360

thing that ham radio operators are told

445

00:15:51,829 --> 00:15:48,800

is that when you've got geomagnetic

446

00:15:54,069 --> 00:15:51,839

storms it inhibits

447

00:15:55,509 --> 00:15:54,079

radio propagation and that was also the

448

00:15:57,110 --> 00:15:55,519

result they came up with with some of

449

00:15:59,110 --> 00:15:57,120

the psy experiments but what i've found

450

00:16:00,949 --> 00:15:59,120

is that that's not entirely true and

451  
00:16:03,509 --> 00:16:00,959  
sometimes geomagnetic storms greatly

452  
00:16:05,509 --> 00:16:03,519  
enhance radio propagation and this is

453  
00:16:07,189 --> 00:16:05,519  
all on very very short-term basis so you

454  
00:16:09,110 --> 00:16:07,199  
may have a situation where for 15

455  
00:16:11,189 --> 00:16:09,120  
minutes just have extraordinary

456  
00:16:13,189 --> 00:16:11,199  
propagation and then it goes away so

457  
00:16:15,829 --> 00:16:13,199  
again the the idea of whisper is you can

458  
00:16:17,030 --> 00:16:15,839  
look at it in very fine grain uh

459  
00:16:18,550 --> 00:16:17,040  
measurements

460  
00:16:20,629 --> 00:16:18,560  
most people do it every 10 minutes to

461  
00:16:22,069 --> 00:16:20,639  
just not clog the radio waves but the

462  
00:16:24,710 --> 00:16:22,079  
system can actually do it every two

463  
00:16:26,069 --> 00:16:24,720

minutes so you can be looking at

464

00:16:28,470 --> 00:16:26,079

small changes when you're looking at

465

00:16:30,069 --> 00:16:28,480

other kinds of resonances psi heart rate

466

00:16:33,030 --> 00:16:30,079

variability anything you might want to

467

00:16:37,829 --> 00:16:35,430

okay eli thinks that's an excellent

468

00:16:39,670 --> 00:16:37,839

response good job great

469

00:16:41,749 --> 00:16:39,680

i'm happy

470

00:16:43,110 --> 00:16:41,759

so um here's a question from stephen

471

00:16:45,110 --> 00:16:43,120

hall who

472

00:16:47,350 --> 00:16:45,120

really appreciated your discussion

473

00:16:49,749 --> 00:16:47,360

he says

474

00:16:51,189 --> 00:16:49,759

all about em radiation local but psi is

475

00:16:52,550 --> 00:16:51,199

often thought of as non-local

476

00:16:53,829 --> 00:16:52,560

propagation

477

00:16:56,790 --> 00:16:53,839

and in a sense this is actually a

478

00:17:00,150 --> 00:16:56,800

question i had what's your position

479

00:17:02,389 --> 00:17:00,160

on the actual ontology of the size

480

00:17:04,230 --> 00:17:02,399

signal as opposed to

481

00:17:05,750 --> 00:17:04,240

you know the normal subject matter for

482

00:17:08,549 --> 00:17:05,760

whisper

483

00:17:10,150 --> 00:17:08,559

well i really have no idea in terms of

484

00:17:11,750 --> 00:17:10,160

the size signal and one of the problems

485

00:17:13,350 --> 00:17:11,760

is that i think that

486

00:17:16,069 --> 00:17:13,360

people make assumptions and one of the

487

00:17:18,710 --> 00:17:16,079

assumptions is that  $\psi$  is not distance

488

00:17:21,829 --> 00:17:18,720

dependent and the idea was that as i

489

00:17:23,189 --> 00:17:21,839

mentioned before that uh the physical

490

00:17:24,470 --> 00:17:23,199

signals are distance dependent by the

491

00:17:27,110 --> 00:17:24,480

inverse square law and i think i've

492

00:17:29,350 --> 00:17:27,120

shown here that's not really true uh it

493

00:17:31,029 --> 00:17:29,360

is for forces but for information and

494

00:17:32,710 --> 00:17:31,039

signals uh

495

00:17:34,390 --> 00:17:32,720

that relationship is not at all clear it

496

00:17:36,630 --> 00:17:34,400

depends on lots and lots of things for

497

00:17:39,510 --> 00:17:36,640

ordinary em signals and we have no idea

498

00:17:41,029 --> 00:17:39,520

what psi is and so suddenly saying it's

499

00:17:42,310 --> 00:17:41,039

got to be non-local because you don't

500

00:17:43,430 --> 00:17:42,320

get some nice inverse square

501  
00:17:46,390 --> 00:17:43,440  
relationship

502  
00:17:48,070 --> 00:17:46,400  
um probably isn't true now

503  
00:17:50,390 --> 00:17:48,080  
how far it goes

504  
00:17:51,750 --> 00:17:50,400  
i don't know unfortunately very few

505  
00:17:53,510 --> 00:17:51,760  
really really long distance psi

506  
00:17:55,669 --> 00:17:53,520  
experiments have been done

507  
00:17:56,470 --> 00:17:55,679  
even mitchell's experiment going to the

508  
00:17:59,029 --> 00:17:56,480  
moon

509  
00:18:00,789 --> 00:17:59,039  
uh one of the things that

510  
00:18:02,630 --> 00:18:00,799  
this set of software not just whisper

511  
00:18:04,549 --> 00:18:02,640  
but some other programs are used for is

512  
00:18:06,310 --> 00:18:04,559  
moon bounce communication where a ham

513  
00:18:07,590 --> 00:18:06,320

radio operator and say virginia beach

514

00:18:10,390 --> 00:18:07,600

will bounce a signal off the moon and

515

00:18:12,230 --> 00:18:10,400

it'll go to california and the same

516

00:18:14,950 --> 00:18:12,240

basic software is used to do moon bounce

517

00:18:16,390 --> 00:18:14,960

and so coming up with a distance

518

00:18:18,150 --> 00:18:16,400

long enough to show that it has to be

519

00:18:19,669 --> 00:18:18,160

non-local is an experiment that's never

520

00:18:21,270 --> 00:18:19,679

been done i'd be very interested to see

521

00:18:24,630 --> 00:18:21,280

what they get if they ever can manage to

522

00:18:27,830 --> 00:18:25,750

yeah

523

00:18:29,510 --> 00:18:27,840

so actually there have been a number of

524

00:18:31,669 --> 00:18:29,520

remote viewing

525

00:18:33,350 --> 00:18:31,679

uh experiments if you will

526

00:18:35,270 --> 00:18:33,360

long distance but the feedback on that's

527

00:18:36,950 --> 00:18:35,280

really hard you know the verification is

528

00:18:38,470 --> 00:18:36,960

really hard so

529

00:18:40,230 --> 00:18:38,480

who knows um

530

00:18:41,590 --> 00:18:40,240

but here's the feedback for the remote

531

00:18:43,669 --> 00:18:41,600

viewing experiments

532

00:18:46,390 --> 00:18:43,679

if let's say you do a remote viewing

533

00:18:47,590 --> 00:18:46,400

experiment to mars and you see in remote

534

00:18:50,070 --> 00:18:47,600

viewing the same sorts of things that

535

00:18:51,350 --> 00:18:50,080

the mars rovers are picking up well the

536

00:18:53,270 --> 00:18:51,360

way you know that is because they sent

537

00:18:55,190 --> 00:18:53,280

back a radio signal and the way we can

538

00:18:57,590 --> 00:18:55,200

read the radio signals is by processing

539

00:18:59,190 --> 00:18:57,600

very much like this done on the radio

540

00:19:00,950 --> 00:18:59,200

signals so you do run into an

541

00:19:03,190 --> 00:19:00,960

interesting feedback problem that any

542

00:19:05,190 --> 00:19:03,200

feedback we can get inevitably used by

543

00:19:06,549 --> 00:19:05,200

radio signals even for really long

544

00:19:09,270 --> 00:19:06,559

remote viewing

545

00:19:10,950 --> 00:19:09,280

yeah that's true um although

546

00:19:11,990 --> 00:19:10,960

in well we won't get into that

547

00:19:14,630 --> 00:19:12,000

discussion because there's other

548

00:19:17,510 --> 00:19:14,640

questions um so you may have actually

549

00:19:19,430 --> 00:19:17,520

answered this um

550

00:19:21,590 --> 00:19:19,440

let me think it's this

551  
00:19:23,110 --> 00:19:21,600  
okay here we go so deb wants to know

552  
00:19:25,750 --> 00:19:23,120  
have you run a psy experiment with

553  
00:19:27,590 --> 00:19:25,760  
whisper and compared the data i think

554  
00:19:29,350 --> 00:19:27,600  
you essentially said you haven't but if

555  
00:19:31,110 --> 00:19:29,360  
you want to elaborate on that

556  
00:19:32,390 --> 00:19:31,120  
um i haven't run any psi experiments one

557  
00:19:34,230 --> 00:19:32,400  
of the reasons is

558  
00:19:36,310 --> 00:19:34,240  
that when kovet struck what i did is i

559  
00:19:37,590 --> 00:19:36,320  
started an ongoing 24 hour a day whisper

560  
00:19:39,909 --> 00:19:37,600  
experiment that didn't require me to

561  
00:19:41,350 --> 00:19:39,919  
leave my house

562  
00:19:42,710 --> 00:19:41,360  
and so i think this is a great

563  
00:19:44,870 --> 00:19:42,720

opportunity to work with something right

564

00:19:46,870 --> 00:19:44,880

now to leave my house it would be

565

00:19:48,150 --> 00:19:46,880

it would be very interesting to use this

566

00:19:49,669 --> 00:19:48,160

but i've not used it for that

567

00:19:51,029 --> 00:19:49,679

application instead i've been collecting

568

00:19:52,630 --> 00:19:51,039

a lot of whisper data and learning a lot

569

00:19:54,470 --> 00:19:52,640

about radio propagation for the last

570

00:19:55,990 --> 00:19:54,480

year and a half or so

571

00:19:57,430 --> 00:19:56,000

which is why i'm offering this out to

572

00:19:58,549 --> 00:19:57,440

the community is here's something cool

573

00:19:59,909 --> 00:19:58,559

to look at

574

00:20:01,590 --> 00:19:59,919

and maybe some people will think of some

575

00:20:04,549 --> 00:20:01,600

good experiments

576

00:20:06,710 --> 00:20:04,559

okay cool so eli has another question he

577

00:20:08,630 --> 00:20:06,720

was wondering if you'd mention the lunar

578

00:20:10,390 --> 00:20:08,640

sci experiment

579

00:20:11,590 --> 00:20:10,400

uh you did mention of course you've

580

00:20:12,710 --> 00:20:11,600

really thought this through very

581

00:20:14,710 --> 00:20:12,720

intriguing

582

00:20:16,310 --> 00:20:14,720

um i i guess what he probably is looking

583

00:20:18,710 --> 00:20:16,320

for is maybe a brief description of what

584

00:20:20,310 --> 00:20:18,720

edgar mitchell did with that

585

00:20:21,830 --> 00:20:20,320

i don't remember all the details of what

586

00:20:24,230 --> 00:20:21,840

he did but basically he had an

587

00:20:25,669 --> 00:20:24,240

experiment when he was a good way away

588

00:20:27,510 --> 00:20:25,679

from the earth far

589

00:20:29,750 --> 00:20:27,520

further than anyone could obviously get

590

00:20:31,590 --> 00:20:29,760

on earth he did a science experiment and

591

00:20:33,669 --> 00:20:31,600

as i recall from uh from reading it was

592

00:20:35,430 --> 00:20:33,679

quite a while ago it was a successful

593

00:20:37,430 --> 00:20:35,440

psy experiment now one of the

594

00:20:38,230 --> 00:20:37,440

difficulties of all this is the feedback

595

00:20:40,470 --> 00:20:38,240

issue

596

00:20:42,549 --> 00:20:40,480

because uh what's been brought up i even

597

00:20:44,070 --> 00:20:42,559

think in one talk at this meeting

598

00:20:45,830 --> 00:20:44,080

is what you may be doing is using

599

00:20:47,830 --> 00:20:45,840

precognition on your own future

600

00:20:49,990 --> 00:20:47,840

experiences and so if he got any

601  
00:20:52,390 --> 00:20:50,000  
feedback at all then it's an interesting

602  
00:20:54,789 --> 00:20:52,400  
question was it long distance or was it

603  
00:20:56,230 --> 00:20:54,799  
seeing the future and so i'm not sure

604  
00:20:58,549 --> 00:20:56,240  
i'd have to look back at that experiment

605  
00:21:00,149 --> 00:20:58,559  
to see in terms of do we really know

606  
00:21:02,630 --> 00:21:00,159  
what's going on this often seems to be

607  
00:21:03,750 --> 00:21:02,640  
the case in a lot of psy experiments

608  
00:21:05,350 --> 00:21:03,760  
is

609  
00:21:06,870 --> 00:21:05,360  
we're not quite sure what's going on in

610  
00:21:08,950 --> 00:21:06,880  
terms of is this

611  
00:21:11,110 --> 00:21:08,960  
um remote viewing

612  
00:21:13,190 --> 00:21:11,120  
in space or in time

613  
00:21:15,110 --> 00:21:13,200

uh i don't know

614

00:21:16,789 --> 00:21:15,120

yeah or both there's an ongoing debate

615

00:21:18,789 --> 00:21:16,799

about that and i have a have one

616

00:21:20,630 --> 00:21:18,799

position that it's both

617

00:21:22,230 --> 00:21:20,640

other people are very determined to

618

00:21:23,590 --> 00:21:22,240

believe that it's just precognition i

619

00:21:25,990 --> 00:21:23,600

think there's reasons not to believe

620

00:21:27,909 --> 00:21:26,000

that but but nonetheless i have to

621

00:21:29,510 --> 00:21:27,919

apologize for eli that was not meant as

622

00:21:31,669 --> 00:21:29,520

a question as meant just as a comment

623

00:21:34,230 --> 00:21:31,679

but that's okay we've got some more

624

00:21:37,029 --> 00:21:34,240

information out of it michael wants uh

625

00:21:39,669 --> 00:21:37,039

let me see yep this is a question so he

626

00:21:41,270 --> 00:21:39,679

mentions uh shoshone shaman talking

627

00:21:42,950 --> 00:21:41,280

about electronic pollution and having to

628

00:21:45,350 --> 00:21:42,960

find places that block it to do some of

629

00:21:46,950 --> 00:21:45,360

the activity does this have anything to

630

00:21:47,909 --> 00:21:46,960

do with what you're finding he wants to

631

00:21:49,350 --> 00:21:47,919

know

632

00:21:51,190 --> 00:21:49,360

well there's electronic pollution all

633

00:21:53,590 --> 00:21:51,200

over the place in fact i'd advise people

634

00:21:55,350 --> 00:21:53,600

move to green bank west virginia that's

635

00:21:56,390 --> 00:21:55,360

the national radio quiet zone where

636

00:21:58,630 --> 00:21:56,400

you're not allowed to have anything

637

00:22:00,390 --> 00:21:58,640

because of the big radio telescopes but

638

00:22:02,630 --> 00:22:00,400

the interference problem here at my

639

00:22:04,310 --> 00:22:02,640

house is just humongous and it's things

640

00:22:06,390 --> 00:22:04,320

that ham radio operators are just very

641

00:22:07,590 --> 00:22:06,400

upset about there's a plasma tv in my

642

00:22:09,669 --> 00:22:07,600

neighborhood whenever this guy is

643

00:22:12,950 --> 00:22:09,679

watching primetime shows it just blocks

644

00:22:16,310 --> 00:22:12,960

out everything um but power supplies all

645

00:22:18,390 --> 00:22:16,320

those little wall warts uh wi-fi uh it's

646

00:22:20,149 --> 00:22:18,400

just become horrendous for uh for ham

647

00:22:22,310 --> 00:22:20,159

radio operators in terms of the

648

00:22:23,830 --> 00:22:22,320

increasing noise level out there now

649

00:22:25,750 --> 00:22:23,840

what effect that has on human health i

650

00:22:28,390 --> 00:22:25,760

don't know but it's sure

651

00:22:30,390 --> 00:22:28,400

interferes with radio

652

00:22:31,990 --> 00:22:30,400

so just a comment from the early remote

653

00:22:34,230 --> 00:22:32,000

viewing research it kind of goes to this

654

00:22:36,710 --> 00:22:34,240

question um

655

00:22:39,669 --> 00:22:36,720

when the viewers did work when they were

656

00:22:41,510 --> 00:22:39,679

with inside a faraday cage or

657

00:22:43,590 --> 00:22:41,520

very famously in steven schwartz's deep

658

00:22:45,350 --> 00:22:43,600

quest experiment they reported that

659

00:22:47,190 --> 00:22:45,360

remote viewing was easier in the

660

00:22:47,990 --> 00:22:47,200

shielded environments

661

00:22:50,789 --> 00:22:48,000

so

662

00:22:52,549 --> 00:22:50,799

that may again we're talking a small

663

00:22:55,510 --> 00:22:52,559

sample size but

664

00:22:57,590 --> 00:22:55,520

that may be an indicator of uh

665

00:22:59,190 --> 00:22:57,600

the effect that electromagnetic

666

00:23:02,390 --> 00:22:59,200

pollution has on

667

00:23:03,990 --> 00:23:02,400

on psi uh experiences and such but it'd

668

00:23:04,870 --> 00:23:04,000

be interesting experiment to run a bunch

669

00:23:07,110 --> 00:23:04,880

of

670

00:23:09,270 --> 00:23:07,120

sessions inside a faraday cage and

671

00:23:11,029 --> 00:23:09,280

outside of it and see what happened and

672

00:23:12,470 --> 00:23:11,039

oh yeah and again it certainly messes up

673

00:23:13,909 --> 00:23:12,480

radio i know a lot of people worry about

674

00:23:15,830 --> 00:23:13,919

this and i don't know

675

00:23:17,430 --> 00:23:15,840

one of the things in my house

676

00:23:19,750 --> 00:23:17,440

the variable speed motor on my air

677

00:23:21,909 --> 00:23:19,760

conditioner um kicks in about 10

678

00:23:23,270 --> 00:23:21,919

decibels of extra noise whenever it

679

00:23:25,909 --> 00:23:23,280

switches on

680

00:23:28,390 --> 00:23:25,919

again the plasma tv in the neighborhood

681

00:23:30,870 --> 00:23:28,400

getting too near the wi-fi uh

682

00:23:32,070 --> 00:23:30,880

it's well worth studying for sci and for

683

00:23:33,590 --> 00:23:32,080

health reasons

684

00:23:35,110 --> 00:23:33,600

so does your family complain when you

685

00:23:37,510 --> 00:23:35,120

turn off the air conditioner so you can

686

00:23:39,270 --> 00:23:37,520

communicate on your radio

687

00:23:41,669 --> 00:23:39,280

actually what they complain about is my

688

00:23:43,190 --> 00:23:41,679

radio comes over the telephone line

689

00:23:45,029 --> 00:23:43,200

oh so you're providing interference

690

00:23:47,110 --> 00:23:45,039

yourself okay

691

00:23:51,430 --> 00:23:47,120

all right luckily only in the house but

692

00:23:54,149 --> 00:23:51,440

of course it's a radio signal so so um

693

00:23:57,029 --> 00:23:54,159

tamara says uh she thought that your use

694

00:23:58,870 --> 00:23:57,039

of coveted time was awesome and uh she's

695

00:24:00,710 --> 00:23:58,880

appreciate you sharing what you found so

696

00:24:03,190 --> 00:24:00,720

that's good uh appreciate your